US Army Corps
of Engineers
Honolulu District

Public Notice of Application for Permit

Regulatory Branch (1145b)
Building 230
Fort Shafter, Hawaii 96858-5440

Public Notice Date: July 5, 2012
Expiration Date: August 5, 2012
Permit File Number: POH-2011-00131

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

APPLICANT: Tropical Sands Apartment, Inc., 711 Kapiolani Boulevard, Suite 700, Honolulu, HI 96813

AGENT: Kenji Salmoiraghi, Plan Pacific, Inc., 1001 Bishop Street, Suite 2755, Honolulu, HI 96713

LOCATION: Seawall at The Kainalu, 2801 Coconut Ave, Honolulu, HI (TMK 3-1-033: 001); 21.25817°N Latitude and 157.8184° W Longitude

WORK: The applicant proposes to replace the existing wall with a concrete rubble masonry (CRM) seawall, patch holes in the failing groin seaward of the property, and remove encroachments located on State land. The proposed wall would be 125' long. The existing wall will be removed and replaced in three phases. Permanent vinyl shoring will be placed along/against existing basement wall footing and anchored to the side of the footing, followed by the excavation and construction of the CRM seawall, which will have a wave deflector at its top. The new wall will not extend any farther waterward than the existing footprint, which is currently at 125' long by 8' high from sand level, with a 3' wide toe which will be 6' below grade. Sand bag berms will be used to deflect waves while work is in progress. When work is complete, sand from the bags will be released back onto the beach, raked and graded.

PURPOSE: To provide shoreline stabilization to protect the foundation and structural integrity of the Kainalu, the building directly adjacent to the project area.

ADDITIONAL INFORMATION: The current CRM wall is located at the base of the Kainalu apartment building and the owners are concerned about the structural integrity of the building. The wall was originally designed as a planter box and not for shoreline protection. In 2005, the wall and adjacent beach access stairs were covered by a gunnite coating in an attempt to strengthen them against wave energy; however, waves have undermined the wall and caused it to crack in several places. If undermining continues, seawater may inundate the Kainalu's pilings, threatening the structural integrity of the building.

MITIGATION: The applicant proposes Best Management Practices (BMPs) which include a 4' high turbidity barrier that will surround the work area and a sand bag berm to deflect wave energy in the work area. Silt fence along the seaward edge and outside the sandbag barrier. Dust barriers at the flanks of the sandbag barrier. All work to occur at low tide and cease during adverse weather/tidal conditions. No other mitigation is proposed at this time.

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 under Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1251 *et seq.*) (CWA). Under Section 401 of the CWA, the Corps may not issue a permit for the described work until the applicant obtains a certification, or a waiver of certification, from the State of Hawaii, Department of Health – Clean Water Branch.

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: The latest published version of the National Register of Historic Places (NRHP) has been consulted for the presence or absence of historic properties, including those listed in or eligible for listing in the NRHP. There are no listed or eligible properties in the vicinity of the worksite. Consultation of the NRHP constitutes the extent of cultural resource investigations by the District Engineer at this time, and he is otherwise unaware of the presence of such resources. This application is being coordinated with the State Historic Preservation Office (SHPO). Any comments SHPO may have concerning presently unknown archeological or historic data that may be lost or destroyed by work under the requested permit will be considered in our final assessment of the proposed work.

ENDANGERED SPECIES: Pursuant to Section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) (ESA), federal agencies must consult with the National Marine Fisheries Service (NMFS) and/or the 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, we have determined that the following listed species have the potential to occur near the project location: Hawksbill sea turtle (*Ertmochelys imbricate*), endangered, Green sea turtle (*Chelonia mydas*), threatened, and the Hawaiian monk seal (*Monachus schauinslandi*), endangered. Based on the applicant's proposed project scope and BMP plan to mitigate impacts to the aquatic environment, the Corps has preliminarily determined that the seawall replacement **may affect, but is not likely to adversely affect** the Hawksbill sea turtle, the Green sea turtle, and the Hawaiian monk seal (please see the attached information on the proposed project and BMPs in Appendix A). In accordance with the requirements of Section 7 of the ESA, the Corps requests written concurrence from the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Protected Resources Division on this determination.

ESSENTIAL FISH HABITAT: Pursuant to the Magnuson Stevens Fishery Conservation and Management Act of 1996 (16 U.S.C. 1801 *et seq.*) (Magnuson Stevens Act) and associated federal regulations found at 50 C.F.R. Part 600, Subpart K, the proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH). The Honolulu District area of responsibility includes areas of EFH as Fishery Management Plans. We have reviewed the January 20, 1999, Western Pacific Fishery Management Council's Environmental Assessment to locate EFH area as identified by the National Marine Fisheries Service (NMFS). The benthic habitat in and around the project area is located in the reef flat zone and characterized as pavement, with the main biological cover composed of sparse macroalgae (10% - <50%), but also potential presence of hard coral, zoanthids, and other sessile

invertebrates. Based on the temporary nature of the direct impacts of the proposed project to this habitat, and the proposed BMPs to reduce turbidity and otherwise reduce direct physical impacts, the Corps has preliminarily determined that the described activity within the proposed area **will not adversely affect EFH**, including federally managed fishery resources.

AUTHORITY: This permit application will be reviewed under the following authorities:

(X) Perform work in or affecting navigable waters of the United States – Section 10 Rivers and Harbors Act 1899 (33 U.S.C. 403).

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

( ) Transport dredged material for the purpose of dumping it into ocean waters - Section 103 Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1413). 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.

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

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

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

COMMENT AND REVIEW PERIOD: Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether it would be in the public interest to authorize this proposed work. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. All e-mail comments should be sent to **emilee.r.stevens2@usace.army.mil.** Conventional mail comments should be sent U.S. Army Corps of Engineers, Regulatory Branch, Building 230, Ft. Shafter, HI 96848. Both conventional mail and e-mail comments must include the permit applicant's name and reference number, as shown

below, and the commenter's name, address, and phone number. **All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.** Please include the following name and reference number: **POH-2011-00131.**

Comments on the described work, with the reference number, should reach this office no later than the expiration date of this Public Notice to become part of the record and be considered in the decision. Please contact **Emilee Stevens** at (808) 835-4310 if further information is desired concerning this notice.

