VCP NW 2980

Construction Contingency Plan
Contaminated Soil and Groundwater Management

9th and Lenora Development
2118 Westlake Avenue/2101 9th Avenue
Seattle, Washington

for
Ninth and Lenora LLC
c/o GID Urban Development Acquisitions, LLC

December 12, 2014

GeoEngineers

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2118 Westlake Avenue and 2101 9th Avenue
Seattle, Washington

File No. 21138-001-01

December 12, 2014

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Table of Contents

1.0 INTRODUCTION **1**

2.0 BACKGROUND **1**

Soil 2
Perched Water 3
Groundwater 3

3.0 ANTICIPATED CATEGORIES OF EXCAVATED SOIL **3**

3.1. Soil Requiring No Special Handling 3
3.2. Soil Requiring Special Handling 3
Impacted Soil 3
Contaminated Soil 4

4.0 GUIDELINES FOR SOIL EXCAVATION AND HANDLING **4**

4.1. Worker Health and Safety 4
4.2. Zone 1 – Yellow: Soil with No Special Handling Requirements 5
4.3. Zone 2 – Blue: Impacted Soil 5
4.4. Zone 3 – Pink: Contaminated Soil 6
4.5. Zone 4 – Brown: Contaminated Soil 8

5.0 GUIDELINES FOR SUSPECT CONTAMINATION **8**

6.0 CONSTRUCTION DEWATERING EFFLUENT HANDLING **9**

7.0 CONTACT INFORMATION **9**

8.0 LIMITATIONS **10**

LIST OF FIGURES

Figure 1. Vicinity Map
Figure 2. Fill Soil Management Plan
Figure 3. Cross Section A-A'
Figure 4. Cross Section B-B'
Figure 5. Sumary of Petroleum Hydrocarbons and Metals Data in Perched and Regional Groundwater

APPENDICES

Appendix A – Field Procedures
Appendix B – Report Limitations and Guidelines for Use

1.0 INTRODUCTION

This Construction Contingency Plan for Contaminated Soil and Groundwater Management was developed for Ninth and Lenora LLC (Ninth and Lenora LLC is an entity affiliated with GID Urban Development Acquisitions LLC [GID], with whom GeoEngineers, Inc. [GeoEngineers] contracted for these services) and their contractors for use during construction excavation activities associated with redevelopment of the 9th and Lenora redevelopment property (Subject Property). The Subject Property comprises two King County tax parcels (0660000545 and 0660000540) comprising approximately 0.49 acres. The Subject Property is currently owned by Ninth and Lenora LLC. The Subject Property is currently developed with a vacant single-story building (most recently formerly occupied by Enterprise Car Rental) and an adjacent vacant 2-story office/warehouse building formerly occupied by the Woodside Braseth Gallery on the ground floor, office space upstairs, and a one level below-grade parking garage. An alley and a triangle-shaped parcel (0660000485) owned by City of Seattle (City) border the Subject Property to the south-southwest. Lenora Street and 9th Avenue are adjacent to the Subject Property to the southeast and northeast. A retail building and Westlake Avenue border the Subject Property to the north-northwest. The property location is generally shown relative to surrounding features in the Vicinity Map, Figure 1. The site layout, including historic and current site features, and approximate exploration locations is shown on the Fill Soil Management Plan (Figure 2).

GeoEngineers understands that Ninth and Lenora LLC intends to redevelop the Subject Property with a high rise residential tower with six levels of underground parking. Construction excavation is anticipated to extend down to about 80 feet below existing grades. We understand the City-owned adjacent triangle parcel will become a park after the Subject Property is redeveloped. We also understand that Ninth and Lenora LLC and the City of Seattle have been communicating related to access and use agreements for the triangle parcel during redevelopment. The triangle parcel currently consists of a parking structure with one level below grade and one level at grade and we understand that Ninth and Lenora LLC has agreed to demolish this structure on behalf of the City and fill it to match the grades of the new residential building.

Environmental studies have been completed to evaluate soil and groundwater conditions prior to starting excavation and redevelopment activities. The soil and groundwater testing results form the basis for guidelines presented in this Construction Contingency Plan and the analytical data is being used to obtain landfill waste disposal clearance approvals for "contaminated", "impacted" and soil that requires no special handling (as defined and described in Sections 3.0 and 4.0 of this document).

2.0 BACKGROUND

Several environmental studies were completed at the Subject Property (including the immediate vicinity of the Subject Property) in 2002 for Cornish College (B-1 through B-9, and HA-1) and in 2007 for Bosa Properties USA, Inc. (GEI-1 through GEI-6). GeoEngineers also completed a Phase I Environmental Site Assessment (ESA) update and a Focused Phase II ESA dated August 5, 2013, and a Supplemental Phase II ESA dated August 14, 2013 of the Subject Property for GID. GeoEngineers recently completed an Environmental Study in the south portion of the Subject Property and vicinity, dated December 10, 2014 (which compiles the 2002, 2007, and 2013 environmental study data into one report) for

Ninth and Lenora LLC. Following is a brief summary of subsurface soil and groundwater conditions at the Subject Property (some portions of the sections below were excerpted from our previous reports):

Soil

Soil beneath the Subject Property generally consists of 4 to 15 feet of fill underlain by native sand, silt, and glacial till deposits. Fill generally consists of loose to medium dense silty sand with variable gravel and cobble content and occasional brick, charcoal or wood debris. Special handling and disposal requirements will be necessary for shallow fill soil exported off-site during property redevelopment because the shallow fill soil is impacted with petroleum hydrocarbons, metals and/or PAHs as follows:

- North-northeast portion of the Subject Property (Zone 1 in Figure 2): Fill is not impacted except for a limited area discussed below. However, it will be prudent to evaluate fill soil relative to the criteria discussed under Section 3.1 of this plan in Zone 1 of the Subject Property during construction excavation to assess whether fill conditions in Zone 1 are different than those identified during previous environmental soil sampling and testing from widely-spaced explorations in this portion of the Subject Property.
- North portion of the Subject Property (Zone 2 in Figure 2): Fill soil is impacted with petroleum hydrocarbons to an approximate depth of 10 feet below ground surface (bgs), i.e., Elevation 60 feet, NAVD88, in a limited area assumed to be 20 feet long by 20 feet wide.
- Zone 3 in Figure 2: Localized areas of fill with petroleum hydrocarbons, cadmium, lead, and polycyclic aromatic hydrocarbons (PAHs) exceeding corresponding Model Toxics Cleanup Act (MTCA) cleanup levels are present extending to an approximate depth of 6 feet bgs, Elevation 63 feet, NAVD88. The data suggest that the extent of fill soil with contaminant concentrations greater than cleanup levels is limited and that contaminants likely are the result of undocumented imported fill and/or historical commercial uses of the Subject Property.
- Southern portion of the Subject Property and vicinity (Zone 4 in Figure 2): In 2002, one underground storage tank (UST) was removed and one UST was decommissioned in-place from this area of the Subject Property. In 2003 the Washington State Department of Ecology (Ecology) issued a no further action (NFA) determination for the UST removal. However, environmental soil and perched water sampling data from explorations situated in the UST area indicate that petroleum hydrocarbons are present in this area at concentrations exceeding MTCA Method A cleanup levels. Diesel- and heavy oil-range hydrocarbons were identified in shallow fill soil at concentrations exceeding MTCA Method A cleanup levels from exploration DP-2 located in the alley. Additionally, petroleum hydrocarbons were detected at concentrations less than MTCA Method A cleanup levels in soil samples from explorations located on the City-owned triangle parcel. The contamination extends to an approximate depth of 14 feet bgs, Elevation 55 feet NAVD88, in this area. Based on the results of previous environmental studies and our understanding of redevelopment plans, soil in the UST vicinity, alley and City-owned triangle parcel will require remedial excavation, special handling and disposal, and MTCA cleanup reporting.

If potential sources of contamination other than the known undocumented fill are encountered within an area proposed to be excavated in the Alley and/or City's Triangle parcel, we recommend GeoEngineers be contacted to provide assistance in characterization soil sampling, soil segregation, and remedial excavation monitoring, This will facilitate documentation of soil conditions to support the differentiation between releases from the Subject Property and potential releases from the Alley and/or City's Triangle parcel.

Confirmation soil sampling and testing are recommended following excavation in areas where contaminants exceeded MTCA cleanup levels. A summary of chemical analytical data relative to subsurface conditions is shown graphically in Figures 3 and 4.

Perched Water

Petroleum hydrocarbons were detected at concentrations greater than MTCA Method A cleanup levels in grab perched water samples from borings B-2 and B-3, completed in 2002 along the property boundaries south and southwest of the Subject Property. Metals (arsenic, chromium, lead, and/or mercury [B-3 only]) were detected at concentrations greater than MTCA Method A cleanup levels in perched water samples from explorations completed in 2014 in the south portion of the Subject Property and in Lenora Street (off-property). Perched water beneath the Subject Property was encountered at a depth corresponding to approximately Elevation 63 feet NAVD88.

Groundwater

Groundwater beneath the Subject Property was observed at depths of approximately 53.3 and 55.39 feet bgs, corresponding to approximately Elevations 13 and 20 feet NAVD88, in monitoring well G-1. Contaminants of concern (petroleum hydrocarbons, volatile organic compounds [VOCs], and metals) either were not detected or were detected at concentrations less than the corresponding MTCA Method A cleanup levels in the groundwater sample from G-1.

3.0 ANTICIPATED CATEGORIES OF EXCAVATED SOIL

3.1. Soil Requiring No Special Handling

Soil is considered to not require special handling and acceptable for unrestricted end-use if:

- Contaminant concentrations are not detected for any analyte other than metals.
- Metals are detected at concentrations equal to or less than the 90th percentile for natural background concentrations in the Puget Sound region (Ecology, 1994) or less than the MTCA Method A or B Cleanup Levels for Unrestricted Land Use (for barium, selenium and silver).
- No physical evidence of contamination (sheen, odor, staining, suspect debris etc.) is observed.

3.2. Soil Requiring Special Handling

Based on chemical analytical data, petroleum contaminants in majority of the shallow fill except in a limited area were detected at concentrations exceeding MTCA Cleanup levels, at the site. GeoEngineers has classified soil that will require special handling as follows:

Impacted Soil

Soils are considered "impacted" and may be managed onsite in general accordance with Ecology's guidelines[1] or transported to a controlled and permitted landfill, or owner-approved fill location depending on project needs and owner's risk-tolerance if:

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[1] Washington State Department of Ecology's (Ecology) Remediation of Petroleum Contaminated Sites guidance document, Publication N0.10-09-057, dated September, 2011 provides end-use guidelines for managing soil containing contaminants at various concentrations

- Contaminant concentrations for any analyte exceed laboratory detection limits but are less than regulatory cleanup levels (MTCA).
- Metals are detected at concentrations above natural background levels for the Puget Sound region (Ecology, 1994). In the cases of barium, selenium and silver where no natural background level has been established for the Puget Sound, soil are considered "contaminated" if the detected concentrations are greater than the MTCA Method A or B Cleanup Level for Unrestricted Land Use.
- Physical evidence of contamination (slight sheen, odor, staining) is observed.

Contaminated Soil

For the purposes of soil handling for the site construction activities, soils are considered "contaminated" and must be transported to a controlled and permitted landfill if:

- Contaminant concentrations for any analyte exceed MTCA cleanup levels.
- Metals are detected at concentrations greater than 90th percentile for natural background concentrations in the Puget Sound region (Ecology, 1994) or less than the MTCA Method A or B Cleanup Levels for Unrestricted Land Use (for barium, selenium and silver).
- Physical evidence of contamination (moderate to heavy sheen, odor, staining) is observed.

4.0 GUIDELINES FOR SOIL EXCAVATION AND HANDLING

Based on the results of the previous subsurface investigations completed at the Subject Property, three different categories for excavated soil handling and transport/disposal were developed, each identified by a "zone" within the Subject Property (Figure 2). This information and the attached Figure 2 can be used as guide for the contractor during soil excavation activities; however, modifications to this plan may be warranted if field conditions differ from those anticipated. Figure 2 should be reviewed in conjunction with the information in this section of the report for a complete understanding of these guidelines. GeoEngineers will be onsite on as-needed basis to 1) field screen soil and assist the contractor in identifying and segregating contaminated/impacted fill soil from underlying native soil that does not require special handling and 2) obtain confirmation soil samples from localized areas in Zone 3 and Zone 4. Field screening and confirmation soil sampling procedures are described in attached Appendix A, Field Procedures.

