Removal Action Workplan

To Be Performed at:
William Howard Taft Charter High School
5461 Winnetka Avenue
Woodland Hills, California 91364

Prepared for:
Los Angeles Unified School District
Office of Environmental Health & Safety
333 South Beaudry, 21st Floor (21-223-07)
Los Angeles, California 90017

EFI Global Project Number:
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LIST OF ABBREVIATIONS / ACRONYMS

AC – Asphaltic concrete
AOC – Areas of Concern
ADA – Americans with Disabilities Act
ARAR - Applicable or Relevant and Appropriate Requirements
BCU – Bank cubic yards
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CEQA – California Environmental Quality Act
COCs – Chemicals of Concern
COPCs – Chemicals of Potential Concern
CSM – Conceptual Site Model
DTSC – California Department of Toxic Substances Control
EE/CA – Engineering Evaluation/Cost Analysis
EPA – United States Environmental Protection Agency
ESA – Environmental Site Assessment
ft. amsl – feet above mean sea level
GRO – Gasoline-Range Organics
HWCA – Hazardous Waste Control Act
LAUSD – Los Angeles Unified School District
LBP – Lead-based paint
LCU – Loose cubic yards
LUST – Leaking Underground Storage Tank
mg/kg – milligram per kilogram
NCP – National Oil and Hazardous Substances Pollution Contingency Plan
NOE – Notice of Exemption
OCP – Organochlorine pesticide
OEHS – Office of Environmental Health and Safety
PEA-E – Preliminary Environmental Assessment – Equivalent
PCB – Polychlorinated biphenyl
pVIC – Potential vapor intrusion condition
QA/QC – Quality Assurance / Quality Control
RA – Remedial Action
RACR – Removal Action Completion Report
RAO – Remedial Action Objective
RBCGs – Risk Based Cleanup Goals
RCRA – Resource Conservation and Recovery Act
RAW – Removal Action Workplan
SCAQMD – South Coast Air Quality Control District
SSALs – Site Specific Action Levels
SSI – Supplemental Site Investigation
STLC – Soluble Threshold Limit Concentration
SVOCs – Semi-Volatile Organic Compounds
SWRCB – California State Water Resources Control Board
TCLP – Toxicity Characteristic Leaching Procedure
TTLC – Total Threshold Limit Concentration
UCL – Upper Confidence Limit
USA – Underground Service Alert

VOC – Volatile Organic Compound
µg/kg – micrograms per kilogram
µg/l – micrograms per liter

EXECUTIVE SUMMARY

On behalf of the Los Angeles Unified School District (LAUSD) Office of Environmental Health and Safety (OEHS), EFI Global has prepared this Removal Action Workplan (RAW) to address soils impacted with dieldrin, lead, and arsenic identified at the William Howard Taft Charter High School Campus located at 5461 Winnetka Avenue in Woodland Hills, California (the Site; Figures 1 and 2). This RAW presents a detailed plan for removing impacted soil from six locations within the Site. This RAW includes a description of these areas and a summary of previous subsurface investigations and results.

Proposed work at the campus includes the seismic retrofit, modernization, and improvement of several existing structures; demolition of several existing structures and temporary bungalows; and construction of new improvements. A Phase I Environmental Site Assessment (ESA) was performed at the Site by PlaceWorks in September 2017, which reported that it was common practice for LAUSD to apply herbicides containing arsenic prior to the placement of asphaltic concrete (AC) pavement. Additionally, a three-stage clarifier located near the former Industrial Arts building was identified. Additional environmental concerns identified in the Phase I included the potential for soil contamination from lead-based paint, and potential health risks associated with naturally-occurring radon gas.

EFI Global conducted a Preliminary Environmental Assessment-Equivalent (PEA-E) to assess shallow soils in select portions of the Site for Title 22 metals, organochlorine pesticide (OCP), polychlorinated biphenyl (PCB), petroleum hydrocarbons, and volatile organic compound (VOC) impacts, and to evaluate the Site for a potential vapor intrusion condition (pVIC) from the on-site three-stage clarifier. A total of 96 initial soil borings and 27 subsequent step-out borings were advanced at the Site and select soil samples were collected and analyzed. In addition, two soil vapor probes were installed in one boring, and soil vapor samples were collected and analyzed. Analytical results for soil samples collected at the Site identified concentrations of dieldrin, lead, and arsenic at concentrations exceeding regulatory screening levels in the upper three feet of soil in five boreholes.

Following completion of the PEA-A, LAUSD OEHS requested that EFI Global conduct a Supplemental Site Investigation (SSI) to assess soil in areas of the Site not assessed during the PEA-E. Field work conducted as part of the SSI included the advancement of 37 soil borings and 2 step-out soil borings. Additionally, shallow soil samples were collected from 11 previous soil sampling locations for thallium analysis. One soil sample (exceeded the LAUSD OEHS maximum allowable concentration for arsenic.

This RAW describes the procedures that will be carried out to excavate and dispose of an initial volume of approximately 20 cubic yards of impacted soils from six areas impacted with lead, arsenic, and/or dieldrin exceedances identified by the PEA-E and the SSI at the Site.

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1.0 INTRODUCTION

On behalf of the Los Angeles Unified School District (LAUSD) Office of Environmental Health and Safety (OEHS), EFI Global has prepared this Removal Action Workplan (RAW) to address soils impacted with dieldrin, lead, and arsenic at the William Howard Taft Charter High School Campus located at 5461 Winnetka Avenue in Woodland Hills, California (the Site; Figures 1 and 2). This RAW presents a detailed plan for removing impacted soil from six locations within the Site. This RAW includes a description of these areas and a summary of previous subsurface investigations and results.

1.1 SITE DESCRIPTION

This section describes the location and ownership of the Site as well as other pertinent details. This information was obtained through a review of the Phase I ESA and independent research conducted by EFI Global.

1.1.1 Site Name and Address

The Site is identified as William Howard Taft Charter High School. The Site's address is 5461 Winnetka Avenue, Woodland Hills, California 91364.

1.1.2 Property Location

The Site is located on the southwest corner of the intersection of Ventura Boulevard and Winnetka Avenue in the Woodland Hills neighborhood of the city of Los Angeles, California. The Site is bound to the north by Ventura Boulevard, to the south by Santa Rita Street, to the east by Winnetka Avenue, and to the west by Del Moreno Drive. The Site is approximately 29.8 acres in size and consists of several academic and administrative structures, courtyards, recreational fields, sports facilities, landscaped areas, and parking lots.

1.1.3 Assessor's Parcel Number and Maps

According to the Los Angeles County Assessor's Office, the Site is located in the city of Los Angeles, and is described by the Assessor's Parcel Number: 2166-042-902. The Site is located in Township 2 North, Range 16 West, and Section S of the San Bernardino Meridian. The center of the Site is located at 34°10.112' north latitude and 118°34.412' west longitude.

1.1.4 Areas of Concern

Areas of concern (AOC) identified for this RAW are depicted in Figure 5. The extent of dieldrin, lead, and arsenic-impacted soil is generally limited to the uppermost 3 feet of soil in six locations at the Site. AOC descriptions, associated boring locations, and driving chemicals are listed in the table below:

Excavation Area	Borings with Exceedances	Driving Chemical	Excavation Location
A	B5	Dieldrin	North of Building 21 in northeast portion of Site
B	B9	Arsenic	South of Building 21 in northeast portion of Site
C	B11A	Arsenic	West of Building 21 in northeast portion of Site
D	B37, B37C	Arsenic, Lead	East of Building 4 in south portion of Site
E	B61	Lead	Northeast of Building 24 in west portion of Site
F	HA26	Arsenic	North of Building 19 IN east portion of Site

1.1.5 Surrounding Land Use

The adjoining and immediately surrounding properties are summarized as follows:

Direction	Address(es)	Uses/Observation
North	20101 West Ventura Boulevard	Vacant - former gas station
	20121 West Ventura Boulevard	Multi-unit commercial/office
	20137-20201 West Ventura Boulevard	Hotel/restaurant
	20205 West Ventura Boulevard	Hotel
	20239 West Ventura Boulevard	Commercial/office
	20265-20301 West Ventura Boulevard	Multi-unit commercial/office
South	5367 North Winnetka Avenue	Single-family residential
	20120 West Santa Rita Street	Single-family residential
	20132 West Santa Rita Street	Single-family residential
	20138 West Santa Rita Street	Single-family residential
	20150 West Santa Rita Street	Single-family residential
	20154 West Santa Rita Street	Single-family residential
	20164 West Santa Rita Street	Single-family residential
	20172 West Santa Rita Street	Single-family residential
	20178 West Santa Rita Street	Single-family residential
	20201 West Lorenzana Drive	Single-family residential
	20218 West Santa Rita Street	Single-family residential
	20230 West Santa Rita Street	Single-family residential
	5276 North Del Moreno Drive	Single-family residential
East	5366 North Winnetka Avenue	Single-family residential
	5472-5460 North Winnetka Avenue & 20046-20056 West Ventura Boulevard	Grocery store/multi-unit commercial/office

West	5301 North Del Moreno Drive	Single-family residential
	5309 North Del Moreno Drive	Single-family residential
	5317 North Del Moreno Drive	Single-family residential
	5323 North Del Moreno Drive	Single-family residential
	20300 West Deaza Place	Single-family residential
	20301 West Deaza Place	Single-family residential
	5353 North Del Moreno Drive	Single-family residential
	20400 West Ventura Boulevard & 20350 West Ventura Boulevard	Religious center/pre-school
	5371 North Del Moreno Drive & 20300 West Ventura Boulevard	Multi-unit commercial/office

1.1.6 Regional Geologic and Hydrogeologic Setting

The Site is located within the southwest portion of the San Fernando Valley, north of the Santa Monica Mountains, which are a part of the Transverse Ranges Geomorphic Province. The Transverse Ranges are an east-west trending series of steep mountain ranges and valleys. The east-west structure of the Transverse Ranges is oblique to the normal northwest trend of coastal California, hence the name "Transverse." The province extends offshore to include San Miguel, Santa Rosa, and Santa Cruz islands. Its eastern extension, the San Bernardino Mountains, has been displaced to the south along the San Andreas Fault (*California Geomorphic Provinces – Note 36*, California Geological Survey, revised December 2002).

The majority of the Site is underlain with Quaternary-aged surficial sediment deposits of Holocene and Pleistocene age. These deposits are generally characterized as alluvial gravel, sand, and clay of valley areas. The southern portion of the Site is underlain by a Miocene-aged unnamed shale formation which consists of light gray, moderately to vaguely bedded claystone and siltstone (*Geologic Map of the Topanga – Canoga Park (South ½) Quadrangles*, Dibblee Geological Foundation, 1992).

1.1.7 Local Geologic and Hydrogeologic Setting

The elevation of the Site is between 835 feet above mean sea level (ft. amsl) in the northeast portion to 915 ft. amsl in the south portion (*Canoga Park, California 7.5 minute topographic quadrangle*, United States Geological Survey, 1967; Figure 1]. No wetlands were identified at the property or adjoining/immediately surrounding properties.

Groundwater was encountered at the Site during the advancement of boring B13 (advanced as part of the PEA-E) at a depth of approximately 11.5 feet bgs. This datum is further supported by groundwater data presented in the State Water Resources Control Board (SWRCB) GeoTracker website. Groundwater was detected at the closed leaking underground storage tank (LUST) site (20101 Ventura Boulevard) located approximately 70 feet north of the Site across Ventura Boulevard at an average depth of approximately 10 feet bgs with a reported groundwater flow direction to the northeast [*Groundwater Monitoring Report – Second Quarter 2010 (5 January 2010 to 25 May 2010) Former Mobil Service Station 18183*, Etic Engineering, June 2010].

1.1.8 Proposed Redevelopment Activities

According to information provided by LAUSD OEHS, the proposed redevelopment activities include the seismic retrofit and modernization of the Administration Building (Building 21; Figure 2), Multi-Purpose Room/Food Service/Lunch Shelter/Student Store (Buildings 1 and 7), and Industrial Arts #1 (Buildings 8, 9, and 10). Three new elevators with bridges will be added to provide adequate access to the two-story classroom buildings A-G (Buildings 4 and 5). The exterior of all existing buildings will be painted as necessary to provide a uniform appearance and enhanced curb appeal. Existing classrooms not being modernized will receive minor interior improvements to help promote teaching and learning. Improvements to meet programmatic access requirements of the Americans with Disabilities Act (ADA) will be made throughout the Site. Some aging and outdated site infrastructure (i.e. utilities, stormwater/drainage systems, etc.) will be updated. Various landscape and hardscape improvements will also be made. Various upgrades, improvements or other mitigations to ensure compliance with

local, state and/or federal facilities requirements will also be undertaken. A new softball field, and an enlarged artificial turf field & synthetic track with scoreboard, restrooms, ticket booth, and concession stand will be provided. Demolition of 12 relocatable buildings (Ivy Academia Charter) and nine permanent buildings, including Sanitary Building #1 (Building #8), Sanitary Building #2 (Building #14), Industrial Arts Building #2 (Building #9), Storage Unit Buildings #11 & 13, Parent Center Buildings #12 & #16, Ticket Booth #1 (Building #39), and Concession #1 (Building #41).

1.1.9 Previous Investigations

This section describes previous environmental investigation conducted by EFI Global. Analytical summary results for soil and soil vapor samples collected as part of the PEA-E and Supplemental Site Investigation (SSI) are presented Tables 1 through 7.

1.1.9.1 Preliminary Environmental Site Assessment, EFI Global

EFI Global performed a PEA-E to assess the soil in select portions of the Site for OCP, Title 22 metals, PCB, and VOC impacts from the former site operations, and to evaluate the Site for a potential vapor intrusion condition (pVIC) from potential releases from the on-site three-stage clarifier. A total of 96 soil borings and 27 step-out borings were advanced in several areas of the Site, and select soil samples were collected and analyzed. Boring locations advanced as part of the PEA-E and SSI are illustrated in Figures 3A through 3D. Two soil vapor probes were installed in boring B13, and soil vapor samples were collected and analyzed.

Dieldrin was detected in 15 soil samples analyzed at concentrations ranging between 6.6 µg/kg in sample B62-0.5 to 74 micrograms per kilogram (µg/kg) in sample B5-0.5. The SSAL for dieldrin is 34 µg/kg. Detected concentrations of dieldrin in B5-0.5 and B5-1.5 (74 µg/kg and 59 µg/kg, respectively) exceeded this screening criterion. The concentrations in the three-foot sample from boring B5 and the 0.5-foot samples from step-out borings B5A, B5B, and B5C did not exceed the SSAL, which indicates that the elevated concentrations of dieldrin are localized in the location of boring B5 and limited to the upper 1.5 feet of soil. No other detected concentration of dieldrin, or any other OCPs, exceeded the SSAL.

Arsenic was detected in all soil samples analyzed at concentrations ranging between 1.49 milligrams per kilogram (mg/kg) in sample B14-0.5 to 36.2 mg/kg in sample B11A-0.5. A total of 23 arsenic detections exceeded the site-wide SSAL of 12 mg/kg and five detections exceeded the maximum allowable concentration of 24 mg/kg. When detections above 24 mg/kg were removed from the data set (plus data to 2.5 ft bgs in location B11), each of the three soil horizons 0-0.5 ft bgs, 1-1.5 ft bgs and 2.5-3 ft bgs met the site-wide SSAL of 12 mg/kg.

Lead was detected in all samples analyzed at concentrations ranging from 1.67 mg/kg in sample B4-0.5 to 228 mg/kg in sample B37C-0.5. The lead concentrations in soil samples B37-1.5 (156 mg/kg), B37C-0.5 (228 mg/kg), and B61-0.5 (87.6 mg/kg) exceeded the SSAL for lead of 80 mg/kg.

No PCBs, petroleum hydrocarbons, or VOCs were detected in any soil samples analyzed.

PCE, toluene, 1,2,4-TMB, and m,p-xylene were detected in soil vapor. None of the detected VOC concentrations exceeded their respective site-specific screening levels. Therefore, the detected concentrations of VOCs are considered *de minimis* and are not expected to pose a significant threat to site occupants.

Gasoline-range organics (GRO) were detected in soil vapor sample B13-SV-5' at a concentration of 8.41 micrograms per liter (µg/l). There is no established SSAL for GRO. However, the concentrations were detected in an outdoor area and thus, there is no potential for vapor intrusion. Furthermore, GRO was not detected in the 10-foot soil vapor sample. As such, the detected concentrations of GRO are considered *de minimis* and are not expected to pose a significant threat to site occupants or the environment.

Data generated during the PEA-E indicates that the soil assessed during that previous investigation can likely be disposed of as non-hazardous regulated waste if exported from the Site; however, a final waste characterization will be necessary at the time of soil disposal to verify the waste profile.

EFI Global recommended the completion of a RAW for the removal of impacted soil at the following locations:

- B5 to 3 ft bgs due to elevated dieldrin.
- B9 to 3 ft bgs due to elevated arsenic.
- B11 and B11A to 3 ft bgs due to elevated arsenic.
- B37 and B37C to 3 ft bgs due to elevated arsenic and lead.
- B61 to 2 feet bgs due to elevated lead.

EFI Global also recommended confirmation soil sampling be included in the RAW to confirm that the elevated concentrations have been adequately removed by the remedial activities.

1.1.9.2 Supplemental Site Investigation, EFI Global

At the request of LAUSD, OEHS, EFI Global performed an SSI to assess the soil in select portions of the Site for OCP, PCBs, TPH, VOCs, and semi-volatile organic compounds (SVOCs) in additional areas of proposed improvements. A total of 37 soil borings and two step-out borings were advanced as part of the SSI. Results provided in the SSI can be summarized as follows:

- Chlordane, 4,4'-DDE, and dieldrin were detected in one or more soil samples. The detected concentrations of these constituents did not exceed their respective LAUSD OEHS Site Specific Action Levels (SSALs). No other OCPs were detected above laboratory detection limits in soil.
- PCBs were not detected above laboratory reporting limits in any of the samples analyzed.
- Arsenic was detected in 42 soil samples analyzed at concentrations ranging between 1.17 mg/kg in sample HA10-0.5 to 26 mg/kg in sample HA26-0.5. One detection of arsenic exceeded the maximum allowable concentration of 24 mg/kg. The remaining concentrations of arsenic detected during this investigation and the PEA-E provided the soil data necessary to calculate a 95% Upper Confidence Limit (UCL). The statistical analysis indicates a 95% UCL of 10.2 mg/kg for detected arsenic concentrations in soil at the Site. The 95% UCL for arsenic in soil does not exceed the SSAL of 12 mg/kg.
- Lead was detected in all soil samples analyzed at concentrations ranging from 1.45 mg/kg in sample HA14-0.5 to 40.4 mg/kg in sample HA15-0.5. None of the detected lead concentrations in soil exceeded the SSAL for lead of 80 mg/kg.
- Thallium was not detected above laboratory reporting limits in any of the soil samples analyzed as part of this investigation. It should be noted that the laboratory reporting limits for thallium ranged from 0.995 mg/kg to 5.00 mg/kg, which are greater than the SSAL for thallium of 0.78 mg/kg.
- TPH-g, TPH-d, and TPH-o were detected in one or more soil samples at maximum concentrations of 59 mg/kg, 6.5 mg/kg, and 480 mg/kg. The detected TPH concentrations in soil did not exceed the MSSLs for TPH-g, TPH-d, and TPH-o of 100 mg/kg, 100 mg/kg, and 1,000 mg/kg, respectively.
- Benzene, ethylbenzene, toluene, acetone, and carbon disulfide were detected in one or more soil samples. The detected concentrations of VOCs did not exceed their respective SSALs. No other VOCs were detected above laboratory detection limits in soil.
- Dimethyl phthalate and bis (2-ethylhexyl) phthalate were detected in soil. There is no listed SSAL for dimethyl phthalate. The detected concentrations of bis (2-ethylhexyl) phthalate did not exceed its SSAL. No other SVOCs were detected above laboratory detection limits in soil.

Based on the single exceedance of arsenic above the maximum allowable concentration, EFI Global recommended the completion of a RAW for the removal of impacted soil at location HA26 to a depth of 3 feet bgs. Following removal of impacted soil, EFI Global recommended confirmation soil sampling be included in the RAW to confirm that the elevated concentrations have been adequately removed.

1.2 PURPOSE, OBJECTIVES, AND SCOPE

The purpose of the proposed RAW is to reduce the potential health risks associated with soils impacted with dieldrin, lead, and arsenic at the Site to levels accepted by the LAUSD OEHS as being protective of human health and the environment under a residential use scenario. The RAW proposed herein was determined to be necessary

to protect public health and safety and the environment, pursuant to Section 25356.1(c) of the Health and Safety Code.

The Remedial Action Objectives (RAOs) are to:

1. Protect current and future Site occupants and the public from exposure to dieldrin, arsenic, and lead-impacted soil via ingestion, inhalation, and direct contact;
2. Minimize the potential for dieldrin, arsenic, and lead -impacted soil to migrate to other media or a more widespread geographic area; and
3. Remove on-site dieldrin-,lead-, and arsenic-impacted soils to the Risk Based Cleanup Goals (RBCGs) discussed in Section 3.0.

The proposed Removal Action (RA) described herein has been developed to address dieldrin-, arsenic-, and lead-impacted soil at the Site and to be responsive to these RAOs. The primary remedial goal for the Site is performance-based and focuses on restoring the soils to conditions that do not represent an unacceptable risk to human health or the environment with regard to the dieldrin, arsenic, and lead detected in shallow soil.

The goal of this RA is for contaminated soil with dieldrin, arsenic, and lead concentrations exceeding the cleanup goals to be excavated, removed from the Site, and lawfully disposed of off-site.

The scope of work is as follows:

- Submit this RAW to the LAUSD OEHS for review and approval.
- Implement the LAUSD- approved RAW, including approved engineering controls and safety precautions, to limit the spread of contaminated soil in the environment.
- Excavate an estimated minimum of 20 cubic yards of metals and dieldrin -impacted soil from six locations and collect verification samples for laboratory analysis.
- Temporarily stockpile the impacted soil next to each excavation area at the site. Collect and analyze stockpile soil samples for waste characterization. Following waste characterization, transport impacted soil to an appropriate, pre-approved, off-Site disposal facility.
- Prepare a Removal Action Completion Report (RACR).

The final waste characterization of the removed soil will be determined based on the analytical results for stockpile profile analysis. For planning purposes and to account for all potential waste characterization scenarios, this RAW details the handling procedures for the following potential waste characterization scenarios: Non-hazardous waste, California hazardous (i.e., non-Resource Conservation and Recovery Act [RCRA]) waste, and RCRA hazardous waste.

Figure 5 depicts the anticipated areas of excavation based on the analytical data collected during the PEA-E and the SSI. Removal and off-Site disposal of dieldrin, arsenic, and lead-impacted soil will be consistent with applicable requirements for protecting public health, welfare, and the environment.

1.3 Removal Action Plan Organization

This RAW contains the following elements, consistent with DTSC recommendations for RAs:

1. Site description and background, including prior assessments and identification of on-Site contamination;
2. The nature, source, and extent of impacts;
3. Description of the RA implementation;
4. Summary of project organization, schedule, and completion report requirements; and
5. List of references.

2.0 NATURE, SOURCE, AND EXTENT OF CONTAMINATION

Based on the findings of the PEA-E and the SSI, arsenic, lead, and dieldrin were determined to be the chemicals of Concern (COCs) for the Site. Summaries of the nature, source, and extent of the COCs are presented below.

2.1 TYPE, SOURCE, AND LOCATION OF CONTAMINANTS

The arsenic- and dieldrin-impacted soil is likely a result of historical use of arsenic- and dieldrin-based herbicides and insecticides for weed and pest control. Historically, arsenic was widely used as a pesticide and herbicide and was commonly used at industrial sites as a soil sterilizer. Dieldrin was widely applied in agricultural areas from the 1950s until the early 1970s to control soil pests. The lead-impacted soil may be a result of the historical use of lead-based paint (LBP) in previously demolished and existing buildings. In response to the potential harmful effects from lead, the U.S. Consumer Product Safety Commission banned the application of paint containing more than 600 mg/kg of lead on residential structures in 1978. Weathering, scraping, chipping, and abrasion of LBP can cause lead to be released to, and accumulated in, soil around older structures constructed before 1978.

Specific locations where impacted soil was identified and delineated within the Site are illustrated in Figures 3A through 3D.

2.2 EXTENT AND VOLUME OF CONTAMINATION

Based on the exceedances of dieldrin, arsenic, and lead identified in the PEA-E and the SSI, EFI Global recommends the removal of impacted soils in the areas of the sampling locations listed in the table below:

Proposed Excavation Name	Borings with Exceedances	Driving Chemical	Initial Proposed Excavation Area (ft^2)	Initial Proposed Excavation Depth (ft bgs)	Initial Proposed Excavation Volume (cubic yards)
A	B5	Dieldrin	25	3	3
B	B9	Arsenic	25	3	3
C	B11A	Arsenic	25	3	3
D	B37, B37C	Arsenic, Lead	50	3	6
E	B61	Lead	25	2	2
F	HA26	Arsenic	25	3	3
				Total Volume (cubic yards)	20

Notes:
ft^2 = square feet
ft bgs = feet below ground surface
BCY = bank cubic yards
LCY = loose cubic yards

The proposed excavation areas for this RAW are illustrated in Figure 5. The lateral boundaries of each proposed excavation are a distance of approximately five (5) feet in all cardinal directions (N, S, E, and W) from the sampling

location in which the exceedance was detected, and the depth of the excavation is approximately 1.5 feet below the depth of the detected exceedance. The total volume of the proposed excavated soil is approximately 20 cubic yards. The extents of the impacted soil excavations are predicted minimums based on the existing data, with actual extents likely to vary based on field observations and confirmation sampling.

2.3 HEALTH EFFECTS OF CONTAMINANTS

In general, exposure to contaminants in soil through dermal contact, inhalation of particulate matter, and ingestion may pose risks to human health. Potential exposures to the COCs could result from dermal contact and direct ingestion of the affected soil, as well as inhalation of airborne dust particulates.

Aldrin and dieldrin are the common names of two structurally similar compounds that were once used as insecticides. These substances are made in the laboratory and do not occur naturally in the environment. Exposure to aldrin or dieldrin around hazardous waste sites can mainly occur by breathing contaminated air or through contact with contaminated soil. Symptoms of aldrin and dieldrin poisoning have been seen in people who were exposed to very large amounts of these pesticides during their manufacture. Symptoms of poisoning have also been seen in people who intentionally or accidentally ate or drank large amounts of aldrin or dieldrin. Most of these people experienced convulsions or other nervous system effects, and some had kidney damage. Some people who intentionally ate or drank large amounts of aldrin or dieldrin died. Health effects in people exposed to smaller amounts of aldrin or dieldrin occur because levels of the chemicals build up in the body over time. Exposure to moderate levels of aldrin or dieldrin for a long time causes headaches, dizziness, irritability, vomiting, or uncontrollable muscle movements. Some sensitive people seem to develop a condition in which aldrin or dieldrin causes the body to destroy its own blood cells. The International Agency for Research on Cancer has determined that aldrin and dieldrin are not classifiable as to their carcinogenicity to humans. Based on studies in animals, the EPA has determined that aldrin and dieldrin are probable human carcinogens [*Public Health Statement – Aldrin and Dieldrin CAS#: Aldrin 309-00-2 Dieldrin 60-57-1,* Agency for Toxic Substances and Disease Registry (ATSDR), September 2002].

Inhalation of elevated levels of arsenic can cause a sore throat or irritated lungs. Ingesting very high levels can result in death. Exposure to lower concentrations of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, and damage to blood vessels. Low level exposures can also cause a darkening of the skin and the appearance of small corns or warts on the palms, soles, and torso. Ingestion of inorganic arsenic can increase the risk of skin cancer and cancer in the lungs, bladder, liver, kidney, and prostate. Additionally, inhalation can increase the risk of lung cancer. Children and pregnant women are believed to be at an increased risk to arsenic exposures (*Arsenic - ToxFAQs™ CAS #744-38-2*, ATSDR, August 2007).

Lead is a bio-accumulative substance and a reproductive and developmental toxin. Lead poisoning is one of the most commonly reported occupational diseases among adults due to inhalation of dust or fumes. Lead can impair the nervous system, affecting hearing, vision, and muscle control. It is toxic to lungs, kidneys, blood, and heart. Possible exposure pathways include ingestion and inhalation. Symptoms develop more quickly through inhalation exposure than ingestion since absorption takes place through the respiratory tract rather quickly. Acute lead poisoning is most common in children with history of pica; symptoms include anorexia, vomiting, malaise, and convulsions due to increased intracranial pressure, which may lead to permanent brain damage. Exposure in children can cause irreversible learning deficits, mental retardation, weight loss, weakness, anemia, cognitive dysfunction, and delayed neurological and physical development. Lead is considered a teratogen but is not a suspected carcinogen (*Lead - ToxFAQs*™, ATSDR, May 2019).

2.4 TARGETS POTENTIALLY AFFECTED BY THE SITE

A Conceptual Site Model (CSM) has been developed for this RAW that illustrates the manner in which potential receptors could be exposed to COCs at the Site. The CSM describes potential chemical sources, release mechanisms, transport media, routes of environmental transport, exposure media, and potential human receptors. Exposure to chemicals can occur only if a complete pathway exists by which human receptors may be exposed

to chemicals in soil, water, or air. For dieldrin, arsenic, and lead in soil, the potentially complete exposure pathways include dermal contact, dust inhalation, and incidental ingestion. A copy of the CSM is provided as Figure 4.

3.0 RISK-BASED CLEANUP GOALS

The Risk-Based Cleanup Goals (RBCGs) for dieldrin, lead, and arsenic in soil are as follows:

- **Dieldrin** – All remaining concentrations at or below 34 µg/kg.
- **Lead** – All remaining concentrations at or below 80 mg/kg.
- **Arsenic** – 95% Upper Confidence Limit (UCL) of the mean remaining concentration at or below 12 mg/kg, with no individual remaining concentration above 24 mg/kg.

4.0 ENGINEERING EVALUATION/COST ANALYSIS

This Engineering Evaluation/Cost Analysis (EE/CA) was conducted for the proposed removal action at the Site in accordance with the United States Environmental Protection Agency (EPA) "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA" (EPA, 1993). It was prepared to aid in the evaluation of remediation alternatives for the mitigation of impacted soils at the Site. The proposed removal action will be conducted in accordance with protocols of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Under 40 Code of Federal Regulations (CFR) 300.415 of the NCP, an EE/CA is required to address the implementability, effectiveness, and cost of a non-time-critical removal action.

4.1 REMOVAL ACTION SCOPE

This RAW outlines the remedy of dieldrin, arsenic, and lead -impacted soils in six areas of the Site. The estimated volume of soil proposed for the removal action was calculated based on the soil sample analytical data gathered during the PEA-E and SSI. The estimated limits of the proposed soil removals are described in Section 2.1 and illustrated in Figures 3A through 3D. The objectives of the proposed removal action are presented in Section 1.1.

4.2 EVALUATION OF REMOVAL ACTION ALTERNATIVES

A screening evaluation was conducted to assess remedial technologies and process options for mitigating the dieldrin, arsenic, and lead -impacted soil present at the Site. Based on the RAO presented in Section 1.1, the following three alternatives were identified and developed for the proposed removal action at the Site.

- Alternative 1 – No Further Action
- Alternative 2 – Excavation and Off-site Disposal
- Alternative 3 – Soil Excavation with On-Site Burial, Capping, and Land Use Restrictions

A description and evaluation of each of the three removal action alternatives is discussed in the following sections.

The criteria listed below were used during this evaluation process.

- Overall protection of public health and the environment (threshold factor);
- Compliance with the Applicable or Relevant and Appropriate Requirements (ARARs) presented in Section 4;
- Long- and short-term effectiveness;
- Reduction of toxicity, mobility, or volume through treatment;
- Ability to meet the RAO(s) presented in Section 1.1;

- Capability of the alternate with respect to administrative and technical feasibility to Site conditions, e.g., space limitations, equipment availability, resource availability, utility requirements, monitoring concerns, and operation and maintenance;
- Ability of the alternate to meet applicable federal, state, and local regulations and permitting requirements;
- Ability of the alternate to meet the project schedule and facility operations requirements; and
- Assess the relative cost of each alternate based on estimated capital cost for construction or initial implementation and ongoing operation and maintenance (O&M) costs.

4.2.1 Alternative 1 – No Action

Consideration of the "No Action" alternative is required by CERCLA and the NCP as a baseline by which all other remedial alternatives can be compared. This alternative involves taking no action toward a remedy, implying no active management or expectation that Site RAO would be achieved over time. The following presents an evaluation of this alternative with respect to the feasibility criteria:

- Overall Protection of Human Health and the Environment – Alternative 1 would not result in any reduction in the potential risk associated with the elevated COCs detected in soil at the Site and the RAO would not be met.
- Compliance with ARARs – Alternative 1 fails to meet ARARs, because contamination would be left in place that could potentially endanger public health and the environment. The removal action is being conducted in general accordance with LAUSD OEHS regulations and guidelines applicable to school sites, including the remediation or mitigation of any detected contamination to levels that are protective of human health, assuming a residential exposure scenario. Therefore, Alternative 1 does not meet this NCP threshold criterion.
- Long-Term Effectiveness – Alternative 1 would not address the impacts due to elevated concentrations of COCs in soil. Consequently, there would be no reduction in the potential health risks and hazards at the Site and the RAO would not be satisfied. Without a reduction in the potential health risks and hazards, the COCs would continue to pose a threat to current and future occupants of the Site.
- Short-Term Effectiveness – Alternative 1 would not result in activities that would disturb the impacted soil, nor would it address the risk posed to persons that may access the six impacted areas. If the Site were not developed and access were restricted, there would be no short-term risks associated with implementation of this alternative. However, under the present use of the Site as a school, there would be potentially significant short-term exposures of on-site workers to residual COCs, particularly those in near surface soil, during renovation activities. These same activities could also increase the short-term risks to the surrounding community through the potential release of impacted soil to the atmosphere during construction.
- Reduction in Toxicity, Mobility, or Volume – Alternative 1 would not result in a reduction in the toxicity, mobility, or volume of elevated levels of COCs present in soil at the Site and the RAO would not be satisfied.
- Implementability – Alternative 1 is implementable at the Site because the Project Area is not under agency oversight.
- Cost – Alternative 1 has no associated cost.
- Community Acceptance – Alternative 1 is unlikely to garner community acceptance due to the use of the Site as a school. Parents would be reluctant, if not unwilling, to send their children to a school where potential exposures to hazardous substances could occur.

- State Acceptance – The Project Area is not under state or local regulatory oversight, but includes areas which exceed state soil screening levels.

In summary, Alternative 1 (No Action) does not meet RAO or ARARs, nor does it result in a reduction of the toxicity, mobility, or volume of impacted soil present at the Site. Because the impacted soil would remain in place without monitoring, it would pose a short-term risk to Site workers and possibly the surrounding community if it were disturbed during school renovation activities. Thereafter, the long-term health risk and hazard would remain a threat to future occupants of the Site. As a result, acceptance by the State and the community for this alternative would not be obtainable.

4.2.2 Alternative 2 – Excavation and Off-Site Disposal

Alternative 2 involves the excavation and off-site disposal of impacted soil from the six impacted areas of the Site. An estimated 20 cubic yards of impacted soil would be excavated to depths ranging from approximately 2 to 3 feet bgs. Excavation and off-site disposal would be an effective means of removing impacted soil and would allow the Site RAO to be met. The following presents an evaluation of this alternative with respect to the feasibility criteria:

- Overall Protection of Human Health and the Environment – Alternative 2 would meet the RAO and is overall protective of human health and the environment.
- Compliance with ARARs – Alternative 2 could be conducted in accordance with all Federal and State ARARs and would not need a waiver under CERCLA.
- Long-Term Effectiveness – Alternative 2 would reduce the concentrations of COCs in Site soil to levels that no longer present a threat to human health or the environment, thereby eliminating the long-term risk of exposure.
- Reduction in Toxicity, Mobility, or Volume – Although removed from the Site, excavation and off-site disposal of impacted soil does not result in the reduction of toxicity or volume of the COCs from an off-site perspective, because the COCs are moved from one location to another. However, by placing the impacted soil in an engineered landfill suitable for receiving the concentrations of COCs detected, the mobility of the COCs will be reduced.
- Short-Term Effectiveness – Potential short-term risks to site occupants and on-site workers, public health, and the environment could result from dust or particulates that may be generated during soil excavation and handling. These risks could be mitigated using personal protective equipment (PPE) for on-site workers and engineering controls, such as dust suppression, redirecting foot traffic, and adhering to equipment operating safety procedures for protection of the site occupants and the surrounding community. The short-term risks are viewed as low to moderate.
- Implementability – Alternative 2 is technologically feasible and easily implemented. This alternative relies on proven technology, uses readily available equipment, and requires minimal permitting.
- Cost – Alternative 2 costs are driven primarily by the costs associated with soil excavation, transport, and off-site disposal. These costs depend on the method of excavation, the excavated volume, and the waste classification of the excavated soil, which in turn determines the costs of transportation and disposal.

Action Item	Cost
Site Layout, mobilization, demobilization	$10,000.00
RAW Implementation Oversight	$20,000.00
A/C Removal, excavation, transportation/disposal of impacted soil, and backfill	$35,000.00
Dust Monitoring	$9,000.00
Confirmation Sampling and Analysis	$2,000.00
Waste Profile Sampling and Analysis	$6,000.00
RACR Preparation	$5,000.00
Total Cost:	$87,000.00

- Community Acceptance – Alternative 2 is likely to be perceived by the community as acceptable because it would mitigate the identified hazards and risks associated with the COCs in soil and render the Site safe for renovation and future school use.
- State Acceptance – Alternative 2 would be viewed favorably by regulatory agencies, because it is protective of human health and the environment. Alternative 2 would not limit future development of the Site or require restriction on land use.

In summary, Alternative 2 (Soil Excavation and Off-site Disposal) is a proven, readily implementable remedial approach commonly used to address shallow soil contamination. The process is straight-forward, and the equipment and labor required to implement this alternative are uncomplicated and readily available. Based on the past success related to the excavation and off-site disposal of shallow soil contamination at other LAUSD school sites, it is anticipated that this approach would be acceptable to the community. As previously discussed, regulatory approval is not necessary for the work.

4.2.3 Alternative 3 – Soil Excavation with On-Site Burial, Capping, and Land Use Restrictions

As with Alternative 2, Alternative 3 involves the excavation and removal of an estimated 30 cubic yards of impacted soil. However, rather than off-site disposal, the excavated soil would be placed in an engineered on-site burial cell and covered by a protective soil cap. In this manner, the impacted soil would be inaccessible for direct contact via ingestion, dermal adsorption, or inhalation, thereby rendering these exposure pathways incomplete. The burial cell would be excavated at a location that is within the campus, but outside the planned school construction area. The import and testing of clean soil from off-site locations would not be required for Alternative 3.

Once the burial cell had been excavated, impacted soil would be emplaced and compacted in lifts until it reached a depth of 2 feet below the surrounding grade. A 2-foot thick clean soil cover/cap would then be constructed over the entire burial cell and seeded with native grasses to isolate the impacted soil from direct exposure. Alternative 3 would require some level of post-construction institutional controls, including a land use restriction, so that future owners of the property were aware of the presence of buried pesticide-impacted soil and the conditions applicable to its disturbance. In addition, a long-term operation and maintenance (O&M) program involving periodic inspections and as-needed maintenance would be required to ensure that the cap remains undisturbed and continues to function as intended. An evaluation of this alternative with respect to the feasibility criteria is presented below:

- Overall Protection of Human Health and the Environment – If properly constructed and maintained, Alternative 3 would be protective of human health and the environment.
- Compliance with ARARs – Alternative 3 could be conducted in accordance with most Federal and State ARARs and would not need a waiver under CERCLA.
- Long-Term Effectiveness – Alternative 3 would be effective as long as the clean soil cover were inspected and properly maintained and institutional controls were in place. Capping of an impacted area with clean soil would require long-term inspection and maintenance by LAUSD staff to protect the integrity of the cap

into the future. Precautions would have to be taken to ensure the integrity of the cap is not compromised by land use activities.

- Reduction in Toxicity, Mobility, or Volume –Excavation and transfer of impacted soil to a different portion of the Site does not result in the reduction of toxicity or volume of the COCs from an off-site perspective, because the COCs are moved from one location to another. However, by placing the impacted soil in a suitable engineered burial cell, the mobility of the COCs will be reduced.
- Short-Term Effectiveness – Alternative 3 would generally be effective as a short-term solution. Workers excavating impacted soil would come into contact with impacted soil. However, because Alternative 3 does not require removal of soil from the Site, it would reduce impacts for Site occupants and neighbors as a result of traffic and emissions associated with soil removal.
- Implementability – Alternative 3 is technologically feasible and easily implemented. This alternative relies on proven technology, uses readily available equipment, and does not require substantial permitting. Compared to Alternative 2, this Alternative 3 is more easily implemented and can better fit with the operational schedule of the school thus reducing impacts to site occupants. Additionally, this alternative would require an area of land, such as a playground or parking lot, to be used for on-site burial purposes.
- Cost – Alternative 3 costs are driven primarily by the costs associated with soil excavation, engineering and excavation of the burial cell, transferring of impacted soil to the burial cell, and finishing of the burial cap. Additionally, Alternative 3 comes with the added cost of operation and maintenance (O&M) of the burial cap (not included in the cost estimate below).

Action Item	**Cost**
Site Layout, mobilization, demobilization	$10,000.00
RAW Implementation Oversight	$25,000.00
Permitting; engineering and construction of containment cell; A/C removal, excavation, and transferring of impacted soil; capping of containment cell	$100,000.00
Dust Monitoring	$9,000.00
Confirmation Sampling and Analysis	$2,000.00
Waste Profile Sampling and Analysis	$6,000.00
RACR Preparation	$5,000.00
Total Cost:	$157,000.00

- Community Acceptance – Alternative 3 is unlikely to garner community acceptance due to the use of the Site as a school. Parents would be reluctant, if not unwilling, to send their children to a school where potential hazardous substances are present, even if properly capped and stored.
- State Acceptance – Alternative 3 would be viewed favorably by regulatory agencies because it is protective of human health and the environment. However, it could limit future development due to potential land-use restrictions.

In summary, Alternative 3 is similar to Alternative 2 and is a proven, readily implementable remedial approach commonly used to address shallow soil contamination. The process is straight-forward and the equipment and labor required to implement this alternative are uncomplicated and readily available. However, it is anticipated that this approach would not be acceptable to the community due to the site use as a school, and would require regulatory agency approval. Off-site disposal of impacted soils is likely to be viewed as a safer alternative. This alternative is also more expensive to implement due to the limited amount of soil to be disposed and the cost associated with burial cell engineering, construction, and operation and maintenance.

4.3 DESCRIPTION OF SELECTED REMEDY

Alternative 1 (No Action) was eliminated from further consideration because it does not meet the RAO. Alternative 3 (Soil Excavation with On-Site Burial, Capping, and Land Use Restrictions) was eliminated because the incremental costs exceed the incremental environmental protection, economic efficiency, and ecological necessity benefits. Alternative 2 (Excavation and Off-Site Disposal) is selected as the preferred alternative because it is easily implemented, effective, and provides long-term assurances that future occupants of the Site will not face significant health risks due to elevated levels of COCs in soil. It is the most cost-effective of the active remedial options considered (i.e., Alternatives 2 and 3).

Potential short-term risks during implementation of Alternative 2 include exposure of site occupants and on-site workers to health and safety hazards during soil excavation activities. These short-term risks can be readily mitigated by the proper use of PPE, adherence to health and safety procedures, and engineering controls (e.g., application of water spray, re-routing of pedestrian walkways, etc.) to suppress fugitive dust emissions and exposure during the excavation and handling of impacted soil.

Soil excavation would involve the use of conventional excavation equipment, such as backhoes, loaders, and dozers to remove the estimated 20 loose cubic yards of impacted soil from the six impacted areas. Excavated soil would be temporarily stockpiled on plastic sheeting next to the excavation areas until it could be loaded out for off-site disposal. During excavation, sloping or proper protection of excavations greater than 5 feet bgs may be required to ensure safety.

All of the soils removed from the excavations would be transported off-site to an appropriate, licensed facility for disposal. After completion of the soil removal actions at each location, confirmation soil sampling would be conducted along the excavation sidewalls and bottoms to verify that the SSALs have been met. Imported soil borrowed from off-site that has been tested and certified to be clean would be used to backfill the excavations in preparation for construction.

5.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

The proposed removal action must comply with ARARs. In this section the most relevant ARARs for the proposed removal action are presented.

5.1 PUBLIC PARTICIPATION

A public notice will be published in local newspapers informing the community of this proposed soil removal action and of the availability of the administrative record file for public inspection at established Information Repositories, which are listed below:

- LAUSD Office of Environmental Health and Safety located at 333 S. Beaudry Avenue, 28th Floor, Los Angeles, CA 90017
- William Howard Taft Charter High School located at 5461 Winnetka Avenue, Woodland Hills, CA 91364
- Serrania Charter for Enriched Studies located at 5014 Serrania Avenue, Woodland Hills, CA 91364, and
- Woodland Hills Branch Library located at 22200 Ventura Boulevard, Woodland Hills, CA 91364.

Copies of this RAW will be placed in the Information Repositories for access by community members.

A 30-day public comment period will be held to accept public comments on the proposed removal action. At the close of the public comment period, LAUSD will evaluate the comments and make appropriate revisions to the RAW.

