



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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February 28, 2017

MR. MICHAEL GRASSMUECK
P.O. BOX 230091
PORTLAND, OR 97281

Re: Opinion on Proposed Cleanup of a Property associated with a Site:

- **Property Address:** 21 10th Avenue South, 1006 Lake Street South and 6700 Lake Washington Blvd NE, Kirkland, Washington
- **Facility/Site No.:** 4595
- **VCP Project No.:** NW2850
- **Cleanup Site ID No.:** 12329

Dear Mr. Grassmueck:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of a Property associated with the **Potala Village** facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issues Presented and Opinion

1. Upon completion of the proposed cleanup, will further remedial action likely be necessary at the Property to clean up contamination associated with the Site?

NO. Ecology has determined that no further remedial action will likely be necessary at the Property to clean up contamination associated with the Site.

2. Upon completion of the proposed cleanup, will further remedial action likely still be necessary elsewhere at the Site?

YES. Ecology has determined that further remedial action will likely still be necessary elsewhere at the Site.



This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively “substantive requirements of MTCA”). The analysis is provided below.

Description of the Property and the Site

This opinion applies only to the Property and the Site described below. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The Property includes the following tax parcels in King County, which were affected by the Site and will be addressed by your cleanup:

- 9354900220
- 0825059233
- 9354900240

The Property does not include the following right-of-way easement, which is located west of a portion of parcel number 0825059233:

- Lake Washington Boulevard

Enclosure A includes a legal description of the Property. **Enclosure B** includes a diagram of the Site that illustrates the location of the Property within the Site.

2. Description of the Site.

The Site is defined by the nature and extent of contamination associated with the following releases:

- Total petroleum hydrocarbons in the gasoline- (TPH-G), diesel- (TPH-D), and heavy oil- (TPH-O) ranges, benzene, toluene, ethylbenzene and xylenes (BTEX), tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and chromium III into the Soil.
- Perchloroethylene (PCE), trichloroethylene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE) into the Ground Water.

Those releases have affected more than one parcel of real property, including the parcels identified above.

Enclosure B includes a detailed description and diagrams of the Site, as currently known to Ecology.

3. Identification of Other Sites that may affect the Property.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the Property is affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Earth Solutions NW LLC, 2016. *Supplemental Groundwater Monitoring Report, Potala Village Property, 21 10th Avenue South, 1006 Lake Street South and 6700 Lake Washington Blvd., Kirkland, Washington.* October 11.
2. Earth Solutions NW LLC, 2015. *Fourth Quarter Groundwater Monitoring Report, Former Dry Cleaning Building, 1006 Lake Street South, Kirkland, Washington.* January 7.
3. Earth Solutions NW LLC, 2014. *Third Quarter Groundwater Monitoring Report, Former Dry Cleaning Building, 1006 Lake Street South, Kirkland, Washington.* October 3.
4. Earth Solutions NW LLC, 2014. *Cleanup Action Report, Potala Village Property, 21 10th Avenue South, 1006 Lake Street South and 6700 Lake Washington Blvd., Kirkland, Washington.* May 16.
5. Environmental Partners, Inc., 2014. *Underground Storage Tank Closure and Remedial Action Report, Potala Village Kirkland, 21 Tenth Avenue South, 6700 Lake Washington Boulevard, Kirkland, Washington.* May 16.
6. Earth Solutions NW LLC, 2013. *Geotechnical Engineering Study, Proposed Potala Village Property, 21 10th Avenue South, 1006 Lake Street South and 6700 Lake Washington Blvd., Kirkland, Washington.* May 16.

7. Environmental Partners, Inc., 2014. *Request for "Contained In Determination", Former Michael's Fine Dry Cleaning, 1006 South Lake Street, Kirkland, Washington.* March 28.
8. Earth Solutions NW LLC, 2013. *Cleanup Action Plan, Proposed Potala Village, 21 10th Avenue South, 1006 Lake Street South and 6700 Lake Washington Blvd., Kirkland, Washington.* September 19.
9. GeoEngineers, 2010. *Geotechnical Engineering Services, Potala Village Kirkland, Kirkland, Washington.* December 1.
10. Aspect Consulting, 2010. *Phase I Environmental Site Assessment, Potala Village: 1006 Lake Street South, 21 Tenth Avenue South and 6700 Lake Washington Boulevard, Kirkland, Washington.* October 15.
11. Aspect Consulting, 2008. *Additional Soil and Groundwater Sampling Results, 1006 Lake Street, Kirkland, Washington.* April 25.
12. Aspect Consulting, 2008. *Soil and Groundwater Sampling Results, 1006 Lake Street, Kirkland, Washington.* February 27.
13. Environmental Associates, Inc., 2006. *Preliminary Subsurface Sampling & Testing, Dry Cleaning Facility, 1006 Lake Street South, Kirkland, Washington 98033.* August 8.

Those documents are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. You can make an appointment by calling the NWRO resource contact at (425) 649-7235 or sending an email to: nwro_public_request@ecy.wa.gov.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

1. Cleanup of the Property located within the Site.

Ecology has concluded that, upon completion of your proposed cleanup, **no further remedial action** will likely be necessary at the Property to clean up contamination associated with the Site. That conclusion is based on the following analysis:

a. Characterization of the Site.

Ecology has determined your characterization of the Site is sufficient to establish

cleanup standards for the Site and select a cleanup for the Property. The Site is described above and in **Enclosure B**.

