SGI environmental THE SOURCE GROUP, INC.

Memorandum

To: Mark Detterman

From: J. Glen Smith

cc: Jonathan Redding, Patrick Ellwood, Dilan Roe

Date: 04 May 2016

Re: 500 Grand Avenue, Oakland, CA Redevelopment Review Meeting - Data Gap Results Review.

Mark,

As a follow-up to our 04 April 2016 meeting, SGI implemented the Data Gap Assessment Work Plan. We have compiled the following for discussion.

COUNTY CLOSURE STATUS/APPLICABLE RISK STANDARD:

In 2011, the site was closed for commercial use only, with a requirement for re-evaluation prior to redevelopment. ACEH has determined that the commercial standard for analyzing potential exposure shall apply to the entire project at the ground floor, except in areas where potential vapor intrusion from subsurface areas could potentially intrude through the ground floor spaces to the upper residential floors via elevator or stairways. In the case of potential vapor intrusion to upper floors, residential ESLs or site-specific risk assessment for residential receptors is to be utilized to assess potential risk.

- To assess current site conditions, The Source Group, Inc. (SGI) collected 21 additional soil samples and 10 grab groundwater samples from 11 locations.
- Discrete sample intervals were carefully selected, using PID field screening, to make sure data would be representative of current site conditions and to address any potential data gaps identified by SGI and the ACEH.
- Soil sample locations were selected to confirm the lateral and vertical extent of the residual petroleum hydrocarbons present in the subsurface. See Figure 1.

2016 DATA RESULTS RELATIVE TO RISK STANDARDS:

- Construction/Development (direct contact with soil): For soil, compounds were detected at concentrations below the direct contact soil ESLs for commercial and construction worker exposure scenarios.
- Ground floor/commercial spaces (vapor intrusion pathway): For grab groundwater, compounds were detected at concentrations below vapor intrusion shallow groundwater ESLs and/or excess cancer risk estimates did not exceed $1x10^{-6}$ (the most stringent end of the USEPA risk management range 10^{-6} to 10^{-4}) and the estimated hazard index did not exceed USEPA/CalEPA threshold of one using a site specific vapor intrusion models for a commercial exposure scenario. See Table 3.
- Stairwell and Elevator Pit/Shaft – west side of building (potential preferential vapor intrusion pathway to residential upper floors): For grab groundwater (SGI-GW-06), only MTBE was

detected at a concentration below the shallow groundwater ESL. All other compounds were not detected above laboratory reporting limits. See Figure 6.

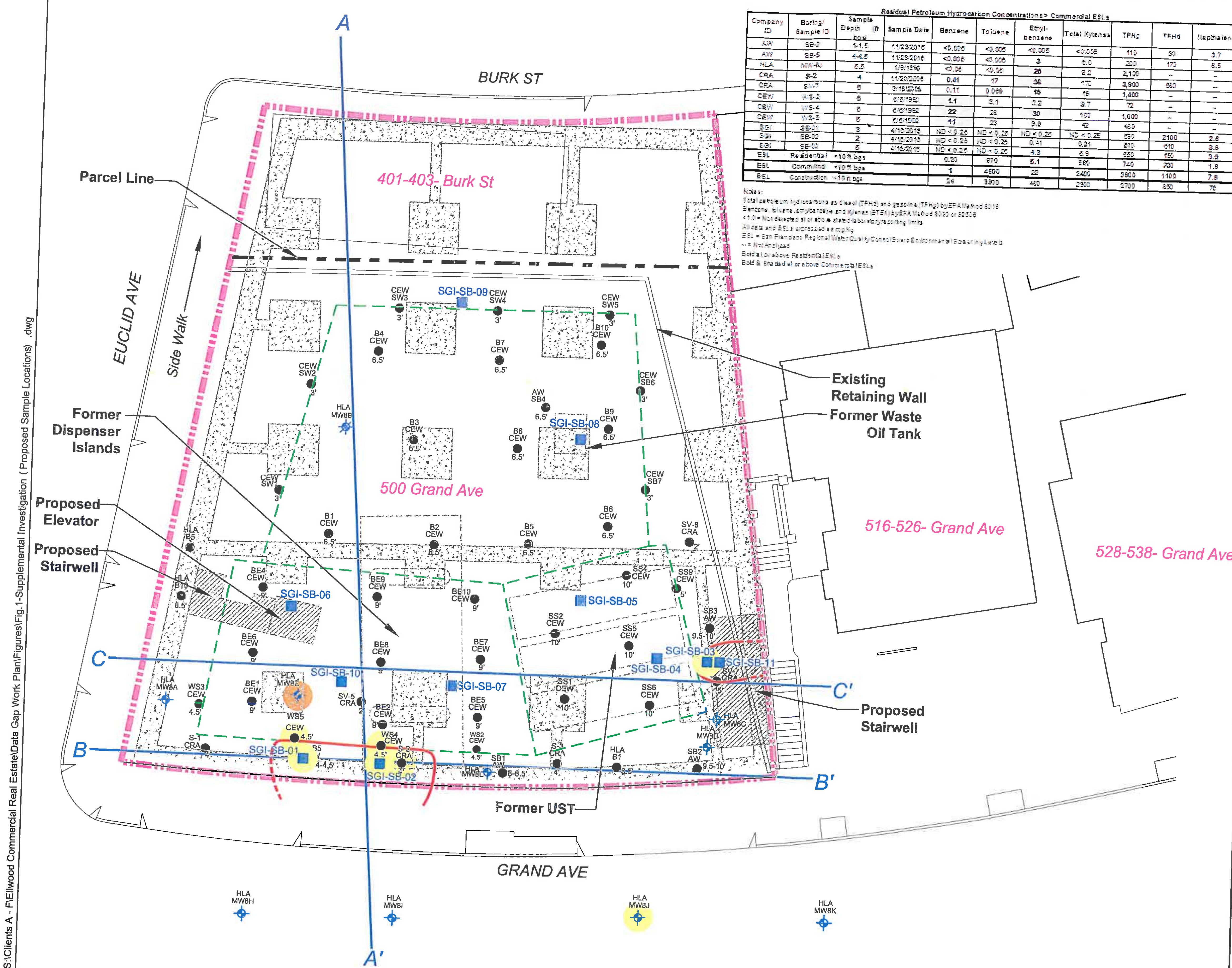
- Soil and groundwater samples (SGI-SB-10 and SGI-GW-10, respectively) were collected adjacent to pre-excavation hot spot HLA-MW8-L. No VOCs. SVOC, or TPH were detected above residential ESLs for soil or groundwater.
- The stairwell in the south east corner of the Site is an Emergency Exist Stairwell. When evaluated as a potential preferential vapor intrusion pathway; it was determined that:
    - This stairwell will not be open to the first floor (retail/commercial floor or any other floor of the building.
    - The stairwell will not be an enclosed indoor air space; therefore, it is an incomplete exposure pathway. Stairwell will be open to ambient outdoor air, which will significantly reduce any potential vapor concentrations from the subsurface due to dispersion.
- No PCE was identified in soil or groundwater.
- Excavation backfill material was determined not to be impacted.
- Soil analytical data collected immediately beneath the excavated areas were determined not to be impacted above applicable ESLs.

FIELD OBSERVATIONS AND PROCEDURES.

