

Date: April 15, 2024

To: FILE

Through: Northwest Region Cleanup and
Oregon Department of Justice

From: Daniel Hafley, Project Manager
Northwest Region Cleanup Section

Subject: Request for Extension of Temporary Capping, Naito Navigation
Center Union Station – Parcel A North
ECSI# 1962

This document presents the Oregon Department of Environmental Quality's (DEQ's) analysis of whether the City of Portland's continuation of temporary capping at the Naito Navigation Center, previously referred to as the Oregon Harbor of Hope (OHOH) Navigation Center and located at 1111 NW Naito Parkway in Portland, Oregon, would be protective of human health and the environment consistent with Oregon Revised Statute 465.315. The parcel comprises a portion of a larger property identified in DEQ Cleanup Program files as Union Station – Parcel A North (hereafter Site, ECSI# 1962). A site location map is included as Attachment 1.

While the focus of this memorandum is on the Navigation Center parcel, discussion of the historical cleanup site (Union Station – Parcel A North) is provided for contextual purposes. The Navigation Center is identified in Multnomah County tax files as Partition Plan 2001-69 Lot 1 (R508395; 1.17 acres) and is owned by Prosper Portland, an economic and urban development agency for the City of Portland.

This memorandum was originally presented in draft form, prior to public notice and comment, and dated November 30, 2023. This final decision document addresses public comment received from December 1-31, 2023. A public notice and comment discussion has been presented in this final document. A summarization of comments and DEQ responses is also presented in Attachment 7, and responses to technical comments on DEQ's updated risk assessment included in Attachment 8.

BACKGROUND

The Site and surrounding area operated as a railyard from the 1870s to 1970s, at which time they were purchased by the Portland Development Commission (PDC). In the 1990s, sampling of soil and groundwater were completed. Lead, arsenic, and petroleum constituents were detected in soil. The source was historical railroad activities and imported fill. Following a risk assessment and analysis of cleanup options by PDC with DEQ oversight, capping of the site as part of expected development was determined to be the appropriate final remedy. This decision was documented in DEQ's 1998 Record of Decision (ROD). The ROD and a subsequent *Remedial Action Plan* specified that the Parcel would be capped with

Parcel would be capped with A figure showing the original configuration of the Union Station-Parcel A North site is shown in Attachment 2, comprised of two lots (Lot 1 and Lot 2). Included in the attachment is a figure showing historical soil sampling locations that were used to assess risk, and the long-term capping elements approved by DEQ. The risk analysis and cleanup selection process conservatively assumed the possibility of both residential and commercial long-term use.

In 1997, the northernmost portion of the Site (Lot 1) was purchased by Oregon State University and redeveloped. Under a plan approved by DEQ, contaminated soil was capped with a combination of a building, paved areas, and clean soil (small landscape). Cap inspections were completed on a yearly basis and submitted to DEQ for review in approval. In 2020, DEQ approved cap inspection and reporting on a 5-year basis.

In 2000, PDC sold the northernmost portion of Lot 2 to the Winkler Development Corporation (aka Madrona Park LLC). The parcel remains in their possession and is identified in Multnomah County tax records as Partition Plan 2001-69, Lot 2; R649812750, 1.31 acres. The Winkler parcel is currently vacant and fenced to restrict access. Both the PDC and Winkler previously indicated that permanent capping of the parcel would occur, consistent with DEQ's ROD, as part of long-term redevelopment. At various times in the last 20 years, the parcel has been used for temporary storage of construction equipment and earth materials. Clean gravel was placed prior to these uses to minimize potential exposure to contaminated soil.

The southern portion of Lot 2 is under the ownership of Prosper Portland (formerly PDC). This parcel was largely vacant between 1998 and 2018, awaiting redevelopment. It has generally been fenced to prevent access, with clean gravel placed over contaminated soil as a further protective measure.

In 2017, Prosper Portland began discussions with DEQ regarding temporary use of their undeveloped parcel for a temporary (5-year) houseless support facility. After extensive discussion and evaluation of proposed use from a regulatory perspective, DEQ concluded that temporary use was acceptable from both the perspective of the 1998 ROD and Oregon statute and rule, acknowledging that the use had to be protective of public health and did not constitute the final site remedy.

A Focused Remedial Action Plan was subsequently developed and approved by DEQ (2018) for the Navigation Center. Temporary capping measures approved by DEQ consisted of a combination of concrete-floored buildings, paving, and a minimum of 1 foot of clean fill in landscape areas (see Attachment 4). Further, DEQ required the fencing off of remaining portions of the Prosper Portland parcel to ensure that new activity in the area would not result in exposure to contaminated soil adjoining the development.

Development was completed in 2018 with DEQ oversight. Under an inspection and maintenance plan approved by DEQ, the protective elements have been periodically inspected to confirm their soundness with reports submitted to DEQ.

In 2019, Winkler filed a complaint against DEQ, contesting approval of temporary capping, and petitioned the Marion County Circuit Court for judicial review of DEQ's approval of the

Focused Remedial Action Plan [Winkler Development Corporation v. Oregon Department of Environmental Quality, Case Number 1 8CV54086]. Winkler generally contended that approval for temporary use did not comply with the terms of the ROD. DEQ and Winkler agreed to a settlement of the case on December 27, 2019 (the “Settlement Agreement”).

In 2023, OHOH and subsequently the City of Portland requested, in writing, an extension of temporary capping for approximately 5 years (4 years and 8 months). A copy of the City request is included as Attachment 5, in which they stated that they would be replacing OHOH as manager of the navigation center.

The current tax lot/ownership configuration for the historical Union Station – Parcel A North cleanup site is shown in Attachment 3.

