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November 16, 2016

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By Alameda County Environmental Health 10:19 am, Nov 29, 2016

Ms. Karel Detterman, PG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Subject: Proposed Multifamily Development - 1750 Webster Street, 1810 Webster Street and 301 19th Street (APNs 008-625-017; 008-625-018; and 008-625-002-1) Oakland, California

VRAP Case No. RO0003229

SCP No. RO0002672

COVER LETTER FOR SUMMARY OF ENVIRONMENTAL ACTIVITIES REPORT

Dear Ms. Detterman:

At your request, attached is the GeoSolve, Inc. Summary of Environmental Activities for the above referenced properties located at 1750 Webster Street, 1810 Webster Street and 301 19th Street in Oakland, California with Alameda County Assessor Parcel Numbers (APNs) 008-625-017; 008-625-018; and 008-625-002-1.

Perjury Statement

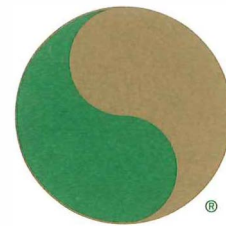
"I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge."

If you have any questions or need further information regarding this project, please call us at (415) 975-4991.

Sincerely,

Lennar Multifamily Communities
Tyler Wood.
Development Associate

MAKE IT YOURS



Project No. 2015-29
November 10, 2016

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

Subject: Proposed Multifamily Development
1750 Webster Street, 1810 Webster Street and 301 19th Street
APNs 008-625-017; 008-625-018; and 008-625-002-1
Oakland, California
VRAP Case No. RO0003229
SCP No. RO0002672
SUMMARY OF ENVIRONMENTAL ACTIVITIES REPORT

Dear Mr. Wood:

At your request, *GeoSolve, Inc.* has prepared a Summary of Environmental Activities for the above referenced properties. The subject site consists of three properties located at 1750 Webster Street, 1810 Webster Street and 301 19th Street in Oakland, California with Alameda County Assessor Parcel Numbers (APNs) 008-625-017; 008-625-018; and 008-625-002-1.

The purpose of this report is to summarize previous and current environmental conditions at the subject properties at the request of the Alameda County Health Care Services Agency (ACHCSA) to accommodate site closure activities of all three properties. The subject site has historic ACHCSA Voluntary Remediation Action Program (VRAP) Case Number RO0003229 and Former Site Cleanup Program (SCP) Number RO0002672.

Site Geology and Hydrogeology

The materials underlying the site are mapped as the Late Pleistocene Merritt Sand (Qps) by Helley and Lajoie (1979), which consists of beach and eolian (dune) sand deposits, which are loose, well-sorted, fine- to medium-grained sand with silt. The Merritt Sand is approximately 50 feet in thickness. The Merritt Sand was deposited by wind eroding and transporting steam sediments during the lower stands of sea level, which occurred approximately 40,000 years ago and may have been reworked by shoreline processes as sea levels rose. The Late Pleistocene Merritt Sand is underlain by Bay Mud and alternating layers of older alluvial deposits to approximately 1 to 2 kilometers (km). The older alluvial deposits are underlain by Cenozoic marine bedrock units.



The active trace of the Hayward Fault is situated approximately 3.4-miles northeast of the site and the Hayward Fault is considered active by the Alquist-Priolo Earthquake Fault Zoning Act (AP-Zone) of 1994, and is listed as a strike-slip fault with right-lateral movement (http://gmw.consrv.ca.gov/shmp/download/quad/OAKLAND_EAST/maps/OKLND_E.PDF).

Furthermore, the subject site is not situated within a mapped zone for liquefaction during a moderate to violent earthquake event

(http://gmw.consrv.ca.gov/shmp/download/quad/OAKLAND_WEST/maps/ozn_oakw.pdf).

Based on previous and current environmental work conducted at the site, depth to groundwater varies from 17 feet to 22 feet below ground surface (bgs) and flows toward the northeast along topography.

The subsurface geology is depicted on Geologic Cross-Sections A-A' and B-B', which are attached to this report and are shown on Figure 1. Geologic Cross-Sections A-A' and B-B' also depict previous groundwater wells, borings, proposed foundations, and proposed elevator pits. Subsurface geology consists of the Merritt Sand and silty clay units, which are discontinuous. The subsurface soil is mostly highly permeable, with the exception of the discontinuous silty clay units.

Previous Environmental Work

GeoSolve, Inc. reviewed previous environmental reports for each property associated with the subject site, which are summarized below.

