US Army Corps of Engineers
Portland District

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Joint Public Notice

Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

US Army Corps of Engineers
Regulatory Branch
Post Office Box 2946
Portland, OR 97208-2946
Telephone (503) 808-4386
Attn: Tom Taylor, Project Manager

WA Department of Ecology
SEA Program
Post Office Box 47600
Olympia, WA 98504-7600
Telephone (360) 407-6068
Attn: SEA Program, Federal Permit Coordinator

Public Notice Date: March 14, 2013
Expiration Date: **April 15, 2013**

Reference No.: NWP-2007-916-1
Name: Port of Vancouver

Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the United States as described below and shown on the enclosed drawings.

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

APPLICANT: Port of Vancouver, USA, 3103 Lower River Road, Vancouver, WA 98660

LOCATION: The project is located in and adjacent to the Columbia River, River Miles 103.5 to 105.5, near Vancouver, Clark County, Washington, in sections 19, 20, 28 and 29, Township 2 North, Range 1 East.

PROJECT DESCRIPTION: The Port currently is authorized to conduct maintenance dredging, known as Phase 1, at its marine facilities, including the Grain Terminal and Berths 1, 2, 4, 5, 7, 8, 9, 10, 13, and 14. This dredging was previously authorized by U.S. Army Corps of Engineers (USACE) Permit NWP-2007-916, valid January 2009 through February 2019. The current project warrants renewal of the existing Washington State Department of Ecology, CWA Section 401 Water Quality Certificate and the Department of Fish and Wildlife (WDFW) Hydraulic Project Approval that expire in October 2013 and December of 2013, respectively.

The Port is proposing the following modifications to the existing project with respect to dredging and placement methods:

● **Modify Dredge Depths at Berths 1 and 5 (Terminal 2) and Berths 10 and 13 (Terminal 4).** The Port will deepen Berths 1 and 5 and Berths 10, 13, and 14 at Terminal 4 (known as Phase 2) to an authorized depth of -43+2 feet (ft.) advance dredging and allowable overdredging Columbia River Datum (CRD) from the current maintenance a depth of -40+2 ft. CRD.

The ongoing maintenance of these berths to the newly authorized depth of -43+2 will continue as necessary. The total annual volume of dredge material generated from the deepening and ongoing maintenance of the Port's marine terminal berths (both Phase 1 and Phase 2) will continue to be a maximum of 50,000 cubic yards (CY) annually as currently permitted.

● **Adjust the dredging location at Berth 10.** The Port will dredge the slope adjacent to the north and west sides of and beneath Berth 10 to remove accumulated sediment that could potentially interfere with the existing floating dock. This area is located between the previously planned dredge limits and the shoreline.

● **Clarify that hydraulic dredging may be used at Berth 10.** Although the Port is currently authorized to use a clamshell bucket or a long-arm excavator as its preferred dredging technology, the dredging method at Berth 10 may include hydraulic dredging. This modification is because of the difficulty of accessing the accumulated sediment beneath the Berth 10 dock.

● **Verify placement site locations.** In addition to the currently authorized use of upland placement sites Parcel 1A, Parcel 3, and Parcel 8, the Port may use Terminal 5 West for potential dredge material placement.

● **Potentially change the permitted in-water work window:** Although currently authorized to conduct in-water work between November 1 and February 28th, the Port will conduct in-water work within the window currently authorized by the state and federal agencies with regulatory jurisdiction.

● **Extend work hours to allow night time activities:** Due to possible schedule limitations that could result from a modified in-water work window period, dredging operations could include night shifts when necessary.

As currently authorized, approximately 21.3 acres of berthing area will be affected by this modified project. The majority of the dredging will take place at least 50 feet from shore and in water depths between -30 feet and -45 feet CRD.

As currently authorized, dredging will be performed mechanically from the water. Sediments dredged using mechanical methods will be placed on a barge, dewatered through barge scuppers and offloaded at Berth 4, Berth 9 and/or Berth 10. The material then will be trucked to a permitted placement site.

Sediments dredged using hydraulic methods will be pumped upland to a constructed dewatering containment near the dredge site for dewatering. The dewatering containment area will be constructed of ecology blocks and filter fabric, and will be approximately 1 to 2 acres in size. Drainage will be captured and sediments will be allowed to settle out before the water is released through a weir and discharged to the river.

Best Management Practices

The following Best Management Practices (BMPs) and conservation measures will be implemented to minimize environmental impacts during dredging:

● Dredged material aboard the barge will be observed daily for the presence of juvenile salmonids to ensure that they are not being impinged by the clamshell. If impingement is occurring, crane operations will be adjusted (slowed) to increase opportunity for juveniles to avoid the bucket.
● Turbidity and other water quality parameters will be monitored to ensure construction activities are in compliance with Washington State Surface Water Quality Standards (1730201A WAC), or other conditions as specified in the Water Quality Certificate (WQC).
● Appropriate BMPs will be employed to minimize sediment loss and turbidity generation during dredging, including the following:
o Eliminating multiple bites while the bucket is on the bottom
o Not stockpiling dredged material on the riverbed
o Maintaining suction head at the river bed to the extent practicable
● Depending on the results of the water quality monitoring program, enhanced BMPs may also be implemented as follows:
o Slowing the velocity (i.e., cycle time) of the ascending loaded clamshell bucket through the water column
o Pausing the dredge bucket near the bottom while descending and near the water line while ascending
o Placing filter material over the barge scuppers to clear return water
● The barge will be managed such that the dredged sediment load does not exceed the capacity of the barge. The load will be placed in the barge to maintain an even keel and avoid listing. If determined to be necessary based on sediment sampling results, hay bales and/or filter fabric may be placed over the barge scuppers to help filter suspended sediment from the barge effluent.

Hazmat/SPCC BMPs

● Dredge vessel personnel will be trained in hazardous material handling and spill response, and will be equipped with appropriate response tools, including adsorbent oil booms. If a spill occurs, spill cleanup and containment efforts will begin immediately and will take precedence over normal work.
● The dredging contractor shall be responsible for the preparation of a Spill, Prevention, Control, and Countermeasure (SPCC) Plan to be used for the duration of the project. The plan shall be submitted to the Project Engineer prior to the commencement of any construction activities. A copy of the plan with any updates will be maintained at the work site by the contractor. Elements of the SPCC shall include:
o The SPCC Plan shall identify construction planning elements and recognize potential spill sources at the site. The SPCC Plan shall outline responsive actions in the event of a spill or release and shall describe notification and reporting procedures. The SPCC Plan shall outline contractor management elements such as personnel responsibilities, project site security, site inspections, and training.
o The SPCC Plan will outline what measures shall be taken by the contractor to prevent the release or spread of hazardous materials, either found on site and encountered during construction but not identified in contract documents, or any hazardous materials that the contractor stores, uses, or generates on the construction site during construction activities. These items include, but are not limited to, gasoline, oils, and chemicals. Hazardous materials are defined in RCW 70.105.010 under “hazardous substance”.
o The contractor shall maintain, at the job site, the applicable equipment and material designated in the SPCC Plan.

Transport and Placement Site BMPs

● The contractor will be required to use a tightly sealing rehandling bucket and to monitor for spillage during transfer operations.
● Visual water quality monitoring and, if necessary, follow-up measurements will be conducted around the barge at the removal and upland transfer area to confirm that material is not being released.
● If stockpiling of dredged material becomes necessary, BMPs will be employed as appropriate to control runoff and erosion, including: (1) installing silt fences, hay bales, and/or containment berms, (2) managing runoff and elutriate water, and (3) routinely inspecting the stockpile areas to ensure BMPs are functioning properly.

The sediment quality of the dredged material proposed to be removed as part of this project will be confirmed based on implementation of a Sampling and Analysis Plan (SAP) that was prepared in accordance with Sediment Evaluation Framework for the Pacific Northwest guidelines dated September 20, 2011 (Revised August 9, 2012). The SAP has been conditionally approved.

MITIGATION: There is no mitigation proposed for this project.

PURPOSE: The purpose of the project is to maintain berthing depths to allow cargo vessels to safely access and moor at the Port of Vancouver Terminals. Such depths would be commensurate with the authorized navigation depth of -43 +2 CRD in the federal channel.

ADDITIONAL INFORMATION: Additional information may be obtained from Mr. Tom Taylor, Project Manager, U.S. Army Corps of Engineers at 503-808-4386 or e-mail thomas.j.taylor@usace.army.mil

ENDANGERED SPECIES: Preliminary determinations indicate that the proposed activity may affect endangered or threatened species or their critical habitat. Consultation under Section 7 of the Endangered Species Act of 1973 (87 Stat. 844) has been reinitiated with the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). A permit for the proposed activity will not be issued until the consultation process is completed.

