

585 22nd Street, LLC  
2030 Manzanita Dr.  
Oakland, CA 94611

Matt Ticknor  
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**RECEIVED**

By Alameda County Environmental Health 10:10 am, Oct 06, 2016

October 4, 2016

Subject: Site Investigation Report

Addendum

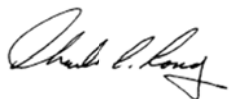
585 22nd Street

Oakland, California

Alameda County Department of Environmental Health

Case RO0003187

We declare, under penalty of perjury, that the information and/or recommendations contained in the attached Site Investigation Report Addendum are true and correct to the best of our knowledge.



Charles A. Long  
Principal



Matt Ticknor  
Principal

October 4, 2016

Dilan Roe  
Land Use and Local Oversight Program Manager  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6540

Re: Site Investigation Report Addendum  
585 22<sup>nd</sup> Street  
Oakland, California  
Alameda County Department of Environmental Health  
Case RO0003187

Dear Ms. Roe:

On behalf of 585 22<sup>nd</sup> Street, LLC, Advantage Environmental Consultants, LLC (AEC) has prepared this *Site Investigation Report Addendum* pertaining to the above referenced property identified as 585 22<sup>nd</sup> Street in the City of Oakland, Alameda County, California (Site). The Site is comprised of an approximately 23,000 square foot (0.53-acre) area located at the physical addresses of 600 21<sup>st</sup> Street, 572 21<sup>st</sup> Street and 585 22<sup>nd</sup> Street. The Site is further identified by Alameda County Assessor's Parcel Numbers 008-0647-014, 008-0647-013 and 008-0647-028-04. The current land uses at the Site are as follows:

- 600 21st Street - Law office and historical house to be relocated.
- 572 21st Street – Five-unit apartment building and historical house to be relocated
- 585 22nd Street – Asphalt paved lot used for the parking of United States Postal Service vehicles

The Site is a proposed mixed-use development project. Site development will require conventional grading (removal and recompaction of soil) to depths that are yet to be determined, but are expected to be less than five feet from existing grades. Following the completion of grading activities, there will be a reported 2,615 cubic yards of soil exported from the Site. Such soil will be derived from preparing subgrade for the future structural slab, footing excavations, excavations for future automobile stacker systems and excavations for future elevators and other utility vaults. Site development plans will include a residential development constructed on a concrete slab-on-grade foundation system. There will be 78 residential units constructed at the Site. None of the residential units will be located on the ground floor of the future structure. The ground floor of the future structure will include parking areas, utility/mechanical rooms and enclosures, storage rooms, trash enclosures, bicycle lockers a lobby and a leasing area/lounge. The

three above referenced parcels will be merged into one single parcel (parcel number yet to be determined) prior to the start of construction. The future physical address of the development will be 570 21st Street. The two historical houses at 572 21st Street and 600 21st Street will be relocated to the adjacent property located at 610 21st prior to the start of construction of the 78 unit apartment building.

The future Site building will consist of four stories of wood frame construction over a 15 foot high ground floor concrete podium with a total building height of 55 feet. This is typically categorized as Type 5 construction over a podium. The ground floor podium will accommodate parking stalls, ground floor elevator entrances, lobbies and other common area spaces. The podium area is ventilated with an exhaust fan that takes air from the podium and exhausts it in a vent on the roof. The elevator shafts will require excavation to 5 feet 9 inches and will be lined with a vapor barrier to prevent any residual volatile organic compounds (VOCs) at the Site from venting into the shaft. The project will be parked with 78 parking stalls configured in 26 stackers of three stalls each with the bottom three stalls of each stacker requiring pits to a depth of 5 feet 9 inches.

AEC completed the following prior environmental documents pertaining to the Site, all which are in the possession of the Alameda County Department of Environmental Health (ACDEH):

- Phase II Environmental Site Assessment, 585 22nd Street, Oakland, California dated August 13, 2015
- Phase I Environmental Site Assessment, 585 22nd Street, Oakland, California dated August 14, 2015
- Site Investigation Report, 585 22nd Street, Oakland, California - Alameda County Department of Environmental Health Case RO0003187 dated February 17, 2016

During the course of the completion of the August 2015 Phase I ESA, it was revealed that the 585 22<sup>nd</sup> Street portion of the Site was occupied by an engraving/plating facility/business which reportedly ceased operations in the late 1970s to early 1980s. In addition, AEC corresponded with ACDEH regarding a former leaking underground storage tank (LUST) case that was associated with this portion of the Site and previously closed under commercial land use. The 572 21<sup>st</sup> Street and 600 21<sup>st</sup> Street portions of the Site were historically utilized for residential purposes and have sustained no land uses of potential environmental concern.

The LUST case pertained to the removal of a former underground storage tank (UST) that was previously operated by the United States Postal Service for the fueling of their delivery trucks. The Site reportedly started being used by the USPS in the early to mid 1980s. AEC was informed by ACDEH that if a change in land use of the Site from commercial to residential is proposed, that ACDEH would expect the Site owner, development proponent or other party to voluntarily work with the Department to have them review and approve the proposed change in land use relative to subsurface environmental conditions, and in particular related to potential vapor intrusion/human health risk based concerns that were not commonly evaluated during the closure of older

LUST cases. As a result, a Voluntary Remedial Action Agreement was executed between 585 22nd Street, LLC and the ACDEH on September 25, 2015 and a Work Plan for Supplemental Investigation dated October 13, 2015 was submitted to the ACDEH for review. The primary objective of the Work Plan was to develop a program to further investigate the presence and spatial distribution of VOCs in vadose zone soil gas at the Site, and utilizing the data obtained, conduct an evaluation of the human health risks associated with potential soil gas exposures and vapor intrusion for the planned development. Additional soil sampling and analysis was also proposed to rule out various contaminants of potential concern at the Site.

The two phases of subsurface assessment at the Site conducted by AEC included the drilling of multiple soil borings and the sampling of soil, soil gas and groundwater. Conclusions of the assessments were as follows:

- VOCs, asbestos and metals were not considered to be contaminants of concern in soil at the Site.
- VOCs were not considered to be contaminants of concern in groundwater at the Site.
- VOC detections in soil gas were not considered to be significant relative to the users of the future planned Site development.
- No further action at the Site was considered to be warranted.

AEC and 585 22nd Street, LLC are currently in the process of working with ACDEH to finalize the closure process for the Site. As part of this process, two meetings were held at ACDEH offices and one of the requests from ACDEH was additional presentation of analytical data (in tabular and figure formats) generated from the Site during prior assessment activities. This addendum presents the additional tables and figures discussed during such meetings. The re-submittal is attached to this addendum letter and includes the following:

- Summary table of all soil, soil gas and groundwater samples collected at the Site including sample IDs, dates of collection, sample rationale and analytes.
- Revised summary table of VOC analytical results in soil gas including additional references to Environmental Screening Levels (ESLs) and analytical laboratory method detection limits (MDLs) relative to ESL screening criteria.
- Revised summary table of gasoline, VOCs, asbestos and hexavalent chromium analytical results in soil including additional references to ESLs and analytical laboratory MDLs relative to ESL screening criteria.
- Summary table of Title 22 Metals results in soil
- Revised Figures 1-7 which now include numerous additions requested by ACDEH during our meetings.

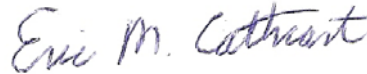
If you should have any questions regarding this submittal, please contact us at (760) 744-3363.

Sincerely,

***Advantage Environmental Consultants, LLC***



Daniel Weis, R.E.H.S.  
Branch Manager  
Western Regional Office



Eric M. Cathcart, MS, PG  
Senior Geologist  
California Professional Geologist #7548

