



US Army Corps
of Engineers
Seattle District

Public Notice of Application for Permit

US Army Corps of Engineers
Regulatory Branch
Post Office Box 3755
Seattle, WA 98124-3755
Telephone: (206) 764-3262
ATTN: Colleen Anderson,
Project Manager

Public Notice Date: January 22, 2021
Expiration Date: February 21, 2021

Reference No.: NWS-2015-478
Name: O'Hara Corporation (Pier
Replacement and Float Installation)

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received a revised application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated January 12, 2020. The work was previously described in Public Notice Reference No. NWS-2015-478, dated June 27, 2016. The revision, as shown on sheet 14, consists of cast-in-place concrete instead of pre-cast concrete paneling. The applicant also requested to perform the above water-work outside the approved fish window.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. The Washington Department of Ecology (Ecology) will review the work separately pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

APPLICANT: O'Hara Corporation
4315 11th Avenue Northwest
Seattle, Washington 98107
Attention: Francis J. O'Hara Jr.
Telephone: (206) 706-4166

AGENT: Waterfront Construction, Inc.
205 Northeast Northlake Way, Suite 230
Seattle, Washington 98105
Attention: Max Slusher
Telephone: (206) 548-9800

LOCATION: In Salmon Bay, Lake Washington Ship Canal, at Seattle, Washington.

WORK: Rehabilitation of a commercial pier to include the removal and replacement of an existing elevated pier structure, and modifications including the installation of a new float with three finger piers, and installation of a new dolphin. Under the proposed action, the existing wooden pier and creosote piling will be removed and replaced with an all new, slightly larger structure with a similar configuration. Detailed project impacts are as follows:

Structure Removal: Removal of sixty-two 12-inch to 14-inch diameter creosote treated wood piles, and 2,664 square feet of solid decking material. The existing pier is elevated above the plane of Ordinary High Water (OHW) by two feet, six inches.

NWS-2015-478, O'Hara Corporation

Pier Construction: Installation of thirty-five 12-inch-diameter X-strong steel piles installed with a vibratory hammer to support 3,170 square feet of solid cast-in-place concrete decking material on the main pier and nine 12-inch-diameter fender piles. Installation of an 851-square-foot float constructed from the main pier with three fingers floats with grated decking, two 12-inch-diameter X-strong steel piles, and a new 44-foot long grated ramp. Construction of a dolphin with three 18-inch-diameter piles with a ¾-inch steel cap. The proposed pier will be elevated to 4 feet, 6 inches above the plane of OHW.

PURPOSE: Commercial water access and moorage for a commercial fishing fleet.

MITIGATION: To offset the proposed impacts, the applicant has proposed the following avoidance and minimization measures: Removal of the existing creosote piling and solid decking material; installation of steel piling and grated decking on the float (60% open space); water quality protection measures; a reduction of existing lighting to the aquatic environment with planned lighting minimization measures. The new structure will be super-elevated two feet, 10 inches to three feet, 10 inches above the plane of OHW. Submerged debris and trash removal from the Salmon Bay area is also proposed as compensatory mitigation.

ENDANGERED SPECIES: The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat.

After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

ESSENTIAL FISH HABITAT: The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area.

The U.S. Army Corps of Engineers (Corps) has determined that the proposed action will adversely affect designated EFH for federally managed fisheries in Washington waters. The Corps has initiated EFH consultation with the National Marine Fisheries Service.

CULTURAL RESOURCES: The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. There are no recorded historic properties within the permit area. The permit area has been so extensively disturbed by modern development that little likelihood exists for the proposed project to impinge upon an undisturbed historic property. The Corps invites responses to this public notice from Native American Tribes or tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments from this public notice, the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, as appropriate.

PUBLIC HEARING: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

NWS-2015-478, O'Hara Corporation

EVALUATION: The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The U.S. Army Corps of Engineers is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. All e-mail comments should be sent to colleen.c.anderson@army.mil. Conventional mail comments should be sent U.S. Army Corps of Engineers, Regulatory Branch, Post Office Box 3755, Seattle, Washington, 98124-3755. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration. Please include the following name and reference number:

O'Hara Corporation; NWS-2015-478

Encl: Figures (14)



VICINITY MAP

LEGAL DESCRIPTION:

THAT PORTION OF LOTS 9 THROUGH 16, INCLUSIVE, BLOCK 177, GILMAN PARK, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 3 OF PLATS, PAGE 40, RECORDS OF KING COUNTY, WA., AND OF LOTS 9 THROUGH 12, INCLUSIVE, BLOCK 3, BALLARD TIDELANDS AND OF WEST 44 PLACE AS VACATED BY THE CITY OF SEATTLE ORDINANCE NUMBER 57056, DESCRIBED AS FOLLOWS:

BEGINNING ON THE EAST LINE OF SAID BLOCK 177 AT A POINT WHICH IS S 01°01'52" E, ALONG SAID EAST LINE 226.00 FT. FROM THE N.E. CORNER THEREOF; THENCE S 01°01'52" E, 471.094 FT. TO THE S.E. CORNER OF SAID BLOCK 3; THENCE NORTHWESTERLY ALONG THE SOUTHWESTERLY LINE OF SAID BLOCK 3, A DISTANCE OF 155.326 FT. TO THE SOUTHWESTERLY CORNER OF LOT 11 IN SAID BLOCK 3; THENCE NORTHEASTERLY AT RIGHT ANGLES TO THE SOUTHEAST LINE OF SAID BLOCK 3, A DISTANCE OF 68.977 FT. TO THE WEST LINE OF LOT 12 IN SAID BLOCK 3; THENCE NORTH ALONG SAID WEST LINE 130.193 FT. TO A POINT WHICH IS 200 FEET NORTHEASTERLY FROM, WHEN MEASURED AT RIGHT ANGLES, TO THE SOUTHWESTERLY LINE OF SAID BLOCK 3; THENCE NORTHWESTERLY PARALLEL WITH SAID SOUTHWESTERLY LINE 164.036 FT. TO A POINT WHICH IS 125 FT WEST OF THE EAST LINE OF LOT 9 IN SAID BLOCK 3; THENCE N 01°01'52" W, 188 FT. TO A POINT ON A LINE PARALLEL WITH AND 226.00 FT. SOUTH OF THE NORTH LINE OF SAID BLOCK 177; THENCE N 89°00'00" E, ALONG SAID PARALLEL LINE 169.50 FT. TO THE POINT OF BEGINNING.

QSTR: NW 13 25N 3E, WM LAT: 47.660228d N
 PARCEL #: 0467000120 LONG: -122.371091d W

ADJACENT OWNERS:

- ① & ② WASHINGTON DEPT. OF NATURAL RESOURCES
1111 NW 45TH ST, SEATTLE, WA. 98107
- ③ COMMERCIAL MARINE CONSTRUCTION COMPANY
1121 NW 45TH ST, SEATTLE WA 98107
- ④ MOBILE PROPERTIES, LLC
4401 11TH AVE NW, SEATTLE WA 98107
- ⑤ CITY OF SEATTLE
11TH AVE NW (STREET END) SEATTLE WA 98107
- ⑥ FRED MEYER STORES, INC
915 NW 45TH ST, SEATTLE WA 98107
- ⑦ PBC INVESTMENT COMPANY LLC
4300 11TH AVE NW SEATTLE WA 98107



AREA MAP

PROJECT DESCRIPTION:

THE PURPOSE OF THESE DOCUMENTS IS TO SHOW THE REMOVAL AND REPLACEMENT OF THE ELEVATED PIER STRUCTURE AND INSTALLATION OF NEW FLOATS.

