PUBLIC NOTICE

US Army Corps of Engineers, Honolulu District

Regulatory Office (CEPOH-RO)
Building 230
Fort Shafter, Hawaii 96858-5440

Public Notice Date: **May 28, 2015**
Expiration Date: June 27, 2015
Permit File Number: POH-2012-00081

FEDERAL PUBLIC NOTICE

Interested parties are hereby notified that an application has been received for a Department of the Army (DA) permit for authorization from the U.S. Army Corps of Engineers, Honolulu District, Regulatory Office for certain activities in waters of the United States as described below and shown on the attached drawings.

COMMENT AND REVIEW PERIOD: Comments on this public notice should be made in writing via conventional mail or e-mail. Comments 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. Conventional mail comments should be sent to

Honolulu District, U.S. Army Corps of Engineers
Regulatory Office, Attn: Ms. Joy Anamizu
CEPOH-RO, Building 230
Fort Shafter, Hawaii 96858-5440.

Alternatively, comments may be emailed to CEPOH-RO@usace.army.mil with reference DA permit number **POH-2012-00081** in the subject heading of the email. In order to be accepted, e-mail comments must originate from the author's e-mail account. All e-mail comments should also be sent to joy.n.anamizu@usace.army.mil

Both conventional mail and e-mail comments must include the DA permit number **POH-2012-00081**, and the commentor's name, address, and phone number. **All comments whether conventional mail or e-mail should be received by the close of business on June 27, 2015.**

PRIVACY & CONFIDENTIALITY: It should be noted that materials submitted as part of the permit application become part of the public record and are thus available to the general public under the procedures of the Freedom of Information Act (FOIA). Submissions should not include any information that the submitter seeks to preserve as confidential.

AUTHORITY: A Department of the Army permit is required pursuant to:

☒ Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) - To perform work in or affecting navigable waters of the United States.

☒ Section 404 of the Clean Water Act (33 U.S.C. 1344) - Discharge dredged or fill material into waters of the United States. The Corps' public interest review will consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

☒ Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413) - Transport dredged material for the purpose of dumping it into ocean waters. The Corps' public interest review will consider the criteria established under authority of Section 102(a) of the Marine Protection, Research and Sanctuaries Act of 1972, as amended (40 CFR Parts 220 to 229), as appropriate.

APPLICANT:
State of Hawaii, Department of Transportation, Harbors Division
869 Punchbowl Street
Honolulu, Hawaii 96813

WATERWAY AND LOCATION OF THE PROPOSED WORK: The proposed project is located at Piers 40 to 45 in Honolulu Harbor, Honolulu, Oahu Island, Hawaii. Tax map keys (TMKs) (1) 1-2-025: 009, 011, 012, 016, 017, 040, 071, 076; TMK (1) 1-5-032, 002 and 043; and TMK (1) 1-5-041: 111 and 296). (Figure 1)

PROPOSED PROJECT AND PURPOSE: The applicant proposes the following activities and discharges in/over/under waters of the U.S.:

- DREDGING:

    - Dredging and excavation of 417,900 CY cubic yards [CY] of material from 5.64 acres of waters of the U.S and 2.78 acres the adjacent shoreline, respectively, along Piers 40 to 45 (Figures 3 and 31).

- DISCHARGE OF DREDGED MATERIAL:

    - Discharge of 124,200 CY of dredged material (harbor sediment and coralline dredged material) in 2.0 acres of waters of the U.S. to fill Sung Harbor (Piers 44/45) and to facilitate construction of a continuous 1,860-ft-long wharf along Piers 42 and 43 (Figures 7, 9, and 31).

    - Discharge of 13,300 CY of dredged material (coralline dredged material) in 0.35 acre of waters of the U.S. to fill the existing rail slip at the east end of Pier 42 (Figures 4 and 31).

    - Discharge of 4,150 CY of dredged material (coralline dredged material) in 0.14 acre of waters of the U.S. to construct the new bulkhead at Pier 40F (Figures 6, 8, and 31).

The proposed dredged material to be discharged in project waters will be sourced from the proposed dredging activities. No discharges of dredged material sourced from off-site locations are proposed.

An estimated 141,650 CY of dredged material (harbor sediment and coralline dredged material) is proposed to be discharged in 2.49 acres waters of the U.S., and resulting in the permanent loss of those of waters (Figure 31). The balance of dredged material unsuitable for ocean disposal would be utilized on-site for grading and other structures or properly disposed at an approved uplands site.

- DISCHARGE OF FILL MATERIAL:

    - Discharge of 440 CY of armor stone and 550 CY of quarry-run rock within 0.10 acre of waters of the U.S. to construct a new slope protection at the west end of Pier 43 (Figure 10).

    - Discharge of 6,450 CY of gravel and/or recycled concrete in 0.50 acre of waters of the U.S. to construct a closure dike at the mouth of Sung Harbor (Figures 7 and 9).

  The new slope protection is necessary to prevent erosion and undermining of the Sand Island bascule bridge abutment during future wharf operations. The armor stone and quarry-run rock will be sourced from a local off-site quarry location that has not yet been determined.

  The gravel and recycled concrete may be sourced from a local off-site quarry location yet to be determined, or taken from crushing the existing concrete piles that will be removed from Sung Harbor. The closure dike shall serve to contain the discharges of dredged material sourced from within dredge footprint and tested and determined unsuitable for ocean disposal, and to aid in construction of the new bulkhead with related wharf structures.

- TRANSPORT OF DREDGED MATERIAL FOR OCEAN DISPOSAL:

    - Transport of 198,400 CY of dredged material via tug boat and barge to the ocean disposal at the South Oahu Ocean Dredged Material Disposal Site (SOODMDS) located approximately 8 miles from the project location. The location and route for transporting dredged material that has been determined suitable for ocean disposal by EPA pursuant to Section 102(c) of the Clean Water Act is detailed in Figure 31.

  The center coordinates of the disposal site is located at 21° 15’ 10” (21.252778°) N latitude and 157° 56‘ 50” (157.947222°) W longitude with physical boundaries described at http://www.epa.gov/region9/water/dredging/hi/index.html#info, which is approximately 4.40 miles south of Joint Base Pearl Harbor-Hickam shoreline from baseline 2.09 ft Mean Lower Low Water (MLLW) (0.00 station datum at NOAA

Station Datum 1612366). The type of dredged material proposed for discharge at the SOODMDS include harbor deposits, lagoonal deposits, coralline material, and previous fill material that was used to create fast land at the project location. Both harbor and lagoonal deposits are generally characterized as sandy silts or silty sands with very soft to soft consistencies and loose to very loose relative densities. The coralline material generally consists of dense coral formation, sandstone/limestone, and medium dense coral detritus. Coralline detritus is granular detritus broken from reef formations, including sandy gravel and gravelly sands. The previous fill material generally consists of clayey silts and sandy silts with stiff to hard consistencies.

In 1980, the EPA finalized designation of the SOODMDS. The known past discharges of dredged material at SOODMDS include gravel, sand, silt, and clays. The EPA's 2013 Hawaii Ocean Disposal Site Monitoring Synthesis Report, dated April 27, 2015, study summarizes the history of disposals made to the site, and documents elevated concentrations of trace metal contaminants for copper only both within the disposal site and over the entire surveyed area.

The total duration for ocean disposal activities is estimated to be 8 months.

- <u>OTHER ACTIVITIES REQUIRING DA AUTHORIZATION:</u>

    - Installation and complete removal of silt curtains to and following the completion of in-water and related construction activities to avoid and minimize adversely impacts to waters of the U.S (Figures 11 to 13).

    - Installation of two (2) 1,400 ft-long high-density polyethylene (HDPE) water lines via horizontal directional drilling (HDD) to a depth of -105.0 ft below MLLW and beneath the bottom of the U.S. Army Corps of Engineers (USACE) federal channel (Figure 35). The new water utility lines are proposed to replace existing waterlines that would be affected by proposed activities and maintain potable water supplied to Sand Island tenants. The installation of the new water lines requires the applicant obtain USACE permission pursuant to Section 14 of the Rivers and Harbors Act of 1988 (33 U.S.C. 408)(Section 408) for alterations (i.e., new waterlines) that result in the taking of possession of, use of, or injury to harbor or river improvements. The applicant has submitted a request for Section 408 permission to the U.S. Army Corps of Engineers, Honolulu District, Civil Works Branch.

    - Demolition and removal of existing concrete wharf structures and concrete piles from waters of the U.S. at Piers 40 to 45 with vibratory pile drivers/extractors, jet probe equipment, and/or concrete pile cutting machinery to provide access and facilitate construction of the new bulkhead wharf.

- Installation of steel sheet piles and king piles with vibratory and/or impact driving methods in/over waters of the U.S. at Piers 44/45, the existing rail slip at the east end of Pier 42, and at Pier 40F to construct the new bulkhead, and retain and contain on-site fill, including contaminated dredged material (Figures 4 to 6).

- Installation of other appurtenant wharf structures including crane rails, utilities, bollards, ladders, cable slots, cable pits, and storm anchors to along the new 3,190 ft long bulkhead along Piers 40 to 45 that require work activities in/over waters of the U.S.

- PROPOSED BEST MANAGENGMENT PRACTICES (BMP) MEASURES: In addition to above-described activities requiring a DA permit, the applicant proposes to implement the following BMPs.

  - For the filling of Sung Harbor, the following sediment control measures for dredge material placed in waters of the U.S. will include the closure dike during barge operations and the wharf bulkhead structure, which will be installed after fill activities by barge, and will hold back the dredge material during and after completion of fill activities (Figure 9).

  - Transport of non-coralline dredge material placed into Snug Harbor from land will be transported via dump trucks, and will be lined if the material is saturated.

  - Silt curtains may be deployed immediately around active dredging areas (Figures 11 and 12).

  - At Pier 40F, the sediment control measure for dredge material will consist of the sheet pile-king pile wharf structure, which will be installed prior to the placement of fill. A localized silt curtain may be deployed immediately around active dredging areas (Figures 11 and 12).

  - For the new slope protection at the west end of Pier 23, the rock used for will be clean material imported from a local quarry

  - The clamshell dredges used for the removal of non-coralline material may be equipped with environmental buckets that seal during closure to prevent fine grain material from spilling out of the buckets. The environmental buckets, which may be utilized to maintain water quality standards during construction, would also be vented to minimize sediment plumes when the buckets are lowered in place. Rock buckets that are not sealed at the top will be utilized during dredging of coralline material due to the material hardness.

  - Bottom dump hopper barges/scows used to transport dredge material to on-site fill areas or SOODMDS will be properly maintained to close and seal,

which will minimize the loss of will material during transit to the discharge sites. Monitoring and reporting for scow operations also be provided during ocean disposal activities

- The fill sites at Snug Harbor, the existing rail slip at the east end of Pier 42, and Pier 40F will be surcharged with dredged coralline material to accelerate settlement of fine-grained soil, and will be surrounded by two rows of fiber rolls to keep the material in place (Figure 10). Fiber rolls will be staked into the ground at the base of the surcharge piles and at mid-slope.

- Coralline dredge material will be temporarily discharged in upland areas for crushing/processing prior to ocean disposal or use as fill material or surcharge material. Non-coralline dredge material will also be temporarily discharged upland prior to use as on-site grading material or disposal at an upland facility. Separate BMPs will be provided for upland processing/transfer areas that handle non-contaminated material and transfer areas that handle contaminated material.

- The upland processing/transfer area(s) for non-contaminated material will be surrounded by a retention barrier (hay bale or similar product) lined with filter fabric to prevent deposition of the dredge material back into harbor waters (Figure 10). The entire interior area up to the full height of the barrier will be lined. The upland transfer area(s) for contaminated material will be surrounded by a compacted earthen berm and will be lined with plastic sheeting up to the top of the berm to prevent deposition of the dredge material and potential contaminants back into harbor waters (Figure 20, Stockpile Protection Detail). A row of sandbags will be placed along the exterior perimeter of the earthen berm for protection. Contaminated material left in the transfer areas will be covered with plastic sheeting at the end of each work day or in the event of a storm. The plastic covering will be secured by sandbags placed at the base of the material within the containment berm.

- BMPs implemented at all stockpile areas will be similar to the BMPs for upland transfer areas handling contaminated material, as described above and shown in Figure 20.

- Stockpile areas will also be covered with plastic sheeting secured by sandbags at the end of each work day or in the event of a storm.

- The contractor will determine the locations of the upland processing/transfer areas and stockpile areas, and install proper erosion and sediment control measures in place at each location.

- Drill pits will be installed at each end of the drilled water lines to facilitate the drilling operation and to temporarily store drilling fluids and drill cuttings. The drill pits will be sized to accommodate the anticipated volume of drilling mud

and cuttings with a three-foot freeboard in each pit. The perimeter of the drill pits will be lined with sand bags to provide additional containment (Figure 37). Portions of the water lines that will be installed on land in trenches and existing drain inlets in the area will also be surrounded by a row of sand bags to provide erosion and sediment control (Figure 19).

- Additional erosion and sediment control measures that will be implemented during construction include a stabilized construction entrance/exit installed at the on-land access points to the site, sediment traps located near the stabilized construction entrances/exits that will be used during vehicle wash downs, concrete washout containment areas, and stone column barriers consisting of woven sandbags that will surrounding the stone column ground improvement construction areas. See Figures 20 and 21, for details of these erosion and sediment control measures.