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 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 NMFS.

CULTURAL RESOURCES: Under the original permit (NWP-2007-916), the Corps coordinated with Native American Indian Tribes and the Washington Department of Archeology and Historic Preservation for all dredge placement sites and berths proposed for dredging herein, except Terminal 5 West and Berth 3. The described activities at the Terminal 5 West and Berth 3 sites are not located on property registered or eligible for registration in the latest published version of the National Register of Historic Places. The Corps has notified interested Native American Indian Tribes and other interested parties. If you have information pertaining to cultural resources within the permit area, please provide this information to the Corps project manager (identified on the previous page of this notice) to assist in a complete evaluation of potential affects.

ADDITIONAL REQUIREMENTS**:** State law requires that leases, easements, or permits be obtained for certain works or activity in the described waters. These State requirements must be met, where applicable, and a Department of the Army permit must be obtained before any work within the applicable Statutory Authority, previously indicated, may be accomplished. Other local governmental agencies may also have ordinances or requirements, which must be satisfied before the work is accomplished.

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.

EVALUATION – CORPS - 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 Corps 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.

EVALUATION—ECOLOGY: Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to recertify or deny certification for the proposed project.

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 it would be in the public interest to authorize this proposal. 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. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commentor's name, address, and phone number. 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.

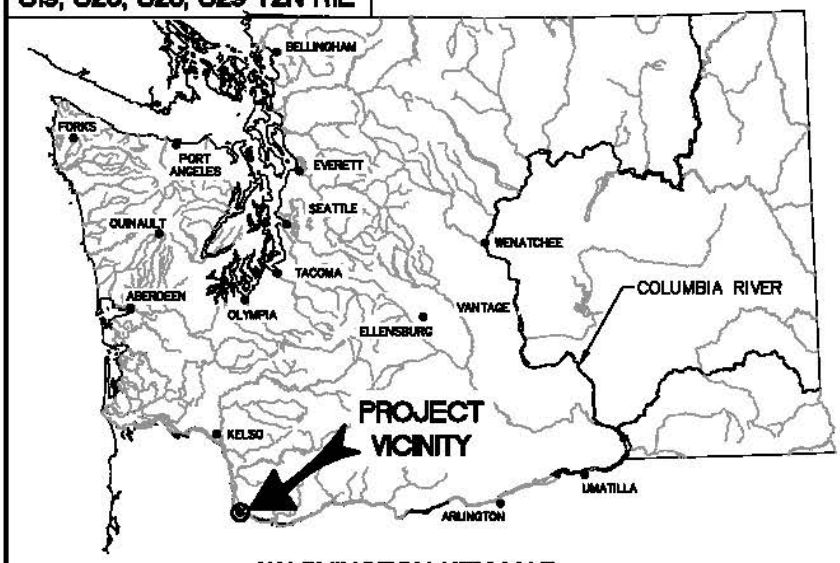
CORPS COMMENTS: All e-mail comments should be sent to thomas.j.taylor@usace.army.mil. Conventional mail comments should be sent to U.S. Army Corps of Engineers, Regulatory Branch, Attn: Tom Taylor, Post Office Box 2946, Portland, OR 97208-2946

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA may do so by submitting written comments to the following address: Department of Ecology, Attn: SEA program – Federal Permit Coordinator, P.O. Box 47600, Olympia, Washington, 98504-7600, or e-mail to ecyrefedpermit@ecy.wa.gov

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Port of Vancouver, NWP-2007-916-1.

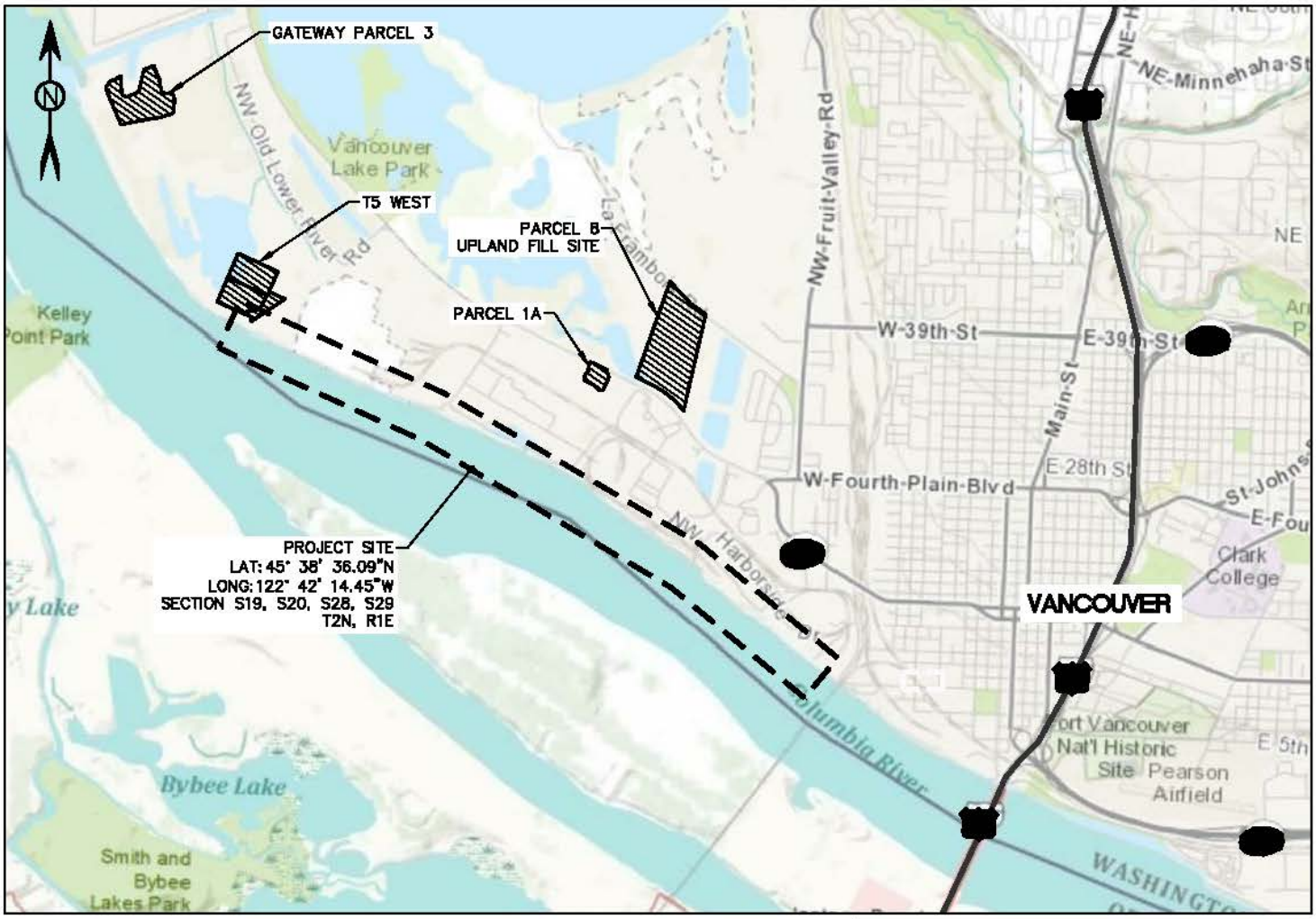
Encl: Twelve (12) drawings on 12 sheets, labeled NWP-2007-916-1

S19, S20, S28, S29 T2N R1E



WASHINGTON KEY MAP

1. COVER SHEET
2. OVERALL SITE PLAN
3. SITE PLAN 1
4. SITE PLAN 2
5. SITE PLAN 3
6. SITE PLAN 4
7. SITE PLAN 5
8. SITE PLAN 6
9. BERTH DREDGING SECTIONS 1
10. BERTH DREDGING SECTIONS 2
11. UNDER DOCK DREDGING SITE PLAN AND SECTION
12. UNDER DOCK DREDGING TEMPORARY CONTAINMENT AREA



LEGEND

PROPOSED UPLAND PLACEMENT SITE

LOCATION MAP

0 2000 4000

SCALE IN FEET

RIVER WATER LEVELS (CRD)	
MAXIMUM RIVER STAGE	15.1'
MINIMUM RIVER STAGE	−0.7'

