LMC

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By Alameda County Environmental Health 10:23 am, Oct 25, 2017

October 24, 2017

Ms. Karel Detterman
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

SUBJECT: ***SOIL MANAGEMENT PLAN CERTIFICATION***
County File # RO 3229
Lennar Multifamily Communities
1750 Webster Street
Oakland, CA

Dear Ms. Detterman:

You will find enclosed one copy of the following document prepared by GrafCon for the subject site:

- Soil Management Plan dated October 24, 2017.

I have read and acknowledge the content, recommendations and/or conclusions contained in the attached document or report submitted on my behalf to ACDEH's FTP server and the SWRCB's GeoTracker website.

Should you have any questions, please do not hesitate to contact me at (415) 975-4991.

Sincerely:

Lennar Multifamily Communities

Tyler Wood
Development Director

0769.L4

MAKE IT YOURS

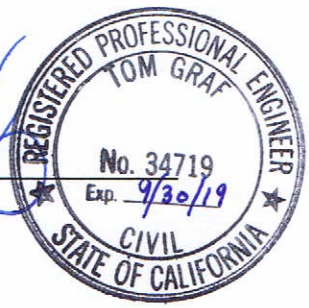
GrafCon

Soil Management Plan
Proposed Multifamily Development
1750 Webster Street, 1810 Webster Street and 301 19th Street
Oakland, California

Prepared for

Lennar Multifamily Communities, Inc.
492 9th Street Suite 300
Oakland, California 94607

By
GrafCon



Tom Graf
Principal

October 24, 2017

P.O. Box 1105, Tiburon, CA 94920 Phone: 415.290.5034

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1.0 INTRODUCTION

This Construction Soil and Groundwater Management Plan (SGMP) has been prepared by GrafCon on behalf of Lennar Multifamily Communities (LMC) for earthwork activities associated with the redevelopment project of three properties located at 1750 Webster Street, 1810 Webster Street and 301 19th Street in Oakland, California (***Figure 1***) with Alameda County Assessor Parcel Numbers (APNs) 008-625-017; 008-625-018; and 008-625-002-1 (the Site). The Site is currently developed with surface parking lots. The redevelopment project ("Project") consists of (1) demolition of the existing asphalt parking lot; (2) grading and soil excavation for utilities, elevator shafts, and foundations; and (3) construction of a seven-story mixed-use residential building.

1.1 Lead Regulatory Oversight Agency for Environmental Site Cleanup

Soil and groundwater at the Site has been impacted from historic land use practices both on-Site and off-Site. Alameda County Department of Environmental Health's (ACDEH) Local Oversight Program for Hazardous Materials Releases (LOP) is the lead regulatory oversight agency for the environmental investigation and cleanup actions at the Site under Site Cleanup Program Case (SCP) No. RO0003229. A separate SCP Case No. RO0002672 was historically associated with the Site in conjunction with a previously proposed redevelopment project as a parking garage. Due to the presence soil and groundwater contamination at the Site corrective actions are necessary to safely prepare the Site for development. Corrective actions include: (1) removal and off-site disposal of lead-contaminated soil in locations of soil excavation for utility trenches, elevator shafts, and foundations; (2) capping lead impacted soil on-Site beneath building foundations, hardscape and/or clean fill; (3) installation of a vapor mitigation barrier at the base of elevator shafts; and (4) installation of a trench plugs in utility trenches where required to prevent vapor migration. A Site map showing the location of lead-impacted soil, areas of historic underground storage tanks (USTs) and geophysical anomalies, and the ground floor redevelopment plan is provided on ***Figure 2***. A complete record of environmental conditions at the Site may be obtained in the case files for both RO0003229 and RO0002672 (i.e., regulatory directives and correspondence, reports, analytical data, etc.) through review of both the State Water Resources Control Board's Geotracker database, and the ACDEH website at http://www.acgov.org/aceh/index.htm.

1.2 SGMP Purpose & Objectives

This SGMP is designed to provide LMC and the construction team with guidance for the proper handling and management of contaminated soil and groundwater during redevelopment activities. The goals of this SGMP are to provide detailed information regarding known environmental conditions at the Site and establish a decision-making structure to assist the construction team in the identification and management of contaminated media, when and if they are encountered. The objectives of this SGMP are as follows:

- Communicate information to Site construction workers about Site environmental conditions;
- Present protocols for appropriate community protection;
- Present guidelines for health and safety precautions for on-Site workers who may encounter soil or groundwater that could contain residual chemicals of concern;
- Present notification and reporting requirements;
- Present protocols for management of known contaminated soil or extracted groundwater generated during Site redevelopment activities; and
- Present contingency procedures in the event that localized areas of unanticipated chemically-affected soil or other subsurface features of environmental concern are encountered during earthwork or excavation activities;

2.0 RESPONSIBILITY FOR SGMP IMPLEMENTATION

Representatives for the property Owner will oversee implementation of the SGMP at the Site. A copy of this SGMP will be maintained at the Site at all times. The Owner and General Contractor(s) will make all third-party subcontractors working at the Site aware of the requirements of the SGMP, and provide an electronic copy and hard-copy to all subcontractors that are performing activities covered by this SGMP and who may encounter suspect subsurface conditions during execution of their work.

The project Environmental Consultant will be present to assist the Owner and contractors with the implementation of this SGMP when ground-disturbing activities are being conducted in areas where contamination is known or suspected or when unknown conditions are encountered.

2.1 Activities Covered by the SGMP

The following activities constitute the work covered under this SGMP.

- **Subsurface Construction or Repair** – any activity occurring beneath the grade level of existing or future ground surface;
- **Utility Line Work** – any subterranean inspection, excavation, or repair of electrical, telephone, water, sanitary sewer or storm drains occurring within or outside of existing vaults (conducted prior to excavation); and
- **Other** – other subgrade activities not expressly listed a love (e.g., deep landscaping work, sub-slab work, etc.)

2.2 LMC Construction Team Contact Information

Prior to the initiation of construction activities that are covered under this SGMP, the Owner will confirm the Owner's project representative and project Environmental Consultant listed below. Regular and 24-hour emergency contact information for these individuals will be confirmed and updated as necessary. A project contact sheet will be provided to the General Contractor and posted in an accessible and suitable location at the Site.

Project Role	Company Name	Name	Contact Information
Owner Representative	LMC	Tyler Wood	(510) 567-6708; Tyler.Wood@livelmc.com
General Contractor	LMC	Brian Chartrand	(510) 777-2478; Brian.Chartrand@lmc.com
Environmental Consultant	GeoSolve	Rob Campbell	rcampbell@geosolve-inc.com(925) 963-1198

2.3 Worker Health and Safety

In addition to following the SGMP, each Contractor and subcontractor is responsible for the safety of its employee and site visitors including but not limited to adherence to a health and safety plan and use of property-trained personnel:

- **Preparation of a Site-Specific Health and Safety Plan (HASP)**. A HASP will be prepared for the project in accordance with California Occupational Safety and Health Administration (CAL-OSHA) Construction Safety Orders within Title 8 of the California Code of Regulations (CCR). The General Contractor is responsible for notifying subcontractors and visitors of pertinent environmental conditions to ensure adequate protection for workers and visitors while on Site. Subcontractors may either adopt the General Contractor's HASP or prepare their own HASP. In the event that unanticipated conditions occur at the Site, the HASP will be modified accordingly.

- **Use of Properly-Trained Personnel**. Each contractor engaged in contact and management of contaminated soil or groundwater will use properly trained personnel in accordance CCR, Title 29, Part 1910.120 Hazardous Waste Operations and Emergency Response (HAZWOPER) standards.

2.3 Community Protection During Site Redevelopment

Land use in the vicinity of the Site is mixed commercial and residential. A map of the land use in the immediate vicinity of the Site is presented on ***Attachment A.*** During the development of the Site, the Owner and contractors will implement measures to control potential risks to the surrounding community from fugitive dust emissions. These activities will be implemented when there is the potential for exposed soil to affect the nearby community. It is anticipated that

following placement of hardscapes and building pads, air monitoring will not be required as there will not be exposed soil surfaces.

2.4 Agreement and Acknowledgement Statement

Prior to commencement of any Site activities that disturb the ground surface, the General Contractor and subcontractors of the Owner will read this plan and sign the Agreement and Acknowledgement Statement (***Attachment B***) to certify that they have read, understood and agreed to abide by its provisions.

3.0 AGENCY NOTIFICATION & REPORTING REQUIREMENTS

The Owner will notify the ACDEH LOP and other agencies as applicable during Site development activities in accordance with the protocols described below.

3.1 ACDEH Notification

The Owner will notify the ACDEH LOP and the ACDEH Certified Unified Program Agency (CUPA) during Site redevelopment activities in accordance with the protocols below.

3.1.1 Twenty-Four (24) Hour Notification

The ACDEH LOP will be notified within 24 hours of discovery if any of the following potentially hazardous conditions are encountered:

- Releases spills or releases of hazardous substances or petroleum hydrocarbons to soil or water that are considered, based on best professional judgement and/or physical evidence (including but not limited to olfactory, visual, field instrument, and lab data), to be an immediate threat to human health and the environment; and/or

- Discovery of unknown conditions (underground storage tanks, sumps, vaults, piping, free product, etc.) or newly found contamination.

In the event of the discovery of USTs, vaults, hoists, & pipelines, the ACDEH CUPA must also be notified within 24 hours of the discovery.

3.1.2 Seventy-Two (72) Hour Notification

The ACDEH LOP will be notified 72 hours in advance of ground disturbing activities in areas of known contamination or suspected contamination.

3.1.3 ACDEH LOP and CUPA Contact Information

The primary points of contact for the ACDEH LOP and CUPA are provided below. All agency notifications must be made by phone and email. An ACDEH contact sheet will be provided to the General Contractor and posted in an accessible and suitable location at the Site.

Karel Detterman, ACDEH LOP Case Worker	(510) 567-6708; karel.detterman@acgov.org
Paresh Khatri, ACDEH LOP Program Manager	(510) 777-2478; paresh.khatri@acgov.org
ACDEH CUPA	(510) 567-6700 dehalamedacers@acgov.org

3.2 Other Agency Notification

In addition to the ACDEH notification requirements discussed above, other agency notifications may be required. Contact information for other agency notifications that may be required is provided below. Prior to the initiation of construction activities that are covered under this SGMP, the Owner will confirm the contact information listed below. An agency contact sheet will be provided to the General Contractor and posted in an accessible and suitable location at the Site.

Conditions Posing an Immediate Threat. For life-threatening or serous hazardous materials incidents, the following number will be contacted immediately upon discovery.	
Local police, fire and rescue services	911
Releases to Water. For spills or releases of hazardous substances or petroleum hydrocarbons to surface water, the following agencies will be contacted immediately upon discovery.	
National Spill Response Center	(800) 424-8802
United States Coast Guard – San Francisco Sector (if spill is going to reach navigable waters)	(415) 399-3547
California Office of Emergency Services	(800) 852-7550; (916) 845-8911
California Regional Water Quality Control Board – San Francisco Bay Region	(510) 622-2300
Local Emergency Response Agency	911
VOC-Impacted Soil. If VOC-impacted soil is discovered during Site grading activities, the following agency will be notified.	
Bay Area Air Quality Management District (BAAQMD)	1-800-334-ODOR (6367)
Dust Complaints. For dust complaints during ground disturbing activities, the following agencies will be notified.	
City of Oakland Building Department	(510) 238-3443
BAAQMD	1-800-334-ODOR (6367)

3.3 LMC Record Keeping & Reporting Requirements

All groundwater removal and soil excavation, disposal and import activities will be documented in daily field reports by the Contractor and/or Environmental Consultant and will kept at the Site and made available to ACDEH upon request. Documentation will include at a minimum the following, as applicable:

- **Groundwater** – volume of groundwater that is removed, characterization, treatment, and destination (transported to temporary holding tanks, used as dust suppression, and/or disposed of off-Site);
- **Underground Structures** – type, contents, characterization, and destination (abandoned in place or disposed of off-Site);
- **Impacted Soil** – origin, volume, characterization, and destination (transported to temporary soil locations within the Site, disposed of off-Site, and/or re-used on Site);
- **Imported Soil** – origin, volume, characterization, and destination (location on-Site);
- **Off-site Disposal Records** – date, time, trucking company, driver and vehicles used for the trip, equipment decontamination and tarping, waste/material type, volume, copies of bills-of-lading, and hazardous waste manifests; and
- **Dust Complaint Logs** – time, name and contact information, compliant description, earthwork activities associated with complaint, and measures taken to mitigate dust;
- **Analytical Reports** – copies of waste characterization laboratory analytical results.

Following completion of the work covered by this SGMP, the Environmental Consultant will prepare a report for submittal to ACDEH that documents compliance with this SGMP including soil and/or groundwater sampling, removal and management of unknown structures, chemical analysis and proper disposal of contaminated materials and soil import. The report will include at a minimum the information described above.

4.0 ENVIRONMENTAL SITE CONDITIONS

Soil and groundwater has been impacted at the Site from historic Site use and off-Site sources. A summary of known environmental conditions in soil and groundwater is provided below. Tabulated results of analytical data are provided in ***Attachment C.***

4.1 Soil

Soil at the Site consists of artificial fill material and native sand, and sand-silt-clay mixtures. Known soil contamination includes the following:

- **Lead Impacts.** Lead exists randomly at the Site in the shallow fill layer and has been detected at concentrations that exceed both residential human health risk-based screening levels and/or hazardous waste screening criteria in numerous samples. During earthwork activities soil excavated to achieve Site grades and construct building foundations will be disposed of off-Site at a permitted landfill. Lead impacted soil will be excavated and disposed of at an off-Site permitted landfill, and/or capped in place beneath the building foundation, hardscape, or clean fill material.