APPLICANT'S STATED PURPOSE AND NEED: The applicant's purpose for the proposed project is to construct a new bulkhead wharf to provide sufficient berths for two (2) container vessels along the improved Piers 42 and 43, and berths for inter-island barges along the improved Pier 41 (Figure 2). The applicant states that the proposed improvements are needed to meet the demands of increased volume and handling for overseas commercial goods forecasted to the year 2039 for which the State and local economy is dependent upon. The Corps' will independently review and verify the Applicant's stated purpose and need.

MITIGATION STATEMENT: The applicant's stated mitigation statement is as follows: The proposed dredging and fill activities will ultimately result in a net gain of approximately 0.29 acres of water of the U.S. (Figure 33). As such, compensatory mitigation is not proposed for the project, and because it includes implementation of the above described construction BMPs and the following avoidance and minimization measures:

- Minimize the project footprint by limiting construction to shoreline areas immediately adjacent to the proposed wharf and container terminal, limiting dredging activities to nearshore waters and outside the Federal Channel, and limiting wharf construction to the Pier 41 side of the Pier 41-Pier 40 slip.

- Sediment testing was conducted on material proposed for dredging to determine the portions of dredge material that will be suitable for ocean disposal. All dredge material not suitable for ocean disposal will be used as on-site fill material or will be disposed of at an approved upland site to prevent the spread or transfer of contaminants in the marine environment.

- Transplant large corals (bigger than 20 centimeters) from the project site to other areas of Honolulu Harbor and/or transport these corals to aquaculture and research facilities at the ʻĀnuenue Fisheries Research Center on Sand Island

prior to construction. Corals transported to the ʻĀnuenue Fisheries Research Center will eventually be reintroduced into the natural marine environment at a later date.

- Limit the amount of dredging and excavated and dredged material to dispose of by constructing a sheet pile-king pile bulkhead structure in lieu of a pile-supported wharf.

- Minimize the possibility of spreading known contaminants in dredge material that will be used as on-site fill into harbor waters by sealing all interlocking sheet pile and king pile joints along the wharf face. All joints will be sealed from the top of the piles to a minimum of 10 feet below the design dredge depth, including the two-foot OD allowance. The material will be capped with 21-inch thick concrete yard pavement.

- Deploy a silt curtain around the immediate dredge area to contain sediment and protect coral community resources in surrounding harbor waters.

- Minimize the amount of in-water noise generated during pile driving operations by installing a majority of the sheet pile-king pile bulkhead system on land. Approximately 75 percent of the bulkhead system along the seaward face of the proposed wharf will be driven on land. A portion of the sheet pile wall for the proposed slope protection system at the west end of Pier 43 will also be driven on land. In-water noise generated during pile driving activities will also be minimized through construction of a sheet pile-king pile bulkhead structure in lieu of a piles supported wharf. The number of piles required for a bulkhead structure is less than that required for a pile-supported wharf.

- Minimize the amplitude of in-water noise generated during pile driving operations by utilizing vibratory pile driving methods, in lieu of impact driving methods, to the maximum extent practicable.

- Limit construction dredging to low rainfall periods to the maximum extent practicable. Surface water discharges into harbor waters have the potential to spread sediment plumes outside the construction area.

- Minimize the quantity of dredge material placed at SOODMDS through beneficial reuse of dredge material as on-site fill material.

- Commence in-water pile driving activities with 5 to 10 soft blows to allow mobile organisms to vacate the area. In addition, all work during pile driving and dredging activities should temporarily cease if a turtle or marine mammal were to breach minimum stand-off distances.

- Minimize long-term degradation of harbor waters by installing permanent stormwater treatment devices for stormwater runoff generated at the wharf and container terminal yard.

- Modify the existing Honolulu Harbor invasive species plan to include controls for ships that plan to use the new wharf facilities.

- Monitor water quality during construction to evaluate changes from preconstruction baseline conditions.

- Minimize sediment suspension during dredging by reducing the lowering rate of the dredge bucket prior to impact with the harbor bottom.

- Minimize spillage of dredge sediment into harbor waters by reducing the travel speed of the dredge buckets.

WATER QUALITY CERTIFICATION: **The proposed action will result in a discharge of fill material into a water of the U.S.** and will require authorization from the Corps in accordance to Section 404 of the Clean Water Act of 1972 (CWA). Under Section 401 of the CWA (Public Law 95-217), the Corps may not issue a permit for the described work until the applicant obtains a certification or waiver of certification from the State of Hawaii, Department of Health, Clean Water Branch (CWB).

COASTAL ZONE MANAGEMENT ACT CERTIFICATION: **The proposed activity will affect land or water uses in the Coastal Zone**. Under Section 307(c)(3) of the Coastal Zone Management Act of 1972, as amended by 16 U.S.C. 1456(c)(3), the Corps may not issue a permit for the described work until the applicant obtains a Federal Consistency Concurrence from the State of Hawaii, Department of Business, Economic Development, and Tourism, Office of Planning.

CULTURAL RESOURCES: Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the Corps' has preliminarily determined that known properties eligible for inclusion or included in the National Register of Historic Places are in or near the permit area. Therefore, consultation with the State of Hawaii, Department of Land & Natural Resources, Historic Preservation Division (SHPD), Office of Hawaiian Affairs (OHA), and Native Hawaiian Organizations (NHO) will be conducted subsequent to this public notice.

ENDANGERED SPECIES: Pursuant to Section 7 of the Endangered Species Act (ESA), federal agencies must consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) on any action that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered, or any designated critical habitat. Based on the project location, the following protected species have the potential to occur in the vicinity of the project location:

Green Sea Turtle (*Chelonia mydas*), Threatened

Hawksbill Turtle (*Eretmochelys imbricata*), Endangered
Humpback Whale, (*Megaptera novaeangliae*), Endangered
Hawaiian Monk Seal, (*Monachus schauinslandi*), Endangered
Newells' Shearwater (*Puffinus auricularis newelli*), Threatened
Hawaiian Petrel (*Pterodroma sandwichensis*), Endangered

The Corps has preliminarily determined that the described activity may affect the above-listed endangered or threatened species or its critical habitat. Consultation under Section 7 of the Endangered Species Act of 1973 (87 Stat. 844) will be initiated with the appropriate federal resource agencies.

ESSENTIAL FISH HABITAT: The proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH) pursuant to the Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), which requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat. Preliminary determinations indicate that the described activities will have a direct adverse effect to an estimated 8.13 acres of designated EFH (i.e., individual Management Unit Species (MUS) within the Western Pacific Regional Fishery Management Council (WESTPAC) fisheries management plans (FMPs)), including bottomfish, seamount groundfish, pelagic, precious corals, coral reef ecosystems, and crustacean MUSs. Consultation under MSA is required and will be initiated with the NMFS, Habitat Conservation Division for the proposed activity. .

NOTE: This public notice is being issued based on information furnished by the applicant. This information has not been verified or evaluated to ensure compliance with laws and regulation governing the Corps' Regulatory Program. The jurisdictional line has not yet been verified by Corps personnel.

OTHER GOVERNMENT AUTHORIZATIONS: In addition to the requirements described above, the applicant has also identified the following other government authorizations required for the New KCT Wharf and Dredging project: 1) State, Office of Environmental Quality Control, Hawaii Revised Statues 343 Environmental Impact Statement (EIS); 2) State, CWB National Pollutant Discharge Elimination System (NPDES) permit NOI Forms C and F; 3) 2004 Americans with Disability Act (ADA) Disability and Communication Access Board (DCAB); 4) the DOT-Highways permit for discharges into the DOT-Highways drainage system (for hydrotesting effluent discharge); 5) the City and County of Honolulu (City), Department of Facility Maintenance, Drainage Encroachment Variance (for work within City easements only); and 6) the City's, Department of Planning and Permitting, Surface Runoff from Construction Activities entering into City's Storm Sewer System.

FEDERAL EVALUATION OF APPLICATION: The decision whether to issue a permit will be based on an evaluation of the probable impact 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 benefit 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; Federal, state, and local agencies and officials; Native Hawaiian Organizations; and other interested parties in order to evaluate the direct, indirect, and cumulative impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. 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

PUBLIC HEARING: Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. 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 clearly and concisely, the reasons and rationale for holding a public hearing. The District Engineer will then decide if a hearing should be held.

If you have any questions or require additional information about this project or the permit process, please contact Ms. Joy Anamizu via telephone at (808) 835-4308 or via email at joy.n.anamizu@usace.army.mil.

Michelle R. Lynch
Chief, Regulatory Office

ATTACHMENTS: Figures (Portion of)

ATTACHMENT 1

FIGURES

(portion of)

Sources:

Parcel lines—City and County of Honolulu, Department of Planning and Permitting, Honolulu Land Information System (HoLIS).ftp://gisftp.hicentral.com/layers/Cadastral/tax_parcel.zip downloaded on 5/16/12.

Aerial photograph- USDA-NRCS/DigitalGlobe Inc.dataset. September, 2005.

BELT COLLINS

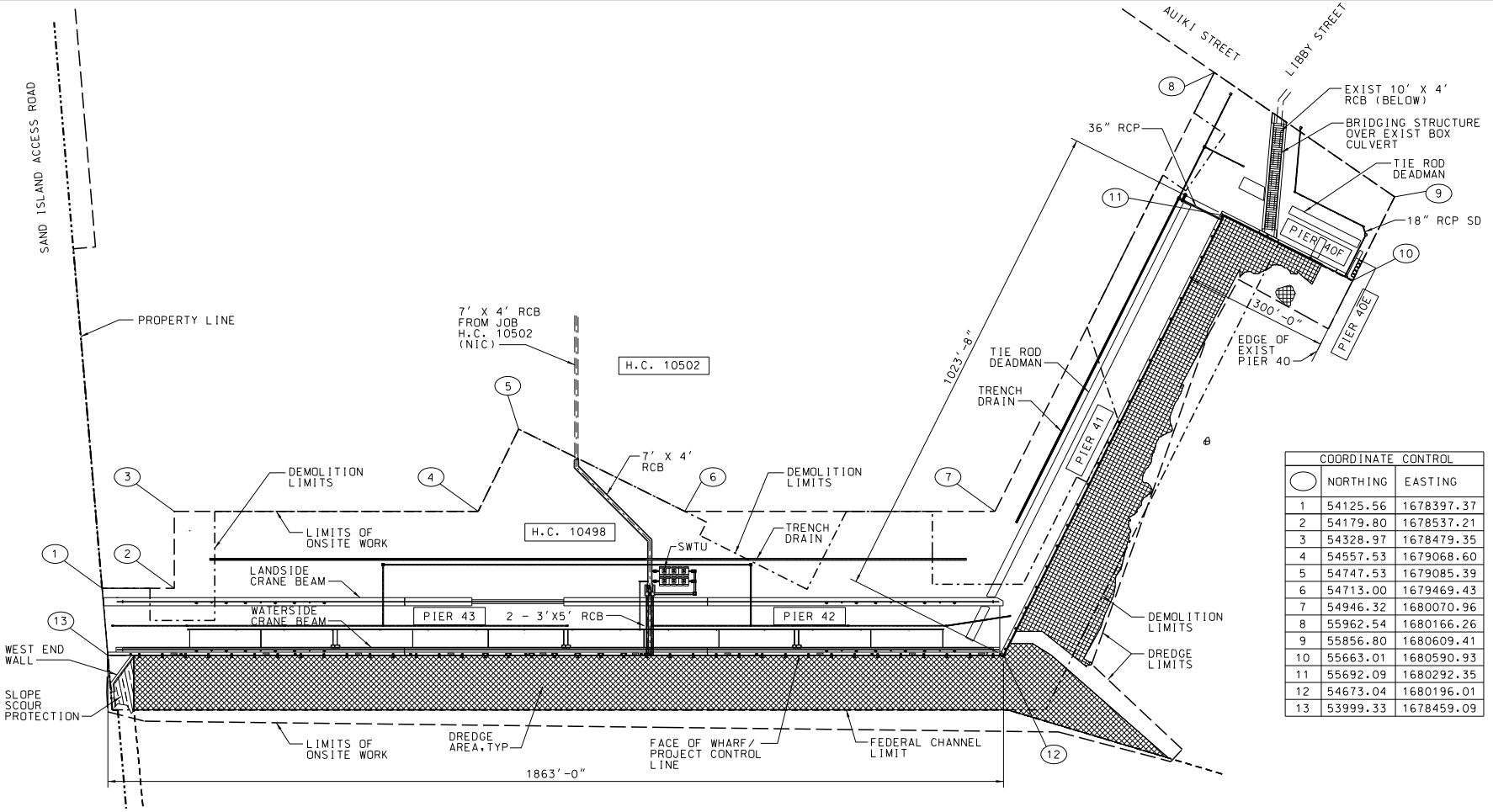
NORTH

0 200 400 800

SCALE IN FEET

Figure 1
LOCATION MAP

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015



COORDINATE CONTROL		
	NORTHING	EASTING
1	54125.56	1678397.37
2	54179.80	1678537.21
3	54328.97	1678479.35
4	54557.53	1679068.60
5	54747.53	1679085.39
6	54713.00	1679469.43
7	54946.32	1680070.96
8	55962.54	1680166.26
9	55856.80	1680609.41
10	55663.01	1680590.93
11	55692.09	1680292.35
12	54673.04	1680196.01
13	53999.33	1678459.09

PROJECT PLAN

SCOPE OF WORK:

PROJECT INCLUDES DEMOLITION OF ABOVE AND BELOW GROUND STRUCTURES AND FACILITIES, FILLING AND DREDGING, AND CONSTRUCTION OF WHARF AREA OF PIER 40F, 41, 42 AND 43, AS SPECIFIED IN THE SPECIFICATIONS AND AS SHOWN IN THIS SET OF DRAWINGS.