Prior to beginning fieldwork for the proposed removal action, LAUSD will distribute a RAW Work Notice to William Howard Taft Charter High School students and staff and nearby residents and businesses (i.e., within line-of-sight). The notice will also be laminated and posted along the fence line of the project. The notice will be prepared

in English and Spanish. It will provide a general description of the fieldwork that will occur, along with the telephone number of the LAUSD Project Manager for further information.

5.2 California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA), modeled after the Federal National Environmental Policy Act (NEPA) of 1969, was enacted in 1970 as a system of checks and balances for land-use development and management decisions in California. It is an administrative procedure to ensure comprehensive environmental review of cumulative impacts prior to project approval. It has no agency enforcement tool, but allows challenge in courts.

CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies, unless an exemption applies.

The proposed soil removal project will not have a significant effect on public health or the environment because of the relatively small volume, short project duration, and the controlled manner in which contaminated soils will be excavated, loaded onto trucks, and taken off-site for disposal/treatment. The Site is not on the Hazardous Waste and Substances Sites List or in a sensitive cultural or biological resource area. As a result, the soil removal action is eligible for a Class 30 exemption under CEQA, which is defined under Title 14 of the California Code of Regulations (CCR), Chapter 3, Article 19, Section 15330 to be a minor cleanup action (i.e., costing less than $1 million) taken to prevent, minimize, stabilize, mitigate, or eliminate the release or threat of release of a hazardous waste or substance.

In order to comply with CEQA requirements, a Notice of Exemption (NOE) should be completed and filed with the Los Angeles County Clerk's office prior to the start of work.

5.3 Hazardous Waste Management

The Hazardous Waste Control Act (HWCA), as administered by the DTSC mandates the control of hazardous wastes from the point of generation through accumulation, transportation, treatment, storage, and ultimate disposal.

As discussed, concentrations of COCs exceeding SSALs were detected in the Site soil during the PEA-E and SSI. The impacted soil is proposed to be excavated and disposed off-site and therefore must be classified before off-site disposal. The Soluble Threshold Limit Concentration (STLC) limit and the Toxicity Characteristic Leaching Procedure (TCLP) limits for hazardous waste classification is outlined in the following table. If results exceed the STLC limits, the waste will be handled as non-Resource Conservation and Recovery Act (non-RCRA) California regulated hazardous waste, and if the results exceed the TCLP limit then the waste will be handled as RCRA hazardous waste. The Total Threshold Limit Concentration (TTLC), STLC and TCLP concentrations of driving COCs to be used for waste classification are as follows:

Compound*	TTLC Limit (mg/kg)	STLC Limit (mg/L)	TCLP Limit (mg/L)
Arsenic	500	5.0	5.0
Lead	1,000	5.0	5.0
Dieldrin	8.0	0.8	NA

As a hazardous waste generator, LAUSD OEHS will secure an EPA ID number from the DTSC or use an existing, applicable EPA ID number for proper management of the hazardous waste (if any). Compliance with the DTSC requirements of hazardous waste generation, temporary on-site storage, transportation and disposal is required. Any container used for on-site storage will be properly labeled with a hazardous waste label. Within 90 days after its generation, the hazardous waste will be transported off-site for disposal. Any shipment of hazardous wastes in

California will be transported by a registered hazardous waste hauler under a uniform hazardous waste manifest. Land ban requirements will also be followed as necessary.

Waste generated as a result of the work proposed in this RAW will be classified as nonhazardous, California Hazardous, or RCRA Hazardous waste. Prior to load-out of soils to the selected disposal facility, soil profile data and landfill approval will be submitted to LAUSD OEHS for approval.

Waste will be transported under generally accepted manifest procedures to one or more of the following pre-designated landfills. Although not expected, alternative disposal facilities may be evaluated for waste disposal. If, in the unlikely event an alternative disposal facility is selected for waste disposal, the facility information (including name, location, permit and certification information) will be provided to the LAUSD OEHS in writing and approval requested to dispose of waste at the alternate facility.

5.3.1 RCRA Hazardous Waste Facilities (Class I)

All RCRA hazardous wastes will be disposed of in a Class I hazardous waste land disposal facility permitted to accept such wastes. The facility below has been pre-designated to be selected for disposal of RCRA hazardous waste for this project:

Clean Harbors – Buttonwillow Landfill (Hazardous Waste Facility)
2500 West Lokern Road, Buttonwillow, CA 93206 (Approximately 128 miles from Site)
US EPA ID No: CAD980675276
DTSC Hazardous Waste Operating Permit (April 6, 1996)
California Regional Water Quality Control Board Waste Discharge Requirements 96-094
Kern County Conditional Use Permit No. 94-684
San Joaquin Valley Air Pollution Control District Air permits for all permitted units
Categories of wastes accepted: Non-Hazardous, CA Hazardous, RCRA hazardous soils

Waste Management Inc. - Kettleman Hills (Hazardous Waste Facility)
35251 Old Skyline Rd, Kettleman City, CA 93239 (Approximately 170 miles from Site)
Solid Waste Permits: 16-AA-0023, Unit B16: 16-AA-0024, Unit B17: 16-AA-0027
Categories of wastes accepted: RCRA hazardous soils

Clean Harbors –Westmorland (Hazardous Waste Landfill and Treatment Facility)
5295 S. Garvey Road, Westmorland, CA 92281 (Approximately 212 miles from Site)
EPA ID: CAD000633164
DTSC Facility Permit No: CAD000633164
California Regional Water Quality Control Permit No: 94-005
Imperial County Conditional Use Permit No: 957-90 A&B, 958-90 A&B
Imperial County Air Pollution Control District Permit to Operate No: 1633E
Stormwater General Discharge Operating Permit No: 7 13S003100
USDA APHIS Permit No. S-43094
Categories of wastes accepted: Non-RCRA hazardous soils and non-hazardous soils

5.3.2 Non-RCRA Hazardous Waste Facilities (Class I or II)

A non-RCRA hazardous waste is a California only hazardous waste. The following disposal facilities have been pre-designated for disposal of non-RCRA hazardous waste for this project:

Waste Management Inc. - Northwest Regional Landfill
19401 West Deer Valley Road, Surprise, AZ 85837 (approximately 320 miles from Site)
APP Permit No: P-100267
AZ Solid Waste Facility: 07039500.02
EPA ID: AZR000031559
State Facility Special Waste ID: 301963
Title V Air Permit: V97-016
Categories of wastes accepted: Non-hazardous and California Hazardous soils/solids

South Yuma County Landfill

19536 South Avenue 1E, Yuma, AZ (approximately 323 miles from Site)
APP Permit No: 50366100.01
EPA ID: AZR000506980
Categories of wastes accepted: Non-hazardous and California Hazardous soils/solids

5.3.3 Non-Hazardous Waste Facilities

Non-hazardous soil will be transported to one or more of the following facilities for disposal/recycling:

Waste Management Inc. - Thermal Remediation Solutions (TRS)
1211 West Gladstone Street, Azusa, CA 91702 (approximately 39 miles from Site)
Solid Waste Permit: 19-AA-0013
AQMD Permit: Facility ID #109914
Categories of wastes accepted: Non-regulated soil with VOC and petroleum hydrocarbon contamination

Waste Management Inc. - Lancaster Landfill and Hauling (LHH)
600 East Avenue F, Lancaster, CA 93535 (approximately 73.0 miles from Site)
Landfill Permit: 19-AA-0050
Categories of wastes accepted: Non-regulated soil, soil with VOC and petroleum hydrocarbon contamination

Waste Management Inc. - Azusa Land Reclamation (ALR)
1211 West Gladstone Street - Azusa, CA 91702 (approximately 40 miles from Site)
Conditional Use Permit: C-151
Solid Waste Permit: 19-AA-0013
Categories of wastes accepted: Non-regulated soil, soil with low TPH and VOC contamination

Waste Management Inc. - Simi Valley Landfill
2801 Madera Rd, Simi Valley, CA 93065 (approximately 21 miles from Site)
Conditional Use Permit: LU12-0056
Solid Waste Permit: 56-AA-0007
Categories of wastes accepted: Non-regulated soil

Chiquita Canyon Sanitary Landfill
29201 Henry Mayo Dr, Castaic, CA 91384 (approximately 32.5 miles from Site)
Conditional Use Permit: CUP 2004-00042
Categories of wastes accepted: Non-regulated soil, soil with low TPH and VOC contamination

5.4 South Coast Air Quality Management District (SCAQMD)

The Site is located within jurisdiction of the South Coast Air Quality Control District (SCAQMD). The SCAQMD has two rules that address excavation (Rules 1150 and 1166), and two that address fugitive dust (Rules 403 and 1466). Rule 1150 applies to the excavation of sanitary landfills and does not apply to this project. Rule 1166 is not expected to apply to this project, because it governs the excavation of soils containing significant concentrations of volatile organic compounds (VOCs), which were not detected during Site investigations.

Based on the presence of arsenic and lead in soil samples collected from the Site, soil excavation shall be performed in accordance with the requirements set forth in SCAQMD Rules 403 and 1466 (included as Appendix A and B, respectively). All soil excavation and loading will be conducted under the supervision of a certified dust control supervisor.

At least 72 hours prior to the start of soil excavation activities, the Executive Office of the SCAQMD shall be notified electronically of the planned activities. In addition, fencing shall be installed and signs posted prior to excavation. To control fugitive dust emissions and in compliance with the requirements contained in SCAQMD Rules 403 and 1466, several measures will be performed at the Site during the excavation, including the following:

- Application of water to control dust generation at the working face and other points of dust/odor generation.
- Stockpile control – covers, wetting.
- Cease work conditions – wind speed, odor, and/or particulate monitoring thresholds.
- Continuous direct-reading near real-time ambient monitoring of the concentrations of particulate matter measuring 10 micrometers or less (PM_{10}) at upwind and downwind locations.
- Truck loading and covering.
- Housekeeping (including street cleaning, if necessary).

5.5 Health and Safety Plan

A site-specific Health and Safety Plan (HASP) covering the RAW implementation oversite has been prepared for the Site and has been included in Appendix C. The HASP has been prepared in accordance with current safety standards as defined by the USEPA, the Occupational Safety and Health Administration (OSHA), and the National Institute of Occupational Safety and Health (NIOSH).

Prior to the commencement of each day's activities, a tailgate health and safety meeting will be held. Everyone working at the Site will be required to sign the site-specific HSP to demonstrate that they are familiar with the HASP and that they participated in, or were briefed on, the daily tailgate meeting. The removal action contractor's Site manager will maintain this signature sheet.

The selected earthwork contractor, and all other contractors working on-site to implement this RAW, shall prepare their own HASP addressing potential health and safety concerns of their scopes of work.

5.6 Stormwater Discharge Management Plan

State Water Resources Control Board Order No. 99-08-DWQ, National Pollutant Discharge Elimination System General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Stormwater Runoff associated with Construction Activity, describes the implementation of a stormwater pollution prevention plan for a construction project. Because the areas of soil disturbance are less than 1 acre, a stormwater discharge permit is not required for the remediation contractor. However, the remediation contractor must follow the general contractor's stormwater pollution prevention plan for the overall redevelopment project and LAUSD's construction Best Management Practices (BMPs).

5.7 Others

All necessary permits and approvals identified in this RAW will be obtained prior to any removal activities. Removal activities will be performed by a California-certified contractor with oversight from a California Professional Geologist (PG) or Professional Engineer (PE).

6.0 REMOVAL ACTION PLAN IMPLEMENTATION

The field procedures and methods that will be used to implement the remedial action (RA) are described in this section.

6.1 Site Preparation and Security Measures

Prior to equipment mobilization for the proposed removal action, Site preparation activities may include Site inspections, surveying, marking excavation limits, and improvement of access gates as necessary.

6.1.1 Delineation of Excavation Areas

The target excavation areas will be demarcated with white paint, flags, and tape prior to commencing soil removal. The lateral and vertical extent of impacted soil was estimated based on the soil sample analytical data collected as part of the PEA-E and the SSI and are summarized in Section 2.2. The estimated limits of impacted soil are shown on Figures 3A through 3D. Note that no excavation areas are shown on Figure 3C.

6.1.2 Utility Clearance

Prior to the start of field activities, the excavation areas will be marked so that an evaluation can be made for potential subsurface structures that may be present in the area of the excavations. A geophysical survey will be conducted in the proposed excavation areas to help identify subsurface lines and other subsurface features/obstructions. Necessary precautions will be taken during the excavation activities to ensure that lines identified during the geophysical survey are not damaged or impacted.

Prior to commencing with excavation activities, Underground Service Alert (USA) will be contacted at least 48 hours in advance to identify the location of utilities that enter the Site. The proposed excavation areas will be clearly marked with white paint as required by USA. USA will contact all utility owners of record within the Site vicinity and notify them of our intent to excavate. All utility owners of record will be expected to clearly mark the position of their utilities on the ground surface at they enter the Site.

6.1.3 Security Measures

Appropriate barriers and/or privacy fencing will be installed prior to the beginning of the excavation process to ensure that all work areas are secure and safe. To ensure trespassers or unauthorized personnel are not allowed near work areas, security measures may include, but are not limited to:

- Maintaining a visitor's log. Visitors must have prior approval from the site manager to enter the site. Visitors shall not be permitted to enter the site without first receiving site-specific health and safety information from the site safety coordinator.
- Installing barrier fencing to restrict access to sensitive areas such as exclusion zones.
- Providing adequate site security to ensure unauthorized personnel have no access to work areas and/or contaminated materials. Before leaving the site, all personnel must sign out in the visitor's log.
- Maintaining a safe and secure work area, including areas where equipment is stored or placed, atthe close of each workday.

Persons requesting site access will be required to demonstrate a valid purpose for access and if access to work areas and/or contaminated materials is planned, provide appropriate documentation to demonstrate they have received proper training required by the site-specific HASP.

6.1.4 Contaminant Control

Dust suppression will be performed by lightly spraying or misting the work areas with water. Water mist may also be used on soil placed in temporary stockpiles or in the transport trucks. After the soil is loaded into the transport trucks, the soil will be covered to prevent soil from spilling out of the truck during transport to the disposal facility. Additionally, all trucks will be cleaned to remove any soil present on the trucks or their tires.

If precipitation occurs or groundwater seeps into the excavation prior to confirmation soil sampling, water collected in the bottom of the excavation will be pumped from the hole and transferred to an above-ground storage tank and sampled for profiling purposes. Impacted water will be disposed of in accordance with federal, state, and local regulations. While on the property, all vehicles will maintain slow speeds (i.e., less than 5 miles per hour) for safety purposes and for dust control measures. Efforts will also be made to minimize the soil drop height from the excavator's bucket into the transport trucks.

6.1.5 Permits and Plans

All necessary permits or approvals will be obtained prior to the planned soil removal activities. A grading permit is likely not required for the recommended remedial work, but will likely be required for the construction activities proposed.

6.2 FIELD DOCUMENTATION

During the excavation activities, a field engineer or geologist under supervision of a California Professional Geologist or Professional Engineer will document field observations. The field notes will contain pertinent observations about excavation dimensions, equipment operation, unusual conditions encountered during excavation, date and time of arrival, general Site conditions, and other field observations relating to the Site. Field documentation will also include photographs and written logs as described below.

6.2.1 Field Logbooks

Logs will be maintained daily and will include:

- Records of all personnel at the Site
- Work conducted
- Equipment used
- Dust monitor readings from field monitoring, and
- A record of all formal Site meetings such as health and safety meetings, daily tailgate meetings, and agency meetings.

Additionally, the contractor will maintain a detailed log of each truck loaded at the Site, and will include truck identification and driver name, destination, excavated materials and estimated size of load, and a field copy of the shipping manifest.

6.2.2 Chain-of-Custody Records

Detailed chain-of-custody records will be maintained for all confirmation samples (see Section 5.6 below for Confirmation Sampling).

6.2.3 Photographs

The Site will be documented visually with photographs before, during, and after excavation activities.

6.3 EXCAVATION

To mitigate future exposure to the impacted soils for the protection of human health, a total of approximately 20 cubic yards of soil will be excavated from Excavations A through F and removed from the Site. The dimensions and characteristics of each excavation area are detailed in Section 2.2.

Based on the analytical results from the PEA-E soil sampling, the impacted excavated soil will be handled, transported, and likely be disposed of as non-hazardous waste. Additional profiling will be conducted as required by the disposal facility and LAUSD specifications.

6.3.1 Excavation Procedures

Conventional construction equipment, such as a backhoe or excavator with bladed buckets, will be used to excavate the soil. For the areas where concrete exists above the proposed removal area, the existing concrete will be saw-cut and broken out with a pneumatic concrete breaker or equivalent. The concrete debris will be

segregated and stockpiled nearby for off-site disposal when the remaining concrete is removed during non-remedial school redevelopment activities.

Each initial excavation area is proposed to be excavated to a maximum depth of 3 feet bgs. If the depth of any excavation area exceeds 5 feet bgs based on verification sampling results, the sidewalls of the excavations will be sloped in accordance with the OSHA requirements described in 29 CFR Part 1926. It should be noted that under no circumstances will any field personnel be allowed into any excavation deeper than 5 feet bgs until properly sloped or shored.

Once the excavations are completed, confirmation sampling will be conducted as discussed in Section 5.5. Excavation will proceed in lateral and vertical directions up to the Project Area boundaries until the RAOs discussed in Section 1.1 are demonstrated to have been met, as determined from confirmation soil sampling results.

Excavated soil will be temporarily stockpiled adjacent to the excavation so that proper waste classification can be conducted. Prior to stockpiling of excavated soil, plastic sheeting will be placed over the stockpile staging area to avoid cross-contamination. The stockpiles will be covered with plastic sheeting and weighted down with sandbags or equivalent weights to prevent the stockpile from becoming uncovered by wind. Stockpiled soil will be transported off-site within the shortest timeframe possible.

6.3.2 Waste Segregation Operations

The soil excavated from the six individual excavation areas will be temporarily stockpiled next to each excavation and profiled separately and managed as non-hazardous, non-RCRA hazardous, or RCRA hazardous waste, based on waste characterization sampling to be conducted. Based on the soil analysis conducted during the PEA-E, the soil will likely be disposed of as non-hazardous waste. The excavation contractor and Environmental Consultant will oversee truck loading operations to ensure that a properly completed waste manifest accompanies the truck and that it is directed to the appropriate disposal facility, based on its waste classification.

Soil temporarily stockpiled on-site will be identified with a sign over the plastic covering to indicate the source of the soil and its waste classification. Labels that indicate the waste generator, waste type, accumulation start date, and contact information will be applied to the outside of any drums or roll-off bins used to temporarily store impacted soil. Strict segregation of soil based on waste type will be maintained to avoid any mixture of hazardous and non-hazardous soils. This segregation will minimize the amount of hazardous soils generated and their associated disposal costs.

6.3.3 Decontamination Procedures

The following decontamination procedures may be carried out to prevent soil contamination from the use of construction equipment and implementation of other activities as a part of the removal action:

- Equipment used for excavation will be dry decontaminated prior to moving to other areas of the Site.
- Prior to exiting the Site, the transport truck drivers will be required to stop and inspect the tires and sides of their trucks for loose soil debris. Extra soil will be removed using a wire brush or broom as deemed appropriate. This cleanup/decontamination area will be setup as close to the loading area as possible so as to minimize spreading the impacted soil.
- Street sweeping procedures will be implemented as necessary to reduce the potential for fugitive dust and migration of contamination.

6.4 Air and Meteorological Monitoring

As discussed above in Section 5.1.4, fugitive dust control measures will be implemented at the Site to mitigate off-site dust migration onto neighboring properties through light watering of the active excavation areas throughout the removal action.

Air monitoring for dust will be performed during the excavation activities in the excavation areas utilizing an upwind/downwind sampling approach. Dust monitoring will be conducted approximately every 30 minutes, or more often if visible dust is observed. The National Ambient Air Quality Standard (NAAQS) for dust is 50 micrograms per cubic meter (µg/m^3), based on dust particles measuring 10 micrometers or less (PM10). If the PM19 concentration averaged over two hours exceeds 25 µg/m^3, the owner or operator shall cease earth-moving activities, apply dust suppressant to fugitive dust sources, or implement other dust control measures as necessary until the PM10 concentration is equal to or less tha µg/m^3 averaged over 30 minutes (per SCAQMD Rule 1466). The protocols and stop-work criteria specificed in SCAQMD Rule 1466 shall be followed.

6.5 Sampling and Analysis Plan

The proposed RA incorporates a sampling and analysis plan with the following goals:

1. Determine if the RAOs and SSALs have been met through chemical analysis of soils surrounding the excavation cavities;
2. Characterize wastes for approval to an off-site disposal facility; and
3. Implement a strict Quality Assurance/Quality Control (QA/QC) program to verify the quality and integrity of such chemical analysis;

6.5.1 Confirmation Sampling

The confirmation sampling program for the proposed removal action will consist of collecting soil confirmation samples from the basal and sidewalls of each of the six excavation areas.

Confirmation sampling will be conducted at a minimum frequency of one sample per sidewall and no greater than every 20 linear feet, and one basal sample from each excavation bottom and no greater than every 500 square feet. Duplicate samples will be collected and analyzed at a rate of 10 percent of the primary samples.

With the exception of the proposed confirmation samples for Excavation F, the confirmation soil samples will be collected along a depth interval of 0 to 0.5 feet bgs in excavation sidewalls and at excavation bottoms by scooping the soil directly into laboratory-supplied, new glass sample jars from either the soil face for shallow excavations or the excavator bucket for deeper excavations. The sidewall confirmation samples in Excavation F will be collected along the entire vertical length of the excavation sidewalls. The soil samples will be labeled with the following information: identification (ID) number, project number, Site name, date and time of collection, requested analysis, and the sampler's initials. Chain-of-custody documentation will be maintained for the soil samples and will be delivered with the samples to the laboratory.

It is not expected that any excavation depth will exceed 4 feet bgs; therefore it is anticipated that all confirmatory samples will be collected directly by hand at the sampling location from in-situ soil. In the event any excavation exceeds 4 feet bgs and personnel are not able to enter the excavation, a backhoe will be directed to retrieve soil from the sampling location, and the confirmatory sample will be collected from soil retrieved in the bucket.

Additional confirmatory samples may be collected in the field based on final excavation cavity conditions, or it any visually impacted soil is encountered at excavation depth.

The excavations will be considered complete if the confirmation sample results do not exceed the RBCGs presented in Section 3.0. LAUSD OEHS will be consulted to evaluate results of the confirmation sampling as appropriate.

6.5.1.1 Confirmation Sample Chemical Analysis

Confirmation soil samples will generally be analyzed for one or more of the following analyses: arsenic by EPA Method 6020, lead by EPA Method 6010B, and OCPs by EPA Method 8081A. The proposed confirmation analytical plan for samples collected from each excavation area is as follows:

- Excavation area A: Confirmation samples will be analyzed for OCPs;
- Excavation areas B, C, and F: Confirmation samples will be analyzed for arsenic;
- Excavation area D: Confirmation samples will be analyzed for arsenic and lead; and
- Excavation area E: Confirmation samples will be analyzed for lead.

6.5.1.2 Confirmation Sampling Quality Control Procedures

An integral part of sampling and analysis is QA/QC procedures to ensure the reliability and compatibility of all data generated during the proposed RA. Activities will be conducted in general accordance with DTSC guidance document procedures. The chemical data to be collected for this effort will be used to determine that the proposed RA has achieved the RAOs. As such, it is critical that the chemical data be the highest confidence and quality. Consequently, strict QA/QC procedures will be adhered to. The procedures include:

- Adherence to strict protocols for field sampling and decontamination procedures;
- Collection and laboratory analysis of appropriate field equipment blanks to monitor for contamination of samples in the field or the laboratory;
- Collection of soil-matrix duplicate samples to evaluate field precision and accuracy;
- Collection of and laboratory analysis of matrix spike, matrix spike duplicate, and blind split samples to evaluate analytical precision and accuracy; and
- Attainment of completeness goals.

The following QA/QC samples will be collected and measures implemented for confirmatory soil sampling:

1. Minimum of 10% field duplicate samples;
2. One equipment blank (rinsate blank) per field day; and
3. Temperature monitoring of coolers.

6.5.1.2.1 Field Duplicate Sampling

A series of field duplicate samples will be collected during sampling activities. Duplicate samples will be selected in an effort to ensure:

1. Adequate lateral coverage of the sampling area; and

2. Adequate distribution of duplicates across analyte suites.

Duplicate samples will be submitted blindly to the analytical laboratory by numbering them in the same convention as other samples with alternative sample numbers. Corresponding samples identifications will be recorded on field logs to reconcile analytical data upon receipt.

Duplicate samples will be collected by collecting a secondary sample adjacent to the primary approximately 6 inches off-set from the primary location.

6.5.1.2.2 Equipment Rinsate Blanks

One equipment (rinsate) blank will be collected at the conclusion of each confirmatory sampling date. The following procedure will be implemented to collect each sample:

1. Upon collection of the final soil sample of the day, reusable sampling equipment coming into contact with sample media will be decontaminated.
2. Distilled/deionized water will be poured over or through the decontaminated sampling equipment and collected in laboratory-provided, pre-cleaned containers.

3. Samples will be labeled with the sample number, date and time, and placed in coolers containing ice packs for temporary storage.
4. Samples will be analyzed for the same analyte suite as that day's confirmatory sampling program.

6.5.2 Waste Profile Sampling

Chemical analysis of stockpiled soils will be conducted to document and profile the waste generated from the proposed excavations and facilitate the acceptance of the waste for off-site disposal at one of the pre-designated facilitates. Stockpiled soil sampling frequency and analysis will be conducted in accordance with LAUSD Section 01 4524 specifications – *"Environmental Import/Export Materials Testing"* (October 2011). The LAUSD Section 01 4524 document is included in this RAW as Appendix D.

Soil stockpiles from each of the six locations will be sampled and profiled separately. In accordance with *Table 1*: *Minimum Sampling Frequency* of the LAUSD Section 01 4524 document, three discrete soil samples will be collected from each of the six stockpiles; one from the top, middle, and bottom of each stockpile. The soil samples will be collected with hand tools – either with hand auger, shovel, posthole digger, or hand trowel. Each discrete soil sample will immediately be transferred to a single-use, disposable and sealable plastic bag. Screening for Volatile Organic Compounds (VOCs) will be performed via photoionization detector (PID) by placing the PID probe tip in the plastic bag, allowing the sample to off-gas, and recording the maximum PID reading observed. The discrete sample with the highest PID reading will be sub-sampled via EPA Method 5035-compliant procedure and sample containers.

A portion of each of the discrete soil samples will be transferred into a bag for compositing into one composite sample per stockpile. The composite sample will then be homogenized for 60 to 120 seconds and transferred to four 8-ounce, clean, laboratory-provided glass jar(s). Each jar will be labeled with the corresponding sample identification (ID), time, date, project name, and logged in a chain of custody (COC), and placed in a cooler with ice and chilled to 4 degrees Celsius.

6.5.2.1 Waste Profile Sample Analysis

In accordance with *Part 3.02.E.2* of LAUSD Section 01-4524, the discrete soil sample will the highest PID reading shall be analyzed for the following:

a. Volatile Organic Compounds (VOCs), utilizing EPA Method 8260B/5035.
b. Total Petroleum Hydrocarbons (TPH) gasoline (TPH-g), utilizing EPA Method 8015M.

The composite soil sample shall be analyzed for the following:

c. Total Petroleum Hydrocarbons (TPH), utilizing EPA Method 8015M, for full carbon-chain speciation (including diesel, oil, and other long-chain hydrocarbons).
d. Polychlorinated biphenyls, utilizing EPA Method 8082.
e. Semi-Volatile Compounds (SVOCs), utilizing EPA Method 8270C.
f. Organochlorine Pesticides (OCPs), utilizing EPA Method 8081A.
g. Organophosphorus Pesticides (OPPs), utilizing EPA Method 8141A.
h. Chlorinated Herbicides, utilizing EPA Method 8151A.
i. California Code of Regulations Title 22 (CAM 17) Metals, utilizing EPA Method 6010B/7470A.
j. Hexavalent Chromium, utilizing EPA Method 7199.
k. Arsenic/Thallium, utilizing EPA Method 6020.

6.5.3 Import Soil Sampling

Any soil imported to the Site will be tested and certified in accordance with LAUSD Section 01 4524 specifications, which includes provisions for LAUSD-OEHS review and approval prior to soil import.

6.6 Transportation Plan for Off-Site Disposal

Soil profile data and landfill approval shall be submitted to LAUSD OEHS for approval prior to disposal. It is anticipated that approximately two to three transport truckloads will be needed to haul the impacted soil from the Site. This estimate is based on each truckload weighing up to 23 tons and assumes 1.5 tons per cubic yard of soil to be removed from the Site. Truck routes to potential disposal facilities are discussed in the Transportation Plan, which is included as Appendix E of this RAW.

If additional soil needs to be excavated based on confirmation sampling results, the number of truckloads will increase. The excavated soil will be segregated and managed as non-hazardous, non-RCRA hazardous, or RCRA hazardous waste, as explained in Section 6.3.2. Non-RCRA and RCRA hazardous soils will be transported to a licensed and properly permitted Class 1 disposal facility or an out-of-state facility permitted to accept hazardous waste. The Class 1 disposal facility that accepts the RCRA hazardous soil may require that the soil be treated prior to disposal pursuant to the land ban restrictions found at Title 40, CCR, Part 376. The final determination as to which facilities are used is subject to approval by the LAUSD OEHS prior to beginning soil removal activities.

6.7 Backfill and Site Restoration

Backfilling of the excavations will be conducted in approximately 12-inch lifts with compaction (using a sheepsfoot roller or by wheel rolling with a rubber-tired loader) between each successive lift. In-situ density tests will be conducted as requested by LAUSD's geotechnical engineer to achieve the project standards.

The excavation areas will be backfilled with clean imported soil tested in accordance with LAUSD's specification for *Environmental Import/Export Materials Testing* (Section 01 4524).

6.8 Variance

As conditions in the field may vary, it may become necessary to implement minor modifications to soil removal activities as presented in this RAW. Field personnel will notify the project manager when deviations from this RAW are necessary. Modifications to the RAW will be documented in the field logbook and in the RACR.

7.0 PROJECT SCHEDULE AND REPORT OF COMPLETION

7.1 Project Schedule

The following provides an anticipated schedule for RAW approval and implementation.

TASK	Calendar Days to Complete
Field Preparation and Scheduling	14
Mobilization, Soil Removal and Confirmation Sampling	14
Data Compilation and Preparation of Draft RACR	45

7.2 Report of Completion

Following completion of the removal action, a RACR will be prepared and submitted to the LAUSD for review and approval. The report will include a summary of the removal action activities, deviations from the RAW (if any), confirmation sampling results, figures showing the excavation limits and sampling locations, appropriate tables, laboratory reports, air monitoring results, copies of the waste manifests, and other applicable information and data.

8.0 REFERENCES

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EFI Global, 2019A. *Preliminary Environmental Assessment Equivalent Report*, November 6 (Draft).

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9.0 SIGNIFICANT ASSUMPTIONS AND LIMITATIONS

This RAW includes a compilation and summarization of information gathered during historical environmental assessments that were directed by EFI Global and others. Therefore, during the preparation of this RAW, EFI Global procured and relied on information provided by third parties. EFI Global reviewed these third-party documents in good faith and trusts that the information provided for the Site is true and accurate. EFI Global has made an effort to reconcile these sources, and pertinent information has been compiled for presentation in this report. However, the data quality ultimately depends on the reliability of information provided to EFI Global.

The historical Phase I ESA for the Site was limited by the availability of information at the time work was performed. It is possible that unreported, unidentifiable conditions impairing the environmental status of the Site may have occurred. EFI Global's opinions cannot be extended to portions of the Site that were unavailable for direct access and observation reasonably beyond the control of EFI Global or outside of the scope of the assessment. Evaluating compliance of past or future owners with applicable local, provincial, and federal government laws and regulations was not conducted.

Environmental assessment activities, particularly the sampling of soil and vapor, represent those conditions that are present at the time of sampling within the immediate vicinity of the samples collected. Although sampling plans are developed in an attempt to provide what is interpreted to be sufficient coverage within the assessment area, no extent of sampling can guarantee that all environmental conditions, chemicals of concern (man-made or naturally occurring), and concentrations at which they occur have been identified and quantified absolutely. It should be noted that compounds, materials or chemicals of Potential Concern (COPCs) other than those described herein could be present in the Site environment, and the possibility remains that unexpected environmental conditions may be encountered at the Site in locations not specifically investigated.

This RAW has been prepared in general accordance with the guidance set forth in various guidance documents published by the DTSC and others. Potential environmental conditions that are not subject to DTSC oversight were not addressed within the scope of the RAW.

All components of this RAW, including but not limited to text, signatures, certifications, figures, tables, attachments, appendices, supporting documents, and addenda, are integral to the document. As such, this document may not be reproduced, except in full, without prior written approval of LAUSD OEHS and EFI Global. Furthermore, this document has been prepared for the sole use of LAUSD OEHS. The contents should not be relied upon by any other parties without the express written consent of LAUSD OEHS and EFI Global.

10.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This investigation has been performed by qualified geologists, engineers, industrial hygienists, environmental scientists, and/or environmental professionals, in conformance with generally-accepted industry standards and practices.

Desi Salgado
Project Manager

Brian Martasin
Principal Geologist

PROFESSIONAL GEOLOGIST
BRIAN H. MARTASIN
No. 8356
STATE OF CALIFORNIA

Shayan Simantob, PG
Environmental Principal

PROFESSIONAL GEOLOGIST
SHAYAN R. SIMANTOB
No. 9296
STATE OF CALIFORNIA

FIGURES

PROPERTY LINE
CAFM BUILDING NUMBER
CAFM BUILDING NUMBER (DEMO)
NEW BUILDING/ STRUCTURE
FULL/ MAJOR MODERNIZATION
LIGHT MODERNIZATION
MINOR SCOPE
NEW TRACK & FIELD
DEMOLITION
BARRIER REMOVAL

AERIAL BASEMAP SOURCE: SOURCE

SITE PLAN

5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

PN:045.00349	FIGURE 2
DT: 2/4/2020	
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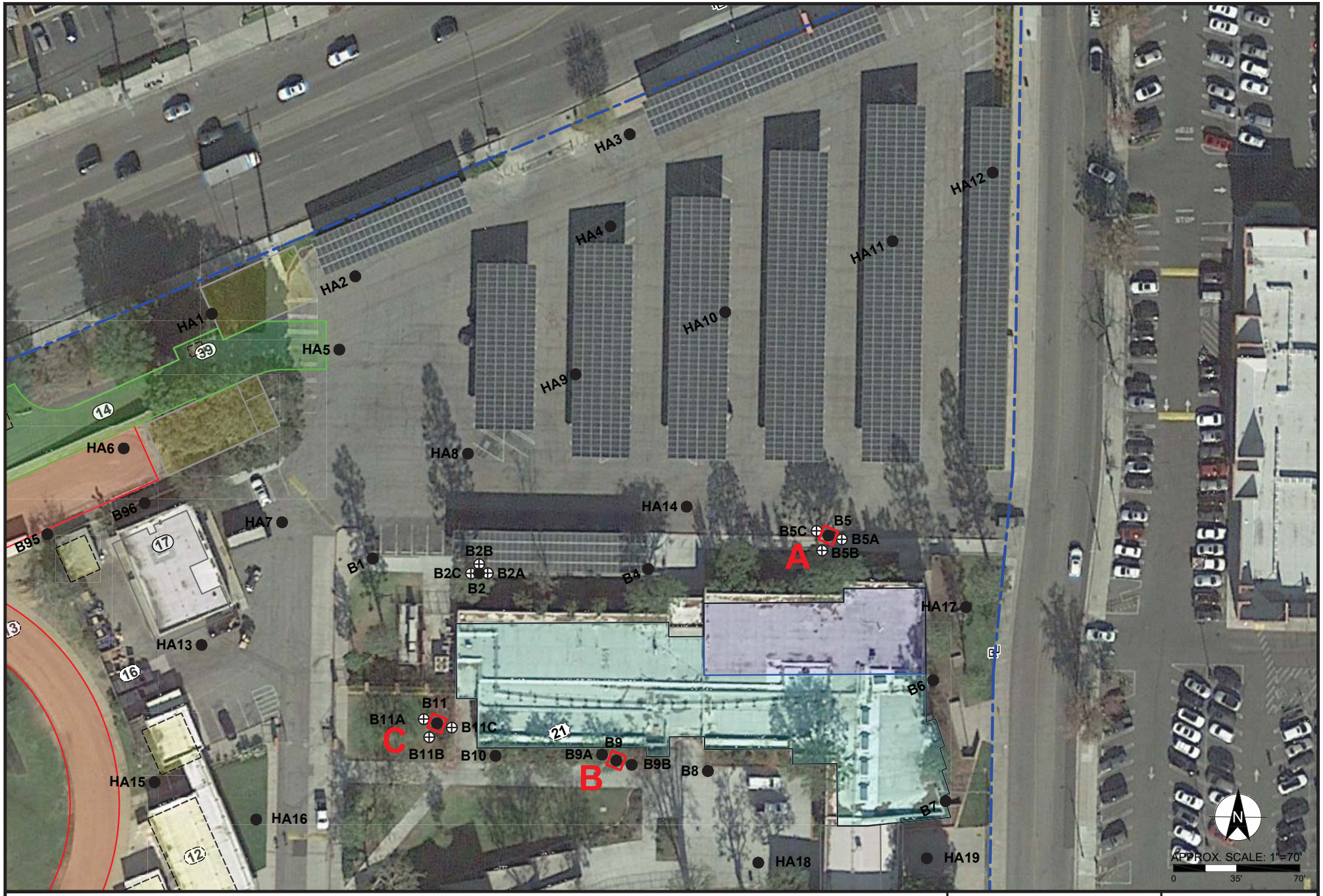

PROPERTY LINE
CAFM BUILDING NUMBER
CAFM BUILDING NUMBER (DEMO)
PROPOSED EXCAVATION AREA
AERIAL BASEMAP SOURCE: SOURCE

FULL/ MAJOR MODERNIZATION
LIGHT MODERNIZATION
MINOR SCOPE
NEW TRACK & FIELD

DEMOLITION
BARRIER REMOVAL

FORMER SOIL SAMPLING LOCATION (PEA-E & SSI)
FORMER STEP-OUT SAMPLING LOCATION (PEA-E)

SITE PLAN WITH SAMPLING LOCATIONS & PROPOSED EXCAVATION AREAS

5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

PN:045.00349	FIGURE
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PROPERTY LINE

CAFM BUILDING NUMBER

CAFM BUILDING NUMBER (DEMO)

FULL/ MAJOR MODERNIZATION

LIGHT MODERNIZATION

MINOR SCOPE

NEW TRACK & FIELD

DEMOLITION

BARRIER REMOVAL

CONCENTRATIONS HIGHLIGHTED IN YELLOW EXCEED SSALs

PROPOSED EXCAVATION AREA

FORMER SOIL SAMPLING LOCATION (PEA-E & SSI)

FORMER STEP-OUT SAMPLING LOCATION (PEA-E)

SITE PLAN WITH SAMPLING LOCATIONS & PROPOSED EXCAVATION AREAS

5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

PN:045.00349	FIGURE
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PROPERTY LINE
CAFM BUILDING NUMBER
CAFM BUILDING NUMBER (DEMO)

NEW BUILDING/ STRUCTURE
FULL/ MAJOR MODERNIZATION
LIGHT MODERNIZATION
MINOR SCOPE
NEW TRACK & FIELD

DEMOLITION
BARRIER REMOVAL
3-STAGE CLARIFIER

FORMER SOIL SAMPLING LOCATION (PEA-E& SSI)
FORMER STEP-OUT SAMPLING LOCATION (PEA-E)
FORMER SOIL VAPOR SAMPLING LOCATION

AERIAL BASEMAP SOURCE: ESRI

SITE PLAN WITH SAMPLING LOCATIONS & PROPOSED EXCAVATION AREAS

5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

PN:045.00349	FIGURE
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PROPERTY LINE
CAFM BUILDING NUMBER
CAFM BUILDING NUMBER (DEMO)
PROPOSED EXCAVATION AREA
DEMOLITION
NEW TRACK & FIELD
FORMER SOIL SAMPLING LOCATION (PEA-E & SSI)
FORMER STEP-OUT SAMPLING LOCATION

AERIAL BASEMAP SOURCE: SOURCE

SITE PLAN WITH SAMPLING LOCATIONS & PROPOSED EXCAVATION AREAS

5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

PN:045.00349	FIGURE
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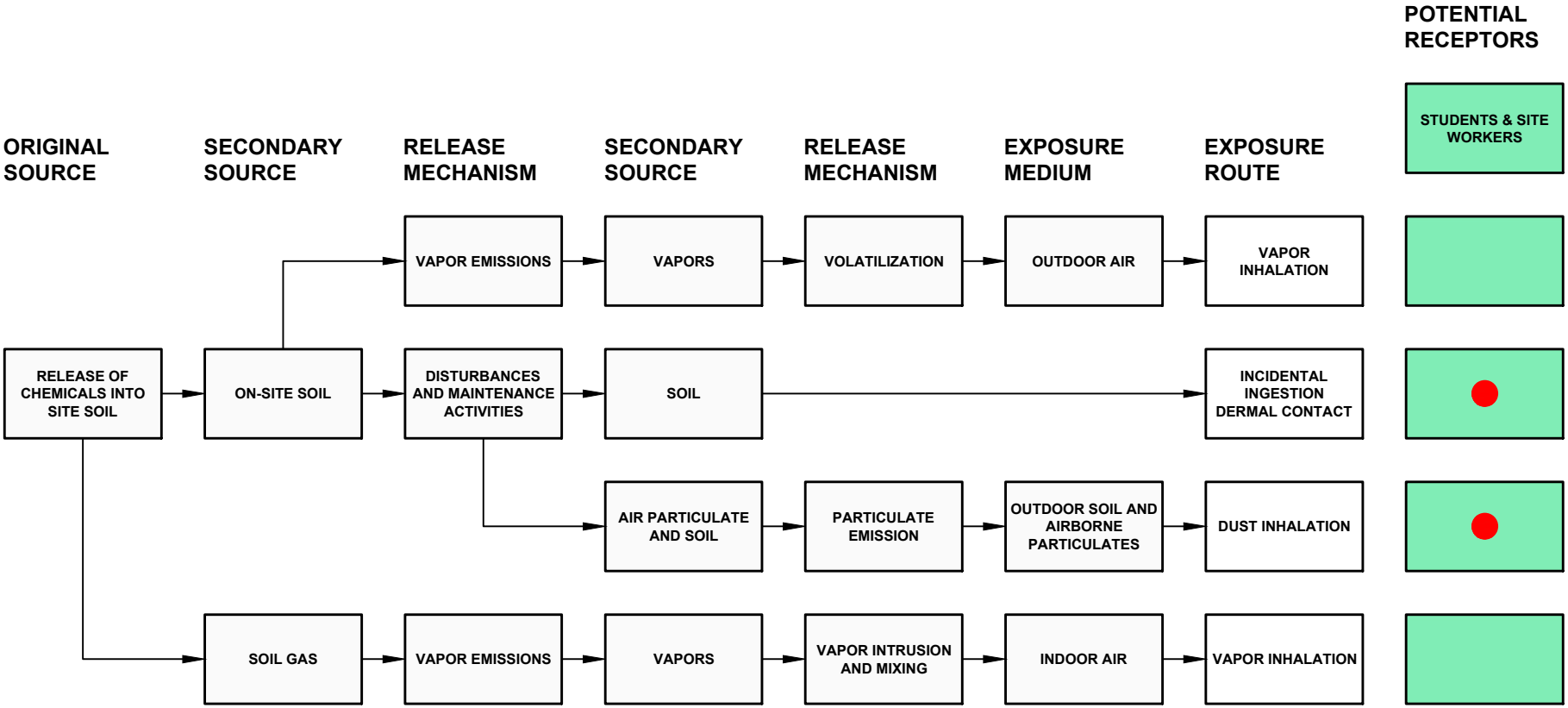

LEGEND

● POTENTIALLY COMPLETE PATHWAY

CONCEPTUAL SITE MODEL

TAFT HIGH SCHOOL
5461 WINNETKA AVE,
WOODLAND HILLS CA 91364

efi global

PN: 045.00349	FIGURE 4
DT: 2/25/2020	
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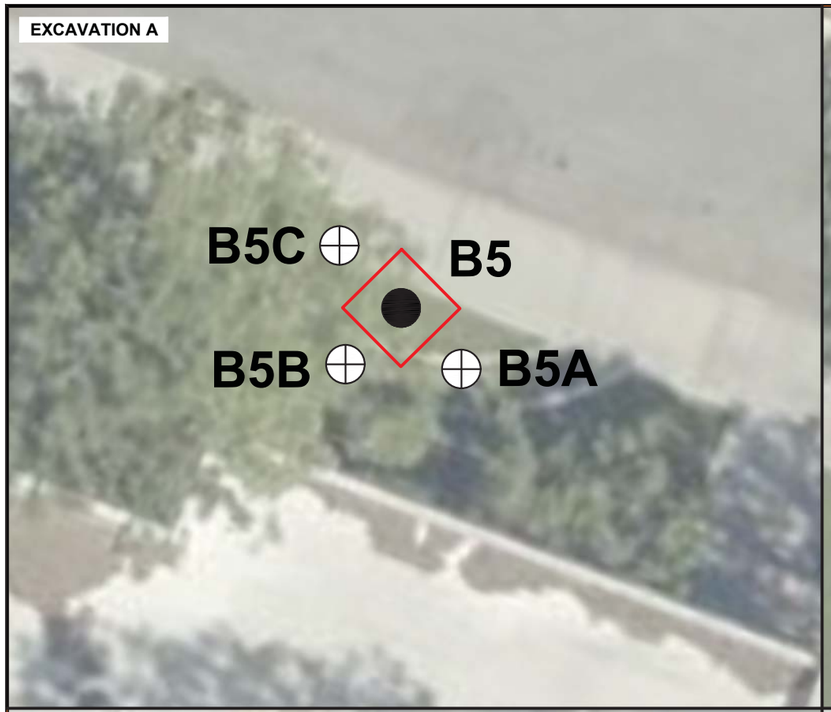

