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August 28, 2015

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Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Attention: Mr. Mark Detterman, PG, CEG, Senior Hazardous Materials Specialist

TRANSMITTAL LETTER
REVISED WORK PLAN FOR PRE-CONSTRUCTION SUBSURFACE INVESTIGATION
6701, 6705, AND 6707 SHELLMOUND STREET
EMERYVILLE, CALIFORNIA
Fuel Leak Case No. RO0000548
Geotracker Global ID T0600100894

Dear Mr. Detterman:

Submitted herewith for your review is the *Revised Work Plan for Pre-Construction Subsurface Investigation, 6701, 6705, and 6707 Shellmound Street, Emeryville, California* dated August 28, 2015, prepared by PES Environmental, Inc.

I declare, under penalty of perjury, that the information and/or recommendations contained in the above-referenced document for the subject property are true and correct to the best of my knowledge.

Very truly yours,

ANTON EMERYVILLE, LLC

Rachel Green
Development Manager

PES Environmental, Inc.
Engineering & Environmental Services

August 28, 2015

1448.001.01.010

Alameda County Environmental Health
1131 Harbor Bay Parkway
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Attention: Mr. Mark Detterman, P.G., C.HG.

REVISED WORK PLAN FOR PRE-CONSTRUCTION SUBSURFACE INVESTIGATION
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EMERYVILLE, CALIFORNIA
FUEL LEAK CASE NO. RO0000548
GEOTRACKER GLOBAL ID T0600100894

Dear Mr. Detterman:

On behalf of Anton Emeryville, LLC (Anton), PES Environmental, Inc. (PES) has prepared this Revised Work Plan for Pre-Construction Subsurface Investigation (the Revised Work Plan) at the property located at 6701, 6705, and 6707 Shellmound Street, Emeryville, California (collectively, the subject property or site). On July 14, 2015, PES prepared a *Work Plan for Additional Soil Gas Investigation* at the request of the Alameda County Environmental Health Department (ACEH). ACEH has requested additional characterization of soil gas and soil which may remain in-place beneath future landscaped areas or be disturbed by future intrusive earthwork activities conducted during proposed redevelopment activities at the site. This Revised Work Plan supersedes the *Work Plan for Additional Soil Gas Investigation* dated July 14, 2015.

The site location is shown on Plate 1, a site plan showing the existing on-site development is shown on Plate 2, and site plans showing the proposed development and proposed soil gas and soil sampling locations are shown on Plates 3 and 4, respectively. The redevelopment plans for the site include: demolition of existing buildings; grading and soil excavation for utilities and building foundations; and construction of new multi-story residential buildings and associated parking, driveway, and landscaped areas. The current site owner is John Nady, Trustee, Nady Trust, dated January 21, 1997, as his sole and separate property. The property is leased to Nady Systems, Inc. (Nady). Anton is currently seeking acquisition of the site from Nady.

The subject property is currently listed as an open Spills, Leaks, Investigation and Cleanup (SLIC) case with ACEH as the lead environmental regulatory agency. The case is listed under Mike Roberts Color Production (6707 Bay Street), and the database lists other solvents and non-petroleum hydrocarbons as the potential contaminants of concern. PES is assisting Anton in working with ACEH to obtain SLIC case closure as part of the site redevelopment process.

The site is also listed under Mike Roberts Color Production (6707 Bay Street) in the Leaking Underground Storage Tank (LUST) database due to the reported release from the former underground storage tanks (USTs). The LUST case (ACEH fuel leak case number RO0000548) has been conditionally closed by ACEH under conditions associated with a deed notice.

A public notice document entitled: *Invitation to Comment – Potential Case Closure, Mike Roberts Color Production, 6707 Shellmound (Formerly Bay) Street, SITE CLEANUP PROGRAM RO0000548, GEOTRACKER GLOBAL ID T0600100894,* was distributed to property owners and current occupants of adjacent properties and known interested parties as required by ACEH. The public comment period was held from April 20 through May 20, 2015 to review and comment on the potential closure of the open case. No comments were received from the public during the public comment period.

A conceptual site model (CSM) was developed for the site and was submitted to ACEH on February 6, 2015. Background information, including the results of previous investigations conducted at the site, is provided in a document entitled *Site Management and Contingency Plan* (SMP) prepared for the site dated May 19, 2015. A summary of the current site conditions, site setting, site geology and hydrogeology, redevelopment plan, cut and fill evaluation, and the results of soil gas surveys conducted in 2013 and 2015 are presented below.

The objective of the proposed pre-construction subsurface investigation is to evaluate the subsurface for the presence of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), metals, and/or asbestos-containing material (ACM) related to historical deposition of fill material beneath the site or previous industrial activities conducted at the site. The primary components of the proposed investigation include:

- A soil gas survey to further address potential vapor intrusion concerns beneath former industrial features, existing buildings, and proposed future building areas including first-floor residential units and common areas;

- Additional confirmation soil gas sampling to assess conditions associated with VOCs or elevated laboratory detection limits for VOCs reported for soil gas and sub-slab vapor samples collected in April 2015;

- Shallow soil sampling to assess the condition of soil anticipated to be disturbed during site redevelopment, including: (1) soil to be excavated to accommodate the future building foundation, pavement sections, landscape and surface water infiltration features; and (2) soil within proposed utility trenches. Assessment of soil in these areas will provide additional data to facilitate future construction worker safety and proper management of disturbed soil;

- Shallow soil sampling to assess the condition of soil beneath proposed exterior landscaped and play areas to confirm no concerns exist with respect to potential future residential occupant exposure; and

- Confirmation soil sampling within the former UST area to assess soil conditions associated with benzene reported in one soil gas sample collected in April 2015.

BACKGROUND INFORMATION

Current Site and Vicinity Characteristics

The site is located at 6701, 6705, and 6707 Shellmound Street (previously known as Bay Street), in a mixed industrial, commercial, and residential area of Emeryville, Alameda County, California. The site buildings consist of a two-story office building and a warehouse building (Plate 2). A second story mezzanine-level area is located in the northern portion of the warehouse. The warehouse and office building are connected by a 1-story lobby/receptionist area. The footprints of the office and warehouse buildings occupy approximately 7,470 and 43,850 square feet, respectively, and both buildings have slab-on grade foundations. The exterior of the subject property consists of landscaped areas and asphalt paved parking and driving areas. The site consists of a single legal parcel covering approximately 2.27 acres and identified by Alameda County Assessor's Parcel Number (APN) 049-1490-002.

The site is bounded to the west and north by the Ashby Avenue off-ramp from Interstate 80, to the south by a commercial building, and to the east by Shellmound Street and a railroad right-of-way. The site buildings and adjacent areas are shown on Plate 2.

According to the United States Geological Survey (USGS) *Oakland West, California* Quadrangle 7.5-minute series topographic map dated 1993, the site is situated at an elevation of approximately 18 feet above mean sea level. The site is relatively flat, but the vicinity slopes gently to the west/southwest. The nearest surface water body is San Francisco Bay, located approximately 1,000 feet west of the subject property.

Site Geology and Hydrogeology

Based on the results of investigations performed on the subject property and in the vicinity, the site is underlain by fill material overlying deposits of native silts and clays known locally as Old Bay Mud. The fill material ranges in thickness from approximately 10 to 19 feet and consists primarily of coarse-grained sands and gravels that contain varying amounts of fines, and fine-grained silts and clay. The fill material has been encountered throughout the site and is generally most abundant on the western half of the site and at depths below approximately 8 to 10 feet below ground surface (bgs). The fill material often contains debris (e.g., brick, concrete, metal, asphalt, glass, wood, fabric, and rubber). Fine-grained soils are present directly below the fill material. These soils generally consisted of dark-colored clays and occasional silts with organic material that represent Old Bay Mud deposits.

Depth to groundwater varies locally but is generally shallow. Shallow groundwater at the site is present at depths ranging from approximately at approximately 8 to 12 feet bgs. Based on topography and the results of historical groundwater investigations performed at the site, the predominant groundwater flow direction beneath the site is to the south-southwest toward the San Francisco Bay with localized flow towards the west-northwest in the area of the former USTs in the eastern portion of the site.

Previous investigations have shown that the fill materials at the site and other similarly filled properties in the vicinity contain residual contamination with related impacts to shallow groundwater. Contamination found and attributed to the non-native fill materials originally used to create the land along the bay-shore area of Emeryville including the site and immediate vicinity includes impacts related to TPH, VOCs, SVOCs, PCBs, and metals[1].

2013 Soil Vapor Analytical Results

As part of an April 2013 investigation, ENVIRON collected soil gas samples at locations SG-1 through SG-5 for analysis of VOCs (Plate 3). VOCs were detected in soil gas samples collected from locations SG-1 through SG-5. Benzene was detected at locations SG-1, SG-3, SG-4 and SG-5 at concentrations of 8.6 to 73 micrograms per cubic meter ($\mu g/m^3$). The concentration of 73 $\mu g/m^3$ detected at SG-3 is above the Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Environmental Screening Level (ESL) for shallow soil gas at residential sites which is 42 $\mu g/m^3$. The presence of tracer gas and elevated levels of oxygen and argon in the soil gas sample from SG-3, suggest that the sample may have been affected by ambient air and therefore may not be representative of subsurface conditions.

[1] PES, 2015. Conceptual Site Model, 6701 – 6707 Shellmound Street, Emeryville, California, Fuel Leak Case No. RO0000548, GeoTracker Global ID T0600100894. February 6.