NOTE:

FOR COORDINATES OF DEMOLITION LIMITS SEE SHEET CD101.

NOTE:

JOB H.C. 10502, REFERENCED THROUGHOUT THE CONTRACT DOCUMENTS, REFERS TO "THE NEW KAPALAMA CONTAINER TERMINAL YARD DESIGN AT HONOLULU HARBOR, HAWAII, JOB H.C. 10502", A SEPARATE PROJECT BY THE STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION, HARBORS DIVISION. THE H.C. 10498 CONTRACTOR SHALL COORDINATE ALL WORK THAT WILL OR COULD AFFECT JOB H.C. 10502 WITH THE H.C. 10502 CONTRACTOR AND THE HARBORS DIVISION.

100' 0' 100' 200'
SCALE

Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

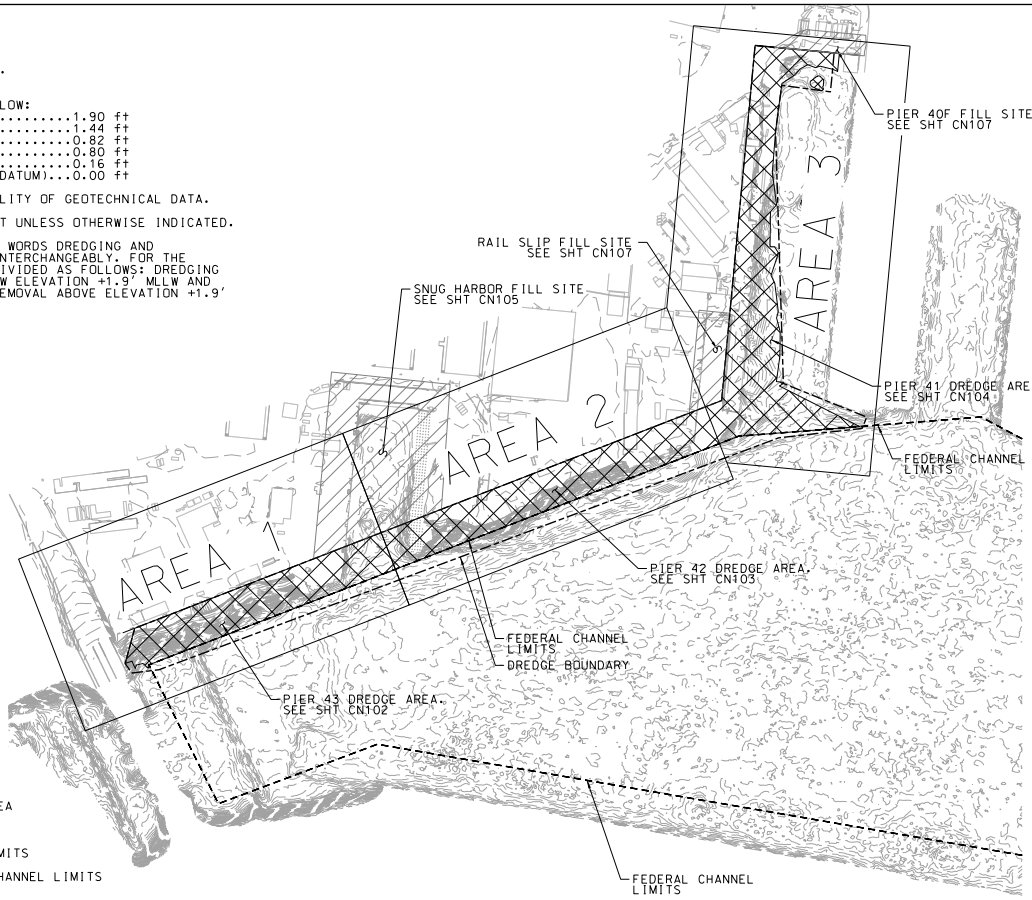
Figure 2
PROJECT PLAN

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

NOTES:

1. FOR SURVEY DATA SEE SHEET G-009.
2. TIDE RANGE:
   THE TIDE LEVELS ARE LISTED BELOW:
   MEAN HIGHER HIGH WATER (MHHW).....1.90 ft
   MEAN HIGH WATER (MHW).....1.44 ft
   MEAN SEA LEVEL (MSL).....0.82 ft
   MEAN TIDE LEVEL (MTL).....0.80 ft
   MEAN LOW WATER (MLW).....0.16 ft
   MEAN LOWER LOW WATER (MLLW) (DATUM)...0.00 ft
3. SEE SPECIFICATIONS FOR AVAILABILITY OF GEOTECHNICAL DATA.
4. ALL DIMENSIONS ARE SHOWN IN FEET UNLESS OTHERWISE INDICATED.
5. FOR PURPOSE OF INFORMATION, THE WORDS DREDGING AND EXCAVATION ARE SOMETIMES USED INTERCHANGEABLY. FOR THE PURPOSE OF QUANTITY, THEY ARE DIVIDED AS FOLLOWS: DREDGING IS CONSIDERED SOIL REMOVAL BELOW ELEVATION +1.9' MLLW AND EXCAVATION IS CONSIDERED SOIL REMOVAL ABOVE ELEVATION +1.9' MLLW.



DREDGE ELEMENT LEGEND:

D101	PIER 41 EXISTING FILL ABOVE ELEVATION +1.9' STA 19+01 - 28+71
D102	PIER 41 HARBOR DEPOSITS/ NON CORALLINE MATERIAL STA 15+39 - 31+70
D103	PIER 41 LAGOONAL DEPOSITS STA 19+01 - 28+71
D104	PIER 41 CORALLINE DEPOSITS STA 19+01 - 28+71
D105	PIER 42 EXISTING FILL ABOVE ELEVATION +1.9' STA 7+85 - 19+01
D106	PIER 42 LAGOONAL DEPOSITS STA 7+85 - 19+01
D107	PIER 42 CORALLINE MATERIAL STA 7+85 - 19+01
D108	PIER 42 HARBOR DEPOSITS STA 7+85 - 15+39
D109	PIER 43 EXISTING FILL ABOVE ELEVATION +1.9' STA 0+37 - 7+85
D110	PIER 43 LAGOONAL DEPOSITS STA 0+37 - 7+85
D111	PIER 43 CORALLINE MATERIAL STA 0+37 - 7+85
D112	PIER 43 HARBOR DEPOSITS STA 0+37 - 6+86.47
D113	SNUG HARBOR SURCHARGE REMOVAL
D114	RAIL- SLIP SURCHARGE REMOVAL
D115	PIER 40F SURCHARGE REMOVAL
D116	SNUG HARBOR DEPOSITS STA 6+86.47 - 8+81.43

FILL ELEMENT LEGEND:

F102	SNUG HARBOR FILL BELOW -8' WITH MATERIAL FROM DREDGE ELEMENT D102
F103	SNUG HARBOR FILL TO +10' WITH MATERIAL FROM DREDGE ELEMENT D104 & D107
F104	SNUG HARBOR FILL FROM -8' TO +10' WITH MATERIAL FROM DREDGE ELEMENT D102
F105	SNUG HARBOR SURCHARGE FROM +10' TO +30' WITH MATERIAL FROM DREDGE ELEMENT D107
F106	RAIL SLIP FILL TO +25' WITH MATERIAL FROM DREDGE ELEMENT D107 & D111
F107	PIER 40F FILL TO +8 FROM DREDGE ELEMENT D111
F108	PIER 40F SURCHARGE TO +18 FROM DREDGE ELEMENT D111
F109	SOUTH OAHU OCEAN DREDGE MATERIAL DISPOSAL SITE WITH MATERIAL FROM DREDGE ELEMENT D106, D107, D108, D110, D111 & D112 - D114
F110	UPLAND DISPOSAL WITH MATERIAL FROM D101, D102, D103, D105, & D109
R101	TEMPORARY CLOSURE DIKE AT SNUG HARBOR (GRAVEL OR PROCESSED/RECYCLED CONCRETE DEBRIS)

LEGEND:

- DREDGE AREA
- FILL AREA
- DREDGE LIMITS
- FEDERAL CHANNEL LIMITS

ABBREVIATIONS:

APPX	APPROXIMATE
DEMO	DEMOLITION
EXIST	EXISTING
MLLW	MEAN LOWER LOW WATER
O.D.	OVER DREDGE ALLOWANCE
SHTS / SHTS	SHEET(S)
SOODMDS	SOUTH OAHU OCEAN DREDGE MATERIAL DISPOSAL SITE
STRUC	STRUCTURAL
TEMP	TEMPORARY
TYP	TYPICAL