301 19th Street (1833 Harrison Street)

One 5,000-gallon gasoline and one 550-gallon motor-oil USTs were removed from this property on September 10, 1991. Approximately 250 cubic yards of soil was over-excavated from the USTs and properly disposed. Analytical results indicated no detectable concentrations of petroleum hydrocarbons from the tank bottom samples collected (JM-01 through JM-06), as reported in the Environmental Assessment for Three Parcels located in Oakland, California (Applied GeoSciences, Inc., January 6, 1993). No other investigations have been conducted to date on this parcel. The location of the former gasoline service station is shown on Figure 1, Proposed Development Footprint.

On February 7 and 17, 1998, Norcal Geophysical Consultants, Inc. conducted a magnetometer survey of Parcels 008-0625-002-1 and 008-0625-004, which identified a metallic anomaly on the south-central portion of parcel 008-0625-002-1. No other information was revealed during this survey (Norcal Geophysical Consultants, Inc., March 2, 1998).

1750 Webster Street

Multiple environmental investigations were conducted on the 1750 Webster Street property, which identified elevated concentrations of petroleum hydrocarbons reported as gasoline (TPHg) and benzene, toluene, ethyl benzene and total xylenes (BTEX) in groundwater (Applied GeoSciences, Inc., April 1, 1993). Up to 200,000 micrograms per liter ($\mu\text{g/L}$) of TPHg were



detected. The geophysical survey of the property indicated metallic utility lines only. Further investigations included drilling up to twelve borings to groundwater (ATC Associates, Inc. March 19, 1998), in which TPHg was detected up to 760,000 µg/L and trichloroethylene (TCE) was detected up to 13 µg/L in borings G-3 and G-6, which are located on the southern and central portions of the property. No USTs were identified on the subject property; therefore, the TPHg, TCE and BTEX originated from an off-site and up-gradient source.

ATC Associates, Inc. drilled and installed three groundwater monitoring wells (A-1 through A-3, later renamed MW-1 through MW-3) in April 1998 (ATC Associates, Inc., September 25, 1998) on the subject property. The groundwater gradient was determined to be toward the northeast at 0.01 foot per feet (ft/ft) and TPHg was detected up to 84,000 µg/L and benzene was detected up to 12,000 µg/L in wells A-2 and A-1, which were installed on the northern and southern portion of the property. Depth to groundwater was measured at 18 feet to 20 feet bgs. The locations of wells MW-1 through MW-3 are shown on Figure 1 and the laboratory analytical results of soil samples collected from borings A-1 through A-3 are shown on Table 1 below. Groundwater analytical data is not included in this summary since the data is over 15 years old.

Current Environmental Work

1750 Webster Street, 1810 Webster Street and 301 19th Street

In October through November 2015, *GeoSolve, Inc.* conducted a Phase I Environmental Site Assessment (ESA) for all nine parcels at 1732-1734 Webster Street, 1750 Webster Street, 1801 Webster Street, 301 19th Street, 1711 Harrison Street, 1801 Harrison Street, 1805 Harrison Street, 1811 Harrison Street, and 1817-1839 Harrison Street in Oakland, California with APNs 008-0625-016; 008-0625-017; 008-0625-018; 008-0625-002-1; 008-0625-004; 008-0625-005; 008-0625-006; 008-0625-007; and 008-0625-008. The Recognized Environmental Conditions (RECs) identified at the subject property included:

- elevated concentrations of TPHg, BTEX and TCE in groundwater beneath the 1750 Webster Street property;
- the existence of a historic gasoline service station at 1833 and/or 1839 Harrison Street and a third UST maybe present on the south-central portion of the 301 19th Street property;
- possible elevated concentrations of lead and/or ACMs in the surficial soil based on the historical residences which used to occupy every parcel at the site until the late 1940s to early 1950s; and;
- up-gradient sources of TPHg, BTEX and other volatile organic compounds (VOCs) from historical uses as gasoline stations and dry cleaner facilities.



Based on the findings in the Phase I ESA, elevated concentrations of total petroleum hydrocarbons reported as gasoline (TPHg) and benzene were detected in groundwater up to 200,000 micrograms per liter ($\mu\text{g/L}$) and 14,000 $\mu\text{g/L}$ on the southern portion of the property along Webster Street, which were determined to have originated from 1721 Webster Street, which is situated approximately 300 feet northwest of the subject property and immediately up-gradient.