- **Petroleum Impacts.** Elevated concentrations of petroleum-related compounds have been detected in Site soil at depths of greater than 20 feet, typically below groundwater. Based on the results of previous investigations, it is not anticipated that petroleum-related impacted soil will be encountered in near-surface soil during earthwork activities.

4.2 Groundwater

Unconfined groundwater has been encountered at depths of approximately 21 feet below the existing ground surface. Petroleum hydrocarbons, associated volatile organic compounds (benzene, ethylbenzene, naphthalene, toluene, and total xylenes), and halogenated volatile organic compounds (tetrachloroethylene, trichloroethylene, and carbon tetrachloride) are present in groundwater beneath the western and central portions of the Site.

4.3 Discovery of Unexpected Conditions

Due to historic Site including use as a commercial fueling facility, redevelopment activities may reveal unexpected conditions such as previously unidentified areas of contamination or underground structures such as USTs, vaults, hoists, sumps, maintenance pits, pipelines, etc.

5.0 PRE-FIELD ACTIVITIES

The following pre-field activities will be implemented prior to the start of soil excavation and dewatering activities.

5.1 Site Security and Access

Areas where contaminated soil and groundwater may be encountered (i.e., excavations, stockpiles, etc.) and work zones (i.e., exclusion, decontamination, and support zones) will be secured to provide protection and safety to on-Site personnel and equipment, and to prevent unauthorized access during Site development activities.

5.2 Traffic Control

Caution will be exercised during entrance and exiting of the work area to ensure safe and uninterrupted traffic flow. Entrance into and departure from the Site by trucks will be facilitated by a flagman, or comparable contractor personnel, as necessary.

5.3 Excavation Permit

All necessary permits for removal activities, transportation, and/or air quality will be obtained prior to Site grading and dewatering activities. The permits will be kept on-Site and made available for inspection during working hours.

5.4 Notifications and Utility Clearance

LMC will notify the BAAQMD of excavation activities prior to implementation. In addition, LMC will also notify ACDEH of the soil excavation activities at least 72 hours prior to commencing work. The proposed excavation areas will be marked in white paint prior to contacting Underground Service Alert (USA) at least 48 hours prior to excavating, as required by law. A private utility locating service will be contracted prior to conducting the field activities to mark and/or clear proposed excavation locations relative to the presence and/or marked locations of potential subsurface utilities.

6.0 SOIL MANAGEMENT

Redevelopment activities include grading of the Site. Site grading will include removing the top 12 inches of site material (pavement, fill material) and excavating soil in conjunction with installation of utility trenches, elevator shafts, and building foundations. Lead-impacted soil will be excavated under the observation of the Environmental Consultant in the areas shown on ***Figure 2*** prior to completing general grading activities during Site redevelopment. Any excess soil generated during grading may be temporarily stockpiled on-Site and either re-distributed for re-compaction on-Site as part of Site grading activities, or transported off-Site for disposal.

All soil management and handling activities will be conducted in accordance with applicable federal, state, and local regulations. During implementation of the project other data may be collected for profiling purposes and to further refine the quantities and classification of potential waste materials that may be generated.

6.1 Excavation of Lead-Contaminated Soil

Lead-impacted soil at the Site exceeds both residential human health risk-based screening levels and/or hazardous waste screening criteria in numerous samples (see ***Attachment C***). Excavation of lead-impacted soil will be conducted in the following general sequence:

- Develop staging areas, access paths for equipment, work zones, and decontamination areas for use during handling of contaminated soil to reduce the potential of tracking waste off-Site;

- Excavation activities will comply with BAAQMD regulations, the HASP, and the air monitoring protocols in this SGMP.

- Stockpile soil for characterization or direct load onto trucks for appropriate off-Site disposal.

- Characterize stockpiled soil by collecting samples using a pre-cleaned hand trowel and transferred into laboratory-supplied glass containers. One 4-point composite sample will be collected for every 200 cubic yards of material generated per disposal/accepting facility requirements.

- Following soil sample collection, the containers will be labeled for identification and immediately placed in a chilled, thermally insulated cooler containing bagged ice or blue ice. The cooler containing the samples will then be delivered under chain-of-custody protocol to a state-certified laboratory. Composite samples will be submitted, at a minimum, for laboratory analysis for Title 22 metals using U.S. EPA Test Method 6010B and other constituents required as part of waste characterization testing for off-Site disposal. If necessary, extractable metals tests (i.e., leaching test including waste extraction test [WET] and/or toxicity characteristic leaching procedure [TCLP] procedures) will be conducted on the samples with elevated metals concentrations to establish if the soil is hazardous based on their leaching characteristics.

6.2 Contingency Measures for Previously Unidentified Suspect Soils

The following contingency measures will be implemented in the event that previously unidentified suspected chemically-affected soil is identified during site excavation. All contingency measures will be conducted by HAZWOPER-trained environmental professionals in accordance with the HASP.

Additionally, as a precaution, the Environmental Consultant will be present during excavation and grading activities in areas of historic underground storage tanks, subsurface anomaly detections, and deeper soil contamination (as shown on ***Figure 2***) in case unexpected contamination or subsurface structures are encountered.

6.2.1 Identification of Contaminated Soil

The Contractor will be instructed to report indicators of contaminated soil, in particular, petroleum hydrocarbons. The three primary physical indicators of petroleum-related contamination in soil include staining, sheen, and petroleum-like odor, as described below:

- **Staining:** Generally, soil that is impacted with petroleum hydrocarbons exhibits gray, black or green staining, although other contaminants and natural conditions may also cause staining.

- **Sheen:** Sheen is another indication of petroleum contamination. Soil exhibiting sheen may appear shiny and reflective. Sheens from heavily impacted soil may appear iridescent with rainbow-like colors.

- **Odor:** Soil impacted with petroleum products, volatile organics, and other types of contamination may release vapors when exposed to the atmosphere. These vapors can be interpreted as an odor. Odor can be subjective, and inhalation of vapors from impacted soil is harmful to human health. Therefore, odor is considered an inadvertent field indicator and should not be used for continuous screening of soil.

If soil exhibiting evidence of contamination is encountered during excavation, the Contractor will cease excavation activities in the area and notify the Environmental Consultant within 24 hours. The Contractor will not conduct any work in the area of concern or replace any known or suspected contaminated soil in the excavation area without prior approval by the ACDEH LOP.

6.2.2 Preliminary Assessment

Preliminary assessment of the previously unidentified suspect soil will include confirmation that access control measures installed by the General Contractor are adequate to provide necessary protection to on-Site workers and the public during the evaluation phase. Confirmation will consist of visual assessment of the installed barriers as well as monitoring of the air outside the control area.

Air sampling will be conducted around the perimeter of the secured area using a combination photoionization detector (PID) meter to measure volatile organic compounds (VOCs) in the breathing zone and a lower explosive limit (LEL)/oxygen (O_2) meter to measure concentrations of combustible gases and available oxygen. If the air sampling suggests that the control measures are improperly positioned to provide necessary protection to on-Site workers, the barriers will be relocated as necessary.

The Environmental Consultant will conduct a preliminary assessment to determine if the previously unidentified suspect soil is considered a significant risk to human health or the environment. If field observations suggest that the suspect conditions are *de minimis* and: (1) do not present a threat to human health or the environment; or (2) would generally not be subject of an enforcement action if brought to the attention of appropriate governmental agencies; then the Environmental Consultant will terminate the contingency plan process and release the suspect areas to the General Contractor.

6.2.3 Evaluation of Previously Unidentified Suspect Soil

If conditions in the suspect area are not considered *de minimis*, the Environmental Consultant will notify the ACDEH LOP on behalf of the Owner within 24-hours of discovery and evaluate the nature and extent of the potentially chemically-affected soil in accordance with the protocols below.

- **In-Situ Soil Samples.** An in-situ soil sample will be collected from the same location and depth as the previously unidentified suspect soil and 1-foot below this depth. Additional samples will also be collected at the same depths at a minimum of four step-out locations to assess soil conditions around the suspect sample location. The four step-out locations will be located approximately 5 feet to the north, south, east, and west of the suspect sample location. Each sample will be collected using a pre-cleaned hand trowel and transferred into laboratory-supplied glass containers and observed for evidence of odors and staining and screened for VOCs using a PID. If any of the in-situ soil samples show evidence of odors and staining or VOCs are detected above 10 parts per million by volume (ppmv) then environmental sample(s) will be retained for analyses.

- **Stockpiled Soil Samples.** If previously unidentified suspect soil is stockpiled on-Site, samples will be obtained using a pre-cleaned hand trowel and transferred into laboratory-supplied glass containers. One 4-point composite sample will be collected for every 200 cubic yards of material generated per disposal/accepting facility requirements.

- **Laboratory Analysis.** Following soil sample collection, the containers will be labeled for identification and immediately placed in a chilled, thermally insulated cooler containing bagged ice or blue ice. The cooler containing the samples will then be delivered under chain-of-custody protocol to a state-certified laboratory. Discrete and composite samples will be submitted, at a minimum, for laboratory analysis of total petroleum hydrocarbons quantified as gasoline (TPHg) and VOCs by United States Environmental Protection Agency (U.S. EPA) Test Method 8260B and total petroleum hydrocarbons quantified as diesel (TPHd) and motor oil (TPHmo) by U.S. EPA Test Method 8015M. All soil samples submitted for analysis by U.S. EPA Method 8260B will be collected in accordance with U.S. EPA Method 5035 using Terracore™ (or equivalent) samplers. Samples may also be analyzed for Title 22 metals using U.S. EPA Test Method 6010B or other constituents as determined by the Environmental Consultant and the ACDEH LOP or as part of waste characterization testing for off-Site disposal. If necessary, extractable metals tests (i.e., leaching test including waste extraction test [WET] and/or toxicity characteristic leaching procedure [TCLP] procedures) will be conducted on the samples with elevated total metals concentrations to establish if the soils are hazardous based on their leaching characteristics.

After the evaluation is complete, the Environmental Consultant will provide the Owner, General Contractor and the ACDEH LOP with conclusions regarding potential risks of the suspect material to human health and the environment as well as recommendations for proper removal and disposal of the affected soil. All soil removal work will be approved by the ACDEH LOP prior to implementation. If VOC-affected soil is encountered, notification will be provided to BAAQMD as required in the guidelines and notification requirements set by Regulation 8, Rule 40 of the BAAQMD Rules and Regulations for aeration of contaminated soil.

6.3 Reuse of Concrete & Soil Importation

Reuse of crushed concrete or use of imported fill material will be characterized and approved by ACDEH prior to being placed at the Site in accordance with the Department of Toxic Substances Control (DTSC) *Information Advisory – Clean Imported Fill Material* (DTSC, 2001) and the New Jersey Department of Environmental Protection *Guidance for Characterization of Concrete and Clean Material Certification for Recycling* (updated January 12, 2010). Discrete samples will be collected from the import source for characterization and specific laboratory analyses will be based on the fill source characteristics. The analytical results of the import soil samples will be compared to applicable screening criteria to evaluate whether the material is suitable for import to the Site.

7.0 CONTINGENCY MEASURES FOR DISCOVERY OF UNEXPECTED UNDERGROUND STRUCTURES

If any previously unidentified or unknown underground structures including tanks, vaults, sumps, containment structures, separators, or piping that has previously contained or has the potential to contain hazardous materials is encountered during Site grading activities, the ACDEH LOP and CUPA will be notified within 24-hours and consulted on appropriate next steps. USTs may be identified during grading and Site excavation activities by the presence of vent pipes that extend above the ground surface, product distribution piping that leads to the UST, fill pipes, backfill materials, or the underground structure itself. Other buried structures may not have features that extend above ground surface, and could be discovered only after contact with construction equipment.

The removal or burying of any of these structures without prior acknowledgement and approval form ACDEH is prohibited. Discovered structures will be assess as follows:

- The structure will be inspected to assess whether it contains any indication of chemical residuals or free-phase liquids other than water. This assessment will be conducted by the Environmental Consultant, and will be based on visual evidence and the results of vapor monitoring using a PID. Under no circumstances will any personnel enter an unknown subsurface structure at any time. If chemicals are not indicated within the structure by the above-referenced means and with ACDEH approval the structure may be removed or abandoned in place in a safe manner by the contractor;

- If liquids or solids are present within the structure, measures will be taken to contain the liquids to avoid spills to the subsurface. Samples will be collected and submitted to a California-certified laboratory for analysis. Liquids or solids may be temporarily drummed, or liquids may be collected by vacuum truck, while analysis is pending. Based on analytical results, the liquids or solids will be disposed of under the direction of the Environmental Consultant in accordance with all applicable environmental laws and disposal requirements;

- If contaminated liquid or solids are present in the structure, the structure will be inspected for physical integrity following removal of the contaminated media. The Environmental Consultant will document the results of this inspection, including an estimation of the volume and former use of the structure.

- If the physical inspection of the structure suggests that chemicals may have been released to the underlying soils additional environmental investigations of the underlying soils will be conducted to assess whether a release sufficient to warrant removal has occurred.

    - ➢ If, based on the opinion of the Environmental Consultant and ACDEH, it is assessed that the structure is intact, that subsurface releases of the chemicals to the underlying soils likely did not occur, and no free-phase liquids or chemical residues remain inside, removal of the structure may not be required for environmental reasons.

    - ➢ Otherwise, with ACDEH approval, the structure will be excavated and disposed of at the direction of the Environmental Professional. Once the structure is removed, soils adjacent to and beneath the structure will be assessed for contamination through visual observation and organic vapor analysis and the results documented. If soils are determined to be "contaminated" with VOCs in the context of BAAQMD Rule 8-40, the appropriate response will be determined in consultation with ACDEH.

ACDEH may require further response actions based on the discovery of hazardous materials that pose an unreasonable risk to human health and safety or the environment.