PROJECT DESIGNED BY:

Waterfront Construction Inc.

205 N.E. NORTHLAKE WAY
 SUITE #230
 Seattle, Washington 98105



2150 N 107th Street—Suite 320
 Seattle, Washington 98133

PROJECT NO: NWS-2015-478

PROJECT: O'HARA CORPORATION PIER REPLACEMENT AND FLOAT CONSTRUCTION

PROPOSED: REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS

PURPOSE: PROVIDE IMPROVED MOORAGE

SITE ADDRESS: 4315 11TH AVE N.W.
 SEATTLE, WA 98107
 COUNTY: KING
 IN: SALMON BAY / SHIP CANAL

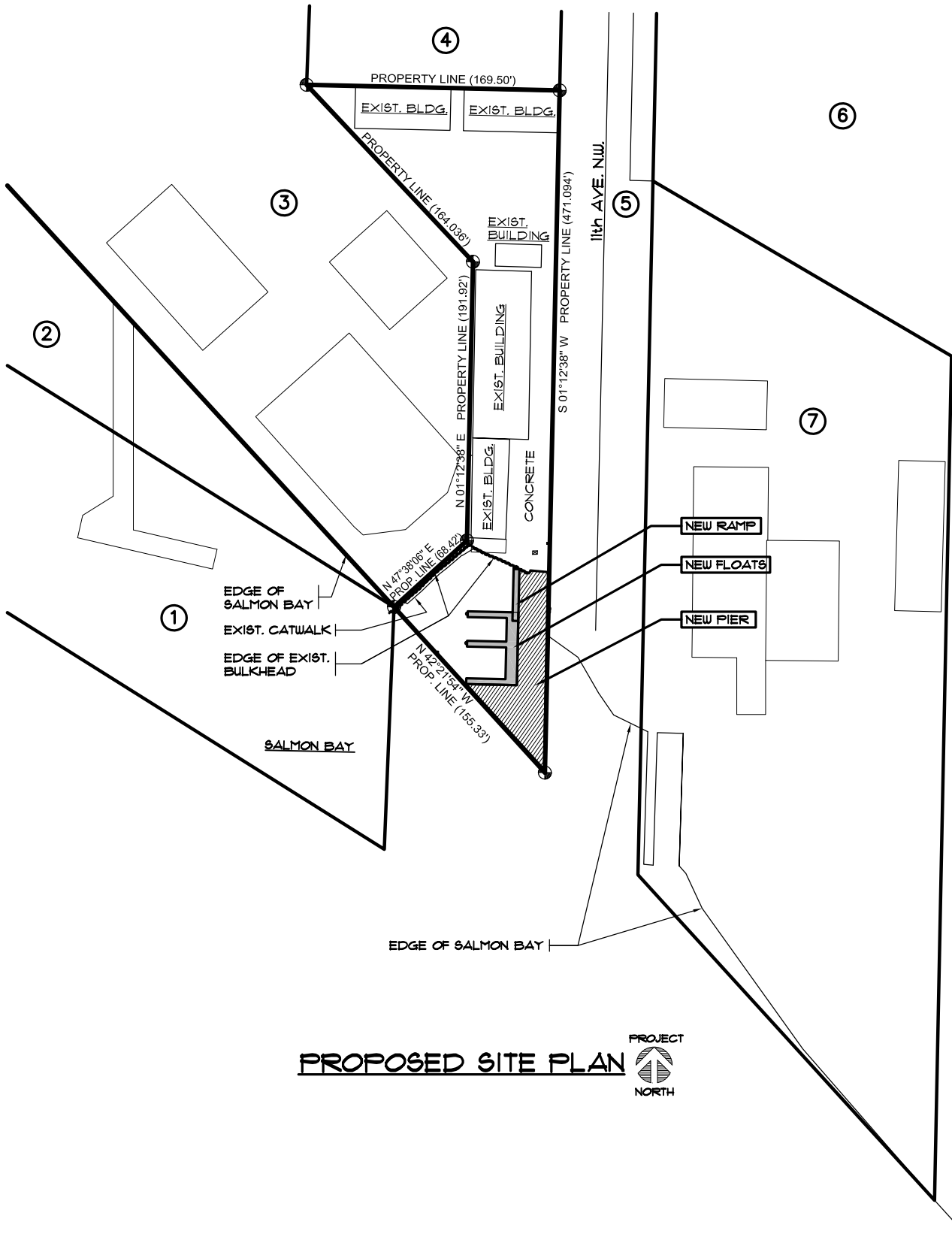
APPLICANT: O'HARA CORPORATION

MAIL ADD. MR. MAX SLUSHER
 WATERFRONT CONSTRUCTION, INC.
 205 N.E. NORTHLAKE WAY
 SUITE #230
 SEATTLE, WA. 98105

DATUM: COE (OHW = 21.85')

JOB No.: 13165.00 DATE: 12 JANUARY, 2021

PAGE: 1 OF 14



PROPOSED SITE PLAN

PROJECT NORTH

NOTE:

(X) ADJACENT PROPERTY OWNER LISTED ON SHEET 1

PROJECT NO: NWS-2015-478

| | | |
|---------------|--|------------------------|
| APPLICANT: | O'HARA CORPORATION | |
| PROJECT: | O'HARA CORP. PIER REPLACEMENT AND FLOAT CONST. | |
| PROPOSED: | REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS | |
| SITE ADDRESS: | 4315 11TH AVE N.W. SEATTLE, WA 98107 COUNTY: KING IN: SALMON BAY / SHIP CANAL | |
| JOB NO.: | 13165.00 | DATE: 12 JANUARY, 2021 |
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**TABLE:
EXISTING PIER AND FILE INFORMATION**

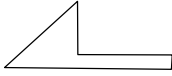
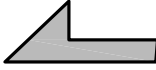


| LOCATION | EXISTING PIER AREA TO BE REMOVED | PILE TYPE | PILE SIZE | NUMBER OF PILES TO BE REMOVED |
|---|----------------------------------|-----------------------------|-------------------------------|-------------------------------|
| EXISTING PIER  | 2664 SF. | BEARING BATTER FENDER | 12"-14" 12"-14" 12"-14" | 41 2 19 |

TABLE: PIER AND FILE INFORMATION

| LOCATION | PIER AREA | OVER WATER COVERAGE | PILE TYPE | PILE SIZE | NUMBER | MIN. EMBED INTO BEARING SOIL |
|--|-----------|---------------------|-------------------|---------------------------|---------|------------------------------|
| PIER  | 3,170 SF. | 3,094 SF. | BEARING FENDER | 12" X-STRONG 12"φ WOOD | 35 9 | 5' - |
| FLOAT PIER  | 851 SF. | 851 SF. | GUIDE | 12" X-STRONG | 2 | 5' |
| DOLPHIN PILE  | | | DOLPHIN | (3) 18"φ x 25 | 1 | 5' |

NOTES:

1. 12" X-STRONG OUTSIDE DIAMETER = 12.8"
2. 18"φ OUTSIDE DIAMETER = 18"
3. AREAS INCLUDE OVERWATER COVERAGE MEASURED FROM OUTSIDE OF PIER
4. THE GEOTECHNICAL REPORT BY ASSOCIATED EARTH SCIENCE, INC. DATED NOVEMBER 17, 2015 STATES THAT BEARING SOIL WAS DISCOVERED AT 25 FEET AND 31 FEET BELOW THE MUDLINE AT THE TWO BORING LOCATION IN THE AREA OF THE NEW PILES.
5. THE PILES SHALL HAVE 5' MINIMUM EMBEDMENT INTO THE BEARING SOIL OR AS DETERMINE BY THE GEOTECHNICAL ENGINEERING

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ABOVE-WATER WORK

LAND BASED ACTIVITY NEEDED TO CONSTRUCT THE DOCK SHALL BE LOCATED AND MANAGED SO AS TO AVOID ANY IMPACTS TO NATURAL HABITAT, SOILS, AND/OR VEGETATION FOUND ALONG THE SHORELINE. THE CONTRACTOR SHALL STAGE AND OPERATE AS FAR FROM OHW AS POSSIBLE AND ONLY IN AREAS THAT ARE CURRENTLY PAVED OR MANAGED AS EXISTING PARKING.