2015 Soil Vapor Analytical Results

In April 2015, a limited soil vapor and sub-slab investigation was conducted by PES to further evaluate subsurface conditions in the vicinity of the former USTs and beneath concrete slab of the existing warehouse building. The additional investigation included conducting soil gas and sub-slab vapor sampling for VOCs, methane, carbon dioxide, and oxygen in order to advance the open SLIC case towards closure and assess the site for potential vapor intrusion concerns. Accordingly, PES and its subcontractor collected soil gas samples from three exterior locations at approximate depths of 5 and 10 feet bgs and sub-slab vapor samples from four interior locations at the site for analysis of VOCs (including methyl ethyl ketone [MEK] and methyl isobutyl ketone [MIBK]), methane, carbon dioxide, and oxygen. Samples of vapor within the shroud and soil vapor samples were also analyzed for the leak detection compound, 1,1-difluoroethane (1,1-DFA). A detailed description of PES' April 2015 soil gas and sub-slab vapor investigation is presented in the SMP.

Soil Vapor Sampling and Analysis Results

The analytical results indicate residual levels of VOCs, including benzene, toluene, ethylbenzene, and xylenes (collectively, BTEX compounds), MEK, and MIBK, are present in soil gas at approximate depths of 5 and 10 feet bgs in the vicinity of the former USTs. Benzene was detected in one soil gas sample (location SV2 at a depth of 5 feet bgs) at a concentration above applicable ESLs developed for a residential setting, but well below the respective ESLs developed for commercial/industrial settings. Other VOCs detected in soil gas were below applicable residential ESLs. Although vinyl chloride was not detected above laboratory reporting limits, the reporting limit for vinyl chloride for sample SV3 at 10 feet bgs was above the applicable residential ESL. Methane was not detected in the soil vapor samples at or above the laboratory reporting limit, carbon dioxide was detected at levels ranging from 4.52 percent by volume (%volume) to 13.6 %volume, and oxygen levels ranged from 6.53 %volume to 15.9 %volume. The leak detection compound, 1,1-DFA, was not detected at or above the laboratory reporting limit in any of the soil gas samples.

Sub-Slab Vapor Sampling and Analysis Results

Low levels of VOCs, including tetracholoroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), styrene, and MEK were detected in sub-slab vapor samples collected beneath the warehouse building. Using the California Department of Toxic Substances Control (DTSC) recommended attenuation factor of 0.05 for estimation of indoor air concentrations based on sub-slab vapor analytical results, PCE reported in sample SSV1 is above the concentration which would theoretically result in an indoor air concentration above the applicable residential ESL. The result is also slightly above the concentration which would theoretically result in an indoor air concentration above the applicable commercial/industrial ESL. The reported results for other VOCs are well below the concentrations which would theoretically result in indoor air

concentrations above applicable ESLs. Methane was not detected in the sub-slab vapor samples at or above the laboratory reporting limit, carbon dioxide was detected in three of the four samples at levels ranging from 0.272 % volume to 4.25 %volume, and oxygen levels ranged from 8.97 %volume to 19.1 %volume. The leak detection compound, 1,1-DFA, was not detected at, or above, the laboratory reporting limit in any of the sub-slab vapor samples.

As discussed in the SMP, a vapor mitigation system will be designed and installed beneath the floor slab to mitigate the potential accumulation and migration of VOCs in soil vapor into ground floor building areas following the proposed redevelopment of the site. The system will consist of impermeable vapor barriers with passive venting.

Redevelopment Overview

Current improvements on the subject property, as shown on Plate 2, consist of two commercial buildings (a two-story office building and a single-story warehouse building), surface-level parking, and landscaped areas. The site has most recently been operated by Nady for packaging and distribution of communication systems, such as wireless microphones and specialty audio systems.

The redevelopment plans for the subject property include construction of a new multi-unit residential building with related amenities and facilities including parking, bike storage, fitness areas, lobby, leasing office, laundry room, and mail room. The building will be a seven-story at-grade (i.e., no basement levels) structure that will occupy the majority of the subject property (refer to Plates 3 and 4). The building foundation will consist of a 24-inch thick, structural reinforced concrete mat foundation on drilled displacement piers. Drilled displacement piers will not produce significant volumes of soil requiring management, as the drilling technique displaces the soil into the borehole walls. The foundation design does not include grade beams, footings, or other features which would require excavation of soil prior to construction, other than the foundation slab itself.

The ground level (first floor) and second floor will be comprised primarily of parking areas with some residential units, a lobby, and amenities areas, with five levels of residential units on the upper floors. Common areas (main entrance and lobby, fitness room, bike repair room/storage, dog spa) will be located on the first floor in the east portion of the new building along Shellmound Street. Elevators will provide access from the ground level to floors two though seven. Elevators will be “pitless” type and will not penetrate the mat foundation.

New sidewalk and landscaping will be installed on the east side (front) of the building site along Shellmound Street. Vehicle access will be via a new driveway entrance off Shellmound Street at the southeast corner of the site (replacing the existing entrance off Shellmound Street). The driveway will consist of permeable pavement (constructed with both surficial grasscrete and decomposed granite) and concrete sidewalks. Open spaces consisting of concrete pathways, synthetic turf and landscape rock over turf block, and planter areas functioning as

infiltration galleries will be located around the north, west and south perimeters of the site. A playground/dog park area and outdoor fitness area are planned to occupy the southwest and northeast corners of the site, respectively. After redevelopment, the entire site will be covered by the building and paved parking areas and sidewalks with the exception of planter areas, playground/dog park area and outdoor fitness area. The conceptual ground floor development plan is shown on Plates 3 and 4.

Redevelopment construction activities will include: (1) removal of existing building foundations/slabs, surface parking, curbs, sidewalks, trees, planting areas, and light poles; (2) grading; (3) installation of drilled displacement piers; (4) excavation and installation of building foundations; (5) trench excavation and underground utility installation; and (6) installation of new curbs, sidewalks, landscape/planting areas, trees, and new pole-mounted lights.

Cut and Fill Evaluation

The redevelopment activities anticipated to involve disturbance of on-site soil which will require management are: (1) soil to be excavated to accommodate the future building foundation, pavement sections, landscape and surface water infiltration features; and (2) trench excavation and underground utility installation. Site-wide grading activities will not be conducted as part of redevelopment activities, however, soil will be excavated across a significant portion of the development to accommodate the building foundation and pavement sections. In addition, trench excavation for utility installation will involve the removal, handling, and replacement of soil along proposed sanitary and storm sewer alignments.

PES conducted a cut and fill evaluation to estimate the vertical and lateral extent of soil to be disturbed during construction. The evaluation was based on: (1) existing site grade and elevation information derived from an April 2013 ALTA/ACSM Land Title Survey map of the site; (2) a preliminary grading and utility plan prepared by Luk and Associates dated August 3, 2015; (3) an assumed uniform foundation slab thickness of 24 inches underlain by up to 6 inches of sand (Personal communication, Ms. Jackie Luk, Luk and Associates, August 4, 2015); and (4) assumed 2-foot wide utility trenches, extending 6 inches below utility conduits, and assuming parallel conduits less than 5 feet apart will be installed within the same trench with 12 inches of clearance between conduits and trench walls.

Estimated cut and fill areas and proposed utility conduit locations are shown in plan view on Plate 4 and in cross-section view on Plates 5 through 8. The approximate volume of soil anticipated to be disturbed during excavation for building foundations is 3,300 cubic yards (cy) in-place (Personal communication, Ms. Jackie Luk, Luk and Associates, August 4, 2015). An additional volume of soil will be disturbed during the excavation of the upper 2 feet of soil located within the area of the driveway and landscaped areas. The pre-construction subsurface investigation scope of work is designed to meet or exceed the minimum soil sampling

frequency specified in the DTSC's *Information Advisory - Clean Imported Fill Material* dated October 2001 (minimum of one sample every ½-acre [for in-place soil], or four samples for the first 1,000 cy plus one sample per each additional 500 cy [for stockpiled soil]).

SCOPE OF WORK

The scope of work to be conducted is presented below. The scope of work includes collection and analysis of soil gas samples from 39 locations and soil samples from 41 locations at the site. Where feasible, soil gas and soil samples will be collected from the same boring. Table 1 presents the sample name, depth, elevation, rationale, and proposed analytical program for each proposed soil gas and soil sample.

As shown on Plate 3, soil gas sampling will be conducted beneath to-be-constructed first floor residential units, common areas (main entrance and lobby, fitness room, bike repair room/storage, dog spa), and the building foundation perimeter. Additionally, as shown on Plate 3, the proposed soil gas sampling includes assessment of former industrial features and previous sampling locations including: (1) inferred pipeline alignment from mezzanine level sumps to a former sump located at the exterior of the existing building; (2) a former drum storage area on the exterior of the existing warehouse; (3) a previous excavation area located west of the western subject property boundary; (4) previous soil gas sampling locations SG-3 and SV3; and (5) previous sub-slab vapor sampling location SSV1.

As shown on Plate 4, soil sampling will be conducted in areas where soil disturbance is anticipated as part of redevelopment, including within proposed excavation areas (cut sections) for installation of building foundations, pavement sections, and landscape and surface water infiltration features, and along proposed utility alignments where soil will be temporarily displaced during trenching activities. Additional soil samples will be collected beneath future exterior areas such as the playground/dog park area and outdoor fitness area. A soil sample will also be collected at previous soil gas sampling location SV-2.

Task 1 - Field Planning Activities

Prior to initiating field activities at the site, PES will update our site-specific Health and Safety Plan (HASP). The HASP will comply with applicable federal and California Occupational Safety and Health Administration (OSHA) guidelines. A drilling permit will be obtained from the Alameda County Public Works Agency, Water Resources Section (ACPWA).

Underground Service Alert will be contacted to schedule visits by public and private utility companies to locate their underground utilities. In addition, a private underground utility locating service will be contracted to conduct a subsurface electromagnetic survey to screen the proposed sampling locations for the presence of subsurface utilities.

