

RIGHT OF ENTRY AGREEMENT

THIS RIGHT OF ENTRY AGREEMENT ("Agreement" or "License") is made effective on the date below between the PORT OF SEATTLE, a Washington municipal corporation ("Owner") and the City of Burien ("Licensee").

RECITALS

- 1. Owner owns the real property located between 152nd Street and 140th Street on Des Moines Memorial Drive in the City of Burien commonly known as NERA 1, 2 and 3 as depicted on Exhibit A (the "Property").**
- 2. Owner and Licensee are investigating the potential of a cooperative effort in developing a storm water facility that would benefit Owner's Property.**
- 3. Owner is willing to grant Licensee access to the Property to conduct the Activities on the terms and conditions of this Agreement.**

NOW, THEREFORE, in consideration of the mutual promises contained in this Agreement, Owner and Licensee agree as follows:

1. Grant of License.

Owner grants to Licensee a non-exclusive license for temporary access and use of the Property from the effective date of this License for the purpose of completing the Activities. Hereafter, a reference to Licensee shall also include its employees, agents, independent contractors and any other authorized representative.

2. Relationship between Owner and Licensee.

The relationship between Owner and Licensee is not one of landlord and tenant, but rather one of licensor and licensee. The incurrence of any costs with respect to the Property or Activities by Licensee shall in no way operate to confer upon Licensee any other interest, status, or estate of any kind other than Licensee nor obligate Owner to enter into any agreement conferring such other interest.

3. Property Condition and Use.

Licensee specifically accepts the Property in its present condition on an as-is, where-is basis. Licensee's activity within or about the Property shall be at Licensee's sole risk and Owner shall not be responsible for the safety of Licensee, its employees, agents, licensees or invitees or for the condition or loss of any items of personal property brought onto the Property by any of them. Licensee shall be limited to the Scope of Work described in Exhibit B. Licensee's activity in the northern portion of NERA 1 (Lora Lake Apartments) shall be further limited to non-invasive activity and subject to the restrictions and requirements outlined in the Site Umbrella Health and Safety Plan attached as Exhibit C. The northern portion of NERA 1 subject to such additional restrictions and requirements is depicted at Exhibit A. Licensee shall, insofar as reasonably possible, determine the actual location of any existing improvements or third party utilities that may be affected by Licensee's activities on the Property.

Licensee shall exercise its rights under this License so as to minimal and avoid, insofar as possible, interference with the use of the Property by Owner. Licensee shall at all times conduct its activities on the Property so as not to interfere with, obstruct or endanger the Owner's operations, facilities or utilities.

4. Compliance with Laws.

Licensee shall, at its sole cost and expense, use and/or occupy the Property solely: (i) in the manner contemplated by this License, (ii) in an orderly manner so as to avoid unreasonably interfering with or interrupting the normal business operations and quiet enjoyment of the occupants of other adjoining properties or premises, and (iii) in full compliance with all applicable governmental laws, rules, regulations, and codes affecting the Property and its use under this License.

5. Document Delivery; Coordination of Activities.

Prior to commencing any Activities and gaining actual access to the Property, Licensee shall complete the following steps:

- i. Provide Owner with a detailed draft scope of work/work plan for review and comment at least fifteen (15) days prior to Licensee's proposed entry to the Property for performance of a geo-technical investigation or any other invasive investigation. Owner shall provide comments on the draft scope of work/work plan for Licensee within five (5) days of receipt, and Licensee shall provide a proposed final scope of work/work plan for Owner's approval no less than five (5) days prior to the initiation of the work;**
- ii. Give Owner at least three (3) calendar days' advance written notice of the proposed work to the Owner at the address in Section 13 or at such address or office as the Owner may from time to time designate. Licensee shall cooperate in the revision of such dates and/or the coordination of its Activities with those of Owner if deemed necessary by the Owner to minimize conflicts, ensure protection to each parties' facilities, or prevent hazardous conditions; and**
- iii. Designate a lead point of contact for coordinating site access issues with the Owner.**

Licensee shall promptly share, upon receipt and at its cost, all data and any information obtained from its Activities. At least fifteen (15) days prior to Licensee's proposed publication of a final report of any element of the property inspection/investigation. Licensee shall provide Owner with a draft report for review and comment. Owner shall provide comments on the draft to Licensee within five (5) days of receipt, and Licensee shall provide copies of the final report at least five (5) days prior to making such information available to any third parties unless otherwise directed by a government agency with jurisdiction.

In case of a maintenance need or emergency involving the existing facilities, the Owner's use and needs will supersede any and all use by Licensee. This may include suspension of Licensee's activities on the Property and return of the full use of the Property to the Owner.

6. Liability.

Licensee accepts full responsibility and will require its contractors and subcontractors to accept full responsibility, and agrees to pay for any damage to existing improvements (excluding abandoned utilities) resulting from their work on the Property. Licensee shall be liable for damage to property or injury to persons arising out of, caused by, or resulting from Licensee's failure to comply with the prohibitions, restrictions and other requirements applicable to this License. The provisions of this section shall survive termination of this License. Notwithstanding the foregoing, Licensee shall have no obligations with respect to any Claims arising out of, in connection with, or incident to any pre-existing contamination or hazardous materials at or under the Property except to the extent Licensee or its consultants negligently increase the extent of, or cost to manage or remediate, such pre-existing contamination or materials.

7. Requirements Prior to Grant of Access to Licensee's Contractors or Sub-contractors.

Before granting access to the Property to its contractors or subcontractors, Licensee shall enter into written agreements with its contractors or sub-contractors that contain, but are not limited to, the following provisions:

A. Contractor, and its sub-contractors, sub-consultants, representatives and agents will use professional judgment in the performance of all activities in, on, under or relating to the Property and shall use the degree of care and skill ordinarily exercised under similar circumstances by other experienced and skilled professionals performing comparable services.

B. If during the course of access to the Property, Contractor, and its sub-contractors, sub-consultants, representatives and agents discovers an environmental or other condition that they are required by law to report to a governmental authority, Licensee shall notify Owner and afford Owner the opportunity to report, except in cases where such notification of Owner would delay reporting in violation of applicable law. If Owner fails to make the reporting required by law, Licensee may make the required reporting. In all events, Licensee shall notify Owner of reporting made to governmental authorities.

