



US Army Corps
Of Engineers
Wilmington District

PUBLIC NOTICE

Issue Date: July 9, 2015
Comment Deadline: August 24, 2015
Corps Action ID Number: SAW-2006-41158

All interested parties are hereby advised that the Wilmington District, Corps of Engineers (Corps) is releasing the Supplemental Environmental Impact Statement (SEIS) for the project, known as Figure Eight Island Shoreline Management Project, with plans to install a terminal groin structure along the southern shoulder of Rich Inlet and to conduct a supplemental beach nourishment on approximately 4,500 linear feet of oceanfront beach and 1,400 linear feet of back barrier shoreline on Figure Eight Island, in New Hanover County, North Carolina. Specific details and location information are described below and shown on the attached plan. The SEIS has been placed on our webpage, and can be found at

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/MajorProjects>, click on "Figure Eight Island Terminal Groin Project: Corps ID # SAW-2006-41158".

Applicant: Figure "8" Beach Homeowners Association, Inc.
C/o: Mr. David Kellam (Administrator)
15 Bridge Road
Wilmington, North Carolina 28411

Engineer Consultant: Coastal Planning & Engineering-NC, Inc.
A Shaw Group Company
C/o: Mr. Tom Jarrett
4038 Masonboro Loop Road
Wilmington, North Carolina 28409

Authority

The Corps evaluates this application and decides whether to issue, conditionally issue, or deny the proposed work pursuant to applicable procedures of the following Statutory Authorities:

- Section 404 of the Clean Water Act (33 U.S.C. 1344)
- Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)
- Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

Location

The project site is located on the northern portion of Figure Eight Island and within the Rich Inlet Complex, and will encompass approximately 1.0 mile of oceanfront shoreline, and 1,400 linear feet of back barrier shoreline on Figure Eight Island, New Hanover County, North Carolina.

Nearest Town: Wilmington

Nearest Waterway: Atlantic Ocean, Nixon Channel, Green Channel, and the Intracoastal Waterway

Latitude and Longitude: 34-491833 N, 77-419735 W

Existing Site Conditions

Figure Eight Island is an unincorporated privately developed island just north of Wrightsville Beach. It is bordered to the south by Mason Inlet and to the north by Rich Inlet, to the west by the Intracoastal Waterway, and to the east by the Atlantic Ocean. Rich Inlet and Nixon Channel is the established county boundary of New Hanover and Pender. The island is a typical barrier island that has undergone a variety of natural and anthropogenic changes. The majority of the residential island has been developed; and over two decades, authorization has been granted to Figure “8” Beach Homeowners Association (HOA) and to separate individual property owners for various activities, such as dredging, beach bulldozing, and shoreline nourishment, within waters of the U.S. Currently, there are (19) waterfront residential structures that are temporarily protected by sandbag revetments.

Applicant’s Stated Purpose

The stated purpose of the project is to develop a management plan for the central and northern portion of Figure Eight Island so as to preserve the integrity of its infrastructure, provide protection to existing development, and ensure the continued use of the oceanfront beach.

Figure Eight Beach HOA has addressed the continuing oceanfront erosion problems associated with Rich Inlet and Nixon Channel erosion hot-spot on the estuarine side of the island over the past several decades. Past actions to protect the shorelines have provided some protection, however they are seeking a longer term solution to handle shoreline erosion in order to protect the island’s \$907,352,900 (based on the 2012 reappraisal) assessed property tax value. Their stated needs of the project continue to be the following: 1) Reduce erosion along approximately 2.3 miles of oceanfront and 0.34 miles of back barrier shorelines, 2) Provide reasonable short-term protection to residential structures to any unpredicted shoreline change over the next five years, 3) Provide long-term protection to homes and infrastructure over the next 30 years, 4) Maintain the tax value of homes, properties, and infrastructure, 5) Use beach compatible material, 6) Maintain navigation conditions within Rich Inlet and Nixon Channel, 7) Maintain

recreational resources, and 8) Balance the needs of the human environment with the protection of existing natural resources.

