



# PUBLIC NOTICE

## US Army Corps of Engineers, Honolulu District

Regulatory Office (CEPOH-RO)  
Building 230  
Fort Shafter, Hawaii 96858-5440

**Public Notice Date: April 5, 2016**  
**Expiration Date: May 5, 2016**  
**Permit File Number: POH-2005-00309**

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### FEDERAL PUBLIC NOTICE

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:

Mr. Manuel Duenas  
Guam Fisherman's Cooperative Association  
PO Box 24023 GMF  
Hagåtña, Guam 96950

WATERWAY AND LOCATION OF THE PROPOSED WORK: The proposed project is located on Lot No. A-4 along the Hagåtña Boat Basin, a tributary of Agana Bay and the Philippine Sea/Pacific Ocean, at the Guam Fisherman's Cooperative Association Facility property, in the Paseo de Susana Area, Hagåtña, Guam. Center Coordinates: Latitude 13.47787 and Longitude 144.75128.

PROPOSED PROJECT AND PURPOSE: The Guam Fisherman's Cooperative Association (GFCA) has requested reauthorization of their Department of the Army (DA) permit to reconstruct the existing GFCA facility. The proposed reconstruction will include the construction a new 215 linear foot (LF) vessel mooring dock and 110 LF gabion baskets shoreline stabilization and they have proposed to conduct maintenance dredging of the 8,600 square foot (SF) area in front the proposed vessel mooring dock for improved navigational access. The project details are depicted on the attached project plans (Enclosure 1). The primary purpose of the project is to provide island residents, fishermen, and visitors with an updated and safer fish processing and retail facility and to combat erosion of the existing shoreline.

The proposed vessel mooring dock is proposed to be a concrete structure constructed of sheet pile and backfill measuring 215-feet-long and 20-feet-wide with an associated 3,101 SF and/or 159 cubic yards (CY) of backfill seaward of the mean high water line (MHWL).

The proposed gabion basket shoreline stabilization is proposed to be 110-feet-long and 6-feet-wide with an associated 808 SF and/or 96 CY fill area seaward of the MHWL. Approximately 990 SF and 57 CY of material will have to be excavated to create the gabion toe-in area for the proper installation of the proposed shoreline protection.

The proposed navigational dredging would be conducted via mechanical dredging methods with upland disposal over an area approximately 8,600 SF (0.20-acre) in size, resulting in the removal of approximately 1,331 CY of dredged material to a maximum depth of -8.0 feet MLW.

Overall, impacts to the aquatic environment would occur as a result of the removal of approximately 9,590 SF (0.22-acre) and 1,331 CY of dredged material and the placement of approximately 3,818 SF (0.90-acre) and 255 CY of new fill material.

The following environmental protection and mitigation measures have been proposed by the applicant to address potential impacts:

1. A standard Environmental Protection Plan (EPP) will be developed to address potential threats to the environment resulting from replacing the existing facility. This plan must recognize the sensitive nature of protecting resources along the coastline.
2. Erosion Control and Sedimentation Control Plans will be developed to minimize the potential for adding additional sources of silt to nearby waters. Earthwork and discharges of water pumped from behind temporary coffer dams are two potential sources of sediment. Temporary berms, silt curtains and fences are measures used to control erosion and sedimentation.
3. During construction, area waters will be protected through the use of silt curtains (including floating curtains) as a standard Best Management Practice (BMP) to protect water quality.
4. Adopt standard BMPs (Conservation Measures) to mitigate the potential for the project to impact sea turtles. These measures are routinely included in Department of the Army authorizations for in-water work.
5. Best Management Practices will be utilized where feasible to prevent further degradation of area water quality.
6. Dust suppression during construction will be accomplished through water sprinkling.
7. An Archeological Monitoring and Discovery Plan will be developed in consultation with the DPR-HPO to address monitoring and reporting requirements during periods when significant earthwork will be conducted to include dredging activities.
8. A Water Quality Monitoring Plan may be required. This would be included in the EPP and function to allow for measurable monitoring of water quality in the vicinity of the project.
9. Develop an additional 25 parking stalls.
10. Relocation of macro-invertebrates from proposed dredge/fill areas.
11. Remove abandoned fishing net during dredge operations.
12. Water from dewatering operations should be injected into the subsurface on site rather than directly into nearby waters.

**AUTHORITY:** A Department of the Army permit is required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) - To perform work in or affecting navigable waters of the United States.
- Section 404 of the Clean Water Act (33 U.S.C. 1344) - Discharge dredged or fill material into waters of the United States. The Corps' public interest review will

consider the guidelines set forth under Section 404(b) of the Clean Water Act (40 CFR 230).

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

WATER QUALITY CERTIFICATION: The proposed action will result in a discharge of a pollutant into a water of the U.S. and will require authorization from the Corps in accordance to Section 404 of the Clean Water Act of 1972 (CWA). Under Section 401 of the CWA (Public Law 95-217), the Corps may not issue a permit for the described work until the applicant obtains a certification, or waiver of certification, from the Guam Environmental Protection Agency.

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 Guam Bureau of Statistics and Plans, Guam Coastal Management Program.

CULTURAL RESOURCES: Pursuant to Section 106 of the National Historic Preservation Act (NHPA), our assessment of the project leads us to a preliminary determination that known properties eligible for inclusion or included in the National Register of Historic Places are located near, but not within, the permit area. Therefore, consultation with the Government of Guam Department of Parks and Recreation, Guam Historic Resources Division will be conducted in conjunction with this public notice.

ENDANGERED SPECIES: Pursuant to Section 7 of the Endangered Species Act (ESA), federal agencies must consult with the National Marine Fisheries Service (NMFS) and/or 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, the following protected near shore marine species under NMFS jurisdiction have the potential to occur near the project location: Green Sea Turtle (*Chelonia mydas*), Threatened, and Hawksbill Turtle (*Eretmochelys imbricata*), Endangered, and threatened coral species (*Acropora globiceps*, *Acropora retusa*, and *Seriatopora aculeata*). No designated critical habitat exist in or adjacent to the project site. The proposed work will not result in adverse impacts to listed coral species as none are present in the project area. Listed sea turtles which infrequently visit the marina, would be protected through proactive measures including pre-work visual surveys, monitoring, soft startups and stop work protocols in the event a sea turtle is recorded. The implementation of these BMPs in an area where sea turtles are rarely observed and where preferred nesting habitat is absent, implies that a may affect, not likely to adversely affect determination is appropriate relative to listed sea turtles. A separate coordination with

NMFS Protected Resources Division will be conducted in conjunction with this public notice under the programmatic Standard Local Operating Procedures for Endangered Species in the Central and Western Pacific Region (Pac-SLOPES).

Based on the project location, terrestrial species under USFWS jurisdiction are not likely to occur near the project location. Terrestrial wildlife resources are naturally limited as the GFCA site is mostly developed or mowed on a regular basis and is located in the center of Guam's capital Hagåtña. The trees lining the shoreline (generally *Hibiscus tiliaceus*) were inspected for tree snails. No tree snails recently listed and known for Guam (*Partula radiolata*, *Partula gibba* or *Samoana fragilis*) under the ESA were recorded to be present. None of plants or animals listed under the ESA for Guam were recorded on site. No designated critical habitat exist in or adjacent to the project site. Preliminary determinations indicate that the described activity will not affect endangered terrestrial species. Consultation with USFWS under Section 7 of the Endangered Species Act of 1973 (87 Stat. 844) is not required for the described activity.

