



Draft Berth 6 & 8 Interim Action Work Plan

February 17, 2023

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ACRONYMS AND ABBREVIATIONS

Project	Berth 6 & 8 Redevelopment project
CAP	Cleanup Action Plan
CZMA	Coastal Zone Management Act
DDWP	Dredging and Disposal Work Plan
DMMs	Discarded military munitions
DNS	Determination of Non-Significance
Ecology	Washington State Department of Ecology
FS	Feasibility Study
HASP	Health and Safety Plan
HPA	Hydraulic Project Approval
JARPA	Joint Aquatic Resources Permit Application
MLLW	Mean Low-Low Water
MIDP	Monitoring and Inadvertent Discovery Plan
MTCA	Model Toxics Control Act
PAHs	Polycyclic aromatic hydrocarbons
PCBs	Polychlorinated biphenyls
Port	Port of Seattle
RI	Remedial Investigation
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
Site	Terminal 91 Submerged Land Area under Ecology Cleanup Order
SSDP	Shoreline Substantial Development Permit
T91	Terminal 91
USACE	United States Army Corps of Engineers
WAC	Washington Administrative Code
WQC	Section 401 Water Quality Certification

1.0 INTRODUCTION

This document presents the work plan for an Interim Action for a portion of the Berth 6 & 8 Redevelopment project (Project) within the Port of Seattle's (Port) Terminal 91 (T91) cleanup site (Site) shown on Figures 1 and 2. The Project was submitted for federal permitting because federal approval of the project requires Ecology's Water Quality Certification under Section 401 of the Clean Water Act (401 WQC).

During Ecology's review of the permit package, it was determined that T91 is under an administrative cleanup order, and that the Ecology cleanup site manager must approve the Project as an "interim cleanup action" prior to issuance of a 401 WQC. A remedial investigation (RI) is being conducted under an Agreed Order between the Port and the Washington State Department of Ecology (Ecology) (No. DE24768, Ecology 2020), with an expected draft RI report release date of March 2023. A feasibility study detailing cleanup remedy alternatives will follow in Q1 2024. The RI and future Feasibility Study and Cleanup Action Plan will lead to a final cleanup action in accordance with the Model Toxics Control Act (MTCA) regulations. This Interim Action work plan has been developed to present and characterize the proposed Project redevelopment action through the MTCA lens in the absence of a final remedial investigation and feasibility study for the cleanup Site.

The Port has proposed the redevelopment of Pier 90 Berths 6 & 8 at the T91 facility per the JARPA submission August 23, 2021 (NWS-2021-842-WRD). The existing facility is a deteriorating creosote-treated timber wharf with generally heavily deteriorated timber piling supporting timber pile caps, stringers, and decking. Many of these elements are in an advanced stage of deterioration and as a result large portions of the wharf are condemned. The remainder has been load-rated for allowable loading significantly reduced from the original design live load allowances. The existing bulkhead wall is also in an advanced state of deterioration.

The limits of the Interim Action are shown on Figure 2. The Interim Action will be implemented prior to selecting the final cleanup action for the Site and will not prevent the selection or implementation of other reasonable alternatives for the final cleanup action (see Washington Administrative Code [WAC] 173-340-430(3)(b)). Prior to implementation of the Interim Action, design basis calculations and construction plans will be presented to Ecology for review and approval.

2.0 BACKGROUND

Berths 6 & 8 on Pier 90 are currently owned by the Port and used for offloading of fish and seafood by commercial fishing processors. The area is also used for berthing of harbor tugs and barges supporting fueling and materials staging, and moorage for small work vessels.

In the late 1800s through 1912, Terminal 91 property owners included various railroads, land development companies, and private individuals. In 1913, the Port purchased the property and constructed the earthen berm Pier 90. Terminal 91 was operated by several oil companies from 1926 to 1942 then the Navy acquired the property through condemnation. US Navy conducted extensive naval craft mooring, repair, and deactivation activities, including hull maintenance; sandblasting and painting; and electrical, plumbing, and mechanical repairs (Bureau of Ships 1947, 1950b, a; Clay 1971) before transferring ownership back to the Port in 1976.

A four-acre upland parcel to the north of the piers 90 and 91 is the site of a former tank farm. It was constructed in 1920 and was used as a permitted dangerous waste treatment and storage facility beginning in 1980. The tank farm operated as a fuel storage facility from the late 1920s through to when it was demolished in 2005. Chemical Processors, Inc. (Chempro) subleased the tank farm from the Port when the Port was leasing the property from the Navy. The company used the facility for waste oil recovery and wastewater treatment. In 1995, operations at the tank farm ceased and the cleanup process started under a closure plan approved by Ecology in 2003. Further investigation and cleanup plan selection, design, planning, and permitting were conducted for the contaminated soil and groundwater from 2005 to 2013. The cleanup action plan was implemented in 2014 and 2015.

The T91 has been identified by the US Army Corps of Engineers (USACE) as a Formerly Used Defense Site (FUDS), identifier #F10WA012501. DMM and munitions debris have been found and removed from sediments on the east and west sides of the south section of Pier 91. DMMs were not identified in the vicinity of the Pier 90 Berths 6 & 8 Project.

