



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: December 1, 2005
Comment Deadline: December 16, 2005
Corps Action ID #: 200400985

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) has received an application for work within jurisdictional waters of the United States. 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 www.saw.usace.army.mil/wetlands

Applicant: Figure Eight Beach Homeowners Association
15 Bridge Road
Wilmington, North Carolina 28411

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 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899.

Location

The project site is located in Banks Channel, connecting channels and bays at the south end of Figure Eight Island, New Hanover County, North Carolina.

Existing Site Conditions and Project History

See enclosed "Narrative Description".

Applicant's Stated Purpose

The applicant has stated that the purpose of expanding the channel maintenance area will enable the re-use of shoaled areas for increased and improved use of existing navigation channels. The beach renourishment will enhance recreational usage of beach and help counter erosion processes.

Project Description

The Figure Eight Home Owners Association have requested Federal authorization to modify their original permit request and widen the maintained channel from 125 feet to

200 feet for a portion of the channel and enlarge the dredged area between the branches in the fork. Please review the enclosed drawings for the requested modifications (sheets C4, C5, and C6).

Other Required Authorizations

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 in the NCDWQ Central Office in Raleigh serves as application to the NCDWQ for certification. A waiver will be deemed to occur if the NCDWQ 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, Suite 250, Raleigh, North Carolina 27604-2260, Attention: Ms Cyndi Karoly by December 22, 2005.

The applicant has not provided to the Corps, a certification statement that his/her proposed activity 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 can not issue a permit for the proposed work until the applicant submits such a certification to the Corps and the North Carolina Division of Coastal Management (NCDCM), and 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 may adversely impact EFH or associated fisheries managed by the South Atlantic or Mid Atlantic Fishery Management Councils or the National Marine Fisheries Service. These impacts to EFH include destruction of habitat at the borrow and fill site, siltation plums, erosion and sedimentation issues, time frame work is performed (fish moratoriums) and water quality issues.

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 there may be species listed as threatened or endangered or their critical habitat formally designated pursuant to the Endangered Species Act of 1973 (ESA) within the project area. A final determination on the effects of the proposed project will be made upon additional review of the project and completion of any necessary biological assessment and/or consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service.

Evaluation

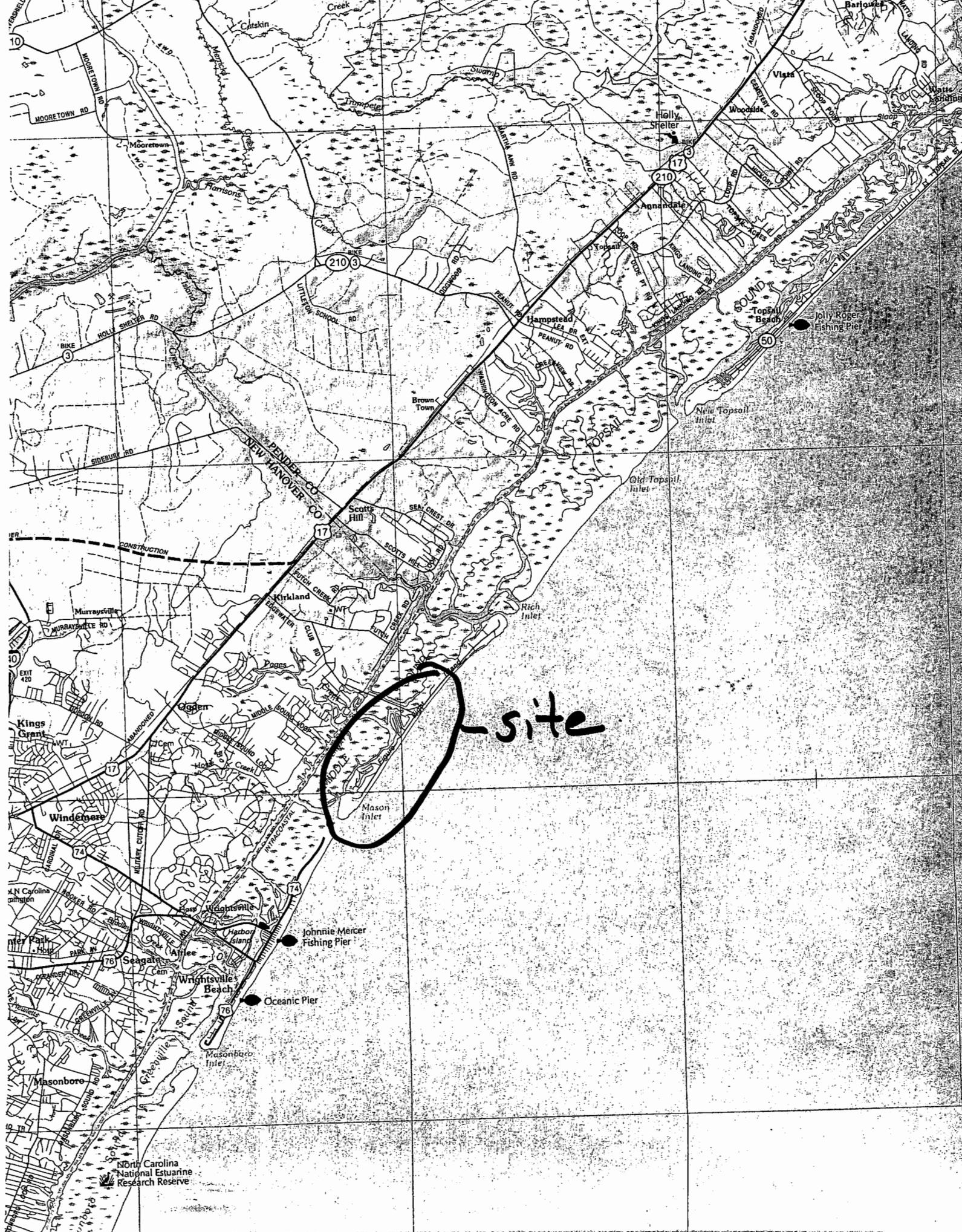
The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably 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 is soliciting comments from the public; Federal, State and local agencies and officials; 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 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, December 16, 2005. Comments should be submitted to Henry Wicker, Project Manager for this project.