Attachments – Resubmittal of Tables and Figures



**Summary Table - Sample Rationale**  
**585 22nd Street, Oakland, CA**

Sample ID	Depth (feet)	Date	Rationale	Soil Analytes	Soil Gas Analytes	Groundwater Analytes
#1	12	8/24/1992	UST Excavation / Assessment	TPH, BTEX	--	--
#1A	15.5	8/24/1992	UST Excavation / Assessment	TPH, BTEX	--	--
#1B	16.5	8/27/1992	UST Excavation / Assessment	TPH, BTEX	--	--
#2	12	8/24/1992	UST Excavation / Assessment	TPH, BTEX	--	--
#2A	13	8/24/1992	UST Excavation / Assessment	TPH, BTEX	--	--
#2B	15	8/27/1992	UST Excavation / Assessment	TPH, BTEX	--	--
#3	5	8/24/1992	UST Excavation / Assessment	TPH, BTEX	--	--
B-1-1	1	7/17/2015	Phase II ESA	Exploratory / ACM	--	--
B-1-3	3	7/17/2015	Phase II ESA	Title 22 Metals	--	--
B-1-5	5	7/17/2015	Phase II ESA	VOCs / ACM	--	--
B-1-10	10	7/17/2015	Phase II ESA	VOCs	--	--
B-1-15	15	7/17/2015	Phase II ESA	Exploratory	--	--
B-2-1	1	7/17/2015	Phase II ESA	ACM	--	--
B-2-3	3	7/17/2015	Phase II ESA	Title 22 Metals	--	--
B-2-11.5	11.5	7/17/2015	Phase II ESA	Exploratory	--	--
B-2-15	15	7/17/2015	Phase II ESA	Exploratory	--	--
B-3-1	1	7/17/2015	Phase II ESA	ACM	--	--
B-3-3	3	7/17/2015	Phase II ESA	Title 22 Metals	--	--
B-3-5	5	7/17/2015	Phase II ESA	VOCs / ACM	--	--
B-3-10	10	7/17/2015	Phase II ESA	VOCs	--	--
B-3-15	15	7/17/2015	Phase II ESA	Exploratory	--	--
B-4-1	1	7/17/2015	Phase II ESA	Title 22 Metals / ACM	--	--
B-4-3	3	7/17/2015	Phase II ESA	Exploratory / ACM	--	--
B-4-5	5	7/17/2015	Phase II ESA	VOCs	--	--
B-4-10	10	7/17/2015	Phase II ESA	VOCs	--	--
B-4-15	15	7/17/2015	Phase II ESA	Exploratory	--	--
B-5-1	1	7/17/2015	Phase II ESA	Title 22 Metals	--	--
B-5-3	3	7/17/2015	Phase II ESA	Exploratory	--	--
B-5-5	5	7/17/2015	Phase II ESA	Exploratory	--	--
B-5-10	10	7/17/2015	Phase II ESA	Exploratory	--	--
B-6-1	1	7/17/2015	Phase II ESA	Exploratory	--	--
B-6-3	3	7/17/2015	Phase II ESA	Exploratory	--	--
B-6-5	5	7/17/2015	Phase II ESA	Title 22 Metals	--	--
B-6-10	10	7/17/2015	Phase II ESA	Exploratory	--	--
B-6-15	15	7/17/2015	Phase II ESA	Exploratory	--	--
B1-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--

**Summary Table - Sample Rationale**  
**585 22nd Street, Oakland, CA**

<b>Sample ID</b>	<b>Depth (feet)</b>	<b>Date</b>	<b>Rationale</b>	<b>Soil Analytes</b>	<b>Soil Gas Analytes</b>	<b>Groundwater Analytes</b>
B1-1	1	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B10-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B10-5	5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B2-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B2-5	5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B3-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B3-1	1	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B4-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B4-5	5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B5-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B5-3	3	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B6-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B6-3	3	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B7-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B7-1	1	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B8-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B8-3	3	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B9-0.5	0.5	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
B9-1	1	12/21/2015	Site Investigation / ACDEH Oversight	Hexavalent Chromium	--	--
SV-1-5	5	7/17/2015	Phase II ESA	--	VOCs	--
SV-1-10	10	7/17/2015	Phase II ESA	--	VOCs	--
SV-2-5	5	7/17/2015	Phase II ESA	--	VOCs	--
SV-2-10	10	7/17/2015	Phase II ESA	--	VOCs	--
SV-3-5	5	7/17/2015	Phase II ESA	--	VOCs	--
SV-3-10	10	7/17/2015	Phase II ESA	--	VOCs	--
SV1	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV2	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--

**Summary Table - Sample Rationale  
585 22nd Street, Oakland, CA**

<b>Sample ID</b>	<b>Depth (feet)</b>	<b>Date</b>	<b>Rationale</b>	<b>Soil Analytes</b>	<b>Soil Gas Analytes</b>	<b>Groundwater Analytes</b>
SV3	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV4	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV4 (dup)	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV5	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV6	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV7	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV8	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV9	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
SV10	5	12/21/2015	Site Investigation / ACDEH Oversight	--	VOCs	--
MW1	--	6/10/1994	UST Excavation / Assessment	--	--	TPH, BTEX
GW1	--	7/17/2015	Phase II ESA	--	--	VOCs
GW2	--	7/17/2015	Phase II ESA	--	--	VOCs
GW3	--	7/17/2015	Phase II ESA	--	--	VOCs

\*Exploratory - Borings advanced for visual and olfactory screening of soil. No suspect conditions encountered.



## VOC Analytical Results in Soil Gas

**585 22nd Street  
Oakland, California**

Sample Identification	Depth (feet)	Date Sampled	Volatile Organic Compounds (ug/m <sup>3</sup> )															
			Chloromethane	Acetone	Carbon disulfide	2-Butanone (MEK)	Chloroform	Benzene	4-Methyl-2-pentanone (MIBK)	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Total Xylenes	Styrene	1,2,4-Trimethylbenzene	Tetrachloroethene	Other
SV-1-5	5	7/17/2015	3.7	470	98	150	29	40	16	46	7.8	14	6.4	20.4	6.5	7.8	ND<6.9	ND
SV-1-10	10	7/17/2015	3.8	160	52	61	ND<4.9	26	14	37	6.8	14	5.5	19.5	5.3	5.1	ND<6.9	ND
SV-2-5	5	7/17/2015	2.7	430	28	86	400	14	ND<8.3	28	ND<4.4	9.5	ND<5.0	9.5	ND<4.3	7.3	ND<6.9	ND
SV-2-10	10	7/17/2015	3.6	230	26	56	ND<4.9	14	ND<8.3	22	4.7	8.8	ND<5.0	8.8	ND<4.3	ND<5.0	ND<6.9	ND
SV-3-5	5	7/17/2015	3.9	280	32	82	20	20	17	28	4.4	9.3	ND<5.0	9.3	4.7	7.0	28	ND
SV-3-10	10	7/17/2015	4.3	200	17	79	ND<4.9	33	16	40	6.9	12	5.2	17.2	5.3	5.0	36	ND
SV1	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	44	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV2	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	51	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV3	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	ND(<35)	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV4	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	ND(<35)	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV4 (dup)	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	ND(<35)	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV5	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	45	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV6	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	90	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV7	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	160	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV8	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	59	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV9	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	ND(<35)	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
SV10	5	12/21/2015	NA	NA	NA	NA	ND<63 <sup>1</sup>	70	NA	ND<40	ND<48	ND<100	ND<32	ND<100	NA	NA	ND<69	ND
<b>Residential - Soil Gas ESL</b>			47,000	1,600,000	NA	NA	61	48	1,600,000	160,000	560	NA	NA	52,000	470,000	NA	240	NA
<b>Commercial/Industrial - Soil Gas ESL</b>			390,000	140,000,000	NA	NA	530	420	13,000,000	1,300,000	4,900	NA	NA	440,000	3,900,000	NA	2,100	NA

Soil Gas ESL = Feb. 2016 San Francisco Bay Regional Water Quality Control Board - Environmental Screening Levels

ug/m<sup>3</sup> = micrograms per cubic meter

ND = not detected above laboratory method detection limits

NA = not applicable

7/7/2015 samples analyzed by EPA Method TO-15

12/21/2015 samples analyzed by EPA Method 8260B

<sup>1</sup> Chloroform laboratory method detection limit (MDL of 63 ug/m<sup>3</sup>) exceeds the residential soil gas ESL for Chloroform (61 ug/m<sup>3</sup>) but not the commercial soil gas ESL (530 ug/m<sup>3</sup>). The commercial soil gas ESL applies to the project.

All other MDLs are below residential and commercial ESLs. Commercial ESLs apply to the project.

