



DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT, CORPS OF ENGINEERS

REPLY TO
ATTENTION OF:

Regulatory Division
SAS-2015-00742

DECEMBER 18 2015

JOINT PUBLIC NOTICE
Savannah District/State of Georgia

The Savannah District has received an application for a Department of the Army Permit, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344), as follows:

Application Number: SAS-2015-00742

Applicant: Mr. James Gilbert, Jr.
Sea Island Acquisition, LLC
351 Sea Island Road
Saint Simons Island, Georgia 31522

Agent: Mr. Daniel H. Bucey
Resource & Land Consultants, LLC
41 Park of Commerce Way, Suite 303
Savannah, Georgia 31405

Location of Proposed Work: The project is located in the Atlantic Ocean along 2,703 linear feet of intertidal beach, north of Gould's Inlet on Sea Island, in Glynn County Georgia (Latitude 31.173925, Longitude -81.351301).

Applicant's Stated Project Purpose: To stabilize the eroding beach south of the existing south groin, and to provide storm protection to the adjacent upland.

Applicant's Description of Work Subject to the Jurisdiction of the U.S. Army Corps of Engineers: To discharge fill in 14,400 square feet of waters of the U.S. for the construction of a new T-head groin. Construction would be accomplished with heavy equipment from the beach. After construction, any incidental disturbance to areas outside of the actual construction would be returned to pre-construction conditions. A 200 square foot layer of rock would be placed at the landward end of the groin on the south side to allow access to the south end of Sea Island for safety purposes, sea turtle monitoring, and for maintenance of the groin.

The applicant is also requesting to excavate 120,000 cubic yards of sand from 275,400 square feet of waters of the U.S. north of an existing groin. The excavation

would be conducted between tidal cycles over a 3 month period and the sand would be dredged by excavator and moved in trucks on the existing approved motorized vehicle beach access route to the construction site where it would be discharged to create a constructed dune ridge and a 150 foot wide beach. Dune quality vegetation and snow fencing would be installed to facilitate the dune development and stability. No equipment would be operated in vegetated dunes.

Compensatory Mitigation: The applicant has provided the following explanation why compensatory mitigation should not be required: The proposed project will result in a net increase in high tide beach and dune areas. These habitats will provide erosion protection to adjacent upland habitats, and will provide additional habitat for nesting sea turtles that currently does not exist in the project footprint. The sand for the project will come from an existing catchment basin that was constructed for the sole purpose of retaining sand for the restoration and maintenance (recycling) of the Sea Island beach. The displacement of open water inter and sub-tidal habitat will be compensated for by the creation of sea turtle nesting habitat and a dune system that will increase wildlife habitat.

BACKGROUND

This Joint Public Notice announces a request for authorizations from both the U.S. Army Corps of Engineers and the State of Georgia. The applicant's proposed work may also require local governmental approval.

STATE OF GEORGIA

Water Quality Certification: The Georgia Department of Natural Resources, Environmental Protection Division, intends to certify this project at the end of 30 days in accordance with the provisions of Section 401 of the Clean Water Act, which is required for a Federal Permit to conduct activity in, on, or adjacent to the waters of the State of Georgia. Copies of the application and supporting documents relative to a specific application will be available for review and copying at the office of the Georgia Department of Natural Resources, Environmental Protection Division, Watershed Protection Branch, 2 MLK Jr. Drive, Suite 418, Atlanta, Georgia 30334, during regular office hours. A copier machine is available for public use at a charge of 10 cents per page. All coastal projects are filed at our Brunswick office and will need to be requested from Mr. Bradley Smith at Bradley.Smith@dnr.ga.gov. Any person who desires to comment, object, or request a public hearing relative to State Water Quality Certification must do so within 30 days of the State's receipt of application in writing and state the reasons or basis of objections or request for a hearing. The application can be reviewed in the Savannah District, U.S. Army Corps of Engineers, Regulatory Division, Coastal Branch.

Georgia Coastal Management Program: Prior to the Savannah District Corps of Engineers making a final permit decision on this application, the project must be certified by the Georgia Department of Natural Resources, Coastal Resources Division, to be consistent with applicable provisions of the State of Georgia Coastal Management Program (15 CFR 930). Anyone wishing to comment on Coastal Management Program certification of this project should submit comments in writing within 30 days of the date of this notice to the Federal Consistency Coordinator, Ecological Services Section, Coastal Resources Division, Georgia Department of Natural Resources, One Conservation Way, Brunswick, Georgia 31523-8600 (Telephone 912-264-7218).

U.S. ARMY CORPS OF ENGINEERS

The Savannah District must consider the purpose and the impacts of the applicant's proposed work, prior to a decision on issuance of a Department of the Army Permit.

Cultural Resources Assessment: Review of the latest published version of the National Register of Historic Places indicates that no registered properties or properties listed as eligible for inclusion are located at the site or in the area affected by the proposed work. Presently unknown archaeological, scientific, prehistorical or historical data may be located at the site and could be affected by the proposed work.

Essential Fish Habitat (EFH): This notice initiates the EFH consultation requirements of the Magnuson-Stevens Fishery Conservation and Management Act. The applicant's proposal may result in the destruction or alteration of EFH utilized by various life stages of species comprising the red drum, shrimp, bluefish or snapper grouper management complexes. Our initial determination is that the proposed action may have an adverse impact on EFH or federally managed fisheries in the Atlantic Ocean. Our final determination relative to project impacts to EFH and the need for mitigation measures are subject to review by and coordination with the NMFS and the South Atlantic Fisheries Management Council.

Endangered Species: A preliminary review the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service's Protected Resource Divisions (NMFS-PRD)'s list of Endangered and Threatened Species indicates the following listed species may occur in the project area: Atlantic Sturgeon (*Acipenser oxyrinchus oxyrinchus*), Shortnose Sturgeon (*Acipenser brevirostrum*), North Atlantic Right Whale (*Eubalaena glacialis*), West Indian Manatee (*Trichechus manatus*), Eastern Indigo Snake (*Drymarchon corais couperi*), Green sea turtle (*Chelonia mydas*), Hawksbill sea turtle (*Eretmochelys imbricata*), Leatherback sea turtle (*Dermochelys coriacea*), Loggerhead sea turtle (*Caretta caretta*), and Kemp's Ridley sea turtle (*Lepidochelys kempii*), Piping Plover (*Charadrius melodius*), Red knot (*Calidris canutus rufa*), and Wood stork (*Mycteria americana*). Pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), we request information from the

U.S. Department of the Interior, Fish and Wildlife Service, the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service; or, any other interested party, on whether any species listed or proposed for listing may be present in the area.

Public Interest Review: 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, flood plain 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.

Consideration of Public Comments: The U.S. Army Corps of Engineers is soliciting comments from the public; federal, state, and local agencies and officials; Native American 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 U.S. Army 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 and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Application of Section 404(b)(1) Guidelines: The proposed activity involves the discharge of dredged or fill material into the waters of the United States. The Savannah District's evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act.

Public Hearing: Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application for a Department of the Army permit. Requests for public hearings shall state, with particularity, the reasons for requesting a public hearing. The decision whether to hold a public hearing is at the discretion of the District Engineer, or his designated appointee, based on the need for additional substantial information necessary in evaluating the proposed project.