C. Contractor shall designate a lead point of contact for coordinating site access issues with the Owner.

D. Contractor shall repair any damage (excluding abandoned utilities) caused by the act, omission or conduct of Contractor, sub-contractors, sub-consultants or agents and shall restore the Property to as near its original condition as existed prior to such damage unless otherwise agreed by Owner.

E. Contractor and its sub-contractors shall provide and comply with the insurance requirements as stated elsewhere in this Agreement.

F. Contractor, and its sub-contractors, sub-consultants, representatives and agents, shall indemnify and hold the Owner harmless as follows:

(1) Except as otherwise provided in this section, the Contractor hereby agrees to hold harmless, defend and indemnify the Indemnified Parties (which shall include Owner, its officials, officers, employees and agents) from any and all Claims arising out of or alleged to arise out of, the agreement to perform work or services to the extent (a) caused by any intentional misconduct or any wrongful or negligent acts, errors, omissions or conduct by Contractor (or its employees, agents, representatives, sub-contractors/sub-consultants); and (b) arising out of, resulting from or caused by the performance or failure of any work or services.

(2) Contractor shall not indemnify the Indemnified Parties for Claims to the extent caused solely by the negligence of one or more of the Indemnified Parties. If (a) RCW 4.24.115 applies to a particular Claim, and (b) the bodily injury or damage to property for which the Contractor is to indemnify the Indemnified Parties is caused by the concurrent negligence of the Contractor (or its employees, sub-contractors/sub-consultants or agents) and one or more of the Indemnified Parties, then the Contractor's duty to indemnify shall be valid and enforceable only to the extent allowed under RCW 4.24.115.

(3) Solely and expressly for the purposes of its duties to indemnify and defend the Indemnified Parties, the Contractor specifically waives any immunity it may have under the State Industrial Insurance Law, Title 51 RCW.

(4) The provisions of this section shall survive termination of this Agreement.

8. Indemnification.

Except when a Claim arises out of the gross negligence or willful misconduct of Owner, Licensee hereby agrees to defend, protect, hold harmless and indemnify Owner from any and all liability for damages, losses, liens, expenses, attorneys' fees, penalties, actions, causes of action or other costs ("Claims"), including Claims for injury to any person or damage to any property, arising out of, in connection with, or incident to any acts, errors, omissions, or conduct by Licensee and its employees, agents, and representatives, contractors, sub-contractors and sub-consultants relating to this License or its terms. Notwithstanding the foregoing, Licensee shall have no obligations with respect to any Claims arising out of, in connection with, or incident to any pre-existing contamination or hazardous materials at or under the Property except to the extent Licensee or its consultants negligently increase the extent of; or cost to manage or remediate, such pre-existing contamination or materials.

9. Insurance.

Prior to commencing the Activities, Licensee must furnish to Port an acceptable evidence of coverage certificate. Licensee shall have the right to substitute self-insurance or self-insured retentions for any insurance requirements contained herein pursuant to Licensee's self-insurance program. Work that is to be contracted out shall require the contractor to provide insurance as follows and for contractor to provide Owner a Certificate of Insurance validating the coverage below and an additional insured endorsement for the Commercial General Liability insurance.

A. Commercial General Liability. Contractor shall provide commercial general liability insurance on ISO Form CG 00 01 10 01 (or equivalent) for third party property damage, bodily injury, personal and advertising injury, and medical payments in an amount which is not less than \$2 million per occurrence or \$2 million in the annual aggregate. The insurance shall cover liability arising from premises, operations, independent Contractors, products completed operations, personal and advertising injury, and liability assumed under an insured contract. The Contractor's insurance shall be primary and non-contributory with respect to any insurance Owner carries and apply separately to each insured. Owner shall be named as an additional insured for all work arising out of Contractors Work, including "on-going" and "completed operations" using ISO Endorsement Form CG 20 26 11 85 or an equivalent endorsement approved by the Owner.

B. Automobile Liability Insurance. Contractor shall provide business automobile insurance for all owned, non-owned, hired, leased, borrowed, or rented vehicles, including trailers, in an amount not less than \$1 million per occurrence, combined single limit for bodily injury and property damage using ISO Form CA 00 01 (or equivalent). Automobile insurance coverage shall extend to all owned, non-owned, hired, leased, employee owned, borrowed, or rented vehicles, including trailers.

10. Attorney's Fees.

In the event that either Owner or Licensee shall be required to bring any action to enforce any provision of this Agreement, or shall be required to defend any action brought by the other party or a third party with respect to this Agreement, and in the further event that either the Owner or Licensee substantially prevails in such action, the non-prevailing party shall pay all of the substantially prevailing party's actual costs in connection with such action, including such sums as the trial or appellate court may adjudge reasonable as attorney's fees.

11. Duration.

The duration of this Agreement shall be two years from the Effective Date. This Agreement may be extended by written mutual consent of the parties.

12. Termination.

Notwithstanding any specific term set forth in this License, Owner may terminate this License, in its sole discretion and for any reason whatsoever effective upon delivery of written notice to Licensee at the address in Section 13 below.

13. Notices.

Unless otherwise provided herein, all notices, requests for approval or communications regarding coordination of use required under this Agreement shall be in writing and shall be given as follows:

If to Owner:

Port of Seattle
Aviation Division
17801 International Blvd. (Pacific Highway S.)
Seattle, WA 98158
Attention: Allan Royal

If by mail:
POBox68727
Seattle, WA 98168

If to Licensee:

City of Burien
400 SW 152nd St., Suite 300
Burien, WA 98166
Attention: Maiya I. Andrews

14. Governing Law/Captions.

The validity, meaning, and effect of this Agreement shall be determined in accordance with the laws of the State of Washington. The captions contained in this Agreement are for convenience of reference only and do not define or describe the scope or intent of this Agreement.

15. No Third Party Rights/Assignment.

Nothing in this Agreement, express or implied, is intended to confer any rights or remedies upon any person, other than the parties and their respective employees and representatives.