Soil and ground water on the Property were first characterized at 1006 Lake Street South in 2006 and 2008 with soil borings, grab ground water samples and 3 monitoring wells. Later in 2013 and 2014, the results of soil samples collected in test pits were used to estimate the locations of contaminated soil on the Property. Two additional monitoring wells were installed west of 6700 Lake Washington Boulevard NE in 2014. No contamination related to the Site was found in any of the five Site monitoring wells.

b. Establishment of cleanup standards for the Site.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

a. Cleanup Levels

Soil

The Site does not meet the MTCA definition of an industrial property; therefore soil cleanup levels suitable for unrestricted land uses are appropriate. Ground water at this Site has been impacted by the identified releases. Soil cleanup levels based on leaching (protection of ground water) and protection of direct contact are appropriate.

Cleanup levels protective of terrestrial ecological receptors are not necessary because the Site meets the initial Terrestrial Ecological Evaluation (TEE) exclusion criteria (MTCA WAC 173-340-7491(1)(c)(i)). There are less than 1.5 acres of contiguous undeveloped land on or within 500 feet of any part of the Site.

MTCA Method A cleanup levels were selected for this Site. Ecology concurs for this exposure pathway.

Ground Water

The ground water at this Site is classified as potable to protect drinking water beneficial uses. For potable ground water, either Method A or Method B cleanup levels could be used. MTCA Method A cleanup levels were selected. Ecology concurs for this exposure pathway.

Air

Analytical results indicated that following the remedial excavations, soil on the Property meets Method A cleanup levels. However, soil with TPH-G at concentrations above the Method A cleanup level remains in place at depths of 4 to 6 feet along an approximately 40-foot long portion of the western Property boundary. Confirmation soil samples collected along the west Property line contained concentrations of TPH-G up to 1,800 milligrams per kilogram (mg/kg). The contamination extends for some distance beneath Lake Washington Boulevard but was not removable due to the presence of the busy street and multiple underlying utilities.

The excavation at this location reached a maximum depth of 12 feet and was backfilled with clean fill materials. Prior to backfilling and in an effort to isolate the contaminated zone and prevent potential vapor migration back onto the Property, a ½-inch thick continuous bentonite 'volclay' panel was installed along the Property line from 0 to 12 feet, covering the contaminated zone and extending approximately 15 to 20 feet on either side. At the bottom of the excavation, the panel was folded and wrapped to the east for 6 to 12 inches. An HDPE sheet drain was also installed next to (east of) the volclay panel to allow for the upward dissipation of any volatile contaminants that migrated through, around or under the volclay panel. The top of the sheet drain is under the edge of the 4-inch thick concrete sidewalk. A schematic diagram of this vapor barrier is included in the Site Diagrams.

In November 2016, Ecology requested that soil gas samples be collected east of the barrier described above to demonstrate the effectiveness of the barrier and to assure that no vapors were migrating back onto the Property.

An attempt to advance vapor probes along the western Property line was curtailed by standing water encountered on the Property that prevented the probes from being advanced no deeper than 2 feet bgs. The standing water is in the backfilled materials. In December 2016, three soil vapor probes (PV-PV-1 through PV-PV-3) were advanced to 2 feet bgs, sealed and sampled; the samples were analyzed for BTEX and volatile petroleum hydrocarbons. The samples contained BTEX and aliphatic hydrocarbons but no concentrations exceeded the MTCA Method B sub-slab soil gas screening levels. Because the contaminated zone was overlain by two feet of water that may be acting as a cap, the soil gas samples were not considered representative of what would be in the unsaturated zone. However, it was considered unlikely that the standing water would dissipate seasonally in order to

collect soil gas samples from an unsaturated zone near the contaminated soil left in place along the Property boundary.

Ecology recommended that an Environmental Covenant (EC) be placed on the Property in order to prevent the removal or damage to the volclay panels and the sheet drain. The EC will also require that any future building constructed on the Property have additional vapor barrier protection. Collection and analysis of indoor air samples will be required after building construction and to maintain the EC through the periodic review process.

b. Points of Compliance

Soil

The point of compliance based on the protection of ground water is Site-wide throughout the soil profile and may extend below the water table. This is the appropriate point of compliance for the Site.

Ground Water

The standard point of compliance for ground water is throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest depth which could potentially be affected.

Air

The standard point of compliance for air is in ambient air throughout the Site.

c. Selection of cleanup for the Property.

Ecology has determined the cleanup you proposed for the Property meets the substantive requirements of MTCA. Your proposed cleanup meets minimum cleanup requirements and will not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Site.

The cleanup selected for the Property was excavation of all contaminated soil at concentrations above Method A on each of the three parcels with removal from the Site and disposal.

Ground water in five Site monitoring wells was not found to contain any Site-related contaminants over multiple consecutive quarterly sampling rounds.

2. Cleanup of the Site as a whole.

Ecology has concluded that **further remedial action** will still be necessary elsewhere at the Site upon completion of your proposed cleanup. In other words, while your proposed cleanup may constitute the final action for the Property, it will constitute only an **“interim action”** for the Site as a whole.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Change the boundaries of the Site.
- Resolve or alter a person’s liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Property upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

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4. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up your Property under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (425) 649-7064 or by e-mail at heather.vick@ecy.wa.gov.