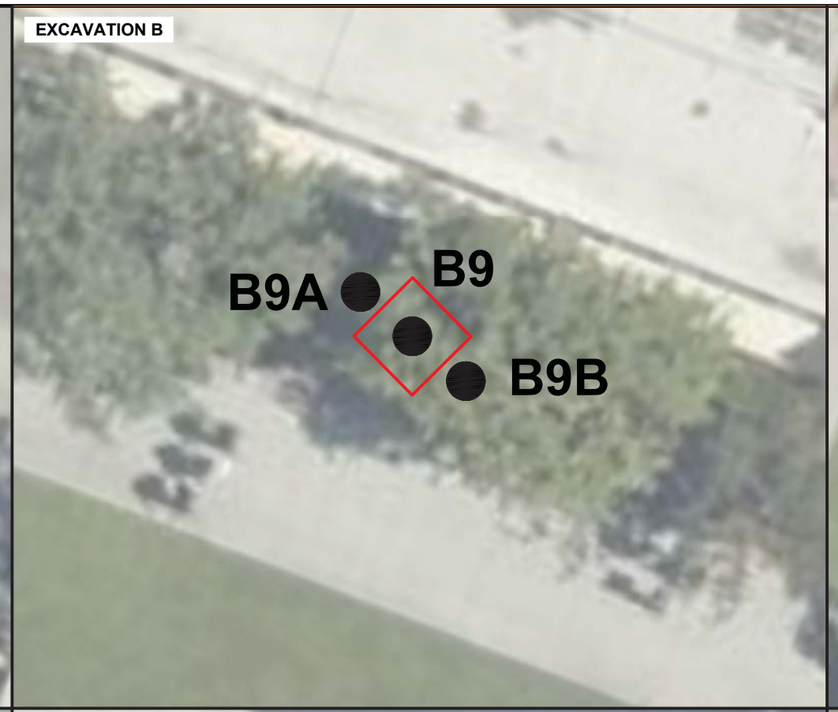

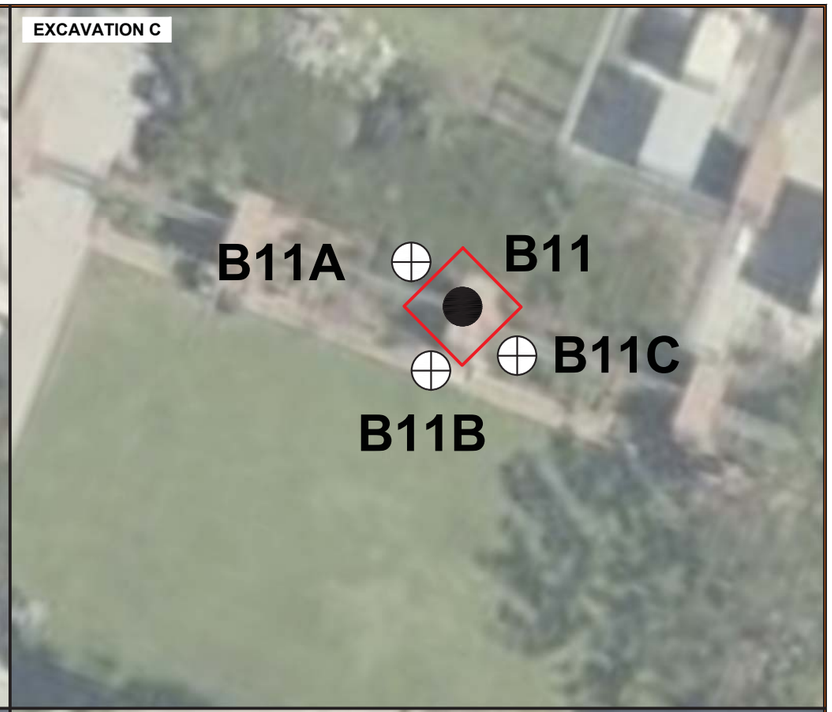

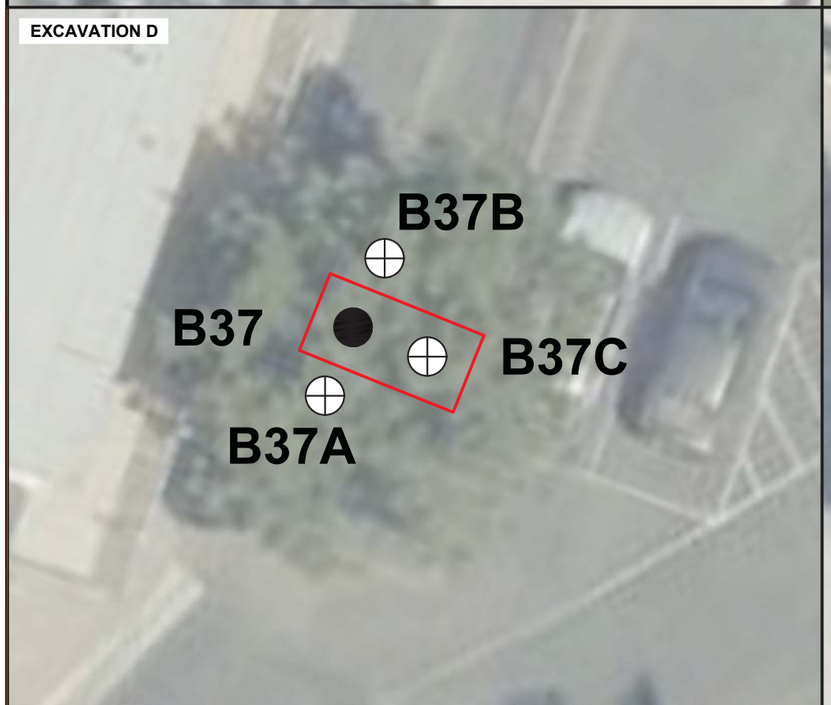

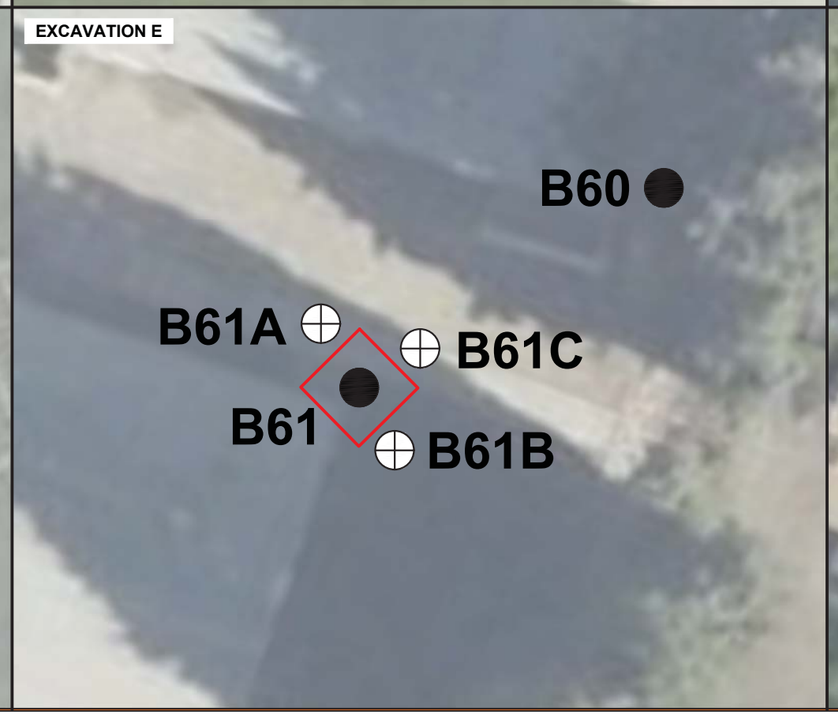

LEGEND

- PROPOSED EXCAVATION AREA
- FORMER SOIL SAMPLING LOCATION (PEA-E & SSI)
- FORMER STEP-OUT SAMPLING LOCATION

N

APPROX. SCALE: 1"=20'

0 10' 20'

PROPOSED EXCAVATION AREAS
5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

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TABLES

Table 1: Analytical Summary Table
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sampling Location Name	Sample ID	Soil Sample Depths (ft bgs)	Sample Date	Soil Sample Analysis (EPA Method)									
				TPH-cc (8015M)	VOCs (8260B)	SVOCs	OCPs (8081A)	Title 22 Metals (6010B / 7471A)	Arsenic (6020)	Thallium (6020)	Lead		PCBs (8082)
											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
B1	B1-0.5	0.5	7/10/2018				X	X	X				
	B1-1.5	1.5	7/10/2018										
	B1-3	3	7/10/2018										
B2	B2-0.5	0.5	7/10/2018				X	X	X			X	
	B2-0.5	0.5	10/9/2019							X			
	B2-1.5	1.5	7/10/2018					X	X				
	B2-3	3	7/10/2018										
B2A*	B2A-0.5	0.5	8/9/2018				X	X	X				
	B2A-1.5	1.5	8/9/2018										
	B2A-3	3	8/9/2018										
B2B*	B2B-0.5	0.5	8/9/2018				X	X	X				
	B2B-1.5	1.5	8/9/2018										
	B2B-3	3	8/9/2018										
B2C*	B2C-0.5	0.5	8/9/2018				X	X	X				
	B2C-1.5	1.5	8/9/2018										
	B2C-3	3	8/9/2018										
B3	B3-0.5	0.5	7/10/2018				X	X	X				
	B3-1.5	1.5	7/10/2018										
	B3-3	3	7/10/2018										
B4	B4-0.5	0.5	7/10/2018				X	X	X			X	
	B4-1.5	1.5	7/10/2018										
	B4-3	3	7/10/2018										
B5	B5-0.5	0.5	7/10/2018				X	X	X				X
	B5-0.5-DUP	0.5	7/10/2018				X	X	X				
	B5-0.5	0.5	10/9/2019							X			
	B5-1.5	1.5	7/10/2018				X						
	B5-3	3	7/10/2018				X						
B5A*	B5A-0.5	0.5	8/9/2018				X	X	X				
	B5A-0.5DUP	0.5	8/9/2018				X	X	X				
	B5A-1.5	1.5	8/9/2018										
	B5A-1.5 DUP	1.5	8/9/2018										
	B5A-3	3	8/9/2018										
	B5A-3 DUP	3	8/9/2018										
B5B*	B5B-0.5	0.5	8/9/2018				X	X	X				
	B5B-1.5	1.5	8/9/2018										
	B5B-3	3	8/9/2018										
B5C*	B5C-0.5	0.5	8/9/2018				X	X	X				
	B5C-1.5	1.5	8/9/2018										
	B5C-3	3	8/9/2018										
B6	B6-0.5	0.5	7/10/2018		X		X	X	X				
	B6-1.5	1.5	7/10/2018										
	B6-3	3	7/10/2018										
B7	B7-0.5	0.5	7/10/2018				X	X	X				
	B7-1.5	1.5	7/10/2018										
	B7-3	3	7/10/2018										
B8	B8-0.5	0.5	7/10/2018				X	X	X				
	B8-1.5	1.5	7/10/2018										
	B8-3	3	7/10/2018										
B9	B9-0.5	0.5	7/10/2018				X	X	X				X
	B9-0.5 DUP	0.5	7/10/2018				X	X	X				
	B9-0.5	0.5	10/9/2019							X			
	B9-1.5	1.5	7/10/2018					X	X				
	B9-3	3	7/10/2018					X	X				
B9A	B9A-0.5	0.5	7/9/2019						X				
	B9A-1.5	1.5	7/9/2019										
	B9C-3	3	7/9/2019										
B9B	B9B-0.5	0.5	7/9/2019						X				
	B9B-1.5	1.5	7/9/2019						X				
	B9B-3	3	7/9/2019						X				
B10	B10-0.5	0.5	7/10/2018				X	X	X				
	B10-0.5DUP	0.5	7/10/2018				X	X	X				
	B10-1.5	1.5	7/10/2018										
	B10-3	3	7/10/2018										
B11	B11-0.5	0.5	7/10/2018				X	X	X				
	B11-0.5	0.5	10/9/2019							X			
	B11-1.5	1.5	7/10/2018					X	X				
	B11-3	3	7/10/2018					X	X				
B11A*	B11A-0.5	0.5	8/9/2018				X	X	X				
	B11A-0.5DUP	0.5	8/9/2018				X	X	X				
	B11A-1.5	1.5	8/9/2018										
	B11A-3	3	8/9/2018										
B11B*	B11B-0.5	0.5	8/9/2018				X	X	X				
	B11B-1.5	1.5	8/9/2018										
	B11B-3	3	8/9/2018										

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Sampling Location Name	Sample ID	Soil Sample Depths (ft bgs)	Sample Date	Soil Sample Analysis (EPA Method)									
				TPH-cc (8015M)	VOCs (8260B)	SVOCs	OCPs (8081A)	Title 22 Metals (6010B / 7471A)	Arsenic (6020)	Thallium (6020)	Lead		PCBs (8082)
											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
B11C*	B11C-0.5	0.5	8/9/2018				X	X	X				
	B11C-1.5	1.5	8/9/2018										
	B11C-3	3	8/9/2018										
B12	B12-0.5	1.5	7/10/2018				X	X	X				
	B12-1.5	3	7/10/2018										
	B12-3	3	7/10/2018										
B13	B13-5	5	7/10/2018	X	X			X					
	B13-10	10	7/10/2018	X	X			X					
	B13-15	15	7/10/2018										
B14	B14-0.5	0.5	7/10/2018				X	X	X				
	B14-1.5	1.5	7/10/2018										
	B14-3	3	7/10/2018										
B15	B15-0.5	0.5	7/10/2018				X	X	X				
	B15-1.5	1.5	7/10/2018										
	B15-3	3	7/10/2018										
B16	B16-0.5	0.5	7/10/2018				X	X	X				
	B16-1.5	1.5	7/10/2018										
	B16-3	3	7/10/2018										
B17	B17-0.5	0.5	7/10/2018				X	X	X				
	B17-1.5	1.5	7/10/2018										
	B17-3	3	7/10/2018										
B18	B18-0.5	0.5	7/10/2018				X	X	X				
	B18-1.5	1.5	7/10/2018										
	B18-3	3	7/10/2018		X								
B19	B19-0.5	0.5	7/10/2018				X	X	X				
	B19-1.5	1.5	7/10/2018										
	B19-3	3	7/10/2018										
B20	B20-0.5	0.5	7/10/2018				X	X	X				
	B20-1.5	1.5	7/10/2018										
	B20-3	3	7/10/2018				X						
B21	B21-0.5	0.5	7/11/2018				X	X	X				X
	B21-0.5 DUP	0.5	7/11/2018					X	X				
	B21-1.5	1.5	7/11/2018										
	B21-3	3	7/11/2018										
B22	B22-0.5	0.5	7/11/2018				X	X	X				
	B22-0.5 DUP	0.5	7/11/2018				X	X	X				
	B22-1.5	1.5	7/11/2018										
	B22-3	3	7/11/2018										
B23	B23-0.5	0.5	7/11/2018				X	X	X				
	B23-0.5 DUP	0.5	7/11/2018				X	X	X				
	B23-1.5	1.5	7/11/2018										
	B23-3	3	7/11/2018										
B24	B24-0.5	0.5	7/11/2018				X	X	X				
	B24-0.5 DUP	0.5	7/11/2018				X	X	X				
	B24-1.5	1.5	7/11/2018					X	X				
	B24-3	3	7/11/2018										
B25	B25-0.5	0.5	7/11/2018				X	X	X				
	B25-0.5 DUP	0.5	7/11/2018				X	X	X				
	B25-1.5	1.5	7/11/2018										
	B25-3	3	7/11/2018										
B26	B26-0.5	0.5	7/11/2018				X	X	X				X
	B26-0.5 DUP	0.5	7/11/2018				X	X	X				
	B26-1.5	1.5	7/11/2018										
	B26-3	3	7/11/2018										
B27	B27-0.5	0.5	7/11/2018				X	X	X				
	B27-1.5	1.5	7/11/2018										
	B27-3	3	7/11/2018										
B28	B28-0.5	0.5	7/11/2018				X	X	X				
	B28-1.5	1.5	7/11/2018										
	B28-3	3	7/11/2018										
B29	B29-0.5	0.5	7/11/2018				X	X	X				
	B29-1.5	1.5	7/11/2018										
	B29-3	3	7/11/2018										
B30	B30-0.5	0.5	7/11/2018				X	X	X				
	B30-1.5	1.5	7/11/2018										
	B30-3	3	7/11/2018										
B31	B31-0.5	0.5	7/11/2018				X	X	X				
	B31-0.5 DUP	0.5	7/11/2018				X	X	X				
	B31-1.5	1.5	7/11/2018										
	B31-3	3	7/11/2018										
B32	B32-0.5	0.5	7/11/2018				X	X	X				X
	B32-1.5	1.5	7/11/2018										
	B32-3	3	7/11/2018										
B33	B33-0.5	0.5	7/11/2018				X	X	X				
	B33-1.5	1.5	7/11/2018										
	B33-3	3	7/11/2018										
B34	B34-0.5	0.5	7/11/2018				X	X	X				
	B34-0.5 DUP	0.5	7/11/2018										
	B34-1.5	1.5	7/11/2018					X	X				
	B34-3	3	7/11/2018										
B35	B35-0.5	0.5	7/11/2018				X	X	X				
	B35-0.5 DUP	0.5	7/11/2018				X	X	X				
	B35-1.5	1.5	7/11/2018										

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				TPH-cc (8015M)	VOCs (8260B)	SVOCs	OCPs (8081A)	Title 22 Metals (6010B / 7471A)	Arsenic (6020)	Thallium (6020)	Lead		PCBs (8082)
											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
B35	B35-3	3	7/11/2018										
B36	B36-0.5	0.5	7/11/2018				X	X	X				
	B36-1.5	1.5	7/11/2018										
	B36-3	3	7/11/2018										
B37	B37-0.5	0.5	7/11/2018				X	X	X			X	
	B37-0.5 DUP	0.5	7/11/2018				X	X	X				
	B37-0.5	0.5	10/9/2019							X			
	B37-1.5	1.5	7/11/2018					X	X			X	
	B37-3	3	7/11/2018					X	X				
B37A*	B37A-0.5	0.5	8/9/2018				X	X	X				
	B37A-1.5	1.5	8/9/2018										
	B37A-3	3	8/9/2018										
B37B*	B37B-0.5	0.5	8/9/2018				X	X	X				
	B37B-1.5	1.5	8/9/2018										
	B37B-3	3	8/9/2018										
B37C*	B37C-0.5	0.5	8/9/2018				X	X	X			X	
	B37C-1.5	1.5	8/9/2018								X		
	B37C-3	3	8/9/2018								X		
B38	B38-0.5	0.5	7/11/2018				X	X	X				X
	B38-1.5	1.5	7/11/2018										
	B38-3	3	7/11/2018										
B39	B39-0.5	0.5	7/11/2018				X	X	X				
	B39-0.5 DUP	0.5	7/11/2018				X	X	X				
	B39-1.5	1.5	7/11/2018										
	B39-3	3	7/11/2018										
B40	B40-0.5	0.5	7/11/2018				X	X	X				
	B40-1.5	1.5	7/11/2018				X	X	X				
	B40-3	3	7/11/2018										
B41	B41-0.5	0.5	7/11/2018				X	X	X				
	B41-0.5	0.5	10/9/2019							X			
	B41-1.5	1.5	7/11/2018				X	X	X				
	B41-3	3	7/11/2018										
B41A*	B41A-0.5	0.5	8/13/2018				X	X	X				
	B41A-0.5 DUP	0.5	8/13/2018				X	X	X				
	B41A-1.5	1.5	8/13/2018										
	B41A-1.5 DUP	1.5	8/13/2018										
	B41A-3	3	8/13/2018										
	B41A-3 DUP	3	8/13/2018										
B41B*	B41B-0.5	0.5	8/13/2018				X	X	X				
	B41B-1.5	1.5	8/13/2018										
	B41B-3	3	8/13/2018										
B41C*	B41C-0.5	0.5	8/13/2018				X	X	X				
	B41C-1.5	1.5	8/13/2018										
	B41C-3	3	8/13/2018										
B42	B42-0.5	0.5	7/11/2018				X	X	X				
	B42-1.5	1.5	7/11/2018										
	B42-3	3	7/11/2018										
B43	B43-0.5	0.5	7/11/2018				X	X	X			X	
	B43-0.5	0.5	10/9/2019							X			
	B43-1.5	1.5	7/11/2018					X	X				
	B43-3	3	7/11/2018					X	X				
B43A*	B43A-0.5	0.5	8/13/2018				X	X	X				
	B43A-1.5	1.5	8/13/2018										
	B43A-3	3	8/13/2018										
B43B*	B43B-0.5	0.5	8/13/2018				X	X	X				
	B43B-1.5	1.5	8/13/2018										
	B43B-3	3	8/13/2018										
B43C*	B43C-0.5	0.5	8/13/2018				X	X	X				
	B43C-1.5	1.5	8/13/2018										
	B43C-3	3	8/13/2018										
B44	B44-0.5	0.5	7/11/2018				X	X	X				
	B44-1.5	1.5	7/11/2018										
	B44-3	3	7/11/2018										
B45	B45-0.5	0.5	7/11/2018				X	X	X				
	B45-0.5 DUP	0.5	7/11/2018				X	X	X				
	B45-1.5	1.5	7/11/2018										
	B45-3	3	7/11/2018										
B46	B46-0.5	0.5	7/11/2018				X	X	X				
	B46-1.5	1.5	7/11/2018										
	B46-3	3	7/11/2018										
B47	B47-0.5	0.5	7/11/2018				X	X	X				
	B47-0.5 DUP	0.5	7/11/2018				X	X	X				
	B47-1.5	1.5	7/11/2018										
	B47-3	3	7/11/2018										
B48	B48-0.5	0.5	7/11/2018				X	X	X				
	B48-1.5	1.5	7/11/2018										
	B48-3	3	7/11/2018										
B49	B49-0.5	0.5	7/11/2018				X	X	X				
	B49-1.5	1.5	7/11/2018					X	X				
	B49-3	3	7/11/2018										
B49A*	B49A-0.5	0.5	8/9/2019				X	X	X				
	B49A-1.5	1.5	8/9/2019										
	B49A-3	3	8/9/2019										
B49B*	B49B-0.5	0.5	8/9/2019				X	X	X				

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											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
B49B*	B49B-1.5	1.5	8/9/2019										
	B49B-3	3	8/9/2019										
B49C*	B49C-0.5	0.5	8/9/2019				X	X	X				
	B49C-1.5	1.5	8/9/2019										
	B49C-3	3	8/9/2019										
B50	B50-0.5	0.5	8/13/2018				X	X	X				X
	B50-1.5	1.5	8/13/2018										
	B50-3	3	8/13/2018										
B51	B51-0.5	0.5	8/13/2018				X	X	X				X
	B51-0.5 DUP	0.5	8/13/2018				X	X	X				
	B51-1.5	1.5	8/13/2018										
B51	B51-1.5 DUP	1.5	8/13/2018										
	B51-3	3	8/13/2018										
	B51-3 DUP	3	8/13/2018										
B52	B52-0.5	0.5	8/13/2018				X	X	X				
	B52-1.5	1.5	8/13/2018					X					
	B52-3	3	8/13/2018					X					
B52A*	B52A-0.5	0.5	11/21/2018				X		X		X		
	B52A-1.5	1.5	11/21/2018										
	B52A-3	3	11/21/2018										
B52B*	B52B-0.5	0.5	11/21/2018				X		X		X		
	B52B-1.5	1.5	11/21/2018										
	B52B-1.5 DUP	1.5	11/21/2018										
	B52B-3	3	11/21/2018										
B52C*	B52C-0.5	0.5	11/21/2018				X		X		X		
	B52C-1.5	1.5	11/21/2018						X				
	B52C-3	3	11/21/2018						X				
B53	B53-0.5	0.5	8/13/2018				X	X	X				
	B53-0.5	0.5	10/9/2019							X			
	B53-1.5	1.5	8/13/2018										
B54	B54-0.5	0.5	8/13/2018				X	X	X				
	B54-1.5	1.5	8/13/2018										
	B54-3	3	8/13/2018										
B55	B55-0.5	0.5	8/13/2018				X	X	X				X
	B55-1.5	1.5	8/13/2018										
	B55-3	3	8/13/2018										
B56	B56-0.5	0.5	8/13/2018				X	X	X				
	B56-0.5	0.5	10/9/2019							X			
	B56-1.5	1.5	8/13/2018										
	B56-3	3	8/13/2018										
B57	B57-0.5	0.5	8/13/2018				X	X	X				
	B57-1.5	1.5	8/13/2018										
	B57-3	3	8/13/2018										
B58	B58-0.5	0.5	8/13/2018				X	X	X				
	B58-1.5	1.5	8/13/2018										
	B58-3	3	8/13/2018										
B59	B59-0.5	0.5	8/13/2018				X	X	X				
	B59-1.5	1.5	8/13/2018										
	B59-3	3	8/13/2018										
B60	B60-0.5	0.5	8/13/2018				X	X	X				
	B60-0.5 DUP	0.5	8/13/2018				X	X	X				
	B60-0.5	0.5	10/9/2019							X			
	B60-1.5	1.5	8/13/2018										
	B60-1.5 DUP	1.5	8/13/2018										
	B60-3	3	8/13/2018										
B61	B61-0.5	0.5	8/13/2018				X	X	X			X	
	B61-0.5	0.5	10/9/2019							X			
	B61-1.5	1.5	8/13/2018					X	X				
	B61-3	3	8/13/2018					X					
B61A	B61A-0.5	0.5	11/20/2018				X		X		X	X	
	B61A-1.5	1.5	11/20/2018										
	B61A-3	3	11/20/2018										
B61B	B61B-0.5	0.5	11/20/2018				X		X		X	X	
	B61B-0.5 DUP	0.5	11/20/2018				X		X		X		
	B61B-1.5	1.5	11/20/2018										
	B61B-3	3	11/20/2018										
B61C	B61C-0.5	0.5	11/20/2018				X		X		X	X	
	B61C-1.5	1.5	11/20/2018										
	B61C-3	3	11/20/2018										
B62	B62-0.5	0.5	8/13/2018				X	X	X				
B63	B63-0.5	0.5	8/13/2018				X	X	X				
	B63-1.5	1.5	8/13/2018										
B64	B64-0.5	0.5	8/13/2018				X	X	X				
	B64-1.5	1.5	8/13/2018										
	B64-3	3	8/13/2018										
B65	B65-0.5	0.5	8/13/2018				X	X	X			X	
	B65-1.5	1.5	8/13/2018										
	B65-3	3	8/13/2018										
B66	B66-0.5	0.5	8/13/2018				X	X	X				
	B66-1.5	1.5	8/13/2018										
	B66-3	3	8/13/2018										
B67	B67-0.5	0.5	8/13/2018				X	X	X				
	B67-1.5	1.5	8/13/2018										
	B67-3	3	8/13/2018										

Table 1: Analytical Summary Table
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sampling Location Name	Sample ID	Soil Sample Depths (ft bgs)	Sample Date	Soil Sample Analysis (EPA Method)									
				TPH-cc (8015M)	VOCs (8260B)	SVOCs	OCPs (8081A)	Title 22 Metals (6010B / 7471A)	Arsenic (6020)	Thallium (6020)	Lead		PCBs (8082)
											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
B68	B68-0.5	0.5	11/19/2018				X		X		X		
	B68-2	2	11/19/2018										
B69	B69-0.5	0.5	11/19/2018				X		X		X		
	B69-2	2	11/19/2018										
B70	B70-0.5	0.5	11/20/2018				X		X		X		
	B70-2	2	11/20/2018										
B71	B71-0.5	0.5	11/20/2018				X		X		X		
	B71-2	2	11/20/2018										
B72	B72-0.5	0.5	11/20/2018				X		X		X		
	B72-2	2	11/20/2018										
B73	B73-0.5	0.5	11/19/2018				X		X		X		
	B73-0.5 DUP	0.5	11/19/2018				X		X		X		
	B73-2	2	11/19/2018										
B74	B74-0.5	0.5	11/19/2018				X		X		X		
	B74-2	2	11/19/2018										
B75	B75-0.5	0.5	11/19/2018				X		X		X		
	B75-2	2	11/19/2018										
B76	B76-0.5	0.5	11/20/2018				X		X		X		
	B76-2	2	11/20/2018										
B77	B77-0.5	0.5	11/20/2018				X		X		X		
	B77-2	2	11/20/2018										
	B77-2 DUP	2	11/20/2018										
B78	B78-0.5	0.5	11/19/2018				X		X		X		
	B78-2	2	11/19/2018										
B79	B79-0.5	0.5	11/19/2018				X		X		X		
	B79-2	2	11/19/2018										
B80	B80-0.5	0.5	11/19/2018				X		X		X		
	B80-0.5 DUP	0.5	11/19/2018				X		X		X		
	B80-2	2	11/19/2018										
B81	B81-0.5	0.5	11/20/2018				X		X		X		
	B81-2	2	11/20/2018										
B82	B82-0.5	0.5	11/20/2018				X		X		X		
	B82-2	2	11/20/2018										
B83	B83-0.5	0.5	11/19/2018				X		X		X		
	B83-1.5	1.5	11/19/2018										
	B83-1.5 DUP	1.5	11/19/2018										
	B83-3	3	11/19/2018										
B84	B84-0.5	0.5	11/19/2018				X		X		X		
	B84-1.5	1.5	11/19/2018										
	B84-3	3	11/19/2018										
B85	B85-0.5	0.5	11/19/2018				X		X		X		
	B85-1.5	1.5	11/19/2018										
	B85-3	3	11/19/2018										
B86	B86-0.5	0.5	11/19/2018				X		X		X		
	B86-0.5 DUP	0.5	11/19/2018				X		X		X		
	B86-1.5	1.5	11/19/2018										
	B86-3	3	11/19/2018										
B87	B87-0.5	0.5	11/19/2018				X		X		X		
	B87-1.5	1.5	11/19/2018										
	B87-3	3	11/19/2018										
B88	B88-0.5	0.5	11/19/2018				X		X		X		
	B88-1.5	1.5	11/19/2018										
	B88-3	3	11/19/2018										
B89	B89-0.5	0.5	11/19/2018				X		X		X		
	B89-1.5	1.5	11/19/2018										
	B89-3	3	11/19/2018										
B90	B90-0.5	0.5	11/19/2018				X		X		X		
	B90-1.5	1.5	11/19/2018										
	B90-3	3	11/19/2018										
B91	B91-0.5	0.5	11/19/2018				X		X		X		
	B91-1.5	1.5	11/19/2018										
	B91-3	3	11/19/2018										
B92	B92-0.5	0.5	11/19/2018				X		X		X		
	B92-1.5	1.5	11/19/2018										
	B92-3	3	11/19/2018										
B93	B93-0.5	0.5	11/19/2018				X		X		X		
	B93-1.5	1.5	11/19/2018										
	B93-3	3	11/19/2018										
B94	B94-0.5	0.5	11/19/2018				X		X		X		
	B94-1.5	1.5	11/19/2018										
	B94-3	3	11/19/2018										
B95	B95-0.5	0.5	11/21/2018	X	X		X		X		X		
	B95-1.5	1.5	11/21/2018										
	B95-3	3	11/21/2018										
	B95-6	6	11/21/2018										
B96	B96-0.5	0.5	11/21/2018	X	X		X		X		X		
	B96-1.5	1.5	11/21/2018										
	B96-3	3	11/21/2018										
	B96-6	6	11/21/2018										
HA1	HA1-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA1-1.5	1.5	7/9/2019						X				
	HA1-3	3	7/9/2019										
HA2	HA2-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA2-1.5	1.5	7/8/2019										

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William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sampling Location Name	Sample ID	Soil Sample Depths (ft bgs)	Sample Date	Soil Sample Analysis (EPA Method)									
				TPH-cc (8015M)	VOCs (8260B)	SVOCs	OCPs (8081A)	Title 22 Metals (6010B / 7471A)	Arsenic (6020)	Thallium (6020)	Lead		PCBs (8082)
											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
HA2	HA2-3	3	7/8/2019										
HA3	HA3-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA3-1.5	1.5	7/8/2019										
	HA3-3	3	7/8/2019										
HA4	HA4-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA4-1.5	1.5	7/8/2019										
	HA4-3	3	7/8/2019										
HA5	HA5-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA5-1.5	1.5	7/8/2019										
HA6	HA6-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA6-0.5 DUP	0.5	7/9/2019	X	X	X	X		X		X		
	HA6-1.5	1.5	7/9/2019										
	HA6-3	3	7/9/2019										
HA7	HA7-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA7-1.5	1.5	7/8/2019										
	HA7-3	3	7/8/2019										
HA8	HA8-0.5	0.5	7/8/2019	X	X	X	X		X		X		X
	HA8-1.5	1.5	7/8/2019										
	HA8-3	3	7/8/2019										
HA9	HA9-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA9-1.5	1.5	7/8/2019										
	HA9-3	3	7/8/2019										
HA10	HA10-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA10-1.5	1.5	7/8/2019										
	HA10-3	3	7/8/2019										
HA11	HA11-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA11-1.5	1.5	7/8/2019										
	HA11-3	3	7/8/2019										
HA12	HA12-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA12-1.5	1.5	7/8/2019										
	HA12-3	3	7/8/2019										
HA13	HA13-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA13-1.5	1.5	7/8/2019										
	HA13-3	3	7/8/2019										
HA14	HA14-0.5	0.5	7/8/2019	X	X	X	X		X		X		
	HA14-1.5	1.5	7/8/2019										
	HA14-3	3	7/8/2019										
HA15	HA15-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA15-1.5	1.5	7/9/2019										
	HA15-3	3	7/9/2019										
HA16	HA16-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA16-1.5	1.5	7/9/2019										
	HA16-3	3	7/9/2019										
HA17	HA17-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA17-1.5	1.5	7/9/2019										
	HA17-3	3	7/9/2019										
HA18	HA18-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA18-1.5	1.5	7/9/2019										
	HA18-3	3	7/9/2019										
HA19	HA19-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA19-1.5	1.5	7/9/2019										
	HA19-3	3	7/9/2019										
HA20	HA20-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA20-1.5	1.5	7/9/2019										
	HA20-3	3	7/9/2019										
HA21	HA21-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA21-1.5	1.5	7/9/2019										
	HA21-3	3	7/9/2019										
HA22	HA22-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA22-0.5 DUP	0.5	7/9/2019	X	X	X	X		X		X		
	HA22-1.5	1.5	7/9/2019										
	HA22-3	3	7/9/2019										
HA23	HA23-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA23-1.5	1.5	7/9/2019										
	HA23-3	3	7/9/2019										
HA24	HA24-0.5	0.5	7/10/2019	X	X	X	X		X		X		X
	HA24-1.5	1.5	7/10/2019										
	HA24-3	3	7/10/2019										
HA25	HA25-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA25-1.5	1.5	7/10/2019										
	HA25-3	3	7/10/2019										
HA26	HA26-0.5	0.5	7/10/2019	X	X	X	X		X	X	X		
	HA26-1.5	1.5	7/10/2019						X				
	HA26-3	3	7/10/2019						X				
HA27	HA27-0.5	0.5	7/9/2019	X	X	X	X		X		X		
	HA27-1.5	1.5	7/9/2019										
	HA27-3	3	7/9/2019										
HA28	HA28-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA28-0.5 DUP	0.5	7/10/2019	X	X	X	X		X		X		
	HA28-1.5	1.5	7/10/2019										
	HA28-3	3	7/10/2019										
HA29	HA29-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA29-1.5	1.5	7/10/2019										
	HA29-3	3	7/10/2019										

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William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sampling Location Name	Sample ID	Soil Sample Depths (ft bgs)	Sample Date	Soil Sample Analysis (EPA Method)									
				TPH-cc (8015M)	VOCs (8260B)	SVOCs	OCPs (8081A)	Title 22 Metals (6010B / 7471A)	Arsenic (6020)	Thallium (6020)	Lead		PCBs (8082)
											Total Lead (6010B)	Leachable Lead (DHS-WET / 6010B)	
HA30	HA30-0.5	0.5	7/10/2019	X	X	X	X		X	X	X		
	HA30-1.5	1.5	7/10/2019						X				
	HA30-3	3	7/10/2019										
HA31	HA31-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA31-1.5	1.5	7/10/2019										
	HA31-3	3	7/10/2019										
HA32	HA32-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA32-1.5	1.5	7/10/2019										
	HA32-3	3	7/10/2019										
HA33	HA33-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA33-0.5 DUP	0.5	7/10/2019	X	X	X	X		X		X		
	HA33-1.5	1.5	7/10/2019										
	HA33-3	3	7/10/2019										
HA34	HA34-0.5	0.5	7/10/2019	X	X	X	X		X	X	X		
	HA34-1.5	1.5	7/10/2019						X				
	HA34-3	3	7/10/2019										
HA35	HA35-0.5	0.5	7/10/2019	X	X	X	X		X		X		X
	HA35-1.5	1.5	7/10/2019										
	HA35-3	3	7/10/2019										
HA36	HA36-0.5	0.5	7/10/2019	X	X	X	X		X		X		X
	HA36-1.5	1.5	7/10/2019										
	HA36-3	3	7/10/2019										
HA37	HA37-0.5	0.5	7/10/2019	X	X	X	X		X		X		
	HA37-1.5	1.5	7/10/2019										
	HA37-3	3	7/10/2019										

Notes:
ft bgs = feet below ground surface
EPA = United States Environmental Protection Agency
TPHcc = Total Petroleum Hydrocarbons - carbon chain
VOCs = Volatile Organic Compounds
OCPs = Organochlorine Pesticides
DHS WET = California Department of Health Services Wet Extraction
PCBs = Polychlorinated Biphenyls
X = Sample Analyzed for indicated compound
DUP = Duplicate Sample
* = Step-out Sample

Samples highlighted in red were advanced as part of EFI Global's PEA-E (dated March 22, 2019)
Samples highlighted in green were advanced as part of this SSI

Table 2: Organochlorine Pesticides in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Depth Interval (ft bgs)	Note	EPA Method 8081A (µg/kg)					
				Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	All Other 8081A OCP Analytes
SSALs[1]				1,700	1,900	2,000	1,900	34	Varies
B1-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B2-0.5	07/10/18	0-0.5	--	ND<49	ND<4.9	41	27	ND<4.9	ND
B2A-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	13	21	ND<5.0	ND
B2B-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B2C-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B3-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B4-0.5	07/10/18	0-0.5	--	160	ND<5.0	28	28	ND<5.0	ND
B5-0.5	07/10/18	0-0.5	--	76	ND<4.9	7.9	5.3	**74**	ND
B5-0.5 DUP	07/10/18	0-0.5	--	61	ND<5.0	7.5	8.1	**67**	ND
B5-1.5	07/10/18	1-1.5	H	ND<50	ND<5.0	ND<5.0	5.7	**59**	ND
B5-3	07/10/18	2.5-3	H	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B5A-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	5.8	ND<5.0	20	ND
B5A-0.5 DUP	08/09/18	0-0.5	--	ND<50	ND<5.0	4.9	ND<5.0	19	ND
B5B-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	9.8	ND<5.0	17	ND
B5C-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	13	ND
B6-0.5	07/10/18	0-0.5	--	65	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B7-0.5	07/10/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B8-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B9-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	9.0	10	ND<5.0	ND
B9-0.5 DUP	07/10/18	0-0.5	--	ND<50	ND<5.0	7.4	7.9	ND<5.0	ND
B10-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B10-0.5 DUP	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B11-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B11A-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B11A-0.5 DUP	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B11B-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	49	ND<5.0	ND<5.0	ND
B11C-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B12-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B14-0.5	07/10/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B15-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B16-0.5	07/10/18	0-0.5	--	74	ND<5.0	500	32	15	ND
B17-0.5	07/10/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B18-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B19-0.5	07/10/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B20-0.5	07/10/18	0-0.5	--	360	ND<4.9	7.8	12	ND<5.0	ND
B21-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B21-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B22-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B22-0.5 DUP	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B23-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B23-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B24-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B24-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B25-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B25-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B26-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B26-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B27-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B28-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B29-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	14	ND<4.9	ND<4.9	ND
B30-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B31-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B31-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B32-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B33-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B34-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B35-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B35-0.5 DUP	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B36-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND

Table 2: Organochlorine Pesticides in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Depth Interval (ft bgs)	Note	EPA Method 8081A (µg/kg)					
				Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	All Other 8081A OCP Analytes
SSALs[1]				1,700	1,900	2,000	1,900	34	Varies
B37-0.5	07/11/18	0-0.5	--	61	ND<4.9	31	9.5	ND<4.9	ND
B37-0.5 DUP	07/11/18	0-0.5	--	51	ND<4.9	30	12	ND<5.0	ND
B37A-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B37B-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B37C-0.5	08/09/18	0-0.5	--	160	12	310	17	ND<5.0	ND
B38-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B39-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	14	ND<5.0	ND
B39-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B40-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B40-1.5	07/11/18	1-1.5	--	ND<50	12	12	18	ND<5.0	ND
B41-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	140	8.3	8.7	ND
B41-1.5	07/11/18	1-1.5	--	ND<50	ND<5.0	8.0	ND<5.0	ND<5.0	ND
B41A-0.5	08/13/18	0-0.5	--	ND<50	ND<5	ND<5	ND<5	ND<5	ND
B41A-0.5 DUP	08/13/18	0-0.5	--	ND<50	ND<5	ND<5	5.7	ND<5	ND
B41B-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B41C-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B42-0.5	07/11/18	0-0.5	--	81	14	14	26	ND<5.0	ND
B43-0.5	07/11/18	0-0.5	--	180	ND<5.0	16	8.6	ND<5.0	ND
B43A-0.5	08/13/18	0-0.5	--	110	ND<5	14	10	ND<5	ND
B43B-0.5	08/13/18	0-0.5	--	ND<50	ND<5	16	31	ND<5	ND
B43C-0.5	08/13/18	0-0.5	--	50	ND<4.9	11	14	12	ND
B44-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B45-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B45-0.5 DUP	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B46-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B47-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B47-0.5 DUP	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B48-0.5	07/11/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B49-0.5	07/11/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B49A-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B49B-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B49C-0.5	08/09/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B50-0.5	08/13/18	0-0.5	--	160	ND<5	19	13	ND<5	ND
B51-0.5	08/13/18	0-0.5	--	ND<50	ND<5	7.0	5.6	ND<5	ND
B51-0.5 DUP	08/13/18	0-0.5	--	ND<50	ND<5	11	6.9	ND<5	ND
B52-0.5	08/13/18	0-0.5	--	130	ND<5	33	ND<5	ND<5	ND
B52A-0.5	11/21/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B52B-0.5	11/21/18	0-0.5	--	75	ND<4.9	20	ND<4.9	ND<4.9	ND
B52C-0.5	11/21/18	0-0.5	--	64	ND<5	12	ND<5	ND<5	ND
B53-0.5	08/13/18	0-0.5	--	81	ND<5	ND<5	ND<5	ND<5	ND
B54-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	19	5.3	ND<4.9	ND
B55-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B56-0.5	08/13/18	0-0.5	--	ND<50	ND<5	8.1	ND<5	ND<5	ND
B57-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B58-0.5	08/13/18	0-0.5	--	240	ND<5	29	8.8	ND<5	ND
B59-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B60-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B60-0.5 DUP	08/13/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B61-0.5	08/13/18	0-0.5	--	710	ND<4.9	560	590	9.3	ND
B61A-0.5	11/20/18	0-0.5	--	390	ND<5.0	91	89	7.6	ND
B61B-0.5	11/20/18	0-0.5	--	ND<49	ND<4.9	12	10	ND<4.9	ND
B61B-0.5 DUP	11/20/18	0-0.5	--	65	ND<5.0	19	35	ND<5.0	ND
B61C-0.5	11/20/18	0-0.5	--	200	15	46	57	ND<5.0	ND
B62-0.5	08/13/18	0-0.5	--	ND<50	5.1	97	35	6.6	ND
B63-0.5	08/13/18	0-0.5	--	69	ND<5.0	460	410	ND<5.0	ND
B64-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B65-0.5	08/13/18	0-0.5	--	ND<49	12	79	14	ND<4.9	ND
B66-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B67-0.5	08/13/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND

Table 2: Organochlorine Pesticides in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Depth Interval (ft bgs)	Note	EPA Method 8081A (µg/kg)					
				Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	All Other 8081A OCP Analytes
SSALs[1]				1,700	1,900	2,000	1,900	34	Varies
B68-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B69-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B70-0.5	11/20/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B71-0.5	11/20/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B72-0.5	11/20/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B73-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B73-0.5 DUP	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B74-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B75-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B76-0.5	11/20/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B77-0.5	11/20/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B78-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B79-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	7.0	ND<5.0	ND<5.0	ND
B80-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B80-0.5 DUP	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B81-0.5	11/20/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B82-0.5	11/20/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B83-0.5	11/19/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B84-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B85-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B86-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B86-0.5 DUP	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B87-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B88-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B89-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B90-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B91-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B92-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B93-0.5	11/19/18	0-0.5	--	ND<49	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND
B94-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND
B95-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	7.9	ND<5.0	ND<5.0	ND
B96-0.5	11/19/18	0-0.5	--	ND<50	ND<5.0	ND<5	ND<5.0	ND<5.0	ND
HA1-0.5	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA2-0.5	07/08/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA3-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA4-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA5-0.5	07/08/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA6-0.5	07/09/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA6-0.5 DUP	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA7-0.5	07/08/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA8-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA9-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA10-0.5	07/08/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA11-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA12-0.5	07/08/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA13-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA14-0.5	07/08/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA15-0.5	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA16-0.5	07/09/19	0-0.5	--	ND<25	ND<4.9	**13**	ND<4.9	ND<0.99	ND
HA17-0.5	07/09/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA18-0.5	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA19-0.5	07/09/19	0-0.5	--	ND<24	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA20-0.5	07/09/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA21-0.5	07/09/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA22-0.5	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA22-0.5 DUP	07/09/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.98	ND
HA23-0.5	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	**1.3**	ND
HA24-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA25-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND

Table 2: Organochlorine Pesticides in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Depth Interval (ft bgs)	Note	EPA Method 8081A (µg/kg)					
				Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Dieldrin	All Other 8081A OCP Analytes
SSALs[1]				1,700	1,900	2,000	1,900	34	Varies
HA26-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA27-0.5	07/09/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA28-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA28-0.5 DUP	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA29-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA30-0.5	07/10/19	0-0.5	--	**33**	ND<5.0	**6.6**	ND<5.0	**5.1**	ND
HA31-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	**3.5**	ND
HA32-0.5	07/10/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA33-0.5	07/10/19	0-0.5	--	ND<25	ND<4.9	ND<4.9	ND<4.9	ND<0.99	ND
HA33-0.5 DUP	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA34-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA35-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
HA36-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<0.99	ND
HA37-0.5	07/10/19	0-0.5	--	ND<25	ND<5.0	ND<5.0	ND<5.0	ND<1.0	ND
SSALs[1]				1,700	1,900	2,000	1,900	34	Varies

Notes:
ft bgs = feet below ground surface
EPA = United States Environmental Protection Agency
µg/kg = micrograms per kilgram
DDE = Dichlorodiphenyldichloroethylene
DDD = Dichlorodiphenyldichloroethane
DDT = Dichlorodiphenyltrichloroethane
OCP = Organchlorine Pesticides
SSALs = Site-Specific Action Levels
ND = Not Detected at or above the detection limit
-- = Not applicable
H = Sample extracted outside of laboratory hold time
DUP = Duplicate Sample

Borings highlighted in red were advanced as part of EFI Global's PEA-E (dated March 22, 2019)
Borings highlighted in green were advanced as part of this SSI

Concentrations that exceed SSALs show in **bold** and shaded in orange

[1] SSALs are based on the EPA's *Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) November 2018.*

Table 3: Polychlorinated Biphenyls in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Depth Interval (ft bgs)	PCBs by EPA Method 8082 (µg/kg)								
			Arochlor - 1016	Arochlor - 1221	Arochlor - 1232	Arochlor - 1242	Arochlor - 1248	Arochlor - 1254	Arochlor - 1260	Arochlor - 1262	Arochlor - 1268
B5-0.5	07/10/18	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
B9-0.5	07/10/18	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
B21-0.5	07/11/18	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
B26-0.5	07/11/18	0-0.5	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49
B32-0.5	07/11/18	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
B38-0.5	07/11/18	0-0.5	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49
B50-0.5	08/13/18	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
B51-0.5	08/13/18	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
B55-0.5	08/13/18	0-0.5	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49
HA8-0.5	07/08/19	0-0.5	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49	ND < 49
HA24-0.5	07/10/19	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
HA35-0.5	07/10/19	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50
HA36-0.5	07/10/19	0-0.5	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50	ND < 50

Notes:
EPA = United States Environmental Protection Agency
µg/kg = micrograms per kilogram
ft bgs = feet below ground surface
PCB = Polychlorinated biphenyls
ND = Not Detected at or above the detection limit

Borings highlighted in red were advanced as part of EFI Global's PEA-E (dated March 22, 2019)
Borings highlighted in green were advanced as part of this SSI

efi global

Table 4: Title 22 Metals in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Interval (ft bgs)	Title 22 Metals																		
			Antimony	Arsenic		Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead		Molybdenum	Nickel	Selenium	Silver	Thallium		Vanadium	Zinc	Mercury
EPA Method			6010B	6010B	6020A	6010B	6010B	6010B	6010B	6010B	6010B	6010B	DHS-WET / 6010B	6010B	6010B	6010B	6010B	6020	6010B	6010B	6010B	7471A
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B1-0.5	07/10/18	0-0.5	ND	--	8.19	129	0.503	1.23	20.9	8.53	30.2	13.5	--	2.05	30.0	ND	ND	--	ND	31.9	68.4	ND
B2-0.5	07/10/18	0-0.5	ND	--	**16.5**	137	0.335	ND	15.2	10.8	33.7	58.2	2.82	1.31	14.0	ND	ND		ND	35.0	79.4	0.0826
B2-0.5	10/09/19	0-0.5	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B2-1.5	07/10/18	0-0.5	ND	--	9.99	113	0.416	0.995	27.1	6.69	46.1	4.71	--	8.71	19.4	2.76	ND	--	ND	26.1	78.8	0.0975
B2A-0.5	08/09/18	0-0.5	ND	--	**14.9**	177	0.767	1.72	32.0	8.81	52.0	21.8	--	5.71	41.0	3.75	ND	--	**1.96**	38.9	104	ND
B2B-0.5	08/09/18	0-0.5	ND	--	8.22	133	0.712	1.52	25.5	8.02	24.8	9.00	--	2.74	29.5	0.892	ND	--	**1.94**	42.0	68.0	ND
B2C-0.5	08/09/18	0-0.5	ND	--	9.28	138	0.627	1.21	29.3	7.71	38.7	10.4	--	5.52	31.5	1.92	ND	--	**2.07**	38.7	82.7	ND
B3-0.5	07/10/18	0-0.5	ND	--	7.88	92.3	0.440	0.567	27.8	6.28	38.0	3.71	--	14.7	18.4	4.43	ND	--	ND	31.4	75.4	ND
B4-0.5	07/10/18	0-0.5	ND	--	8.62	143	0.454	1.47	24.9	6.89	32.3	54.4	1.67	2.84	22.0	0.840	ND	--	ND	32.7	147	ND
B5-0.5	07/10/18	0-0.5	ND	--	9.96	141	0.440	1.33	24.2	12.4	38.9	22.5	--	5.81	29.5	1.41	ND	--	ND	32.0	145	0.166
B5-0.5-DUP	07/10/18	0-0.5	ND	--	9.35	161	0.384	1.17	23.3	7.54	40.1	25.2	--	6.83	26.3	2.43	ND	--	ND	31.1	146	ND
B5-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B5A-0.5	08/09/18	0-0.5	ND	--	**14.1**	174	0.707	1.14	33.4	7.89	43.2	27.1	--	8.94	30.0	2.48	ND	--	**1.92**	42.1	183	ND
B5A-0.5DUP	08/09/18	0-0.5	ND	--	10.9	181	0.706	1.18	34.5	8.83	45.1	34.0	--	7.07	30.7	2.95	ND	--	**1.48**	40.9	190	ND
B5B-0.5	08/09/18	0-0.5	ND	--	8.98	220	0.672	1.12	33.9	8.27	46.9	37.3	--	5.70	28.7	2.53	ND	--	**1.78**	38.5	121	0.0813
B5C-0.5	08/09/18	0-0.5	ND	--	**12.7**	172	0.631	0.920	33.5	7.65	48.5	25.3	--	7.10	31.3	3.22	ND	--	**1.69**	36.4	111	ND
B6-0.5	07/10/18	0-0.5	ND	--	9.34	152	0.598	1.23	20.0	7.53	22.9	16.5	--	2.21	25.8	2.44	ND	--	ND	34.7	65.9	ND
B7-0.5	07/10/18	0-0.5	ND	--	8.89	212	0.483	1.40	26.4	8.40	42.2	7.58	--	4.27	36.4	2.22	ND	--	ND	31.8	89.6	ND
B8-0.5	07/10/18	0-0.5	ND	--	11.5	145	0.523	1.17	18.9	6.99	28.7	13.1	--	2.11	23.2	ND	ND	--	ND	34.2	64.2	ND
B9-0.5	07/10/18	0-0.5	ND	--	**23.9**	163	0.426	1.24	20.5	7.67	30.5	13.5	--	2.74	27.5	0.874	ND	--	ND	32.1	106	0.187
B9-0.5DUP	07/10/18	0-0.5	ND	--	**28.4**	139	0.387	1.09	19.1	5.88	31.2	12.0	--	4.39	24.7	2.24	ND	--	ND	30.8	115	ND
B9-0.5	10/09/19	0-0.5	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B9-1.5	07/10/18	1-1.5	ND	--	**25.5**	136	0.471	1.36	26.1	7.75	43.8	27.4	--	3.22	29.5	4.35	ND	--	ND	29.9	162	ND
B9-3	07/10/18	2.5-3	ND	--	6.35	173	0.606	1.13	14.3	5.35	18.6	2.50	--	1.91	26.2	0.784	ND	--	**1.66**	31.1	40.7	ND
B9A-0.5	07/09/19	0-0.5	ND	--	10.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B9B-0.5	07/09/19	0-0.5	ND	--	**14.9**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B9B-1.5	07/09/19	1-1.5	ND	--	13.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B9B-3.5	07/09/19	2.5-3	ND	--	10.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B10-0.5	07/10/18	0-0.5	ND	--	10.3	85.6	0.345	0.946	14.5	4.36	22.3	24.9	--	1.28	16.7	ND	ND	--	ND	22.6	58.1	ND
B10-0.5DUP	07/10/18	0-0.5	ND	--	11.1	97.4	0.352	0.973	13.9	5.22	21.2	17.7	--	1.63	18.7	ND	ND	--	ND	25.3	51.7	ND
B11-0.5	07/10/18	0-0.5	ND	--	**21.1**	129	0.389	0.817	28.8	6.76	48.2	9.05	--	5.45	22.6	2.52	ND	--	ND	30.4	90.3	ND
B11-0.5	10/09/19	0-0.5	--	--	**--**	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B11-1.5	07/10/18	1-1.5	ND	--	**15.2**	138	0.511	1.39	29.9	7.54	30.9	29.3	--	1.96	20.2	ND	0.375	--	ND	35.9	130	0.0896
B11-3	07/10/18	2.5-3	ND	--	9.62	148	0.710	1.31	27.2	8.22	39.3	4.61	--	8.06	35.5	1.54	ND	--	**1.61**	39.5	83.0	ND
B11A-0.5	08/09/18	0-0.5	ND	--	**36.2**	149	0.798	1.56	37.0	9.68	54.0	10.0	--	9.90	53.7	2.81	ND	--	**1.77**	41.5	138	ND
B11A-0.5DUP	08/09/18	0-0.5	ND	--	**16.2**	129	1.08	6.47	38.8	**30.8**	50.7	9.05	--	21.9	225	2.69	ND	--	ND	41.6	159	ND
B11B-0.5	08/09/18	0-0.5	ND	--	**20.0**	136	0.697	1.17	30.7	9.91	27.1	25.8	--	0.885	18.1	ND	ND	--	**2.29**	42.1	109	ND
B11C-0.5	08/09/18	0-0.5	ND	--	4.92	130	0.646	1.70	22.6	8.23	27.5	4.07	--	5.06	43.9	3.34	ND	--	**1.64**	31.7	75.5	ND
B12-0.5	07/10/18	0-0.5	ND	--	5.84	153	0.402	1.17	29.4	11.0	34.7	5.44	--	5.71	29.9	1.28	ND	--	ND	34.1	71.8	ND
B13-5	07/10/18	4.5-5	ND	5.44	--	93.0	0.380	0.984	22.4	4.94	32.7	3.83	--	7.99	30.2	3.23	ND	--	ND	24.5	69.2	ND
B13-10	07/10/18	9.5-10	ND	4.08	--	244	0.543	0.816	18.5	7.28	27.6	4.20	--	1.96	24.3	0.977	ND	--	ND	39.3	38.1	ND
B14-0.5	07/10/18	0-0.5	ND	--	1.49	165	0.275	0.575	24.3	4.14	50.2	8.41	--	2.85	13.7	1.31	0.246	--	ND	22.4	56.1	ND
B15-0.5	07/10/18	0-0.5	ND	--	10.1	58.4	0.321	0.513	31.3	7.29	40.8	2.38	--	13.1	16.1	1.51	ND	--	ND	32.3	86.1	ND
B16-0.5	07/10/18	0-0.5	ND	--	5.05	98.0	ND	ND	10.4	5.97	12.6	20.6	--	0.472	10.5	ND	ND	--	ND	23.5	40.6	0.115
B17-0.5	07/10/18	0-0.5	ND	--	10.1	98.0	ND	ND	10.4	5.97	12.6	20.6	--	0.472	10.5	ND	ND	--	ND	23.5	40.6	ND
B18-0.5	07/10/18	0-0.5	ND	--	6.32	137	0.335	ND	15.2	10.8	17.8	8.81	--	1.31	14.0	ND	ND	--	ND	35.0	61.4	ND
B19-0.5	07/10/18	0-0.5	0.758	--	10.1	92.0	ND	ND	6.31	5.44	10.7	23.2	--	0.895	9.61	ND	ND	--	ND	23.7	46.0	ND
B20-0.5	07/10/18	0-0.5	1.15	--	7.24	130	0.348	0.914	20.3	8.39	25.9	25.6	--	2.24	16.5	ND	ND	--	ND	31.9	111	0.164
B21-0.5	07/11/18	0-0.5	ND	--	3.88	157	0.493	1.06	20.5	8.00	17.7	3.44	--	2.89	22.6	1.89	ND	--	ND	33.7	52.5	ND
B21-0.5 DUP	07/11/18	0-0.5	ND	--	4.08	187	0.520	1.05	24.8	5.56	21.0	3.92	--	2.31	23.7	ND	ND	--	ND	38.1	50.2	ND
B22-0.5	07/11/18	0-0.5	ND	--	6.04	143	0.786	1.88	28.5	11.5	28.2	4.21	--	5.24	55.8	4.47	ND	--	ND	36.5	102	ND
B22-0.5 DUP	07/11/18	0-0.5	ND	--	4.41	177	0.492	1.91	20.5	7.10	18.6	3.74	--	2.95	36.3	ND	ND	--	ND	33.4	62.1	ND
B23-0.5	07/11/18	0-0.5	ND	--	4.43	155	0.442	1.11	24.1	7.58	24.1	6.29	--	3.45	25.4	2.43	ND	--	ND	33.4	62.1	ND
B23-0.5 DUP	07/11/18	0-0.5	ND	--	4.14	139	0.420	0.897	24.6	7.17	26.2	38.7	--	4.81	26.1	2.40	ND	--	ND	29.9	62.6	ND
B24-0.5	07/11/18	0-0.5	ND	--	7.13	158	0.462	1.32	30.4	7.91	43.2	4.20	--	7.91	30.4	3.09	ND	--	**0.790**	35.0	81.7	ND
B24-0.5 DUP	07/11/18	0-0.5	ND	--	6.98	139	0.489	ND	27.3	5.52	23.6	4.57	--	5.85	17.8	4.96	ND	--	ND	36.4	64.0	ND
B24-1.5	07/11/18	1-1.5	ND		5.89	157	0.467	1.87	17.0	7.21	24.2	5.19	--	5.05	26.4	2.04	ND	--	ND	32.0	58.2	ND
B25-0.5	07/11/18	0-0.5	ND	--	4.93	156	0.507	1.62	27.9	9.63	30.0	7.06	--	6.4	40.0	3.23	ND	--	ND	32.6	73.5	ND
B25-0.5 DUP	07/11/18	0-0.5	ND	--	5.02	132	0.526	1.39	27.0	15.0	31.4	4.66	--	6.64	33.8	4.60	ND	--	ND	33.1	70.0	ND
B26-0.5	07/11/18	0-0.5	ND	--	4.98	153	0.506	1.30	20.7	7.20	17.7	4.97	--	2.92	22.3	ND	ND	--	ND	39.1	50.0	ND
B26-0.5 DUP	07/11/18	0-0.5	ND	--	4.92	159	0.476	1.29	20.0	6.74	16.6	4.48	--	2.53	21.4	ND	ND	--	ND	36.3	46.6	ND
B27-0.5	07/11/18	0-0.5	ND	--	4.19	142	0.491	1.26	19.7	7.18	17.1	4.23	--	1.84	20.5	ND	ND	--	ND	35.2	55.7	ND
B28-0.5	07/11/18	0-0.5	ND	--	5.78	161	0.496	1.46	25.0	11.3	24.6	7.11	--	3.22	26.8	1.32	ND	--	ND	37.3	67.8	ND
B29-0.5	07/11/18	0-0.5	ND	--	8.34	187	0.489	1.32	32.6	8.68	50.3	15.6	--	7.18	31.3	2.50	ND	--	ND	35.4	111	ND

Table 4: Title 22 Metals in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Interval (ft bgs)	Title 22 Metals																		
			Antimony	Arsenic		Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead		Molybdenum	Nickel	Selenium	Silver	Thallium		Vanadium	Zinc	Mercury
EPA Method			6010B	6010B	6020A	6010B	6010B	6010B	6010B	6010B	6010B	6010B	DHS-WET / 6010B	6010B	6010B	6010B	6010B	6020	6010B	6010B	6010B	7471A
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B30-0.5	07/11/18	0-0.5	ND	--	5.30	143	0.421	0.699	33.5	8.77	44.5	4.84	--	6.54	25.0	2.31	ND	--	ND	33.3	82.4	ND
B31-0.5	07/11/18	0-0.5	ND	--	8.53	101	0.269	0.564	11.5	6.42	12.1	13.9	--	0.980	14.6	0.807	ND	--	ND	31.4	48.9	ND
B31-0.5 DUP	07/11/18	0-0.5	ND	--	3.91	139	0.487	1.57	20.2	7.43	18.1	4.52	--	2.96	23.2	1.72	ND	--	ND	44.3	49.8	ND
B32-0.5	07/11/18	0-0.5	ND	--	5.64	129	0.551	1.38	21.5	7.32	17.9	3.66	--	3.21	21.8	1.47	ND	--	ND	45.4	49.0	ND
B33-0.5	07/11/18	0-0.5	ND	--	8.73	140	0.544	0.958	19.3	7.00	23.0	8.72	--	2.56	20.7	1.14	ND	--	ND	35.5	53.1	ND
B34-0.5	07/11/18	0-0.5	ND	--	6.08	69.8	0.373	0.972	38.8	7.89	40.6	4.71	--	11.3	41.1	5.07	0.273	--	**1.02**	31.0	91.9	0.0827
B34-1.5	07/11/18	1-1.5	ND	--	10.7	63.2	0.436	1.62	30.2	8.09	29.2	3.29	--	5.37	27.1	5.12	ND	--	ND	34.4	87.9	ND
B35-0.5	07/11/18	0-0.5	ND	--	3.95	134	0.350	0.802	14.2	8.06	16.3	4.51	--	0.256	22.1	0.867	ND	--	ND	29.4	51.5	ND
B35-0.5 DUP	07/11/18	0-0.5	ND	--	3.27	196	0.467	1.08	17.4	7.57	16.8	4.12	--	0.357	30.8	ND	ND	--	ND	31.6	60.2	ND
B36-0.5	07/11/18	0-0.5	ND	--	4.97	142	0.363	0.610	33.7	7.93	52.4	7.00	--	3.06	20.1	11.1	ND	--	ND	31.9	85.5	ND
B37-0.5	07/11/18	0-0.5	ND	--	**24.2**	189	0.616	2.09	34.9	12.3	51.9	60.1	0.905	5.50	62.3	2.09	ND	--	ND	38.7	389	0.0886
B37-0.5 DUP	07/11/18	0-0.5	ND	--	**20.2**	161	0.556	1.94	31.7	10.5	49.5	56.8	--	5.18	59.5	2.17	ND	--	ND	35.3	374	0.0836
B37-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B37-1.5	07/11/18	1-1.5	ND	--	**17.0**	149	0.953	3.23	33.3	18.2	48.5	**156**	4.74	3.51	87.1	2.21	ND	--	ND	33.1	802	0.296
B37-3	07/11/18	2.5-3	ND	--	**13.5**	80.0	0.426	ND	27.1	5.38	36.2	11.1	--	16.2	16.1	4.99	ND	--	**1.21**	41.1	111	ND
B37A-0.5	08/09/18	0-0.5	ND	--	7.49	176	0.811	2.27	25.8	10.9	26.8	4.84	--	4.59	60.3	0.879	ND	--	**1.98**	40.5	97.1	ND
B37B-0.5	08/09/18	0-0.5	ND	--	**12.6**	223	0.855	1.03	37.4	9.97	42.7	5.19	--	12.4	45.8	4.86	ND	--	**2.19**	50.9	95.2	0.0948
B37C-0.5	08/09/18	0-0.5	ND	--	**30.1**	193	0.917	1.69	39.2	13.4	47.4	**228**	4.38	5.79	56.8	2.39	ND	--	**1.70**	45.8	315	0.220
B37C-1.5	08/09/18	1-1.5		--	--	--	--	--	--	--	--	12.1	--	--	--	--	--	--	--	--	--	--
B37C-3	08/09/18	2.5-3		--	--	--	--	--	--	--	--	13.1	--	--	--	--	--	--	--	--	--	--
B38-0.5	07/11/18	0-0.5	ND	--	7.63	74.8	0.319	0.606	39.5	8.10	51.3	4.86	--	10.9	20.3	5.50	ND	--	ND	36.9	92.3	ND
B39-0.5	07/11/18	0-0.5	ND	--	5.05	287	0.431	0.625	25.4	5.90	22.6	8.29	--	4.23	21.6	2.94	ND	--	ND	33.0	64.1	ND
B39-0.5 DUP	07/11/18	0-0.5	ND	--	8.99	73.0	0.439	0.860	44.8	8.33	50.9	3.86	--	11.3	35.1	6.48	ND	--	ND	41.9	81.9	ND
B40-0.5	07/11/18	0-0.5	ND	--	3.00	222	0.414	0.828	22.8	16.3	24.8	15.0	--	0.583	23.8	3.18	ND	--	ND	36.4	79.1	ND
B40-1.5	07/11/18	1-1.5	ND	--	5.79	229	0.469	0.780	18.9	13.5	26.1	29.0	--	ND	19.4	1.10	ND	--	ND	35.7	71.1	ND
B41-0.5	07/11/18	0-0.5	ND	--	**12.6**	178	0.445	1.21	33.4	9.76	39.0	14.9	--	6.83	32.4	4.51	ND	--	ND	35.7	121	ND
B41-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B41-1.5	07/11/18	1-1.5	ND	--	11.3	500	0.529	0.842	38.7	9.58	41.1	6.88	--	9.79	31.1	6.44	ND	--	ND	46.3	126	0.0838
B41A-0.5	08/13/18	0-0.5	ND	--	7.92	126	0.631	1.37	30.4	12.7	40.3	10.9	--	11.3	34.5	8.35	ND	--	**2.10**	41.0	96.9	ND
B41A-0.5 DUP	08/13/18	0-0.5	ND	--	6.24	132	0.643	1.42	30.9	11.8	43.5	11.0	--	12.1	37.6	6.33	ND	--	**1.93**	40.0	99.6	ND
B41B-0.5	08/13/18	0-0.5	ND	--	6.89	147	0.590	1.29	32.2	10.2	39.2	14.1	--	5.56	31.7	3.89	ND	--	**2.23**	42.2	116	ND
B41C-0.5	08/13/18	0-0.5	ND	--	4.46	108	0.479	1.12	18.5	9.08	24.4	6.29	--	5.30	32.7	3.87	ND	--	**1.58**	32.0	73.0	ND
B42-0.5	07/11/18	0-0.5	ND	--	7.98	104	0.398	1.33	28.3	8.28	32.8	24.4	--	3.79	26.2	0.833	ND	--	ND	40.4	161	ND
B43-0.5	07/11/18	0-0.5	ND	--	**17.4**	184	0.483	1.81	32.0	9.2	41.9	57.2	2.40	3.20	29.5	1.66	ND	--	ND	39.8	197	ND
B43-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B43-1.5	07/28/18	1-1.5	ND	--	**12.2**	137	0.426	1.56	17.9	7.1	28.9	34.7	--	4.64	22.2	ND	ND	--	**0.787**	28.4	127	ND
B43-3	07/11/18	2.5-3	ND	--	4.33	75.2	0.365	1.21	9.7	4.3	24.5	9.02	--	5.03	21.1	ND	ND	--	ND	15.9	51.8	ND
B43A-0.5	08/13/18	0-0.5	ND	--	**21.4**	168	0.618	1.53	28.1	7.69	37.4	40.0	--	4.46	29.7	1.25	ND	--	**1.32**	40.0	133	0.168
B43B-0.5	08/13/18	0-0.5	ND	--	11.3	169	0.618	1.52	28.2	7.71	37.3	40.3	--	4.51	29.9	1.40	ND	--	**1.37**	40.1	134	0.0821
B43C-0.5	08/13/18	0-0.5	ND	--	9.20	154	0.605	1.10	45.7	7.07	23.3	36.5	--	2.23	22.6	ND	ND	--	**1.37**	38.2	114	ND
B44-0.5	07/11/18	0-0.5	ND	--	6.19	158	0.464	1.73	34.8	7.38	36.4	5.26	--	6.55	39.8	1.31	ND	--	ND	37.4	75.6	ND
B45-0.5	07/11/18	0-0.5	ND	--	6.08	220	0.476	1.54	33.2	8.38	31.3	13.3	--	4.30	34.4	2.85	ND	--	ND	39.5	77.1	ND
B45-0.5 DUP	07/11/18	0-0.5	ND	--	7.34	213	0.501	1.56	35.5	8.53	34.7	8.06	--	4.97	37.6	2.88	ND	--	ND	39.9	81.3	ND
B46-0.5	07/11/18	0-0.5	ND	--	6.98	191	0.457	2.15	33.4	9.30	37.3	12.7	--	5.77	41.0	2.71	ND	--	ND	35.6	84.1	ND
B47-0.5	07/11/18	0-0.5	ND	--	9.12	202	0.506	1.89	36.2	7.71	34.8	4.43	--	5.40	35.5	0.812	ND	--	ND	41.0	78.2	ND
B47-0.5 DUP	07/11/18	0-0.5	ND	--	9.34	183	0.489	2.12	38.3	7.49	34.3	4.09	--	5.87	34.8	1.97	ND	--	ND	45.1	78.4	ND
B48-0.5	07/11/18	0-0.5	ND	--	8.98	159	0.373	0.980	33.6	6.20	31.2	7.15	--	7.56	28.9	4.13	ND	--	ND	34.0	69.7	ND
B49-0.5	07/11/18	0-0.5	ND	--	**14.1**	182	0.382	0.732	34.7	8.01	40.2	6.35	--	10.2	26.1	4.36	ND	--	ND	36.6	89.6	ND
B49-1.5	07/11/18	1-1.5	ND	--	6.75	84.9	ND	0.776	19.8	5.39	30.6	2.60	--	12	11.9	12.90	ND	--	ND	23.6	62.7	ND
B49A-0.5	08/09/18	0-0.5	ND	--	11.8	174	0.625	0.816	32.3	7.77	41.2	14.5	--	9.83	29.1	8.86	ND	--	**1.99**	40.5	93.5	ND
B49B-0.5	08/09/18	0-0.5	ND	--	11.9	147	0.542	0.770	36.1	7.16	40.0	5.72	--	12.8	30.4	6.17	ND	--	**2.13**	37.7	90.0	ND
B49C-0.5	08/09/18	0-0.5	ND	--	**12.1**	176	0.540	ND	34.6	7.69	38.8	4.83	--	12.8	24.6	7.57	ND	--	**1.46**	39.9	88.4	ND
B50-0.5	08/13/18	0-0.5	ND	--	9.06	171	0.721	1.82	30.6	9.24	30.5	12.9	--	3.78	33.0	ND	ND	--	**1.49**	45.4	87.0	0.0961
B51-0.5	08/13/18	0-0.5	ND	--	6.30	162	0.661	1.48	27.7	8.70	25.1	7.76	--	3.22	30.3	ND	ND	--	**1.21**	40.2	64.3	ND
B51-0.5 DUP	08/13/18	0-0.5	ND	--	8.34	163	0.718	1.52	31.3	7.58	27.8	6.82	--	3.90	31.4	ND	ND	--	**1.52**	44.7	68.6	ND
B52-0.5	08/13/18	0-0.5	ND	--	**17.0**	173	0.627	1.81	28.1	9.11	30.9	18.4	--	1.59	29.3	ND	ND	--	**1.36**	40.3	93.3	ND
B52-1.5	08/13/18	1-1.5	ND	10.9	**--**	212	0.684	3.20	22.4	8.77	29.8	1.80	--	1.48	35.7	ND	ND	--	ND	31.1	55.2	ND
B52-3	08/13/18	2.5-3	ND	7.74	**--**	172	0.514	2.58	18.3	5.64	23.7	1.67		1.25	31.2	ND	ND	--	ND	24.6	44.7	ND
B52A-0.5	11/21/18	0-0.5		--	8.49	--	--	--	--	--	--	2.25	--	--	--	--	--	--	--	--	--	--
B52B-0.5	11/21/18	0-0.5		--	7.78	--	--	--	--	--	--	13.6	--	--	--	--	--	--	--	--	--	--
B52C-0.5	11/21/18	0-0.5		--	**12.40**	--	--	--	--	--	--	7.56	--	--	--	--	--	--	--	--	--	--
B53-0.5	08/13/18	0-0.5	ND	--	7.64	187	0.739	1.78	30.9	8.56	42.5	11.9	--	4.15	35.2	1.14	ND	--	**1.37**	45.6	125	ND
B53-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B54-0.5	08/13/18	0-0.5	ND	--	8.23	178	0.738	2.02	34.7	8.52	38.5	10.5	--	6.05	40.7	1.38	ND	--	**1.65**	43.7	153	ND

Table 4: Title 22 Metals in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Interval (ft bgs)	Title 22 Metals																		
			Antimony	Arsenic		Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead		Molybdenum	Nickel	Selenium	Silver	Thallium		Vanadium	Zinc	Mercury
EPA Method			6010B	6010B	6020A	6010B	6010B	6010B	6010B	6010B	6010B	6010B	DHS-WET / 6010B	6010B	6010B	6010B	6010B	6020	6010B	6010B	6010B	7471A
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B55-0.5	08/13/18	0-0.5	ND	--	1.64	52.1	ND	0.583	10.9	2.02	8.35	2.06	--	1.29	10.4	ND	ND	--	ND	13.2	29.5	ND
B56-0.5	08/13/18	0-0.5	ND	--	5.42	174	0.664	1.60	25.9	6.67	27.6	16.5	--	2.59	27.8	1.33	ND	--	**1.42**	37.3	114	ND
B56-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B57-0.5	08/13/18	0-0.5	ND	--	5.43	159	0.605	1.22	28.3	7.72	32.3	5.48	--	7.97	31.9	1.93	ND	--	**1.26**	38.8	69.0	ND
B58-0.5	08/13/18	0-0.5	ND	--	7.61	153	0.598	1.21	24.9	8.71	27.6	28.2	--	1.54	23.3	ND	ND	--	**2.31**	40.2	74.4	ND
B59-0.5	08/13/18	0-0.5	ND	--	5.79	164	0.716	1.60	34.3	7.67	32.8	4.61	--	6.11	36.5	1.76	ND	--	**1.36**	42.8	75.8	ND
B60-0.5	08/13/18	0-0.5	ND	--	7.80	149	0.662	1.71	34.0	8.35	32.9	6.42	--	6.29	39.0	2.39	ND	--	**1.33**	39.8	76.1	ND
B60-0.5 DUP	08/13/18	0-0.5	ND	--	10.7	176	0.755	2.22	37.2	9.79	39.2	7.85	--	7.33	53.8	2.65	ND	--	**1.38**	46.0	90.3	ND
B60-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
B61-0.5	08/13/18	0-0.5	ND	--	9.24	190	0.824	2.07	35.5	8.83	38.2	**87.6**	2.19	7.87	35.1	1.08	ND	--	**1.50**	50.5	151	ND
B61-0.5	10/09/19	0-0.5	--	--	--	--	--	--	--	--	--	**--**	--	--	--	--	--	ND*	**--**	--	--	--
B61-1.5	08/13/18	1-1.5	ND	8.01	6.32	143	0.567	1.72	16.5	7.01	24.6	5.77	--	2.44	30.4	ND	ND	--	ND	25.3	59.2	ND
B61-3	08/13/18	2.5-3	ND	6.59	--	176	0.560	1.37	14.7	7.14	23.5	3.07	--	1.81	23.5	ND	ND	--	ND	22.9	41.6	ND
B61A-0.5	11/20/18	0-0.5		--	8.64	--	--	--	--	--	--	46.7	1.55	--	--	--	--	--	--	--	--	--
B61B-0.5	11/20/18	0-0.5		--	7.03	--	--	--	--	--	--	13.5	0.508	--	--	--	--	--	--	--	--	--
B61B-0.5 DUP	11/20/18	0-0.5		--	6.46	--	--	--	--	--	--	24.4	--	--	--	--	--	--	--	--	--	--
B61C-0.5	11/20/18	0-0.5		--	6.86	--	--	--	--	--	--	45.4	1.38	--	--	--	--	--	--	--	--	--
B62-0.5	08/13/18	0-0.5	ND	--	6.32	147	0.607	1.28	24.8	7.41	28.4	46.0	--	3.16	27.6	1.72	ND	--	**1.49**	39.0	201	ND
B63-0.5	08/13/18	0-0.5	ND	--	9.91	201	0.754	1.67	33.2	8.90	35.4	57.4	--	3.01	35.3	0.826	ND	--	**1.57**	46.2	172	ND
B64-0.5	08/13/18	0-0.5	ND	--	5.42	179	0.745	1.64	25.8	7.56	22.4	5.54	--	3.55	28.5	0.885	ND	--	**1.87**	46.1	58.8	ND
B65-0.5	08/13/18	0-0.5	ND	--	8.34	195	0.739	1.88	28.9	8.37	34.4	20.7	0.492	2.84	30.8	1.54	ND	--	**1.40**	46.6	95.6	ND
B66-0.5	08/13/18	0-0.5	ND	--	6.83	185	0.701	1.45	28.0	6.95	32.2	6.96	--	2.37	29.5	ND	ND	--	**1.39**	35.9	61.4	ND
B67-0.5	08/13/18	0-0.5	ND	--	8.95	190	0.747	1.61	30.1	8.36	28.2	7.35	--	3.32	34.4	ND	ND	--	**1.49**	44.0	67.6	ND
B68-0.5	11/19/18	0-0.5	--	--	8.22	--	--	--	--	--	--	30.5	--	--	--	--	--	--	--	--	--	--
B69-0.5	11/19/18	0-0.5	--	--	9.17	--	--	--	--	--	--	21.5	--	--	--	--	--	--	--	--	--	--
B70-0.5	11/20/18	0-0.5	--	--	6.62	--	--	--	--	--	--	21.8	--	--	--	--	--	--	--	--	--	--
B71-0.5	11/20/18	0-0.5	--	--	7.92	--	--	--	--	--	--	4.92	--	--	--	--	--	--	--	--	--	--
B72-0.5	11/20/18	0-0.5	--	--	10.4	--	--	--	--	--	--	10.9	--	--	--	--	--	--	--	--	--	--
B73-0.5	11/19/18	0-0.5	--	--	5.15	--	--	--	--	--	--	6.28	--	--	--	--	--	--	--	--	--	--
B73-0.5 DUP	11/19/18	0-0.5	--	--	5.53	--	--	--	--	--	--	5.56	--	--	--	--	--	--	--	--	--	--
B74-0.5	11/19/18	0-0.5	--	--	4.54	--	--	--	--	--	--	7.71	--	--	--	--	--	--	--	--	--	--
B75-0.5	11/19/18	0-0.5	--	--	4.23	--	--	--	--	--	--	16.2	--	--	--	--	--	--	--	--	--	--
B76-0.5	11/20/18	0-0.5	--	--	3.17	--	--	--	--	--	--	6.63	--	--	--	--	--	--	--	--	--	--
B77-0.5	11/20/18	0-0.5	--	--	3.27	--	--	--	--	--	--	16.9	--	--	--	--	--	--	--	--	--	--
B78-0.5	11/19/18	0-0.5	--	--	4.44	--	--	--	--	--	--	5.38	--	--	--	--	--	--	--	--	--	--
B79-0.5	11/19/18	0-0.5	--	--	4.94	--	--	--	--	--	--	15.4	--	--	--	--	--	--	--	--	--	--
B80-0.5	11/19/18	0-0.5	--	--	6.50	--	--	--	--	--	--	6.63	--	--	--	--	--	--	--	--	--	--
B80-0.5 DUP	11/19/18	0-0.5	--	--	8.33	--	--	--	--	--	--	7.60	--	--	--	--	--	--	--	--	--	--
B81-0.5	11/20/18	0-0.5	--	--	4.09	--	--	--	--	--	--	3.34	--	--	--	--	--	--	--	--	--	--
B82-0.5	11/20/18	0-0.5	--	--	7.76	--	--	--	--	--	--	7.42	--	--	--	--	--	--	--	--	--	--
B83-0.5	11/19/18	0-0.5	--	--	4.42	--	--	--	--	--	--	17.3	--	--	--	--	--	--	--	--	--	--
B84-0.5	11/19/18	0-0.5	--	--	4.62	--	--	--	--	--	--	18.2	--	--	--	--	--	--	--	--	--	--
B85-0.5	11/19/18	0-0.5	--	--	8.06	--	--	--	--	--	--	24.0	--	--	--	--	--	--	--	--	--	--
B86-0.5	11/19/18	0-0.5	--	--	7.91	--	--	--	--	--	--	16.9	--	--	--	--	--	--	--	--	--	--
B86-0.5 DUP	11/19/18	0-0.5	--	--	6.40	--	--	--	--	--	--	14.7	--	--	--	--	--	--	--	--	--	--
B87-0.5	11/19/18	0-0.5	--	--	5.24	--	--	--	--	--	--	23.1	--	--	--	--	--	--	--	--	--	--
B88-0.5	11/19/18	0-0.5	--	--	2.68	--	--	--	--	--	--	15.9	--	--	--	--	--	--	--	--	--	--
B89-0.5	11/19/18	0-0.5	--	--	5.72	--	--	--	--	--	--	14.5	--	--	--	--	--	--	--	--	--	--
B90-0.5	11/19/18	0-0.5	--	--	6.49	--	--	--	--	--	--	16.3	--	--	--	--	--	--	--	--	--	--
B91-0.5	11/19/18	0-0.5	--	--	5.85	--	--	--	--	--	--	13.0	--	--	--	--	--	--	--	--	--	--
B92-0.5	11/19/18	0-0.5	--	--	6.28	--	--	--	--	--	--	16.3	--	--	--	--	--	--	--	--	--	--
B93-0.5	11/19/18	0-0.5	--	--	5.75	--	--	--	--	--	--	16.2	--	--	--	--	--	--	--	--	--	--
B94-0.5	11/19/18	0-0.5	--	--	5.58	--	--	--	--	--	--	10.8	--	--	--	--	--	--	--	--	--	--
B95-0.5	11/21/19	0-0.5	--	--	3.83	--	--	--	--	--	--	5.13	--	--	--	--	--	--	--	--	--	--
B96-0.5	11/21/19	0-0.5	--	--	5.97	--	--	--	--	--	--	4.48	--	--	--	--	--	--	--	--	--	--
HA1-0.5	07/09/19	0-0.5	--	--	**12.2**	--	--	--	--	--	--	12.7	--	--	--	--	--	ND*	--	--	--	--
HA1-1.5	07/09/19	1-1.5	--	--	8.16	--	--	--	--	--	--	**--**	--	--	--	--	--	--	--	--	--	--
HA2-0.5	07/08/19	0-0.5	--	--	3.63	--	--	--	--	--	--	2.37	--	--	--	--	--	--	--	--	--	--
HA3-0.5	07/08/19	0-0.5	--	--	4.18	--	--	--	--	--	--	14.2	--	--	--	--	--	--	--	--	--	--

Table 4: Title 22 Metals in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Interval (ft bgs)	Title 22 Metals																		
			Antimony	Arsenic		Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead		Molybdenum	Nickel	Selenium	Silver	Thallium		Vanadium	Zinc	Mercury
EPA Method			6010B	6010B	6020A	6010B	6010B	6010B	6010B	6010B	6010B	6010B	DHS-WET / 6010B	6010B	6010B	6010B	6010B	6020	6010B	6010B	6010B	7471A
Units			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/l	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
HA4-0.5	07/08/19	0-0.5	--	--	5.52	--	--	--	--	--	--	3.05	--	--	--	--	--	--	--	--	--	--
HA5-0.5	07/08/19	0-0.5	--	--	4.60	--	--	--	--	--	--	3.35	--	--	--	--	--	--	--	--	--	--
HA6-0.5	07/09/19	0-0.5	--	--	3.47	--	--	--	--	--	--	1.52	--	--	--	--	--	--	--	--	--	--
HA6-0.5 DUP	07/09/19	0-0.5	--	--	4.16	--	--	--	--	--	--	2.10	--	--	--	--	--	--	--	--	--	--
HA7-0.5	07/08/19	0-0.5	--	--	6.77	--	--	--	--	--	--	3.95	--	--	--	--	--	--	--	--	--	--
HA8-0.5	07/08/19	0-0.5	--	--	4.86	--	--	--	--	--	--	2.65	--	--	--	--	--	--	--	--	--	--
HA9-0.5	07/08/19	0-0.5	--	--	5.59	--	--	--	--	--	--	17.2	--	--	--	--	--	--	--	--	--	--
HA10-0.5	07/08/19	0-0.5	--	--	1.17	--	--	--	--	--	--	4.71	--	--	--	--	--	--	--	--	--	--
HA11-0.5	07/08/19	0-0.5	--	--	ND	--	--	--	--	--	--	2.60	--	--	--	--	--	--	--	--	--	--
HA12-0.5	07/08/19	0-0.5	--	--	ND	--	--	--	--	--	--	1.68	--	--	--	--	--	--	--	--	--	--
HA13-0.5	07/08/19	0-0.5	--	--	4.49	--	--	--	--	--	--	3.04	--	--	--	--	--	--	--	--	--	--
HA14-0.5	07/08/19	0-0.5	--	--	ND	--	--	--	--	--	--	1.45	--	--	--	--	--	--	--	--	--	--
HA15-0.5	07/09/19	0-0.5	--	--	6.88	--	--	--	--	--	--	40.4	--	--	--	--	--	--	--	--	--	--
HA16-0.5	07/09/19	0-0.5	--	--	3.59	--	--	--	--	--	--	34.4	--	--	--	--	--	--	--	--	--	--
HA17-0.5	07/09/19	0-0.5	--	--	3.16	--	--	--	--	--	--	12.5	--	--	--	--	--	--	--	--	--	--
HA18-0.5	07/09/19	0-0.5	--	--	2.22	--	--	--	--	--	--	6.77	--	--	--	--	--	--	--	--	--	--
HA19-0.5	07/09/19	0-0.5	--	--	2.39	--	--	--	--	--	--	4.70	--	--	--	--	--	--	--	--	--	--
HA20-0.5	07/09/19	0-0.5	--	--	2.39	--	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	--
HA21-0.5	07/09/19	0-0.5	--	--	4.22	--	--	--	--	--	--	23.7	--	--	--	--	--	--	--	--	--	--
HA22-0.5	07/09/19	0-0.5	--	--	6.46	--	--	--	--	--	--	31.4	--	--	--	--	--	--	--	--	--	--
HA22-0.5 DUP	07/09/19	0-0.5	--	--	6.97	--	--	--	--	--	--	33.1	--	--	--	--	--	--	--	--	--	--
HA23-0.5	07/09/19	0-0.5	--	--	4.78	--	--	--	--	--	--	24.7	--	--	--	--	--	--	--	--	--	--
HA24-0.5	07/10/19	0-0.5	--	--	ND	--	--	--	--	--	--	4.22	--	--	--	--	--	--	--	--	--	--
HA25-0.5	07/10/19	0-0.5	--	--	ND	--	--	--	--	--	--	2.48	--	--	--	--	--	--	--	--	--	--
HA26-0.5	07/10/19	0-0.5	--	--	**15.8**	--	--	--	--	--	--	12.8	--	--	--	--	--	ND*	--	--	--	--
HA26-1.5	07/10/19	1-1.5	--	--	**26**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HA26-3	07/10/19	2.5-3	--	--	**19.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HA27-0.5	07/09/19	0-0.5	--	--	5.64	--	--	--	--	--	--	10.6	--	--	--	--	--	--	--	--	--	--
HA28-0.5	07/10/19	0-0.5	--	--	6.91	--	--	--	--	--	--	14.3	--	--	--	--	--	--	--	--	--	--
HA28-0.5 DUP	07/10/19	0-0.5	--	--	9.18	--	--	--	--	--	--	6.50	--	--	--	--	--	--	--	--	--	--
HA29-0.5	07/10/19	0-0.5	--	--	9.12	--	--	--	--	--	--	1.80	--	--	--	--	--	--	--	--	--	--
HA30-0.5	07/10/19	0-0.5	--	--	**12.1**	--	--	--	--	--	--	34.6	--	--	--	--	--	--	--	--	--	--
HA30-1.5	07/10/19	1-1.5	--	--	10.7	--	--	--	--	--	--	--	--	--	--	--	--	ND*	--	--	--	--
HA31-0.5	07/10/19	0-0.5	--	--	5.30	--	--	--	--	--	--	10.4	--	--	--	--	--	--	--	--	--	--
HA32-0.5	07/10/19	0-0.5	--	--	6.39	--	--	--	--	--	--	3.16	--	--	--	--	--	--	--	--	--	--
HA33-0.5	07/10/19	0-0.5	--	--	ND	--	--	--	--	--	--	2.14	--	--	--	--	--	--	--	--	--	--
HA33-0.5 DUP	07/10/19	0-0.5	--	--	ND	--	--	--	--	--	--	2.21	--	--	--	--	--	--	--	--	--	--
HA34-0.5	07/10/19	0-0.5	--	--	**15.7**	--	--	--	--	--	--	8.40	--	--	--	--	--	ND*	--	--	--	--
HA34-1.5	07/10/19	1-1.5	--	--	5.67	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
HA35-0.5	07/10/19	0-0.5	--	--	6.44	--	--	--	--	--	--	2.59	--	--	--	--	--	--	--	--	--	--
HA36-0.5	07/10/19	0-0.5	--	--	ND	--	--	--	--	--	--	3.31	--	--	--	--	--	--	--	--	--	--
HA37-0.5	07/10/19	0-0.5	--	--	ND	--	--	--	--	--	--	3.30	--	--	--	--	--	--	--	--	--	--
Maximum Concentration			**1.15**	**10.9**	**36.2**	**500**	**1.08**	**6.47**	**45.7**	**30.8**	**54**	**228**	**4.74**	**21.9**	**225**	**12.9**	**0.375**	**ND***	**2.31**	**50.9**	**802**	**0.296**
SSALs[1]			**31**	**12**	**12**	**15,000**	**160**	**71**	**NE**	**23**	**3,100**	**80**	**NE**	**390**	**1,500**	**390**	**390**	**0.78**	**0.78**	**390**	**23,000**	**11**
California Hazardous Waste Threshold			**500**	**500**	**500**	**10,000**	**75**	**100**	**2,500**	**8,000**	**2,500**	**1,000**	**5**	**3,500**	**2,000**	**100**	**500**	**700**	**700**	**2,400**	**5,000**	**20**