16. Non-Waiver.

The failure of a party to insist upon strict performance of any of the terms, conditions and covenants herein or to exercise any remedy available to it will not be deemed a waiver of any rights or remedies that said party may have and will not be deemed a waiver of any rights or remedies that said party may have; it will not be deemed a waiver of any subsequent breach or default in the terms, conditions and covenants in this Agreement.

17. Severability.

If any term or provision of this Agreement is deemed invalid and unenforceable by a court of law, each remaining term of this Agreement shall be valid and enforced to the extent permitted by law.

18. Entire Agreement.

This Agreement sets forth the entire agreement of the parties as to the subject matter contained here and supersedes all prior discussions and understandings between them. Any amendment or modification of this Agreement must be in writing and signed by the parties.

19. Authority.

Each party to this Agreement represents that its respective signatory has due authority to sign this Agreement.

20. Effective Date.

The effective date of this Agreement shall be the date when both parties have signed this Agreement.

LICENSEE:

By:

Name: Maiga Andrews

Its: Public Works Director

Date: April 13, 2015

OWNER:

By: [Signature]

Name: Mark C. Griffin

Its: Director, Real Estate Development

Date: 4/13/15

Licensee anticipates its evaluation of the Property will include preparation of a detailed scope of work/work plan, to be reviewed and approved by Owner, for the following activities:

- **Geotechnical analysis**
- **Survey**
- **Other assessments requested by Licensee and approved by the Port**

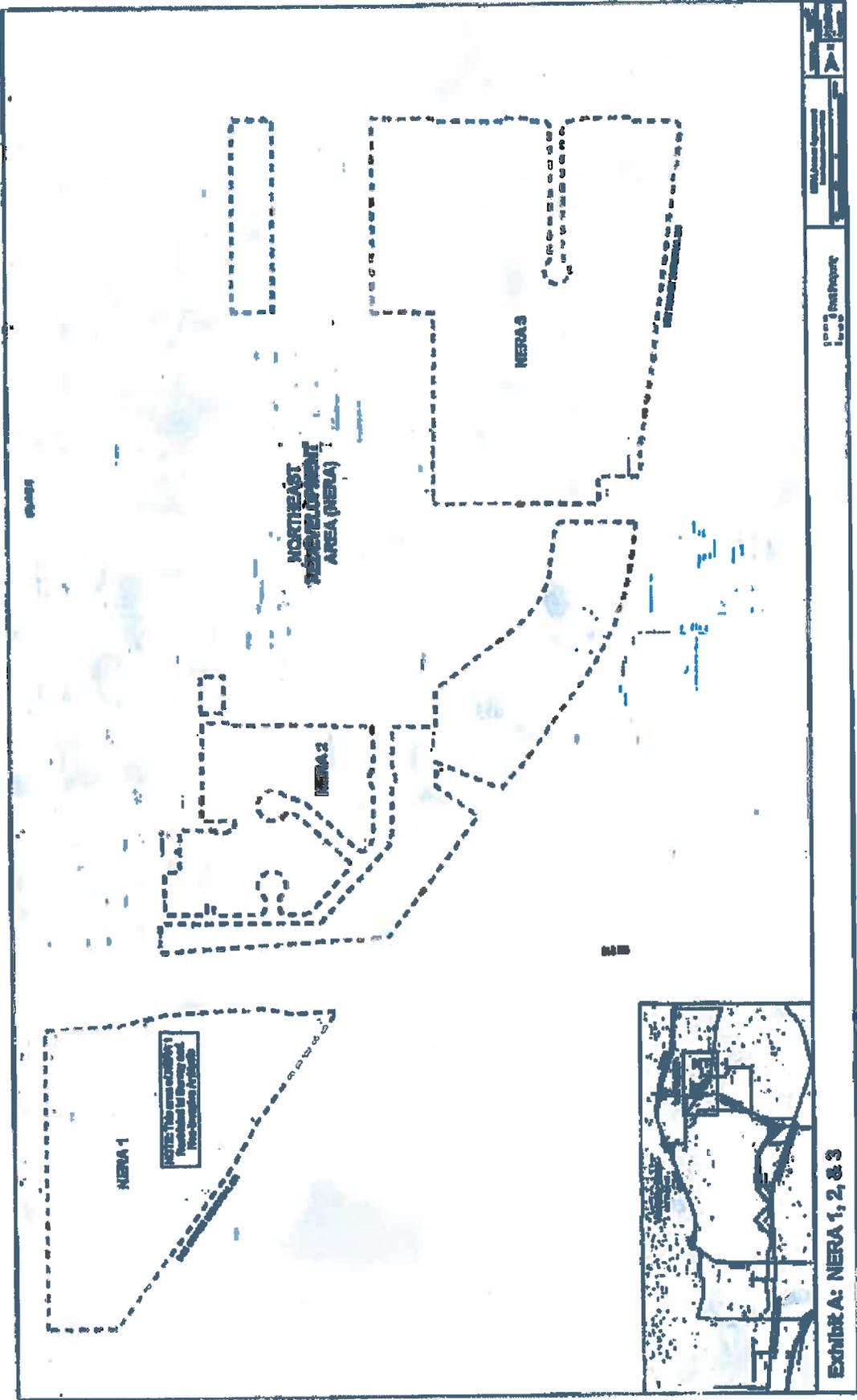


Exhibit A: NERA 1, 2, & 3

EXHIBIT B

Scope of Work

Licensee anticipates its evaluation of the Property will include preparation of a detailed scope of work/work plan, to be reviewed and approved by Owner, for the following activities:

- **Geotechnical analysis**
- **Survey**
- **Other assessments requested by Licensee and approved by the Port**

EXHIBIT C



**Hazardous Waste Operations
Site Umbrella Health and Safety Plan (SU-HASP)**

Lora Lake Apartments

**15001 Des Moines Memorial Drive
Burien, Washington**

**Prepared by: Martin Rose, CIH
Rose Environmental Inc.**

**Approved by: Dana Stahl, CIH
Port of Seattle Health and Safety**



This umbrella site health and safety plan has been prepared for all Port of Seattle employees who may disturb contaminated sediments or groundwater at the Port of Lora Lake Apartments Site and is to be used in conjunction with the Job Health and Safety Plan (JobHASP). This plan is designed to address the major chemical, physical, biological, and weather hazards specific to the Lora Lake Apartments Site. It should not be considered a comprehensive Safety and Health Program. Personnel should consult the Port of Seattle's Health and Safety Manual for a more comprehensive guide to mitigating safety hazards.