ESSENTIAL FISH HABITAT: The proposed work is being evaluated for possible effects to Essential Fish Habitat (EFH) pursuant to The Magnuson-Stevens Fishery Conservation and Management Act (MSA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), which requires all Federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat. The Honolulu District 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 NMFS. Preliminary determinations indicate that the described activity will not have an adverse effect on EFH. The benthic marine habitat within the project area includes sand/silt bottom and rubble bottom. The adjacent waters are regularly degraded by increases in turbidity due to terrestrial run-off associate with the nearby storm water discharge pipes, adjacent marina and constant use by vessels. Direct and secondary impacts to the aquatic habitat will be minimized through the implementation of appropriate mitigation measures and BMPs, as stated above. Therefore, consultation under MSA is not required for the described activity. Based on comments from the NMFS, in response to this public notice, further EFH consultation may be necessary.

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

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to evaluate the direct, indirect, and cumulative impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above.

**PUBLIC HEARING:** Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity. 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. The District Commander will then decide if a hearing should be held.

**COMMENT AND REVIEW PERIOD:** Comments on this public notice should be made in writing via conventional mail or e-mail. Comments 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 proposal. Conventional mail comments should be sent to:

U.S. Army Corps of Engineers, Honolulu District  
Guam Regulatory Field Office, Attn: Katy Damico  
Apra Harbor Naval Complex  
PSC 455 Box 188  
FPO, AP 96540-1088

Alternatively, comments may be emailed to [Katy.R.Damico@usace.army.mil](mailto:Katy.R.Damico@usace.army.mil) . Reference POH-2005-00309 in the subject heading of the email. In order to be accepted, e-mail comments must originate from the author's e-mail account.

Both conventional mail and e-mail comments must include the DA permit number POH-2005-00309, and the commenter's name, address, and phone number. **All comments whether conventional mail or e-mail should be received by the close of business on MAY 5, 2016.**

**PRIVACY & CONFIDENTIALITY:** It should be noted that materials submitted as part of the permit application become part of the public record and are thus available to the general public under the procedures of the Freedom of Information Act (FOIA). Submissions should not include any information that the submitter seeks to preserve as confidential.

If you have any questions about this project or the permit process, please contact Katy Damico via telephone at (671) 339-2108 or (808) 835-4160 or via email at [Katy.R.Damico@usace.army.mil](mailto:Katy.R.Damico@usace.army.mil).



**GENERAL NOTES (CIVIL):**

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE OSHA REGULATIONS.
2. THE OWNER WILL PROVIDE A DPW BUILDING PERMIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLYING WITH ALL CONDITIONS CONTAINED IN THESE PERMITS AND IN OBTAINING ANY OTHER PERMITS THAT MAY BE REQUIRED, INCLUDING GUAM EPA.
3. THE TYPES, LOCATIONS, SIZES AND OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES.) HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.
4. CONTRACTOR SHALL COORDINATE WITH THE OWNER REGARDING THE RELOCATION OF ALL EXISTING UTILITIES.
5. SHOULD DISCREPANCIES EXIST BETWEEN ANY ACTUAL ELEVATIONS AND THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER BEFORE ADJUSTING THE DESIGN. CONTRACTOR TO SUBMIT SHOP DRAWINGS AND/OR RELATED DOCUMENTS FOR ACCEPTANCE.
6. CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY LINES WHERE THEY ARE TO BE GROSSED ABOVE OR BELOW BY THE NEW FACILITIES BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADE AND TO ASSURE THAT THERE IS SUFFICIENT CLEARANCE. PIPE SHALL NOT BE STRINGING NOR TRENCHING COMMENCED UNTIL ALL CROSSINGS HAVE BEEN VERIFIED FOR CLEARANCE. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE, HE WILL BE SOLELY RESPONSIBLE FOR ANY EXTRA WORK OR MATERIAL REQUIRED IF MODIFICATIONS TO THE DESIGN ARE NECESSARY.
7. ALL AREAS SUBJECT TO REMOVAL OF THE NATURAL VEGETATION DUE TO EARTHWORK OPERATIONS SHALL BE SEEDED WITH GRASS PER SPECIFICATIONS. THIS INCLUDES ALL SLOPES AND AREAS DISTURBED BY THE CONTRACTOR NOT SHOWN ON THE PLAN.
8. THE CONTRACTOR SHALL MAINTAIN SIDEWALKS IN A CLEAN SAFE AND USABLE CONDITION.
9. ALL TREES AND PLANTS REMOVED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RELOCATED AS DIRECTED BY THE OWNER AT NO EXPENSE TO THE OWNER.
10. EXISTING FACILITIES INCLUDING, BUT NOT LIMITED TO ROADS, WALLS, FENCES AND STRUCTURES DAMAGED BY CONTRACTOR'S OPERATIONS, SHALL BE RESTORED TO MATCH ORIGINAL CONDITION AND TO THE SATISFACTION AND WITHOUT ADDITIONAL COST TO THE OWNER.
11. THE CONTRACTOR SHALL END PLACEMENT FOR ALL SURFACE CONCRETE WORK AT EITHER EXPANSION OR CONSTRUCTION JOINTS.
12. CONNECTIONS TO EXISTING WATERLINES SHALL BE DONE IN AN APPROVED MANNER AND WITH MINIMUM INTERRUPTION OF SERVICE.
13. EXISTING WATER MAINS REQUIRING CONNECTION SHALL BE FIELD LOCATED BY THE CONTRACTOR.
14. THE CONTRACTOR SHALL MAINTAIN SERVICE TO ALL EXISTING WATER SERVICE CONNECTIONS DURING CONSTRUCTION OF NEW IMPROVEMENTS, UNLESS APPROVED OTHERWISE BY THE OWNER.
15. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY.

**16. SURVEY NOTES BY FRANK CASTRO, REGISTERED LAND SURVEYOR.**

1. SURVEY WAS BASED ON FOUND CORNERS AS SHOWN.
2. ALL DISTANCES ARE IN FEET, UNLESS OTHERWISE NOTED.
3. ALL BEARING AND DISTANCES ARE 1983 GRID.
4. VERTICAL CONTROL IS BASED ON RECOVERED CORNER WITH ELEV.=8.91 AS SHOWN.
5. CONTOUR INTERVAL IS ONE (1) FOOT.
6. REFERENCES: SEEN SK. NO. 1366, JOB NO. 1144, GUAM FISHERY COOP.
7. LEGEND AND SYMBOLS

- NAIL SET ON CONG. CURB
- INACCESSIBLE CORNER
- NAIL FOUND ON CONG. PAD
- #4 REBAR SET MARKED RLS #19
- HOLE FOUND ON CONG. CURB
- CONG./WOODEN POWER POLE
- LIGHT POST