Phase II ESA – 1750 Webster Street and 301 19th Street – November 2015

In November 2015, *GeoSolve, Inc.* observed the advancement of three borings (B-1 through B-3) on the subject site to evaluate the concentrations of petroleum hydrocarbons in subsurface soil and groundwater in our Phase II ESA (*GeoSolve, Inc.*, November 7, 2015). The locations of borings B-1 through B-3 are shown on Figure 1. Based on the laboratory analytical results of soil samples, concentrations of TPHg, BTEX, or MTBE were not detected in all soil samples analyzed from borings B-1 through B-3 as shown on Table 2, with the exception of total xylenes. Total xylenes was the only chemical constituent detected in soil sample B1-25 at 0.016 mg/Kg, which is significantly below the California Regional Water Quality Control Board – Region 2 (RWQCB) Environmental Screening Level (ESL) of 111 mg/Kg for residential development (Table B, December 2013).

Lead was detected at 170 mg/Kg in soil sample B1-5, which exceeded the residential ESL of 80 mg/Kg and lead was detected below the residential ESL in all other soil samples analyzed from borings B-1 through B-3.

TPHg, BTEX, MTBE and lead were not detected in groundwater samples collected from borings B-2 or B-3 and the groundwater samples are shown on Table 3. MTBE was not detected in groundwater sample B-1. Lead was detected up to 0.54 $\mu\text{g/L}$ in groundwater sample B-1. An elevated concentration of TPHg was detected at 26,000 $\mu\text{g/L}$, which exceed the residential ESL of 500 $\mu\text{g/L}$ in groundwater sample B-1. Benzene, toluene, ethyl benzene and total xylenes exceeded residential ESLs of 27 $\mu\text{g/L}$, 130 $\mu\text{g/L}$ and 100 $\mu\text{g/L}$, respectively.

Additional Phase II ESA – 1750 Webster Street and 301 19th Street – December 2015

In December 2015, *GeoSolve, Inc.* conducted an Additional Phase II ESA at 1750 Webster and 301 19th Streets by observing the advancement of borings B-4 through B-6 to groundwater to evaluate the lateral and vertical extent of the petroleum hydrocarbons and VOCs in the subsurface soil and groundwater beneath the site (*GeoSolve, Inc.*, December 23, 2015). The locations of borings B-4 through B-6 are shown on Figure 1. Based on the laboratory analytical results of the soil and groundwater samples collected from borings B-4 through B-6, no detectable concentrations of TPHg or BTEX were reported in soil samples analyzed from 10 feet and 20 feet bgs; however, minor concentrations of TPHg or BTEX were detected in the soil samples collected from 25 feet bgs in borings B-4 and B-5. Furthermore, no detectable concentrations of chlorinated hydrocarbons or MTBE were detected in any soil and/or groundwater sample collected from borings B-4 through B-6. This data is summarized in Tables



4 and 5. Elevated concentrations of TPHg and BTEX were detected in soil sample B6-25 and in groundwater from borings B-4 through B-6, with the greatest concentration detected in groundwater from boring B-6. These elevated concentrations of TPHg and BTEX are most likely from the up-gradient and off-site source property at 1721 Webster Street.

No elevated concentrations lead were detected in any soil sample analyzed from borings B-4 through B-6.

Phase II ESA – 1810 Webster Street – February 2016

In February 2016, *GeoSolve, Inc.* conducted a Phase II ESA on 1810 Webster Street and observed the advancement of borings B-1 through B-3 on 301 19th Street to groundwater (*GeoSolve, Inc.*, February 11, 2016). The locations of borings B-1 through B-3 are shown on Figure 1. Based on the laboratory analytical results of soil samples, concentrations of TPHg, BTEX, or MTBE were not detected in soil samples analyzed from borings B-1 through B-3 at 15 feet and 20 feet bgs as shown on Table 6, with the exception of a minor detection of ethyl benzene at 0.12 mg/Kg at 20 feet in boring B-2. TPHg was detected above the RWQCB's ESLs for residential development (December 2013) of 100 mg/Kg. Lead was detected above the ESL of 80 mg/Kg in soil sample B2-1 at one foot at 130 mg/Kg. Lead was detected below the ESL in all other soil samples analyzed. Benzene or MTBE were not detected in any soil sample analyzed from borings B-1 through B-3.

TPHg and benzene were detected above the residential ESLs of 500 µg/L and 27 µg/L in groundwater samples B-1, B-2, and B-3. The groundwater analytical results are shown on Table 7. Elevated concentrations of toluene, ethyl benzene and total xylenes were detected in groundwater sample B-3, which exceeded the residential ESLs of 130 µg/L, 43 µg/L and 100 µg/L, respectively. MTBE was not detected in any groundwater sample analyzed.

Chlorinated volatile compounds were not detected in any of the soil or groundwater samples.