Project Description

Within the Town's preferred alternative, known as Alternative 5D, the installation of the terminal groin is the main component in the protection of the oceanfront shoreline. The location of the structure will be approximately 420 feet north of the initial location described in the Draft EIS which was published in the Federal Register (77 FR 29618) on May 18, 2012. The proposed structure is just north of the existing homes along the shoulder of Rich Inlet. Its total length is approximately 1,500 feet, which approximately 505 feet will project seaward of the 2007 mean high water shoreline. The landward 995-foot anchor section would extend across the island and terminate near the Nixon Channel Shoreline. This section will be constructed of 14,000 to 18,000 square feet of sheet pile with portions of the length wrapped with rock. Although engineering design plans are not finalized, basic construction design of the seaward 505-foot part of the structure will be in the form of a typical rubble (rock) mound feature supported by a 1.5-foot thick stone foundation blanket. Crest height or elevation of this section is estimated to be +6.0 feet NAVD for the first 400 feet and would slope to a top elevation of +3.0 feet NAVD on the seaward end. Approximately 16,000 tons of stone would be used to construct the terminal groin. The concept design of the structure is intended to allow littoral sand transport to move over, around, and through the groin once the accretion fillet has completely filled in.

Construction of the terminal groin will be kept within a corridor varying in width from 50 feet to 200 feet. Within this corridor, a 40-70 foot wide trench will be excavated to a depth of -2.5 feet NAVD in order to construct the foundation of the landward section. The approximate 6,000 cubic yards of excavated material will be replaced on and around the structure once it's in place. Material used to build the groin will be barged down the Atlantic Intracoastal Waterway (AIWW), through Nixon Channel, and either offloaded onto a temporary loading dock or directly onto shore. It will then be transported, via dump trucks, within the designated corridor to the construction site.

Material used for nourishment will be dredged, using a hydraulic cutterhead plant, from a designated borrow site within Nixon Channel, which has been previously used for beach fill needs. Approximately 294,500 cubic yards will be required for both the oceanfront (237,500 cubic yards) and the Nixon Channel shoreline (57,000 cubic yards) fill areas under the 2006 and 2012 shoreline study conditions. Beach compatible material from (3) upland disposal islands would serve as a contingency sediment source.

Engineer modeling results have shown that periodic nourishment will be required approximately once every five years, or six separate maintenance events over the 30-year study period, to maintain the beach and Nixon Channel shorelines. The combined 5-year estimated maintenance needs for both areas are 320,000 cubic yards of material under the 2006 condition and 255,000 cubic yards of material under 2012 condition, equivalent to

approximately 58,000 and 45,000 cubic yards per year respectively. This material will come from the designated Nixon Channel borrow site and the (3) upland disposal areas.

This notice is to inform interested parties of our issued July 10, 2015 Notice of Availability in the Federal Register to release the SEIS, which can be found on the Federal Register website at:

<http://www.gpo.gov/fdsys/browse/collection.action?collectionCode=FR> . After connecting with the website, click through the dates to July 10, 2015 (Friday). Click on either “Army Corps of Engineers Department” or “Army Department”; and locate the Figure Eight Island project. As stated above, a copy of the SEIS has been placed on our webpage and can be found at:

<http://www.saw.usace.army.mil/Missions/RegulatoryPermitProgram/MajorProjects>, click on “Figure Eight Island Terminal Groin Project: Corps ID # SAW-2006-41158”.