NARRATIVE DESCRIPTION

MAINTENANCE DREDGING (BANKS CHANNEL) AND BEACH RE-BUILDING FIGURE EIGHT ISLAND, NORTH CAROLINA

Background

The small boat and navigation access channels which connect Banks Channel and connecting bays with the Atlantic Intracoastal Waterway (AIWW) have shoaled and shifted since Hurricanes Fran and Bertha in 1996, Bonnie in 1998, and Dennis and Floyd in 1999, making navigation difficult and dangerous. Correspondingly, the oceanfront of Figure Eight Island has suffered an accelerated rate of erosion, depleting material on the open beach and seriously eroding the primary dunes on the upper beach in this area.

The proposed project is for the maintenance of the navigation channel and the rebuilding of the ocean beaches on the southern portion of Figure Eight Island. The area to be dredged is the same area previously dredged in prior projects with the possible exception of a portion of the channel that connects Banks Channel to the Atlantic Intracoastal Waterway ("Waterway Connector Channel"). There is no known documentation of whether this connector channel has been dredged, but it has been continuously used for navigation since Figure Eight was developed beginning in the mid-to-late 1960s. The channel existed as a natural channel prior to the 1960s and its use by fishermen, hunters and other recreational users prior to the development of Figure Eight is known to older residents of the area. This navigation channel currently serves as the only viable connector to the Intracoastal Waterway for 197 sound side property owners. An 800' section of the connector channel beginning at the AIWW has been previously dredged. The remaining portion of the waterway connector is approximately 2,900'.

The history of permits for the navigation channel is set forth in Attachment B to Form MP-1. The history discloses that much of the navigation channel was dredged during the original development in 1969 with a 300' authorized width and a -18' authorized depth. A small project by consortium of homeowners was implemented in 1985 primarily for the purpose of obtaining sand for an experimental beach protection project.

The original 1992 permit authorized the dredging of a 125' x 5,500' channel behind the southern end of Figure Eight with the southern extent of dredging extending to the 1992 location of Mason Inlet. The 1992 project was twice modified. The first modification added the entrances to the two lagoons. The second modification extended the project northward to cover all of Banks Channel as well as an 800' long area where the waterway connector meets the AIWW. In 1992 Mason Inlet was located slightly farther south than its current location.

The permit apparently allowed connection of the southern end of the channel to the throat of Mason Inlet, but the actual dredging stopped a few hundred feet north due to lack of funds and contractual commitments.