4.1. Worker Health and Safety

The Contractor, in the course of work, shall be aware that impacted/contaminated soil has been identified in central and southern portions of the site. The Contractor shall assume full responsibility and liability for compliance with all federal, state, and local regulations pertaining to work practices, protection of workers

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(See Table 12.1 in Ecology's guidance document). Although, Washington State Department of Ecology allows re-use of soil containing low levels of petroleum (herein referred as "impacted") with certain limitations, the end-use of such soil largely depends on the project team's construction (design/logistics) demands and owner's risk tolerance.

and visitors to the site relative to the presence of impacted/contaminated soil during construction. The Contractor shall comply with the following provisions:

- The content of WAC 173-340-810 (Model Toxics Control Act Cleanup Regulation, Worker Safety and Health). WAC 173-340-810 states that requirements under the Occupational and Safety Health Act (OSHA) and the Washington Industrial Safety and Health Act (WISHA) are applicable to the excavation and handling of impacted/contaminated soil.
- The Contractor performing excavation, handling or loading of petroleum-contaminated soil shall prepare a site-specific Health and Safety Plan that addresses the presence of the contaminants described earlier in this specification. Details regarding the specific type, concentration and location of contaminants detected at the site are available in environmental reports by GeoEngineers and others.
- Workers involved in excavation and/or handling of contaminated soil shall be in compliance with Hazardous Waste Operations and Emergency Response (HAZWOPER) Training in accordance with WAC 296-843. Workers shall be trained in the purpose, proper selection, fitting, use, and limitations of personal protective equipment (PPE), including gloves, protective clothing and respirators (if needed).

4.2. Zone 1 – Yellow: Soil with No Special Handling Requirements

Zone 1 is in the north/northeast portions of the property (note that Zone 2 is surrounded by soil classified as Zone 1). Contaminants of potential concern either were **not detected** in previous soil samples tested from explorations located within the yellow Zone 1 shown on Figure 2, or the detected concentrations represent background conditions. There are no special handling or end-use requirements for Zone 1 soil. GeoEngineers will be on site as needed to assist in soil segregation activities and to visually evaluate fill conditions for physical evidence of contamination. Contaminants of potential concern were not detected or were detected at concentrations that represent background conditions in native soil in the yellow category.

4.3. Zone 2 – Blue: Impacted Soil

Zone 2 is located in the north/northeast portion of the property. Special handling and end use considerations are needed for fill soil to be excavated within Zone 2. Contaminants of potential concern were detected at concentrations **less** than the MTCA Method A or B cleanup levels in soil samples obtained at depths extending to approximately 10 feet bgs (Elevation 60 feet NAVD88) from the fill soil in Zone 2, area colored blue in Figure 2. The extent of this zone is currently not fully defined but is presumed to be approximately 20 feet long by 20 feet wide. Actual limits of Zone 2 will be defined either by field observations and/or sampling performed during construction excavation activities. Contaminants of potential concern either were not detected or were detected at concentrations representative of background conditions in deeper native soil within the boundaries of Zone 2. Special handling and disposal requirements for fill should include the following:

- **Waste Profile and Landfill Selection:** The Contractor should set up a soil waste profile and obtain approval from a permitted landfill or disposal facility to transport impacted soil off-site prior to commencing impacted soil excavation activities.
- **Soil Excavation and Segregation:** As the soil in Zone 2 is excavated, the Contractor should segregate the Zone 2 soil from Zone 1 soil to prevent the contaminant-impacted Zone 2 soil from co-mingling with Zone 1 soil. Attention to soil segregation in vertical profile is also important. Overlying impacted fill soil

should be segregated from underlying clean native soil. GeoEngineers will be on site as needed to assist in soil segregation activities.

- **Temporary Stockpiling of Impacted Soil:** Impacted soil can either be loaded directly into trucks for off-site permitted disposal, or can be stockpiled on the Subject Property pending end use/disposal. If the soil is to be temporarily stockpiled, the impacted soil must be placed on and covered with plastic sheeting at all times and protected from stormwater runoff. Construction best management practices for temporary erosion and sediment control should be followed during stockpiling activities.
- **Onsite Re-use:** The Contractor may re-use the soil excavated from Zone 2 as fill or for other construction purposes in accordance with Ecology's guidelines and/or owner's directive provided such soil is considered suitable for construction use by the Geotechnical Engineer of the project.
- **Off-Site Reuse:** Excavated impacted fill soil can be transported to a receiving facility that has been provided with the chemical analytical results and for which the owner of the receiving site has approved and agreed in writing to accept fill soil from the Subject Property "as-is" with an acknowledgement that the soil may contain contaminants at low concentrations less than MTCA cleanup levels.
- **Loading and Transportation:** If "impacted" soil from Zone 2 is not re-used, then the Contractor should load the segregated impacted material into trucks and transport the material to the selected treatment/disposal facility. A tracking procedure must be developed and approved by GeoEngineers prior to starting excavation activities. Construction best management practices for temporary erosion and sediment control should be followed during loading and transportation.
- **Disposal/Recycling Facilities:** Excavated impacted soil can be transported to the selected disposal facility that has issued approval to accept impacted soil from the site. Potential disposal/recycling facilities include the following:
    - CEMEX in Everett, Washington.
    - Allied Waste/Rabanco's Roosevelt Landfill located in Klickitat County, Washington. A rail transfer station for this landfill is located in Seattle, Washington.
    - Waste Management's Columbia Ridge Landfill in Arlington, Oregon. A rail transfer station for this landfill is located in Seattle, Washington.
- **Confirmation Soil Sampling:** No confirmation soil sampling from the Zone 2 excavation will be necessary unless unexpected contamination is identified during field screening by a qualified environmental engineer or geologist.

4.4. Zone 3 – Pink: Contaminated Soil

Zone 3 is located in the central portion and extends from the southwest to the southeast property boundary. Special handling and end use considerations are needed for soil to be excavated within Zone 3. Contaminants of concern (petroleum hydrocarbons, metals, and/or carcinogenic PAHs) were detected at concentrations **greater** than the MTCA cleanup levels in localized areas of the Zone 3, as shown on Figure 2, at depths extending down to approximately 6 feet bgs (Elevation 63 feet, NAVD88).

It is our opinion that because contaminant concentrations were detected at concentrations greater than MTCA cleanup levels in the discrete soil samples obtained from the explorations completed previously in Zone 3, confirmation soil sampling following completion of excavation activities is warranted to document final soil conditions in Zone 3. At a minimum, confirmation samples will be obtained from the four sidewalls

and base of the remedial excavation. The actual number of samples obtained for testing will depend on the final lateral and vertical limits of the remedial excavation.