CONTOUR LINE  
 SPOT ELEVATION



**ABBREVIATIONS (CIVIL):**

CONC	CONCRETE
Ø	DIAMETER
DS1	DOWNSPOUT AT COLUMN WITHOUT CONCRETE BOX
DS2	DOWNSPOUT AT COLUMN WITH CONCRETE BOX
(E)	EXISTING ELEVATION
ELEV	FINISHED GRADE
FG	FINISHED GRADE
FS	FINISHED SURFACE
FT	FEET
HDPE	HIGH DENSITY POLYETHYLENE PIPE
INV.	INVERT
MIN	MINIMUM
(N)	NEW
NTS	NOT TO SCALE
S	SLOPE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VF	VERIFY IN FIELD

**LEGEND & SYMBOLS (CIVIL):**

**NEW**

	SEWER LINE
	WATERLINE
	CURB
	CURB & GUTTER
	(N) FINISH GRADE ELEV.
	MATCH (N) TO (E) GRADE
	TOP OF CURB (N) ELEV. FINISH GRADE ELEV.
	CATCH POINT TOP OF SLOPE
	CATCH POINT TOE OF SLOPE
	GRATED INLET
	ASPHALT PAVEMENT
	CONCRETE

DETAIL NO. SHT  
 REF. SHEET



PROJECT TITLE:  
 GUAM FISHERY COOPERATIVE  
 GUAM FISHERMAN'S COOP FACILITY  
 HAGATNA, GUAM, U.S.A.

GENERAL NOTES,  
 ABBREVIATIONS,  
 LEGEND & SYMBOLS (CIVIL)

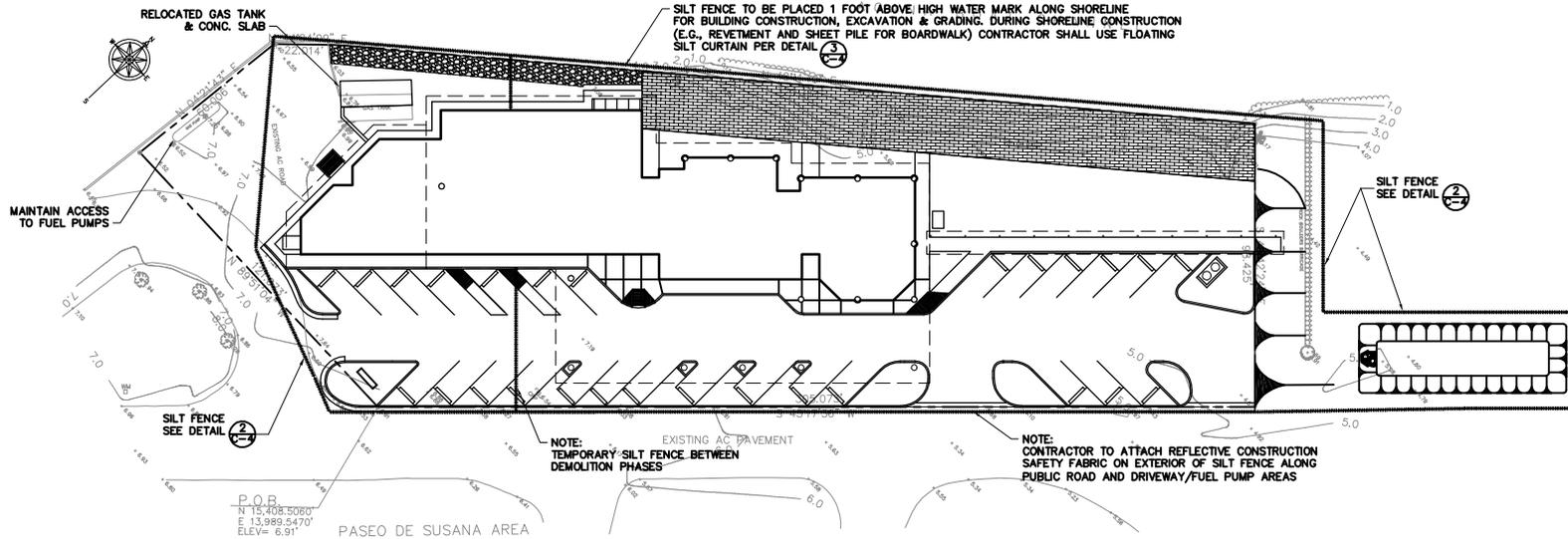


DATE: AUG 26, 2008  
 EXPIRE: 2008 SUBMITTAL  
 DATE:  
 NAME:  
 DATE:  
 NUMBER:  
 PERMITS:  
 DATE:  
 DATE:  
 DATE:

DESIGNED: GEM  
 DRAWN: JAV  
 CHECKED: PAB  
 SCALE: AS SHOWN  
 JOB NO.: 080800001



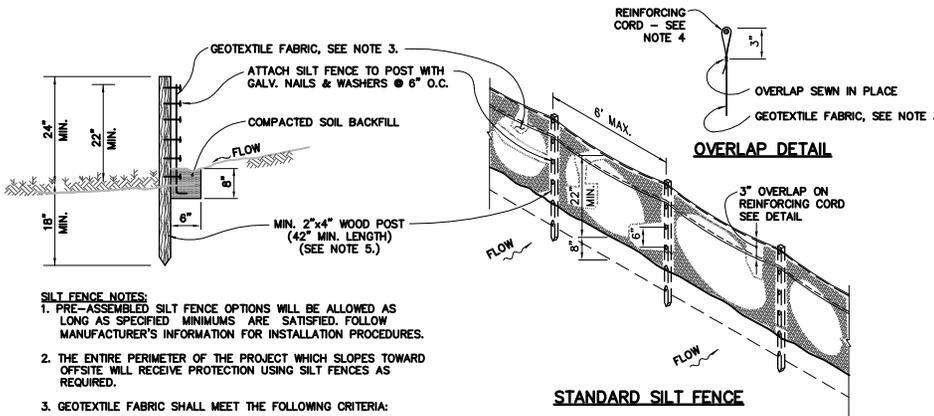




**1 TEMPORARY SOIL EROSION CONTROL PLAN**  
 C-4 1"=20'

**TEMPORARY EROSION CONTROL PLAN NOTES**

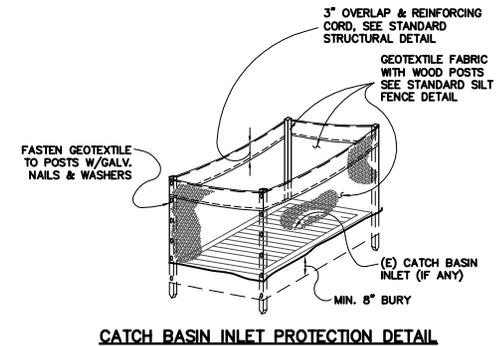
- CONSTRUCT AND MAINTAIN EROSION CONTROL ON AND AROUND SOIL STOCKPILES TO PREVENT SOIL LOSS. SILT FENCE SHOULD SURROUND SOIL STOCKPILES, AND STOCKPILES SHOULD BE SEEDED WITH AN APPROPRIATE GRASS SPECIES FOR EROSION CONTROL IF THE STOCKPILE IS TO REMAIN FOR A PERIOD GREATER THAN 30 DAYS.
- OBTAIN PERMISSION FROM GUAM EPA PRIOR TO OPENING MATERIAL STAGING OR STOCKPILE AREAS. DO NOT LOCATE SOIL STOCKPILES IN SLOPED AREAS OR AREAS THAT MAY BE SUBJECT TO CONCENTRATED FLOWS OF RUNOFF DURING STORM EVENTS, SUCH AS GUTTERS, SWALES, NATURAL DRAINAGEWAYS, OR EROSION GULLIES.
- ALL MATERIALS SUITABLE FOR USE AS BACKFILL SHALL BE PILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE EDGE OF ANY TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDING IN THE TRENCH.
- PROVIDE SILT FENCE AROUND EXISTING DRAINAGE INLETS FOR PROTECTION FROM SEDIMENTATION.
- STOCKPILED MATERIALS SHALL BE PLACED IN AREAS WHERE ACCESS TO DRIVEWAYS AND THROUGH TRAFFIC ARE NOT IMPEDED OR OBSTRUCTED.
- STOCKPILED AND EXCAVATED MATERIALS SHALL NOT BE PLACED AT ANY TIME IN GUTTERS OR SWALES OR ANY OTHER AREAS THAT MAY BE SUBJECT TO CONCENTRATION FLOWS OF STORMWATER RUNOFF.
- STOCKPILED AND EXCAVATED MATERIALS SHALL BE REMOVED FROM THE SITE ON A DAILY BASIS (WITH THE EXCEPTION OF LONG TERM STOCKPILES PROPERLY PROTECTED FROM EROSION AT A GUAM EPA-APPROVED STAGING AREA).



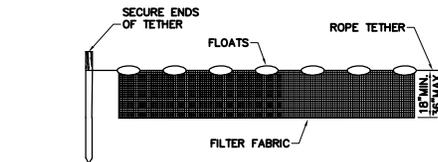
**SILT FENCE NOTES:**

1. PRE-ASSEMBLED SILT FENCE OPTIONS WILL BE ALLOWED AS LONG AS SPECIFIED MINIMUMS ARE SATISFIED. FOLLOW MANUFACTURER'S INFORMATION FOR INSTALLATION PROCEDURES.
2. THE ENTIRE PERIMETER OF THE PROJECT WHICH SLOPES TOWARD OFFSITE WILL RECEIVE PROTECTION USING SILT FENCES AS REQUIRED.
3. GEOTEXTILE FABRIC SHALL MEET THE FOLLOWING CRITERIA:
  - a) GRAB TENSILE STRENGTH 100 lbs. (min.)
  - b) MULLEN BURST 250 psi (min.)
  - c) EQUIVALENT OPENING SIZE SHALL BE SMALLER THAN OR EQUAL TO A STD. #80 SIEVE. d) MATERIAL SHALL BE SUITABLE FOR LONG TERM EXPOSURE TO SUNLIGHT.
4. REINFORCING CORD SHALL HAVE A MIN. TENSILE STRENGTH OF 500 lbs.
5. IN PAVEMENT AREAS, CONTRACTOR MAY SUBSTITUTE #8 BAR (3/8") FOR WOOD POST AND USE WIRE TIES ATTACHMENT FOR GEOTEXTILE FABRIC IN PLACE OF NAILS.

**2 TEMPORARY SOIL EROSION CONTROL INSTALLATION**  
 C-4 NTS



**CATCH BASIN INLET PROTECTION DETAIL**



**3 FLOATING SILT CURTAIN**  
 C-4 NTS

**WINZLER & KELLY**  
 44 WEST WINDY RD  
 SUITE 200, SUITE 200  
 HONOLULU, GUAM 96910  
 TEL: 671-833-1111  
 FAX: 671-833-1112  
 WWW: www.wk.com

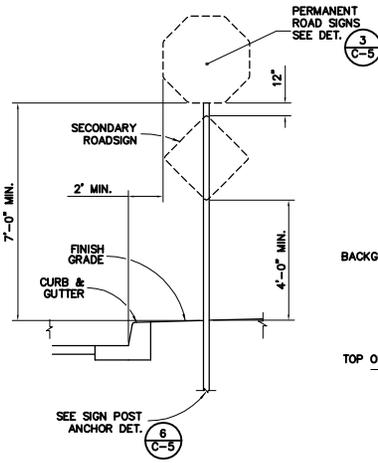
PROJECT TITLE: GUAM FISHERY COOPERATIVE GUAM FISHERMAN'S COOP FACILITY HAGATNA, GUAM, U.S.A.

ISSUE TITLE: TEMPORARY EROSION CONTROL PLAN

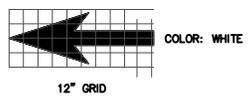
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 EXPIRE: 100% SUBMITTAL  
 DATE: \_\_\_\_\_  
 NAME: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 NUMBER: \_\_\_\_\_  
 REVISIONS:  
 Δ DATE: \_\_\_\_\_  
 Δ DATE: \_\_\_\_\_  
 Δ DATE: \_\_\_\_\_

DESIGNED: JMM  
 DRAWN: JMM  
 CHECKED: JMM  
 SCALE: AS SHOWN  
 JOB NO.: 080800001

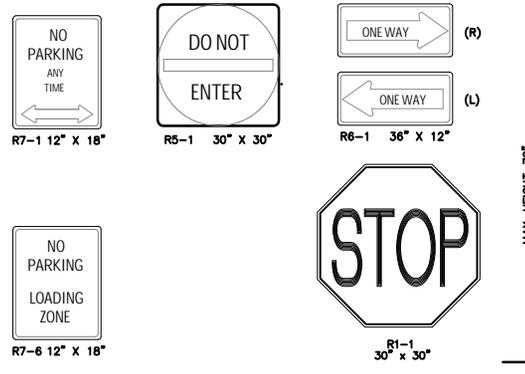
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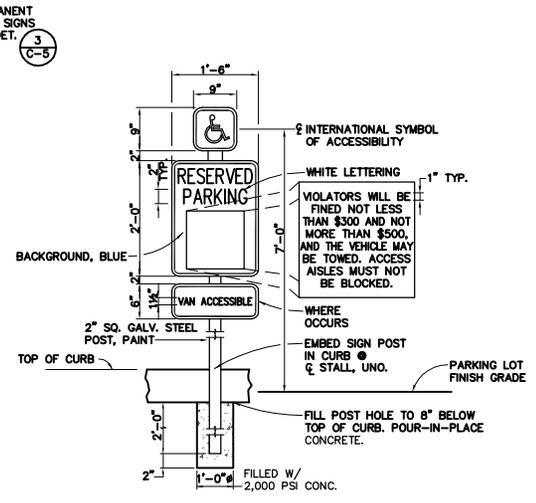
**1 SIGN POST LOCATION**  
 C-5 NTS