- Soil and grab groundwater samples were analyzed for VOCs, TPHg, TPHd, and TPHmo. Select soil and grab groundwater samples were analyzed for SVOCs. Grab groundwater samples may contain sediments and are anticipated to be conservative values.
- Soil bores were logged continuously from the surface to total depth to verify extent of backfill, dimensions of excavated area, soil properties, and depth to first encountered groundwater.
- Soil samples were field screened with a PID (10.6 eV).
- SGI attempted to collect soil vapor data from the Site and determined that the soil porosity was too low to allow proper development of the soil vapor sample location.

REVISED CSM

- Residual petroleum hydrocarbon soil impacts exceeding commercial ESLs for direct contact are limited to two localized areas of unexcavated soil present along Grand Avenue and in the southeast corner of the Site, respectively. Under future land use scenario, no direct contact exposure pathways are complete for future commercial or residential receptors. See Figure 1.
- Based on recent soil sample results in this area, all detected concentrations are below direct contact soil ESLs for construction worker exposure scenarios.
- Proposed building footer excavations will further reduce residual petroleum hydrocarbons present on the Site. See Figure 7.
- Grab groundwater samples, when compared to historic groundwater monitoring sample locations from the same areas, demonstrate declining concentrations over time. See Figure 8.
- No back diffusion was observed in excavation backfill from downgradient residual petroleum hydrocarbons.
- Site-specific soil property data (SB-10-10) classifies native soil type as a loam (predominately silts and clays), with a total porosity of 0.383, water-filled porosity of 0.326, and air-filled porosity of 0.057.



Residual Petroleum Hydrocarbon Concentrations > Commercial ESLs

Company ID	Boring/ Sample ID	Sample Depth (ft bgs)	Sample Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg	TPHd	Napthalene
AW	SB-2	1-1.5	11/23/2016	<0.005	<0.005	<0.005	<0.005	110	50	3.7
AW	SB-5	4-4.5	11/23/2016	<0.005	<0.005	3	5.6	200	170	6.5
HLA	MW-8J	5.5	1/8/1990	<0.05	<0.05	25	8.2	2,100	--	--
CRA	S-2	4	11/20/2006	0.41	17	36	170	3,900	580	--
CRA	SV-7	5	3/16/2006	0.11	0.059	15	19	1,400	--	--
CEW	WS-2	5	5/5/1992	1.1	3.1	2.2	9.7	72	--	--
CEW	WS-4	5	5/5/1992	22	25	30	100	1,000	--	--
CEW	WS-5	5	5/5/1992	11	23	9.9	42	480	--	--
SGI	SB-01	3	4/12/2016	ND < 0.25	ND < 0.25	ND < 0.25	ND < 0.25	550	2100	2.6
SGI	SB-02	2	4/15/2016	ND < 0.25	ND < 0.25	0.41	0.21	310	610	3.6
SGI	SB-02	5	4/15/2016	ND < 0.25	ND < 0.25	4.3	6.9	650	150	3.9
ESL	Residential	<10 ft bgs		0.23	870	5.1	560	740	230	1.8
ESL	Comm/Ind	<10 ft bgs		1	4600	22	2400	3900	1100	7.9
ESL	Construction	<10 ft bgs		24	3900	480	2300	2700	880	76

Notes:
Total petroleum hydrocarbons as diesel (TPHd) and gasoline (TPHg) by EPA Method 8015
Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8020 or 8260B
<1.0 = Not detected at or above stated laboratory reporting limits
All data and ESLs expressed as mg/kg
ESL = San Francisco Regional Water Quality Control Board Environmental Screening Levels
-- = Not Analyzed
Bold at or above Residential ESLs
Bold & Shaded at or above Commercial ESLs

LEGEND

- Property Line
- Limit of Depth of Excavation
- B7 HLA — HLA (Harding Lawson & Associates) Soil Boring Locations
- B7 CEW — CEW (Converse Environment West) Soil Boring Locations
- B7 AW — AW (All West) Soil Boring Locations
- SV-5 CRA — CRA (Connestoga Rovers Associates) Soil Boring Location
- HLA MW8D — HLA (Harding Lawson & Associates) Monitoring Well Location
- HLA MW8B — Destroyed Monitoring Well
- 10' — Sample Depth in Ft BGS (Feet Below Ground Surface)
- SGI-SB-01 — SGI Soil Boring Locations
- Residuals Petroleum Hydrocarbon Commercial ESL Exceedance
- Groundwater Hotspot Pre-over-excavation
- Aerial Extent of Residual Petroleum Hydrocarbons in Soil and Groundwater
- Proposed Cement Footers
- A—A' Cross Section location

Note:
Sampling event - SGI-SB1÷SB11-April 2016
AW-SB1÷SB5-2015
CRA-S1÷SV8-2006
CEW-SW÷SW7-1993
CEW-B1÷B10-1993
CEW-BE1÷BE10-1992
CEW-WS2÷WS5-1992
CEW-SS1÷SS9-1992
HLA-MW8A÷MW8L-1989

SUPPLEMENTAL INVESTIGATION SAMPLE LOCATIONS

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	03/21/16	ZA	GS

0 20 40
HORIZONTAL SCALE IN FEET

SGI environmental
THE SOURCE GROUP, INC.
3478 BUSKIRK AVENUE, SUITE 100
PLEASANT HILL, CA 94523

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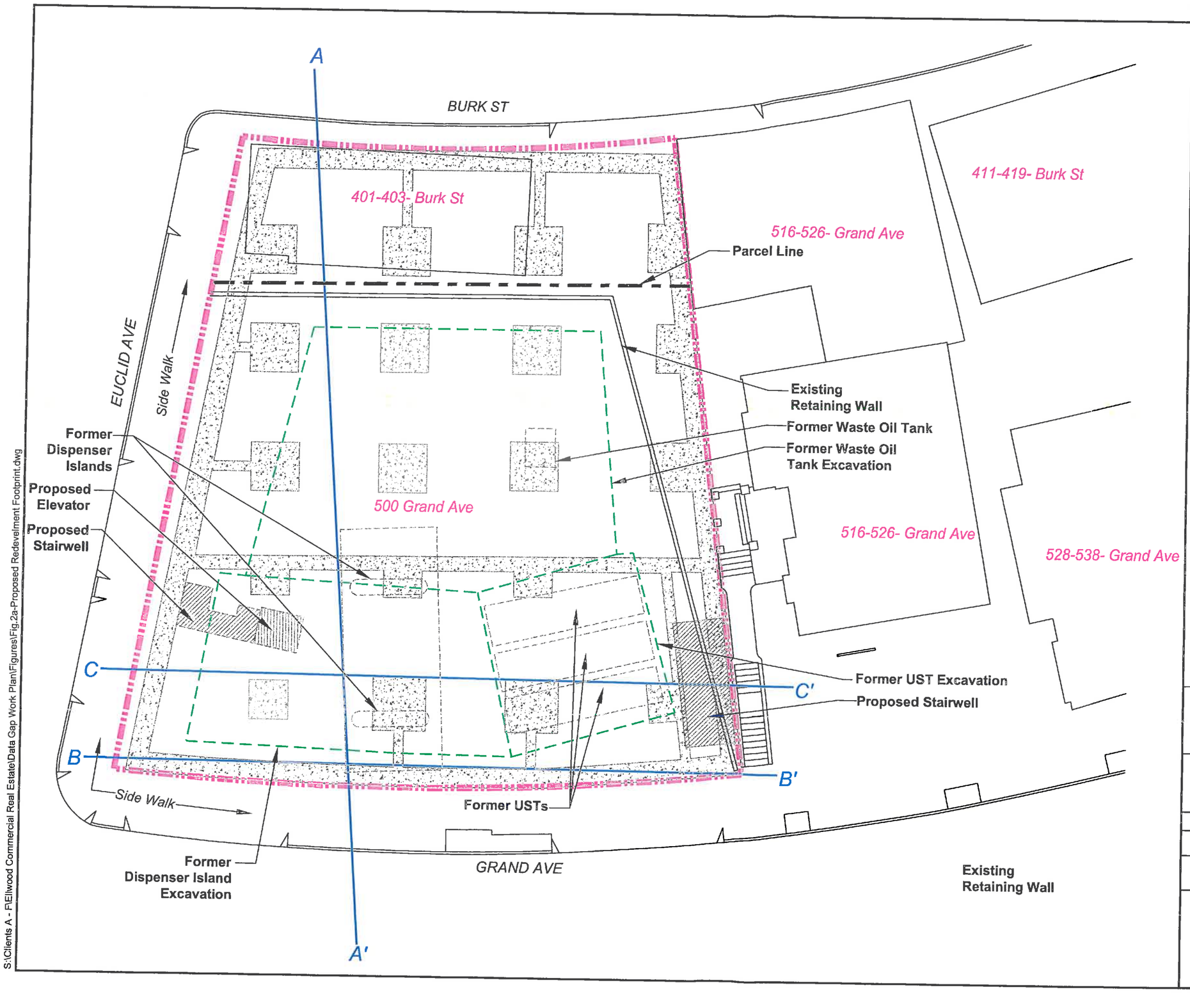
FIGURE 1