8.0 GROUNDWATER MANAGEMENT

The depth to groundwater at the Site is typically encountered at depths greater than 21 feet below ground surface. As the excavation is at most approximately 5 feet (for elevator pits), construction dewatering is not anticipated. If dewatering of the excavation will be necessary during construction activities, a batch wastewater discharge permit will be obtained from the East Bay Municipal Utility District (EBMUD) for discharging water encountered during construction activities to the sanitary sewer system.

Construction de-watering effluent, if generated, shall be pumped into holding tanks and sampled and analyzed for the parameters required for the selected discharge point, such as the storm drain or sanitary sewer. If dewatering effluent is to be discharged to the storm drain, a National Pollutant Discharge Elimination System (NPDES) permit from the Regional Water Quality Control Board. Permits will be obtained from the City of Oakland Public Works Department and/or the East Bay Municipal Utility District (EBMUD) if dewatering effluent is discharged to the City of Oakland sanitary sewer system.

Chemical testing will be performed in accordance with the receiving facility's requirements prior to discharge. If concentrations exceed the limits established for the discharge point, the dewatering effluent will either will be (1) transported off-Site for disposal at a licensed disposal facility or (2) treated and discharged following sampling and analysis to confirm the success of treatment.

9.0 WASTE MANAGEMENT

9.1 Soil Characterization Prior to Off-Site Disposal

Soil that has been pre-characterized by in-situ soil testing and is intended for off-Site disposal can be loaded directly into trucks for transport to the receiving facility once the appropriate off-Site disposal location and permitting has been completed. Some soil may need to be placed in temporary on-site stockpiles because: (1) they require further characterization prior to off-site disposal; (2) short-term storage is necessary until haul trucks are available to transport the soil off-site for disposal; or (3) the need for processing or sorting prior to landfilling. If soil is not adequately characterized to directly load and haul then it may be necessary to stockpile and sample. Stockpiled soil will be characterized as required by the receiving facility. At a minimum, stockpiled soil shall be characterized using the October 2001 DTSC Fill Advisory Guidance (included as ***Attachment D***). In the event very elevated data are found in a four-point composite sample, the Environmental Consultant may elect, in consultation with the Owner, to have the four individual subsamples run for that specific compound in an attempt to isolate the soils containing the worst impacts for disposal.

9.2 Soil Stockpile Management

Soil that is placed in temporary stockpiles will be well maintained at all times to prevent runon/runoff and fugitive dust emissions. All stockpiled soil will be placed on impermeable plastic sheeting (minimum 10-mil-thick) with a berm around the perimeter of the stockpile. The plastic sheeting and berm will prevent the runoff of soil and potential contaminants to surrounding areas. The berm will be constructed with hay bales, dimensional lumber, or other equivalent methods. The bottom plastic sheeting will be lapped over the berm materials, and the soil stockpile will be covered with plastic sheeting to prevent erosion or leaching of contaminants to underlying soil and prevent exposure to precipitation and wind. Plastic sheeting that covers the soil stockpile will be secured using sand bags or equivalent. Following removal, the soil stockpile area will be restored to a pre-stockpile condition. Residual plastic or debris will also be disposed of following stockpile removal.

9.3 Decontamination Procedures

In order to prevent residual contamination from leaving the Site by construction equipment and personnel during remedial excavation activities, the following decontamination procedures will be followed:

- Prior to loading excavated materials into trucks, plastic sheeting will be placed on the ground such that any spilled material will be prevented from contacting the ground surface. Upon completion of loading, any debris will be placed in the transportation vessel and the plastic sheeting will be reused, or disposed.

- To minimize the spread of contaminated soil, equipment will be cleaned prior to movement out of active work zones. The equipment wheels/tires will be cleaned over plastic sheeting by means of shovels and stiff-bristled brooms or brushes until they are fully cleaned. Upon completion of cleaning, any debris will be placed in the appropriate transportation vessel and the plastic sheeting will be folded and disposed. Equipment exiting the Site will be inspected and logged for compliance with the Site decontamination requirements.

- Personal protective equipment, such as disposable coveralls, will be removed and discarded in the contamination reduction zone. In order to decontaminate reusable items such as work boots, a two-stage decontamination process will be used. This process will include washing in a detergent solution with a stiff-bristled brush and rinsing in clean water. The rinsate water will be distributed over contaminated soil (to be exported) for dust control purposes.

9.4 Off-Site Soil Disposal & Transportation Plan

Following acceptance of the excavated soil at an appropriate-licensed disposal facility, the soil will be loaded in licensed haul trucks (end-dumps or transfers) and transported off the Site following appropriate California and Federal waste manifesting procedures. The appropriate waste manifest documentation will be provided to truck drivers hauling the affected soil off-Site.

Transportation equipment will be chosen to safely transport the expected volumes of soil, taking into consideration the types of roads to be traveled and their loading capacity. Routine truck maintenance and repairs will be performed at the contractor's premises prior to picking up loads of waste material from the Site.

As each truck is filled, an inspection will be made to verify that the waste soil is securely covered, to the extent practicable, and that the tires of the haul trucks are reasonably free of accumulated soil prior to leaving the site. During loading, dust and odor emissions will be monitored and mitigated as necessary. During transportation, the hauling trucks will be equipped to fully cover all soil and debris, such as with a heavy tarpaulin. A street sweeper will be made available, as needed, to keep the loading area clean. The soil will be wetted, as necessary, to reduce the potential for dust generation during loading and transportation activities.

A detailed log of the loads hauled from the Site will be maintained. The log will include, at a minimum, the date and the time trucks were loaded and off-loaded, the destination, size (volume and weight) of the load, description of contents, name and signature of the hauler, and name and signature of the contractor's representative. The waste will be off-loaded for treatment or disposal in a manner consistent with current Federal, State, and local regulations. Shipments of hazardous waste will be tracked with the appropriate hazardous waste manifests.

9.4.1 Off-Site Disposal Facilities

If soil is classified as hazardous waste by State and Federal standards, it will be disposed of at the Class I Kettleman Hills Landfill in Kettleman City, California, a licensed and approved facility.

If soil is classified as non-hazardous waste by State and Federal standards, it will likely be disposed of at a Class II licensed landfill facility such as:

- Waste Management's Altamont Landfill in Livermore, California;
- Republic Services' Vasco Road Landfill in Livermore, California; or
- Allied Waste's Forward Landfill in Manteca, California.

9.4.2 Transportation Plan

All transportation activities will be performed in strict compliance with all regulations and ordinances. Hauling contractor(s) used to transport non-hazardous or hazardous waste will be fully licensed and permitted by the State of California. For hazardous waste haulers, the selected transportation company will be certified by the State of California as a hazardous waste hauler, and appropriately permitted to haul contaminated waste material. All Department of Transportation (DOT) and California Highway Patrol (CHP) safety regulations will be strictly followed by both hazardous and non-hazardous waste haulers.

Transportation routes will be developed to minimize transporting the affected soil through residential areas. The affected soil will be transported via surface streets to the closest suitable freeway, which is Interstate 580. The remainder of the freeway route(s) will be established upon selection of the appropriate landfill(s).

9.5 Wastewater and Groundwater Management Protocols

Wastewater generated during Site redevelopment, such as decontamination liquids, will be temporarily stored onsite. Decontamination water will be profiled and transported to an appropriate disposal or recycling facility.

If a saturated zone is encountered during earthwork activities that produces accumulated water it will be temporarily containerized on-Site within portable aboveground industrial holding tanks. Holding tanks will be staged on the existing hardscape (i.e. concrete or asphalt) where feasible.

Collected wastewater and groundwater will be transferred into a vacuum truck or 55-gallon steel drums for off-Site transportation and disposal.

9.6 Spill Response Plan

In the event of a spill, the Contractor will be responsible and prepared to respond in a safe and

efficient manner, specific to the particular spill situation. Standards will be set and consistent procedures will be used for handling of spills, whether they are on-Site spills or spills occurring during transportation. Haulers will have an Emergency Spill Contingency Plan (ESCP) to ensure that all drivers and dispatchers know their responsibilities in the unlikely event that an accidental spill occurs while transporting contaminated material off-Site. The drivers and dispatchers will be required to know the procedures for emergency spill response. The ESCP will meet or exceed all Federal, State, and County regulations currently in effect. The provisions of the ESCP will be strictly adhered to, in order to ensure continued protection of the public safety and the environment. The HASP will address the handling of on-Site spills.

10.0 Dust and Odor Emissions

During excavation activities, depending on soil and weather conditions, there is potential to generate airborne dust and fugitive emissions. Standard dust and fugitive emissions control measures will be followed during the ground disturbing activities to comply with OSHA and BAAQMD rules and accomplish the following goals:

- Reduce the potential for health impacts to workers;
- Reduce the potential for health impacts to facility neighbors;
- Prevent violations of ambient air quality standards;
- Minimize nuisance dust complaints from facility neighbors; and
- Minimize the migration of contaminants adhered to fugitive dust particles outside the Site.

10.1 Erosion, Dust, and Odor Control Measures

Once the pre-construction ground surface is stripped from the Site, the exposed soil will become susceptible to erosion by wind and water. Therefore, erosion control measures and dust control measures will in place before construction begins. Emission (dust) control measures will at a minimum comply with those established by OSHA and the BAAQMD for construction-related activities. Dust control measures will be based on "Best Management Practices" and will be used throughout all phases of construction.

10.1.1 Construction Mitigation Measures

The following basic construction mitigation measures will be implemented in accordance with recommendations for all proposed projects in the BAAQMD California Environmental Quality Act Air Quality Guidelines (BAAQMD, 2017):

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day;

- All haul trucks transporting soil, sand, or other loose material off-site will be covered;

- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited;

- All vehicle speeds on unpaved roads will be limited to 15 miles per hour (mph);

- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used;

- Idling times will be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure CCR Title 13, Section 2485). Clear signage will be provided for construction workers at all access points;

- All construction equipment will be maintained and properly tuned in accordance with manufacturer‘s specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation; and

- A publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints will be posted. This person will respond and take corrective action within 48 hours. The BAAQMD’s phone number will also be visible to ensure compliance with applicable regulations.

Dust level monitoring of air will be conducted to evaluate the potential exposure to Site personnel and to off-Site downwind receptors. The presence of airborne dust will be evaluated through the use of real time personal sampling equipment and perimeter air sampling. If the difference between the upwind and downwind dust monitoring levels exceeds 50 micrograms per cubic meter ($\mu g/m^3$), additional dust control methods (i.e., applying additional water to disturbed areas) will be implemented.

10.1.2 Dust Suppression Measures

If dust is excessive, some or all of the following mitigation procedures may be implemented:

- Active areas adjacent to residences may need to be kept damp at all times.

- Apply water or (non-toxic) soil stabilizers to unpaved access roads, parking areas, and staging areas.

- Sweep (with water sweepers) paved access roads, parking areas, and staging areas.
- Cover or otherwise stabilize exposed soil stockpiles.
- Suspend construction activities that cause visible dust plumes and odors to extend beyond the limits of the Site.

10.1.3 Odor and Vapor Suppression Measures

By controlling the dust as described above, the emission of odor and vapors will be reduced to levels that likely will not pose a risk to the health of the public and Site workers. The water spray used to control dust will also significantly reduce the emissions of any potential volatiles that may be present in the soil. The selective loading and transportation of impacted soils could minimize the use of soil stockpiling, further reducing potential emissions of volatiles. Any active stockpile of contaminated soil or exposed excavation left overnight at the Site will be properly covered with plastic so emissions of volatiles will be minimized.

If odor is excessive and vapor emissions are detected, some or all of the following mitigation procedures may be implemented:

- Use of chemical suppressants mixed with water and applied using various applications such as spray or mist;
- Use of plastic sheeting to cover the sidewalls of the trench during non-active remedial activities will minimize the migration of VOCs and odors;
- Alternative work sequencing, such that excavation of soil with potential odor during mid-day or afternoon (during hot weather) is avoided;
- Any highly odorous soil could be segregated and placed inside a roll-off bin equipped with a lid. This will minimize the amount of highly odorous soil during loading; and
- Balancing the excavation with transportation so that the need for large stockpiles is reduced.

Other emissions include exhaust from remediation equipment. The equipment proposed for the Site redevelopment will be maintained properly so that exhaust emissions will be within acceptable standards.

10.2 Air Monitoring

To the extent feasible, the presence of airborne contaminants will be evaluated through the use of portable monitoring equipment. Information gathered will be used to ensure the adequacy of the levels of protection being employed at the Site, and may be used as the basis for upgrading or

downgrading levels of personal protection, at the discretion of the Site Safety Officer. In addition, this sampling equipment will be utilized to monitor the potential for the migration of contaminants off-Site (i.e. fence line monitoring). Such monitoring will incorporate off-Site receptor type, wind direction, work tasks being performed, etc.

The following air sampling equipment will be utilized for site monitoring:

- Personal sampling pumps with appropriate sample collection media; and
- Dust monitors.

The above instruments will serve as the primary instruments for personal exposure monitoring. They will be utilized to fully characterize potential employee exposure and the need for equipment upgrades/downgrades.

10.2.1 Integrated Industrial Hygiene Sampling

Integrated Industrial Hygiene (IH) sampling for airborne contaminants and dust will be conducted during the excavation process and/or loading operation. This IH sampling will be performed to properly characterize potential employee exposures and/or to establish baseline levels. Sampling may include personnel monitoring and fence line sampling. The duration of such monitoring will be determined based upon analytical results, regulatory requirements, etc.

10.2.2 Real-Time Air Monitoring During Excavation of Contaminated Soil

Dust monitoring will also be conducted to characterize the potential for exposure to Site personnel during disruption of contaminated soil using a direct-reading dust monitor. Continuous monitoring will also be performed during operations that have not previously been characterized. After initial site screening, monitoring will be conducted periodically or anytime Site conditions might be altered (i.e. weather, drilling, excavation, spills, etc.).