It is possible that field observations, field screening, and potential additional soil sampling could result in Zone 3 soil areas currently identified as "contaminated" reducing in size, or re-designating as "impacted" soil; however, soil handling requirements would remain the same as for impacted soil. The special handling and disposal of contaminated soil should include the following:

- **Waste Profile and Landfill Selection:** The Contractor should set up a soil waste profile and obtain approval from a permitted landfill or disposal facility to transport contaminated soil offsite prior to commencing contaminated soil excavation activities.
- **Soil Excavation and Segregation:** As the soil in Zone 3 is excavated, the Contractor should segregate the Zone 3 soil from Zone 2 soil to prevent the contaminant-impacted Zone 2 soil from co-mingling with Zone 3 soil. Attention to soil segregation in vertical profile is also important. Overlying contaminated fill soil should be segregated from underlying impacted soil. GeoEngineers will be on site as needed to assist in soil segregation activities.
- **Temporary Stockpiling of Contaminated Soil:** Contaminated soil can either be loaded directly into trucks for off-site permitted disposal, or can be stockpiled on the Subject Property pending end use/disposal. If the soil is to be temporarily stockpiled, the contaminated soil must be placed on and covered with plastic sheeting at all times and protected from stormwater runoff. Construction best management practices for temporary erosion and sediment control should be followed during stockpiling activities.
- **Loading and Transportation:** The Contractor should load the segregated contaminated material into trucks and transport the material to the selected treatment/disposal facility. A tracking procedure must be developed and approved by GeoEngineers prior to starting excavation activities. Construction best management practices for temporary erosion and sediment control should be followed during loading and transportation.
- **Disposal/Recycling Facilities:** Excavated contaminated soil can be transported to the selected disposal facility that has issued approval to accept contaminated soil from the site Potential disposal/recycling facilities include the following:
    - CEMEX in Everett, Washington.
    - Allied Waste/Rabanco's Roosevelt Landfill located in Klickitat County, Washington. A transfer station for this landfill is located in Seattle, Washington.
    - Waste Management's Columbia Ridge Landfill in Arlington, Oregon. A transfer station for this landfill is located in Seattle, Washington.
- **Confirmation Soil Sampling:** Confirmation soil samples will be obtained from localized areas of pink category soil to document removal of MTCA exceeding soil. Confirmation samples will be obtained as discussed in above paragraphs. Confirmation soil samples will be submitted for chemical analysis for contaminants of concern on a rush (1- to 2-day) turnaround time to facilitate construction schedule.

4.5. Zone 4 – Brown: Contaminated Soil

Zone 4 is located in southern portion of the property and extends into limited sections of the alley and City-owned triangle parcel. The special handling and end use considerations needed for soil excavated from Zone 4 are the same as those for Zone 3. Contaminants of concern (petroleum hydrocarbons and PAHs) were detected at concentrations **greater** than the MTCA cleanup levels in Zone 4 as shown on Figure 2 at depths extending down to approximately 14 feet bgs (Elevation 55 feet NAVD88). The closed-in-place UST will be removed from Zone 4. A UST Site Assessment will be required to comply with MTCA regulations pertaining to UST removal and closure. It is our opinion that soil exhibiting field screening evidence of petroleum contamination be excavated and removed from the site to the maximum possible extent. Confirmation soil sampling following removal of the UST and known petroleum-contaminated soil in this area should be completed to document final soil conditions at and in the UST vicinity within Zone 4. **The special handling and disposal requirements for excavation of contaminated soil in Zone 3 applies to Zone 4 as well.**

If potential sources of contamination other than the known undocumented fill are encountered within an area proposed to be excavated in the Alley and/or City's Triangle parcel, we recommend GeoEngineers be contacted to provide assistance in characterization soil sampling, soil segregation, and remedial excavation monitoring, This will facilitate documentation of soil conditions to support the differentiation between releases from the Subject Property and potential releases from the Alley and/or City's Triangle parcel.

It is likely that a groundwater monitoring well may need to be installed in the southeast portion of the Subject Property to evaluate groundwater conditions following UST removal, depending on observations during remedial/construction excavation and other factors.

5.0 GUIDELINES FOR SUSPECT CONTAMINATION

GeoEngineers will be on site to field screen soil during excavation of Zone 1 soil. GeoEngineers will only perform periodic field checks during excavation of Zone 2 (impacted soil) and Zone 3 (contaminated soil). GeoEngineers will be on-site during UST removal and excavation of Zone 4 assuming that further soil testing indicates impacted soil at this location. Therefore, it is the Contractor's responsibility to be aware of soil conditions, identify suspect or potentially contaminated/impacted soil as described below, and promptly notify GeoEngineers. Excavated soil from any location should be considered to be petroleum-contaminated/impacted if it exhibits one or more of the following physical characteristics:

- Staining;
- Petroleum hydrocarbon odors;
- A moderate or heavy sheen when placed in contact with water; and/or,
- Elevated concentrations of organic vapors detected using headspace field screening methods.

If soil exhibits one or more of the above characteristics or if an undocumented UST is discovered, the Contractor should notify GeoEngineers, Ninth and Lenora LLC and the General Contractor immediately so that soil can be properly characterized before removal from the site. Upon discovery of potentially contaminated/impacted soil, the Contractor should refer to this document which lists contact information and site information needed regarding the location, type and actions taken to address potentially contaminated soil.

6.0 CONSTRUCTION DEWATERING EFFLUENT HANDLING

Based on our review of the chemical analytical data, petroleum hydrocarbons and metals were detected in B-2 and B-3 water samples at concentrations greater than MTCA cleanup levels in south portion of the Subject Property. Xylenes, metals (arsenic, chromium, and lead), and 1,2-dichloroethane and 1,2,4-trimethylbenzene were detected at concentrations below MTCA cleanup levels in the groundwater sample from G-1, a monitoring well located the northeast portion of the Subject Property. The base elevation of construction excavation (Elevation ranging from -5 to 5 feet NAVD88) is below the perched water surface (Elevation 63 feet NAVD88) and groundwater table (Elevations 13 and 20 feet, NAVD88); therefore, perched water and groundwater are anticipated to be encountered during excavation at the Subject Property. Surface water may come in contact with the impacted/contaminated fill soil at the site and accumulate within the construction footprint due to precipitation/storm events. A summary of petroleum hydrocarbons and metals data in G-1 is shown in Figure 5.

The contractor should prepare a dewatering effluent management plan addressing appropriate containment, testing and treatment methodologies. We understand that the contractor may request a Construction Dewatering permit from King County to dispose of dewatering effluent in a designated discharge point. Due to the presence of contaminants in perched/ground water beneath the Subject Property, we recommend that the Contractor utilize a dewatering effluent management system at the site to store, test and potentially treat (if necessary) dewatered effluents prior to discharge. It is Contractor's responsibility to design, obtain, and install the effluents management system. Any effluent discharge must comply with the discharge quality conditions stated in the discharge permit. The Contractor may consider collecting water samples for chemical analytical testing prior to and post-treatment but prior to discharge to the designated discharge point. Water quality testing results will need to be compared to the discharge limits allowed by the King County Construction Dewatering Permit.

