

US Army Corps Of Engineers Wilmington District

PUBLIC NOTICE

Issue Date: March 14, 2013 Comment Deadline: April 15, 2013 Corps Action ID #: SAW-2013-00455

The Wilmington District, Corps of Engineers (Corps) has received an application from the U.S. Army Reserve Center (USARC) in Morehead City, attn: DPW. Frank D. Eubanks, seeking Department of the Army authorization to improve the USARC docking facility by constructing a new pier and extending an existing pier in the navigable waters of the Newport River. The Reserve Center is located at 410 Fisher Street with site coordinates at 34.7230°N, -76.7074°W, in Morehead City, Carteret County, North Carolina.

Specific plans and location information are described below and shown on the attached plans. This Public Notice and all attached plans are also available on the Wilmington District Web Site at

http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram.aspx.

Applicant:	United States Army-81 st Regional Command Center Attn: DPW Frank. D Eubanks 1525 Marion Avenue Fort Jackson, South Carolina 29207
Agent (if applicable):	OTAK Group, Inc. Attn: John Kato 96126 MT Zion Loop Yulee, Florida 32097
Authority	

Authority

The Corps will evaluate this application and decide whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of Section 10 of the Rivers and Harbors Act.

Location

The U.S. Army Reserve Center is adjacent to the Newport River and is located at 410 Fisher Street with site coordinates at 34.7230°N, -76.7074°W, in Morehead City, Carteret County, North Carolina. It is bordered to the east by the Yacht Basin, to the south by multi-use commercial development, to the west by residential development and coastal waters, and the Newport River to the north.

Existing Site Conditions

The USARC Morehead City with a training facility, shop facility, parking lot, boat ramp, bulk land storage areas, and two docks currently exist onsite. All infrastructures, such as the main road network and utility lines, within the 5.2-acre project site are in place and were previously constructed. Site conditions consist of mainly non-wooded areas and maintained lawn areas containing various types of vegetation and groundcover. Over 900 linear feet of existing coated sheet pile bulkheads are located on the north and east side of the project site. The site is located on the Newport River, a Section 10 navigable water of the U.S.

According to the United States Department of Agriculture Soil Survey of Carteret County (April 1987), the site consists of the following soil: Leon-Urban land complex which consists of nearly level to gently sloping poorly drained Leon soil and Urban land at Morehead City, Beaufort, and Atlantic Air Station.

Applicant's Stated Purpose

<u>Basic</u>: The basic purpose is to maintain the U.S. Army's overall mission and training of Landing Craft Utility (LCU) vessels.

<u>Overall:</u> Specifically, the U.S. Army's purpose of the project is to repair and upgrade existing bulkheads, piers and docks, along with the addition of a new dock at the U.S. Army Reserve Center Facility to support the continued training and mission of Landing Craft Utility (LCU) vessels.

Project Description

The existing East Dock (see comments in existing conditions) is a 6-ft wide by 35-ft long (210 SF) timber dock connected to a 13-ft wide by 10-ft, 9-inch rectangular reinforced concrete mooring pier. The dock consists of timber decking, bracing, and supports, and is supported by reinforced concrete bents with timber piling. The mooring pier is a reinforced concrete structure supported by pre-stressed concrete piling. The proposed plan is to expand this structure by installing a second reinforced concrete mooring pier approximately 35 ft northeast of the existing mooring pier, and connect the two mooring piers with a 9-ft wide by 210-ft long concrete platform. The proposed concrete platform will provide an additional 210 SF of dock, and will be supported by the mooring piers. The finished elevation will remain the same and is +4.30 FT NAVD88. The proposed mooring pier shall be 11-ft, 3-inch square, contain a sea bollard, and will be supported by pre-stressed piling.

The proposed new LCU 2000 Pier is a 9-ft wide concrete dock with a deck area of 2,100 SF. The deck area will consist of concrete platforms (decking) that is supported by reinforced concrete bents with pre-stressed concrete piling. The deck area shall connect to six (6) reinforced concrete berthing piers and pile cap structures. These structures are

to be supported by pre-stressed concrete piling. The proposed berthing piers shall be 11ft, 9-inch square, and each contains a single Type II sea bollard. The proposed pile cap piers shall be 16-ft wide by 10-ft, 6-inch long rectangular, with proposed concrete decking lying on the top of the pile cap. The finished elevation shall be +6.50 FT NAVD88. Also, new 7-pile timber dolphins shall be installed in the locations indicated to better protect the new pier. Figure 10, in the attached plans, presents the proposed LCU 2000 Pier layout and an itemized construction schedule. It should be noted that wetlands and waters, subject to Section 404 of the Clean Water Act, will not be impacted by any of the proposed activities.

Additionally, plans include repairing and/or upgrading existing Bulkheads No.1 and No. 2 within the same footprint, and repairing the LCU 1600 Pier also within the same footprint.

Other Required Authorizations

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. Water Quality Certification may be required from the North Carolina Division of Water Quality.

This notice and all applicable application materials are being forwarded to the appropriate State agencies for review. The Corps will generally not make a final permit decision until the North Carolina Division of Water Quality (NCDWQ) issues, denies, or waives State certification required by Section 401 of the Clean Water Act (PL 92-500). The receipt of the application and this public notice combined with appropriate application fee at the North Carolina Division of Water Quality central office in Raleigh will constitute initial receipt of an application for a 401 Water Quality Certification. A waiver will be deemed to occur if the NCDWO fails to act on this request for certification within sixty days of the date of the receipt of this notice in the NCDWQ Central Office. Additional information regarding the Clean Water Act certification may be reviewed at the NCDWQ Central Office, 401 Oversight and Express Permits Unit: 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260. All persons desiring to make comments regarding the application for certification under Section 401 of the Clean Water Act should do so in writing delivered to the North Carolina Division of Water Quality (NCDWQ), 2321 Crabtree Boulevard, Raleigh, North Carolina 27604-2260 Attention: Mr. John Hennessy (NC Department of Transportation projects) or Ms Cyndi Karoly by April 15, 2013.

Coastal Area Management Act

The applicant has certified that the proposed work complies with and will be conducted in a manner that is consistent with the approved North Carolina Coastal Zone Management Program. Pursuant to 33 CFR 325.2 (b)(2) the Corps is, by this notice, forwarding this certification to the North Carolina Division of Coastal Management (NCDCM) and requesting its concurrence or objection. Generally, the Corps will not issue a Department of the Army (DA) permit until the NCDCM notifies the Corps that it concurs with the applicant's consistency certification.

Essential Fish Habitat

This notice initiates the Essential Fish Habitat (EFH) consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The Corps' initial determination is that the proposed project will not adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service.

Cultural Resources

The Corps has consulted the latest published version of the National Register of Historic Places and is not aware that any registered properties, or properties listed as being eligible for inclusion therein are located within the project area or will be affected by the proposed work. Presently, unknown archeological, scientific, prehistoric, or historical data may be located within the project area and/or could be affected by the proposed work.

Endangered Species

The Corps has reviewed the project area, examined all information provided by the applicant and consulted the latest North Carolina Natural Heritage Database. Based on available information, the Corps has determined pursuant to the Endangered Species Act of 1973, that the proposed project will have no adverse effect on federally listed endangered or threatened species or their formally designated critical habitat.