Results of monitoring information will be recorded, and will include time, date, location operations, and any other conditions that may contribute to potential exposures. Maintenance and calibration information will be maintained and made available upon request. The monitoring equipment will be calibrated in accordance with the manufacturer's specifications, and the records of such maintained with the project HASP.

Real-time air monitoring for respirable dust will be performed during the first three days of excavation of contaminated soil. The objective of the perimeter air-monitoring program is to protect the health and safety of the nearby community and to document the effectiveness of the dust control measures.

The Site HSO will determine the air monitoring locations based on Site operations and the location of areas that could be adversely impacted by air emissions. In general, real-time

monitoring will be conducted downwind and around the perimeter of relevant activities. Monitoring locations will be documented on a monitoring log, along with any concentrations detected.

The dust standard will be based on the PM10 ambient air quality standards adopted by BAAQMD, which specifies a ceiling level of no more than 50 micrograms per cubic meter (µg/m^3) difference between upwind and downwind sampling locations. The ceiling level of 50 µg/m^3 represents the Bay Area 24-hour time-weighted average standard for 10 micron diameter particulate matter (the PM10 24-hour standard).

The perimeter of the work area will be monitored while excavation of contaminated soil is being conducted. If any readings exceed action levels, work will be stopped, engineering controls will be implemented and the work and monitoring schedule will be adjusted until background levels are reached.

Real-time dust monitors will be used to measure mass concentrations of airborne dust and provide respirable dust, expressed as concentration of particulates smaller than 10 microns (PM10) correlated measurements. A handheld respirable air monitor (mini-RAM) will be used to provide real-time data on total dust levels as PM10. Real-time worker dust monitoring will be performed continuously during work activities where soil disturbance is anticipated, downwind of active excavations. Measurements of real-time and time-weighted averages (TWA) of airborne particulate concentrations will be recorded using a Monitoring Instruments for the Environment, Inc. (MIE) RAM, model PDR-1000 or equivalent equipment. The miniRAM measures the concentration of airborne particulate matter using a high sensitivity nephelometer (photometer) using a light scatter sensor. The sensitivity of the miniRAM is reported to range from 0.001 milligrams per cubic meter (mg/m^3) to 400 mg/m^3. The miniRAM will be calibrated daily in the supplied calibration pouch.

Real-time monitoring will consist of the following activities:

- Determine the predominant wind direction;
- Place one instrument upwind of Site operations for ambient sampling;
- Place one or more instrument(s) downwind of Site operations, at the Site perimeter;
- Position the instrument probe near the normal breathing zone and monitor for approximately five minutes after instrument readings have stabilized; and
- Record the following observations and readings in real-time:
    - ➢ Location;
    - ➢ Time;

- ➢ Site activity;
- ➢ Readings;
- ➢ Visual observations of dust;
- ➢ Site conditions, including current weather conditions; and
- ➢ Odors and/or other miscellaneous observations.

11.0 STORM WATER MANAGEMENT

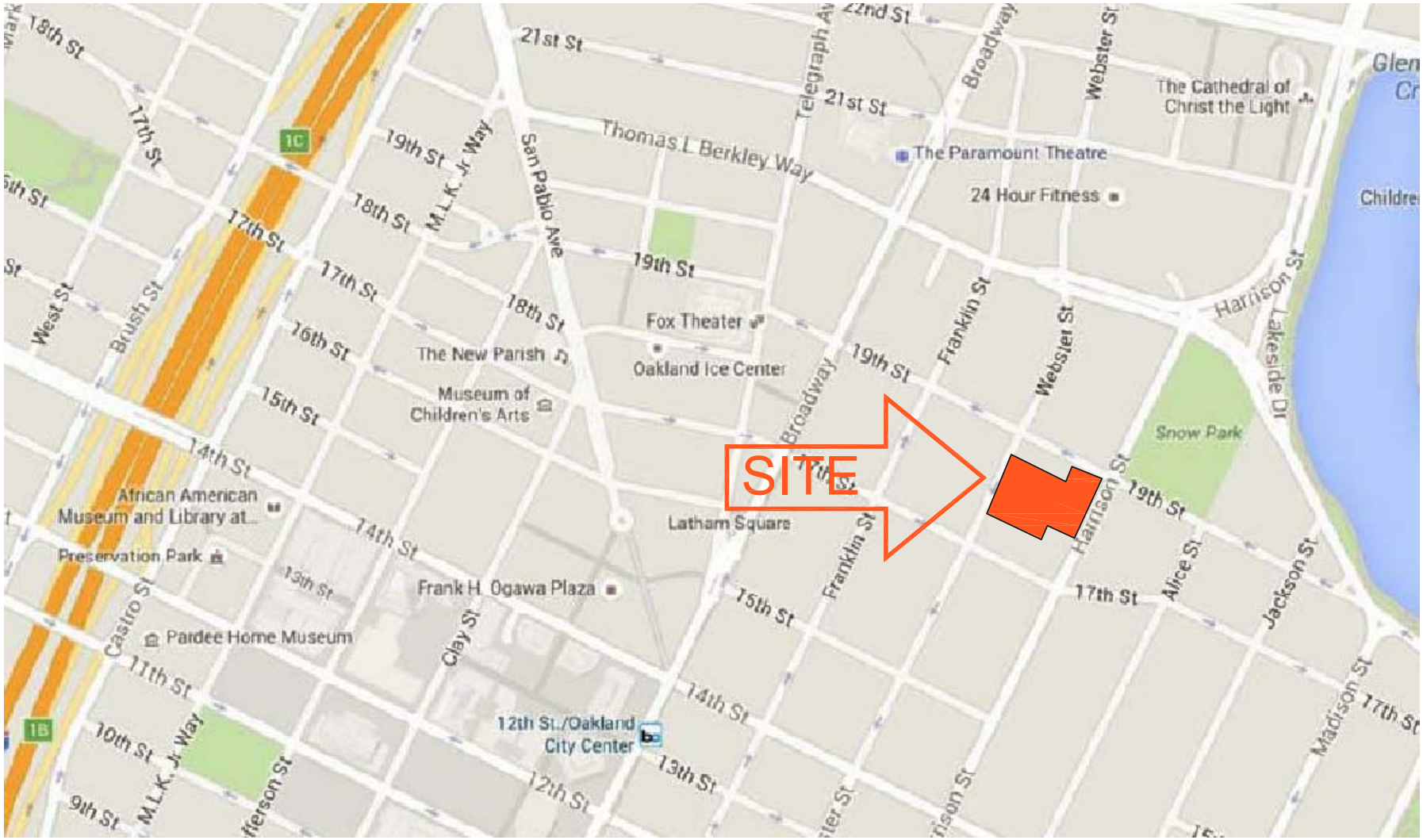
Other environmental controls may be required in the event that anticipated conditions at the Site change. In the event that remediation activities occur during the rainy season, then water management procedures will be implemented in addition to probable modifications of other plans, such as the HASP. The following procedures will be implemented at the Site during the rainy season:

- The weather forecast will be monitored. During the days heavy rain is forecasted, remediation activities may be stopped;
- The boundary of the remediation area will be properly bermed to prevent storm water from entering or leaving the remediation area;
- Storm water entering the remediation area from non-impacted areas and storm water originating within the excavated area will be pumped to settlement tanks and treated prior to discharge under permit;
- The excavation will be conducted in small sections so the exposed excavated area can be covered immediately if heavy rains occur;
- Procedures will be used to prevent wet soil from sticking to the tires of trucks used to haul soil off Site. These procedures may include plastic sheeting at the loading area, a tire wash at Site egress paths, and/or a stabilized gravel construction entrance; and
- Plastic sheeting will be used extensively to cover the area of excavation during non-working hours.

In general, the excavation will be kept as dry as possible in order to minimize the waste generated and the backfilling (as necessary) of the excavation can be conducted promptly. Storm water best management practices (BMPs) will be followed in accordance with the contractors Storm Water Pollution Prevention Plan (SWPPP) to be prepared for the Site. The BMPs for the Site development activities should include: use of fiber rolls; inlet protection; stabilized construction

entrance; landscape and paving; street cleaning and catch basin cleaning.

FIGURES



GeoSolve, Inc.
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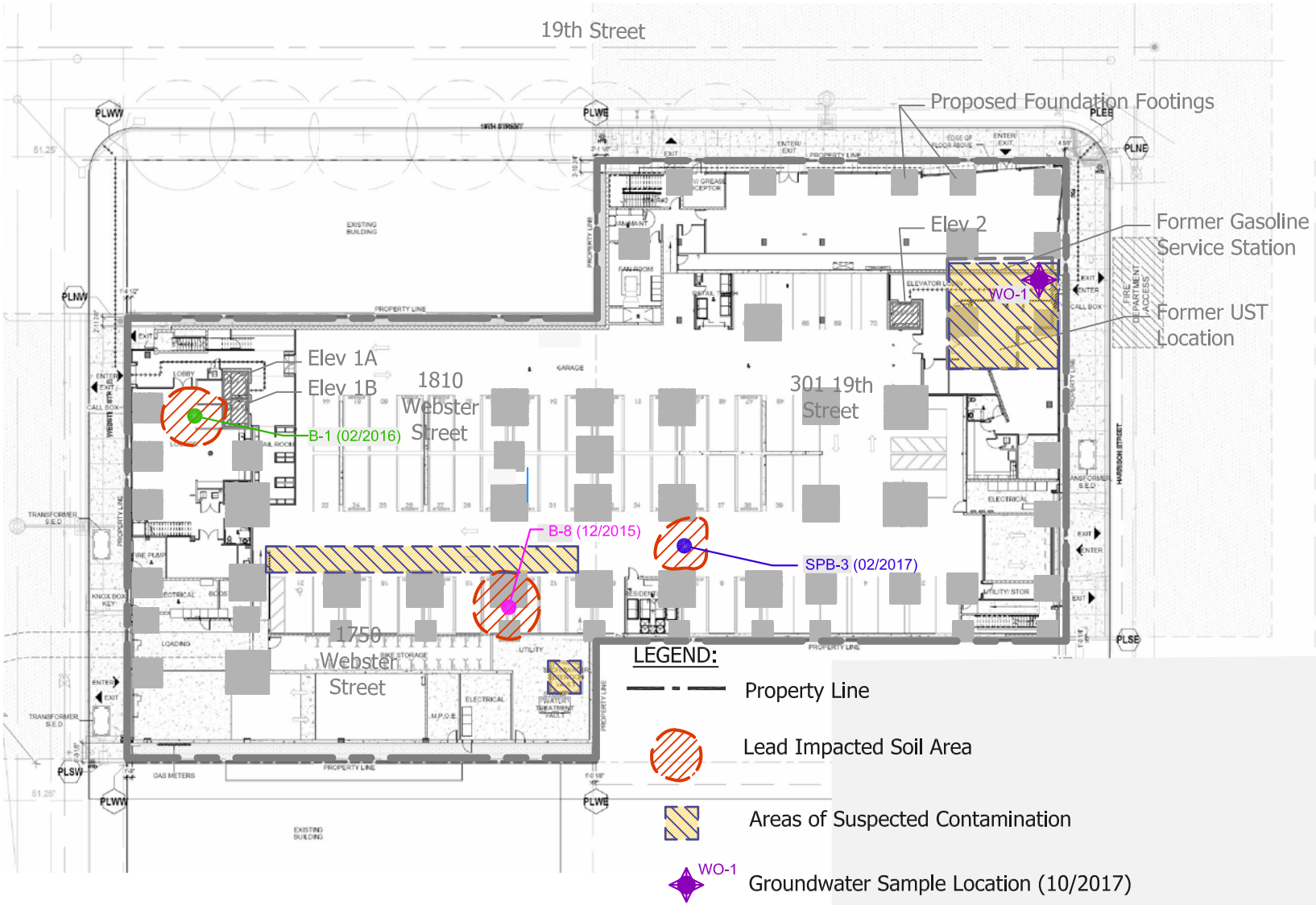
VICINITY MAP