7.0 CONTACT INFORMATION

If unexpected potentially contaminated soil is discovered during construction activities, the Contractor should notify the appropriate project team members. The table below presents those contacts as well as other relevant project contacts who may be contacted as back up.

RELEVANT PROJECT CONTACTS

Name	Title	Cell Phone	Office Phone	Email
Ninth and Lenora LLC				
Jeff Lowenberg	Vice President	617.733.8583	617.854.6641	jlowenberg@gid.com
Gary Lovesky	Vice President	617.513.1849	617.854.9178	glovesky@gid.com
Paul Karnath	Assistant Vice President	857.207.0677	617.854.9136	pkarnath@gid.com

Name	Title	Cell Phone	Office Phone	Email
GeoEngineers				
Dave Cook	Environmental Principal	206.372.7637	206.239.3229	dcook@geoengineers.com
Matt Smith	Geotechnical Principal	425.861.6000	425.861.6072	msmith@geoengineers.com
Fasih Khan	Environmental Project Manager	206.713.2136	206.728.2674	fkhan@geoengineers.com
Daniel Ciani	Geotechnical Project Manager	360.316.1172	425.861.6074	dciani@geoengineers.com

8.0 LIMITATIONS

We have prepared this report for the exclusive use of the GID and their authorized agents (Ninth and Lenora LLC). Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Please refer to Appendix B, titled "Report Limitations and Guidelines for Use," for additional information pertaining to use of this report.

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Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
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Data Sources: ESRI Data & Maps, Street Maps 2005

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north

Vicinity Map

9th and Lenora Development
Seattle, Washington

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Figure 1

Office: Redmond Path: \\red\projects\21211380001\GIS\2113800100_F1_VicinityMap.mxd Map Revised: 9/10/2014 EL

WHOLE FOODS MARKET
CONDOMINIUMS
SIDEWALK
SOCIAL SECURITY ADMINISTRATION (901 LENORA ST)
9TH AVENUE
BOILER ROOM
CHIMNEY & FURNACE
Zone 2: Limited area of Impacted fill to an approximate depth of 10 feet bgs (Elev. 60)
Zone 1: Estimated extent of fill soil with no contaminant detections
A
B-1
DELI (2138 WESTLAKE AVE)
FORMER ENTERPRISE (2118 WESTLAKE AVE)
B-9
BRASETH GALLERY (2101 9TH AVE)
E-1
MW-01
G-1
0660000545
GEI-5
0660000540
RETAIL
GEI-7
B-8
FORMER AUTO RESTORATION GARAGE
LENORA STREET
B-7
FORMER WASH RACK AREA
FORMER CAR WASH AREA
GEI-6
E-2
DP-5
B-2*
Zone 3: Estimated extent of contaminated fill to an approximate depth of 6 feet bgs (Elev. 63)
G-2
FORMER FLUE
DP-4
FORMER AUTO RESTORATION GARAGE
FORMER UST REMOVED IN 2002
WASHINGTON TALKING BOOK & BRAILLE LIBRARY (2021 & 2025 9TH AVE)
B
B'
GEI-8
B-6
B-5
HA-1
MW-5
UNKNOWN PIPE
WESTLAKE AVENUE
ALLEY
B-4
DP-1
B-3
DP-2
DP-3
1,000-GALLON UST (FILLED WITH CDF)
GEI-4
GEI-1
LIKELY FILL & VENT PIPES
SIDEWALK
POSSIBLE FORMER BOILER AREA
GEI-2
0660000485
55-GALLON DRUM OF UNKNOWN CONTENTS
Zone 4: Estimated extent of contaminated fill to an approximated depth of 14 feet bgs (Elev. 55) in south portion of the Site including the Alley and City's Triangle Lot property
GEI-3
FUTURE CITY OF SEATTLE PARK
DURHAM UPHOLSTERY
RETAIL
A'
8TH AVENUE

Legend:

- Subject Property Boundary
- DP-1 Direct-Push Boring (GeoEngineers, Sep. 2014)
- E-2 Soil Boring (GeoEngineers, Dec. 2013)
- G-1 Monitoring Well (GeoEngineers, Dec. 2013)
- G-2 Soil Boring (GeoEngineers, Dec. 2013)
- GEI-7 Soil Boring (GeoEngineers, July 2013)
- MW-01 Monitoring Well (GeoEngineers, July 2013)
- GEI-1 Soil Boring (GeoEngineers, July 2007)
- HA-1 Hand Auger Boring (GeoEngineers, Aug. 2002)
- B-2 Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- (2101 9TH AVE) Property Address
- 0660000545 Parcel Number
- UST Underground Storage Tank
- CDF Controlled Density Fill
- CUL Applicable MTCA Method A Cleanup Level
- PAHs Polycyclic Aromatic Hydrocarbons
- Parcel Line
- Estimated Footprint of Former Structures
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- PAHs detected at concentrations above CUL
- PAHs detected at concentrations below CUL
- Metals detected at concentrations above CUL
- Benzene detected at concentrations above CUL
- Interpreted extent of UST-related petroleum contaminated soil with MTCA exceedance
- A A' Approximate cross section location

* Chromatogram indicates mineral spirits.