The 1998 permit allowed dredging in the same location and to the same dimensions as the modified 1992 permit with the exception that the dredging was terminated 200' south of the southern lagoon rather than extending southward to the 1992 location of Mason Inlet. The 1998 permit also allowed wider and deeper connections between the two lagoons and Banks Channel. Figure Eight did the work authorized in the '98 permit but dredged only -6' MLW due to an agreement with Shell Island Resort. All of the prior projects resulted in disposal of the dredged sand on the ocean beaches of Figure Eight south of the causeway. The 1969 permit may have also resulted in disposal of sand on upland areas other than the active ocean beach.

Project Description

Maintenance dredging is proposed in the sub-tidal shoal areas in the generally open water area of Banks Channel and the Waterway Connector Channel. There are one or two small areas where the shoal areas may be intertidal. Banks Channel and the Waterway Connector Channel are the primary navigation channels as well as the main hydraulic channels for the sound area behind Figure Eight. These channels have been relatively stable through the years but hurricane activity mentioned before, which had high water beach overwash along with storm-level erosion, created some redistribution of shore and bottom sediments. Also the long term instability of Mason Inlet as it migrated southward contributed to a higher level of sediments to the navigation channels. In 2002 the Inlet Relocation Project created another unstable condition at the inlet and its sediment basins and resulted in more sediments being fed into the navigation channel.

The creeks connecting to Banks Channel have been choked in some locations due to this higher level of sedimentation. This project will offer the additional benefit of restoring flows so as to allow natural processes to rechannel these creek mouths.

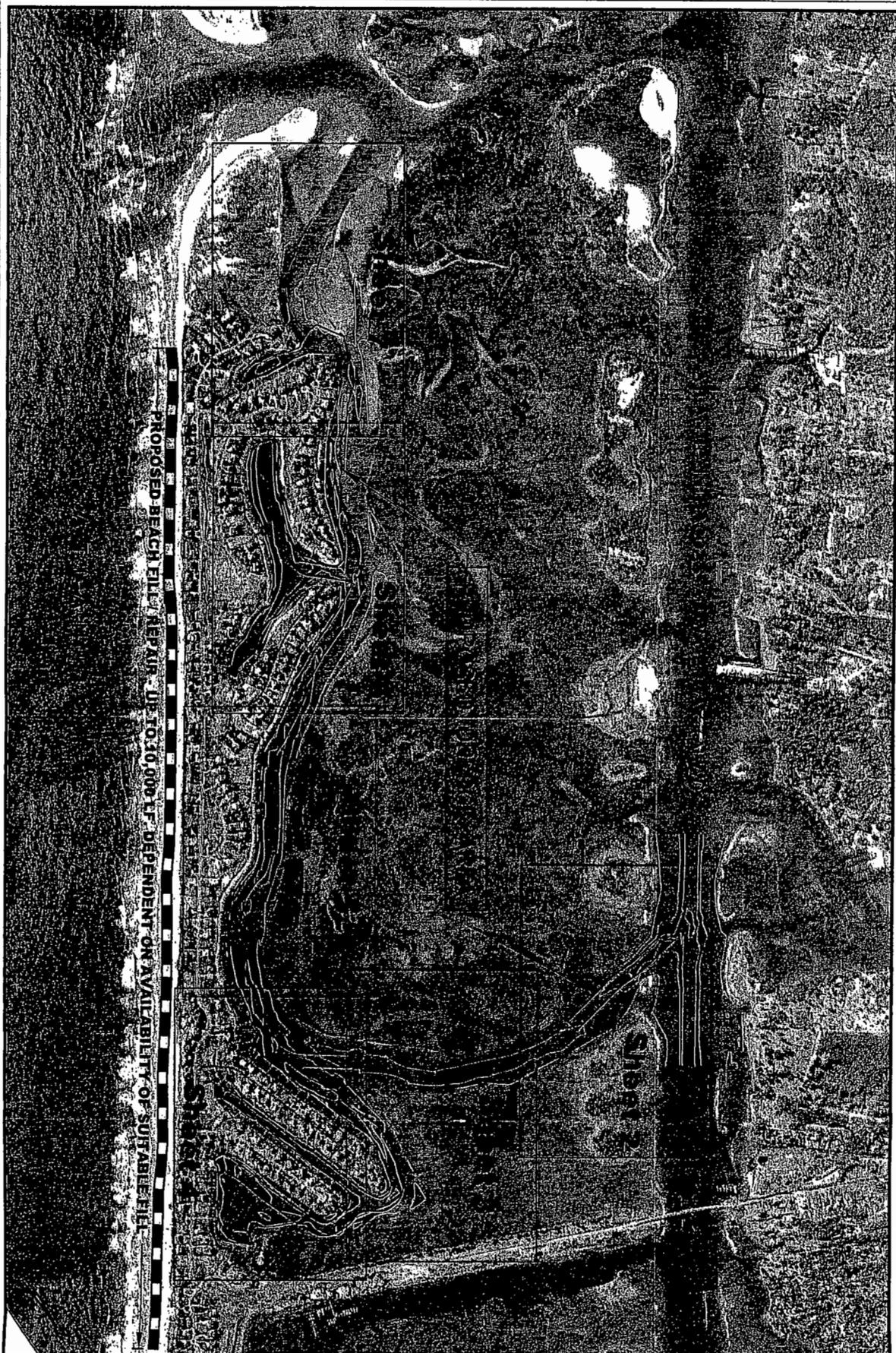
All of the sand materials removed will be discharged along approximately 10,000 linear feet of beachfront, extending from the southernmost lots northward. A transition adapted to the existing beach profile approximately 300 to 400 feet long will be provided at both ends of the beach fill. The basic dimensions of the beach fill will be to an elevation of approximately 9.5' mean sea level (MSL) with a berm width of at least 100'. The ocean side of the berm will be shaped to an approximately 20:1 slope between elevation 7 and -2.0' MSL (see sheets 1 and 3 of the permit application for sketches of beach fill location and proposed beach profile). It is estimated that approximately 230,000 cubic yards of medium to fine sand materials will be excavated from the proposed area to be dredged by hydraulic pipeline dredge. The material will be transported by the dredge pipeline and deposited along the beachfront using a temporary protective berm parallel to the shoreline to control the effluent run-off, ensuring maximum upland beach deposition of the material and minimizing turbidities within the surf zone.