DEQ ANALYSIS OF TEMPORARY CAPPING EXTENSION REQUEST

In the Settlement Agreement, DEQ agreed to complete the following if a proposed plan is submitted to continue to use the Parcel as a Navigation center or similar homeless service/shelter, whether temporary or permanent, beyond December 31, 2023:

- *If applicable, approve an updated risk assessment;*
- *Provide an opportunity for public comment on the risk assessment and proposed Plan pursuant to OAR 340-122-0100(5); and*
- *Evaluate whether the continued use of the Property under the Plan satisfies the standard set out in ORS 465.315(1) in light of the proposed use.*

DEQ has addressed each of these as follows:

Complete an Updated Risk Assessment. A DEQ Cleanup Program human health toxicologist reviewed contaminant data presented in the 1998 *Remedial Investigation Report* and Record of Decision and compared soil sampling results to DEQ’s updated risk-based concentrations for multiple exposure scenarios, including long-term residential use (most conservative). Analysis included the presence of, and DEQ’s preference for, treatment of hot spots. The results are presented in Attachment 6 to this memo. It was determined that the risk assumptions presented in the ROD are valid, and that capping remains an effective cleanup action to prevent human exposure to contaminants including lead, arsenic, and petroleum in soil. The analysis concluded the following:

- Despite changes in risk assessment approach and screening values, the results are similar to the 1998 RI risk assessment. Unacceptable risk is indicated for carcinogenic PAHs, TPH, lead and arsenic in surface soil and the black layer. No additional hot spots of contamination were identified.
- To address risk from soil, remedies can either remove the source material, prevent contact with the chemicals in soil, or prevent access to the area by humans. Capping is a well-established approach to prevent human contact with soil and was the selected remedy for this site. DEQ’s re-evaluation of risk does not change this conclusion.

DEQ received a number of comments on the risk assessment, responses to which are presented in Attachment 7. We concluded that comments did not alter the conclusions of the risk work.

To confirm the effectiveness of Navigation Center temporary capping to date, DEQ reviewed previously submitted cap inspection reports from the period of 2018 to 2023. Also, DEQ conducted a site visit in October 2023 with a DEQ toxicologist and a City of Portland Bureau of Environmental Services (BES) staffperson. All capping elements at the development were inspected. DEQ review and inspection confirmed that temporary capping has been effective in preventing human contact with contaminants including lead, arsenic, and petroleum-compounds present in soil, and the existing temporary cap is sound. Most recently, a cap inspection was completed by the City of Portland in February 2024, with additional inspections to be performed on a quarterly basis and reported to DEQ.

Provide an Opportunity for Public Comment. Before making a final decision, DEQ issued public notice of the proposed decision and provide a 30-day opportunity for public comment. In addition, a public meeting was held in December 2023 to explain draft decision-making, answer questions, and solicit public feedback. Comments are summarized and DEQ responses presented in Attachment 7.

Evaluate Whether Continued Temporary Capping is Consistent with Regulations. Investigation of contamination, risk assessment, evaluation of cleanup alternatives, and selection of a cleanup action by DEQ were completed consistent with Oregon Administrative Rules, specifically Chapter 340, Division 122. This process and decision-making are summarized in the 1998 Record of Decision. The investigative, risk analysis, and remedy selected process further met the requirements of Oregon Administrative Rule 465.315. This rule outlines “standards for cleanup” including what constitutes unacceptable risk, factors that need to be considered in addressing risk (including achieving protectiveness and addressing DEQ’s preference for treatment of hot spots), and guidelines for remedy selection. In sum, the cleanup action selected by DEQ – isolation of soil contamination through long-term capping – is consistent with both rule and statute.

In the case of this Site and many other properties planned for redevelopment, it is common for a lengthy hiatus to occur between remedy selection and implementation. Neither applicable regulations nor the ROD require any particular timeframe for final remedy implementation. Prior to final development, it is the responsibility of the property owner to prevent exposure to contaminated media. Actions by Winkler and Prosper Portland have included placement of clean cover and restricting access. Given the low volatility and relative immobility of Site contaminants, these actions appear to have been effective pending the final redevelopment of the Site in accordance with the ROD.

DEQ CONCLUSIONS

- Temporary capping and required maintenance at the Navigation Center have been completed consistent with the 2018 *Focused Remedial Action Plan* approved by DEQ.
- Buildings, paving, and landscaping comprising the surface elements of the Naito Navigation Center have been effective in preventing human exposure to soil contamination over which the development is located. These same features will continue to prevent exposure to soil contamination provided they are maintained. To confirm protectiveness, quarterly inspections are planned by the City of Portland as long as the houseless support facility continues to operate. The City and property owner Prosper Portland have

confirmed that ongoing operations do not represent the final site remedy, and that the final remedy will fully implement all elements of DEQ's ROD.

- Decisions regarding site permitting and use reside outside of DEQ's regulatory authority.

ATTACHMENTS

Attachment 1: Site Location Map

Attachment 2: Historical site layout, sampling locations, and cap design – Parcel A North