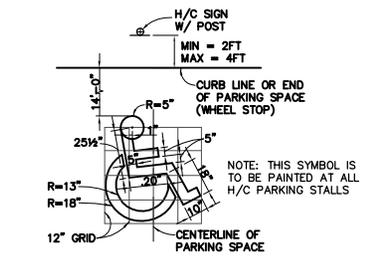
**2 PAVEMENT MARKER**  
 C-5 NTS



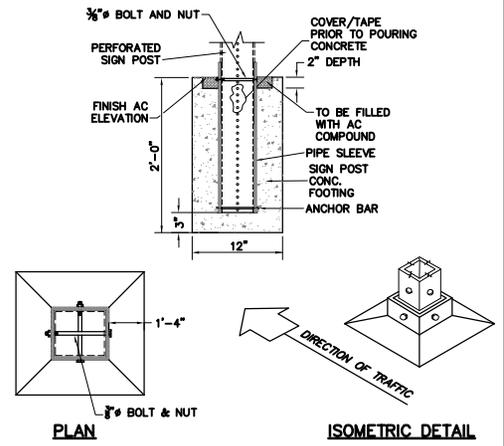
**3 PERMANENT ROAD SIGNS**  
 C-5 NTS



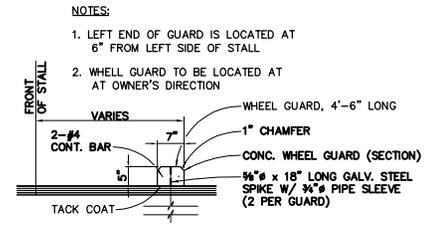
**4 TYP. H/C SIGN DETAIL**  
 C-5 NTS



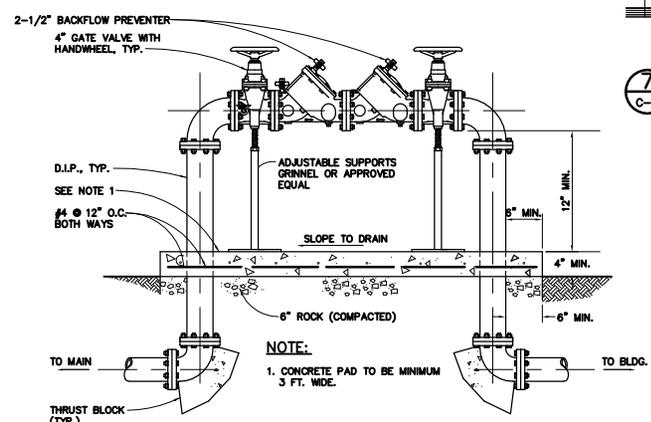
**5 DISABLED PARKING SYMBOL**  
 C-5 NTS



**6 SIGN POST ANCHOR DETAIL**  
 C-5 NTS



**7 WHEEL GUARD DETAIL**  
 C-5 NTS



**8 BACKFLOW PREVENTER**  
 C-5 NTS

**WINZLER & KELLY**  
 ALL WORK SUBJECT TO  
 THE DISTRICT REGULATORY  
 DIVISION'S REVIEW AND  
 APPROVAL. CONTACT: (671) 233-2200  
 WWW.WK-K.COM

**PROJECT TITLE:**  
 GUAM FISHERY COOPERATIVE  
 GUAM FISHERMAN'S COOP FACILITY  
 HAGATNA, GUAM, U.S.A.

**CLIENT TITLE:**  
**CIVIL DETAILS**

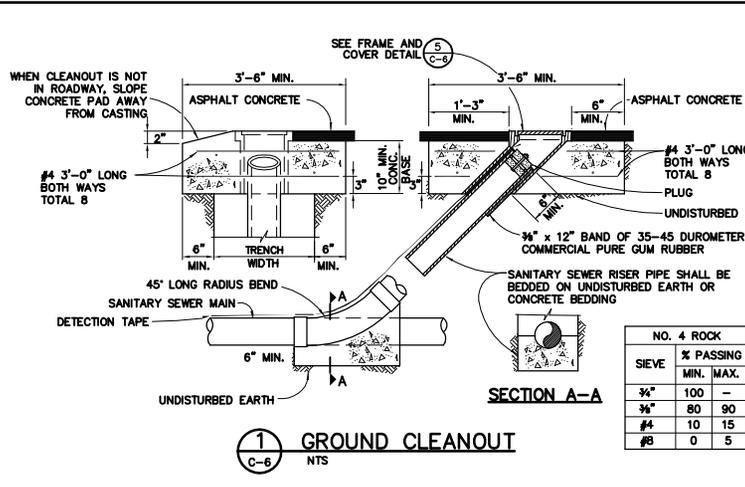
**DATE:** AUG 28, 2008  
**EXPIRE:** 100% SUBMITTAL  
**DATE:**  
**REVISIONS:**  
 REVISION: 01  
 REVISION: 02  
 REVISION: 03  
**DESIGNED BY:** JAL  
**CHECKED BY:** JAL  
**DATE:** 08/28/08  
**JOB NO.:** 080800001

**C-5**  
 of

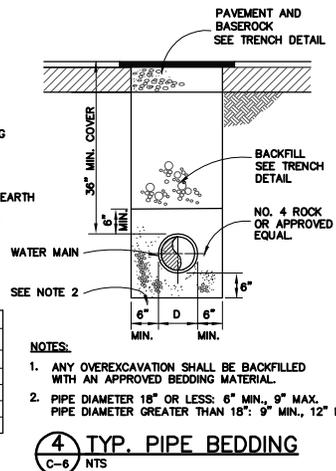
**WINZLER & KELLY**  
 44 WEST BEACH BLVD  
 SUITE 200  
 HONOLULU, HI 96813  
 TEL: (808) 437-2700  
 FAX: (808) 437-2701  
 WWW: W&K.COM

PROJECT TITLE:  
 GUAM FISHERY COOPERATIVE  
 GUAM FISHERMAN'S COOP FACILITY  
 HAGATNA, GUAM, U.S.A.