LENNAR MULTIFAMILY COMMUNITIES
SOIL-GAS SURVEY
1750 and 1810 WEBSTER STREET and 301 19th STREET
OAKLAND, CALIFORNIA

Project No.	Drawn by:
2016-04	GC
Scale:	Date:
NTS	02/2016

Figure No.
1



Source: LPAS Site Plan Ground Level A1.001, 10/06/16

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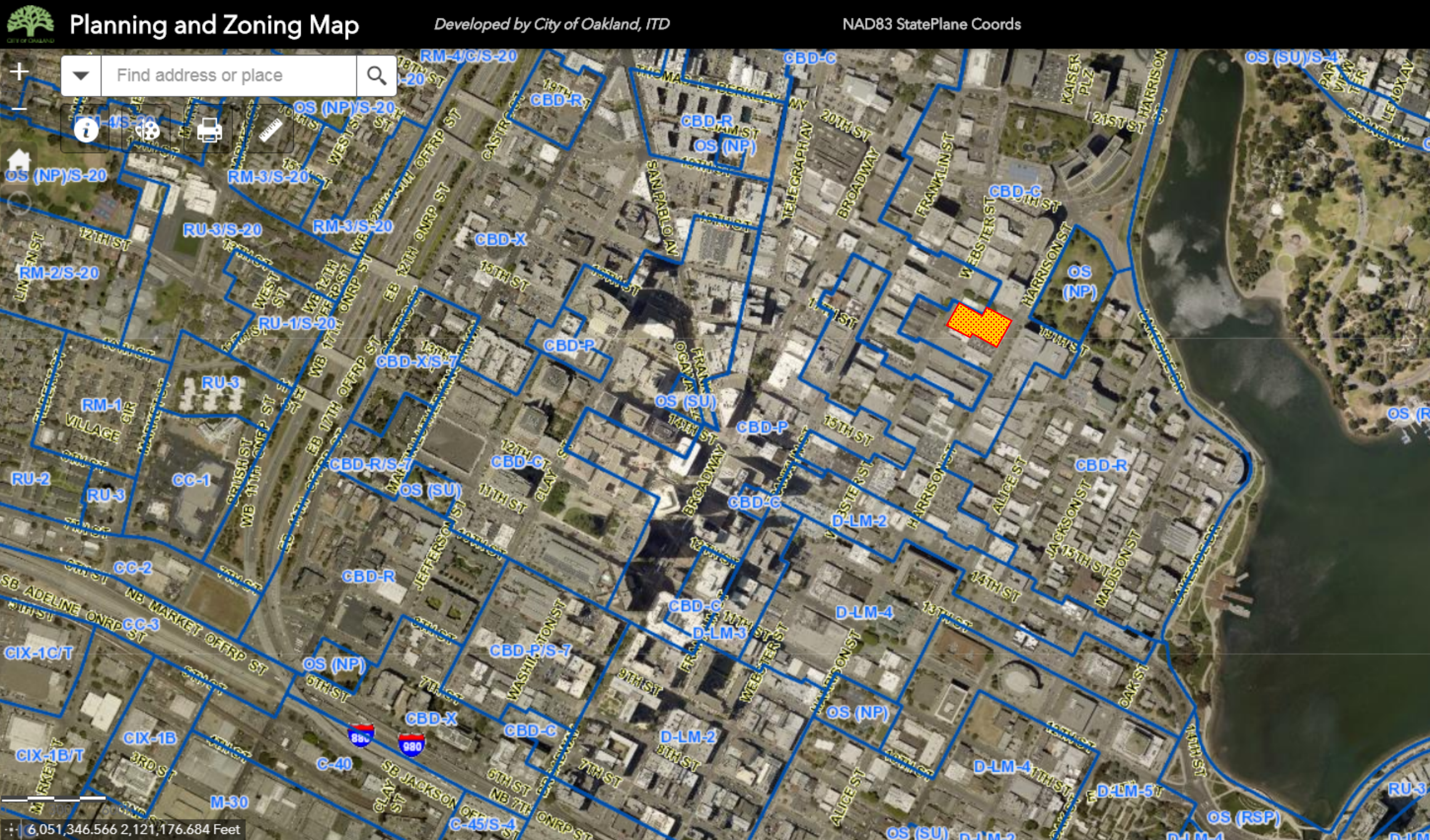
PROPOSED DEVELOPMENT FOOTPRINT

LENNAR MULTIFAMILY COMMUNITIES
LONG-TERM SOIL MANAGEMENT PLAN
1750 and 1810 WEBSTER STREET and 301 19th STREET
OAKLAND, CALIFORNIA

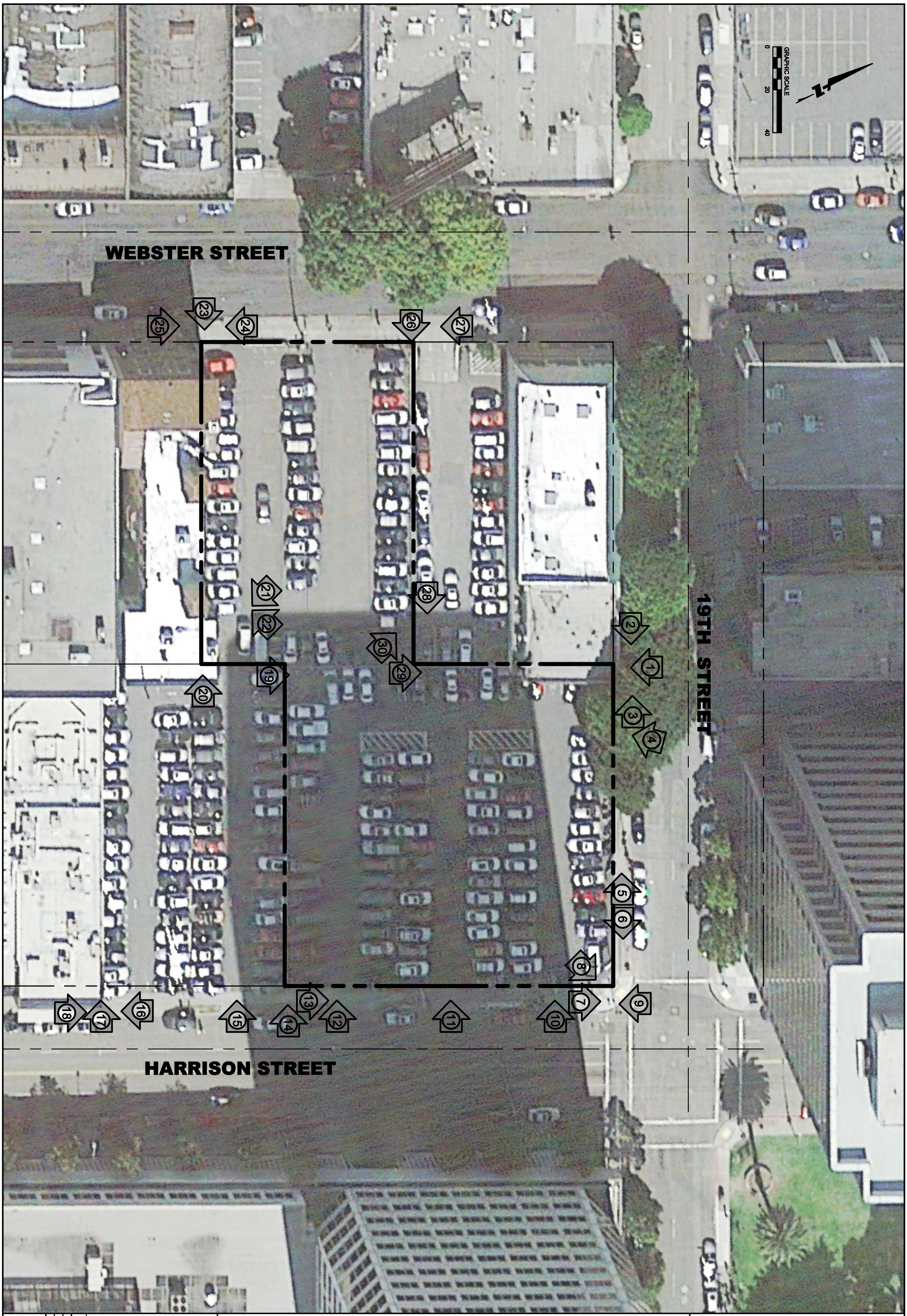
Project No.	Drawn by:
2015-29	GC
Scale:	Date:
AS SHOWN	10/2017

Figure No. 2

ATTACHMENT A


Planning and Zoning Map
Developed by City of Oakland, ITD
NAD83 StatePlane Coords
Find address or place
6,051,346.566 2,121,176.684 Feet

DRAWING NAME: C:\Talus\15-12 1750 Webster\Exhibits\15_1024 Site Photos\15_1014 Site Context.dwg
PLOT DATE: 10-14-15 PLOTTED BY: Easton



Drawing Number:	Job No.	Scale	Date
SITE 1 OF 3	2015-12	1" = 40'	10/14/15

No.	Revisions

1750 WEBSTER - CIVIL FEASIBILITY REPORT
SITE CONTEXT EXHIBIT
SITE AERIAL

OAKLAND ALAMEDA COUNTY CALIFORNIA

TALUS
1025 NOEL DRIVE, STE B
MENLO PARK, CA 94025
650.494.4974

PHOTO #1

PHOTO #2

PHOTO #3

PHOTO #4

PHOTO #5

PHOTO #6

PHOTO #7

PHOTO #8

PHOTO #9

PHOTO #10

PHOTO #11

PHOTO #12

PHOTO #13

PHOTO #14

PHOTO #15

PHOTO #16

PHOTO #17

PHOTO #18

DRAWING NAME: C:\Talus\15-12 1750 Webster\Exhibits\15_1024 Site Photos\15_1014 Site Photos.dwg
PLOT DATE: 10-14-15 PLOTTED BY: Easton

TALUS
1025 NOEL DRIVE, STE B
MENLO PARK, CA 94025
650.494.4974

1750 WEBSTER - CIVIL FEASIBILITY REPORT
SITE CONTEXT EXHIBIT
SITE PHOTOS
ALAMEDA COUNTY
CALIFORNIA
OAKLAND

Revisions	No.

Date	10/14/15
Scale	N.T.S.
Job No.	2015-12

Drawing Number:
PHOTO 2 OF 3

PHOTO #19

PHOTO #20

PHOTO #21

PHOTO #22

PHOTO #23

PHOTO #24

PHOTO #25

PHOTO #26

PHOTO #27

PHOTO #28

PHOTO #29

PHOTO #30

DRAWING NAME: C:\Talus\15-12 1750 Webster\Exhibits\15_1024 Site Photos\15_1014 Site Photos.dwg
PLOT DATE: 10-14-15 PLOTTED BY: Easton

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1750 WEBSTER - CIVIL FEASIBILITY REPORT
SITE CONTEXT EXHIBIT
SITE PHOTOS

OAKLAND
ALAMEDA COUNTY
CALIFORNIA

Revisions	
No.	

Date	10/14/15
Scale	N.T.S.
Job No.	2015-12

Drawing Number:

PHOTO 3 OF 3

ATTACHMENT B

ATTACHMENT B

AGREEMENT AND ACKNOWLEDGMENT STATEMENT
Proposed Multifamily Development
1750 Webster Street, 1810 Webster Street and 301 19th Street
Oakland, California

Soil Management Plan Agreement

All project personnel and subcontractors are required to sign the following agreement prior to conducting work at the site.

1. I have read and fully understand the plan and my individual responsibilities.

2. I agree to abide by the provisions of the plan.

Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date
Name	Signature
Company	Date

(Add additional sheets if necessary)

ATTACHMENT C

TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Prentiss Properties LTD, Inc.
1750 Webster Street
Oakland, California
October 28, 2015

Sample ID	Sample Depth (feet)	TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)
A-1-10.5	10.5	<1	<5	<5	<5	<5	<20
A-1-15	15	<1	<5	<5	<5	<5	<20
A-2-11	11	<1	<5	<5	<5	<5	<20
A-2-16	16	<1	<5	<5	<5	<5	<20
A-3-11.5	11.5	<1	<5	<5	<5	<5	<20
A-3-17.5	17.5	<1	<5	<5	<5	<5	<20
ESL Residential (Res)	---	*740*	*0.23*	*970*	*5.1*	*560*	*42*
ESL Commercial (Com)	---	*3,900*	*1.0*	*4,600*	*22*	*2,400*	*180*

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
ESLs = Environmental Screening Levels – Summary of Soil (RWQCB, Rev. 3 February 2016).

TABLE 2
LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES
1750 Webster Street and 301 19th Street
Oakland, California
October 28, 2015

Sample ID	Sample Depth (feet)	TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	Lead (mg/Kg)
B1-5	5	NA	NA	NA	NA	NA	NA	**170**
B1-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	5.8
B1-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B1-17.5	17.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B1-22	22	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B1-25	25	<1.0	<0.005	<0.005	<0.005	0.016	<0.05	<5.0
B1-30	30	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	6.8
B2-5	5	NA	NA	NA	NA	NA	NA	5.3
B2-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B2-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B2-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B2-25	25	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	9.8
B3-5	5	NA	NA	NA	NA	NA	NA	5.3
B3-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B3-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	6.7
B3-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<5.0
B3-20D	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	8.9
B3-25	25	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	7.3
ESLs – Res	---	*740*	*0.23*	*970*	*5.1*	*560*	*42*	*80*
ESL - Com	---	*3,900*	*1.0*	*4,600*	*22*	*2,400*	*180*	*320*

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
NA = not analyzed.
ESLs = Environmental Screening Levels – Summary of Soil (RWQCB, Rev. 3 February 2016).

TABLE 3
LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
1750 Webster Street and 301 19th Street
Oakland, California
October 28, 2015

Sample ID	Sample Depth (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Lead (µg/L)
B-1	22	**26,000**	**140**	**1,300**	**1,100**	**4,900**	<250	0.54
B-2	17	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
B-3	17	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MCL	---	*220*	*1.0*	*40*	*30*	*20*	*5*	*15*

µg/L = micrograms per liter, equivalent to parts per billion (ppb).
MCL = Maximum Contaminant Level (Summary of Groundwater -RWQCB, Rev. 3 February 2016 ESLs).

TABLE 4
LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES
1750 Webster Street
Oakland, California
December 11, 2015

Sample ID	Sample Depth (feet)	TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	VOCs (mg/Kg)	Lead (mg/Kg)
B4-1	1	NA	NA	NA	NA	NA	NA	NA	<5.0
B4-2	2	NA	NA	NA	NA	NA	NA	NA	<5.0
B4-3	3	NA	NA	NA	NA	NA	NA	NA	<5.0
B4-4	4	NA	NA	NA	NA	NA	NA	NA	<5.0
B4-5	5	NA	NA	NA	NA	NA	NA	NA	<5.0
B4-10	10	<1.0	<0.005	<0.005	<0.005	0.016	<0.05	<0.005 - <0.1	<5.0
B4-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 - <0.1	<5.0
B4-25	25	1.3	0.074	0.0072	0.089	0.020	<0.050	0.038	<5.0
B5-1	1	NA	NA	NA	NA	NA	NA	NA	<5.0
B5-2	2	NA	NA	NA	NA	NA	NA	NA	<5.0
B5-3	3	NA	NA	NA	NA	NA	NA	NA	<5.0
B5-4	4	NA	NA	NA	NA	NA	NA	NA	<5.0
B5-5	5	NA	NA	NA	NA	NA	NA	NA	<5.0
B5-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 - <0.1	<5.0
B5-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 - <0.1	<5.0
B5-25	25	<1.0	0.011	<0.005	<0.005	<0.005	<0.05	0.01	<5.0
B6-1	NA	NA	NA	NA	NA	NA	NA	NA	6.2
B6-2	NA	NA	NA	NA	NA	NA	NA	NA	6.2
B6-3	NA	NA	NA	NA	NA	NA	NA	NA	6.3
B6-4	NA	NA	NA	NA	NA	NA	NA	NA	5.1
B6-5	NA	NA	NA	NA	NA	NA	NA	NA	6.7
B6-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 - <0.1	<5.0
B6-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005 - <0.1	<5.0
B6-25	25	**800**	0.68	4.7	**10**	45	<0.05	76[a]	<5.0
ESLs – Res	---	*740*	*0.23*	*970*	*5.1*	*560*	*42*	*560*	*80*
ESLs - Com	---	*3,900*	*1.0*	*4,600*	*22*	*2,400*	*180*	*2,400*	*320*

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
ESLs = Environmental Screening Levels – Summary of Soil (RWQCB, Rev. 3 February 2016).
NA = not analyzed.
a = Total xylene concentration detected below ESLs.