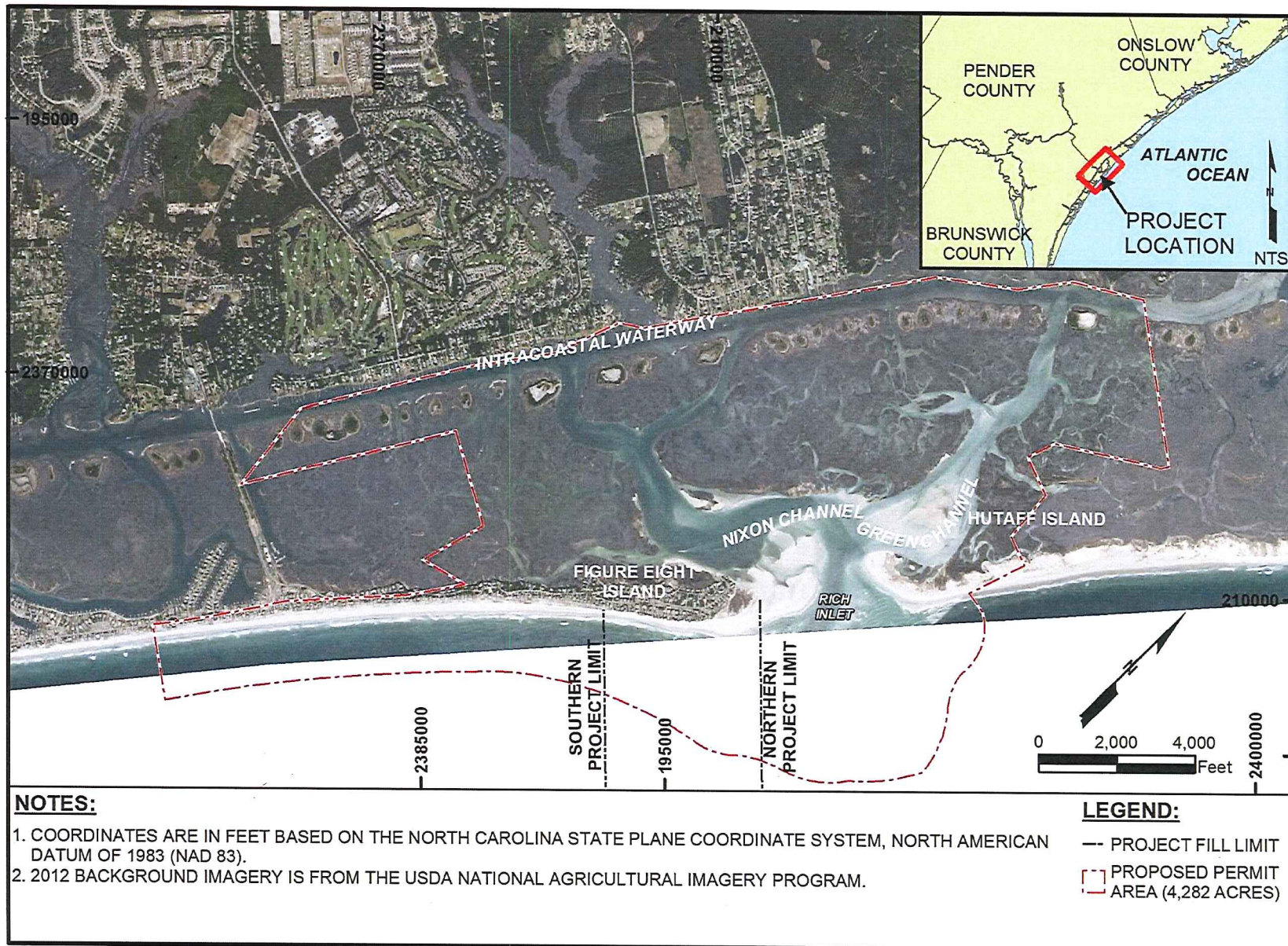


Figure 1.1- Figure Eight Island Inlet and Shoreline Management Project Location Map