Notes:

ft bgs = feet below ground surface
mg/kg = milligrams per kilogram
-- = Sample not analyzed for compound
Concentrations that exceed SSALs show in **bold** and shaded in orange

TTLC = Total Threshold Limit Concentration
mg/l = milligrams per liter
ND = Not Detected at or above the detection limit

WET = Waste Extraction Test
DUP = Duplicate Sample

Borings highlighted in red were advanced as part of EFI Global's PEA-E (dated March 22, 2019)
Borings highlighted in green were advanced as part of this SSI
*Laboratory reporting limits exceeds SSAL for indicated compound

[1] SSALs for arsenic and lead (12 mg/kg and 80 mg/kg, respectively) are from *Scope of Services: PEA Equivalent* document (dated April 23, 2018) by the Los Angeles Unified School District. The SSALs for the remaining Title 22 metals are based on remaining Title 22 metals are based on the EPA's *Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) November 2018.*

Table 5: Total Petroleum Hydrocarbons and Volatile Organic Compounds in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Interval (ft bgs)	EPA Method 8015M (mg/kg)			EPA Method 8260B (µg/kg)							
			TPH-g (C4 - C12)	TPH-d (C13 - C22)	TPH-o (C23 - C44)	Benzene	Ethylbenzene	Toluene	m,p-Xylene	o-Xylene	Acetone	Carbon Disulfide	All Other 860B VOCs
B6-0.5	07/10/18	0-0.5	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND
B13-5	07/10/18	4.5-5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B13-10	07/10/18	9.5-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B18-3	07/10/18	2.5-3	--	--	--	ND	ND	ND	ND	ND	ND	ND	ND
B95-0.5	11/21/18	0-0.5	ND	ND	**19.1**	ND	ND	ND	ND	ND	ND	ND	ND
B96-0.5	11/21/18	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA1-0.5	07/09/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	**120**	ND	ND
HA2-0.5	07/08/19	0-0.5	ND	ND	**20.8**	ND	ND	ND	ND	ND	ND	ND	ND
HA3-0.5	07/08/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA4-0.5	07/08/19	0-0.5	ND	ND	**21.1**	ND	ND	ND	ND	ND	ND	ND	ND
HA5-0.5	07/08/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA6-0.5	07/09/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	**100**	ND	ND
HA6-0.5 DUP	07/09/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	**100**	ND	ND
HA7-0.5	07/08/19	0-0.5	ND	ND	**369**	ND	ND	ND	ND	ND	ND	ND	ND
HA8-0.5	07/08/19	0-0.5	ND	ND	**38.2**	ND	ND	ND	ND	ND	ND	ND	ND
HA9-0.5	07/08/19	0-0.5	ND	ND	**480**	ND	ND	ND	ND	ND	ND	ND	ND
HA10-0.5	07/08/19	0-0.5	ND	ND	**41.0**	ND	ND	ND	ND	ND	ND	ND	ND
HA11-0.5	07/08/19	0-0.5	ND	ND	**34.1**	ND	ND	ND	ND	ND	**46**	ND	ND
HA12-0.5	07/08/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA13-0.5	07/08/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA14-0.5	07/08/19	0-0.5	ND	ND	**6.0**	ND	ND	ND	ND	ND	ND	ND	ND
HA15-0.5	07/09/19	0-0.5	ND	ND	**18.4**	ND	ND	ND	ND	ND	**190**	ND	ND
HA16-0.5	07/09/19	0-0.5	ND	ND	**5.5**	ND	ND	ND	ND	ND	**180**	ND	ND
HA17-0.5	07/09/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA18-0.5	07/09/19	0-0.5	ND	ND	**167**	ND	ND	ND	ND	ND	**55**	ND	ND
HA19-0.5	07/09/19	0-0.5	ND	ND	**308**	ND	ND	ND	ND	ND	ND	ND	ND
HA20-0.5	07/09/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA21-0.5	07/09/19	0-0.5	ND	ND	**6.5**	ND	ND	ND	ND	ND	**140**	ND	ND
HA22-0.5	07/09/19	0-0.5	ND	ND	**45.5**	ND	ND	ND	ND	ND	**170**	ND	ND
HA22-0.5 DUP	07/09/19	0-0.5	ND	ND	**36.9**	ND	ND	ND	ND	ND	**120**	ND	ND
HA23-0.5	07/09/19	0-0.5	ND	ND	**19.8**	ND	ND	ND	ND	ND	**110**	ND	ND
HA24-0.5	07/10/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	**50**	ND	ND
HA25-0.5	07/10/19	0-0.5	ND	ND	ND	**1.8**	**1.4**	**2.3**	ND	ND	ND	ND	ND
HA26-0.5	07/10/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	**76**	ND	ND
HA27-0.5	07/09/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA28-0.5	07/10/19	0-0.5	ND	ND	**112**	ND	ND	ND	ND	ND	ND	ND	ND
HA28-0.5 DUP	07/10/19	0-0.5	ND	ND	**26.3**	ND	ND	ND	ND	ND	**66**	ND	ND
HA29-0.5	07/10/19	0-0.5	ND	ND	**74.8**	ND	ND	ND	ND	ND	ND	ND	ND
HA30-0.5	07/10/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	**90**	ND	ND
HA31-0.5	07/10/19	0-0.5	ND	**6.5**	**118.4**	**2.0**	ND	**2.7**	ND	ND	**170**	**23**	ND
HA32-0.5	07/10/19	0-0.5	ND	ND	**12.6**	**1.2**	ND	ND	ND	ND	ND	ND	ND
HA33-0.5	07/10/19	0-0.5	**59**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA33-0.5 DUP	07/10/19	0-0.5	ND	ND	ND	**0.80**	ND	ND	ND	ND	ND	ND	ND
HA34-0.5	07/10/19	0-0.5	ND	ND	**283**	ND	ND	ND	ND	ND	**140**	ND	ND
HA35-0.5	07/10/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA36-0.5	07/10/19	0-0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
HA37-0.5	07/10/19	0-0.5	ND	ND	**21.1**	ND	ND	ND	ND	ND	ND	ND	ND
SSAL[1]			**100**	**100**	**1,000**	**1,200**	**5,800**	**4.9.E+06**	**5.5.E+05**	**6.5.E+05**	**6.1.E+07**	**7.7.E+05**	**Varies**

Notes:
EPA = United States Environmental Protection Agency
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
ft bgs = feet below ground surface
TPH-g = Total Petroleum Hydrocarbons as gasoline
TPH-d = Total Petroleum Hydrocarbons as diesel
TPH-o = Total Petroleum Hydrocarbons as oil
VOC = Volatile Organic Compound
ND = Not Detected at or above the detection limit
-- = Sample not analyzed for indicated compound

Borings highlighted in red were advanced as part of EFI Global's PEA-E (dated March 22, 2019)
Borings highlighted in green were advanced as part of this SSI

SSAL[1] = Site Specific Action Levels; SSALs for TPH-g, TPH-d, and TPH-o are based on Maximum Soil Screening Levels for sites with groundwater depth of less than 20 feet below the sampling depth (MSSLs) from the *Interim Site Assessment & Cleanup Guidebook* (Los Angeles Regional Water Quality Control Board; May 1996) . SSALs for VOCs are based on the EPA's Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019.

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Table 6: Semi-Volatile Organic Compounds in Soil
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Sample Date	Sample Interval (ft bgs)	EPA Method 8270C (mg/kg)		
			Dimethyl Phthalate	Bis (2-ethylhexyl) phthalate	All Other 8270C SVOCs
HA1-0.5	07/09/19	0-0.5	**0.79**	ND	ND
HA2-0.5	07/08/19	0-0.5	**0.68**	ND	ND
HA3-0.5	07/08/19	0-0.5	ND	ND	ND
HA4-0.5	07/08/19	0-0.5	ND	ND	ND
HA5-0.5	07/08/19	0-0.5	**0.78**	ND	ND
HA6-0.5	07/09/19	0-0.5	**0.88**	ND	ND
HA6-0.5 DUP	07/09/19	0-0.5	**0.82**	ND	ND
HA7-0.5	07/08/19	0-0.5	ND	ND	ND
HA8-0.5	07/08/19	0-0.5	**0.73**	ND	ND
HA9-0.5	07/08/19	0-0.5	ND	ND	ND
HA10-0.5	07/08/19	0-0.5	ND	ND	ND
HA11-0.5	07/08/19	0-0.5	ND	ND	ND
HA12-0.5	07/08/19	0-0.5	**0.55**	ND	ND
HA13-0.5	07/08/19	0-0.5	**0.60**	ND	ND
HA14-0.5	07/08/19	0-0.5	**0.66**	ND	ND
HA15-0.5	07/09/19	0-0.5	**0.70**	ND	ND
HA16-0.5	07/09/19	0-0.5	**0.57**	**0.68**	ND
HA17-0.5	07/09/19	0-0.5	**0.50**	ND	ND
HA18-0.5	07/09/19	0-0.5	ND	ND	ND
HA19-0.5	07/09/19	0-0.5	ND	ND	ND
HA20-0.5	07/09/19	0-0.5	**0.71**	ND	ND
HA21-0.5	07/09/19	0-0.5	**0.56**	ND	ND
HA22-0.5	07/09/19	0-0.5	ND	ND	ND
HA22-0.5 DUP	07/09/19	0-0.5	**0.54**	ND	ND
HA23-0.5	07/09/19	0-0.5	**0.52**	**0.84**	ND
HA24-0.5	07/10/19	0-0.5	ND	ND	ND
HA25-0.5	07/10/19	0-0.5	**0.50**	ND	ND
HA26-0.5	07/10/19	0-0.5	**0.55**	ND	ND
HA27-0.5	07/09/19	0-0.5	**0.63**	ND	ND
HA28-0.5	07/10/19	0-0.5	ND	ND	ND
HA28-0.5 DUP	07/10/19	0-0.5	ND	ND	ND
HA29-0.5	07/10/19	0-0.5	ND	ND	ND
HA30-0.5	07/10/19	0-0.5	**0.49**	ND	ND
HA31-0.5	07/10/19	0-0.5	ND	ND	ND
HA32-0.5	07/10/19	0-0.5	**0.58**	ND	ND
HA33-0.5	07/10/19	0-0.5	**0.60**	ND	ND
HA33-0.5 DUP	07/10/19	0-0.5	**0.87**	ND	ND
HA34-0.5	07/10/19	0-0.5	ND	ND	ND
HA35-0.5	07/10/19	0-0.5	ND	ND	ND
HA36-0.5	07/10/19	0-0.5	**0.63**	ND	ND
HA37-0.5	07/10/19	0-0.5	ND	ND	ND
SSAL[1]			**NE**	**31**	**Varies**

Notes:
EPA = United States Environmental Protection Agency
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
SVOCs = Semi-Volatile Organic Compounds
ND = Not Detected at or above the detection limit
-- = Sample not analyzed for indicated compound
Detections shown in **bold**

[1] SSALs are based on the EPA's Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) April 2019.

Borings highlighted in green were advanced as part of this SSI

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Table 7: Gasoline-Range Organics and Volatile Organic Compounds in Soil Vapor
William Howard Taft Charter High School
5461 Winnetka Avenue, Woodland Hills, California 91364

Sample ID	Probe Depth (ft bgs)	Date	VOCs by EPA Method 8260B (µg/l)							GC/MS (µg/l)
			PCE	Toluene	1,2,4-TMB	m,p-Xylene	4-Isopropyl-toluene	LCC	All Other EPA 8260B VOC Analytes	GRO (C4-C12)
B13-SV-5'	5	7/11/2018	0.010	0.021	ND<0.008	0.0510	0.017	ND	ND	8.41
B13-SV-5' REP	5	7/11/2018	0.016	0.012	0.014	0.010	ND	ND	ND	6.18
B13-SV-10'	10	7/11/2018	0.011	ND<0.008	ND<0.008	ND<0.008	ND	ND	ND	ND
SSALs[1]			**5.5**	**2,600**	**31.5**	**50**	**NE**	**NE**	**Varies**	**NE**

Notes:
EPA = United States Environmental Protection Agency
µg/l = micrograms per liter
GC/MS = Gas chromatography–mass spectrometry
ft bgs = feet below ground surface
PCE = Tetrachloroethene
TMB = Trimethylbenzene
LCC = Leak Check Compound (a mixture of n-Pentane, n-Hexane, and n-Heptane was used as the LCC)
VOC = Volatile Organic Compounds
REP = Duplicate sample
ND = Not Detected at or above the detection limit
SSALs = Site-Specific Action Levels
NE = Not established for the compound or suite of compounds

[1] SSALs are calculated using the approach outlined in the Department of Toxic Substances Control's (DTSC's) Vapor Intrusion Guidance (October 2011) with an attenuation factor of 0.002. SSALs are based on the EPA's *Regional Screening Level (RSL) Summary Table (TR=1E-06, HQ=1) November 2018.*

APPENDIX A

SCAQMD RULE 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

(1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.

(2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.

(3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.

(4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.

(5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

(6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.

(8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.

(9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.

(10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.

(11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.

(12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.

(13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

(14) DISTURBED SURFACE AREA means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:

(A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) been paved or otherwise covered by a permanent structure; or

(C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(15) DUST SUPPRESSANTS are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(16) EARTH-MOVING ACTIVITIES means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.

(17) DUST CONTROL SUPERVISOR means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.

(18) FUGITIVE DUST means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.

(19) HIGH WIND CONDITIONS means that instantaneous wind speeds exceed 25 miles per hour.

(20) INACTIVE DISTURBED SURFACE AREA means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.

(21) LARGE OPERATIONS means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

(22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.

(23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.

(24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(25) PM_{10} means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.

(26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.

(28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.

(29) SIMULTANEOUS SAMPLING means the operation of two PM_{10} samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.

(30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

(31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.

(32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.

(34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.

(35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.

(36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.

(37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

(1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

(A) the dust remains visible in the atmosphere beyond the property line of the emission source; or

(B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.

(2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

(3) No person shall cause or allow PM_{10} levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM_{10} monitoring. If sampling is conducted, samplers shall be:

(A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10}.

(B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.

(4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.

(5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.

(A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

(B) Pave the surface extending at least 100 feet and at least 20 feet wide.

(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.

(E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).

(6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.

(e) Additional Requirements for Large Operations

(1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:

(A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;

(B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;

(C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

(D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;

(E) identify a dust control supervisor that:

(i) is employed by or contracted with the property owner or developer;

(ii) is on the site or available on-site within 30 minutes during working hours;

(iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;

(iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).

(2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

(A) Dairy farms.

(B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.

(C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.

(D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:

(i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and

(ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and

(iii) makes the completed self-monitoring form available to the Executive Officer upon request.

(F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.

(G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.

(H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.

(I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.

(J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:

(i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and

(ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.

(K) sandblasting operations.

(2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:

(A) When wind gusts exceed 25 miles per hour, provided that:

(i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;

(ii) records are maintained in accordance with subparagraph (e)(1)(C).

(B) To unpaved roads, provided such roads:

(i) are used solely for the maintenance of wind-generating equipment; or

(ii) are unpaved public alleys as defined in Rule 1186; or

(iii) are service roads that meet all of the following criteria:

(a) are less than 50 feet in width at all points along the road;

(b) are within 25 feet of the property line; and

(c) have a traffic volume less than 20 vehicle-trips per day.

(C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.

(3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.

(4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:

(A) Blasting operations which have been permitted by the California Division of Industrial Safety; and

(B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.

(5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

(6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.

(7) The provisions of subdivision (e) shall not apply to:

(A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.

(B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.

(C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.

(8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM_{10} pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration ✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris; and 06-4 Comply with AQMD Rule 1403.	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	✓ Limit vehicular traffic and disturbances on soils where possible ✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	✓ Grade each project phase separately, timed to coincide with construction phase ✓ Upwind fencing can prevent material movement on site ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 23114)	✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure		Guidance
Unpaved roads/parking lots	19-1	Stabilize soils to meet the applicable performance standards; and	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2	Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	
Vacant land	20-1	In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY		CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	(1a)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR
	(1a-1)	For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
Earth-moving: Construction fill areas:	(1b)	Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Earth-moving: Construction cut areas and mining operations:	(1c)	Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b)	Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c)	Apply chemical stabilizers within five working days of grading completion; OR
	(2d)	Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a)	Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
	(3b)	Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
	(3c)	Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
	(3d)	Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS	
Unpaved Roads	(4a)	Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR
	(4b)	Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
	(4c)	Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a)	Apply chemical stabilizers; OR
	(5b)	Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
	(5c)	Install temporary coverings; OR
	(5d)	Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
All Categories	(6a)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling **(Only applicable to Commercial Poultry Ranches)**	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).

APPENDIX B

SCAQMD RULE 1166

(Adopted July 7, 2017)(Amended December 1, 2017)

RULE 1466. CONTROL OF PARTICULATE EMISSIONS FROM SOILS WITH TOXIC AIR CONTAMINANTS

(a) Purpose

The purpose of this rule is to minimize the amount of off-site fugitive dust emissions containing toxic air contaminants by reducing particulate emissions in the ambient air as a result of earth-moving activities, including, excavating, grading, handling, treating, stockpiling, transferring, and removing soil that contains applicable toxic air contaminants from sites that meet the applicability requirements of subdivision (b).

(b) Applicability

(1) This rule shall apply to any owner or operator conducting earth-moving activities of soil with applicable toxic air contaminant(s) as defined in paragraph (c)(15) that have been identified as contaminant(s) of concern at a site that has been designated and notified by:

(A) The U.S. Environmental Protection Agency (U.S. EPA) as a Superfund National Priorities List site;

(B) The California Department of Toxic Substances Control (DTSC) as a Brownfield or Cleanup Program site;

(C) The State Water Resources Control Board (State Water Board) or Regional Water Quality Control Board (Regional Water Board) as a Site Cleanup Program site;

(D) A county, local, or state regulatory agency as a Hazardous Material Release site, as defined in California Health and Safety Code Section 25260, effective January 1, 2018; or

(E) The Executive Officer pursuant to subdivision (i).

(2) This rule shall not apply to:

(A) Earth-moving activities of soil with applicable toxic air contaminant(s) of less than 50 cubic yards; or

(B) Removal of soil for sampling purposes.

(c) Definitions

(1) ADEQUATELY WET is the condition of being sufficiently mixed or penetrated with water to prevent the release of particulates or visible emissions. The process

by which an adequately wet condition is achieved is by using a dispenser or water hose with a nozzle that permits the use of a fine, low-pressure spray or mist.

(2) ADJACENT ATHLETIC AREA is any outdoor athletic field or park where youth organized sports occur that is in physical contact or separated solely by a public roadway or other public right-of-way to a school or early education center.

(3) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local agency or any applicable law, rule, or regulation. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface and no less than what is specified by the manufacturer.

(4) DISTURBED SURFACE AREA is a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for fugitive dust. This definition excludes those areas which have:

(A) Been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;

(B) Been paved or otherwise covered by a permanent structure; or

(C) Sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.

(5) DUST SUPPRESSANTS are water, hygroscopic materials, or chemical stabilizers used as a treatment material to reduce fugitive dust emissions.

(6) EARLY EDUCATION CENTER is any public or private property, used for purposes of education as defined as an Early Learning and Developmental Program by the U.S. Department of Education, but does not include any property in which education is primarily conducted in private homes. Early education center includes any building or structure, playground, athletic field, or other areas of early education center property.

(7) EARTH-MOVING ACTIVITIES are, for the purpose of this rule, any activity on a site that meets the applicability requirements of subdivision (b) where soil with applicable toxic air contaminant(s) are being moved or uncovered, and shall include, but not be limited to the following: excavating, grading, earth cutting and filling operations, loading or unloading, and adding to or removing from stockpiles.

(8) FUGITIVE DUST is, for the purpose of this rule, any solid particulate matter that is in contact with ambient air and has the potential to become airborne, other than solid particulate matter that is emitted from an exhaust stack.

(9) JOINT USE AGREEMENT PROPERTY is a shared public facility in which a formal agreement exists between a school or early education center and another government entity setting forth the terms and conditions for shared use.

(10) OWNER OR OPERATOR is any firm, business establishment, association, partnership, corporation or individual, whether acting as principal, agent, employee, contractor, or other capacity.

(11) PAVED ROAD is a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal, or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.

(12) PROPERTY LINE is the boundary of an area where a person has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.

(13) SCHOOL is any public or private education center, including juvenile detention facilities and education centers serving as the students' place of residence (e.g., boarding schools), used for purposes of the education of more than 12 children in kindergarten or any grades 1 to 12, inclusive, but does not include any school in which education is primarily conducted in private homes. School includes any building or structure, playground, athletic field, or other areas of school property.

(14) SOIL is dirt, sand, gravel, clay, and aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.

(15) SOIL WITH APPLICABLE TOXIC AIR CONTAMINANT(S) means, for the purpose of this rule, soil that has been identified by the U.S. EPA, the DTSC, the State Water Board, the Regional Water Board, or a county, local, or state regulatory agency to contain one or more of the applicable toxic air contaminants as listed in Table I that exceed action levels as specified by the designating agency or, effective January 1, 2018, soil that has been identified by the Executive Officer to contain one or more of the toxic air contaminants listed in Rule 1401 – New Source Review of Toxic Air Contaminants Table I or Hazardous Air Pollutants Identified as Toxic Air Contaminants as listed in California Code of Regulations Section 93001, excluding volatile organic compounds regulated under Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil.

(16) STABILIZED SURFACE is any previously disturbed surface area or stockpile, which through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind driven fugitive dust, and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the SCAQMD *Rule 403 Fugitive Dust Implementation Handbook* or in Volumes I and II of SCAQMD's *Dust Control in the Coachella Valley*.

(17) STOCKPILE is any accumulation of soil, which is not fully enclosed, covered, or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 square feet or more.

(18) TRACK-OUT is any soil that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that has been released onto a paved road.

(19) WIND-DRIVEN FUGITIVE DUST is visible emissions from any disturbed surface area, which is generated by wind action alone.

(20) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.

(d) Monitoring Requirements

(1) When earth-moving activities or vehicular movement occurs, the owner or operator shall conduct continuous direct-reading near real-time ambient monitoring of PM_{10} concentrations pursuant to paragraph (d)(3).

(2) If the PM_{10} concentration averaged over two hours exceeds 25 micrograms per cubic meter, as measured pursuant to paragraph (d)(3) and as determined pursuant to paragraph (d)(4), the owner or operator shall cease earth-moving activities, apply dust suppressant to fugitive dust sources, or implement other dust control measures as necessary until the PM_{10} concentration is equal to or less than 25 micrograms per cubic meter averaged over 30 minutes.

(A) The owner or operator or designating agency may request an alternative PM_{10} limit from the Executive Officer provided the exposure to toxic air contaminants from fugitive dust from earth-moving activities at the proposed PM_{10} concentration level is health protective to the public. The owner or operator or designating agency shall provide the Executive Officer the information specified in subparagraphs (i)(1)(A) through (H) and substantiate its position that an alternative PM_{10} limit is health protective.

Use of an alternative PM_{10} limit must be submitted and approved by the Executive Officer as specified in subdivision (j).

(3) The owner or operator conducting earth-moving activities shall install and conduct ambient PM_{10} monitoring as follows:

(A) In accordance with a U.S. EPA-approved equivalent method for PM_{10} monitoring or an alternative method approved by the Executive Officer. The owner or operator or designating agency shall select an alternative PM_{10} method as specified in Appendix 1. Use of an alternative PM_{10} method must be submitted and approved by the Executive Officer as specified in subdivision (j);

(B) Using a minimum of one upwind monitor where the location of the upwind monitor(s) are indicative of background PM_{10} levels and not generally influenced by fugitive dust sources from the site;

(C) Using a minimum of one downwind monitor placed in the seasonal prevailing wind direction downwind of each area of earth-moving activity and as close to the property line as feasible;

(D) Using PM_{10} monitors that are identical in make and model; settings; calibration; configuration; and calibration, correction, and correlation factors.

(E) Operate, maintain, and calibrate ambient PM_{10} monitors in accordance with appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM_{10} or the alternative method approved by the Executive Officer, and manufacturer's instructions; and

(F) Collect ambient PM_{10} data with a data acquisition system that is capable of logging direct-reading near real-time data providing the date, time, and PM_{10} concentration in micrograms per cubic meter every 10 minutes or less.

(4) The owner or operator shall calculate the PM_{10} concentration based on the PM_{10} concentration averaged over two hours, starting at the top of each hour, where:

(A) The PM_{10} concentration is the absolute difference between the upwind and downwind monitors;

(B) If there is more than one upwind monitor, the upwind result is the two hour average of all upwind monitors;

(C) If there is more than one downwind monitor, the downwind average is the maximum two hour average concentration of any of the downwind monitors; and

(D) The owner or operator or designating agency may use an alternative calculation methodology if the owner or operator or designating agency provides information to substantiate that all or some the PM_{10} concentration is the result of another source and not attributed to the earth-moving activities of the site. Use of an alternative calculation methodology must be submitted and approved by the Executive Officer as specified in subdivision (j).

(5) When earth-moving activities occur, the owner or operator shall monitor wind direction and speed as specified in U.S. EPA *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements*.

(e) Requirements to Minimize Fugitive Dust Emissions

(1) An owner or operator shall not conduct earth-moving activities unless the area is surrounded with fencing that is a minimum of 6 feet tall and at least as tall as the height of the tallest stockpile, with a windscreen with a porosity of 50 ± 5%.

(2) An owner or operator conducting earth-moving activities shall:

(A) Adequately wet to the depth of earth-moving activity and allow time for penetration; and

(B) Adequately wet at frequencies to prevent the generation of visible dust plumes.

(3) An owner or operator that is moving vehicles on, within, or off a site where earth-moving activities are occurring shall:

(A) Post signs at all entrances of the site to designate the speed limit as 15 miles per hour;

(B) Stabilize the surface of all vehicular traffic and parking areas by applying gravel, paving, or dust suppressant;

(C) Not allow track-out to extend beyond 25 feet of the property line. Remove any track-out each day using a vacuum equipped with a filter(s) rated by the manufacturer to achieve a 99.97% capture efficiency for 0.3 micron particles;

(D) Clean the soil from the exterior of trucks, trailers, and tires prior to the truck leaving the site; and

(E) The owner or operator shall utilize at least one of the measures listed in clause (e)(3)(E)(i) through (e)(3)(E)(iv) at each vehicle egress from the site to a paved public road:

(i) Install a pad consisting of washed gravel (minimum-size: one inch), maintained in a clean condition, to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;

(ii) Pave the surface extending at least 100 feet from the property line and at least 20 feet wide;

(iii) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipes, or grates) at least 24 feet long and 10 feet wide; or

(iv) Install and utilize a wheel washing system to remove soil from tires and vehicle undercarriages.

(4) An owner or operator conducting earth-moving activities that result in the development of stockpiles of any soil with applicable toxic air contaminant(s) shall:

(A) Segregate non-contaminated stockpiles from stockpiles with applicable toxic air contaminant(s) and label with "SCAQMD Rule 1466 – Control of Particulate Emissions from Soils with Toxic Air Contaminant(s) Applicable Soil";

(B) Maintain stockpiles to avoid steep sides or faces that exceed the angle of repose;

(C) Not create a stockpile that is more than 400 cubic yards of soil and greater in height than the perimeter fencing and windscreen;

(D) Apply dust suppressant to stockpiles;

(E) At the end of each working day, either chemically stabilize and/or completely cover with 10 millimeter thick plastic sheeting that overlaps a minimum of 24 inches. The plastic sheeting shall be anchored and secured so that no portion of the soil is exposed to the atmosphere; and

(F) Daily, inspect stabilized or covered stockpiles. For a stabilized stockpile, such inspections shall include a demonstration of stabilization by one or more of the applicable test methods contained in SCAQMD *Rule 403 Fugitive Dust Implementation Handbook* or Volumes I and II of SCAQMD's *Dust Control in the Coachella Valley*. For a covered stockpile, such inspections shall include a visual inspection of all seams and plastic cover surfaces. Immediately re-stabilize or repair any holes, tears, or any other potential sources of fugitive toxic air contaminant emissions.

(5) An owner or operator conducting truck loading activities of soil containing applicable toxic air contaminant(s) shall:

(A) Apply dust suppressant to material prior to loading;

(B) Empty the loader bucket slowly so that no dust plumes are generated;

(C) Minimize the drop height from the loader bucket;

(D) Maintain at least six inches of space between the soil and the top of the truck bed while transporting within a site; and

(E) Completely tarp the truck and trailer prior to leaving the site.

(6) An owner or operator conducting truck unloading activities of soil containing applicable toxic air contaminant(s) shall:

(A) Apply dust suppressant to material prior to unloading; and

(B) Empty the trailer slowly so that no dust plumes are generated.

(7) The owner or operator shall immediately remove any spilled soil containing applicable toxic air contaminant(s).

(8) The owner or operator shall cease earth-moving activities if the wind speed is greater than 15 miles per hour (mph) averaged over a 15-minute period or instantaneous wind speeds exceed 25 mph.

(9) During earth-moving activities, the owner or operator shall have an on-site dust control supervisor that:

(A) Is employed by or contracted with the owner or operator;

(B) Is located on the site during working hours;

(C) Is in a position to expeditiously employ sufficient dust control measures to ensure compliance with all rule requirements;

(D) Has completed the SCAQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and

(E) Has the following credentials, if asbestos is an applicable toxic air contaminant:

(i) Successfully completed the Asbestos Abatement Contractor/Supervisor course pursuant to the Asbestos Hazard Emergency Response Act (AHERA), and obtained and maintained accreditation as an AHERA Asbestos Abatement Contractor/Supervisor; and

(ii) Trained on the provisions of 40 CFR Part 61.145, 61.146, 61.147 and 61.152 (Asbestos NESHAP provisions) and Part 763, and have the means by which to comply with these provisions.

(10) If earth-moving activities will not occur for three (3) or more consecutive days, apply a chemical stabilizer to potential sources of fugitive dust diluted to the concentration required to maintain a stabilized surface for the period of inactivity; re-stabilize as necessary.

(11) An owner or operator that is conducting earth-moving activities of soil with applicable toxic air contaminant(s) at a school, early education center, joint use agreement property, or adjacent athletic area shall:

(A) Only conduct earth-moving activities at a school or early education center outside of the hours between 7:30 a.m. and 4:30 p.m. on days when the school or early education center is in session;

(B) Not conduct earth-moving activities at a school, early education center, joint use agreement property, or adjacent athletic area if there is a school or early education center sponsored activity or youth organized sports at that site;

(C) Handle excavated soils with applicable toxic air contaminant(s) by:

(i) Immediately placing soil in a leak-tight container whereby any contained solids or liquids are prevented from escaping or spilling out;

(ii) Directly loading soil in trucks, applying dust suppressant, and covering prior to transporting; or

(iii) Stockpiling pursuant to paragraph (e)(4), in a fenced area that is not accessible to the general public, and locked when not in use; and

(D) Within five (5) days of its excavation, remove all soil with applicable toxic air contaminant(s) from the site.

(12) With the exception of paragraphs (e)(7) and (e)(11), the owner or operator or designating agency may use alternative dust control measures that meet the objective and effectiveness of the dust control measure it is replacing, where the objective and effectiveness of each category of dust control measures is stated in Appendix 2. Use of alternative dust control measures must be submitted and approved by the Executive Officer as specified under subdivision (j).

(f) Notification Requirements

(1) At least 72 hours and no more than 30 days prior to conducting any earth-moving activities on any site meeting the applicability requirements of subdivision (b), the owner or operator shall electronically notify the Executive Officer, using a format approved by the Executive Officer, of the intent to conduct any earth-moving activities. Notifications shall include the following requirements:

(A) Name, address, telephone number, and e-mail address of the owner or operator;

(B) Name, telephone number, and e-mail address of the on-site dust control supervisor;

(C) Project name and, if applicable, the project identification number from the designating agency;

(D) Project location (address and/or coordinates);

(E) Identify whether the site is a school, early education center, joint use agreement property, or adjacent athletic area;

(F) A map indicating the specific location(s) of each earth-moving activity and the concentrations of the applicable toxic air contaminant(s) and location of PM_{10} monitors;

(G) A description of the earth-moving activities, estimated volume of soil with applicable toxic air contaminant(s), and a schedule that includes the anticipated start and completion dates of earth-moving activities;

(H) Current and/or previous type of operation(s) and use(s) at the site;

(I) Applicable exemption(s); and

(J) Whether the notice is a revised notification.

(2) Notification Updates

Notifications pursuant to paragraph (f)(1) shall be updated when any of the following conditions arise:

(A) Earlier Start Date

A change in the start date of any earth-moving activity to an earlier date shall be reported to the SCAQMD no later than 72 hours before any earth-moving activities begin.

(B) Later Start Date

A delay in the start date of any earth-moving activity shall be reported to the SCAQMD as soon as the information becomes available, but no later than the original start date.

(C) Change in Exemption Status

Any change(s) in exemption status pursuant to subdivision (k) shall be reported to the SCAQMD as soon as the information becomes available, but no later than 48 hours after the information becomes available.

(3) Within 72 hours of an exceedance of the PM_{10} emission limit specified in subdivision (d), the owner or operator of a site meeting the applicability requirements of subdivision (b) shall electronically notify the Executive Officer, using a format approved by the Executive Officer, of the exceedance and shall include the following information:

(A) Name, address, telephone number, and e-mail address of the owner or operator;

(B) Name, telephone number, and e-mail address of the on-site dust control supervisor;

(C) Project name and, if applicable, the project identification number from the designating agency;

(D) Project location (address and/or coordinates);

(E) PM_{10} monitoring results, including result, date and time of exceedance(s), 12 hours before first exceedance, and 12 hours after last exceedance;

(F) Earth-moving activities occurring at the date and time of exceedance(s); and

(G) Dust control measure(s) taken to mitigate fugitive dust.

(g) Signage Requirements

When conducting earth-moving activities, the owner or operator shall install and maintain project signage.

(1) Unless otherwise approved in writing by the Executive Officer, signage shall:

(A) Be installed at all entrances and at intervals of 1,000 feet or less along the property line or perimeter of the site, with a minimum of one along each side;

(B) Be located between 6 and 8 feet above grade from the bottom of the sign;

(C) Display lettering at least four inches tall with text contrasting with the sign background; and

(D) Display the following information:

(i) Local or toll-free phone number for the site contact or pre-recorded notification center that is accessible 24 hours a day; and

(ii) Warning statement:

"THIS SITE CONTAINS SOILS THAT CONTAIN THE FOLLOWING CHEMICALS: [LIST APPLICABLE TOXIC AIR CONTAMINANT(S)]
TO REPORT ANY DUST LEAVING THE SITE PLEASE CALL [FACILITY CONTACT] OR THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT 1-800-CUT-SMOG"

(E) If signage pursuant to paragraph (g)(1) exceeds 48 inches by 96 inches, the owner or operator or designating agency must still include the warning statement referenced in (g)(1)(D)(ii), displaying lettering at least four inches tall with text contrasting with the sign background, but may use 2.5 inch tall lettering to list applicable toxic air contaminants. All other signage requirements set forth in paragraph (g)(1) shall remain the same. If signage

continues to exceed 48 inches by 96 inches with these parameters, the owner or operator or designating agency may use alternative signage as set forth in paragraph (g)(2).

(2) The owner or operator or designating agency may use alternative signage approved by the Executive Officer pursuant to subdivision (j). Notwithstanding subdivision (j), the request shall include a visual representation of the alternative sign, including proposed lettering height, and locations and, at a minimum, the alternative signage shall:

(A) Display text contrasting with the sign background; and

(B) Display the following warning statement:

"THIS SITE CONTAINS SOILS THAT CONTAIN THE FOLLOWING CHEMICALS: [LIST APPLICABLE TOXIC AIR CONTAMINANT(S)] TO REPORT ANY DUST LEAVING THE SITE PLEASE CALL THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT 1-800-CUT-SMOG"

(h) Recordkeeping Requirements

The owner or operator shall maintain records for a period of not less than three years and shall make such records available to the Executive Officer upon request. At a minimum, records shall be maintained daily and shall include:

(1) Inspection of all covered stockpiles containing soils with applicable toxic air contaminant(s);

(2) Results of wind and PM_{10} monitoring, including: instrument make and model; settings; calibration; configuration; calibration, correction, and correlation factors; maintenance; operator training; and daily instrument performance check records for all monitoring instruments;

(3) Earth-moving activities conducted and the corresponding volume of soil with applicable toxic air contaminant;

(4) Names and business addresses of the transporting and receiving facilities, and a copy of the shipping manifest; and

(5) Complaints called in, including the name of complainant and contact information, date and time, earth-moving activities occurring at the date and time, complaint, and action taken to mitigate the source of the complaint.

(i) Executive Officer Designated Sites

(1) The Executive Officer may designate a site if the Executive Officer has evidence that the site contains soil with applicable toxic air contaminant(s) as defined in paragraph (c)(15), after consultation with U.S. EPA, DTSC, the State or Regional Water Boards, and/or local, county, or state health and regulatory agencies, and consideration of the following:

(A) Site history, including current and/or previous type(s) of operation(s) and use(s) at the site and regulatory history;

(B) Concentration(s) of applicable toxic air contaminant(s) in the soil;

(C) Background concentration(s) of applicable toxic air contaminant(s);

(D) Volume of soil with applicable toxic air contaminant(s);

(E) Distance to a residence, park, or school;

(F) Meteorological data;

(G) Health risk information or other data provided by the owner or operator, if available; and

(H) Ambient monitoring data and other applicable data, if available.

(2) Prior to making a determination, the Executive Officer will notify the owner or operator in writing that the site may be subject to this rule.

(A) In the event the owner or operator exercises this opportunity to demonstrate that this rule does not apply, the owner or operator shall submit information to the Executive Officer within 14 days of the notification substantiating why the site should be excluded from this rule.

(B) Upon final determination, the Executive Officer will notify the owner or operator in writing if the site is subject to this rule.

(3) During the determination period, the owner or operator shall comply with the provisions of this rule or cease all earth-moving activities until a determination is made.

(j) Alternative Provisions

(1) If requesting an alternative provision pursuant to subparagraphs (d)(2)(A), (d)(3)(A), or (d)(4)(D) or paragraphs (e)(12), (g)(2), (k)(3), or (k)(4) the owner or operator or designating agency shall submit all information to the Executive Officer to substantiate its positon.

(A) The owner or operator or designating agency that elects to request alternative provisions for the PM_{10} limit, PM_{10} monitoring method, signage,

or direct loading exemption shall submit the request in writing at least 30 days prior to conducting any earth-moving activities.

(B) The owner or operator or designating agency that elects to request alternative provisions for the PM_{10} calculation or dust control measures shall submit the request, in writing, prior to an exceedance of the PM_{10} concentration requirements set forth in paragraph (d)(2).

(2) The Executive Officer may request additional information from the owner or operator or designating agency.

(3) The owner or operator or designating agency shall submit all requested information within 14 days of the request for additional information.

(4) The Executive Officer will review the request for an alternative provision and will approve or reject the data and notify the owner or operator or designating agency in writing. Approved alternative provisions may not be used retroactively.

(k) Exemptions

(1) The owner or operator may be exempt from one or more provisions of this rule provided there is written confirmation that the designating agency under subparagraphs (b)(1)(A) through (D) has consulted with the Executive Officer and has determined that the provision(s) are not needed based on information specified in subparagraphs (i)(1)(A) through (H).

(2) Earth-moving activities performed within an enclosed system vented to SCAQMD permitted air pollution control equipment shall be exempt from all requirements except: subparagraphs (e)(3)(C) through (e)(3)(E), subparagraphs (e)(5)(D) and (e)(5)(E), and subdivisions (f), (g), and (h).

(3) Linear trenching for natural gas, power, sewer, and water projects on roadways with soil with applicable toxic air contaminant(s), directly loaded into a truck or bin for transport, shall be exempt from all requirements except: paragraphs (e)(2) through (e)(8), paragraph (e)(11), and subdivisions (f), (h), and (i). The owner or operator or designating agency may use an alternative to directly load into a truck or bin for transport that meets the objective and effectiveness of directly loading soil, where the objective and effectiveness is stated in Appendix 2. Use of an alternative measure must be submitted and approved by the Executive Officer as specified under subdivision (j).

(4) Earth-moving activities consisting only of excavation activities of soil with applicable toxic air contaminant(s) of less than 500 cubic yards, directly loaded into a truck or bin for transport, shall be exempt from all requirements except:

paragraphs (e)(2) through (e)(8), paragraph (e)(11), and subdivisions (f), (h), and (i). The owner or operator or designating agency may use an alternative to directly load into a truck or bin for transport that meets the objective and effectiveness of directly loading soil, where the objective and effectiveness is stated in Appendix 2. Use of alternative measure must be submitted and approved by the Executive Officer as specified under subdivision (j).

(5) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency as declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer shall be exempt from all requirements. The Executive Officer shall be notified electronically no later than 48 hours following such earth-moving activities. Written notification shall include written emergency declaration from the authorized officer.

(6) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water, or sewer during periods of service outages and emergency disruptions shall be exempt from all requirements. The Executive Officer shall be notified electronically no later than 48 hours following such earth-moving activities.

Table I – Applicable Toxic Air Contaminants

CAS Number	Substance
7440-38-2	**arsenic and arsenic compounds (inorganic)**
	including, but not limited to:
	arsenic compounds (inorganic)
7784-42-1	arsine
1332-21-4	asbestos
7440-43-9	cadmium and cadmium compounds
57-74-9	chlordane*

CAS Number	Substance
	dibenzo-p-dioxins (chlorinated)*
1746-01-6	tetrachlorodibenzo-p-dioxin, 2,3,7,8-
40321-76-4	pentachlorodibenzo-p-dioxin, 1,2,3,7,8-
39227-28-6	hexachlorodibenzo-p-dioxin, 1,2,3,4,7,8-
57653-85-7	hexachlorodibenzo-p-dioxin, 1,2,3,6,7,8-
19408-74-3	hexachlorodibenzo-p-dioxin, 1,2,3,7,8,9-
35822-46-9	heptachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8-
3268-87-9	octachlorodibenzo-p-dioxin, 1,2,3,4,6,7,8,9-
41903-57-5	total tetrachlorodibenzo-p-dioxin
36088-22-9	total pentachlorodibenzo-p-dioxin
34465-46-8	total hexachlorodibenzo-p-dioxin
37871-00-4	total heptachlorodibenzo-p-dioxin
72-54-8	dichlorodiphenyldichloroethane*
72-55-9	dichlorodiphenyldichloroethylene*
50-29-3	dichlorodiphenyltrichloroethane*
18540-29-9	**chromium (hexavalent) and chromium compounds**
	including, but not limited to:
10294-40-3	barium chromate
13765-19-0	calcium chromate
7758-97-6	lead chromate
10588-01-9	sodium dichromate
7789-06-2	strontium chromate
13530-65-9	zinc chromate
7439-92-1	**lead and lead compounds (inorganic, including elemental lead)**
	including, but not limited to:
	lead compounds (inorganic)
301-04-2	lead acetate
7758-97-6	lead chromate

CAS Number	Substance
7446-27-7	lead phosphate
1335-32-6	lead subacetate
7439-97-6	**mercury and mercury compounds (inorganic)**
	including, but not limited to:
7487-94-7	mercuric chloride
593-74-8	methyl mercury
7440-02-0	**nickel and nickel compounds**
	including, but not limited to:
373-02-4	nickel acetate
3333-67-3	nickel carbonate
13463-39-3	nickel carbonyl
12054-48-7	nickel hydroxide
1313-99-1	nickel oxide
12035-72-2	nickel subsulfide
1271-28-9	nickelocene
	refinery dust from the pyrometallurgical process
1336-36-3	**polychlorinated biphenyls (PCBs)**
32598-13-3	3,3’,4,4’-tetrachlorobiphenyl
70362-50-4	3,4,4’,5-tetrachlorobiphenyl
32598-14-4	2,3,3’,4,4’-pentachlorobiphenyl
74472-37-0	2,3,4,4’,5-pentachlorobiphenyl
31508-00-6	2,3’,4,4’,5-pentachlorobiphenyl
65510-44-3	2,3',4,4',5'-pentachlorobiphenyl
57465-28-8	3,3’,4,4’,5-pentachlorobiphenyl
38380-08-4	2,3,3’,4,4’,5-hexachlorobiphenyl
69782-90-7	2,3,3’,4,4’,5’-hexachlorobiphenyl
52663-72-6	2,3’,4,4’,5,5’-hexachlorobiphenyl
32774-16-6	3,3’,4,4’,5,5’-hexachlorobiphenyl
39635-31-9	2,3,3’4,4’,5,5’-heptachlorobiphenyl

CAS Number	Substance
	polycyclic aromatic hydrocarbons (PAHs)*
56-55-3	benzo[a]anthracene
50-32-8	benzo[a]pyrene
205-99-2	benzo[b]fluoranthene
207-08-9	benzo[k]fluoranthene
218-01-9	chrysene
53-70-3	dibenz[a,h]anthracene
193-39-5	indeno[1,2,3-c,d]pyrene

* Effective January 1, 2018

Appendix 1 – Executive Officer Approved PM_{10} Monitors

The Executive Officer may approve PM_{10} monitors that meeting the following requirements.