Sincerely,



Heather Vick, LHg
NWRO Toxics Cleanup Program

Enclosures (2): A – Legal Descriptions of the Property
B – Description and Diagrams of the Site (including the Property)

cc: Ted Sykes, Earth Solutions NW
Sonia Fernandez, VCP Coordinator, Ecology

Enclosure A

Legal Descriptions of the Property

Parcel number 9354900220:

WHITE HARRY & COS COMMERCIAL ADD LOTS 1 THRU 4 & W 5 FT OF LOT 5
LESS POR FOR RD IF ANY

Parcel number 0825059233:

W 200 FT OF FOLG N 165 FT OF S 2257 FT OF SW 1/4 LY E OF LAKE WASH BLVD
& W OF 3RD ST

Parcel number 9354900240:

WHITE HARRY & COS COMMERCIAL ADD LESS W 5 FT OF 5

Enclosure B

Description and Diagrams of the Site (including the Property)

Site Description

This section provides Ecology's understanding and interpretation of Site conditions, and is the basis for the opinions expressed in the body of the letter.

Site: The Site is defined as total petroleum hydrocarbons in the gasoline- (TPH-G), diesel- (TPH-D) and oil- (TPH-O) ranges, benzene, toluene, ethylbenzene and xylenes (BTEX), tetrachloroethene (PCE) and related degradation compounds including trichloroethene (TCE) and -dichloroethene (cis-1,2-DCE) and chromium III in soil; the Site is also defined as perchloroethylene (PCE), trichloroethylene (TCE) and cis-1,2-dichloroethene (cis-1,2-DCE) in ground water.

The Site contamination resulted from underground storage tanks (USTs), fuel pumps, fuel lines and hydraulic hoists related to a former gasoline station located at 6700 Lake Washington Boulevard NE, two residential home heating oil USTs formerly located at 21 10th Avenue South and a former dry cleaning operation formerly located at 1006 Lake Avenue South in Kirkland, Washington. The three addresses listed above correspond to three King County tax parcels which comprise the Property (see Table on next page). Based on TPH-G in soil at concentrations exceeding the MTCA Method A cleanup level, the Site extends off-Property to the west onto a City of Kirkland (City) right-of-way and beneath Lake Washington Boulevard (see Site Diagrams).

Area and Property Description: The Property comprises 1.21 acres of land located in the Feriton neighborhood south of downtown Kirkland. The Property area is densely developed with primarily residential and some commercial land uses. The Property is bordered to the north by 10th Avenue South and residential properties. The Property is bordered to the east by a private residence and Park Bay Condominiums. The Property is bordered to the south by Pleasant Bay Condominiums. The Property is bordered to the west by Lake Washington Boulevard NE, condominiums and residential properties. The Property is sloped to the west and ranges in elevation from approximately 32 to 57 feet above mean sea level.

Property History and Current Use: The history of land use on the Property is summarized in the table on the next page. Each of the three parcels is labeled with a capital letter (A, B and C) as shown in the first column and referred to elsewhere in the Site Description. A 1936 aerial photograph (King County IMAF) shows the Property as undeveloped land. At that time, the Property was surrounded by rural residential and agricultural land uses to the north, east and south. A bulk fuel plant was located directly west of the Property across Lake Street.

A building was constructed on Parcel A in 1958 to house the OK Tire Store, which provided new tire sales, recapping, wheel alignment and batteries and was in operation from 1958 to the mid-1970s. At a later time, a restaurant and dry cleaners were located on Parcel A from at least the mid-1990s to 2013 when cleanup of the Property was initiated.

Parcel B is the former location of an ARCO gasoline service station that was built in 1957 and was equipped with two 4,000-gallon USTs and one 275-gallon waste oil UST. The service station was demolished in 1973 and the two gasoline USTs, piping and fuel pumps were

reportedly removed at that time. A waste oil UST was reportedly left on the Property which was vacant until the cleanup in 2013.

Parcel Number (Label)	Street Address	Former Land Use	Contaminant Source; Confirmed Contamination	Parcel Size
9354900220 (Parcel A)	1006 Lake Street S	OK Tire Store (1958 – mid-1970s); Michael’s Fine Dry Cleaning and Asian Kitchen (at least 1990s – redevelopment)	Dry cleaner; PCE and related byproducts in soil and perched ground water	0.24 acre
0825059233 (Parcel B)	6700 Lake Washington Blvd NE	Gas station (1957 – 1973); vacant/parking lot until redevelopment	Two former gasoline USTs; waste oil UST; gasoline and oil in soil	0.75 acre
9354900240 (Parcel C)	21 10 th Avenue S	Single-family residence (1953 – redevelopment)	Two heating oil USTs; diesel in soil	0.22 acre

Parcel C was formerly the location of a 2,350-square foot private residence built in 1953. Two heating oil USTs were located on Parcel C. The building was demolished in early 2014 as part of redevelopment of the Property. The two USTs and related soil contaminated with TPH-D were removed in April 2014.

The Property is currently vacant.

Sources of Contamination: Each of the three parcels comprising the Property is associated with a separate contaminant source. A 2010 Phase I Environmental Site Assessment conducted on the Property identified the former dry cleaners, former gasoline service station and a suspected residential heating oil UST as separate recognized environmental conditions. Parcel A was the location of Michael’s Fine Dry Cleaning, a dry cleaner operation using PCE-based solvents in operation from at least the 1990s to the time of the 2013 cleanup. Parcel B was the location of a gasoline station from 1957 to the early 1970s which had gasoline and waste oil USTs, related piping, fuel pumps and hydraulic hoists. Parcel C was the location of a private residence which had two heating oil USTs that released fuel into the underlying soil.