TABLE 5
LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
1750 Webster Street
Oakland, California
December 11, 2015

Sample ID	Sample Depth (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	VOCs (µg/L)	Lead (µg/L)
B-4	21	**8,100**	**1,000**	77	**580**	**200**	<500	**930[a]**	**430**
B-5	21	**6,800**	**620**	73	**140**	**140**	<300	**490[a]**	**550**
B-6	22	**130,000**	**610**	**12,000**	**3,000**	**13,000**	<900	**13,000[b]**	**3,500**
MCL	---	*220*	*1.0*	*40*	*30*	*20*	*5*	*1 - 40*	*15*

µg/L = micrograms per liter, equivalent to parts per billion (ppb).
MCL = Maximum Contaminant Level (Summary of Groundwater -RWQCB, Rev. 3 February 2016 ESLs).
a = Benzene concentration.
b = Toluene concentration.

TABLE 6
LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES
1810 Webster Street
Oakland, California
February 2, 2016

Sample ID	Sample Depth (feet)	TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	VOCs (mg/Kg)	Lead (mg/Kg)
B1-1	1	NA	NA	NA	NA	NA	NA	NA	7.5
B1-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.2
B1-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	1.9
B1-22.5	22.5	**390**	<0.005	<0.005	2.5	5.3	<0.05	17[a]	2.6
B2-1	1	NA	NA	NA	NA	NA	NA	NA	**130**
B2-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.2
B2-20	20	46	<0.005	<0.005	0.12	<0.005	<0.05	0.14[b]	4.6
B2-22.5	22.5	**660**	<0.005	0.34	0.78	0.76	<0.05	8.1[c]	3.0
B3-1	1	NA	NA	NA	NA	NA	NA	NA	16
B3-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.2
B3-20	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	<0.10	2.3
B3-22.5	22.5	**170**	<0.005	0.30	0.39	1.7	<0.05	14[d]	3.1
ESLs - Res	---	*740*	*0.23*	*970*	*5.1*	*560*	*42*	*5.1 – 970*	*80*
ESLs - Com	---	*3,900*	*1.0*	*4,500*	*22*	*2,400*	*180*	*1 – 4,600*	*320*

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
ESLs = Environmental Screening Levels – Summary of Soil (RWQCB, Rev. 3 February 2016).
NA = not analyzed.
a = 1,2,4-Trimethylbenzene and 4.9 mg/Kg of total xylenes.
b = n-Propyl benzene.
c = n-Propyl benzene and 4.1 mg/Kg n-Butyl benzene.
d = 1,2,4-Trimethylbenzene and 3.4 mg/Kg of total xylenes.

TABLE 7
LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
1810 Webster Street
Oakland, California
February 2, 2016

Sample ID	Sample Depth (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	VOCs (µg/L)	Lead (µg/L)
B-1	20.5	**7,500**	**28**	14	**45**	46	<250	**1,200**[a]	21
B-2	19	**14,000**	**66**	11	99	21	<0.50	**270**[b]	13
B-3	20.5	**4,700**	**110**	**450**	**110**	**300**	<0.50	**1,200**[c]	5.9
MCL	---	*220*	*1.0*	*40*	*30*	*20*	*5*	*20 - 40*	*15*

µg/L = micrograms per liter, equivalent to parts per billion (ppb).
MCL = Maximum Contaminant Level (Summary of Groundwater -RWQCB, Rev. 3 February 2016 ESLs).
a = t-Butyl alcohol (TBA), 670 µg/L of 1,2,4-Trimethylbenzene and 460 µg/L of total xylenes.
b = n-Propyl benzene, 120 µg/L Naphthalene, and 110 µg/L of ethyl benzene.
c = 1,2,4-Trimethylbenzene, 280 µg/L of benzene, 1,100 µg/L of toluene, and 930 µg/L of total xylenes.

TABLE 8
LABORATORY ANALYTICAL RESULTS OF SOIL-GAS SAMPLES
1750 and 1810 Webster Streets and 301 19th Street
Oakland, California
February 3 and 4, 2016

Sample ID	Sample Depth (feet)	TPHg (µg/m^3)	Benzene (µg/m^3)	Toluene (µg/m^3)	Ethyl Benzene (µg/m^3)	Total Xylenes (µg/m^3)	PCE (µg/m^3)	TCE (µg/m^3)
SG1-5	5	<10,000	<80	<200	<100	<200	<100	<100
SG1-10	10	<10,000	<80	<200	<100	<200	<100	<100
SG1-15	15	<10,000	<80	<200	<100	<200	<100	<100
SG1-15D	15	<10,000	<80	<200	<100	<200	<100	<100
SG2-5	5	<10,000	<80	<200	<100	<200	<100	<100
SG2-10	10	<10,000	<80	<200	<100	<200	<100	<100
SG2-15	15	<10,000	<80	<200	<100	<200	<100	<100
SG3-5	5	<10,000	<80	<200	<100	<200	<100	<100
SG3-10	10	<10,000	<80	<200	<100	<200	<100	<100
SG3-15	15	<10,000	<80	<200	<100	<200	<100	<100
SG4-5	5	<10,000	<80	<200	<100	<200	<100	<100
SG4-10	10	<10,000	<80	<200	<100	<200	<100	<100
SG4-15	15	<10,000	<80	<200	<100	<200	<100	<100
SG5-5	5	<10,000	**120**	<200	<100	<200	<100	<100
SG5-10	10	<10,000	<80	<200	<100	<200	<100	<100
SG5-15	15	<10,000	<80	<200	<100	<200	150	<100
SG5-15D	15	<10,000	<80	<200	<100	<200	160	<100
SG6-5	5	<10,000	<80	<200	<100	<200	<100	<100
SG6-10	10	<10,000	<80	<200	<100	<200	<100	<100
SG6-15	15	<10,000	<80	<200	<100	<200	<100	<100
ESLs – Res	---	*300,000*	*48*	*160,000*	*450*	*52,000*	*240*	*240*
ESLs - Com	---	*3,200,000*	*420*	*1,300,000*	*4,900*	*440,000*	*2,100*	*3,000*

µg/m^3 = micrograms per cubic meter.
ESLs = Environmental Screening Levels – (RWQCB, Summary of Vapor ESLs Rev. 3 February 2016).
PCE = Tetrachloroethylene.

TCE = Trichloroethylene.
SG1-1D = Duplicate soil-gas sample.

TABLE 9
LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES
301 19th Street
Oakland, California
July 14, 2016

Sample ID	Sample Depth (feet)	TPHg (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	MTBE (mg/Kg)	Lead (mg/Kg)
B7-1	1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	5.1
B7-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	1.7
B7-15	3	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	2.0
B8-1	1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	9.7
B8-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	2.0
B8-15	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	2.3
B9-1	1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	NA
B9-10	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	1.6
B9-15	1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	2.5
ESLs – Res	---	*740*	*0.23*	*970*	*5.1*	*560*	*42*	*80*
ESLs - Com	---	*3,900*	*1.0*	*4,600*	*22*	*2,400*	*180*	*320*

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
ESLs = Environmental Screening Levels – Summary of Soil (RWQCB, Rev. 3 February 2016).
NA = not analyzed.

TABLE 10
LABORATORY ANALYTICAL RESULTS OF GROUNDWATER SAMPLES
301 19th Street
Oakland, California
July 14, 2016

Sample ID	Sample Depth (feet)	TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Lead (µg/L)
B-7	17.5	<50	<0.50	<0.50	<0.50	<0.050	<5	**280**
B-8	15	<50	<0.50	<0.50	<0.50	<0.050	<5	**440**
B-9	17.5	<50	<0.50	0.77	<0.50	<0.050	<5	**34**
MCL	---	*220*	*1.0*	*40*	*30*	*20*	*5*	*15*

µg/L = micrograms per liter, equivalent to parts per billion (ppb).
MCL = Maximum Contaminant Level (Summary of Groundwater -RWQCB, Rev. 3 February 2016 ESLs).

TABLE 11
LABORATORY ANALYTICAL RESULTS OF SOIL-GAS SAMPLES
1750 and 1810 Webster Streets and 301 19th Street
Oakland, California
August 10, 2016

Sample ID	Sample Depth (feet)	Benzene (µg/m³)	Toluene (µg/m³)	Ethyl Benzene (µg/m³)	Total Xylenes (µg/m³)	PCE (µg/m³)	TCE (µg/m³)
SG1-5	5	<80	<200	<100	<200	<100	<100
SG1-10	10	<80	<200	<100	<200	<100	<100
SG1-10D	15	<80	<200	<100	<200	<100	<100
SG2-5	5	<80	<200	<100	<200	<100	<100
SG2-10	10	<80	<200	<100	<200	<100	<100
SG3-5	5	<80	<200	<100	<200	<100	<100
SG3-10	10	<80	<200	<100	<200	<100	<100
SG4-5	5	<80	<200	<100	<200	<100	<100
SG4-10	10	<80	<200	<100	<200	<100	<100
SG5-5	5	160	<200	<100	<200	<100	<100
SG5-10	10	88	<200	<100	<200	<100	<100
SG6-5	5	<80	<200	<100	<200	<100	<100
SG6-10	10	<80	<200	<100	<200	120	<100
ESLs – Res	---	*48*	*160,000*	*450*	*52,000*	*240*	*240*
ESLs - Com	---	*420*	*1,300,000*	*4,900*	*440,000*	*2,100*	*3,000*

µg/m³ = micrograms per cubic meter.
ESLs = Environmental Screening Levels – (RWQCB, Summary of Vapor ESLs Rev. 3 February 2016).
PCE = Tetrachloroethylene.
TCE = Trichloroethylene.
ESLs = Environmental Screening Levels – Residential (RWQCB, December 2013 – Table E).
SG1-10D= Duplicate soil-gas sample.

TABLE 12
LABORATORY ANALYTICAL RESULTS OF SOIL-GAS OXYGEN SAMPLES
1750 and 1810 Webster Streets and 301 19th Street
Oakland, California
October 21, 2016

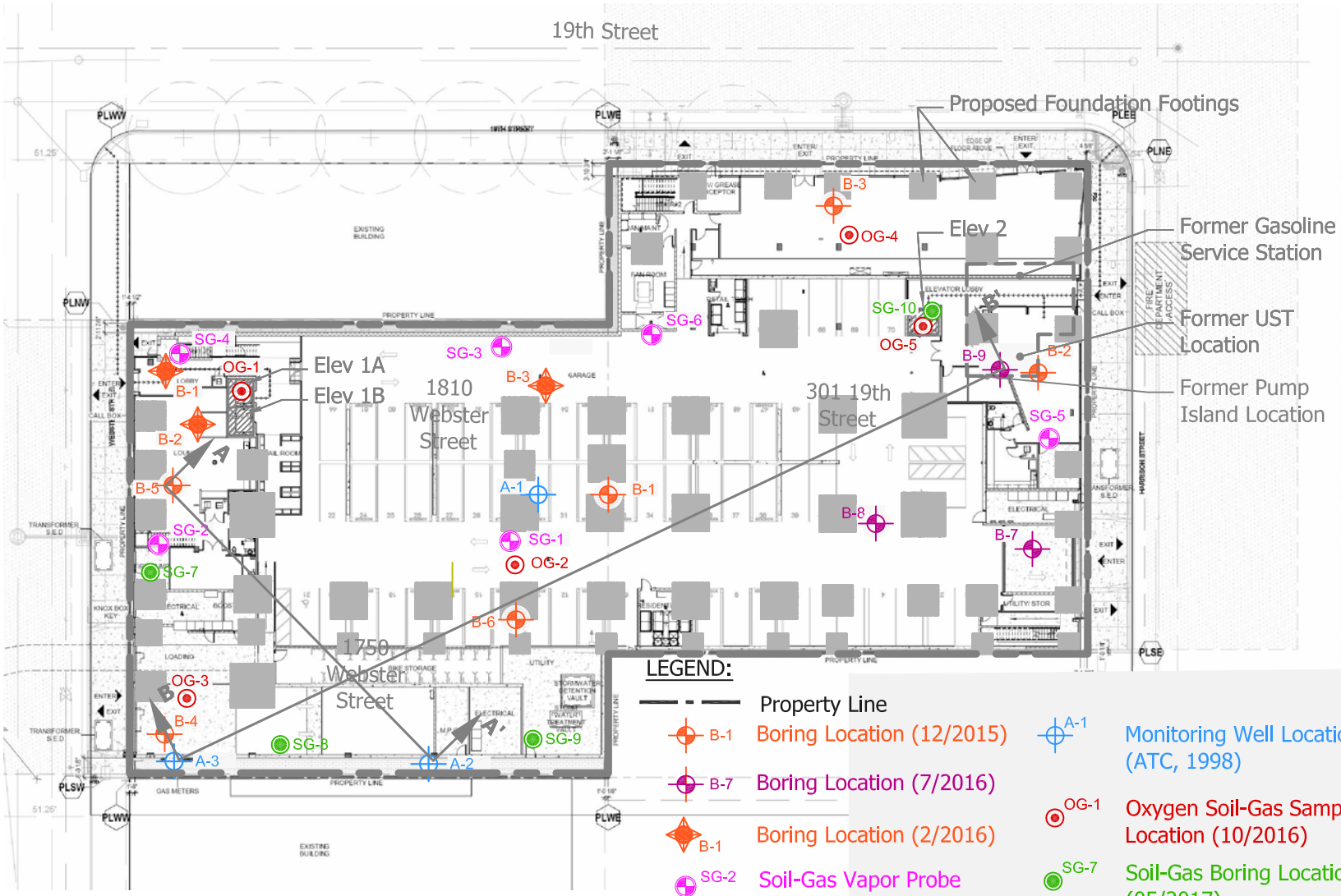
Sample ID	Sample Depth (feet)	Oxygen (µL/L)	Oxygen (%)
OG-1	5	130,000	13
OG-2	5	140,000	14
OG-3	5	140,000	14
OG-4	5	140,000	14
OG-5	5	140,000	14

µL/L = microliters per liter.