**Gasoline, VOCs, Asbestos, and Hexavalent Chromium  
Analytical Results in Soil**

585 22nd Street, Oakland, California

Sample ID	Depth (feet)	Date Sampled	Gasoline (ppm)	VOCs (ppm)				VOCs (µg/kg)	Asbestos	Hexavalent Chromium (mg/kg)
				Benzene	Toluene	Ethylbenzene	Xylene			
#1	12	8/24/1992	250 (100 Tier 1 ESL) (740 Res. ESL) (3,900 Comm. ESL)	0.28 (0.044 Tier 1 ESL) (0.23 Res. ESL) (1.0 Comm. ESL)	0.34 (2.9 Tier 1 ESL) (970 Res. ESL) (4,600 Comm. ESL)	ND<0.125	ND<0.21	NA	--	--
#1A	15.5	8/24/1992	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	--	--
#1B	16.5	8/27/1992	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	--	--
#2	12	8/24/1992	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	--	--
#2A	13	8/24/1992	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	--	--
#2B	15	8/27/1992	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	--	--
#3	5	8/24/1992	ND<1.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	NA	--	--
B-1-1	1	7/17/2015	--	--	--	--	--	--	ND	--
B-1-3	3	7/17/2015	--	--	--	--	--	--	--	--
B-1-5	5	7/17/2015	--	NA	NA	NA	NA	ND <sup>1,2,3</sup>	ND	--
B-1-10	10	7/17/2015	--	NA	NA	NA	NA	ND <sup>1,2,3</sup>	--	--
B-1-15	15	7/17/2015	--	--	--	--	--	--	--	--
B-2-1	1	7/17/2015	--	--	--	--	--	--	ND	--
B-2-3	3	7/17/2015	--	--	--	--	--	--	ND	--
B-2-11.5	11.5	7/17/2015	--	--	--	--	--	--	--	--
B-2-15	15	7/17/2015	--	--	--	--	--	--	--	--
B-3-1	1	7/17/2015	--	--	--	--	--	--	ND	--
B-3-3	3	7/17/2015	--	--	--	--	--	--	--	--
B-3-5	5	7/17/2015	--	NA	NA	NA	NA	ND <sup>1,2,3</sup>	ND	--
B-3-10	10	7/17/2015	--	NA	NA	NA	NA	ND <sup>1,2,3</sup>	--	--
B-3-15	15	7/17/2015	--	--	--	--	--	--	--	--
B-4-1	1	7/17/2015	--	--	--	--	--	--	ND	--
B-4-3	3	7/17/2015	--	--	--	--	--	--	ND	--
B-4-5	5	7/17/2015	--	NA	NA	NA	NA	ND <sup>1,2,3</sup>	--	--
B-4-10	10	7/17/2015	--	NA	NA	NA	NA	ND <sup>1,2,3</sup>	--	--
B-4-15	15	7/17/2015	--	--	--	--	--	--	--	--
B-5-1	1	7/17/2015	--	--	--	--	--	--	--	--
B-5-3	3	7/17/2015	--	--	--	--	--	--	--	--
B-5-5	5	7/17/2015	--	--	--	--	--	--	--	--
B-5-10	10	7/17/2015	--	--	--	--	--	--	--	--
B-6-1	1	7/17/2015	--	--	--	--	--	--	--	--
B-6-3	3	7/17/2015	--	--	--	--	--	--	--	--
B-6-5	5	7/17/2015	--	--	--	--	--	--	--	--
B-6-10	10	7/17/2015	--	--	--	--	--	--	--	--
B-6-15	15	7/17/2015	--	--	--	--	--	--	--	--
B1-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B1-1	1	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B10-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B10-5	5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B2-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B2-5	5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B3-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B3-1	1	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B4-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B4-5	5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B5-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B5-3	3	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B6-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B6-3	3	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B7-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B7-1	1	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B8-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B8-3	3	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B9-0.5	0.5	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)
B9-1	1	12/21/2015	--	--	--	--	--	--	--	ND(<0.250)

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

-- = Not analyzed

NA = Not Applicable

ND = Not detected at or above the laboratory reporting limit

VOCs = Volatile Organic Compounds (EPA 8260B)

Hexavalent Chromium (EPA 7196A)

<sup>1</sup> The laboratory method detection limit for 1,2-Dibromo-3-chloropropane (MDL of 25 µg/kg) exceeds the Tier 1 Soil ESL (4.5 µg/kg) and the residential soil ESL (5.3 µg/kg). However, the MDL does not exceed the commercial ESL (72 µg/kg). The commercial ESL applies to the project. In addition, this compound is not considered to be a site COC.

<sup>2</sup> The laboratory method detection limit for 1,2-Dibromoethane (MDL of 5 µg/kg) exceeds the Tier 1 Soil ESL (0.33 µg/kg). However, the MDL does not exceed the residential soil ESL (36 µg/kg) and the commercial ESL (160 µg/kg). The commercial ESL applies to the project. In addition, this compound is not considered to be a site COC.

<sup>3</sup> The laboratory method detection limit for 1,2-Dichloroethane (MDL of 5 µg/kg) exceeds the Tier 1 Soil ESL (4.5 mg/kg). However, the MDL does not exceed the residential soil ESL (370 µg/kg) and the commercial ESL (1,600 µg/kg). The commercial ESL applies to the project. In addition, this compound is not considered to be a site COC.

All other MDLs for VOCs are below residential and commercial ESLs.

**Title 22 Metals  
Analytical Results in Soil**

**585 22nd Street, Oakland, California**

Sample ID	Sample Date	Depth (feet)	Total Title 22 Metals by EPA Test Methods 6010B/7471A (mg/kg)																
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
B-1-1	7/17/2015	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-1-3	7/17/2015	3	ND<1.0	ND<1.0	154	ND<1.3	ND<1.3	26.7	7.71	7.48	ND<2.5	ND<0.1	ND<2.5	15.6	ND<1.0	ND<2.5	ND<1.0	21.7	17.2
B-1-5	7/17/2015	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-1-10	7/17/2015	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-1-15	7/17/2015	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2-1	7/17/2015	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2-3	7/17/2015	3	ND<1.0	ND<1.0	95.3	ND<1.3	ND<1.3	24.8	5.20	14.3	2.87	ND<0.1	ND<2.5	40.1	ND<1.0	ND<2.5	ND<1.0	16.8	31.4
B-2-11.5	7/17/2015	11.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-2-15	7/17/2015	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3-1	7/17/2015	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3-3	7/17/2015	3	ND<1.0	ND<1.0	109	ND<1.3	ND<1.3	26.5	6.06	44.5	5.39	ND<0.1	ND<2.5	16.5	ND<1.0	ND<2.5	ND<1.0	22.8	30.4
B-3-5	7/17/2015	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3-10	7/17/2015	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-3-15	7/17/2015	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-4-1	7/17/2015	1	ND<1.0	ND<1.0	113	ND<1.3	ND<1.3	31.6	6.90	20.9	42.3	ND<0.1	ND<2.5	33.7	ND<1.0	ND<2.5	ND<1.0	29.7	88.3
B-4-3	7/17/2015	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-4-5	7/17/2015	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-4-10	7/17/2015	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-4-15	7/17/2015	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-5-1	7/17/2015	1	ND<1.0	ND<1.0	103	ND<1.3	ND<1.3	27.1	10.6	55.0	54.3	ND<0.1	ND<2.5	21.5	ND<1.0	ND<2.5	ND<1.0	58.7	92.0
B-5-3	7/17/2015	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-5-5	7/17/2015	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-5-10	7/17/2015	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-6-1	7/17/2015	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-6-3	7/17/2015	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-6-5	7/17/2015	5	ND<1.0	ND<1.0	397	ND<1.3	ND<1.3	36.8	4.14J	21.4	ND<2.5	ND<0.1	ND<2.5	38.4	ND<1.0	ND<2.5	ND<1.0	21.9	48.3
B-6-10	7/17/2015	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-6-15	7/17/2015	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TTL (mg/kg)		--	500	500	10,000	75	100	2,500	8,000	2,500	1,000	20	3,500	2,000	100	500	700	2,400	5,000
10x STLC (mg/kg)		--	150	50	1,000	7.5	10	50	800	250	50	2	3,500	200	10	50	70	240	2,500
20x TCLP (mg/kg)		--	NA	100	2,000	NA	20	100	NA	NA	100	4	NA	NA	20	100	NA	NA	NA
Tier 1 ESLs (mg/kg)		--	31	0.067	3,000	42	39	NA	23	3,100	80	13	390	86	390	390	0.78	390	23,000
Commercial/Industrial ESL		--	470	0.31	220,000	2,200	580	NA	350	47,000	320	190	5,800	11,000	5,800	5,800	12	5,800	350,000

**Notes:**

Samples analyzed by US EPA Test Methods 6010B/7471A

mg/kg - milligrams per kilogram

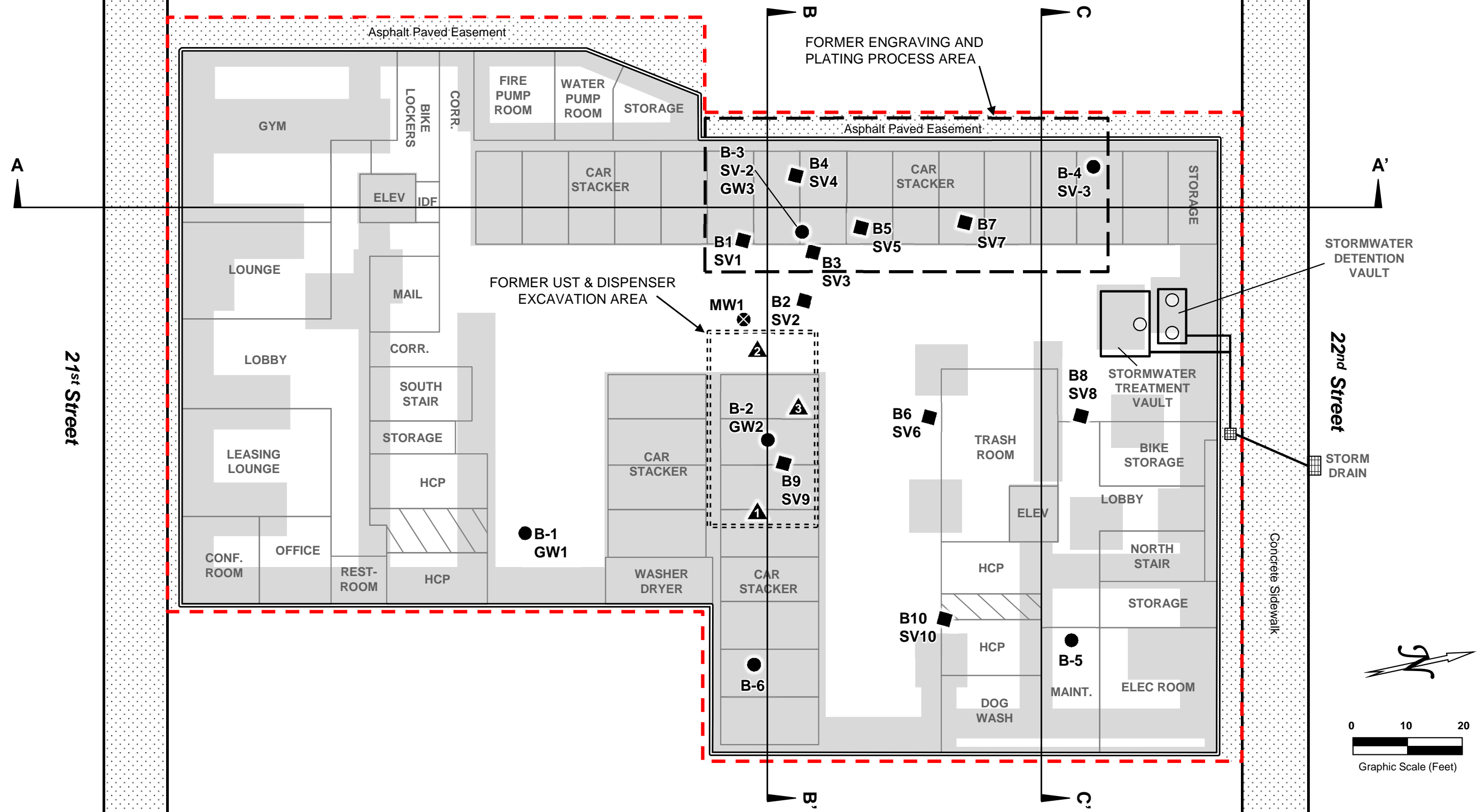
ND (<1.00) = Not detected at or above the laboratory reporting limit