Evaluation

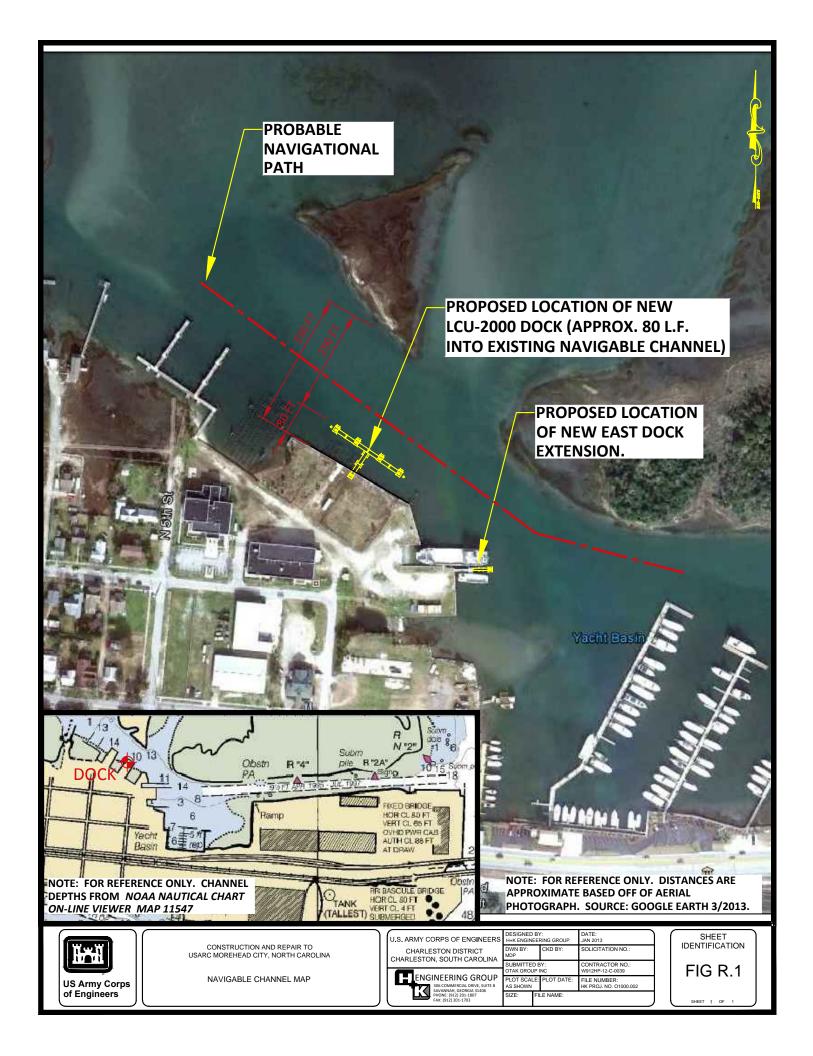
The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably 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, flood plain values (in accordance with Executive Order 11988), 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. For activities involving the discharge of dredged or fill materials in waters of the United States, the evaluation of the impact of the activity on the public interest will include application of the Environmental Protection Agency's 404(b)(1) guidelines.

Commenting Information

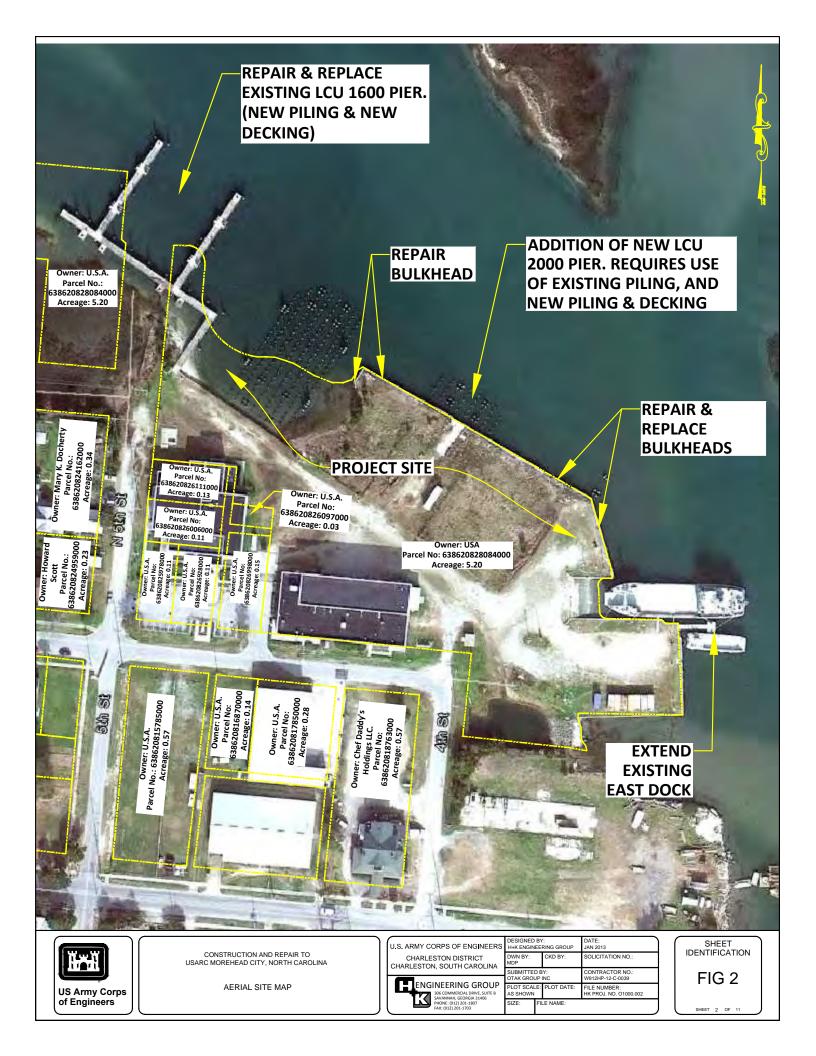
The Corps of Engineers is soliciting comments from the public; Federal, State and local agencies and officials, including any consolidate State Viewpoint or written position of the Governor; Indian Tribes and other interested parties in order to consider and evaluate the impacts of this proposed activity. 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. Comments are used in the preparation of an Environmental Assessment (EA) and/or an Environmental Impact Statement (EIS) pursuant to the National Environmental Policy Act (NEPA). Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

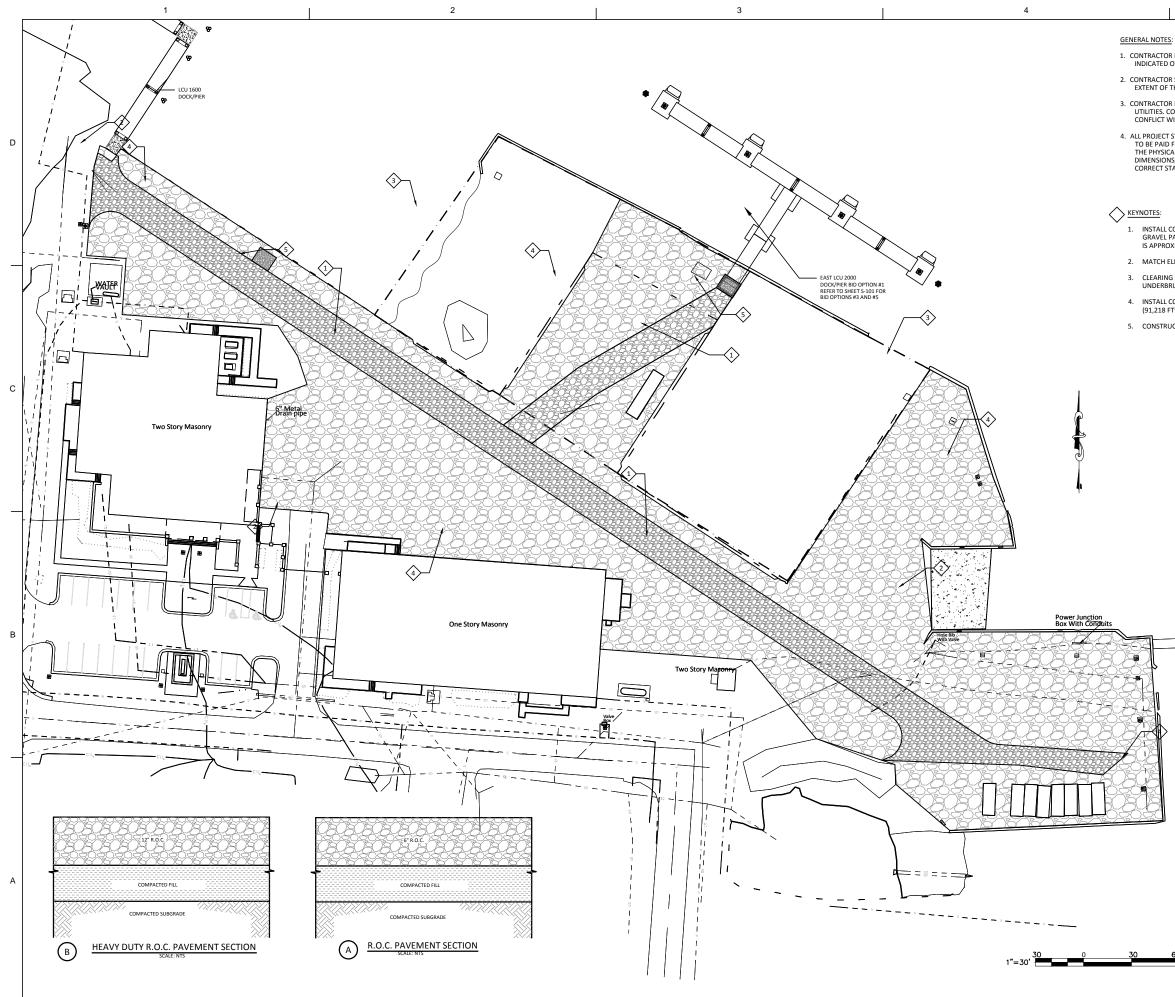
Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing. Requests for a public hearing shall be granted, unless the District Engineer determines that the issues raised are insubstantial or there is otherwise no valid interest to be served by a hearing.