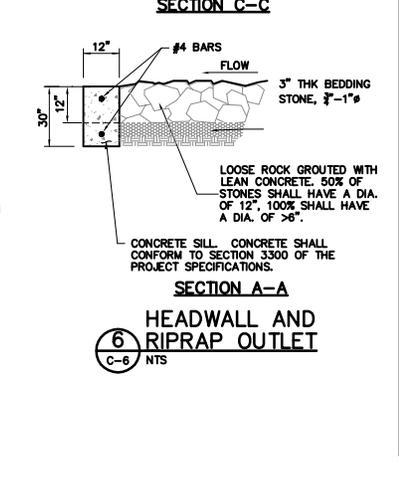
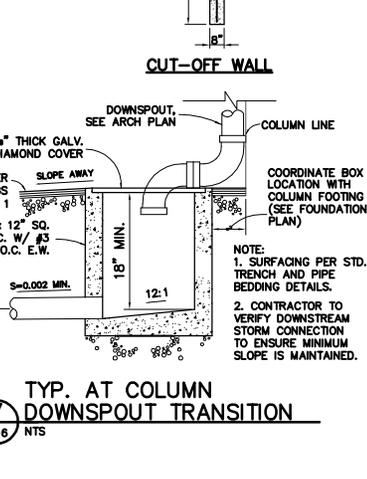
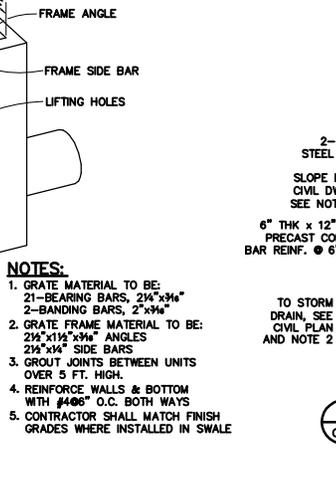
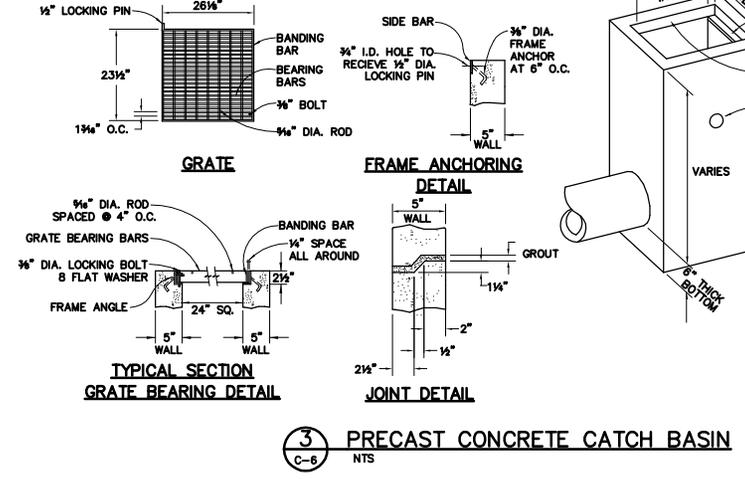
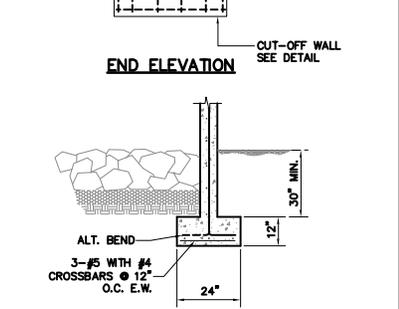
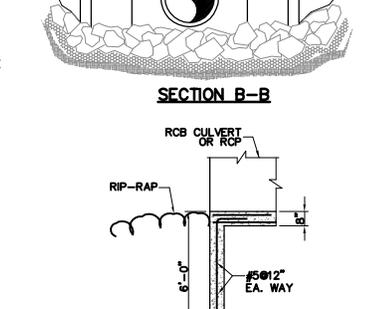
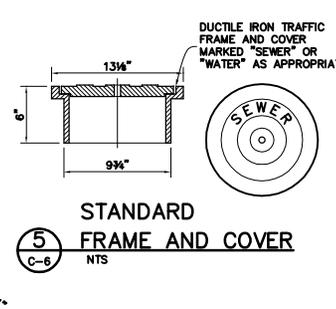
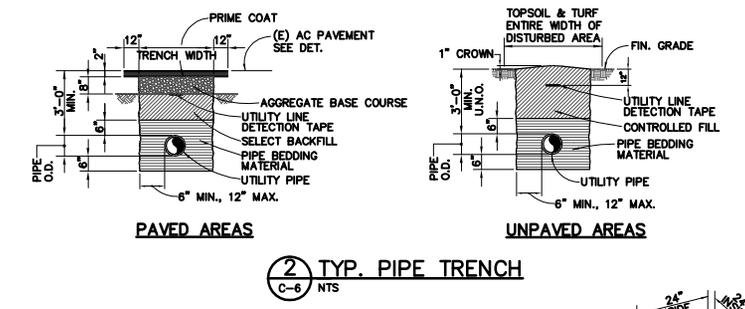
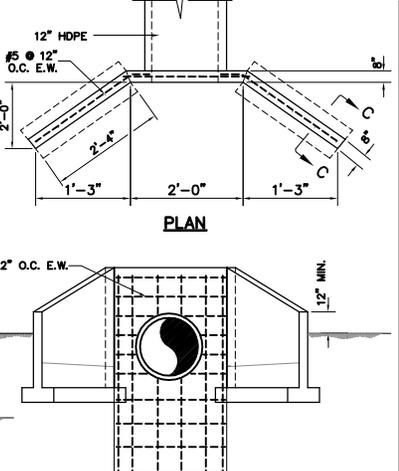
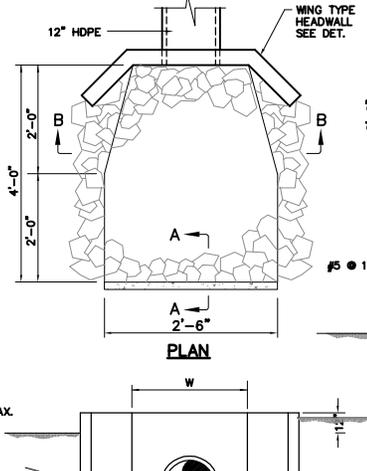
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NO. 4 ROCK		
SIEVE	% PASSING	MIN. MAX.
3/4"	100	-
3/8"	80	90
#4	10	15
#8	0	5

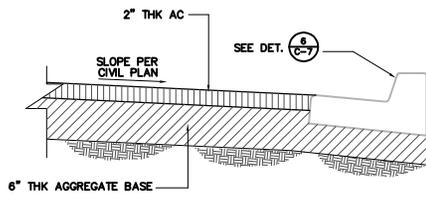


- NOTES:**
- ANY OVEREXCAVATION SHALL BE BACKFILLED WITH AN APPROVED BEDDING MATERIAL.
  - PIPE DIAMETER 18" OR LESS: 6" MIN., 9" MAX. PIPE DIAMETER GREATER THAN 18": 9" MIN., 12" MAX.

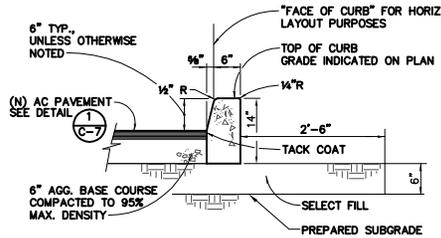


- NOTES:**
- GRATE MATERIAL TO BE: 21-BEARING BARS, 2 1/4" x 3/4" 2-BANDING BARS, 2" x 3/4"
  - GRATE FRAME MATERIAL TO BE: 2 1/2" x 1 1/2" x 3/4" ANGLES 2 1/2" x 1/2" SIDE BARS
  - GROUT JOINTS BETWEEN UNITS OVER 5 FT. HIGH.
  - REINFORCE WALLS & BOTTOM WITH #4 @ 6" O.C. BOTH WAYS
  - CONTRACTOR SHALL MATCH FINISH GRADES WHERE INSTALLED IN SWALE

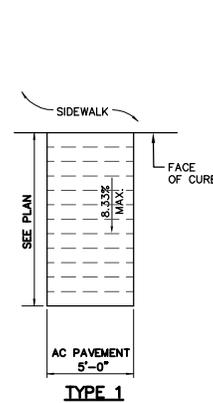
- NOTE:**
- SURFACING PER STD. TRENCH AND PIPE BEDDING DETAILS.
  - CONTRACTOR TO VERIFY DOWNSTREAM STORM CONNECTION TO ENSURE MINIMUM SLOPE IS MAINTAINED.