Task 2 – Additional Soil Gas Investigation

An active soil gas investigation will be conducted to further assess the distribution of VOCs within the vadose zone at on-site locations. The active soil gas investigation will be conducted in accordance with the procedures outlined in the *Advisory – Active Soil Gas Investigations* published by the Department of Toxic Substances Control, the Regional Water Quality Control Board, Los Angeles Region and the RWQCB dated July 2015. As shown on Plate 3, soil gas samples will be collected at 39 proposed locations across the site. In areas of the site where no building is proposed, soil gas samples will be collected at depths of 5 and 10 feet bgs, to the extent practicable. At sample locations proposed beneath future building foundations, PES will attempt to collect soil gas samples at depths of 5 and 10 feet below the top of proposed building foundations, but no less than 5 feet below existing ground surface. Soil gas samples will be collected from temporary soil gas probes installed using a truck- or dolly-mounted, limited access drilling rig equipped with direct push technology (DPT). At interior locations where limited access conditions preclude the use of a DPT drilling rig, sub-slab vapor samples may be collected from temporary sub-slab vapor probes installed using hand-held equipment, as necessary.

Interior of Existing Warehouse Building

As shown on Plate 3, soil gas samples will be collected at 19 locations in the interior of the existing warehouse building. Eighteen of these locations (SV8 through SV25) will be positioned on an approximate 60-foot by 40-foot grid of the existing warehouse building. Sample location SV24 will also be positioned to further assess previous sub-slab vapor sample location SSV1. Six of the locations within the above-referenced grid (SV-10, SV13, SV16, SV19, SV22, and SV25) will be shifted to allow assessment of soil gas conditions beneath the foundation perimeter of the to-be constructed building. Two of the interior sample locations (SV24 and SV37) will be positioned beneath future first-floor residential units.

Exterior of Existing Warehouse Building

As shown on Plate 3, soil gas samples will be collected at 20 locations exterior to the existing warehouse building. Six of these locations (SV27 through SV32) will be positioned at approximate 40-linear foot intervals along the inferred location of the former drain line from the mezzanine sumps to the former exterior sump. Eight of the exterior sample locations (SV35, SV36, SV38, SV39, and SV43 through SV46) will be positioned beneath proposed first floor residential units (two of these locations will also assess conditions beneath the former drum storage area of the west side of the existing warehouse building). Five of the exterior sample locations (SV5, SV6, SV7, SV26, and SV40) will be positioned beneath proposed common areas. Sample location SV7 will also assess conditions at previous soil gas sample location SV3. Sample location SV33 will be positioned to further assess previous soil gas sample location SG-3.

Soil Gas Probe Installation and Sampling

Soil gas samples will be collected with a Geoprobe™-type sampling device outfitted for soil gas sample collection, where access allows. At interior locations where access for a DPT drilling rig is not feasible, sub-slab soil gas samples may be collected using hand-held equipment. Soil gas samples will not be collected in exterior areas of the site within five days following a significant rain event, defined as ½-inch or greater of rainfall during a 24-hour period.

Soil gas samples will be collected by installing a 1-inch diameter, hollow, stainless-steel, soil gas probe to the required sampling depth (5 feet bgs or 10 feet bgs). Groundwater is not expected to be encountered during the investigation. However, if wet soil is observed at depths above 10 feet bgs, the deeper soil gas probe installation depth will be adjusted to sample soil gas within the vadose zone above the capillary fringe. The probes will be equipped with a hardened, reverse-threaded steel tip. The probe will be driven to the required depth using a hydraulic-drive, direct-push sampling rig. Upon reaching the target depth of 10.25 feet bgs at each location, a new ceramic soil vapor probe will be placed at approximately 10 feet bgs within a #2/12 sand pack extending 3 inches above and below the sampling interval, and attached to new ¼-inch diameter Teflon™ tubing extending to ground surface. One foot of dry granular bentonite will be placed on top of the sand pack to preclude the infiltration of hydrated bentonite grout into the sand pack. The borehole annular space between approximately 8.75 and 5.25 feet bgs will be filled with hydrated bentonite.

A shallower soil vapor probe will be installed within the same borehole as the deeper probe at each location scheduled for soil gas sampling. The shallow probe tip will be placed at approximately 5 feet bgs within a #2/12 sand pack extending 3 inches above and below the sampling interval, and attached to new ¼-inch diameter Teflon™ tubing extending to ground surface. One foot of dry granular bentonite will be placed on top of the sand pack. The borehole annular space from approximately 3.75 feet bgs to ground surface will be filled with hydrated bentonite. The upper end of the tubing for each probe will be capped with a vapor-tight fitting and marked at the surface to identify the probe location and depth. Each soil gas probe will be allowed to equilibrate for a minimum of 2 hours prior to purging and gas sampling.

Prior to purging and the collection of soil gas samples, shut-in leak testing will be performed. The shut-in test will consist of assembling the above-ground sampling apparatus (e.g., valves, lines and fittings downstream from the top of the probe) and evacuating the lines to a measured vacuum of approximately 100 inches of water column (in-H2O), then shutting the vacuum in with closed valves on opposite ends of the sampling train. A vacuum gauge will be used to assess if there is any observable loss of vacuum (for at least one minute) prior to purging and the collection of soil gas samples. If observable vacuum loss is noted, the sample train will be re-assembled and the shut-in test will be repeated. This process will be repeated as necessary until a successful shut-in test has been performed.

The purge volumes of the sampling tubing and void within the bottom of the exposed portion of the soil gas probes will be calculated. A default of three probe volumes will be purged prior to the collection of the soil gas samples. The stagnant air will be purged with a six-liter SUMMA™ canister. A 1-liter SUMMA™ canister that is batch-certified clean by a California-certified analytical laboratory will be utilized to collect the soil gas sample.

Following completion of the shut-in leak test and purging, sample train leak testing will be performed using helium gas as a tracer in combination with a shroud box. A leak test will be performed each time a soil gas sample is collected to evaluate whether a good seal has been established in the sampling train, ground surface, and probe interface. The tracer shroud box will consist of a polycarbonate box equipped with a sampling port. The bottom of the shroud box will be positioned over the wellhead with the sample collection tubing passing through the bottom. Once in position, the sample train will be connected to the SUMMA™ canisters, and the shroud box will be placed over entire sample train. The shroud box will be equipped with an access port to allow charging of the box with the helium tracer. Prior to opening the SUMMA™ canister, the shroud box will be charged by spraying helium into the shroud box using a regulator. The shroud box will be allowed to remain in place for the duration of sampling.

Following collection of the soil gas sample at each location, the soil gas sampling probe will be removed from the borehole and decontaminated. A new soil gas sampling probe and new tubing will be used for the collection of each soil gas sample. Following completion of the soil gas sampling from each probe, the boreholes will be grouted with a bentonite/cement slurry.

Sub-Slab Vapor Port Installation and Sampling

As noted above, at interior soil gas sample locations where access for a DPT drilling rig is not feasible, sub-slab soil gas samples may be collected. Each sub-slab sampling port will be installed by drilling a 5/8-inch diameter hole through the concrete slab and into the underlying fill material using a hand-operated rotary hammer drill. A sub-slab implant, consisting of a 3-inch long purpose-made brass barb fitting and silicone sleeve (Vapor Pin™, manufactured by Cox-Colvin & Associates of Plain City, Ohio), will be advanced into the drill hole using a dead blow mallet. A secondary seal consisting of a 1-inch thick layer of hydrated bentonite will be placed at the interface between each implant and the surrounding concrete slab. Each implant barb will be fitted with a vapor- and water-tight rubber cap. Each sub-slab vapor sampling point will be allowed to equilibrate for a minimum of two hours after installation.

Each implant will be connected to a clean laboratory-provided vapor purging and sampling apparatus using new Teflon™ tubing, followed by a shut-in test on each sampling apparatus for a minimum one minute period, as described above. Following a successful shut-in test, the sample tubing and sub-slab implant will be purged of a minimum of three volumes. Purging and collection of sub-slab vapor samples will be performed using a flow rate of 100 to 200 milliliters per minute (mL/min) and maintaining a vacuum of less than 100 in-H_2O to mitigate ambient air breakthrough into the samples. Sample train leak testing will be performed using helium as a tracer in combination with a shroud box as described above. Each sample canister will be filled until the vacuum gauge reads approximately 5 inches mercury (in-Hg).

Following the completion of the sub-slab vapor sampling at each location, the sub-slab vapor port will be removed and the slab will be sealed with neat cement and concrete and repaired to match the surrounding surface.

Soil Gas Sample Analysis

Following completion of soil vapor and sub-slab vapor sampling, each SUMMA™ canister will be transported under chain-of-custody protocol to a stationary State of California-certified analytical laboratory. The soil gas and sub-slab vapor samples (if any) will be analyzed for VOCs including MEK, MIBK, and naphthalene using U.S. Environmental Protection Agency (U.S. EPA) Method TO-15 and helium using ASTM International (ASTM) Method D1946. The soil gas samples will also be analyzed for methane, carbon dioxide, and oxygen using ASTM Method D1946. Sample depth, elevation, rationale, and proposed analytical program for each soil gas sample location are presented on Table 1.

Task 3 – Soil Sampling Activities

As shown on Plate 4, soil samples will be collected at 41 proposed locations across the site. 22 of these locations (SB19, SB21 through SB34, SB36, SB38, SB39, SB43, SB45, and SB-48) will be positioned along proposed utility trench alignments, and will also assess proposed soil cut areas beneath pavement sections or landscape features. Sample location SB28 will also assess conditions at previous soil gas sampling location SV2. Four of the sample locations (SB35, SB37, SB40, and SV32) will be positioned within proposed cut areas associated with future surface water infiltration galleries. Eleven of the soil sample locations (SV6, SV8, SV10, SV14, SV16, SV20, SV22, SV33, SV37, SV43, and SV45) will be positioned within future soil cut areas for the proposed building foundation. Sample location SV33 will also be positioned to further assess previous soil gas sample location SG-3. Four of the sample locations (SB40, SB41, SB42, and SB46) will be positioned to assess soil beneath the future dog park/playground and outdoor fitness areas.