Written comments pertinent to the proposed work, as outlined above, will be received by the Corps of Engineers, Wilmington District, until 5pm, April 15, 2013. Comments should be submitted to Christy Wicker, 69 Darlington Avenue, Wilmington, North Carolina, 28403-1398, telephone (910) 251-4637.









1. CONTRACTOR IS RESPONSIBLE FOR ALL WORK SHOWN, UNLESS SPECIFICALLY INDICATED OTHERWISE.

5

2. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF THE PROJECT.

3. CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND PROTECTING ALL UTILITIES. CONTACT THE CONTRACTING OFFICER IN THE EVENT THAT UTILITIES CONFLICT WITH NEW FACILITIES.

4. ALL PROJECT STAKEOUT SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR TO BE PAID FOR BY THE CONTRACTOR. FOR STAKEOUT, DO NOT RELY SOLELY ON THE PHYSICAL SCALE AS SHOWN IN DRAWINGS. REFER TO THE GIVEN DIMENSIONS, SYMBOL LEGEND, KEYNOTES, AND REFERENCED DETAILS FOR CORRECT STAKEOUT.

INSTALL COMPACTED FILL AND HEAVY DUTY 12" THICK RUN OF CRUSHER (R.O.C.) GRAVEL PAVEMENT FOR, 20 FOOT WIDE, GRAVEL ROAD AS SHOWN. GRAVEL ROAD IS APPROXIMATELY 18,606 FT².

2. MATCH ELEVATION OF EXISTING PAVEMENT.

3. CLEARING AND GRUBBING BOUNDARY. VEGETATION IS MOSTLY GRASS AND LIGHT UNDERBRUSH. GRADE FOR POSITIVE DRAINAGE TOWARDS RIVER.

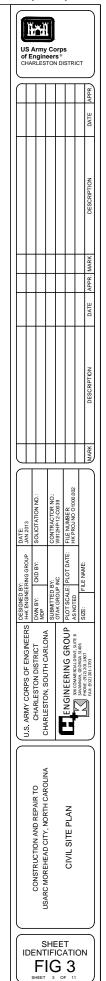
4. INSTALL COMPACTED FILL AND 6" THICK R.O.C GRAVEL. PAVEMENT AS SHOWN (91,218 FT²).