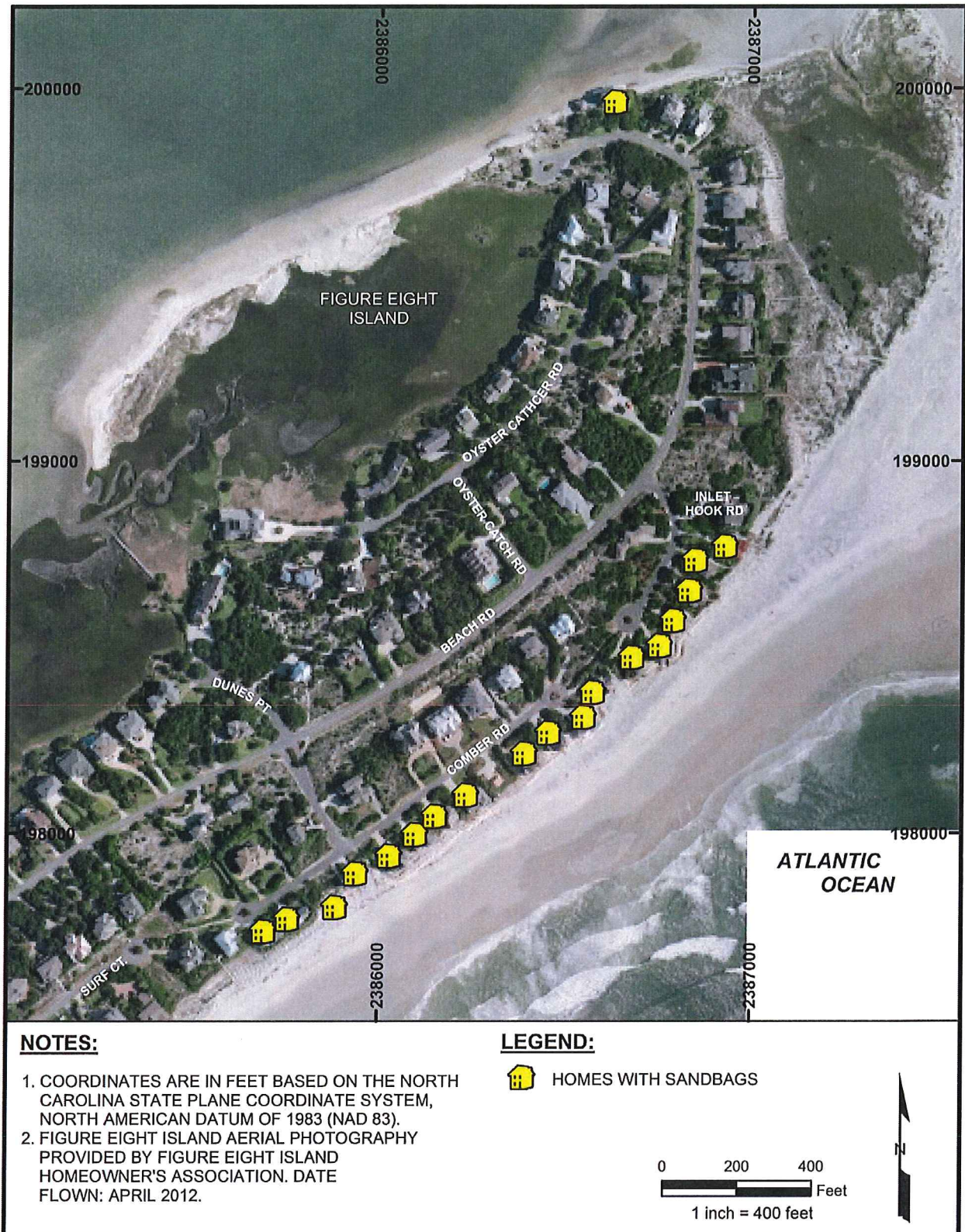


Figure 2.7 – Location of Threatened Residential Structures on Figure Eight Island