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

VICINITY MAP

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

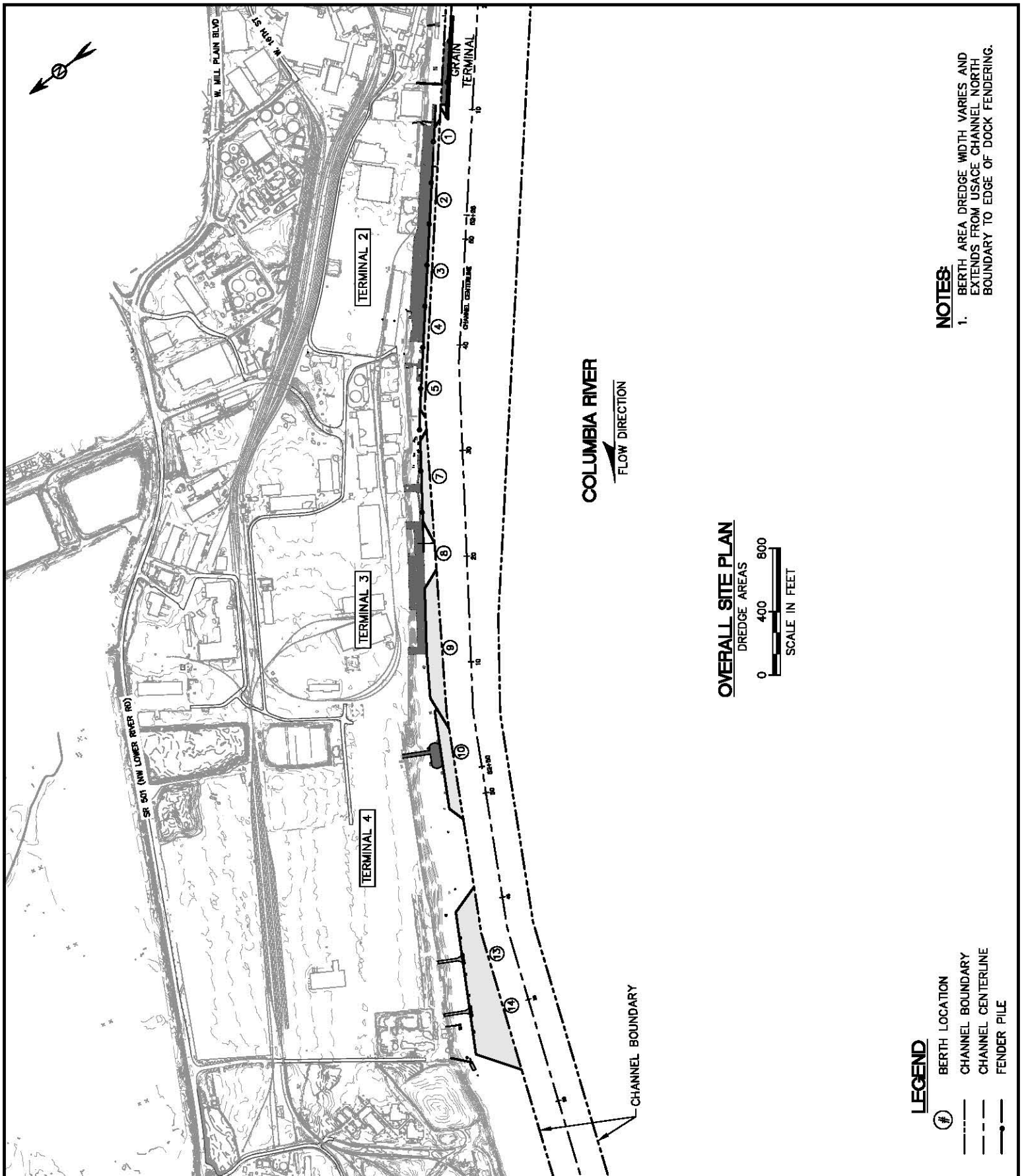
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 1 OF 12 DATE: 12/18/12



PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

OVERALL SITE PLAN

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

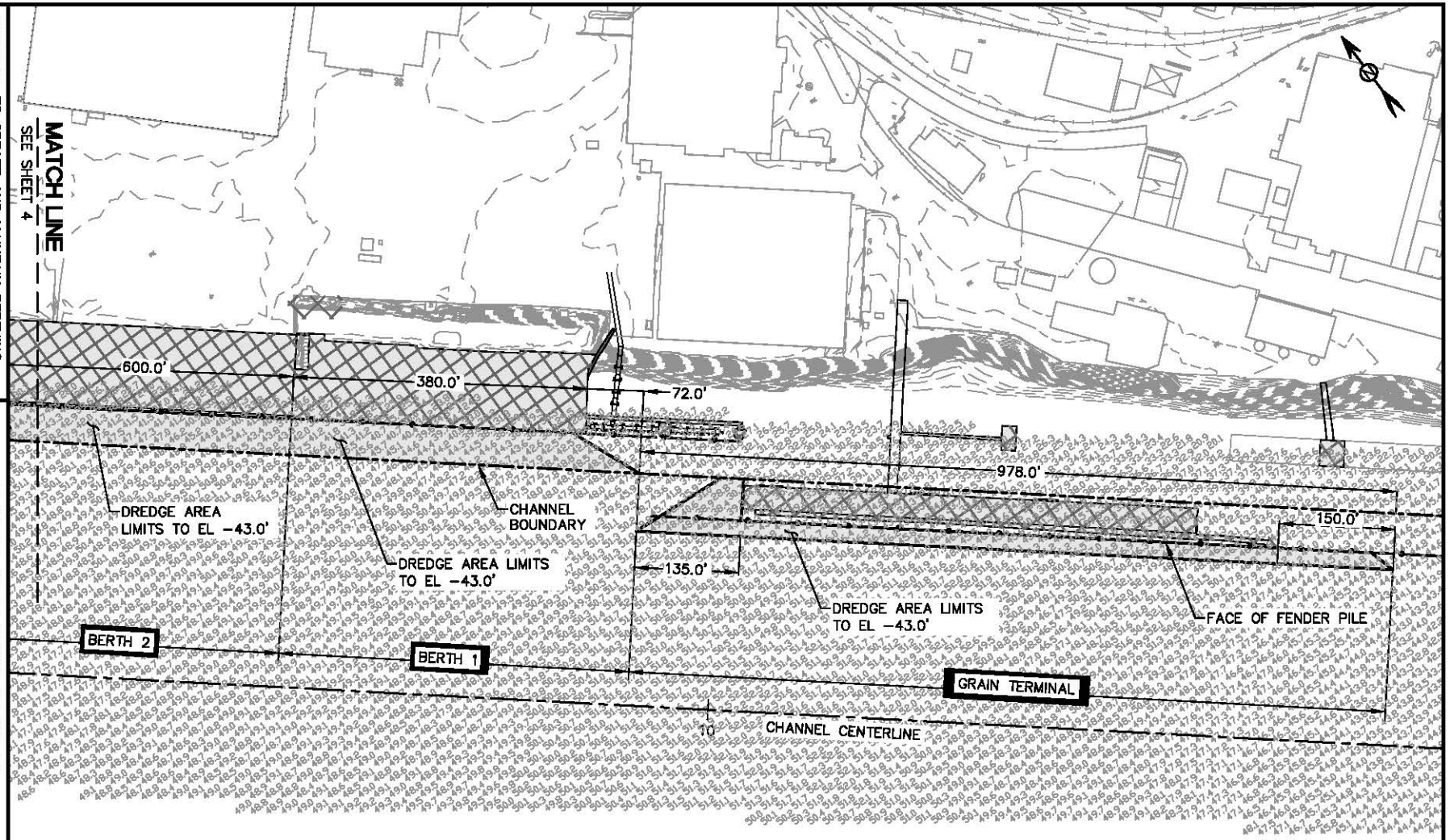
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 2 OF 12 DATE: 12/18/12