Comment Period: Anyone wishing to comment on this application for a Department of the Army Permit should submit comments in writing to the Commander, U.S. Army Corps of Engineers, Savannah District, Attention: SAS-2015-00742, no later than 30 days from the date of this notice. Please refer to the applicant's name and the application number in your comments.

If you have any further questions concerning this matter, please contact Meredith Allen at 912-652-5503 or by email at Meredith.A.Allen@usace.army.mil.

Enclosure

1. Project Drawings
2. Project Description



USGS COLOR ORTHOPHOTO; 2013
GLYNN COUNTY, GEORGIA

DATE: OCTOBER 1, 2015

MAP SCALE: 1 INCH = 2000 FEET

FIGURE 1; VICINITY MAP

RLC PROJECT NO. 13-075.2

THE RESERVE AT SEA ISLAND
GLYNN COUNTY, GEORGIA

PREPARED FOR:
SEA ISLAND ACQUISITION, LLC

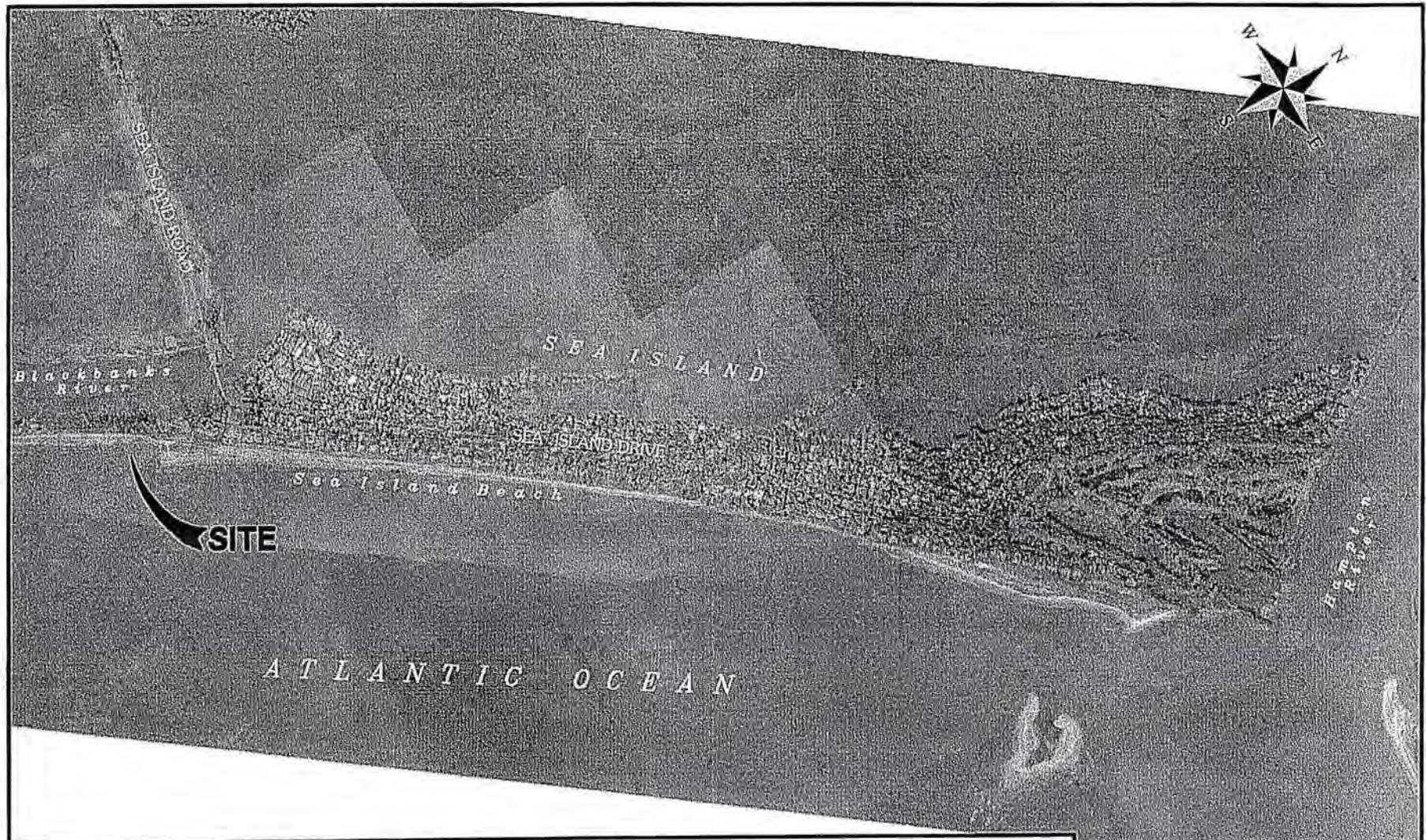


0 1,000 2,000 4,000
Feet

RLC

RESOURCE+LAND
CONSULTANTS

41 Park of Commerce Way, Ste. 303
Savannah, Georgia 31405
912.443.5896 www.rlandc.com



RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
 BEACH RENOURISHMENT & GROIN

CLIENT:
 SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GA.

DATE: 9/10/15

JOB NUMBER: J-25447

DRAWN BY: JWR
 REVIEWED BY: CLG

SHEET: 1
 SCALE: 1" = 2400'