TTL = Total Threshold Limit Concentration (California Code of Regulations Title 22, Chapter 30, Article 11)

STLC = Soluble Threshold Limit Concentration (California Code of Regulations Title 22, Chapter 30, Article 11)

TCLP = Toxicity Characteristic Leaching Procedure (40 Code of Federal Regulations, Part 261.24 and California Code of Regulations Title 22, Chapter 30, Article 11)

ESLs - Environmental Screening Levels (Tier 1, San Francisco Regional Water Quality Control Board)



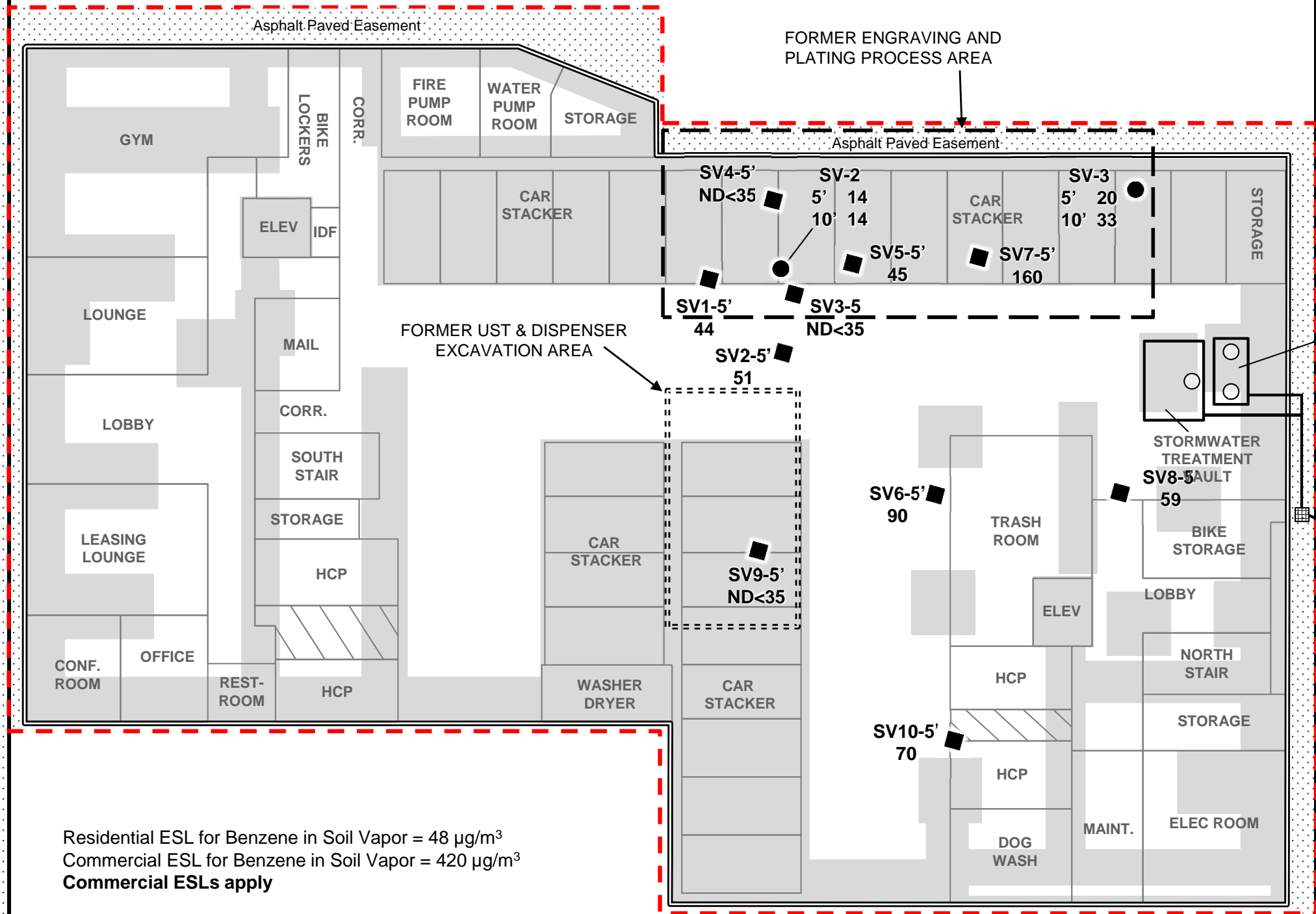
145 Vallecitos De Oro, Suite 201  
 San Marcos, CA 92069  
 Phone: 760-744-3363  
 Fax: 760-744-3383

- Site Boundary
- Footings
- Cross Section
- Deep Borings (10' – 15')  
Phase II ESA – August 2015
- Shallow Borings (5')  
SI Report – February 2016
- MW1 – February 1993
- Soil Samples – August 1992

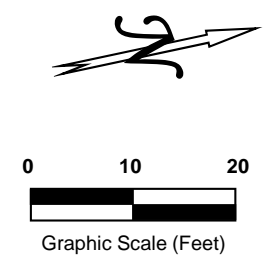
**FIGURE 1**  
**Site Plan – First Floor**  
**585 22<sup>nd</sup> Street**  
**Oakland, CA 94612**

AEC Project No.: 15-120SD	Figure Date: August 2016	Drawn By: TJ
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21st Street



Residential ESL for Benzene in Soil Vapor = 48  $\mu\text{g}/\text{m}^3$   
 Commercial ESL for Benzene in Soil Vapor = 420  $\mu\text{g}/\text{m}^3$   
**Commercial ESLs apply**