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.1-Supplemental Investigation (Proposed Sample Locations).dwg



LEGEND

- Property Line
- Base of UST, Dispenser, and Waste Oil Tank Over-Excavation
- Cement Footers
- A——A' Cross Section location

PROPOSED REDEVELOPMENT FOOTPRINT WITH FOOTERS

500 GRAND AVENUE
OAKLAND, CA

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0 20 40
HORIZONTAL SCALE IN FEET

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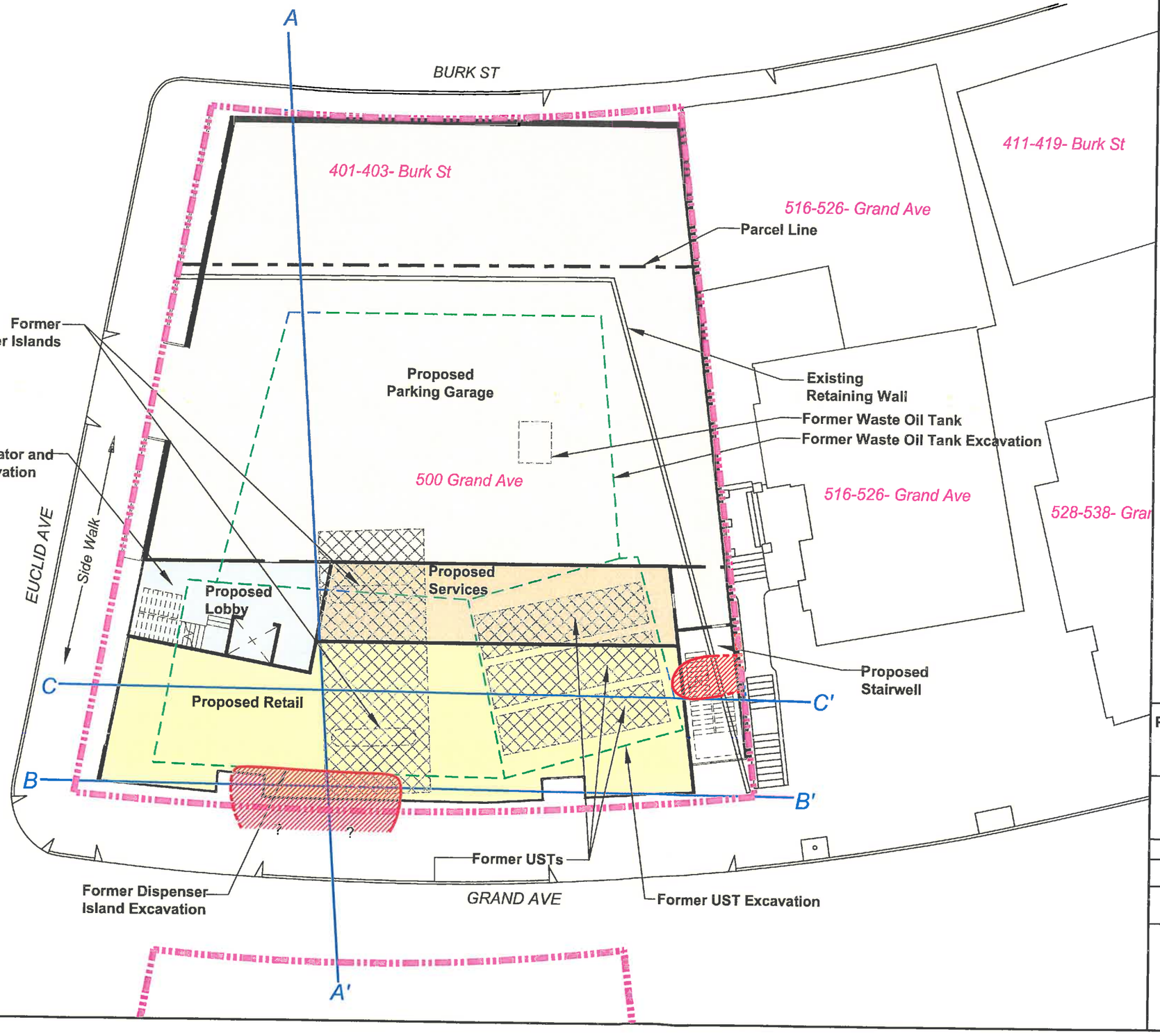
FIGURE 2A

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.2a-Proposed Redevelopment Footprint.dwg



LEGEND

- Property Line
- Base of UST, Dispenser, and Waste Oil Tank Over-Excavation
- A——A′ Cross Section location
- Aerial Extent of Residual Petroleum Hydrocarbons in Soil and Groundwater >Commercial Exceedance