Physiographic Setting: The Site is located within the Puget Sound Lowland Physiographic Province, a north-south trending structural and topographic depression bordered on the west by the Olympic Mountains, and to the east by the Cascade Mountain foothills. The Puget Sound Lowland is underlain by Tertiary volcanic and sedimentary bedrock, and has been filled to the present day land surface with Pleistocene glacial and nonglacial sediments. The Site is located in the Interlake Drift Upland sub-physiographic province of metropolitan Seattle.

Surface/Storm Water System: The Property is located approximately 250 feet east of Lake Washington. Storm water runoff on and in the vicinity of the Property disperses via sheet flow to catch basins connected to the City of Kirkland storm water system which is then routed to Lake Washington.

Ecological Setting: The Property is located in an area that has been heavily developed with primarily residential and some commercial land uses. The land surface is covered by buildings and landscaped yards with asphalt and concrete streets and parking areas. A 4.18-acre park, Marsh Park, is located on the Lake Washington shoreline approximately 150 feet southeast of the Property and contains minimal undeveloped land.

Geology: Native geologic materials at the Site are primarily composed of dense glacial till overlying glacially-overridden silt to the maximum depth explored on the Property of 55 feet bgs. In three monitoring well borings drilled on Parcel A in 2008, 19 feet of dense silty sand occurred above hard, slightly sandy silt to a depth of 30 feet when a transition to a silt unit was encountered. The silt extended to at least 45 feet bgs in the boring location drilled for MW-1.

Ground Water: Based on investigations conducted at the Site, shallow ground water occurs as a discontinuous perched zone within fill materials (and recessional outwash in eastern part of the Property) above the Vashon till. Ground water also occurs within the more permeable, sandy zones at depth within the silt unit as evidenced by water columns in monitoring wells MW-1 through MW-3 and seepages noted in the 2013 geotechnical borings. Water levels in the three monitoring wells eventually equilibrated to depths of 0.1 to 1.7 feet bgs. Based on one round of ground water elevation data collected in 2008, ground water on the Site flows to the west-northwest. The 2008 water levels also suggested that ground water seepage zones in the silt intersecting the screened intervals of the wells most likely occur under semi-confined or confined conditions due to the low hydraulic conductivities of the silt unit and the overlying till. If so, these materials would also presumably act as a barrier to vertical contaminant migration.

A 2010 geotechnical study encountered isolated perched ground water in Parcel B in recessional outwash deposits that occurred above the Vashon till. A 2013 geotechnical study on the Site advanced two soil borings (B1 and B2) along the eastern boundary of the Property to a total depth of 51.5 feet bgs. Ground water seepage was encountered at varying depths in the two borings between approximately 4 and 51.5 feet bgs.

A test pit (TP-101) was excavated on May 7, 2014 to investigate the presence of ground water on the Property. The test pit was dug to a depth of 22 feet bgs and encountered very dense glacial till to a depth of about 15 feet which was underlain by dense silt. No ground water seepage was observed in the 30 minutes that the pit was left open. This amount of time may not have been sufficient to allow ground water in the sand lenses in the silt, if intersected, to flow into the excavation.

Water Supply: Kirkland's water supply is obtained primarily from the South Fork Tolt River Watershed. On rare occasions, the Tolt River water is supplemented with water from the Cedar River watershed. According to Ecology's well log database, no water supply wells are located within 0.5 mile of the Site.

Release and Extent of Soil and Ground Water Contamination:

In July 2006, four direct push borings were advanced on Parcel A to depths ranging from 3.5 to 11 feet bgs. Two of the borings (B-1 and B-2) were completed outside of the former dry cleaning facility to the west and south of the dry cleaners. The other two borings (B-3 and B-4) were completed inside the dry cleaning facility. Soil samples collected from each of the borings contained non-detectable concentrations of volatile organic compounds (VOCs). Ground water was encountered at depths of 3.5 to 4 feet bgs in two of nine borings advanced on Parcel A suggesting the lack of a continuous, perched water bearing zone. One boring (B-4) encountered perched ground water at approximately 4 feet bgs. A sample from B-4 contained PCE at 10 µg/L and DCE at 5.5 µg/L, both exceeding MTCA Method A cleanup levels. TCE and cis-1,2-DCE were also detected in the B-4 ground water sample at concentrations below Method A cleanup levels. These results indicated that a release of dry cleaning solvent had occurred.

In 2008, five additional soil borings (B-5 through B-9) were drilled to depths ranging from 4.5 to 8 feet bgs. Shallow ground water was encountered at 3.5 feet bgs in one of the borings, B-5, which was located adjacent to the sanitary sewer line at the Property. Soil samples collected from the five borings and a ground water sample from boring B-5 contained non-detectable levels of VOCs. Based on the results, the extent of chlorinated solvents on Parcel A appeared to be limited to the area near the former dry cleaning machine.

In January 2008, three monitoring wells (MW-1 through MW-3) were installed on Parcel A. No soil samples from the monitoring well borings were submitted for laboratory analysis. One well (MW-1) was screened from 25 to 45 feet bgs; two wells (MW-2 and MW-3) were screened from 10 to 30 feet bgs. The wells were slow to recharge after installation which was attributed to the low hydraulic conductivity of the silt-rich materials screened. Ground water samples collected from the three monitoring wells in March 2008 contained no detectable VOCs. Ground water samples collected from two of the wells (MW-1 and MW-2) in 2014 contained no detectable VOCs. Monitoring well MW-3 was reportedly damaged during remediation activities and was decommissioned on August 25, 2014. MW-1 and MW-2 were left in place and continued to be sampled.