For the Pier 90 Berths 6 & 8 Project, the Port used divers to survey the under-pier area in January 2021; the objective of the survey was to evaluate the general condition of the riprap slope, determine sediment depths accumulated on top of the slope, and identify and locate large debris that could impact demolition of the timber structure or pile driving activities. Results of the survey showed sediment depths ranging from approximately 0 to 8 feet. Sediments appear to be comprised of silt, sand, and shell matter. Due to the accumulation of sediment, there may be additional debris items that are covered by the sediment and therefore not detectable by visual dive survey. During the survey, six large items appearing to be partially buried crates were discovered. Given the site's history, the Port's Police Dive Team was called in to conduct further surveys in April 2021 to determine whether the items were DMMs or posed a risk to the project. The items were identified as large blocks of discarded concrete and were determined to be non-hazardous. No DMMs were discovered during either of the dive surveys.

3.0 ENVIRONMENTAL CONDITIONS

3.1 Environmental Investigations

Several in-water environmental investigations have been conducted at the Site that will be summarized in the RI report. Some of these reports can be accessed on the Site's web page at: <https://apps.ecology.wa.gov/cleanupsearch/site/2674>.

The RI report is currently in progress, but studies to date have confirmed that historical activities resulted in sediment contamination in the vicinity of the piers. Polycyclic aromatic hydrocarbons (PAHs), Polychlorinated biphenyls (PCBs) and mercury are the primary constituents of concern in sediment in the Berth 6 & 8 Project area.

3.2 Nature and Extent of Contamination

The Port collected 5 subsurface sediment samples along the pier face of the project area in March 2022 to inform the remedial investigation currently being drafted. The Washington Sediment Management Standards exceedances are summarized in Table 1, and Sample ID locations can be found in Figure 2. A separate Excel file with the sediment sampling data is provided in Appendix B.

Table 1. Summary of Sediment Exceedances in the Interim Action Project Area

Sample ID	Core interval	Chemical concentrations greater than the Sediment Cleanup Objective (SCO)
SC27A	0-1 ft	None
SC27B	1-2 ft	Mercury , PCBs, BEHP
SC27C	2-4 ft	Mercury , PAHs, PCBs, 1,4-DCB
SC35A	0-1 ft	Mercury, PAHs
SC35B	1-2 ft	Mercury , PCBs, PAHs, BEHP

Notes:

PAHs – polycyclic aromatic hydrocarbons

PCBs – polychlorinated biphenyls

BEHP – bis 2-ethylhexyl phthalate

1,4-DCB - 1,4-dichlorobenzene

bold indicates a Cleanup Screening Level (CSL) exceedance

4.0 OVERVIEW OF THE INTERIM ACTION

4.1. Interim Action Description

The Project will include replacement of the existing creosote-treated timber pier and apron with a new wharf structure (including associated pile), relocation of the small boat storage and float system, and replacement of the existing slope armoring and bulkhead wall. A representative cross section of the project design is shown on Figure 3. Components of the wharf and bulkhead replacement include:

- Removal of approximately 66,230 square feet of existing timber pier,
- Removal of approximately 2,300 12-inch diameter creosote-treated timber pile, cut at the mudline or extracted where conflicts with new piling exist,
- Installation of 288 24-inch concrete octagonal pile,
- Installation of 60,710 square feet of pre-cast concrete decking,
- Installation of 90 20-inch steel fender pile with full-round 24-inch diameter high density polyethylene sheaths, and
- Installation of one new 18-inch diameter outfall which will discharge on the riprap slope
- Consolidation of eight (8) existing outfalls and deck drains into one existing outfall (eliminating all deck drains).
- Removal of the top approximately four feet of 780 linear feet of the existing bulkhead (above the mudline) and capping.
- Installation of approximately 780 linear feet of steel sheet pile (approximately six feet of exposed height) directly adjacent (waterward) of the existing abandoned wall.

The existing bulkhead type varies along the length and consists of either steel sheet pile, tied back creosote treated timber, or tied back creosote treated timber with a concrete fascia. The top portion of the existing sheet pile sections of bulkhead will be cut off to facilitate installation of the new bulkhead and concrete cap beam. Timber lagging will be removed to the cut-off line, based on comments received from Ecology in May 2022, timber bulkhead pilings will be fully extracted to the extent practical. Cutting and removal of the exposed portion of the existing steel sheet pile sections of bulkhead will be done by crews on upland or barge mounted equipment and land-based or crane-mounted excavators to be disposed of at an approved upland facility. A new steel sheet pile bulkhead wall will be installed just waterward of the existing bulkhead. Installation of the new sheet pile wall will be conducted primarily using a vibratory hammer, though impact driving may be required to achieve final depths.

Timber pilings supporting the pier structure will be cut at the mudline, except for those which will interfere with new concrete pilings to be installed. The cut-off pilings will be covered by at least four feet of quarry spalls (1 foot), riprap (3 feet), and a fish mix and sand layer to filling voids/interstitial spaces between riprap (min 6 inches). Pile will be cut by divers equipped with chainsaws or by biting with a dredge bucket, and pile and timber decking will be removed using land-based and/or floating crane barges for disposal at an approved upland facility. A debris/sheen boom will be installed around the work area to contain any floating debris produced during the demolition and new construction work, as well as any additional state and federal best management practices for piling removal.

The new concrete wharf will be 780 feet long with 25-foot spacing between cast-in-place concrete pile cap bents. The pile cap bents will support pre-cast concrete deck panels and a cast-in-place concrete bullrail. The precast concrete panels will be overlain by asphalt concrete. The wharf will be constructed utilizing floating derrick barges, support barges, and assisting tugs. Prestressed concrete pile will be installed to support the new apron. Concrete pile will be impact driven, and steel fender pile will be primarily installed using a vibratory hammer, though impact driving may be required to achieve final tip elevation.