PROPOSED REDEVELOPMENT FOOTPRINT WITH GROUND FLOOR LAYOUT AND RESIDUAL PETROLEUM HYDROCARBON IMPACTS

500 GRAND AVENUE
OAKLAND, CA

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01-ECR-001	03/21/16	ZA	GS

0 20 40
HORIZONTAL SCALE IN FEET

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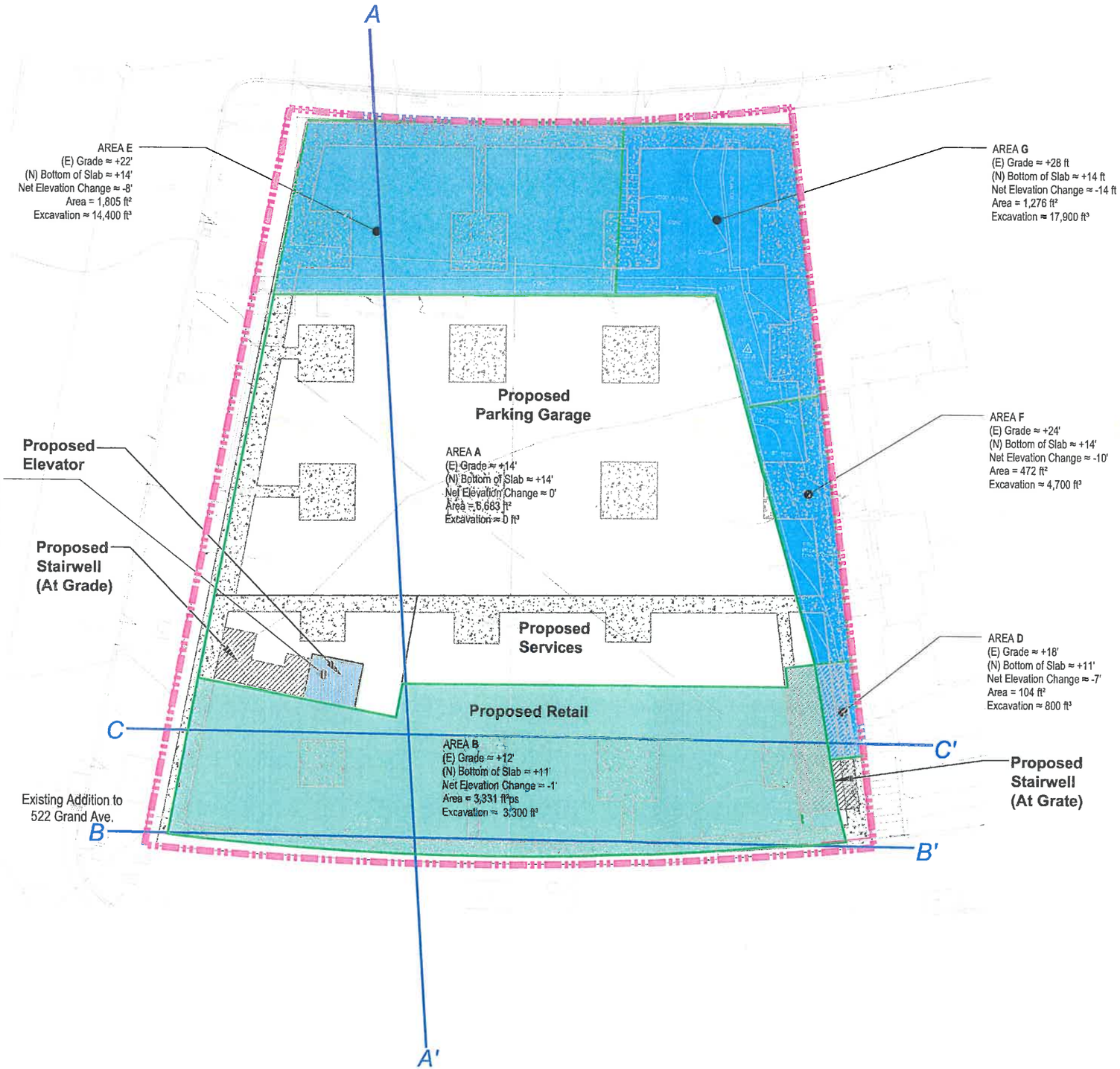
N

FIGURE 2B

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.2b-Proposed Redevelopment Footprint with Ground Floor Layout & Residual Petroleum Hidrocarbon Impacts.dwg

SUMMARY

A	≈ 6,683 ft³
B	≈ 3,330 ft³
C	≈ 300 ft³
D	≈ 104 ft³
E	≈ 14,400 ft³
F	≈ 4,700 ft³
G	≈ 17,900 ft³.
Total	≈ 47,417 ft³
	≈ 1,530 yards³



LEGEND

Property Line

Cement Footers

PROPOSED CONSTRUCTION CUT AND FILL

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	03/21/16	ZA	GS

0 20 40
HORIZONTAL SCALE IN FEET

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PLEASANT HILL, CA 94523

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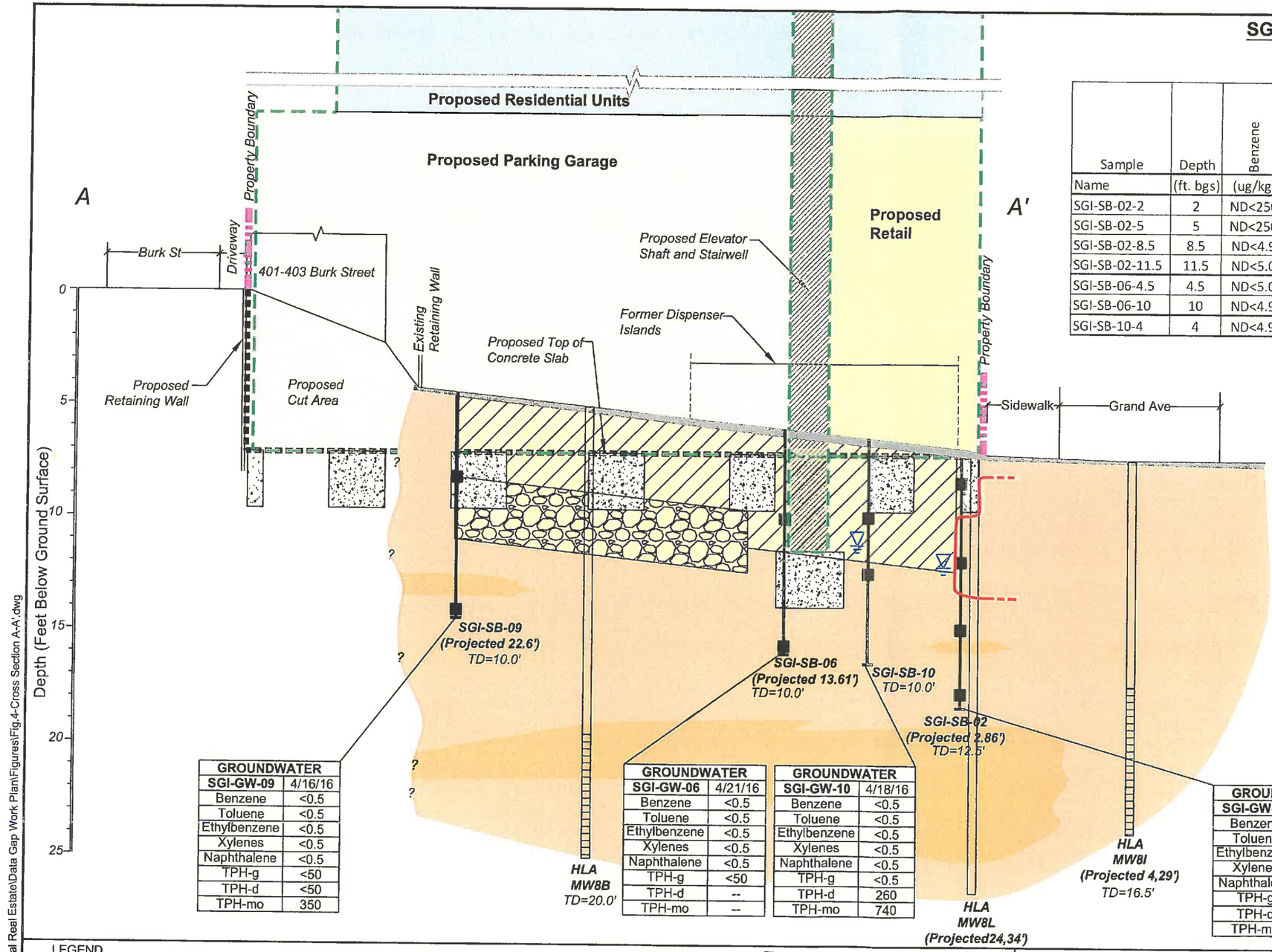
FIGURE 3