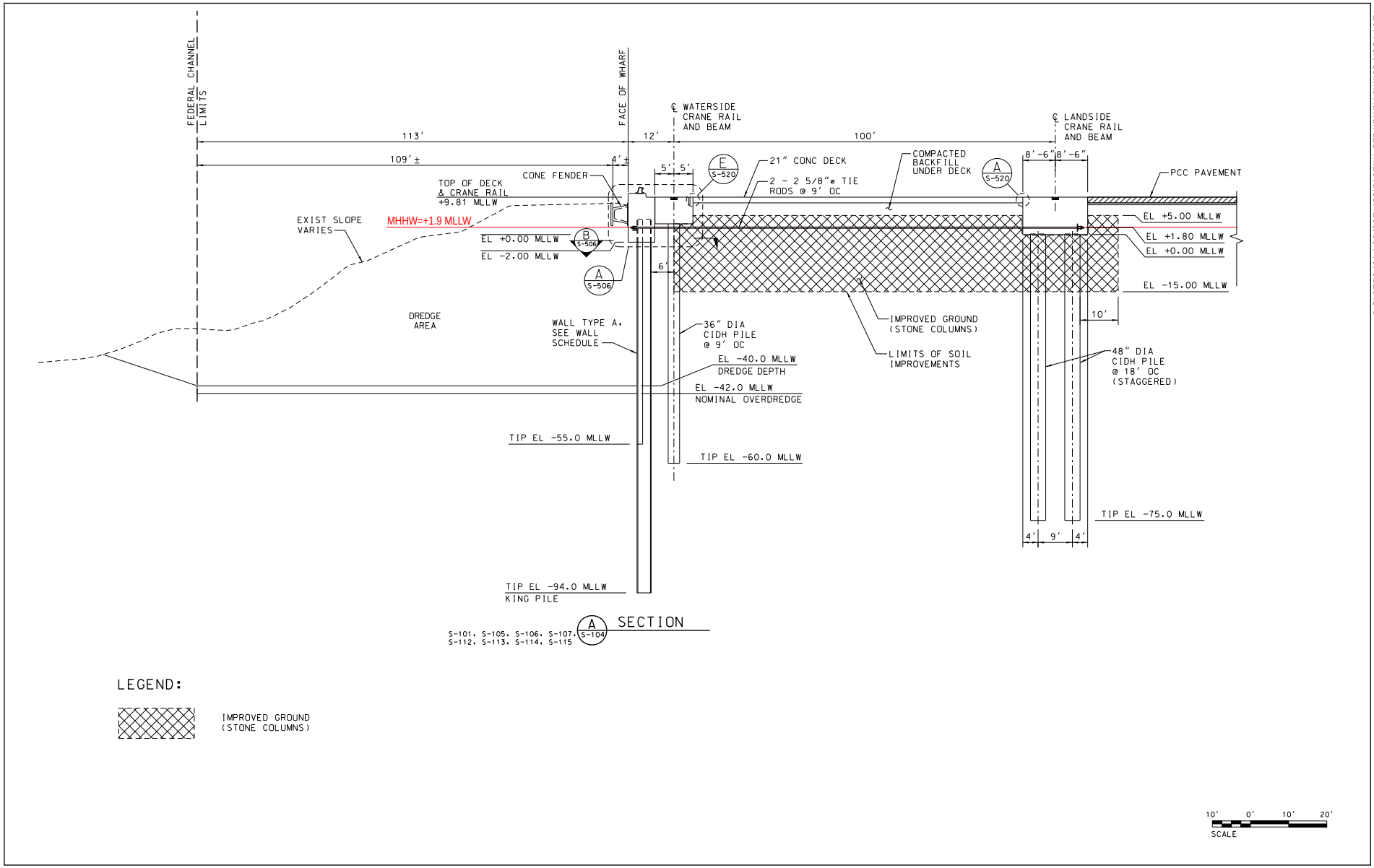
150' 0' 150' 300
SCALE

Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 3
OVERALL DREDGE PLAN

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS®

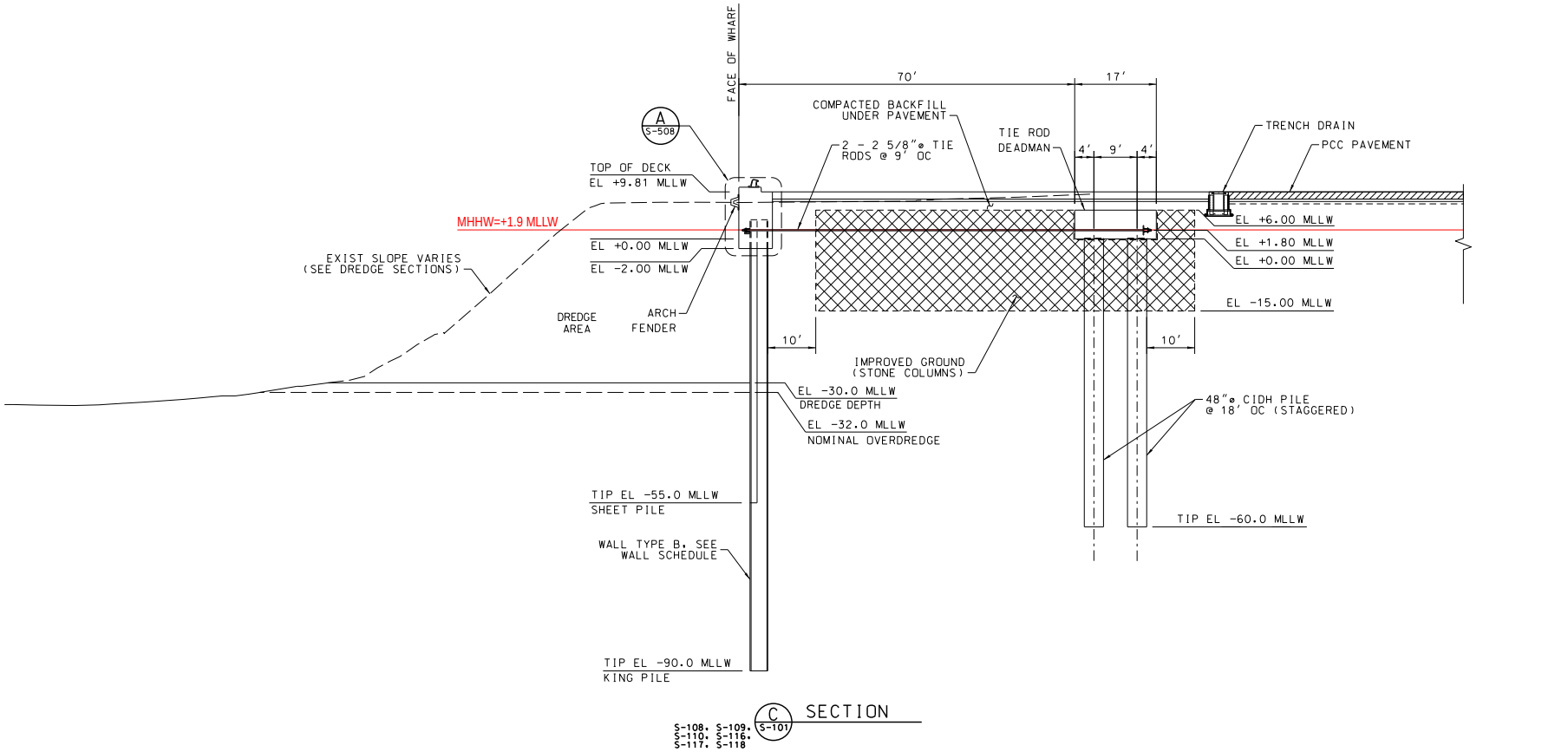


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 4
TYPICAL WHARF SECTION AT PIERS 42 & 43

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

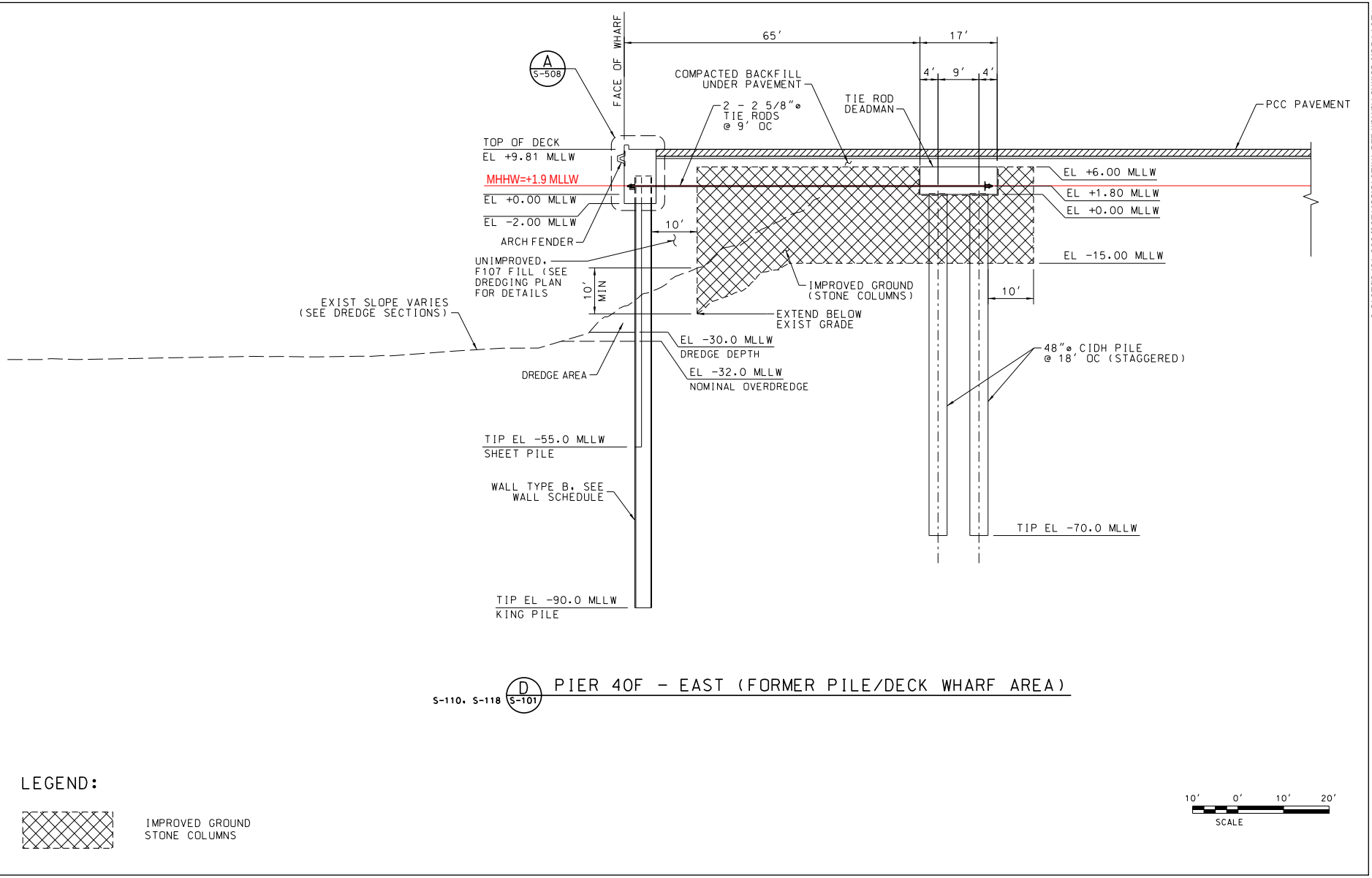


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 5
TYPICAL WHARF SECTION AT PIER 41

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS®

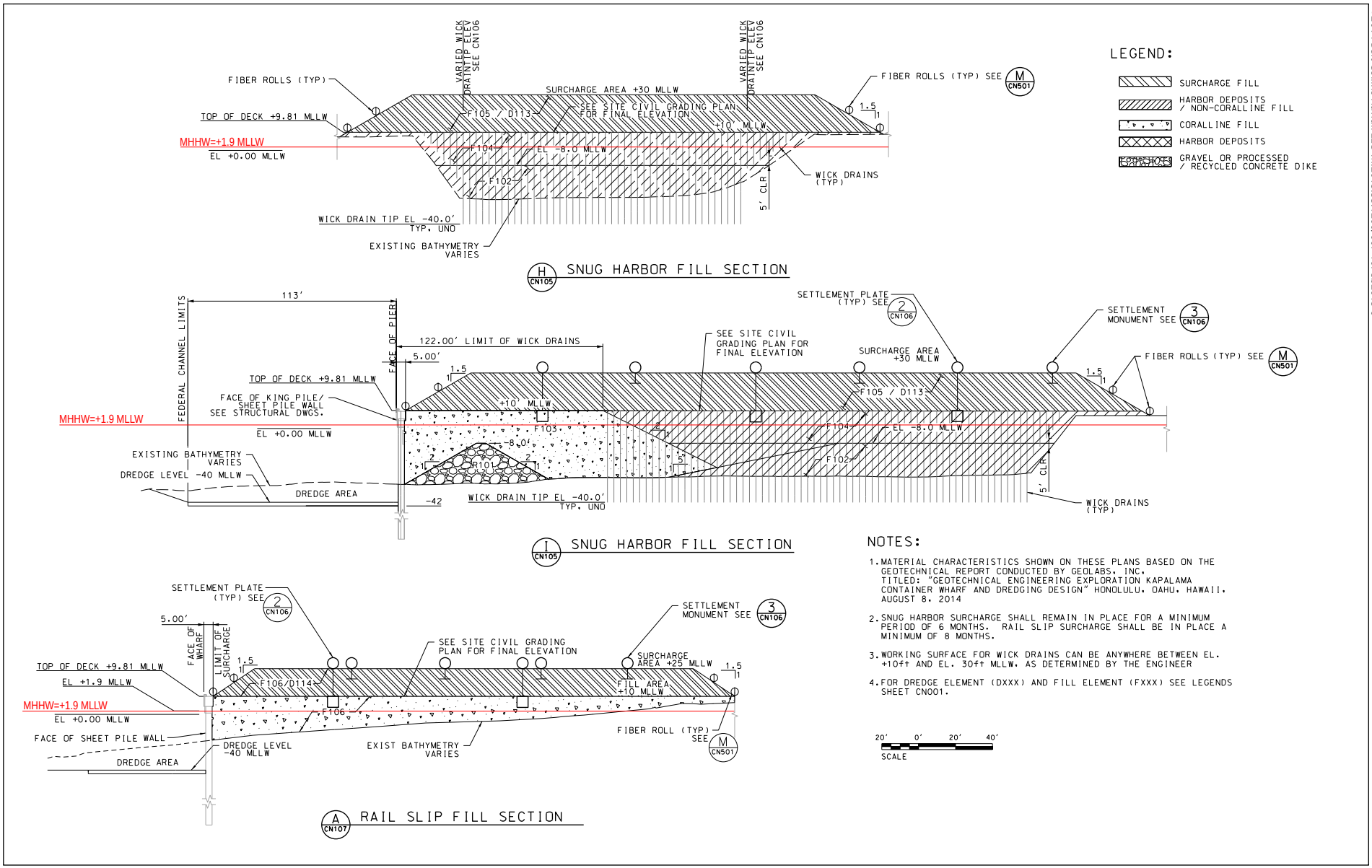


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 6
TYPICAL WHARF SECTION AT PIER 40F

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

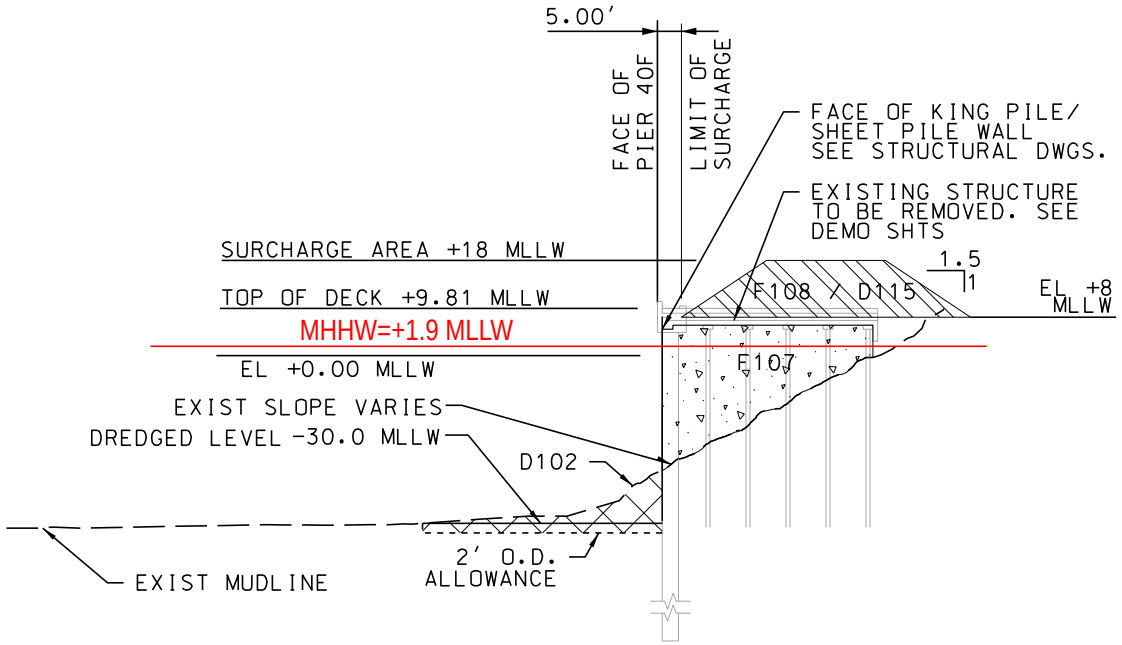


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 7
FILL SECTIONS AT SNUG HARBOR AND RAIL SLIP

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS®



G — PIER 40F TYPICAL SECTION 28+71.41-31+70.00

CN104 CN107

NOTE:

1. MATERIAL CHARACTERISTICS SHOWN ON THESE PLANS BASED ON THE GEOTECHNICAL REPORT CONDUCTED BY GEOLABS, Inc, TITLED:

   "GEOTECHNICAL ENGINEERING EXPLORATION KAPALAMA CONTAINER WHARF AND DREDGING DESIGN, HONOLULU, OAHU, HAWAII" AUGUST 8, 2014

2. FOR DREDGE ELEMENT (DXXX) AND FILL ELEMENT (FXXX) SEE LEGENDS SHEET CN001.

LEGEND:

- EXISTING FILL / SURCHARGE FILL
- CORALLINE FORMATION / FILL
- HARBOR DEPOSITS / DREDGE

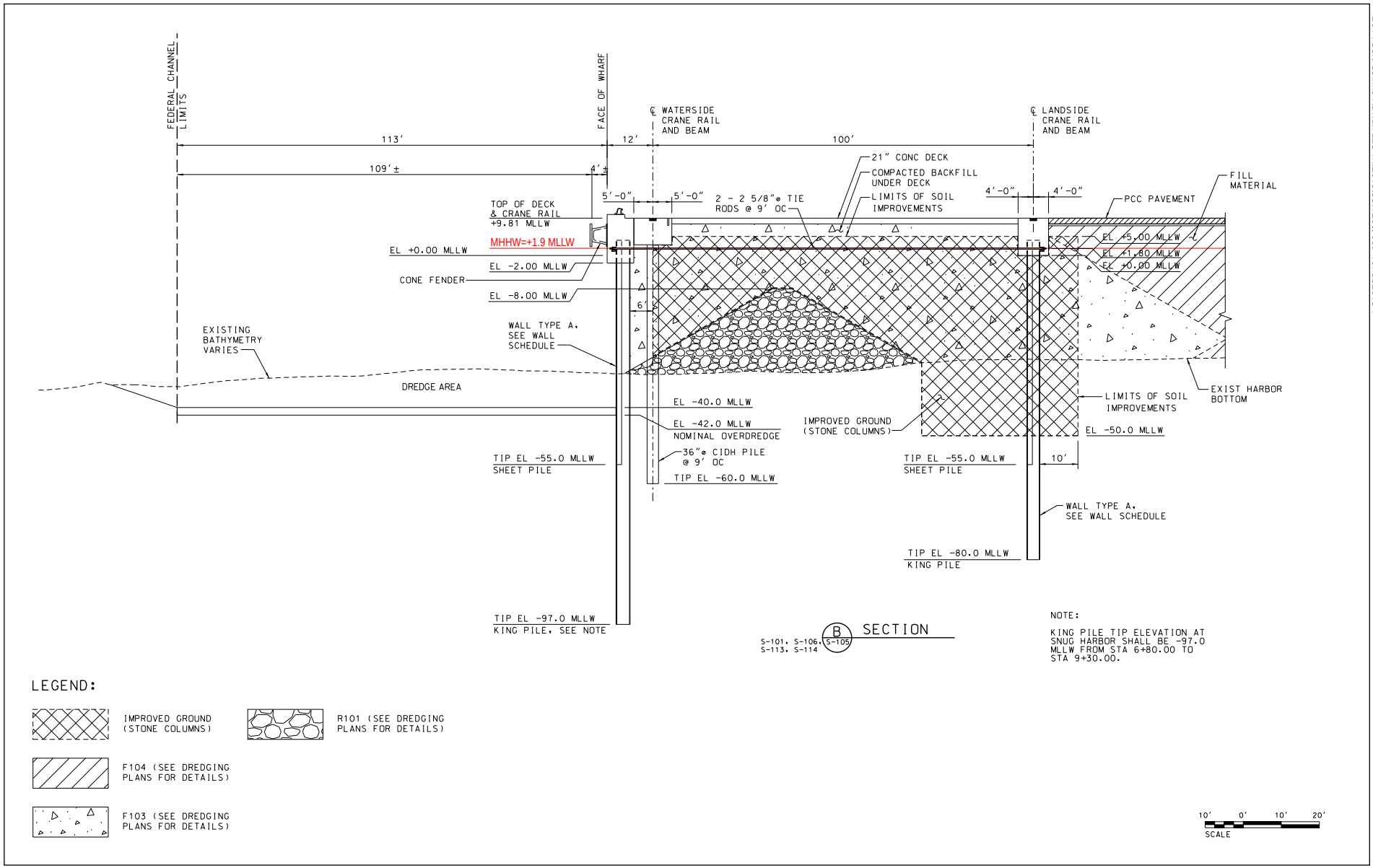
20' 0' 20' 40'
SCALE

Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 8
FILL SECTION AT PIER 40F

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

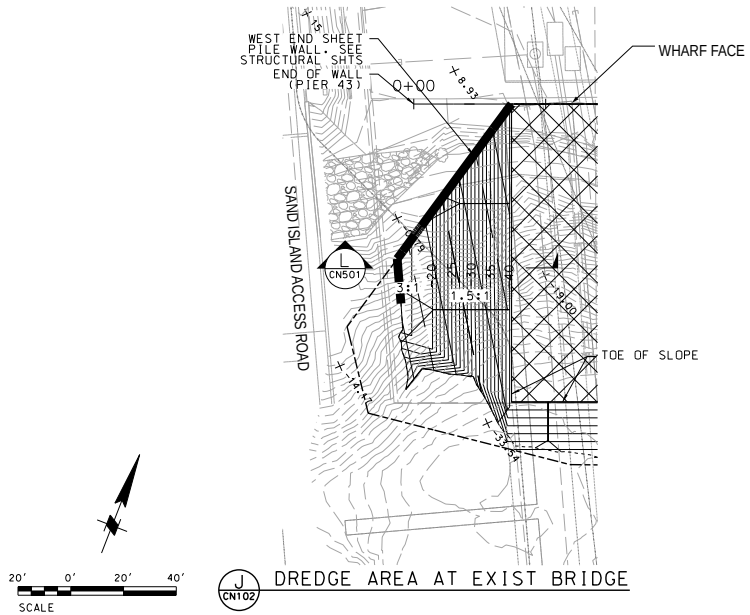


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

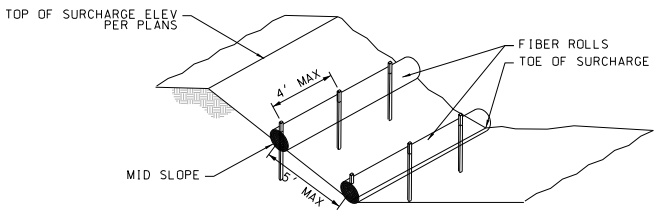
Figure 9
TYPICAL WHARF SECTION AT SNUG HARBOR

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

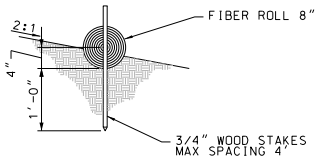
BELT COLLINS®



J CN102 DREDGE AREA AT EXIST BRIDGE



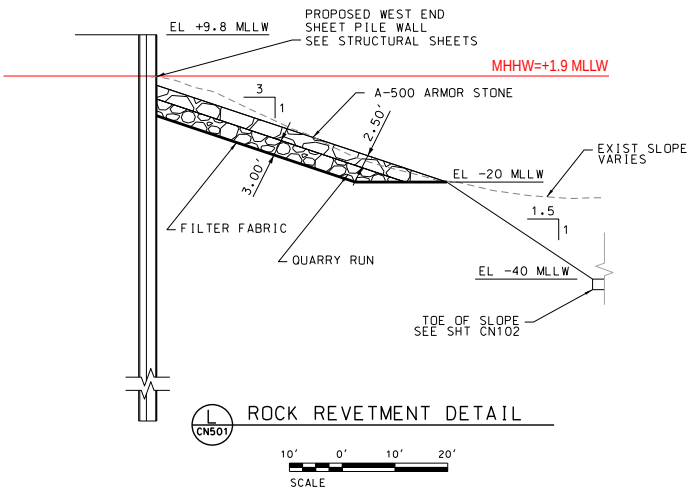
FIBER ROLL INSTALLATION



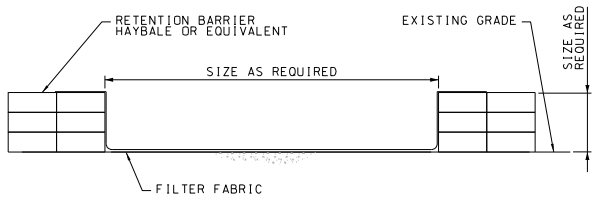
ENTRENCHMENT DETAIL

NOTES:
1. FIBER ROLLS SHALL BE EITHER PREFABRICATED ROLLS OR ROLLED TUBES OF EROSION CONTROL BLANKET.
2. BIND ROLL AT EACH END AND EVERY 4' ALONG LENGTH OF ROLL WITH JUTE- TYPE TWINE.
3. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLL SHALL BE OVERLAPPED MIN. 6".
4. DREDGE MATERIAL TRANSFER AREA TO BE DETERMINED BY CONTRACTOR WITH ENGINEER'S APPROVAL.

CN304 CN107 M CN106 FIBER ROLL DETAIL SCALE: NTS



L CN501 ROCK REVETMENT DETAIL



CN102.CN103.CN104 N CN501 DREDGE TRANSFER DETAIL NONCONTAMINATED MATERIAL (SEE NOTE 3) SCALE: NTS

NOTES:
1. SHEET PILE PENETRATION WILL BE DETERMINED BASED ON GEOTECHNICAL REPORT
2. FOR WEST END SHEET PILE WALL DETAILS SEE STRUCTURAL SHEETS.
3 FOR TRANSFER / TEMPORARY STORAGE OF CONTAMINATED MATERIAL SEE SHEET CE503

Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 10
SLOPE PROTECTION NEAR SAND ISLAND BRIDGE
The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

