PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

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APPLICATION FOR PERMIT
U.S. Navy Smuggler's Cove Beneficial Reuse Project

Public Notice/Application No.: SPL-2019-00215-RRS
Project: Navy Smugglers Cove Reef Project
Comment Period: May 9, 2019 through June 10, 2019
Project Manager: Robert Smith; (760) 602-4831; Robert.R.Smith@usace.army.mil

Applicant
Commander James Alger
US Navy NBPL Public Works Officer
4835 Pacific Highway
San Diego, California 92110

Contact
Lisa Lyren
US Navy Coastal Environmental
937 N Harbor Drive
(619) 532-4374
San Diego, California 92132

Location

The Navy reef project site is located at Smuggler's Cove intertidal beach and sub tidal areas located at Naval Base Point Loma (NBPL) and adjacent to the U.S. Coast Guard Mooring Ballast Point Facility (MBP), on the northern side of the Ballast Point Peninsula in San Diego, California. The project is located in the city of San Diego, in San Diego County, CA (at: Latitude 32.685853 degrees North, Longitude -117.235345 degrees West).

Activity

The proposed action is for a 5 year Corps permit, per the attached drawings, would involve the creation of an artificial reef (FeISH Reef) and the restoration of the Smuggler's Cove beach through beneficial re-use of 8,000 cubic yards (cy) of clean concrete piles and rubble from the demolished Navy Fuel Pier with up to 30,000 cy of sand to be dredged from the USCG Mooring Ballast Point (MBP) dredging project. The proposed project would restore the sub tidal and intertidal beach for recreation and shallow water reef habitat as per goals identified in the San Diego Bay Integrated Natural Resource Management Plan (INRMP) at Smuggler's Cove. The adjacent USCG project was permitted and dredging of the USCG MBP facility and reuse of the dredged material from the MBP facility onto the Smugglers Cove beach area has occurred. The concrete piles and rubble are located at an upland area near the Naval Fuel Pier at NBPL and will be transported to the project site at Smugglers Cove. Specifically the project would construct an artificial reef, eelgrass habitat, and beach nourishment at Smugglers Cove at Naval Base Point Loma in association with the U.S. Coast Guard Ballast Point Dredging Project. For more information see Additional Project Information section below.

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, with special conditions, or denied under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Robert Smith
Carlsbad Field Office
5900 La Place Ct., Suite 100
Carlsbad, CA 92008

Alternatively, comments can be sent electronically to: Robert.R.Smith@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

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. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the 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. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- The Navy, as the lead Federal agency, has certified the proposed activity would comply with and would be conducted in a manner consistent with the approved State Coastal Zone Management Program and per their CZMA Negative Determination concurrence dated February 6, 2019.

Essential Fish Habitat- Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and EFH is affected by the proposed project. The Navy, as the lead federal agency, has determined that the proposed project would adversely impact EFH and is currently in consultation with NMFS for impacts to EFH as described in the attached analysis. The Navy will provide documentation of consultation upon conclusion and the Corps shall review the documentation.

Cultural Resources- The Navy is the lead Federal agency for consulting with the State Historic Preservation Office (SHPO) and complying with Section 106 of the National Historic Preservation Act for the project. In accordance with Stipulation 6 of the Navy's 2014 NBPL Programmatic Agreement (PA), the Navy has defined the area of potential effect (APE) for this undertaking as the entire project area. The Navy has evaluated this project and determined that an historic property exists in the APE. Based on the information provided, the Navy has determined that the proposed action will have "No Adverse Effect" to historic properties, consistent with Stipulation 8B of the PA and 36 CFR 800.5(b).

The Corps will review the final lead agency determination and make our determination during the permit process.

Endangered Species- California Least Tern (*Sterna antillarum browni;* CLT) nesting season is from 01 April to 15 September and the Navy is proposing to start work September 2019 and avoid affecting the CLT. The proposed project footprint is located within a foraging area identified per the Navy's MOU with US Fish and Wildlife Service. The proposed project would involve a temporary increase of vessel traffic, the construction of a structure on the sea floor, and a temporary increase in turbidity in and in the vicinity of Smuggler's Cove. The project footprint currently supports eelgrass. CLT nesting season is from 01 April to 15 September.

The Navy as the lead federal agency has made a determination that the proposed project may affect but is not likely to adversely affect green sea turtles (*Chelonia mydas)* as green sea turtles may transit in the vicinity of the project area. The Navy is consulting with National Marine Fisheries Service for potential impacts to green sea turtle concurrently with the Corps permit process and will provide any correspondence from said consultation to the Corps upon completion.