Site Remediation:

In 2013 and 2014, the Property was remediated as follows:

Parcel A. In December 2013 and March 2014, a test pit (No. 8) measuring 18 feet by 34 feet was excavated in the area of the former dry cleaner building. A total of ten soil samples were collected from the bottom of test pit No. 8 at depths of 1 and 3 feet bgs. Five of the ten soil samples contained detectable PCE, TCE, DCE or acetone. One sample, TP8@E at a depth of 1 foot bgs on the east side of the excavation contained PCE at a concentration exceeding the Method A cleanup level of 0.05 mg/kg. The sample also contained TCE and cis-1,2-DCE at concentrations below their respective Method A cleanup levels. The excavation footprint was later over-excavated 2 feet wider to the north and to a total depth of 3 feet with sidewall and

bottom samples confirming soil containing VOCs at concentrations exceeding Method A cleanup levels had been removed. A total of approximately 140 tons of soil contaminated containing PCE and related chlorinated compounds were removed from the Site. Monitoring well MW-3 had to be decommissioned in August 2014 due to damage during the remedial activities.

Parcel B. In December 2013 and March 2014, a 185-gallon waste oil tank was removed from the central portion of Parcel B. In addition, approximately 3,216 tons of petroleum-contaminated soil were removed and transported off-Property for treatment and disposal. The excavation was confirmed with soil samples collected on the sidewalls and bottom that contained TPH-G, TPH-D, TPH-O, VOCs and MTCA 5 metals at concentrations below MTCA Method A cleanup levels. Even though the gas station operated at a time when tetraethyl lead was added to gasoline to prevent engine knock, no lead was detected in any of the confirmation soil samples collected in Parcel B.

Parcel C. Two nested (one on top of the other) heating oil USTs (265-gallon and 330-gallon) were removed from Parcel C in April 2014. Soil contaminated with TPH-D exceeding MTCA Method A cleanup levels was detected underlying the two USTs. The soil was excavated to a depth of 7.5 feet. Confirmation soil samples verified that soil exceeding Method A cleanup levels were removed from the Property.

Confirmation soil samples collected at the excavation edges contained total chromium at concentrations of 21 to 84 mg/kg which exceed the Method A cleanup level for hexavalent chromium (chromium VI) of 19 mg/kg. Two soil samples collected in Parcel B were also analyzed for chromium VI speciation with non-detectable results.

Site Diagrams



Reference:
 King County, Washington
 Map 536
 By The Thomas Guide
 Rand McNally
 32nd Edition



NOTE: This plate may contain areas of color. ESNW cannot be responsible for any subsequent misinterpretation of the information resulting from black & white reproductions of this plate.