Continuous soil cores will collected by driving a 5-foot long by 2.25-inch outside-diameter open-tube sampler into undisturbed soil. The open-tube sampler will be lined with a new clear acetate sample sleeve. Soil samples collected for non-volatile compounds will be collected by removing a 6-inch long section of the acetate sample sleeve in the target depth interval and sealing the sample with Teflon™ liners and plastic end caps. Soil samples to be submitted for analysis of volatile compounds will collected in accordance with U.S. EPA Method 5035 using Terracore™ samplers or equivalent.

Soil cores will be field screened for VOCs using a photoionization detector (PID) with a 10.6 electron volt (eV) lamp and recorded on the soil boring log. PES will prepare lithologic logs for the continuously cored borings using the Unified Soil Classification System (USCS) and Munsell Color Index.

Sample containers will be labeled to indicate project location, job number, sample location and identification number, and time and date of collection. The samples will be immediately placed in a thermally-insulated cooler containing ice and transported under chain-of-custody protocol to a State of California-certified analytical laboratory for analysis for one or more of the following constituents:

- VOCs including BTEX compounds, MEK, MIBK, and naphthalene by U.S. EPA Test Method 8260B;
- Total petroleum hydrocarbons quantified as diesel (TPHd) and motor oil (TPHmo) by U.S. EPA Method 8015B with silica gel preparation;
- SVOCs by U.S. EPA Test Method 8270;
- Total lead by by U.S. EPA Methods 6010B and 7471A ;
- California Title 22 metals by U.S. EPA Methods 6010B and 7471A;
- PCB Aroclors by U.S. EPA Test Method 8082 (to be analyzed in the event of detections of TPHd or TPHmo at concentrations greater than 100 milligrams per kilogram [mg/kg]); and
- Asbestos bulk analysis by polarized light microscopy (PLM), Occupational Safety and Health Administration (OSHA) Method ID-191.

Sample name, depth, elevation, rationale, and proposed analytical program for each soil sample location are presented on Table 1.

Reusable downhole drilling and sampling equipment will be decontaminated using a high-pressure, hot water wash or Alconox™ wash and triple rinse prior to collecting each soil sample. Upon completion of soil sampling activities, each borehole will be grouted to the ground surface with neat cement grout in accordance with ACPWA requirements, and the surface will be restored using concrete dyed to match the surrounding material.

Task 4 - Handling, Storage, and Disposal of Investigation-Derived Waste

Investigation-derived waste (IDW) generated during the pre-construction subsurface investigation will be temporarily stored on the site. The IDW will be stored in secured, labeled 55-gallon steel drums until proper off-site management in accordance with applicable State and Federal laws can be arranged. The IDW will be disposed or recycled based on the results of the laboratory analyses.

Task 5 – Reporting

A description of the methods and procedures of the above-referenced scope of work will be presented in a report along with the results of the sampling activities. The report will also provide tabulated data, illustrations showing select contaminant concentrations, laboratory reports, findings of the completed scope of work, and recommendations, as appropriate. Additionally, the report will include revised geologic cross-sections showing the results of the additional soil gas and soil sampling and the proposed development, including locations of the building foundation, residential units, and utility trenches, to the extent practicable based on available information.

The soil gas and soil sampling results will be submitted electronically to the State Water Resources Control Board Geotracker database and ACEH file transfer protocol (ftp) site.

SCHEDULE

The project schedule has been developed as follows: (1) field preparation activities will be completed within one to two weeks of ACEH-approval of the work plan; (2) the soil gas and soil investigation will be completed within approximately one to three weeks following acquisition of the permit from ACPWA, weather permitting; (3) waste disposal to be conducted within approximately four weeks following receipt of the IDW sampling laboratory results; and (4) a report will be submitted to ACEH by September 25, 2015.

Please call Kyle Flory at (415) 899-1600 if you have any questions or comments regarding this document.

Very truly yours,

PES ENVIRONMENTAL, INC.

Morgan G. Jones, P.G.
Project Geologist

Kyle S. Flory, P.G.
Principal Geologist

Attachments: Table 1 – Proposed Sampling and Analysis Program
Plate 1 – Site Location Map
Plate 2 – Site Plan
Plate 3 – Site Plan, Proposed First-Floor Development Plan and Soil Gas Locations
Plate 4 – Site Plan, Proposed First-Floor Development Plan and Soil Sample Locations
Plate 5 – Revised Cross Section A-A' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations
Plate 6 – Revised Cross Section B-B' Showing Proposed Building Foundations, Utility Alignment, and Soil Sample Locations
Plate 7 – Revised Cross Section C-C' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations
Plate 8 – Revised Cross Section D-D' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations

cc: Rachel Green – Anton Emeryville, LLC

TABLES

Table 1
Proposed Sampling and Analysis Program
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street, Emeryville, California

Sample Location ID	Sample Rationale/Feature of Interest	Sample Depth (feet bgs)	Approximate Existing Ground Elevation (feet msl)	Approximate Future Grade Elevation (feet msl)	Approximate Sample Elevation (feet msl)	Analysis Plan								
						VOCs including MIBK, MEK, and naphthalene	TPH as diesel and motor oil	PCBs	SVOCs	Total Lead	Title 22 metals	Asbestos	Methane, Carbon Dioxide, and Oxygen	Helium (leak check compound)
Soil Gas														
SV5	Future ground-floor common and amenity areas	5 and 10	17.5	17	12.5 and 7.5	X							X	X
SV6	Future ground-floor common and amenity areas	5 and 10	18	17	13 and 8	X								X
SV7	Confirmation of previous soil gas sample SV3 elevated reporting limit for vinyl chloride	10	18	17	8	X								X
SV8	Future ground-floor common and amenity areas	5 and 10	18.5	17	13.5 and 8.5	X							X	X
SV9	Future ground-floor common and amenity areas	5 and 10	18.5	17	13.5 and 8.5	X								X
SV10	Future ground-floor common and amenity areas	5 and 10	18.5	17	13.5 and 8.5	X							X	X
SV11	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV12	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X								X
SV13	Existing warehouse, shifted near edge of future building foundation	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV14	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV15	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X								X
SV16	Existing warehouse, shifted near edge of future building foundation	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV17	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X								X
SV18	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X								X
SV19	Existing warehouse, shifted near edge of future building foundation	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV20	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV21	Existing warehouse	5 and 10	18.5	18	13.5 and 8.5	X								X
SV22	Existing warehouse, shifted near edge of future building foundation	5 and 10	18.5	18	13.5 and 8.5	X							X	X
SV23	Existing warehouse, future ground-floor common and amenity areas	5 and 10	18.5	19	13.5 and 8.5	X							X	X
SV24	Confirmation of previous sub-slab vapor sample SSV1 result for PCE; existing warehouse; future ground-floor residential units	5 and 10	18.5	19	13.5 and 8.5	X								X
SV25	Existing warehouse, shifted near edge of future building foundation	5 and 10	18.5	19	13.5 and 8.5	X								X
SV26	Future ground-floor common and amenity areas	5 and 10	16.5	18.5	11.5 and 6.5	X							X	X
SV27	Inferred former drain pipe from mezzanine sump	5 and 10	18.5	18	13.5 and 8.5	X								X
SV28	Inferred former drain pipe from mezzanine sump	5 and 10	18.5	18	13.5 and 8.5	X							X	X

Table 1
Proposed Sampling and Analysis Program
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street, Emeryville, California

Sample Location ID	Sample Rationale/Feature of Interest	Sample Depth (feet bgs)	Approximate Existing Ground Elevation (feet msl)	Approximate Future Grade Elevation (feet msl)	Approximate Sample Elevation (feet msl)	Analysis Plan								
						VOCs including MIBK, MEK, and naphthalene	TPH as diesel and motor oil	PCBs	SVOCs	Total Lead	Title 22 metals	Asbestos	Methane, Carbon Dioxide, and Oxygen	Helium (leak check compound)
SV29	Inferred former drain pipe from mezzanine sump	5 and 10	17.5	18	12.5 and 7.5	X								X
SV30	Inferred former drain pipe from mezzanine sump	5 and 10	17.5	19	12.5 and 7.5	X								X
SV31	Inferred former drain pipe from mezzanine sump	5 and 10	17.5	19	12.5 and 7.5	X								X
SV32	Former sump excavation area	5 and 10	17.5	19	12.5 and 7.5	X								X
SV33	Confirmation of previous soil gas sample SG-3 result for PCE	5 and 10	18.5	18.5	13.5 and 8.5	X								X
SV35	Future ground-floor residential units	5 and 10	18.5	19.5	13.5 and 8.5	X								X
SV36	Future ground-floor residential units	5 and 10	17	19.5	12 and 7	X							X	X
SV37	Existing warehouse; future ground-floor residential units	5 and 10	18.5	19.5	12.5 and 7.5	X								X
SV38	Former drum storage area; future ground-floor residential units	5 and 10	17.5	19.5	12.5 and 7.5	X							X	X
SV39	Former drum storage area; future ground-floor residential units	5 and 10	16.5	19.5	11.5 and 6.5	X							X	X
SV40	Future ground-floor common and amenity areas	5 and 10	17	19	12 and 7	X								X
SV43	Future ground-floor residential units	5 and 10	18	18.5	13 and 8	X								X
SV44	Future ground-floor residential units	5 and 10	18	18.5	13 and 8	X							X	X
SV45	Future ground-floor residential units	5 and 10	18	18.5	13 and 8	X								X
SV46	Future ground-floor residential units	5 and 10	18	18.5	13 and 8	X							X	X
Soil														
SB19	Future utility alignment; future pavement section	1	16	18.5	15		X	C		X				
SB20	Future utility alignment; future pavement section	2.5	17.5	17.5	15		X	C		X				
SB21	Future utility alignment; future pavement section	1	16.5	18	15.5		X	C		X				
SB22	Future utility alignment; future pavement section	1.5	17	17.5	15.5		X	C		X				
SB23	Future utility alignment; future pavement section	1.5	17.5	18	16		X	C	X		X	X		
SB24	Future utility alignment; future pavement section	1 and 2	17.5	17.5	16.5 and 15.5		X	C		X				
SB25	Future utility alignment; future pavement section	2.5	17.5	17.5	15		X	C		X				
SB26	Future utility alignment; future pavement section	1 and 3	17.5	17	16.5 and 14.5		X	C		X				
SB27	Future utility alignment; future pavement section	3.5	17.5	17	14		X	C		X				
SB28	Confirmation of previous soil gas sample SV2 result for benzene; future utility alignment	1 and 4.5	17	17	16 and 12.5	X (4.5)	X	C		X				