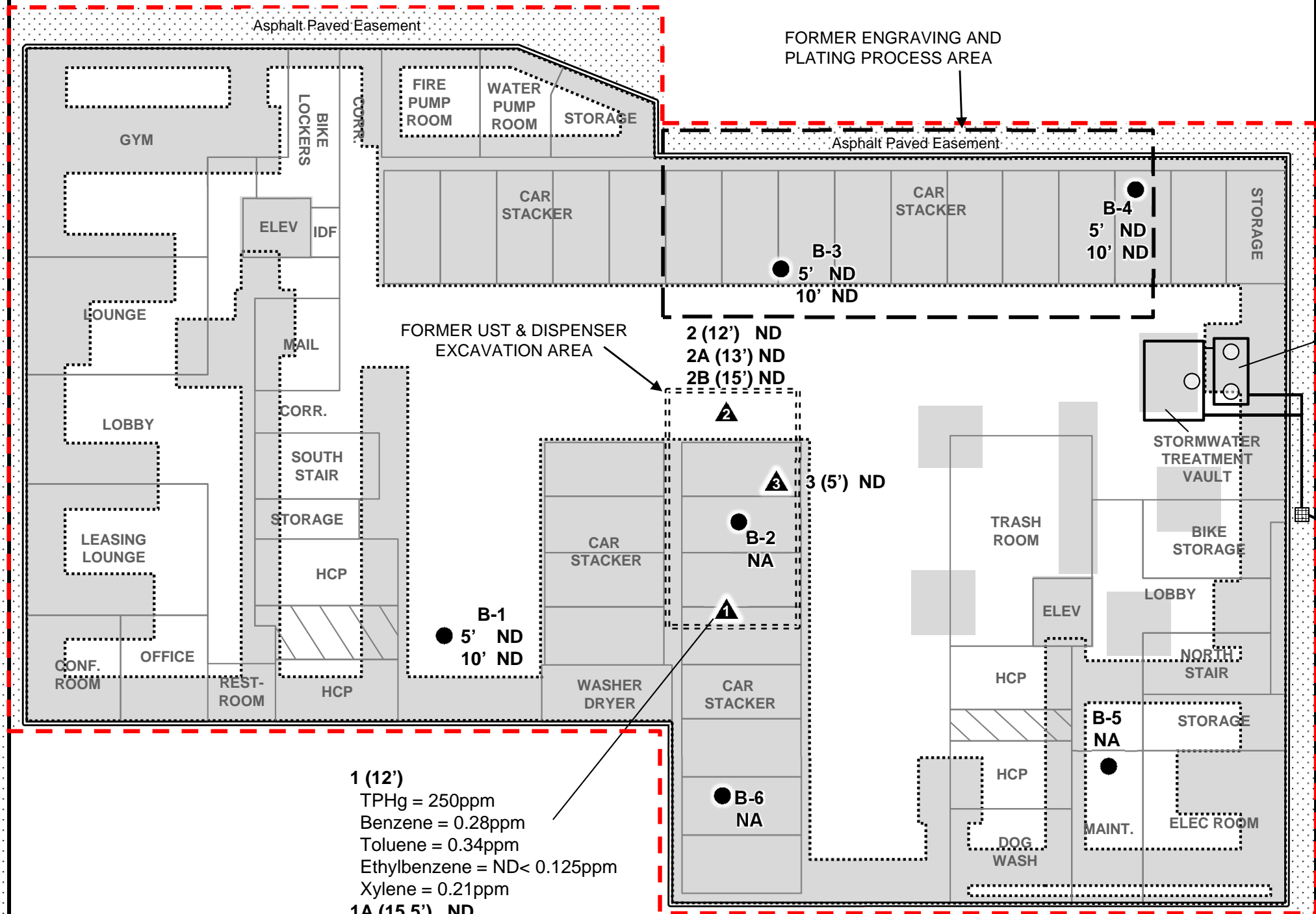
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Phone: 760-744-3363  
Fax: 760-744-3383

- Site Boundary
- Footings
- NA** Not Applicable
- ND** Not Detected Above Laboratory Reporting Limits ( $\mu\text{g}/\text{m}^3$ )
- Deep Borings (10' – 15')  
Phase II ESA – Aug 2015
- Shallow Borings (5')  
SI Report – Feb. 2016
- Results in  $\mu\text{g}/\text{m}^3$

**FIGURE 2**  
**Benzene in Soil Vapor**  
**585 22nd Street**  
**Oakland, CA 94612**

AEC Project No.: 15-120SD	Figure Date: August 2016	Drawn By: TJ
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21st Street



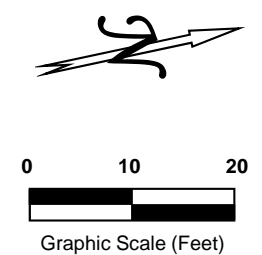
1 (12')  
 TPHg = 250ppm  
 Benzene = 0.28ppm  
 Toluene = 0.34ppm  
 Ethylbenzene = ND < 0.125ppm  
 Xylene = 0.21ppm  
 1A (15.5') ND  
 1B (16.5') ND  
 \*Soil removed to 16 feet below grade during UST excavation.

STORMWATER DETENTION VAULT

22nd Street

STORM DRAIN

Concrete Sidewalk



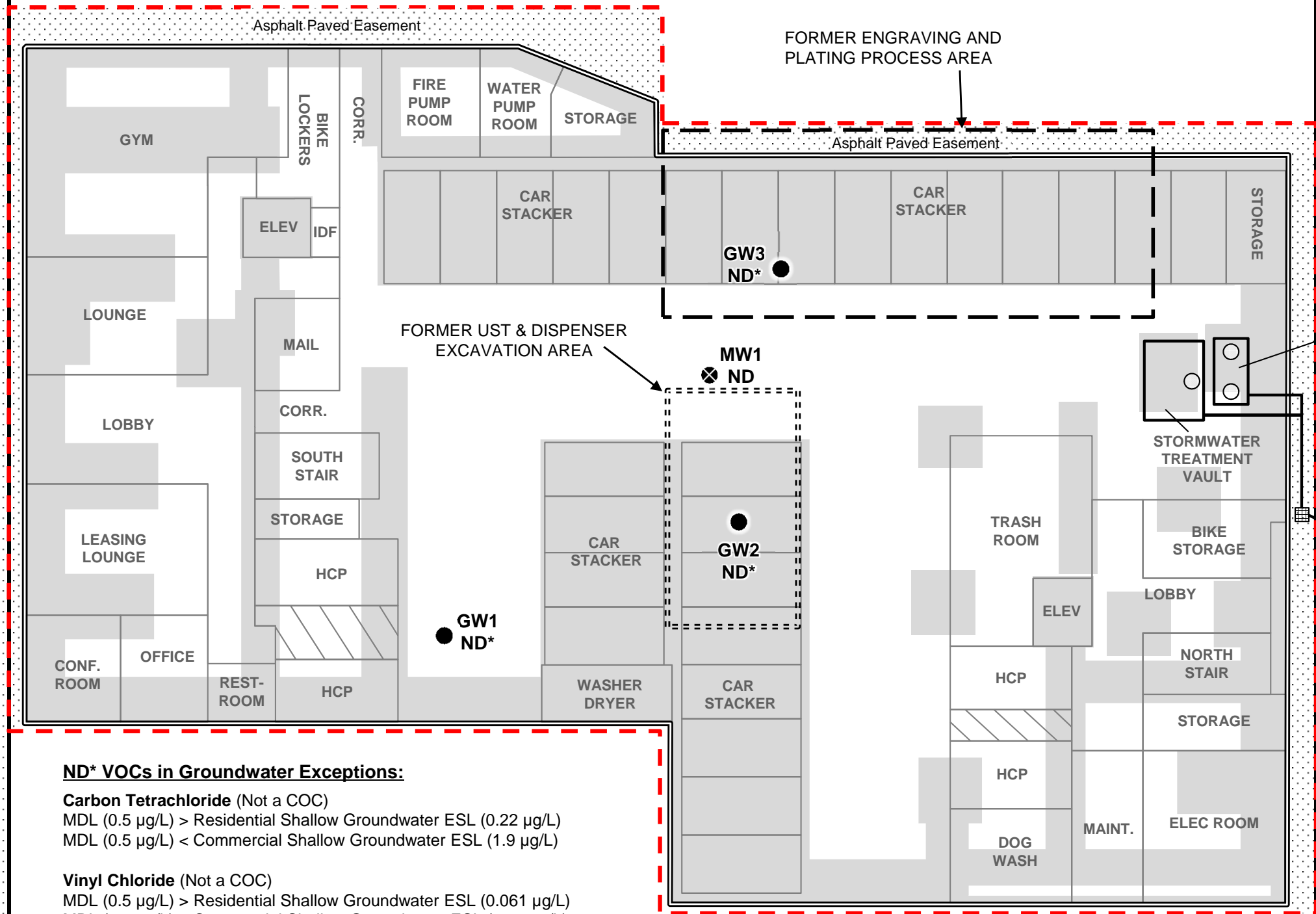
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 San Marcos, CA 92069  
 Phone: 760-744-3363  
 Fax: 760-744-3383

- - - Site Boundary
- Footings
- NA** Not Applicable
- ND** Not Detected Above Laboratory Reporting Limits (µg/kg)
- Deep Borings (10' – 15') Phase II ESA – Aug 2015
- Shallow Borings (5') SI Report – Feb. 2016
- ▲ Soil Samples – August 1992

**FIGURE 3**  
**VOCs in Soil**  
**585 22nd Street**  
**Oakland, CA 94612**

AEC Project No.: 15-120SD	Figure Date: August 2016	Drawn By: TJ
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21st Street

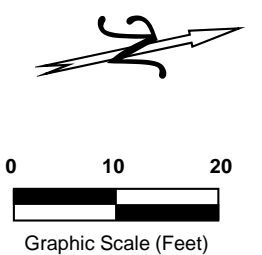


**ND\* VOCs in Groundwater Exceptions:**

**Carbon Tetrachloride** (Not a COC)  
 MDL (0.5 µg/L) > Residential Shallow Groundwater ESL (0.22 µg/L)  
 MDL (0.5 µg/L) < Commercial Shallow Groundwater ESL (1.9 µg/L)

**Vinyl Chloride** (Not a COC)  
 MDL (0.5 µg/L) > Residential Shallow Groundwater ESL (0.061 µg/L)  
 MDL (0.5 µg/L) < Commercial Shallow Groundwater ESL (0.53 µg/L)