Replacement of slope armoring will include the following components:

- Removal of 25,000 cubic yards of existing material on the slope (riprap, sediment, and debris),
- Installation of 10,600 cubic yards of fill, including:
 - 1-foot thickness of quarry spalls,
 - 3-foot thickness of heavy riprap, and

- Minimum of 6 inches volumetric equivalent ¹fish mix blended with sand to fill the voids.

Excavation/dredging of the slope and installation of slope armoring will be conducted using land-based and/or barge-mounted excavators or a clamshell bucket and barge derrick. All material will be transported to an approved upland disposal site. The top of the toe of the new armoring will be placed at -39 feet MLLW and will be a total of no less than 4 feet thick to provide environmental protection, scour protection, and stability. The armoring will be installed to a 2H:1V slope between approximately +5.6 ft and -10 ft MLLW, then to a 1.75H:1V slope between -10 and -39 ft MLLW. The area will be excavated to a subgrade depth that will allow installation of a 1-foot thickness of quarry spalls, a 3-foot thickness of riprap, with a minimum of 6 inches fish mix blended with sand to fill the voids. Since the fish mix and sand blend will be placed on an uneven riprap surface to fill the voids, the 6-inch measurement will be a volumetric equivalent of placing at least 6 inches of fish mix and sand on an even surface.

4.2 Cleanup Requirements

This Interim Action does not include actions intended to achieve a final numerical cleanup level for the sediment because they have not been developed. Therefore, performance monitoring will consist primarily of construction quality assurance monitoring to confirm that the Interim Action conforms to Interim Action design drawings and specifications.

4.3 Applicable Regulatory Requirements (Permitting/Notifications/Approvals)

Permits required for this Interim Action include the following.

- State Environmental Policy Act (SEPA) Review. The Port is lead agency for the SEPA environmental review.
- US Army Corps of Engineers Section 404 and Section 10 Permits (USACE Permit). This action is under review as an individual permit under Section 10 and Section 404.
- Section 106 Consultation with State Historic Preservation Office (SHPO). A cultural resources report, monitoring plan, and inadvertent discovery plan have been developed for this Project.
- Department of Ecology Section 401 Water Quality Certification (Section 401 WQC)
- Department of Ecology Coastal Zone Management Act Consistency Determination (CZMA Consistency)
- City of Seattle Shoreline Substantial Development Permit (SSDP)
- City of Seattle Construction Permit (Construction Permit)
- Washington Department of Fish and Wildlife Hydraulic Project Approval (HPA)

Required notifications and approvals associated with these permits include:

- USACE Permit:
 - Muckleshoot Indian Tribe Concurrence
 - Suquamish Tribe Concurrence
 - National Marine Fisheries Service Concurrence
 - United States Fish and Wildlife Service Concurrence

4.4. Coordination with Final Cleanup

The Port has completed the RI field activities but has not completed the draft RI Report. The Order for the Site allows for an interim remedial action to be completed in coordination with Ecology. The Port is planning to complete the Berth 6 & 8 Redevelopment project as an Interim Action because it will occur prior to Ecology issuing a Final Cleanup Action Plan for the Site. The Interim Action is expected to reduce the potential threat of Site contaminants to human health and the environment and will not preclude reasonable alternatives for the final cleanup action (WAC 173-340-430(3)(b)). The Interim Action is expected to meet the cleanup requirements for a portion of the Site. The FS for the Site will identify if the Interim Action is complete as part of the Site conditions. The FS will identify appropriate alternatives for

¹ Fish mix consists of a blend of sand (50% by volume) and gravel to golf-ball size cobble (depending on surrounding natural conditions, 50% by volume).

the final cleanup of the Site and determine if the Interim Action meets cleanup standard and considered complete. The Interim Action cleanup area is a subset of the overall Site cleanup area.

5.0 INTERIM ACTION SCOPE

5.1. Site Preparation

The Site preparation will consist of temporary erosion and sediment control measures for all demolition- and construction-related activities. A temporary construction fence with an asphalt barrier will be installed around the work limits. Plastic covering will be placed over all soil stockpiles and other stockpile materials, and a debris boom will be installed around the perimeter of the work site. A silt fence will be in place at the top of slope after the pier is demolished. Staging and stockpiling of materials will be either on site at Pier 90 or on a barge located in the adjacent waterway, with stockpiled material stored at no more than 1:1 slope and no taller than 10 feet. A dewatering system and shoring will be in place for excavation behind the existing bulkhead and installation of stormwater infrastructure; these systems will be designed by the contractor and approved by the Port. The contractor will be responsible for securing the work area and determining, in coordination with the Port, the appropriate number of secure entrances. The contractor will also determine the appropriate haul routes, based on the disposal facility.

5.2. Slope Excavation

Approximately 25,000 cubic yards of existing material including riprap and debris will be removed using land-based or barge-mounted excavators. Slope excavation will occur in sections divided perpendicular to the slope, to be determined by the contractor depending on the type and size of dredge equipment available.

5.3. Pile Removal

Most pilings will be cut at the mud line after slope excavation is complete in order to retain in-situ slope stability. Existing timber pilings that interfere with the location of new concrete pilings will be completely extracted using direct pull or clamshell bucket extraction. Port of Seattle (2021) and EPA (2016) best management practices for piling removal will be implemented, with the possible exception of cutting piling 1 foot below the mudline and filling holes voided by cut-off piles with sand. The intent of these BMPs are met through the placement of at least 4 feet of fill above the cut pile, including placement of a volumetric equivalent to a 6 inch layer of fish mix and sand.