Attachment 3: Current site configuration – Parcel A North

Attachment 4: Temporary cap element – Navigation Center

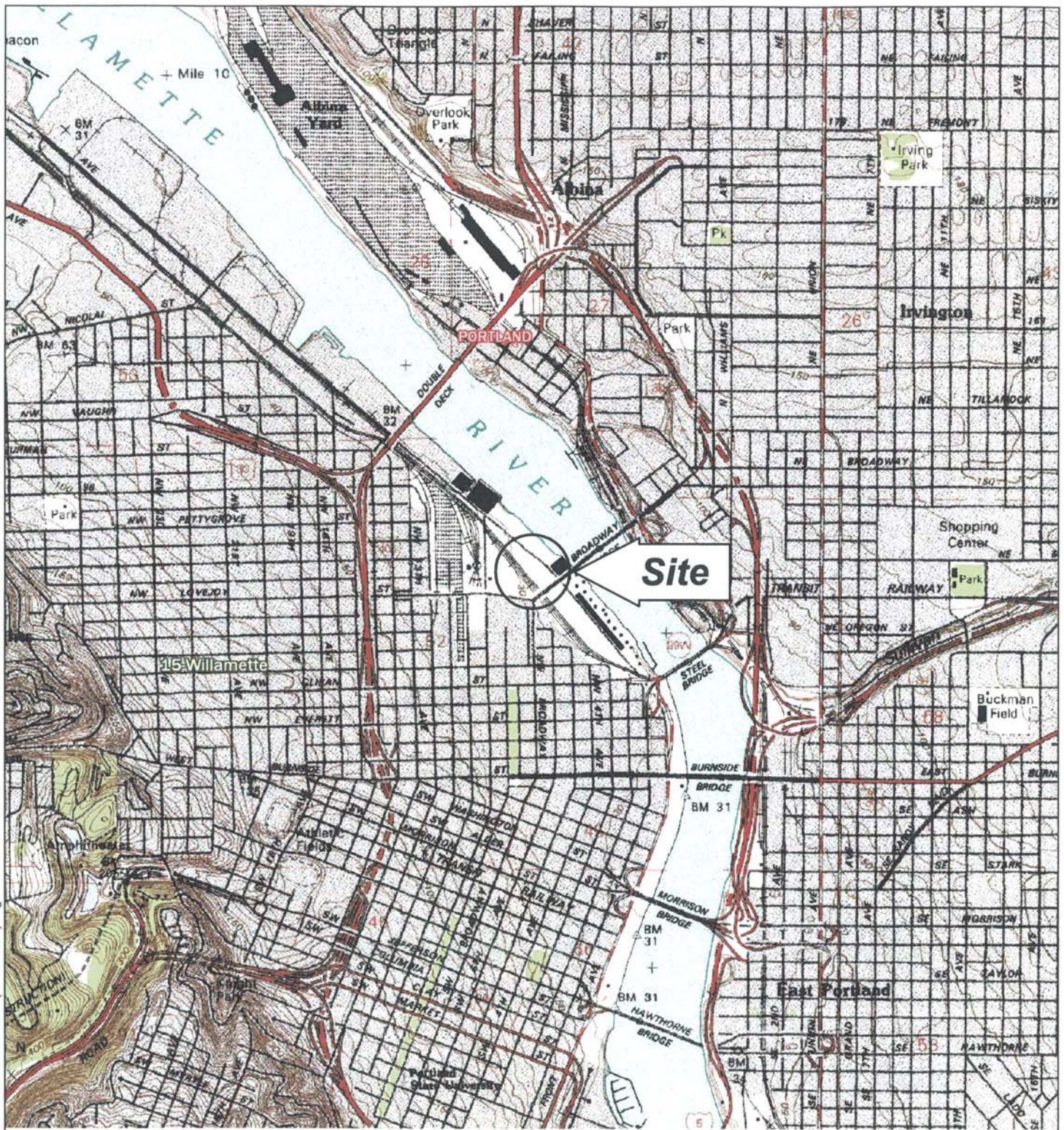
Attachment 5: City of Portland request for temporary capping extension

Attachment 6: DEQ updated soil risk assessment

Attachment 7: Summarization of public comments and DEQ responses

Attachment 8: DEQ response to technical comments on updated risk analysis

ATTACHMENT 1



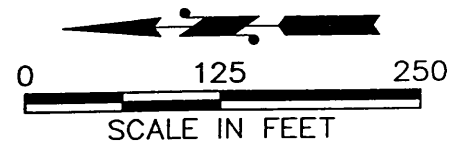
0 2,000 4,000
Scale in Feet



Source: DeLorme Topo USA®.

PDC Portland, Oregon	
Site Location Map	
15685-00	1/10
 HARTCROWSER	Figure 1

ATTACHMENT 2



WILLAMETTE
RIVER

FRONT AVENUE / N.W. NAITO PARKWAY

BROADWAY BRIDGE

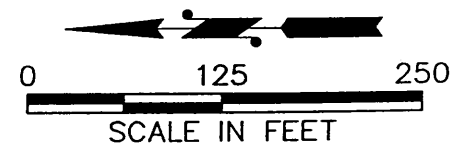
N.W. LOVEJOY STREET

N.W. 9TH AVENUE

AGRA
Earth & Environmental
7477 S.W. Tech Center Drive
Portland, OR, U.S.A. 97223-8025