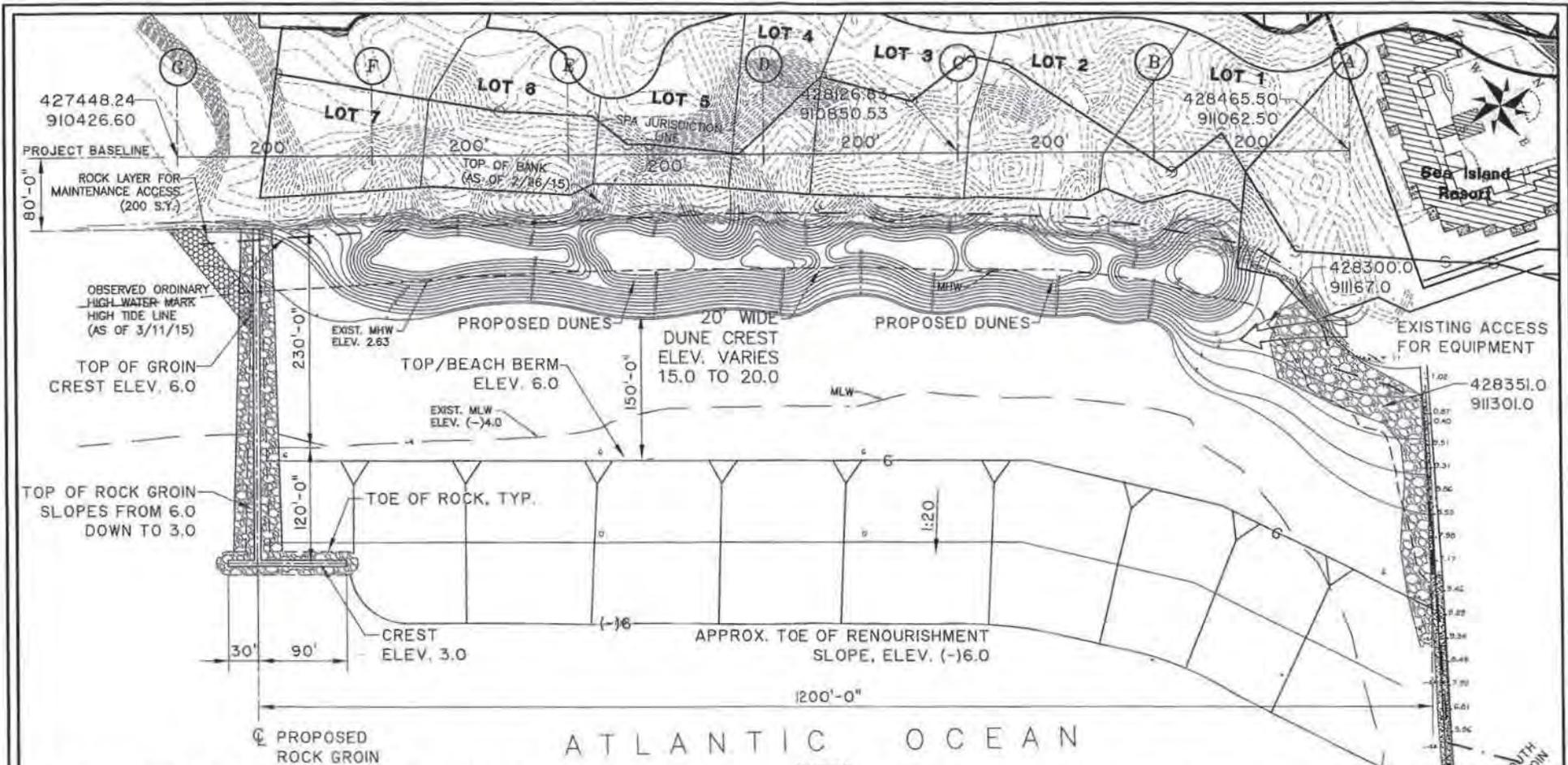


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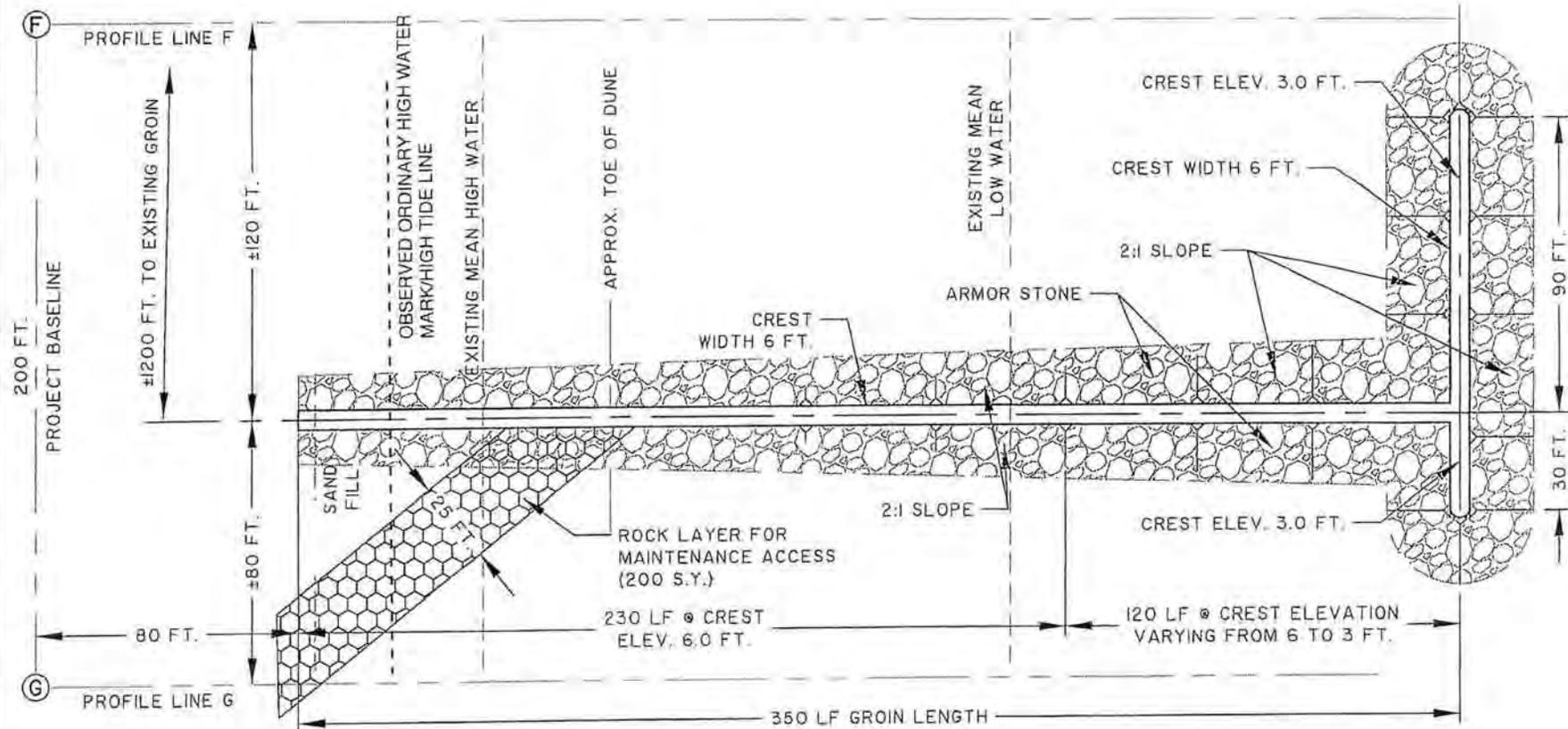
PROPOSED GROIN & DUNE PLAN

RESERVE AT SEA ISLAND
 PROPOSED ACTIVITY:
 BEACH RENOURISHMENT & GROIN
 CLIENT:
 SEA ISLAND ACQUISITION, LLC
 LOCATION: GLYNN COUNTY, GA.
 DATE: 9/10/15
 JOB NUMBER: J-25447

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- NOTES:
- ELEVATIONS ARE BASED ON NAVD 88 DATUM. SURVEY INFORMATION SHOWN INCLUDING JURISDICTIONAL LINES, MHW, MLW, ELEVATIONS, AND PROJECT SURVEY PROFILE LINES BASED ON TOPOGRAPHIC SURVEY PERFORMED BY SHUPE SURVEYING, DATED 2/26/2015 & 3/2/2015.
 - MEAN LOW WATER SHOWN TAKEN FROM SURVEY DATED 3/11/2015.
 - ORDINARY HIGH WATER MARK/HIGH TIDE LINE SHOWN TAKEN FROM OBSERVATION 3/11/2015.