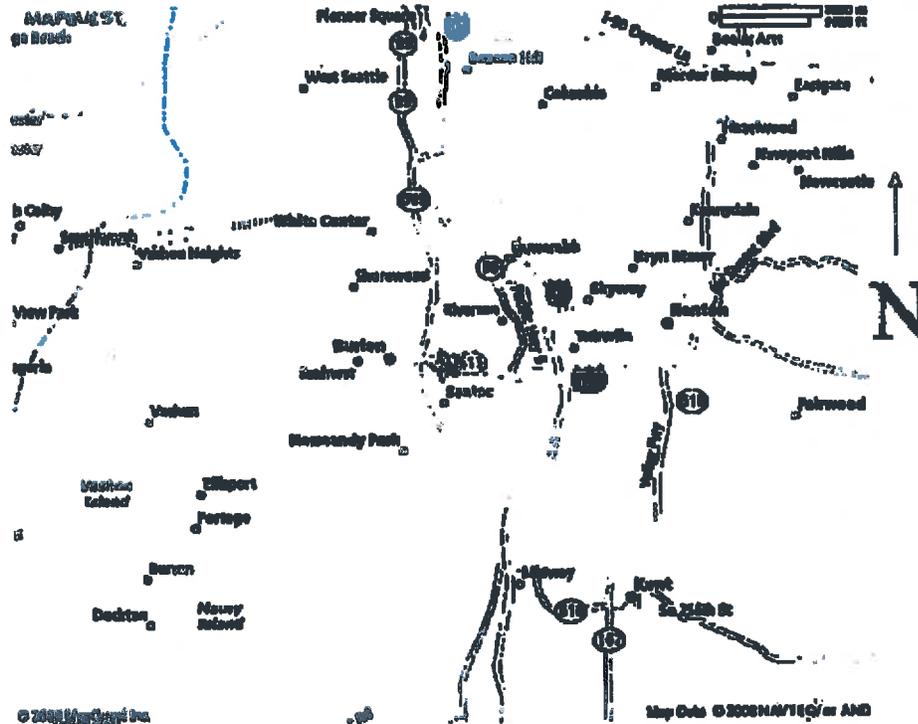
Table of Contents

1. GENERAL SITE INFORMATION	1
1.1. Site Address	1
1.2. Site Overview and Background	1
1.3. Scope of Work	2
1.4. Key Personnel Contact Information	3
2. EMERGENCY PROCEDURES	3
3. HEALTH AND SAFETY HAZARD EVALUATION	4
3.2 Physical Hazards	4
3.3 Chemical Hazards	4
3.3 Biological Hazards	5
4. TRAINING	5
5. PERSONAL PROTECTIVE EQUIPMENT (PPE)	5
5.1 Incompatible PPE	6
5.2 PPE Training, Care, and Storage	6
5.3 Decontamination	6
6. MEDICAL SURVEILLANCE	6
7. AIR MONITORING	6
8. SITE CONTROL	7
9. WORK PRACTICES	7
10. REFERENCES	7

1. GENERAL SITE INFORMATION

**1.1. Site Location: Lora Lake Apartments
15001 Des Moines Memorial Drive
Burien, Washington 98148-3115**

Figure 1: Lora Lake Apartments Location on Regional Map



1.2. Site Overview and Background

The Port of Seattle Lora Lake Apartments site is located at 15001 Des Moines Memorial Drive in Burien, Washington, near the northwest corner of Seattle-Tacoma International Airport (STIA). The site covers approximately 8 acres and includes the unoccupied residential Lora Lake Apartments. The Lora Lake Apartments were reportedly built in 1987 and comprise 234 units in 22 original buildings, six of which have been demolished leaving concrete foundations.

The site is bounded by State Highway 518 to the north, Des Moines Memorial Highway to the east, cleared former commercial land to the south, and Eighth Avenue South to the west.

Subsurface soil composition consists of generally dense sand and gravel fill ("reworked soil") over a majority of the site. This fill is most shallow at the northwest corner and deepest (about 15 feet deep) to the southeast. Groundwater depth ranges from 12 to 20 feet below ground surface and is considered contaminated.

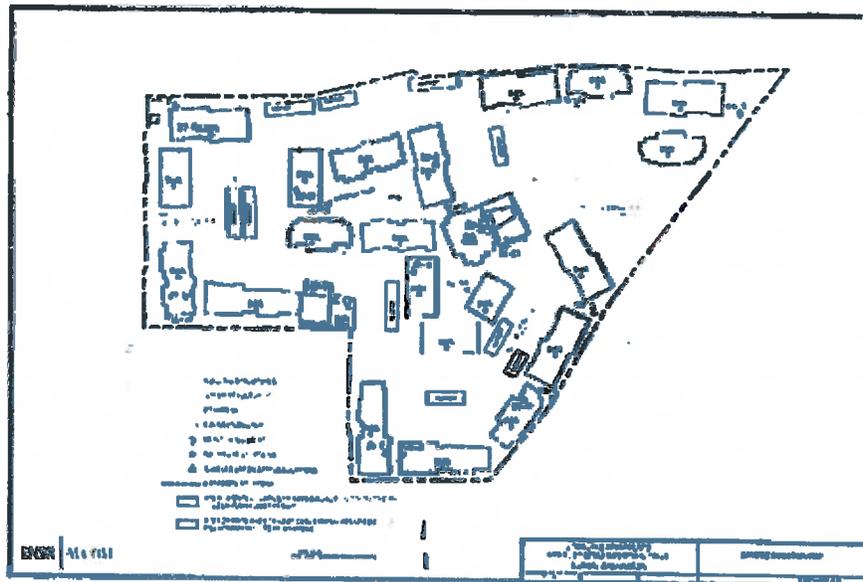
Originally a private residence with a fruit orchard, the site was operated by a barrel-cleaning company in the 1940s and 1950s. This was followed by an auto-wrecking operation which lasted until about 1981. The Lora Lake Apartments were constructed in 1987, and the Port of Seattle acquired the complex 1988. However, the Apartments were owned by the King County Housing Authority under a cooperative agreement until July 2007, where ownership reverted to the Port of Seattle. Six buildings (Buildings A, C, U, V, W, and X) at the east of the site, located in the STIA's third runway Runway Protection Zone (RPZ), were demolished in 2007.