1. PM_{10} monitors must be continuous direct-reading near-real time monitors and shall monitor particulate matter less than 10 microns.
2. PM_{10} monitors must be equipped with:
    a. Omni-directional heated sampler inlet;
    b. Sample pump;
    c. Volumetric flow controller;
    d. Enclosure; and
    e. Data logger capable of logging each data point with average concentration, time/date, and data point number.
3. PM_{10} monitors must have the following minimum performance standards:
    a. Range: 0 - 10,000 $\mu g/m^3$
    b. Accuracy: ±5% of reading ± precision
    c. Resolution: 1.0 $\mu g/m^3$
    d. Measurement Cycle: User selectable (30 minute and 2 hour)
4. In order to ensure the validity of the PM_{10} measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the owner or operator to adequately supplement QA/QC Plans to include the following critical features: instrument calibration, instrument maintenance, operator training, and daily instrument performance (span) checks.

Appendix 2 – Objectives and Effectiveness of Dust Control Measures Set-Forth in Subdivision (e)

Dust Control Measure	Objective	Effectiveness
(e)(1) Fencing and Windscreen Requirement	To minimize off-site fugitive dust emissions containing toxic air contaminants, provide a wind break, act as containment, provide security, and limit access to unauthorized persons.	Any dust control measure that is equally or more effective in minimizing off-site fugitive dust emissions containing toxic air contaminants that may result in exposure to the general public and will limit public access to the site.
(e)(2) Water Application	To minimize fugitive dust emissions containing toxic air contaminants from earth-moving activities.	Any dust control measure that is equally or more effective at preventing the generation of visible dust plumes from earth-moving activities.
(e)(3) Vehicle Movement	To minimize fugitive dust emissions containing toxic air contaminants from on-site vehicles and as vehicles are moving off-site.	Any dust control measure that is equally or more effective at preventing the generation of dust plumes from on-site vehicle movement and any fugitive dust that can be tracked out of the site that can result in exposure to the general public.
(e)(4) Stockpiles	To minimize fugitive dust emissions containing toxic air contaminants from stockpiles.	Any dust control measure that is equally or more effective at minimizing fugitive dust emissions containing toxic air contaminants from stockpiles and that will prevent the generation of dust plumes from stockpiles that can result

Dust Control Measure	Objective	Effectiveness
		in exposure to the general public.
(e)(5) Truck Loading	To minimize fugitive dust emissions containing toxic air contaminants from truck loading and truck movement.	Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust occurring during the loading of soils containing toxic air contaminants into trailers and physical containment or other mechanisms to minimize fugitive dust from escaping the trailer during transport.
(e)(6) Truck Unloading	To minimize fugitive dust emissions containing toxic air contaminants from truck unloading and truck movement.	Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust occurring during the unloading of soils containing toxic air contaminants.
(e)(8) Earth-Moving Activities at Certain Wind Speeds	To minimize fugitive dust emissions containing toxic air contaminants from high wind events.	Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust occurring during high wind events.
(e)(9) On-site Dust Control Supervisor	To require the on-site presence of a person that has specific training to ensure compliance with all rule requirements.	Any measure that ensures the on-site presence of a person with training covering the same material as that covered by an SCAQMD Fugitive Dust Control Class and appropriate credentials to handle applicable toxic air contaminants and that can

Dust Control Measure	Objective	Effectiveness
		ensure compliance with all rule requirements.
(e)(10) Application of Chemical Stabilizer During Periods of Inactivity	To minimize a dust plume or fugitive dust emissions containing toxic air contaminants from occurring on-site during periods of inactivity.	Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust emissions containing toxic air contaminants from occurring on-site during periods of inactivity.
(k)(3)/(k)(4) Direct Load into a Truck or Bin for Transport	To minimize a dust plume or fugitive dust emissions containing toxic air contaminants from truck loading and unloading.	Any dust control measure that is equally or more effective at preventing a dust plume or fugitive dust emissions containing toxic air contaminants from truck loading and unloading.

APPENDIX C

HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN

For work to be performed at:

William Howard Taft Charter High School
5461 Winnetka Avenue
Woodland Hills, California 91364

Prepared for:

Los Angeles Unified School District
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

EFI Global Project No. 9836003557 / 045.00349

March 11, 2020

5261 West Imperial Highway, Los Angeles, California 90045
Toll Free: 888-705-6300 Phone: 310-854-6300 Fax: 310-854-0199 Web: www.EFIGlobal.com

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HEALTH AND SAFETY FORMS

1.0 INTRODUCTION

EFI Global has prepared this Health and Safety Plan (HASP) for subsurface investigation and assessment activities to be conducted at William Howard Taft Charter High School located at 5461 Winnetka Avenue in Woodland Hills, California (the Site, Figure 1). This HASP encompasses excavation of soil contaminated with lead, arsenic, and organochlorine pesticides (OCPs) within six areas of the Site utilizing excavation equipment.

EFI Global's Removal Action Workplan (RAW) outlines the scope of work to be completed and hazards that may be encountered during field activities on-site.

2.0 SITE DESCRIPTION

The Site is located in the Woodland Hills neighborhood of the city of Los Angeles and it is bound to the north by Ventura Boulevard, to the south by Santa Rita Street, to the east by Winnetka Avenue, and to the west by Del Moreno Street (Figure 1). The Site is occupied by William Howard Taft Charter High School and is composed of several administrative, classroom, maintenance, and athletic structures and recreational fields (Figure 2).

3.0 SCOPE OF WORK

The scope of work is detailed in EFI Global's RAW.

4.0 EMERGENCY CONTACT INFORMATION

The following are emergency contacts designated for this project:

PARAMEDICS	**911**
POLICE	**911**
FIRE	**911**
SPILL	**911**
CALIFORNIA POISON CONTROL	**1-800-222-1222**
EFI Global Office	**(310) 854-6300**
Desi Salgado – Cellular Telephone	**(310) 409-9980**
Benjamin Curry – Cellular Telephone	**(310) 279-3631**

5.0 NEAREST HOSPITAL INFORMATION

The nearest hospital to the job site is as follows. The route to **the nearest hospital from the job site is provided in Figure 3, and turn-by-turn directions are provided in Figure 4.**

Sherman Oaks Hospital Emergency Room
4929 Van Nuys Boulevard
Sherman Oaks, California 91403
(818) 907-4570

6.0 ORGANIZATIONAL STRUCTURE AND RESPONSIBILITIES

In compliance with 29 CFR 1910.120 (b)(2), 8CCR 5192 and OSHA, the following individuals are assigned specific responsibilities and lines of communication for the duration of this project. ALL Employees and workers on this project are expected to maintain vigilance at all times to ensure that the work is conducted in a safe and efficient manner.

6.1 HEALTH AND SAFETY OFFICER

Benjamin Curry is the EFI Global Health and Safety Officer and has the responsibility and authority to oversee the development of this site Health and Safety Plan and to audit the equipment and training of involved company and sub-contractor employees to implement the Work Plan. He or his designated representative has discretionary authority to immediately suspend work until further notice.

6.2 PROJECT MANAGER

Desi Salgado is the designated Project Manager for all operations on this project. He is responsible for overall administration of the project activities. His duties include project planning, communications, and coordination. He may also assist the Project Supervisor in the preparation of the Health and Safety Plan. The Project Manager reports to EFI Global's Health and Safety Officer.

6.3 PROJECT SUPERVISOR

Desi Salgado is the designated Project Supervisor for this project and is responsible for verification and overall compliance with this Health and Safety Plan. Duties include, but are not limited to management of staff assignments for

1. On site determination of appropriate levels of personal protective equipment (PPE);
2. Site surveillance, hazard identification, and health risk analysis;
3. Implementation of procedures and programs to eliminate risk to site personnel;
4. Implementation of site control measures;
5. Conducting daily Health and Safety meetings; and
6. Instructing all site personnel in the terms and conditions of this Health and Safety Plan.

6.4 SITE HEALTH AND SAFETY OFFICER

The Site Health and Safety Officer reports directly to the Project Supervisor or his designated representative. Through the Project Supervisor, he also reports to the Health and Safety Officer and the Project Manager.

6.5 PROJECT LEAD MEN

Project lead men are responsible for the organization and direction of select technicians and laborers to accomplish certain project tasks. They report to the Project Supervisor who assigns and schedules the work to be done on a day to day basis.

7.0 TAILGATE HEALTH AND SAFETY MEETING

Before work on this site begins, all involved field personnel will be briefed of this Health and Safety Plan. This briefing will be conducted by the Site Safety Officer or by a designated member of EFI Global's Health and Safety Department. This training will focus on the potential hazards present at the site and the safety and health procedures specific to this project. The training will include, but not be limited to, the following:

- Project Introduction and Orientation;
- Characteristics and Potential Hazards of Chemical and Physical Dangers on Site;
- Personal Protective Equipment requirements- function, care, and limitations;
- Emergency Response; and
- General Site-Specific Safety Concepts.

8.0 HAZARDS AND SITE CHARACTERIZATION

As required by 29 CFR 1910.120 (c) and 8CCR 5193, all site personnel shall be aware of the nature, level, and degree of exposure likely as a result of participation in the work described within the Scope of Work . All personnel shall be advised of these conditions before entering the project site.

8.1 PHYSICAL HAZARDS

Physical hazards for this project include working around heavy machinery with multiple pinch- and crush-points; slips, trips, and falls; and vehicular traffic. Head, eye, ear, and foot injuries are possible and will be avoided by the use of Level D PPE.

The work zones for the purposes of this plan are to be established by the Site Health and Safety Supervisor, and all work is to take place inside of those areas. Personnel inside of the work zones shall be limited when EFI Global is conducting Site evaluation activities. Only authorized EFI Global personnel, and its subcontractors, will be permitted within the work zones. Emergency shutoff switches will be identified prior to the start of work.

Certain onsite equipment operates under high air pressure. The scope of work may include excavation or boring activities. Potential risks associated with open excavations include the following:

- Injuries may result from personnel falling into an open excavation.
- Loose materials and tools may fall onto workers within the excavation, causing injury.
- The sidewalls of the excavation can fail, resulting in a collapse that can injure or bury workers.

Appropriate precautions must be taken to ensure the safety of personnel within and around the excavation.

Fuel tanks may be present at the site and interacted with during implementation of the scope of work. Proper design and construction of a fuel tank system play a major role in the safety of the system. In most cases intact fuel tanks are very safe, as the tank is full of fuel vapor/air mixture that is well above the flammability limits, and thus cannot burn even if an ignition source were present (which is rare). Nevertheless, if work is conducted

within close proximity of a fuel tank, the potential for ignition of combustible gases will be an assumed present hazard for the duration of work until such a time that the tanks have been certified inert.

8.2 CHEMICAL HAZARDS AND HAZARDOUS MATERIALS ANTICIPATED

Based on historical site uses, hazardous materials that may be encountered during this scope of work are petroleum hydrocarbons, volatile organic compounds (VOCs), metals, pesticides, radon, and polychlorinated biphenyls (PCBs). Workers may encounter hazardous chemicals during drilling, soil/groundwater/soil vapor sampling, well installation, and handling of soil cuttings. Therefore, for the proposed scope of work, the potential exposure routes are dermal contact with potentially impacted soil, soil vapor, and groundwater; inhalation; and ingestion.

To reduce the potential for contact with hazardous materials, personal protective equipment will be used as detailed in Section 10: Personal Protective Equipment. At a minimum, Level D PPE, as described in Section 10.4: Level D, will be worn by all on-site workers during the proposed work. In addition, air monitoring will be performed as described in Section 12.0: Breathing Zone Monitoring, and control measures will be taken as necessary to address potential risks associated with the inhalation of hazardous materials.

8.3 BIOLOGICAL HAZARDS

Several biological hazards may exist on the project site and will be identified prior to conducting work for each day during the site health and safety tailgate meeting.

8.3.1 BLACK WIDOW SPIDERS

Black widow spiders can be found in many dry dark covered areas in the Western United States including monitoring well cases and lids. A black widow spider bite feels like a pin prick followed by dull, numbing pain affecting the extremities and large skeletal muscles. No effective first-aid treatment for black widow spider bites exists and victims should immediately be taken to the care of a physician.

8.3.2 SNAKES

Western diamondback rattlesnakes exist as the predominant venomous snake in this area. Venom from rattlesnake bites generally affects the cardiovascular system and is considered life threatening. Although not anticipated due to the highly urbanized setting of the subject property, any persons bitten will seek immediate medical attention, using the route to the nearest hospital shown in the front of this HASP.

8.4 ELECTRICAL HAZARDS

Some equipment operating on the property requires electricity to function. When working on or around electrical equipment the potential for electrical shock, fires, and burns can be minimized if proper work practices are maintained. As a precaution, all electrical circuits will be treated as live until their condition has been verified. Treat even low voltages as dangerous. Inspect all electrical equipment and tools before each use. Inspect insulation, fixtures, switches, plugs, fuses, etc. Remove from service any faulty equipment and notify the source of the equipment. Do not work with electrical equipment with wet hands or standing in wet areas. Only a qualified electrician shall wire or install electrical systems.

Use lockout/tagout procedures whenever working on electrical equipment. When employees perform a service that requires a lockout or tagout, they shall coordinate all activities with the operator of the equipment or facility. The following actions should be performed to execute a lockout or tagout:

- Notify the appropriate site personnel;
- Shut down the equipment;
- Isolate the equipment;

- Apply lockout devices or warning tags; and
- Release stored energy to achieve a "zero energy state".

In the event that a rescue from electrical equipment is required, use the following precautions:

- Disconnect the circuit before attempting the rescue;
- Make sure you are standing on a dry surface;
- Use a dry belt, rope, coat, or other nonconductive material to loop over the victim and drag them away from the contact;
- Assess the condition of the victim; do not approach if they are still in contact with the circuit; and
- Apply first aid and/or CPR (if you are qualified) and get medical help by dialing 911.

8.5 UNDERGROUND AND OVERHEAD UTILITY HAZARDS

Prior to the start of any activities that require digging (i.e., drilling, excavation, etc.), the site will be inspected for potential hazards. This visual site survey will include an inspection for (1) overhead hazards and access constraints, and (2) any underground utilities or hazards that are identifiable by means of pavement cuts, drains, etc. In addition, utility maps and survey results from previous work, if available, will be reviewed to identify hazards.

As required by California law, if subsurface work is required, the proposed work area will be clearly marked in white paint, and DigAlert will be notified at least 48 hours before the start of field activities so that the owners of subsurface utilities can mark the locations of buried lines they have in the work area. If appropriate, a geophysical services subcontractor will also be hired to determine the presence and locations of underground utilities.

Information gathered during the site inspection and geophysical survey will be used, along with the locations of owner-marked subsurface utilities, to determine final boring/excavation locations. In addition, for exploratory soil borings, a hand auger or post-hole digger will be used to advance each borehole the first 5 feet to confirm the absence of subsurface structures prior to drilling, if necessary.

With respect to overhead utility lines, drilling shall not be performed within 20 feet of an overhead power line. Overhead electrical lines shall be treated as if they are energized, and wind speed and direction will be noted so that equipment can be positioned to prevent overhead utility lines from contacting equipment. If lateral and/or vertical clearance is questionable, a spotter shall monitor and provide guidance when a drilling mast is being raised in the vicinity of overhead utilities.

8.6 TRAFFIC HAZARDS

When work is performed in high-traffic areas, such as roadways or parking lots, traffic patterns will be observed prior to work, and a safe zone will be established by delineating the work area with orange traffic cones or other indicators. These delineators will be set to caution drivers and prevent unauthorized vehicles from entering the work zone. In addition, site personnel will wear high-visibility safety vests and use care when exiting the work area and entering traffic.

In pedestrian areas, caution tape will be used to delineate the work zone and prevent unauthorized persons from entering the area. Workers and members of the public will be encouraged to use sidewalks whenever possible. If necessary, alternative walkways outside of the work area will be established using cones and caution tape, or signs will be placed to direct foot traffic to alternative walkways outside of the work zone.

8.7 NOISE HAZARDS

Exposure to loud noise can have the following effects:

- Workers may be started, annoyed, or distracted.
- Workers may sustain physical damage to the ear, pain, and/or temporary or permanent hearing loss. The degree of ear damage depends on the noise level and the duration of exposure.
- Communication interference can increase other potential site safety hazards due to the workers' inability to warn of danger and convey the proper safety precautions to be taken.

Drill rigs and other heavy equipment can expose workers to high noise levels. Noise exposure is anticipated to be greatest for equipment operators and helpers in the immediate vicinity of the equipment. However, all employees working in the vicinity of the equipment (defined as a 20-foot radius) may be exposed to noise in excess of permissible levels.

Excessive noise exposure requires that feasible administrative or engineering controls be used when workers are subjected to sound levels exceeding the required standard. Thus, hearing protection will be used in high noise areas where levels exceed 85 decibels (i.e., generally when noise levels require personnel to raise their voices to be heard). At a minimum, hearing protection will be required at all times for personnel working within a 20-foot radius when heavy equipment is operational.

8.8 OTHER SITE ACTIVITIES

All personnel, contractors, and subcontractors not under the direct supervision of EFI Global shall operate under their scope-specific HASP prepared by their respective safety personnel.

Additionally, all subcontractors operating within the project scope, which may encounter hazardous conditions, shall operate under their own scope-specific HASP.

9.0 SITE CONTROL MEASURES

In compliance with 29 CFR 1910.120(b)(4)(ii)(F) and 29 CFR 1910.120(d) this section outlines control measures needed to safely complete the job described. The work area will be closely monitored by the site health and safety supervisor. Only those involved directly with the project and who have attended the site safety meeting will be allowed within the work area. Communications within the work area will be by verbal command. In the event of an emergency, an alert will be sounded with a vehicle horn or air. There will be no smoking or eating within the work area.

Site control is necessary to minimize the potential contamination of site workers, protect the public from physical and chemical hazards associated with the work, and protect site equipment from theft or vandalism. These zones are established to reduce the accidental spread of hazardous substances by controlling the movement of personnel in and out of the zones.

The degree of site control necessary depends on site characteristics, the scope of work, and the surrounding community. Hazardous waste sites are divided into as many different zones as needed to meet operational and safety objectives. In general, site control will include the establishment of three zones: the Exclusion Zone (EZ), the Contamination Reduction Zone (CRZ), and the Support Zone (SZ).

Each zone will be associated with specific operations, and work activities and equipment will be confined to the appropriate area.

Delineation of these zones will be based on sampling and monitoring results, an evaluation of potential exposure routes, and an estimate of the potential for contaminant dispersion in case of a release. Movement of workers and equipment among these zones should be minimized and restricted to prevent cross-contamination from contaminated areas to clean areas.

9.1 EXCLUSION ZONE

The Exclusion Zone (EZ) is the area where hazardous substances are known or suspected to be present and pose the greatest potential for exposure. The EZ will be established before the start of work by the placement of cones, delineators, caution tape, signs, or other physical barriers as needed to control access and prevent entry by unauthorized personnel. Workers within the EZ shall have or be accompanied by personnel having a minimum of 40 hours of off-site instruction (or its equivalent) and three days of actual field experience under the supervision of a trained, experienced supervisor. In addition, they shall have annual 8-hour refresher training as required by 29 CFR-1910.120.

Supervisors and managers engaged in this hazardous waste operation shall have received the equivalent training to the workers they supervise plus an additional 8 hours of specialized training as required by 29CFR-1910.120.

Geologists or Engineers engaged in preliminary investigatory or site assessment activity in which the potential for exposure to hazardous substances is limited, shall have a minimum of 40 hours of hazardous waste operations training and an additional three days of actual field experience under the direction of an experienced, trained supervisor.

Access control points will be established at the periphery of the EZ to control the flow of personnel and equipment into and out of the zone and to help verify that proper procedures for entering and exiting are followed. If feasible, separate entrances and exits should be established to separate personnel and equipment movement into and out of the zone. Personnel working in the EZ will be required to wear the level of PPE specified in this HASP.

9.2 CONTAMINATION REDUCTION ZONE

The Contamination Reduction Zone (CRZ) is the transition area between the EZ and the clean area. It is designed to reduce the probability that the clean Support Zone will become contaminated or affected by other site hazards. The distance between the EZ and the Support Zone provided by the CRZ, together with the decontamination of workers and equipment, limits the physical transfer of hazardous substances into clean areas. The degree of contamination in the CRZ decreases as one moves from the EZ to the Support Zone, due to both the distance and the decontamination procedures.

Decontamination procedures take place in a designated area of the CRZ called the Contamination Reduction Corridor (CRC). The CRC begins at the outer edge of the EZ, called the Hotline, and extends to the Contamination Control Line, which is the boundary between the CRZ and the Support Zone. Access into and out of the CRC is through Access Control Points. Personnel entering the CRC from the Support Zone are required to wear the PPE proscribed for working within the CRZ. To reenter the Support Zone, workers should remove any PPE and equipment within the CRZ, and leave through the Access Control Point.

Support staff will be stationed in the CRZ as appropriate, and Personnel and Equipment Decontamination Stations will be established within the CRC. The CRZ will be designed to facilitate decontamination of workers and equipment; first aid and emergency response; sample handling; equipment supply, including

PPE and tools; and handling of decontamination waste. A worker rest area will also be established within the CRZ.

9.3 SUPPORT ZONE

The Support Zone (SZ) is used for administrative and other support functions that are needed to keep work in the EZ and the CRZ running smoothly. Any function that need not or cannot be performed in a hazardous or potentially hazardous area is performed in the SZ. Support zone activities may include, but not be limited to, work supervision, recordkeeping, public interface, site security, sample shipment, subcontractor coordination, and regulatory liaison.

Workers may wear normal work clothes within this zone. Any potentially contaminated clothing, equipment, and samples must remain in the CRZ until they are either (1) decontaminated, or (2) properly secured for off-site transportation (for analysis or disposal). All emergency telephone numbers, evaluation route maps, and vehicle keys will be kept in the SZ.

10.0 PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) shall be selected and used to protect employees from hazards and potential hazards they are likely to encounter as identified during the site characterization and associated activities. The level of PPE protection will be increased should additional information or site conditions indicate that increased protection is necessary to reduce worker exposure below 10 ppm for volatile compounds. The level of PPE may be upgraded, but may not be reduced, by the site Health and Safety Officer. PPE is ranked from Level D (lowest level of protection) to Level A (greatest level of protection).

The designated PPE for all personnel in the work area is **LEVEL D** but can be upgraded as necessary.

10.1 LEVEL A

Level A PPE consists of the following equipment:

- A fully encapsulating, chemically protecting, positive pressure suit with full face piece and self-contained breathing apparatus (SCBA) or positive pressure, supplied-air respirator with escape SCBA approved by NIOSH;
- Disposable outer suit (may be optional depending upon suit construction);
- Reflective safety vest;
- Inner and outer chemical resistant gloves;
- Chemical resistant boots with steel toe and shank; and
- Hard hat, and optional long underwear, coolant vest, and coveralls.

10.2 LEVEL B

Level B PPE consists of the following equipment:

- Positive pressure, full face piece SCBA or NIOSH approved, full face, positive pressure, supplied-air respirator;
- Hooded, chemical resistant, disposable coveralls and boot covers;
- Reflective safety vest;
- Inner and outer chemical resistant gloves;
- Chemical resistant boots with steel toe and shank; and
- Hard hat, face shield, coveralls and optional coolant vest and long underwear if applicable.

10.3 LEVEL C

Level C PPE consists of the following equipment:

- NIOSH approved full face or half mask air purifying respirator;
- Disposable, hooded chemical resistant coveralls;
- Reflective safety vest;
- Chemical resistant outer and inner gloves;
- Hard hat and boots with steel toe and shank; and
- Optional inner coveralls, chemically resistant boots, boot covers, face shield, escape mask, long underwear, and coolant vest.

10.4 LEVEL D

Level D PPE consists of the following equipment:

- Disposable nitrile gloves, face shield or ANSI 2000 protective eye glasses;
- Reflective safety vest;
- Hard hat and boots with steel toe and shank; and
- Eyewash kit will be available at all times.

11.0 ENGINEERING CONTROLS AND WORK PRACTICES

Engineering controls and work practices used to protect site personnel from exposure to hazardous substances and health and safety hazards will include the following at a minimum.

11.1 EQUIPMENT

Construction equipment may be used during execution of the scope of work, and shall conform to the following conditions:

- Construction equipment will be initially inspected upon arrival at the Site and will have overhead protection from falling objects for the operator.
- Dump trucks, haul trucks, front-end loaders, earth movers, and like machinery will be equipped with backup alarms. When it is necessary to travel with this type of equipment, a signal person will direct the movement of the equipment and warn others in order to prevent collisions.
- Crawler cranes and truck cranes, both latticed boom and hydraulic boom, will be equipped with boom angle indicators, load indicators, anti-two-block devices, etc. The load lines and boom lines shall be of sufficient length to maintain a minimum three wraps on the bare drum.
- For the truck cranes, a back-up alarm shall be installed.
- Operators of crane equipment will have a valid and current physical exam, letter of employment, and current insurance.
- Some of the equipment used on Site operates under high air pressure. As such, EFI Global personnel and its subcontractors will be required to wear Level D PPE, including proper eye protection, at all times while in the work zone.

- Only authorized persons shall operate machinery or equipment.
- Loose or frayed clothing, long hair, dangling ties, finger rings, etc. shall not be worn around moving machinery or other sources of entanglement.
- Machinery shall not be serviced, repaired, or adjusted while in operation, nor shall oiling of moving parts be attempted, except on equipment that is designed or fitted with safeguards to protect the person performing to work.
- Where appropriate, lock-out procedures shall be used.
- Employees shall not work under vehicles supported by jacks or chain hoists without protective blocking that will prevent injury if jacks or hoists should fail.
- Air hoses shall not be disconnected at compressors until hose air has been bled.
- All excavations shall be visually inspected before backfilling to ensure that it is safe to backfill.
- Excavating equipment shall not be operated near tops of cuts, banks, and cliffs if employees are working below.
- Tractors, bulldozers, scrapers, and carryalls shall not operate where there is a possibility of overturning in dangerous areas, like edges of deep pits, cut banks, and steep slopes.
- When loading where there is a possibility of dangerous slides or movement of material, the wheels or treads of loading equipment, unless riding on rails, should be turned in the direction that will facilitate escape in case of danger, except in a situation where this position of the wheels or treads would cause a greater operational hazard.
- Forklift operators are required to be certified and must have a certification card on their person or in the jobsite office.
- Equipment must be inspected daily.
- All OSHA regulations, manufacturer recommendations, and Operation & Safety Manual recommendations must be followed for the safe and proper use of the equipment.
- An operator must be present on the machine when the engine is running, unless the bucket is lowered to the ground, the brake is set, the machine is in neutral, and the operator is within 25 feet of the machine and has it in his line of sight.
- Equipment must be used only for its intended purpose.
- Damaged equipment must be locked out & tagged out.
- Smoking is prohibited while fueling equipment.
- All spills must be cleaned up, and waste must be disposed of properly.
- When cranes are used on Site, a daily inspection check list for the crane and the rigging must be completed.

Proper use and care of tools is critical to the safety of Site workers:

- All tools and equipment shall be maintained in good condition and inspected daily.
- Workers shall report all tools or equipment that are not working properly.
- Damaged tools or equipment shall be removed from service and tagged “DO NOT USE."

- Pipe shall not be used as a substitute for wrenches.
- Only appropriate tools shall be used for the job.
- Appropriate PPE shall be used when using tools.
- Wrenches shall not be altered by the addition of handle-extensions or "cheaters."
- Files shall be equipped with handles and not used to punch or pry.
- A screwdriver shall not be used as a chisel.
- Wheelbarrows shall not be pushed with handles in an upright position.
- Portable electric tools shall not be lifted or lowered by means of the power cord. Ropes shall be used.
- Electric cords shall not be exposed to damage from vehicles.
- In locations where the use of a portable power tool is difficult, the tool shall be supported by means of a rope or similar support of adequate strength.

11.2 ILLUMINATION

Supplemental lighting shall be supplied to provide not less than 3 foot-candles of illumination in all work areas. Higher levels may be required as prescribed by 29 CFR 1910.120 (m).

11.3 SANITATION

An adequate supply of potable water will be provided on the site in enclosed containers. Toilet facilities will be supplied in accordance with 29 CFR 1910.120 (n). Adequate washing facilities and change rooms will be available for all site workers as specified in 29 CFR 1910.120 (n)(6) and (7).

11.4 VENTILATION

Adequate ventilation will be supplied to reduce dust and supply fresh air for workers working within enclosures.

11.5 EXCAVATION

Work within and around an excavation shall conform to the following:

- Work in any trench or excavation MUST be under the direct supervision of a Competent Person, as defined by OSHA in 29 CFR 1926.32(f), with experience in this type of work.
- Proper trench and excavation procedures shall be followed. A trench or excavation must be inspected prior to entry to ensure that it is safe.
- Means of egress must be provided for any trench deeper than 4 feet. Ladders must be placed at each end and must not be further than 25 feet apart. Ladders shall extend 36" above the opening/surrounding ground and be secured.
- Trenches and excavations deeper than 5 feet must be sloped, shored, or shielded.
- Spoils and loose tools that are not tied down must be kept at least 2 feet from the edge of the excavation.
- Warning signs and appropriate barricades must be posted around all open excavations and trenches.

11.6 FALL PROTECTION

Fall protection shall be used when workers are exposed to an environment with risk of a fall hazard.

- For working on roofs: A fall protection system consisting of safety lines and other appropriate equipment shall be used. A scaffold shall be erected to the eave line, or other approved methods shall be used. An area surrounding the building will be barricaded so that personnel on the ground will not be exposed to any objects that might fall from the roof.
- For working inside existing buildings and newly constructed buildings: Work platforms on self-propelled scissors lifts or hydraulic lifts shall be equipped with handrails, midrails, and toe boards. Workers shall be tied off to the designated secure points as directed by the lift manufacturer's manual. Rolling scaffolds are to be used only on level, clean, and firm surfaces. Use of rolling scaffolds will not be permitted on unstable surfaces. The casters for the rolling scaffolds shall have a locking device on each caster. No worker shall be permitted to ride on the rolling scaffold while it is being moved. The maximum height for a rolling scaffold will be no greater than three times the smallest base dimension.
- Workers shall be instructed by a Competent Person, as defined by OSHA in 29 CFR 1926.32(f), on the use of fall protection equipment. Fall protection shall consist of one harness, one lanyard, and one anchorage point. The D-ring shall be located in between the shoulder blades of the back. Fall protection gear shall be inspected daily and properly stored when not in use.
- Guardrail systems shall be designed to meet CAL OSHA standards, as follows: The top rail will be 42-inches (plus or minus 3 inches) above the walking/working level. If there is no 21-inch wall or parapet wall at the working level, a midrail must be installed midway between the working surface and the top rail.
- The CAL OSHA standards for fall protection will be used during roofing and framing activities. Toe boards shall be a minimum of 4 inches high when required.

11.7 EXPLOSION AND HAZARDOUS ATMOSPHERE PREVENTION

This section shall apply if underground storage tanks are to be exposed, removed and/or transported.

Call the Underground Tank Enforcement Unit Inspector at least TWO WEEKS prior to start of work. Arrange a mutually agreed upon appointment date and time with the district Fire Inspector to be on Site to witness the UST removal.

A Site supervisor will be present to observe and document the excavation activities and UST removal, and perform required monitoring of fugitive emissions during excavation activities in accordance with Air Quality Management District (AQMD) Rule 1166.

The Site supervisor will enforce the No Smoking rule and ensure that no open flames are introduced to the work zone.

The excavation work shall be performed in cooperation with the owner and all concerned government agencies. The USTs and associated piping will be exposed by removing overburden material. Tank and piping locations will first be confirmed with hand digging equipment to clear them for safe excavation with the backhoe.

No cutting torch, open flame, or spark producing equipment shall be used on the tanks or piping.

Workers will disconnect and remove all associated piping, electrical lines, and in-tank pumps, and leave these items on Site pending off-Site transportation and disposal or recycling at an appropriate facility.

Electric lines, piping, and other tank appurtenances shall be isolated or disconnected. All vent piping shall be left intact until the USTs are exposed and ready to be removed. Barriers and signs shall be installed where necessary, and any source of ignition shall be at least 25 feet away from the excavation.

A vacuum will be applied to the tanks before cutting to remove any combustible gasses from the underground storage tanks (USTs). The atmosphere of the UST will be checked with a flame ionization detector (FID) to determine if it is safe for cutting. When conditions are safe, the tanks will be cut with non-sparking tools to allow for removal of the UST contents with a vacuum truck. USTs are assumed to be empty. Workers will monitor the tank atmosphere before entry and degas as required by the Los Angeles Department of Public Works (DPW).

11.8 ELECTRICAL PRECAUTIONS

Precautions shall be taken when working with electrical equipment or in areas where electrical utilities may be present. Even low voltages will be treated as dangerous. All electrical equipment and tools, including insulation, fixtures, switches, plugs, fuses, etc., will be inspected before each use. Any faulty equipment will be removed from service, and the owner of the equipment will be notified. Personnel with wet hands or standing in wet areas shall not work with electrical equipment. Only a qualified electrician shall wire or install electrical systems.

Lockout/tagout procedures will be used whenever working on electrical equipment. When employees perform a service that requires a lockout or tagout, they shall coordinate all activities with the operator of the equipment or facility. The following actions shall be performed to execute a lockout or tagout:

1. Notify the appropriate site personnel.
2. Shut down the equipment.
3. Isolate the equipment.
4. Apply lockout devices or warning tags.
5. Release stored energy to achieve a "zero energy state."

In the event that a rescue from electrical equipment is required, the following precautions shall be used:

- Disconnect the circuit before attempting the rescue.
- Make sure you are standing on a dry surface.
- Use a dry belt, rope, coat, or other nonconductive material to loop over the victim and drag them away from the contact.
- Assess the condition of the victim; do not approach if they are still in contact with the circuit.
- Apply first aid and/or CPR (if you are qualified), and get medical help by dialing 911.

12.0 HEAT STRESS MONITORING

This section of the HASP [in compliance with 29 CFR 1910.120(h)] describes how the site-specific environmental conditions (temperature, humidity, air movement), employee work loads, and PPE may expose employees to hazards resulting in injury or illness related to heat stress.

Environmental conditions will be constantly monitored by the project manager. If conditions become a concern, work will stop until conditions are appropriate for work. Employee work load is considered light for this project and PPE levels are low so heat stress is not a major concern. Cold water will be on hand at all times and employees take breaks as needed for this project.

13.0 DECONTAMINATION PROCEDURES

The decontamination section of the HASP [in compliance with 29 CFR 1910.120(b)(4)(ii)(G) and 1910.120(k)] describes how personnel and equipment are decontaminated when they leave the Exclusion Zone. This section also describes how residual waste from decontamination processes is properly disposed of. The level of exposure to contamination is expected to be low for this project.

Decontamination of personnel and equipment will be done on-site within the CRZ, which was discussed in Section 9.2. Personnel leaving the work area will wash their hands and remove all PPE before leaving the site. At a minimum, washing of the face and hands with soap and water is required for skin decontamination. To prevent ingestion, workers will wash their face and hands with soap and water before eating as well as at the end of each shift.

All equipment, tools, and supplies that have been inside the work area or in contact with contaminated materials will be decontaminated by one of two methods. The first method, which will be used for large equipment such as hollow-stem augers, will involve cleaning with a high-pressure steam cleaner or dustoff with hand tools. In this case, the equipment will be placed into a portable decontamination trailer so that the waste water can be collected and containerized pending off-site transportation and disposal, or the equipment will be visually inspected and fugitive materials (e.x. soil, debris, mud) will be brushed off using tools such as brushes, brooms, or rakes. If rumble plates are present, all equipment will be transported over rumble plates prior to egress from the Site to further remove fugitive materials.

The second method will be used to decontaminate smaller tools and equipment, such as sampling devices.

This equipment will be cleaned with a soft-bristled brush using a phosphate-free detergent solution. The equipment will then be rinsed in clean tap water, rinsed in distilled water, and placed on a clean surface to air dry.

Waste water will be temporarily containerized in DOT-approved, 55-gallon steel drums or equivalent until proper legal disposal can be accomplished following analytical profiling of the waste.

14.0 EMERGENCY RESPONSE

This section presents protocols for emergency planning and response activities.

14.1 PRE-EMERGENCY PLANNING

A daily Health and Safety (or "Tailgate") meeting will be conducted by the Site Health and Safety Officer. The topics discussed and the names of personnel in attendance will be recorded on a form designed for this purpose.

All site personnel will be instructed as to the site topography, layout and points of ingress or egress. Weather and wind directions will be noted daily to identify safe routes of evacuation in case of an emergency. The locations of communications equipment such as cellular phones and radios will be noted. Specific hazards or conditions that may affect the Health and Safety of workers, and the procedures for mitigating personnel exposure will be reviewed and discussed. Special emphasis will be placed on any changes in site characteristics or procedures that are a result of project activities.

14.2 PPE AND EMERGENCY EQUIPMENT

At a minimum, the following equipment shall be at the work site and available for use:

- Dry Chemical Fire Extinguisher (A-B-C Rated);
- First Aid Kits;

- Portable Radios and/or Cellular Telephone; and
- Hand Tools - shovels, saws, etc.

14.3 EMERGENCY RECOGNITION AND PREVENTION

All site personnel will be trained in the site characteristics, procedures, work plan, and project tasks. They will maintain surveillance over the work that is being done around them as well as their own assigned task and to report any anomalous or unexpected conditions to their supervisor immediately. All personnel will observe safe working practices and procedures to protect themselves and fellow workers.

14.4 EMERGENCY ALARM SYSTEM

Several warning systems may be used to sound the alarm in an emergency situation. The type of system used depends on the nature of the emergency. The type of systems is:

14.4.1 VERBAL COMMUNICATIONS

Used to convey specific instructions. This method may be amplified by use of a Bull Horn or Public Address system.

14.4.2 HAND SIGNALS

Used to give instructions and directions. Also used for communications when noise precludes verbal communication. Workers are to use the buddy system at all times and be aware of the reduction of verbal communication abilities in high-noise areas. The specific hand signals to be used during the project will be discussed during the tailgate safety meeting and will include, but not be limited to, the following:

- Closed fist: Stop work
- Hands crossed above head: Personal injury
- Hand gripping throat: Cannot talk; having difficulty breathing
- Grip partner's wrist: Cannot talk; leave area immediately
- Hands on top of head: Need assistance
- Thumbs up: Okay, I am alright, I understand
- Thumbs down: No, negative.

14.4.3 RADIO COMMUNICATIONS

Radios can be used to give instructions and directions. They may also be used for communications between on site and off site personnel. Emergency radio communications will be identified as such and have priority over normal operational messages.

14.4.4 VEHICLE AND PORTABLE COMPRESSED AIR HORNS

Horn signals are used to signify an emergency situation or to attract attention when other forms of communication are not available or practicable. Standard horn signals are:

- **One Short Blast** to signify that communication is required. Personnel should report immediately to their supervisor.
- **One Long Blast** to signify an IDLH emergency evacuation of the work area. Personnel should evacuate to a pre-determined site upwind. A head count will be taken and further instructions given.

- **Repeated Short Blasts** to signify an IDLH emergency evacuation of all site personnel through pre-determined egress routes. A head count will be taken and further instructions given at the meeting point outside the evacuated area.

14.5 EMERGENCY EVACUATION

In the event that the area must be evacuated, site personnel will move off site via the nearest up-wind route. Safe distances and places of refuge will be determined in the field by air monitoring. Emergency response teams will be notified by phoning 911 on cellular or installed telephones. No one will re-enter the site without approval from the Site Safety Officer.

All personnel will familiarize themselves with points of egress and be aware of wind patterns that will affect dispersion of hazardous fumes or smoke in an emergency.

14.6 EMERGENCY RESPONSE PROCEDURES

In case of emergency or hazardous situation, the individual or individuals who observe the situation shall immediately give the alarm. Upon hearing the alarm, all non-essential communication shall cease. The individual(s) who sounded the alarm shall notify his supervisor of the situation. Immediate actions that will be taken to correct the situation shall be dictated by the emergency. These actions may be one or more of the following:

14.6.1 FIRES

Extinguish fire with fire extinguishers or blankets if possible. Evacuate the area and notify the fire department if uncontrolled.

14.6.2 GAS OR FUME RELEASE

Evacuate the area until the fumes have dispersed. Notify appropriate authorities if fumes threaten to escape the exclusion zone.

14.6.3 PERSONNEL INJURY

Administer first aid and/or call 911 as appropriate.

14.7 HAZARD SUBSTANCE RELEASE

Should a hazardous substance be released, all personnel will immediately evacuate the area to a safe area up wind. Emergency personnel will be summoned to the site for appropriate response.

Upon completion of emergency response, site work may resume pending approval by the responding agency.

14.8 INJURY AND EXPOSURE

In the event of overt personal injury, exposure, fire, or explosion, notification will be made immediately to EFI Global's Health and Safety Officer as per company policy. Any job related injury or illness will be reported within 24 hours.

If an injury should occur, stabilize the injured person and administer first aid. If the person is in the exclusion zone, they must be decontaminated or contained in uncontaminated materials prior to removal from the zone. Medical aid may be summoned by dialing 911 on cellular or installed telephones. Care must be taken to describe the nature of the injury and location of the victim to the emergency response dispatch and/or team member.

14.9 EMERGENCY MEDICAL TREATMENT AND FIRST AID

Adequate facilities and personnel will be provided to assure prompt and efficient first aid in the event of injury or exposure. First aid kits will conform to 8CCR 5192 and will consist of individually sealed items within a weatherproof container. Each first aid kit will be inspected and fully equipped before being deployed to the site. Any expended items will be replaced as soon as used.

General first aid practices that may be employed in the event of personal injury or exposure are:

Eyes	Irrigate immediately with pressurized eye/face wash unit.
Skin	Wash with soap and water.
Breathing	Move victim to fresh air at once and begin CPR. Phone 911 to obtain medical attention as soon as possible.
Swallowing	Identify the item swallowed. Follow appropriate first aid procedures and obtain medical attention as soon as possible.

15.0 HEALTH AND SAFETY PLAN APPROVAL

The Health and Safety Plan has been reviewed and hereby approved. By their signatures, the following undersigned certify that this Health and Safety Plan meets the requirements of 29 CFR 1910.120 and 8 CCR 5192 and all other applicable regulations for the protection of the health and safety of all persons entering upon this site.

Health and Safety Officer:

Signature	Printed Name	Date

Project Manager:

Signature	Printed Name	Date

Project Supervisor:

Signature	Printed Name	Date

Site Safety Officer:

Signature	Printed Name	Date

Others as Necessary:

Signature	Printed Name	Date
Signature	Printed Name	Date

16.0 HEALTH AND SAFETY PLAN CERTIFICATION

By their signature, the following undersigned certify that this Health and Safety Plan has been read, or otherwise communicated to them. They further certify that they completely understand this plan and will follow its procedures for the protection of the health and safety of all persons entering upon this site.