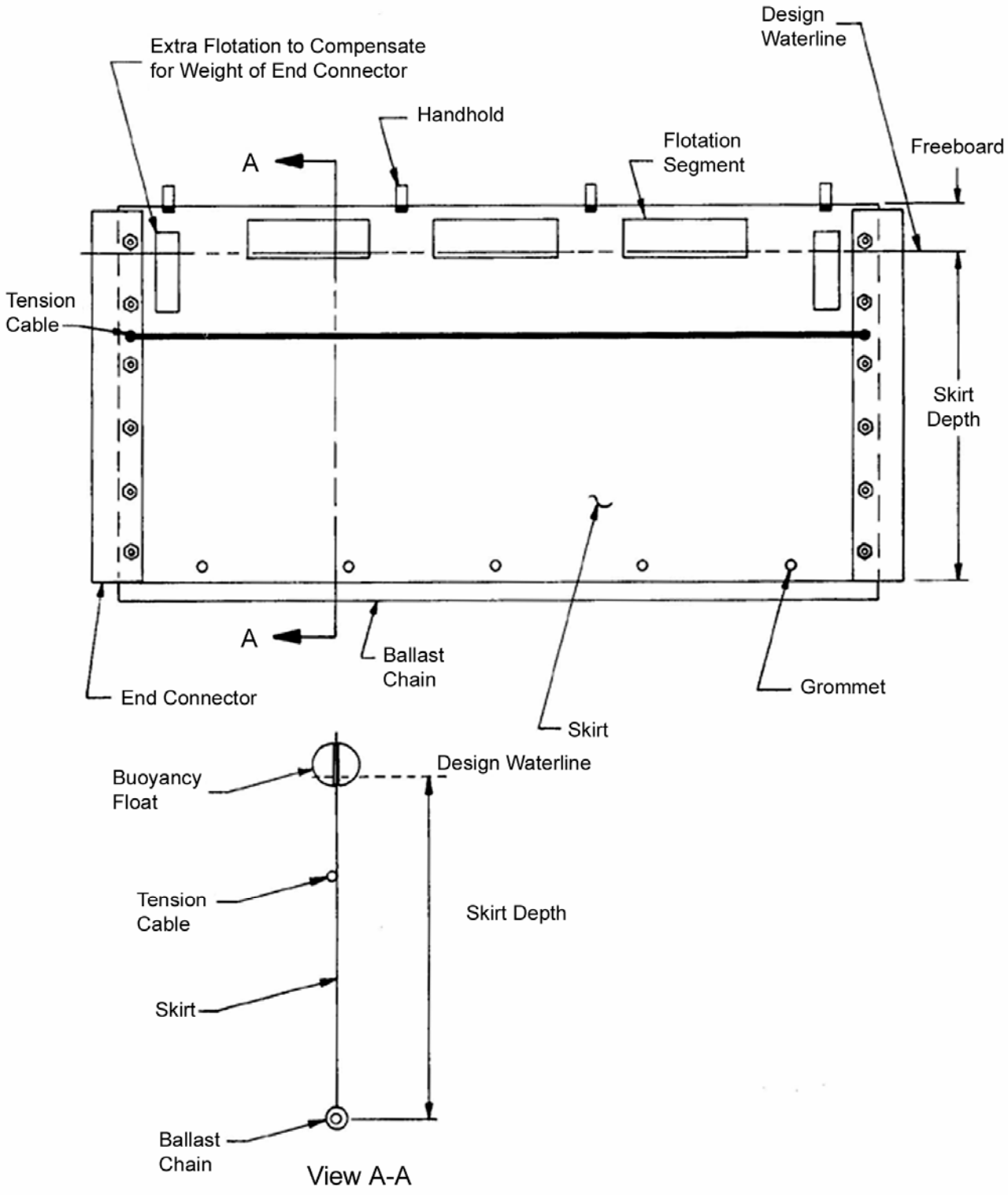


Figure 11
TYPICAL SILT CURTAIN DETAIL

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

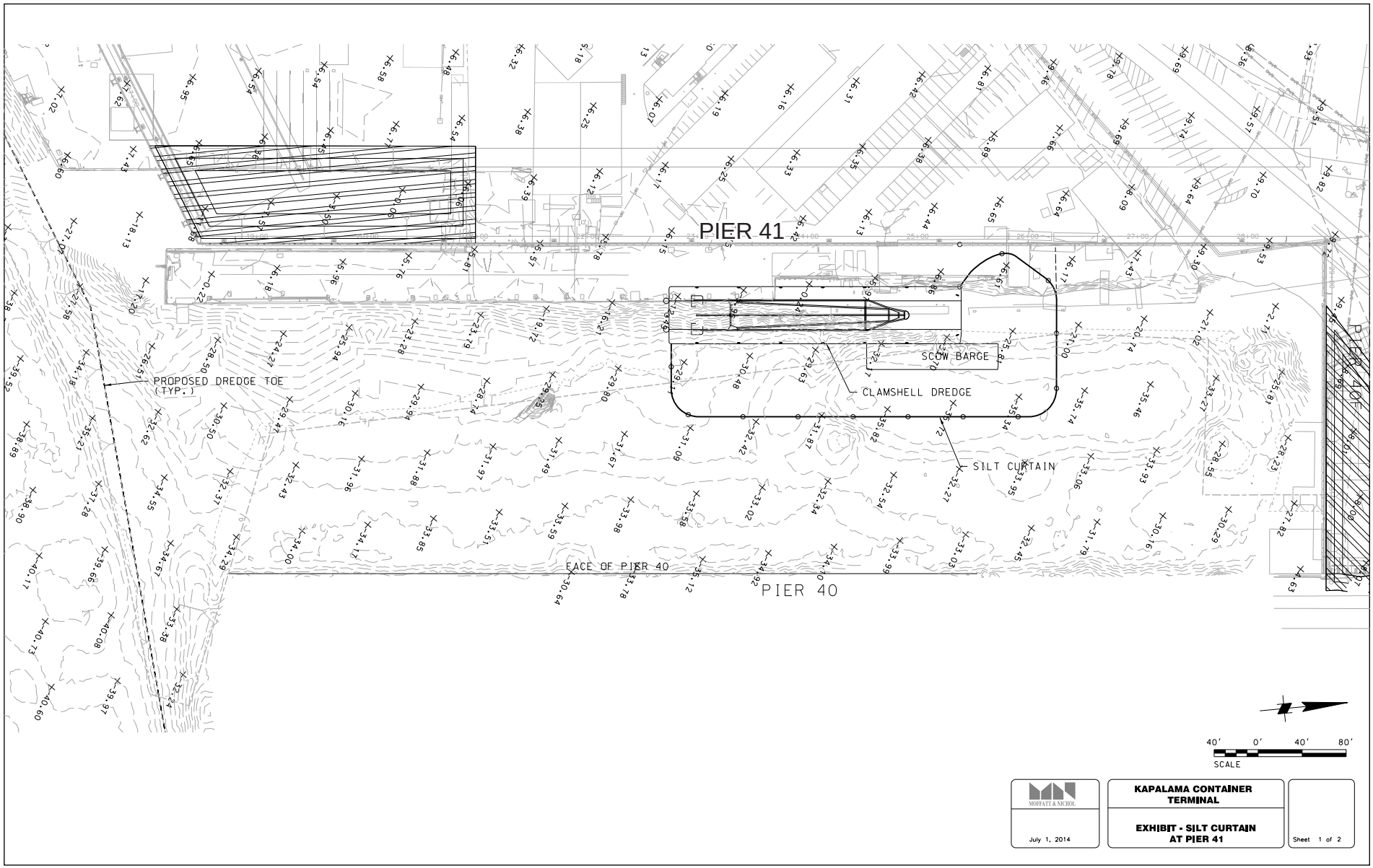


Figure 12
BMP PLAN FOR PIER 41-PIER 40 SLIP

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

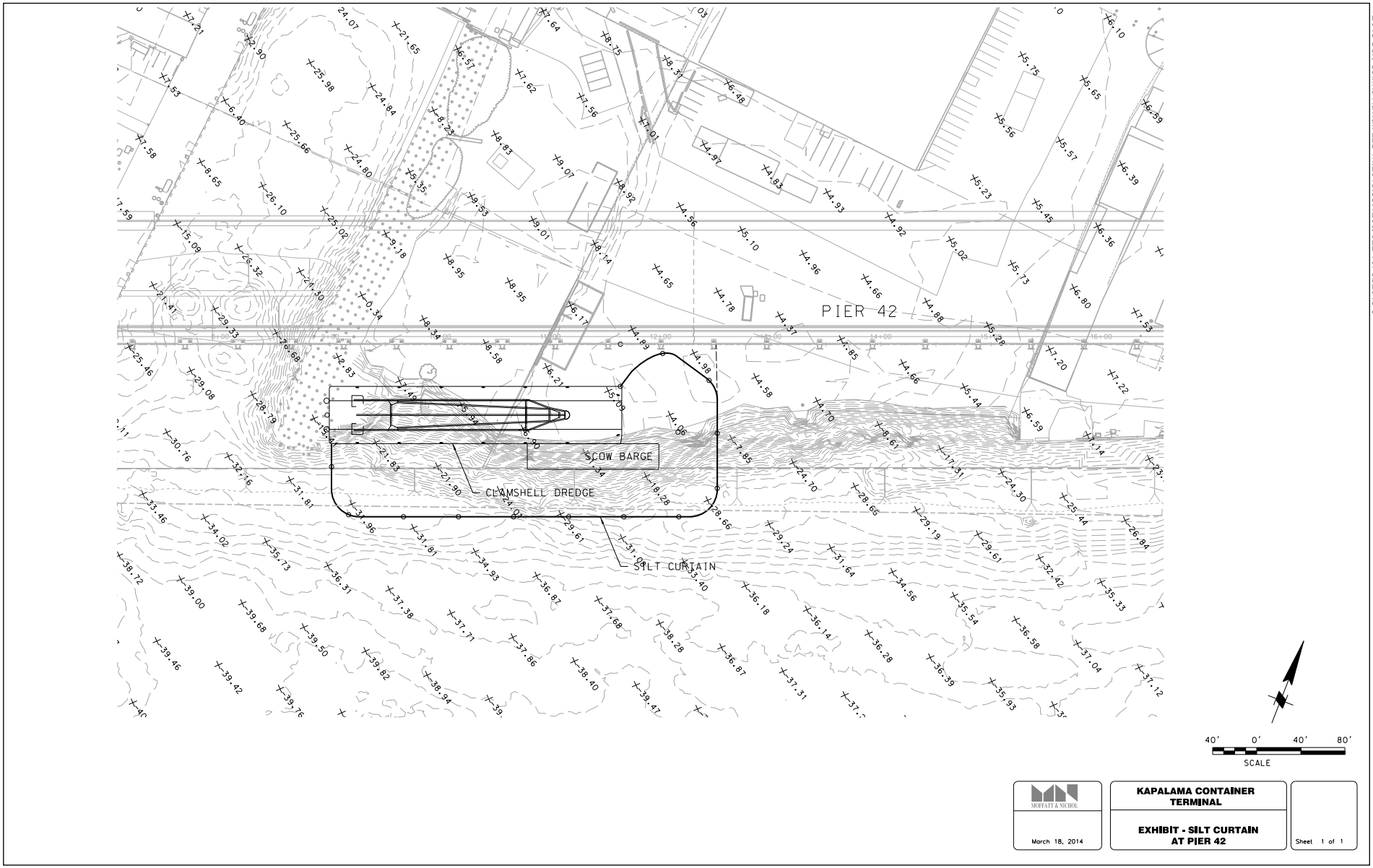
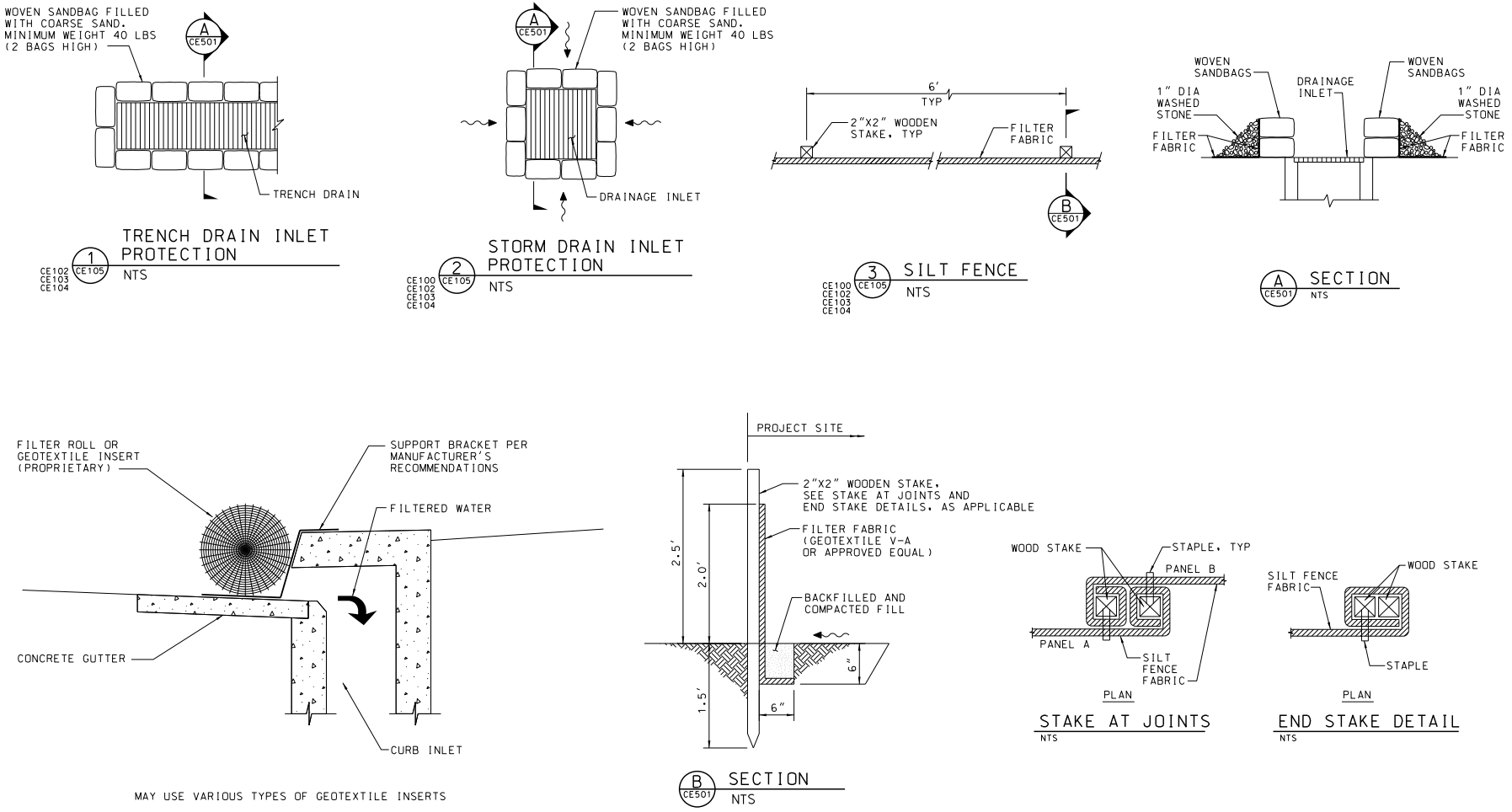