Table 1
Proposed Sampling and Analysis Program
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street, Emeryville, California

Sample Location ID	Sample Rationale/Feature of Interest	Sample Depth (feet bgs)	Approximate Existing Ground Elevation (feet msl)	Approximate Future Grade Elevation (feet msl)	Approximate Sample Elevation (feet msl)	Analysis Plan								
						VOCs including MIBK, MEK, and naphthalene	TPH as diesel and motor oil	PCBs	SVOCs	Total Lead	Title 22 metals	Asbestos	Methane, Carbon Dioxide, and Oxygen	Helium (leak check compound)
SB29	Future utility alignment; future pavement section	4	17	17	13		X	C	X		X	X		
SB30	Future utility alignment; future pavement section	1 and 5	17	17	16 and 12		X	C		X				
SB31	Future utility alignment; future pavement section	2 and 6	17.5	17.5	15.5 and 11.5		X	C		X				
SB32	Future utility alignment; future pavement section	1.5 and 8	17.5	16.5	16 and 9.5		X	C		X				
SB33	Future utility alignment; future pavement section	1.5 and 6	17.5	17.5	16 and 11.5		X	C		X				
SB34	Future utility alignment; future landscape area	5	17.5	17.5	12.5		X	C	X		X	X		
SB35	Future infiltration gallery	2	16.5	18	14.5		X	C		X				
SB36	Future utility alignment; future pavement section	2.5	17.5	18	15		X	C		X				
SB37	Future infiltration gallery	1	17.5	18	16.5		X	C		X				
SB38	Future utility alignment; future pavement section	2.5	17.5	18.5	15		X	C		X				
SB39	Future utility alignment; future pavement section	1	16.5	19	15.5		X	C		X				
SB40	Future infiltration gallery; future playground/dog park area	3	15.5	18.5	12.5		X	C		X				
SB41	Future pavement section	1.5	15.5	18.5	14		X	C		X				
SB42	Future playground/dog park area	3	15.5	18.5	12.5		X	C	X		X	X		
SB43	Future utility alignment; future pavement section	2	16	19	14		X	C		X				
SB45	Future utility alignment; future pavement section	1.5	16.5	19	15		X	C		X				
SB46	Future outdoor fitness area	1.5	17	17.5	15.5		X	C	X		X	X		
SB48	Future utility alignment; future pavement section	1.5	16	19	14.5		X	C	X		X	X		
SB49	Future pavement section	1.5	16.5	18.5	15		X	C		X				
SV6	Future building foundation	1.5	18	17	16.5		X	C	X		X	X		
SV8	Future building foundation	2	18.5	17	16.5		X	C		X				
SV10	Future building foundation	2	18.5	17	16.5		X	C	X		X	X		
SV14	Future building foundation	2	18.5	18	16.5		X	C	X		X	X		
SV16	Future building foundation	2	18.5	18	16.5		X	C		X				
SV20	Future building foundation	1	17.5	18	16.5		X	C	X		X	X		
SV22	Future building foundation	1	17.5	18	16.5		X	C		X				

Table 1
Proposed Sampling and Analysis Program
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street, Emeryville, California

Sample Location ID	Sample Rationale/Feature of Interest	Sample Depth (feet bgs)	Approximate Existing Ground Elevation (feet msl)	Approximate Future Grade Elevation (feet msl)	Approximate Sample Elevation (feet msl)	Analysis Plan								
						VOCs including MIBK, MEK, and naphthalene	TPH as diesel and motor oil	PCBs	SVOCs	Total Lead	Title 22 metals	Asbestos	Methane, Carbon Dioxide, and Oxygen	Helium (leak check compound)
SV32	Former sump excavation; future infiltration gallery	1.5 and 7	17.5	19	16 and 10.5	X (7)	X	C	X		X	X		
SV33	Confirmation of previous soil gas sample SG-3 result for PCE; future building foundation	1 and 4.5	18.5	18.5	17.5 and 14	X (4.5)	X	C		X				
SV37	Future building foundation	1	17.5	19.5	16.5		X	C	X		X	X		
SV43	Future building foundation	1	18	18.5	17		X	C		X				
SV45	Future building foundation	1	18	18.5	17		X	C		X				

Notes:
bgs = Below ground surface.
msl = Mean sea level.
VOCs = Volatile organic compounds.
MIBK = Methyl isobutyl ketone or 4-methyl-2-pentanone.
MEK = Methyl ethyl ketone or 2-butanone.
TPH = Total petroleum hydrocarbons.
PCBs = Polychlorinated Biphenyls.
SVOCs = Semi-volatile organic compounds.
X = Scheduled for analysis.
X (2.0) = Scheduled for analysis only at the indicated depth, in feet bgs.
C = To be analyzed contingent upon detection of TPH at a concentration or 100 milligrams per kilogram or greater.

PLATES

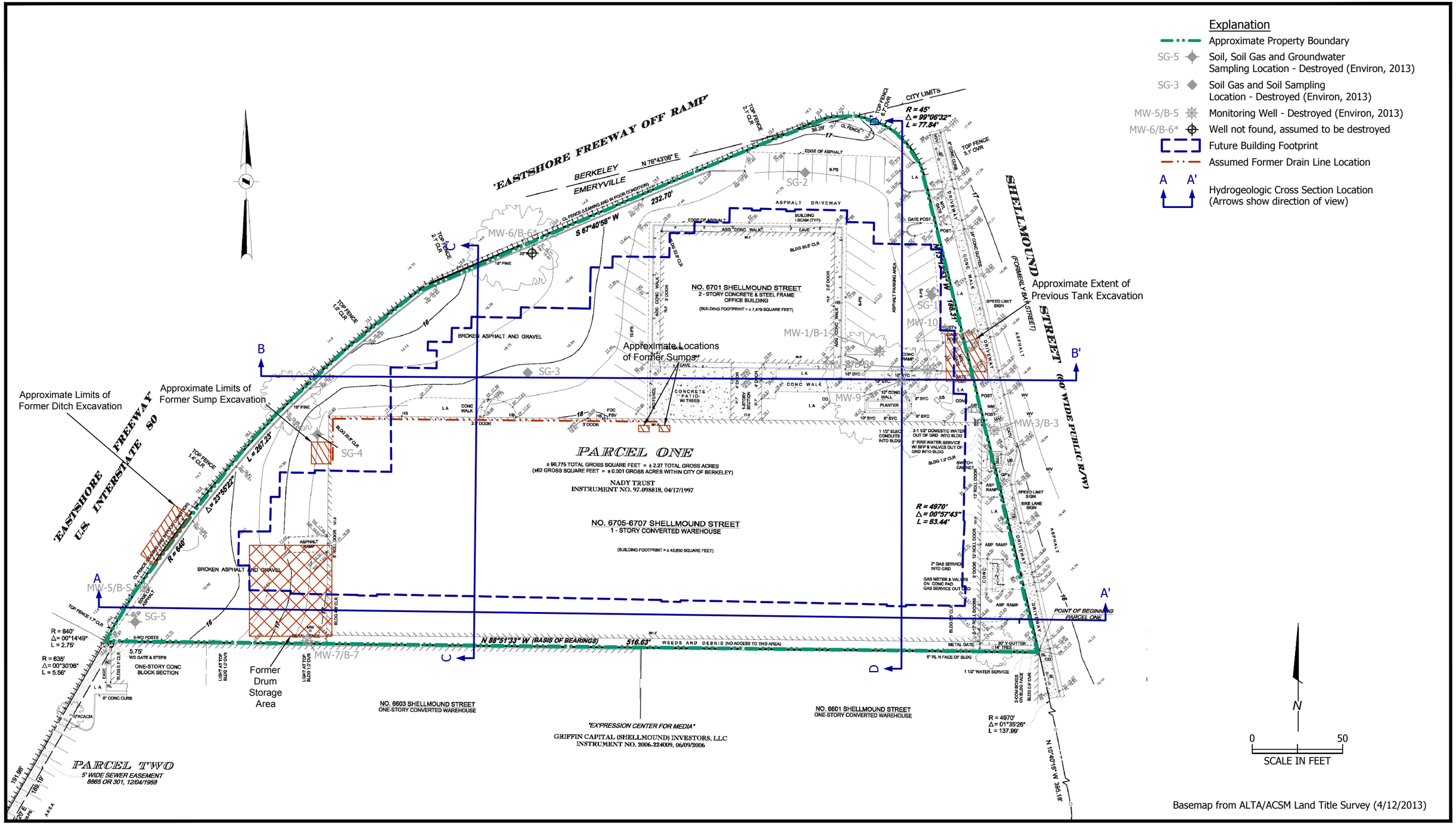
U.S.G.S. Topo Map - Oakland West, California, 7.5-minute quadrangle.1997