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 hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). Because no fills are proposed within special aquatic sites, identification of the basic project purpose is not necessary. The basic project purpose for the proposed project is to perform ecological restoration and beach nourishment. The project is water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to perform ecological reef creation and beach nourishment for naval mitigation requirements in San Diego Bay, CA.

Additional Project Information

Baseline information- The existing project area is an existing NBPL park and naval beach area that has recently received almost 29,000 cubic yards of clean suitable sandy dredged material from the adjacent USCG dredging project which is now completed. The project area is inland and north of the existing USCG Ballast Point (MBP) facility and the naval dry-dock area. The Navy Fuel Pier project which was completed last year resulted in large amount of removed piles that are now stockpiled at NBPL that will be used to construct the reef. Emergency dredging of the MBP was done in 2019. Also the Navy has an existing adjacent dry-dock that has serviced naval vessels for many decades. Corps permits have allowed many dredging and construction projects in the project area for NBPL, along with the naval Magnetic Silencing Facility, a naval submarine base, and the Navy Fuel

Pier. Also the Corps maintains the Corps Federal San Diego Bay Entrance channel dredging and disposal project just south and adjacent to the project area.

In reference to the completed beach nourishment work from the USCG MBP project the Corps and EPA completed a review of the recent final testing of the dredged material to be disposed at MBP and a sampling and analysis plan (SAPr) per the Inland Testing Manual (ITM) findings that indicated the sand disposed of had no significant acute toxicity (based on comparison to reference survival) and no significant chronic toxicity. The Corps and EPA Region 9 approved the final ITM SAPr via email on December 20, 2018 and determined the project sediments are suitable for ocean disposal and restoration of the Smugglers Cove beach for both grain size and chemical testing compliance. The project will impact approximately 2.5 acres of beach slope area of intertidal and sub tidal habitat and any impacts.

The Fuel Pier Replacement Project, Military Construction (MILCON) Project (P-1306) at Naval Base Point Loma (NBPL) included dredging and beneficial reuse of dredged sand in the shallow subtidal area off of the Navy's Boat Lanes along the Silver Strand, demolition of the existing pier, and construction of the new pier and facilities including upgrades to the electrical infrastructure. The project also cut concrete piles and crushed concrete deck material and set this material aside for beneficial reuse. Material has been earmarked for the creation of the proposed Fish, eelgrass, Intertidal, Subtidal Habitat Reef (FeISH Reef) at Smuggler's Cove. Smuggler's Cove, located on NBPL is a diminishing cove and beach due to the lack of a sand replenishment source and El Nino events eroding its bayward margin into the adjacent maintained navigation basin (Figure 1).

Historically, Smuggler's Cove supported a wide beach as did much of Point Loma as sand was transported into the bay though the mouth. However, with development of pier structures and deep navigation features in the bay, the sandy shoreline along Point Loma has been highly diminished in extent to the point that only a few beaches remain in northern San Diego Bay.

Project description- The proposed action, per the attached drawings, would involve the Navy's creation of a reef (FeISH Reef) and the restoration of the Smuggler's Cove beach through beneficial re-use of clean concrete piles and rubble from the demolished Navy Fuel Pier and of 29,000 cy of sand to be dredged from USCG Ballast Point. The sand would be delivered and stockpiled at Smuggler's Cove beach under the USCG Ballast Point Moorings Dredging Project. The USCG Ballast Point sand has been pumped to the Smuggler's Cove site via hydraulic dredge and is temporarily stockpiled on the beach prior to installation of the submerged buttressing reef. The FeISH Reef would beneficially re-use approximately 8,000 cubic yards (cy) of concrete pile segments and rubble to develop a crescent shaped buttress extending to a depth of -32 feet (ft.) mean lower low water (Mean Lower Low Water = 0 datum), and rising to meet intertidal elevations at two points on the shoreline revetment. The first is at an elevation of +7 ft. MLLW on a revetment slope located at the northwest point of Smuggler's Cove, while the second point of connection is along the revetment adjacent to the small craft launch ramp at the east end of the cove, where placed concrete blocks would bring the elevation along the upper end of the ramp to +10 ft. MLLW. Between the wings, the central portion of the crescent would reach an elevation of -5 ft. MLLW.