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.3-Proposed Cut & Fill.dwg

SGI SOIL ANALYTICAL SUMMARY
APRIL 2016

Sample	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TPHg	TPHd	TPHmo
Name	(ft. bgs)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SGI-SB-02-2	2	ND<250	ND<250	410	310	**3600**	510	610	77
SGI-SB-02-5	5	ND<250	ND<250	4300	5900	**3900**	550	150	ND<5.0
SGI-SB-02-8.5	8.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	3.2	6.1	ND<5.0
SGI-SB-02-11.5	11.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<0.98	ND<1.0	ND<5.0
SGI-SB-06-4.5	4.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<0.97	34	91
SGI-SB-06-10	10	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<0.96	2.3	ND<5.0
SGI-SB-10-4	4	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	11	88



GROUNDWATER	
SGI-GW-09	4/16/16
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Naphthalene	<0.5
TPH-g	<50
TPH-d	<50
TPH-mo	350

GROUNDWATER	
SGI-GW-06	4/21/16
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Naphthalene	<0.5
TPH-g	<50
TPH-d	--
TPH-mo	--

GROUNDWATER	
SGI-GW-10	4/18/16
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylenes	<0.5
Naphthalene	<0.5
TPH-g	<0.5
TPH-d	260
TPH-mo	740

GROUNDWATER	
SGI-GW-02	4/16/16
Benzene	**55**
Toluene	4.5
Ethylbenzene	**130**
Xylenes	141.3
Naphthalene	**72**
TPH-g	6,100
TPH-d	3,000
TPH-mo	<300

Notes:
1. Sample concentration in micrograms per liter (µg/L).
2. TPHg Total petroleum hydrocarbons as gasoline.
3. TPHd Total petroleum hydrocarbons as diesel.
4. TPHmo Total petroleum hydrocarbons as motor oil.
5. Bold values exceed residential ESLs.
6. Bold am highlighted values exceed residential and commercial ESLs.

LEGEND

- Backfill
- Pea Gravel
- Asphalt
- Sand / Gravels
- Sands
- Silt / Clay
- Groundwater Level (First Encounter)
- Depth to Groundwater (Hi/Lo Range)
- Proposed Top Of Concrete Slab
- Proposed Building Envelope
- Cement Footers
- Approximate Extent of Soil Impacts >Commercial ESLs
- Soil Sample Location
- Screened Interval

1"=5'
1"=20'

500 GRAND AVENUE
OAKLAND, CA

PROJECT NO.	DATE	DRAWN BY:	APP. BY:
01-ECR-001	04/01/16	ZA	GS

GROUNDWATER CROSS SECTION A-A'
(CURRENT SITE CONDITIONS)
(Looking East From Euclid Ave.)

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PLEASANT HILL, CA 94523

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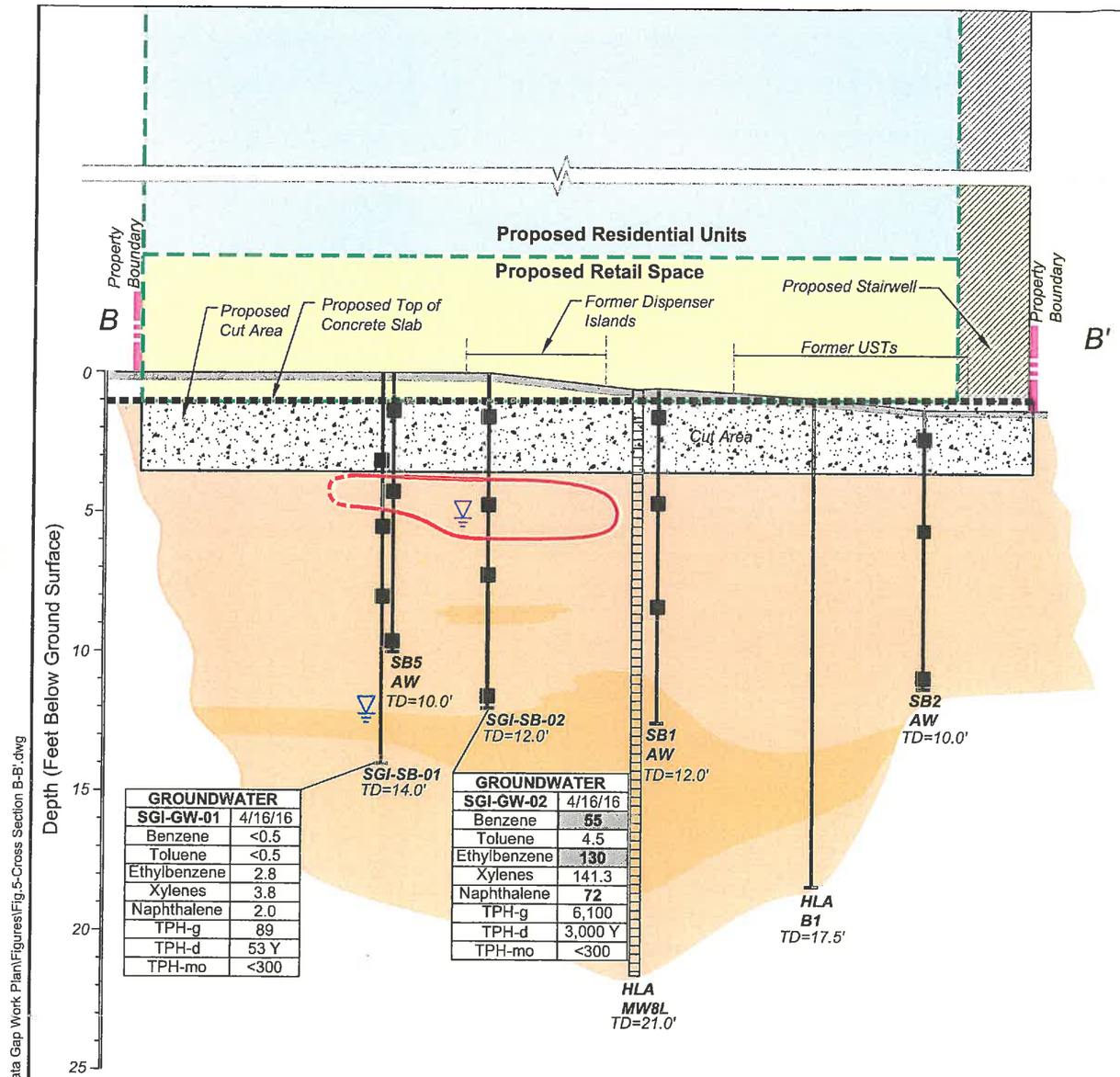
FIGURE 4