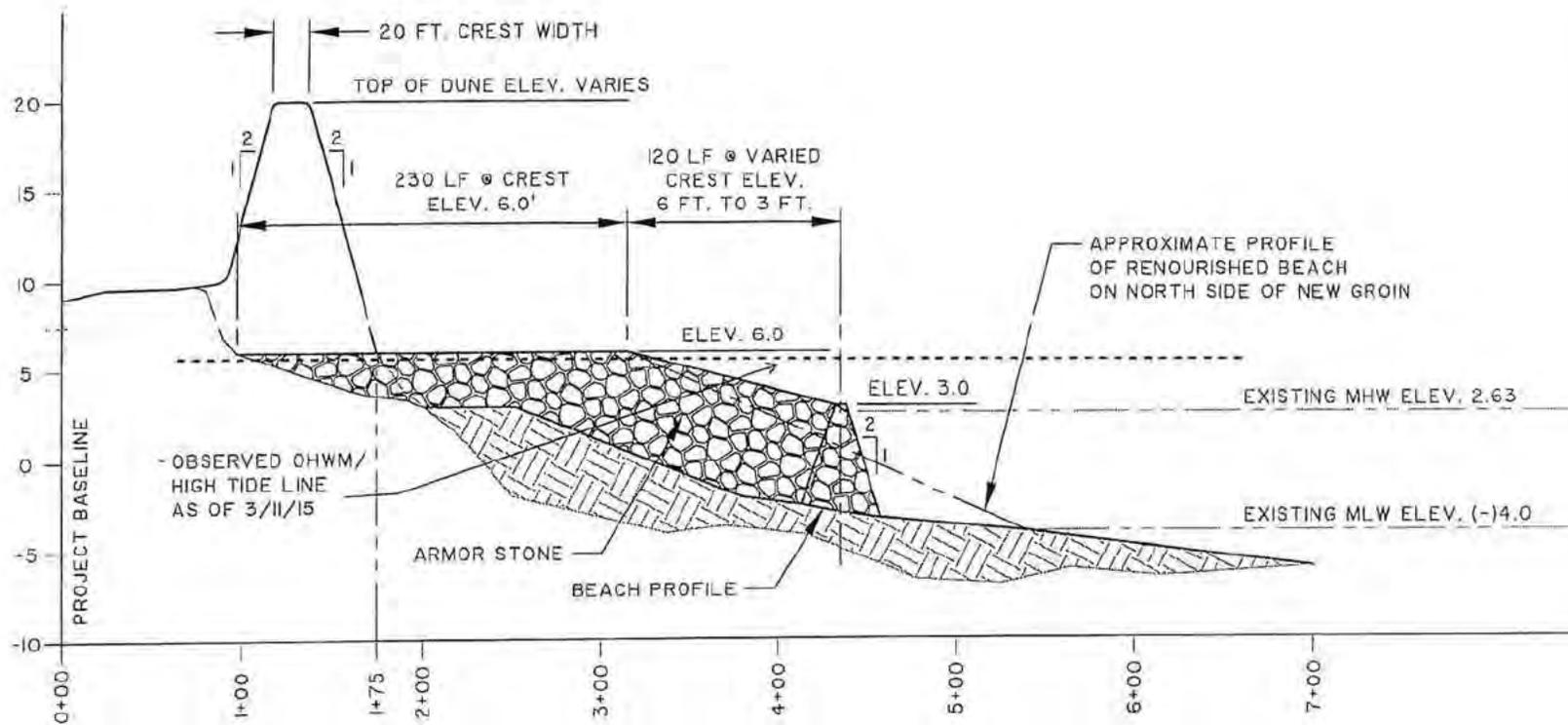


ROCK T-HEAD GROIN PLAN
SCALE: 1" = 50'



RESERVE AT SEA ISLAND
 PROPOSED ACTIVITY:
 BEACH RENOURISHMENT & GROIN
 CLIENT:
 SEA ISLAND ACQUISITION, LLC
 LOCATION: GLYNN COUNTY, GEORGIA
 DATE: 9/10/15
 JOB NUMBER: J-25447
 DRAWN BY: CLH
 REVIEWED BY: CLG
 SHEET: 3
 SCALE: 1" = 50'

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ELEVATIONS SHOWN
 BASED ON NAVD88 DATUM

SIDE VIEW THRU ROCK GROIN

HORIZONTAL SCALE: 1" = 100'

VERTICAL SCALE: 1" = 10'



RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
 BEACH RENOURISHMENT & GROIN

CLIENT:
 SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GEORGIA
 DATE: 9/10/15
 JOB NUMBER: J-25447

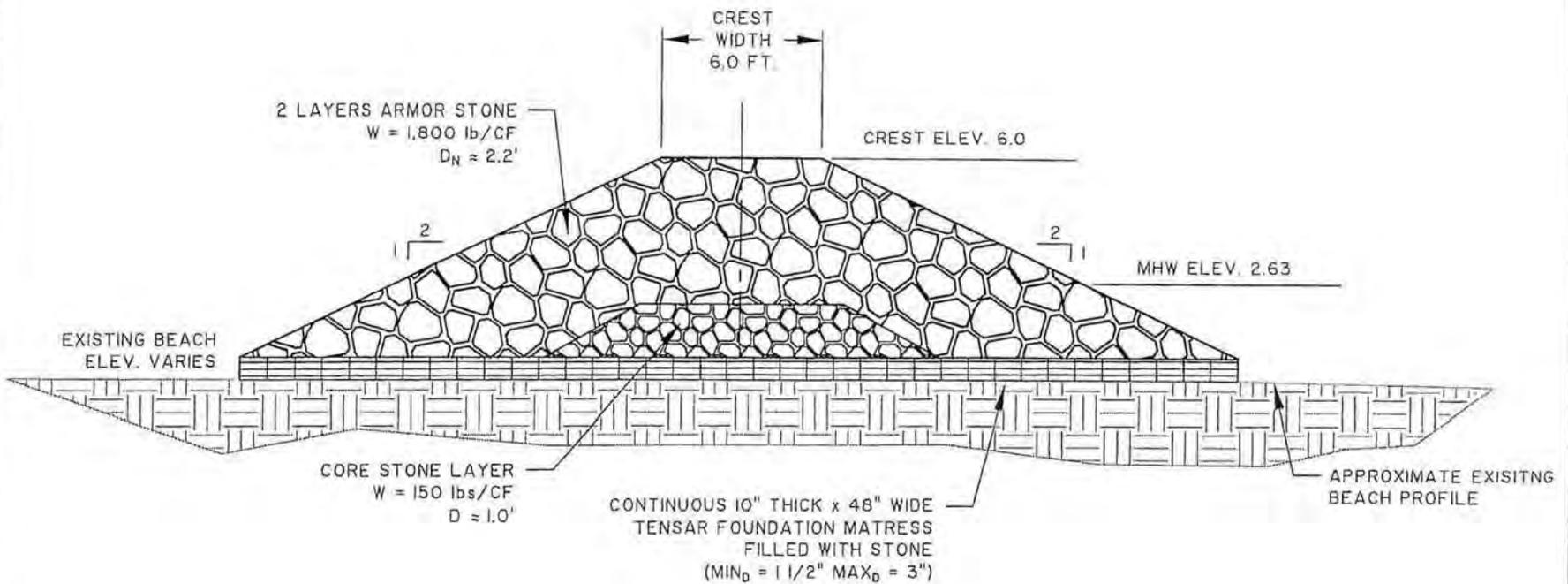
DRAWN BY: CLH
 REVIEWED BY: CLG

SHEET: 4
 SCALE: AS SHOWN

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TYPICAL SECTION GROIN STEM

CREST 6.0

NOT TO SCALE



RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
BEACH RENOURISHMENT & GROIN