N W E S

40 0 40
FEET

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

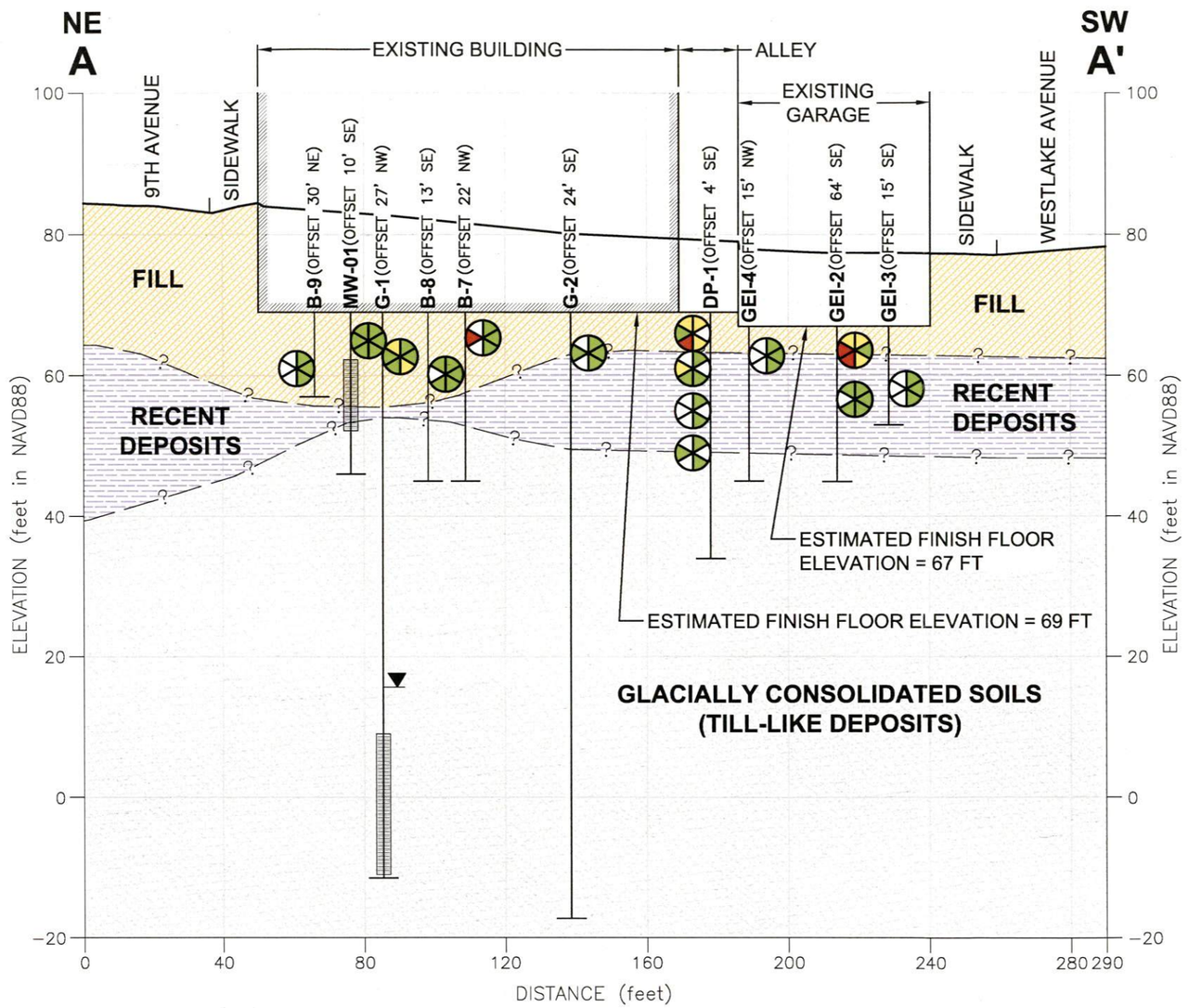
Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

Fill Soil Management Plan

9th and Lenora Development
Seattle, Washington

GeoEngineers | Figure 2

W:\REDMOND\PROJECTS\21\13800\01\CAD\CCP FIGURES\21I3800I01_T100_CCP_F2 SOIL MANAGEMENT PLAN.DWG\TAB:F2 MODIFIED BY SYI ON DEC 10, 2014 - 11:45



EXPLANATION:

Chemical Analytical Results of Discrete Soil Samples

PAHs — Diesel–Range Petroleum Hydrocarbons
Metals — Gasoline–Range Petroleum Hydrocarbons
cPAHs — Heavy Oil–Range Petroleum Hydrocarbons

- Detected at a concentration greater than the MTCA Method A Cleanup Level
- Detected at a concentration less than the MTCA Method A Cleanup Level
- Metals detected at concentrations similar to Natural Background Concentrations. Other analytes not detected
- Not Analyzed

PAHs Polycyclic aromatic hydrocarbons

cPAHs carcinogenic PAHs

B-7 (OFFSET 22' NW) — Boring number and approximate location

Groundwater level observed in monitoring well

Perched groundwater observed during drilling

Soil contact

Screen location

Fill

Recent deposits

Glacially consolidated soils (till–like deposits)

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 2 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

40 0 40
Horizontal Scale in Feet
20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

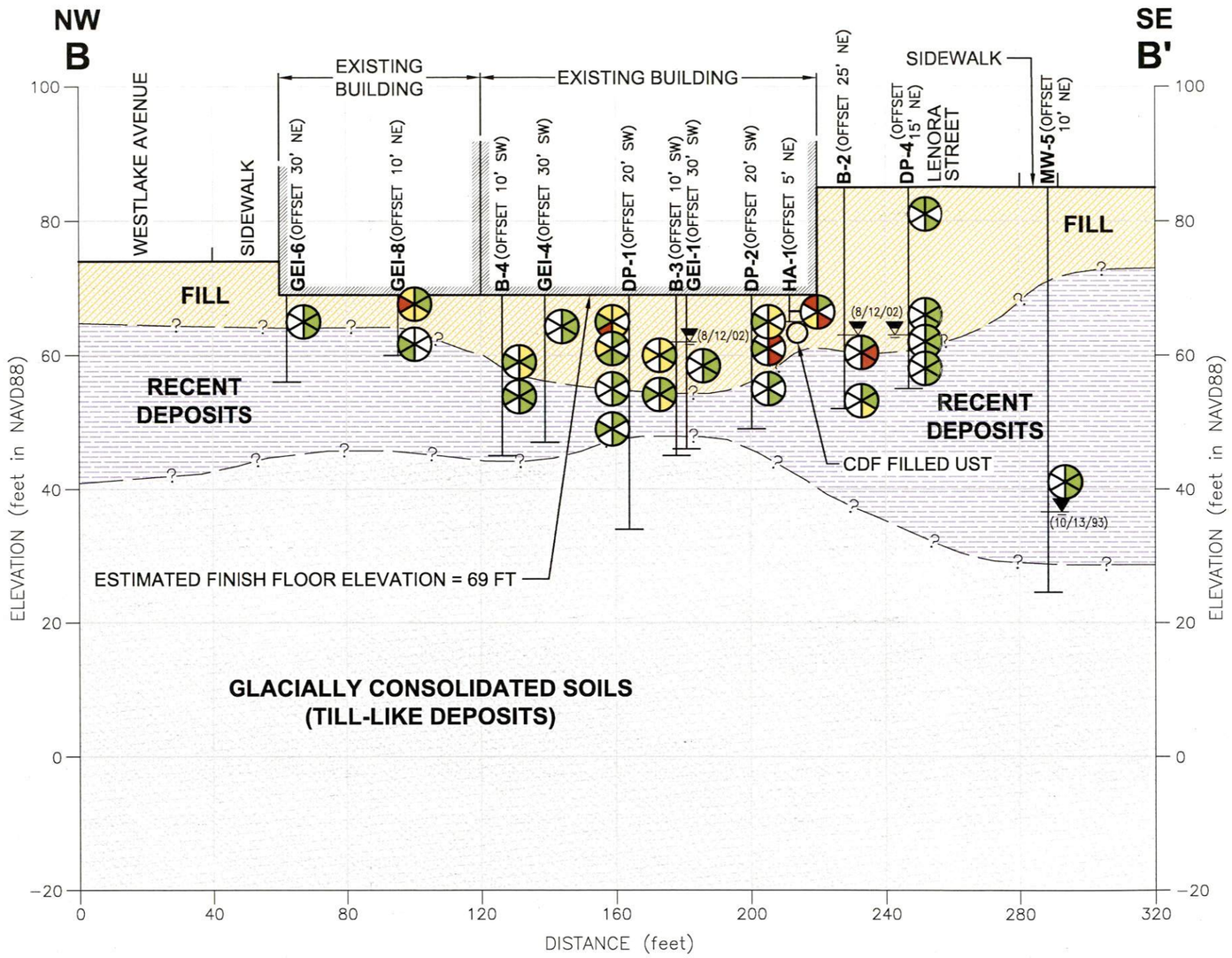
Cross Section A-A'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 3