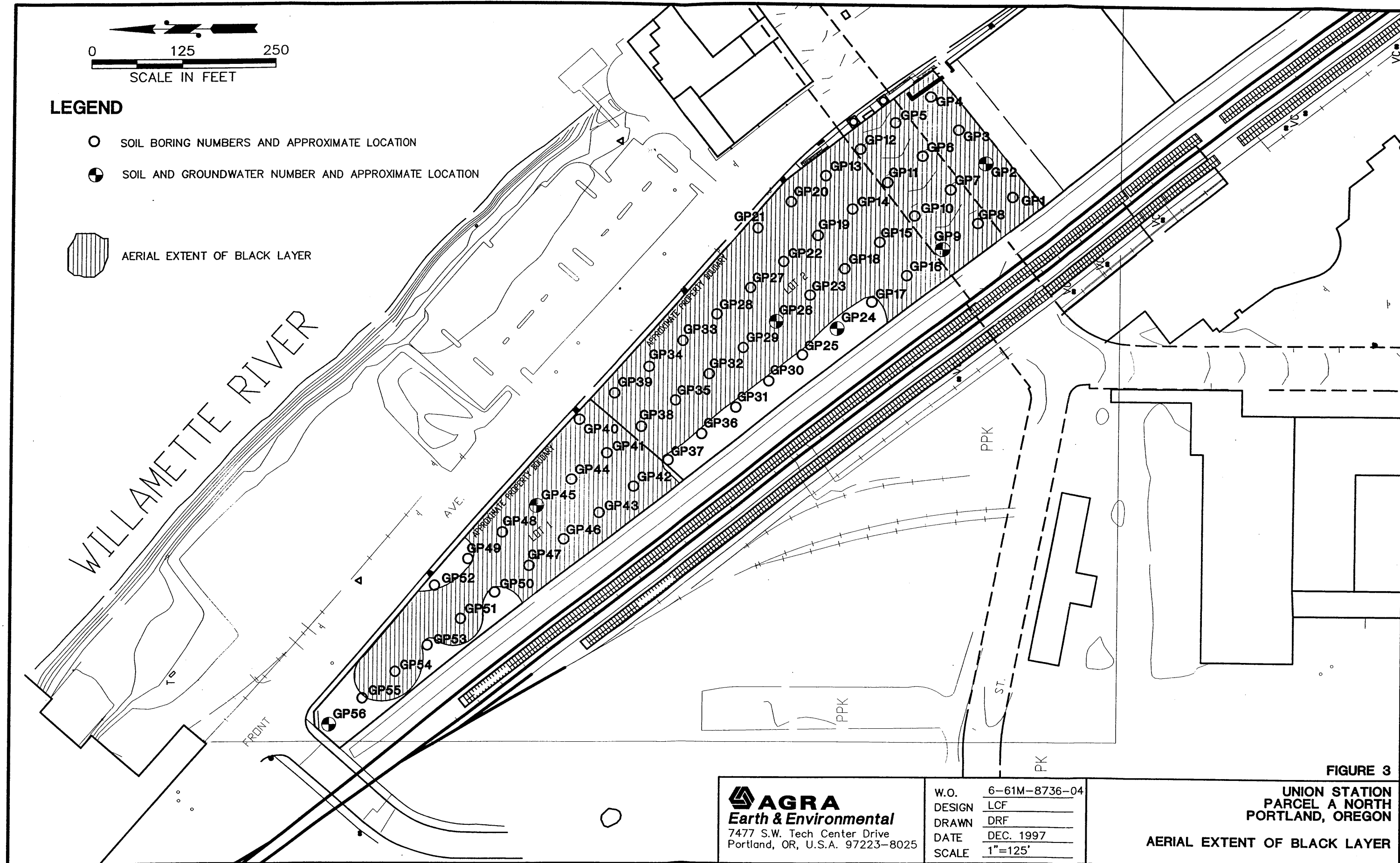
W.O.	6-61M-8736-06
DESIGN	SM
DRAWN	DRF
DATE	OCT. 1997
SCALE	1"=125'

FIGURE 2
UNION STATION
PARCEL A NORTH
PORTLAND, OREGON
SITE PLAN



LEGEND

- SOIL BORING NUMBERS AND APPROXIMATE LOCATION
- SOIL AND GROUNDWATER NUMBER AND APPROXIMATE LOCATION



AGRA
Earth & Environmental
7477 S.W. Tech Center Drive
Portland, OR, U.S.A. 97223-8025

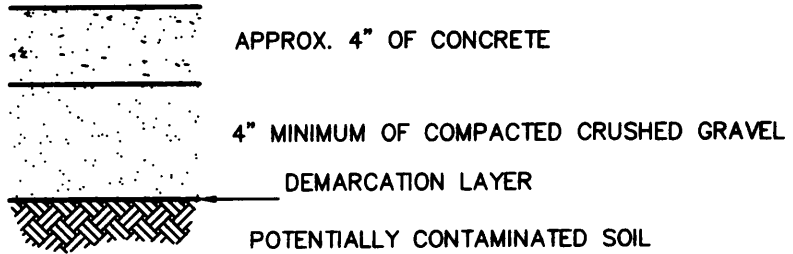
W.O.	6-61M-8736-04
DESIGN	LCF
DRAWN	DRF
DATE	DEC. 1997
SCALE	1"=125'

UNION STATION
PARCEL A NORTH
PORTLAND, OREGON

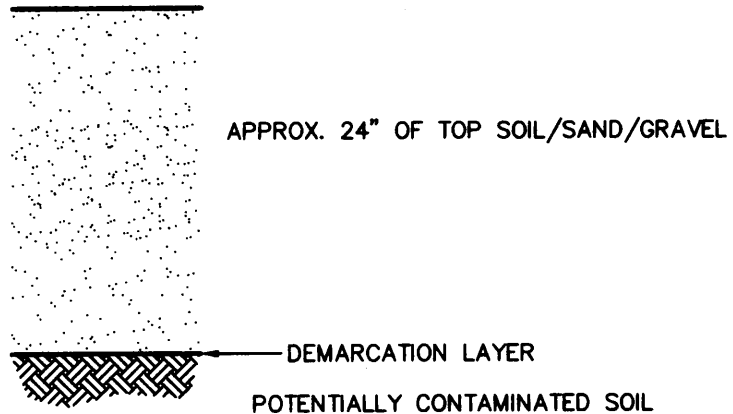
AERIAL EXTENT OF BLACK LAYER

FIGURE 3

FOR HARDSCAPE AREAS



FOR LANDSCAPE AREAS



FOR ASPHALT PAVEMENT

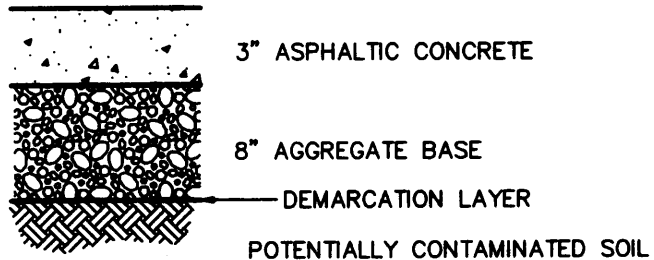


FIGURE 8

AGRA
Earth & Environmental
 7477 S.W. Tech Center Drive
 Portland, OR, U.S.A. 97223-8025