TEMPORARY CONSTRUCTION STORMWATER CONTROL WILL BE ADDED AS NECESSARY TO STAGING AND OTHER WORKS AREAS TO PREVENT UNTREATED RUN OFF FROM ENTERING ANY WATER BODY.

ALL CONSTRUCTION EQUIPMENT, MATERIAL, AND SUPPLIES SHALL BE STORED USING APPROPRIATE METHODS TO PREVENT THE ENTRY OF DEBRIS AND WASTE MATERIAL INTO ANY WATER BODY.

IN-WATER WORK

ALL WORK BELOW AND WATERWARD OF THE EXISTING ORDINARY HIGH WATER (O.H.W. ELEV. = 18.60' NAVD 88) SHALL BE CONDUCTED DURING IN-WATER WORK CONSTRUCTION WINDOWS (OCT. 1st TO APRIL 15th) OR AS SPECIFIED IN US ARMY CORPS AND WDFW PERMITS.

CONSTRUCTION WATER QUALITY MONITORING AND PROTECTION:

WATER QUALITY MONITORING FOR TURBIDITY AND OIL SHEEN SHALL BE COMPLETED DURING PILE REMOVAL AND PILE INSTALLATION ACTIVITIES. WATER QUALITY MONITORING FOR PH SHALL BE COMPLETED DURING ALL USE OF FRESH CONCRETE.

A. TURBIDITY

1. TURBIDITY SHALL BE MEASURED EVERY FOUR HOURS WITHIN 150- FEET OF THE ACTIVE WORK AREA AND COMPARED TO A BACKGROUND SAMPLE COLLECTED IN A CLEAN, UNDISTURBED AREA WITHIN 300- FEET OF THE ACTIVE WORK AREA. WATERS SHALL ALSO BE VISUALLY INSPECTED CLOSER TO THE WORK AREA FOR ANY SIGNS OF TURBIDITY. IF TURBID CONDITIONS ARE NOTED THE PILE DRIVING CONTRACTOR SHALL BE NOTIFIED THAT OPERATIONS MAY NEED TO BE MODIFIED OR PAUSED SHOULD THE TURBIDITY CONTINUE TO SPREAD.

2. COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS WILL BE EXCEEDED IF THE WORK AREA SAMPLE IS 5 NTU OVER THE BACKGROUND SAMPLE WHERE THE BACKGROUND IS LESS THAN 50 NTU, OR 10 PERCENT ABOVE BACKGROUND WHERE THE BACKGROUND IS GREATER THAN 50 NTU.

B. OIL SHEEN

1. OIL SHEEN SHALL BE ASSESSED CONCURRENTLY WITH THE TURBIDITY MEASUREMENTS DESCRIBED ABOVE.

2. A VISUAL OBSERVATION SHALL BE MADE OF THE AREA SURROUNDING THE WORK TO IDENTIFY ANY EVIDENCE OF SHEEN. COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS WILL BE EXCEEDED IF VISIBLE SHEEN IS OBSERVED.

C. pH

1. pH SHALL BE MEASURED ADJACENT TO THE ACTIVE WORK AREA EVERY TWO HOURS DURING FRESH CONCRETE POURING AND AGAIN 2 HOURS AFTER WORK IS COMPLETE. SAMPLING SHALL CONTINUE ON A TWICE DAILY BASIS (IF NEEDED) UNTIL CONDITIONS ARE DOCUMENTED TO BE BELOW pH 8.5.

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| PROPOSED: | REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS | | |
| SITE ADDRESS: | 4315 11TH AVE N.W. SEATTLE, WA 98107 COUNTY: KING IN: SALMON BAY / SHIP CANAL | | |
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CONSTRUCTION WATER QUALITY MONITORING AND PROTECTION CONT.:

C. pH CONT.

2. COMPLIANCE WITH STATE WATER QUALITY REQUIREMENTS REQUIRES pH VALUES TO BE BETWEEN 6.5 AND 8.5, WITH A HUMAN-CAUSED VARIATION WITHIN THE ABOVE RANGE OF LESS THAN 0.2 UNITS.

D. CONTINGENCY MEASURES

IN THE EVENT ANY PARAMETER EXCEEDS THE COMPLIANCE VALUE WITHIN THE WORK AREA, CONTINGENCY MEASURES SHALL BE IMPLEMENTED TO INCLUDE IDENTIFICATION AND CORRECTION OF ALL POTENTIAL CONTRIBUTING FACTORS, AND NOTIFICATION TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY) AND CITY OF SEATTLE. ADDITIONAL BMP'S MAY NEED TO BE EVALUATED, ADJUSTED AND WORK MAY BE SLOWED OR TEMPORARILY PAUSED UNTIL THE NECESSARY MEASURES ARE TAKEN.

PILE REMOVAL, DISPOSAL, AND INSTALLATION:

THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPs) ARE ADAPTED FROM EPA PILE REMOVAL AND DISPOSAL BMPs (2007), WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) METHODS AND WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES (WA DNR) "STANDARD PRACTICE FOR THE USE AND REMOVAL OF TREATED WOOD AND PILINGs ON AND FROM STATE-OWNED AQUATIC LANDS." (2005). ADDITIONAL CONSERVATION MEASURES WILL BE INCLUDED IN PERMITS FOR THE PROJECT TO BE ISSUED BY THE CITY OF SEATTLE, ARMY CORPS OF ENGINEERS, AND WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE (WDFW).

THE PURPOSE OF THE FOLLOWING BMPs IS TO CONTROL TURBIDITY AND SEDIMENTS RE-ENTERING THE WATER COLUMN DURING PILE REMOVAL, AND PRESCRIBE DEBRIS CAPTURE AND DISPOSAL OF REMOVED PILES AND DEBRIS.

PILE REMOVAL

VIBRATORY EXTRACTION SHALL BE THE PREFERRED METHOD TO BE UTILIZED FOR PILE REMOVAL. AN OIL CONTAINMENT BOOM SHALL BE EMPLOYED COMPLETELY AROUND THE WORK AREA DURING THE CREOSOTE PILE REMOVAL ACTIVITIES. THE BOOM WILL SERVE TO COLLECT ANY FLOATING DEBRIS THAT MAY RESULT FROM PILE REMOVAL. OIL ABSORBENT MATERIALS SHALL BE EMPLOYED IF SHEEN IS OBSERVED. THE BOOM SHALL REMAIN IN PLACE UNTIL ALL OILY MATERIAL AND FLOATING DEBRIS HAVE BEEN COLLECTED AND SHEENS DISSIPATE. USED ABSORBENT MATERIALS SHALL BE DISPOSED IN AN APPROPRIATE UPLAND FACILITY.