Figure 13
DREDGE BMP PLAN, PIERS 42 & 43

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

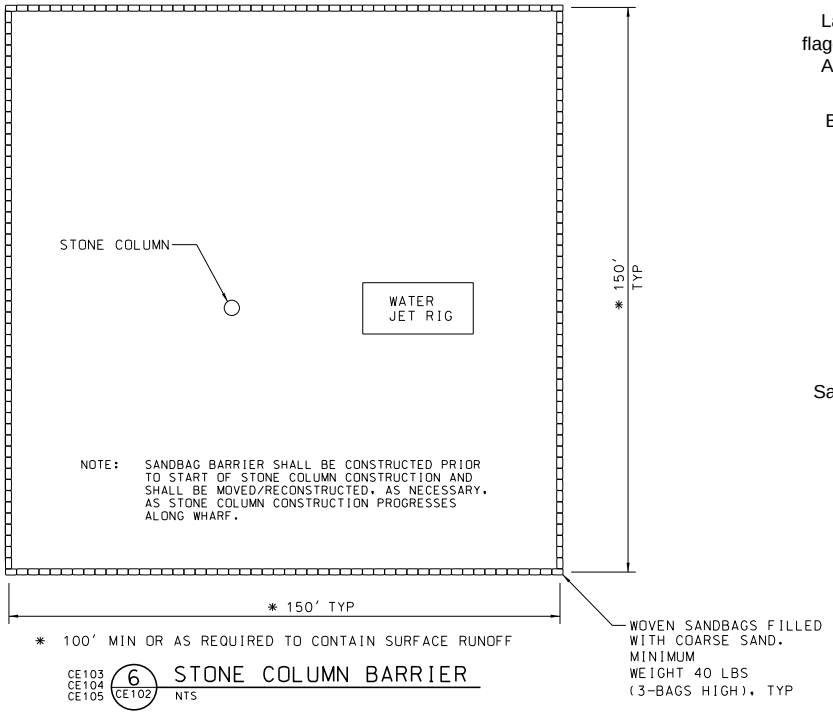


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

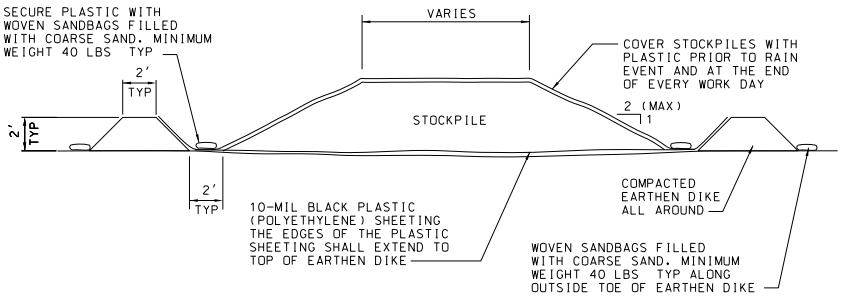
Figure 19
UPLAND BMP DETAILS-1

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

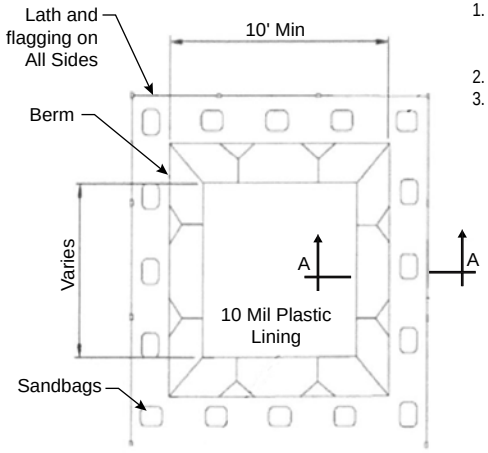
BELT COLLINS



CE103 CE104 CE105 — 6 (CE102) STONE COLUMN BARRIER
NTS

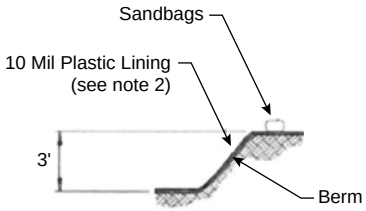


7 (CE105) STOCKPILE PROTECTION DETAIL
NTS

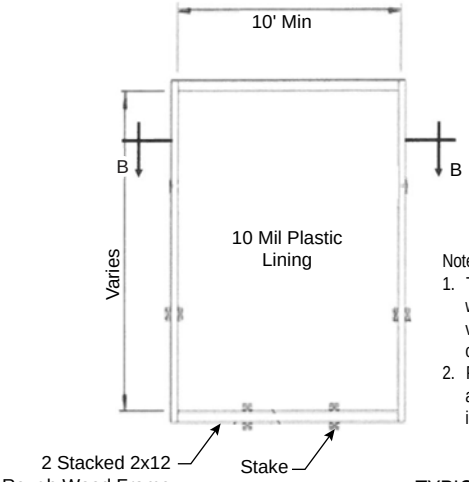


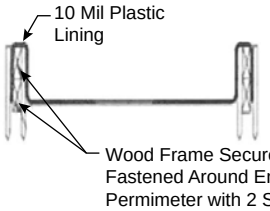
TYPICAL BELOW-GRADE CONCRETE WASHOUT
NTS

Notes:
1. Temporary concrete washout facility (Below Grade) should be constructed with a minimum length and width of 10 ft., but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
2. Lath and flagging should be commercial type.
3. Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears or other defects that compromise the impermeability of the material.



SECTION A-A
NTS





SECTION B-B
NTS

Notes:
1. Temporary concrete washout facility (Above Grade) should be constructed with a minimum length and width of 10 ft., but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations.
2. Plastic lining material should be a minimum of 10 mil polyethylene sheeting and should be free of holes, tears or other defects that compromise the impermeability of the material.

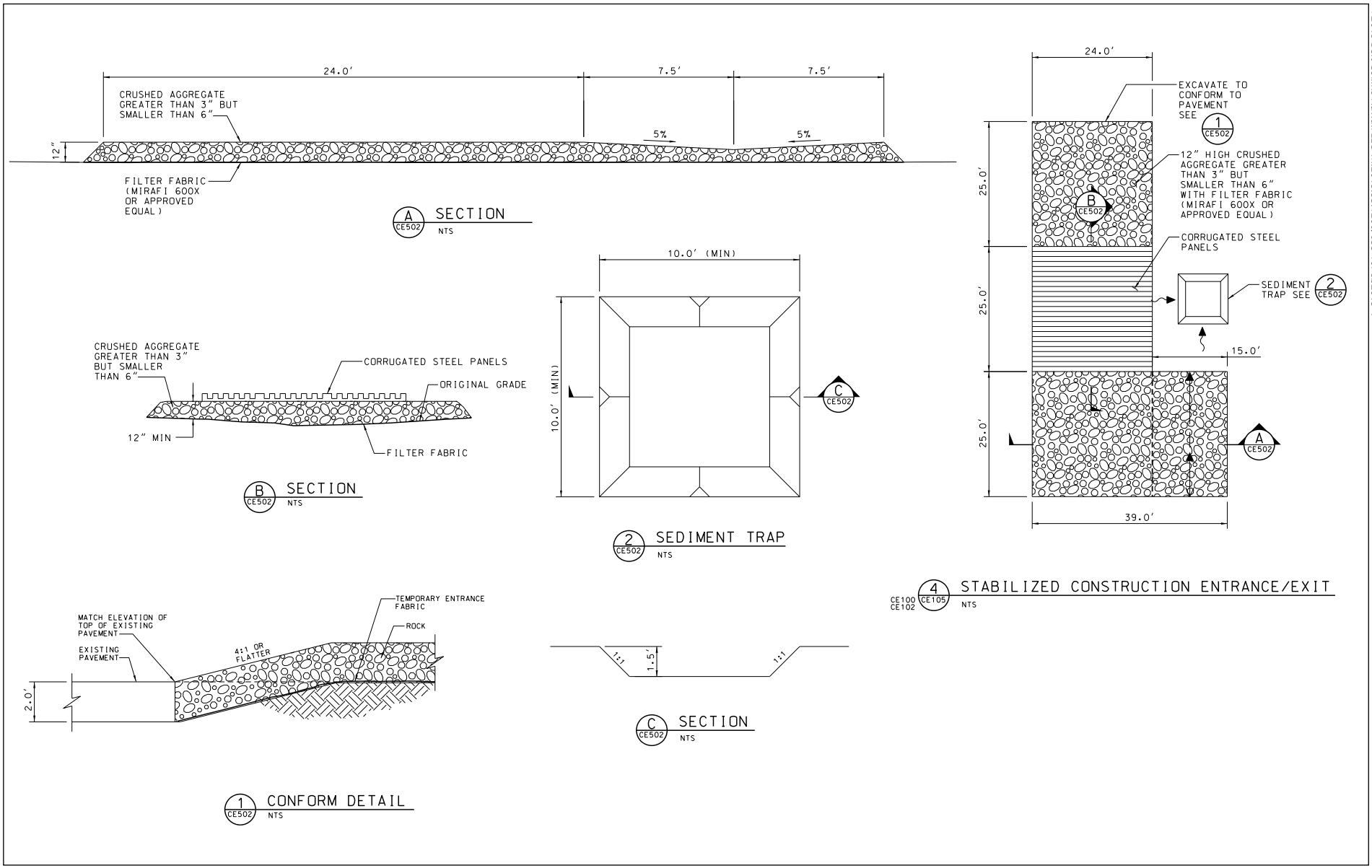
TYPICAL ABOVE-GRADE CONCRETE WASHOUT
NTS

Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15 and City and County of Honolulu Storm Water Best Management Practice Manual, Construction (November 2011)