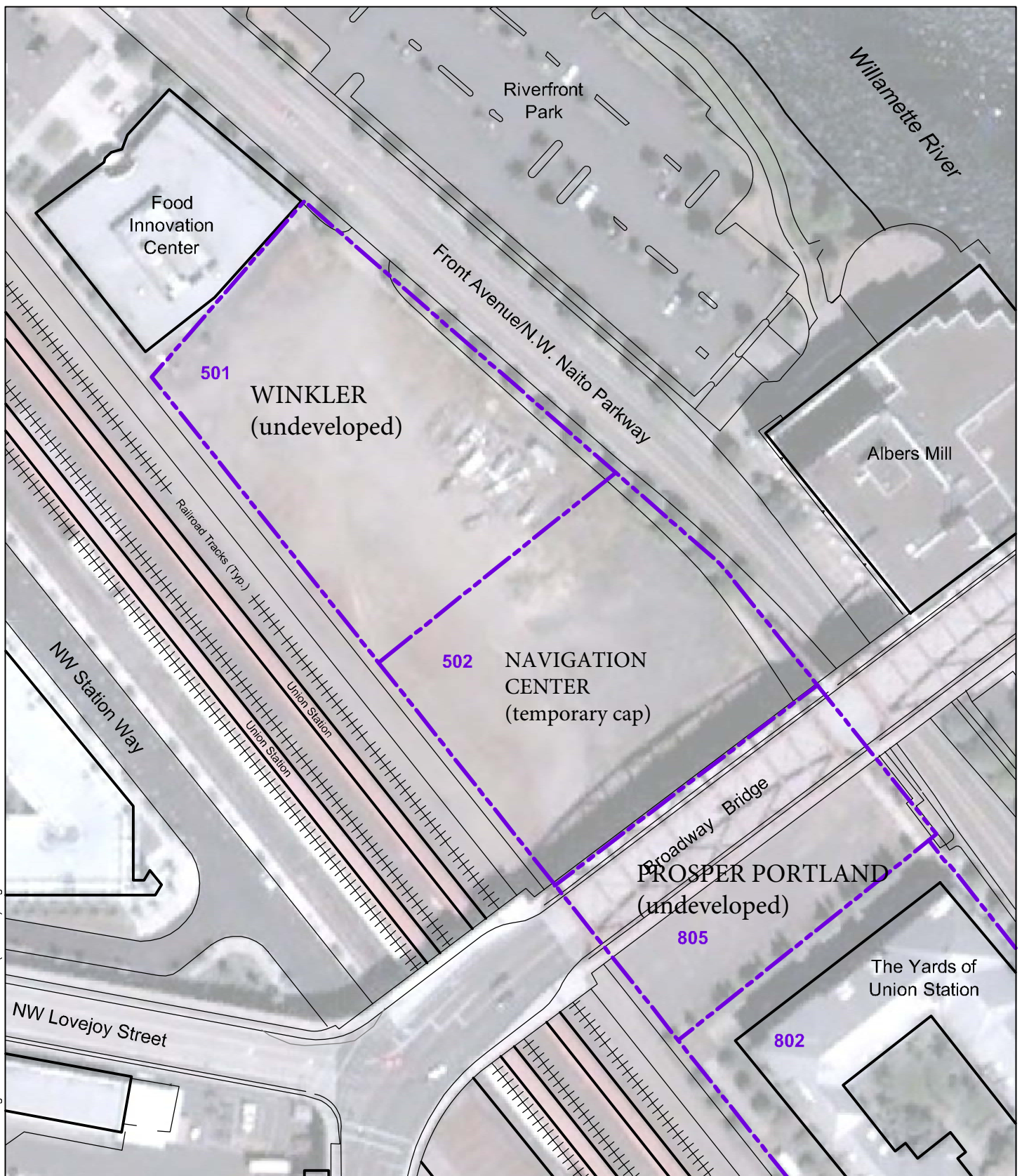
W.O.	6-61M-8736-4
DESIGN	LCF
DRAWN	DRF
DATE	MAY 1998
SCALE	NTS

**UNION STATION, PARCEL A NORTH
 PORTLAND, OREGON**

**SCHEMATIC DIAGRAMS
 FOR CAP TYPES**

ATTACHMENT 3

F:\Data\Jobs\PDC\1568500 One Waterfront Place\CMMP\Figures - CMMP\1568500-002 (Site Plan).dwg

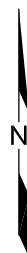


0 100 200

Approximate Scale in Feet

----- Tax Lot Line

501 Tax Lot Number



PDC
Portland, Oregon

Site Plan

15685-00

6/10



Figure

2

Source: PDC RFP# 07-38; One Waterfront Environmental.

ATTACHMENT 4

Temporary Protective Cap Design Elements

Facility	Cap Element	DEQ Requirements	Construction Specifications
Building	Concrete slab-on-grade foundation	Building and foundation functions as the cap	Slab-on-grade foundation consisting of a 5-inch-thick concrete slab supported by a 12-inch-wide footing constructed to a depth of 18 inches below grade
Plaza and Sidewalks	Concrete pavement	Minimum of 2 inches of concrete over compacted base material	4 inches of concrete pavement over 4 inches of compacted aggregate base
Parking Areas and Driveways	Asphalt pavement	Minimum of 2 inches of asphalt over compacted base material	Minimum of 3 inches of asphalt over 8 inches of compacted aggregate base
Landscaped Areas	Topsoil, grasses, and shrubs	Minimum of 1 foot of clean import fill over a geotextile demarcation geotextile	1 foot of clean import fill over a demarcation geotextile

Pet Station	Synthetic turf system over concrete pavement	Minimum of 2 inches of concrete over compacted base material	System is constructed on 4 inches of concrete pavement over 4 inches of compacted aggregate base Canine synthetic turf consists of a pedestal system with irrigation piping and a drain that discharges to the City of Portland sanitary sewer system
Subsurface Utilities and Irrigation System Equipment	Clean backfill	A demarcation geotextile and clean backfill	A demarcation geotextile placed over contaminated soil; clean import pipe bedding and backfill as required by applicable building codes

ATTACHMENT 5



Rick Dyer
Property and Planning
Portfolio Manager

Michael Jordan
Chief Administrative Officer

Ted Wheeler
Mayor

CITY OF PORTLAND
**Office of Management
& Finance**
1120 SW 5th Avenue
Portland, OR 97204

P: (503) 823-6933
F: (503) 823-9114
TTY: (503) 823-6868



@PortlandGov



PortlandORGov



portlandgov

October 2, 2023

Daniel J. Hafley, RG
Project Manager/Hydrogeologist
Northwest Region Cleanup Section
700 NE Multnomah Street, Suite 600
Portland OR 97232

Dear Dan:

I am writing to let you know that the City of Portland intends to step into the role of Homer Williams and OHOH, to be applicant in the request to DEQ for an extension of the temporary use permit at the OHOH Navigation Center site located on Naito Parkway. The city (through the Office of Management and Finance working with Prosper Portland) is currently working with OHOH to transfer of shelter responsibility.