DREDGING PLAN

0 100 200
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 1

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

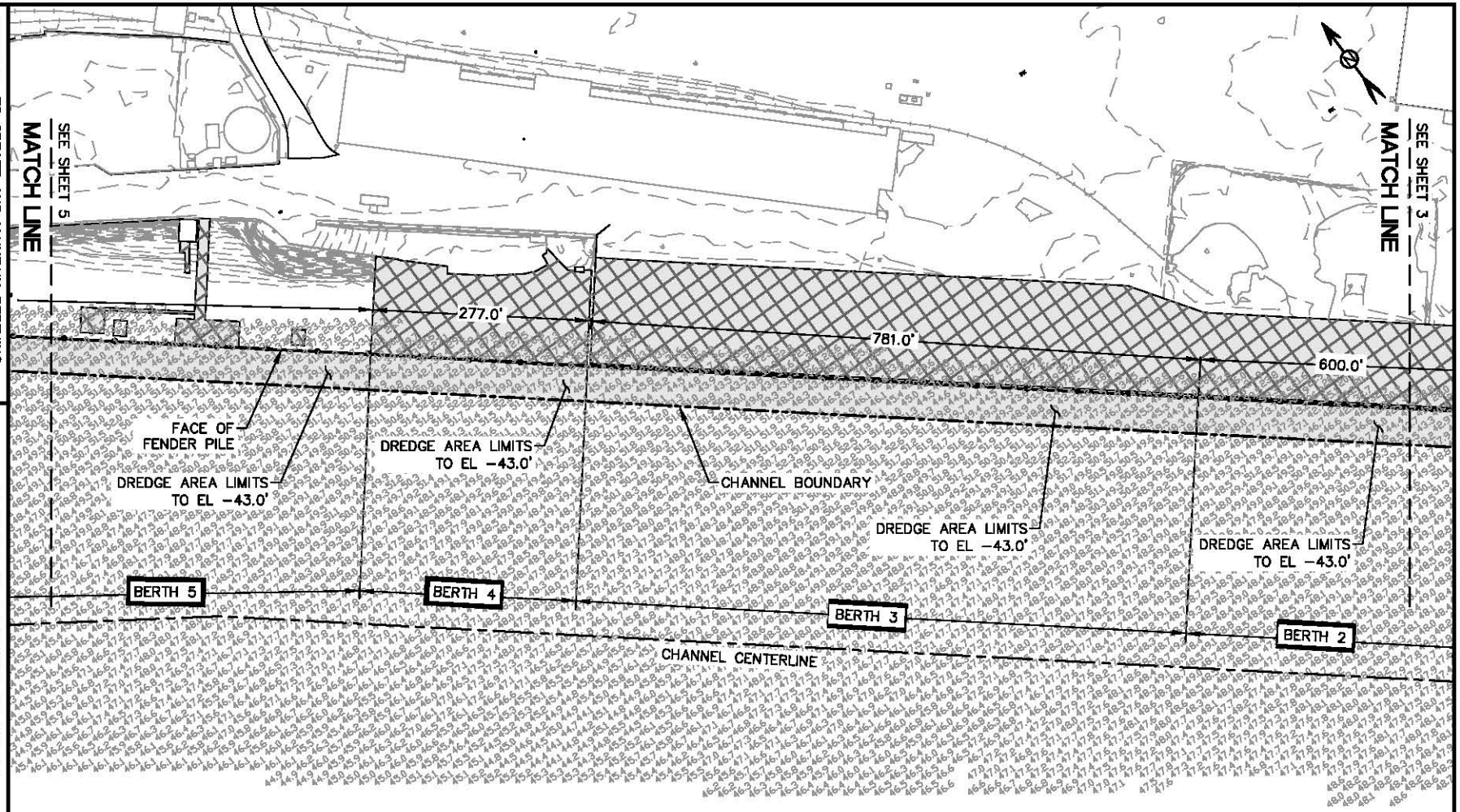
STATE: WASHINGTON

SHEET 3 OF 12

DATE: 12/18/12

NWP-2007-916-1

ENCLOSURE



PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT
SITE PLAN 2

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

STATE: WASHINGTON

SHEET 4 OF 12

DATE: 12/18/12

DREDGING PLAN

0 100 200

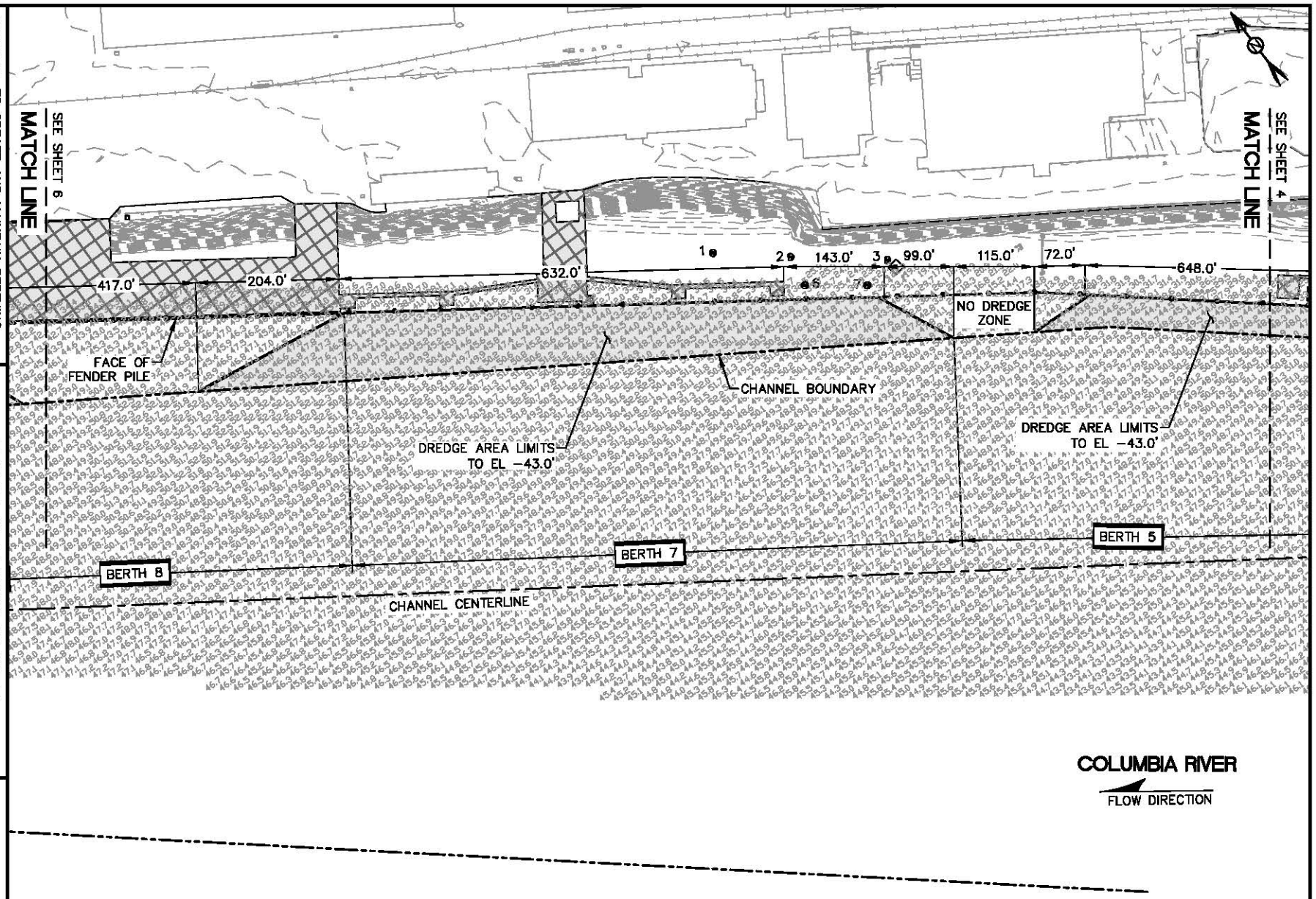
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.



PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 3

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

STATE: WASHINGTON

SHEET 5 OF 12

DATE: 12/18/12

DREDGING PLAN

0 100 200

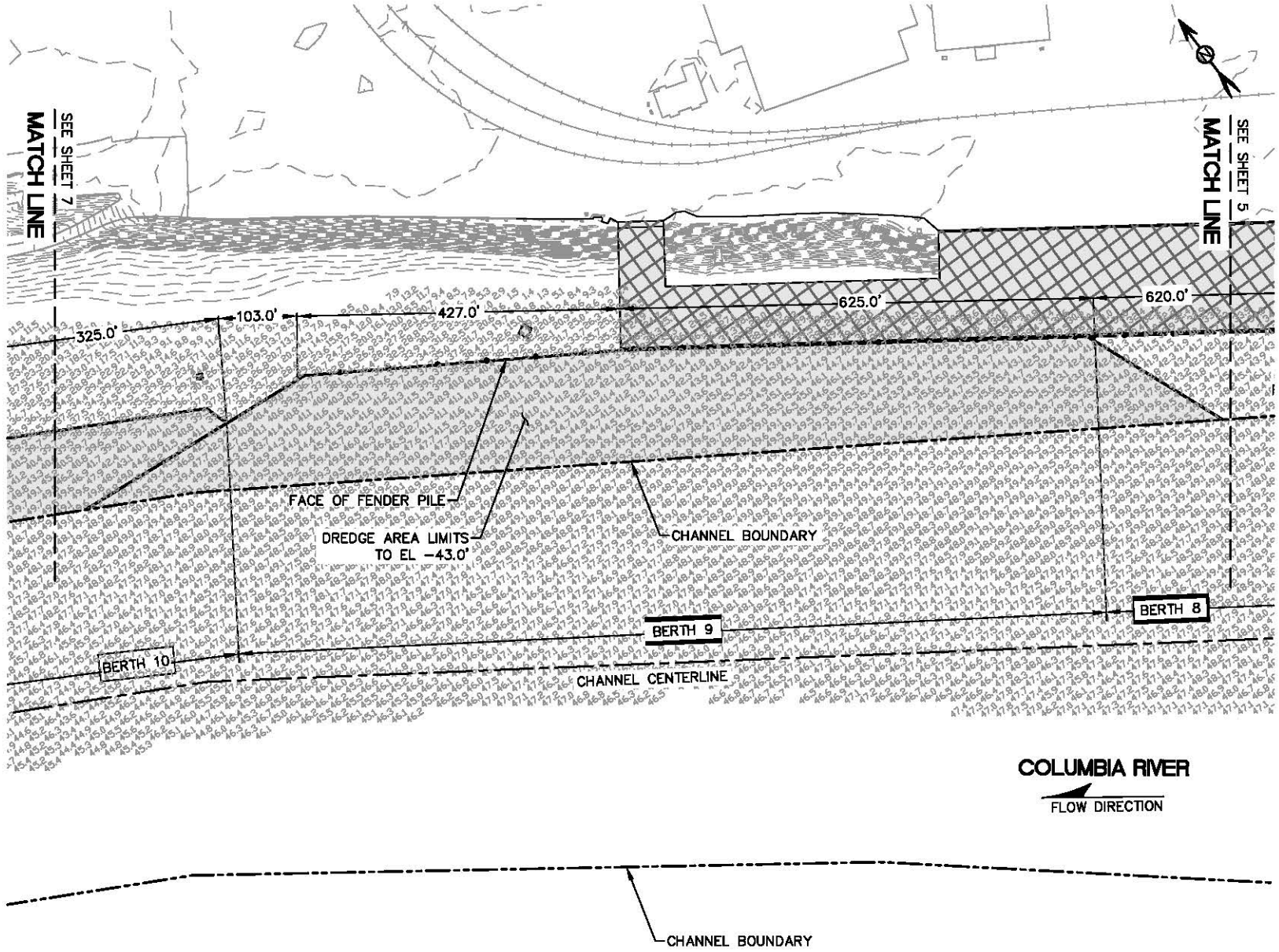
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA
- ASH CREEK ASSOCICATES, INC. SEDIMENT SAMPLE LOCATIONS (DECEMBER 2011)

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.