Figure 20
UPLAND BMP DETAILS-2

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

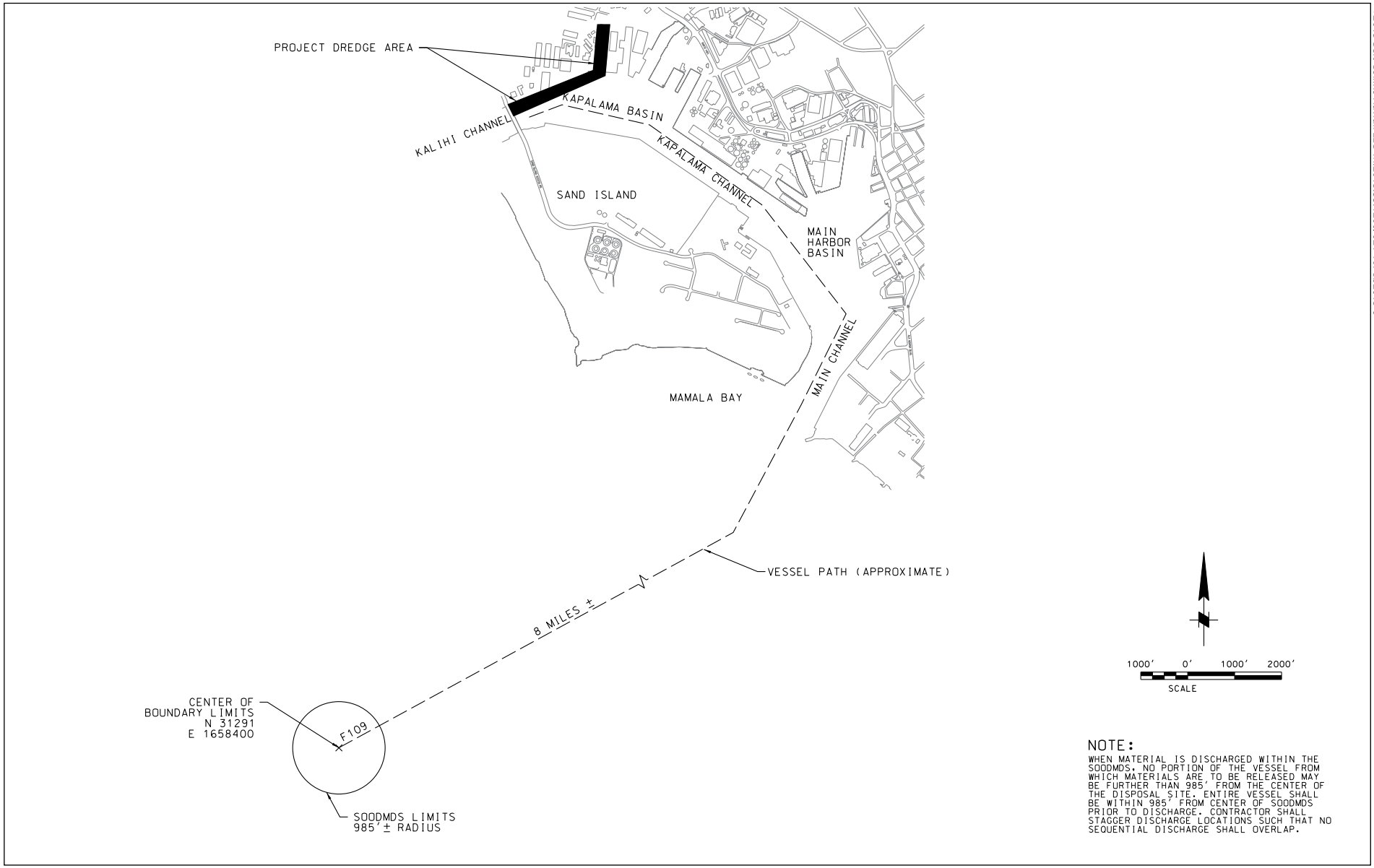


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 21
UPLAND BMP DETAILS-3

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS

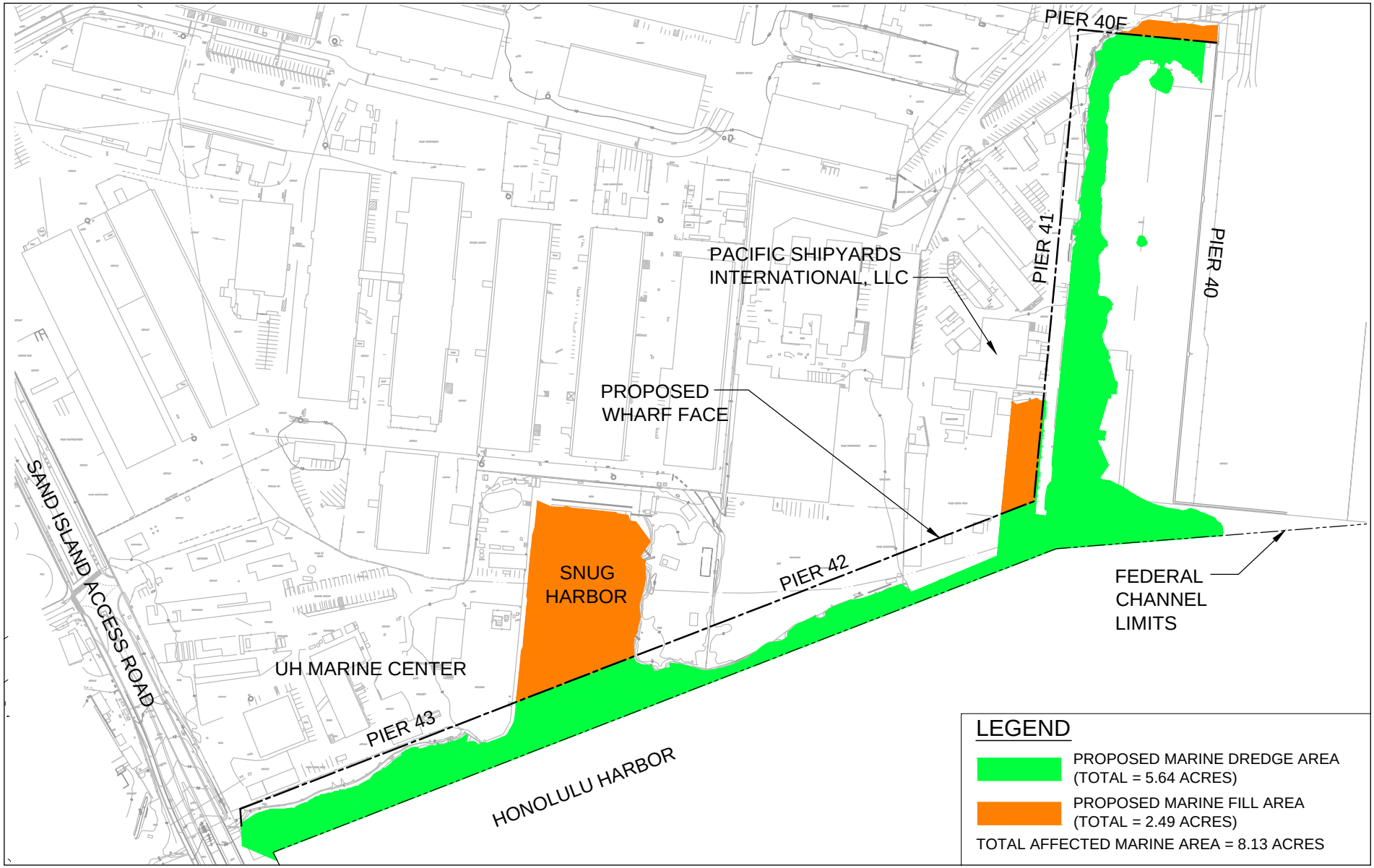


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 23
OCEAN DISPOSAL PLAN

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS



BELT COLLINS

NORTH

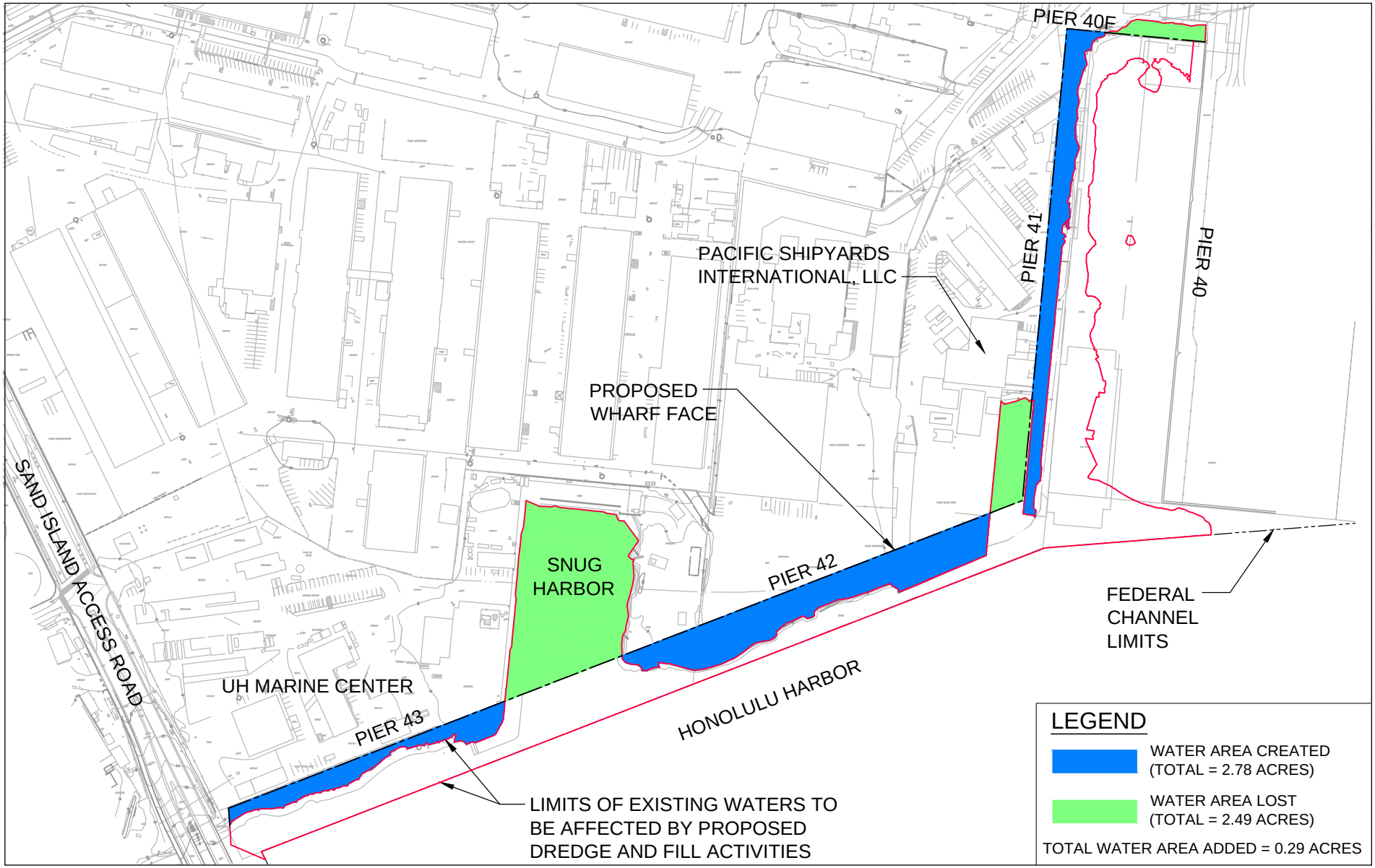
0 75 150 300

SCALE IN FEET

Figure 31

PROPOSED MARINE DREDGE AND FILL AREAS

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015



BELT COLLINS

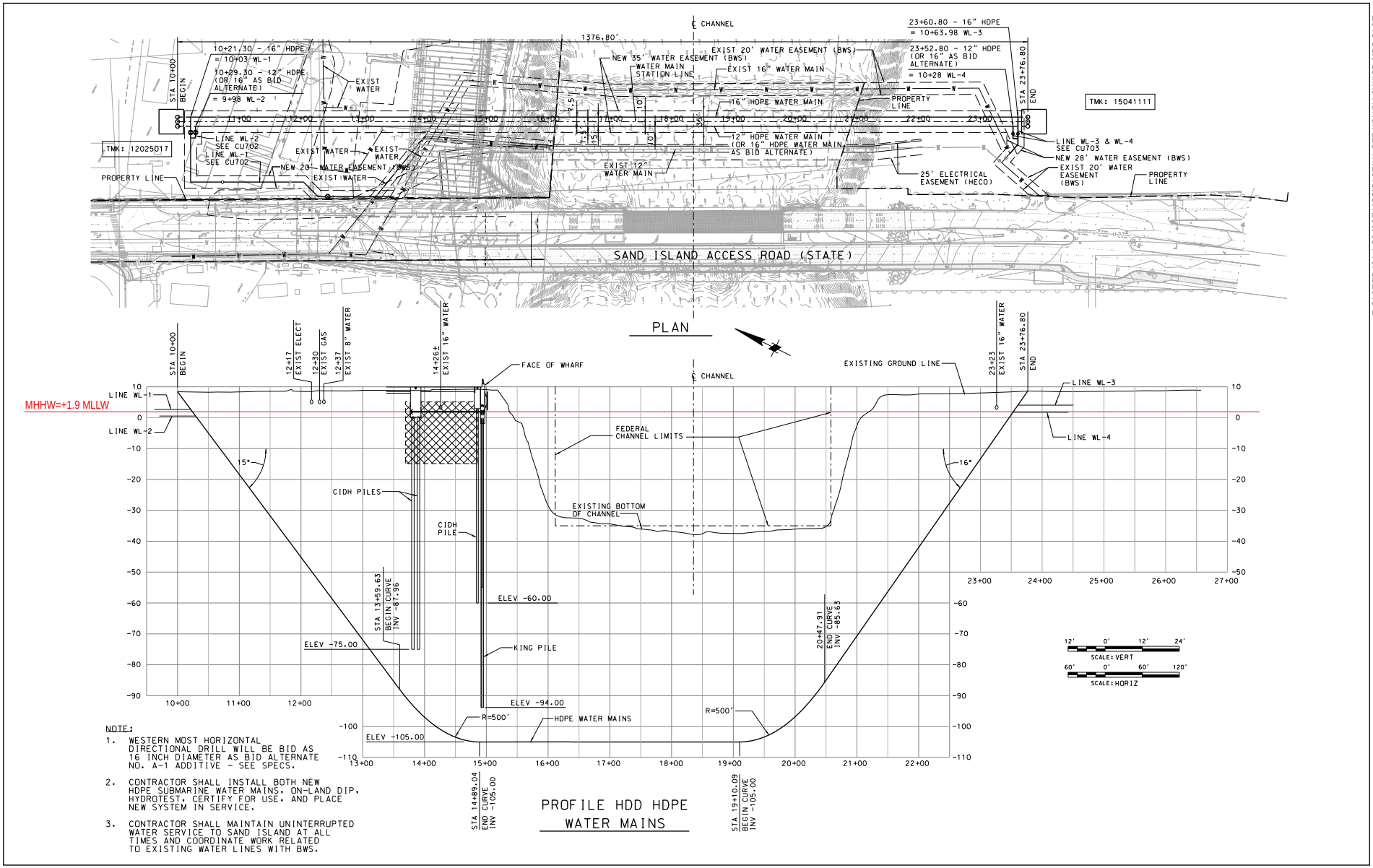
NORTH

0 75 150 300

SCALE IN FEET

Figure 33
PROJECT WATERS

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

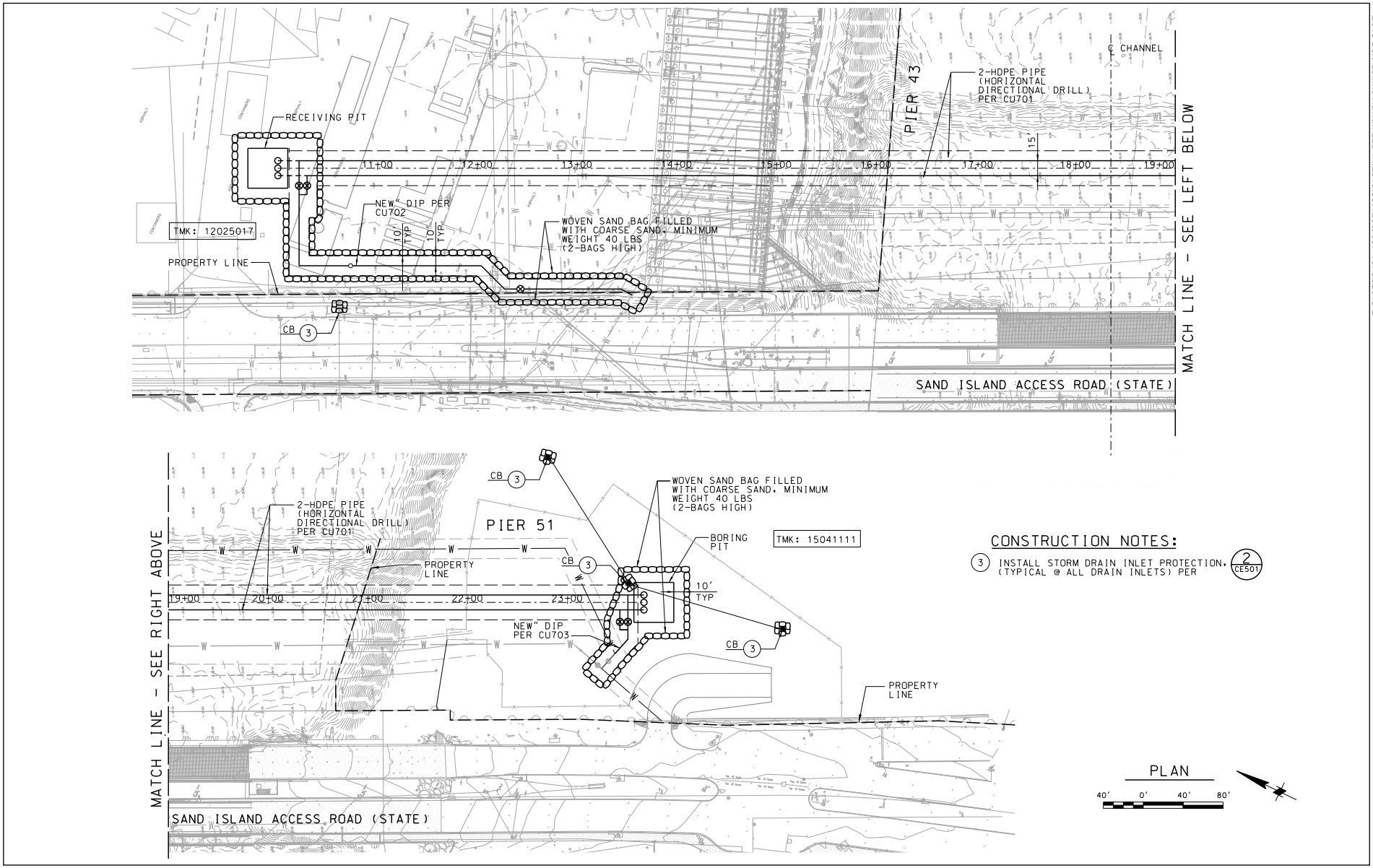


Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 34
HDD WATER LINE PLAN AND PROFILE

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS



Source: Final construction plans for the New Kapālama Container Terminal Wharf and Dredging prepared by Moffatt & Nichol on 1/9/15

Figure 37
HDD WATER LINE BMP PLAN

The New Kapālama Containter Terminal Wharf and Dredging, POH-2012-00081
Department of The Army Permit Application
Department of Transportation, Harbors Division
February 2015

BELT COLLINS