W:\REDMOND\PROJECTS\21\21138001\01\CAD\CCP FIGURES\21138001_T100_CCP_F3_F4 CROSS SECTIONS A-A'_B-B'.DWG\TAB:F3 MODIFIED BY SYI ON Nov 03, 2014 - 11:01



EXPLANATION:

Chemical Analytical Results of Discrete Soil Samples

PAHs — Diesel–Range Petroleum Hydrocarbons
Metals — Gasoline–Range Petroleum Hydrocarbons
cPAHs — Heavy Oil–Range Petroleum Hydrocarbons

- Detected at a concentration greater than the MTCA Method A Cleanup Level
- Detected at a concentration less than the MTCA Method A Cleanup Level
- Metals detected at concentrations similar to Natural Background Concentrations. Other analytes not detected
- Not Analyzed

PAHs — Polycyclic aromatic hydrocarbons

cPAHs — carcinogenic PAHs

B-2 (OFFSET 25' NE) — Boring number and approximate location

Groundwater level observed in monitoring well

Perched groundwater observed during drilling

Soil contact

UST — Underground storage tank

CDF — Controlled density fill

Fill

Recent deposits

Glacially consolidated soils (till–like deposits)

Notes:
1. The subsurface conditions shown are based on interpolation between widely spaced explorations and should be considered approximate; actual subsurface conditions may vary from those shown.
2. Refer to Figure 2 for location of Cross Section.
3. This figure is for informational purposes only. It is intended to assist in the identification of features discussed in a related document. Data were compiled from sources as listed in this figure. The data sources do not guarantee these data are accurate or complete. There may have been updates to the data since the publication of this figure. This figure is a copy of a master document. The master hard copy is stored by GeoEngineers, Inc. and will serve as the official document of record.

40 0 40
Horizontal Scale in Feet
20 0 20
Vertical Scale in Feet
Vertical Exaggeration: 2X

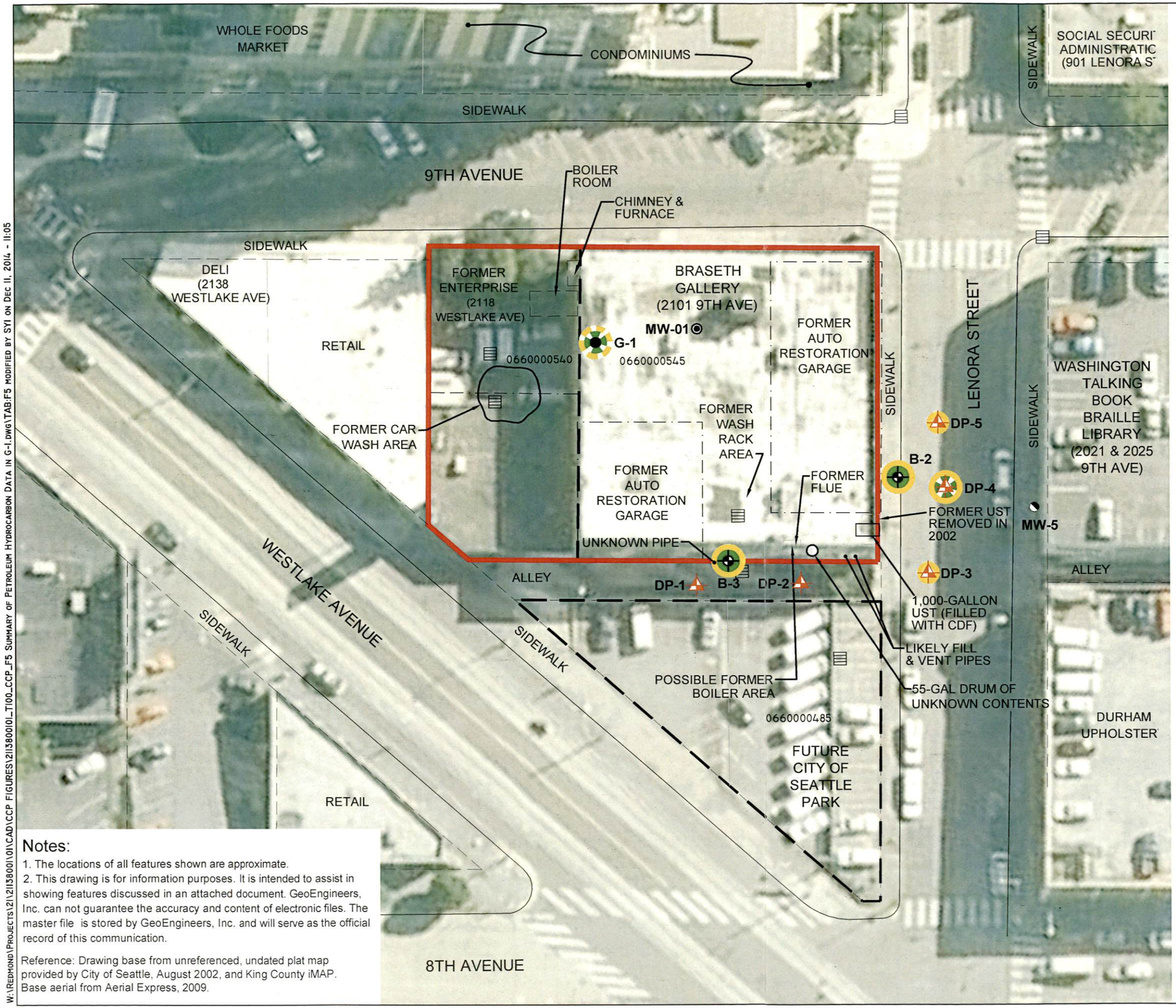
Cross Section B-B'