A. VIBRATORY EXTRACTION

1. THE VIBRATORY EXTRACTION METHOD SHALL BE UTILIZED FOR PILE REMOVAL UNLESS THE PILE BREAKS.

2. THE VIBRATORY HAMMER IS A LARGE MECHANICAL DEVICE (5-16 TONS) THAT IS SUSPENDED FROM A CRANE BY A CABLE. THE HAMMER IS ACTIVATED TO LOOSEN THE PILING BY VIBRATING AS THE PILING IS PULLED UP. THE HAMMER IS SHUT OFF WHEN THE END OF THE PILING REACHES THE MUD LINE.

3. CRANE OPERATOR SHALL BE TRAINED TO REMOVE PILE SLOWLY. THIS WILL MINIMIZE TURBIDITY IN THE WATER COLUMN AS WELL AS SEDIMENT DISTURBANCE.

B. CLAMSHELL OR CHOKER REMOVAL

1. BROKEN AND DAMAGED PILINGs THAT CANNOT BE REMOVED WITH THE VIBRATORY HAMMER SHALL BE REMOVED WITH EITHER A CLAMSHELL BUCKET, OR CHOKER CHAIN.

2. A MAJOR CREOSOTE RELEASE TO THE ENVIRONMENT MAY OCCUR IF EQUIPMENT (BUCKET, STEEL CABLE, VIBRATORY HAMMER) PINCHES THE CREOSOTED PILING BELOW THE WATER LINE. THEREFORE, THE EXTRACTION EQUIPMENT MUST BE KEPT OUT OF THE WATER.

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PILE REMOVAL, DISPOSAL, AND INSTALLATION CONT.:

C. CUTTING

1. CUTTING SHALL BE IMPLEMENTED IF THE PILE BREAKS OFF AT OR NEAR THE EXISTING SUBSTRATE AND CANNOT BE REMOVED USING ANY OTHER MEANS.
2. BROKEN PILE SHALL BE CUT OFF BELOW THE MUD LINE.

D. FILL HOLES WITH GRAVEL . ANY HOLES LEFT IN THE SUBSTRATE AFTER REMOVAL OR CUTTING OF PILES SHALL BE FILLED TO THE ADJACENT GRADE WITH CLEAN SAND OR GRAVEL.

BARGE OPERATIONS, WORK SURFACE, CONTAINMENT

A. BARGE GROUNDING SHALL NOT BE PERMITTED.

B. WORK SURFACE ON BARGE DECK OR PIER SHALL INCLUDE A CONTAINMENT BASIN FOR PILE AND ANY SEDIMENT REMOVED DURING PULLING.

1. CONTAINMENT BASIN SHALL BE CONSTRUCTED OF DURABLE PLASTIC SHEETING OR OTHER IMPERVIOUS MATERIAL WITH SIDEWALLS SUPPORTED BY HAY BALES OR SUPPORT STRUCTURE TO CONTAIN ALL SEDIMENT. CLEAN WATER RUN OFF CAN RETURN TO THE LAKE.

2. WORK SURFACE ON BARGE DECK SHALL BE CLEANED BY DISPOSING OF SEDIMENT OR OTHER RESIDUES ALONG WITH CUT OFF PILING AS DESCRIBED IN DISPOSAL OF PILING, SEDIMENT AND CONSTRUCTION RESIDUE BELOW.

3. CONTAINMENT BASIN SHALL BE REMOVED AND DISPOSED IN ACCORDANCE WITH SECTION BELOW OR IN ANOTHER MANNER COMPLYING WITH APPLICABLE FEDERAL AND STATE REGULATIONS.

4. UPON REMOVAL FROM SUBSTRATE THE PILE SHALL BE MOVED EXPEDITIOUSLY FROM THE WATER INTO THE CONTAINMENT BASIN. THE PILE SHALL NOT BE SHAKEN, HOSED-OFF, LEFT HANGING TO DRIP OR ANY OTHER ACTION INTENDED TO CLEAN OR REMOVE ADHERING MATERIAL FROM THE PILE.

DISPOSAL OF PILING, SEDIMENT AND CONSTRUCTION RESIDUE

A. PULLED PILES SHALL BE PLACED IN A CONTAINMENT BASIN ON THE BARGE OR ON LAND TO CAPTURE ANY ADHERING SEDIMENT. THIS SHALL BE DONE IMMEDIATELY AFTER THE PILE IS INITIALLY REMOVED FROM THE WATER.

B. PILING SHALL BE CUT INTO 4-FOOT LENGTHS WITH STANDARD CHAINSAW. ALL SAWDUST AND CUTTINGS SHALL BE CONTAINED.

C. CUT UP PILING, SEDIMENTS, CONSTRUCTION RESIDUE AND PLASTIC SHEETING FROM CONTAINMENT BASIN SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.

DEBRIS CAPTURE IN WATER

A. A FLOATING SURFACE BOOM SHALL BE INSTALLED TO CAPTURE FLOATING SURFACE DEBRIS. DEBRIS SHALL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.

B. THE FLOATING SURFACE BOOM SHALL BE EQUIPPED WITH ABSORBENT PADS TO CONTAIN ANY OIL SHEENS. ABSORBENT PADS ARE TO BE DISPOSED OF IN ACCORDANCE WITH ALL STATE AND LOCAL LAWS.

RE-SUSPENSION/TURBIDITY

A. CRANE OPERATOR SHALL REMOVE PILE FROM SEDIMENT SLOWLY.

B. REMOVED PILES SHALL BE PLACED IN A CONTAINMENT FACILITY.

C. SEDIMENTS SPILLED ON WORK SURFACES SHALL BE CONTAINED AND DISPOSED OF WITH THE PILE DEBRIS AT PERMITTED UPLAND DISPOSAL SITE.

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PILE REMOVAL, DISPOSAL, AND INSTALLATION CONT.:

PROJECT OVERSIGHT

THE CONTRACTOR SHALL HAVE A PROJECT MANAGER OR OTHER ASSIGNED PERSONNEL ON SITE. OVERSIGHT RESPONSIBILITIES SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

- A. WATER QUALITY MONITORING TO ENSURE TURBIDITY LEVELS REMAIN WITHIN REQUIRED PARAMETERS.
- B. ENSURE WORK FOLLOWS BMPs.
- C. ENSURE WORK IS IN COMPLIANCE WITH CONTRACT AND PERMIT REQUIREMENTS.
- D. ENSURE CORRECT STRUCTURES ARE REMOVED.
- E. MAINTAIN CONTACT WITH REGULATORY AGENCIES SHOULD ISSUES OR EMERGENCIES ARISE AND FULFILL REPORTING REQUIREMENTS OF PROJECT PERMITS.

PILE DRIVING

PILES SHALL BE INSTALLED WITH A VIBRATORY HAMMER TO THE MAXIMUM EXTENT POSSIBLE, WITH LIMITED IMPACT PILE DRIVING AS NECESSARY TO INSTALL INTO VERY DENSE SOILS OR TO PROOF THE PILES. IF IMPACT PILE DRIVING IS REQUIRED, A SOUND ATTENUATION DEVICE SUCH AS A 6-INCH THICK BLOCK OF WOOD BETWEEN THE PILE AND THE PILE DRIVER AND/OR UTILIZATION OF A BUBBLE CURTAIN AROUND THE PILE BEING INSTALLED SHALL BE EMPLOYED. OTHER METHODS TO BE REQUIRED BY NOAA/NMFS MAY BE REQUIRED AS PART OF THE CORPS PERMIT.