Soil-Gas Survey – 1750 Webster Street, 1810 Webster Street and 301 19th Street – February 2016

In February 2016, *GeoSolve, Inc.* observed the soil-gas sampling and mobile laboratory analysis of six soil-vapor probes (SG-1 through SG-6) at the subject site (*GeoSolve, Inc.* February 22, 2016). The location of soil-gas probes SG-1 through SG-6 are shown on Figure 1. No detectable concentrations of VOCs were reported in most soil-gas samples collected from the vadose zone. A low concentration of tetrachloroethylene (PCE) was detected in soil-gas samples SG5-15 and duplicate soil-gas sample SG5-15D at 150 micrograms per cubic meter (µg/m³) and 160 µg/m³, respectively. A moderate concentration of benzene was detected in soil-gas sample SG5-5 at 120 µg/m³. PCE was detected below the ESL of 210 µg/m³ for residential development in soil-gas (December 2013 – Table E). Benzene was detected slightly above the ESL of 42 µg/m³ in soil-gas sample SG5-5. The concentration of PCE and benzene detected in



vapor samples at SG5-15 and SG5-15D are very low and do not indicate the presence of an ongoing residual source. . The soil-gas analytical results are shown on Table 8.

Additional Phase II ESA – 301 19th Street – July 2016

In July 2016, **GeoSolve, Inc.** conducted an Additional Phase II ESA and observed the advancement of borings B-7 through B-9 on 301 19th Street to groundwater (**GeoSolve, Inc.**, August 8, 2016). The locations of borings B-7 through B-9 are shown on Figure 1. Based on the laboratory analytical results of soil samples, concentrations of TPHg, BTEX, or MTBE were not detected in all soil samples analyzed from borings B-7 through B-9 at 1 foot, 10 feet or 15 feet bgs, as shown on Table 1 and were detected below the RWQCB's ESLs listed at the base of Table 8. Lead was detected at concentrations ranging from 1.7 mg/Kg to 9.7 mg/Kg, which were below the residential soil ESL of 80 mg/Kg. In addition, MTBE was not detected in any soil sample analyzed from borings B-7 through B-9.

No detectable concentrations of TPHg (less than 50 µg/L, BTEX (less than 0.50 µg/L) or MTBE (less than 0.05 µg/L) were measured in groundwater grab samples B-7 through B-9, with the exception of a very low concentration of toluene of 0.77 µg/L in groundwater grab sample B-9. TPHg, BTEX and MTBE were detected below residential ESLs for groundwater as listed at the base of Table 9.

Lead was detected above the residential ESL of 2.5 µg/L at concentrations ranging from 34 µg/L to 440 µg/L.

Additional Soil-Gas Survey – 1750 and 1810 Webster Streets, and 301 19th Street – August 2016

In August 2016, **GeoSolve, Inc.** observed the additional soil-gas sampling and mobile laboratory analysis of six soil-vapor probes (SG-1 through SG-6) at the subject site (**GeoSolve, Inc.** August 31, 2016). The location of soil-gas probes SG-1 through SG-6 are shown on Figure 1 and were advanced in the same locations as in February 2016.

Based on the laboratory analytical results of the soil-gas samples collected from vapor-probes SG-1 through SG-6, no detectable concentrations of VOCs were reported in most soil-gas samples collected from the vadose zone. A low concentration of PCE was detected in soil-gas sample SG6-10 at 120 µg/m³. Low concentrations of benzene were also detected in soil-gas samples SG5-5 at 160 µg/m³ and in SG5-10 at 88 µg/m³. PCE detected in soil-gas sample SG6-10 was detected below the ESL of 240 µg/m³ for residential development in soil-gas. Benzene was detected slightly above the screening level of 48 µg/m³, but well below the commercial screening level of 420 µg/m³ in soil-gas sample SG5-5. The concentrations measured do not indicate a significant source for either of these constituents. Although TPHg was not analyzed during this Additional Soil-Gas Survey, TEG or Northern California, Inc. stated their results support no TPHg concentrations greater than 10,000 µg/m³ were indicated in all soil-gas samples analyzed, exactly like in the initial soil-gas survey conducted in February 2016. The PCE and benzene detected in soil-gas were below the commercial ESLs of 420 µg/m³ for benzene and



4,200 $\mu\text{g}/\text{m}^3$ for PCE. As underground parking and/or first-level residential occupation are not planned for the development at the site, commercial ESLs are the recommended screening criteria for the site. Therefore, the low concentrations of benzene and PCE detected in soil-gas samples SG5-5, SG5-10, and SG6-10 are not a concern for the subject development at the site. The additional soil-gas analytical results are shown on Table 11.