All excavations are to be done by hydraulic pipeline dredge. All materials excavated will be pumped to selected beach locations to reconstruct the beach sections as described above. Pipeline corridors will be established to ensure that no marsh areas or sensitive vegetation will be crossed during the operation. All dredging will be done during the winter season when biological activities in both the sound and beach areas will be at a minimum.

Test borings and sand samples were taken during March 2004 along the length of the proposed channel maintenance dredging areas and on the ocean beach as shown on the sample location map of the attached report (Appendix 6a). The sampling and testing were done by an independent geotechnical contractor with one sample extracted from the near-bottom area and a second sample at -9 MLW. A grain size analysis of the materials sampled is attached hereto. Current visual observation of the areas to be dredged and visual observation of the material dredged in 1999 indicate that the current sediments are essentially the same as those dredged in 1993 and 1999. Five additional samples were taken during Nov. 05 in the proposed widener and the soil characteristics are similar to those below.

The median grain size has been compared for all of the sample locations and are tabulated as follows:

SAMPLE	DEPTH		
	SURFACE	EXIST. BOTTOM	-9 MLW
B-1	0.23		
B-2	0.25		
B-3	0.23		
B-4	0.35		
S-1		0.19	0.22
S-2		0.38	0.25
S-3		0.20	0.20
S-4		0.20	0.18
S-5		-	0.19
S-6		0.14	0.39
S-7		0.20	0.24
S-8		-	0.18
S-9		0.19	0.13
S-10		0.19	0.18
S-11		0.18	0.20
S-12		-	0.18
S-13		-	0.20
S-14		-	0.18
S-15		-	0.17
S-16		0.19	-
S-17		0.13	-
S-18		Silt	0.22
S-19		-	0.16
S-20		-	Silt



PROPOSED BEACH FILL REPAIR - UP TO 30,000 FT. DEPENDENT ON AVAILABILITY OF SUSTAINABLE FILL

LEGEND

PROPOSED CHANNEL
 EXISTING CHANNEL
 EXISTING 1/2" = 100'

CRISER & TROUTMAN CONSULTING ENGINEERS
 3809 PEACHTREE AVENUE, SUITE 102
 WILMINGTON, NORTH CAROLINA 28403
 (910) 397-2929 Fax (910) 397-2971

MAINTENANCE DREDGE - BANKS CHANNEL
 FIGURE B ISLAND
OVERALL SITE PLAN AND INDEX

SURVEY BY:
GBA
Geotechnical & Environmental
 Cahagan & Bryant Associates
 7217 Unit 113 Ogden Business Lane
 Wilmington, NC 28411