Figure Eight Island Shoreline Management Project EIS

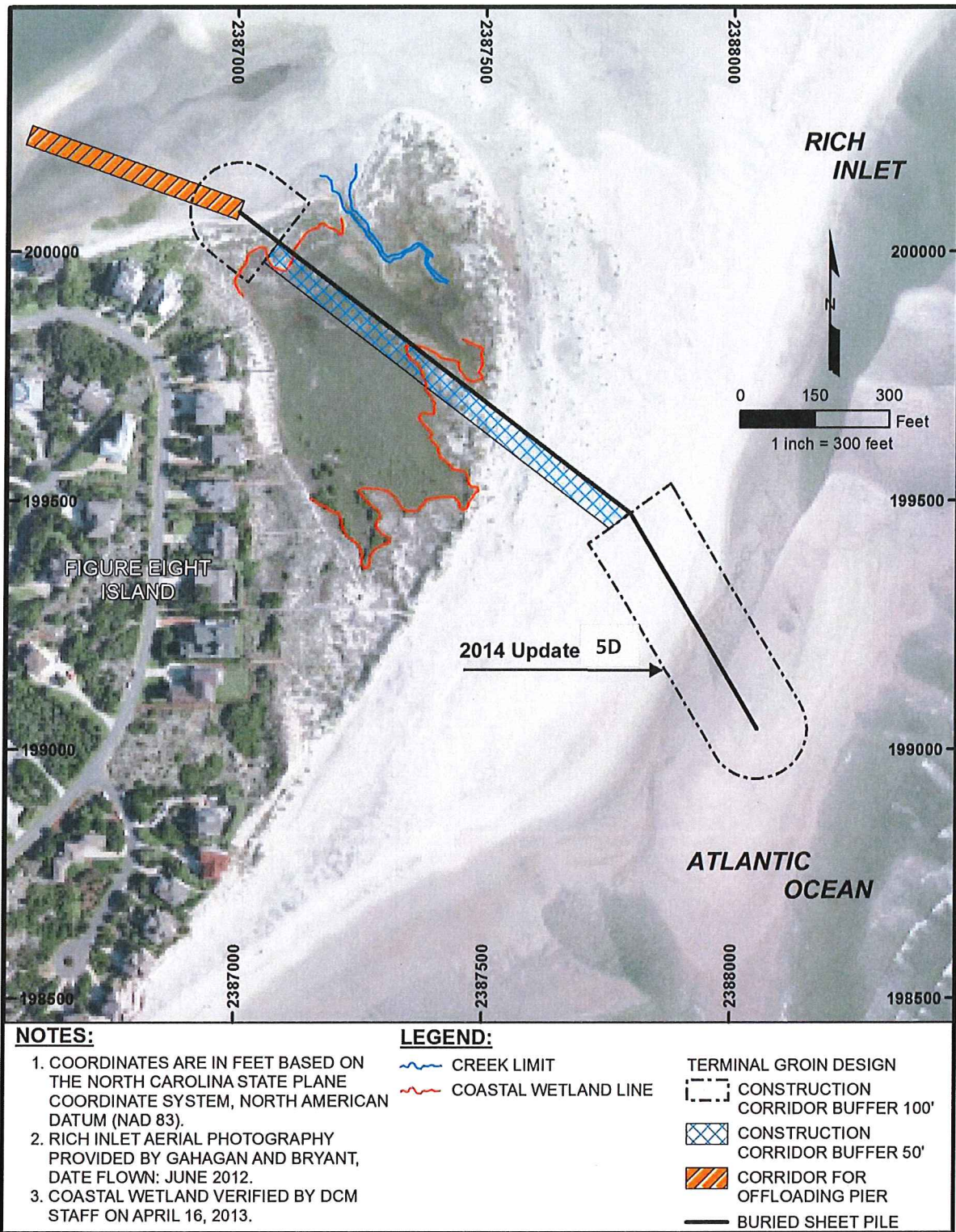


Figure 3.12. Footprint of the terminal groin, construction corridor, and offloading pier for Alternative 5D.