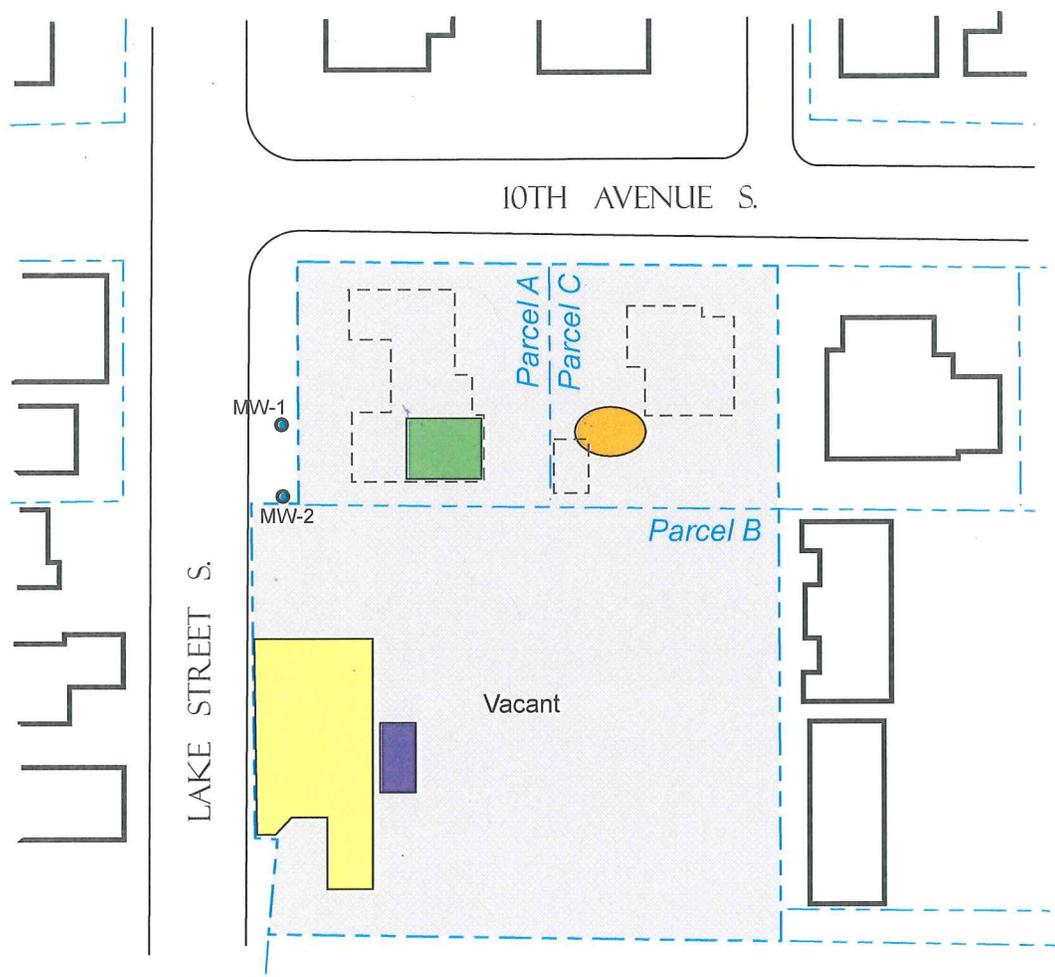


Earth Solutions NW LLC

Geotechnical Engineering, Construction Monitoring
 and Environmental Sciences

Vicinity Map
 Potlatch Village
 Kirkland, Washington

Drwn. GLS	Date 09/12/2014	Proj. No. 2880.05
Checked TWS	Date Sept. 2014	Plate 1



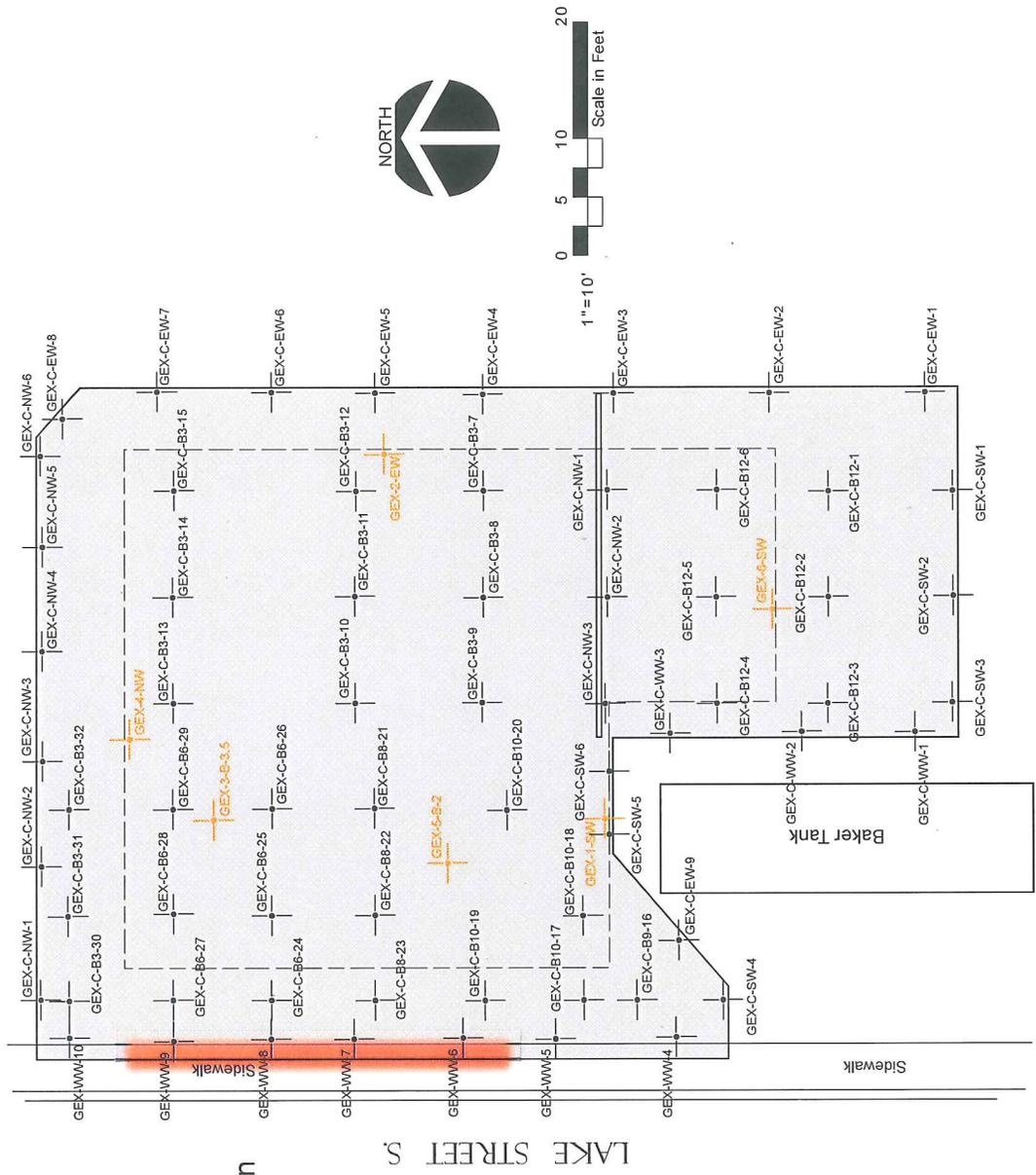
LEGEND

-  Subject Site
-  Former Building Location (Demolished)
-  MW-1 Approximate Location of Monitoring Well (Aspect, 2008)
-  Area 1 - Heating Fuel UST Excavation
-  Area 2 - Waste Oil UST Excavation
-  Area 3 - Former Dry Cleaner Excavation
-  Area 4 - Former Gasoline Service Station Excavation