CONCRETE CONTAINMENT:

- A. WATER QUALITY MONITORING FOR pH SHALL BE COMPLETED DURING ALL USE OF FRESH CONCRETE.
- B. CONCRETE CONTAINMENT SYSTEMS SHALL BE REVIEWED BY THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
- C. NO CONCRETE SHALL BE POURED BELOW THE O.H.W. ALL FRESH CONCRETE WORK SHALL BE ISOLATED FROM CONTACT WITH RAINFALL OR RUNOFF. IMPERVIOUS BARRIERS SHALL BE UTILIZED AS NECESSARY TO PREVENT ANY SPILLAGE FROM REACHING THE SHIP CANAL. CONCRETE TRUCKS SHALL BE STAGED ON THE ADJACENT SHORELINE OR AN AREA OF THE NEW DOCK WHERE SPILLAGE CAN BE CONTAINED. NEW CONCRETE SHALL BE COVERED IN THE CASE OF INCLEMENT WEATHER TO PREVENT RAIN FROM CONTACTING FRESH CEMENT WITHIN THE FIRST SEVEN (7) DAYS FOLLOWING PLACEMENT.
- D. FOR TOOLS AND/OR EQUIPMENT CLEANUP ONSITE, A TEMPORARY SUMP, ECO-PANS, OR OTHER METHOD DESIGNED TO PREVENT RELEASE OF CONTAMINATED WATER OR SLURRIES TO SURFACE WATER SHALL BE IMPLEMENTED.
- E. REMOVE MATERIAL FROM SUMP AFTER CLEANUP IS COMPLETE. WATER AND SLURRIES FROM THE SUMP SHALL BE DISPOSED OF OFF-SITE.
- F. CONTAIN AND REMOVE ANY EXCESS MATERIALS, SUCH AS CHEMICALS AND/OR CONCRETE.

FORMING OVER-WATER CONCRETE DECK STRUCTURES:

CONCRETE POUR

- A. PLACE CONCRETE WITH PUMP TRUCK/LINE PUMP
- B. ENSURE THERE ARE ENOUGH PERSONNEL TO CONTROL THE CONCRETE HOSE(S) DURING CONCRETE PLACEMENT.
- C. POSITION PERSONNEL UNDER THE PIER TO WATCH FOR ANY WATER OR CONCRETE LEAKAGE.
- D. DEPLOY SOAKING PADS IF REQUIRED TO SOAK UP ANY WATER FROM CONCRETE POURING OPERATIONS.
- E. EMPTY AND CLEANOUT HOSES ON DRY LAND AND DISPOSE OF EXCESS CONCRETE TO APPROVED WASTE SITE.

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| PROPOSED: | REPLACE DETERIORATED PIER AND CONSTRUCT NEW FLOATS | | |
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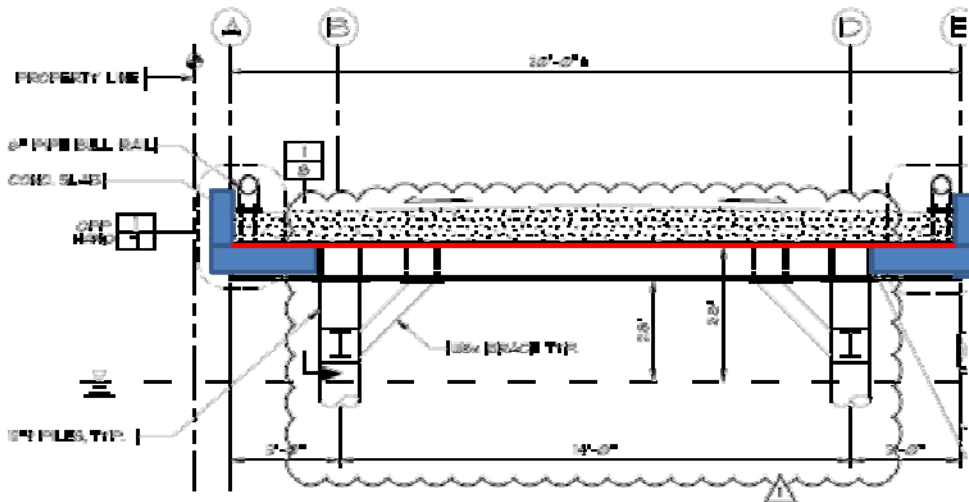
FORMING OVER-WATER CONCRETE DECK STRUCTURES CONT.:

CONCRETE DECK (RED)

- A. FORM AND BRACE DECK PLYWOOD TIGHT THE STRUCTURAL STEEL MEMBERS.
- B. TAPE JOINTS BETWEEN PLYWOOD PANELS WITH WATERPROOF TAPE .
- C. SEAL PLYWOOD DECK PANEL JOINTS TO STRUCTURAL STEEL WITH FOAM SEALANT.

CONCRETE DECK EDGE FORMS (BLUE)

- A. FORM CONCRETE DECK EDGE 6" +/- ABOVE TOP OF DECK TO PREVENT SPILLAGE DURING CONCRETE POUR.
- B. BRACE EDGE FORM TIGHTLY TO STRUCTURAL STEEL MEMBERS TO PREVENT MOVEMENT DURING CONCRETE POUR.
- C. SEAL VERTICAL AND HORIZONTAL EDGE JOINTS WITH SEALANT± INSTALL 1"X1" CHAMFERS.



PIER SECTION 3 SCALE: 3/8\"/>

CAST-IN PLACE CONCRETE DECK FORMING

IN-WATER EXCAVATION DREDGING:

- A. NO DREDGING OR OTHER SIGNIFICANT DISTURBANCE OF IN-WATER SEDIMENT SHALL TAKE PLACE FOR THIS PROJECT.
- B. DISTURBANCE TO SUBMERGED SEDIMENT SHALL ONLY OCCUR WITHIN A SMALL AREA AROUND EACH PILE TO BE ADDED/REMOVED, AND AS NEEDED TO REMOVE IN-WATER TRASH AND OTHER DEBRIS ASSOCIATED WITH THE MITIGATION EFFORTS.

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FUTURE OPERATIONS - HABITAT AND WATER QUALITY PROTECTION:

MANAGEMENT OF BILGE WATER DISCHARGES

- A. NO BILGE, BALLAST, OR ANY OTHER WATER WILL BE DISCHARGED FROM ANY VESSEL MOORED AT THE O'HARA FACILITY WITHOUT FIRST CHECKING FOR POTENTIAL CONTAMINATION.
- B. COLLECT AND PROPERLY DISPOSE OF ALL CONTAMINATED WATER PER METHODS ALLOWED BY ECOLOGY. THIS WILL GENERALLY REQUIRE THAT THE VESSEL OWNER CONTACTS A SERVICE PROVIDER TO DISPOSE OF CONTAMINATED PRODUCTS, INCLUDING BILGE WATER, IN AN APPROPRIATE MANNER.
- C. VESSELS MOORED AT THE O'HARA FACILITY SHALL BE MAINTAINED SO TO PREVENT OIL CONTAMINATION OF BILGE WATER TO THE GREATEST EXTENT POSSIBLE.
- D. OIL SOAKED ABSORBENTS SHALL BE DISPOSED OF WHEN ALL LIQUIDS ARE FULLY ABSORBED. USED ABSORBENTS SHALL BE PROPERLY SEALED/PACKAGED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS.

USED OIL

USED OIL AND OIL FILTERS SHALL BE REMOVED AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

SEWAGE MANAGEMENT AND GRAY WATER

DISCHARGE OF SEWAGE OR GRAY WATER INTO THE SHIP CANAL (OR ANY STATE WATERS) IS PROHIBITED.