5.4. Confirmation Sampling

After slope excavation is complete, the contractor will conduct sampling of both the newly exposed slope and the stockpiled excavated material prior to offsite disposal; means and methods will be determined by the contractor. Four to six samples will be analyzed for concentrations of primary constituents of concern at Terminal 91 along the newly exposed surface, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and mercury. A sampling plan which includes sampling procedures for the stockpiled material and for the exposed slope surface post-excavation will be developed by the contractor and will be provided to Ecology for review and approval. Results will also be provided to Ecology.

5.5. Stockpiling, Transport, and Disposal of Excavated Material

The contractor will submit a Dredging and Disposal Work Plan (DDWP) to address activities associated with dredge work. The DDWP will be submitted to the Port Engineer at least 60 days prior to dredging, and must be reviewed and approved by the Port and Ecology. The DDWP will include details on work sequencing and equipment to be used; means and methods for dredging, transport, and handling and disposal of dredged material; means and methods for positioning, surveys, environmental monitoring, and spill containment; and equipment and procedures for debris removal, offloading, stockpiling, transport, and disposal of debris. The contractor will submit daily and weekly dredge reports with water quality monitoring summary reports and a dredge closure report that includes pre-dredge survey data and post-dredge survey data.

5.6. Slope Stabilization and Hardening

Replacement of slope stabilization will include installation of approximately 10,600 cubic yards of fill, including quarry spalls, heavy riprap, and fish mix to fill voids. The top of the toe of the replaced shoreline stabilization will be placed at -39 feet mean low-low water (MLLW) and will be a total of 4 feet thick to provide scour protection and stability. The area will be excavated to a subgrade depth that will allow installation of a 1-foot thickness of quarry spalls and a 3-foot thickness of riprap. The armoring will be installed to a 2H:1V slope between approximately +5.6 feet and -10 feet MLLW, then to a 1.75H:1V slope between -10 and -39 feet MLLW.

5.7. Pier and Wharf Construction

All pile installation and falsework and formwork for cast-in-place concrete will be coordinated and performed in strict accordance with permit requirements, including the Washington State Department of Fish and Wildlife Hydraulic Approval (HPA) permit, the US Army Corps of Engineers Section 404 and Section 10 permit, and the Ecology-approved Water Quality Monitoring Plan. All concrete forms will be mortar-tight and will not be placed in the water. The contractor will place impervious material over any exposed wet concrete that will come in contact with waters of the state. Forms and impervious materials must remain in place until the concrete is cured. Only concrete that is set within 1.5 hours of placement will be used.

6.0 COMPLIANCE MONITORING

Compliance monitoring will be conducted to assure the effectiveness of the Interim Action. MTCA requires compliance monitoring for all cleanup actions, including Interim Actions, as described in WAC 173-340-410. Compliance monitoring is required to be conducted for the following three purposes, which are discussed further in the following sections:

- **Protection monitoring** to confirm that human health and the environment are adequately protected during construction, operation, and maintenance associated with the cleanup action
- **Performance monitoring** to confirm that the cleanup action has attained cleanup standards and any other performance standards
- **Confirmational monitoring** to confirm the long-term effectiveness of the cleanup action once the cleanup standards and other performance standards have been attained.

The protection monitoring plan for the Interim Action will be addressed in a Health and Safety Plan (HASP) to be developed by the contractor. The HASP will be provided to Ecology for review and approval. Performance monitoring includes verification sampling that will be performed at the limits of excavation. Performance and confirmational monitoring will be detailed in the construction management and quality assurance plans that will be prepared by the to be selected construction contractor and will be provided to Ecology for review and approval prior to construction.

7.0 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

7.1. Contractor Quality Control

The Contractor will be required to submit a Quality Control Plan and Quality Control Reports. The Quality Control Plan must be reviewed and approved by the Port Engineer prior to construction and will also be provided to Ecology for review and approval prior to construction.

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The Quality Control Plan will include:

- a statement of the company's quality control policies;
- company organization and designation of responsibility;

- qualifications of quality control personnel;
- employee quality control awareness and protocols;
- procedures for incorporating all subcontractors' quality control plans;
- a description of routine daily and periodic quality control activities;
- a description of examination, testing or inspection activities, including certifications and reports;
- procedures to communicate and control design changes and revisions in the field;
- submittal and shop drawing control procedures;
- procedures for nonconformance reporting and disposition;
- procedures for control at off-site fabrication or production shops;
- a list of publications or references governing work on the job site;
- exhibits of any quality control forms or checklists routinely used;
- line and grade survey controls plan.

The contractor's quality control representative will maintain daily quality control reports for each workday. The daily reports will be factual records reporting test results and quality control activities and will be verified and signed by the contractor's quality control representative. Verification will confirm that all supplies and materials comply with the terms of the Contract Documents with noted variances.

7.2. Construction Monitoring and Field Documentation

Requirements for construction monitoring and field documentation will be provided in the Quality Control Plan described above, and will include but not be limited to:

Water Quality

The Contractor will be subject to the requirements and procedures specified in the Ecology-approved Water Quality Monitoring and Protection Plan (WQMPP) as referenced in Ecology's Section 401 WQC. The contractor will be required to provide written acknowledgement of understanding of all requirements and procedures contained in the WQMPP with respect to water quality monitoring, best management practices (BMPs), and notification procedures.

Discarded Military Munitions (DMM)

If a DMM is discovered or removed via dredging or other construction activities, the Port has a Discarded Military Munitions Management Plan to address the handling of DMMs. The contractor would not conduct disposal operations for suspected or known DMMs. Port's Security would take custody of any DMM discovered and transfer custody to Department of Defense at Joint Base Lewis-McChord for disposal and final disposition at their permitted site. These procedures would be followed throughout the slope excavation and any other sediment-disturbing activities throughout demolition and construction.