DREDGING PLAN

0 100 200

SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 4

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

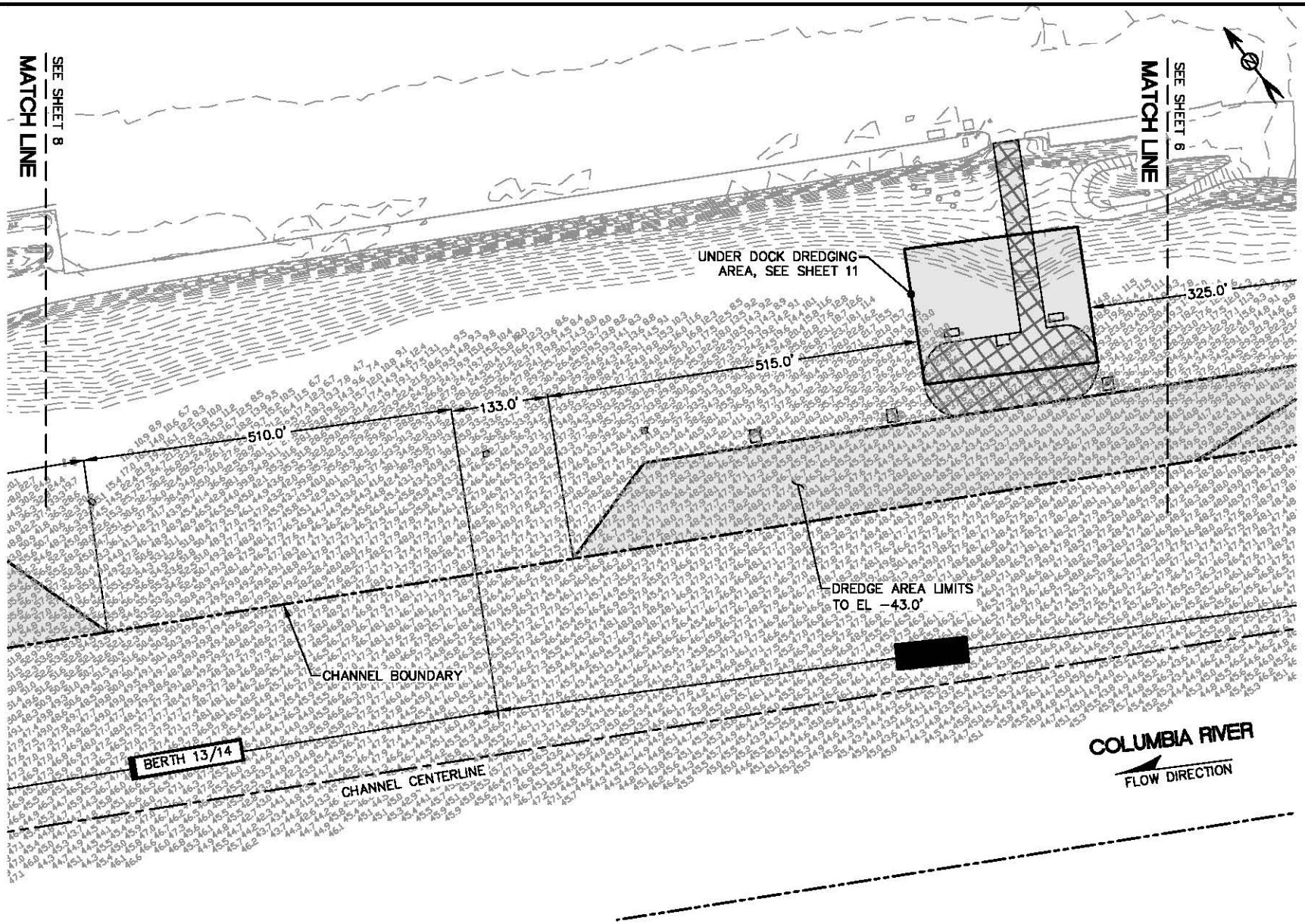
STATE: WASHINGTON

SHEET 6 OF 12

DATE: 12/18/12

NWP-2007-916-1

ENCLOSURE



DREDGING PLAN

0 100 200

SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 5

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

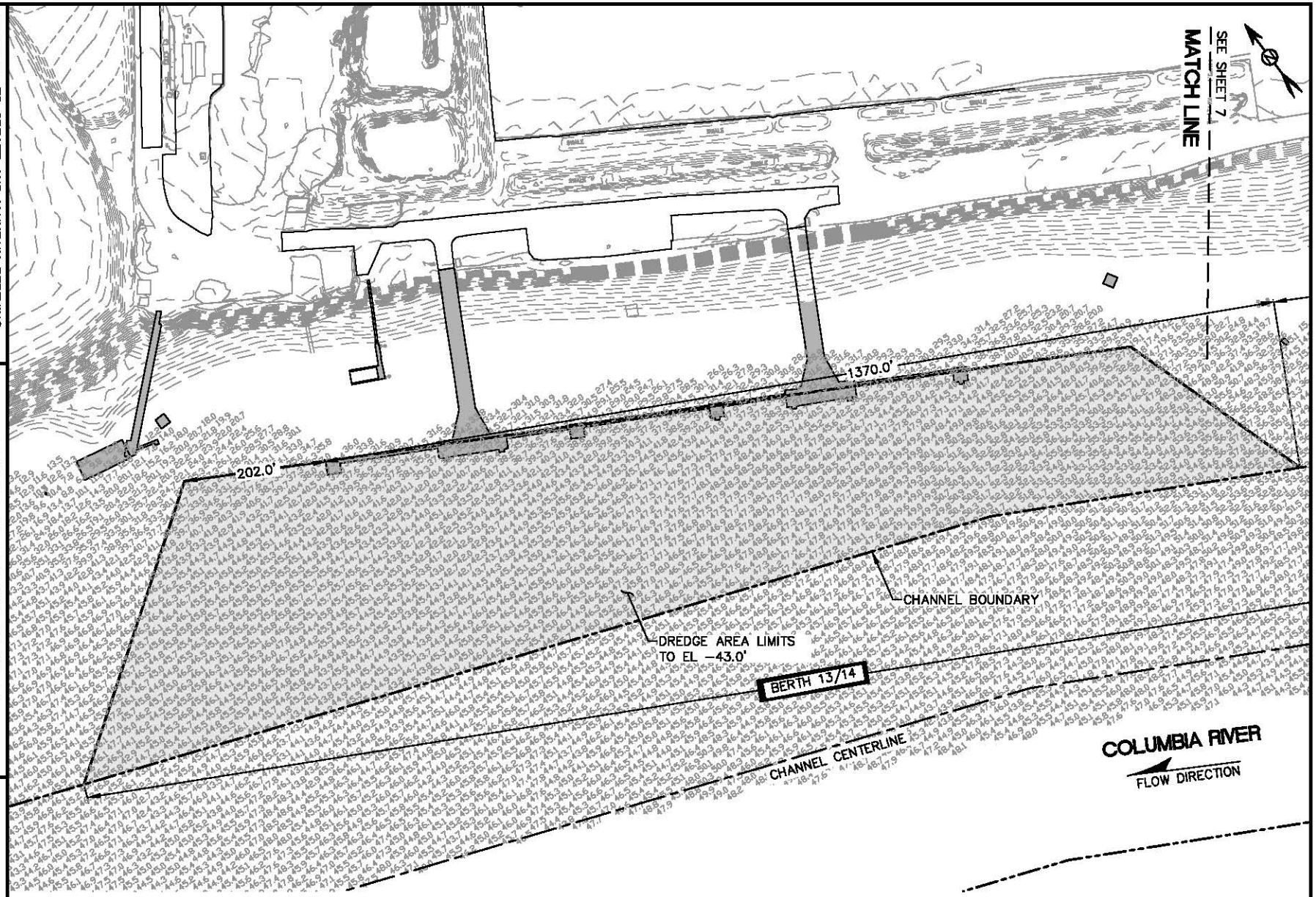
STATE: WASHINGTON

SHEET 7 OF 12

DATE: 12/18/12

NWP-2007-916-1

ENCLOSURE



DREDGING PLAN

0 100 200
SCALE IN FEET

LEGEND

- CHANNEL BOUNDARY
- CHANNEL CENTERLINE
- FENDER PILE
- EXISTING DOCK STRUCTURE
- BERTH BOTTOM AREA

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.
1. BATHYMETRIC SURVEY SHOWN BY ETRAC DATED OCTOBER 23–24, 2012.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE SOUTH, NAD83 (US FEET)
3. VERTICAL DATUM: COLUMBIA RIVER DATUM (CRD), FEET.
4. ALL HYDROGRAPHIC SOUNDING DATA POINTS REPORTED AS DEPTHS BELOW CRD 0.0 FEET.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER
BERTH DREDGING PROJECT

SITE PLAN 6

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK

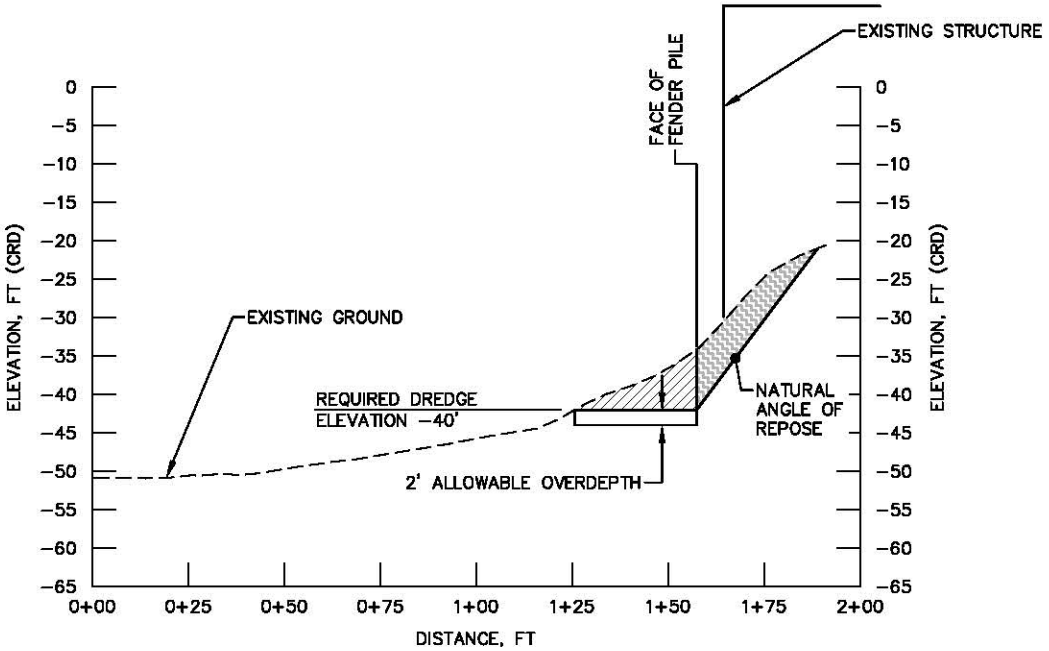
STATE: WASHINGTON

SHEET 8 OF 12

DATE: 12/18/12

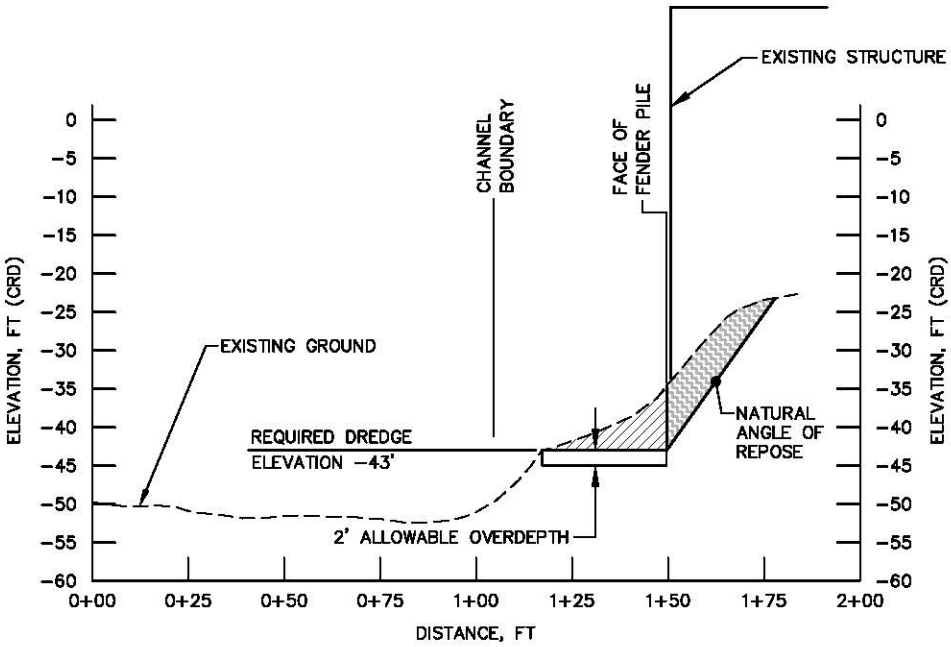
NWP-2007-916-1

ENCLOSURE



TYPICAL SECTION - BERTHS 1, 5, 10, 13, 14

(INTERIM MAINTENANCE)



TYPICAL SECTION - GRAIN TERMINAL AND BERTHS 1, 2, 3, 4, 5, 7, 10, 13, 14

(AUTHORIZED DEPTH)

LEGEND

- EXISTING GROUND (OCTOBER 23, 2012)
- DREDGE AREA
- APPROXIMATE SLOUGHING AREA

HORIZ. 0 25 50

VERT. 0 12.5 25

SCALE IN FEET

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

BERTH DREDGING SECTIONS 1

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

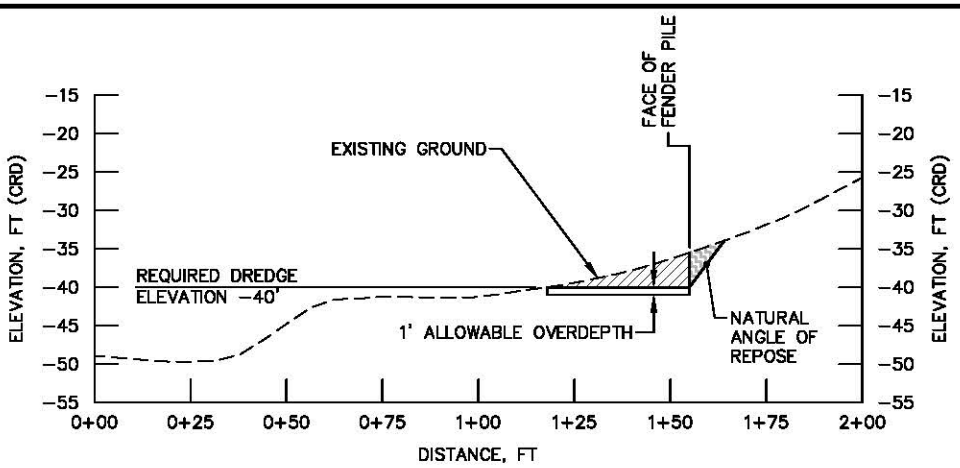
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