BUNKERING PROCEDURES

- A. THE STANDARD ECOLOGY BUNKER PRE-LOADING PLAN (MEETING WAC 317-40 STANDARDS) SHALL BE FILLED OUT FOR ALL BUNKERING ACTIONS. THE PLAN INCLUDES IDENTITY AND 100% CAPACITY OF ALL TANKS, PROCESS FOR MEASURING FUEL REQUIREMENTS PRIOR TO BUNKERING, TANK FILL SEQUENCE, PERSONNEL REQUIREMENTS AND RESPONSIBILITIES, COMMUNICATION METHODS, STANDARD PROCEDURES, AND EMERGENCY PROCEDURES.
- B. TWO-WAY COMMUNICATION WITH AGREED UPON BACK-UP PROCEDURES SHALL BE ESTABLISHED PRIOR TO ANY FUEL TRANSFER.
- C. ALL FUEL TRANSFER EQUIPMENT SHALL BE INSPECTED BEFORE TRANSFER AND A WRITTEN DECLARATION OF INSPECTION RECORDED IN THE LOG AND SIGNED BY BOTH THE VESSEL MANAGER AND THE PERSON-IN-CHARGE OF FUEL DELIVERY.
- D. EXPECTED FUEL REQUIREMENTS, TOP-OFF, EMERGENCY SHUTDOWN, AND POST-BUNKERING HOSE DISCONNECTION PROCEDURE SHALL BE DISCUSSED PRIOR TO DELIVERY.
- E. TWO-WAY COMMUNICATION SHALL BE MAINTAINED THROUGHOUT DELIVERY WITH NOTIFICATION BEFORE CHANGING TANKS AND TOPPING OFF.
- F. FUEL TANK LEVELS SHALL BE DIRECTLY INSPECTED ONE OR MORE TIMES DURING FUELING TO VERIFY REMOTE GAGES ARE FUNCTIONING ACCURATELY.
- G. A PRE-ESTABLISHED POST-BUNKERING HOSE DISCONNECTION PROCEDURE SHALL BE FOLLOWED TO ENSURE CONTAINMENT OF ALL FUEL IN THE HOSES, VALVES, MANIFOLDS, AND FLANGES.
- H. ALL FUEL TANKS SHALL BE INSPECTED POST-FUELING TO ENSURE AMPLE ROOM FOR EXPANSION. ALL HOSE CONNECTION POINTS, VALVES, MANIFOLDS, AND FLANGES SHALL BE INSPECTED POST-FUELING FOR SIGNS OF LEAKAGE. ANY LEAKAGE SHALL BE CLEANED UP PROMPTLY AND LOGGED. ACTIONS SHALL BE TAKEN AS NECESSARY TO AVOID LEAKAGE IN THE FUTURE.
- I. ALL LOGS SHALL BE PROPERLY COMPLETED POST-FUELING TO DOCUMENT THE TRANSFER.

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FUTURE OPERATIONS - HABITAT AND WATER QUALITY PROTECTION CONT.:

MANAGEMENT OF HAZARDOUS CHEMICALS, CLEANERS AND WASTES

- A. HAZARDOUS OR FLAMMABLE CHEMICAL MATERIALS, GAS CYLINDERS, AND BATTERIES SHALL BE PROPERLY STORED AT IDENTIFIED STORAGE LOCATIONS USING APPROPRIATE PROCEDURES.
- B. HAZARDOUS MATERIALS OR CHEMICALS SHALL BE STORED ON THE VESSEL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS, RULES, ORDINANCES AND REGULATIONS.
- C. THE DISPOSAL OF USED OIL, ANTIFREEZE, PAINTS, SOLVENTS, VARNISHES, GAS CYLINDERS, PRESERVATIVES AND BATTERIES IN THE GARBAGE IS PROHIBITED.
- D. CLEAR AND CONTAIN ANY DEBRIS, TRASH, SANDING DUST, PAINT CHIPS, SLAG, ETC., FROM ALL WORK AREAS AS SOON AS PRACTICAL AFTER ANY MAINTENANCE OR REPAIR ACTIVITY. DO NOT WASH ANY MATERIAL INTO THE WATER OR STORM DRAINS.
- E. NO DRUMS OR CONTAINERS OF HAZARDOUS MATERIALS, AND NO EMPTY DRUMS OR ANY OTHER HAZARDOUS MATERIAL CONTAINERS ARE ALLOWED ON THE DOCK UNLESS ITEMS ARE IN ACTIVE TRANSPORT. NO GAS CYLINDERS ARE ALLOWED ON THE DOCK UNLESS IN TRANSPORT OR IN ACTIVE USE.

SPILL PREVENTION AND RESPONSE

- A. SUFFICIENT ABSORBENT MATERIALS AND SPILL CONTAINMENT INSTRUMENTS TO CONFINE A SPILL MUST BE CARRIED ABOARD EACH VESSEL PER LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- B. IF A SPILL INTO THE WATER OCCURS, STOPPING AND CONTAINING THE SPILL OR LEAKAGE SOURCE SHALL BE THE FIRST PRIORITY. SPILLS INTO THE WATER SHALL BE IMMEDIATELY REPORTED TO THE U.S. COAST GUARD NATIONAL RESPONSE CENTER AT 1-800-424-8802± THE DEPARTMENT OF ECOLOGY AT 1-800-OILS-911OR 1-800-258-5990± AND THE PORT OF SEATTLE MARINE OPERATIONS OFFICE 728-3642.
- C. SPILLS ON THE DOCK OR A VESSEL SHALL BE IMMEDIATELY CLEANED UP. WASTES SHALL BE DISPOSED OF ACCORDING TO LOCAL, STATE, AND FEDERAL REQUIREMENTS.

VESSEL REPAIR AND PIER ACTIVITY

- A. REPAIRS, MODIFICATION, SURFACE PREPARATION, OR COATING AS DEFINED BY ECOLOGY, ARE LIMITED TO 25 PERCENT OF THE VESSEL'S DECK SURFACE AND SUPERSTRUCTURE PER YEAR. HULL WORK SHALL CONFORM TO ALL ECOLOGY REQUIREMENTS. MORE EXTENSIVE VESSEL REPAIR WORK, AND ALL BOTTOM CLEANING SHALL OCCUR IN A COMMERCIALY PERMITTED BOATYARD OR SHIPYARD.
- B. ANY PAINTING, SCRAPING AND REFINISHING SHALL BE CONTAINED UTILIZING APPROPRIATE BEST MANAGEMENT PRACTICES. ALL DEBRIS SHALL BE COLLECTED AND DISPOSED OF PER MATERIAL HANDLING GUIDELINES. ALL PAINT MIXING SHALL BE DONE WITH THE CAN PLACED INSIDE CONTAINMENT THAT WILL CATCH SPILLAGE. TARPING OR OTHER ADEQUATE CONTAINMENT OF THE WORK AREA SHALL BE UTILIZED TO PREVENT ANY RELEASE OF SANDING DEBRIS OR PAINT TO THE ENVIRONMENT. ALL COLLECTED DEBRIS AND MATERIALS MUST BE CLEANED UP REGULARLY TO PREVENT THEIR RELEASE.
- C. PAINT AND SOLVENT MIXING, FUEL MIXING, AND SIMILAR HANDLING OF LIQUIDS SHALL TAKE PLACE IN A CONTAINED LOCATION SO THAT NOTHING CAN SPILL DIRECTLY INTO THE WATER.