Oxygen Soil-Gas Survey – 1750 and 1810 Webster Streets, and 301 19th Street – October 21, 2016

On October 21, 2016, *GeoSolve, Inc.* observed the installation of five oxygen soil-gas probes (OG-1 through OG-5) to five feet bgs. Laboratory analytical results of the subsurface soil-gas oxygen samples are shown on Table 12 and oxygen concentrations ranged from 13% to 14%. The location of oxygen soil-gas samples OG-1 through OG-5 are shown on Figure 1.

Summary of Environmental Results

Based on the conclusions of the multiple Phase II ESAs conducted on the subject property, no detectable concentrations of TPHg, BTEX or MTBE or VOCs were reported in soil samples in any boring from ground surface to 20 feet below ground surface (bgs). TPHg was detected at slightly elevated concentrations at 22 feet bgs and represents the groundwater capillary fringe zone derived from dissolved TPHg concentrations in groundwater.

Elevated concentrations of dissolved TPHg and BTEX were detected in groundwater samples collected boring borings B-1, and B-4 through B-6 and borings B-1 through B-3 (1810 Webster Street) at concentrations up to 130,000 $\mu\text{g}/\text{L}$ and 610 $\mu\text{g}/\text{L}$ in boring B-6.

Lead was mostly not detected in any soil sample analyzed from the subject site, with the exception of two samples, which were detected at 170 mg/Kg in sample B1-5 (October 2015) and at 130 mg/Kg in B2-1 (February 2016). These were detected slightly above the ESL of 80 mg/Kg for residential development and will either be removed during excavation of the fill material to accommodate development of the property, or located under the parking garage slab. Moderate concentrations of dissolved lead were detected in all groundwater samples collected from borings B-1 through B-9. These moderately elevated dissolved lead concentrations detected in groundwater grab samples B-1 through B-9 do not pose a significant risk to the property since groundwater is not potable and the groundwater will not be used in the proposed development.

VOCs in soil-gas were determined not to be a concern beneath the subject site and oxygen concentrations in soil-gas were detected at 13% to 14%. Although detection limits for the soil vapor samples exceeded residential screening levels, the detection limits were below commercial screening levels, which are recommended to be used for the site.

Based on the data, the former gasoline service station situated along Harrison Street did not significantly impact the subject property and the existing petroleum-hydrocarbon groundwater



plume detected on 1750 Webster Street has not impacted groundwater under the southern portion of the 301 19th Street property.

The source of the TPHg and BTEX contamination at 1721 Webster Street is under County oversight and residual dissolved petroleum hydrocarbons are expected to continue to naturally attenuate over time. Results of two soil gas sampling events at the site indicate that soil vapor from the underlying dissolved petroleum-hydrocarbon plume is attenuated at depth and vapors measured at the 5-foot depth are not a potential source of vapor intrusion risk for the proposed development.

Based on the findings and results presented in this Summary, *GeoSolve, Inc.* recommends formal closure of ACHCSA VRAP Case No. RO0003229 and SCP No. RO0002672 in response to the ACHCSA comfort letter dated February 16, 2000. It is our understanding that such closure will require recordation of a land use covenant and approved soil management plan for the site.

If you have any questions or need further information regarding this Summary, please call us at (925) 963-1198.

Sincerely,

GeoSolve, Inc.



Robert D. Campbell, M.S., P.G., C.E.G., Q.S.D.
Principal Engineering Geologist



TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
Prentiss Properties LTD, Inc.
1750 Webster Street
Oakland, California
April 25, 1998
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

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).

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	---	100	0.74	9.3	4.7	111	8.4	80

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).

NA = not analyzed.

ESLs = Environmental Screening Levels, RWQCB – Region 2 (December 2013, Table B)



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
ESLs	---	500	27	130	43	100	1,800	80

µg/L = micrograms per liter, equivalent to parts per billion (ppb).

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	170	6.2
B6-2	NA	NA	NA	NA	NA	NA	NA	170	6.2
B6-3	NA	NA	NA	NA	NA	NA	NA	170	6.3
B6-4	NA	NA	NA	NA	NA	NA	NA	170	5.1
B6-5	NA	NA	NA	NA	NA	NA	NA	170	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	---	100	0.74	9.3	4.7	111	8.4	0.55 - 111	80



mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
 NA = not analyzed.
 a = Total xylene concentration detected below ESL.

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
ESLs	---	500	27	130	43	100	1,800	27 - 130	2.5

µg/L = micrograms per liter, equivalent to parts per billion (ppb).
 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	---	100	0.74	9.3	4.7	111	8.4	100	80

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).
 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
ESLs	---	500	27	130	43	100	1,800	100	80

µg/L = micrograms per liter, equivalent to parts per billion (ppb).