In accordance with the Winkler settlement agreement dated December 27, 2019, The City of Portland is hereby requesting an extension of the previous approval of OHOH's 2018 Focused Remedial Action Plan which implemented a one-foot-thick layer of clean fill which DEQ determined was sufficiently protective of human health and environment in light of OHOH's short term shelter use. The City wishes to continue the same short term shelter use for another period of not more than five years.

In support of this request, we are attaching the most recent cap inspection report from Farallon Consulting dated February 20, 2023, indicating there were no issues with the mitigation measures in place at the site.

The following questions were raised by you in response to OHOH's original extension request; we are providing our answers in **red**:

1. Once DEQ receives a formal request for extension of the temporary use for OHOH Navigation Center, evaluation of the request can begin.

2. We expect it will be necessary to consider a variety of factors related to an extension of the temporary issue, including the protectiveness of the temporary remedy, conformance with the 1994 Record of Decision and 2018 Focused Remedial Action Plan (temporary capping and use plan), and public interest. Also, an evaluation of the legal ramifications of a lengthy extension will be necessary, in conjunction with the Oregon Department of Justice, given the lawsuit that was filed against DEQ regarding initial OHOH use (since dropped).
3. The request should present information including the following:
 - Length of proposed temporary use (beyond initial “term”). **4 years and 8 months**
 - Adherence, to date, to the *Focused Remediation Action Plan* approved by DEQ on September 14, 2018. **The most recent inspection report attached.**
 - Current temporary cap conditions, including a recent cap inspection report. **The attached report indicates all measures are in good condition.**
 - Proposed changes to the temporary cap or inspection and maintenance requirements for potential new temporary use term. **No changes requested.**
 - Any other information that may be relevant to a request for extended temporary use. **OHOH will be replaced with City of Portland.**

Also, please identify relevant points of contact related to the request. **Rick Dyer is the contact for the DEQ permitting process.**

Finally, the City of Portland will take responsible for all financial obligations incurred by DEQ related to review of this request.

Respectfully,



Rick Dyer
Property Planning and Portfolio Manager

ATTACHMENT 6

Attachment 6
DEQ Updated Soil Risk Assessment
November 2023

The comprehensive remedial investigation report for the property was conducted in 1998 and used to support the record of decision, also in 1998. The primary chemicals of concern (COCs) are carcinogenic polycyclic aromatic hydrocarbons (cPAHs), lead, arsenic, and total petroleum hydrocarbons. Since 1998, DEQ developed risk-based concentrations to facilitate risk assessments. RBCs are updated regularly to incorporate current science such as toxicity values. In the last 25 years there have also been other modifications to risk assessment approaches, such as using benzo[a]pyrene equivalent concentrations as a single measure of risk for cPAHs, rather than evaluating each cPAH individually. Naphthalene is now considered a carcinogen, but it is evaluated separately and is not included in the sum of cPAH benzo[a]pyrene equivalents.

DEQ used current RBCs to evaluate soil data from the RI report. The risk conclusions are similar to those in 1998. The chemicals of concern primarily sorb to soil and have low volatility. DEQ considers a well-maintained cap sufficient to prevent human contact with soil containing COCs above acceptable concentrations.

Comparison with Soil RBCs

DEQ has established RBCs for various exposure scenarios. The COCs are generally not volatile and would screen out for indoor and outdoor air pathways. Groundwater in the area is not used for domestic or industrial use, so leaching to groundwater to protect drinking water is not a relevant pathway. Movement of chemicals in groundwater to the Willamette River was not considered in this risk assessment re-evaluation.

The main pathway is contact with soil, which includes incidental soil ingestion, dermal contact, and inhalation (on dust for non-volatile chemicals). Potentially relevant scenarios include residential, occupational worker, construction worker and excavation worker exposure. Residential RBCs are the lowest screening values, and were considered in this evaluation, although single family housing is unlikely as a future development. Depending on the use, residential RBCs may be applicable to apartments or similar developments.

Table 6-1 provides a summary of the RI data for the COCs compared with current RBCs. In DEQ's Cleanup Program, decisions are generally made using the 90 percent upper confidence limit on the arithmetic mean, because this provides an estimate of average exposure over a relevant area. Potential hot spot decisions can be made based on individual samples. However, at this site, additional sampling showed that it was not possible to identify a meaningful area for focused remediation.

In 1999, DEQ established RBCs for evaluating potential risks from soil vapors entering buildings. In 2015, EPA updated their guidance on vapor intrusion and because they identified considerable uncertainty in relating soil concentrations with indoor air concentrations, recommended that sites no longer be screened for vapor intrusion using soil concentrations of

volatile chemicals. As of June 2023, DEQ no longer uses vapor intrusion RBCs to evaluate risk, and instead focuses more on soil vapor concentrations. Because soil vapor samples were not collected in 1998, a quantitative evaluation of vapor intrusion risk cannot be made. However, hydrocarbons such as TPH and PAHs are known to degrade in soil, so it is unlikely that unacceptable soil vapor concentrations remain at the site.

Despite changes in risk assessment approach and screening values, the results are similar to the 1998 RI risk assessment. Unacceptable risk is indicated for cPAHs, TPH, lead and arsenic in surface soil and the black layer. Arsenic appears to also be an issue in deep fill soils, although DEQ did not conduct a revised background evaluation for arsenic in soil.

To address risk to soil, remedies can either remove the source material, prevent contact with the chemicals in soil, or prevent access to the area by humans. Capping is a well-established approach to prevent human contact with soil and was the selected remedy for this site. DEQ's re-evaluation of risk does not change this conclusion.