The discharge of sand would beneficially re-use beach-quality dredge material to restore the beach and shallow water habitat at Smuggler's Cove and support the existing seawall. The discharge of the recycled concrete would create a reef structure that would retain the sand on the beach to stop beach erosion and reduce sediment deposition at the USCG Ballast Point facility. The proposed project would restore the beach for recreation and shallow water habitat as per goals identified in the San Diego Bay Integrated Natural Resource Management Plan (INRMP) at Smuggler's Cove by creating a reef, the FeISH Reef, using recycled concrete from the NBPL Fuel Pier Project and

discharging clean, beach- quality sand from the USCG Ballast Point Moorings dredging by USCG.

Eelgrass would be planted, monitored, and added to the Navy's Eelgrass Mitigation Bank to mitigate for current and future Navy projects. Placement of the re-purposed piles and crushed concrete will create a groin to retain sand while providing much needed reef habitat in San Diego Bay. In addition, the reuse of concrete piles from the P-1306 supports both the solid waste reduction and diversion goals under the Navy's Waste Management Plan, San Diego Metro Area landfill reduction goals, as well as supporting the Navy's commitment to opportunistic marine habitat enhancement dictated by the San Diego Bay Integrated Natural Resource Management Plan

The core of the buttress reef would be constructed of crushed concrete rubble, while the outer face of the reef would be covered by the larger concrete blocks salvaged from the demolished pier. The total area to be filled by the actual piling fill for the FeISH Reef is 0.81 ac. The reef material, recycled concrete from NBPL Fuel Pier, would be trucked or barged to the site per the attached figures. The reef material would be placed on the sea floor within the FeISH Reef footprint from a barge with a clamshell and bulldozer. Some shallow-water components of the FeISH Reef, e.g. the reef wings, would be installed from the shore using a bulldozer and excavator. No intrusive sediment activities are proposed to create the reef.

The FeISH Reef would not restrict or endanger public navigation. The FeISH Reef is located within designated Security Zone 165.1102 which states "Entry into, or remaining in, the areas of either zone is prohibited unless authorized by the Captain of the Port San Diego; Commanding Officer, Naval Base Point Loma; or Commander, Naval Region Southwest." In addition to the Security Zone, five new navigational buoys would be installed at the -20 ft. MLLW contour line on the water ward side of the FeISH Reef to ensure safe navigation in the vicinity of the reef.

Shoreward of the FeISH Reef, 29,000 cy of sand from the USCG maintenance dredging project which is now stockpiled at the project site would be used to fill the shoreline basin at Smuggler's Cove to create a supratidal beach buttressing an existing seawall and providing recreational opportunities. The USCG project permit work was recently completed and did include activities associated with the initial placement and stockpiling of the USCG dredge material at the beach at Smuggler's Cove.

Following construction of the FeISH Reef, the Navy proposes to redistribute the sand from the USCG Ballast Point Dredging Project to restore the beach, intertidal, and subtidal habitat at Smuggler's Cove within the basin created by the reef. The beach would slope to intertidal and ultimately subtidal elevations at a nominal slope of 10:1. At the base of beach slope at -2 ft. MLLW, the subtidal zone would flatten to a gradually sloping plateau extending out to an elevation of -5 ft. MLLW where the sand would meet the crest of the retaining reef sill. The sand would be re-distributed using land-based equipment including a bulldozer and excavator and water-based barge-mounted clamshell.

The project would impact 0.05 acre of eelgrass within Smuggler's Cove by the initial placement and stockpiling of sediment at Smuggler's Cove Beach. This impact would be mitigated at a 1:1 ratio at the approved Navy Eelgrass Mitigation Bank Navy Eelgrass Mitigation Site 5 (NEMS 5). Also a pre-construction eelgrass survey would be conducted per the California Eelgrass Mitigation Policy to verify the loss of 0.05 acres of eelgrass. The subtidal flat, restored by the placement of the sand from the USCG dredging project, from 0 ft. to -5 ft. MLLW would be planted with eelgrass providing an estimated 0.4 acre of new eelgrass. Eelgrass would be planted in the site after completion of construction. The restored eelgrass within the project site would be folded into the Navy's mitigation bank as NEMS 7. As such, NEMS 7 would be monitored and managed per the eelgrass mitigation banking instrument for the Navy's Eelgrass Mitigation Bank. The placement of fill to restore the beach

and shallow water habitat would be a conversion of habitat type, however this conversion is consistent with the historical habitat type at this location. Historic records indicate that the project area beach began eroding in the 1920's due to the lack of a sand replenishment source and El Niño events. Restoring shallow water habitat is consistent with the goals set forth in the San Diego Bay INRMP.