Not - To - Scale

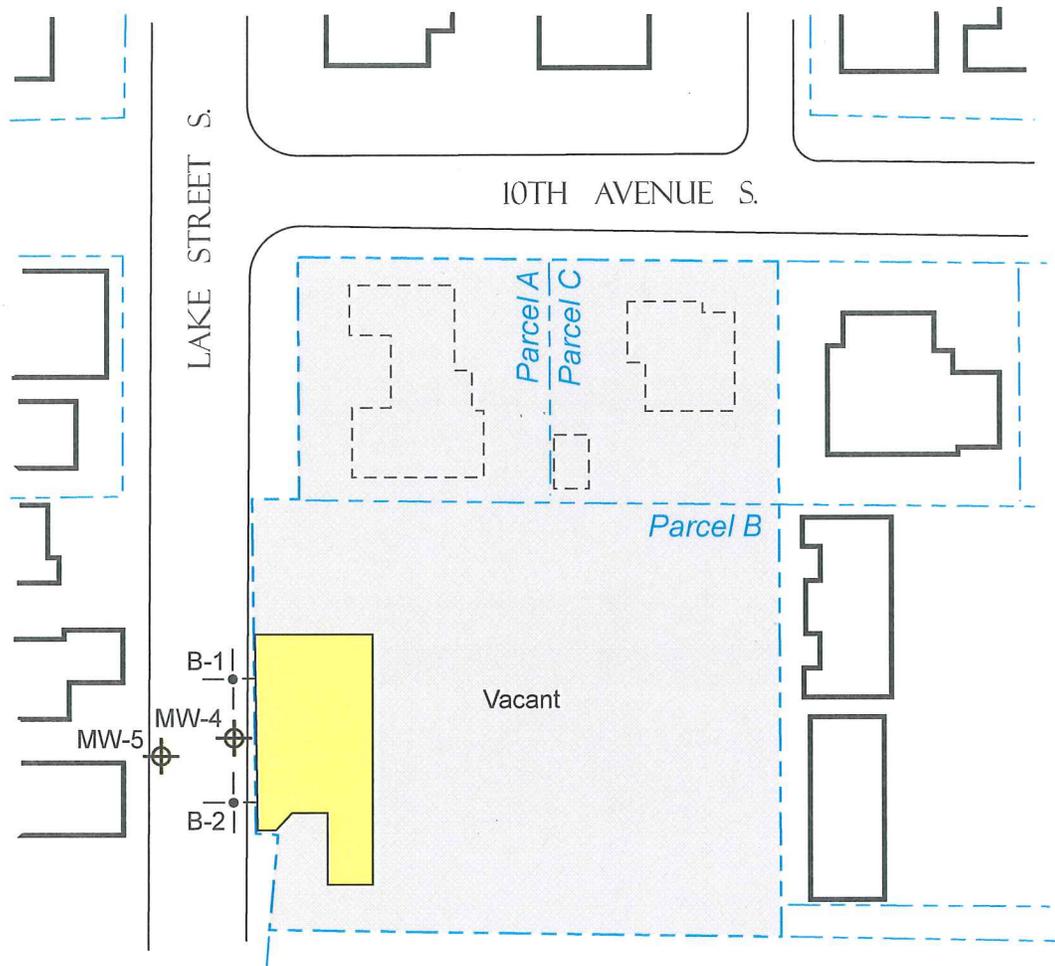
	Earth Solutions NW LLC <small>Geotechnical Engineering, Construction Monitoring and Environmental Sciences</small>	
	Site Plan Potala Village Kirkland, Washington	
Drwn. GLS	Date 05/13/2014	Proj. No. 2880.05 & 07
Checked TWS	Date May 2014	Plate 2



Area 4
Former Gasoline Service Station
Excavation

LAKE STREET S
 Sidewalk

- LEGEND**
- Performance Soil Sample Location
 - Initial Excavation
 - Confirmation Soil Sample Location
 - Final Limits of Excavation
 - Area at Property Boundary Where Residual Petroleum Contamination Remains



LEGEND

-  Subject Site
-  Former Building Location (Demolished)
-  Former Gasoline Service Station Excavation Area
-  Groundwater Monitoring Well Location
-  Soil Boring Location



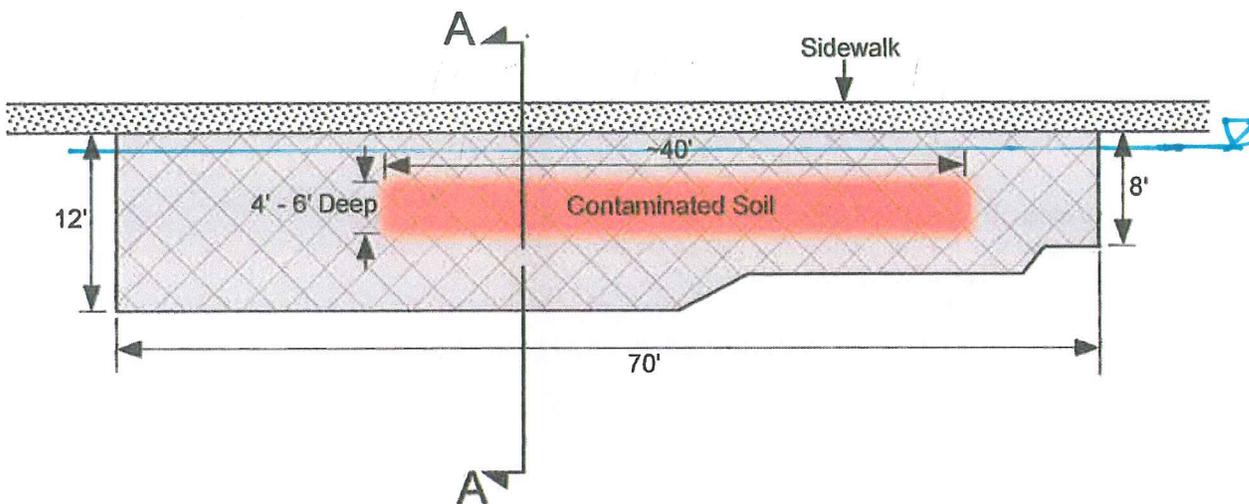
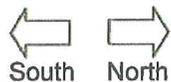
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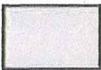
Earth Solutions NW LLC
Geotechnical Engineering, Construction Monitoring and Environmental Sciences