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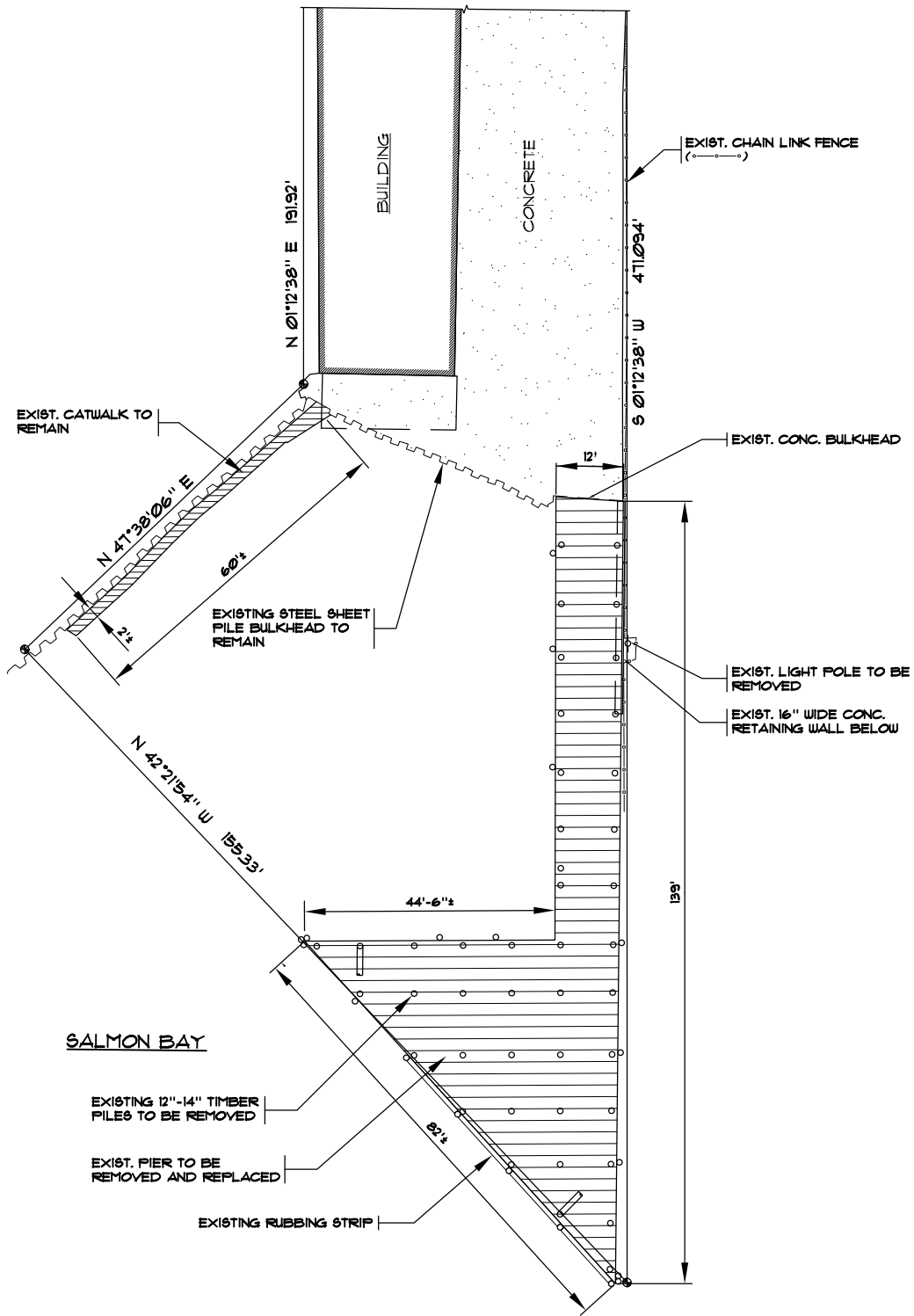
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FUTURE OPERATIONS - HABITAT AND WATER QUALITY PROTECTION CONT.:

ALL VESSEL REPAIR OR VEHICLE REPAIR OR MAINTENANCE, VEHICLE OR EQUIPMENT WASHING, AND STORAGE OF EQUIPMENT AND SUPPLIES SHALL ONLY BE ALLOWED IF COMPLETE CONTAINMENT FOR THESE ACTIVITIES IS PROVIDED AND ALL DISCHARGES ARE HAULED AND DISPOSED OF AT AN APPROPRIATE FACILITY OR DISCHARGED UNDER A PRE-APPROVED KING COUNTY SEWER DISCHARGE PERMIT. THESE ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. BOTH THE CITY OF SEATTLE AND ECOLOGY PROHIBIT THE DISCHARGE FROM VEHICLE MAINTENANCE OR REPAIR, VEHICLE OR EQUIPMENT WASHING, STORAGE OF EQUIPMENT, SUPPLIES, ETC. TO THE STORM SYSTEM. NO MATERIALS SUCH AS PAINTS, THINNERS, OILS, ETC. SHALL BE STORED ON ANY PIER.