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	---	30,000	42	16,000	490	52,000	210	3,000

µg/m³ = micrograms per cubic meter.

PCE = Tetrachloroethylene.



TCE = Trichloroethylene.
 ESLs = Environmental Screening Levels (RWQCB, December 2013 – Table E).
 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
<i>ESLs</i>	---	100	0.74	9.3	4.7	111	8.4	80

mg/Kg = milligrams per kilogram, equivalent to parts per million (ppm).

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
<i>ESLs</i>	---	500	27	130	43	100	1,800	2.5

µg/L = micrograms per liter, equivalent to parts per billion (ppb).



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 ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethyl Benzene ($\mu\text{g}/\text{m}^3$)	Total Xylenes ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)
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
ESL (res)*	---	97	310,000	1,100	100,000	480	480
ESL(com)*	---	840	2,600,000	9,800	880,000	4,200	6,000

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

PCE = Tetrachloroethylene.

TCE = Trichloroethylene.

ESLs = Environmental Screening Levels – Residential (RWQCB, December 2013 – Table E).

SG1-10D= Duplicate soil-gas sample.

***Soil Vapor ESLs**

The SFRWQCB Tier 1 soil vapor ESLs are calculated by dividing the indoor air screening level by the DTSC default attenuation factors of 0.002 and 0.001 for existing residential and commercial building type, respectively (SFRWQCB, 2016; DTSC, 2011). Since, this project involves new commercial/retail on-grade buildings, the DTSC default attenuation factors of 0.001 for future residential building type and 0.0005 for future commercial building type are more appropriate (DTSC, 2011). The SFRWQCB soil vapor ESLs were estimated by dividing the indoor air ESL for residential and commercial land use by the DTSC default attenuation factors of 0.001 and 0.0005, respectively.

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 ($\mu\text{L}/\text{L}$)
OG-1	5	130,000
OG-2	5	140,000
OG-3	5	140,000
OG-4	5	140,000
OG-5	5	140,000

$\mu\text{L}/\text{L}$ = microliters per liter.