Dredging of USCG Ballast Point occurred in February-March 2019, with stockpiling of sediment to occur concurrently with dredging. At this time, the Navy anticipates awarding a contract in the summer of 2019 and starting construction at Smuggler's Cove in the following fall. Construction described above is anticipated to last approximately three months. Eelgrass planting would occur during the first growing season following installation of the FeISH Reef and restoration of appropriate water depths by re-distribution of sand from the recently completed and stockpiled sand from the USCG dredging project.

Work would be conducted in two phases to make use of dredged material by the Coast Guard now onsite and salvaged material from the Navy pier project to implement objectives of material reuse, shoreline softening, and opportunistic habitat enhancement within San Diego Bay. The proposed work would be conducted from shore to the maximum extent practicable although much of the work will need to occur from a barge in the cove. The in-water work would occur within a protected embayment of San Diego Bay. Material would be placed both intertidally and subaqueously using standard marine construction equipment.

Proposed Mitigation–The project will create reef and eelgrass habitat and the proposed project may change as a result of comments received in response to this public notice and the applicant's response to those comments. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: Since the project provides for ecological restoration no avoidance measures are proposed as the project will create hard reef habitat and eelgrass habitat.

Minimization: The Contractor shall discharge only clean construction materials suitable for use in the aquatic environment. The Contractor shall ensure no debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the United States. Upon completion of the project the Contractor shall completely remove any and all excess material or debris from the work area and recycle or dispose of these materials in an appropriate upland location. Every reasonable and practical effort shall be employed to minimize any accidental release into waters of the U.S. Spill kits and cleanup materials will be present during construction, should there be an accidental spill or release of debris, construction materials, etc. A debris boom will be installed during in-water construction. Any debris accidentally discharged into the water will be collected, transported to, and disposed of, at an appropriate upland disposal site, or recycled, if appropriate.

Compensation: The project would impact 0.05 acre of eelgrass within Smuggler's Cove by the initial placement and stockpiling of sediment at Smuggler's Cove Beach. This impact would be mitigated at a 1:1 ratio at the approved Navy Eelgrass Mitigation Bank Navy Eelgrass Mitigation Site 5 (NEMS 5). Also a pre-construction eelgrass survey would be conducted per the California Eelgrass Mitigation Policy to verify the loss of 0.05 acres of eelgrass. The subtidal flat, restored by the placement of the sand from the USCG dredging project, from 0 ft. to -5 ft. MLLW would be planted with eelgrass providing an estimated 0.4 acre of new eelgrass. The restored eelgrass within the project site would be folded into the Navy's mitigation bank as NEMS 7. As such, NEMS 7 would be monitored and managed per the eelgrass mitigation banking instrument for the Navy's Eelgrass Mitigation Bank.

Proposed Special Conditions

None are proposed at this time. For additional information please call Robert Smith of my staff at (760) 602-4831 or via e-mail at Robert.R.Smith@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.

Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
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NBPL - SMUGGLERS COVE FISH, EELGRASS, INTERTIDAL, SUBTIDAL HABITAT (FeISH) REEF

Site Location
United States Naval Base Point Loma,
Smugglers Cove, San Diego, CA

FIGURE **1**

STOCKPILE/WHARF/HAUL ROUTES
NTS

ACCESS/AREA MAP
SCALE: 1" = 200'

LEGEND:

TRUCK TRANSPORT ROUTE

BARGE TRANSPORT ROUTE

200' 0' 200' 400'
SCALE: 1"=200'