5. CONSTRUCT CONCRETE LANDING PADS AS PER STRUCTURAL DRAWINGS.



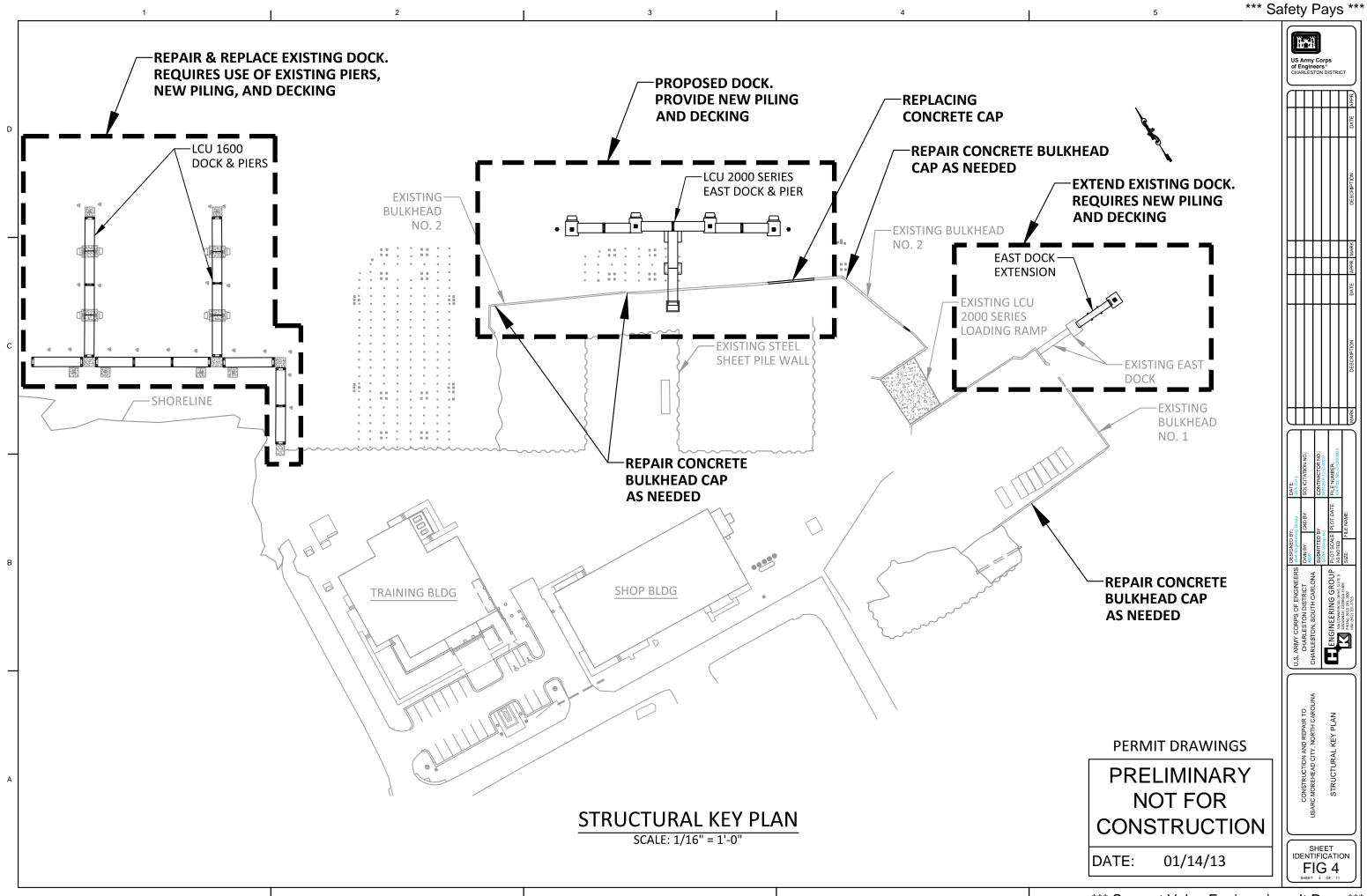


ROPERTY LINE DJACENT PROPERTY LINE ODA RIGHT-O-WAY ASEMENT LINE (DGC OF ASPHALT PAVEMENT DTCH LINE (E) MODS/BUSH LINE ENCE LINE OWNER LINE (OVERHEAD) OWNER LINE (OVERHEAD) ELEPHONE LINE (OVERHEAD) ELEPHONE LINE (OVERHEAD) ELEPHONE LINE (OVERHEAD) ELEPHONE LINE (OVERHEAD) ELEPHONE LINE (OVERHEAD) EVER ELINE (UNDERGROUND) ASATAR (UNDERGROUND) EVER ELINE (UNDERGROUND) ASATAR (UNDERGROUND
IGHT POLE
MALL TRANSFORMER
ARGE TRANSFORMER
OWER MANHOLE
SEWER MANHOLE
ANITARY SEWER CLEANOUT
ELEPHONE MANHOLE
ELEPHONE PEDESTAL
ABLE BOX
RAINAGE MANHOLE
RAINAGE INLET (GRATE)
x5' CONCRETE DRAINAGE JUNCTION BOX
VATER VALVE
VATER METER
IRE HYDRANT
SAS VALVE SAS METER QUARE FEET QUARE FEET QUARE FEET WISTING WISTING WISTING WISTING PYICAL INISHED FLOOR ELEVATION WIERT ELEVATION WIERT ELEVATION ROUND PENTRETING RADAR EMPORARY BENCHMARK (T.B.M.)
PERMIT DRAWINGS
PRELIMINARY
NOT FOR



CONSTRUCTION

DATE: 01/14/13



*** Support Value Engineering - It Pays ***



3

4

						Ā	T	П	П	Ē
							╋	╟╋	H	TE APPR
						an	\bot	Ш		DATE
STATION	Cialdada babi		HEAD 1 DEFECTS DEFECT DESCRIPT	-	Figure 5:	<u>Bulkhead 1 Repair P</u>		c 0039		DESCRIPTION
0+56			- 5' long x1' wide x 1'-4		_	But	╇			
0+96			- 1'-4"' long x1' wide x		_		+	L T	\square	R. MARK
1+05			- 2'-0"' long x1' wide x		_		+	12121		APPR.
1+20			- 1' long x1' wide x 9" o		_			CT NO.1		DATE
1+36	and stirrup ex		echanical spall 2'x1.5"	x4" deep with longitudinal bars			╋	CONTRACT	╁	╀
1+49	Concrete cap	- 1/8" wide di	agonal crack from imp	act damage						
1+55	Missing bolt for	or wale ancho	rage					2012		PTION
1+56	-		spall 1'x1.5'x1" deep							DESCRIPTION
1+66	Concrete Cap	– Mechanical	spall 7'x1.5'x1' deep					JECEMBER 2012		
1+75			spall 10'x6"x6" outbo	ard corner				ÍÏ		
1+82	-		spall 1'x9"x3" deep			Π	Τ	Π		MARK
1+85	Concrete Cap	– Open corro	sion spall 4'x6"x6" bot	tom outboard corner			Ť	\Box		
2+14				osed reinforcing (Photograph 10)			ö		0.002	
2+34	Concrete Cap – ½" wide transverse crack						N NOLLY	CTOR N	1BER: 0. 01000	
2+76	Concrete Cap – 4' long section of severely damaged cap					DATE: JAN 2013	SOLICITATION NC	CONTRACTO W912HP-12-C	FILE NUMBEF HK Proj. No. O	
2+76	Hole 13' behind bulkhead from bollard foundation pulled out of ground from mooring line.					37: 5	03	DATE:	Ψ	
2+84	Concrete Cap	ete Cap – Mechanical spall 3'x1.5'x1' deep				tY: Do Groun	CKD	Жара	: PLOT	FILE NAM
3+01	Concrete Cap	Concrete Cap – Mechanical spall 3'x1.'x3" deep				DESIGNED BY: H+K Encineering	DWN BY:	SUBMITTED OTAK Group 1	PLOT SCALE: I AS NOTED	ш ш
	ULKHEAD 1 8	& 2 - MAINT	ENANCE & REPAIR			OF ENGINEERS		U I H CARLONA	ING GROUP ERCIAL DRIVE, SUITE B	, GEORGIA 31406 2) 201-1807 201-1703
	REINF CONC WALL CAP	380 FT		BULKHEAD INVESTIGATION CHOL (PROJECT NO. 7787) DATED RFP PROJECT APPENDICES.		LIS ARMY CORPS	CHARLESTON	CMAKLEOLUN, oU		
				PERMIT DRAWIN PRELIMINA NOT FOR CONSTRUCT	RY			טאאלי איטאבודאט גיין, איטאים גאוטביא	BULKHEAD No. 1 REPAIR PLAN	

						ā			П	Ē
						H	╉		॑	E APPR
						an	Ш		\prod	DATE
STATION		BULKI	HEAD 1 DEFECTS DEFECT DESCRIPT	10N	Figure 5:	<u>Bulkhead 1 Repair P</u>				DESCRIPTION
0+56	Sinkhole behi	nd bulkhead –	5' long x1' wide x 1'-4	" deep		<u>likh</u>		C 0039		
0+96	Sinkhole behi	nd bulkhead –	1'-4"' long x1' wide x	8" deep	-	Ħ	+	1 T	Ħ	MARK
1+05	Sinkhole behi	nd bulkhead –	2'-0"' long x1' wide x	9" deep		H	+	91216	Ħ	APPR. N
1+20	Sinkhole behi	nd bulkhead –	1' long x1' wide x 9" c	deep		H	+		Ħ	
1+36	Corner of bulk and stirrup ex		echanical spall 2'x1.5'	x4" deep with longitudinal bars		$\left \right $	+	ITRACT NO. V	$\left \right $	DATE
1+49	Concrete cap	- 1/8" wide di	agonal crack from imp	act damage				CONTRA		
1+55	Missing bolt for	or wale ancho	rage					5017		DIION
1+56	Concrete Cap	– Mechanical	spall 1'x1.5'x1" deep							DESCRIPTION
1+66	Concrete Cap	– Mechanical	spall 7'x1.5'x1' deep					DECEMBER 2012		
1+75	Concrete Cap	– Mechanical	spall 10'x6"x6" outboa	ard corner						
1+82	· · ·		spall 1'x9"x3" deep			Π	Π		Π	MARK
1+85	Concrete Cap	– Open corros	sion spall 4'x6"x6" bot	tom outboard corner			\Box	\square		5
2+14	Concrete Cap – Moderate to severe damage, exposed reinforcing (Photograph 10)					ö	ö	002		
2+34	Concrete Cap – ½" wide transverse crack					N NOLLY	CTOR N 2-C-003	1BER: o. 01000		
2+76	Concrete Cap – 4' long section of severely damaged cap				-	DATE: JAN 2013	SOLICITATION NO	CONTRACT(W912HP-12-C	FILE NUMB HK Proj. No.	
2+76	mooring line.	behind bulkhead from bollard foundation pulled out of ground from line.			-	9	BY: S	03	DATE:	NME:
2+84			l spall 3'x1.5'x1' deep			0 BY: ering Gro	CKI	D BY:	LE: PLC	FILE NAM
3+01	Concrete Cap – Mechanical spall 3'x1.'x3" deep					DESIGNED BY: H+K Engineering	DWN BY:	SUBMITTEC OTAK Group	PLOT SCALE: I AS NOTED	Ú.
		2 - MAINT	ENANCE & REPAIR				_		٩L	912) 201-1807 SIL (912) 201-1807 SIL 2) 201-1703
111	M	QUANTIT	F							HONE: (912) 2C
2'-0" x 3'-3" BULKHEAD		380 FT	ESTIMATED QTY BASED ON REPORT BY MOFFATT & NIC 06/18/12 LOCATED IN THE	CHOL (PROJECT NO. 7787) DATED		U.S. ARMY CORPS	CHARLESTON			3
				PERMIT DRAWING PRELIMINAR NOT FOR CONSTRUCTI	Y		CONSTRUCTION AND REPAIR TO		BULKHEAD No. 1 REPAIR PLAN	