9th and Lenora Development
Seattle, Washington

GeoEngineers

Figure 4

W:\REDMOND\PROJECTS\21\21138001\01\CAD\CCP FIGURES\21138001_T100_CCP_F3_F4 CROSS SECTIONS A-A'_B-B'.DWG\TAB:F4 MODIFIED BY SYI ON Nov 03, 2014 - 11:02



Legend:

- Subject Property Boundary
- DP-1 — Direct-Push Boring (GeoEngineers, Sep. 2014)
- G-1 — Monitoring Well (GeoEngineers, Dec. 2013)
- MW-01 — Monitoring Well (GeoEngineers, July 2013)
- B-2 — Direct-Push Boring (GeoEngineers, Aug. 2002)
- MW-5 — Offsite Monitoring Well (GeoEngineers, Sep. 1993)
- Catch Basin
- (2101 9TH AVE) — Property Address
- 0660000545 — Parcel Number
- UST — Underground Storage Tank
- CDF — Controlled Density Fill
- CUL — Applicable MTCA Method A Cleanup Level
- Parcel Line
- Estimated Footprint of Former Structures
- Petroleum hydrocarbons detected at concentrations above CUL
- Petroleum hydrocarbons detected at concentrations below CUL
- Metals detected at concentrations below CUL
- Metals detected at concentrations above CUL

- Analytes not detected in other perched water and groundwater samples

* Chromatogram indicates mineral spirits and lube oil.

40 0 40
FEET

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing base from unreferenced, undated plat map provided by City of Seattle, August 2002, and King County iMAP. Base aerial from Aerial Express, 2009.

Summary of Petroleum Hydrocarbons and Metals Data in Perched and Regional Groundwater

9th and Lenora Development
Seattle, Washington

GeoEngineers | Figure 5

W:\REDMOND\PROJECTS\21\2II3800\10\CAD\CCP FIGURES\2II3800I0I_T100_CCP_F5 SUMMARY OF PETROLEUM HYDROCARBON DATA IN G-I.DWG\TAB:F5 MODIFIED BY SYI ON DEC II, 2014 - II:05

APPENDICES

GeoEngineers

APPENDIX A
Field Procedures

APPENDIX A
FIELD PROCEDURES

Soil Sampling Procedures

A representative of our staff will be at the site on as-needed basis during excavation activities to evaluate the extent of contamination, field screen samples, assist the contractor in segregating clean, impacted and contaminated soil and to obtain confirmatory soil samples from the excavation limits for chemical analyses. Confirmation soil sampling will consist of the following:

- Soil samples obtained directly from the walls and base of the excavation or from the excavator bucket will be placed into clean glass sample jars provided by the analytical laboratory. Sample containers shall be filled completely to minimize headspace.
- Sample depths may be selected based on the final lateral and vertical limits of the remedial excavation.
- A distinct sample identification will be assigned to each sample and samples may be submitted for chemical analysis of contaminants of concern to confirm successful removal of soil exceeding MTCA cleanup levels from locations in Zone 3 in Zone 4.
- The samples will be placed in an iced cooler pending transport to the analytical laboratory. Standard chain-of-custody procedures will be followed in transporting the samples to the laboratory.

Field Screening of Soil Samples

Soil samples obtained from the remedial excavation areas will be evaluated for evidence of possible contamination using field screening techniques. Field screening results can be used as a general guideline to delineate areas of possible petroleum- or volatile organic compound (VOC)-related contamination in soils. In addition, screening results are often used as a basis for selecting soil samples for chemical analysis. The screening methods employed included: (1) visual examination, (2) water sheen testing, and (3) headspace vapor testing using a photoionization detector (PID).

Visual screening consists of observing the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbon concentrations are high. Sheen screening is a more sensitive screening method that can be effective in detecting petroleum-based products.

Water sheen testing involves placing soil in water and observing the water surface for signs of sheen. Sheens are classified as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light, colorless, dull sheen; spread is irregular, not rapid; sheen dissipates rapidly.
Moderate Sheen (MS)	Light to heavy sheen, may have some color/iridescence; spread is irregular to flowing; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy sheen with color/iridescence; spread is rapid; entire water surface may be covered with sheen.

Headspace vapor screening involves placing a soil sample in a plastic bag. Air is captured in the bag, and the bag is shaken to expose the soil to the air trapped in the bag. The probe of the PID is inserted into the bag. The PID measures the concentration of photoionizable gases and vapors in the sample bag headspace. The PID is designed to quantify photoionizable gases and vapors up to 2,000 parts per million (ppm), and is calibrated with isobutylene. A lower threshold of significance of 1 ppm is used in application.

Field screening results are site-specific. The results may vary with temperature, moisture content, soil lithology, organic content and type of contaminant. The presence or absence of sheen does not necessarily confirm the presence or absence of contaminants in a sample.

APPENDIX B
Report Limitations and Guidelines for Use

APPENDIX B
REPORT LIMITATIONS AND GUIDELINES FOR USE[2]

This Appendix provides information to help you manage your risks with respect to the use of this plan.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This construction contingency plan has been prepared for the exclusive use of GID and their authorized agents (Ninth and Lenora LLC) and regulatory agencies. This plan is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment or remedial action study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except GID and their authorized agents (Ninth and Lenora LLC) should rely on this plan without first conferring with GeoEngineers. This plan should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based on a Unique Set of Project-Specific Factors

This plan applies to 9th and Lenora property located at 2118 Westlake Avenue/2101 9th Avenue in Seattle, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and plan. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made after the date of this construction contingency plan, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

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[2] Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

Reliance Conditions for Third Parties

No third party may rely on the product of our services unless GeoEngineers agrees in advance, and in writing to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

Environmental Regulations Are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Uncertainty May Remain after Completion of Remedial Activities

Remediation activity completed in a portion of a site cannot wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this plan is based on field observations and chemical analytical data from widely spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Subsurface Conditions Can Change

This plan is based on conditions that existed at the time the environmental studies were performed. The guidelines of this plan may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this plan. Our plan, interpretations and soil and groundwater handling guidelines should not be construed as a warranty of the subsurface conditions.

Geotechnical, Geologic and Geoenvironmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this plan does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If the client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.