PES Environmental, Inc.
Engineering & Environmental Services

Site Location Map
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE
1

1448.001.01.010	1448-00101010_RevWP_1-2	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Basemap from ALTA/ACSM Land Title Survey (4/12/2013)

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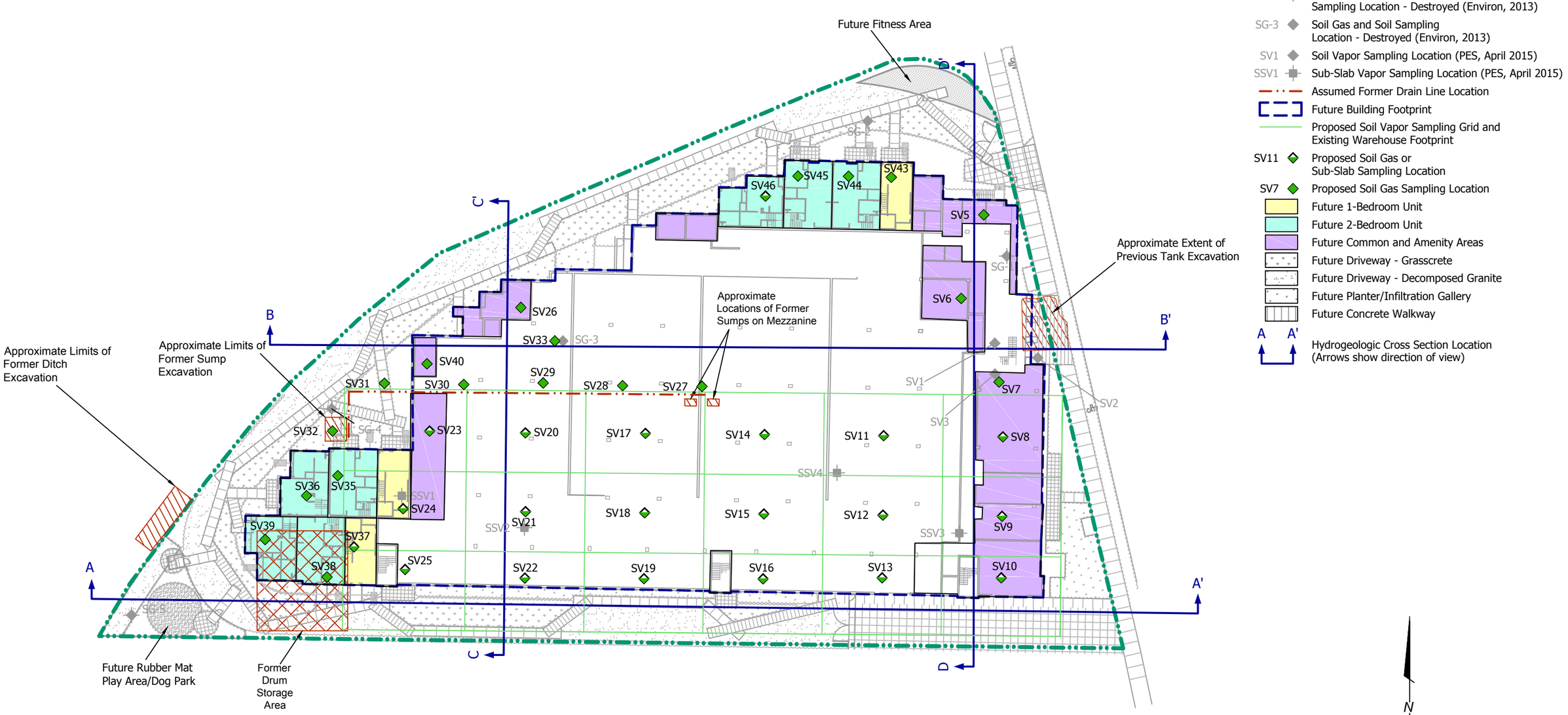
Engineering & Environmental Services

Site Plan
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE
2

1448.001.01.010	1448-00101010_RevWP_1-2	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Approximate Property Boundary
- SG-5 — Soil, Soil Gas and Groundwater Sampling Location - Destroyed (Environ, 2013)
- SG-3 — Soil Gas and Soil Sampling Location - Destroyed (Environ, 2013)
- SV1 — Soil Vapor Sampling Location (PES, April 2015)
- SSV1 — Sub-Slab Vapor Sampling Location (PES, April 2015)
- Assumed Former Drain Line Location
- Future Building Footprint
- Proposed Soil Vapor Sampling Grid and Existing Warehouse Footprint
- SV11 — Proposed Soil Gas or Sub-Slab Sampling Location
- SV7 — Proposed Soil Gas Sampling Location
- Future 1-Bedroom Unit
- Future 2-Bedroom Unit
- Future Common and Amenity Areas
- Future Driveway - Grasscrete
- Future Driveway - Decomposed Granite
- Future Planter/Infiltration Gallery
- Future Concrete Walkway
- A A' — Hydrogeologic Cross Section Location (Arrows show direction of view)

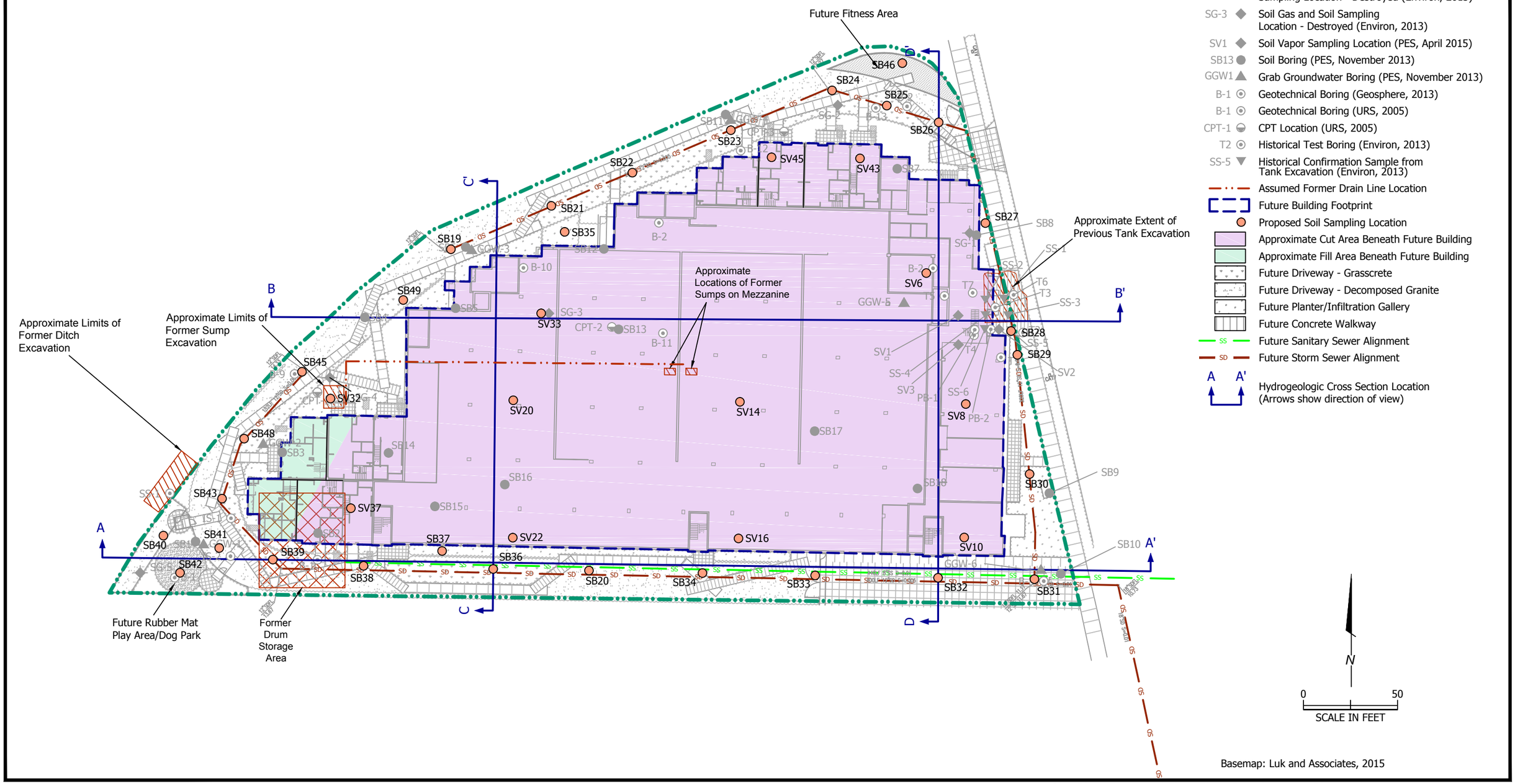
Basemap: Luk and Associates, 2015

PES Environmental, Inc.
Engineering & Environmental Services

Site Plan, Proposed First-Floor Development Plan and Soil Gas Sample Locations
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE 3

1448.001.01.009	1448-00101010_RevWP_3-4	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