2019-04-18 ISSUED FOR CONSTRUCTION

MARK	
DATE	
DESCRIPTION	

NAVFAC

REGISTERED PROFESSIONAL ENGINEER ALAN E. ALCORN No. 36045 EXP. 6/30/20 CIVIL STATE OF CALIFORNIA

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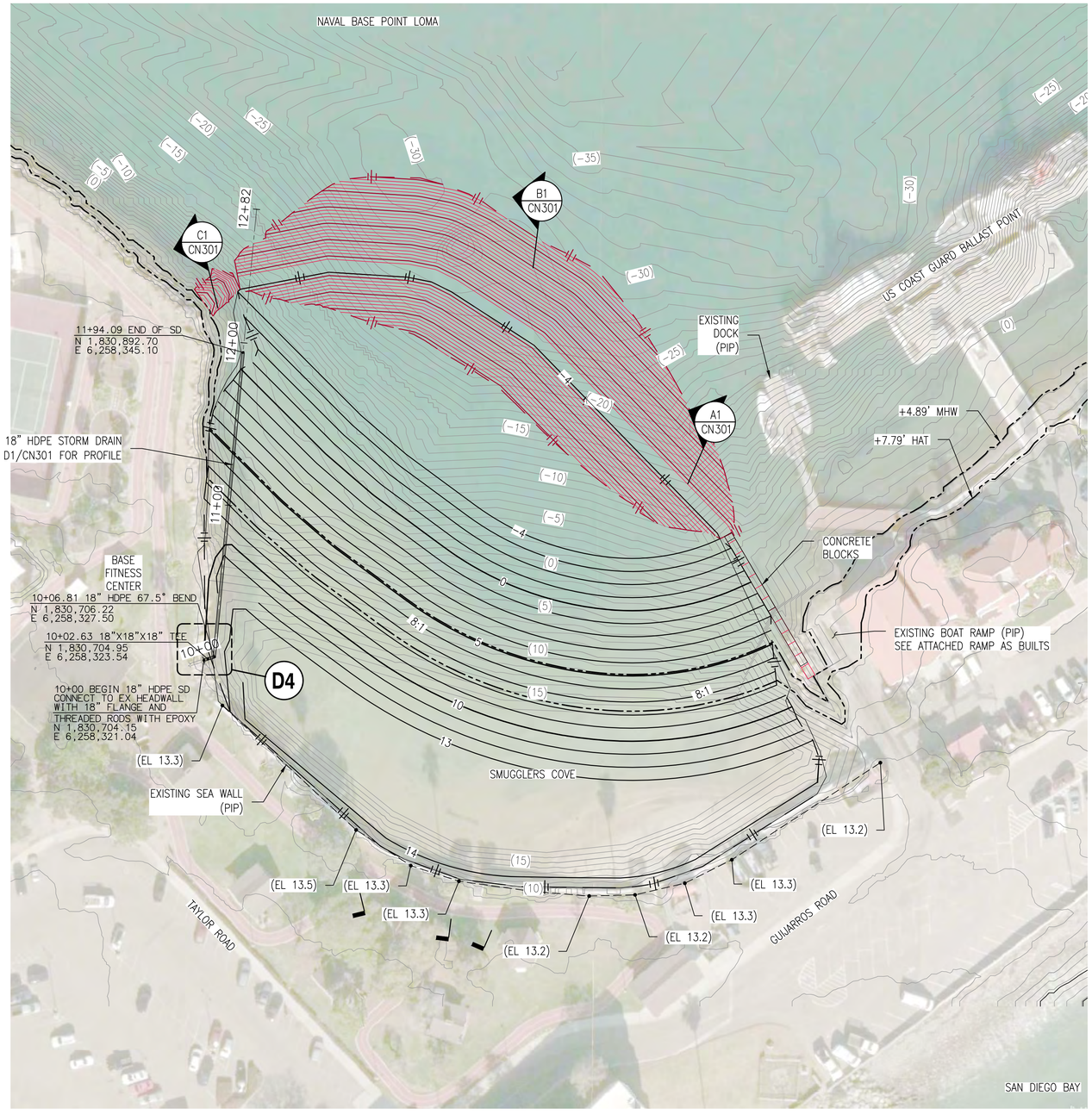
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
NBPL
CALIFORNIA
SMUGGLERS COVE (FeISH) REEF
VICINITY MAP AND ACCESS AREA MAP

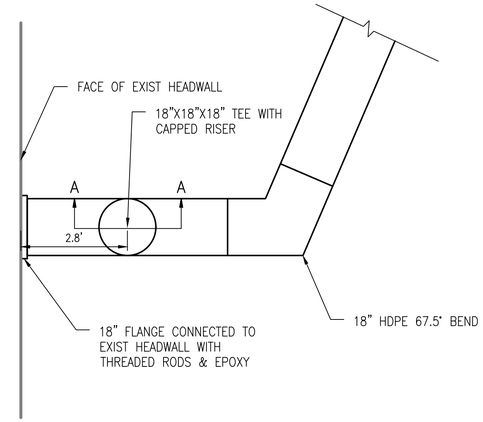
SCALE:
EPROJECT NO.: XXXXXXX
CONSTR. CONTR. NO. XXXXXX-XX-X-XXXX
NAVFAC DRAWING NO.
SHEET 1 OF 9
CN101
DRAWFORM REVISION: 31 JANUARY 2017

FILE NAME: \\mm.net\projects\SD\10378-01_Smugglers Cove FeISH\7 Design Information\CAD_Active_SheetSet\Civil - Rock Reef\CN101.dwg
PLOTTED: Friday, April 19, 2019 - 1:45pm USER: yli



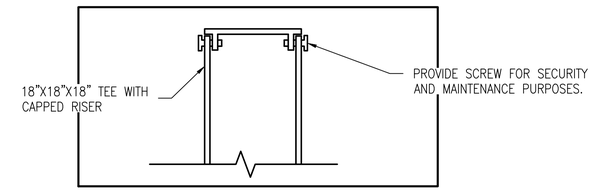
FINAL SAND PLACEMENT AREA

SCALE: 1" = 40'



18" HDPE STORM DRAIN CONNECTION

SCALE: 1" = 2' (PLAN VIEW BLOW UP) CN107 D4

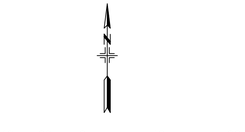


SECTION A-A

NTS

LEGEND:

- ROCK REVETMENT
- SAND GRADING PLAN



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NO.	DESCRIPTION	DATE	APPR

NAVFAC

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
NBPL
CALIFORNIA

SMUGGLERS COVE (FeISH) REEF

FINAL SAND PLACEMENT AREA

SCALE:
EPROJECT NO.: XXXXXXX
CONSTR. CONTR. NO.: XXXXXX-XX-X-XXXX
NAVFAC DRAWING NO.
SHEET 7 OF 9

CN107

DRAWFORM REVISION: 31 JANUARY 2017

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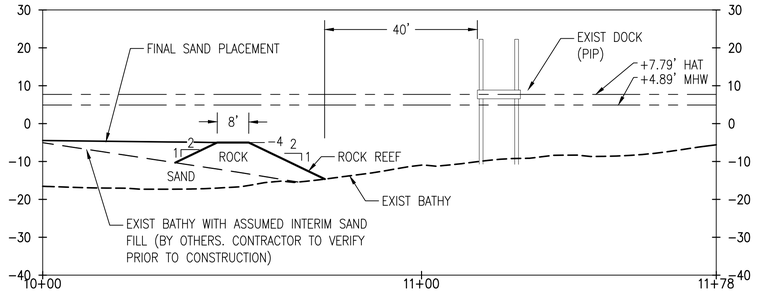
PLOTTED: Friday, April 19, 2019 - 1:47pm USER: yli

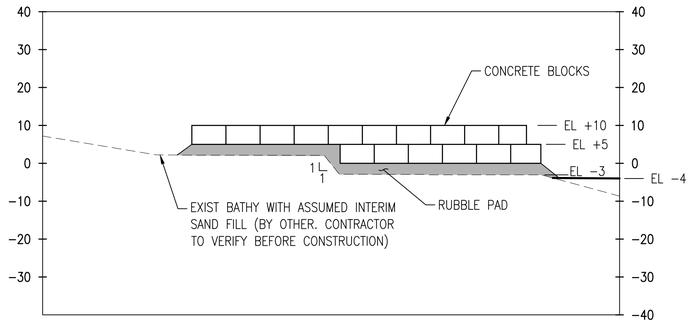
ROCK FILL AREA

SCALE: 1"=40'



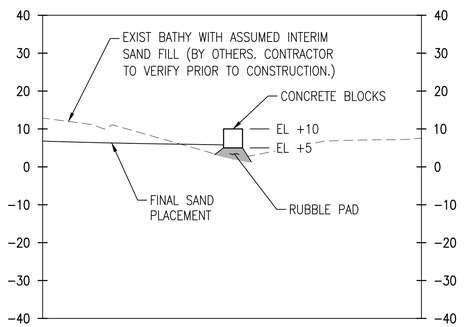
SECTION

SCALE: 1"=20' CN108 D4



SECTION

SCALE: 1"=20' CN108 C4



SECTION

SCALE: 1"=20' CN108 B4

COORDINATE TABLE		
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3	1830949.9	6258397.1
4	1830941.9	6258397.6
5	1830946.8	6258446.7
6	1830938.8	6258445.8
7	1830943.5	6258463.1

COORDINATE TABLE		
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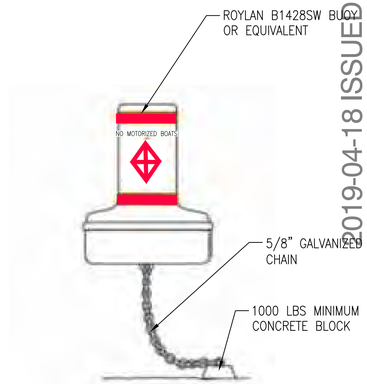
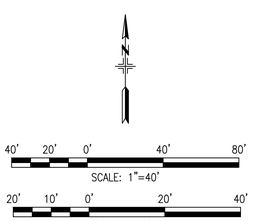
9	1830936.8	6258476.7
10	1830929.8	6258472.8
11	1830903.3	6258528.4
12	1830897.1	6258523.3
13	1830785.7	6258642.7
14	1830781.8	6258635.7

FLOATING OBSTRUCTION BUOY DETAIL





2019-04-18 ISSUED FOR CONSTRUCTION

APP'V	DATE	DESCRIPTION

NAVFAC

REGISTERED PROFESSIONAL ENGINEER
ALAN E. ALCORN
No. 36045
EXP. 6/30/20
CIVIL
STATE OF CALIFORNIA
SEAL

moffatt & nichol
1660 HOTEL CIRCLE NORTH, STE 500
SAN DIEGO, CA 92108
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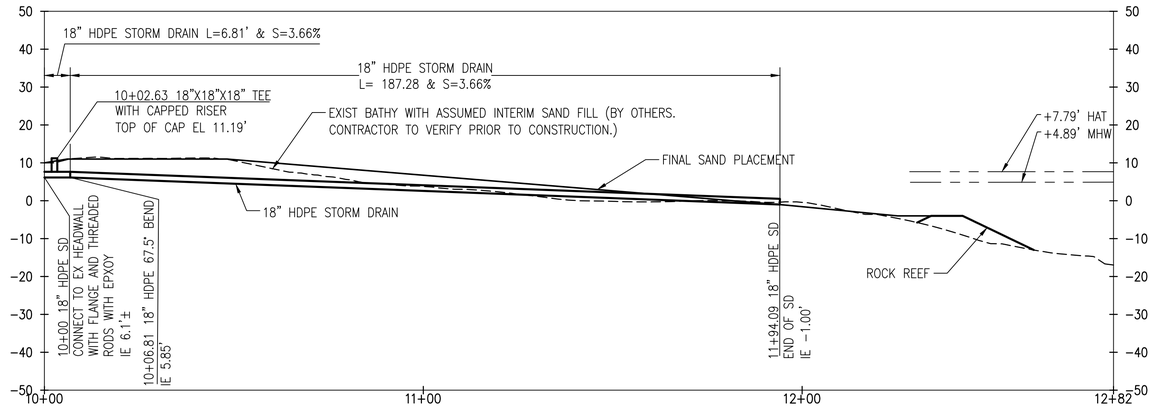
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST
NBPL
SMUGGLERS COVE (FelSH) REEF
CALIFORNIA
ROCK FILL AREA

SCALE:
EPROJECT NO.: XXXXXXX
CONSTR. CONTR. NO. XXXXXX-XX-X-XXXX
NAVFAC DRAWING NO.
SHEET 8 OF 9

CN108

DRAWFORM REVISION: 31 JANUARY 2017

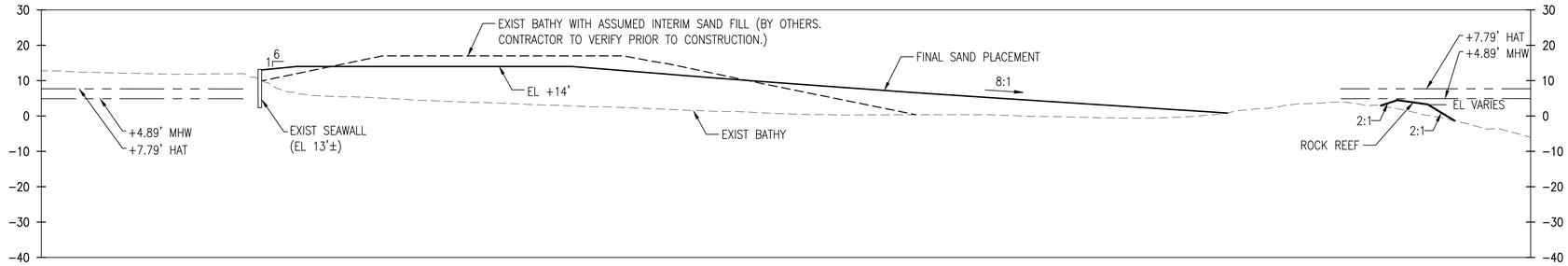
FILE NAME: \\mno.net\projects\SD\10378-01_Smugglers Cove FelSH\7 Design Information\CADD_Active_SheetSet\Civil - Rock Reef\CN108.dwg
PLOTTED: Friday, April 19, 2019 - 1:47pm USER: yli