Signature	Printed Name	Date
Signature	Printed Name	Date
Signature	Printed Name	Date
Signature	Printed Name	Date
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Signature	Printed Name	Date

FIGURES

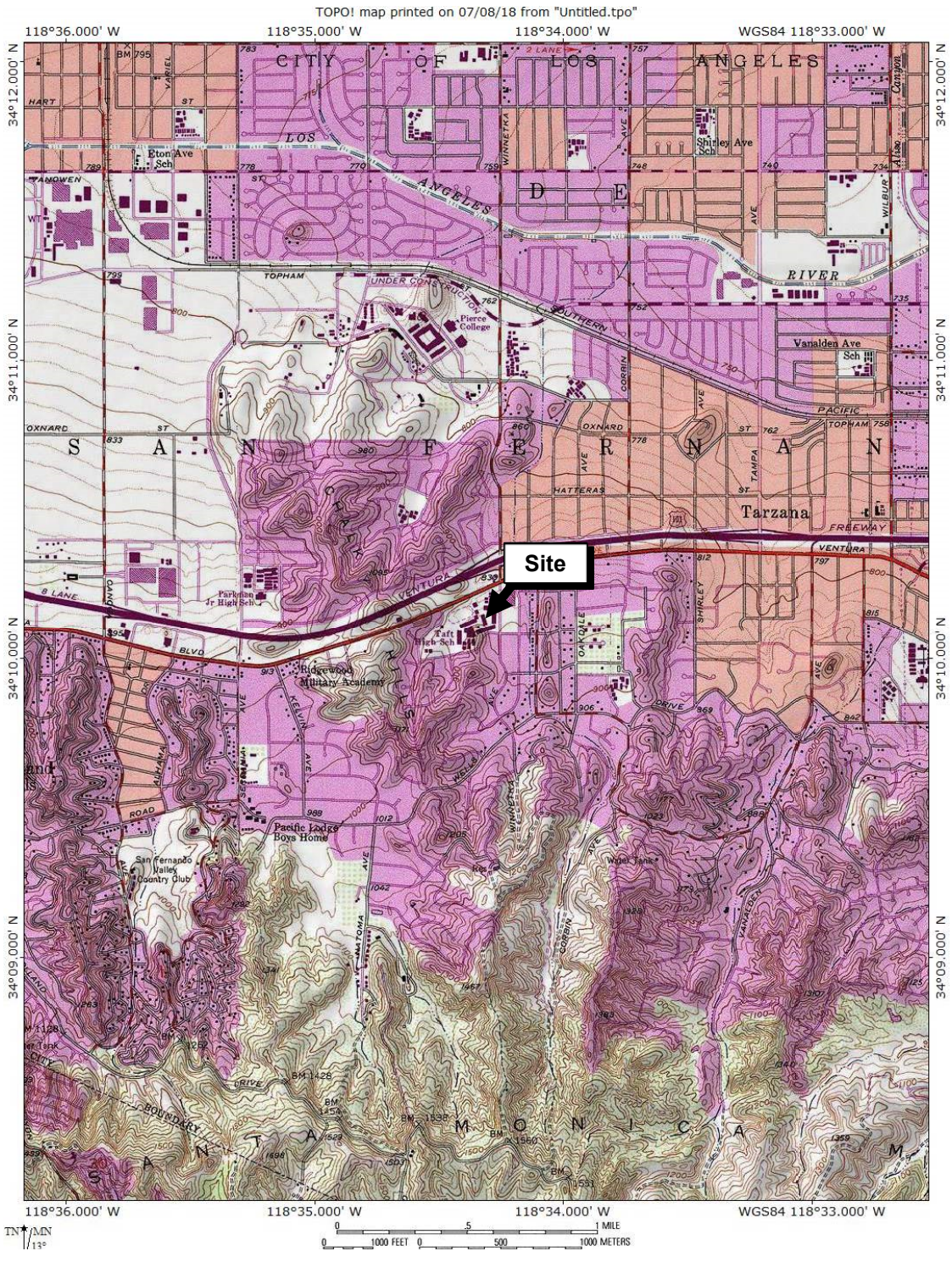


Figure 1
Site Location Map

5461 Winnetka Avenue
Woodland Hills, California 91364

Source:
USGS Canoga Park, CA (1967)

Project Number: 9836003557

Figure 2
Site Map

5461 Winnetka Avenue
Woodland Hills, California 91364

Source:
Placeworks, 2017

Project Number: 9836003557

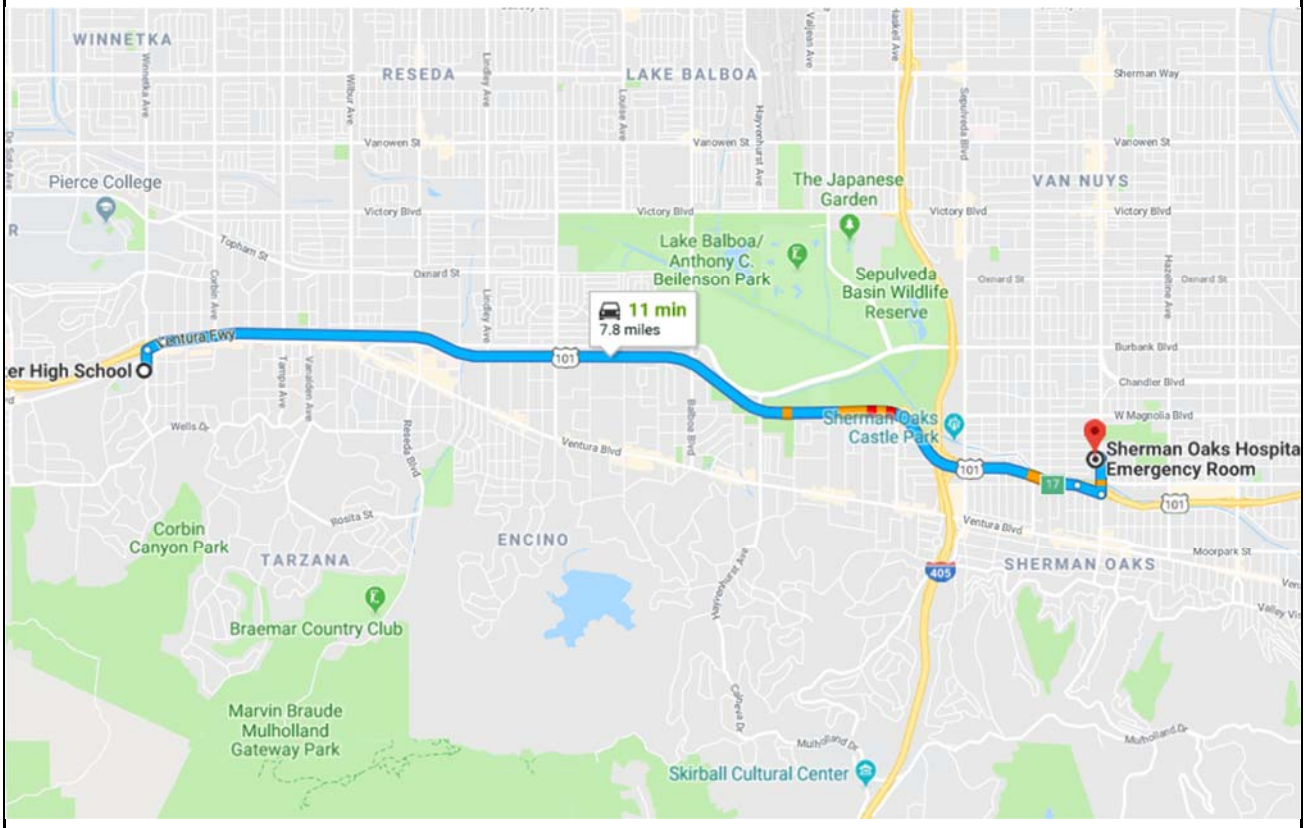
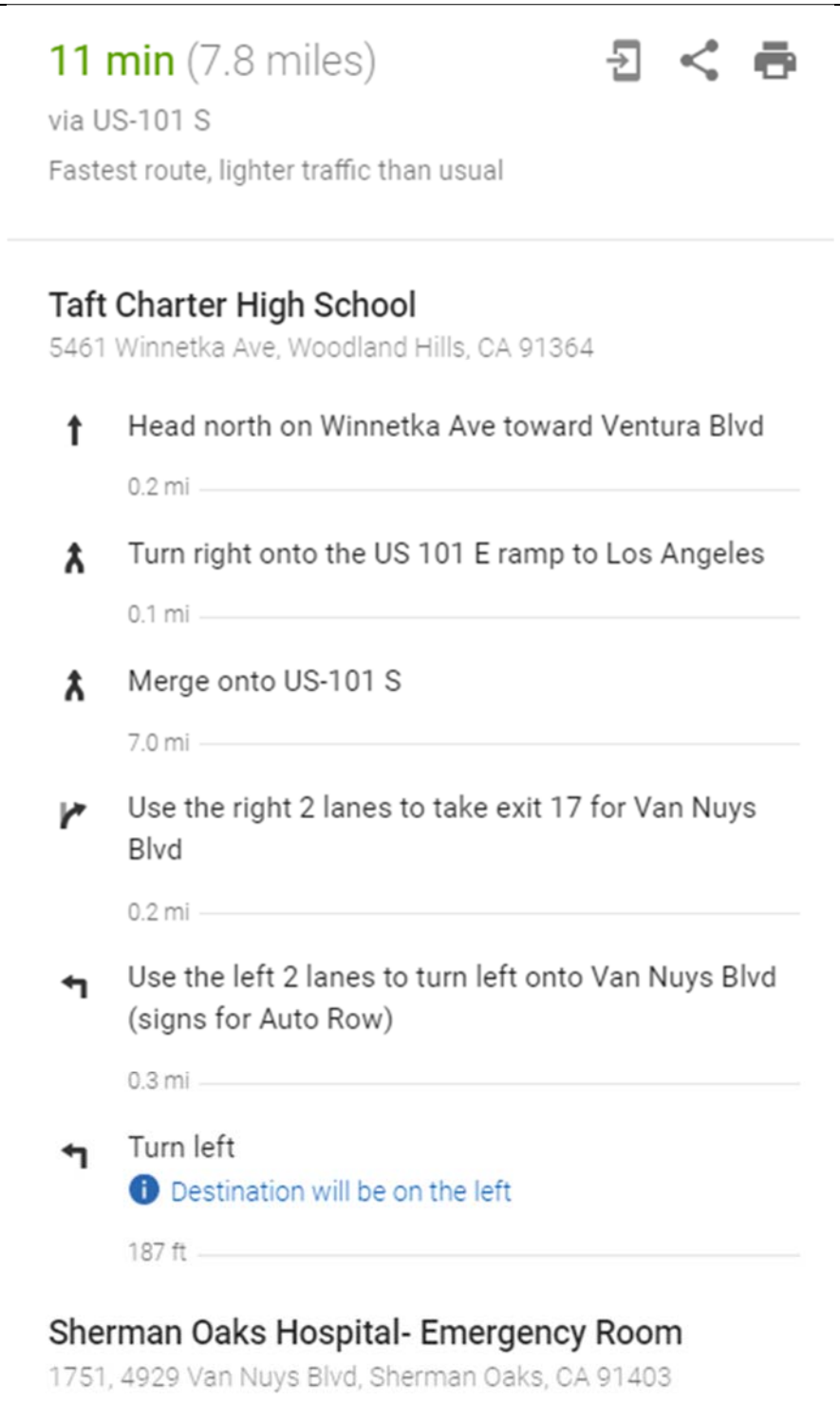


Figure 3
Route to Nearest Hospital

5461 Winnetka Avenue
Woodland Hills, California 91364

Source:
Google, Inc., 2016

Project Number: 9836003557



efi global

Figure 4
Directions to Nearest Hospital

5461 Winnetka Avenue
Woodland Hills, California 91364

Source:
Google, Inc., 2018

Project Number: 9836003557

HEALTH AND SAFETY FORMS

efi global

SITE SAFETY CHECKLIST

PROJECT ADDRESS	
PROJECT NUMBER	
DATE	

YES	NO	N/A	ITEM	NOTES
☐	☐	☐	Health and safety plan on-site, read and signed by all personnel	
☐	☐	☐	Daily tailgate safety meeting held	
☐	☐	☐	Personnel hold applicable safety training and medical clearances	
☐	☐	☐	Work area secure from unauthorized entry	
☐	☐	☐	Emergency and First Aid kit and equipment on site	
☐	☐	☐	Exclusion zones, Contaminant Reduction Zones, Support Zones established	
☐	☐	☐	Chemical decontamination and containment procedures implemented, stations established	
☐	☐	☐	Personnel protective equipment available and implemented	
☐	☐	☐	Hearing and eye protection used as appropriate	
☐	☐	☐	Heat Illness Prevention program implemented, adequate potable water on site	
☐	☐	☐	Emergency phone present and accessible	
☐	☐	☐	Tools and equipment in good working order	
☐	☐	☐	Adequate lighting available	
☐	☐	☐	Traffic control implemented	

Completed By _____ **Signature** _____

TAILGATE SAFETY MEETING

PROJECT ADDRESS	
PROJECT NUMBER	
DATE	

Attendees:

What was the main topic?

What were the subtopics?

What questions or concerns were expressed?

Safety rules reviewed

Meeting Leader Name **Signature**

APPENDIX D

LAUSD SECTION 01 4524

NOTES TO OAR: This Section must be included in Division 01 whenever any earthwork, including related sections 31 2200, 31 2313, 31 2316, 31 2319, 31 2323, 31_2333 and 32 1100, is included in the scope of work of the project. All imported and exported fill materials are required to be tested; such testing shall be conducted at site of origin. In the event that site is balanced and does not require either export or import, then requirements of this section shall not apply; however, this section is still required to be included in bidding documents. Clean gravel from a pre-evaluated commercial source may also be eligible for a variance to this section (01 4524) with prior written approval from OEHS. While OWNER Consultant (soils engineer) provides testing for compaction, grading, etc., CONTRACTOR retains the services of a licensed environmental professional and an independent State of California certified laboratory to sample and test for the requirements of this section. A request for variance to the Specification must be submitted in writing to OEHS two weeks in advance of need and be accompanied by a memo explaining the rationale for the variance and a project funding code to cover OEHS review. ***DELETE THIS TEXT BOX PRIOR TO ISSUING THIS SPECIFICATION.***

SECTION 01 4524

ENVIRONMENTAL IMPORT/EXPORT MATERIALS TESTING

PART 1 - GENERAL

1.01 SUMMARY

A. This Section specifies the requirements for the sampling, testing, transportation and certification of imported fill materials or exported fill materials from school sites.

B. This Section defines:

1. CONTRACTOR requirements for use of existing, imported or generated materials on school sites.
2. CONTRACTOR requirements for stockpiling materials for use on schools sites.
3. CONTRACTOR requirements for exporting materials from a school site including transportation.
4. Testing requirements for all materials imported, exported, stockpiled or generated for use on a school site.
5. CONTRACTOR testing and reporting requirements.
6. CONTRACTOR submittal requirements.

C. Related Requirements:

1. Division 1: General Requirements.
2. Section 01 1100: Summary of Work.
3. Section 01 3113: Project Coordination.
4. Section 01 3213: Construction Schedule.
5. Section 01 3300: Submittal Procedures.
6. Section 01 7700: Contract Closeout.

7. Section 31 2200: Grading.
8. Section 31 2313: Excavation and Fill.
9. Section 31 2316: Excavation and Fill. (Pavement)
10. Section 31 2319: Excavation and Fill (Structures).
11. Section 31 2323: Excavation and Fill (Utilities).
12. Section 31 2333: Excavation and Fill for Synthetic Play Fields.
13. Section 32 1100: Base Course.

1.02 OBJECTIVES

A. Ensure that fill materials imported to school sites are safe for students, staff and visitors.

B. Ensure that materials exported from school sites for use at school and non-school sites or offsite disposal/recycling are adequately characterized for lawful disposition.

C. Ensure that representative data be collected so that analytical determinations can be made in regard to the first two objectives.

D. Require CONTRACTOR to contract with and pay for the services of a licensed environmental professional (licensed State of California Professional Engineer [PE Civil] or Professional Geologist [PG]) familiar with environmental site assessment and waste classification and disposal requirements to perform such services.

E. Require CONTRACTOR to contract with and pay for an independent, approved California Department of Health Services certified testing laboratory to perform analytical testing of imported, exported and site generated fill materials.

F. Require CONTRACTOR to pay all fees required by authorities having jurisdiction over area.

G. Require CONTRACTOR to post bonds required by authorities having jurisdiction over area.

1.03 DEFINITIONS

A. Definitions not furnished in text of this section:

1. CEQA: California Environmental Quality Act.
2. EIR: Environmental Impact Report.
3. Environmental Health Supervisor, Environmental Compliance Group: Individual at OEHS, who ensures OWNER compliance with all pertinent regulations, ordinances, codes, and/or policies.
4. OEHS: OWNER's Office of Environmental Health and Safety.
5. Licensed Environmental Professional: Person licensed in the State of California and with sufficient knowledge and experience to competently perform environmentally-related work, including (but necessarily limited to) environmental site investigations, remedial projects, and other tasks involving the collection of soil, soil vapor, and groundwater samples; the selection of

analytical methods for said samples; the interpretation of analytical data; the preparation of work plans, reports, and other relevant documents; and the supervision and/or oversight of remedial contractors. For the purposes of this Section, a licensed environmental professional shall include a Professional Geologist or "P.G." or a Civil Professional Engineer or "P.E."

6. ug/kg: micrograms/kilogram.

7. mg/kg: milligrams/kilogram.

8. NA: Not Applicable.

9. RCRA: federal Resource Conservation and Recovery Act.

10. Soil Certification/Sample Data Report: Report documenting location, volume, sampling procedures, analytical methods, chemical test results, and recommendations for either disposing or re-using stockpiled soil excavated from OWNER sites or proposed for import to same. Preparation of report is to follow the procedures given in Article 1.04 of this Section.

11. Soil Sampling Plan (SSP): As described in Article 1.04 of this Section, a document providing sufficient guidance with which to adequately characterize soil proposed for import to, or export from, an OWNER's school Site. Guidance in this document is to be in accordance with the procedures described in Article1.04 of this Section.

12. STLC: Soluble Threshold Limit Concentrations as defined in Tables II and III, Chapter 11, Article 3, § 66261.24-1 of Title 22 of the California Code of Regulations (CCR).

13. TCLP: Toxicity Characteristic Leaching Procedure, test Method 1311, documented in Title 40, Part 261, Subpart C, § 261.24 of the Code of Federal Regulations (CFR).

14. TPH: Total Petroleum Hydrocarbons.

15. TTLC: Total Threshold Limit Concentrations, as defined in Tables II and III, Chapter 11, Article 3, § 66261.24-1 of Title 22 of the CCR.

16. USEPA or EPA: United States Environmental Protection Agency.

17. VOCs: Volatile Organic Compounds.

18. WET: Waste Extraction Test, as defined in Appendix II-1, Chapter 11 of Title 22 of the CCR.

1.04 SUBMITTALS

A. CONTRACTOR shall submit to OAR for transmittal to the OEHS:

1. A qualifications statement for CONTRACTOR's independent California certified testing laboratory and required licensed environmental professional (California Professional Civil Engineer (PE) or Professional Geologist (PG) prior to the start of Work. CONTRACTOR's licensed environmental professional must possess

recent demonstrated environmental experience in soil sampling and waste classification.

2. A draft import/export Soil Sampling Plan (SSP) prepared by CONTRACTOR's licensed environmental professional for review and concurrence by OEHS. The objective of the SSP is to obtain representative sample data. The Draft SSP or equivalent document acceptable to OEHS must be submitted at least 72 hours prior to all proposed import/export sampling activities. The consultant's proposal (with or without fees) is acceptable in lieu of a SSP.

   a. At a minimum, the Draft SSP shall include a site map which shows the location of the proposed import/export soils and the location and number of the proposed stockpile samples. The draft SSP shall also contain information pertaining to the total volume of the stockpile proposed for sampling and the rationale in support of the proposed sampling approach. Existing environmental documentation specific to the import/export site shall be utilized by the CONTRACTOR's environmental professional to support the proposed sampling approach and analytical method suite. It is the responsibility of the CONTRACTOR to request this information in advance from the OAR if they do not already have access to a copy at the jobsite.

   b. Lacking this information or rationale, samples shall be analyzed for all analytical methods described in paragraph 3.02 E. Guidance for the minimum number of samples per total volume of soil to be excavated is provided in Table 1. Supplemental samples may be required by OEHS if pothole sampling is utilized. In addition, the draft SSP shall contain all necessary contact information for the import/export site and a proposed schedule for the sampling activities.

   c. OEHS will either approve the document or request that revisions be made. This process shall continue until OEHS approves the draft SSP.

3. Draft Soil Certification/Sample Data Report:

   a. A draft Soil Certification/Sample Data Report prepared by CONTRACTOR's licensed environmental professional for review and concurrence. At a minimum the draft Soil Certification/Sample Data Report shall contain:

      1) A site map showing the location of the in situ sampling locations or the stockpile(s) and stockpile sample locations.

      2) A detailed discussion and evaluation of the laboratory results.

      3) A summary of findings and recommendations that provide a determination on the waste classification of the subject materials, based on the representative sample results.

      4) Recommendations for additional step-out samples, if any.

      5) Chain-of-custody forms and all laboratory data with respective QA/QC sheets.

b. CONTRACTOR must allow OEHS a minimum of 72 hours to review the draft Soil Certification/Sample Data Report. OEHS will either approve the document or request that revisions be made. This shall continue until OEHS approves the draft Soil Certification/Sampling Data Report.

c. Upon revision of the draft Soil Certification/Sample Data Report by the CONTRACTOR'S licensed environmental professional and acceptance by OEHS, the final report, signed and stamped by the licensed professional, shall be submitted to the OAR for distribution to OEHS and the project file. If the soil is to be exported to or imported from, an OWNER school site, if it satisfied the requirements of paragraphs 3.02.F and 3.02.G of this Section, then a PG or civil PE must sign and stamp the final report.

1) The Environmental Health Supervisor, Environmental Compliance Group will confirm that the proposed waste classification for the proposed import/export material is appropriate. For materials designated unacceptable for export except to a licensed facility, or for those materials sent electively by CONTRACTOR to a licensed facility, the Environmental Health Supervisor, Environmental Compliance Group will provide information on the necessary waste manifest documentation.

2) If an OAR/Complex Project Manager (CPM) would like OEHS to conduct the soil sampling and/or soil removal, the OAR/CPM should submit a Project Referral Form with completed COLIN funding line information to OEHS at least 3 weeks prior to when the work needs to be conducted. Submit the Project Referral Form to: environmental_review@lausd-oehs.org

4. Written documentation, e-mail is acceptable, verifying that all export soil data for any soils exported for use at a non-school site, including the final Certification Report prepared by CONTRACTOR's licensed environmental professional, were provided to the proposed recipient prior to export and delivery.

5. Prior to import/export, written documentation in the form of a letter sent by the transporter to the CONTRACTOR, who must in turn submit it to OEHS, to verify the following:

a. The hauling contract for each load imported to, or exported from, the school site specifies the use of "clean" trucks and/or trailer beds, in which the material will be carried;

b. The actual trucks and/or trailer beds utilized for import/export activities will be clear of visible contamination or deleterious materials;

c. The trucks will go directly from the source location to the recipient location with no detours or stops at other locations; and

d. Short loads will not be augmented by other materials that were not tested as part of the final SSP.

e. All import/export transportation activities shall be conducted in accordance with all applicable local, state and federal rules and regulations.

6. Certification, in the form of haul tickets or completed waste manifests, documenting the volume and recipient of all import/export materials and activities. This documentation shall be coordinated through the OEHS Environmental Health Supervisor, Environmental Compliance Group.

   a. For approved import/export to unregulated facilities (landfill) or non-school sites, haul tickets may be utilized, but shall contain the following minimum information:

      1) Date(s) of haul activity.

      2) Address of source site.

      3) Address of recipient.

      4) Load volume.

      5) Time of departure from source.

      6) Time of arrival at recipient site.

      7) Signature of recipient or recipient's agent.

      8) It is the CONTRACTOR's responsibility to confirm that no other trips or short-load augmentation occurred and submit documentation to the OAR and OEHS.

   b. For export to regulated facilities (landfills, recyclers, etc.), the appropriate waste manifest as determined by the OEHS Environmental Health Supervisor, Environmental Compliance Group in paragraph 1.04.A.3 must be completed and a copy of the executed manifest, signed by the receiving site, must be provided to the OAR. The waste manifest copy, signed by the receiving facility and based on the manifest address, will be sent directly to OEHS and the OEHS Environmental Health Supervisor, Environmental Compliance Group.

1.05 APPROVALS

A. No import or export of earth or geotechnical grading or filling materials can occur at OWNER sites without prior approval by OEHS.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Imported:

1. Soils: Soils proposed for import shall be tested pursuant to the requirements of this Section (01 4524), unless a variance has been requested by CONTRACTOR and approved by OEHS prior to the import of the subject materials.

2. Gravels: Clean gravel, consisting of native rock from a commercial source, may be granted a variance from the testing requirements of this Section provided a request

for variance is submitted by CONTRACTOR for review and approval at least 72 hours prior to import. CONTRACTOR shall provide written documentation, which identifies the source, volume and proposed transport date(s) of the material for review.

a. Furthermore, a letter signed and stamped by either a Civil PE or PG and originating from the commercial source must state the following:

1) The quarry does not mine ultramafic (i.e. natural asbestos containing) materials.

2) The gravel is produced from virgin aggregate materials and does not contain any contaminated or reclaimed or recycled materials.

b. Additionally, a letter from the material transporter and signed by the same must state the following:

1) Haul truck and/or trailer beds transferring the material are clear of visible contamination and deleterious materials.

2) Haul trucks will go directly from the quarry source to the site with no trips or augmentation of short loads with other materials.

c. The request for variance requires approval by OEHS prior to CONTRACTOR importing the materials.

3. Sands: Clean sand from a commercial source may be granted a variance from the testing requirements of this Section provided a request for variance is submitted by CONTRACTOR for review and approval at least 72 hours prior to import. CONTRACTOR shall provide written documentation, which identifies the source, volume and proposed transport date of the material for review.

a. Furthermore, a letter signed and stamped by either a Civil PE or PG and originating from the commercial source must state the following:

1) The source does not mine ultramafic (i.e. natural asbestos containing) materials.

2) The sand is produced from virgin materials and does not contain any contaminated or reclaimed or recycled materials.

b. Additionally, a letter from the material transporter and signed by the same must state the following:

1) Haul truck and/or trailer beds transferring the material are clear of visible contamination or deleterious materials.

2) Haul trucks will go directly from the commercial source to the site with no trips or augmentation of short loads with other materials.

c. The request for variance requires approval by OEHS prior to CONTRACTOR importing the materials.

4. Miscellaneous Material: No miscellaneous material containing crushed concrete, asphalt, construction debris, recycled, or other potential deleterious materials may be utilized or imported to an OWNER project site for use as fill or grading material.

B. Exported/Site Generated:

1. Soils: Soils proposed for export shall be tested pursuant to the requirements of the subject section, unless a variance has been requested by CONTRACTOR and approved by OEHS prior to the import of the subject materials. Once soils or other materials for export have been tested, they cannot be disturbed or reused for any purpose without prior approval by OEHS.

2. Gravels/Sands: Gravels, sands, or other natural rock materials shall not be exported from an OWNER project site without prior testing by CONTRACTOR pursuant to this Section (01 4524) and/or approval by OEHS. An exception to this provision is gravel adhering to concrete or asphalt pavement. In this instance and in consultation with OEHS, which shall make the final decision, CONTRACTOR may dispose of said materials and construction debris without sampling and analytical testing required under this Section.

3. Miscellaneous Material. No miscellaneous material or other similar materials shall be exported from an OWNER project site without prior testing by CONTRACTOR pursuant to this Section (01 4524) and/or approval by OEHS. No crushed miscellaneous material containing concrete, asphalt, construction debris, or other potential deleterious materials that is generated onsite may be used as fill or grading material of any sort at an OWNER project site. Crushed asphalt shall be segregated and stockpiled separately. The onsite use of crushing equipment is not permitted.

PART 3 - EXECUTION

3.01 GRADING/EXCAVATION

A. If the CONTRACTOR encounters an area with discolored, stained, and/or odorous soils or any other evidence of contamination during excavation/grading work, CONTRACTOR must immediately notify the OAR, cease work in the aforementioned area, and secure the area with fencing, tape, stakes or other suitable means to prevent entry by personnel or equipment. In turn, the OAR will immediately notify OEHS, which will initiate a construction response to address the contamination, in accordance with pertinent regulatory requirements.

3.02 SAMPLING AND TESTING

A. CONTRACTOR shall contract with, and pay for, the services of a licensed environmental professional, licensed State of California Professional Civil Engineer (PE) or Professional Geologist (PG), to oversee or perform sampling of Materials that are subject to this Section.

B. CONTRACTOR shall contract with, and pay for, an independent, approved California Department of Health Services certified testing laboratory to perform testing of imported, exported and site generated fill materials.

C. All fill/grading material, unless otherwise specified in writing by OEHS, whether imported or exported, must be tested at the site of origin. Import/export testing and certification process shall include the steps listed below. OWNER retains the right to refuse any fill material proposed for use at a school site.

1. Stockpile all materials for sampling (standard stockpile or backhoe pothole stockpile). Crushed fill materials generated by CONTRACTOR at a school site must be segregated by material.

2. Submit draft SSP for review and concurrence by OEHS. SSP must include figures identifying the site location, the in situ sampling boundary or stockpile location, the sampling locations, and a brief site history including the type of remedial activity that occurred at the source site, if any.

3. Collect and analyze samples (see Table 1 for number of samples per volume) per the SSP. Samples must include both discrete samples and composite samples.

   a. Discrete samples correspond to a single sample depth at a single sampling/boring location. Discrete samples are to be used for producing composite samples, as described in subparagraph b. below, and for analysis, in accordance with paragraph 3.02.E.1, which applies only to VOCs and TPH-g. For analysis of these compounds, the licensed professional shall collect one discrete sample from each sampling location and samples should be collected at different depths between these locations, so that all stockpile depths are equally represented.

   b. Composite samples correspond to three sample depths from a single sampling location (this includes in situ samples). Each composite sample shall consist of three discrete samples collected near the top, middle, and bottom of the stockpile or in situ boring location at each sampling location. The licensed environmental professional shall then have the analytical laboratory combine the discrete samples into a single composite sample. The laboratory should be directed to retain a sufficient quantity of each discrete sample for further analysis, as necessary. The composite sample shall be analyzed, in accordance with paragraph 3.02.E.2, which describes required testing other than for VOCs and TPH-g. Once materials for export have been stockpiled and tested, they may not be used onsite for any purpose without prior approval by OEHS.

      1) Composite samples with analyte concentrations approximating or exceeding acceptable screening criteria, as specified below in paragraphs F through H, may be attributed to constituents within one or more discrete samples. Analyzing the discretes comprising the composite may reveal the discrete samples with elevated analyte concentrations and, thus, better isolate (and minimize) the volume of soils within the stockpile requiring removal and licensed disposal.

4. Submit draft Soil Certification/Sample Data Report for review and concurrence by OEHS.

5. Submit final Soil Certification/Sample Data Report to the OEHS. All certified material not utilized or exported within a period of 90 days will be subject to retesting unless a variance is requested by CONTRACTOR and is approved by OEHS prior to use or import/export of the subject materials.

6. Submit required pre import/export documentation/record to the OAR and to OEHS, e-mail is acceptable.

7. Submit post import/export certifications to the OAR and OEHS, e-mail is acceptable.

8. In addition to the preceding, requirements, and as necessary or as specified by OEHS, certifications and submittals as indicated in previous articles of PART 3 or in the remainder of this Section may be required.

D. Import/export fill materials shall be samples in situ or stockpiled by CONTRACTOR (or at export site) and are deemed acceptable for import/export or reuse only when it is demonstrated to the satisfaction of OEHS that the subject materials meet the requirements of this Section.

E. As described in paragraph 1.04.A.2.b, lacking site-specific data or sample rationale to support a more focused analytical approach; the CONTRACTOR shall analyze all samples for the following substances according to the methods indicated below. Table 3 is a waste classification flowchart for use by CONTRACTOR's licensed environmental professional. In all cases, detection levels and quality assurance/quality control methods shall be in accordance with standard method reporting limits, best laboratory practices and the following USEPA (EPA) methods for discrete and composite samples:

1. Discrete samples shall be analyzed for Volatile Organic Compounds (VOCs), utilizing EPA Method 8260B/5035 and for Total Petroleum Hydrocarbons (TPH) gasoline (TPH-g), utilizing EPA Method 8015M [with EPA Method 5035 extraction using either volatile organic analysis (VOA) kits, EnCores®, or an equivalent soil collection device].

2. Composite samples shall be analyzed for the following:

   a. TPH, utilizing EPA Method 8015M, for full carbon-chain speciation (including diesel, oil, and other long-chain hydrocarbons).

   b. Polychlorinated biphenyls, utilizing EPA Method 8082.

   c. Semi-Volatile Compounds (SVOCs), utilizing EPA Method 8270C.

   d. Organochlorine Pesticides (OCPs), utilizing EPA Method 8081A.

   e. Organophosphorous Pesticides (OPPs), utilizing EPA Method 8141A.

   f. Chlorinated Herbicides, utilizing EPA Method 8151A.

   g. California Code of Regulations Title 22 (CAM 17) Metals, utilizing EPA Method 6010B/7470A.

   h. Hexavalent Chromium, utilizing EPA Method 7199.

   i. Arsenic/Thallium, utilizing EPA Method 6020.

3. For EPA Method 8270C, a Method Detection Limit (MDL) of 250 ug/kg in addition to the Practical Quantitation Limit (PQL) or equivalent. This requirement is due to a recent DTSC directive requiring MDLs or PQLs to be sufficiently low to detect Carcinogenic Polycyclic Aromatic Hydrocarbons (CPAHs) in the composite sample, even if these compounds exceed actionable concentrations (900 ug/kg) in only one of the three discrete samples comprising the composite.

4. The certified laboratory may also need to analyze the composite samples for polycyclic aromatic hydrocarbons (PAHs), a component of semi-volatile compounds, if the data evaluation performed in accordance with paragraph 3.02.G of this Section (01 4524) does not meet DTSC requirements. The analytical methods to be used for this purpose are EPA Method 8270 SIM, if the samples contain relatively high concentrations of hydrocarbons, or EPA Method 8310, if the samples contain low concentrations of hydrocarbons.

F. Import/export fill material may be deemed defective for use by OEHS at a school site if any of the following results are obtained:

1. TPH are present at concentrations exceeding 100 milligrams per kilogram (mg/kg) for gasoline and/or 1,000 mg/kg for oil/diesel and long-chain hydrocarbons.

2. Solvents and other VOCs are present at concentrations exceeding the laboratory reporting limit. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

3. PCBs are present at concentrations exceeding the laboratory reporting limit. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

4. SVOCs are present at concentrations exceeding the laboratory reporting limit. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

5. OCPs are present at concentrations exceeding the laboratory reporting limit. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

6. OPPs are present at concentrations exceeding the laboratory reporting limit. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

7. Chlorinated herbicides are present at concentrations exceeding the laboratory reporting limit. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

8. California Code of Regulations Title 22 (CAM 17) Metals at concentrations exceeding site-specific background. Detections between the laboratory reporting limit and the practical quantitation limit (J-flags) should not be reported.

9. Hexavalent chromium is present at concentrations exceeding 300 ug/kg.

G. As mentioned in paragraph 3.02.E, evaluate concentrations of CPAHs, a subset of SVOCs, in the import/export material by conducting the analyses set forth below.

1. Comparing CPAH concentrations with the benzo(a)pyrene [b(a)p] equivalent concentration of 900 ug/kg, the background concentration for CPAHs defined in "A Methodology For Using Background PAHs To Support Remediation Decisions," prepared by the Environ Corporation for the Southern California Gas Company and Southern California Edison, January 24, 2002 (referred to as "document"). In this document, CPAHs are defined in Table 2, and Potency Equivalency Factors (PEFs) for each CPAH are listed in Table 3. Using the correct PEF for each CPAH, the licensed environmental professional shall convert the concentration of each CPAH into its b(a)p equivalent concentration. The summation of these b(a)p equivalents for each CPAH must not exceed 900 ug/kg. If CPAHs do not exceed the laboratory reporting limit, then the licensed environmental professional must perform the procedure described above, using the PEF and the laboratory reporting limit (LRL) for each CPAH. The result will be the LRL for each CPAH converted to b(a)p equivalent concentrations. The summation of these b(a)p equivalent concentrations (representing the LRL for each CPAH) must not exceed 900 ug/kg.

H. Evaluate concentrations of metals in import fill by conducting the analysis set forth below.

1. Compare the maximum detected metal concentrations in import/export material samples to either DTSC or US EPA regulatory action levels for either residential or school sites, whichever is more conservative. If any metal concentration exceeds its listed regulatory action level, the fill material fails and shall be deemed defective and unacceptable for use.

2. In addition to paragraph 3.02.G.1, import/export fill shall be deemed defective and unacceptable for use if any of the following results are obtained:

a. Arsenic concentrations greater than or equal to12.0 mg/kg.

b. Lead concentration greater than or equal to 80 mg/kg.

c. Import/Export materials at school sites with total lead concentrations greater than or equal to 50 mg/kg shall be analyzed for leachability (STLC) prior to export. Materials exceeding STLC limits identified in Table 2 are deemed defective and unacceptable for use at school sites.

d. Import/Export materials at school sites with total chromium concentrations greater than or equal to 100 mg/kg shall be tested for hexavalent chromium.

I. All export/import material shall be characterized, handled, and documented in accordance with applicable US EPA and State of California hazardous waste and hazardous materials regulations (See Table 2). For the purpose of this specification, "contaminated" shall mean any soil or geotechnical material with constituent concentrations, which would require disposal at a regulated facility (i.e., California hazardous waste or RCRA hazardous waste). Refer to Article 3.03 COSTS which outline the disposal fee requirements for excavated contaminated soil. OAR must be notified at least 72 hours prior to the disposal of hazardous waste or hazardous material. No material disposal or reuse can take place without prior written approval of OEHS.

J. Specification test results and OEHS approvals are valid for a period of 90 days from the date of the subject testing unless a variance is requested by CONTRACTOR and approved by OEHS. Previously approved materials shall not be utilized or disposed offsite after the 90 day limit without prior review and approval by OEHS.

K. Requests for variances to this Specification Section shall be submitted in writing to OEHS a minimum of two weeks in advance of need for review and approval. The request for a variance from soil sampling for export must state the following: "The soil for export is less than 10 cubic yards, has no visible staining, is not odorous, and appears native". A photograph of the stockpiled soil must be included in the variance request. The photograph must have a representative scale within it in order for OEHS to determine the volume of soil to be exported. The request for variance must provide all available testing data, and a rationale to support the request. OEHS will review the request for variance and will provide its preliminary determination within 72 hours. Once OEHS approves the variance from sampling, the soil stockpile may be removed as "construction related debris". Certain requests may require final approval by the DTSC.

3.03 TRANSPORTATION

A. Details of the samples and testing must be submitted to and approved by OEHS Environmental Compliance Manager before the materials from which the samples were collected undergo transportation.

B. Haul Routes and Regulations/Restrictions: CONTRACTOR must comply with requirements of project environmental disclosure documents (i.e., CEQA EIR) and authorities having jurisdiction over the project area and the proposed activities (e.g. Regional Water Quality Control Board, DTSC, etc.).

3.04 COSTS

A. CONTRACTOR shall pay all fees required by authorities having jurisdiction over area.

B. Contractor shall pay all fees for disposal and/or processing of impacted and/or hazardous fill materials at a regulated facility.

C. CONTRACTOR shall post and pay for all bonds required by authorities having jurisdiction over area.

TABLE 1: MINIMUM SAMPLING FREQUENCY	
Volume (Cubic Yards)*	Sampling Frequency*
0 - 500	1 per 100 CY
501 - 1,000	1 per 250 CY
1,001 - 5,000	1 per 250 CY for first 1000 CY 1 per 500 CY thereafter
> 5,000	12 samples for first 5000 CY 1 per 1000 CY thereafter

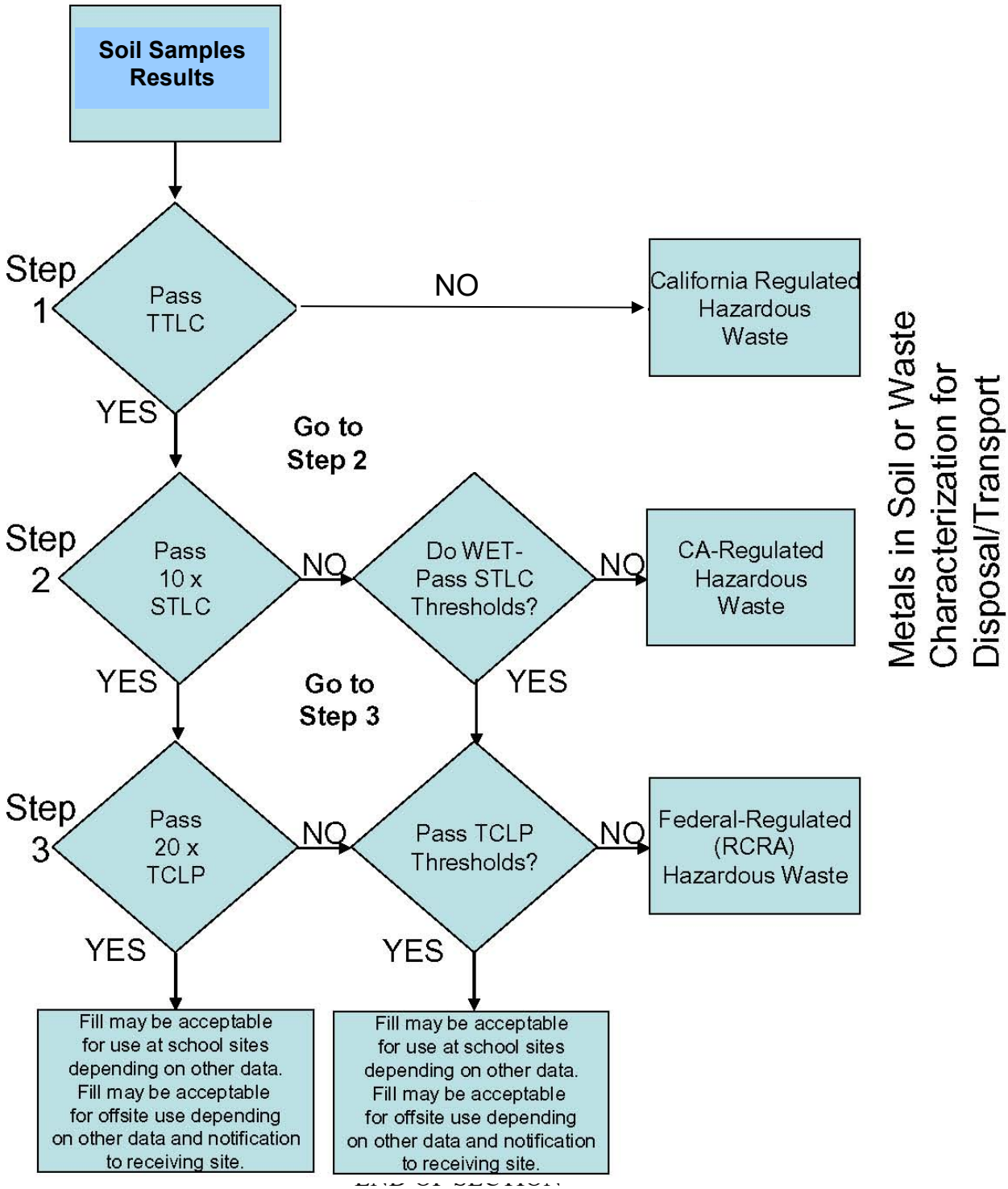
All samples are to be collected, analyzed and accepted before import/export: materials going to licensed facilities must meet sampling criteria from that facility. The rationale for sample approach should be discussed in the draft SSP.

Pothole stockpile sampling may require discrete depth supplemental sampling in order to achieve representative results. The rationale for sample approach should be discussed in the draft SSP. In-situ (in place) sampling by mechanical boring or a hand auger method is acceptable if no space exists to store the soil stockpile at the site with prior OEHS approval.

*Discuss alternative screening & sampling approaches with OEHS representative for project.

Chemicals of Potential Concern	TABLE 2 WASTE CHARACTERIZATION				
	Hazardous Waste if Exceed Criteria - TTLC Level* (mg/kg)	Additional WET Leaching Tests if Exceed Hazardous Waste Criteria - 10 times STLC Level** (mg/kg)	California-Regulated Hazardous Waste - Soluble Threshold Limit Concentration -STLC Level (mg/l)	Additional TCLP Leaching Tests if Exceed Hazardous Waste Criteria - 20 times TCLP Level** (mg/kg)	Federally-Regulated (RCRA) Hazardous Waste - Toxicity Characteristic Leaching Procedure - TCLP Level (mg/l)
CAM 17 Metals					
Antimony	500	150	15	NA	NA
Arsenic	500	50	5	100	5
Barium	10,000	1,000	100	2,000	100
Beryllium	75	7.5	0.75	NA	NA
Cadmium	100	10	1	20	1
Chromium	2,500	50	5	100	5
Cobalt	8,000	800	80	NA	NA
Copper	2,500	250	25	NA	NA
Lead	1,000	50	5	100	5
Mercury	20	2	0.2	4	0.2
Molybdenum	3,500	3,500	350	NA	NA
Nickel	2,000	200	20	NA	NA
Selenium	100	10	1	20	1
Silver	500	50	5	100	5
Thallium	700	70	7	NA	NA
Vanadium	2,400	240	24	NA	NA
Zinc	5,000	2,500	250	NA	NA
Chromium (VI)	500	50	5	NA	NA

TABLE 3 – WASTE CLASSIFICATION FLOWCHART



END OF SECTION

APPENDIX E

TRANSPORTATION PLAN

Transportation Plan

To Be Performed at:
William Howard Taft Charter High School
5461 Winnetka Avenue
Woodland Hills, California 91364

Prepared for:
Los Angeles Unified School District
Office of Environmental Health & Safety
333 South Beaudry, 21st Floor (21-223-07)
Los Angeles, California 90017

EFI Global Project Number:
9836003557 / 045.00349

March 11, 2020

LIST OF ABBREVIATIONS / ACRONYMS

AC – Asphaltic concrete
AOC – Areas of Concern
ADA – Americans with Disabilities Act
BCU – Bank cubic yards
DTSC – California Department of Toxic Substances Control
EPA – United States Environmental Protection Agency
ESA – Environmental Site Assessment
ft. amsl – feet above mean sea level
GRO – Gasoline-Range Organics
LAUSD – Los Angeles Unified School District
LCU – Loose cubic yards
LUST – Leaking Underground Storage Tank
mg/kg – milligram per kilogram
OCP – Organochlorine pesticide
OEHS – Office of Environmental Health and Safety
PEA-E – Preliminary Environmental Assessment – Equivalent
PCB – Polychlorinated biphenyl
pVIC – Potential vapor intrusion condition
QA/QC – Quality Assurance / Quality Control
RAW – Removal Action Workplan
SSALs – Site Specific Action Levels
SVOCs – Semi-Volatile Organic Compounds
SWRCB – California State Water Resources Control Board
UCL – Upper Confidence Limit
USA – Underground Service Alert
VOC – Volatile Organic Compound
µg/kg – micrograms per kilogram
µg/l – micrograms per liter

PROJECT SUMMARY

Project Site: William Howard Taft Charter High School

Site Address: 5461 Winnetka Avenue, Woodland Hills, California 91364

Project Proponent (PP): Los Angeles Unified School District

Removal Action (RA) Contractor: TBD

Chemicals of Concern (COCs): Arsenic, lead, and dieldrin

Site-specific Cleanup Goals (CGs): All concentrations above 24 milligrams per kilogram (mg/kg) for arsenic and concentrations above 12 mg/kg in two locations (B37 and B37C), 34 mg/kg for dieldrin, and 80 mg/kg for lead.