**	Safety	Pavs	***
	Jaicty	I dyo	

Ĩ US Army Corp of Engineers® CHARLESTON D

DATE: 01/14/13 SHEET IDENTIFICATION FIG 5 SHEET 5 OF 11

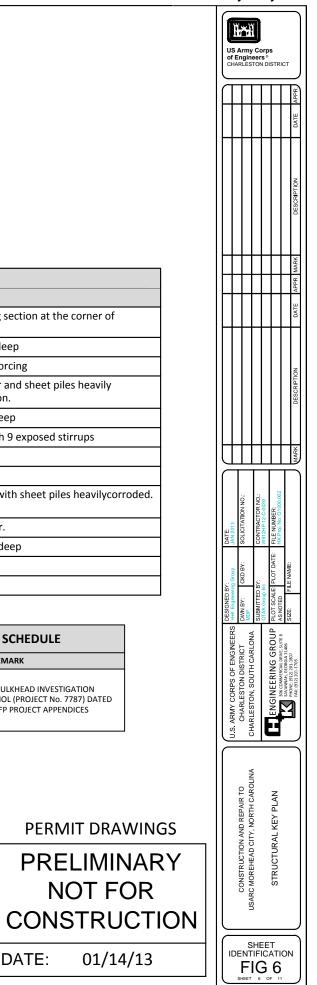


3

	BULKHEA
STATION	DEFECT DESCRIPTION
0+62	Concrete Cap – Heavy damage a bulkhead
0+62	Sinkhole behind bulkhead – 43' l
0+75	Concrete Cap – Severe damage v
0+87	Concrete Cap – Severe damage v corroded. Wall bowing outward
1+30	Sinkhole behind bulkhead – 7' lo
1+40	20' long section of mechanically
1+67	Concrete Cap – Mechanical Spall
1+67	Sinkhole behind bulkhead – 2' di
2+15	Concrete Cap – Completely dama Wall bowing outward around thi
3+73	Concrete Cap – Severe cracking
3+78	Sinkhole behind bulkhead – 15' l
4+85	Concrete Cap – Mechanical Spall
5+00	Concrete Cap – ¼" wide crack at

4

BULKHEAD 1 & 2 - MAINTENAN					
ITEM	QUANTITY				
2'-0" x 3'-3" REINF CONC BULKHEAD WALL CAP	380 FT	ESTIMA REPOR 06/18/			



D 2 DEFECTS

and cracking 4' long section at the corner of

long x 5'wide x 3' deep

with exposed reinforcing

with exposed rebar and sheet piles heavily l around this location.

ong x 3' wide x 3' deep

spalled corner with 9 exposed stirrups

ll 3' x 1' x 2' deep

liameter x 2' deep

naged and missing with sheet piles heavilycorroded. is location.

with exposed rebar.

long x 4' wide x 6' deep

all 3' x 1' x 3" deep

corner

NCE & REPAIRS SCHEDULE

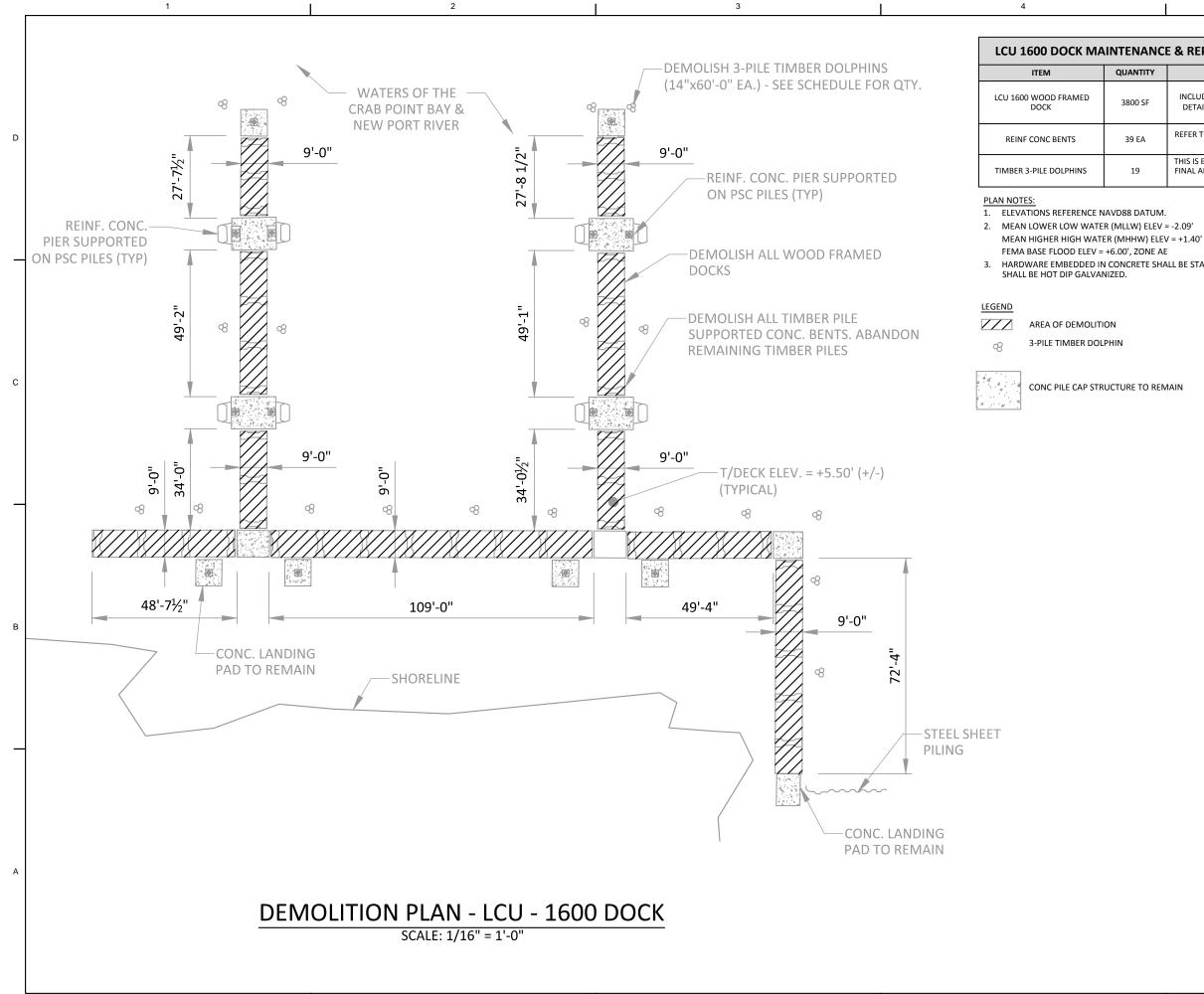
REMARK

/ATED QTY BASED ON BULKHEAD INVESTIGATION IRT BY MOFFATT & NICHOL (PROJECT No. 7787) DATED 8/12 LOCATED IN THE RFP PROJECT APPENDICES

DATE:

NOT FOR

01/14/13

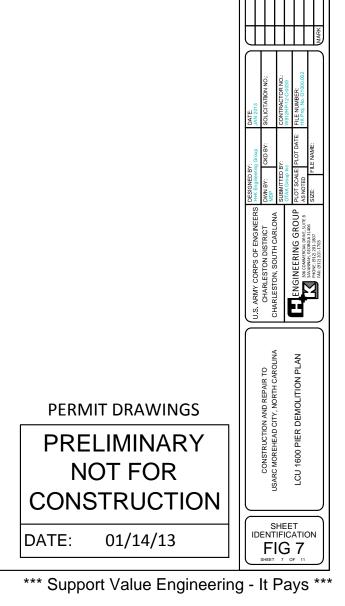


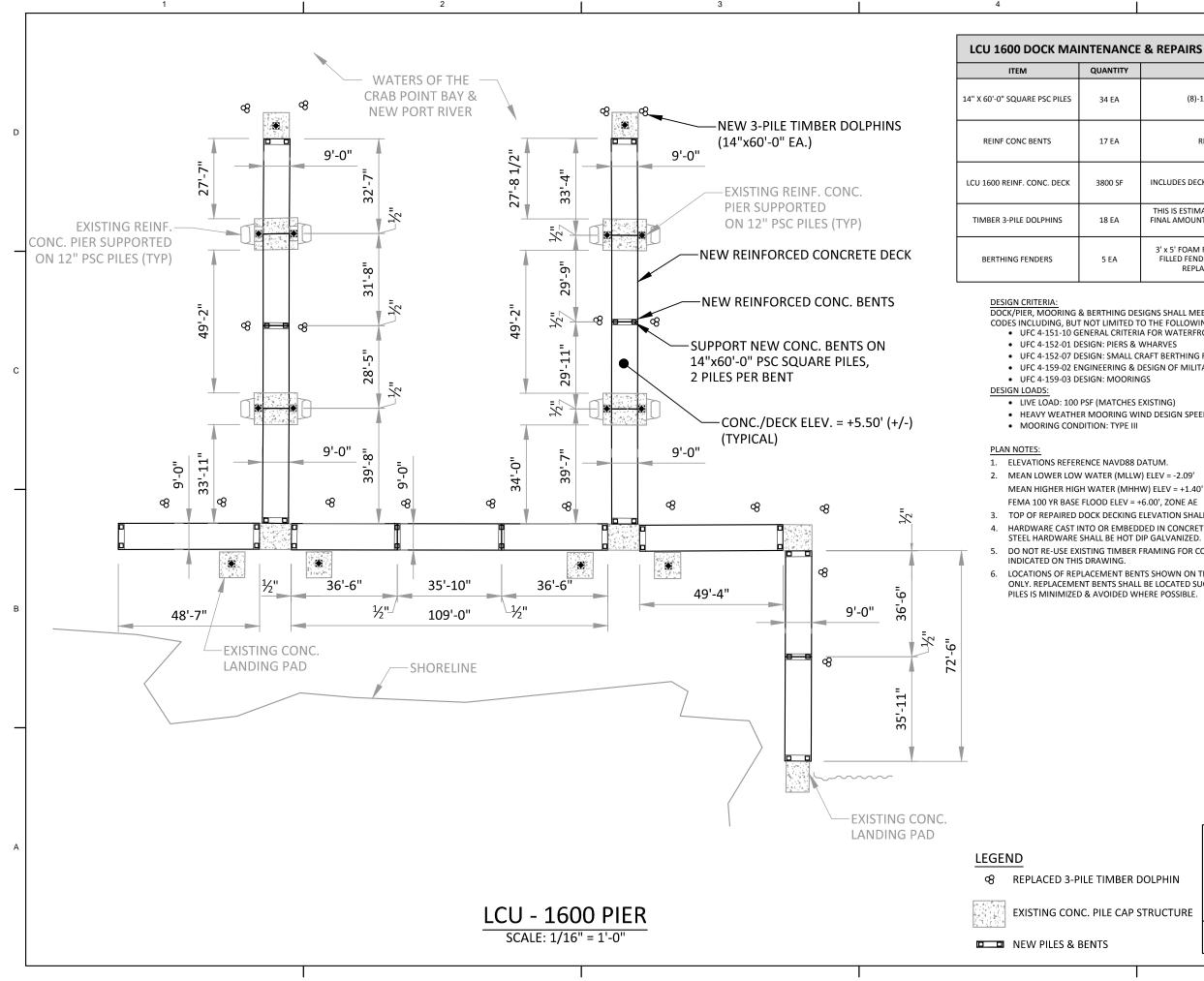
Ĭ

US Army Corps of Engineers® CHARLESTON DISTR

ANCE & REPAIRS - DEMOLITION SCHEDULE					
τιτγ	REMARK				
) SF	INCLUDES DECKING & BEAMS, REFER TO EXISTING DWG DETAIL B/PS-1 FOR DETAILS OF WOOD FRAMED DOCK				
ĒA	REFER TO EXISTING DWG SECTIONS AND DETAILS 1, 3, & D ON PS-8 FOR BENT DETAILS				
)	THIS IS ESTIMATED QTY OF DOLPHINS TO BE DEMOLISHED. FINAL AMOUNT SHALL BE VERIFIED DURING FINAL DESIGN PHASE				