In 1987 an area soils contaminated with of metals, volatile organic compounds (VOCs), and semi-volatile organic compound (SVOC) was remediated near the Recreation Building (see Figure 2 below). Soil samples collected near this location in 2007-2008 revealed elevated concentrations of hydrocarbons and dioxins in the soil and groundwater.

A more comprehensive site subsurface evaluation conducted by ENSR between March 2008 and May 2008 have revealed a wide range of contaminants of concern ("COCs") above environmental clean-up levels in both the soil and groundwater. COCs above Model Toxics Control Act (MTCOA) cleanup levels include arsenic, lead, pentachlorophenol, carcinogenic polyaromatic hydrocarbons (cPAHs, including benzo[a]pyrene), diesel hydrocarbons, and dioxin/furans.

Figure 4 depicts locations where soil monitoring data exceeded applicable cleanup levels.

Figure 2: Site Layout



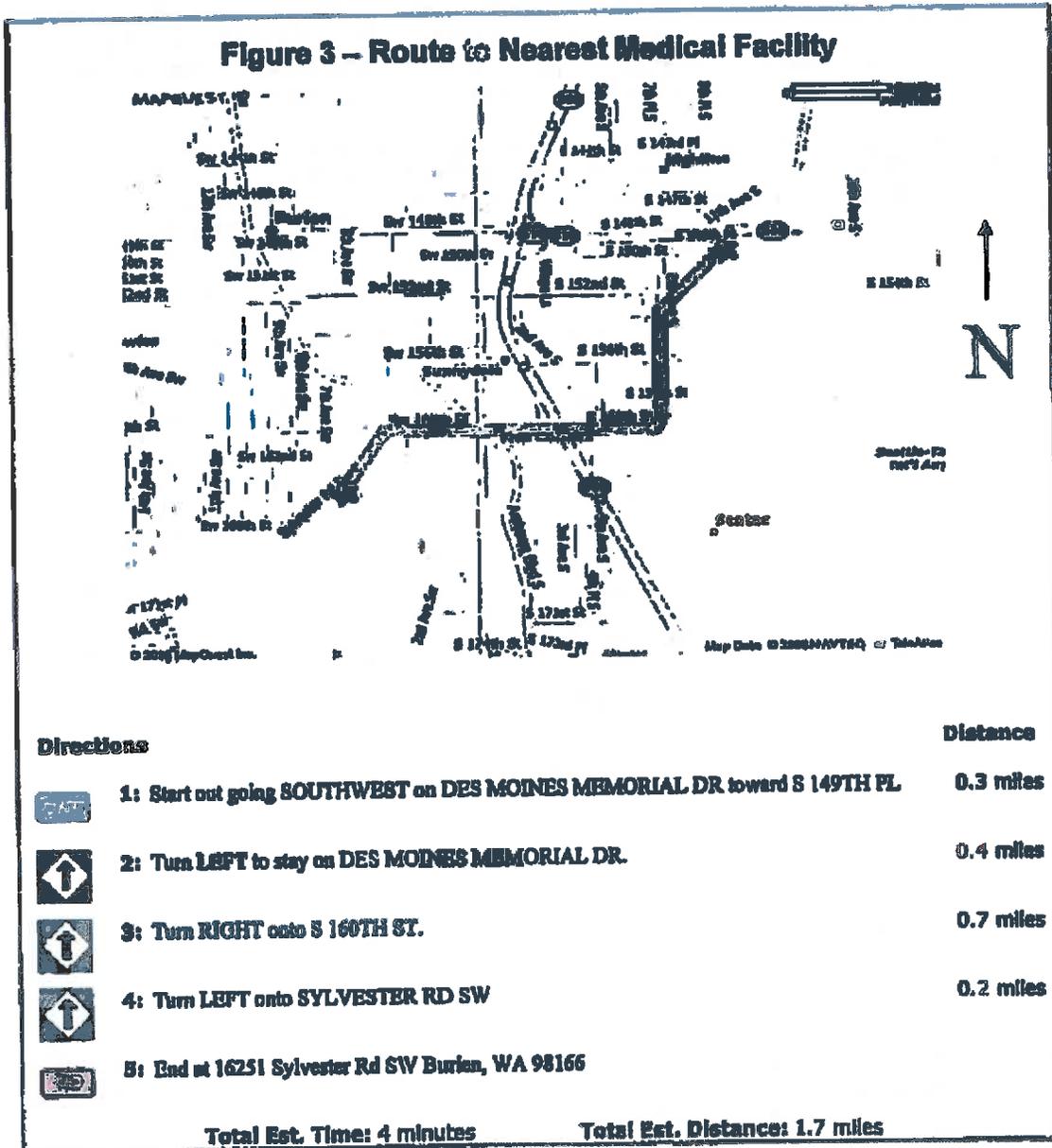
1.3. Scope of Work

This site umbrella health and safety plan (SU-HASP) covers incidental work performed by Port of Seattle employees as defined in the POS Hazardous Waste Operations (HAZWOPER) Program. Specific work descriptions are covered in individual JobHASPs.

1.4. Key Personnel Contact Information

Table 1 (located with other tables at the end of this SU-HASP) lists key personnel contact information, including those with organizational responsibilities, emergency response, and sources of additional information, such as the POS Environmental department.

2. EMERGENCY PROCEDURES



The nearest hospital and emergency room to the Lora Lake Apartments is Highline Medical Center located at:

**Highline Medical Center
16251 Sylvester Road SW
Burien, WA 98168
206-244-9970
Open 24 Hours a day**

The route to this medical facility, including driving directions, is provided in Figure 3 above.

For minor first aid needs, first aid supplies are kept in the Facilities and Engineering Trailers and in Port vehicles. Please refer to the POS Health and Safety Manual's existing *Emergency Evacuation* and *First Aid* programs for more information.

