
DEPARTMENT OF THE ARMY PERMIT

PERMITTEE: Hawaii Kai Marina Community Association
PERMIT NUMBER: POH-2010-00280
ISSUING OFFICE: U.S. Army Engineer District, Honolulu

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

PROJECT DESCRIPTION:

The project is to maintenance dredge about 121,900 cubic yards (cy) of selected areas in the Hawaii Kai Marina and entrance channel over a five-year period and dispose dredged material into the existing upland Rim Island #1 (about 6,000 cubic yards) within the marina, the upland "Yacht Club" Area (about 43,500 cubic yards), as beach replenishment fill onto adjacent beaches known as Portlock Beach (about 5,000 cubic yards) and Maunalua Bay Beach Park (about 5,000 cubic yards), and about 62,400 cubic yards as ocean disposed material at the EPA-approved South Oahu Ocean Dredge Material Disposal Site (SOODMDS). As much as 100 cubic yards of sand within 600 square feet will be placed below the high tide line at each of the Maunalua Bay Beach Park and Portlock Beach nourishment locations.

All work will be performed in accordance with the attached plans, pages 1-26, dated 8 February 2013 (Enclosure)

PROJECT LOCATION:

Hawaii Kai Marina and entrance channel area; latitude 21.2821°N., longitude -157.70792°W.; including the entrance channel to and under the Kalaniana'ole Highway Bridge, in Maunalua Bay, Oahu, Hawaii.

The disposal sites include the following:

1. Rim Island #1, latitude 21.2849°N., longitude -157.70424°W
2. "Yacht Club" Area, latitude 21.2847°N., longitude -157.16117°W
3. Portlock Beach, latitude 21.2806N., longitude -157.71117°W
4. Maunalua Bay Beach Park, latitude 21.2813°N., longitude -157.71301°W
5. South Oahu Ocean Dredge Material Disposal Site (SOODMDS), latitude 21.25277°N., longitude -157.94722°W

Refer to pages 1-26 for specific locations of authorized work components.

PERMIT CONDITIONS:

General Conditions:

1. The time limit for completing the work authorized ends on **February 15, 2018**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached with such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

See pages 4-13

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:
 - X Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
 - X Section 404 of the Clean Water Act (33 U.S.C. §1344).
 - X Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).
2. Limits of this authorization.
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.

- c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal projects.
3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:
 - a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d. Design or construction deficiencies associated with the permitted work.
 - e. Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
 - a. You fail to comply with the terms and conditions of this permit.
 - b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).
 - c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.
6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Department of the Army Permit POH-2010-00280

SPECIAL CONDITIONS:

1. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2a. You must provide the following information to the U.S. Coast Guard, Aids-To-Navigation Office at least 30 days prior to the start of construction:

(1) Project start date.

(2) Project completion date.

(3) Agency/contractor performing work with the name of a point of contact, address and telephone number.

(4) If vessels are involved, names, call signs and radio frequencies they guard, on VHF-FM.

(5) Hours of operation of the project, i.e. 0800 - 1700, Mon - Fri, 24 hours a day.

(6) Any special request for the maritime public, i.e. reduction of speed, wide berth.

(7) General scope of project and how it will affect the maritime public, i.e. degree of encroachment of navigable waters and how obstructions will be marked i.e. signs, lights.

(8) The information should be sent to:

Commander (dpw)
Fourteenth Coast Guard District
Prince Kuhio Federal Building
300 Ala Moana Boulevard

Honolulu, Hawaii 96850-4982

or e-mail: D14I.NM@uscg.mil or Phone:808-535-3409

2b. You must, upon completion of the authorized work, provide notice to the U.S. Coast Guard, Aids-To-Navigation Office.

3. Your Construction Contractor must provide weekly water quality monitoring reports as required under WQC0000800 and CZM CD (P-13297) to this office for transmittal to USFWS and Habitat Conservation Division, NOAA Fisheries.

4. Prior to the start of dredging, the permittee will submit a draft Dredged Material Disposal Plan (dDMDP) to this office and EPA POC < ota.allan@epa.gov > for review and approval. The dDMDP must include the Construction Contractor POC's name and contact information, and sections addressing dredging removal and disposal procedures, dredge disposal tracking and verification procedures, and a Best Management Practices Plan (BMPP):

a. The dDMDP must include the following information and be organized as follows:

Ocean Disposal Requirements

- Disclosure of all vessels and equipment used during operations
- Proposed removal of debris and large material (include oversize sediment disposal plan and specify approved upland disposal site(s) IAW contract drawings, specifications and prohibition)
- Notice of Completion
- Sweeping and Sounding Plan
- Scow Certification Logs

General Requirements:

- Dredge Disposal: Beach Nourishment Procedures
- Dredge Limits
- Applicable Laws
- Historical or Archeological Discovery Plan
- Fish, Wildlife and Natural Environment and BMPs
- Water Anti-Degradation BMPs
- Buoys and Markers
- Hearing Protection
- Identification of All Surrounding Structures, Equipment, and Vessels
- Surrounding Structures and Equipment
- Vessel Operations
- Identification Of Potential Pollutants Generated by Construction Activities and BMPs
- Fuel and Petroleum Product Controls
- Turbidity Controls
- Backflow of Dredged Materials Into Waters
- Weather Precautions
- Air/Dust Control
- Noise Pollution

b. The dredged material ocean disposal tracking and verification procedures must comply with the following requirements:

(1). Surface Disposal Zone (SDZ): When dredged material is discharged within the SOODMDS, no portion of the vessel from which the materials are to be released (e.g. hopper dredge or towed barge) may be further than 300 meters from the center of the disposal site at 21 degrees 15 minutes 10 seconds North Latitude; 157 degrees 56 minutes 50 seconds West Longitude (NAD 1983).

(2). No more than one disposal vessel may be present within the SOODMDS SDZ at any time.

(3). The primary disposal tracking system for recording ocean disposal operations data must be disposal vessel- (e.g., scow-) based. An appropriate Global Positioning System (GPS) must be used to indicate the position of the disposal vessel with a minimum accuracy of 10 feet during all transportation and disposal operations. This primary disposal tracking system must indicate and automatically record both the position and the draft of the disposal vessel at a maximum 1-minute interval while outside the SOODMDS S disposal site boundary, and at a maximum 10-second interval while inside the SOODMDS disposal site boundary. This system must also indicate and record the time and location of the beginning and end of each disposal event (e.g., the opening and closing of the hull doors of the disposal vessel). Finally, the primary system must include a real-time display, in the wheelhouse or otherwise for the helmsman, of the position of the disposal vessel relative to the boundaries of the SOODMDS disposal site and its SDZ, superimposed on the appropriate NOS chart, so that the operator can confirm proper position within the SDZ before discharging the dredged material. Commercial web-based, near real-time tracking and monitoring systems are available that satisfy these requirements, and EPA encourages their use.

(4). If the primary disposal tracking system fails during transit, the navigation system on the towing vessel (tug, if any), meeting the minimum accuracy requirement listed above, may be used to complete the disposal trip by maneuvering the towing vessel so that, given the compass heading and tow cable length to the scow ("lay back"), the estimated scow position would be within the SDZ [i.e., within 300 meters of the center of the disposal site). In such cases the towing vessels position, and the tow cable length and compass heading to the disposal vessel, must be recorded and reported. Further disposal operations using a disposal vessel whose navigation tracking system fails must cease until those primary disposal-tracking capabilities are restored.

(5). The Construction Contractor must complete an EPA- and USACE-approved Scow Certification Checklist that documents: the amount of material dredged and loaded into each barge for disposal; the location from which the material in each barge was dredged; the weather report for and sea-state conditions anticipated during the transit period; the time that each disposal vessel departs for, arrives at

and returns from the SODMODS; the exact coordinates and time of each disposal; and the volume of material disposed at the SOODMDS during each disposal trip. The Construction Contractor's Scow Certification Checklist must be approved prior to the commencement of any ocean disposal operations.

(6). The Construction Contractor must provide initial notification of any potential or actual violations of the above Ocean Disposal Special Conditions to the District Engineer and the Regional Administrator within 24 hours of discovering such a situation. (This notification requirement is in addition to the monthly report required below.) Timely identification and reporting of potential problems can be facilitated by use of a near real-time web-based tracking and monitoring system. However, whether or not such a system is used, it is the permittee's responsibility to initially report any apparent problems within 24 hours.

(7). The Construction Contractor must collect, for each ocean disposal trip, both automatically-recorded electronic data and printouts from the primary disposal tracking system showing transit routes, disposal vessel draft readings, disposal coordinates, and the time and position of the disposal vessel when dumping was commenced and completed. These daily records must be compiled, and provided in monthly reports to both EPA and USACE during which ocean disposal operations occur. These reports must include the automatically-recorded electronic navigation tracking and disposal vessel draft data on CD-ROM (or other media approved by EPA and USACE), as well as hard copy reproductions of the Scow Certification Checklists and printouts listed above. The reports must also include a cover letter describing any problems complying with these Ocean Disposal Special Conditions, the cause(s) of the problems, any steps taken to rectify the problems, and whether the problems occurred on subsequent disposal trips.

(8). Following the completion of ocean disposal operations, the permittee must submit to the District Engineer and Regional Administrator a notice of completion letter summarizing the total number of disposal trips and the overall (in-situ) volume of material disposed at SOODMDS for the project, and whether any of this dredged material was excavated from outside the areas authorized for ocean disposal or was dredged deeper than authorized by the permit. The completion letter must include a complete collection of the daily electronic tracking records and daily scow certification checklists which must be titled: Disposal Site Verification Log Summary.

c. The following Best Management Practices (BMPs) must be included in the DDOP and implemented in the field:

(1). All dredged material that has been de-watered in upland basins are prohibited from being dumped at the SOODMDS.

(2). Extreme care must be taken to ensure that no debris, petroleum products or other deleterious materials or wastes be allowed to fall, flow, leach or otherwise enter the water.

(3). All permitted activities must be done so as to minimize turbidity and other impacts on adjacent areas. Silt curtains must be employed around the dredging operation. If silt curtains are considered to be impractical at a particular site, the Best Management Practices plan must explain alternate methods to minimize turbidity.

(4). Over-sized sediments, gravels, cobbles, and boulder material greater than 6" in size are prohibited from side-casting/return to the dredged areas and transport to, and disposal in, the SOODMDS.

(5). Dredged material disposal barges must be loaded appropriately to avoid spillage while in transit to the SOODMDS.

(6). Dredged material disposal barges must be maintained such that there is no leakage while in transit to the SOODMDS.

(7). Dredged material disposal operations must occur only in sea states where spillage will not occur in transit to the SOODMDS. No disposal vessel trips must be initiated when the National Weather Service has issued a gale warning for local waters during the time period necessary to complete dumping operations.

5. The following conditions are necessary to prevent an unauthorized taking of the following species listed under the Endangered Species Act (ESA-Listed), which may occur in or near authorized work areas.

Green sea turtles (*Chelonia mydas*),
Hawksbill sea turtles (*Eretmochelys imbricata*),
Humpback whales (*Megaptera novaeangliae*),
Hawaiian monk seals (*Monachus schauinslandi*).

a. Prior to the start of work each day, and periodically during the day, including prior to resumption of work following any break of more than one half hour, you must survey the area for the ESA-Listed.

b. In-water work may not begin, or must be halted, when ESA-listed species are within 100 yards of authorized structures. In-water work may only begin or resume after the animals have voluntarily departed the area.

c.. When piloting vessels, vessel operators must alter course to remain at least 100 yards from ESA-listed whales and at least 50 yards from other marine mammals and sea turtles.

d.. Vessel operators must reduce vessel speed to 10 knots or less when piloting vessels in the proximity of marine mammals or turtles. Vessel speed should be reduced to 5 knots or less when piloting vessels in areas of known or suspected turtle activity.

e. If a vessel is approached by a marine mammal or turtle, the vessel operator must put the engine in neutral until the animal is 100 yards away.

f. Each vessel operator must pilot his or her vessel to avoid encircling or trapping marine mammals and sea turtles between multiple vessels or between vessels and the shore.

g. You may not feed, touch, ride, or otherwise intentionally interact with any ESA-listed marine species.

h. You must provide training to all on-site project personnel to apprise them of the status of any ESA-listed species potentially present in the project area and the protections afforded to those species under Federal laws. Information explaining laws and regulations for listed species in Hawaii may be downloaded at http://www.nmfs.noaa.gov/prot_res/MMWatch/hawaii.htm. You must ensure that protocols and BMPs to avoid the potential for contact with or harassment of ESA-listed species are followed during all periods of in-water work.

i. You must maintain, and submit to this office at the close of each phase of authorized work under this permit, records of each ESA-listed species observed in the operating area and transit route during the authorized in-water work.

j. . You must immediately notify this office if: 1) a take of ESA-listed species occurs; 2) new information reveals effects of the action have affected those ESA-listed species in a manner or to an extent not previously evaluated; 3) if the action is subsequently modified and causes effects to those ESA-listed species in a manner or to an extent not previously considered or evaluated; or 4) a new species is listed or critical habitat is designated that may be affected by the authorized work.

k. Observations of an injured or dead marine ESA-listed animals, will be reported to the sea turtle stranding hotline at 808-983-5730 or the marine mammal stranding hotline at 888-256-9840.

6. The following conservation measures are necessary to avoid and prevent an unauthorized taking of the following ESA-listed water bird species:

Hawaiian coot (*Fulica alai*),
Hawaiian moorhen (*Gallinulachloropus sandvicensis*),
Hawaiian stilt (*Himantopus mexicanus knudseni*), and
Hawaiian duck (*Anas wyvilliana*).

Any changes to, modifications of, or failure to implement the following conservation measures may result in the suspension, or revocation of this permit.

- a) (1). Prior to the start of work each day, and periodically during the day, including prior to resumption of work following any break of more than one half hour, you must survey the area for ESA-listed waterbirds.
- b) Excavation, trimming, and other vegetation treatments will not be conducted in Hawaiian stilt nesting habitat during the stilt's breeding season (March 1 through July 31).
- c) The Hawaiian duck, Hawaiian moorhen, and Hawaiian coot breed year round. Measures to avoid nest disturbance to these species will consist of the following practices:
 - 1) A biologist familiar with waterbird biology and behavior will conduct nest searches prior to any work being conducted in areas where endangered waterbirds have been observed.
 - 2) If a nest with eggs is discovered, work will cease within 150 feet of the nest for 60 days.
 - 3) If a nest with chicks is discovered, work will cease for 30 days. These standard guidelines are intended to protect chicks, and may be shortened if monitoring is conducted often enough to note when chicks have fledged (usually five to six weeks after hatching).
- d) If a previously undiscovered nest is found after work begins, all work will immediately cease within a minimum radius of 150 feet of the nest and the U.S. Fish and Wildlife Service, Pacific Islands Fish and Wildlife Office, will be contacted immediately.
- e) After any subsequent delay in starting work at any of the proposed project sites of three or more days (during which waterbirds may attempt nesting) nesting surveys will be repeated by a qualified biologist.
- f) All on-site project personnel will receive instruction regarding the presence of listed species and the importance of avoiding impacts to these species and their habitats.
- g) Records of observations of waterbird protected species in the project area will be maintained and submitted to the Corps and USFWS at the close of each episode or phase of work
- h) If: 1) a take occurs; 2) new information reveals effects of the action have affected waterbird listed species in a manner or to an extent not previously evaluated; 3) if

the action is subsequently modified and causes effects to ESA-listed waterbird species in a manner or to an extent not previously considered or evaluated; or 4) a new species is listed or critical habitat is designated that may be affected by the authorized work, you must immediately notify this office and the following:

Patrice Ashfield or Tim Langer
U.S. Fish and Wildlife Service, Pacific Islands Field Office
< Patrice_Ashfield@fws.gov > or < tim_langer@fws.gov >
808-792-9400

7. The following conditions are necessary to avoid and minimize impacts to the aquatic environment and Essential Fish Habitat:

- a) Implement and maintain measures to effectively isolate and confine pollutants including sediment within the authorized footprints to the extent practicable.
- b) Employ trained biologists to inspect the dredge barge prior to entering the marina for dredging operations, and importantly after operations have concluded prior to barge moving to another site. If invasive species are found, the barge hull must be cleaned to minimize transfer of invasive species.
- c) Avoid causing physical impact to the seagrass bed present within the entrance channel not only from dredging, but from anchoring of the barge and from placement of any silt curtains or related beach nourishment materials and equipment.
- d) Locations where the local seagrass, *Halophila hawaiiana*, occurs will be known by all dredging personnel and measures must be implemented to avoid their removal and displacement.

8. An archaeological monitor will implement the conditions of the *Archaeological Monitoring Plan for the Hawaii Kai Marina and Channel Maintenance Dredging*, dated February 2013 and *Unanticipated Discovery Plan for the Hawaii Kai Marina and Channel Maintenance Dredging*, dated February 2013, and conduct periodic inspection of the dredged material de-watering basins to determine the presence and recovery of any cultural material that is associated with the historic use of *Loko Keahupua-o-Maunalua* (State Site 50-80-15-049), the habitation site (Site 50-80-15-043) with traditional and post-Contact (post-A.D. 1778) components; and an unnumbered fish trap mapped historically in the inlet/outlet between the fishpond and Maunalua Bay. Observation reports shall be provided to the Regulatory POC within 72 hours of a positive observation.

9. The Construction Contractor POC shall notify the Regulatory POC at least 72 hours prior to starting dredging activities

10. The enclosed COMPLIANCE CERTIFICATION with all required report submittals must be submitted to this office upon completion of the work

carrollcox.com

COMPLIANCE CERTIFICATION

PERMIT NO. POH-2010-00280

DATE OF ISSUANCE:

Name of Permittee: Hawaii Kai Marina Community Association (HKMCA)

Upon completion of the activity authorized by this permit and any Special Conditions documentation records required by the permit, please sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Honolulu District
Attn: Regulatory Branch
Building 230
Fort Shafter, Hawaii 96858-5440

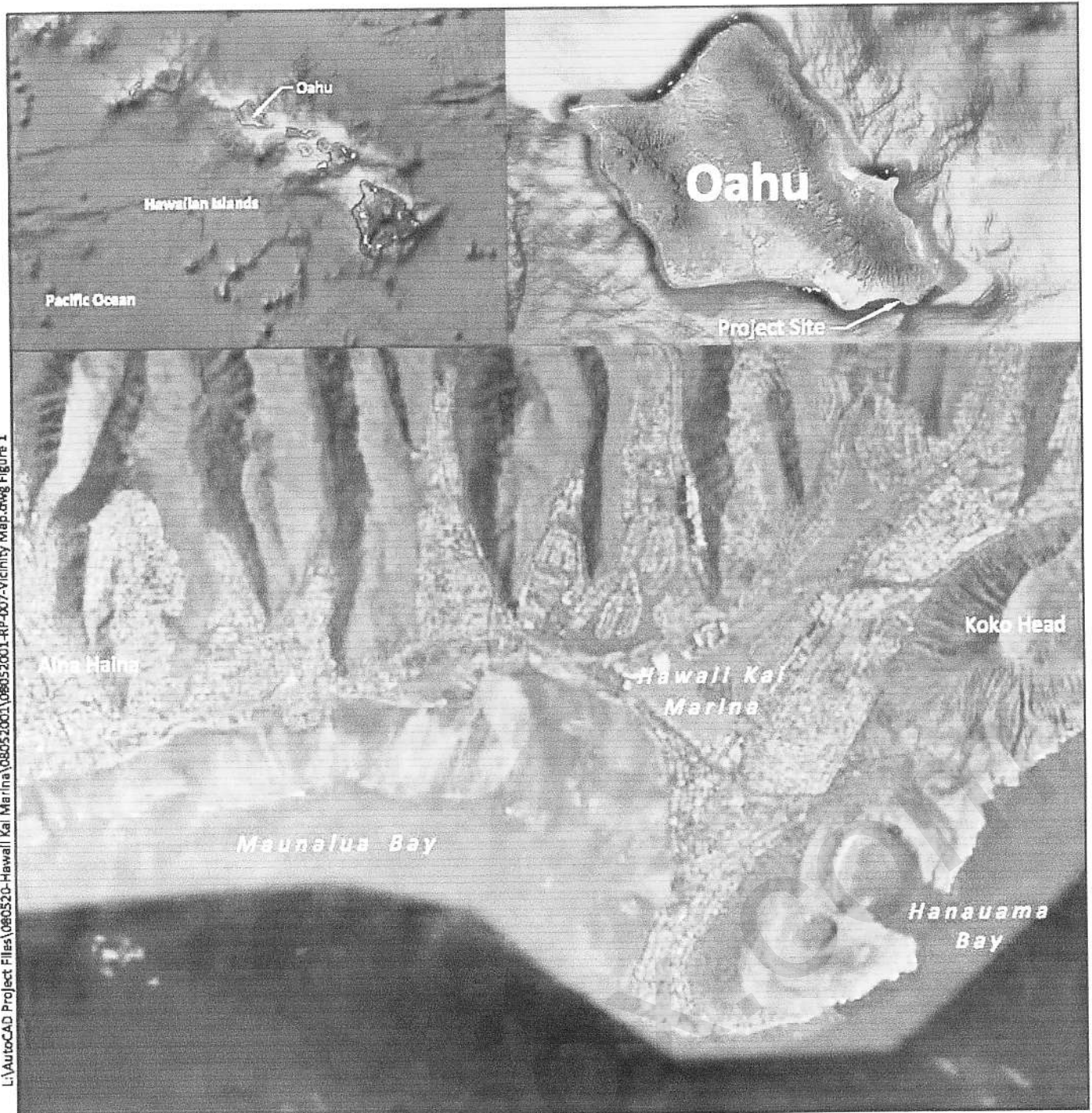
Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required measures were completed in accordance with the permit conditions.

Signature of Permittee

Date

Attachment



L:\AutoCAD Project Files\060520-Hawaii Kai Marina\06052001\06052001-RP-007-Vicinity Map.dwg Figure 1

Sep 30, 2010 3:58pm banaya

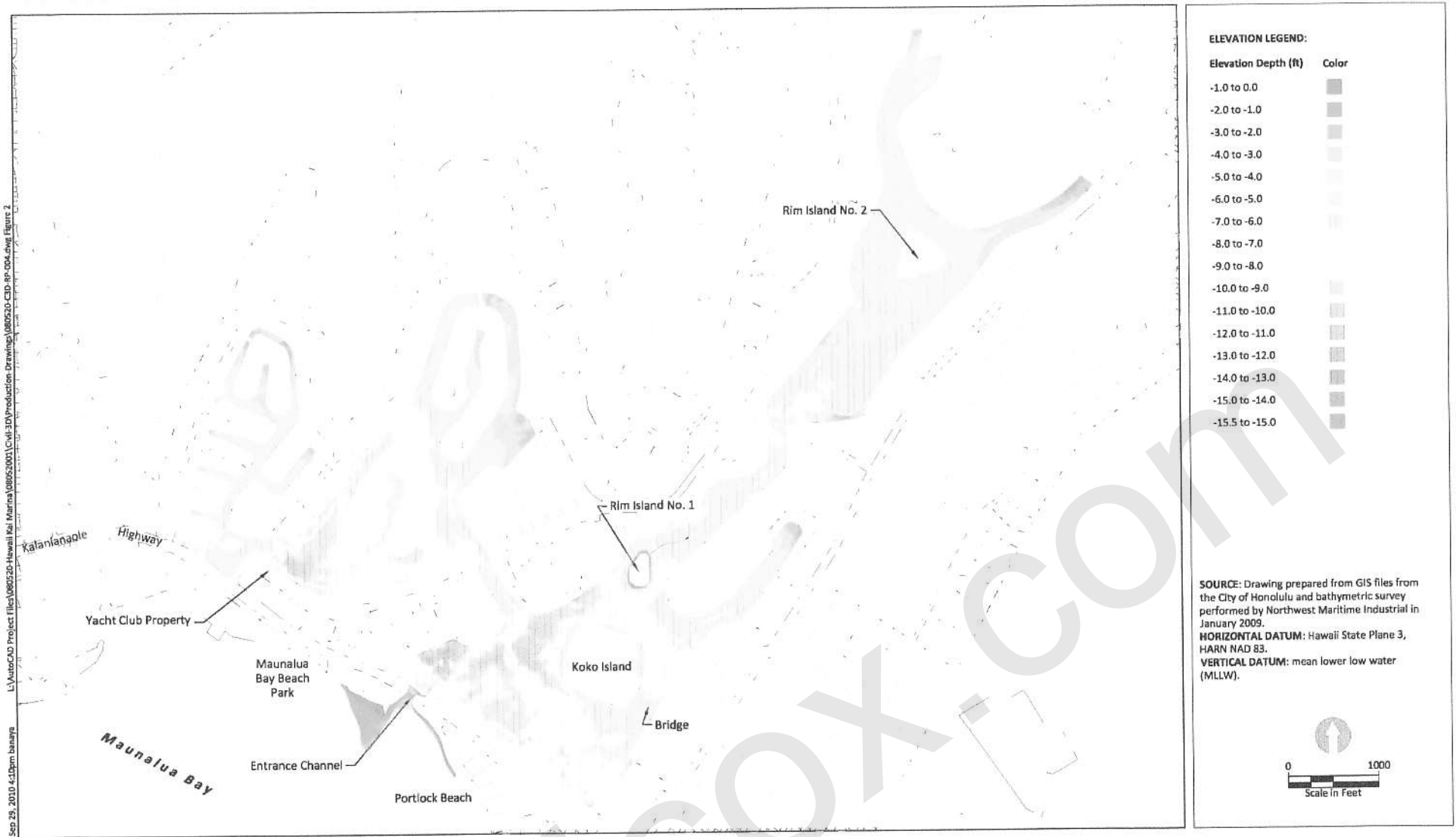
SOURCE: Drawing prepared from Google Earth Pro.



Not to Scale



Figure 1
Site Vicinity Map
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



L:\AnacAD Project Files\086520-Hawaii Kai Marina\08652001\Civil\3DV\Production Drawings\086520-CID-RP-004.dwg Figure 2
 Sep 29, 2010 4:30pm baalaga

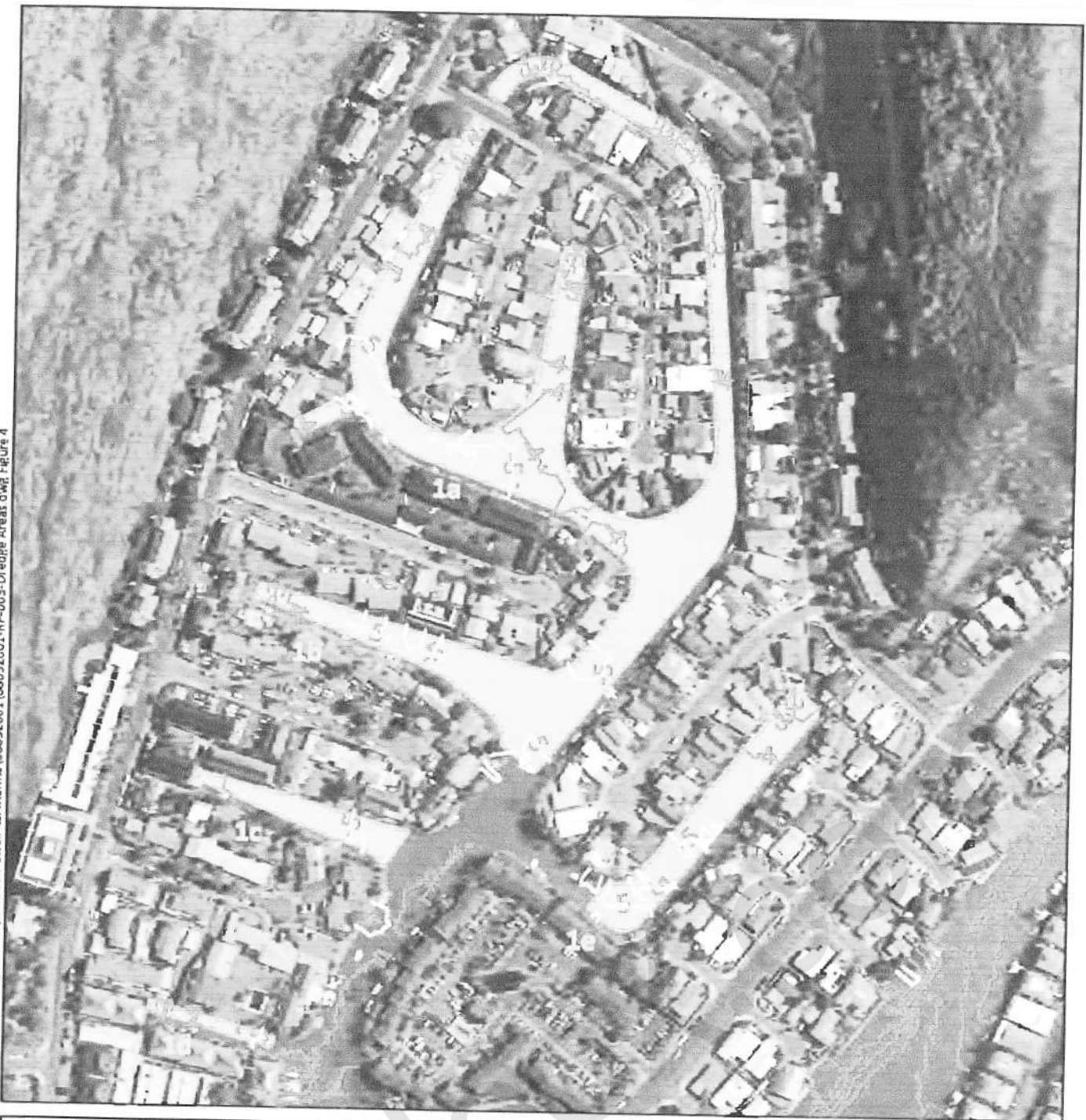


Figure 2
 Bathymetric Survey of Hawaii Kai Marina
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging



Figure 3
Proposed Dredge Areas
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

L:\AuroCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-AP-003-Dredge Areas.dwg Figure 4



Sep 30, 2010 4:02pm banaya

SOURCE: Drawing prepared from GIS files from the City of Honolulu and bathymetric survey performed by Northwest Maritime Industrial in January 2009.
HORIZONTAL DATUM: Hawaii State Plane 3, HARN NAD 83.
VERTICAL DATUM: mean lower low water (MLLW).

LEGEND:

 Proposed Area of Dredging

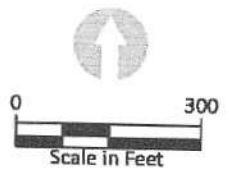


Figure 4
Marina Dredge Area 1 - West Arm
Hawaii Kai Marina and Entrance Channel Maintenance Dredging




L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-PP-003-Dredge Areas.dwg Figure 5

Sep 30, 2010 4:04pm banaya

SOURCE: Drawing prepared from GIS files from the City of Honolulu and bathymetric survey performed by Northwest Maritime Industrial in January 2009.
HORIZONTAL DATUM: Hawaii State Plane 3, HARN NAD 83.
VERTICAL DATUM: mean lower low water (MLLW).

LEGEND:

 Proposed Area of Dredging

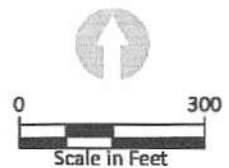


Figure 5
Marina Dredge Area 2 - Spinnaker Isle/Hancock Landing
Hawaii Kai Marina and Entrance Channel Maintenance Dredging





L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-RP-003-Dredge Areas.dwg; Figure 6

Sep 30, 2010 4:08pm banaya

SOURCE: Drawing prepared from GIS files from the City of Honolulu and bathymetric survey performed by Northwest Maritime Industrial in January 2009.
HORIZONTAL DATUM: Hawaii State Plane 3, HARN NAD 83.
VERTICAL DATUM: mean lower low water (MLLW).

LEGEND:

 Proposed Area of Dredging

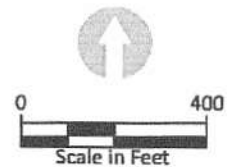
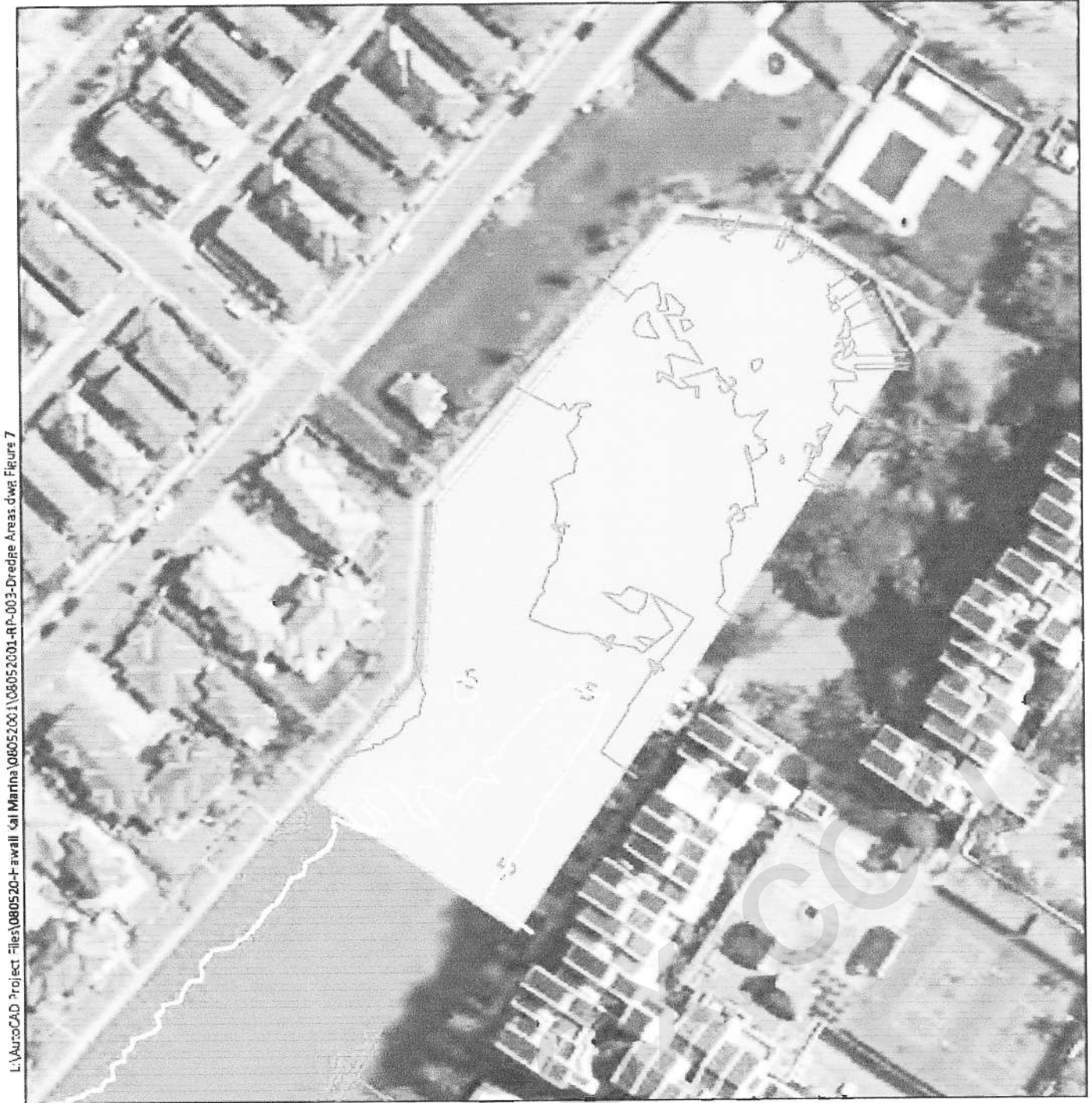


Figure 6

Marina Dredge Area 3 - Mariners Cove/Maintenance Facility
Hawaii Kai Marina and Entrance Channel Maintenance Dredging






L:\AutoCAD Project Files\08052011\08052011-RP-003-Dredge Areas.dwg Figure 7

Sep 30, 2010 4:10pm banaya

SOURCE: Drawing prepared from GIS files from the City of Honolulu and bathymetric survey performed by Northwest Maritime Industrial in January 2009.
HORIZONTAL DATUM: Hawaii State Plane 3, HARN NAD 83.
VERTICAL DATUM: mean lower low water (MLLW).

LEGEND:

 Proposed Area of Dredging

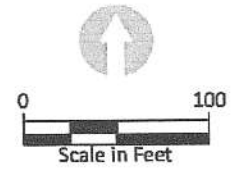

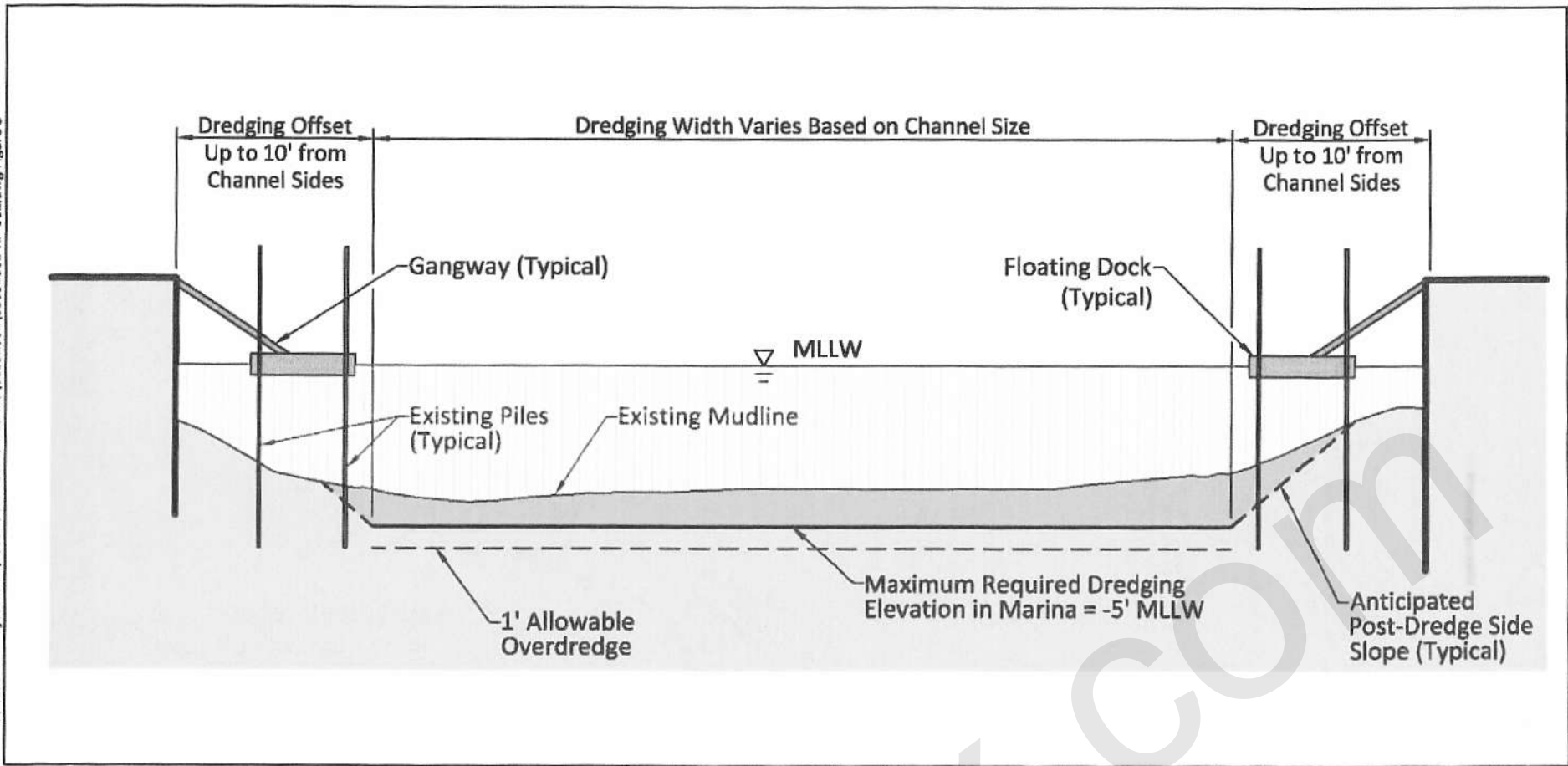


Figure 7
Marina Dredge Area 4 - The Esplanade
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

 carrollcox.com, Box 4202, Mililani, HI 96789

L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-RP-001.dwg Figure 8

Sep 30, 2010 4:13pm banaya

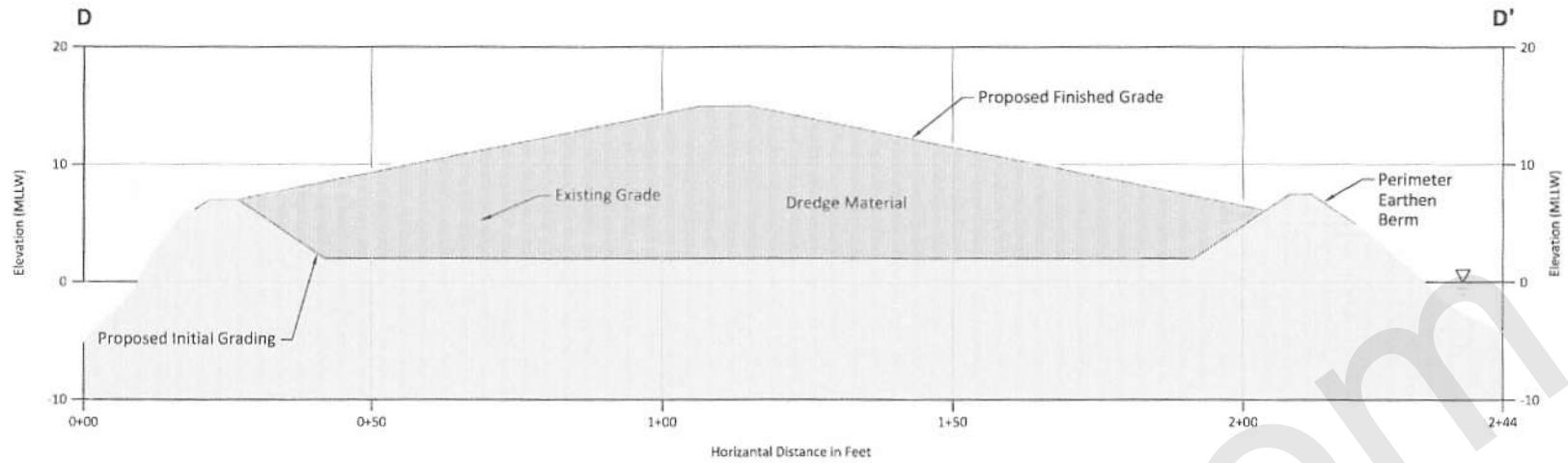


VERTICAL DATUM: mean lower low water (MLLW).

Not to Scale



Figure 8
Marina Dredging - Typical Cross Section
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



Section B-B'

I:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001.dwg Figure 14
 Sep 30, 2010 4:35pm bhmya

SOURCE: Drawing prepared from Austin, Tsutsumi & Associates, Inc. file named, "09-15.dwg" dated March 23, 2009.
HORIZONTAL DATUM: All azimuths are referred to Government Survey Triangulation Station "KOKO HEAD3".
VERTICAL DATUM: Elevations referred to Benchmark L-11, (Elev. = 16.00) mean sea level (MSL).

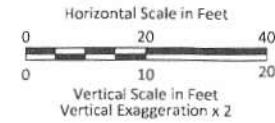
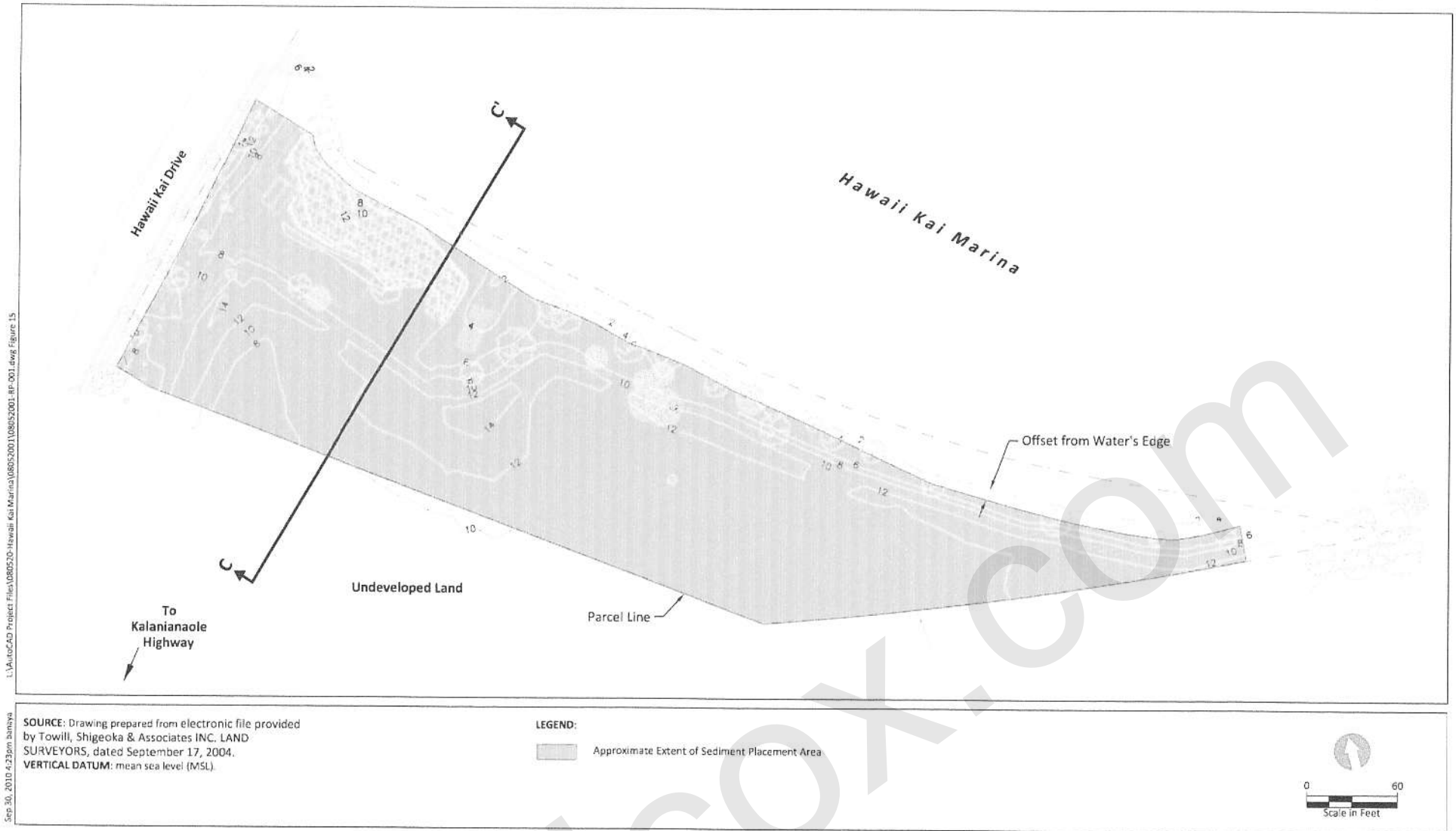


Figure 14
 Conceptual Cross Section - Proposed Sediment Placement on Rim Island No. 1
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging





L:\AutoCAD Project Files\1080520-Hawaii Kai Marina\108052001-RP-001.dwg Figure 15

SOURCE: Drawing prepared from electronic file provided by Towill, Shigeoka & Associates INC. LAND SURVEYORS, dated September 17, 2004.
VERTICAL DATUM: mean sea level (MSL).

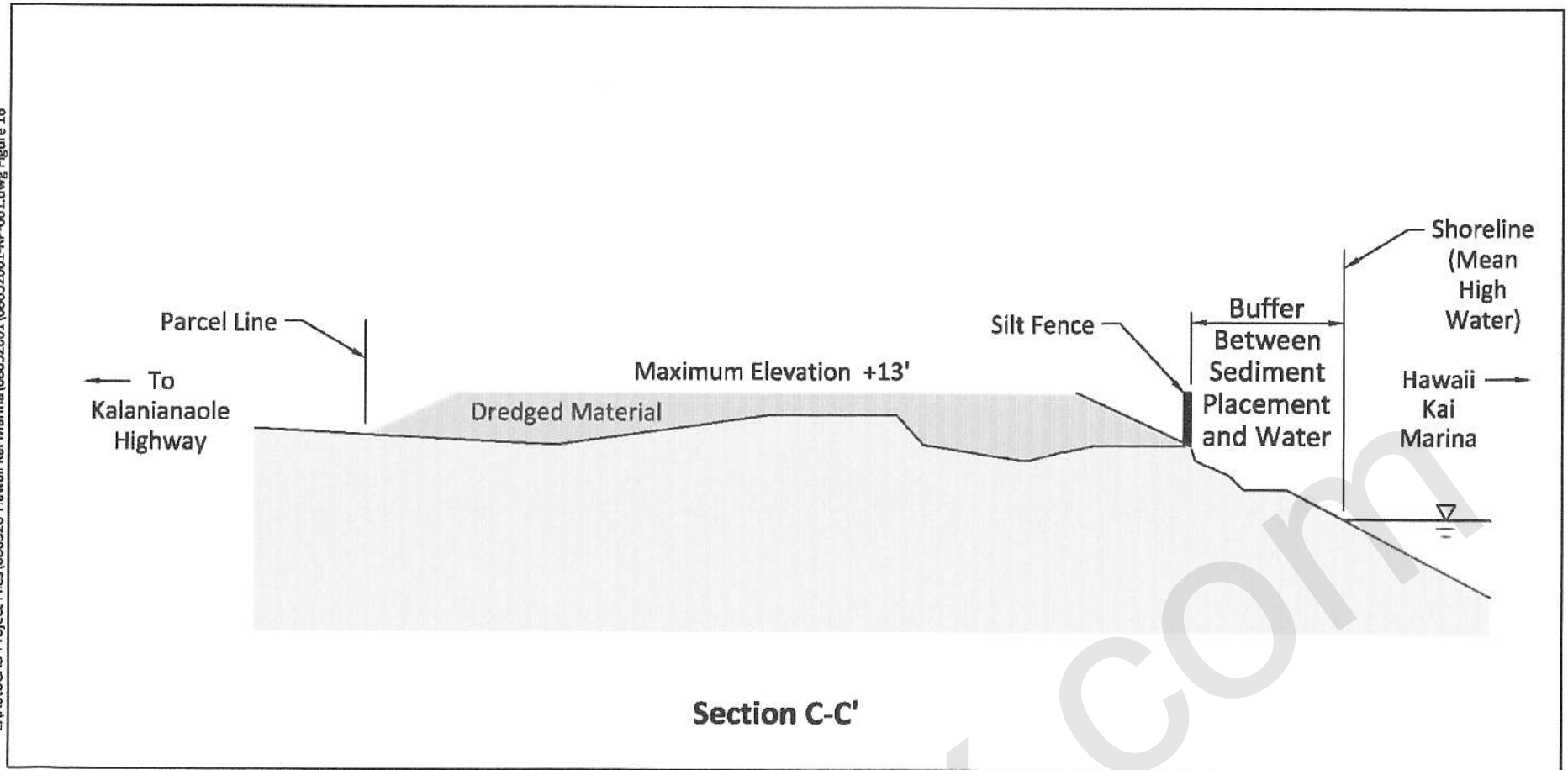
LEGEND:
[Shaded Area] Approximate Extent of Sediment Placement Area

0 60
Scale in Feet



Figure 15
Proposed Sediment Placement Area - Yacht Club Property
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

L:\AutoCAD Project Files\08052001-Hawaii Kai Marina\08052001-PP-001.dwg Figure 16



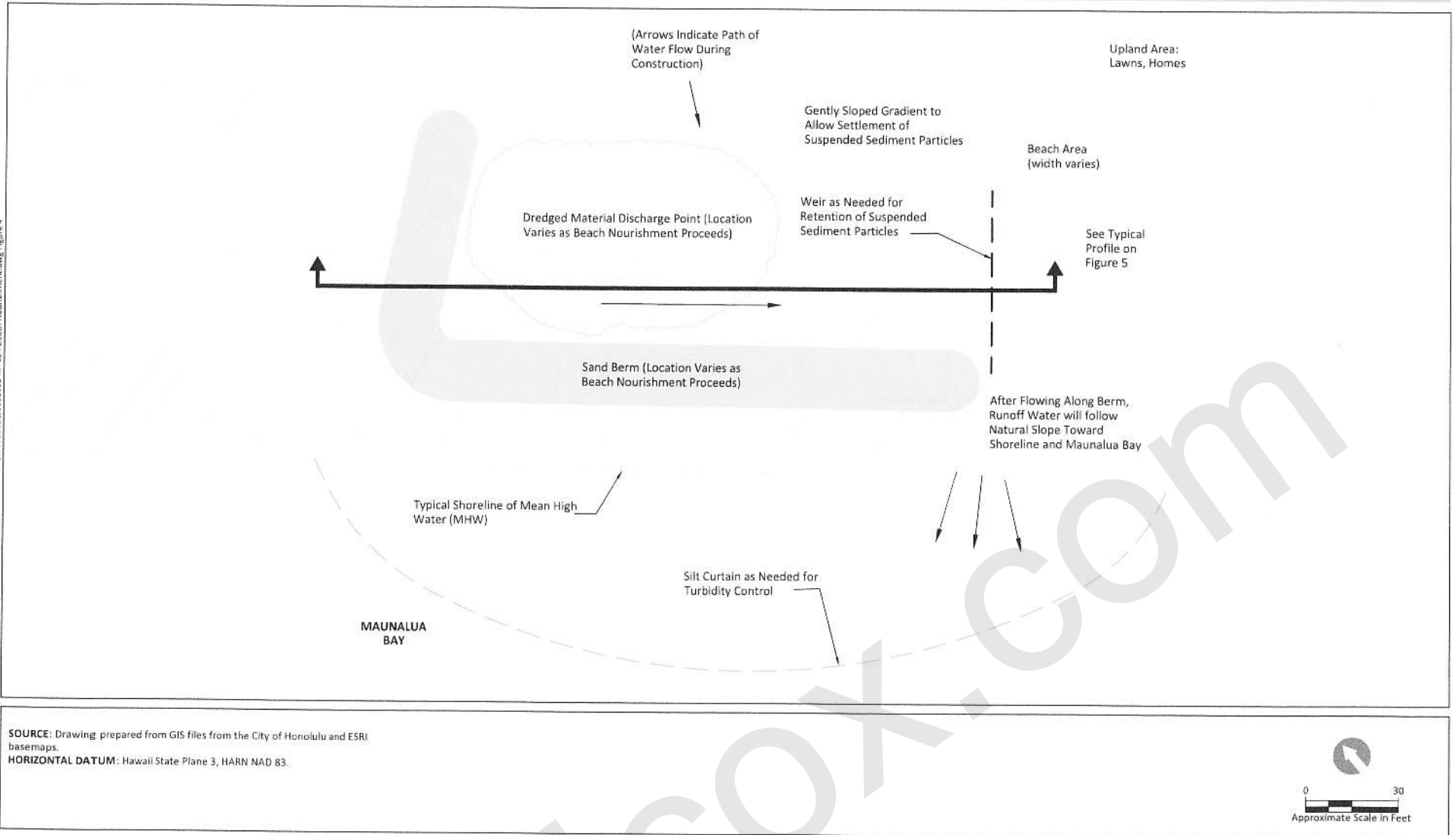
Sep 30, 2010 4:23pm banaya

SOURCE: Drawing prepared from electronic file provided by Towill, Shigeoka & Associates Inc., Land Surveyors dated September 17, 2004.
VERTICAL DATUM: mean sea level (MSL).

Not to Scale



Figure 16
Conceptual Cross Section - Proposed Sediment Placement on Yacht Club Property
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



L:\AutoCAD Project Files\UBS510-Hawaii Kai Marina\UBS51001\UBS51001-08-02-04-Beach Nourishment.dwg Figure 4

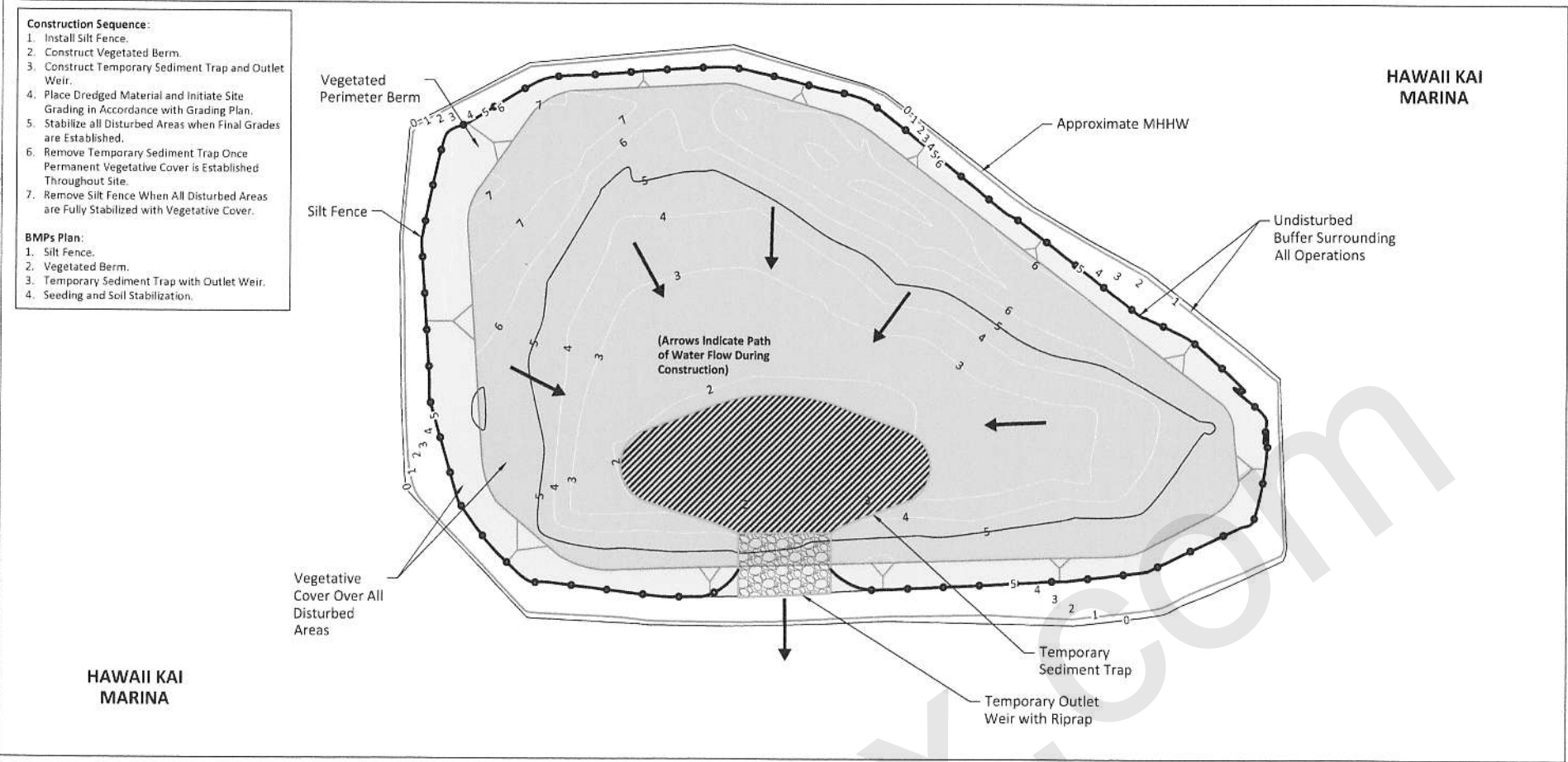
Sep 28, 2011 2:23pm mpratchner



Figure 4
Beach Nourishment
Conceptual Erosion Control and Best Management Practices Plan
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

L:\AutoCAD Project Files\080530-Hawaii Kai Marina\08053001\Permitting\08053001-RP-0212-Rim Island No.1 Temporary.dwg Figure 6

Sep 29, 2011 1:55pm mpratschner



SOURCE: Drawing prepared from Austin, Tsutsumi & Associates, Inc., file named, "09-15.dwg", dated March 23, 2009.
HORIZONTAL DATUM: All azimuths are referred to Government Survey Triangulation Station "KOKO HEADS."
VERTICAL DATUM: Elevations referred to Benchmark L-11, (Elev. = 16.00) mean sea level (MSL).

NOTES:

1. Mean High Higher Water (MHHW) determination (+0.82' MSL) based on NOS Station 1612340 (Honolulu) for the 1983-2001 tidal epoch.
2. Total Site Area = 1.5 Acres.
3. Total Disturbed Area = 1.25 Acres.

LEGEND:

-  Approximate Extent of Sediment Placement Area
-  MHHW (+0.82' MSL)
-  Vegetated Berm
-  Silt Fence

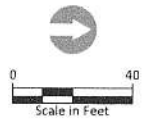


Figure 6
 Sediment Placement at Rim Island No. 1
 Conceptual Temporary Grading and Erosion Control Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging

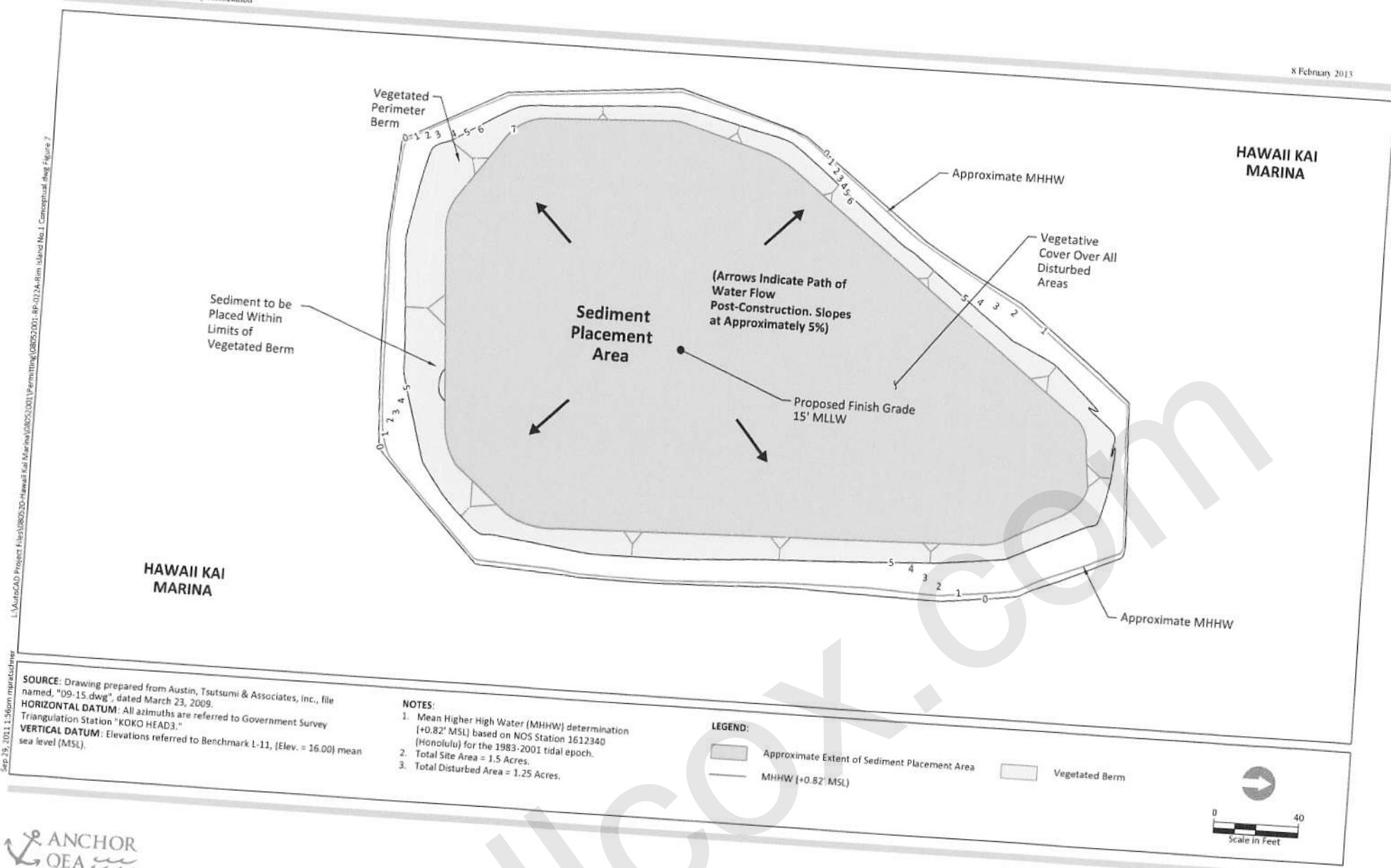
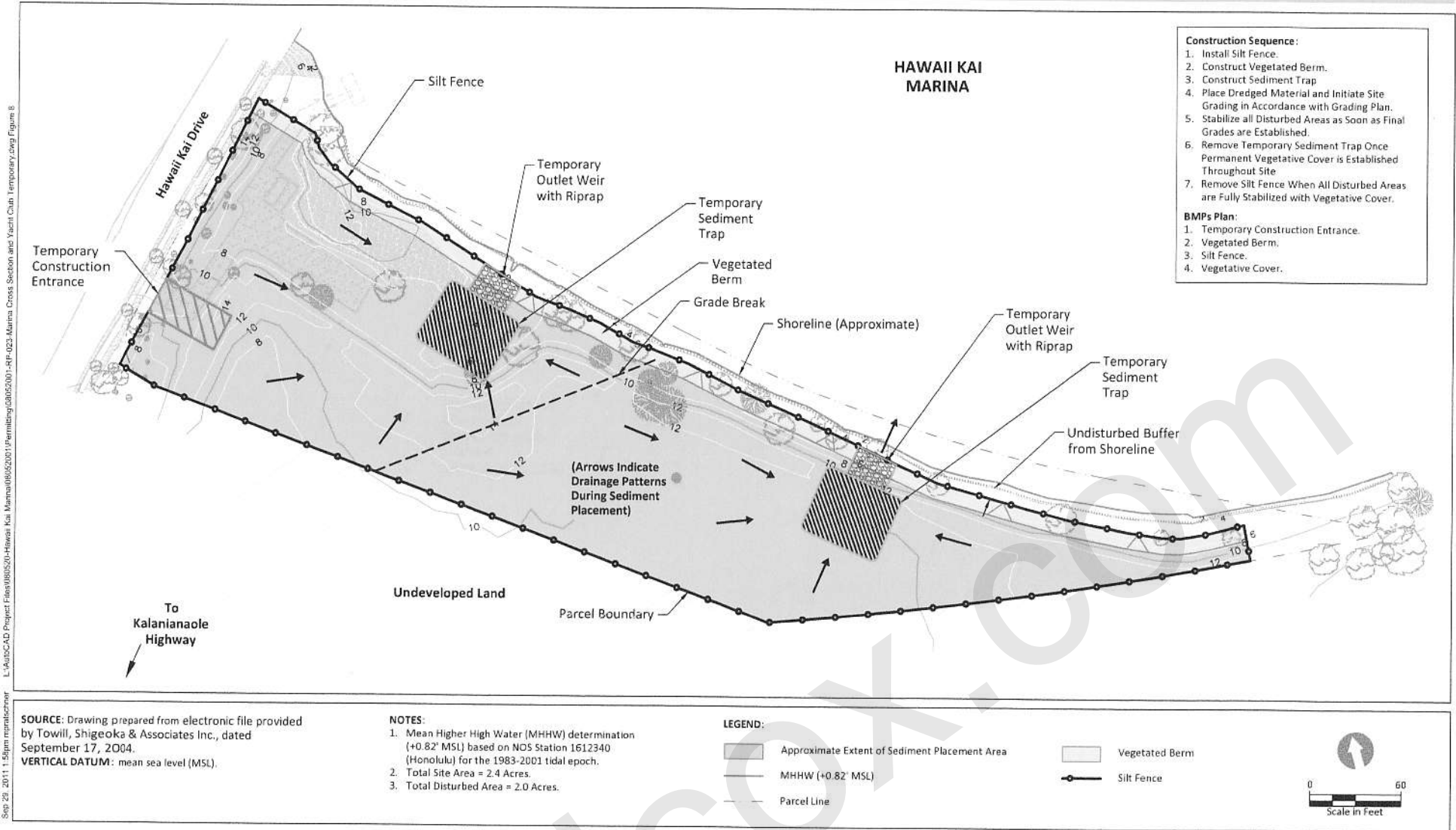


Figure 7
 Sediment Placement at Rim Island No. 1
 Conceptual Final Grading Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging





L:\AutoCAD Project Files\08052011-Hawaii Kai Marina\08052011-Permitting\08052011-RFP-023-Marina Cross Section and Yacht Club Temporary.dwg Figure 8
 Sep 29 2011 1:58pm rmm@hawaii.kai.marina.com

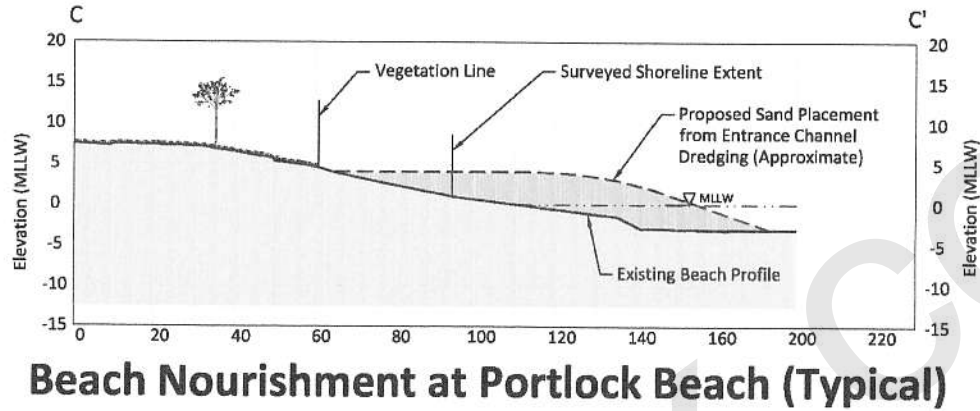
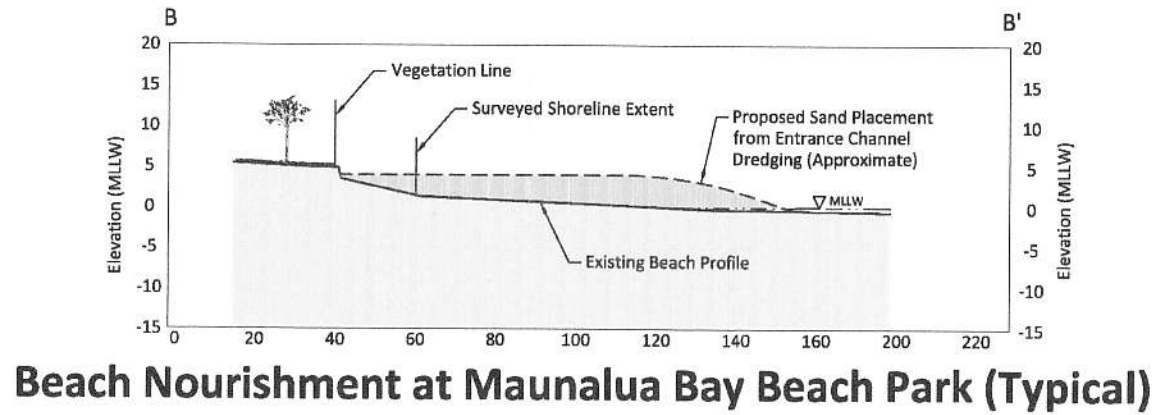
SOURCE: Drawing prepared from electronic file provided by Towill, Shigeoka & Associates Inc., dated September 17, 2004.
VERTICAL DATUM: mean sea level (MSL).

NOTES:

1. Mean Higher High Water (MHHW) determination (+0.82' MSL) based on NDS Station 1612340 (Honolulu) for the 1983-2001 tidal epoch.
2. Total Site Area = 2.4 Acres.
3. Total Disturbed Area = 2.0 Acres.

Figure 8
 Sediment Placement at the Yacht Club Property
 Conceptual Temporary Grading and Erosion Control Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging





HORIZONTAL DATUM: Hawaii State Plane, Zone 3, NAD83 HARN.
 VERTICAL DATUM: mean lower low water (MLLW).

- NOTES:
1. Bathymetric survey performed by Northwest Maritime Industrial in January 2009.
 2. Topographic survey of adjacent Shoreline performed by Austin, Tsutsumi, and Associates Inc. in February 2009.

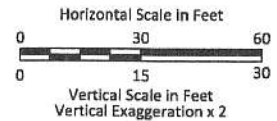
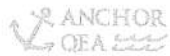


Figure 17
 Conceptual Cross Sections: Beach Nourishment Areas
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging

L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001_RP_006-Entrance Channel.dwg Figure 17

Sep 30, 2010 4:22pm bahaya



L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-4P-023 Silt Curtains.dwg Figure 1

Dec 27, 2011 1:36pm ghowell

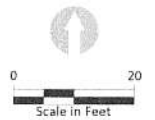
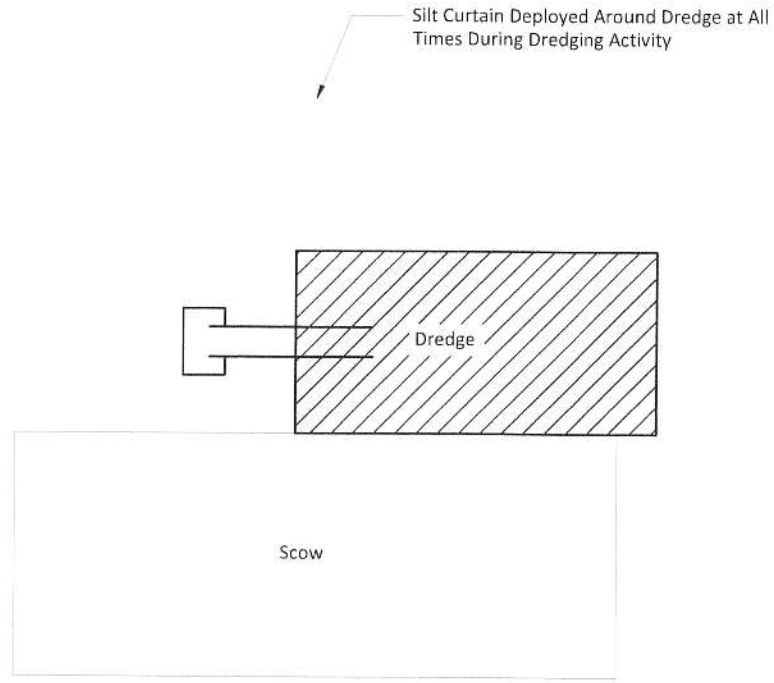
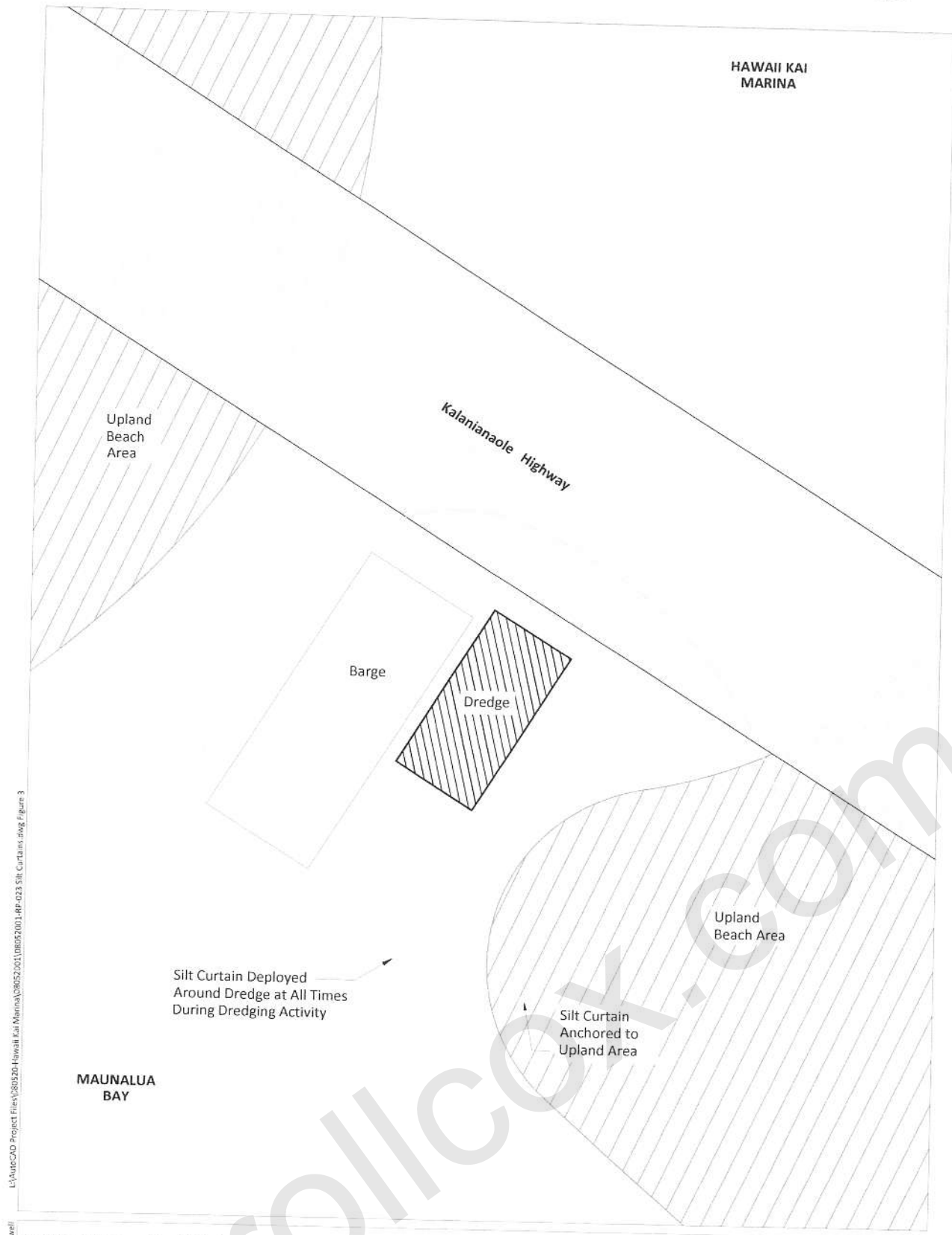


Figure 1
Conceptual Silt Curtain Deployment
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



L:\AutoCAD Project Files\081020-Hawaii Kai Marina\08052001\08052001-HP-023 Silt Curtains.dwg Figure 3

Dec 27, 2011 1:42 pm (hawaii)

SOURCE: Drawing prepared from GIS files from the City of Honolulu and ESRI basemaps.
HORIZONTAL DATUM: Hawaii State Plane 3, HARN NAD 83.

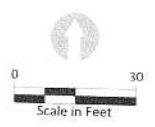


Figure 3
Conceptual Silt Curtain Deployment: Entrance Channel Dredging
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

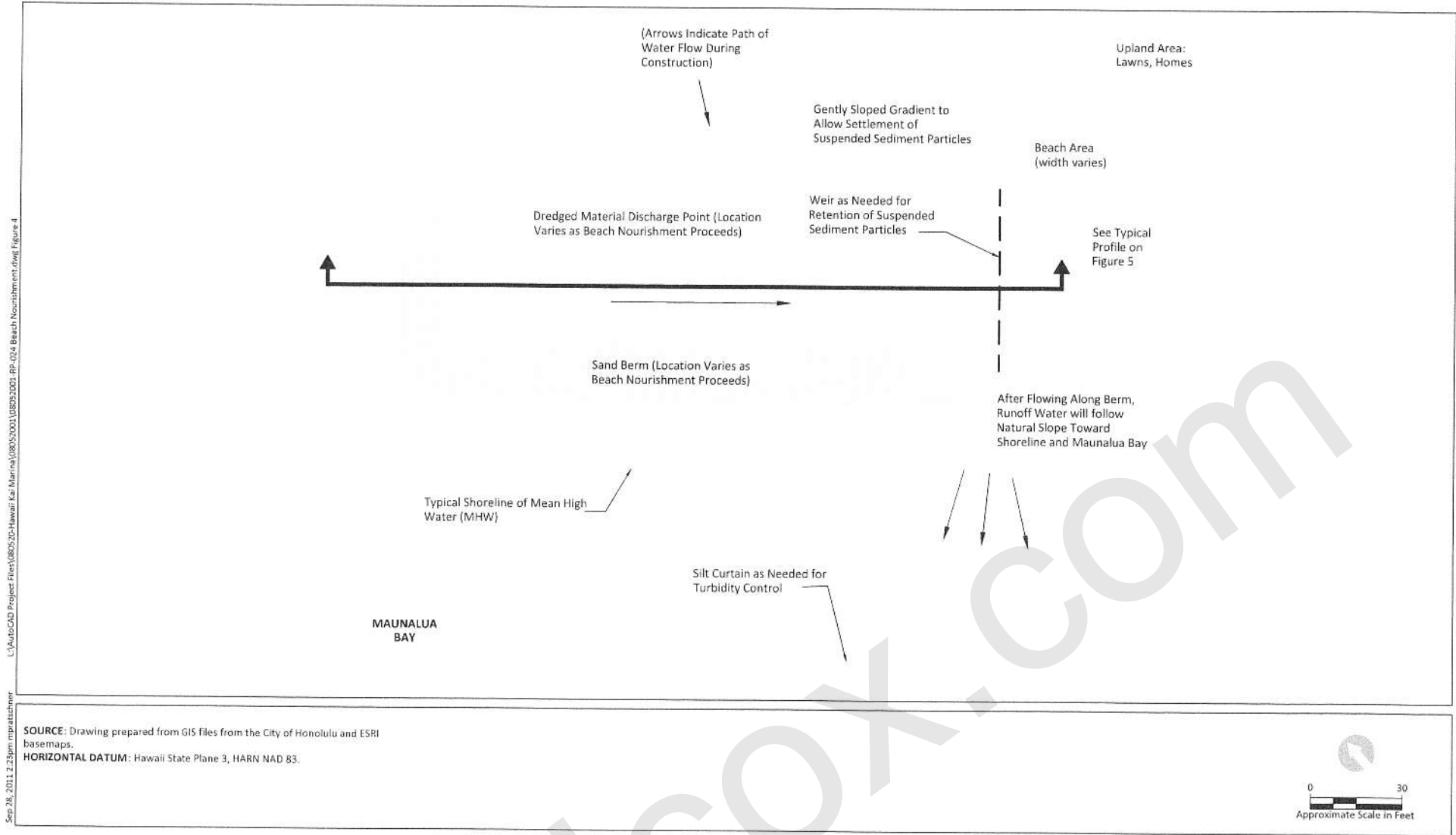
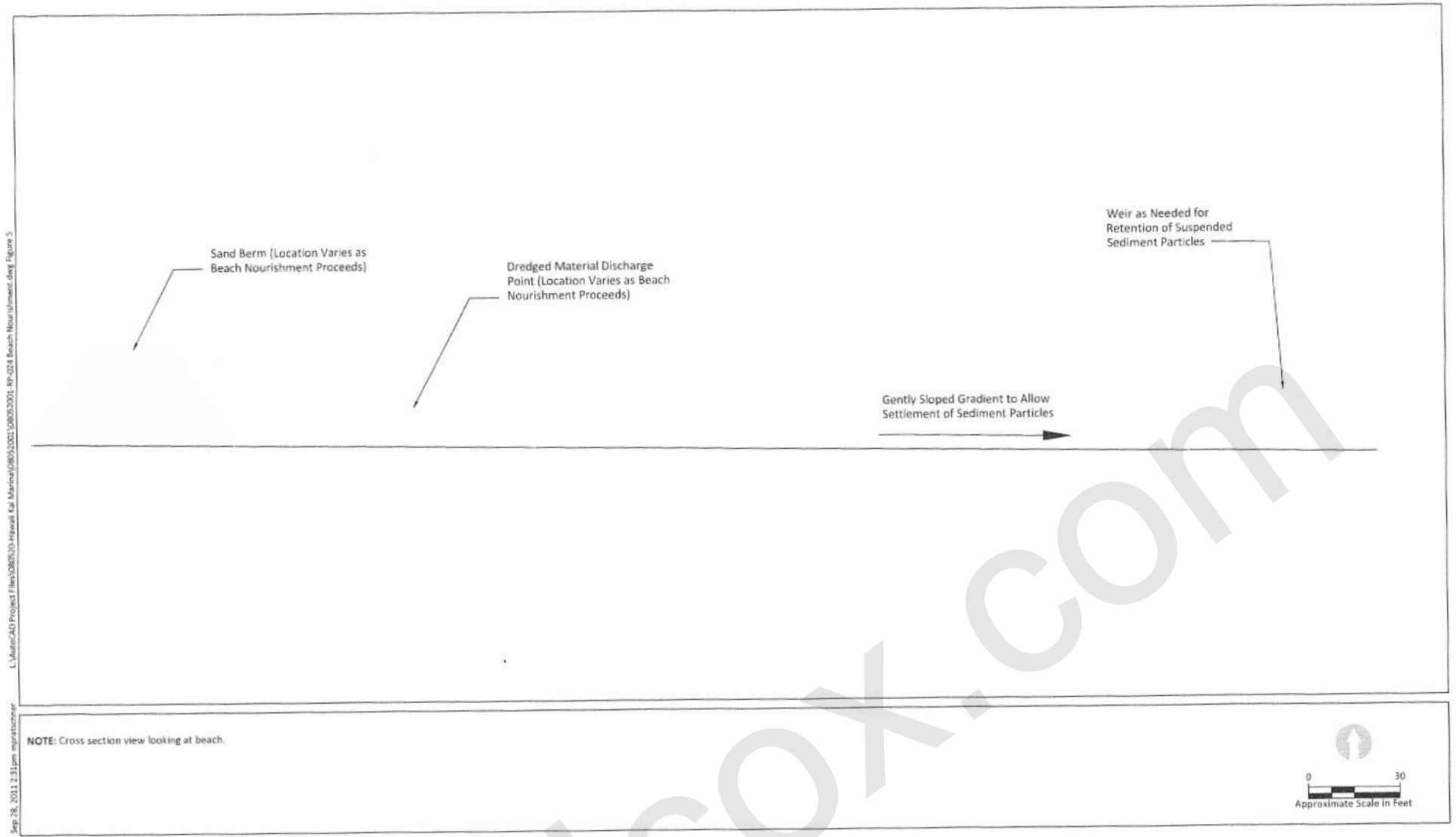


Figure 4
Beach Nourishment
Conceptual Erosion Control and Best Management Practices Plan
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



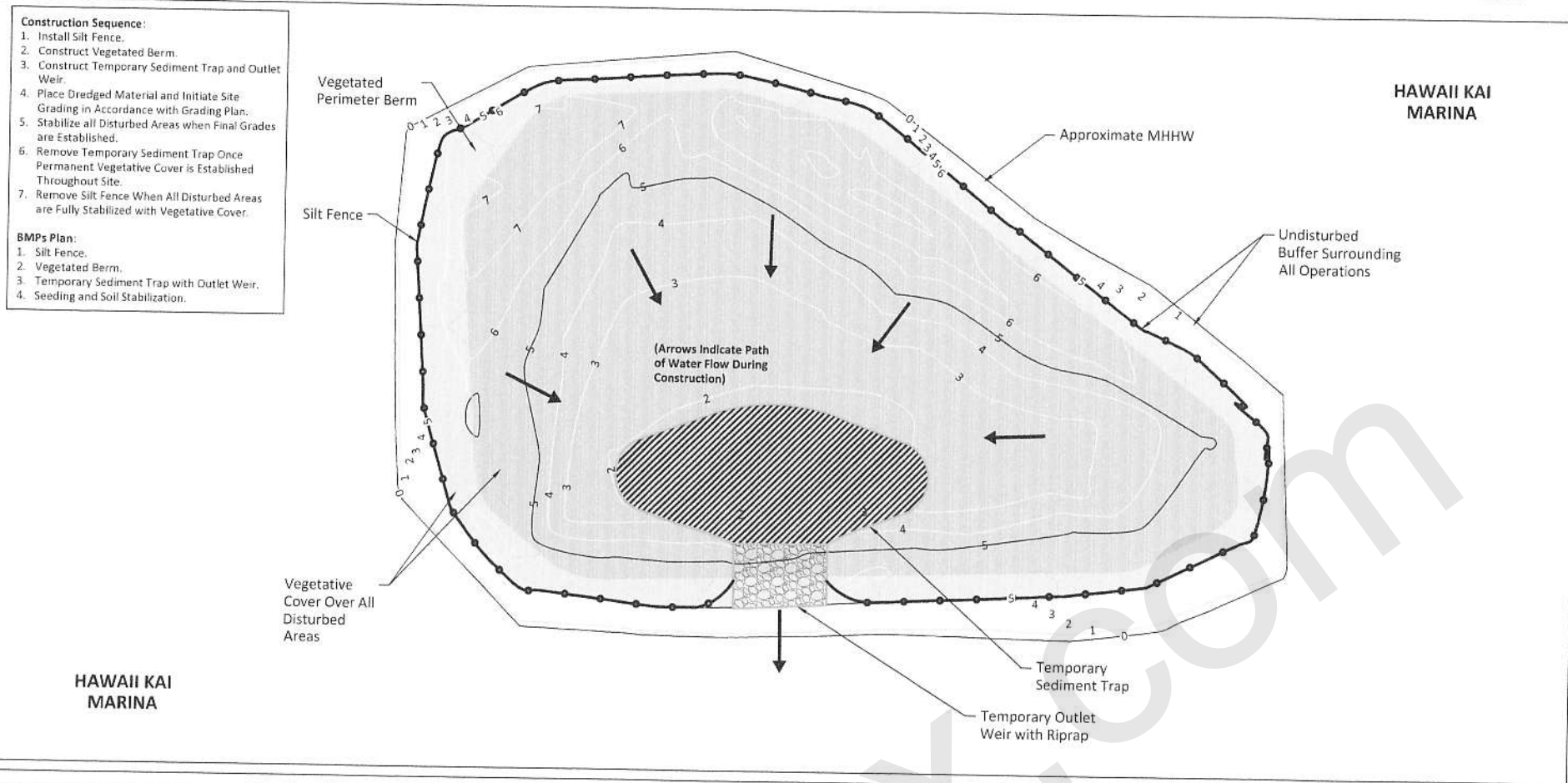


L:\Users\CAD Project Files\080520-Hawaii Kai Marina\08052001-08052001-08-02-18 Beach Nourishment.dwg Figure 5
Sep 28, 2011 2:31pm mprattschneer



Figure 5
Beach Nourishment Typical Profile
Conceptual Erosion Control and Best Management Practices Plan
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\Permitting\08052001_RP-022-Rim Island No.1_Temporary.dwg Figure 6
 Sep 29, 2011 1:50pm mprattsonner



SOURCE: Drawing prepared from Austin, Tsutsumi & Associates, Inc., file named, "09-15.dwg", dated March 23, 2009.
HORIZONTAL DATUM: All azimuths are referred to Government Survey Triangulation Station "KOKO HEAD3."
VERTICAL DATUM: Elevations referred to Benchmark I-11, (Elev. = 16.00) mean sea level (MSL).

NOTES:

1. Mean High Higher Water (MHHW) determination (+0.82' MSL) based on NOS Station 1612340. (Honolulu) for the 1983-2001 tidal epoch.
2. Total Site Area = 1.5 Acres.
3. Total Disturbed Area = 1.25 Acres.

LEGEND:

- Approximate Extent of Sediment Placement Area
- MHHW (+0.82' MSL)
- Vegetated Berm
- Silt Fence

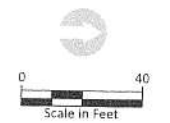
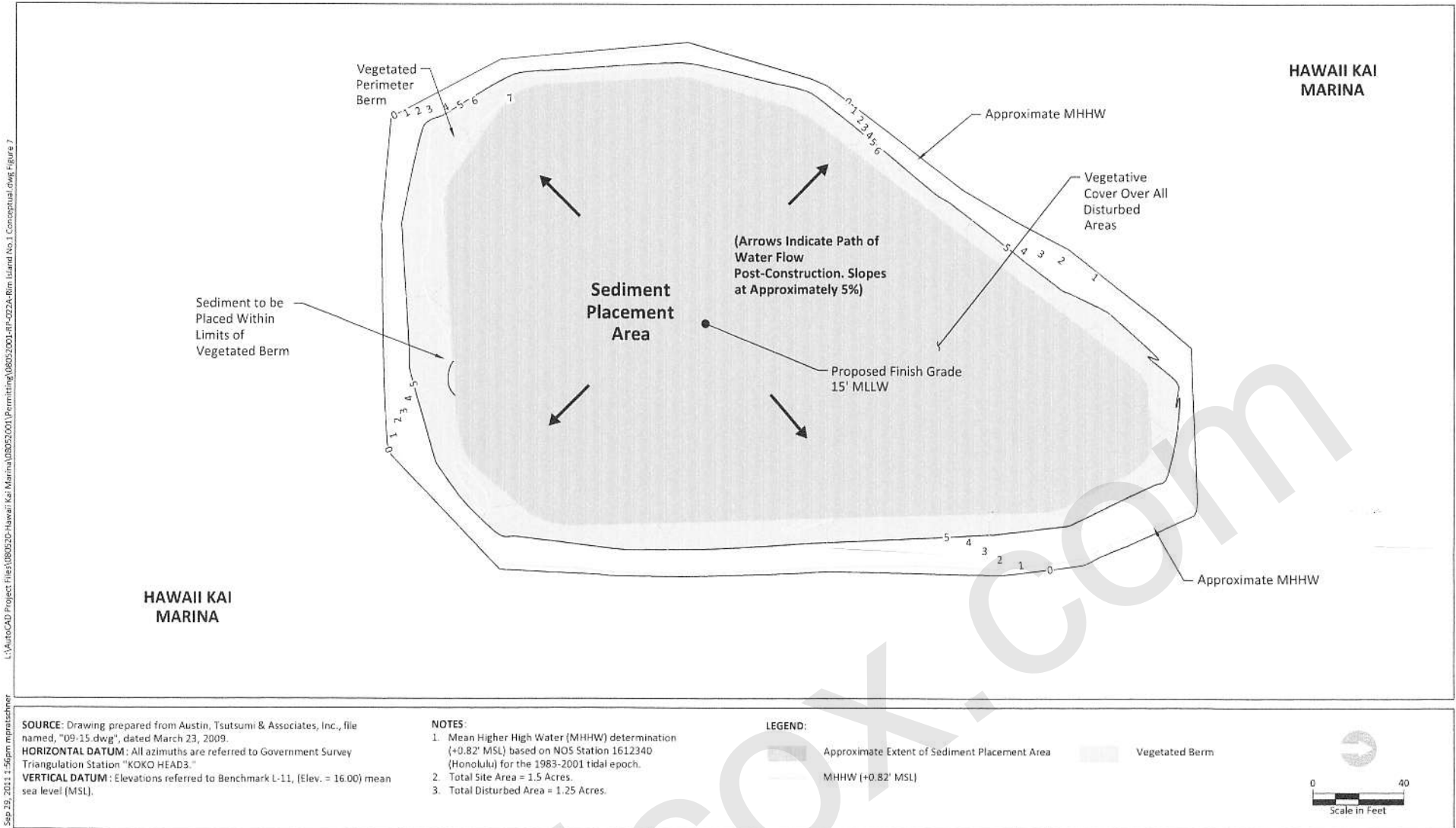


Figure 6
 Sediment Placement at Rim Island No. 1
 Conceptual Temporary Grading and Erosion Control Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging





L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\Permitting\08052001-rp-022A-Rim Island No.1 Conceptual.dwg, Figure 7

Sep 29, 2011 1:56pm mpratschner



Figure 7
 Sediment Placement at Rim Island No. 1
 Conceptual Final Grading Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging

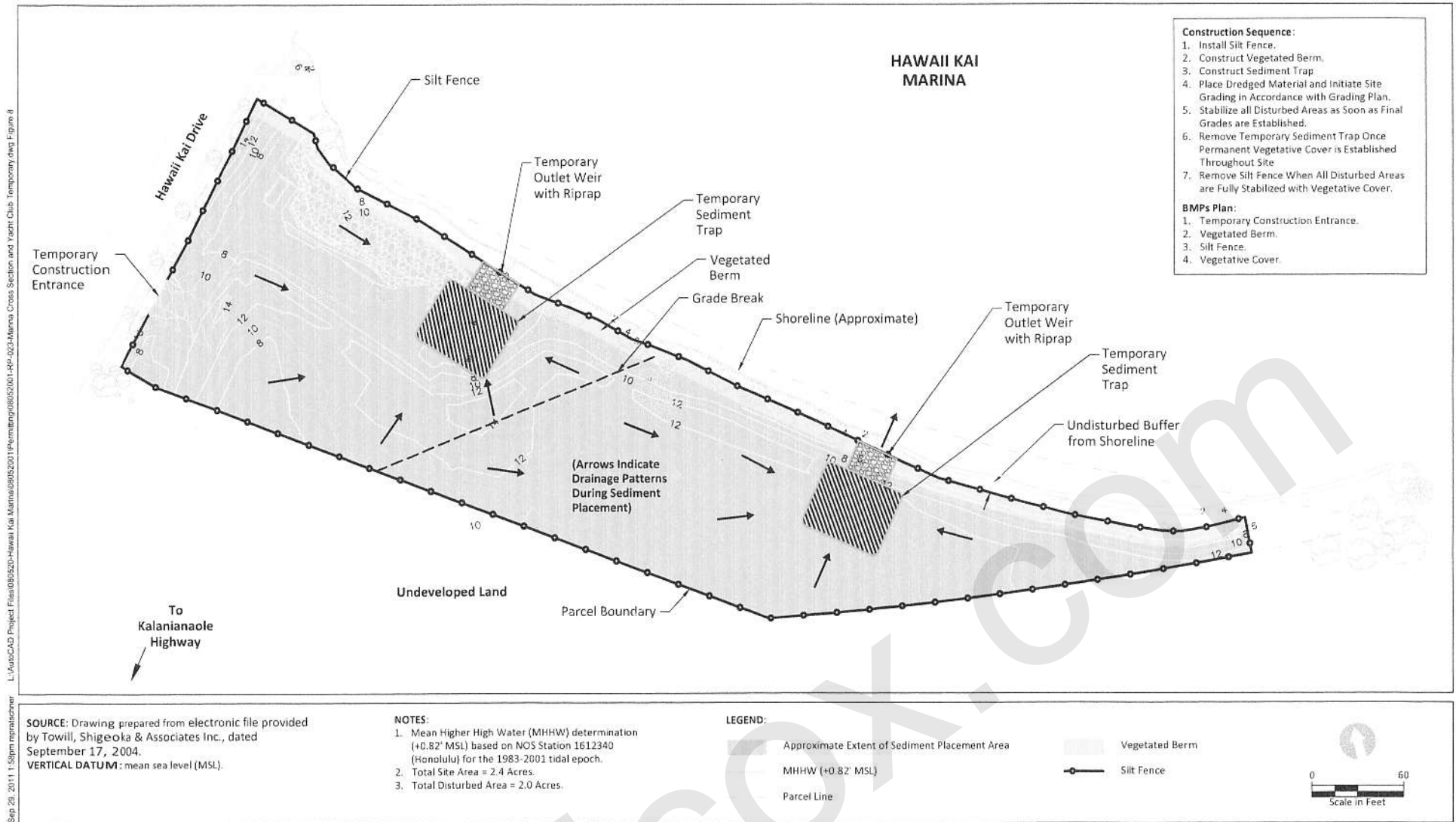


Figure 8
 Sediment Placement at the Yacht Club Property
 Conceptual Temporary Grading and Erosion Control Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging



L:\AutoCAD Project Files\0805201-Hawaii Kai Marina\08052001\08052001-RP-027 Sediment Trap Details.dwg Figure 10
 Sep 28, 2011 3:48pm mpratschner

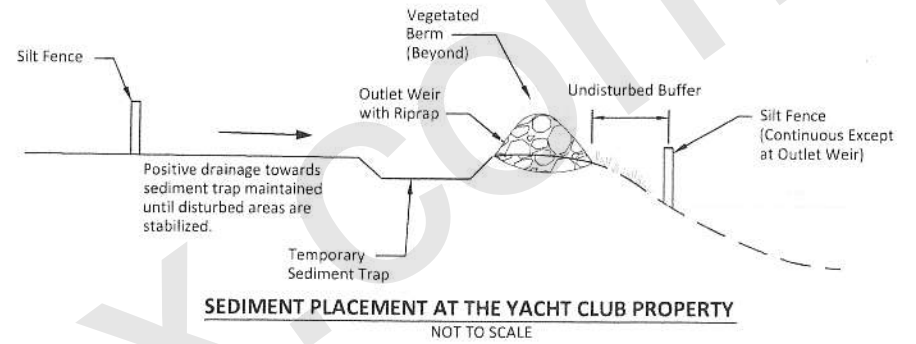
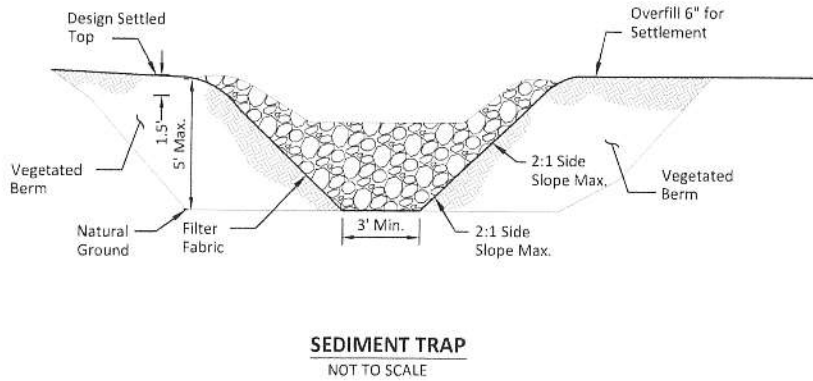
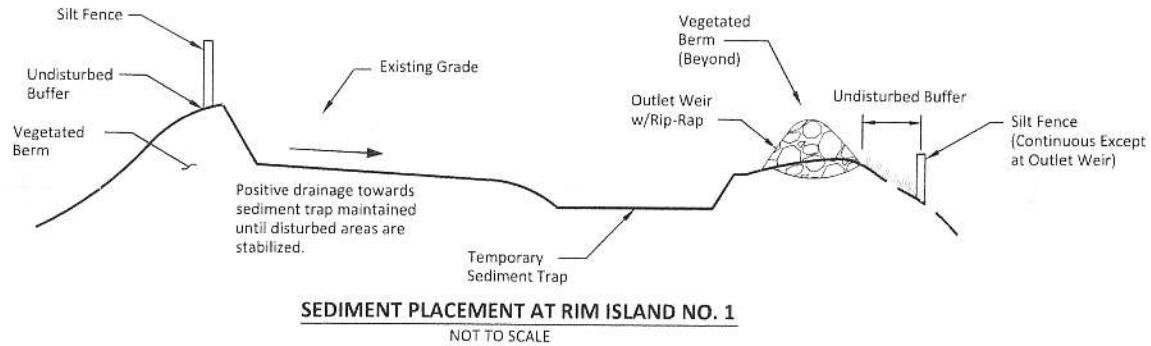
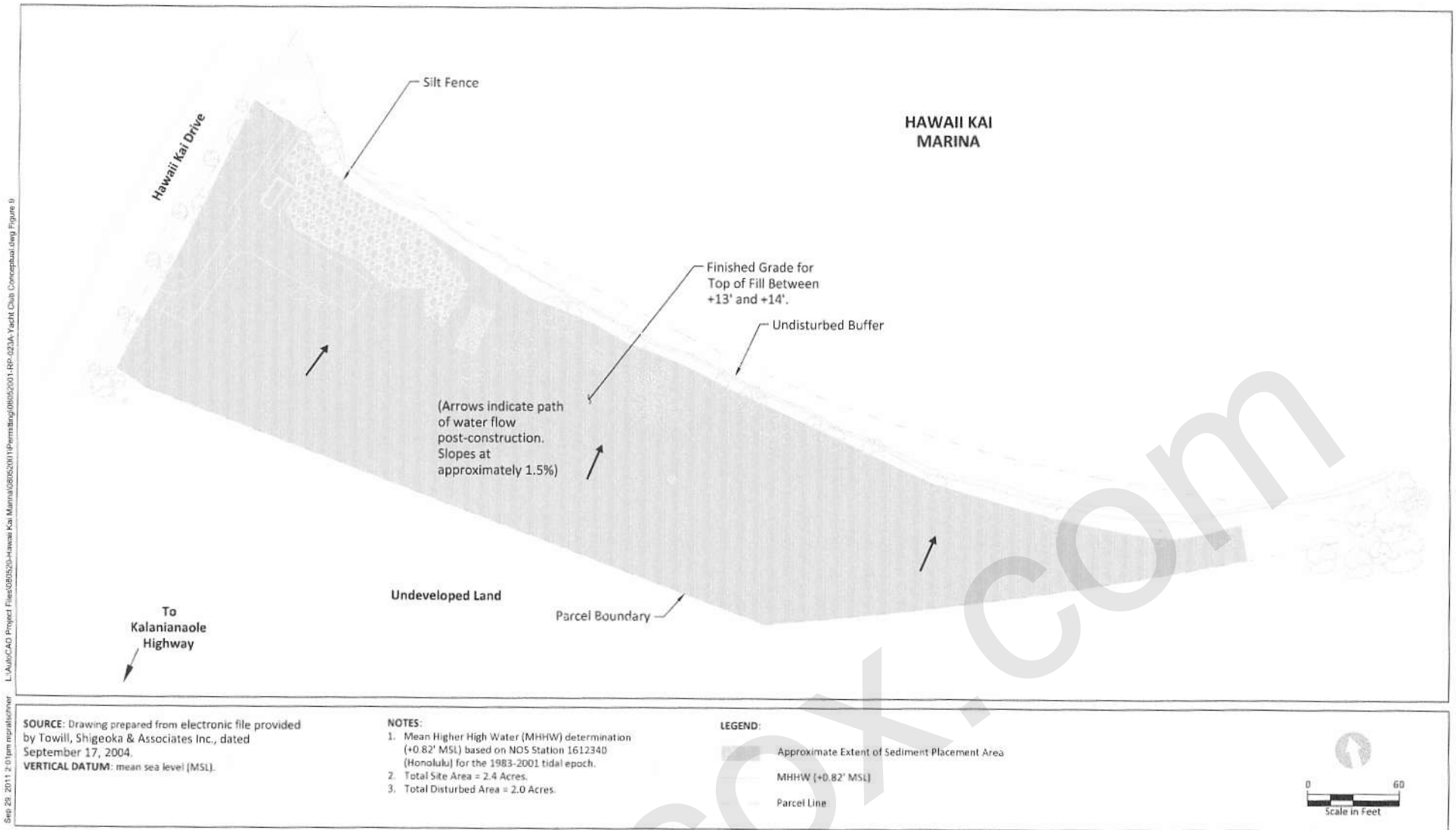


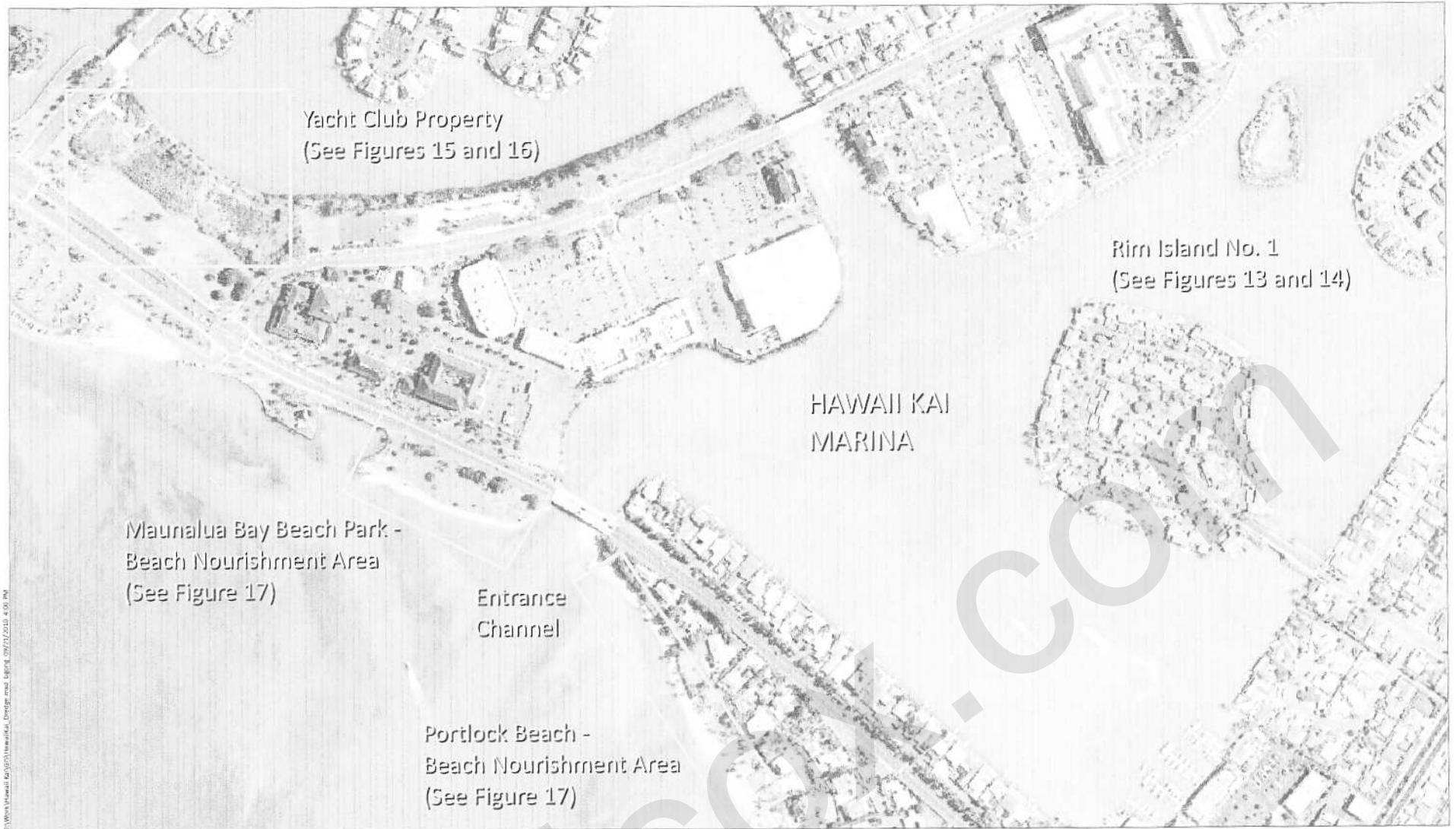
Figure 10
 Sediment Placement at Rim Island No. 1 and the Yacht Club Property
 Conceptual Erosion Control Details
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging



L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\Permitting\08052001-RR-021A-Yacht Club Conceptual.dwg Figure 9
 Sep 29 2011 2:07pm mrcalister\mrc



Figure 9
 Sediment Placement at Yacht Club Property
 Conceptual Final Grading Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging



D:\Work\Hawaii Kai\POH\Hawaii Kai_Dredging\09/27/2012_4.00.mxd



Figure 9
Proposed Upland Areas for Dredge Material Placement
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



D:\Work\Hawaii Kai\010\Hawaii Kai_Dredge.mxd Legend 09/17/2010 4:00 PM



Figure 10
Approximate Location of South Oahu Ocean Dredge Material Disposal Site
Hawaii Kai Marina and Entrance Channel Maintenance Dredging

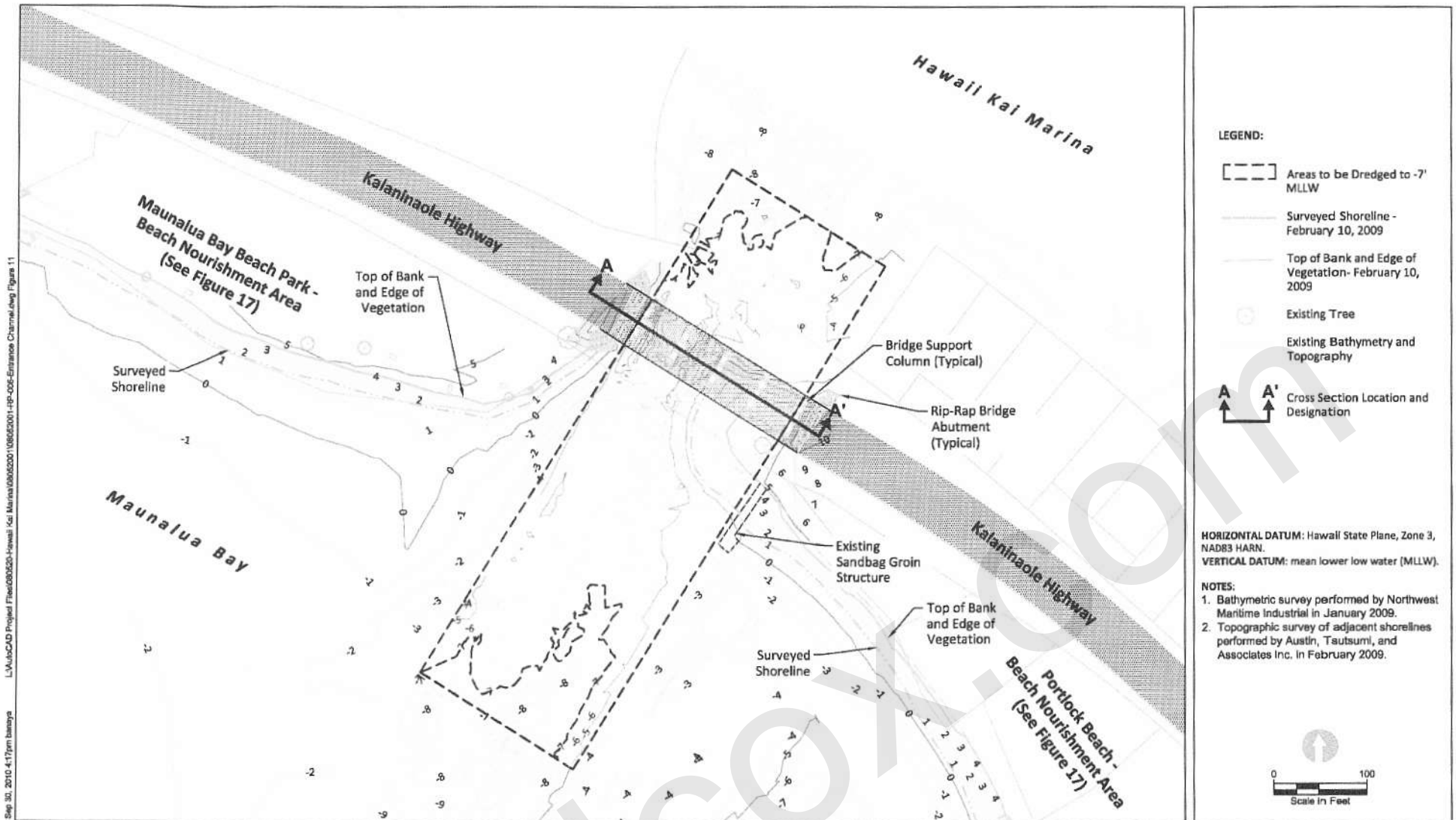
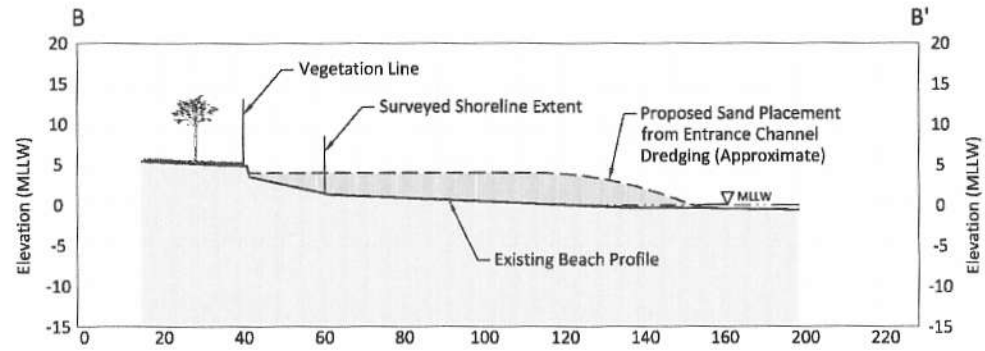
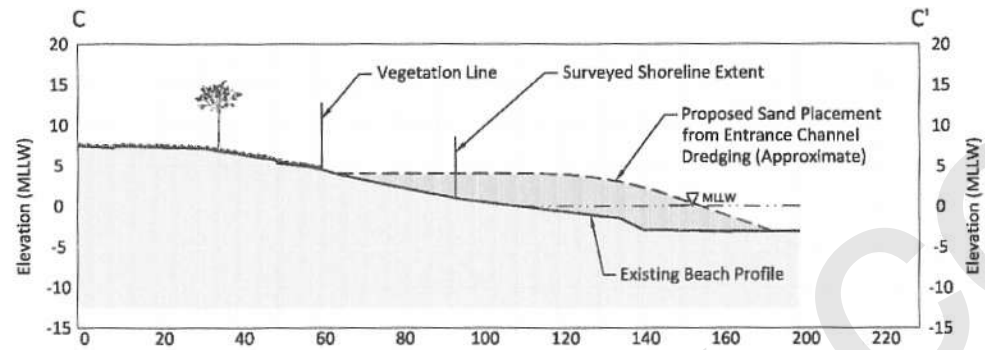


Figure 11
 Entrance Channel Dredge Area
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging



Beach Nourishment at Maunalua Bay Beach Park (Typical)



Beach Nourishment at Portlock Beach (Typical)

HORIZONTAL DATUM: Hawaii State Plane, Zone 3, NAD83 HARN.
VERTICAL DATUM: mean lower low water (MLLW).

NOTES:

1. Bathymetric survey performed by Northwest Maritime Industrial in January 2009.
2. Topographic survey of adjacent Shoreline performed by Austin, Tsutsumi, and Associates Inc. in February 2009.

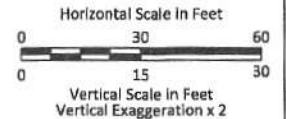
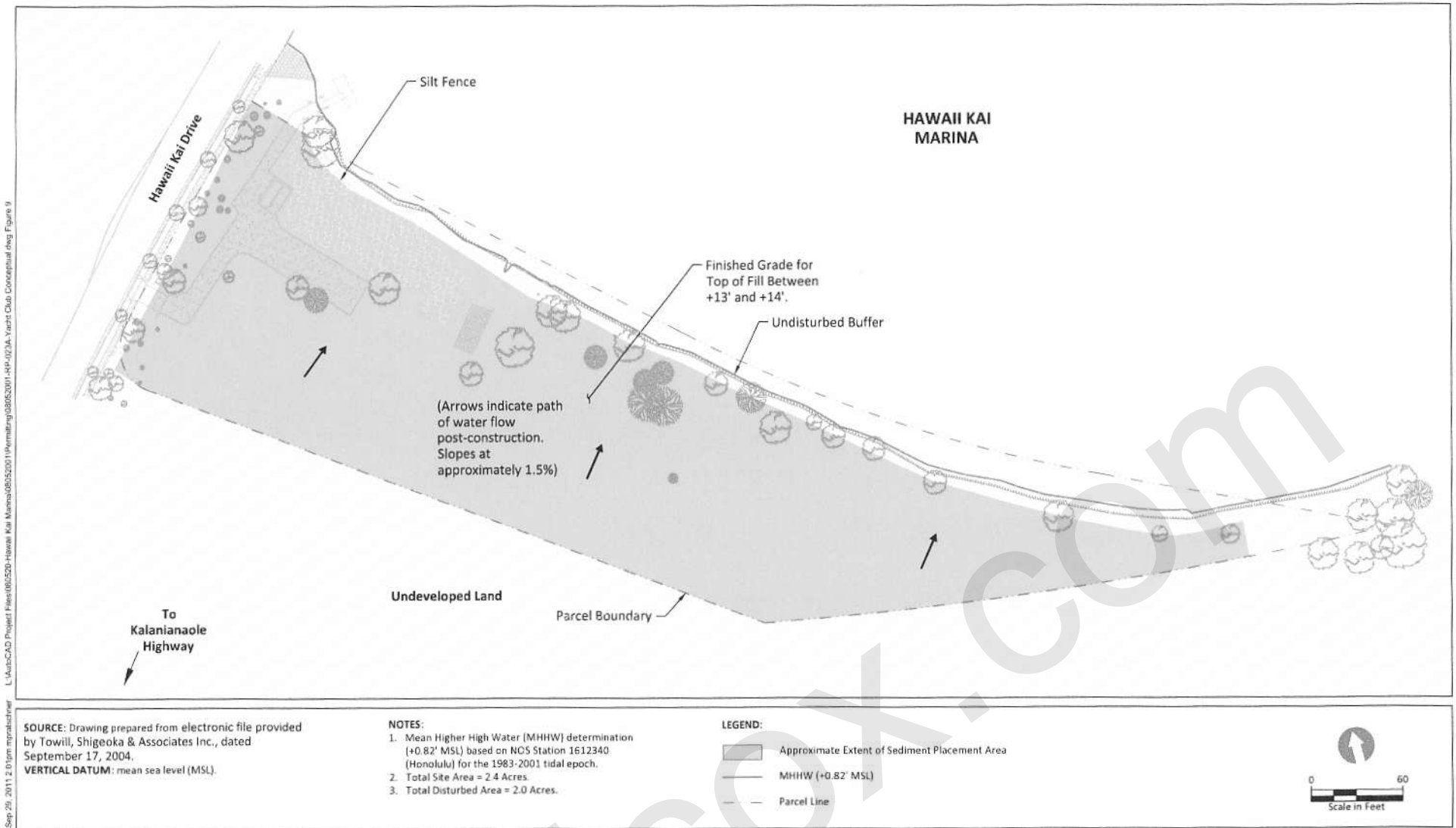


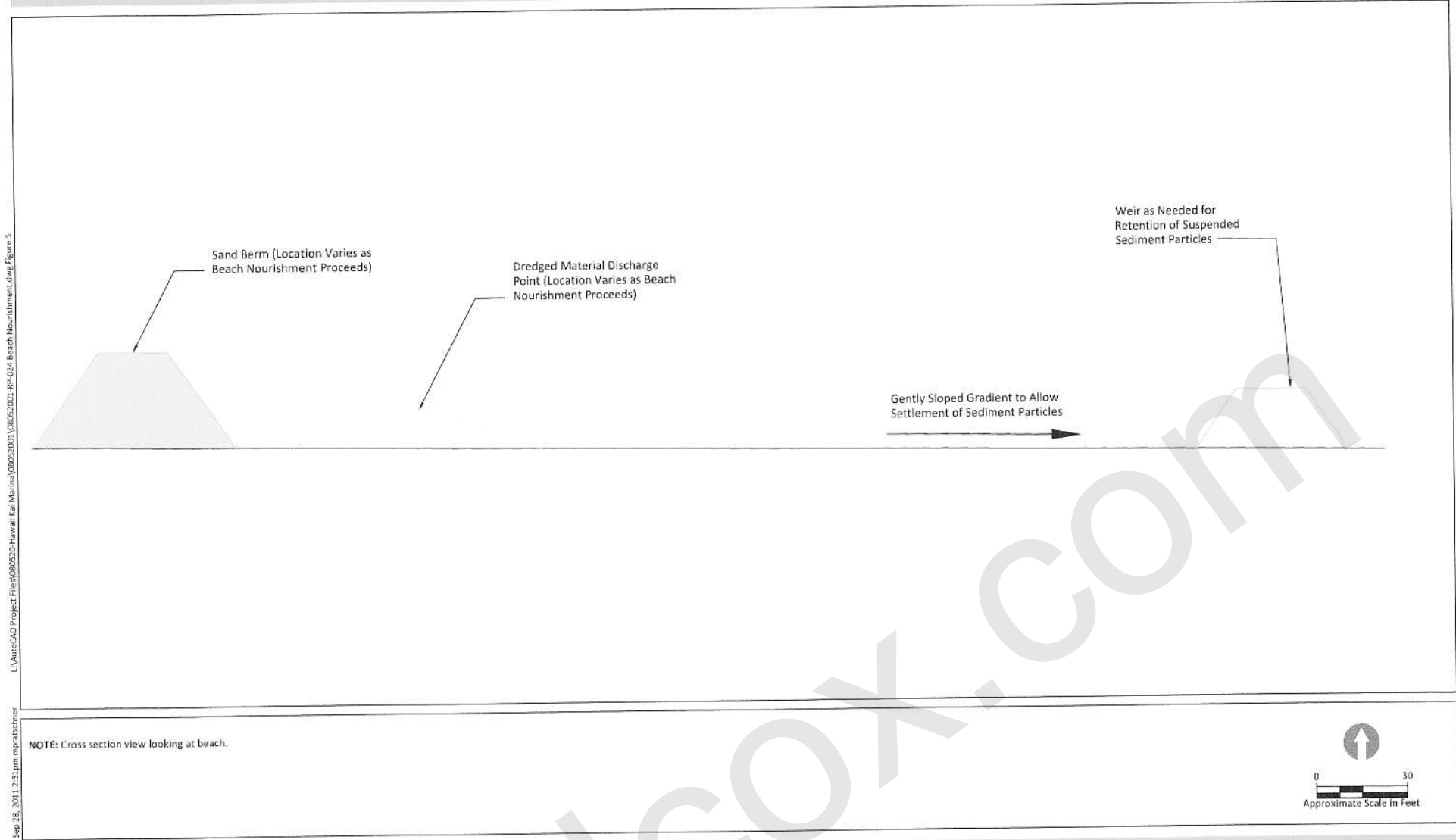
Figure 17
 Conceptual Cross Sections: Beach Nourishment Areas
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging



L:\AutoCAD Project Files\081520-Hawaii Kai Marina\08152001\Herming\08152001-HK-023A-Yacht Club Conceptual.dwg Figure 9
 Sep 29, 2011 2:01pm mprichardr



Figure 9
 Sediment Placement at Yacht Club Property
 Conceptual Final Grading Plan
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging

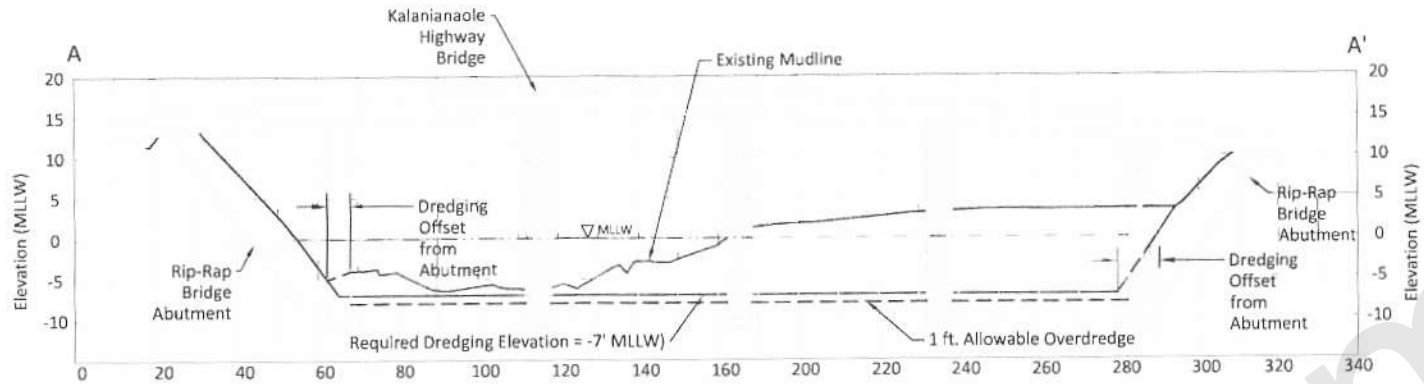


L:\AutoCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-RR-024 Beach Nourishment.dwg Figure 5

Sep 28, 2011 2:31pm mpratt@hawaii



Figure 5
Beach Nourishment Typical Profile
Conceptual Erosion Control and Best Management Practices Plan
Hawaii Kai Marina and Entrance Channel Maintenance Dredging



Section A-A'

L:\MarCAD Project Files\080520-Hawaii Kai Marina\08052001\08052001-PP-006-Entrance Channel.dwg Figure 12

HORIZONTAL DATUM: Hawaii State Plane, Zone 3, NAD83 HARN.
VERTICAL DATUM: mean lower low water (MLLW).

- NOTES:**
1. Bathymetric survey performed by Northwest Maritime Industrial in January 2009.

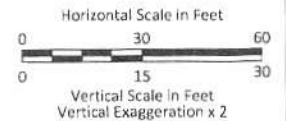


Figure 12
 Entrance Channel Dredging - Typical Cross Section
 Hawaii Kai Marina and Entrance Channel Maintenance Dredging