TABLE 13
LABORATORY ANALYTICAL RESULTS OF SOIL-GAS SAMPLES
1750 Webster Streets and 301 19th Street
Oakland, California
May 15, 2017

Sample ID	Sample Depth (feet)	Oxygen (%)	Methane (%)	Carbon Dioxide (%)	Vinyl Chloride (µg/m^3)	IPA (µg/m^3)
SG-7	5	17	<0.00020	0.036	<1.3	<50
SG-8	5	17	<0.00020	0.039	<1.3	<50
SG-9	5	16	<0.00020	0.037	<1.3	<50
SG-10	6	16	<0.00020	0.038	<1.3	<50
ESLs – Res	---	---	---	---	*4.7*	---
ESLs - Com	---	---	---	---	*160*	---

µg/m^3 = micrograms per cubic meter.
ESLs = Environmental Screening Levels – (RWQCB, Summary of Vapor ESLs Rev. 3 February 2016).
PCE = Tetrachloroethylene
TCE = Trichloroethylene
VC = Vinyl Chloride



Source: LPAS Site Plan Ground Level A1.001, 10/06/16

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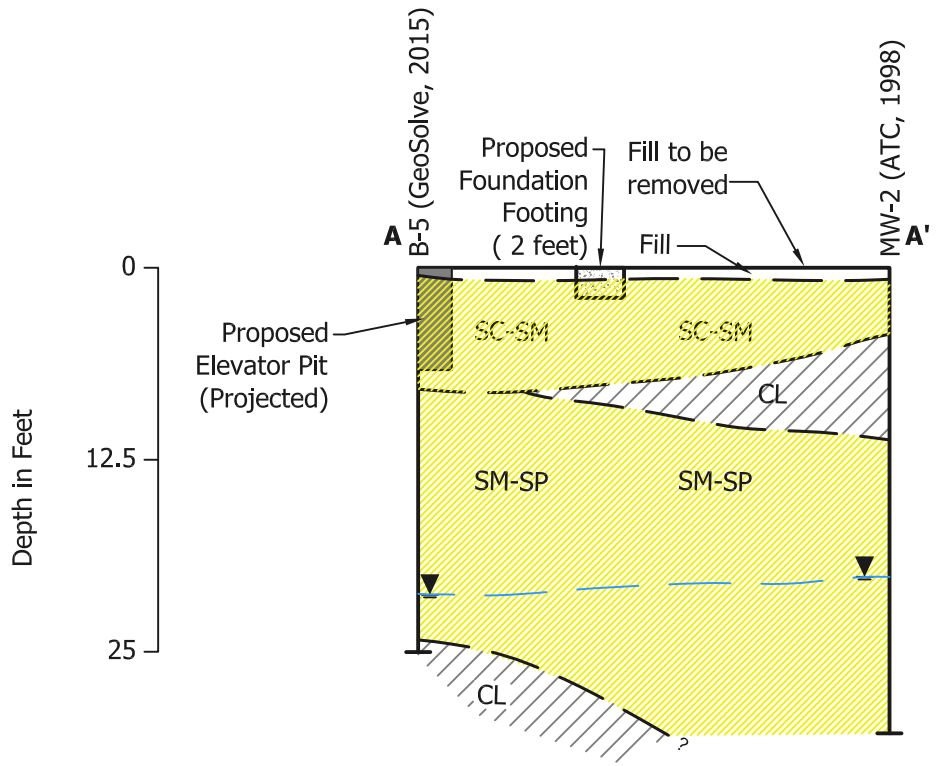
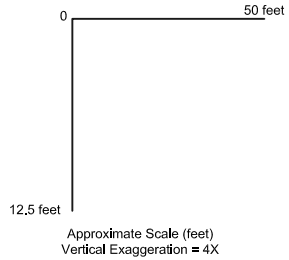
PROPOSED DEVELOPMENT FOOTPRINT

LENNAR MULTIFAMILY COMMUNITIES
SUMMARY OF ENVIRONMETAL ACTIVITIES
1750 and 1810 WEBSTER STREET and 301 19th STREET
OAKLAND, CALIFORNIA

Project No.	Drawn by:
2015-29	GC
Scale:	Date:
AS SHOWN	09/2017

Figure No. 1





USCS CLASSIFICATION:

CL	Silty Clay
SC	Clayey Sand
SM	Silty Sand
SP	Poorly Sorted Sand
	Less Permeable Units (Clay)
	More Permeable Units

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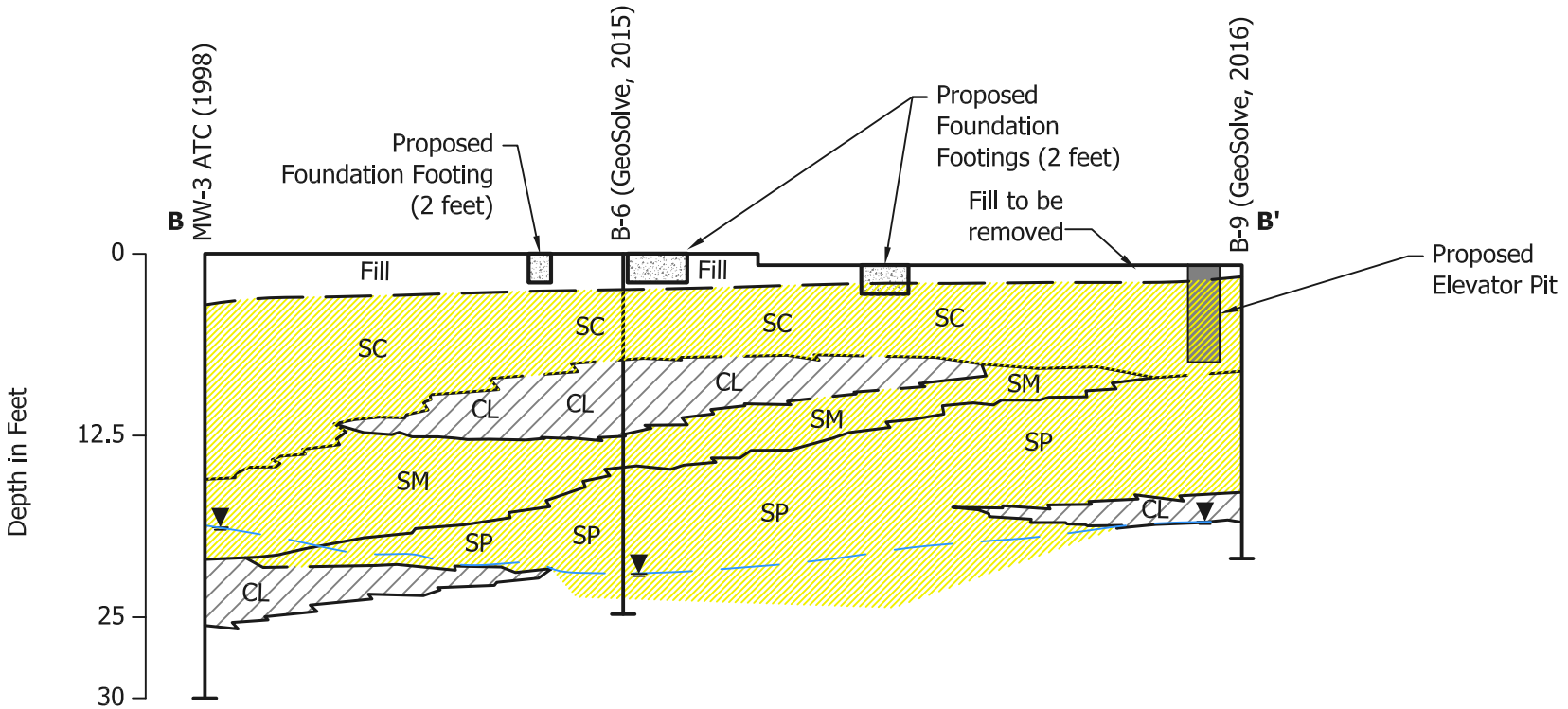
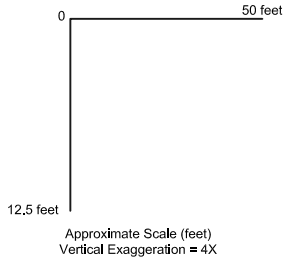
GEOLOGIC CROSS SECTION A-A

LENNAR MULTIFAMILY COMMUNITIES
ALAMEDA COUNTY HEALTHCARE SERVICES AGENCY CASE NO.2672
1750 and 1810 WEBSTER STREET and 301 19th STREET
OAKLAND, CALIFORNIA

Project No.	Drawn by:
2016-04	GC
Scale:	Date:
AS SHOWN	10/2016

Figure No. 2





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	Less Permeable Units (Clay)
	More Permeable Units

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GEOLOGIC CROSS SECTION B-B'

LENNAR MULTIFAMILY COMMUNITIES
ALAMEDA COUNTY HEALTHCARE SERVICES AGENCY CASE NO.2672
1750 and 1810 WEBSTER STREET and 301 19th STREET
OAKLAND, CALIFORNIA

Project No.	Drawn by:
2016-04	GC
Scale:	Date:
AS SHOWN	10/2016

Figure No. 3

Table 1
Lead Analytical Results in Soil
1750 Webster Street and 301 19th Street
Oakland, California
May 15, 2017

Sample ID	Depth (feet)	Lead (mg/Kg)
L1-2	2	3.1
L1-4	4	4.1
L1-6	6	5.6
L1-8	8	4.6
L1-10	10	3.1
L2-2	2	2.7
L2-4	4	3.3
L2-6	6	3.8
L2-8	8	4.6
L2-10	10	3.7
L3-2	2	3.5
L3-4	4	3.5
L3-6	6	5.4
L3-8	8	4.3
L3-10	10	2.6
L4-2	2	5.9
L4-4	4	4.5
L4-6	6	5.5
L4-8	8	3.6
L4-10	10	2.9
L5-2	2	3.3
L5-4	4	4.7
L5-6	6	3.4
L5-8	8	5.3
L5-10	10	2.6
L6-2	2	**86**
L6-4	4	3.5
L6-6	6	4.9
L6-8	8	4.1
L6-10	10	2.8

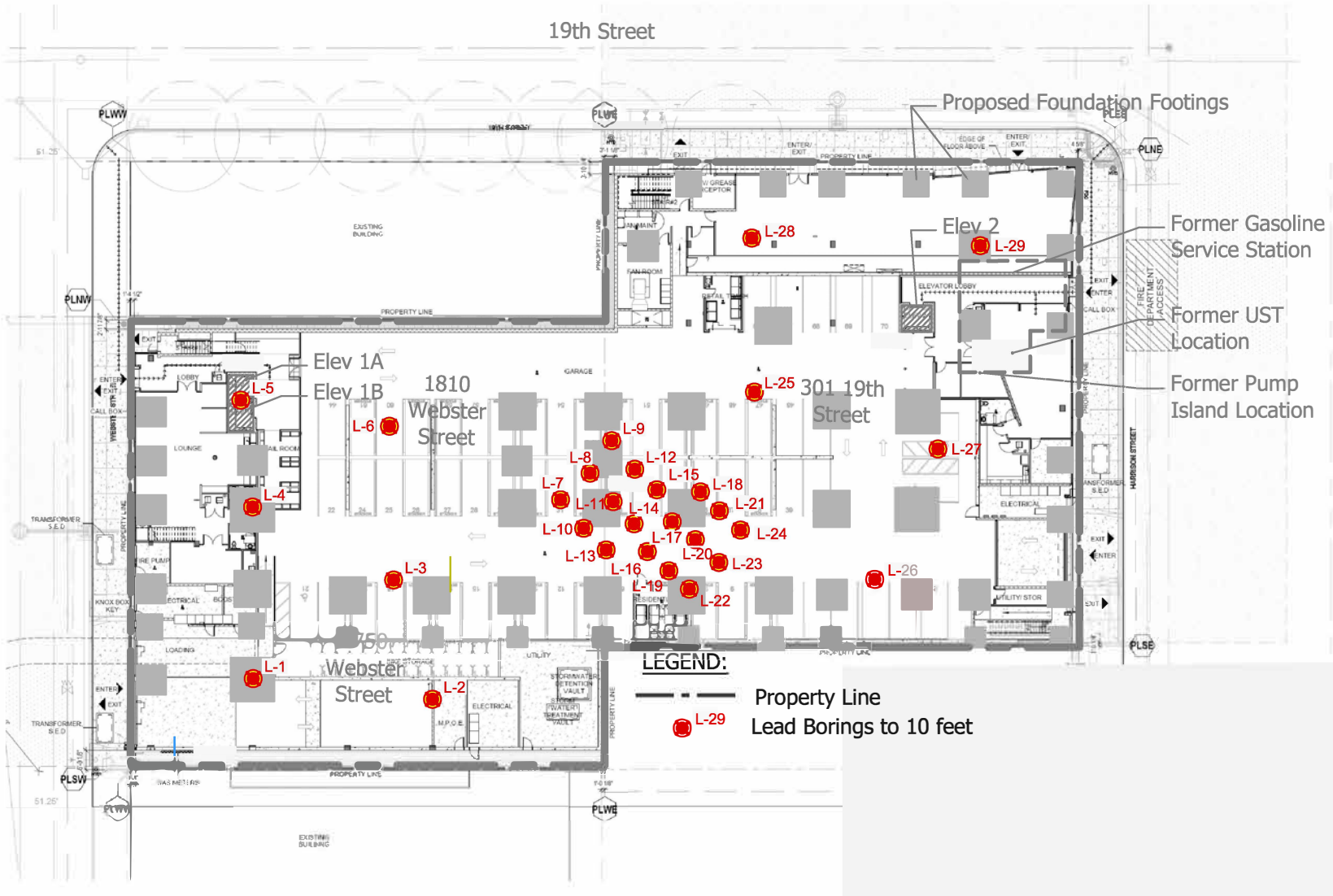
Sample ID	Depth (feet)	Lead (mg/Kg)
L7-2	2	3.4
L7-4	4	4.3
L7-6	6	4.8
L7-8	8	5.0
L7-10	10	3.8
L8-2	2	4.7
L8-4	4	7.2
L8-6	6	4.9
L8-8	8	4.2
L8-10	10	4.1
L9-2	2	16
L9-4	4	3.2
L9-6	6	4.0
L9-8	8	4.5
L9-10	10	2.7
L10-2	2	5.3
L10-4	4	4.3
L10-6	6	5.3
L10-8	8	4.9
L10-10	10	3.9
L11-2	2	5.2
L11-4	4	4.4
L11-6	6	4.2
L11-8	8	2.9
L11-10	10	1.9
L12-2	2	3.4
L12-4	4	4.7
L12-6	6	3.8
L12-8	8	3.2
L12-10	10	2.1
L13-2	2	13
L13-4	4	3.3
L13-6	6	4.7
L13-8	8	3.8
L13-10	10	4.2
L14-2	2	4.0
L14-4	4	4.2