**All other VOC MDLs are below Residential and Commercial ESLs**  
 Commercial ESLs apply



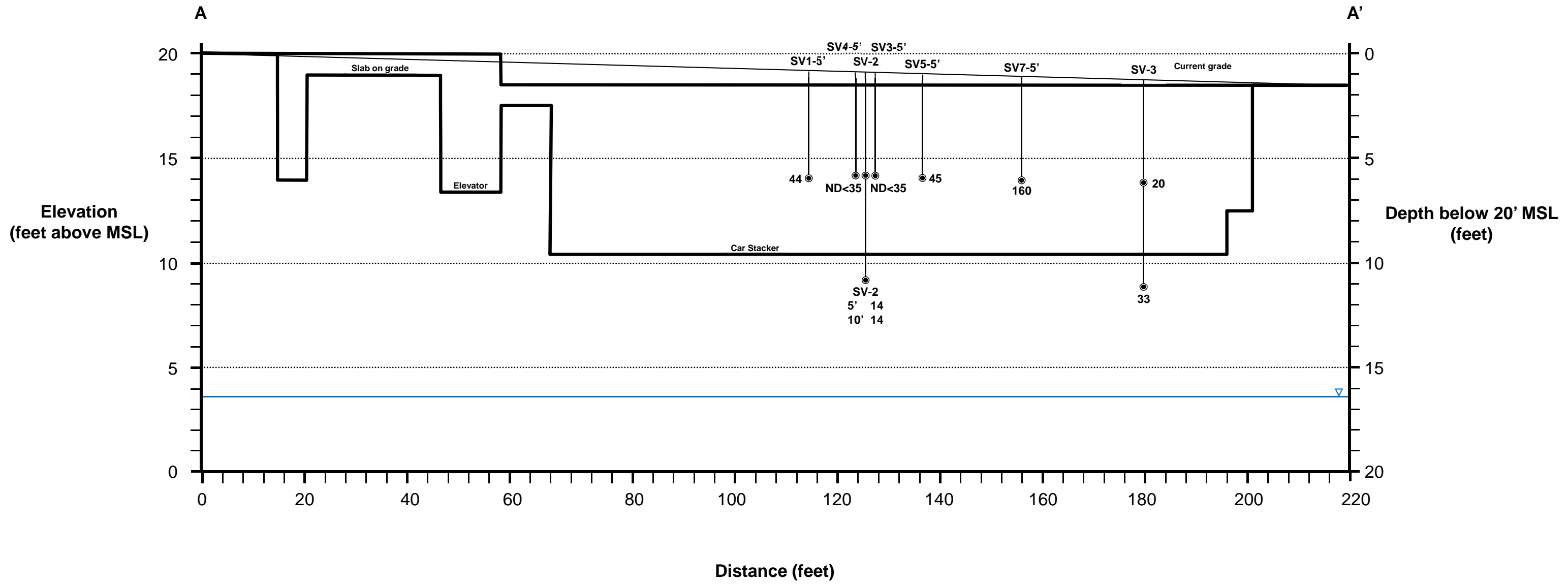
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 Fax: 760-744-3383

- Site Boundary
- Footings
- NA** Not Applicable
- ND** Not Detected Above Laboratory Reporting Limits (µg/L)
- Deep Borings (15') Phase II ESA – August 2015
- X MW1 - Sampled Feb 93, Dec 93, Mar 94, and June 94 (all ND)

**FIGURE 4**  
**VOCs in Groundwater**  
**585 22nd Street**  
**Oakland, CA 94612**

AEC Project No.: 15-120SD	Figure Date: August 2016	Drawn By: TJ
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● Soil Vapor Sampling Locations

▽ Groundwater depth based on 2015 groundwater sampling

NA Not Applicable

ND Not Detected Above Laboratory Reporting Limits ( $\mu\text{g}/\text{m}^3$ )

Residential ESL for Benzene in Soil Vapor =  $48 \mu\text{g}/\text{m}^3$   
 Commercial ESL for Benzene in Soil Vapor =  $420 \mu\text{g}/\text{m}^3$   
**Commercial ESLs apply**

**Figure 5**  
**Cross Section A – A'**  
**Benzene in Soil Vapor**  
**585 22<sup>nd</sup> Street**  
**Oakland, California 94612**

<b>Work Order No.:</b> 15-120SD	<b>Figure Date:</b> August 2016	<b>Drawn By:</b> TJ
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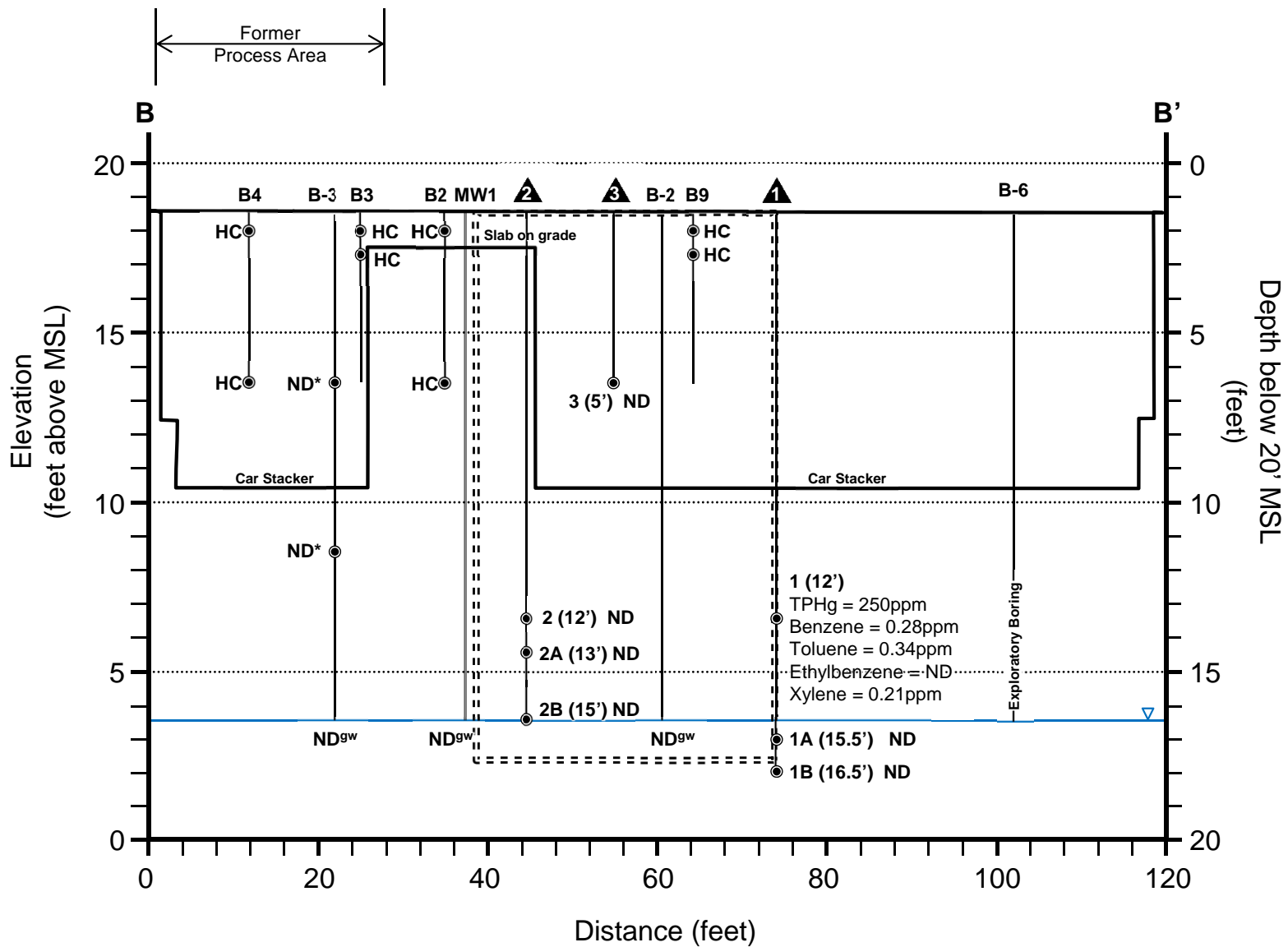