CLIENT:
SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GEORGIA

DATE: 9/10/15

JOB NUMBER: J-25447

DRAWN BY: CLH

REVIEWED BY: CLG

SHEET: 5

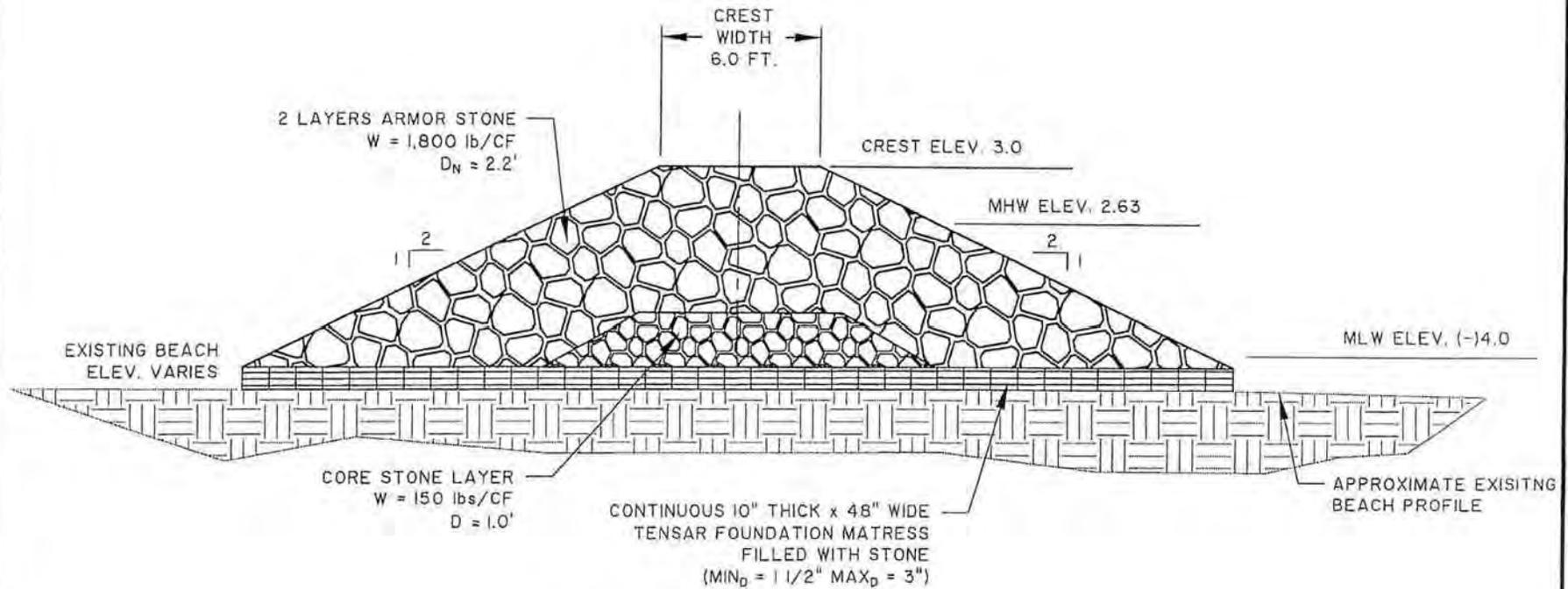
SCALE: NTS



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TYPICAL SECTION GROIN STEM
CREST 3.0
NOT TO SCALE



RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
BEACH RENOURISHMENT & GROIN

CLIENT:
SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GEORGIA

DATE: 9/10/15

DRAWN BY: CLH

SHEET: 6

JOB NUMBER: J-25447

REVIEWED BY: CLG

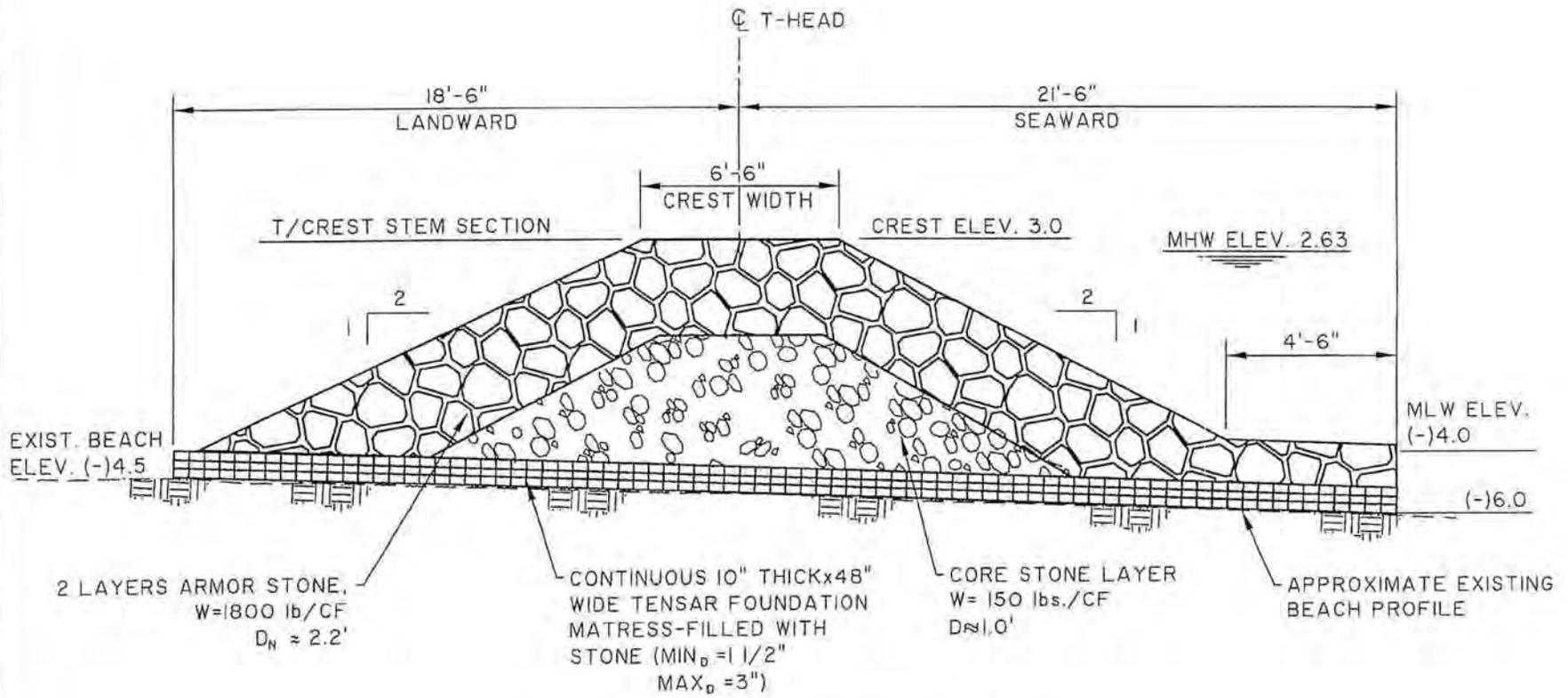
SCALE: NTS



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TYPICAL SECTION GROIN T-HEAD

SCALE: 3/16" = 1'-0"

RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
BEACH RENOURISHMENT & GROIN

CLIENT:
SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GA.