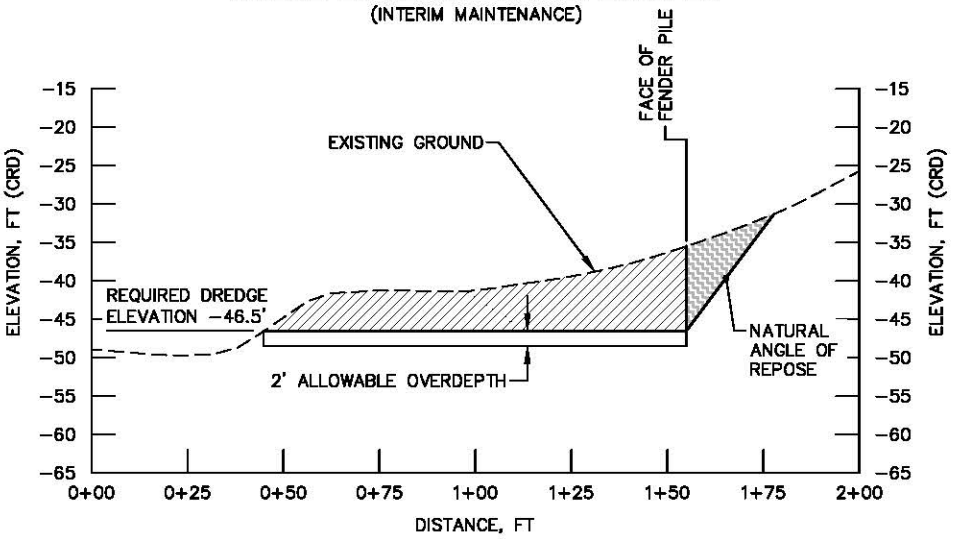
COUNTY: CLARK STATE: WASHINGTON

SHEET 9 OF 12 DATE: 12/18/12



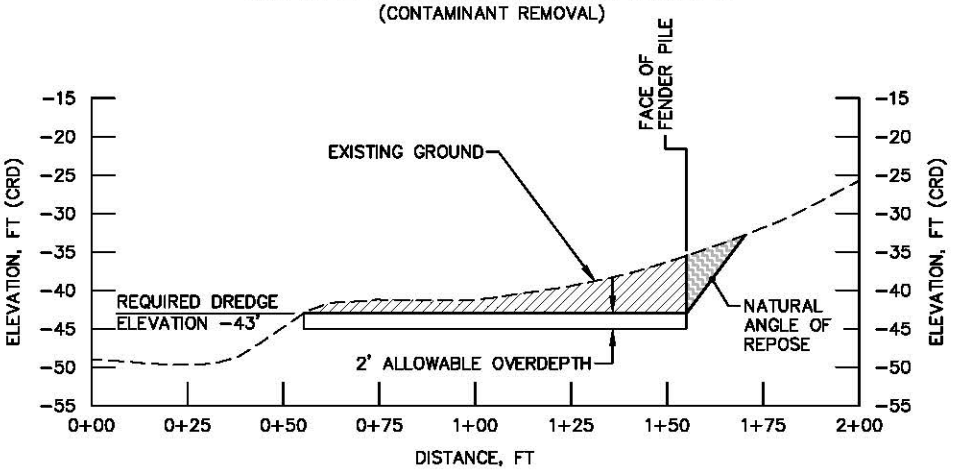
TYPICAL SECTION - BERTHS 8 AND 9

(INTERIM MAINTENANCE)



TYPICAL SECTION - BERTHS 8 AND 9

(CONTAMINANT REMOVAL)



TYPICAL SECTION - BERTHS 8 AND 9

(AUTHORIZED DEPTH)

LEGEND

- EXISTING GROUND (OCTOBER 23, 2012)
- DREDGE AREA
- APPROXIMATE SLOUGHING AREA

HORIZ. 0 25 50

VERT. 0 12.5 25

SCALE IN FEET

NOTES:

1. BERTH AREA DREDGE WIDTH VARIES AND EXTENDS FROM USACE CHANNEL NORTH BOUNDARY TO EDGE OF DOCK FENDERING.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

BERTH DREDGING SECTIONS 2

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

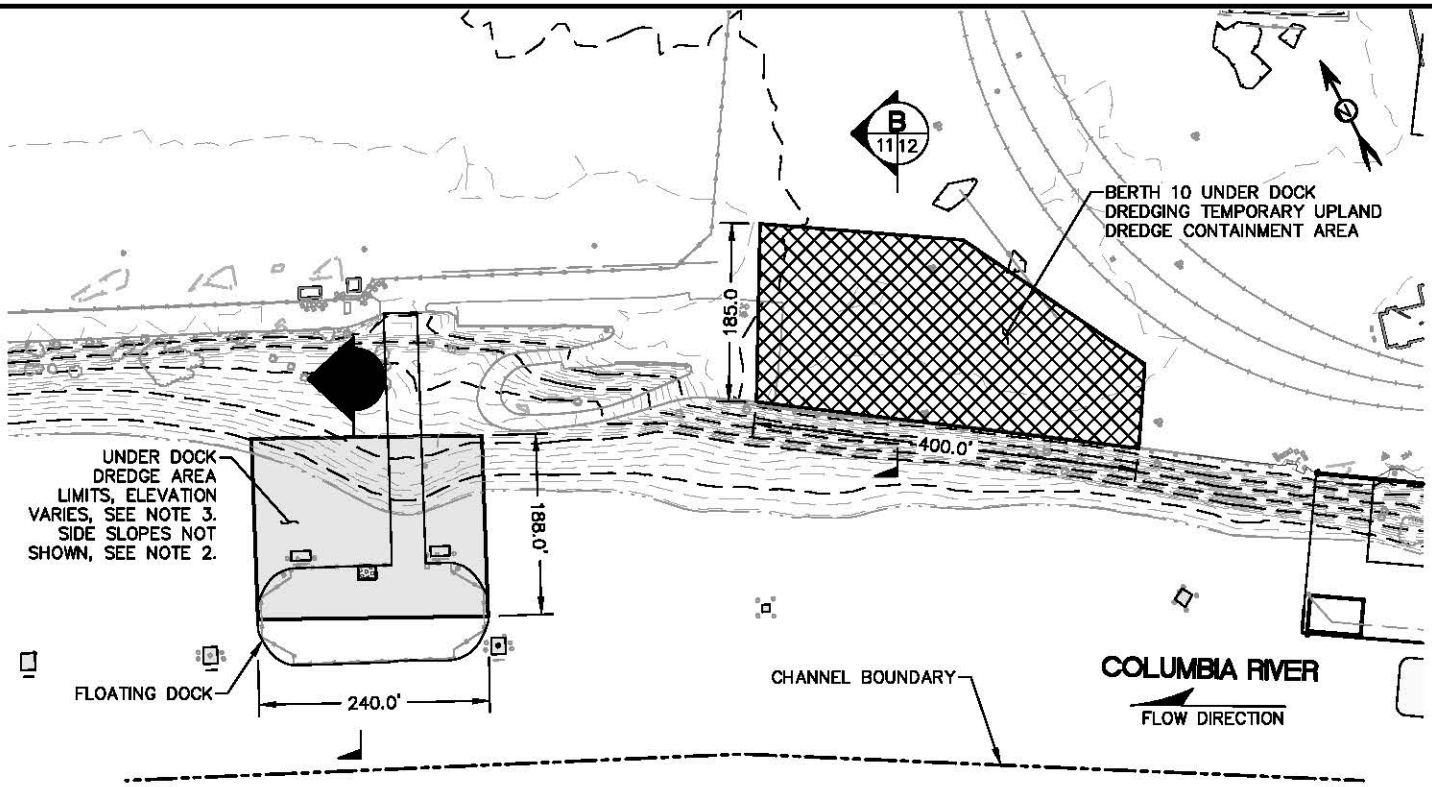
REFERENCE NUMBER: NWS-2007-916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 10 OF 12 DATE: 12/18/12