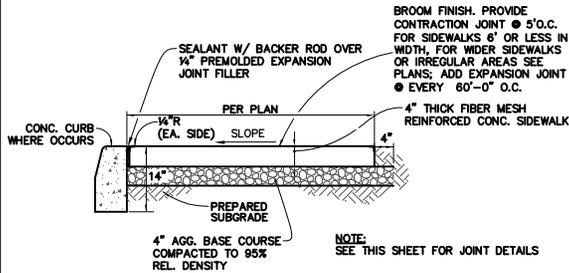
**1 AC PAVEMENT SECTION**  
 C-7



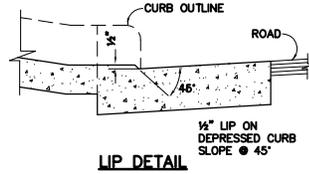
**4 ON-SITE CURB AND PAVEMENT**  
 C-7 NTS



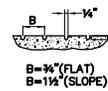
**8 TYPICAL CONSTRUCTION JOINT IN CONCRETE SLAB ON GRADE**  
 C-7 NTS



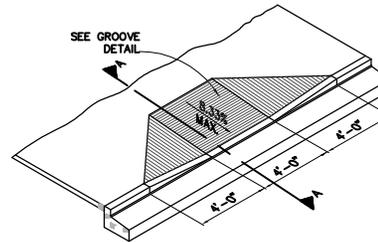
**2 CONCRETE CURB AND SIDEWALK DETAIL**  
 C-7 NTS



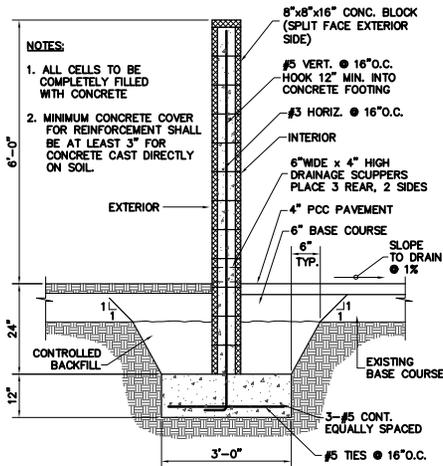
**LIP DETAIL**



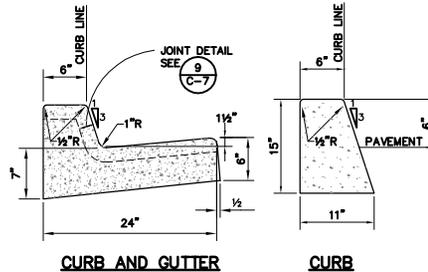
**GROOVE DETAIL**



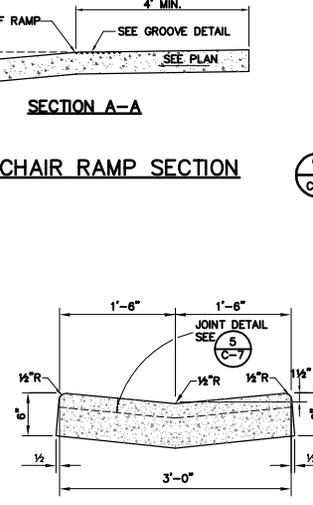
**5 WHEELCHAIR RAMP SECTION**  
 C-7 NTS



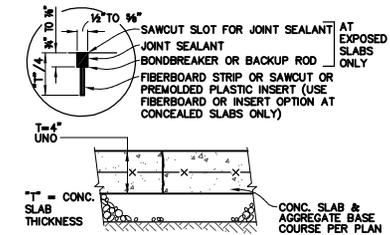
**3 LPG TANK ENCLOSURE WALL**  
 C-7 NTS



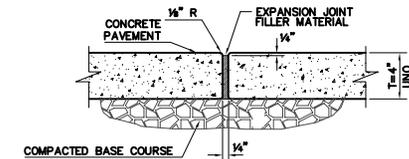
**6 TYP. CONC. CURB & GUTTER**  
 C-7 NTS



**7 SWALE SECTION**  
 C-7 NTS



**9 TYPICAL CONTRACTION (WEAKENED PLANE) JOINT IN CONCRETE SLAB ON GRADE**  
 C-7 NTS



**10 TYPICAL EXPANSION JOINT IN CONCRETE SLAB ON GRADE**  
 C-7 NTS

**WINZLER & KELLY**  
 44 WEST WINDING  
 HONOLULU, GUAM  
 TEL: (671) 737-2700  
 FAX: (671) 737-2700  
 WWW: www.wk.com

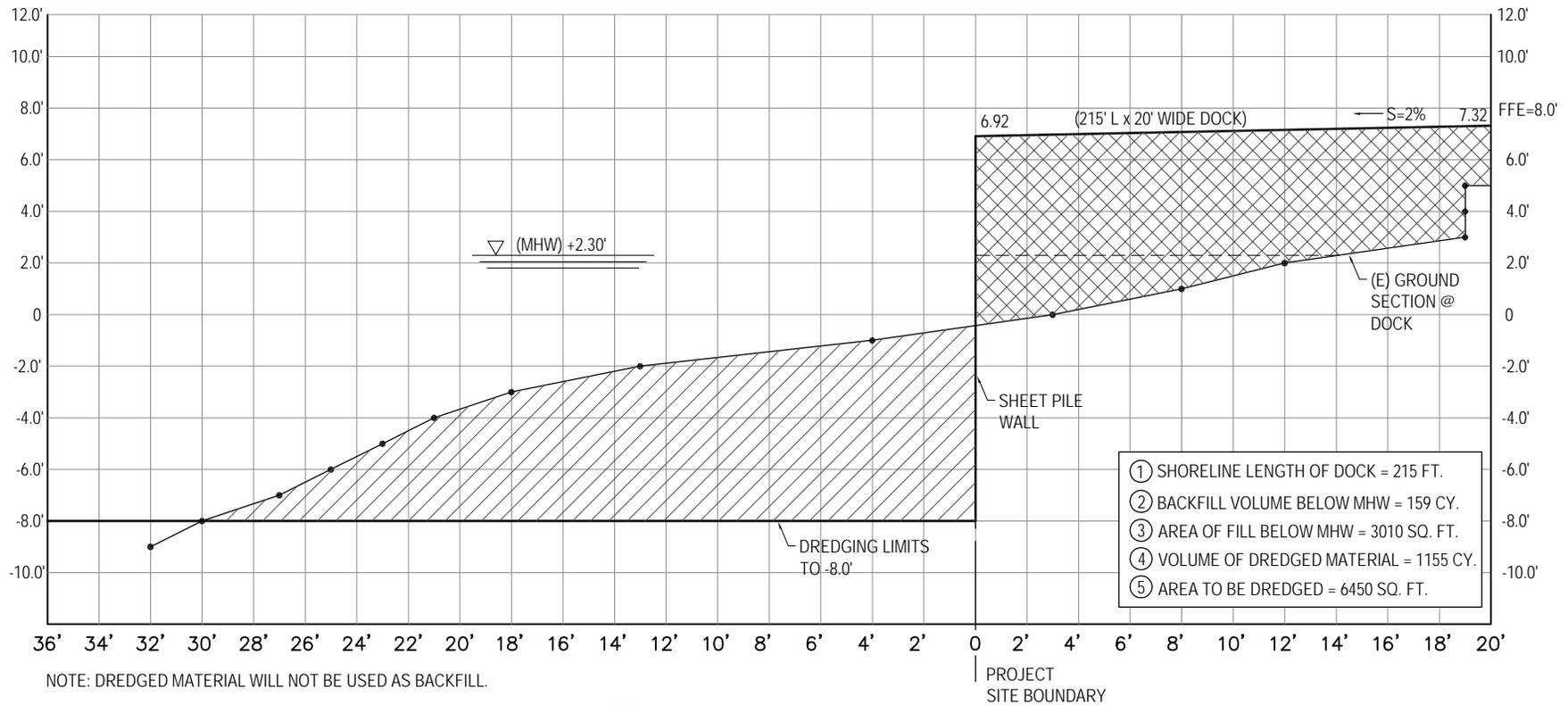
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 GUAM FISHERY COOPERATIVE  
 GUAM FISHERMAN'S COOP FACILITY  
 HAGATNA, GUAM, U.S.A.