DATE: 9/10/15

JOB NUMBER: J-25447

DRAWN BY: JWR

REVIEWED BY: CLG

SHEET: 7

SCALE: 3/16"=1'-0"

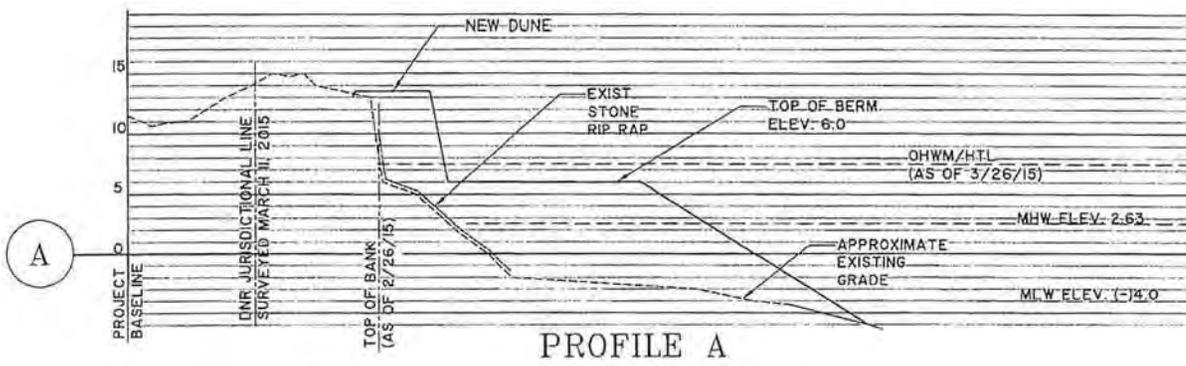


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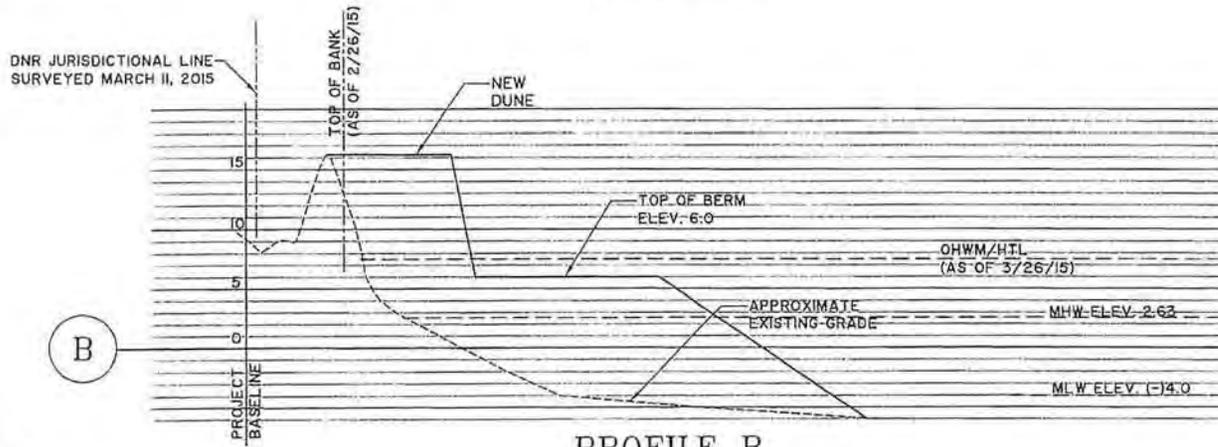
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PROFILE A



PROFILE B

BEACH PROFILES

SCALE: 1"=100'-0" HORIZ. / 1"=10'-0" VERT.

RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
 BEACH RENOURISHMENT & GROIN
 CLIENT:
 SEA ISLAND ACQUISITION, LLC
 LOCATION: GLYNN COUNTY, GA.
 DATE: 9/10/15
 JOB NUMBER: J-25447

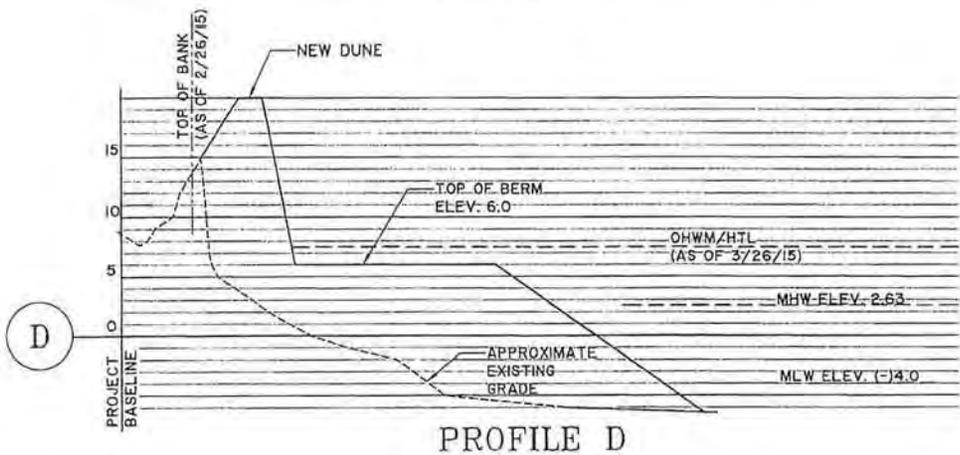
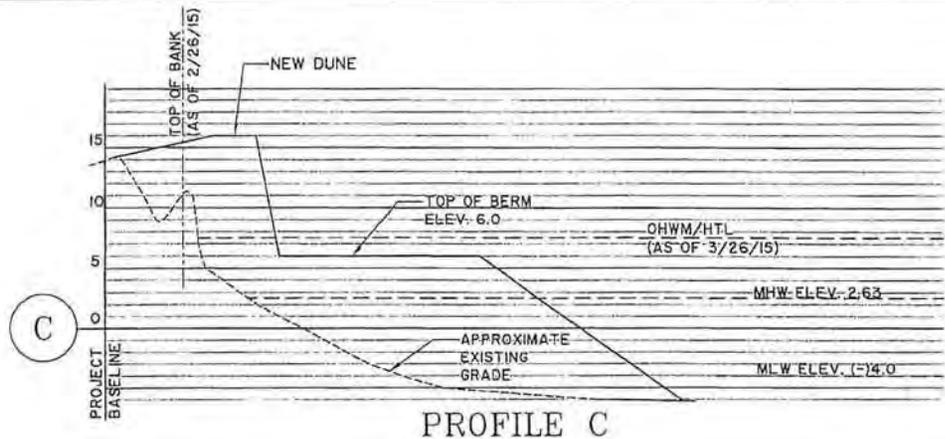
DRAWN BY: JWR
 REVIEWED BY: CLG
 SHEET: 8
 SCALE: AS SHOWN



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BEACH PROFILES

SCALE: 1"=100'-0" HORIZ. / 1"=10'-0" VERT.

RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
 BEACH RENOURISHMENT & GROIN
 CLIENT:
 SEA ISLAND ACQUISITION, LLC
 LOCATION: GLYNN COUNTY, GA.
 DATE: 9/10/15
 JOB NUMBER: J-25447

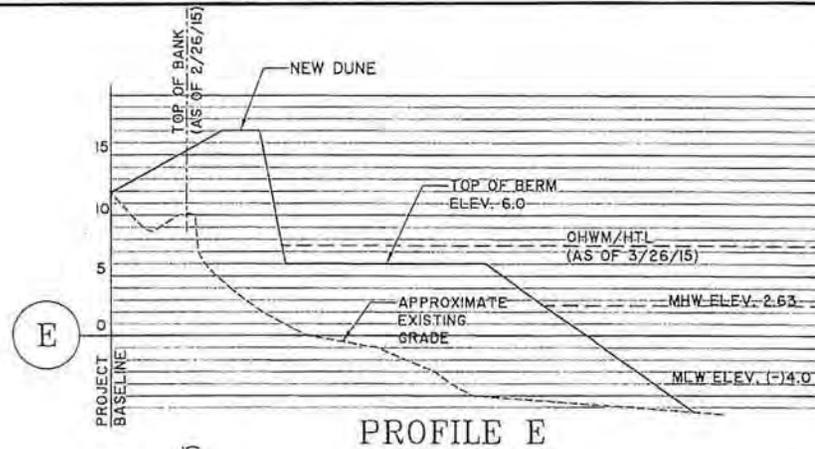
DRAWN BY: JWR
 REVIEWED BY: CLG
 SHEET: 9
 SCALE: AS SHOWN

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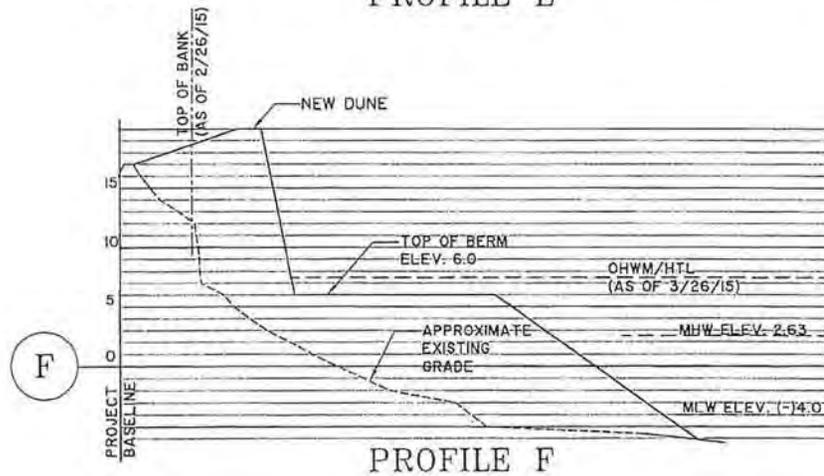
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PROFILE E



PROFILE F

BEACH PROFILES

SCALE: 1"=100'-0" HORIZ. / 1"=10'-0" VERT.

RESERVE AT SEA ISLAND

PROPOSED ALTERNATIVE:
BEACH RENOURISHMENT & GROIN

CLIENT:
SEA ISLAND ACQUISITION, LLC

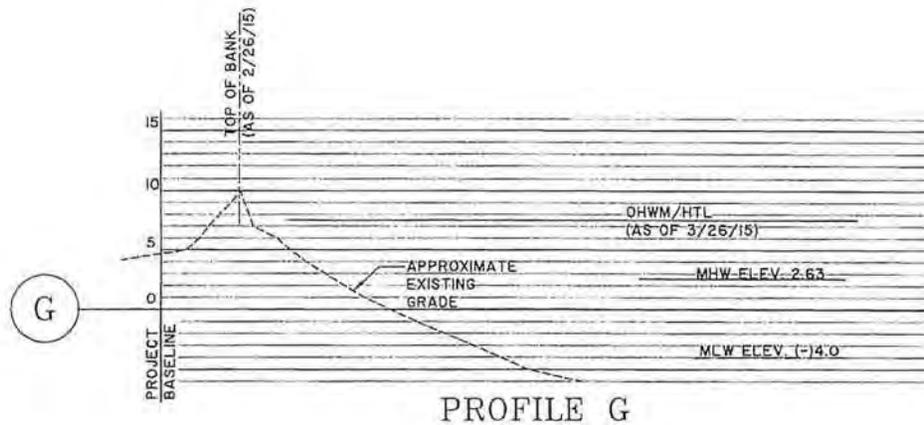
LOCATION: GLYNN COUNTY, GA.
DATE: 9/10/15 DRAWN BY: JWR SHEET: 10
JOB NUMBER: J-25447 REVIEWED BY: CLG SCALE: AS SHOWN

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PROFILE G

BEACH PROFILES

SCALE: 1"=100'-0" HORIZ. / 1"=10'-0" VERT.

RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
BEACH RENOURISHMENT & GROIN

CLIENT:
SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GA.
DATE: 9/10/15 DRAWN BY: JWR SHEET: 11
JOB NUMBER: J-25447 REVIEWED BY: CLG SCALE: AS SHOWN

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BEACH RENOURISHMENT BORROW AREA

RESERVE AT SEA ISLAND
 PROJECT NUMBER: 1119111
BEACH RENOURISHMENT & GROIN
 CLIENT:
SEA ISLAND ACQUISITION, LLC
 LOCATION: GLYNN COUNTY, GA.
 DATE: 9/10/15
 JOB NUMBER: J-25447

DRAWN BY: JWR
 REVIEWED BY: CLG
 SHEET: 12
 SCALE: NTS

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BEACH RENOURISHMENT & GROIN IMPACTS:

SECTION 404 (USACOE)

QTY STONE BELOW OHWM: 4200 CY
QTY SAND BELOW OHWM: 106,000 CY

DNR SHORE PROTECTION ACT:

QTY STONE ABOVE OHWM: 600 SF (55 CY)
QTY SAND ABOVE OHWM: 42,000 SF (14,000 CY)

QTY STONE BELOW OHWM: 4200 CY
QTY SAND BELOW OHWM: 106,000 CY



RESERVE AT SEA ISLAND

PROPOSED ACTIVITY:
BEACH RENOURISHMENT & GROIN

CLIENT:
SEA ISLAND ACQUISITION, LLC

LOCATION: GLYNN COUNTY, GEORGIA
DATE: 9/10/15 DRAWN BY: CLH SHEET: 13
JOB NUMBER: J-25447 REVIEWED BY: CLG SCALE: NTS

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1.0 Introduction

The project consists of the construction and maintenance of a beach renourishment project on Sea Island, Georgia, which will extend the existing beach renourishment project approximately 1,200 feet further to the south (Attachment C, Sheets 1, 2). The purpose of the project is to stabilize the eroding beach south of the existing south groin and to provide storm protection to the adjacent upland. This will be accomplished by constructing a rock groin perpendicular to the beach and creating sand dunes and renourished beach between the existing south groin and the proposed shorter beach groin. The project will taper the shoreline between the existing south groin and the proximal end of Black Banks Spit. (Attachment B, Figure 1). The project will be funded entirely by the applicant.