Cultural Resource Monitoring and Inadvertent Discovery Plan

The Contractor will be required to follow the procedures and notification requirements of the Archaeological Monitoring and Inadvertent Discovery Plan (MIDP) for Terminal 91 Berths 6 and 8 Redevelopment. Terminal 91 is a highly modified industrial waterfront facility; it was assessed for existing archaeological sites and expectation of encountering archaeological resources. Two archaeological resources were identified: Pier 90 itself and the Pier 90 Railroad Spur. The MIDP outlines monitoring procedures to be followed during the removal of pavement in the vicinity of the known location of the Pier 90 Railroad Spur. The MIDP also establishes procedures for notification and treatment of unanticipated archaeological deposits and human remains.

8.0 SCHEDULE

Pending public review of this Interim Action Work Plan and Ecology approvals, Interim Action-related construction work is scheduled to begin no earlier than November 2023. A detailed project schedule will be established at the time of contractor selection and will be provided to Ecology. The Interim Action will be integrated into the final Site cleanup action that will be completed following finalization and Ecology

approval of the Site RI/FS and Cleanup Action Plan (CAP) for the Site. It is anticipated that the final cleanup action will be implemented within the next 4 to 6 years.

9.0 REPORTING

Upon completion of Interim Action construction activities, an Interim Action Completion Report (IACR) that describes the construction activities will be prepared and submitted to Ecology for review and approval. The Interim Action, as described in the final IACR, will be incorporated into the RI/FS Report for the Site.

10.0 REFERENCES

Ecology. 2020. Agreed Order No. DE24768. Washington State Department of Ecology.

LIST OF TABLES

Table 1. Summary of Existing Sediment Data

LIST OF FIGURES

Figure 1. Vicinity Map & Site Plan

Figure 2. Remedial Investigation Site Boundary, Interim Action Area and Subsurface Sample Locations

Figure 3. Representative Cross Section

APPENDICES

Appendix A. Final SEPA Determination of Non-Significance

Appendix B. Sediment data from the Project Area

Figure 1 - Vicinity Map

ABBREVIATED LEGAL DESCRIPTION

PARCEL C, LBA 3016217, KCR#2013110590005 TOGETHER WITH PORTION OF TERMINAL 91 REMAINING AS NOTED ON SHEET 6 OF RECORD
LBA KCR# 2013110590005.

PARCEL NOS: 232503-9018 766620-1146
766620-1516 766620-1530
766620-1531 766620-1153

DATUM

HORIZONTAL DATUM: SEATTLE TIDELANDS
VERTICAL DATUM: MLLW=0.00FT
(MLLW DATUM EL)-2.34=NAVD88 DATUM EL
EPOCH 83-01

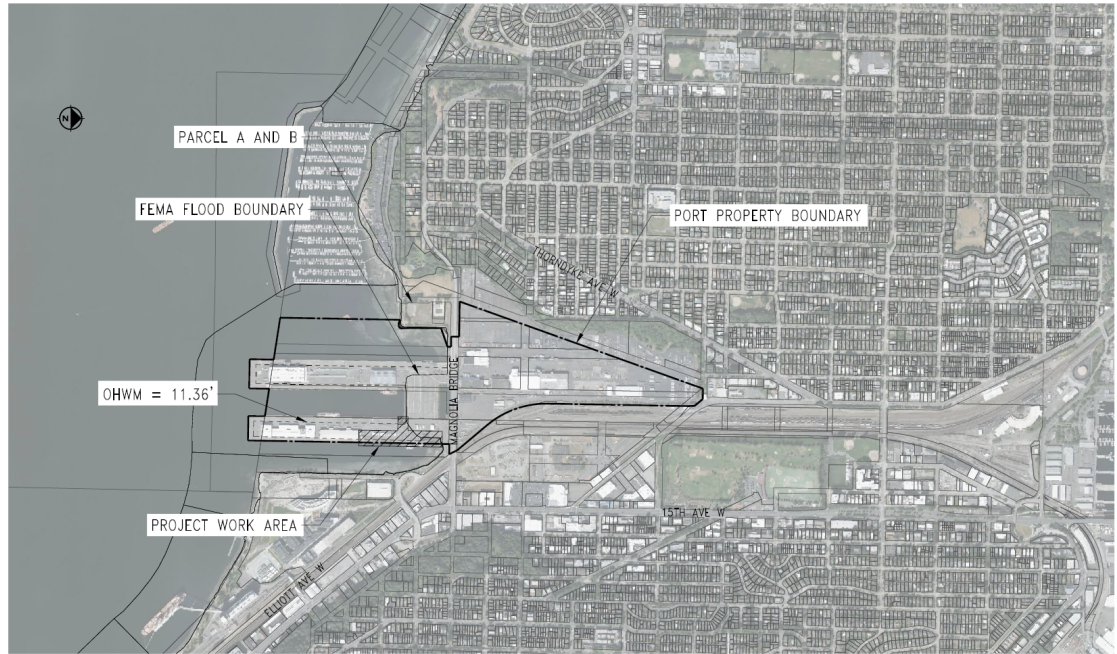
TIDE LEVELS: MLLW NAVD88

OHWM/MHHW EL=11.36 EL=9.02

DESCRIPTION OF REMNANT TERMINAL 91 PARCEL:

(130.39 ACRES)
(EXCLUDES LBA PARCELS A, B AND C)
THAT PORTION OF THE EAST HALF AND THE SOUTHWEST QUARTER OF SECTION 23; AND THE EAST HALF AND THE NORTHWEST QUARTER OF SECTION 26, ALL IN TOWNSHIP 25 NORTH, RANGE 03 EAST, W.M., IN KING COUNTY, WASHINGTON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A CITY OF SEATTLE MONUMENT AT THE CENTERLINE INTERSECTION OF 15TH AVENUE WEST AND WEST GARFIELD STREET, AND WHICH BEARS S 00°59'02" W, A DISTANCE OF 4777.28 FT. FROM A CITY OF SEATTLE MONUMENT LOCATED AT THE CENTERLINE INTERSECTION OF 15TH AVE. W. AND WEST BARRETT ST.;
THENCE N 88°59'57" W, ALONG THE CENTERLINE OF W. GARFIELD ST., A DISTANCE OF 713.10 FT.;
THENCE S 01°00'03" W, 50.00 FT. TO THE SOUTH MARGIN OF W. GARFIELD ST AND THE POINT OF BEGINNING;
THENCE N 88°59'57" W, ALONG SAID SOUTH MARGIN, A DISTANCE OF 128.39 FT. TO THE EXTENDED EAST LINE OF THE WEST 310.20 FT. OF BLOCK 136-139 OF THE MAP OF SEATTLE TIDELANDS;
THENCE S 01°00'03" W, ALONG SAID EXTENDED EAST LINE, A DISTANCE OF 2548.37 FT.,
THENCE N 88°59'57" W, 310.20 FT. TO THE EAST LINE OF SMITH'S COVE WATERWAY;
THENCE N 01°00'03" E, 208.93 FT. TO THE INNER HARBOR LINE;
THENCE N 81°11'16" W, ALONG THE INNER HARBOR LINE, 352.39 FT.;
THENCE S 01°00'03" W, 253.50 FT.;
THENCE N 88°59'57" W, 389.03 FT.;
THENCE N 01°00'03" E, 303.93 FT. TO THE INNER HARBOR LINE;
THENCE N 81°11'16" W, ALONG THE INNER HARBOR LINE, A DISTANCE OF 203.69 FT. TO THE EXTENDED EAST LINE OF BLOCKS 117, 118, AND 119, SEATTLE TIDE LANDS;
THENCE N 01°00'03" E, ALONG SAID EAST LINE, 2213.41 FT. TO THE N.E. CORNER OF SAID BLOCK 117;
THENCE N 88°59'57" W, ALONG THE NORTH LINE OF SAID BLOCK 117 FOR A DISTANCE OF 130.36 FT.;
THENCE N 01°00'03" E, 100.00 FT TO THE SOUTH LINE OF BLOCK 116, MAP OF SEATTLE TIDELANDS;
THENCE N 88°59'57" W, ALONG SAID SOUTH LINE (ALSO KNOWN AS THE NORTH MARGIN OF W. GARFIELD ST.) A DISTANCE OF 443.68 FT. TO THE SOUTHEASTERLY MARGIN OF JOLIET AVE. W.;
THENCE N 19°41'12" E, ALONG SAID SOUTHEASTERLY MARGIN, 3267.07 FT. TO THE SOUTH MARGIN OF WEST HALLADAY ST.;
THENCE S 88°52'12" E, ALONG SAID SOUTH MARGIN 134.64 FT.;
THENCE S 39°17'48" E, 133.98 FT.;
THENCE S 01°00'03" W, 54.74 FT.;
THENCE S 50°17'03" E, 4.29 FT.;
THENCE S 01°00'03" W, 1797.05 FT. TO A POINT OF CURVATURE;
THENCE SOUTHEASTERLY ALONG A CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 41°02'01" AND A RADIUS OF 1165.78 FT., FOR A DISTANCE OF 834.90 FT.;
THENCE S 40°01'58" E, 493.85 FT.; THENCE S 25°50'26" E, 112.12 FT. TO THE POINT OF BEGINNING.

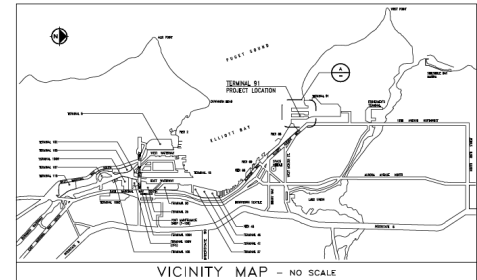


NOTES

PROJECT ADDRESS: 2001 WEST GARFIELD STREET, SEATTLE WA 98119
SITE OWNER: PORT OF SEATTLE
FEMA FLOOD ZONE DESIGNATION: VE (EL)3 AND ZONE X, SEE G2.01

OVERALL SITE MAP

SCALE: NTS



TERMINAL 91 HARBOR AREA LEGAL DESCRIPTION

THAT PORTION OF HARBOR AREA IN THE NORTHEAST QUARTER OF SECTION 26, TOWNSHIP 25 NORTH, RANGE 03 EAST, W.M., IN KING COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE INNER HARBOR LINE WITH THE PROJECTED WEST MARGIN OF 16TH AVENUE WEST, AS ESTABLISHED BY CITY OF SEATTLE ORDINANCE NO. 94165;
THENCE CONTINUING ALONG SAID PROJECTED WEST MARGIN SOUTH 01°19'39" WEST, 302.58 FEET TO THE OUTER HARBOR LINE;
THENCE NORTH 81°11'16" WEST ALONG SAID OUTER HARBOR LINE, 1977.74 FEET TO A POINT ON THE PROJECTED EAST MARGIN OF VACATED 23RD AVENUE WEST;
THENCE NORTH 01°00'02" EAST ALONG SAID PROJECTED MARGIN, 302.81 FEET TO THE INNER HARBOR LINE;
THENCE SOUTH 81°11'16" EAST ALONG SAID INNER HARBOR LINE, 1979.49 FEET TO THE POINT OF BEGINNING.