**CLIENT TITLE:**  
 CIVIL DETAILS

**DATE:** AUG 28, 2008  
**EXPIRE:** 100% SUBMITTAL  
**DATE:**  
**REVISION:**  
 △ DATE:  
 △ DATE:  
 △ DATE:  
**DESIGNED BY:** JAL  
**DRAWN BY:** JAL  
**CHECKED BY:** JAL  
**SCALE:** AS SHOWN  
**JOB NO.:** 20080001

**C-7**  
 0007 of

HIGHEST TIDE OBSERVED	= 3.30'
MEAN HIGHER HIGH WATER	= 2.40'
MEAN HIGH WATER	= 2.30'
MEAN TIDE LEVEL	= 1.45'
MEAN SEA LEVEL	= 1.40'
MEAN LOW WATER	= -0.60'
MEAN LOWER LOW WATER	= 0.0'
LOWEST TIDE OBSERVED	= -1.90'



SECTION A  
 FIG-2 NTS



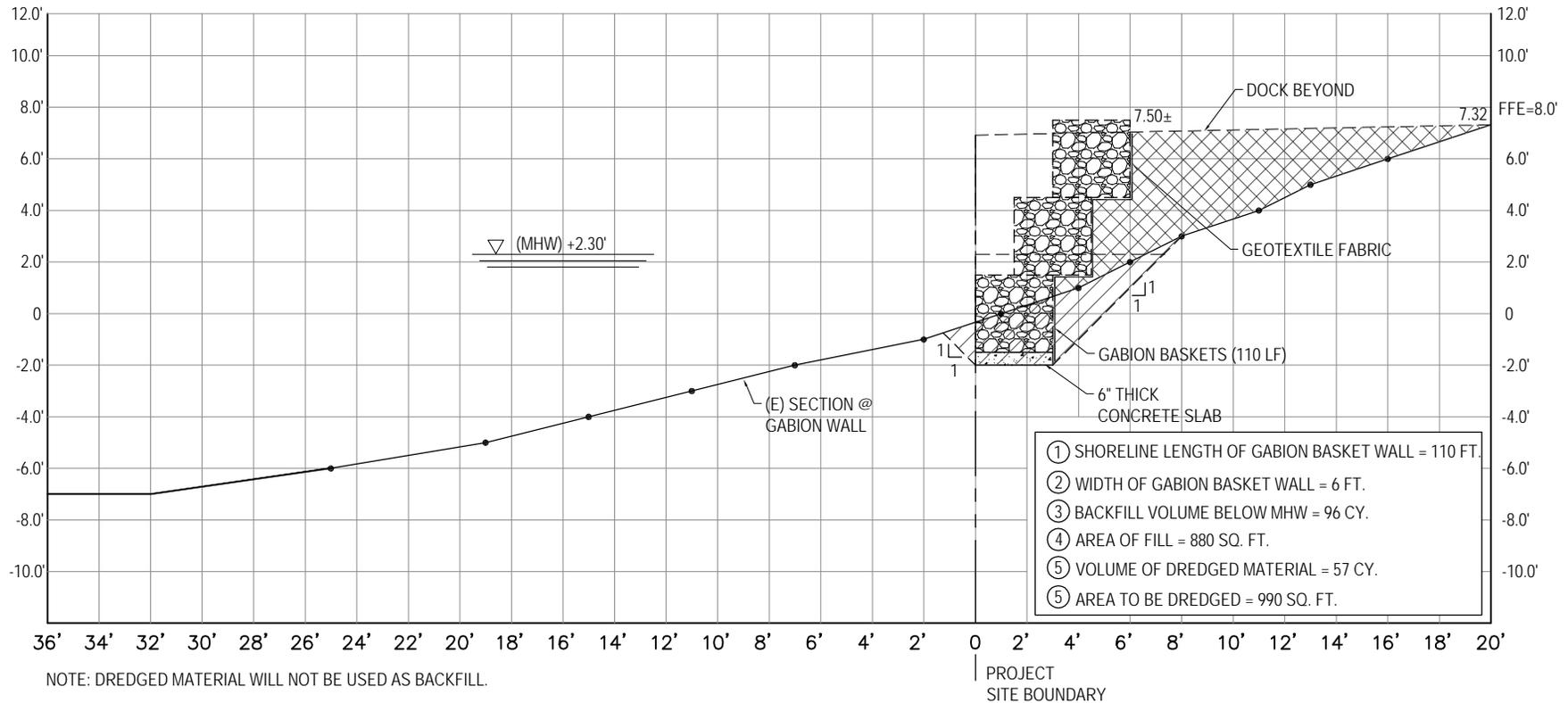
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 GUAM FISHERY COOPERATIVE  
 GUAM FISHERMAN'S COOP FACILITY  
 HAGATNA, GUAM, U.S.A.

SHEET TITLE:  
 SECTION @ DOCK



DATE:  
 DRAWN:  
 CHECKED:  
 DATE:  
 REVISIONS:  
 1 DATE:  
 2 DATE:  
 3 DATE:  
 4 DATE:  
 5 DATE:  
 COMMENTS:  
 DRAWN: JAL  
 CHECKED: PAB  
 SCALE: AS SHOWN  
 JOB NO.: 000000001

HIGHEST TIDE OBSERVED	= 3.30'
MEAN HIGHER HIGH WATER	= 2.40'
MEAN HIGH WATER	= 2.30'
MEAN TIDE LEVEL	= 1.45'
MEAN SEA LEVEL	= 1.40'
MEAN LOW WATER	= -0.60'
MEAN LOWER LOW WATER	= 0.0'
LOWEST TIDE OBSERVED	= -1.90'



- ① SHORELINE LENGTH OF GABION BASKET WALL = 110 FT.
- ② WIDTH OF GABION BASKET WALL = 6 FT.
- ③ BACKFILL VOLUME BELOW MHW = 96 CY.
- ④ AREA OF FILL = 880 SQ. FT.
- ⑤ VOLUME OF DREDGED MATERIAL = 57 CY.
- ⑥ AREA TO BE DREDGED = 990 SQ. FT.

**SECTION B**  
 FIG-3 NTS



PROJECT TITLE:  
 GUAM FISHERY COOPERATIVE  
 GUAM FISHERMAN'S COOP FACILITY  
 HAGATNA, GUAM, U.S.A.

INSERT TITLE:  
**SECTION @ GABIONS**



DATE:  
 DRAWN:  
 DATE:  
 CHECKED:  
 DATE:  
 PERMITTED:  
 DATE:  
 COMMENTS:  
 DRAWN: JAL  
 CHECKED: PAB  
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