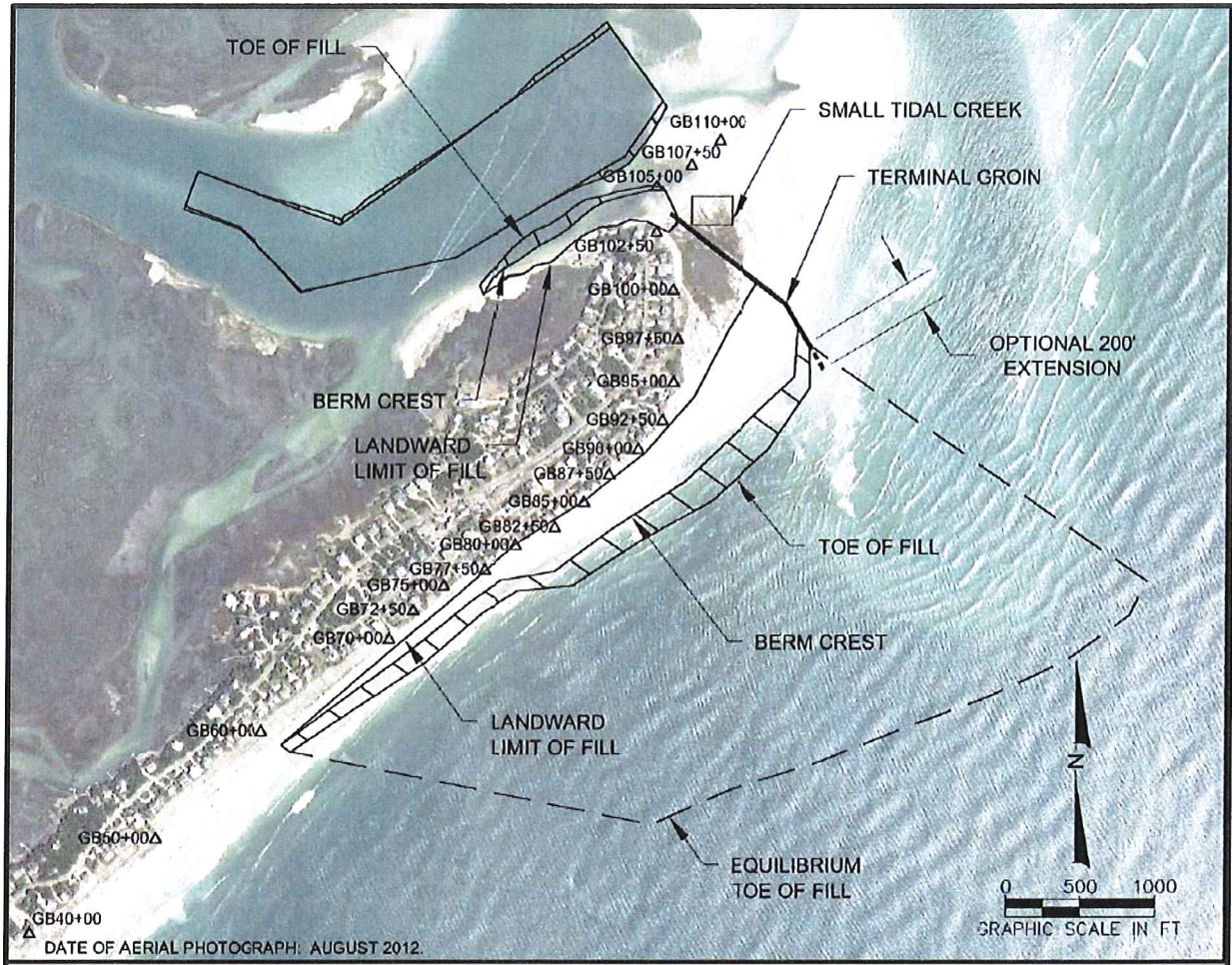


Figure 3.16a. Plan view of Alternative 5D; 2012 shoreline conditions.