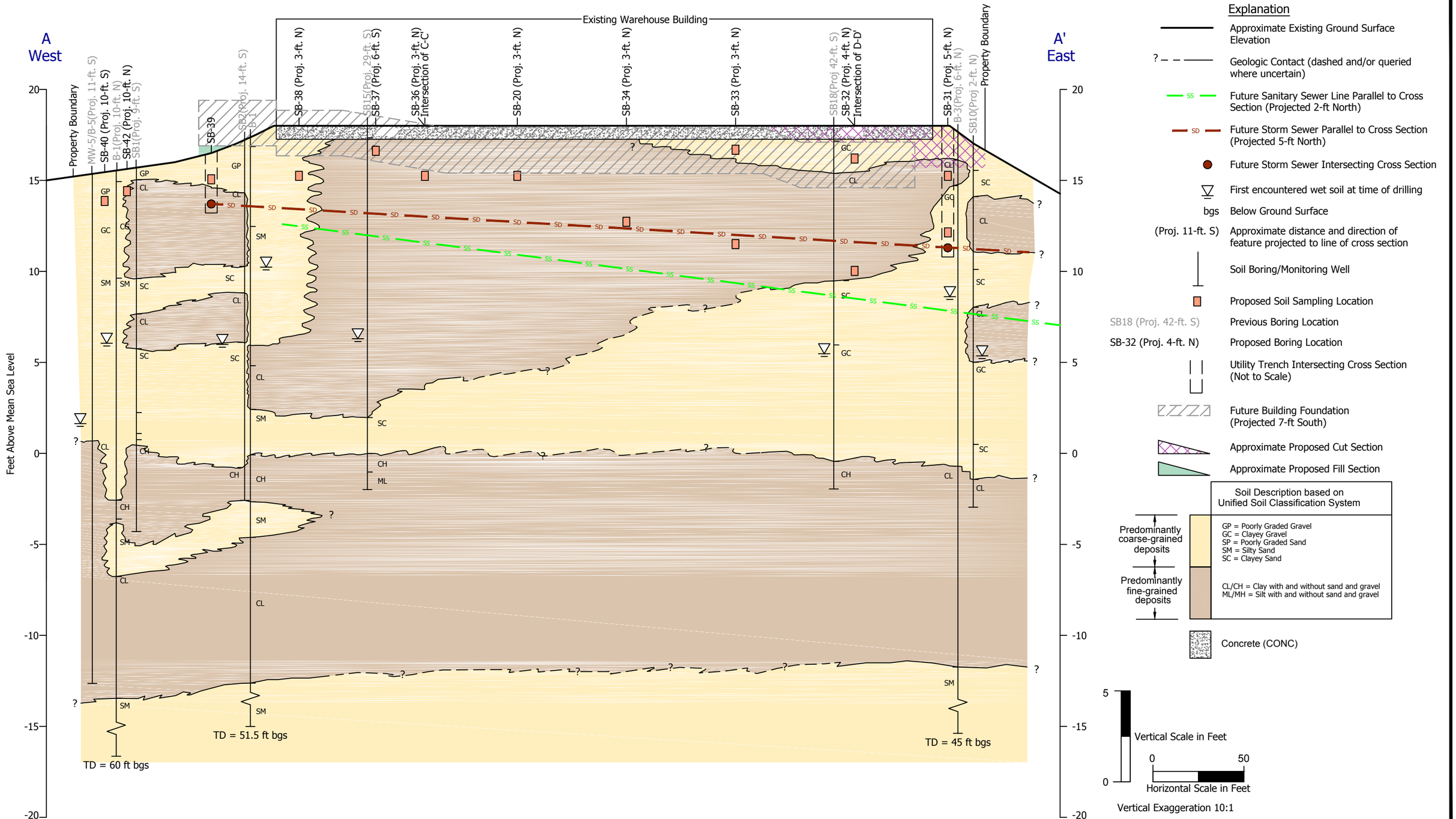
Basemap: Luk and Associates, 2015

PES Environmental, Inc.
Engineering & Environmental Services

Site Plan, Proposed First-Floor Development Plan and Soil Sample Locations
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE 4

1448.001.01.009	1448-00101010_RevWP_3-4	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Approximate Existing Ground Surface Elevation
- Geologic Contact (dashed and/or queried where uncertain)
- SS — Future Sanitary Sewer Line Parallel to Cross Section (Projected 2-ft North)
- SD — Future Storm Sewer Parallel to Cross Section (Projected 5-ft North)
- Future Storm Sewer Intersecting Cross Section
- First encountered wet soil at time of drilling
- bgs — Below Ground Surface
- (Proj. 11-ft. S) — Approximate distance and direction of feature projected to line of cross section
- Soil Boring/Monitoring Well
- Proposed Soil Sampling Location
- SB18 (Proj. 42-ft. S) — Previous Boring Location
- SB-32 (Proj. 4-ft. N) — Proposed Boring Location
- Utility Trench Intersecting Cross Section (Not to Scale)
- Future Building Foundation (Projected 7-ft South)
- Approximate Proposed Cut Section
- Approximate Proposed Fill Section

Soil Description based on Unified Soil Classification System

Predominantly coarse-grained deposits:
- GP = Poorly Graded Gravel
- GC = Clayey Gravel
- SP = Poorly Graded Sand
- SM = Silty Sand
- SC = Clayey Sand

Predominantly fine-grained deposits:
- CL/CH = Clay with and without sand and gravel
- ML/MH = Silt with and without sand and gravel

- Concrete (CONC)

5 — Vertical Scale in Feet
0

0 — 50 Horizontal Scale in Feet

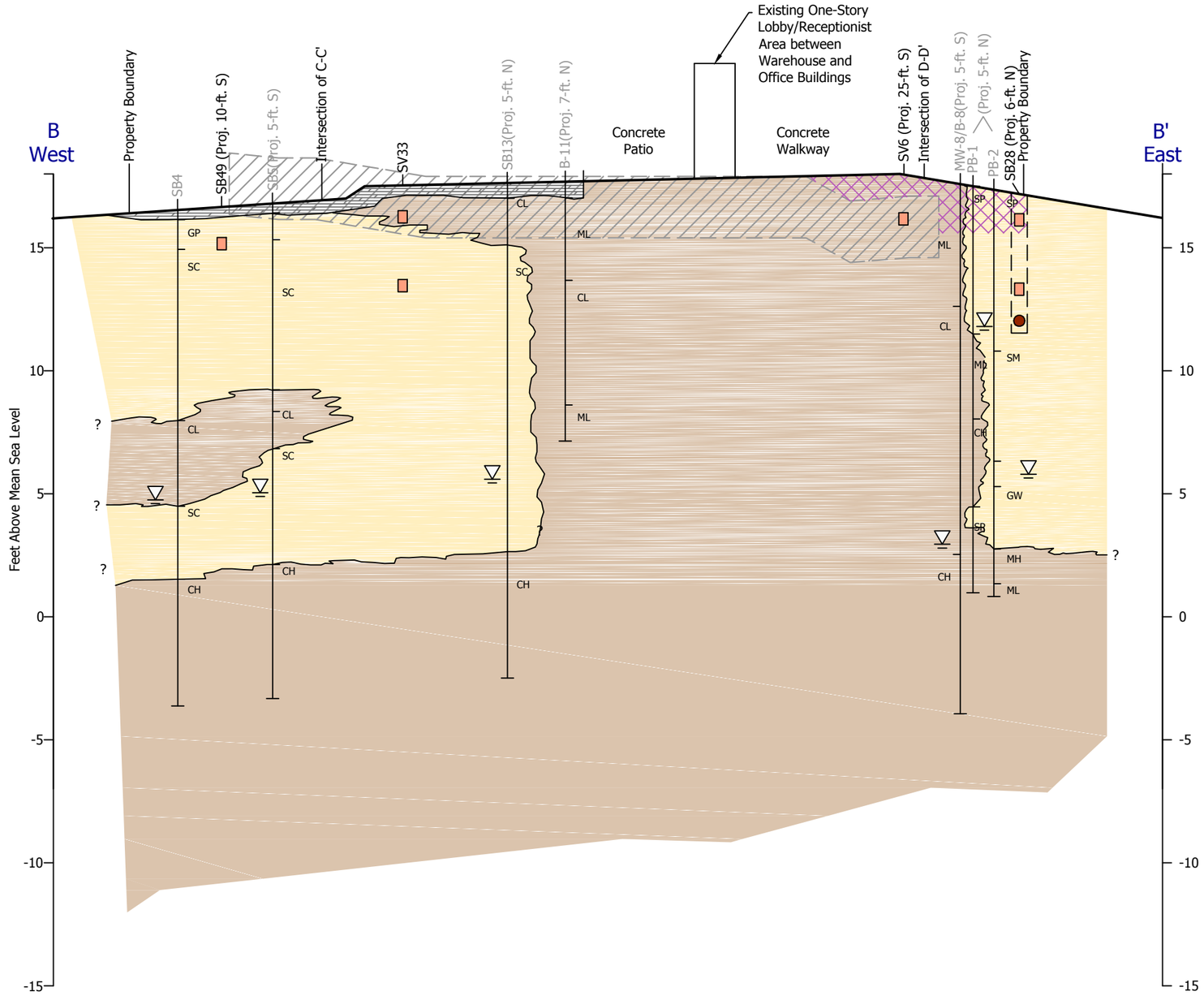
Vertical Exaggeration 10:1

PES Environmental, Inc.
Engineering & Environmental Services

Revised Cross Section A-A' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE
5

1448.001.01.010	1448-00101010_RevWP_5-8	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Approximate Existing Ground Surface Elevation
- Geologic Contact (dashed and/or queried where uncertain)
- Future Storm Sewer Intersecting Cross Section
- First encountered wet soil at time of drilling
- bgs — Below Ground Surface
- (Proj. 5-ft. S) — Approximate distance and direction of feature projected to line of cross section
- Soil Boring/Monitoring Well
- Proposed Soil Sampling Location
- SB5 (Proj. 5-ft. S) — Previous Boring Location
- SV6 (Proj. 25-ft. S) — Proposed Boring Location
- Utility Trench Intersecting Cross Section (Not to Scale)
- Future Building Foundation
- Approximate Proposed Cut Section

Soil Description based on Unified Soil Classification System

Predominantly coarse-grained deposits:
- GP = Poorly Graded Gravel
- GC = Clayey Gravel
- SP = Poorly Graded Sand
- SM = Silty Sand
- SC = Clayey Sand

Predominantly fine-grained deposits:
- CL/CH = Clay with and without sand and gravel
- ML/MH = Silt with and without sand and gravel