**Boring / Well Location Plan
Potlatch Village Kirkland
Kirkland, Washington**

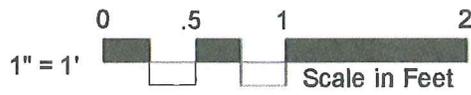
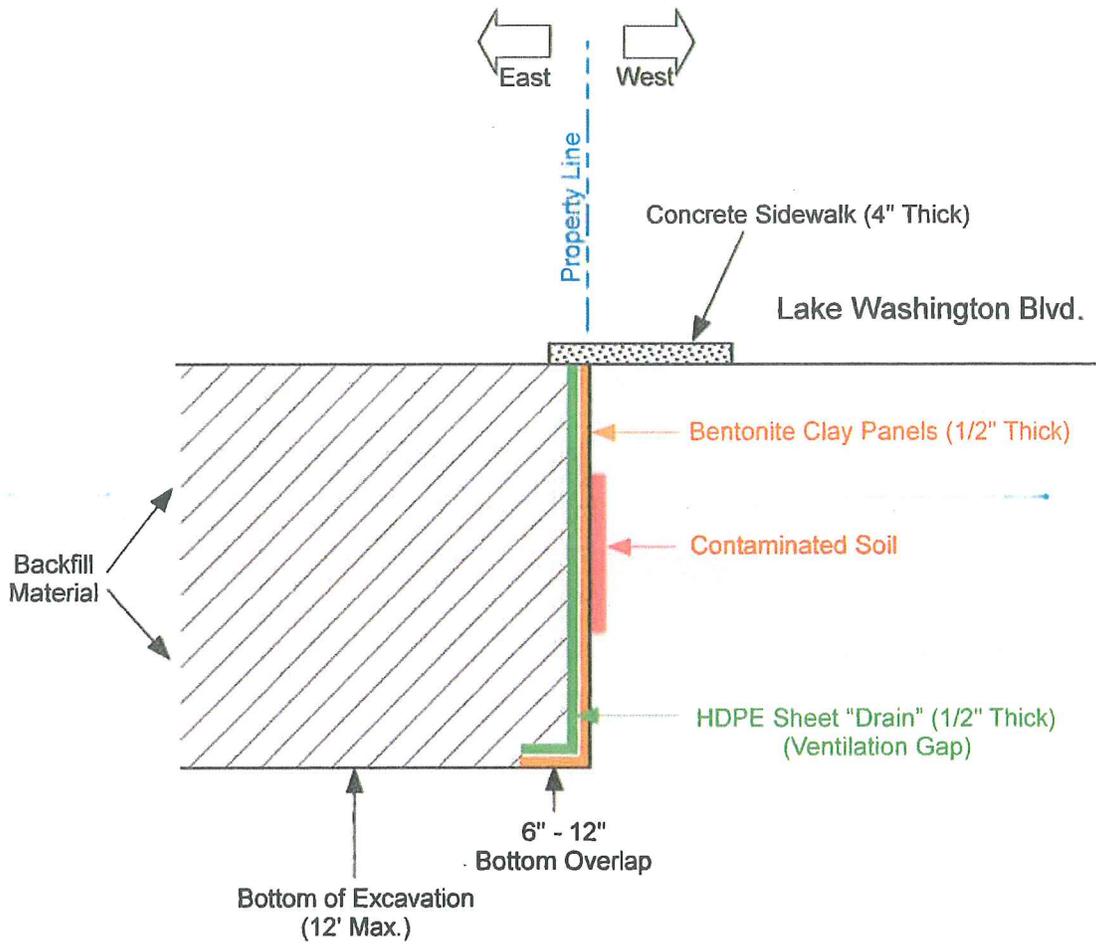
Drwn. GLS	Date 09/18/2014	Proj. No. 2880.07
Checked TWS	Date Sept. 2014	Plate 1



LEGEND

-  Limits of Excavation
-  Limits of Clay Membrane Panels and HDPE "Sheet Drain" for Vapor Dissipation
-  Contaminated Soil

		Earth Solutions NW LLC <small>Geotechnical Engineering Construction Monitoring and Environmental Sciences</small>	
As Built Cross Section of West Excavation Sidewall Potala Village Kirkland, Washington			
Drwn. MRS	Date 01/12/2017	Proj. No. 2880.07	
Checked TWS	Date Jan. 2017	Plate	1





Earth Solutions NW LLC

Geotechnical Engineering, Construction Monitoring
and Environmental Sciences

As Built Cross Section A of West Excavation Sidewall
Potala Village
Kirkland, Washington

Drwn. MRS	Date 01/12/2017	Proj. No. 2880.07
Checked TWS	Date Jan. 2017	Plate 2