George P. Young
Chief, Regulatory Branch

Attachments

Appendix A: DA Permit Application, Drawings, and Supplemental Information

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT *(33 CFR 325)*	OMB APPROVAL NO. 0710-0003 EXPIRES: 31 August 2012

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME:	8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)
First - Middle - Last –	First - Kenji Middle - Last – Salmoiraghi
Company – Tropical Sands Apartments	Company – PlanPacific, Inc.
E-mail Address –	E-mail Address – kenji@planpacific.com
6. APPLICANT'S ADDRESS.	**9. AGENT'S ADDRESS**
Address - 711 Kapiolani Blvd. Suite 700	Address - 1001 Bishop St. Suite 2755
City – Honolulu State – HI Zip – 96813 Country – USA	City – Honolulu State – HI Zip – 96813 Country – USA
7. APPLICANT'S PHONE NOs. W/AREA CODE	**10. AGENT'S PHONE NOs. W/AREA CODE**
a. Residence b. Business c. Fax	a. Residence b. Business c. Fax
(808)744-5824	(808)521-9418 ext.1004

STATEMENT OF AUTHORIZATION

11. I hereby authorize, PlanPacific, Inc. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

Kenji Salmoiraghi 10/04/2011

APPLICANT'S SIGNATURE DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)

(808)521-9418 ext.1004

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
Pacific Ocean	Address 2801 Coconut Ave
15. LOCATION OF PROJECT	City - Honolulu State – HI Zip - 96815
Latitude: °N 21° 15' 28	
Longitude: °W 157° 49' 08	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID 31033001 Municipality Honolulu

Section – Township – Range –

17. DIRECTIONS TO THE SITE

Please see supplemental attachment

18. Nature of Activity (Description of project, include all features)

Please see supplemental attachment

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

Please see supplemental attachment

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Please see supplemental attachment

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
Sand Bags- 470 cu. yds.	Turbidity Curtain - 20 cu. yds.	Silt/Dust Fence - 4 cu. yds.

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres

Or

Liner Feet Please see attached sheet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Please see supplemental attachment

24. Is Any Portion of the Work Already Complete? Yes ☐ No ☑ IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address – Please see supplemental attachment

City – State – Zip –

26. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
DLNR - OCCL	CDUA	CDUA: OA-3589	April 21, 2011		
DLNR - OCCL	Shoreline Certification		Upcoming		
DOH - CWB	401 Water Quality Cert.		Upcoming		

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT — 10/04/2011 DATE — SIGNATURE OF AGENT — 10/7/11 DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

Supplemental Narrative for Department of the Army Permit
File #: POH-2011-00131

BLOCK 17

Site is located at the east end of Waikiki at the base of Diamond Head. To get there from the west, take Paki Ave towards Diamond Head, past Kapiolani Park, turn right on Coconut Ave and proceed to the end of the block. The property will be on the left hand side. If approaching from the east, take Diamond Head Rd towards Waikiki to the base of the hill, turn left on Coconut Ave. The property will be on the left hand side at the end of the block.

BLOCK 18

The project seeks to replace an existing failing seawall with a more appropriately designed seawall. The proposed seawall will be constructed using Concrete Ruble Masonry (CRM) with a wave deflector at t the top constructed of reinforced concrete and galvanized steel. The wall will extend up to 8' high and be as wide a 6'6" at the base in certain sections, tapering to 2'6'" wide towards the top of the structure, and will run the 125' length of the property. The proposed seawall will not extend seaward past the property line nor the location of the existing seawall. Wall design will be a slopped with the base located at the property line and the wall face sloping landward. The top will be recurved to deflect wave energy back seaward.

Construction will primarily be done by hand but will also utilize machinery such as a Bobcat and mini-excavator. Excavation will need to take place to remove existing wall material (CRM) and provide space for the new wall footing. Dimensions of the excavation will run the 125' length of the property and be up to 6 ft wide and vary in depth depending on the location of bedrock, which the wall footing will rest on. Material from the existing wall will be reused in the new wall construction. If there is excess material, it will be disposed of at an off-site location on private property.

Sandbags will be used to create a temporary protective barrier and staging area for the work to be done (see blocks 20-23).

BLOCK 19

The purpose of the project is to protect the property and associated building from wave and ocean energy.

The existing seawall was constructed in 1958 during the original building construction. At the time, the wall was designed as a decorative planter box when there was a large area of sand between it and the ocean waves and was never intended to serve as a seawall. As erosion occurred, the planter box became the default seawall and the only barrier between the residential building and the wave energy.

Over time, the wall began to crumble and collapse in sections and has reached a stage that it no longer provides the necessary protective barrier to the building. It has become evident that a more appropriate barrier needs to be installed to prevent unnecessary and costly damage to the property as well as the neighboring properties and public land.

The proposed seawall will be designed to be an adequate protective barrier to the building. No new activities will be developed as a result of this proposal. Construction would ideally begin in late 2011/ early 2012 when tides are at their lowest and take approximately 2-3 months to conclude.

BLOCK 20

During construction, temporary sand bags, turbidity curtains, and a silt/dust fence will be placed in state waters. The primary reason will be to serve as a protective barrier between the construction area and the waves. The secondary reasons will be to allow for a staging area for the work to be done as well as to function as a BMP barrier to prevent discharge into state waters and keep existing beach sand from eroding during the construction process. The tops of the sandbags will provide a stable surface for workers and equipment. The sandbags will be temporary and will be removed upon completion of the construction phase.

Material used will be 20 coir sandbags measuring 36" x 52" x 12" filled with approved sand coming from Windward Oahu. The turbidity curtain will be 150' long by 4' deep and be placed seaward of the sandbags. The silt/dust barriers will be place along the outer edge of the sandbags. All items placed in state waters will be temporary and be removed upon construction completion.

BLOCK 22

150'. Location of the discharge is shallow water within 50 ' from the shoreline. Bottom topography is relatively level with sand and rock base. Material will be placed by hand. Sandbags will be filled in place using a remote pump landward of the high tide mark to pump the sand slurry mixture into the bags.

BLOCK 23

Potential impacts on waters will be avoided through the use of Best Management Practices (BMP's). BMP's will use utilize measures to reduce the amounts silt, sediment, and work related material from entering state waters outside of the construction area. Please refer to submitted list of BMP's for detailed descriptions.

BLOCK 25

TMK: 3-1-033: 059
Seabreeze Apartments, Inc.
Location to Project: West

Street Address: 3065 Kalakaua Ave
Honolulu, HI. 96815

Mailing Address: P.O. Box 4009

TMK: 3-1-033: 065, 3-1-033: 068
Yee, Ann B TR / Judith E H Shulz
Location to Project: North, North East

Street Address: 2811 Coconut Ave
Honolulu, Hi. 96815

Mailing Address: 5323 Kilauea Ave
Honolulu, HI. 96816

TMK: 3-1-033: 066
Legal Name: City Bank
Location to Project: East

Street Address: 2801 A Coconut Ave
Honolulu, HI. 96815

Mailing Address: 201 Merchant St Fl 10
Honolulu, HI. 96813

The Kainalu

2801 Coconut Avenue
Honolulu, HI 96815

January 15, 2012

Construction of Temporary Property Protective Barrier/Platform and New CRM Seawall

Table of Contents

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1. Description and sequence of work:
    a. During construction, a 150' long by 4' high turbidity barrier shall be placed just offshore of the proposed temporary shoreline protection barrier and work platform. The barrier shall be anchored with 100 lb. concrete blocks spaced at 10' intervals. The barrier shall be removed, replaced and or reset as necessary to insure its integrity.

b. Installation of 20 each 36" wide by 54" long by 1' high temporary coir sandbags against the side of the existing south groin to prevent sand from the beach on the northwest side of the groin from passing through the bottom of the existing failed groin.

c. Installation of a temporary property protective sandbag barrier/platform to:
   1) function as a BMP barrier to prevent discharges into State waters,
   2) protect the unprotected building from wave run-up after the existing property protective structure is removed, and
   3) function as an equipment work platform to keep the equipment out of the water during construction.

   Note: The temporary property protective barrier/platform shall be constructed using 65 each 48" x 48" x 48" polypropylene bulkbags each filled with approximately 2.3 cubic yards of clean calcium carbonate beach sand for a total of 150 yards of sand to fill the Bulkbags. The bulkbags shall be placed to form a perimeter barrier inside which 130 yards of compatible beach sand shall be placed to act as a work platform for the construction equipment. A small rubber track skid steer loader shall move the sand from the parking lot to the beach. The bulkbags shall be filled in place using a mini-excavator to place the dry sand in the bags.
   36 each 36" wide by 54" long by 1' high coir sandbags shall be placed along the outside of the bulkbags to form a threshold to help to mitigate wave reflection against the bulkbags. The coir sandbags shall be filled at Shoreline Restoration of Hawaii's yard in Waimanalo using a closed loop slurry pump system, within an open top tank. No water escapes onto the ground with this system. Each bag shall be filled with approximately 1/3 cubic yard of compatible calcium carbonate sand.

d. Installation of a silt fence along the seaward, outside upper edge of the temporary sandbag barrier/platform structure to assist with preventing discharges into State waters.

e. Dust barrier fencing shall be installed at the flanks of the northwest and south sides of the temporary sandbag barrier/platform.

f. Demolition and removal of the old seawall shall be done in phases to match the ability of the dewatering/silt removal system to remove silt from the pumped water so that the clean water can be discharged to the municipal storm drain system at the storm drain inlet located approximately 300' from the Kainalu. All loose concrete not used for filler in the new seawall shall be removed from the property and taken to PVT landfill in Nanakuli. Dense basaltic rock from the demolition of the old seawall shall be cleaned and reused in the construction with prior approval from the structural engineer.

g. Installation of permanent vinyl shoring shall be installed along and against the seaward side of the basement wall footing and anchored to the side of the footing

with stainless steel anchors set with epoxy. The vinyl shoring shall act to prevent undermining of the basement floor and basement wall footing. The contractor shall request that the Kainalu structural engineer review, for concurrence, the shoring structural data prior to installation.

h. Installation of a temporary footing dewatering and silt removal system to clean the water before putting the water into the municipal storm drain system at the storm drain inlet located approximately 300' from the Kainalu. The dewatering and silt removal system shall utilize an open 1000 gallon settling tank to allow the silt and sediment to settle out. A filter baffle, installed close to the discharge end of the tank, shall separate the water received from the dewatering pump from the water to be discharged to the municipal storm drain. The dewatering pump shall be relocated as necessary to lower the water level in the phased work area.

i. Excavation and construction of the CRM wall footing shall be done in small sections in order to minimize the dewatering discharge rate into the silt removal system so that the system will produce clean water before being drained into the municipal storm drain. The CRM wall footing shall mean that section of wall constructed below the MHHW mark which we estimate shall be around 2' above mean sea level during the spring months. No dewatering shall occur during concrete placement below the water table.

j. Construction of the CRM wall sections above the MHHW line shall be done in phases after the installation of the footing sections.

k. Installation of the waterproofing membrane against the existing basement wall shall be done prior to the installation of the wall sections and/or prior to backfill.

l. Backfill of the new seawall shall be done in conjunction with the installation of the wall sections. The backfill for the wall shall consist of compatible beach sand mixed with the 6" minus rock recycled from the demolition of the old seawall.

m. Installation of the concrete wave return sections of the wall shall be done in sections after the backfilling is accomplished. A 1" thick neoprene pad shall be placed between the concrete wave return and the existing concrete floor above.

n. Repair of the 1st floor stair opening, after the old stair removal, shall be done in conjunction with the wall construction.

o. After construction of the wall, all sand shall be released from the bulkbags and the coir sandbags to the beach. All emptied bags shall be removed from the beach. The beach shall be cleaned and raked. All rocks and debris of any kind shall be removed from the beach.

2. Materials of Construction: Quantity, size and type.
   a. 150' L x 4'h AER-FLO, Tough Guy floating turbidity barrier installed just offshore to prevent discharges into State waters.
   b. 65 ea. 48'x48'x48' polypropylene Bulkbags used to create the perimeter of the temporary barrier/platform into which compatible beach sand shall be placed to create a raised platform for the equipment to operate from.
   c. 56 ea. 36'W x 54" L x 1' H coir sandbags, of which 36 shall be used to help absorb wave energy along the outside perimeter of the temporary barrier/platform and 20 ea. shall be placed along side of the failed groin to prevent sand from passing through the underside of it.
   d. 350 yards of matching beach quality sand to fill the Bulkbags (150 yards), the coir sandbags (20 yards), the work platform inside the Bulkbags (130 yards) and the backfill for the wall (50 yards). The calcium carbonate sand is in stock at Shoreline Restoration of Hawaii, Inc.'s yard in Waimanalo.
   e. 400 square feet of vinyl shoring manufactured by Everlast Engineering Solutions or equal. See www.everlastengineeering.com.
   f. 60 each 3/4" x 6" stainless steel epoxy embedment anchors.
   g. 50 yards of 2' diameter basaltic stones for the base of the wall.
   h. 440 yards of dense basaltic one and two man stones to construct the crm wall.
   i. 1200 square feet of waterproofing membrane.
   j. 1300 lineal feet of #5 hot dipped galvanized rebar.
   k. 200 lineal feet of #4 hot dipped galvanized rebar.
   l. 150 yards of 5000 psi Mayco concrete pump mix.
   m. 420 square feet of 1" thick neoprene pad material.
   n. 400 square yards of 12 oz polypropylene non-woven geotextile fabric to be used between the seawall backfill and the seawall.
   0. 150' of 3' wide poly propylene silt fencing material.
   p. 50' long by 6' high polypropylene dust fencing.

3. Equipment required.
   a. Bobcat mini excavator with hydraulic breaker to break up the old seawall.
   b. Case mini excavator to remove the rubble from demolished wall to place into the bucket of a Bobcat rubber track skid steer loader to move to dump truck located near the street.
   c. Bobcat 864 rubber track skid steer loader to move materials back and forth to the parking lot.

d. Ingersoll Rand 125 cfm air compressor or equal to be stationed inside parking garage to provide air for air breaker tools to assist in demolishing the rock wall.
e. Electric 2" submersible pump to dewater the footing trench.
f. 1000 gallon frac tank to remove silt and sediment from water.
g. 2" electric submersible pump to discharge water to municipal storm drain system.

4. Access to work site
   a. The access to the work site shall be through the existing gates between the property line and the building located at the east side of the property.
   b. The contractor shall pre-determine the path the equipment shall take across the parking garage deck and shall request that the Kainalu structural engineer verify that the equipment loading shall not cause structural damage to the building. The structural engineer may require that some temporary strategically placed structural supports be added to carry the load.
   c. The equipment and materials staging area shall be located away from the beach at the Kainalu parking area. The Kainalu shall provide or make arrangements for adequate parking spaces for the construction equipment and materials for the duration of the job. The Kainalu must provide or make arrangements for day time parking for workers trucks between the hours of 8:00 am and 5:30 pm, Monday through Saturday.

5. Sand Sieve analysis
   a. A sand sieve analysis comparing the existing beach sand to the imported sand is provided.

6. Start and finish dates.
   a. The ideal start date shall be around the middle of March, 2013.
   b. The end date shall be around June 1st, 2013.

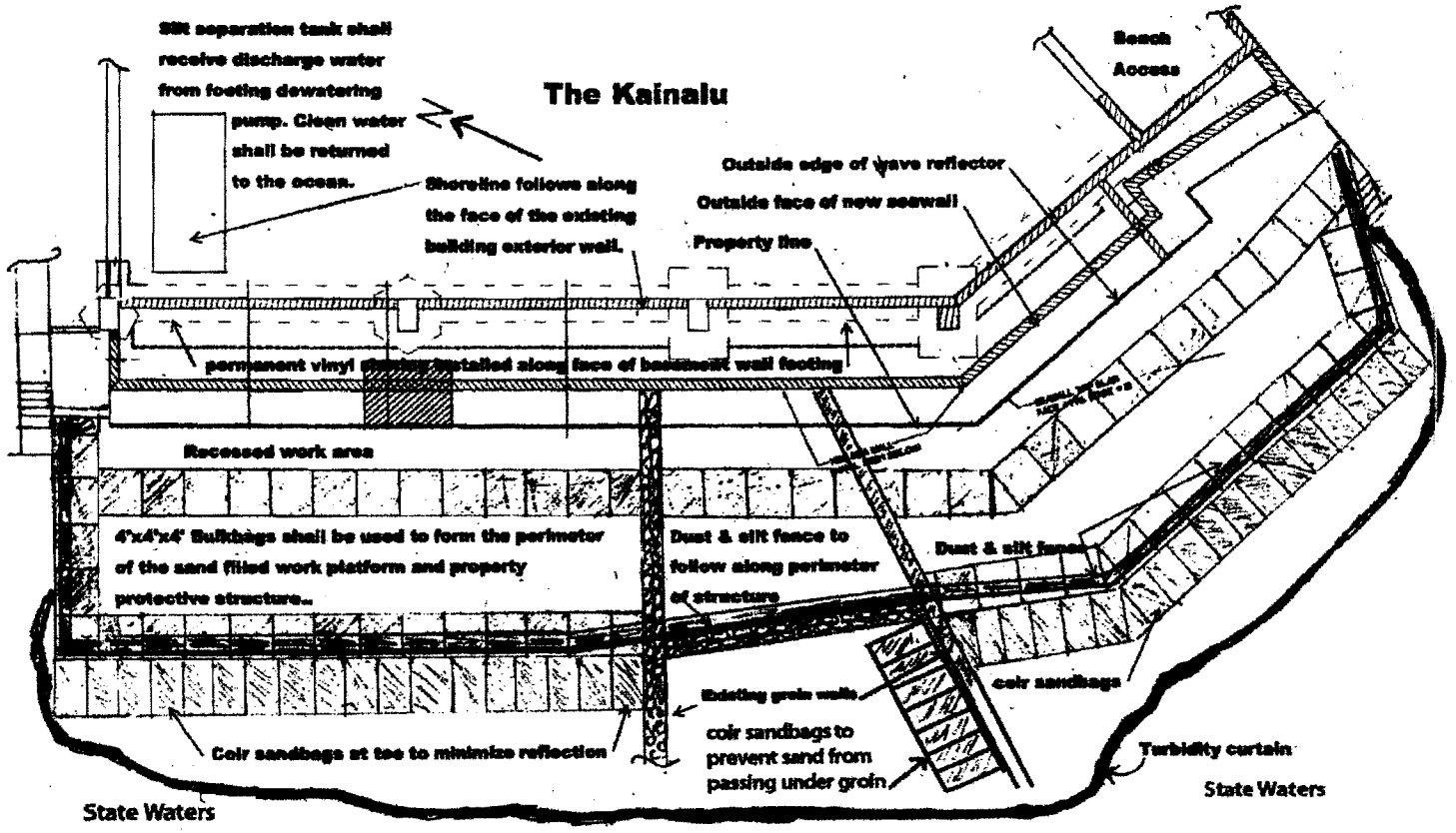
7. Work hours shall be between 8:00 am and 5:30 pm, Monday through Saturday, except on holidays.

8. Noise permit. The contractor must acquire a noise permit from the State of Hawaii, Department of Health, noise control section.

9. Dust control. A 6' high dust fence shall be erected at the northwest and south sides of the temporary sandbag barrier.

7. Best Management Practices:
   a. The applicant shall comply with all applicable State Department of Health (DOH) administrative rules.

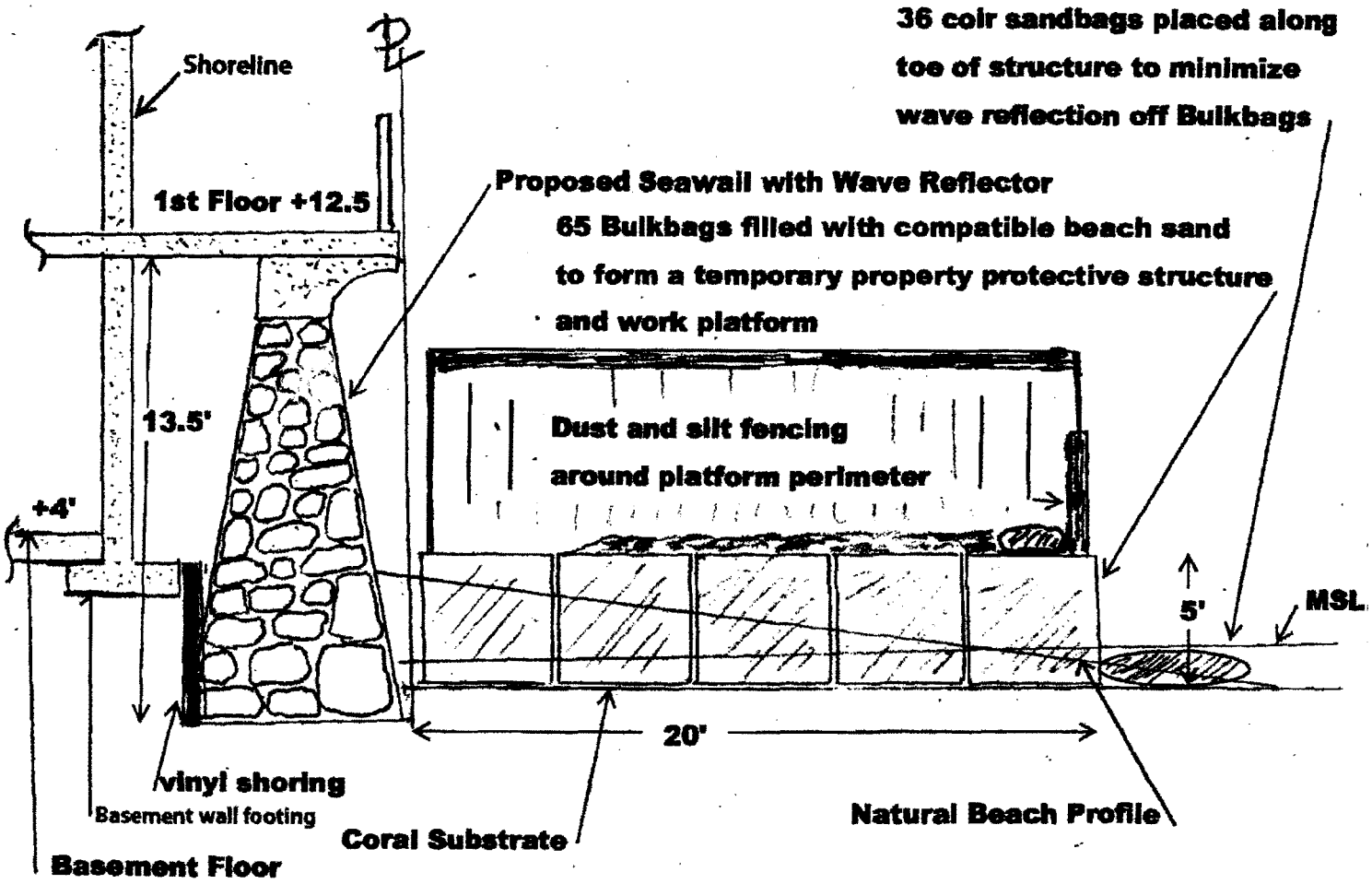
b. A turbidity curtain shall be deployed in the water surrounding the work area during all construction activities to prevent discharges into State waters.
c. Excavation below the water table shall be done during low tides and the dewatering system shall be shut off to minimize overloading of the silt and sediment removal system.
d. A silt fence shall be deployed along the perimeter of the temporary sandbag property protective structure and work platform to prevent discharge into State waters.
e. A 6' high dust barrier shall be installed on the west and south sides of the work area.
f. A dewatering and silt removal system shall be deployed to ensure that all water being returned to the ocean, via the municipal storm drain system, is free of silt, sediment, is visibly clear and creates no turbidity plume.
g. No dewatering shall occur during the placement of concrete below the water table.
h. All equipment shall be fueled and serviced away from the work area, at a designated area, underlain with plastic sheeting, on dry land, mauka of the shoreline.
i. Oil absorption pads and booms shall be stocked at the worksite and shall be deployed immediately in the event of an accidental oil discharge. Used oil absorption pads and booms shall be wrapped or placed in heavy duty plastic sheeting or garbage bags and disposed of at PVT landfill in Nanakuli.



Plan View of the Kainalu Temporary Shoreline Protection and Work Platform

Not to Scale

EXHIBIT A



The Kainalu Side View of Temporary Property Protection and Work Platform Structure

Scale: 1/4" = 1'

EXHIBIT B

AECOS, Inc.

45-939 Kamehameha Highway, Suite 104

CLIENT: Shoreline Restoration of Hawaii
41-669 Ahiki Street
Waimanalo HI 96795
ATTN: Joe Correa 808-259-6747 / 228-9391

AECOS Job No.:	2010
REPORT DATE:	3/9/2010
PAGE:	1 of 2

GRAIN SIZE ANALYSIS RESULTS

Date Sampled: 2/23-24/2010 Analyzed by: cl AECOS Log No.: **25977**
Date Received: 3/1/2010 Sample Type: sand

Fraction dry weight (mg)

size (mm)	>4.00	4.00 - 2.00	2.00 - 1.00	1.00 - 0.500	0.500 - 0.355	0.355 - 0.250	0.250 - 0.125	0.125 - 0.075	0.075 - 0.063	<0.063	TOTAL
phi	-2	-1	0	1						pan	
Kainalu	0.0	0.6	2.5	11.4	15.5	14.3	5.3	0.1	0.0	0.0	49.7
SROH Stock	1.1	1.0	3.5	18.7	5.6	7.1	4.6	1.3	0.1	0.1	43.1

Fraction Percent (%)

size (mm)	>4.00	4.00 - 2.00	2.00 - 1.00	1.00 - 0.500	0.500 - 0.355	0.355 - 0.250	0.250 - 0.125	0.125 - 0.075	0.075 - 0.063	<0.063	TOTAL
phi	-2	-1	0	1	0	0	0	0	0	pan	
Kainalu	0.0	1.2	5.0	22.9	31.2	28.8	10.7	0.2	0.0	0.0	100.0
SROH Stock	2.6	2.3	8.1	43.4	13.0	16.5	10.7	3.0	0.2	0.2	100.0

Percent Finer by Weight (%)

size (mm)	4.00	2.00	1.00	0.500	0.355	0.250	0.125	0.075	0.063
Kainalu	100.0	98.8	93.8	70.8	39.6	10.9	0.2	0.0	0.0
SROH Stock	97.4	95.1	87.0	43.6	30.6	14.2	3.5	0.5	0.2

Project: The Kainalu

SRH Stock = Shoreline Restoration of Hawaii Stockpile

J. Mello, Laboratory Director

EXHIBIT C

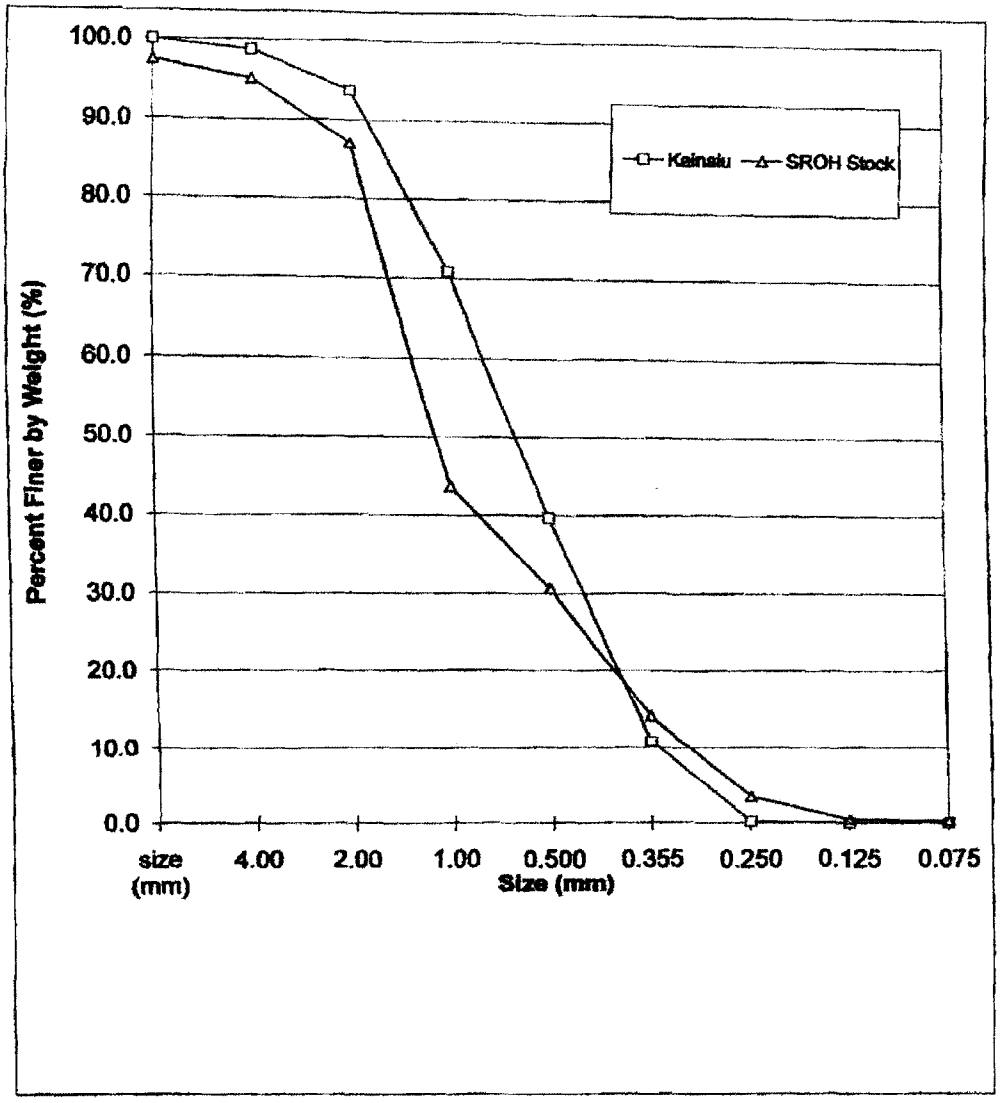
AECOS, Inc.
45-939 Kamehameha Highway, Suite 104

CLIENT: Shoreline Restoration of Hawaii
41-669 Ahiki Street
Waimanalo HI 96795
ATTN: Joe Correa 259-7966 /fax:259-8143

AECOS Job No.:	2010
REPORT DATE:	3/9/2010
PAGE:	2 of 2

AECOS Log No.: 25977

GRAIN SIZE DISTRIBUTION



PLANPACIFIC

February 1, 2012

U.S. Army Corps of Engineers
Regulatory Branch
Fort Shafter, Hawaii 96858

FILE #: POH-2011-00131

Subject: Supplemental Information to Application
Attn: Ms. Jessie Paahana

Number of Sandbags Used

Fifty six (56) coir sandbags measuring 36" x 54" x 12" will be installed. 36 will be used as primarily as a energy absorbing protective barrier against wave action and as a work surface, and the remaining 20 will be used to support failing structures and as a barrier to prevent the flow of sand from passing through between work area and ocean. Section 2 c. of the construction methods has been updated to clarify this.

Sandbag Filling Process

Sandbags will be filled off site at storage location of sand in Waimanalo, Oahu with an electric Toyo slurry pump, closed loop filling system. The sandbags shall then be transported to the Kainalu by truck and delivered to the beach using a small Bobcat skid steer track loader. At the beach a mini excavator shall place the sandbags along the outside of the bulkbags to reduce wave reflection.

De-watering Process

Seawater from the excavation will be pumped during low tide to de-watering filter bags placed on top of a perforated deck which will sit on an open 1000 gallon water tank. The clean water that passes through the sediment bag will fall into the tank where any additional sediment will gravity out. After passing turbidity testing, a second pump will then discharge, through a fire hose, the clear water to a storm drain located on Coconut Avenue approximately 300' from the Kainalu .The water will then find its way to the ocean via the storm drain system. We do not plan to de-water during high tide as this will overwhelm the sediment collection system.

1001 Bishop Street
Suite 2755
Honolulu
Hawaii 96813

Tel (808)521-9418
Fax (808)521-9468

File No. POH-2011-00131

Additional Application Questions – (answers in red)

1. Depth to bedrock from ground level. Trench depth, how deep?

The depth of the coral along the property line meanders from approximately.-.75' below mean sea level at the west end of the building to -.40 near the west side of the groin wall. On the east side of the groin wall to the neighbor's rock wall, the depth of the coral is approximately -.40' to -.25'.

2. Phasing. What is the phasing to be like? Will it be constructed in layers, ex. The bottom portion of entire wall, then middle, then top? Or will it be constructed in segments, ex. Eastern portion completed at one time, then western portion? Will the sandbags be placed all at one time, or in phases?

We think that it would be more practical to start at the west end in small segments and layers and move east. The wall footing will be constructed in segments at a time. Each segment which extends from the coral substrate (-.25' to -.75' below sea level) to + 3' above sea level should be constructed in single small lifts. The purpose is to get the height of the constructed portion of the wall above the water table in small sections so that dewatering is easily handle able and minimal discharge takes place. Subsequent lifts above the water table can be done in larger sections since de-watering is not an issue. Building the wall from west to east will give the rock wall contractor safer access and egress through the opening at the east side of the property and allow for the development of the worker's ability to build the east corner quickly once the gunite and rock is removed. The length of trench for each small segment of wall footing below the water table will depend on the ability of the contractor to safely excavate, shore, remove excavated materials, adequately de-water and place rock and concrete to engineered wall dimensions within the water quality parameters set by the BMP program and rules of the DoH.

3. Endangered species. Specify that this will not harm endangered species, green sea turtle, Hawaiian monk seal, and will not cause permanent damage to habitat.

The Green Sea Turtle and Hawaiian Monk Seal have been known to frequent the area. No permanent damage to habitat will be done, and all construction material and equipment will be removed at completion of the construction phase. None will be harmed during the construction process and will be kept out of the work by the turbidity curtain if the construction noise does not deter them.

4. Live coral anywhere inside of the dewatering area?

We are unsure if the coral within the dewatering area is live or not. The geomorphological structure fronting the Waikiki shoreline is classified as Pavement, which is flat, low-relief, solid carbonate rock with coverage of macroalgae, hard coral, zoanthids, and other sessile invertebrates that can be dense enough to begin to obscure the underlying surface.

The temporary sandbag structure on the west end of the property will extend out onto the beach and into the water approximately 25' from the property line. The sand bag structure on the west side of the groin will sit on the coral substrate that is covered by sand during the winter months of the year when

the north and west swell is dominant. During the season when the south and east swell is dominant the sand moves away exposing the coral along the area 25' out from the building.
The sand bag structure on the east side of the groin will also extend out from the property line approximately 20' into the water and will sit on the coral substrate. In this area the sand is minimal and at the area 20' out from the property line, the coral is exposed year round.

*5. Sand from trenching **and** sandbags. Will it be reintroduced, or disposed of at an upland site?*

The clean, compatible, calcium carbonate sand used to fill the sand bags and as fill between the sand bags shall be released onto the beach when the job is done. Sand from the trenching will be reintroduced.

6. Dewatering filtration bag sediment. Will it be reintroduced or disposed of at an upland site?

The sediment caught in the de-watering system frac tank and filter bag will be hauled away from the site and disposed of at an upland site on private property in Nanakuli.

7. Access and staging area. What is the width at the top? Will machinery be operated upon it? If so, how will the machinery access the area?

Width will be approximately 16' at the top in the western portion; machinery will be able to operate upon it. Access will be through the sliding gate on the Diamond Head side in which a ramp will be constructed down to the sandbag platform. Equipment and machinery will remain in the building garage when not in use.

8. Concrete blocks base to turbidity barrier. # of them total, size/dimensions, and weight of each?

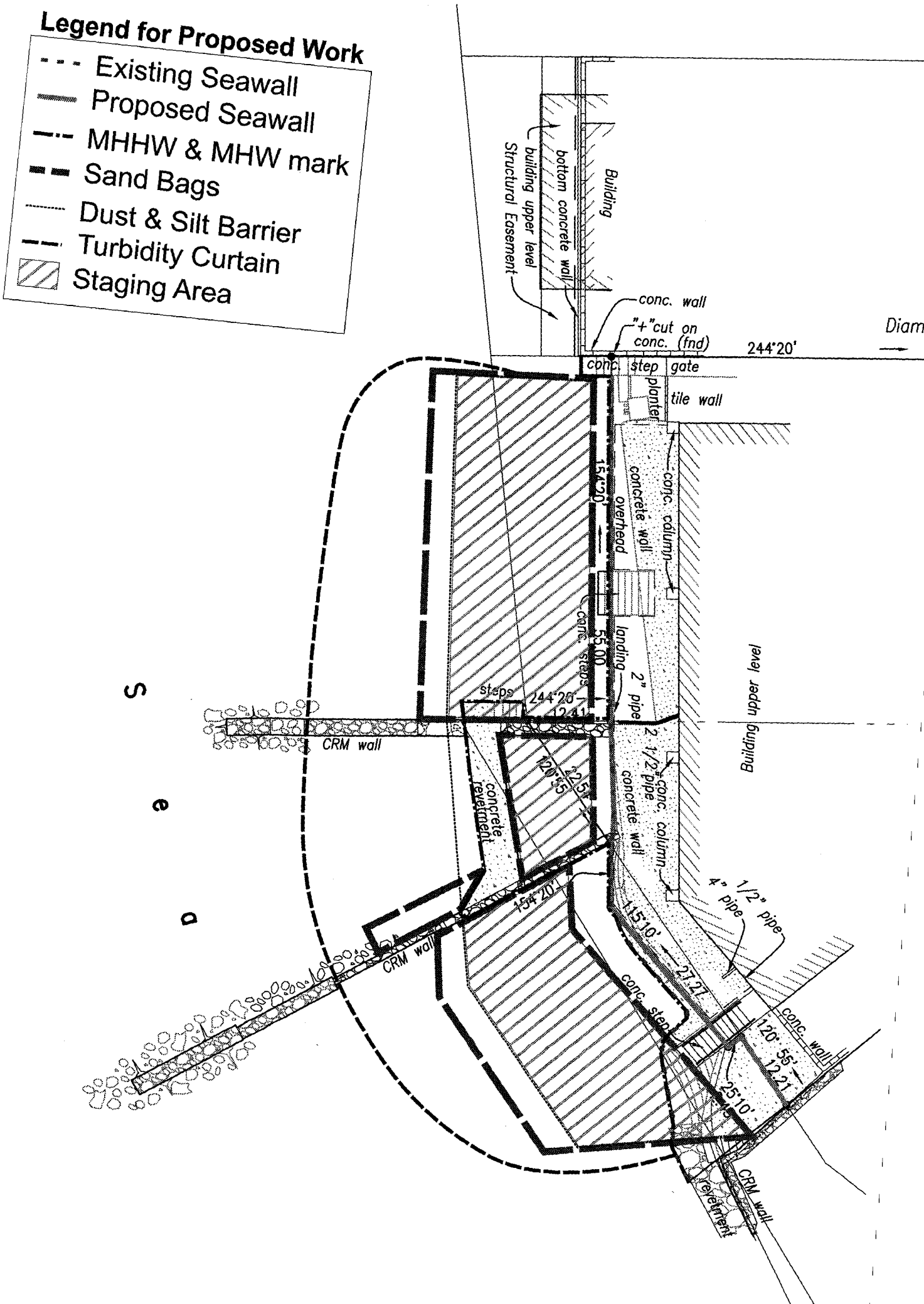
Concrete blocks will no longer be used to anchor the turbidity curtain. Instead, the turbidity curtain shall be held in place with rope tied to a continuous sand tube placed beneath the turbidity curtain. The sand tube is constructed by placing small 60 lb.burlap sand bags end to end within a coir net wrap. The sand tube is constructed by hand at the beach and transported offshore to where the turbidity curtain is to be placed by kayaks. Manila rope is tied around the anchoring sand tubes and tied to the bottom of the turbidity curtain to hold the curtain in place. We shall use 220 lineal feet of turbidity curtain and 220' of sand tube to hold the curtain in place. The 220' of sand tube shall be constructed of 138 small burlap bags each containing 1/2 cu ft of sand and weighing 50lbs per ft (3.32 tons total). The coir wrap shall be constructed of 220' long by 3.3' wide coir netting with coir twine ties to hold the flaps together. The sand used for the anchoring tube will be consistent with the sand bag fill material, and will be cut loose to remain on site after completion of construction.

9. Will rebar be piled into the bedrock?

Footings will be placed on bedrock, but will not be anchored with rebar. No rebar shall be driven into the coral. All rebar shall be epoxy coated and totally encapsulated in concrete and shall have a minimum cover of 3".

10. Wall Length. 150' or 125'?

The length of the wall is 125'.


Legend for Proposed Work
Existing Seawall
Proposed Seawall
MHHW & MHW mark
Sand Bags
Dust & Silt Barrier
Turbidity Curtain
Staging Area
Sea
building upper level
Structural Easement
bottom concrete wall
Building
conc. wall
"+" cut on conc. (fnd)
244°20'
conc.
step
gate
planter
tile wall
conc. column
concrete wall
overhead
154°20'
conc. steps
55.00
landing
2" pipe
steps
244°20'
12.41'
CRM wall
Building upper level
2 1/2" pipe
conc. column
concrete wall
concrete revetment
120°55'
12.21'
154°20'
1/2" pipe
4" pipe
115°10'
27.27'
CRM wall
conc. steps
conc. wall
120°55'
12.21'
25°10'
CRM wall
revetment