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.4-Cross Section A-A'.dwg



SGI AND ALL WESTSOIL ANALYTICAL SUMMARY
APRIL 16, 2016 & NOVEMBER 23, 2015

Sample	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TPHg	TPHd	TPHmo
Name	(ft. bgs)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SGI-SB-01-3	3	ND<250	ND<250	ND<250	ND<250	2600	590	**2100**	ND<50
SGI-SB-01-5.5	5.5	ND<250	ND<250	2300	5710	1800	230	60	ND<5.0
SGI-SB-01-8.5	8.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.6	1.4	1.1	ND<5.0
SGI-SB-01-10	10	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<0.94	2.0	ND<5.0
SGI-SB-02-2	2	ND<250	ND<250	410	310	3600	510	610	77
SGI-SB-02-5	5	ND<250	ND<250	4300	5900	3900	550	150	ND<5.0
SGI-SB-02-8.5	8.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	3.2	6.1	ND<5.0
SGI-SB-02-11.5	11.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<0.98	ND<1.0	ND<5.0
AW SB-1	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<0.25	ND<1.0	ND<5.0
AW SB-1	8.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	3.7	2.5	16	390
AW SB-2	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	110	30	5.4
AW SB-2	10	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<0.25	ND<1.0	ND<5.0
AW SB-5	1.5	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	ND<0.25	1.5	36
AW SB-5	4.5	ND<5.0	ND<5.0	3	6.6	6.5	200	170	230

Notes:
1. Sample concentration in micrograms per liter (µg/L).
2. TPHg Total petroleum hydrocarbons as gasoline.
3. TPHd Total petroleum hydrocarbons as diesel.
4. TPHmo Total petroleum hydrocarbons as motor oil.
5. Bold values exceed residential ESLs.
6. Bold am highlighted values exceed residential and commercial ESLs.

LEGEND

- Backfill
- Pea Gravel
- Asphalt
- Sand / Gravels
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- Groundwater Level (First Encounter)
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1"=5'
1"=20'

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CROSS SECTION B-B'
(WITH PROPOSED FOOTERS AND FOUNDATION)

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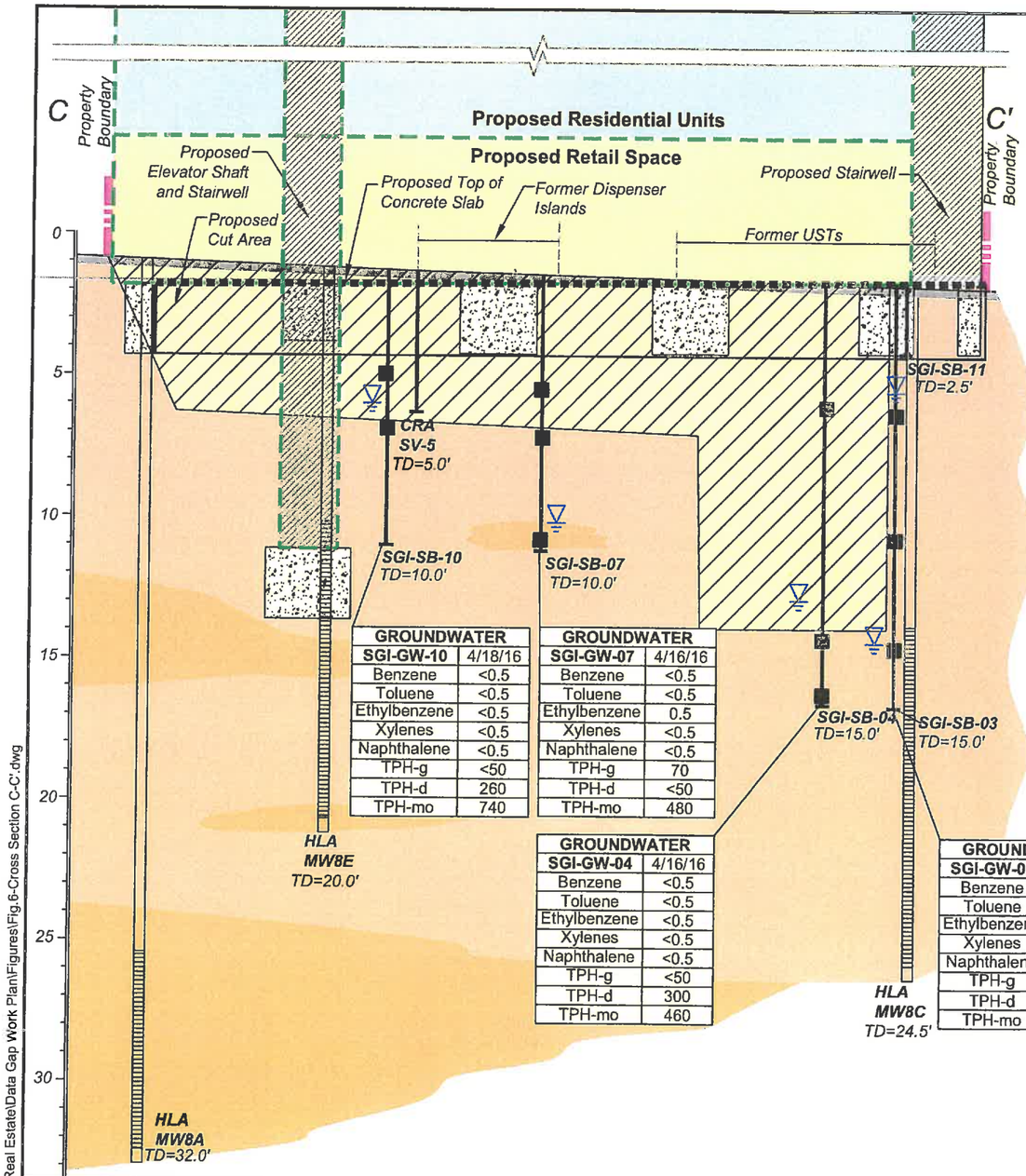
FIGURE 5

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.5-Cross Section B-B'.dwg



SGI SOIL ANALYTICAL SUMMARY
APRIL 16, 2016

Sample	Depth	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene	TPHg	TPHd	TPHmo
Name	(ft. bgs)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(mg/kg)	(mg/kg)	(mg/kg)
SGI-SB-03-5	5	ND<4.7	ND<4.7	ND<4.7	ND<4.7	4.8	ND<1.1	2.7	ND<5.0
SGI-SB-03-13	13	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<0.97	1.8	ND<5.0
SGI-SB-04-4.5	4.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.0	23	71
SGI-SB-04-4.5D	4.5	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<1.1	31	100
SGI-SB-04-12.5	12.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	2.3	ND<5.0
SGI-SB-07-4.5	4.5	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	24	86
SGI-SB-10-4	4	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<1.1	11	88
SGI-SB-11-2.5	2.5	ND<10	ND<10	ND<10	ND<10	ND<10	27	30	32