3. HARDWARE EMBEDDED IN CONCRETE SHALL BE STAINLESS STEEL. ALL OTHER STEEL HARDWARE





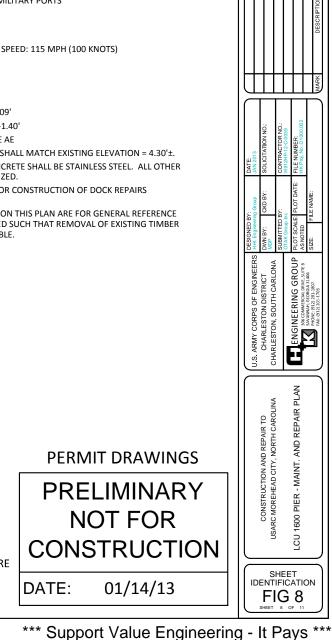
Ĭ

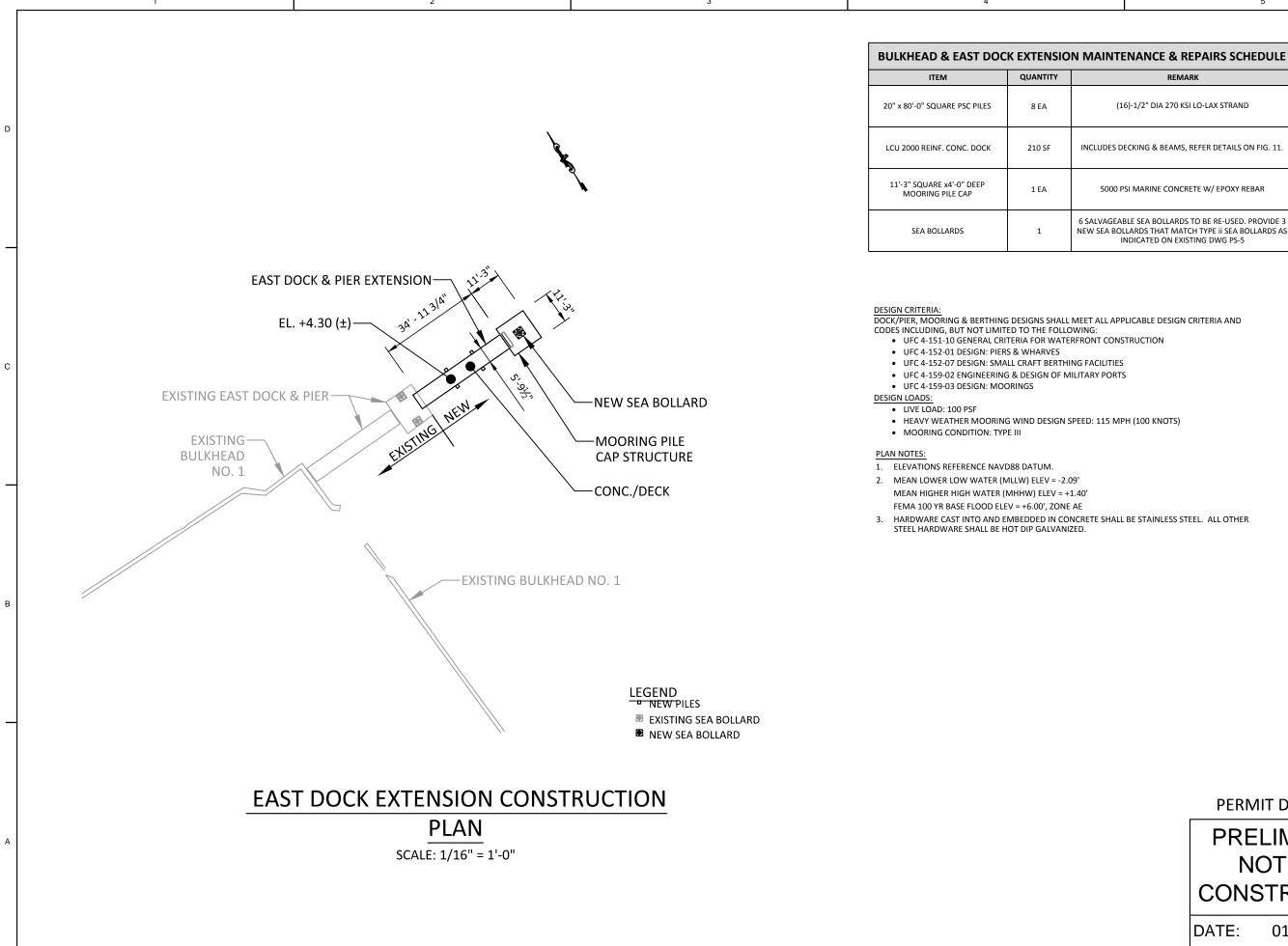
US Army Corps of Engineers® CHARLESTON DISTRIC



REMARK					
(8)-1/2" DIA 270 KSI LO-LAX STRAND					
REFER TO DETAILS ON FIG. 11.					
INCLUDES DECKING & BEAMS, REFER DETAILS ON FIG. 11					
THIS IS ESTIMATED QTY OF DOLPHINS TO BE REPLACED. FINAL AMOUNT WILL BE VERIFIED DURING FINAL DESIGN PHASE					
3' x 5' FOAM FILLED FENDER (WHERE ORIGINAL FOAM FILLED FENDERS ARE MISSING, PROVIDE MATCHING REPLACEMENT FOAM FILLED FENDERS)					
REPLACEMENT FOAM FILLED FENDERS)					

- UFC 4-152-07 DESIGN: SMALL CRAFT BERTHING FACILITIES
- UFC 4-159-02 ENGINEERING & DESIGN OF MILITARY PORTS
- HEAVY WEATHER MOORING WIND DESIGN SPEED: 115 MPH (100 KNOTS)
- TOP OF REPAIRED DOCK DECKING ELEVATION SHALL MATCH EXISTING ELEVATION = 4.30'±. HARDWARE CAST INTO OR EMBEDDED IN CONCRETE SHALL BE STAINLESS STEEL. ALL OTHER
- DO NOT RE-USE EXISTING TIMBER FRAMING FOR CONSTRUCTION OF DOCK REPAIRS
- LOCATIONS OF REPLACEMENT BENTS SHOWN ON THIS PLAN ARE FOR GENERAL REFERENCE ONLY. REPLACEMENT BENTS SHALL BE LOCATED SUCH THAT REMOVAL OF EXISTING TIMBER





REMARK

(16)-1/2" DIA 270 KSI LO-LAX STRAND

INCLUDES DECKING & BEAMS, REFER DETAILS ON FIG. 11.

5000 PSI MARINE CONCRETE W/ EPOXY REBAR

6 SALVAGEABLE SEA BOLLARDS TO BE RE-USED. PROVIDE 3 NEW SEA BOLLARDS THAT MATCH TYPE II SEA BOLLARDS AS INDICATED ON EXISTING DWG PS-5

Ĩ US Army Corps of Engineers® CHARLESTON DISTRI NORTH PERMIT DRAWINGS DNSTRUCTION AN MOREHEAD CITY, PRELIMINARY EAST CONSTRUCTION

*** Support Value Engineering - It Pays ***

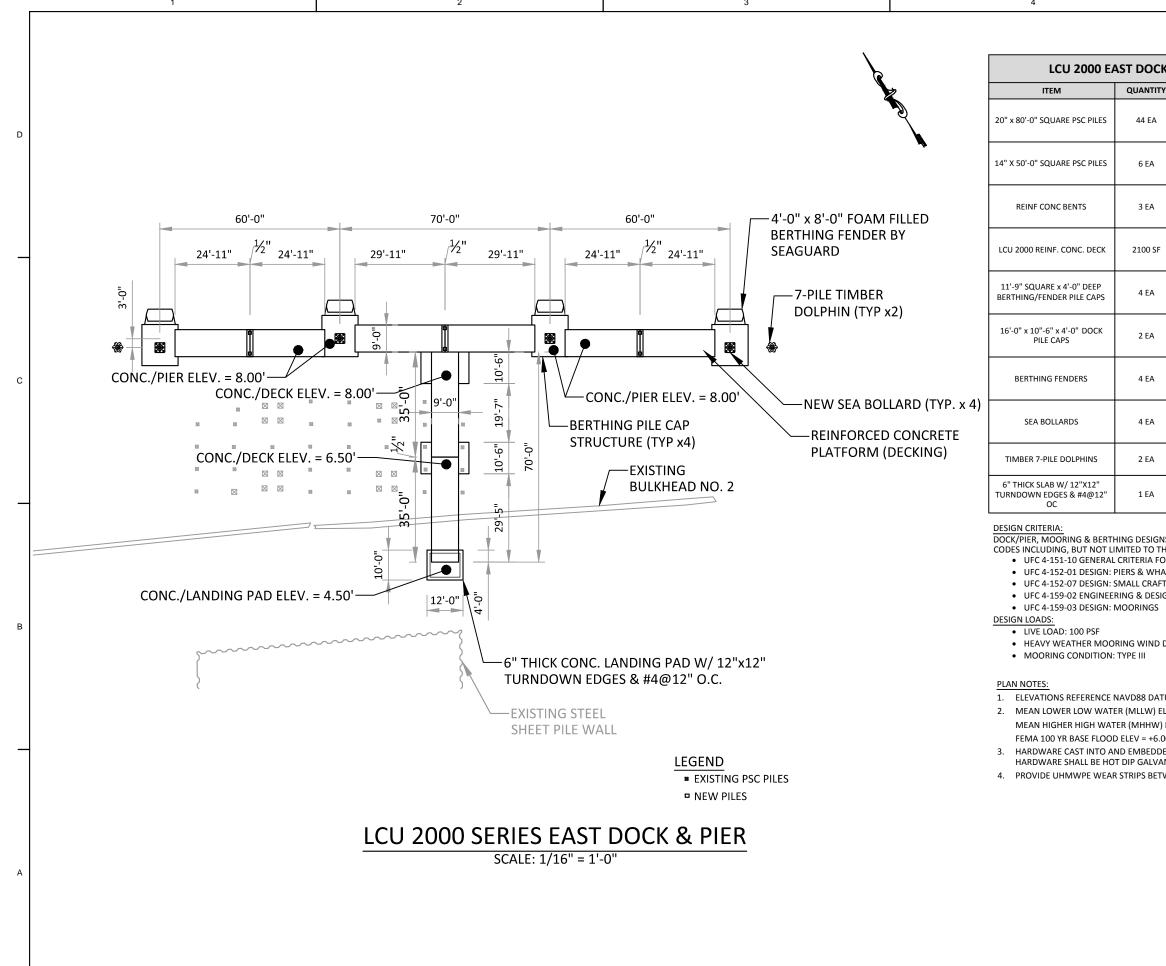
SHEET IDENTIFICATION

FIG 9

NOT FOR

01/14/13

DATE:



ĨŦŇ

						J		
к 8	PIER - NEW	WORK SCHEDULE		of E	Army Ingine RLES	ers	DISTRIC	т
Υ		REMARK		Ъ	Π	Т	Π	
	(16)-1	l/2" DIA 270 KSI LO-LAX STRAND		Ħ				DATE AP
	(8)-1	/2" DIA 270 KSI LO-LAX STRAND						
	R	EFER TO DETAILS ON FIG. 11.						DESCRIPTION
	INCLUDES DECKING & BEAMS, REFER TO DETAILS ON FIG. 11.							RK
	5000 PSI N	/ARINE CONCRETE W/ EPOXY REBAR						E APPR. MARK
	5000 PSI N	/ARINE CONCRETE W/ EPOXY REBAR		$\left \right $				DATE
	4'x8' FOAI	M FILLED FENDER BY SEAGUARD(TM)						DESCRIPTION
		SEA BOLLARDS TO BE RE-USED. PROVIDE 3 ARDS THAT MATCH TYPE II SEA BOLLARDS						DES
	R	EFER TO DETAILS ON FIG. 11.		H				MARK
		REINFORCED CONCRETE		$\left[\right]$	o	.0 0.6	0.002	\square
'HE F	HALL MEET ALL A OLLOWING: /ATERFRONT COI	PPLICABLE DESIGN CRITERIA AND	I	DATE: JAN 2013	SOLICITATION NO.	CONTRACTOR NO- W912HP-12-C-0039	E: FILE NUMBER: HK Proj. No. 01000	
ARVI	ES			Group	D BY:		OT DATE:	IAME:
	RTHING FACILITII OF MILITARY POR				BY: CKD	SUBMITTED BY: OTAK Group Inc	CALE: PLOT ED	FILE NAME
				DESIGNED BY H+K Engineering	DWN B'	SUBMIT OTAK G	PLOT SCALE: P AS NOTED	SIZE:
DES	GN SPEED: 115 N	ЛРН (100 KNOTS)		L CL	ICT RI ONA		GROUP VE, SUITE B	31406
				U.S. ARMY CORPS OF ENGINEE	CHARLESTON DISTRICT CHARLESTON SOLITH CARLONA		ENGINEERING GROU	SAVANNAH, GEORGIA 31406 PHONE: (912) 201-1807 FAX: (912) 201-1703
тим				CORPS	RLESTO TON SC		GINEE 306 COA	PHONE: FAX: (91:
) ELE	= -2.09' V = +1.40'			ARMY	CHAF		L.	Ľ
DED I		ALL BE STAINLESS STEEL. ALL OTHER STEEL			Ċ			\exists
ANIZI WEE		AND FOAM FILLED FENDERS.			٩N		LAN	
					LIR TO CAROLI		TION F	
		PERMIT DRAWING	SS		CONSTRUCTION AND REPAIR TO ISARC MOREHEAD CITY, NORTH CAROLINA		LCU 2000 PIER - CONSTRUCTION PLAN	
		PRELIMINAR	Y		FHEAD C		IER - C	
	NOT FOR				CONS. ISARC MOR		CU 2000 P	
		CONSTRUCTI	ON	Ĺ			Ľ	

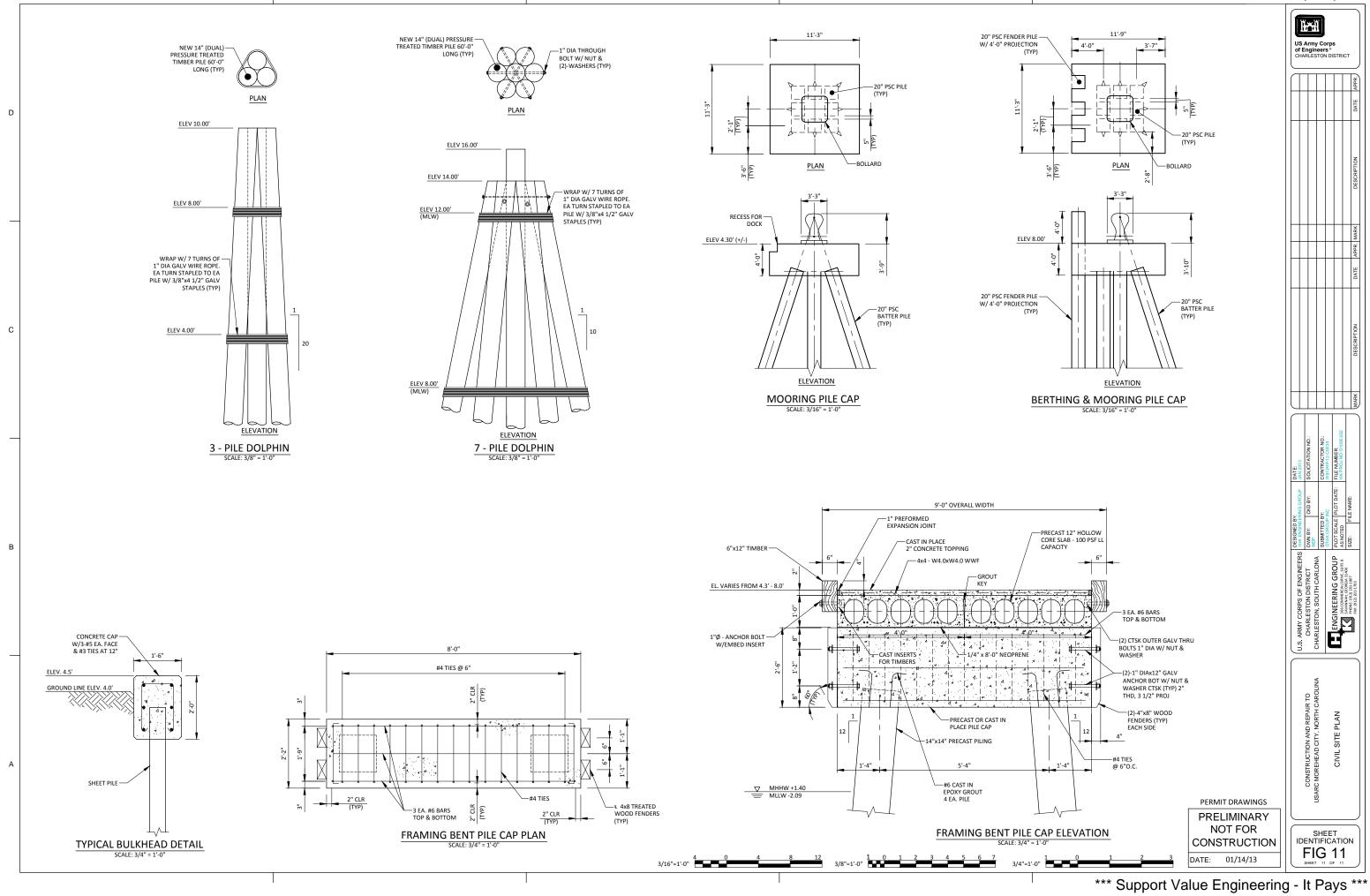
*** Support Value Engineering - It Pays ***

01/14/13

DATE:

SHEET IDENTIFICATION

FIG 10



*** Safety Pays ***