Estimated Volume of Soil Removal: 20 cubic yards

Distance to a Sensitive Environment: On-site students; Serrania Charter for Enriched Studies (1.5 miles), Woodland Hills Academy (1.6 miles); Woodland Hills Branch Library (2.5 miles); Woodland Hills Elementary School (3.6 miles)

1.0 INTRODUCTION

EFI Global conducted a Preliminary Environmental Assessment-Equivalent (PEA-E) to assess shallow soils in select portions of the Site for Title 22 metals, organochlorine pesticide (OCP), polychlorinated biphenyl (PCB), petroleum hydrocarbons, and volatile organic compound (VOC) impacts, and to evaluate the Site for a potential vapor intrusion condition (pVIC) from the on-site three-stage clarifier. A total of 96 initial soil borings (B1 through B96) and 27 subsequent step-out borings were advanced at the Site and select soil samples were collected and analyzed. In addition, two soil vapor probes were installed in boring B13, and soil vapor samples were collected and analyzed. Analytical results for soil samples collected at the Site identified concentrations of dieldrin, lead, and arsenic at concentrations exceeding regulatory screening levels in the upper three feet of soil in five boreholes.

Following completion of the PEA-A, LAUSD OEHS requested that EFI Global conduct a Supplemental Site Investigation (SSI) to assess soil in areas of the Site not assessed during the PEA-E. Field work conducted as part of the SSI included the advancement of 37 soil borings and 2 step-out soil borings. Additionally, shallow soil samples were collected from 11 previous soil sampling locations for thallium analysis. One soil sample (exceeded the LAUSD OEHS maximum allowable concentration for arsenic.

EFI Global, on behalf of LAUSD OEHS has prepared this RAW to address the proposed excavation and off-site disposal of impacted soil from the Site. This Transportation Plan is prepared as a key component of the RAW. Soil excavation and loading will be conducted by the Contractor.. as a describes the procedures that

All excavated soils shall be shipped by a qualified (licensed/registered and insured) waste hauler via sealed or covered end-dump trucks under manifests or proper shipping documents to a proper disposal facility. Transportation of fill materials shall be shipped in tarped or covered trucks.

All removal, transportation, disposal, and Site restoration activities will be performed in accordance with all applicable federal, state, and local laws, regulations, and ordinances.

2.0 WASTE CHARACTERIZATION AND QUANTITY

2.1 WASTE PROFILE

Site-Specific COCs: Arsenic, lead, and dieldrin

2.2 Hazardous Waste Management

Resource Conservation and Recovery Act (RCRA) hazardous waste is regulated under both RCRA and the California Health and Safety Code (H&SC). RCRA regulatory levels for D-listed wastes, using the Toxicity Characteristic Leaching Procedure (TCLP), are listed under Title 22 of the California Code of Regulations, Section 66261.24(a)(1) (22 CCR 66261.24(a)(1)).

Non-RCRA hazardous waste is regulated only under H&SC and 22 CCR. The Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) values for certain chemicals are listed under 22 CCR 66261.24(a)(2).

The waste profile sampling analytical results will determine the waste classification for the soil to be exported. Should some of the soil to be excavated as part of this RAW be classified as a hazardous waste, LAUSD OEHS will secured a U.S. Environmental Protection Agency (USEPA) identification number for the Site from the California Department of Toxic Substances Control (DTSC) for proper hazardous waste management. Compliance with DTSC requirements of hazardous waste generation, temporary onsite storage, transportation, and disposal is required.

2.3 Contaminated Soil Control

After the delineated areas of impacted soil, shown on RAW Figure 4, have been excavated to the appropriate depths, confirmation soil samples will be collected from the bottom and sidewalls of the excavations, as described in Section 6.5.1 of the RAW. The cleanup goals for the Site are discussed in Section 1.4 of the RAW.

2.4 Waste Quantity

Estimated quantity of impacted soils for off-haul: 20 cubic yards

Estimated Number of Truckloads: up to 2 trucks

2.5 Import Fill Material

Estimated quantity of Import Fill Material: 20 cubic yards

Estimated Number of Truckloads: up to 2 trucks

3.0 SOIL LOADING OPERATIONS

Soil will be removed with excavators or other types of earth moving equipment, as necessary. As soil is excavated, it will be temporarily stockpiled on-site for soil profiling prior off-site disposal.

3.1 Truck Loading Operations

In most cases it is anticipated that trucks will be loaded at or near the areas of excavation and driven to the designated disposal facility. While the soil is being loaded into the trucks, dust suppression will be performed by lightly spraying or misting the work areas with water. Water mist may also be used on soil placed in the transport trucks. After the soil is loaded into the transport trucks, the soil will be covered and otherwise contained to prevent soil from blowing or spilling out of the truck during transport to the disposal facility.

All vehicles will be decontaminated prior to leaving the work area, as described in Section 6.1.4 of the RAW. The dump truck or roll-off bin portion of the truck will then be covered to prevent soil and/or dust from spilling out of the truck during transport to the disposal facility.

Prior to leaving the load-out area, each truck will be inspected by the Contractor to ensure that the payloads are adequately covered, the trucks are cleaned of spilled soil, and the shipment is properly manifested.

3.2 Working Hours and Duration

During school operation, trucking times must be pre-approved by LAUSD.

In most cases, excavation will be conducted between 7:00 AM to 6:00 PM daily Monday through Friday for up to 5 days. During school non-operational days, truck loading and unloading may be conducted between 8:00 AM to 4:00 PM daily Monday through Friday for up to 2 days. This duration is based on the contingency volume of 20 cubic yards (2 trucks assuming approximately 18 cubic yards per truck). As needed, excavation, truck loading, and unloading and off-site transport to the licensed disposal facility may be conducted on Saturdays from 8:00 AM to 5:00 PM.

4.0 TRANSPORTATION CONTROL

4.1 Dust Control during Transportation

Soil for off-site disposal will be transported in covered trailers/trucks, drums, or roll-off bins to an approved land disposal facility. All waste hauler vehicles will be decontaminated prior to leaving the work area. Clean fill materials will be transported in covered trailers/trucks to the Site. If deemed necessary, a wet street sweeper will be operating on the local streets adjacent to the Site to mitigate any potential residual dust or track out of soils.

4.2 Traffic Control

Truck Staging Area: Prior to loading or unloading at the Site, all trucks will be staged on-site as much as possible to avoid impacts on the local streets. Careful coordination of trucks will be exercised to help avoid staging off-site and long wait times for trucks. Trucks will not be allowed to sit idling more than 5 minutes to avoid unnecessary exhaust fumes.

Site Access Control: Trucks to be loaded or unloaded at the Site will only access the designated soil loading/unloading areas or truck staging areas through gates pre-designated by the Contractor and LAUSD. Waste hauling vehicles will not be allowed to cross soil remedial or staging areas. A flag person of the Contractor will be located at the gates to assist the truck drivers to safely enter and depart the Site.

On-site Traffic Flow: Although it is anticipated that only two trucks will be required for off-site soil disposal, traffic will be coordinated in such a manner that, at any given time, no more than eight transportation trucks will be onsite to reduce truck traffic on surrounding surface streets and reduce dust generation during onsite transportation.

Speed Limit: While on the Site, all vehicles are required to maintain slow speeds, e.g., 5 miles per hour (mph) or less, for safety purposes and for dust control measures. While on streets or freeways, all transporters will follow the speed limit requirements and defensive driving techniques (over traffic or road conditions) for traffic safety.

4.3 Transportation Routes

There are numerous alternate routes that can be taken to potential land disposal facilities. Proposed routes of transportation for off-site shipment of RCRA, non-RCRA hazardous waste, and non-hazardous waste are described in below, and will be updated as necessary.

Given the vast network of freeways within the Los Angeles area, there are numerous alternate routes that can be taken to the disposal facilities. However, with the exception of traffic conditions encountered during hauling, in the event that an alternate route is taken, the LAUSD contractor will verify the new truck route with the LAUSD OEHS prior to initiating field activities. However, these routes were selected as they minimize the trucks' travel time on surface streets and provides the shortest distance traveled. Additionally, given the characteristics of the

material being transported, there are no apparent restrictions that would preclude the trucks from following these routes to the disposal facilities.

Before leaving the Site, the truck driver will be instructed to notify the LAUSD contractor's Site manager. The truck driver will be provided with the cellular phone number for the LAUSD contractor's Site manager. It will be the responsibility of the truck driver to contact the LAUSD contractor's Site manager if problems arise after leaving the Site. It will be the responsibility of the LAUSD contractor's Site manager to notify the LAUSD-OEHS of any unforeseen incidents. In addition, the Los Angeles County Service Authority for Freeway Emergencies (SAFE) was created pursuant to California Streets & Highways Code Section 2550 et. seq. The SAFE is responsible for the operation and maintenance of the Los Angeles County Call Box System. There are more than 4,400 call boxes located throughout the Los Angeles County. These call boxes are situated at roadside locations along the truck route described above. The call boxes are intended to be used to report roadside emergencies to the California Highway Patrol (CHP) dispatch center. As such, the truck driver will be instructed to report any roadside emergency to the CHP using the Call Box System and also to notify the Site manager.

Consultation with Local Transportation Department: A "haul route permit" may be required and obtained from the City of Los Angeles transportation department with a copy of the transportation route map at least three (3) days prior to commencement of the proposed RA.

The haul route permit is sufficient for the trucks hauling soils and fill materials because the loaded weight will be less than 40 tons. Mobilization and demobilization of large earthmoving equipment may exceed this weight and would require additional permits (green and/or purple) from the State (and local transportation agencies). Heavier loads have higher permit fees and restrictions on time of travel. Costs for all such permits are to be included in the project bid.

Local Traffic Control: Transportation of impacted soils or fill materials will be on arterial streets and/or freeways, approved for truck traffic, to minimize any potential impact on the local neighborhood. Moving along the proposed transportation routes, all street intersections (except those marked on the transportation route map) are controlled by traffic lights or stop signs. For those intersections without traffic control signs, a flag person of the Contractor may be located to assist or direct traffic flows during heavy traffic hours. For those intersections adjacent to existing schools, a flag person of the Contractor will be required during all trucking/hauling activities. Therefore, the number of daily truckloads during implementation of the RAP is not expected to cause a disruption in local traffic.

Street Maintenance: A "work notice" will be given to the Los Angeles Bureau of Street Service, Enforcement/Inspection Division with copies of the transportation route maps at least three (3) days prior to initiation of the proposed RA. All street surfaces along the transportation routes will be routinely inspected and, if necessary, maintained or repaired by the Contractor, during implementation of the tasks. Contractor is responsible for cleaning streets or school yards from spilled soils and the final cleanup after completion of field activities, such as washing paved areas. The number of daily truckloads during implementation of the RAW is not expected to cause damage to surface streets.

5.0 OFF-SITE LAND DISPOSAL FACILITIES

As a hazardous waste generator, LAUSD OEHS will secure an EPA ID number from the DTSC or use an existing, applicable EPA ID number for proper management of the hazardous waste (if any). Compliance with the DTSC requirements of hazardous waste generation, temporary on-site storage, transportation and disposal is required. Any container used for on-site storage will be properly labeled with a hazardous waste label. Within 90 days after its generation, the hazardous waste will be transported off-site for disposal. Any shipment of hazardous wastes in California will be transported by a registered hazardous waste hauler under a uniform hazardous waste manifest. Land ban requirements will also be followed as necessary.

Waste generated as a result of the work proposed in this RAW will be classified as nonhazardous, California Hazardous, or RCRA Hazardous waste. Prior to load-out of soils to the selected disposal facility, soil profile data and landfill approval will be submitted to LAUSD OEHS for approval.

Waste will be transported under generally accepted manifest procedures to one or more of the following pre-designated landfills. Although not expected, alternative disposal facilities may be evaluated for waste disposal. If,

in the unlikely event an alternative disposal facility is selected for waste disposal, the facility information (including name, location, permit and certification information) will be provided to the LAUSD OEHS in writing and approval requested to dispose of waste at the alternate facility.

5.1.1 RCRA Hazardous Waste Facilities (Class I)

All RCRA hazardous wastes will be disposed of in a Class I hazardous waste land disposal facility permitted to accept such wastes. The facility below has been pre-designated to be selected for disposal of RCRA hazardous waste for this project:

Clean Harbors – Buttonwillow Landfill (Hazardous Waste Facility)
2500 West Lokern Road, Buttonwillow, CA 93206 (Approximately 128 miles from Site)
US EPA ID No: CAD980675276
DTSC Hazardous Waste Operating Permit (April 6, 1996)
California Regional Water Quality Control Board Waste Discharge Requirements 96-094
Kern County Conditional Use Permit No. 94-684
San Joaquin Valley Air Pollution Control District Air permits for all permitted units
Categories of wastes accepted: Non-Hazardous, CA Hazardous, RCRA hazardous soils

Waste Management Inc. - Kettleman Hills (Hazardous Waste Facility)
35251 Old Skyline Rd, Kettleman City, CA 93239 (Approximately 170 miles from Site)
Solid Waste Permits: 16-AA-0023, Unit B16: 16-AA-0024, Unit B17: 16-AA-0027
Categories of wastes accepted: RCRA hazardous soils

Clean Harbors –Westmorland (Hazardous Waste Landfill and Treatment Facility)
5295 S. Garvey Road, Westmorland, CA 92281 (Approximately 212 miles from Site)
EPA ID: CAD000633164
DTSC Facility Permit No: CAD000633164
California Regional Water Quality Control Permit No: 94-005
Imperial County Conditional Use Permit No: 957-90 A&B, 958-90 A&B
Imperial County Air Pollution Control District Permit to Operate No: 1633E
Stormwater General Discharge Operating Permit No: 7 13S003100
USDA APHIS Permit No. S-43094
Categories of wastes accepted: Non-RCRA hazardous soils and non-hazardous soils

5.1.2 Non-RCRA Hazardous Waste Facilities (Class I or II)

A non-RCRA hazardous waste is a California only hazardous waste. The following disposal facilities have been pre-designated for disposal of non-RCRA hazardous waste for this project:

Waste Management Inc. - Northwest Regional Landfill
19401 West Deer Valley Road, Surprise, AZ 85837 (approximately 320 miles from Site)
APP Permit No: P-100267
AZ Solid Waste Facility: 07039500.02
EPA ID: AZR000031559
State Facility Special Waste ID: 301963
Title V Air Permit: V97-016
Categories of wastes accepted: Non-hazardous and California Hazardous soils/solids

5.1.3 Non-Hazardous Waste Facilities

Non-hazardous soil will be transported to one or more of the following facilities for disposal/recycling:

Waste Management Inc. - Thermal Remediation Solutions (TRS)
1211 West Gladstone Street, Azusa, CA 91702 (approximately 39 miles from Site)
Solid Waste Permit: 19-AA-0013
AQMD Permit: Facility ID #109914

Categories of wastes accepted: Non-regulated soil with VOC and petroleum hydrocarbon contamination

Waste Management Inc. - Lancaster Landfill and Recycling Center
600 East Avenue F, Lancaster, CA 93535 (approximately 73.0 miles from Site)
Landfill Permit: 19-AA-0050
Categories of wastes accepted: Non-regulated soil, soil with VOC and petroleum hydrocarbon contamination

Waste Management Inc. - Azusa Land Reclamation (ALR)
1211 West Gladstone Street - Azusa, CA 91702 (approximately 40 miles from Site)
Conditional Use Permit: C-151
Solid Waste Permit: 19-AA-0013
Categories of wastes accepted: Non-regulated soil, soil with low TPH and VOC contamination

6.0 RECORD KEEPING

The Contractor will be responsible for maintaining a field logbook during the RA activities. The field logbook will serve to document observations, on-site personnel, equipment arrival and departure times, and other vital project information. Logbook entries will be complete and accurate enough to permit reconstruction of field activities. Logbooks will be bound with consecutively numbered pages. Each page will be dated and the time of entry noted. All entries will be legible, written in black ink, and signed by the individual making the entries. Language will be factual, objective, and free of personal opinions or other terminology that might prove inappropriate. If an error is made, corrections will be made by crossing a line through the error and entering the correct information. Corrections will be dated and initialed.

The Uniform Hazardous Waste Manifest (hazardous waste manifest) form will be used to track the movement of soil sent offsite as hazardous waste from the point of generation to the point of ultimate disposition. The hazardous waste manifests will include information such as:

- Name and address of the generator, transporter, and the destination facility
- U.S. Department of Transportation (DOT) description of the waste being transported and any associated hazards
- Waste quantity
- Name and phone number of a contact in case of an emergency
- LAUSD USEPA Hazardous Waste Generator Number
- Other information required either by USEPA and DTSC

Non-hazardous waste manifests or proper shipping documents will be used to track the movement of soil sent offsite as non-hazardous waste from the point of generation to the point of treatment.

Before transporting the excavated soil off-site, an authorized representative of LAUSD OEHS will sign each waste manifest. The Contractor's Site manager will maintain one copy of the waste manifest on-site. Copies of the waste manifests, signed by the receiving facilities, will be included in the Removal Action Completion Report (RACR). While at the disposal facility, the truck will be weighed before offloading the payload. Weight tickets or bills of laden will be provided to the LAUSD Contractor after the material has been shipped off-site.

7.0 HEALTH AND SAFETY

A site-specific health and safety plan (HASP) has been prepared and included in the RAW. Prior to the commencement of each day's activities, a tailgate health and safety meeting will be held. Everyone working at the Site will be required to be familiar with the HASP and attend the daily tailgate meetings or health and safety briefings. Everyone working at the Site will be required to sign the site-specific HSP to demonstrate that they are familiar with the HASP and that they participated in, or were briefed on, the daily tailgate meeting. The Contractor's Site manager will maintain this signature sheet.

8.0 REQUIREMENTS OF FILL MATERIALS

Selection of fill materials shall follow LAUSD's *Environmental Import/Export Materials Testing (Section 01 4524)* (current version). All sources shall be approved by LAUSD prior to importing the fill materials to the Site. The same procedure would apply for all exported materials.

9.0 REQUIREMENTS OF TRANSPORTERS

Qualified transporters will be hired for hauling the excavated soil away or hauling fill materials to the Site.

9.1 LICENSE AND INSURANCE

The selected haulers will be fully licensed and insured to transport the excavated soils or fill materials. Hazardous wastes must be shipped by a registered hazardous waste hauler. Prior to hiring, the Contractor shall verify the status of registration and insurance policy of the selected transporters.

9.2 CONTINGENCY PLAN

Each transporter is required to have a contingency plan prepared to deal with the following conditions:

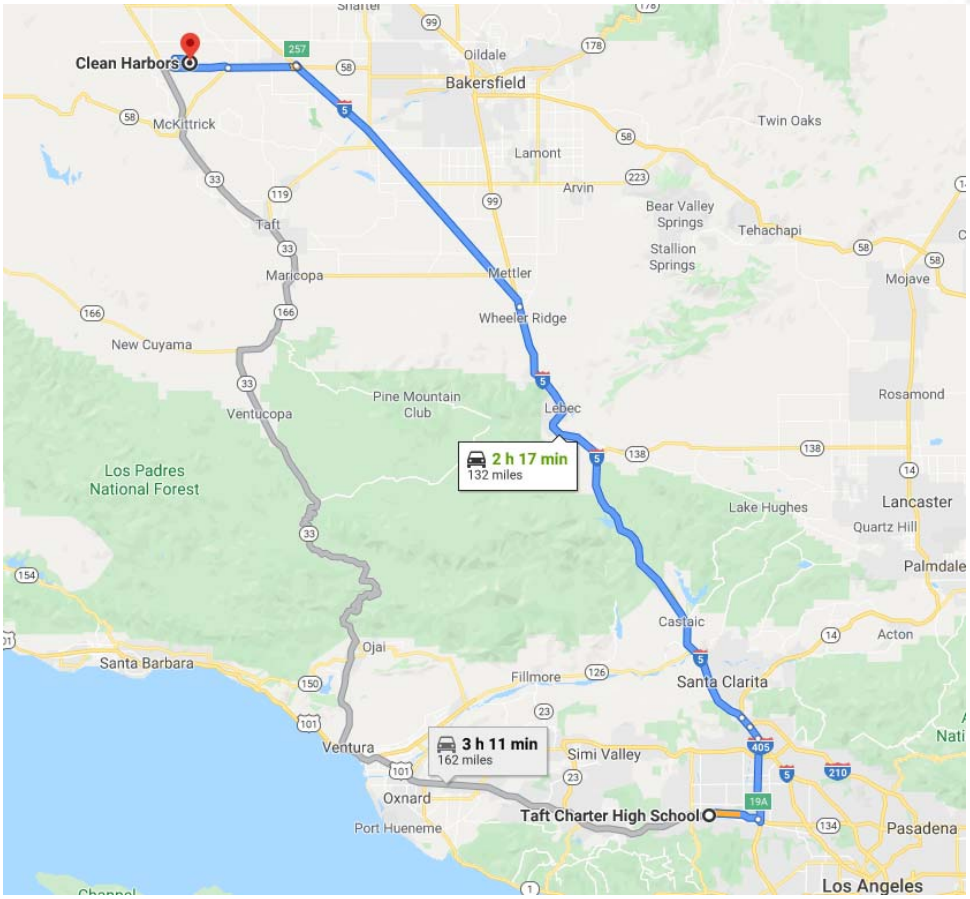
a) When there are emergency situations (vehicle breakdown, accident, waste spill, waste leak, fire, explosion, etc.) during transportation of excavated soils from the Site to the destined disposal facility or during transportation of fill materials from a source to the Site;

b) When the volumes of excavated soil change; or

c) When waste characteristics change.

The Contingency Plan will be prepared in accordance with DTSC's guidance for preparing transportation plans for site remediation (DTSC, May 1994). Once the transporter is selected, a copy of its contingency plan will be attached to this Transportation Plan.

FIGURE 2A: ROUTE TO CLEAN HARBORS – BUTTONWILLOW LANDFILL



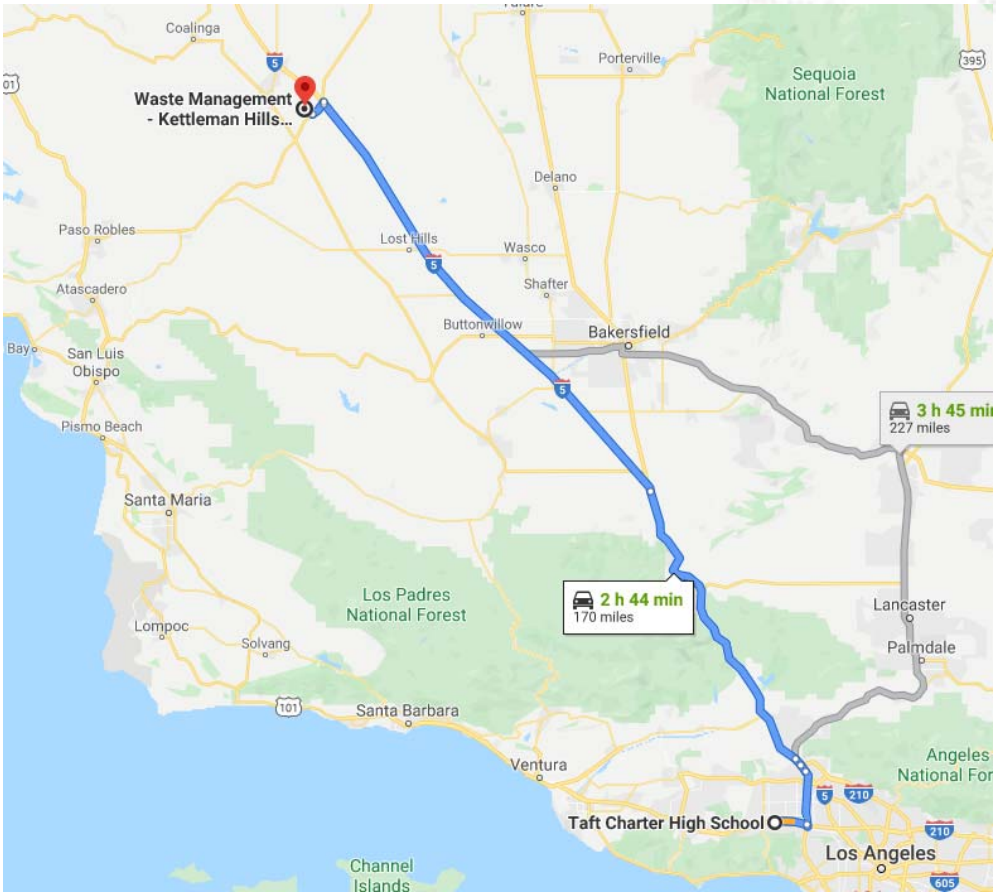
Taft Charter High School
5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S
  2 min (0.3 mi)
- Take I-5 N to Tracy Ave in Buttonwillow. Take exit 257 from I-5 N
  1 h 47 min (115 mi)
- Take CA-58 W and Lokern Rd to Delfern Rd
  26 min (17.0 mi)

Clean Harbors
2500 Lokern Rd, Buttonwillow, CA 93206

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURE 2A: ROUTE TO WASTE MANAGEMENT INC. - KETLLEMAN HILLS



Taft Charter High School
5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S
  2 min (0.3 mi)
- Follow I-5 N to CA-41 S in Kings County. Take exit 309 from I-5 N
  2 h 32 min (166 mi)
- Continue on CA-41 S. Drive to Skyline Rd
  6 min (3.7 mi)

Waste Management - Kettleman Hills Hazardous Waste Facility
35251 Old Skyline Blvd, Kettleman City, CA 93239

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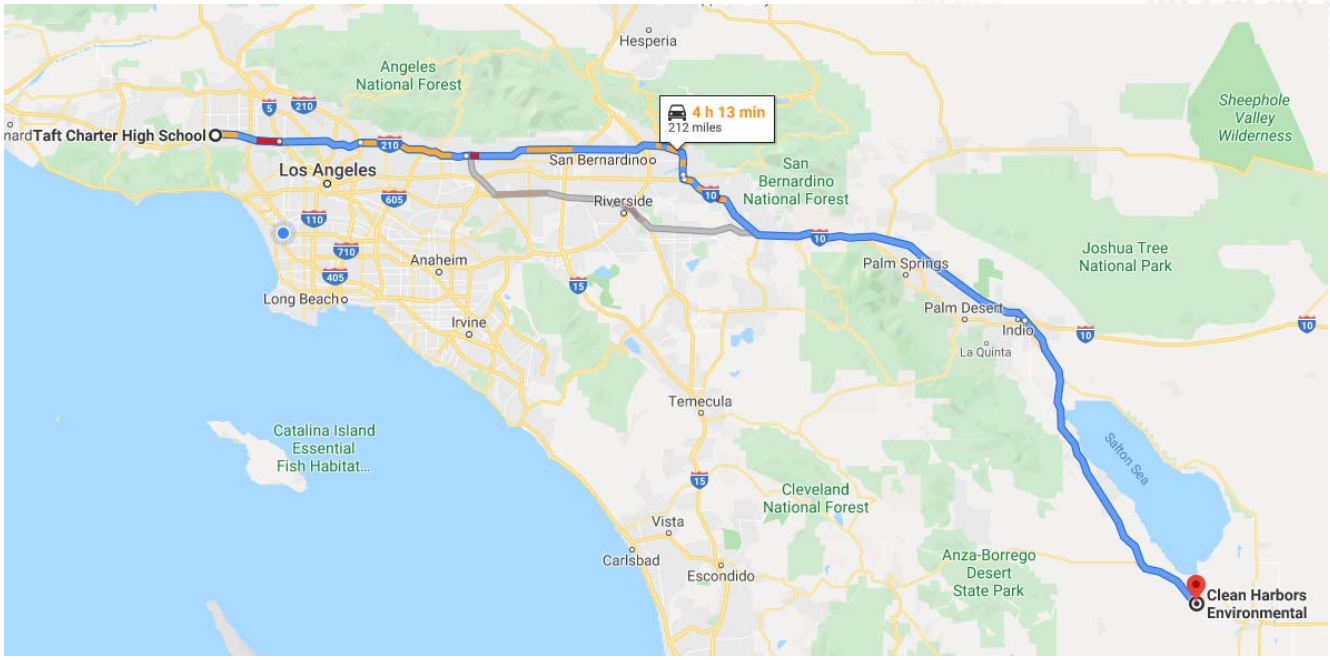
FIGURE 2A: ROUTE TO CLEAN HARBORS – WESTMORLAND



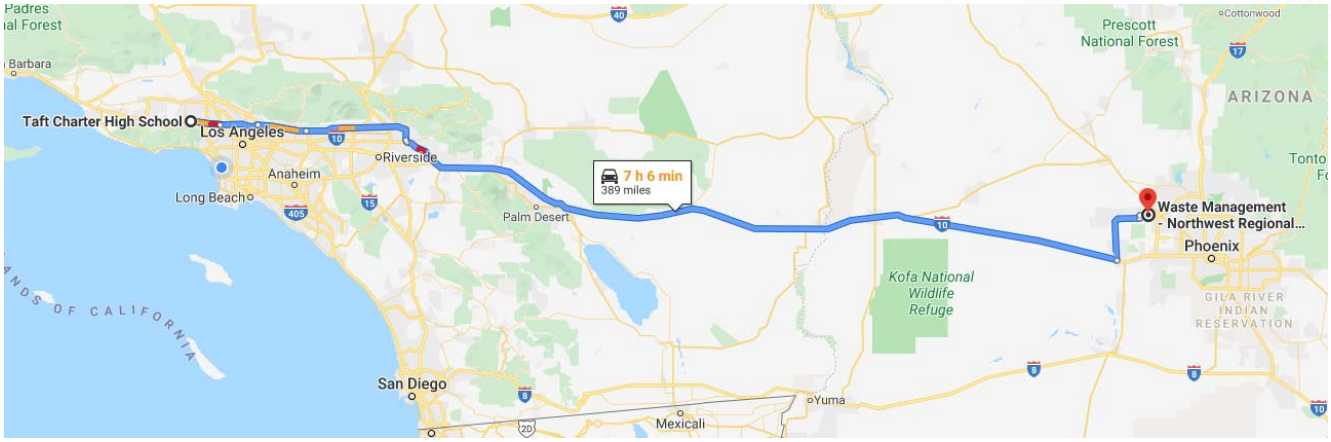
Taft Charter High School
5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S
  2 min (0.3 mi)
- Take CA-210, I-10 E and CA-86 S to Buck Rd in Imperial County
  3 h 18 min (211 mi)
- Follow Buck Rd to Garvey Rd
  3 min (0.9 mi)

Clean Harbors Environmental
5295 Garvey Rd, Westmorland, CA 92281

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURE 2A: ROUTE TO WASTE MANAGEMENT INC. - NORTHWEST REGIONAL LANDFILL



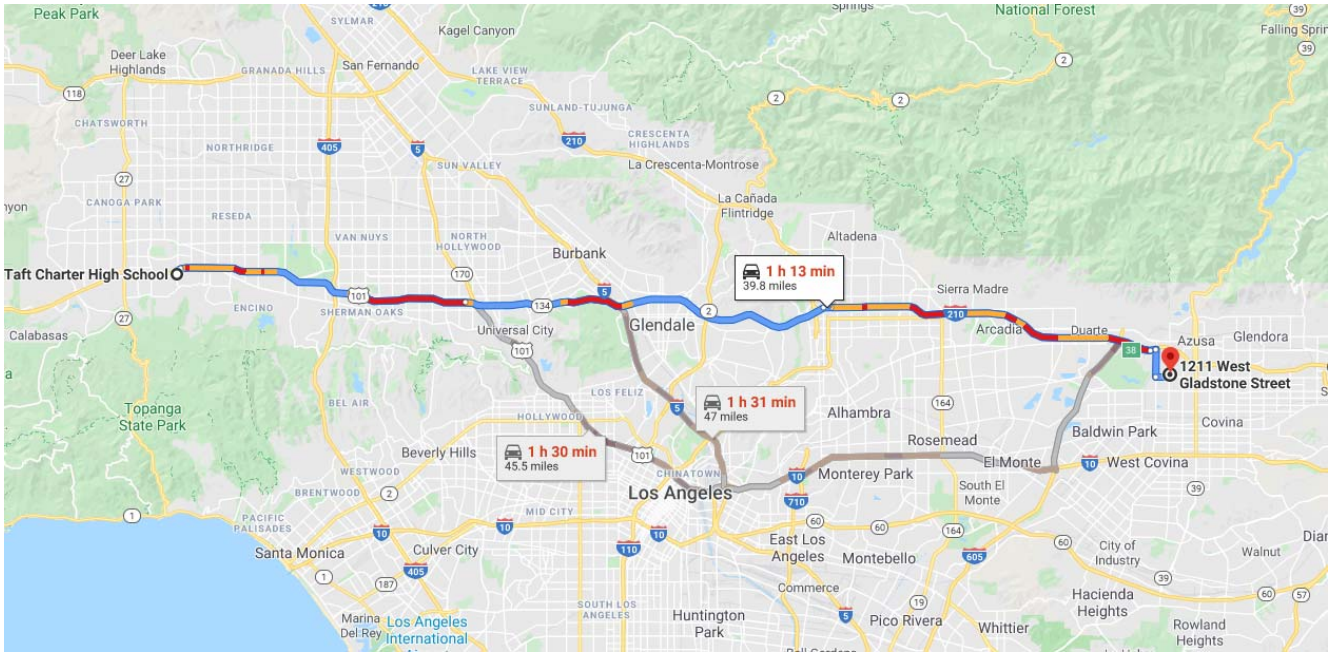
Taft Charter High School
5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S
  2 min (0.3 mi)
- Take CA-210, I-10 E and CA-86 S to Buck Rd in Imperial County
  3 h 18 min (211 mi)
- Follow Buck Rd to Garvey Rd
  3 min (0.9 mi)

Clean Harbors Environmental
5295 Garvey Rd, Westmorland, CA 92281

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURE 2A: ROUTE TO WASTE MANAGEMENT INC. - THERMAL REMEDIATION SOLUTIONS (TRS)



Taft Charter High School

5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S

  2 min (0.3 mi)

- Follow US-101 S, CA-134 E and I-210 E to Irwindale Ave in Irwindale. Take exit 38 from I-210 E

  41 min (37.9 mi)

- Follow Irwindale Ave and W Gladstone St to S Mira Loma Dr in Azusa

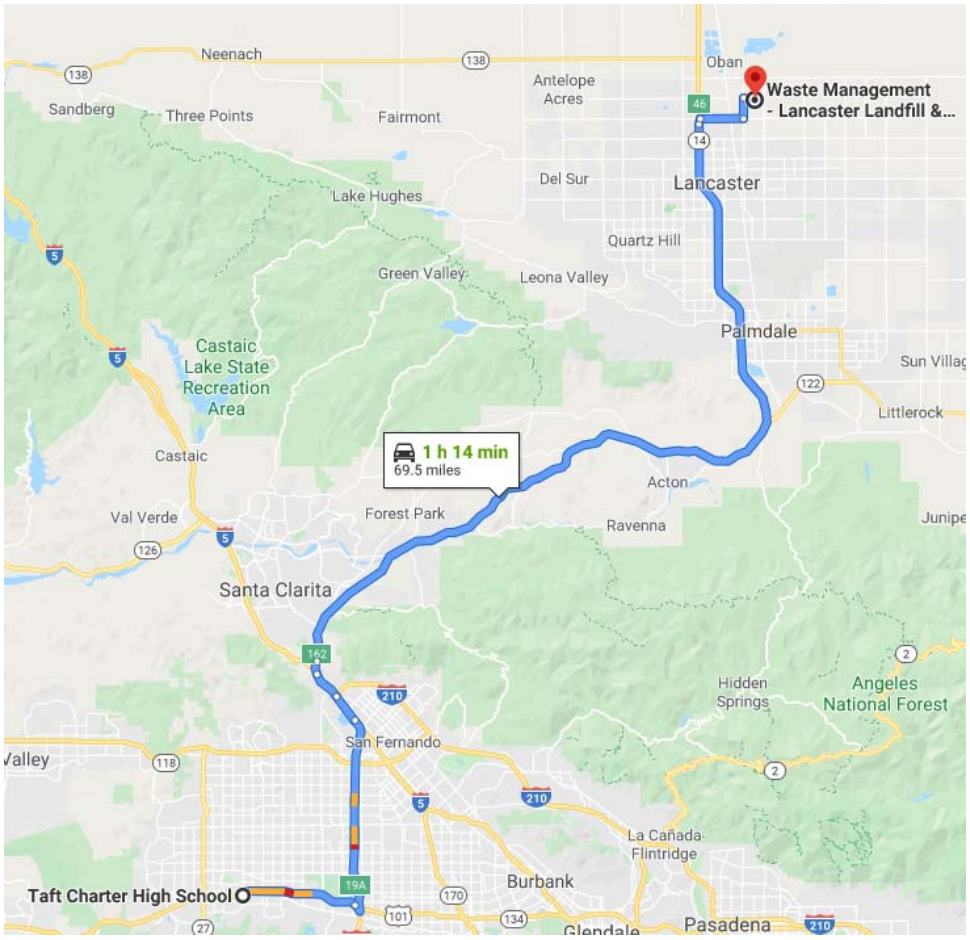
  4 min (1.6 mi)

1211 W Gladstone St

Azusa, CA 91702

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURE 2A: ROUTE TO WASTE MANAGEMENT INC. – LANCASTER LANDFILL AND RECYCLING CENTER



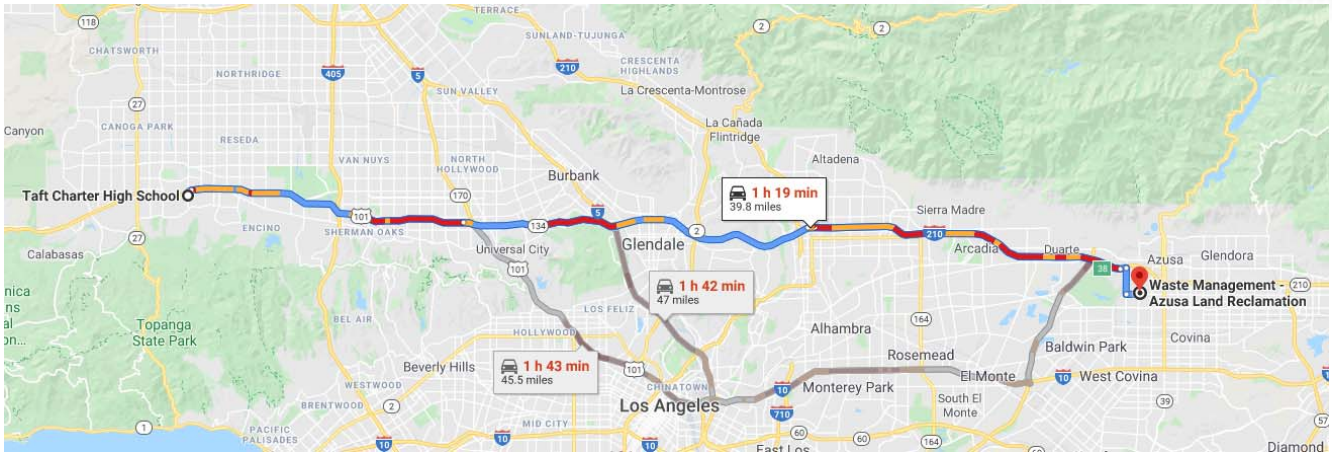
Taft Charter High School
5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S
  2 min (0.3 mi)
- Take I-405 N/San Diego Fwy and CA-14 N to W Ave G in Lancaster. Take exit 46 from CA-14 N
  59 min (65.5 mi)
- Continue on W Ave G to your destination
  6 min (3.8 mi)

Waste Management - Lancaster Landfill & Recycling Center
600 E Ave F, Lancaster, CA 93535

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURE 2A: ROUTE TO WASTE MANAGEMENT INC. – AZUSA LAND RECLAMATION



Taft Charter High School

5461 Winnetka Ave, Woodland Hills, CA 91364

- Get on US-101 S

  2 min (0.3 mi)

- Follow US-101 S, CA-134 E and I-210 E to Irwindale Ave in Irwindale. Take exit 38 from I-210 E

  41 min (37.9 mi)

- Follow Irwindale Ave and W Gladstone St to your destination in Azusa

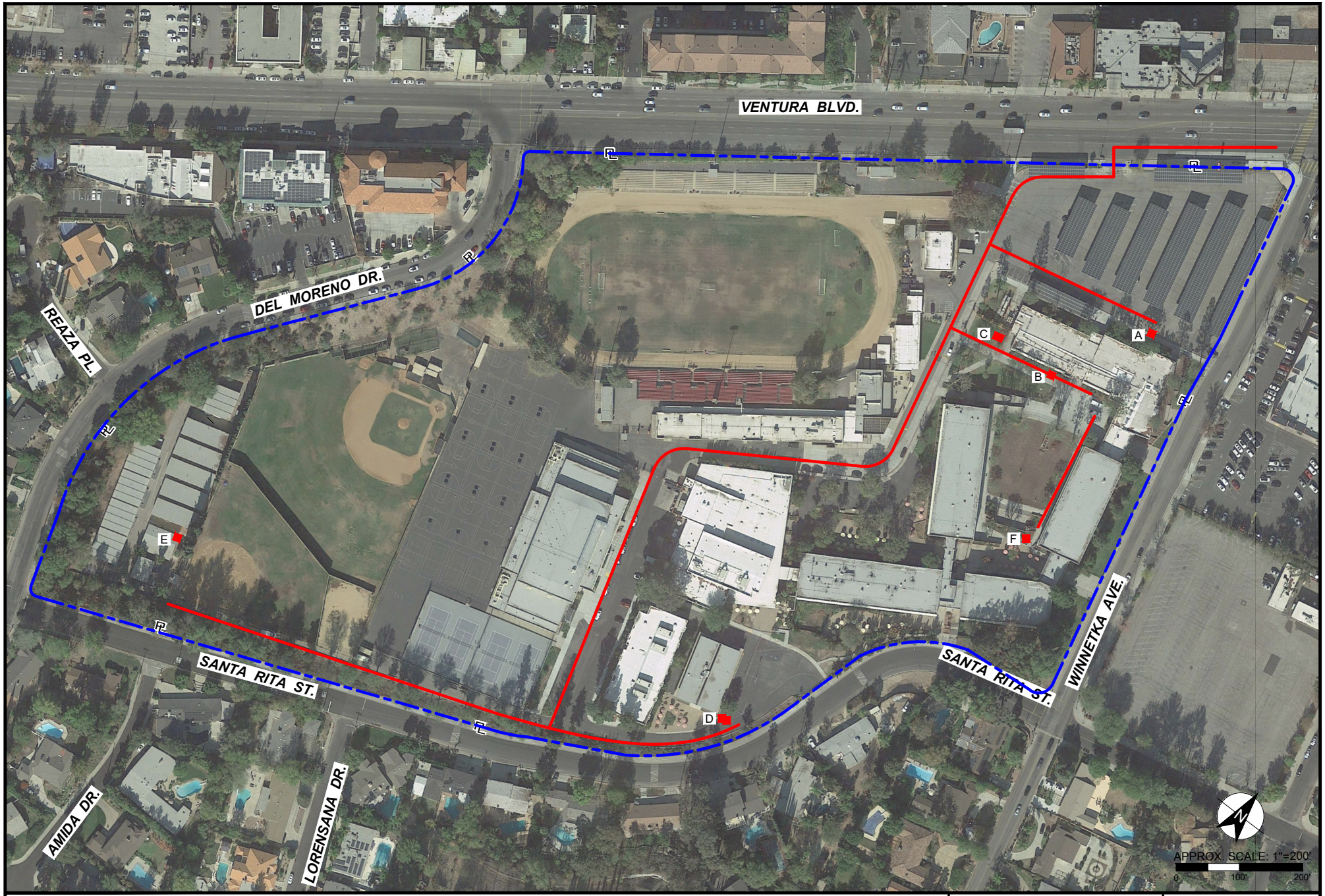
  4 min (1.6 mi)

Waste Management - Azusa Land Reclamation

1211 W Gladstone St, Azusa, CA 91702

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

FIGURES



PROPERTY LINE

A EXCAVATION LOCATION

TRUCK ROUTE

AERIAL BASEMAP SOURCE: SOURCE

SITE PLAN

5461 WINNETKA AVE.
WOODLAND HILLS, CA 91364

efi global

PN:045.00349	FIGURE 1
DT: 2/10/2020	
DB:JE CB:DS	

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