In the event of a medical emergency, all work should stop and appropriate personnel listed in *Table 1 – Roles and Responsibilities*, should be contacted. If necessary, call 911 for an ambulance or medical assistance.

3. HEALTH AND SAFETY HAZARD EVALUATION

3.1. Physical Hazards

Visitors and personnel need to be aware of physical hazards while working at the Lora Lake Apartments site, and all workers need to abide by existing safety measures identified to mitigate the applicable hazard. Table 1 provides an outline of general site hazards which may be encountered during typical inspection, repair, and maintenance operations conducted by POS employees at the Lora Lake Apartments Site.

Existing POS programs which address the physical hazards which could be encountered at the Lora Lake Apartments include the Confined Space, Ergonomics, Fall Protection, Driver's Safety, Electrical Safety, Emergency Evacuation, Hearing Conservation, and Trenching and Shoring programs.

For more discussion, see the POS Health and Safety Manual.

3.2 Chemical Hazards

Tables 3 and 4 depict the maximum concentration of contaminants of concern likely to be found in soil and groundwater on the site. Figure 4 attached to the end of this SU-HASP is map of soil monitoring data which shows where these chemical hazards may be encountered.

The chemical COCs present include arsenic, lead, pentachlorophenol, carcinogenic polyaromatic hydrocarbons (cPAHs, including benzo[a]pyrene), diesel hydrocarbons, and dioxin/furans. Many more contaminants than those listed on Tables 3 and 4 were detected in soil and groundwater at the Lora Lake Apartments Site. Therefore, these tables should be considered a summary of those contaminants thought to be most relevant to human health.

In soil, none of the maximum detected concentrations exceeded MTCA Method A cleanup levels for industrial use. However, concentrations of dioxin/furans exceeded the MTCA Method C carcinogenic cleanup level by a factor of two.

In groundwater, diesel products, arsenic, and cPAHs exceeded MTCA Method A levels, while dioxine/furans and pentachlorophenol exceeded their applicable MTCA Method C carcinogenic cleanup levels. In fact, dioxins/furans and cPAHs exceeded their applicable limits by a factor of ten.

Overall, exposure risks to contaminated soils and groundwater are anticipated to be low. Those POS workers who anticipate work activities which would involve prolonged soil or groundwater contact, or where high amounts of airborne dust is expected, should contact POS Health and Safety representatives to discuss work practices, exposure control methods, PPE, and possibly arrange for air monitoring.

See Table 6 for a summary of exposure information for the individual chemical hazards. For more detailed information, consider reading the NIOSH Pocket Guide to Chemical Hazards.

3.3. Biological Hazards

Several apartment units contain significant indoor mold growth covering ceilings, walls or floors - in many cases surrounding windows. Visible colonization in these few units is present in quantities ranging from 60 to 180 square feet. These apartment units include Units E104, E204, K103, and K203. At least five other units contain much smaller amounts, between 0.25 to 2 square feet of visible mold.

POS workers entering and working in these four worst units, and for any other unit where significant indoor mold growth is observed, need to be provided with mold awareness training and should wear appropriate dermal and respiratory protection outlined in the attached Lora Lake JobHASP.

Standing water onsite can also be sources of microbiological growth and insect (e.g., mosquito) encounters. Care should be taken to avoid inhaling aerosolized water droplets, and reasonable precautions for mosquito bites should be considered when working near standing water.

For more discussion, see the POS Health and Safety Manual.

4. TRAINING

All personnel who may disturb contaminated soils or groundwater are appropriately trained in accordance with the POS Hazardous Waste Operations and Emergency Response (HAZWOPER) Program and WAC 298-843. Training records are maintained by POS Health & Safety in Portiere.

POS individuals who may disturb sites of indoor fungal (mold) growth should have mold awareness training appropriate to the expected nature and extent of material disturbance.

5. PERSONAL PROTECTIVE EQUIPMENT (PPE)

Table 6 provides generic levels of PPE for use while working within and outside of areas (Areas of Concern [AOC]) where significant soil or groundwater contaminant exposure is likely.

As Table 6 shows, because of the potential for contact with highly-contaminated soil, all work of moderate to long duration at the site requires coated-Tyvek coveralls and ethylene vinyl alcohol (4H or Silvershield) outer gloves.

Workers should refer to the specific JobHASP for the actual degree, type, and modifications to PPE to be used by the worker.

6.1 Incompatible PPE

The following PPE is incompatible or ineffective with some or all of the chemicals hazards likely to be encountered at Lora Lake Apartments and must not be used to protect personnel working on this site:

Incompatible Gloves

- Cotton
- Unsupported Neoprene
- Polyvinyl chloride (PVC)
- Natural rubber
- Neoprene/Natural rubber blend

Incompatibility

No chemical resistance at all
Halogenated hydrocarbons
Halogenated hydrocarbons
BTEX, aromatics, ketones
BTEX, aromatics

6.2 PPE Training, Care, and Storage

PPE training, care and storage procedures are covered in existing POS Respiratory Protection, PPE: Personal Protective Equipment, and HAZWOPER programs.

6.3 Decontamination

For information on decontamination procedures at the Lora Lake Apartments, refer to the Work Zones and Decontamination Procedures for Work Occurring in Areas of Concern (AOC) section of the POS HAZWOPER Program. Variations to the decontamination process should be specified in individual JobHASPs.

6. MEDICAL SURVEILLANCE

Medical surveillance for employees working at the Lora Lake Apartments is described in the POS HAZWOPER program. Medical attention should be sought if employees become injured, ill, or develop signs or symptoms of possible overexposure to hazardous substances. In this situation, reference POS Incident Response program.

7. AIR MONITORING

Although historic air monitoring data is limited for the Lora Lake Apartments, where respiratory exposures to significantly aerosolized soil or groundwater are anticipated, appropriate PPE and air monitoring needs to be implemented.

Table 7 describes generic action levels for volatile organic compounds, combustibles, oxygen, and carbon dioxide which may be encountered at the Lora Lake Apartments. Potentially high exposure activities include excavation into soil where petroleum vapors are noted or where excessive groundwater is released from spoils. Other activities which liberate large quantities of airborne dust or mist from sediments or groundwater would also qualify.