Notes:
1. Sample concentration in micrograms per liter (µg/L).
2. TPHg Total petroleum hydrocarbons as gasoline.
3. TPHd Total petroleum hydrocarbons as diesel.
4. TPHmo Total petroleum hydrocarbons as motor oil.
5. Bold values exceed residential ESLs.
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- Approximate Extent of Soil Impacts >Commercial ESLs
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1"=5'
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CROSS SECTION C-C'
(WITH PROPOSED FOOTERS AND FOUNDATION)

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3478 BUSKIRK AVENUE, SUITE 100
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FIGURE 6

S:\Clients A - F\Ellwood Commercial Real Estate\Data Gap Work Plan\Figures\Fig.6-Cross Section C-C'.dwg

Table 1
Summary of Recent Soil Data
Ellwood Commercial Real Estate
500 Grand Avenue, Oakland, California

			Total Petroleum Hydrocarbons			Volatile Organic Compounds																	Semi-Volatile Organic Compounds		
Sample			TPHg	TPHd	TPHmo	Acetone	MTBE	2-Butanone	1,2-Dichloroethane	Benzene	Toluene	Ethylbenzene	m,p-xylenes	o-xylenes	Total Xylenes	Isopropylbenzene[3]	Propylbenzene[3]	1,3,5-Trimethylbenzene[3]	1,2,4-Trimethylbenzene[3]	sec-butylbenzene[3]	para-isopropyl toluene	n-bubtylbenzene[3]	Naphthalene	Naphthalene	2-Methylnaphthalene	Phenanthrene
Name	Date	Depth	(mg/kg)	(mg/kg)	(mg/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
SFBRWQCB Direct Exposure Shallow Soil ESLs[1] Residential Land Use			**7.4E+02**	**2.3E+02**	**1.1E+04**	**5.9E+07**	**4.2E+04**	--	**3.7E+02**	**2.3E+02**	**9.7E+05**	**5.1E+03**	--	--	**5.6E+05**	**1.9E+06**	**3.8E+06**	**7.8E+05**	**5.8E+04**	**7.8E+06**	--	**3.9E+06**	**3.3E+03**	**3.3E+03**	**2.4E+05**	--
SFBRWQCB Direct Exposure Shallow Soil ESLs[2] Commercial/Industrial Land Use			**3.9E+03**	**1.1E+03**	**1.4E+05**	**6.3E+08**	**1.8E+05**	--	**1.6E+03**	**1.0E+03**	**4.6E+06**	**2.2E+04**	--	--	**2.4E+06**	**9.9E+06**	**2.4E+07**	**1.2E+07**	**2.4E+05**	**1.2E+08**	--	**5.8E+07**	**1.4E+04**	**1.4E+04**	**3.0E+06**	--
SGI-SB-01-3	4/16/16	3	590	**2100**	ND<50	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	ND<250	ND<250	ND<250	ND<250	660	3600	ND<250	ND<250	980	300	4800	2600	2300	5500	760
SGI-SB-01-5.5	4/16/16	5.5	230	60	ND<5.0	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	2300	5300	410	5710	290	1300	2300	7500	ND<250	ND<250	810	1800	1500	1200	ND<66
SGI-SB-01-8.5	4/16/16	8.5	1.4	1.1	ND<5.0	36	ND<5.0	ND<9.9	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	6.9	ND<5.0	ND<5.0	ND<5.0	6.6	ND<66	ND<66	ND<66
SGI-SB-01-10	4/16/16	10	ND<0.94	2.0	ND<5.0	ND<18	ND<4.4	ND<8.8	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<4.4	ND<67	ND<67	ND<67
SGI-SB-02-2	4/16/16	2	510	**610**	77	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	410	310	ND<250	310	520	2400	ND<250	ND<250	670	ND<250	4200	**3600**	1100	1300	ND<66
SGI-SB-02-5	4/16/16	5	550	150	ND<5.0	ND<1000	ND<250	ND<500	ND<250	ND<250	ND<250	4300	5900	ND<250	5900	700 J	2000 J	3700	15000	620 J	1100	2100	**3900**	3200	1300	ND<660
SGI-SB-02-8.5	4/16/16	8.5	3.2	6.1	ND<5.0	31	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<67	ND<67	ND<67
SGI-SB-02-11.5	4/16/16	11.5	ND<0.98	ND<1.0	ND<5.0	ND<20	ND<5.0	ND<10	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<66	ND<66	ND<66
SGI-SB-03-5	4/16/16	5	ND<1.1	2.7	ND<5.0	83	ND<4.7	37	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	ND<4.7	4.8	100	100	ND<66
SGI-SB-03-13	4/16/16	13	ND<0.97	1.8	ND<5.0	ND<19	ND<4.8	ND<9.6	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<4.8	ND<67	ND<67	ND<67
SGI-SB-04-4.5	4/16/16	4.5	ND<1.0	23	71	ND<19	ND<4.9	ND<9.7	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-04-4.5D	4/16/16	4.5	ND<1.1	31	100	ND<19	ND<4.6	ND<9.3	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	--	--	--
SGI-SB-04-12.5	4/16/16	12.5	ND<1.1	2.3	ND<5.0	ND<19	ND<4.9	ND<9.7	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-05-4	4/16/16	4	ND<1.0	16	51	ND<20	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-06-4.5	4/16/16	4.5	ND<0.97	34	91	ND<20	ND<5.0	ND<9.9	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	--	--	--
SGI-SB-06-10	4/16/16	10	ND<0.96	2.3	ND<5.0	ND<20	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-07-4.5	4/16/16	4.5	ND<1.1	24	86	ND<19	ND<4.9	ND<9.7	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-08-3	4/16/16	3	ND<0.94	2.7	26	ND<20	ND<4.9	ND<9.8	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<66	ND<66	ND<66
SGI-SB-08-7	4/16/16	7	ND<0.99	31	130	ND<18	ND<4.6	ND<9.2	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<4.6	ND<67	ND<67	ND<67
SGI-SB-10-4	4/16/16	4	ND<1.1	11	88	ND<20	ND<4.9	ND<9.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	--	--	--
SGI-SB-11-2.5	4/22/16	2.5	27	30	32	ND<41	ND<10	ND<20	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	ND<130	230	ND<130
AW SB-1	11/23/15	1.5	ND<0.25	ND<1.0	ND<5.0	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-1	11/23/15	8.5	2.5	16	390	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-2	11/23/15	1.5	110	30	5.4	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	**3700**	**3700**	--	--
AW SB-2	11/23/15	10	ND<0.25	ND<1.0	ND<5.0	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-3	11/23/15	1.5	ND<0.25	ND<1.0	11	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-3	11/23/15	10	ND<0.25	ND<1.0	ND<5.0	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-4	11/23/15	1.5	ND<0.25	1.1	5.5	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-5	11/23/15	1.5	ND<0.25	1.5	36	--	--	--	--	ND<5	ND<5	ND<5	ND<5	ND<5	ND<5	--	--	--	--	--	--	--	--	--	--	--
AW SB-5	11/23/15	4.5	200	170	230	--	--	--	--	ND<5	ND<5	3000	--	--	6600	--	--	--	--	--	--	--	**6500**	**6500**	--	--