Sample ID	Depth (feet)	Lead (mg/Kg)
L14-6	6	2.9
L14-8	8	2.3
L14-10	10	1.9
L15-2	2	3.3
L15-4	4	3.9
L15-6	6	2.6
L15-8	8	2.3
L15-10	10	2.0
L16-2	2	2.8
L16-4	4	6.1
L16-6	6	4.0
L16-8	8	2.9
L16-10	10	2.7
L17-2	2	3.8
L17-4	4	3.7
L17-6	6	2.8
L17-8	8	2.4
L17-10	10	2.1
L18-2	2	3.3
L18-4	4	4.2
L18-6	6	3.1
L18-8	8	2.4
L18-10	10	2.0
L19-2	2	19
L19-4	4	4.7
L19-6	6	4.1
L19-8	8	2.7
L19-10	10	2.0
L20-2	2	6.3
L20-4	4	4.2
L20-6	6	2.9
L20-8	8	2.6
L20-10	10	1.8
L21-2	2	4.6
L21-4	4	6.6
L21-6	6	3.0
L21-8	8	2.3

Sample ID	Depth (feet)	Lead (mg/Kg)
L21-10	10	1.9
L22-2	2	6.0
L22-4	4	3.6
L22-6	6	3.2
L22-8	8	2.5
L22-10	10	1.8
L23-2	2	3.5
L23-4	4	3.9
L23-6	6	3.3
L23-8	8	2.6
L23-10	10	2.0
L24-2	2	3.0
L24-4	4	2.0
L24-6	6	8.3
L24-8	8	4.8
L24-10	10	3.8
L25-2	2	44
L25-4	4	5.0
L25-6	6	3.7
L25-8	8	3.0
L25-10	10	2.4
L26-2	2	5.1
L26-4	4	5.3
L26-6	6	2.9
L26-8	8	1.9
L26-10	10	1.9
L27-2	2	4.5
L27-4	4	4.7
L27-6	6	4.3
L27-8	8	3.0
L27-10	10	1.9
L28-2	2	6.0
L28-4	4	4.1
L28-6	6	2.4
L28-8	8	2.3
L28-10	10	1.7
L29-2	2	13

Sample ID	Depth (feet)	Lead (mg/Kg)
L29-4	4	6.5
L29-6	6	2.8
L29-8	8	2.2
L29-10	10	2.1
Residential ESL	---	*80*
Commercial ESL	---	*320*

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
ESLs = Environmental Screening Levels (RWQCB, February 2016)



Source: LPAS Site Plan Ground Level A1.001, 10/06/16

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LOCATION OF BORINGS L1 - L29

Figure No. A

LENNAR MULTIFAMILY COMMUNITIES
SUMMARY OF ENVIRONMENTAL ACTIVITIES
1750 and 1810 WEBSTER STREET and 301 19th STREET
OAKLAND, CALIFORNIA

Project No.	Drawn by:
2015-29	GC
Scale: AS SHOWN	Date: 09/2017

ATTACHMENT D

Information Advisory
Clean Imported Fill Material

October 2001

DEPARTMENT OF TOXIC SUBSTANCES CONTROL

It is DTSC's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California

California Environmental Protection Agency

Executive Summary

This fact sheet has been prepared to ensure that inappropriate fill material is not introduced onto sensitive land use properties under the oversight of the DTSC or applicable regulatory authorities. Sensitive land use properties include those that contain facilities such as hospitals, homes, day care centers, and schools. This document only focuses on human health concerns and ecological issues are not addressed. It identifies those types of land use activities that may be appropriate when determining whether a site may be used as a fill material source area. It also provides guidelines for the appropriate types of analyses that should be performed relative to the former land use, and for the number of samples that should be collected and analyzed based on the estimated volume of fill material that will need to be used. The information provided in this fact sheet is not regulatory in nature, rather is to be used as a guide, and in most situations the final decision as to the acceptability of fill material for a sensitive land use property is made on a case-by-case basis by the appropriate regulatory agency.

Introduction

The use of imported fill material has recently come under scrutiny because of the instances where contaminated soil has been brought onto an otherwise clean site. However, there are currently no established standards in the statutes or regulations that address environmental requirements for imported fill material. Therefore, the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this fact sheet to identify procedures that can be used to minimize the possibility of introducing contaminated soil onto a site that requires imported fill material. Such sites include those that are undergoing site remediation, corrective action, and closure activities overseen by DTSC or the appropriate regulatory agency. These procedures may also apply to construction projects that will result in sensitive land uses. The intent of this fact sheet is to protect people who live on or otherwise use a sensitive land use property. By using this fact sheet as a guide, the reader will minimize the chance of introducing fill material that may result in potential risk to human health or the environment at some future time.

Overview

Both natural and manmade fill materials are used for a variety of purposes. Fill material properties are commonly controlled to meet the necessary site specific engineering specifications. Because most sites requiring fill material are located in or near urban areas, the fill materials are often obtained from construction projects that generate an excess of soil, and from demolition debris (asphalt, broken concrete, etc.). However, materials from those types of sites may or may not be appropriate, depending on the proposed use of the fill, and the quality of the assessment and/or mitigation measures, if necessary. Therefore, unless material from construction projects can be demonstrated to be free of contamination and/or appropriate for the proposed use, the use of that material as fill should be avoided.

Selecting Fill Material

In general, the fill source area should be located in nonindustrial areas, and not from sites undergoing an environmental cleanup. Nonindustrial sites include those that were previously undeveloped, or used solely for residential or agricultural purposes. If the source is from an agricultural area, care should be taken to insure that the fill does not include former agricultural waste process byproducts such as manure or other decomposed organic material. Undesirable sources of fill material include industrial and/or commercial sites where hazardous ma-

Potential Contaminants Based on the Fill Source Area

Fill Source:	Target Compounds
Land near to an existing freeway	Lead (EPA methods 6010B or 7471A), PAHs (EPA method 8310)
Land near a mining area or rock quarry	Heavy Metals (EPA methods 6010B and 7471A), asbestos (polarized light microscopy), pH
Agricultural land	Pesticides (Organochlorine Pesticides: EPA method 8081A or 8080A; Organophosphorus Pesticides: EPA method 8141A; Chlorinated Herbicides: EPA method 8151A), heavy metals (EPA methods 6010B and 7471A)
Residential/acceptable commercial land	VOCs (EPA method 8021 or 8260B, as appropriate and combined with collection by EPA Method 5035), semi-VOCs (EPA method 8270C), TPH (modified EPA method 8015), PCBs (EPA method 8082 or 8080A), heavy metals including lead (EPA methods 6010B and 7471A), asbestos (OSHA Method ID-191)

**The recommended analyses should be performed in accordance with USEPA SW-846 methods (1996). Other possible analyses include Hexavalent Chromium: EPA method 7199*

Recommended Fill Material Sampling Schedule

Area of Individual Borrow Area	Sampling Requirements
2 acres or less	Minimum of 4 samples
2 to 4 acres	Minimum of 1 sample every 1/2 acre
4 to 10 acres	Minimum of 8 samples
Greater than 10 acres	Minimum of 8 locations with 4 subsamples per location
Volume of Borrow Area Stockpile	**Samples per Volume**
Up to 1,000 cubic yards	1 sample per 250 cubic yards
1,000 to 5,000 cubic yards	4 samples for first 1000 cubic yards +1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

terials were used, handled or stored as part of the business operations, or unpaved parking areas where petroleum hydrocarbons could have been spilled or leaked into the soil. Undesirable commercial sites include former gasoline service stations, retail strip malls that contained dry cleaners or photographic processing facilities, paint stores, auto repair and/or painting facilities. Undesirable industrial facilities include metal processing shops, manufacturing facilities, aerospace facilities, oil refineries, waste treatment plants, etc. Alternatives to using fill from construction sites include the use of fill material obtained from a commercial supplier of fill material or from soil pits in rural or suburban areas. However, care should be taken to ensure that those materials are also uncontaminated.

Documentation and Analysis

In order to minimize the potential of introducing contaminated fill material onto a site, it is necessary to verify through documentation that the fill source is appropriate and/or to have the fill material analyzed for potential contaminants based on the location and history of the source area. Fill documentation should include detailed information on the previous use of the land from where the fill is taken, whether an environmental site assessment was performed and its findings, and the results of any testing performed. It is recommended that any such documentation should be signed by an appropriately licensed (CA-registered) individual. If such documentation is not available or is inadequate, samples of the fill material should be chemically analyzed. Analysis of the fill material should be based on the source of the fill and knowledge of the prior land use.

Detectable amounts of compounds of concern within the fill material should be evaluated for risk in accordance with the DTSC Preliminary Endangerment Assessment (PEA) Guidance Manual. If

metal analyses are performed, only those metals (CAM 17 / Title 22) to which risk levels have been assigned need to be evaluated. At present, the DTSC is working to establish California Screening Levels (CSL) to determine whether some compounds of concern pose a risk. Until such time as these CSL values are established, DTSC recommends that the DTSC PEA Guidance Manual or an equivalent process be referenced. This guidance may include the Regional Water Quality Control Board's (RWQCB) guidelines for reuse of non-hazardous petroleum hydrocarbon contaminated soil as applied to Total Petroleum Hydrocarbons (TPH) only. The RWQCB guidelines should not be used for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCS). In addition, a standard laboratory data package, including a summary of the QA/QC (Quality Assurance/Quality Control) sample results should also accompany all analytical reports.

When possible, representative samples should be collected at the borrow area while the potential fill material is still in place, and analyzed prior to removal from the borrow area. In addition to performing the appropriate analyses of the fill material, an appropriate number of samples should also be determined based on the approximate volume or area of soil to be used as fill material. The table above can be used as a guide to determine the number of samples needed to adequately characterize the fill material when sampled at the borrow site.

Alternative Sampling

A Phase I or PEA may be conducted prior to sampling to determine whether the borrow area may have been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with DTSC or appropriate regulatory agency. However, if it is not possible to analyze the fill material at the borrow area or determine that it is appropriate for use via a Phase I or PEA, it is recommended that one (1) sample per truckload be collected and analyzed for all compounds of concern to ensure that the imported soil is uncontaminated and acceptable. (See chart on Potential Contaminants Based on the Fill Source Area for appropriate analyses). This sampling frequency may be modified upon consultation with the DTSC or appropriate regulatory agency if all of the fill material is derived from a common borrow area. However, fill material that is not characterized at the borrow area will need to be stockpiled either on or off-site until the analyses have been completed. In addition, should contaminants exceeding acceptance criteria be identified in the stockpiled fill material, that material will be deemed unacceptable and new fill material will need to be obtained, sampled and analyzed. Therefore, the DTSC recommends that all sampling and analyses should be completed prior to delivery to the site to ensure the soil is free of contamination, and to eliminate unnecessary transportation charges for unacceptable fill material.

Composite sampling for fill material characterization may or may not be appropriate, depending on quality and homogeneity of source/borrow area, and compounds of concern. Compositing samples for volatile and semivolatile constituents is not acceptable. Composite sampling for heavy metals, pesticides, herbicides or PAH's from unanalyzed stockpiled soil is also unacceptable, unless it is stockpiled at the borrow area and originates from the same source area. In addition, if samples are composited, they should be from the same soil layer, and not from different soil layers.

When very large volumes of fill material are anticipated, or when larger areas are being considered as borrow areas, the DTSC recommends that a Phase I or PEA be conducted on the area to ensure that the borrow area has not been impacted by previous activities on the property. After the property has been evaluated, any sampling that may be required can be determined during a meeting with the DTSC.

For further information, call Richard Coffman, Ph.D., R.G., at (818) 551-2175.