EXCEPT THOSE PORTIONS DESCRIBED AS PARCELS 'A-1', 'A-3' AND 'B-1' IN COURT CAUSE NUMBER 469, DISTRICT COURT OF THE UNITED STATES FOR THE WESTERN DISTRICT OF WASHINGTON, NORTHERN DIVISION.

CALL 2 DAYS BEFORE YOU DIG
1-800-424-5555



1601 5th Avenue, Suite 1300
Seattle, Washington 98101
(206) 382-0500 Fax (206) 382-0500

PROJECT ENGINEER
S. R. BILEY
DESIGNER
S. R. BILEY
DRAWN BY
T. LEWIS
SCALE
AS SHOWN
DATE
03/04/2022
CHECKED BY
T. BILEY
CHECKED/ISSUED BY
S. R. BILEY



REVISIONS					
NO.	DATE	BY	DESCRIPTION	APPROV.	

POS PROJECT MANAGER
M. LEONARDI
POS PROJECT ENGINEER
S. BENTLEY
POS DESIGN ENGINEER
S. BENTLEY
POS DRAWN:
POS SCALE:
4:3/381' MIN
POS DATE:
03/04/2022
POS CHECKED/APPROVED BY:



PROJECT NAME: **TERMINAL 91 BERTHS 6 & 8 REDEVELOPMENT**

SHEET TITLE: VICINITY MAP AND GENERAL NOTES

POS WORK PROJECT NUMBER
U00554
CONSULTANT'S PROJECT NUMBER
2000027
POS PROJECT TRACKING NUMBER
90/91-2401 G1.01

Figure 2 – Remedial Investigation Site Boundary, Interim Action Area and Subsurface Sample Locations