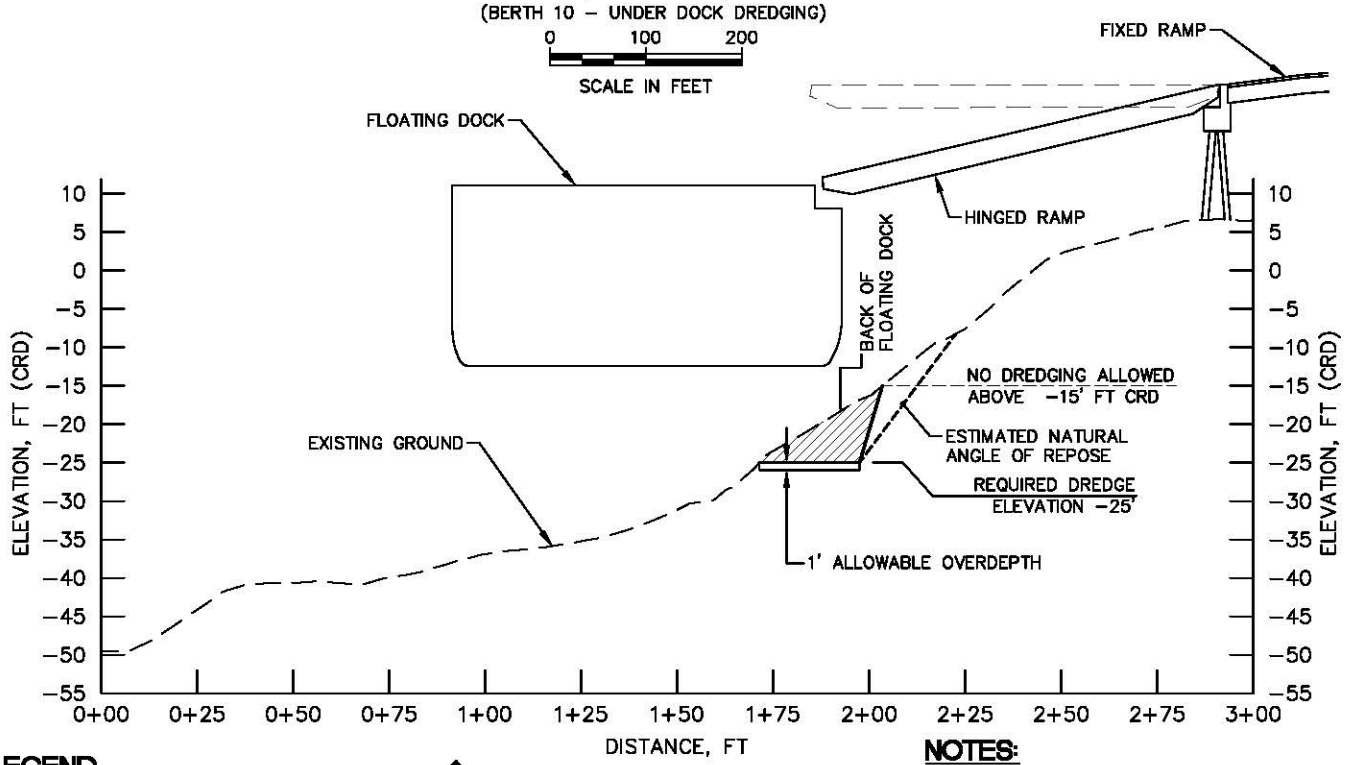


SITE PLAN

(BERTH 10 – UNDER DOCK DREDGING)

0 100 200

SCALE IN FEET



LEGEND

- EXISTING GROUND (OCTOBER 23, 2012)
- CHANNEL BOUNDARY
- DREDGE AREA
- TEMPORARY UPLAND DREDGE CONTAINMENT AREA
- BERTH BOTTOM AREA

A

SECTION

(BERTH 10 UNDER DOCK DREDGING)

HORIZ. 0 25 50

VERT. 0 12.5 25

SCALE IN FEET

NOTES:

1. PIPELINE CORRIDOR BETWEEN BERTH 10 UNDER DOCK DREDGING AREA AND UPLAND TEMPORARY CONTAINMENT AREA NOT SHOWN.
2. 3H:1V DREDGING SLOPES NOT SHOWN. TOP OF DREDGING SLOPES NOT SHOWN AND WILL VARY DEPENDING ON SITE CONDITIONS AT THE TIME OF CONSTRUCTION.
3. DREDGE AREA LIMITS TO BE WITHIN AREAS DEEPER THAN EL –15.0' CRD.

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES

LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W

DATUM: CRD

PORT OF VANCOUVER BERTH DREDGING PROJECT

UNDER DOCK DREDGING SITE PLAN AND SECTION

APPLICATION BY: PORT OF VANCOUVER

PROPOSED: MAINTENANCE DREDGING

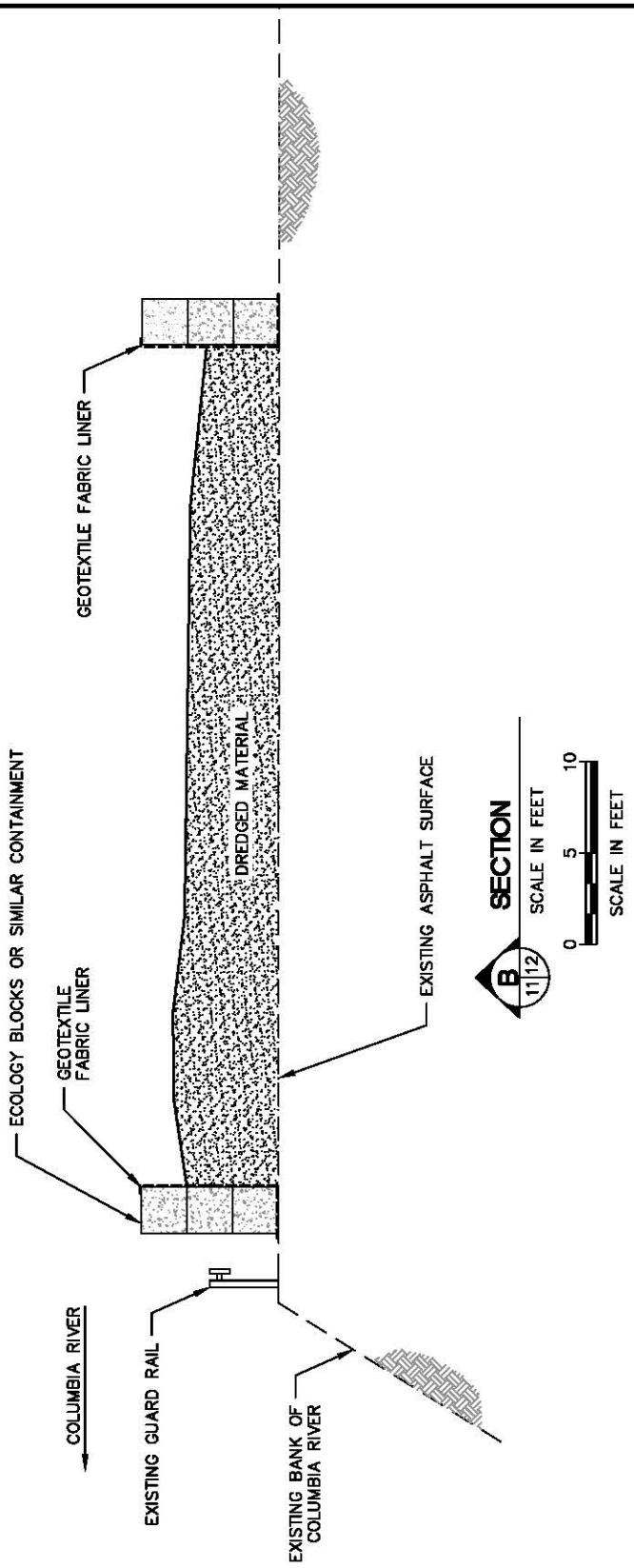
REFERENCE NUMBER: NWS–2007–916

IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5

AT: VANCOUVER

COUNTY: CLARK STATE: WASHINGTON

SHEET 11 OF 12 DATE: 12/18/12



LEGEND

- - - - EXISTING GROUND

DREDGED MATERIAL

PURPOSE: TO CREATE AND MAINTAIN BERTHING DEPTHS TO ALLOW DEEP DRAFT SHIPS SAFE ACCESS TO THE PORT OF VANCOUVER MARINE FACILITIES LOCATION: 45° 38' 36.09"N, 122° 42' 14.45"W DATUM: CRD	**PORT OF VANCOUVER BERTH DREDGING PROJECT** **UNDER DOCK DREDGING TEMPORARY CONTAINMENT AREA** APPLICATION BY: PORT OF VANCOUVER	PROPOSED: MAINTENANCE DREDGING REFERENCE NUMBER: NWS-2007-916 IN: COLUMBIA RIVER, RM 103.5 TO RM 105.5 AT: VANCOUVER COUNTY: CLARK STATE: WASHINGTON SHEET 12 OF 12 DATE: 12/18/12