Survey Date: 12/12/03
 Vertical Datum: MLW BPT

REVISIONS	
DATE REV. NO.	COMMENT

DESIGNED BY:	CED
DRAWN BY:	HWL
QUALITY CONTROL:	CED
SCALE:	N.T.S.
FILE NUMBER:	5272
DATE:	4/15/04
SHEET NO.	C1 OF ___



10-H-0
 CHANNEL
 PROPOSED CHANNEL
 EXISTING CHANNEL
 PROPOSED CHANNEL
 ABOVE EL. +4'
 EL. +4' CHANNEL LINE
 (SEE CROSS SECTIONS)



**CRISER & TROUTMAN
 CONSULTING ENGINEERS**
 3809 PEACHTREE AVENUE, SUITE 102
 WILMINGTON, NORTH CAROLINA 28403
 (910) 397-2929 FAX (910) 397-2971

MAINTENANCE DREDGE - BANKS CHANNEL
 FIGURE B ISLAND
ENLARGED SITE PLAN

SURVEY BY:
GBA
 Gohagan & Bryant Associates
 7217 WIL 113 Oyster Business Lane
 Wilmington, NC 28411
 Survey Date: 12/12/03
 Vertical Datum: MLLW BFT
 SCALE: 1" = 200'

REVISIONS		DESIGNED BY: CED
DATE	COMMENT	DRAWN BY: HWL
11/10/08	REVISED BRIDGE LIMITS	QUALITY CONTROL: CED
		SCALE: AS SHOWN
		FILE NUMBER: 5272
		DATE: 4/15/04
		SHEET NO.
		C4 OF —



10-00
 CROSS SECTION
 (SEE CROSS SECTION)

LEGEND

PROPOSED MAINTENANCE DREDGE CHANNEL
 PROPOSED CHANNEL ABOVE EL. +1'
 PROPOSED CHANNEL BELOW EL. +1'
 PROPOSED CHANNEL EL. +4' CENTER LINE
 PROPOSED CHANNEL EL. +4' CENTER LINE (SEE CROSS SECTION)



CRISER & TROUTMAN CONSULTING ENGINEERS
 3809 PEACHTREE AVENUE, SUITE 102
 WILMINGTON, NORTH CAROLINA 28403
 (910) 397-2929 FAX (910) 397-2971

MAINTENANCE DREDGE - BANKS CHANNEL
 FIGURE 8 ISLAND
 ENLARGED SITE PLAN

SURVEY BY:
GBA
 Cochran & Bryant Associates
 7217 Unit 113 Ogden Business Lane
 Wilmington, NC 28411

Survey Date: 12/12/03
 Vertical Datum: MLW BFT
 SCALE: 1" = 200'

REVISIONS	
DATE	COMMENT
1/10/05	REVISED DREDGE LIMITS

DESIGNED BY: CED
 DRAWN BY: HWL
 QUALITY CONTROL: CED
 SCALE: AS SHOWN
 FILE NUMBER: 5272
 DATE: 4/15/04
 SHEET NO.
C5 OF



104-00
 LEGEND
 PROPOSED CHANNEL
 EXISTING CHANNEL (125' WIDE)
 AREA OF EXISTING CHANNEL
 PROPOSED CHANNEL
 ABOVE EL. 44'
 EL. 44' CENTER LINE
 CROSS SECTION

SEAL
 NORTH Carolina PROFESSIONAL ENGINEER
 CHARLES EDWARD DAVIS
 2861

CRISER & TROUTMAN
CONSULTING ENGINEERS
 3809 PEACHTREE AVENUE, SUITE 102
 WILMINGTON, NORTH CAROLINA 28403
 (910) 397-2929 FAX (910) 397-2971

MAINTENANCE DREDGE -- BANKS CHANNEL
 FIGURE 8 ISLAND
ENLARGED SITE PLAN

SURVEY BY:
GBA
 Gohagan & Bryant Associates
 7117 Oak 113 Office Building Lane
 Wilmington, NC 28411

Survey Date: 12/12/03
 Vertical Datum: MLW BFT

REVISIONS	
DATE	COMMENT
11/10/05	REVISED DREDGE LIMITS

DESIGNED BY: CED
 DRAWN BY: HWL
 QUALITY CONTROL: CED
 SCALE: AS SHOWN
 FILE NUMBER: 6272
 DATE: 4/15/04
 SHEET NO.
C6 OF ___