Where vapors are noted at new excavations, air monitoring should occur with a four-gas monitor and photolization detector prior to personnel entry to ensure that low-oxygen and flammable atmospheres are not present.

8. SITE CONTROL

Site Security

Site access and egress is controlled by a locked gate entrance to ensure only authorized entrants access the site.

Additional security is provided for the site during non-working hours by POS Security as listed in Table 1.

9.0 WORK PRACTICES

Details of specific jobs, including job hazard analyses, can be found in the applicable JobHASP to be developed for work at the Lora Lake Apartments. Safety briefings should be conducted which outline the requirements of this SU-HASP and the individual JobHASP. Work practices for specific jobs are described in the JobHASP.

10. REFERENCES

Environmental Reports (available from AV Environmental)

- Soil, Groundwater, Sub-slab Air Investigation (Retsco/ENSR 2008)
- Moisture and Microbial Evaluation, Lora Lake Apartments (Ross Environmental 2007)

Standards and Guidelines (Available Online or through POS Health and Safety)

- NIOSH Pocket Guide to Chemical Hazards. www.cdc.gov/niosh/npg/npg.html
- WAC 296-841- Respiratory Hazards
- WAC 296-62-07521- Lead
- WAC 296-62-07347- Arsenic
- WAC 296-843 – Hazardous Waste Operations

**Table 1
Roles and Responsibilities**

Note: All POS Personnel may be contacted through the POS Operator at 208-728-8000 or dial "0" from any Port phone.

Role/Responsibility	Name	Title	Phone Number
Supervisor, Crew Chief, or Foreman	See JobHASP		
Facilities Manager	Allen Royal	Manager, Acquisitions/Relocation	208-321-1557
POS Health and Safety Contact	Heather Barden	POS Health and Safety Management Specialist	208-408-4799
POS Health and Safety Contact	Dana Stahl	POS Industrial Hygienist	208-978-1241
Spill Responder	Stacy Fox	Seaport Spill Incident Response Group	208-466-2448
Fire/Emergency Response/HAZMAT Team	POS Fire Department	First Responder Incident Command - Seaport Side	911 or 9-911
On-site Emergency Response Coordinator	See JobHASP		
Site Security	POS Police	Site security	911 or 9-911
Dept. of Ecology or EPA Representative	Joe Hickey	State of WA DOE Manager for voluntary cleanup	425-848-7202
POS Environmental Contact	Don Robbins	Aviation/Environmental	208-431-4918

Table 2 - General Site Hazards

Applicable to Lora Lake?	Potential Hazard	Safe Procedures
Yes	Chemical Exposure	See JobHASP for specific procedures. Refrain from gum or tobacco chewing, smoking, eating, drinking, or applying makeup when disturbing contaminants.
Yes	Traffic	Wear a high-visibility safety vest. Work in pairs with observer. Cordon off work area. Redirect traffic.
No	Work Around Water	Within 10 feet of water requires personal flotation device (PFD) where immersion potential exists. JobHASP will specify PFD and manner of use.
Yes	Heat Stress	Frequent breaks in shade, stay hydrated by drinking water or electrolyte replacement drinks, worker rotation, cooling vest, body temperature monitoring.
Yes	Slips, Trips, Falls, Cuts, Punctures	Clear debris and standing water from work area. Wear steel-toe or sturdy boots.
Yes	Utility Hazards	Locate utilities prior to drilling or other potential to intersect underground utilities. Contact POS survey department or private locating firm, as well as public underground utility notification (1-800-424-6565).
Depending on Job Task	Struck by Heavy Equipment	Wear hi-visibility vest, walk facing traffic, make visual contact with operator, confirm permission to cross in front of vehicle.
	Noise	Wear appropriate hearing protection.
	Night Work/Fatigue	Follow lighting requirements in WAC 286-800-210 for nighttime or poor lighting conditions. Rotate workers and take rest breaks if tired.
	Fall into Trench or Excavation	Use barricades to prevent entry or falls into open trench or excavation.
	Fire/Explosion Hazard	Monitor air with LEL meter. Keep flammable liquid containers closed. No smoking or use of flame/ignition source near hazard. Use non-sparking tools.
	Trench/Excavation Shoring Collapse	Follow POS Trenching and Shoring Program procedures. Excavations deeper than 4 feet must be properly shored prior to entry.
	Water in Trench	De-water trench and provide continuous de-watering during work.
	Confined Space Work	Follow POS Confined Space Program procedures.
	Cold Exposure (frostbite and hypothermia)	Wear layers to prevent exposure, wet conditions, and high wind-chills. Provide warm shelter, take breaks to minimize exposure, check fellow workers, drink liquids.

COG	Concentration (mg/kg)	MTCA Method A Limit (mg/kg)
Dioxin/Furan*	0.003098	0.001460**
Arsenic	11.2	28
Lead	370	1000
Pentachlorophenol	15	1,100**
Benzo(a)pyrene	0.180	2
cPAHs*	0.243	2

Note: COG = Contaminant of Concern
 mg/kg = milligrams per kilogram
 TPH = total petroleum hydrocarbons
 * = Toxicity Equivalent Quotient
 ** = Method C carcinogenic limit

COG	Concentration (µg/L)	MTCA Method A Limit (µg/L)
TPH - Diesel	7300	500
Dioxin/Furans	0.234	0.00583**
Arsenic	10.5	5
Pentachlorophenol	16	7.3**
cPAHs*	1.0	0.1

Note: COG = Contaminant of Concern
 µg/L = micrograms per liter
 MTCA = Model Toxics Control Act
 TPH = total petroleum hydrocarbons
 * = Toxicity Equivalent Quotient
 ** = Method C carcinogenic limit