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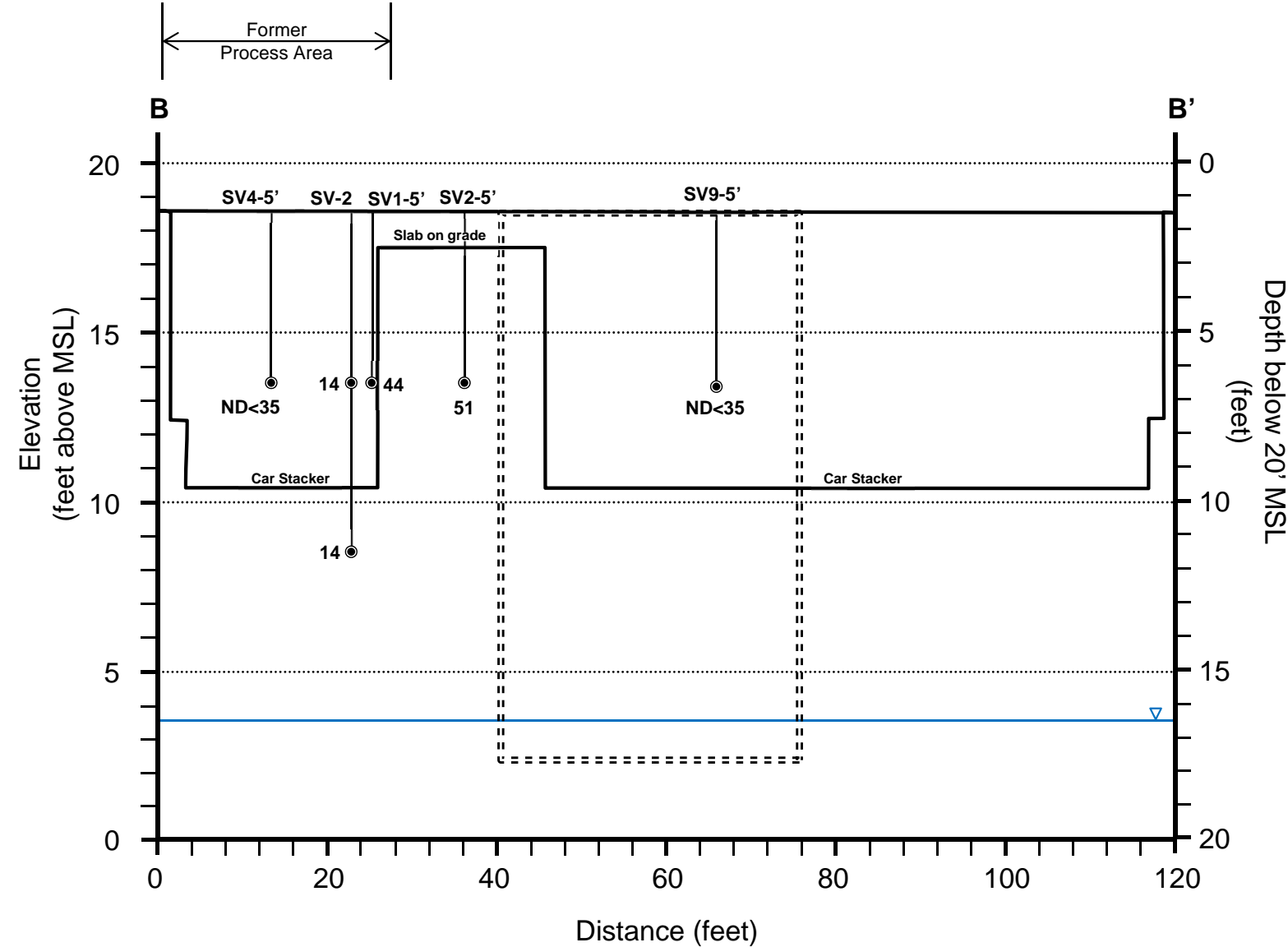
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**VOCs in SOIL & GROUNDWATER**



**BENZENE in SOIL VAPOR**



**ND\* VOCs in Soil Exceptions:**

<b>1,2-Dibromo-3-chloropropane</b> (not a COC) MDL 25 µg/kg > Tier 1 Soil ESL (4.5 µg/kg) MDL 25 µg/kg > Residential Soil ESL (5.3 µg/kg) MDL 25 µg/kg < Commercial ESL (72 µg/kg)	<b>1,2-Dibromoethane</b> (not a COC) MDL 5 µg/kg > Tier 1 Soil ESL (0.33 µg/kg) MDL 5 µg/kg < Residential Soil ESL (36 µg/kg) MDL 5 µg/kg < Commercial ESL (160 µg/kg)	<b>1,2-Dichloroethane</b> (not a COC) MDL 5 µg/kg > Tier 1 Soil ESL (4.5 µg/kg) MDL 5 µg/kg < Residential Soil ESL (370 µg/kg) MDL 5 µg/kg < Commercial ESL (1,600 µg/kg)
---	---	--

**ND<sup>gw</sup> VOCs in Groundwater Exceptions:**

<b>Carbon Tetrachloride</b> (not a COC) MDL (0.5 µg/L) > Residential Shallow Groundwater ESL (0.22 µg/L) MDL (0.5 µg/L) < Commercial Shallow Groundwater ESL (1.9 µg/L)	<b>Vinyl Chloride</b> (not a COC) MDL (0.5 µg/L) > Residential Shallow Groundwater ESL (0.061 µg/L) MDL (0.5 µg/L) < Commercial Shallow Groundwater ESL (0.53 µg/L)
---	---

All other VOC MDLs are below Residential and Commercial ESLs  
Commercial ESLs apply

**ND\* VOCs in Soil Gas Exceptions:**

<b>Chloroform:</b> RL (100 µg/m <sup>3</sup> ) > Residential Soil Gas ESL (61 µg/m <sup>3</sup> ) MDL (63 µg/m <sup>3</sup> ) > Residential Soil Gas ESL (61 µg/m <sup>3</sup> ) MDL (63 µg/m <sup>3</sup> ) < Commercial Soil Gas ESL (530 µg/m <sup>3</sup> )	<b>1,1,2-Trichloroethane</b> RL (100 µg/m <sup>3</sup> ) > Residential Soil Gas ESL (88 µg/m <sup>3</sup> ) MDL (40 µg/m <sup>3</sup> ) < Residential Soil Gas ESL (88 µg/m <sup>3</sup> ) MDL (40 µg/m <sup>3</sup> ) < Commercial Soil Gas ESL (770 µg/m <sup>3</sup> )
<b>1,2-Dibromoethane:</b> RL (7.8 µg/m <sup>3</sup> ) > Residential Soil Gas ESL (2.3 µg/m <sup>3</sup> ) MDL (1.74 µg/m <sup>3</sup> ) < Residential Soil Gas ESL (2.3 µg/m <sup>3</sup> ) MDL (1.74 µg/m <sup>3</sup> ) < Commercial Soil Gas ESL (20 µg/m <sup>3</sup> )	<b>Vinyl Chloride:</b> RL (13 µg/m <sup>3</sup> ) > Residential Soil Gas ESL (4.7 µg/m <sup>3</sup> ) MDL (3.1 µg/m <sup>3</sup> ) < Residential Soil Gas ESL (4.7 µg/m <sup>3</sup> ) MDL (3.1 µg/m <sup>3</sup> ) < Residential Soil Gas ESL (160 µg/m <sup>3</sup> )

All other VOC MDLs are below Residential and Commercial ESLs  
Commercial ESLs apply



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- Sampling Locations
- ▭ UST Excavation Area
- HC Hexavalent Chromium (ND < 0.25mg/kg).
- ND Not Detected Above Laboratory Reporting Limits (µg/m<sup>3</sup> in soil vapor, µg/kg in soil, µg/L in groundwater)
- ▽ Groundwater depth based on 2015 groundwater sampling

Exploratory borings advanced for visual and olfactory screening. No suspect conditions encountered.

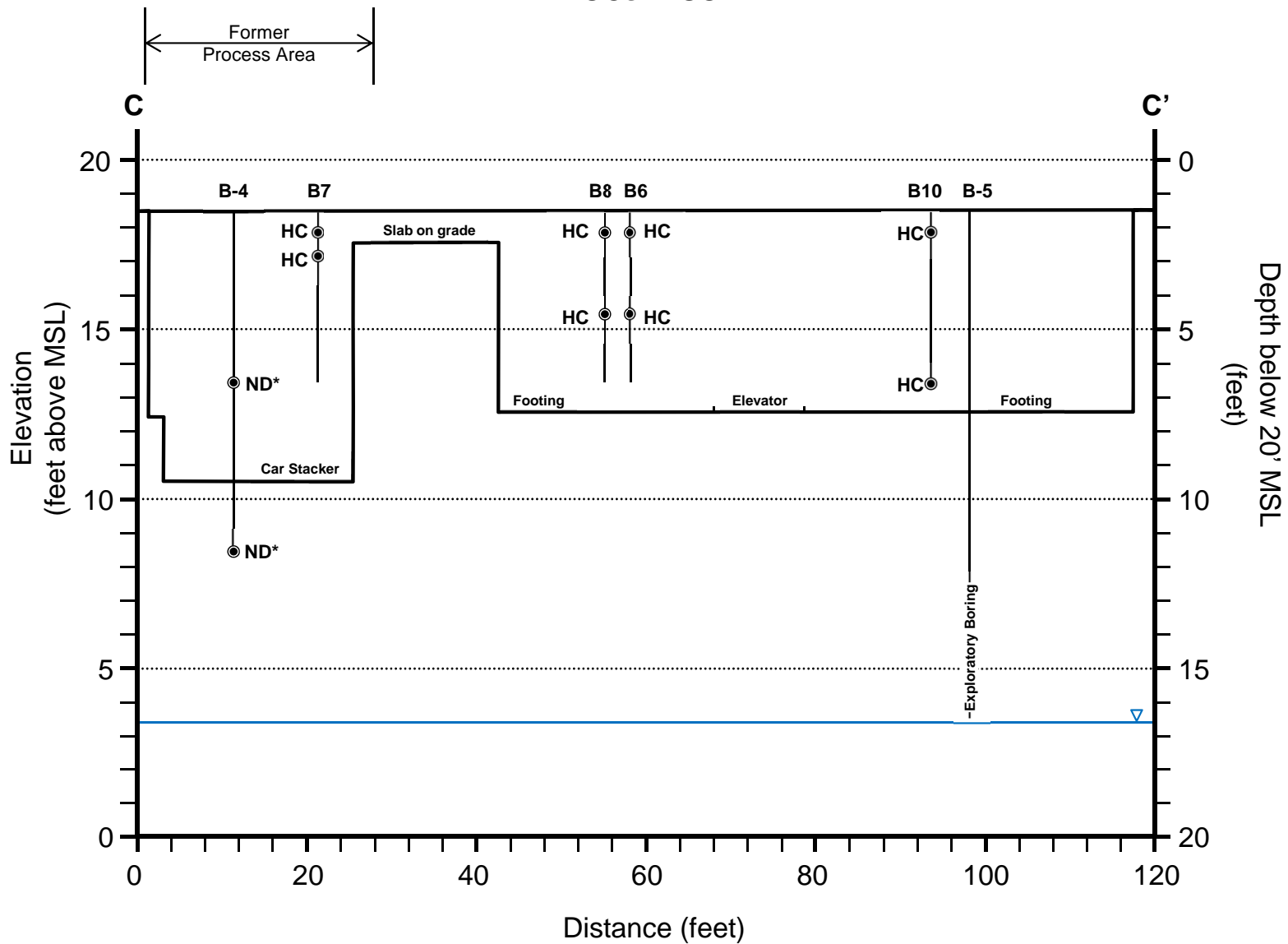
**Figure 6**  
**Cross Section B –B'**  
**585 22<sup>nd</sup> Street**  
**Oakland, California 94612**