18" HDPE STORM DRAIN PROFILE

SCALE: 1"=20'

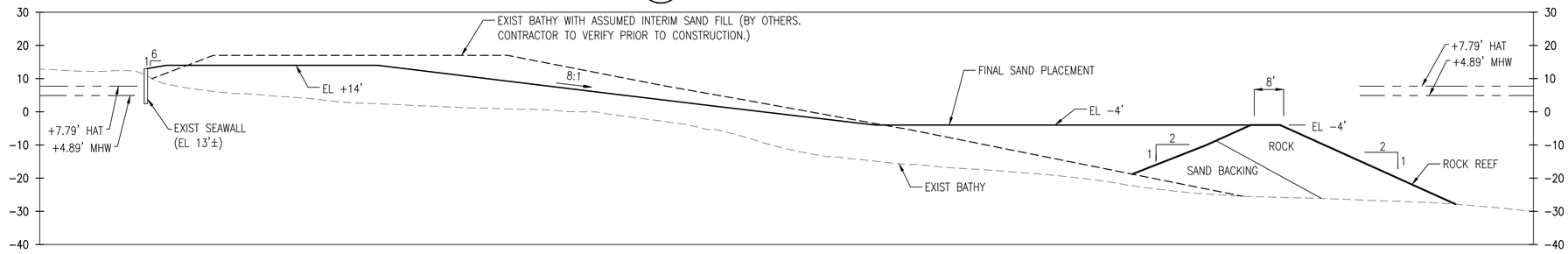
CN107 **D1**



SECTION

SCALE: 1"=20'

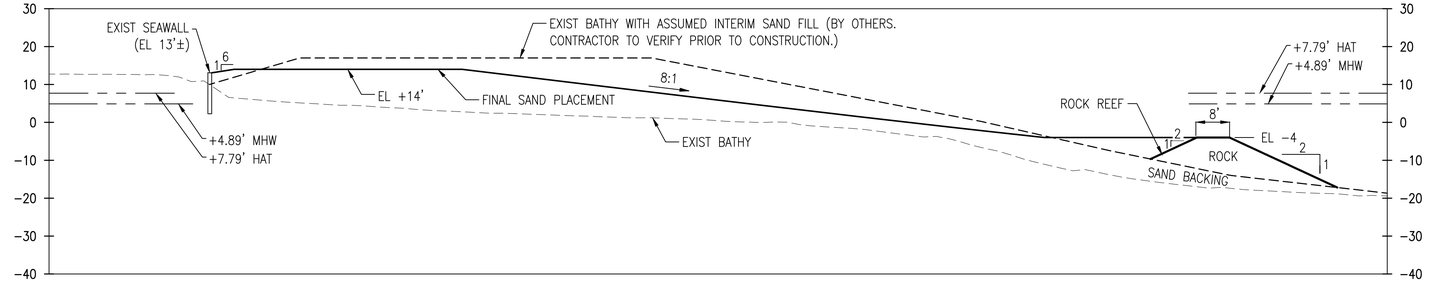
CN106, CN107, CN108 **C1**



SECTION

SCALE: 1"=20'

CN106, CN107, CN108 **B1**



SECTION

SCALE: 1"=20'

CN106, CN107, CN108 **A1**

20' 10' 0' 20' 40'

SCALE: 1"=20'

2019-04-18 ISSUED FOR CONSTRUCTION

APPR	DATE	DESCRIPTION	SYM

NAVFAC

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SMUGGLERS COVE (FelSH) REEF

PROFILE & SECTIONS

SCALE:
EPROJECT NO.: XXXXXXX
CONSTR. CONTR. NO.
XXXXXX-XX-X-XXXX
NAVFAC DRAWING NO.
SHEET 9 OF 9

CN301

DRAWFORM REVISION: 31 JANUARY 2017