Hazardous Substance Name	Exposure Limits	Routes of Entry	Exposure Signs & Symptoms
Diesel	TWA 100 ppm (naphtha)	Skin contact, inhalation, ingestion	Eye, skin, mucous membrane irritation, nausea, tremors, headache, dizziness, unconsciousness, coma,
PAHs (benzene soluble fraction)	TWA 0.2 mg/m ³	Varies by chemical	Varies by constituent – see NIOSH Pocket Guide for benzo(a)pyrene, creosol, naphthalene, and phenol
Arsenic	TWA 0.2 mg/m ³	Inhalation, dermal, ingestion	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyperpigmentation of skin
Lead	TWA 0.05 mg/m ³	Inhalation, dermal, ingestion	Weakness, exhaustion, insomnia; facial pallor; anorexia, weight loss, constipation, abdominal pain, anemia; tremor; paralysis wrist, arthralgia; encephalopathy; kidney disease; irritation eyes; hypotension, decreased sperm count
Pentachlorophenol	TWA 0.5 mg/m ³	Inhalation, dermal, ingestion	CNS depression, irritation of membranes, liver cancer
Dioxins/Furans	None established	Inhalation, dermal, ingestion	Potential carcinogen, irritation eyes; atrophic dermatitis, chloracne; gastrointestinal disturbance; possible reproductive, teratogenic effects

Level	Components	Recommended Type
Working in an Area of Concern (AOC)	<ul style="list-style-type: none"> Disposable or reusable chemical-resistant coveralls 	<ul style="list-style-type: none"> Poly-coated Tyvek (Tychem 8400) or equivalent where potential for contact with soil or ground water Uncoated Tyvek or equivalent where minimal potential for contact with soil and no contact with ground water, or free product.
	<ul style="list-style-type: none"> Chemical-resistant outer gloves (See Incompatibilities below) 	<ul style="list-style-type: none"> 4H or SilverShield for long duration or contact with contaminated soil/groundwater Nitrile for short duration (5 minutes) or minimal contact
	<ul style="list-style-type: none"> Half or Full face, air purifying respirators (APF, coverage, and cartridge type is specified in JobHASP) 	<ul style="list-style-type: none"> Half-face with OVC, although full-face should be used where potential for splash, contact with groundwater, or eye irritation from vapors occurs Add dust/mist cartridge to OVC when site is dusty
	<ul style="list-style-type: none"> Chemical splash goggles or face-shield (with half-face respirators) 	<ul style="list-style-type: none"> ANSI Approved
	<ul style="list-style-type: none"> Hard hat 	<ul style="list-style-type: none"> ANSI Approved
	<ul style="list-style-type: none"> Boots – Chemical-resistant, steel toe and shank 	<ul style="list-style-type: none"> Rubber Boot covers in areas of high concentration of contaminants or free product to facilitate decontamination
	<ul style="list-style-type: none"> Two-way radio communications 	<ul style="list-style-type: none"> Cover in plastic bag in Hot Zone to prevent contamination
	<ul style="list-style-type: none"> As Applicable: <ul style="list-style-type: none"> PPD Traffic Vest 	<ul style="list-style-type: none"> Ear plugs Escape respirator Boot Covers
Work outside of AOC	<ul style="list-style-type: none"> Coveralls 	<ul style="list-style-type: none"> Uncoated Tyvek or Cotton
	<ul style="list-style-type: none"> Hard Hat 	<ul style="list-style-type: none"> ANSI Approved
	<ul style="list-style-type: none"> Gloves (See Incompatibilities below) 	<ul style="list-style-type: none"> Leather Work Gloves if no potential for contact with contamination or Nitrile with latex liners if potential for contact with contamination
	<ul style="list-style-type: none"> Safety Glasses 	<ul style="list-style-type: none"> ANSI Approved
	<ul style="list-style-type: none"> Boots – Chemical-resistant steel toe and shank 	<ul style="list-style-type: none"> Rubber
	<ul style="list-style-type: none"> Two-way radio communications 	
	<ul style="list-style-type: none"> Ear plugs, Traffic Vest 	<ul style="list-style-type: none"> As applicable

Table 1: Action Levels			
PID Reading	Location	Duration	Action
<1-5 ppm above background	Breathing zone	Ongoing	No action required
1-5 ppm	Breathing zone	>1 minute	Ventilate space. Stay upwind.
5-50 ppm	Breathing zone or other work locations	>1 minute	Don half-face respirator with organic vapor cartridges. Ventilate space. Consider air sampling.
>50 ppm	Breathing Zone	>1 minute	Evacuate and contact POS Health & Safety
Meter Reading	Location	Duration	Action
<10% LEL	Work area	Ongoing	No action required
10%-20% LEL	Work area	Ongoing	Eliminate ignition sources Ventilate space. Begin continuous monitoring
≥ 20% LEL	Work area	Ongoing	Discontinue operations. Contact POS Health & Safety
<18.5% Oxygen	Work area	Ongoing	Discontinue operations. Contact POS Health & Safety
<15 ppm CO	Work area	Ongoing	Ventilate space. Begin continuous monitoring
>200 ppm CO	Breathing zone	>1 minute	Discontinue operations. Contact POS Health & Safety

To: Russ Gaston, PE and Seungjin Baek, PhD, PE/Otak
Maiya Andrews, PE/City of Burien

From: Tim Bailey, PE and Robert Metcalfe, PE, LEG

Date: April 6, 2015

File: 3416-048-06

Subject: Exploration Plan
Task 3.2 - Mounding Analysis
NERA Drainage Improvement Project, Phase
Burien, Washington

Following is our exploration plan for the NERA Drainage Improvement Project, Phase 2 in Burien, Washington. Our scope for the subsurface explorations at Facility 7 includes completing a pilot infiltration test (PIT) to evaluate infiltration and to supplement explorations previously completed in this area.

We have not scheduled the explorations yet, pending approval of this plan and right-of-entry (ROE) from the Port of Seattle. We will schedule the explorations following ROE, and we will coordinate schedule with the Port of Seattle and the City of Burien.

We will mark the proposed explorations (following ROE) and will notify the One Call Center for utility locates. The PIT location will be excavated with a backhoe. Following completion of the infiltration testing (which will occur over a 2-day period), remaining water will be pumped out and dispersed on site and the excavation backfilled with excavated soil. The top of the backfilled excavation will be smoothed with the backhoe bucket.

We are available to meet with representatives from the Port of Seattle prior to beginning explorations to discuss utilities on site.



Facility 7 Exploration Plan
Previous explorations shown in white, proposed PIT shown in red