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SALMON BAY

EXISTING 12"-14" TIMBER
FILES TO BE REMOVED

EXIST. PIER TO BE
REMOVED AND REPLACED

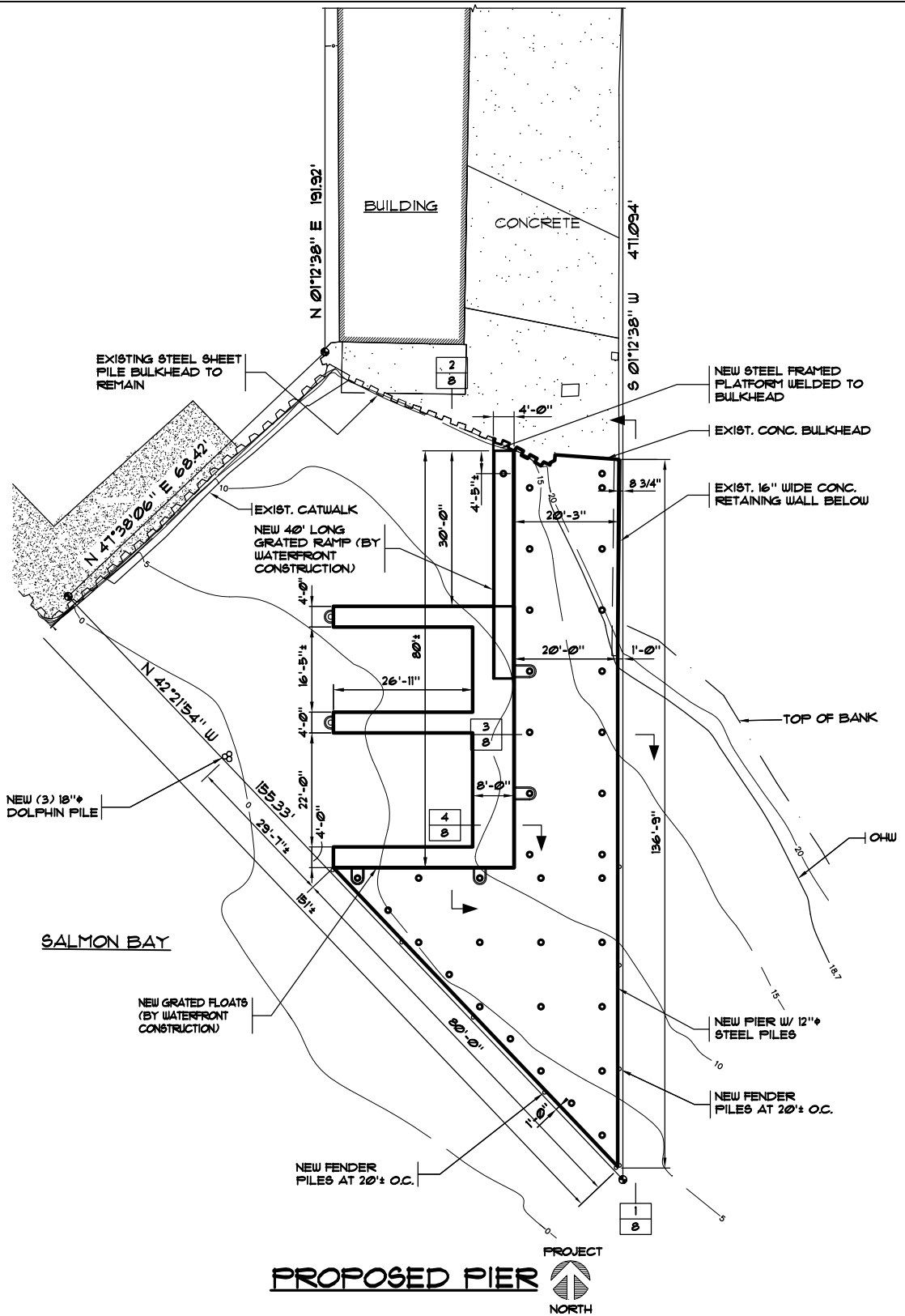
EXISTING RUBBING STRIP

EXISTING PIER



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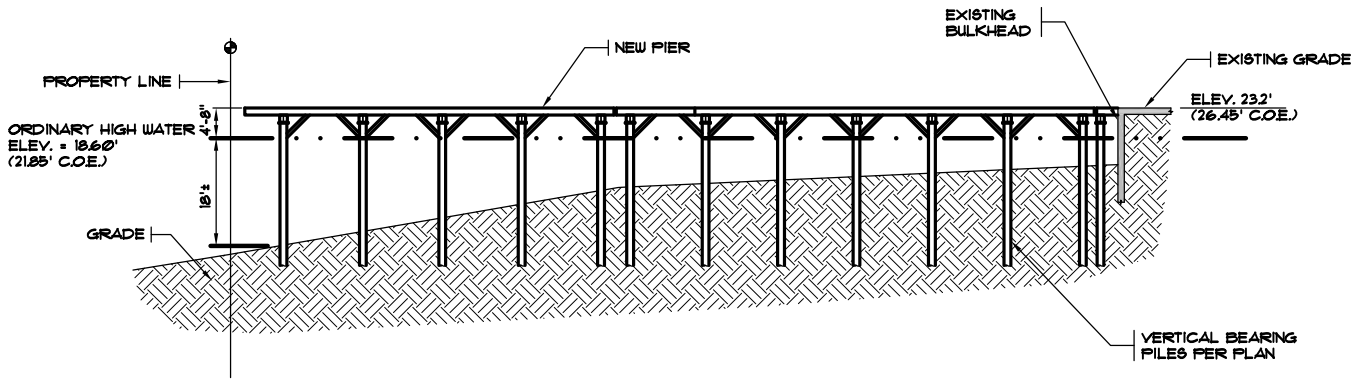
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PROJECT
PROPOSED PIER
 NORTH

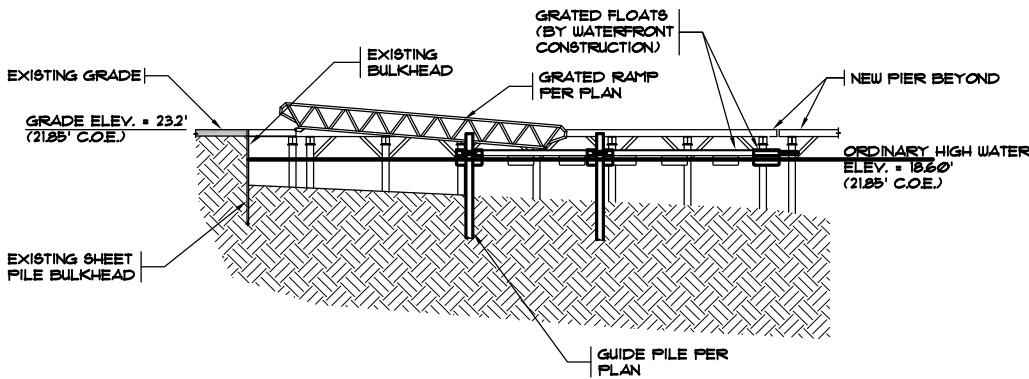
| KEY | |
|------------|---|
| XX | LAKE UNION LAKE BED ELEVATION FROM CHADWICK & WINTERS TOPOGRAPHIC SURVEY - DATUM NAVD88 |
| — | EXISTING BULKHEAD |
| XX | PROPERTY LINE |
| o | VERTICAL BEARING PILE |
| o | FENDER PILE |
| ⊙ | GUIDE PILE |

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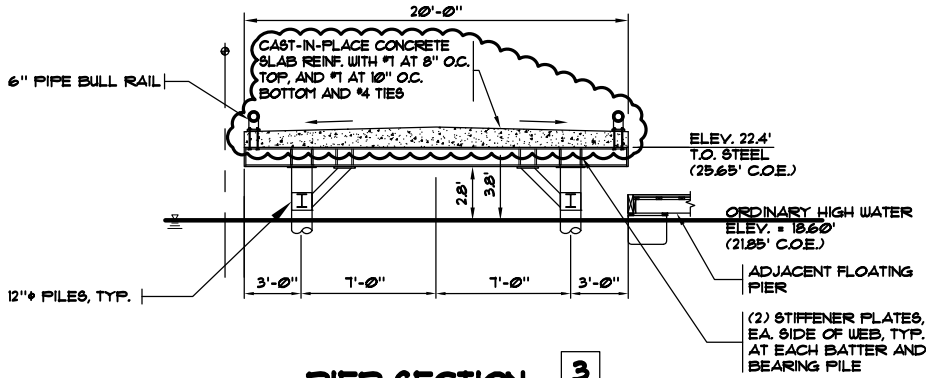


PIER ELEVATION 1

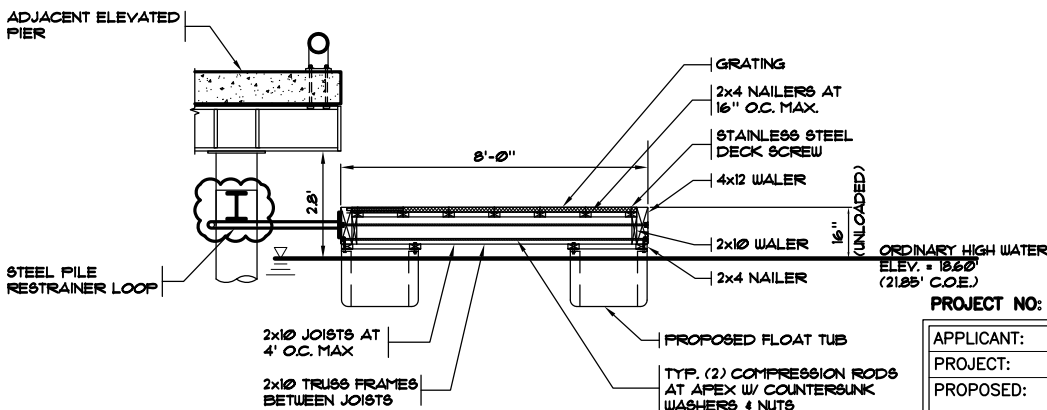
NOTE: FENDER PILES NOT SHOWN FOR CLARITY



FLOAT PIER ELEVATION 2



PIER SECTION 3



FLOAT PIER SECTION 4

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