Notes:
Bold font indicates value exceeds soil ESL for residential land use.
Bold font and shaded cell indicates value exceeds soil ESL for commercial/industrial land use.
J = Estimated Value
[1] Shallow Soil Screening Levels (<3m bgs), Residential Land Use - groundwater is not a current or potential drinking water resource
[2] Shallow Soil Screening Levels (<3m bgs), Commercial/Industrial Land Use - groundwater is not a current or potential drinking water resource
[3] SFBRWQCB ESL was not available; therefore, the USEPA RSL was used.
"--" = Not analyzed

Table 2
Summary of Recent Grab Groundwater Data
Ellwood Commercial Real Estate
500 Grand Avenue, Oakland, California

			Total Petroleum Hydrocarbons			Volatile Organic Compounds																Semi-Volatile Organic Compounds	
Sample Name	Date	First Water (ft. bgs)	TPHg (ug/L)	TPHd (ug/L)	TPHmo (ug/L)	Acetone (ug/L)	MTBE (ug/L)	1,2-Dichloroethane (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	m,p-xylenes (ug/L)	o-xylenes (ug/L)	Total Xylenes (ug/L)	Isopropylbenzene (ug/L)	Propylbenzene (ug/L)	1,3,5-Trimethylbenzene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	sec-butylbenzene (ug/L)	para-isopropyl toluene (ug/L)	n-bubtylbenzene (ug/L)	Naphthalene (ug/L)	Naphthalene (ug/L)	2-Methylnaphthalene (ug/L)
SFBRWQCB Vapor Intrusion Shallow Groundwater ESLs[1] Residential Land Use			--	--	--	**3.4E+07**	**1.2E+03**	**6.1E+00**	**1.1E+00**	**3.6E+03**	**1.3E+01**	--	--	**1.3E+03**	--	--	--	--	--	--	--	**2.0E+01**	**2.0E+01**	--
SFBRWQCB Vapor Intrusion Shallow Groundwater ESLs[2] Commercial/Industrial Land Use			--	--	--	**2.9E+08**	**1.1E+04**	**5.3E+01**	**9.7E+00**	**3.0E+04**	**1.1E+02**	--	--	**1.1E+04**	--	--	--	--	--	--	--	**1.7E+02**	**1.7E+02**	--
SGI-GW-01	4/16/16	12.5	89	53	ND<300	ND<10	1.8	ND<0.5	ND<0.5	ND<0.5	2.8	3.8	ND<0.5	3.8	ND<0.5	0.8	0.8	3.5	ND<0.5	ND<0.5	0.7	2.0	ND<9.4	ND<9.4
SGI-GW-02	4/16/16	5.5	6100	3000	ND<300	ND<20	ND<1.0	ND<1.0	**55**	4.5	**130**	140	1.3	141.3	18	30	41	170	5.8	10	8.4	**72**	**67**	ND<47
SGI-GW-03	4/21/16	> 13	15000	--	--	240	ND<10	ND<10	**740**	110	**710**	1500	220	**1720**	28	86	160	560	ND<10	ND<10	42	**150**	--	--
SGI-GW-04	4/16/16	11.5	ND<50	300	460	ND<10	0.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-05	4/16/16	> 14	76	700	440	ND<10	0.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-06	4/21/16	> 10	ND<50	--	--	ND<10	2.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-07	4/16/16	9	70	ND<50	480	ND<10	5.9	ND<0.5	ND<0.5	ND<0.5	0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<9.4	ND<9.4
SGI-GW-08	4/16/16	6.5	ND<50	ND<50	ND<300	ND<10	1.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-09	4/16/16	1	ND<50	ND<50	350	ND<10	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-09 Dup	4/16/16	1	ND<50	66	800	ND<10	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
SGI-GW-10	4/18/16	5	ND<50	260	740	ND<10	1.1	3.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--
AW SB-4	11/23/15	> 4	ND<50	200	4400	--	--	--	ND<0.5	ND<0.5	ND<0.5	--	--	ND<0.5	--	--	--	--	--	--	--	--	--	--

Notes:
Bold font indicates value exceeds groundwater ESL for residential land use.
Bold font and shaded cell indicates value exceeds groundwater ESL for commercial/industrial land use.
[1] Shallow Groundwater Screening Levels (<3m bgs), Sand Scenario, Residential Land Use
[2] Shallow Soil Screening Levels (<3m bgs), Sand Scenario, Commercial/Industrial Land Use
"--" = Not analyzed

Table 3
Summary of Cancer Risks and Noncancer Hazard Indices for Inhalation of Chemicals of Potential Concern (COPCs) Volatilizing from Groundwater into Indoor Air (Loam) for the Commercial/Industrial Exposure Scenario
Ellwood Commercial Real Estate
500 Grand Avenue, Oakland, California

Chemical of Potential Concern	Cas No.	Groundwater at 8.5 feet bgs	Soil Gas and Indoor Air[1]			Cancer Risk	Noncancer Hazard
		Maximum Detected Groundwater Concentration (µg/L)	Model-Derived Soil Gas Concentration (µg/m³)	Model-Derived Soil Vapor to Indoor Air Attenuation Factor (unitless)	Model-Derived Indoor Air Concentration (µg/m³)	(unitless)	(unitless)
Acetone	67641	240	3.3E+02	8.0E-05	2.6E-02	NA	1.9E-07
Benzene	71432	740	1.6E+05	3.3E-06	5.3E-01	1.3E-06	4.0E-02
n-Butylbenzene	104518	42	2.6E+04	1.8E-06	4.6E-02	NA	6.0E-05
sec-Butylbenzene	135988	5.8	2.3E+03	1.8E-06	4.2E-03	NA	2.4E-06
1,2-Dichloroethane	107062	3.1	1.4E+02	5.1E-06	7.2E-04	1.5E-09	2.4E-05
Ethylbenzene	100414	710	2.2E+05	2.4E-06	5.3E-01	1.1E-07	1.2E-04
Isopropylbenzene	98828	28	1.2E+04	2.1E-06	2.6E-02	NA	1.5E-05
p-Isopropyltoluene	99876	10	NA	NA	NA	NA	NA
Methyl tert butyl ether	1634044	5.9	1.4E+02	6.0E-06	8.2E-04	1.7E-11	6.3E-08
Naphthalene	91203	150	2.5E+03	6.8E-06	1.7E-02	4.8E-08	1.3E-03
n-Propylbenzene	103651	86	3.5E+04	2.1E-06	7.2E-02	NA	1.7E-05
Toluene	108883	110	2.8E+04	2.8E-06	8.0E-02	NA	6.1E-05
1,2,4-Trimethylbenzene	95636	560	1.3E+05	2.2E-06	3.0E-01	NA	9.7E-03
1,3,5-Trimethylbenzene	108678	160	5.4E+04	2.1E-06	1.1E-01	NA	7.5E-04
m,p-Xylenes	108383	1,500	4.2E+05	2.5E-06	1.0E+00	NA	2.3E-03
o-Xylenes	95476	220	4.4E+04	2.6E-06	1.1E-01	NA	2.6E-04
					Total	**1E-06**	**5E-02**

Notes:
feet bgs = feet below ground surface.
µg/L = micrograms per liter.
µg/m³ = micrograms per cubic meter.
NA = Not applicable.
[1] Maximum detected groundwater concentrations were coupled with CalEPA DTSC vapor intrusion model to estimate attenuation factors and concentrations in soil gas and indoor air.