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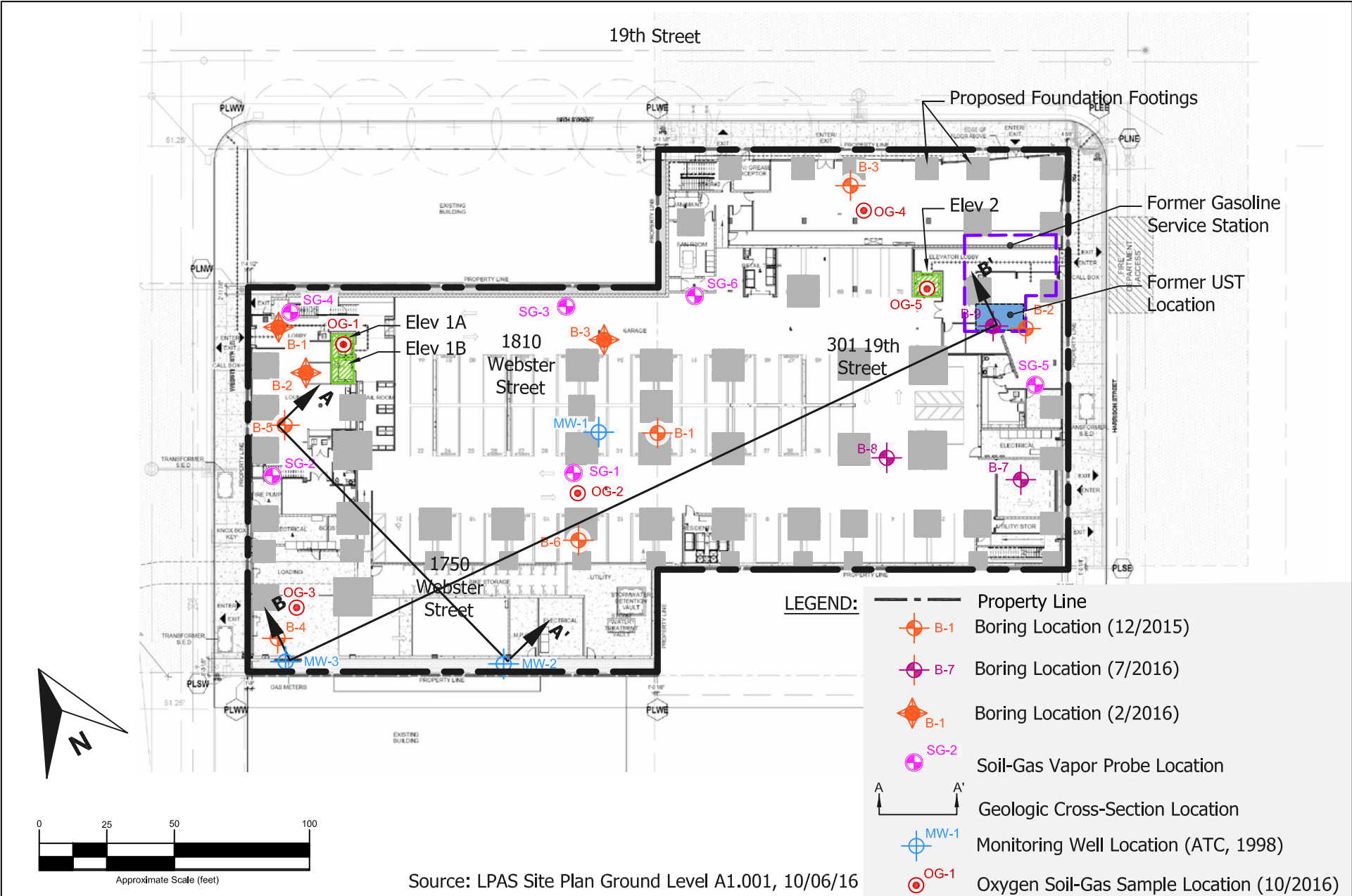
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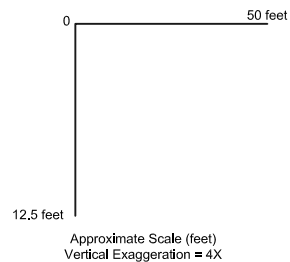
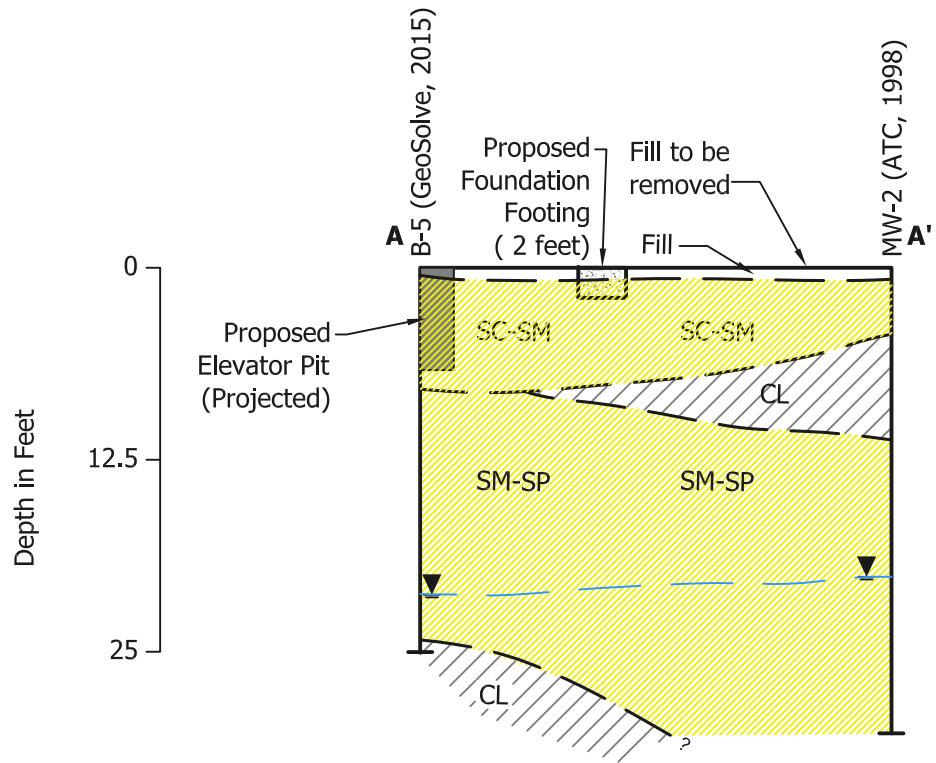
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PROPOSED DEVELOPMENT FOOTPRINT LENNAR MULTIFAMILY COMMUNITIES SUMMARY OF ENVIRONMENTAL ACTIVITIES 1750 and 1810 WEBSTER STREET and 301 19th STREET OAKLAND, CALIFORNIA		Project No.	Drawn by:	1 Figure No.
		2015-29	GC	
Scale:	Date:	AS SHOWN	10/2016	



USCS CLASSIFICATION:

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

GEOLOGIC CROSS SECTION A-A

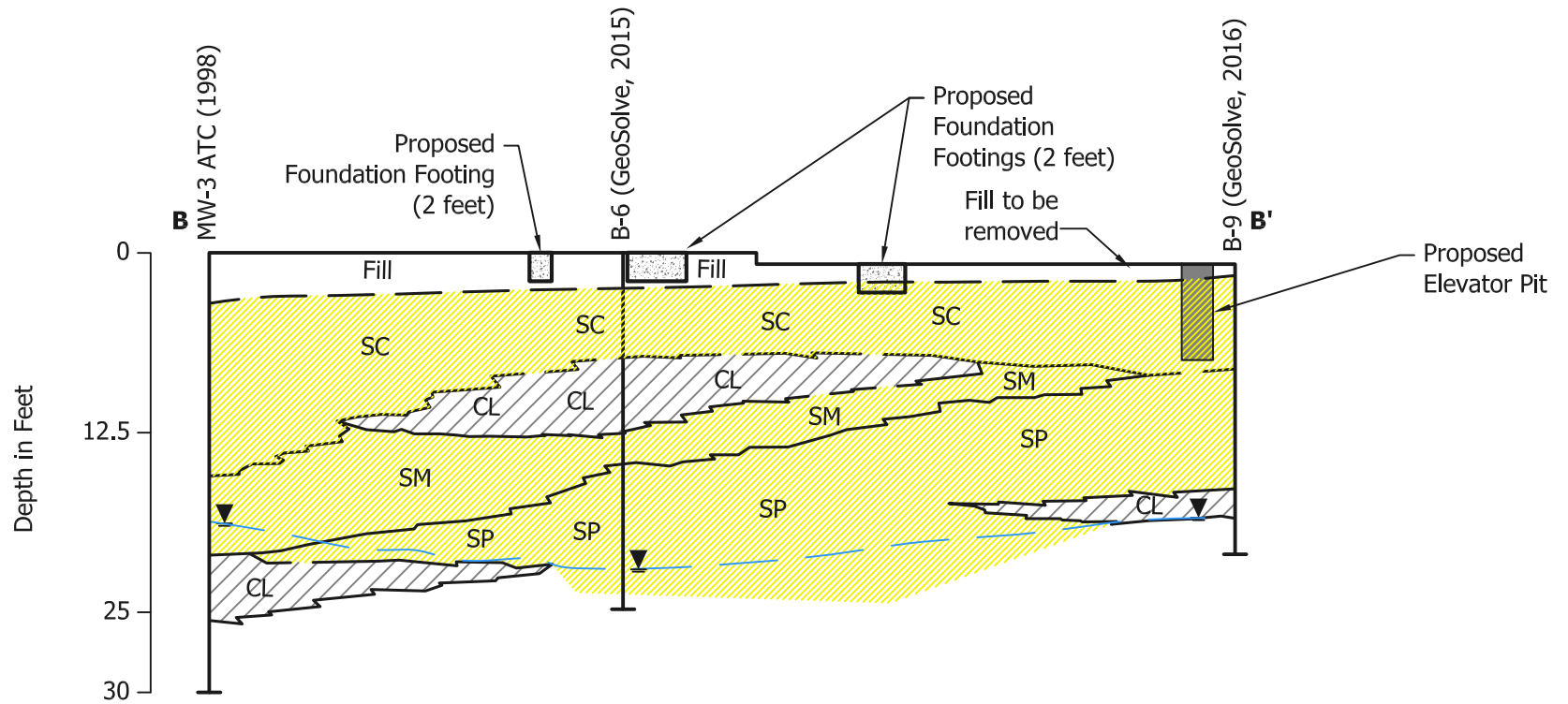


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LENNAR MULTIFAMILY COMMUNITIES
 ALAMEDA COUNTY HEALTHCARE SERVICES AGENCY CASE NO.2672
 1750 and 1810 WEBSTER STREET and 301 19th STREET
 OAKLAND, CALIFORNIA

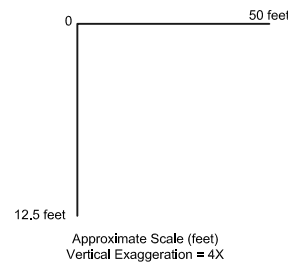
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Figure No.
2



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 B-B'

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 1750 and 1810 WEBSTER STREET and 301 19th STREET
 OAKLAND, CALIFORNIA

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Figure No.

3