Table 6-1
Remedial Investigation Soil Data Compared with Current Risk-Based Concentrations

Chemical	Surface Soil			Black Layer			Deep Fill Soils			Current RBCs				Prior Screening Levels	
	Mean (mg/kg)	Max (mg/kg)	90UCL (mg/kg)	Mean (mg/kg)	Max (mg/kg)	90UCL (mg/kg)	Mean (mg/kg)	Max (mg/kg)	90UCL (mg/kg)	Resident RBCss (mg/kg)	Occup RBCss (mg/kg)	Constr RBCss (mg/kg)	Excav RBCss (mg/kg)	Reg 9 PRG Resid (mg/kg)	Reg 9 PRG Occup (mg/kg)
Benz[a]anthracene	1.1	8.2	2.1	0.58	3.0	1.0	0.028	0.149	0.042	1.1	21	170	4,900	0.61	2.6
Benzo[a]pyrene	1.4	11	2.7	0.68	3.0	1.1	0.03	0.157	0.045	0.11	2.1	17	490	0.061	0.26
Benzo[a]pyrene equiv*	2.2	16	4.1	1.0	4.3	1.6	0.045	0.25	0.069	0.11	2.1	17	490		
Benzo[b]fluoranthene	1.0	7.1	1.9	0.56	2.0	0.94	0.025	0.103	0.035	1.1	21	170	4,900	0.61	2.6
Benzo[k]fluoranthene	1.0	7.2	1.9	0.54	2.3	0.93	0.025	0.103	0.035	11	210	1,700	49,000	6.1	26
Chrysene	1.5	11	2.8	0.7	3.2	1.2	0.031	0.146	0.045	110	2,100	17,000	490,000	7.2	7.2
Dibenz[a,h]anthracene	0.41	2.8	0.75	0.12	0.59	0.21	0.007	0.051	0.012	0.11	2.1	17	490	0.061	0.26
Indeno[1,2,3-cd]pyrene	1.5	9.9	2.7	0.33	1.6	0.59	0.022	0.152	0.036	1.1	21	170	4,900	0.61	2.6
Naphthalene	0.18	0.8	0.28	0.11	0.53	0.18	0.005	0.015	0.007	5.3	23	580	16,000	240	240
TPH	2130	8200	3274	1426	6400	2359	65	138	78						
TPHgasoline										1200	20,000	9700	>Max		
TPHdiesel										1100	14,000	4600	>Max		
Lead	423	1160	566	519	1900	792	53	470	97	400	800	800	800	400	1000
Arsenic	24	66	32	17	47	24	6.3	43	10	0.43	1.9	15	420	0.38	2.4

Notes:
Source: Comprehensive Soil and Groundwater RI Report, Union Station, Parcel A North, Portland, Oregon, February 1998
Table 1 TPH; Table 2 lead; Table 3 arsenic; Table 4 PAH
* Benzo[a]pyrene equivalent not calculated in 1998. Calculated here using 2005 WHO toxic equivalency factors.
Individual carcinogenic PAH risks should be summed (excluding naphthalene), or benzo[a]pyrene equivalent used, but not both (to avoid double counting risk).
90UCL = 90% upper confidence limit on arithmetic mean
TPH = total petroleum hydrocarbons
RBCss = risk-based concentration for surface soil
PAH = polycyclic aromatic hydrocarbon
PRG = EPA Region 9 preliminary remediation goal, for residential and occupational exposure
Color coding: Concentration exceeds Residential RBCss Residential RBCss that is exceeded
Concentration exceeds Occupational RBCss Occupational RBCss that is exceeded
Concentration exceeds Residential Hot Spot

Attachment 7

General Response to Comments

Public notice was issued and opportunity for public comment provided on DEQ's draft analysis of the capping extension request. During the December 1 to 31, 2023 public comment period, which included a public meeting held by DEQ on December 6, comments were received by multiple parties including the following: neighborhood and non-neighborhood residents, nearby (commercial) property occupants and owners, and legal representatives for both residents and adjacent property owner Winkler Development Corporation (WDC). Technical comments on DEQ's updated risk analysis were also presented to DEQ on behalf of WDC. The full set of comments are available as a pdf file at: [NaitoPublicComments](#)

A summary of comments received and DEQ responses is presented below.

Comments Related to Location, Safety, Good Neighbor Agreement, and Property Use:

- Location. Navigation Center should not be located in a high-density residential location.
- Property Use/Permitting. Extension of Navigation Center use is not consistent with urban renewal plan, Broadway Bridgehead Site permit, master lease agreement, or other.
- Safety, non-cap related. Concerns about deaths, fires, explosions, drug use, crimes, assaults, and/or public nuisance potentially associated with Navigation Center.
- Good Neighbor Agreement and Communication. GNA non-conformance. City unresponsive to complaints/concerns.

DEQ Response. We recognize and respect the concerns of the public and nearby property owners communicated to DEQ. All of the above comments have been forwarded to the City of Portland (property lessee and self-identified Navigation Center managing agency) and Prosper Portland (property owner). Generally, these issues are outside of DEQ's regulatory or legal authority to control. Decisions on property use reside solely with Prosper Portland and the City. It is DEQ's responsibility to confirm that temporary uses are consistent with DEQ's Record of Decision and protective of public health and the environment (from a contaminant exposure standpoint). We are confident that capping measures implemented for the Navigation Center have, to date, prevented exposure to underlying contamination and are likely to continue to do so if maintained.

Comments Related to DEQ Potential Approval of Extension

- Temporary Capping. Capping beyond 5 years is no longer temporary and does not conform with DEQ ROD.

DEQ Response. We agree that capping beyond 5 years begins to push the definition of "temporary". However, the current remedial measures at the property are substantially similar to those provided in the ROD (capping to prevent human exposure) and the proposed temporary use is protective of public health and the environment, provided that cap inspection and maintenance are continued. In recent communications the City of Portland has confirmed that the Navigation Center is not the final development for the site and that homeless support use is expected to stop before the extension period is completed. Neither the ROD nor DEQ rules define or prohibit uses prior to a final remedy implementation provided they are protective. The final remedy will be implemented with final Site development, as described in the ROD.