Work Order No.:  
11-098SD

Figure Date:  
August 2016

Drawn By:  
TJ

**VOCs in SOIL**



**ND\* VOCs in Soil Exceptions:**

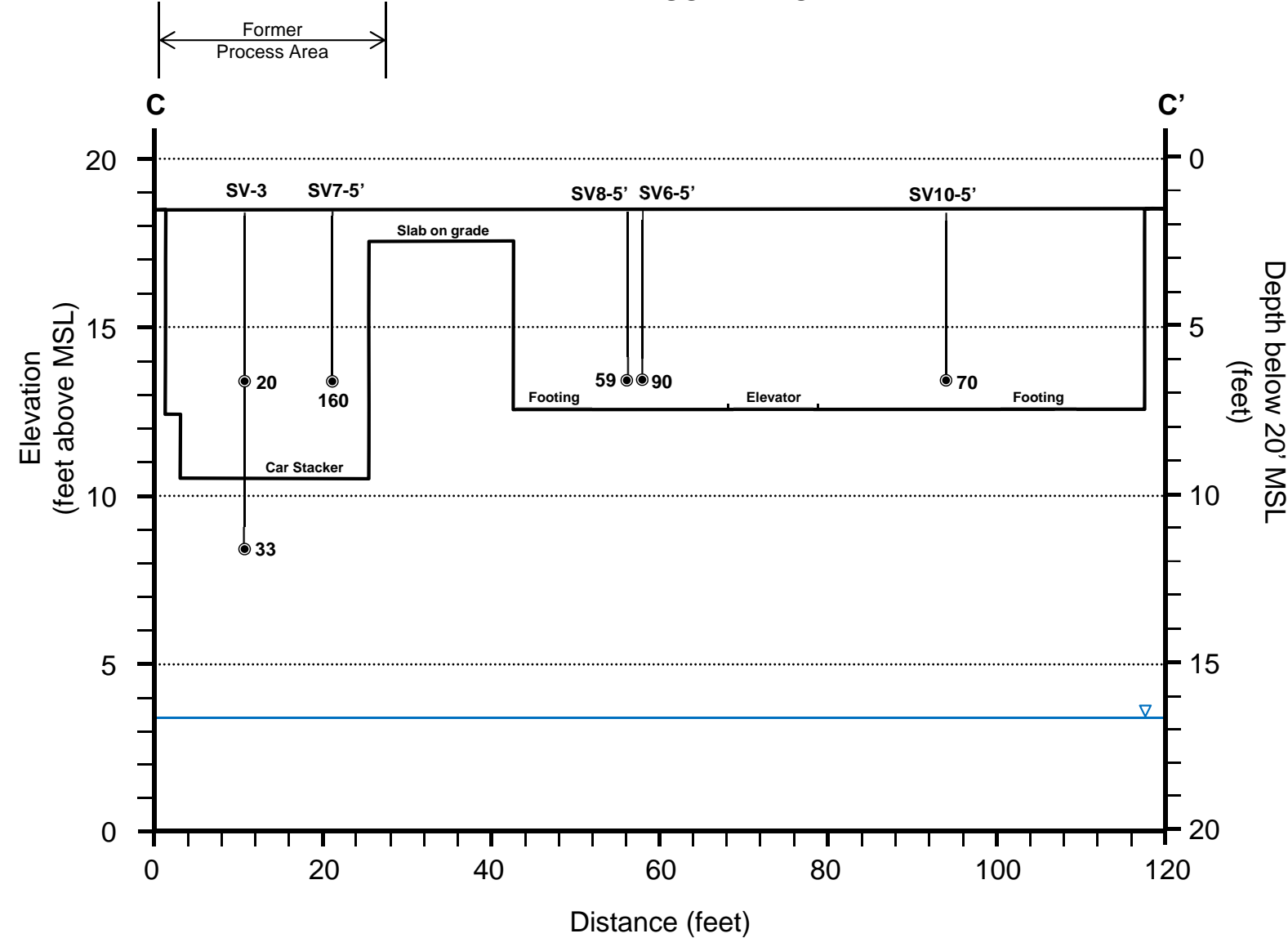
**1,2-Dibromo-3-chloropropane** (Not a COC)  
 MDL 25 µg/kg > Tier 1 Soil ESL (4.5 µg/kg)  
 MDL 25 µg/kg > Residential Soil ESL (5.3 µg/kg)  
 MDL 25 µg/kg < Commercial ESL (72 µg/kg)

**1,2-Dibromoethane** (Not a COC)  
 MDL 5 µg/kg > Tier 1 Soil ESL (0.33 µg/kg)  
 MDL 5 µg/kg < Residential Soil ESL (36 µg/kg)  
 MDL 5 µg/kg < Commercial ESL (160 µg/kg)

**1,2-Dichloroethane** (Not a COC)  
 MDL 5 µg/kg > Tier 1 Soil ESL (4.5 µg/kg)  
 MDL 5 µg/kg < Residential Soil ESL (370 µg/kg)  
 MDL 5 µg/kg < Commercial ESL (1,600 µg/kg)

All other VOC MDLs are below Residential and Commercial ESLs  
 Commercial ESLs apply

**BENZENE in SOIL VAPOR**



**ND\* VOCs in Soil Gas Exceptions:**

**Chloroform:**

RL (100 µg/m³) > Residential Soil Gas ESL (61 µg/m³)  
 MDL (63 µg/m³) > Residential Soil Gas ESL (61 µg/m³)  
 MDL (63 µg/m³) < Commercial Soil Gas ESL (530 µg/m³)

**1,1,2-Trichloroethane**

RL (100 µg/m³) > Residential Soil Gas ESL (88 µg/m³)  
 MDL (40 µg/m³) < Residential Soil Gas ESL (88 µg/m³)  
 MDL (40 µg/m³) < Commercial Soil Gas ESL (770 µg/m³)

**1,2-Dibromoethane:**

RL (7.8 µg/m³) > Residential Soil Gas ESL (2.3 µg/m³)  
 MDL (1.74 µg/m³) < Residential Soil Gas ESL (2.3 µg/m³)  
 MDL (1.74 µg/m³) < Commercial Soil Gas ESL (20 µg/m³)

**Vinyl Chloride:**

RL (13 µg/m³) > Residential Soil Gas ESL (4.7 µg/m³)  
 MDL (3.1 µg/m³) < Residential Soil Gas ESL (4.7 µg/m³)  
 MDL (3.1 µg/m³) < Residential Soil Gas ESL (160 µg/m³)

All other VOC MDLs are below Residential and Commercial ESLs  
 Commercial ESLs apply



145 Vallecitos De Oro, Suite 201  
 San Marcos, CA 92069

Phone: 760-744-3363  
 Fax: 760-744-3383

- Sampling Locations
- HC Hexavalent Chromium (ND < 0.25mg/kg).
- ND Not Detected Above Laboratory Reporting Limits (µg/m³ in soil vapor or µg/kg in soil)
- ▽ GW Groundwater depth based on 2015 groundwater sampling

Exploratory borings advanced for visual and olfactory screening. No suspect conditions encountered.

**Figure 7**  
**Cross Section C –C'**  
**585 22<sup>nd</sup> Street**  
**Oakland, California 94612**

Work Order No.:  
 11-098SD

Figure Date:  
 August 2016

Drawn By:  
 TJ