Asphalt (AS)

5
0
Vertical Scale in Feet
0
50
Horizontal Scale in Feet

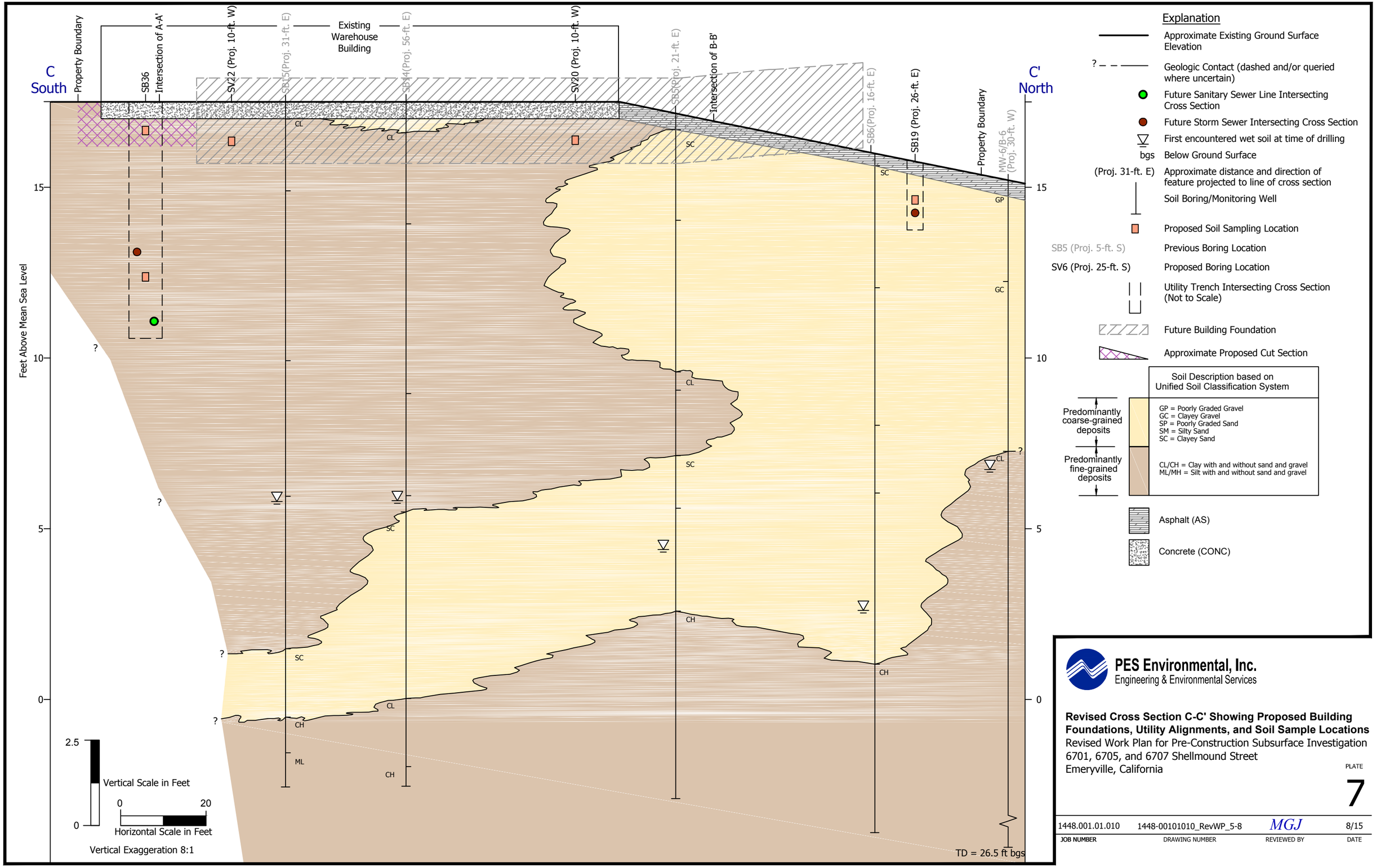
Vertical Exaggeration 10:1

PES Environmental, Inc.
Engineering & Environmental Services

Revised Cross Section B-B' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE 6

1448.001.01.010	1448-00101010_RevWP_5-8	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Approximate Existing Ground Surface Elevation
- ? – – Geologic Contact (dashed and/or queried where uncertain)
- Future Sanitary Sewer Line Intersecting Cross Section
- Future Storm Sewer Intersecting Cross Section
- First encountered wet soil at time of drilling
- bgs — Below Ground Surface
- (Proj. 31-ft. E) — Approximate distance and direction of feature projected to line of cross section
- Soil Boring/Monitoring Well
- Proposed Soil Sampling Location
- SB5 (Proj. 5-ft. S) — Previous Boring Location
- SV6 (Proj. 25-ft. S) — Proposed Boring Location
- Utility Trench Intersecting Cross Section (Not to Scale)
- Future Building Foundation
- Approximate Proposed Cut Section

Soil Description based on Unified Soil Classification System

Predominantly coarse-grained deposits:
GP = Poorly Graded Gravel
GC = Clayey Gravel
SP = Poorly Graded Sand
SM = Silty Sand
SC = Clayey Sand

Predominantly fine-grained deposits:
CL/CH = Clay with and without sand and gravel
ML/MH = Silt with and without sand and gravel

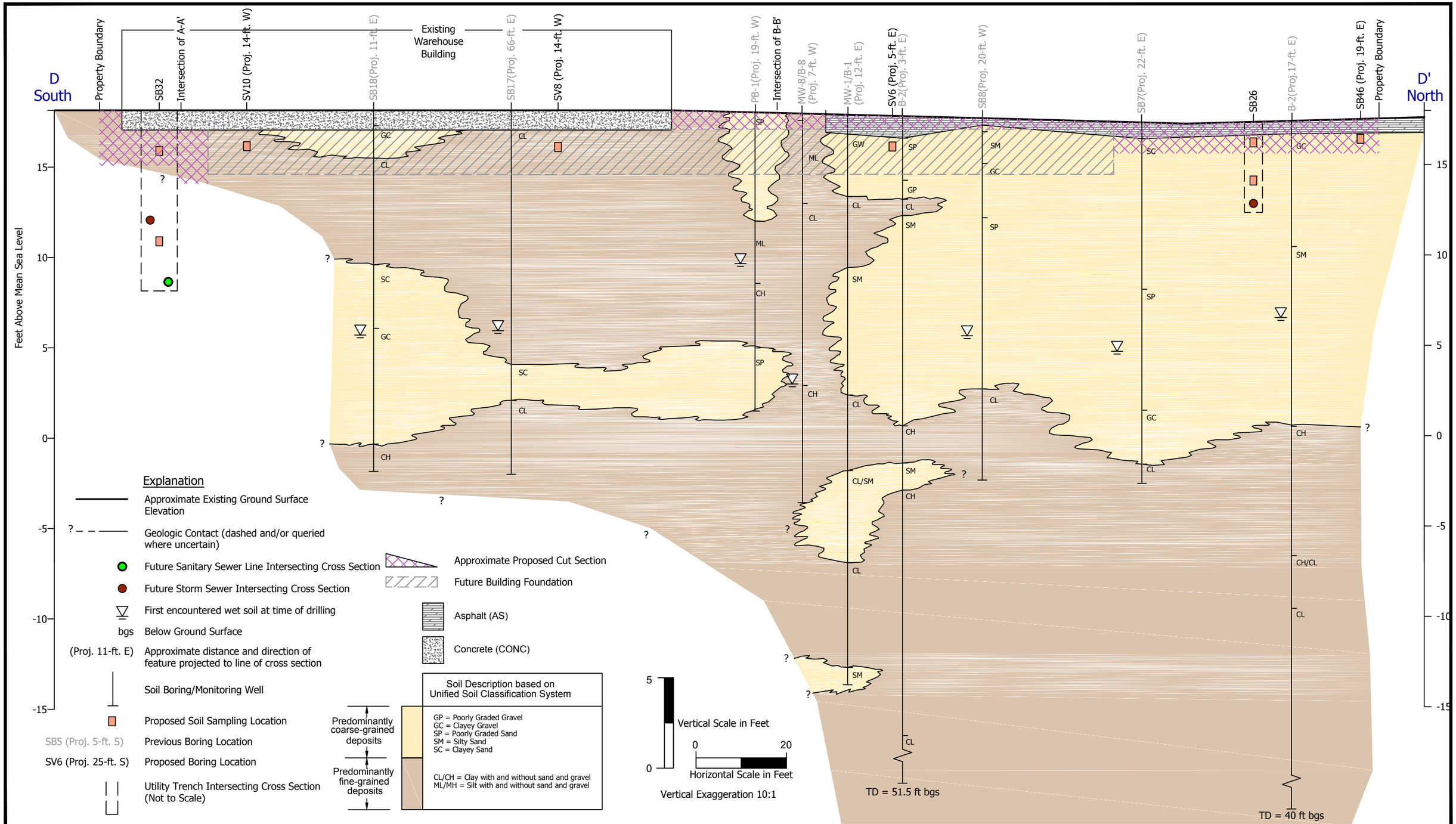
- Asphalt (AS)
- Concrete (CONC)

PES Environmental, Inc.
Engineering & Environmental Services

Revised Cross Section C-C' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE
7

1448.001.01.010	1448-00101010_RevWP_5-8	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



PES Environmental, Inc.
Engineering & Environmental Services

Revised Cross Section D-D' Showing Proposed Building Foundations, Utility Alignments, and Soil Sample Locations
Revised Work Plan for Pre-Construction Subsurface Investigation
6701, 6705, and 6707 Shellmound Street
Emeryville, California

PLATE
8

1448.001.01.010	1448-00101010_RevWP_5-8	MGJ	8/15
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE