Special Public Notice

U. S. Army Corps of Engineers

Honolulu District

File No.
POH-2004-1141

Date:
February 20, 2009

Reply to:
Regulatory Branch (CEPOH-EC-R)
U.S. Army Engineer District Honolulu
Building 230
Fort Shafter, Hawaii 96858-5440

Respond by:
March 20, 2009

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT AND NOTICE OF INTENT TO PREPARE A DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) FOR THE PROPOSED HONOLULU SEAWATER AIR CONDITIONING PROJECT, HONOLULU, O'AHU, HAWAI'I

SUMMARY: The U.S. Army Corps of Engineers, Honolulu District, Regulatory Branch (Corps) has received a Department of the Army (DA) permit application from Honolulu Seawater Air Conditioning, LLC (applicant) to construct a seawater air conditioning (SWAC) system at Kaka'ako on the south shore of O'ahu in order to provide a renewable-energy air conditioning system for downtown Honolulu buildings. The applicant proposes to construct intake and return pipelines in adjacent coastal waters to utilize available deep, offshore cold seawater for their planned onshore cooling plant. The proposed pipeline staging and installation sites are located within the navigable waters of the United States and the proposed activity is subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers.

The Corps invites participation in the EIS process of affected federal, state and local agencies; affected Native Hawaiian organizations, individuals and practitioners; and other interested private organizations and parties. The applicant has previously issued a state-level DEIS pursuant to requirements of the Hawai'i Revised Statutes (HRS Chapter 343). The Corps published a Notice of Intent (NOI) to prepare a federal (NEPA) DEIS for this regulatory action in the Federal Register on February 17, 2009 (74 FR 7402-7404). All comments received in response to the NOI and this Special Public Notice will be considered when determining the scope of the federal DEIS.

DATES: In order to be considered in preparation of the DEIS, comments and suggestions should be received no later than March 20, 2009.

ADDRESSES: Send written comments to U.S. Army Corps of Engineers, Honolulu District; ATTN: Regulatory Branch (CEPOH-EC-R/P. Galloway); Building 230; Fort Shafter, HI 96858-5440. Facsimile comments can be sent to 808-438-4060. Comments may also be submitted via e-mail to: *honoluluswac@usace.army.mil*.

PUBLIC SCOPING MEETING: A public scoping meeting will be held on **Thursday, March 5, 2009 at the McKinley High School cafeteria, 1039 South King Street, Honolulu, Hawaii, from 6:30 p.m. until 8:30 p.m.**, to help determine the scope of analysis of the proposed action. Interested parties are encouraged to express their views during the scoping process and

throughout the development of alternatives and the federal DEIS. To be most helpful, comments should clearly describe specific environmental topics or issues which the commenter believes the document should address. Further information concerning the scoping meeting may be obtained from Peter Galloway, telephone 808-438-8416.

Any person requiring a special accommodation (e.g., assistance of a Hawaiian language translator, sign language interpreter) for attending the public meeting shall file a request with the Corps at the addresses in the preceding section (see **ADDRESSES**), or by calling 808-438-8416. Such a request will need to be received by the Corps at least 72 hours before the meeting is scheduled to start.

SUPPLEMENTARY INFORMATION: Honolulu Seawater Air Conditioning, LLC proposes to develop a seawater air conditioning (SWAC) system to serve the downtown area of Honolulu. The SWAC system would utilize available deep, cold seawater obtained offshore of Kaka'ako on the south shore of O'ahu.

To obtain, utilize, and return seawater, the applicant proposes to construct a 63-inch diameter seawater intake pipe extending offshore approximately four miles, to a depth of 1,770 feet; a 55-inch diameter seawater return pipe extending offshore approximately 2,000 feet, to a depth of 150 feet; an on-shore cooling station containing pumps, heat exchangers and auxiliary chillers; and a network of distribution pipes to circulate cooled fresh water from the station to customer buildings in the downtown area. In addition, the applicant proposes to use an area along the western shore of Sand Island and the adjoining channel area of Ke'ehi Lagoon for pipeline assembly and staging prior to towing and installing the lines at the project site. Individual pipe segments would be heat-fused to form longer segments and then flange-bolted to form a continuous line.

At the project site, the pipelines would be buried from behind the shore to some depth offshore in order to reduce negative impacts to the benthic environment and to protect the pipes from high waves and storm surge in the nearshore zone. The offshore portions of the intake and return pipelines, which would be installed adjacent to each other, would be supported on pre-cast concrete supports which would be placed on the pipelines prior to their filling and sinking at the project site. The seaward end of the intake line would be unscreened and would terminate in a right-angle elbow, such that water would be drawn down into the pipe from about 14 feet above the sea bottom. The seaward end of the return pipeline would terminate in a diffuser section extending from depths of 120 to 150 feet.

The proposed project would involve work or structures in or affecting the course, condition, location or capacity of navigable waters of the United States. It would also involve the discharge of dredged or fill material into waters of the United States. Federal authorization of the project will therefore require issuance of a Department of the Army (DA) permit pursuant to both Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) and Section 404 of the Clean Water Act (33 USC 1344).

In addition to the no-action alternative and the applicant's proposal, other alternatives to be considered in the DEIS may include: (1) project utilizing different technology; (2) project with different size, alignment or location.

Potentially significant impacts identified to date and to be addressed in the DEIS include: (1) reduction in demand for fossil fuel-based electrical energy consumption in the service area; (2) setting of precedent for use of large-scale SWAC on O'ahu; (3) commitment to long-term presence of elevated intake and outfall pipelines in navigable waters which will require avoidance by future activities that could damage the lines; (4) temporary (estimated 10-month) displacement of canoe paddlers and other users of the Ke'ehi Lagoon pipeline staging area; (5)

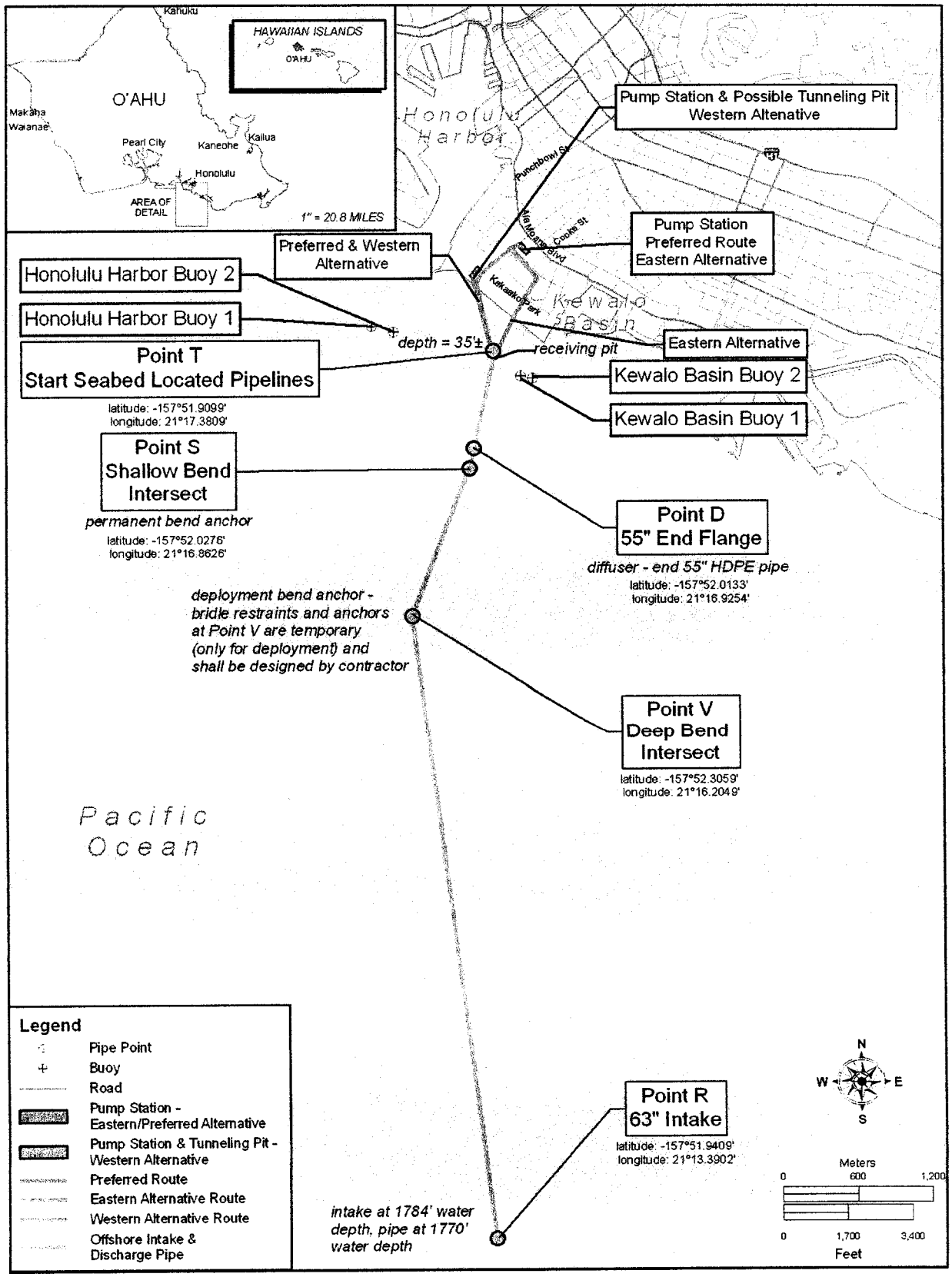
short-term and long-term changes in benthic habitat; (6) entrainment of sea life by the unscreened seawater intake during system operation; (7) effects of project construction and operation on federally protected species (sea turtles, cetaceans, monk seals); (8) uncertain long-term water quality effects of discharged return flow.

The decision whether to issue a DA 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 benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof: among these are conservation, economics, aesthetics, general environmental concerns, wetlands, historic values, 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. Evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency (40 CFR Part 230).

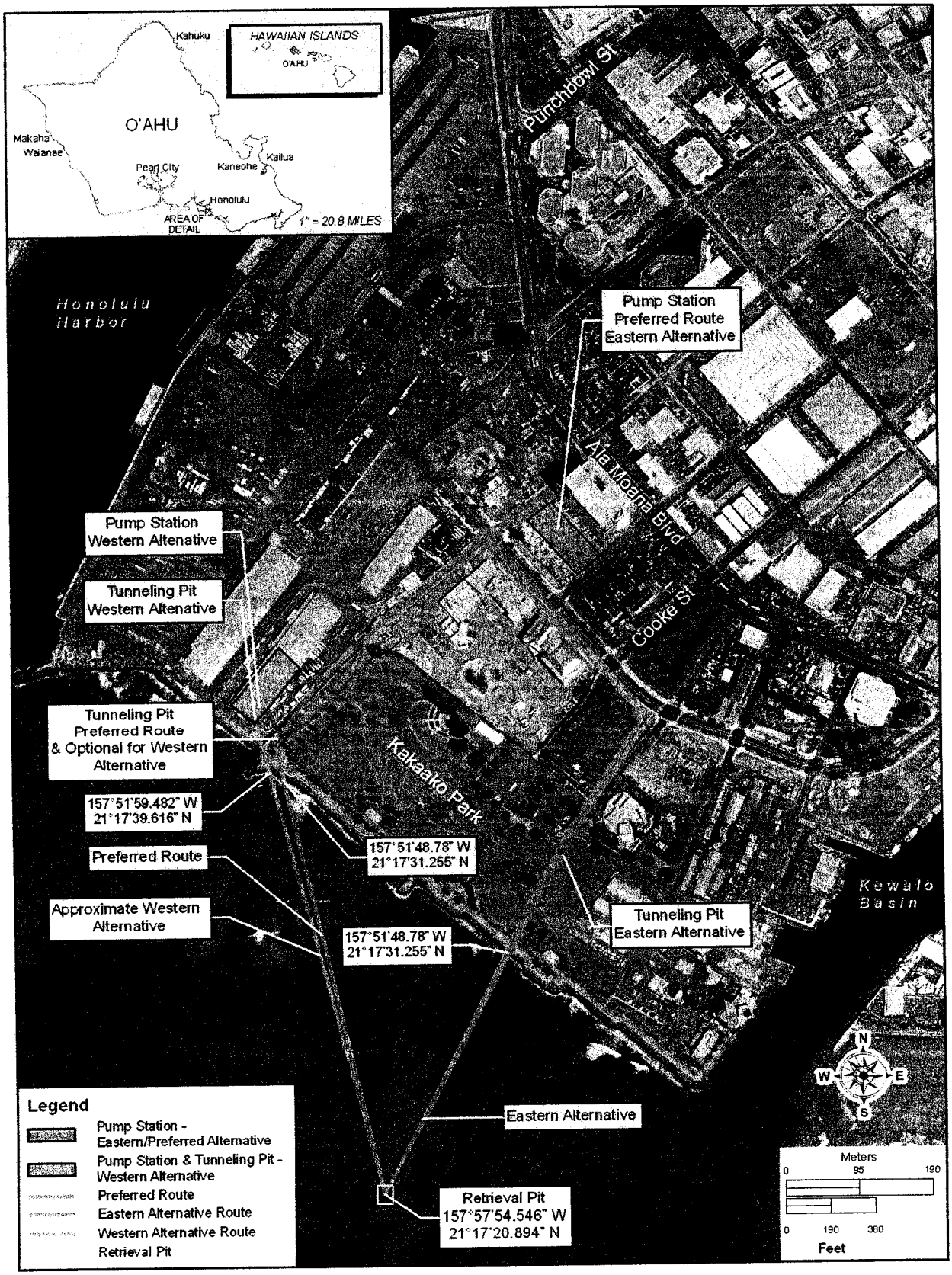
The Corps anticipates that consultations will be required pursuant to provisions of the Magnuson-Stevens Fishery Conservation and Management Act, Section 7 of the Endangered Species Act, and Section 106 of the National Historic Preservation Act. Before a final DA permit can be issued, the applicant must first obtain a Hawai'i Coastal Zone Management (CZM) Program federal consistency certification issued by the State of Hawai'i Department of Business, Economic Development and Tourism, and a Clean Water Act Section 401 Water Quality Certification, or waiver thereof, issued by the State of Hawai'i Department of Health.

Attachments:

A. Project Location Map and Vicinity Map with Overall Seawater Piping Plan
B. Nearshore Mico-Tunneled Pipe Routes
D. Details of Connection between Mico-Tunneled and Surface-Mounted Segments of Seawater Pipes
F. Snag-Resistant Type A Pipe Weight for Use in Shallow Depths
G. Intake Detail 63" Pipe
H. Discharge Diffuser 54" Pipe

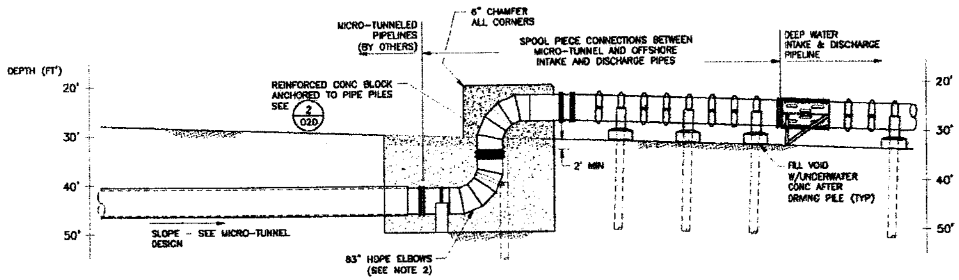


ATTACHMENT A
VICINITY MAP OVERALL SEAWATER PIPING PLAN

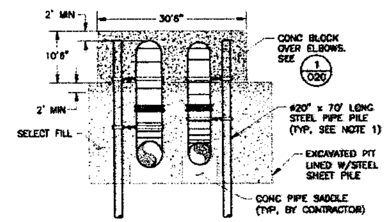


ATTACHMENT B
NEARSHORE MICRO-TUNNELED PIPE ROUTES

Attachment D Details of Connection between Micro-Tunneled and Surface-Mounted Segments of Seawater Pipes


DEPTH (FT')
20'
30'
40'
50'
MICRO-TUNNELED PIPELINES (BY OTHERS)
6" CHAMFER ALL CORNERS
SPOOL PIECE CONNECTIONS BETWEEN MICRO-TUNNEL AND OFFSHORE INTAKE AND DISCHARGE PIPES
DEEP WATER INTAKE & DISCHARGE PIPELINE
REINFORCED CONC BLOCK ANCHORED TO PIPE PILES SEE 2/020
2' MIN
FILL VOID W/UNDERWATER CONC AFTER DRIVING PILE (TYP)
SLOPE - SEE MICRO-TUNNEL DESIGN
83" HDPE ELBOWS (SEE NOTE 2)

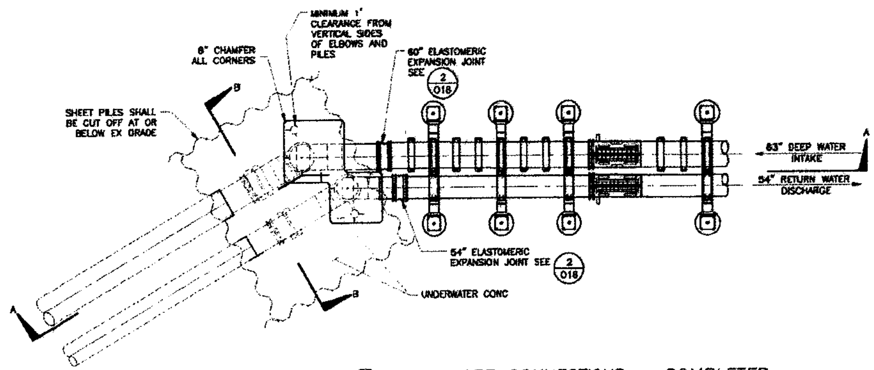
PROFILE A-A



PROFILE B-B

NOTES:

1. FILL PILE W/SELECT FILL TO SAME LEVEL AS PIT. THEN FILL TOP W/CONCRETE. CUT HOLES IN PILES TO ALLOW FLOW OF CONC AS NEEDED. RUN REBAR THROUGH PILES.
2. SUBMIT SHOP DRAWING OF CONCRETE REACTION BLOCK FOR APPROVAL.


MINIMUM 1' CLEARANCE FROM VERTICAL SIDES OF ELBOWS AND PILES
6" CHAMFER ALL CORNERS
60" ELASTOMERIC EXPANSION JOINT SEE 2/018
SHEET PILES SHALL BE CUT OFF AT OR BELOW EX GRADE
83" DEEP WATER INTAKE
54" RETURN WATER DISCHARGE
54" ELASTOMERIC EXPANSION JOINT SEE 2/018
UNDERWATER CONC

1/017 NEARSHORE CONNECTIONS - COMPLETED

SCALE: 1"= 10'

80% DESIGN

OFFSHORE INTAKE AND DISCHARGE PIPELINES

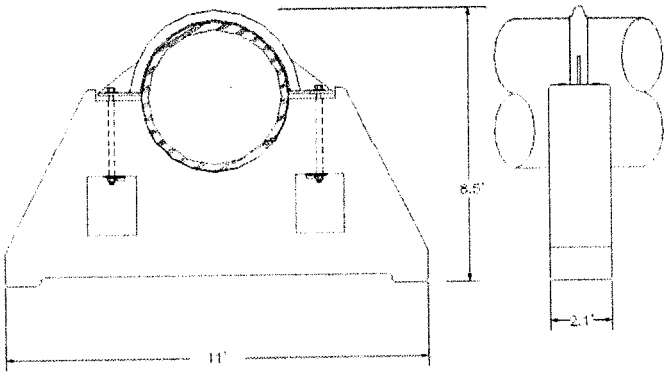
NEARSHORE CONNECTIONS - 3

Makai Ocean Eng. Inc.

D.Jensen

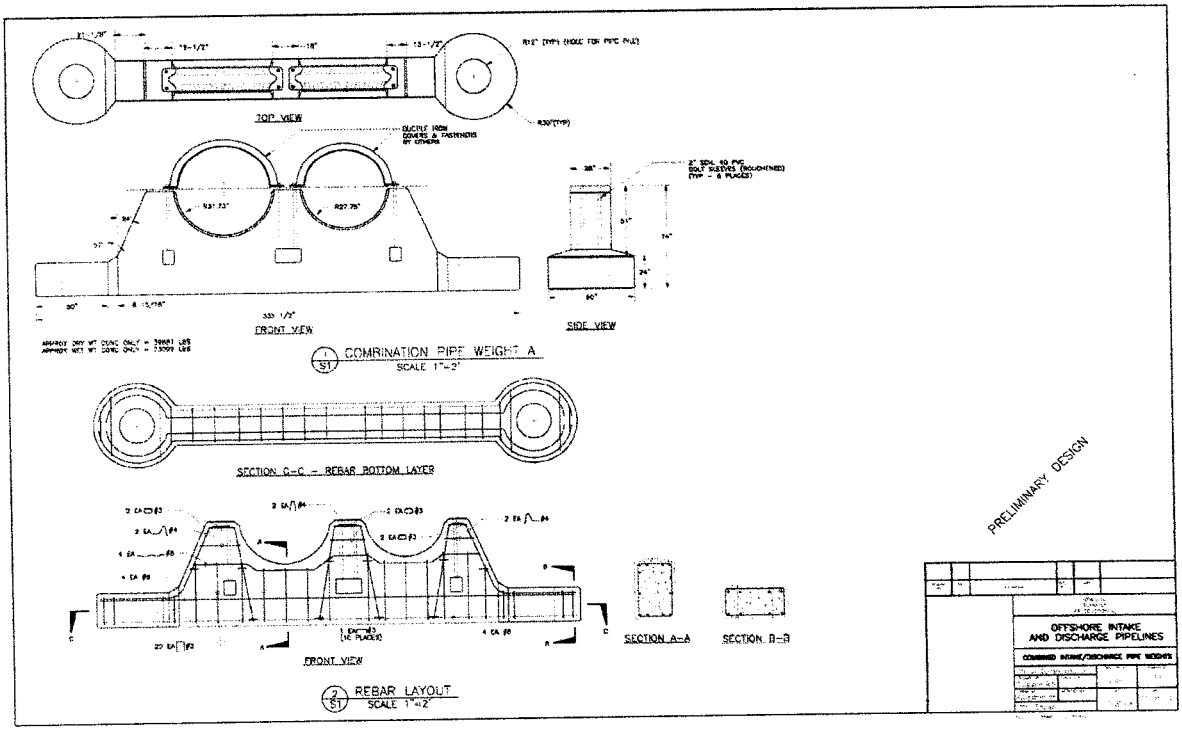
C.Bushnell

6-12-05



ANTI-SNAG PIPE WEIGHT ("A")
NOT TO SCALE: (250 REQUIRED)

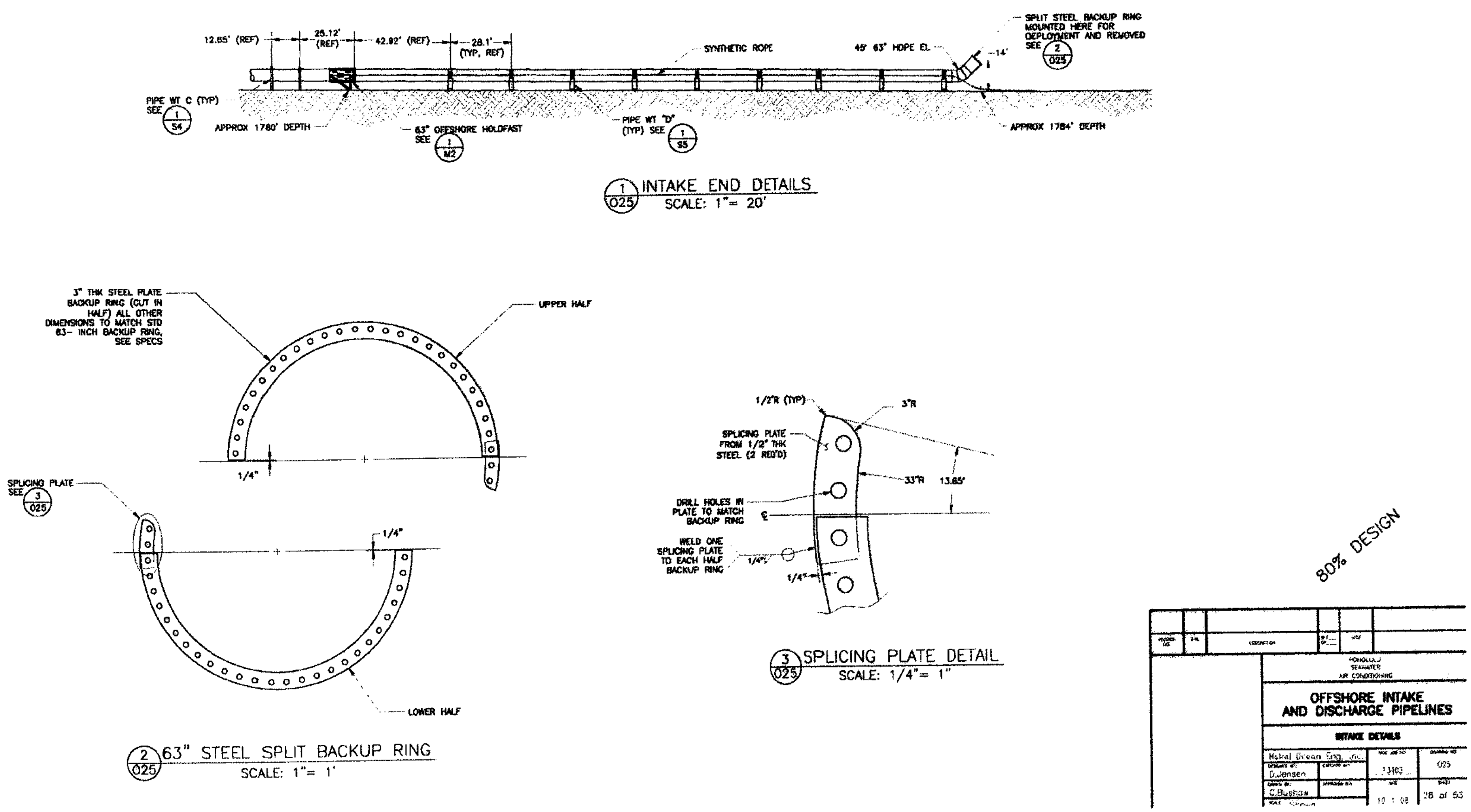
SIDE VIEW



Attachment F
Snag-Resistant Type A Pipe Weight for use in Shallow Depths

Source: MOE, 2005a

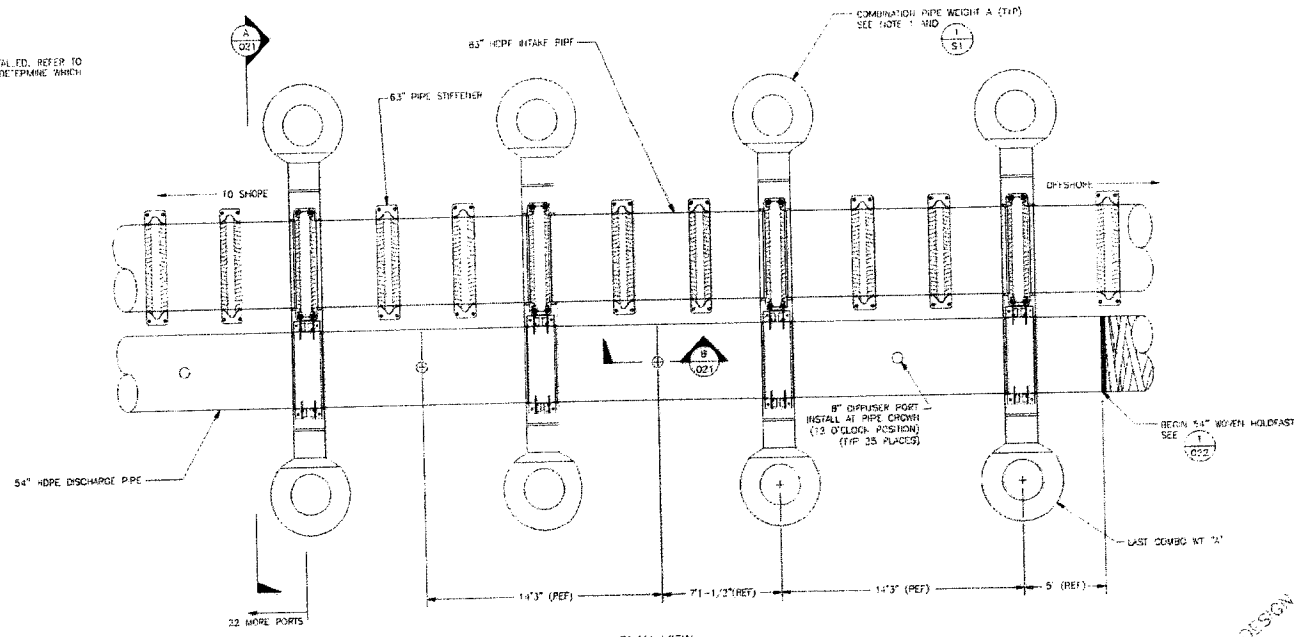
Attachment G
Intake Detail 63" Pipe


12.85' (REF)
25.12' (REF)
42.92' (REF)
28.1' (TYP, REF)
SYNTHETIC ROPE
45' 63" HDPE EL
SPLIT STEEL BACKUP RING MOUNTED HERE FOR DEPLOYMENT AND REMOVED SEE 2/025
14'
PIPE WT C (TYP) SEE 1/S4
APPROX 1780' DEPTH
63" OFFSHORE HOLDFAST SEE 1/M2
PIPE WT "D" (TYP) SEE 1/S5
APPROX 1784' DEPTH
1/025 INTAKE END DETAILS
SCALE: 1"= 20'
3" THK STEEL PLATE BACKUP RING (CUT IN HALF) ALL OTHER DIMENSIONS TO MATCH STD 63- INCH BACKUP RING, SEE SPECS
UPPER HALF
1/4"
SPLICING PLATE SEE 3/025
LOWER HALF
2/025 63" STEEL SPLIT BACKUP RING
SCALE: 1"= 1'
1/2"R (TYP)
3"R
SPLICING PLATE FROM 1/2" THK STEEL (2 REQ'D)
33"R
13.65'
DRILL HOLES IN PLATE TO MATCH BACKUP RING
WELD ONE SPLICING PLATE TO EACH HALF BACKUP RING
1/4"
3/025 SPLICING PLATE DETAIL
SCALE: 1/4"= 1"
80% DESIGN
OFFSHORE INTAKE AND DISCHARGE PIPELINES
INTAKE DETAILS
Makai Ocean Eng., Inc.
D.Jensen
C.Bushaw
13103
025
28 of 53

Attachment H
Discharge Diffuser 54" Pipe

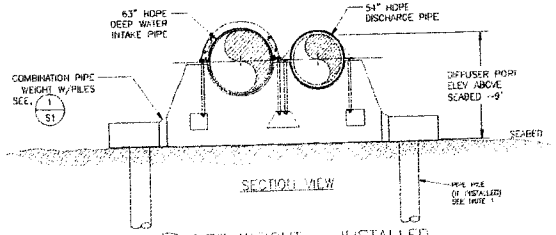
NOTES:

1. NOT ALL COMBO PIPE WT "A" HAVE PILES INSTALLED. REFER TO INTAKE PIPE SCHEDULE ON DWGS 02 TO 03 TO DETERMINE WHICH WEIGHTS RECEIVE PILES.

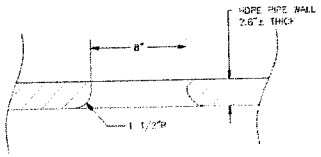


PLAN VIEW

DISCHARGE DIFFUSER DETAIL
SCALE= 1"= 3'



PIPE WEIGHT - INSTALLED
SCALE: 1"= 4'



DIFFUSER PORT
SCALE: 1/2"= 1"

80% DESIGN

REVISION NO.	BY	DESCRIPTION	DATE	APP'D

HONOLULU SEAWATER AIR CONDITIONING

OFFSHORE INTAKE AND DISCHARGE PIPELINES

DIFFUSER DETAILS

Makai Ocean Engineering, Inc.		JOB NO.	DRAWING NO.
DESIGNED BY: C. APGAR	CHECKED BY:	13403	021
DRAWN BY: C. Guthrie	APPROVED BY:	SCALE:	SHEET 24 of 53