Comments Related to DEQ Updated Risk Analysis.

- DEQ received a comment set from Geosyntec, submitted on the behalf of Winkler Development Corporation, that commented on both the form and specific elements of DEQ's updated risk analysis. Comments questioned the adequacy of the risk analysis, its adherence to guidance, the unavailability of the original (1997) risk assessment, and perceived technical errors or omissions. Corrective measures were provided including

more frequent cap inspections, sampling of clean soil capping materials, and vapor sampling.

DEQ Response. Item 3(ii) of the “Agreement” portion of the Settlement Agreement states that “DEQ shall have the discretion to determine the type of risk assessment to be completed under DEQ’s rules.” The updated risk analysis was completed with this in mind, and we believe it to be wholly adequate to determine whether risk conclusions presented in the 1997 Risk Assessment and 1998 Record of Decision remain valid. DEQ responses to central points raised in the Geosyntec comment set are presented as Attachment 8. We do not believe corrective measures such as sampling of clean fill and vapor monitoring to be necessary. Soil contaminants are of low volatility and isolated by paving or clean soil (in planter boxes).

Comments on Conformance with 2018 Settlement Agreement with WDC

- A number of comments were received on this issue.

DEQ Response. Responses are presented in the main body of the decision memo. All of the required elements of the 2018 agreement have been met.

Comments on the Adequacy of the Navigation Center Cap in Preventing Exposure

- Comments were received on this issue.

DEQ Response. DEQ’s updated review of contaminant data has confirmed that contaminants present in soil and groundwater including lead, arsenic, and petroleum-related compounds are of no or low volatility, and that physical isolation through capping is effective in preventing exposure. Although not constituting the final remedy, DEQ is confident that existing indoor flooring, outdoor paving, and clean soil cover are fully effective in preventing exposure to contaminated media and will continue to do so if maintained.

Comments on the Zoning, Permitting, and Current and Reasonably Likely Future

- Numerous comments were received on this issue.

DEQ Response. Responses are provided in the main body of the decision and above. It is not within DEQ’s authority to determine how the property is to be used. The current property use (houseless use) is in general conformance with the ROD from the standpoint of envisioning residential and/or commercial property use (“current and reasonably likely future use”), and acknowledgement by all parties (DEQ, City of Portland, and Prosper Portland) that the Navigation Center does not represent the final development of the site.

Attachment 8

Response to Comments on DEQ Updated Soil Risk Assessment

DEQ agrees that there are limitations to the updated soil risk assessment for the Naito Navigation Center. Our intent was more related to EPA's approach to five-year reviews than a new risk assessment. For reviews, EPA looks at:

- 1) Is the remedy functioning as intended?
- 2) Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives used at the time of the remedy selection still valid?
- 3) Has any other information surfaced that could affect the protectiveness of the remedy?

For the risk portion of our review, DEQ focused on the second question to evaluate whether updated RBCs would significantly affect the conclusions of the original risk assessment. There are no new site data, so we relied on the original data and statistical evaluations of exposure concentrations. The primary conclusion of our evaluation was that changes to toxicity values and RBCs did not change the conclusion of the risk assessment and selection of a temporary remedy.

In response to some of the more specific comments, we present the following points.

- The original risk assessment is available via (archived) file review, ECSI# 1962.
- Arsenic and lead had been determined to be above background concentrations, and they were included in the updated evaluation. This is reasonable results and a health protective assumption so there is no need for a re-evaluation of background.
- DEQ did not include an evaluation of volatilization to outdoor air risk. The inorganic chemicals and most PAHs are considered non-volatile, so there are no RBC soil to outdoor air (RBCso) values for inorganics. The residential RBCso for naphthalene is 6.4 mg/kg and the residential RBCso for TPH-gasoline is 5,900 mg/kg. The RBCso for TPH-diesel exceeds the maximum limit of 1,000,000 mg/kg. The exposure point concentrations for these chemicals are below the RBCso screening levels. In addition, the vast majority of the site is paved, further reducing volatilization potential from subsurface soil.
- Non-cancer toxicity information is not available for the cPAHs with the exception of an inhalation reference concentration for benzo[a]pyrene. TPH values are for non-cancer effects. Although lead is a carcinogen, information is not available to calculate cancer screening values. The primary concern for lead is non-cancer effects in children.
- DEQ provided an incorrect reference for cPAH TEFs. As noted in the comments, we used the TEFs provided in DEQ's human health risk assessment guidance, Table 3. EPA has draft revised TEFs, but they have not been finalized, and are not being used by EPA's CERCLA program or DEQ's Cleanup Program.
- Benzo[a]pyrene equivalents were calculated for mean, maximum, and 90UCL for the different soil layers. This was done primarily to document the current preferred approach to evaluating cPAH risk and confirm that it also shows unacceptable risk. It is also appropriate to sum the risk from all of the individual cPAHs. DEQ acknowledges that a better statistical representation of risk would be to calculate benzo[a]pyrene equivalents at each sample location and then conduct the 90UCL calculation. This would not alter the conclusion of unacceptable risk from cPAHs, which is dominated by benzo[a]pyrene risk.
- DEQ's summary table did not include a summation of cancer risk and noncancer risk, which in many cases would provide a more explicit presentation of risk. Instead, it was a simple comparison with updated screening levels. Summing risks would confirm the

conclusion that soil risks are unacceptable. Evaluating noncancer risks by target organ would potentially lower the cumulative risk estimate but would not change the conclusion of unacceptable risk because unacceptable risks are exceeded by individual chemicals.

- The revised acceptable blood lead level has not been incorporated by EPA to update their soil lead screening values, and also has not been used to revise DEQ's RBCs (which are based on EPA's recommendations). EPA is reviewing their approach to lead and is expected to lower their screening values in the future. If this occurs, it will not alter the conclusion that exposure to lead in soil can result in unacceptable risk.