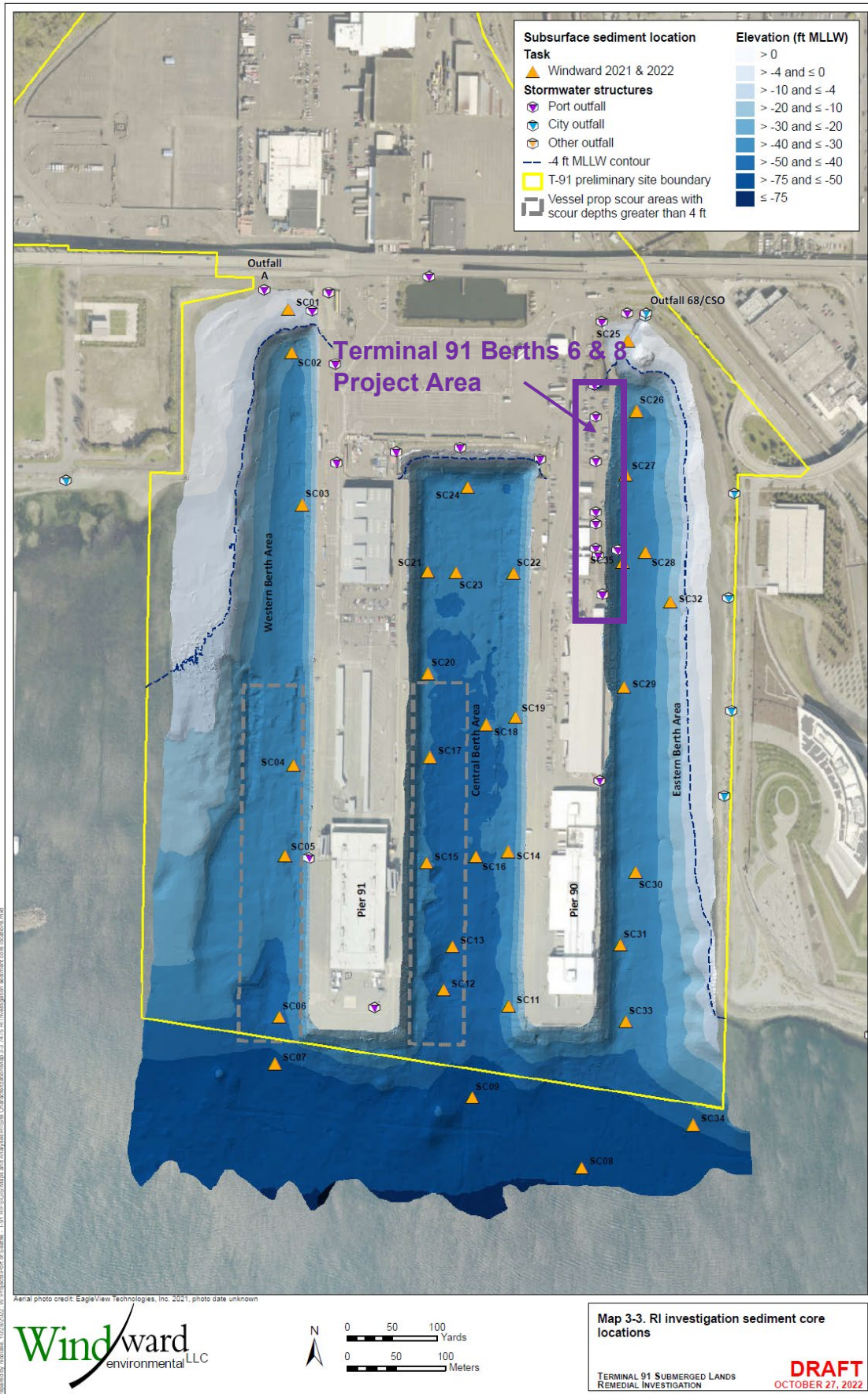
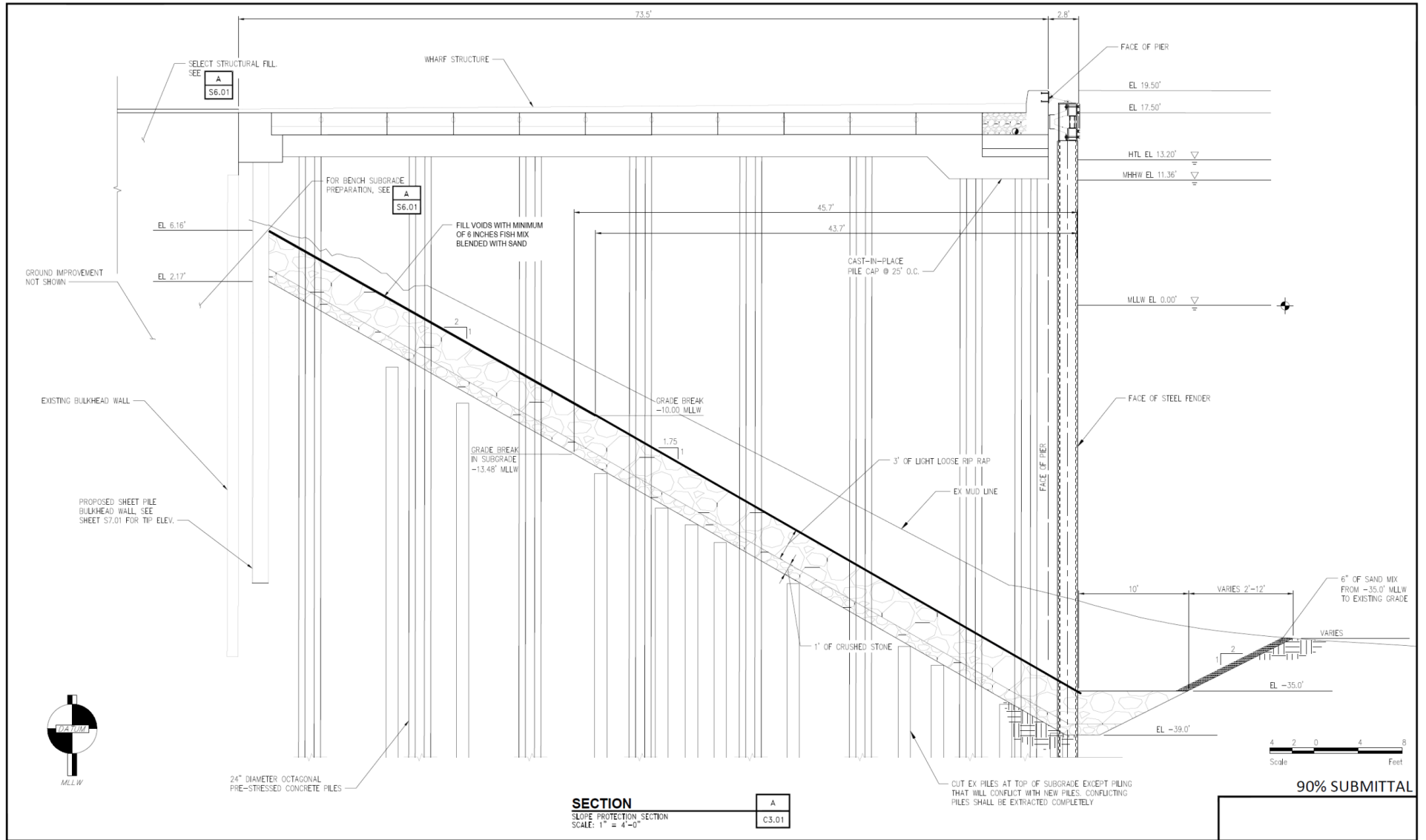


Figure 3 – Representative Cross Section



SECTION
 SLOPE PROTECTION SECTION
 SCALE: 1" = 4'-0"

A
 C3.01

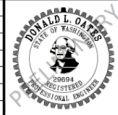
90% SUBMITTAL

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1602 5th Avenue, Suite 1300
 Seattle, Washington 98101
 (206) 352-0500 Fax (206) 352-0500

PROJECT NUMBER	U00554
DATE	03/04/2022
BY	AS SHOWN
CHECKED BY	AS SHOWN
DATE	03/04/2022
APPROVED BY	AS SHOWN
DATE	03/04/2022



REVISIONS						
NO.	DATE	BY	DESCRIPTION	APP'D.	NO.	DATE

PROJECT NUMBER	U00554
DATE	03/04/2022
BY	AS SHOWN
CHECKED BY	AS SHOWN
DATE	03/04/2022
APPROVED BY	AS SHOWN
DATE	03/04/2022



PROJECT NAME: TERMINAL 91 BERTHS 6 & 8 REDEVELOPMENT
 SHEET TITLE: SLOPE PROTECTION SECTION

PROJECT NUMBER	U00554
CONTRACTOR'S PROJECT NUMBER	2000027
PROJECT TRACKING NUMBER	90/91-2401
C3.11	