



US Army Corps of Engineers
Honolulu District
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Public Notice of Application for Permit

Regulatory Office
Building 230
Fort Shafter, Hawaii 96858-5440

Public Notice Date: January 11, 2019
Expiration Date: February 11, 2019
Corps File No.: **POH-2018-00220**

Interested parties are hereby notified that an application has been received for a Department of the Army (DA) permit for certain work in waters of the United States as described below and shown on the attached drawings.

APPLICANT: Suzanne D. Case, Department of Land and Natural Resources, Kalanimoku Building, 1151 Punchbowl Street, Honolulu, Hawaii 96813

AGENT: Scott Sullivan, Sea Engineering, Inc., 41-305 Kalaniana'ole Highway, Waimanalo, Hawaii 96795

LOCATION: Waikiki/Kuhio Beach, Mamala Bay, Pacific Ocean, Island of Oahu, Hawaii (TMK: (1) 2-6-001:008, 003; Latitude: 21.2752° N; Longitude -157.8256° W)

PROPOSED ACTIVITY: The applicant proposes to discharge dredged and fill material into waters of the United States (U.S.) to construct a 95-foot-long groin and nourish a portion of Kuhio Beach between two existing groins with sand borrowed from the Kuhio Beach Diamond Head basin for beach erosion control. The applicant estimates a total of 490 cy of fill material would be discharged below the high tide line into Mamala Bay (Pacific Ocean) at the boundary where the Kuhio Beach Park and Royal Hawaiian Beach sectors interface. The proposed activities would result in 0.16-acre of permanent impacts to waters of the U.S. and 0.13-acre temporary impacts to waters of the U.S.

AUTHORITY(S): This permit application will be reviewed under Section 404 of the Clean Water Act (33 USC § 1344) and Section 10 of the Rivers and Harbors Act of 1899 (33 USC § 403). The Corps' public interest review will consider the U.S. Environmental Protection Agency's guidelines set forth under Section 404(b)(1) of the Clean Water Act (40 CFR part 230).

EVALUATION FACTORS: 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 general public, Federal, State and local agencies and officials, Native Hawaiian Organizations, 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.

ADDITIONAL INFORMATION:

PROJECT DESCRIPTION: The applicant proposes to construct a 95-foot-long groin located 140 feet west of the existing Kuhio Beach ewa (west) groin. The 95-foot length is the minimum length necessary to ensure adequate beach width to keep the concrete rubble covered. The groin would consist of 68 geotextile sand containers and require 225 cy of sand to fill the containers (of which 190 cy would be placed below the high tide line, as measured by the MHHW). The sand to fill the geotextile containers would be sourced from a local off-site quarry that produces suitable carbonate sand. The groin structure would have a crest elevation of +3.5 feet mean sea level (msl) and would have a toe elevation of -2.8 feet msl. A total of approximately 750 cy of sand would be required to cover the concrete rubble and fill the cell between groins to its design shape (refer to Attachment – Figure 1).

Filling and Placing the Geotextile Sand Containers. Sand for the 68 geotextile bags would first be delivered to the project site from an off-site quarry. Filling and placing the geotextile sand containers would involve a small excavator for placing sand in the hopper of the filling stand. Once filled, a medium size excavator (40-ton) would be used to transport and place the sand-filled geotextile containers. Construction would proceed from the shore seaward. The beach within the groin footprint would be excavated to -2.8-foot msl for placement of the first layer of geotextile sand containers, with excavated sand being side cast to the east. The first and second layers of sand

containers would be placed all the way to the groin end and would provide a stable platform above the high tide for the placement equipment (excavator) to traverse. Groin construction would then proceed from the seaward end and work landward placing the third layer of sand containers to complete the groin.

Excavation/Dredging of Borrow Sand and Placement on Kuhio Beach.

Approximately 750 cy of sand would be removed from 0.4-acre site located on the beach face of the Kuhio Beach Diamond Head Basin (refer to Attachment – Figure 2). The borrow material (sand) would be trucked over to the disposal site adjacent to the new groin. The sand would be removed from the beach face using an excavator and temporarily stockpiled on the basin backshore until being trucked to the beach disposal site. The excavator would not operate in the water. The sand to be discharged at the disposal site would be pushed into place between the existing Ewa Kuhio Beach groin and the new geotextile groin using a small bulldozer.

Temporary Beach Closure and Traffic Control During Construction. Construction would require the closure of much of the beach in the vicinity of the groin installation and a portion of the Kuhio Beach Diamond Head basin for approximately two weeks to ensure the safety and welfare of the public. While the project area portion of the beach is closed, the area would be cordoned off with informational signs posted to ensure that the public does not enter the work site. A project representative would be available on-site who could answer questions the public may have. The makai lane of Kalakaua Avenue near the project site would also need to be closed for part of the project duration to allow for trucks to deliver the geotextile sand containers and transport sand from the Kuhio Beach Diamond Head Basin to the fill area. Crossing guards would be placed at designated crossings along the shoreline to assist the public in transiting across the access route while trucks are operating.

Best Management Practices. Turbidity containment devices (silt curtains) would be placed around the area of groin construction and sand placement (refer to Attachment – Figures 3 through 6). In addition, the applicant would implement numerous other standard BMPs, as recommended by the National Oceanic and Atmospheric Administration (NOAA)-National Marine Fisheries Service, for the protection of federally listed marine species and avoidance and minimization of adverse effects on essential fish habitat. Avoidance and minimization measures that are considered to be part of the applicant's proposed action are further discussed below under the section titled "Mitigation". As well, a BMP Plan has been prepared by the applicant that contains a thorough discussion of all proposed measures to avoid and minimize adverse environmental effects.

Construction Schedule. The applicant estimates the total length of construction would be two weeks.

Proposed Activity(s) Requiring DA Authorization. The applicant has applied for DA authorization to conduct work in navigable waters of the U.S. and discharge dredged and fill material into waters of the U.S. that would permanently impact a total of

0.16-acre of waters of the U.S. and temporarily affect 0.13 acre of waters of the U.S. Table 1 below summarizes the anticipated impacts to waters of the U.S.

Table 1 – Summary of Impacts to Waters of the U.S.

Activity within USACE Jurisdiction	Impacts to Waters of the U.S.				USACE Authority	
	Permanent Impacts		Temporary Impacts		404	10
	Acres/LF	Cubic Yards	Acres/LF	Cubic Yards		
Geotextile sand containers below high tide line (as measured by the MHHW)	0.04 ac	190 cy	--	--	x	x
Beach sand placement below HTL (as measured by the MHHW)	0.12 ac	300 cy	--	--	x	x
Dredging/excavation of borrow sand below MHW	--	--	0.13 ac	250 cy		x
TOTAL:	0.16 ac	490 cy	0.13 ac	250 cy		

PROJECT PURPOSE AND NEED:

Applicant’s Proposed Project Purpose and Need: For the past several years, episodic sand loss at the east end of the Royal Hawaiian Beach sector of Waikiki Beach has exposed the concrete foundation of the old Waikiki Tavern. This concrete rubble and rusting reinforcing steel creates an unsightly and hazardous shoreline condition. Therefore, the purpose of the proposed demonstration project is to stabilize the east end of the Royal Hawaiian Beach and maintain sand cover over the concrete foundation of the Waikiki Tavern to mitigate beach erosion and address public safety and aesthetics of the exposed concrete rubble.

Corps’ Basic and Overall Project Purpose: The *basic project purpose* is defined by the Corps and is used to determine whether a project is “water dependent” and requires access or proximity to, or siting within, a special aquatic site in order to fulfill its basic purpose. An activity that is not water dependent may still be authorized as long as the U.S. Environmental Protection Agency’s Section 404(b)(1) Guidelines (“404(b)(1) Guidelines”) presumption against such discharges is successfully rebutted, the discharge meets other criteria of the 404(b)(1) Guidelines, the activity is not contrary to the public interest, and it satisfies all other statutory and regulatory requirements. For the proposed Kuhio Beach Stub Groin Erosion Mitigation project, the basic project purpose is “erosion control”, a non-water dependent activity that does not require siting in special aquatic sites.

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 is used to evaluate less environmentally damaging practicable alternatives and applies to all waters of the U.S., not just special aquatic sites. The Section 404(b)(1) Guidelines

state that an alternative is practicable if it is available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. The Corps has generally concurred with applicant's stated project purpose (above) and as such, has determined the overall project purpose for evaluation of alternatives under the Section 404(b)(1) Guidelines is: "to provide shoreline stabilization for Kuhio Beach to alleviate public safety hazards caused by the eroding shoreline".

ALTERNATIVES: Several design approaches and options to address the shoreline and beach erosion at Kuhio Beach were considered by the applicant. These alternatives include:

Alternative 1 – Straight Groin (Applicant's Preferred Alternative). Alternative 1 would consist of a single 95-foot-long groin that would be placed 140 feet west of the existing Kuhio Beach west groin. The 95-foot groin length is the minimum length necessary to ensure adequate beach width to keep the concrete rubble covered. The groin would have a crest elevation of +3.5 feet msl and would have a toe elevation of -2.8 feet msl. The groin would require 68 geotextile sand containers to construct, and 225 cy of sand to fill the containers. A total of approximately 750 cy of sand would be required to cover the concrete rubble and fill the cell between groins to its design shape, of which 300 cy would be placed below the high tide line (as measured by the MHHW mark).

Alternative 2 – Straight Groin with Kuhio Groin Stub. Waves approaching the project area shoreline occur at an oblique angle and generate a west setting longshore current that moves sand from the east to the west. The westerly movement of sand is exacerbated during periods of easterly waves such as tradewind seas and southeast swell waves. Based on these conditions, Alternative 2 would entail the construction of a short, 55-foot-long stub groin at the bend of the west Kuhio Beach groin to diffract the approaching waves and result in a more shore-parallel wave approach to the beach, reducing the longshore current and sand movement potential significantly. This would help ensure stable sand cover over the concrete rubble and reduce erosion and flanking of the Kuhio Beach west groin root. The stub would be constructed of 36 geotextile sand containers in a similar manner to Alternative 1 and would require 115 cy of sand to fill the containers. A total of approximately 900 cy of sand would be required to achieve the design beach configuration.

Alternative 3 – Second Straight Groin. Monitoring of the beach shows continuing and rapid erosion and beach width loss along the entire beach fronting the beach concession area. A second groin placed 200 feet west of the first groin would help further stabilize the east end of the beach fronting the beach concession area. The second groin could be in addition to either Alternative 1 or Alternative 2. This second groin would be constructed identically to the single straight groin alternative (Alternative 1). No sand fill would be proposed between the first and second groins.

Table 2 – Summary of Alternative Plan Features

Alt. Plan	Length	No. of Sandbags	Sand in Bags (cy)	Beach Fill (cy)	Total Sand (cy)
1	Straight Groin – 95 ft	68	225	750	975
2	Straight Groin – 95 ft Kuhio Stub – 55 ft	68 36	225 115	900	1,240
3	Straight Groin – 95 ft Second Groin – 95 ft	68 68	225 225	750	1,200

BASELINE INFORMATION:

General Site and Project Area Conditions. The seafloor in the vicinity of the groin placement is all sand. Further seaward there are fossil limestone reef outcrops, which show significant evidence of sand scour and have little or no benthic biota on them. The Royal Hawaiian Beach is very dynamic, particularly at the east and west ends. Longshore sand transport is predominately to the west, however, during periods of westerly wind and waves, sand can be rapidly transported to the east into the project site.

The project vicinity, including the waters offshore, is the most heavily used section of Waikiki Beach and for many different ocean recreation activities. These activities include sunbathing, swimming, surfing, standup paddling, canoe surfing, bodyboarding, sand skimming, snorkeling, spear fishing, pole fishing, walking, wading and metal detecting. Annual recreation events such as canoe regattas and surf contests are held in the project area. Two beach concessions owned by one company are located landward of the project site, providing beach umbrella and surfboard rentals, surfing lessons, and canoe rides. The Mana Kai sailing catamaran beaches in the vicinity of the proposed groin. “Canoes” and “Queen’s” surf sites are located seaward of the project area shoreline.

Biological Resources. The project site nearshore seafloor is entirely mobile sand, which does not provide a suitable habitat for marine biota. Seaward of the project site the seafloor is a highly bio-eroded fossil limestone reef platform with sand-filled pockets and channels. Corals are generally absent from the reef platform offshore of Waikiki. Coral colonies typically account for less than one percent of the bottom area and are composed almost entirely of two species, *Porites lobata* and *Pocillopora meandrina*.

Wave-induced scour from suspended sand is likely responsible for the observed limited coral abundance. The dominant species of benthic organisms on the reef platform are marine algae, which cover virtually all exposed reef surfaces. The invasive algae species *Acanthophora spicifera* and *Gracilaria salicornia* dominate the benthic flora in Waikiki. The most common macroinvertebrates on the reef platform are the rock-boring urchin (*Echinometra mathaei*) and the black sea cucumber (*Holothuria atra*). The

dominate biotic attributes of the reef platform are a result of sand suspension and sand scour due to wave action. Reef fish are also relatively sparse throughout the area.

MITIGATION: The applicant's proposed mitigation (i.e., avoidance, minimization, and compensation) may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the Section 404(b)(1) Guidelines and the public interest review factors. In consideration of the above, the proposed mitigation sequencing as applied to the proposed project is summarized below.

Avoidance and Minimization. To avoid and minimize impacts to the aquatic environment, the applicant has proposed best management practices (BMPs) that would be included in the contract documents and implemented during the construction of the proposed project. These BMPs are considered to be part of the applicant's proposed action and include, but are not limited to, the following measures:

- Installation of turbidity containment devices (silt curtains) would be placed around the area of groin construction and sand placement;
- Visual monitoring will occur and include ongoing inspections for turbidity outside of the confines of the silt curtain(s). In the event that turbidity is observed outside of the silt curtains, work shall stop, and the silt curtains shall remain in place until the turbidity dissipates. Silt curtains shall be inspected after dissipation and prior to returning to project operations;
- All equipment and material shall be free of contaminants of any kind including: excessive silt, sludge, anoxic or decaying organic matter, clay, dirt, oil, floating debris, grease or foam or any other pollutant that would produce an undesirable condition to the shoreline or water quality. The equipment will be brought to the site in clean condition;
- All materials shall be free from any objectionable sludge, oil, grease, scum, excessive silt, organic material or other floating material;
- The proposed project will cover the old Waikiki Tavern foundation. Project activities will not cause the foundation to be damaged while the demonstration groin is being installed or during sand placement over the foundation;
- Should any unanticipated archaeological site(s), such as walls, platforms, pavements and mounds, or remains such as artifacts, burials, concentrations of charcoal or shells be uncovered by the work activity, all work shall cease in the immediate area and the contractor shall notify the State Historic Preservation Office at (808) 692-8015. No work shall resume until the owner/contractor obtains clearance from the State Historic Preservation Office;
- Project operations must cease if unusual conditions, such as large tidal events and high surf conditions affect the project site, except for efforts to avoid or minimize resource damage;
- Project site inspection and debris sweeps will be completed at the end of each work day. A full inspection of the project site will be conducted at the end of the project to ensure that no visible debris introduced by recovery efforts or project waste is present at the site upon completion of the project;

- Noise shall be kept within acceptable levels at all times in conformance with HAR Title 11 § 46 Community Noise Control, State Department of Health, Public Health Regulations. The contractor shall obtain and pay for a community noise permit from the State Department of Health when equipment or other devices emit noise at levels exceeding the allowable limits;
- Equipment shall be equipped with suitable mufflers to maintain noise within levels complying with applicable regulations;
- Starting of equipment meeting allowable noise limits shall not be done prior to 7:00 a.m.
- The project manager shall designate a competent observer to survey the areas adjacent to the proposed action for ESA-listed species, including but not limited to the green sea turtle, hawksbill sea turtle, and Hawaiian monk seal;
- Visual surveys for ESA-listed species shall be made prior to the start of work each day, and prior to resumption of work following any break of more than one half hour, to ensure that no protected species are in the area (typically within 50 yards of the proposed work); and
- Work shall be postponed or halted when ESA-listed species are within 50 yards of the proposed work and shall only begin/resume after the animals have voluntarily departed the area. If ESA-listed species are noticed after work has already begun, that work may continue only if there is no way for the activity to adversely affect the animal(s).

The applicant has prepared a comprehensive BMP Plan that discusses the entire suite of proposed measures that would be implemented to reduce adverse effects on the environment during construction of the proposed groin project.

Compensation. The applicant did not propose any compensatory mitigation measures for the unavoidable adverse impacts to waters of the U.S. According to the applicant's mitigation statement, compensatory mitigation is not warranted because the project is very small in scale, and the groin and sand will be placed on a constantly shifting sandy sea floor. For these reasons, the applicant asserts there will be no loss of marine bottom habitat or adverse impact to marine biota.

WATER QUALITY CERTIFICATION: A final DA permit decision for the proposed work will not be issued until an individual water quality certification, or waiver thereof, as required under Section 401 of the Clean Water Act has been issued by the State of Hawaii, Department of Health, Clean Water Branch (DOH-CWB). Based on information contained in the DA permit application, the applicant submitted a Section 401 water quality certification application to the DOH-CWB on October 11, 2018; the application is still pending.

COASTAL ZONE MANAGEMENT ACT CERTIFICATION: Section 307(c)(3) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1456(c)(3)) requires the lead federal action agency to certify that the described activity affecting land or water uses in the coastal zone complies with the State's Coastal Zone Management (CZM) Program. A final DA permit decision for the proposed work will not be issued

until the applicant obtains a Federal consistency concurrence from the State of Hawaii, Department of Business, Economic Development, and Tourism – Office of Planning. The applicant submitted an application to the Hawaii CZM Program for CZM federal consistency review on December 11, 2018. On December 24, 2018 the application was deemed incomplete by the Hawaii CZM Program and the applicant was provided a list of supplemental information required for the official review timeframe to commence.

CULTURAL RESOURCES & HISTORIC PROPERTIES: Beginning in the 1880s, the Waikiki shoreline has been extensively modified; and today it is the primary tourism center for Hawaii. In the early 1900s much of the beach at Waikiki disappeared under structures and landscaping, and reportedly significant volumes of sand were removed from the beach. In later years, sand was brought into Waikiki to replace that which had been lost to encroachment and removal. Numerous shore perpendicular and shore parallel channels have been dredged in the reef for fill material, navigation/access channels, and swimming. The Moana Hotel (today Moana Surfrider) opened in 1901, with a restaurant on piles over the beach and water. In 1922 construction of the Ala Wai Canal commenced to drain the wetlands and divert streams away from Waikiki. With the completion of the canal in 1926 urban development of Waikiki began in earnest. Construction of the Royal Hawaiian Hotel was completed in 1927, including a new seawall and a 170-foot long groin at the site of the still existing Royal Hawaiian groin. The groin was lengthened to about 370 feet in 1930, and to this day it stabilizes about 1,730 linear feet of beach in the middle of Waikiki, the “Royal Hawaiian Beach” sector, which extends from the western Kuhio Beach crib wall west to the Royal Hawaiian groin. Other early Waikiki structures include the Waikiki Tavern (ca 1930), built on the beach at the proposed project site, Waikiki War Memorial/Natatorium salt water swimming pool (1927), construction of the Kapahulu storm drain (1951), the beginning of what is today the Kuhio Beach crib walls (1939), and construction of the first Ft. DeRussy storm drain (1917).

Today Waikiki Beach is a highly modified man-made urban shoreline, with no natural shoreline between Honolulu Harbor and Diamond Head. Although Waikiki has a rich historical and cultural legacy, the proposed project would be unlikely to have an adverse effect on historic or archaeological sites. Work would take place in areas already highly transformed by Waikiki development and substantially altered over more than a century. Work would be along an existing shoreline that experiences episodic shoreline change due to sand erosion and accretion. There also does not appear to be any known traditional Hawaiian cultural practices that would be affected by the proposed project. Implementation of the project would protect the remnants of the old Waikiki Tavern foundation through burial.

Based on the foregoing, and pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, the Corps has preliminarily determined that there may be an historic property, or property eligible for listing on the National Register of Historic Places (i.e., the old Waikiki Tavern), within the permit area for the proposed undertaking that could be affected by the proposed undertaking. A determination of

effect letter will be transmitted to the State of Hawaii, State Historic Preservation Division (SHPD) requesting their concurrence.

In addition, this public notice is being coordinated with the SHPD and other consulting parties. Any comments SHPD or other consulting parties may have concerning unknown archeological or historic properties, including properties of traditional religious or cultural importance, and that may be affected by the proposed undertaking, will be considered in our public interest review determination, EA, and final permit decision.

ENDANGERED SPECIES: Section 7 of the Endangered Species Act (ESA) of 1973, as amended, requires federal agencies to consult with NOAA Fisheries and/or U.S. Fish and Wildlife Service (USFWS) on all federal actions that may affect species listed (or proposed for listing) as threatened or endangered or that may destroy or adversely modify their designated critical habitat. Based on the project location and nature of the proposed work, the following protected species have the potential to occur within or near the action area:

Common Name	Scientific Name	Preliminary Determination of Effect
Green sea turtle	<i>Chelonia mydas</i>	May Affect, NLAA
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	May Affect, NLAA
Humpback whale	<i>Megaptera novaeangliae</i>	No Effect
Hawaiian monk seal	<i>Monachus schauinslandi</i>	May Affect, NLAA

Preliminary determinations indicate that the described activity may affect, but will not likely adversely affect three of the aforementioned species. Therefore, consultation under Section 7 of the ESA will be initiated separately with NOAA Fisheries and USFWS. A DA permit decision for the proposed activity will not be issued until the consultation processes are completed.

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). The MSA requires all Federal agencies to consult with the NOAA Fisheries on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect EFH. Preliminary determinations indicate the described activity will have the potential to adversely affect EFH. Therefore, consultation under the MSA will be initiated separately with NOAA Fisheries. A DA permit decision for the proposed activity will not be issued until the consultation process is completed.

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 must state clearly and concisely, the reasons and rationale for holding a public hearing. The District Engineer will then decide whether a hearing should be held.

COMMENT AND REVIEW PERIOD: Comments on this public notice must be made in writing and submitted via conventional mail or electronic mail (e-mail). Comments received during the review period will be made part of the record and will be considered by the Corps in determining whether it would be in the public interest to authorize this proposal.

Comments sent by conventional mail should include your name, return mailing address, phone number, and reference to DA File No. POH-2018-00220 and be sent to:

U.S. Army Corps of Engineers, Honolulu District
Regulatory Office (CEPOH-RO)
Attn: Susan A. M. Gayagas
Building 230
Fort Shafter, Hawaii 96858-5440

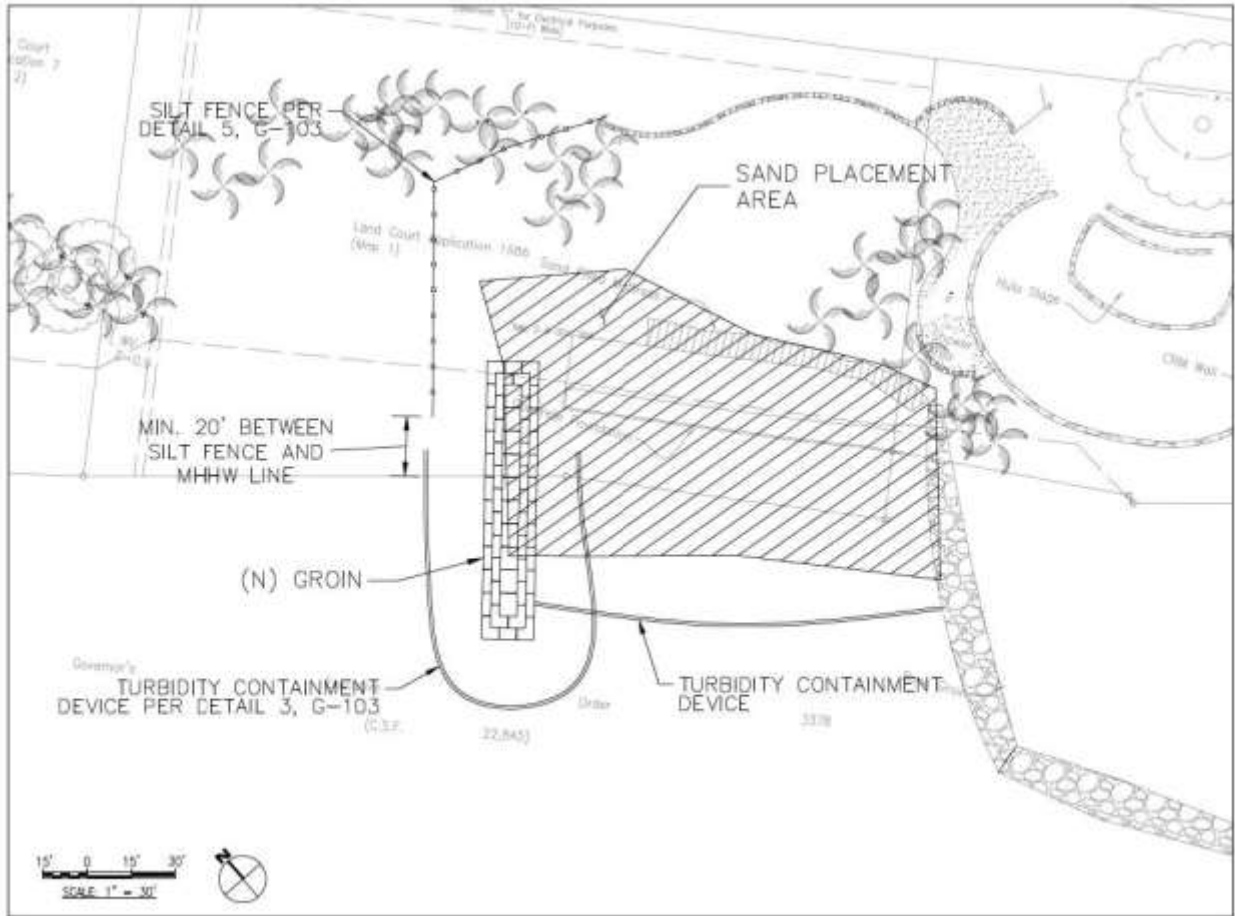
Alternatively, comments sent electronically may be emailed to susan.a.meyer@usasce.army.mil. If using email, you must include the DA File No. "POH-2018-00220" in the subject heading of the email along with your name, mailing address and phone number. In order to be accepted, e-mail comments must originate from the author's e-mail account.

All comments, whether transmitted by conventional mail or e-mail, must be received by our office by the close of business (5:00 p.m. Hawaii Time zone) on February 11, 2019.

This public notice is issued by the Chief, Regulatory Office.

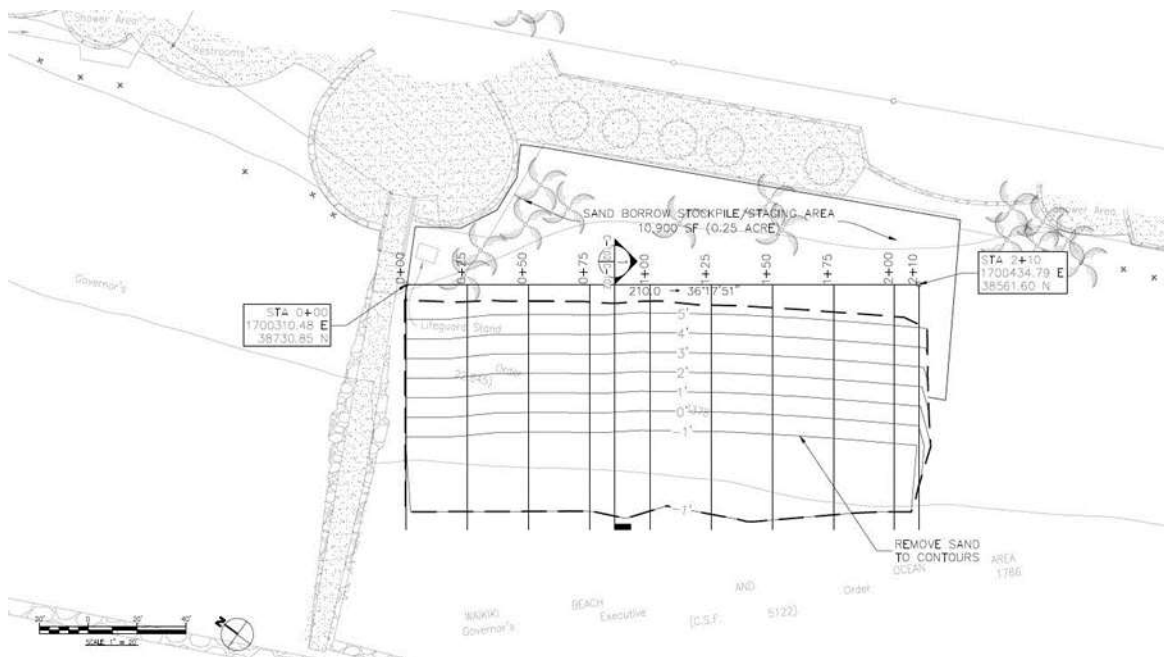
Attachments

Attachment – Figure 1
Plan View of the Proposed Groin and Sand Placement Area
DA File No. POH-2018-00220



1
GROIN AND SAND PLACEMENT AREA
C-103/C-103 SCALE 1" = 30'

Attachment – Figure 2
 General Plan Showing Sand Borrow and Disposal Sites
 DA File No. POH-2018-00220



Attachment – Figures 3 through 6
Proposed Silt Curtains and Fencing to Minimize Environmental Impacts
DA File No. POH-2018-00220

Figure 3

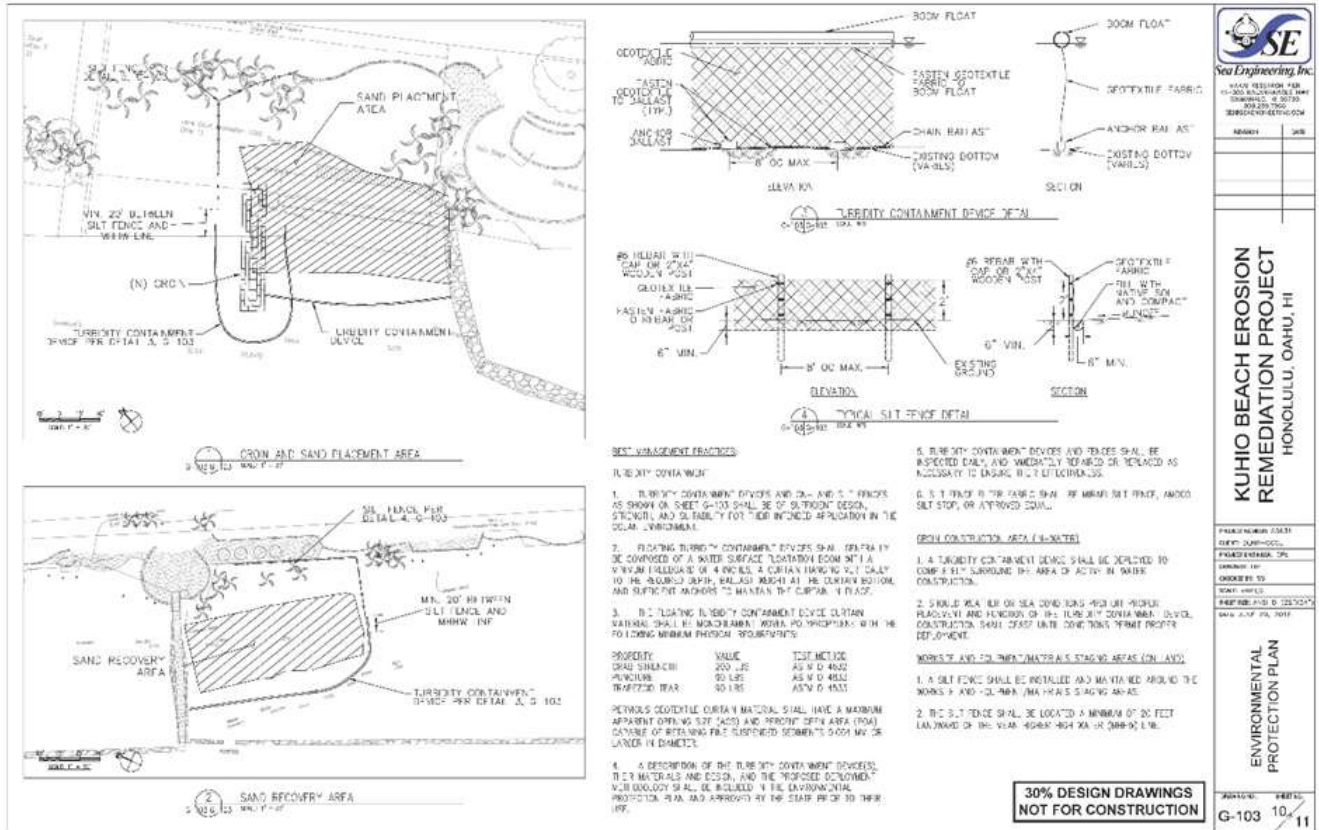


Figure 4

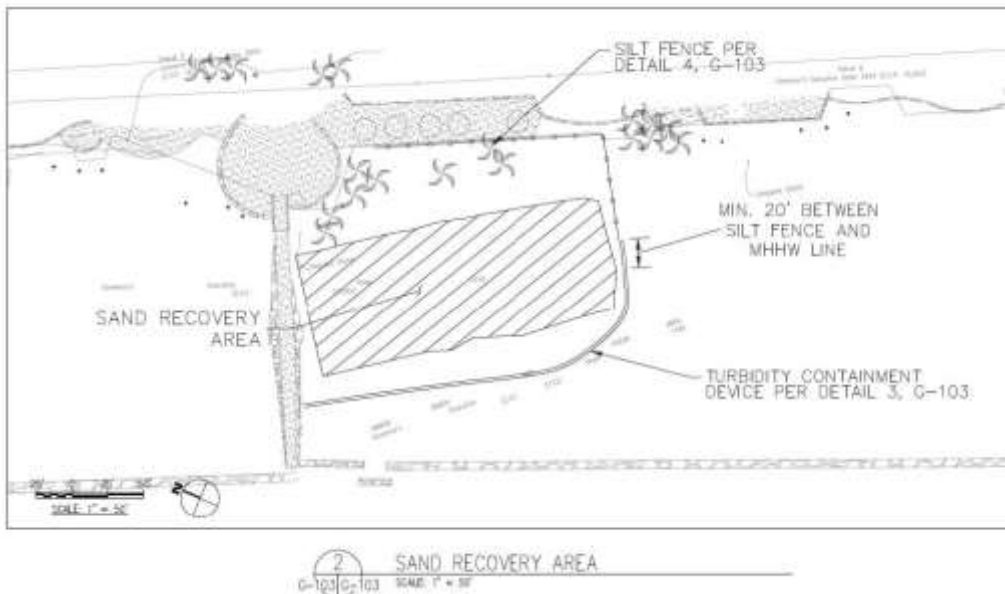
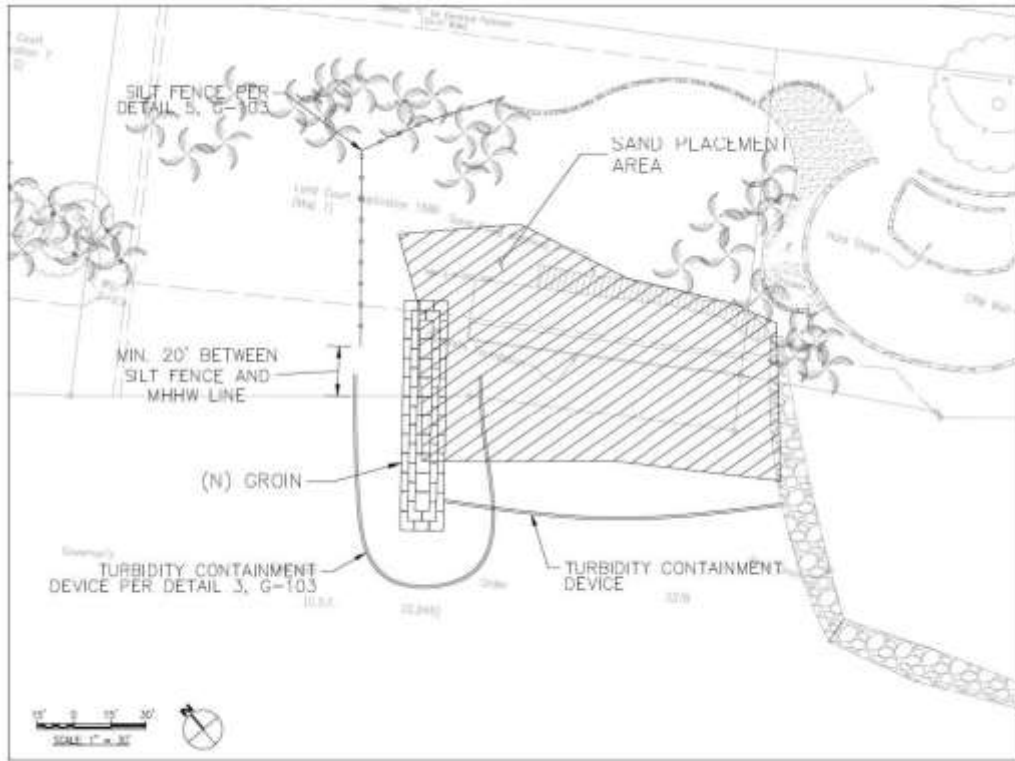
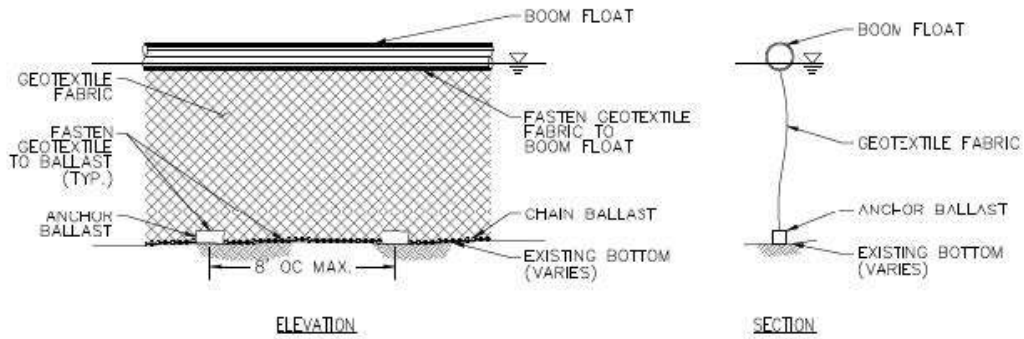


Figure 5



1 GROIN AND SAND PLACEMENT AREA
G-103/C-103 SCALE: 1" = 30'

Figure 6



3 TURBIDITY CONTAINMENT DEVICE DETAIL
G-102/C-102 SCALE: NTS