The project area, not protected by any shoreline engineering measures, has continued to shift landward, while the Sea Island beach to the north has been stabilized and enlarged by previously permitted projects, all privately funded. In the mid 1980's, the retreat of the entire Sea Island shoreline was arrested by the installation of sea walls and revetments. This shoreline protection stabilized the beachfront with the exception of the northern tip and southern end, both of which continued to retrograde. In 1990 additional protection was provided with the installation of a renourished beach, flanked by the north and south groins. A fuller discussion of the history of erosion control measures at Sea Island, as well as the context of the shoreline dynamics of this particular area, is set forth in a technical report entitled "Sea Island Beaches: Shoreline Dynamics and Erosion-control Projects," by George F. Oertel, PhD and David Basco, PhD, PE, dated July 2015 (Attachment D).

As explained in more detail below, the sand for the beach renourishment and dune construction will be taken from the sand catchment area just north of the existing south groin, within the existing renourished Sea Island beach. No borrow material will be dredged or otherwise taken from areas below low water. The sand will be excavated from the beach and transported by truck to the project site, using the existing approved motorized vehicle beach access route.

The project is of limited size—1,200 feet in length, a maximum of 120,000 yd³ of sand—and is an extension southward of the existing successful beach stabilization and renourishment project. It is designed to minimize storm-wave damage and erosion at the project location and will not adversely affect the ability of the existing sand-sharing system to minimize storm-wave damage and erosion at other shoreline locations.

The project site does not currently provide good shorebird habitat, because there is little or no beach above the high tide mark and because of human activity in the area. As a result, the project is not likely to adversely affect piping plovers or red knot or any critical habitat. Construction of the project will occur outside of sea turtle nesting season, avoiding impacts to nesting or hatching turtles, and the completed project will provide habitat for nesting sea turtles where none currently exists.

2.0 Existing Conditions

The proposed project area is located within an area approximately 1,200' south of the existing south groin on Sea Island. The area consists of natural beach and dune habitats. Due to long-term natural erosion, little to no beach is exposed at high tide. An escarpment has formed at the base of the existing dune system from recession of the beach front due to natural beach system dynamics.

The limits of jurisdiction have been delineated under the Shore Protection Act (SPA) and 33 CFR Part 328.4(b). The limits of jurisdiction under the SPA have been verified by staff of the Georgia Department of Natural Resources, Coastal Resource Division. A Request for Jurisdictional Determination for U.S. Army Corps of Engineers jurisdiction limits has been submitted to the Savannah District (Attachment N).

3.0 Project Description

The project will consist of a rock T-head groin perpendicular to the shoreline, constructed sand dunes, and a renourished beach (Attachment C, Sheet 2, 3). Upon completion, the project will result in the placement of approximately 600 ft² (55 yd³) of rock and 42,000 ft² (14,000 yd³) of sand in SPA jurisdiction above the ordinary high water mark / high tide line (OHWM/HTL), and 4,200 yd³ of stone and 106,000 yd³ of sand below the OHWM/HTL. Prior to installation of the groin, constructed dune, and renourished beach, the applicant will provide a pre-construction survey to the regulatory agencies. A post-construction survey will also be provided.

3.1 Rock T-Head Groin. The proposed groin will be located perpendicular to the shoreline approximately 1,200 feet south of the existing south groin and will be approximately 350 feet in crest length with a "T" head section, parallel to the shoreline, of 120 feet in crest length (Attachment C, Sheet 3, 4). The top of the groin will be established at Elevation 6.0 ft¹ and slope downward to Elevation 3.0 ft at the "T" head (Attachment C, Sheet 3, 4). Construction of the groin will consist of the placement of a geogrid stone-filled mattress, a core stone layer, and outer layer of armor stone (Attachment C, Sheet 5, 6). The width at the crest of the groin will be approximately 6 feet with side slopes of 2:1 (Attachment C, Sheet 5, 6). Construction will be accomplished with heavy equipment from the beach. After construction, any incidental disturbance to areas outside of the actual construction will be returned to pre-construction conditions. A 200 ft² layer of rock will be placed at the landward end of the groin on the south side to allow access to the south end of Sea Island for safety purposes, sea turtle monitoring, and for maintenance of the groin.

The applicant proposes to construct the groin of stone, rather than of the Campbell units (poured concrete modules) that were used to construct the existing groins at Sea Island. Campbell units were used for the existing beach renourishment

¹ All elevations are with reference to the vertical datum of NAVD88.

project because it was a test project, to determine whether the concept of a T-head groin at each end of the renourished Sea Island beach would hold the renourished sand. If the project had failed to function as designed, the Campbell units could have been removed using the heavy equipment with which they were installed. Campbell units are no longer commercially available and special arrangements would be required to secure and fabricate the molds and other equipment. The Campbell units are extremely large (10 feet by 8 feet by 5 feet, weighing 14 tons each), and a very large lift crane, plus elaborate equipment to form the units, would be required for installation.

Rather than using Campbell units, the applicant proposes to follow the very successful plan previously demonstrated to work—a perpendicular T-head groin with the intervening beach filled with sand—by using very large armor stone, laid on rock mattresses. This is state of the art technology for such groins. The proposed rock groin is less expensive and also more practical. It can be installed using an excavator or track-hoe, any required maintenance can be performed utilizing smaller, less intrusive and more readily available equipment, and any additional materials, if required, are readily obtainable.

3.2 Beach Renourishment and Dune Creation. Approximately 120,000 cubic yards of beach quality sand will be excavated from the existing previously authorized catchment area located immediately north of the existing south groin (Attachment C, Sheet 12) and will be placed in the constructed area between the existing south groin and the proposed groin, to create a constructed dune ridge and a 150 foot wide beach profile beginning at elevation 6.0 ft and tapering to elevation -6.0 ft (Attachment C, Sheets 2, 8-11). The renourished beach will transition at a 20:1 slope to existing grade. The dune ridge will be constructed to an elevation of between 15.0 ft and 20.0 ft with a width of approximately 20 feet at the crest (Attachment C, Sheet 5, 8-11). The sand will be excavated with an excavator and placed in trucks that will transport it on the existing approved motorized vehicle beach access route to the construction site. No equipment will be operated in vegetated dunes. Dune quality vegetation and snow fencing will be installed to facilitate the dune development and stability (Attachment O).

3.3 Borrow Area

The sand for the proposed beach renourishment and dune creation will be taken from the existing catchment area immediately north of the existing south groin (Attachment C, Sheet 12). No borrow material will be dredged or otherwise taken from areas below low water. This area has been previously utilized as a borrow area for the periodic authorized recycling of sand to the area between 20th Street and 36th Street. The removal of this material is not expected to have any impact on the beaches on Sea Island, as the amount of sand is similar in size to what has previously been recycled within the existing beach renourishment project.

The excavation will occur between approximate elevations 3.0 ft down to approximately -4.0 ft and will be adjusted as necessary to avoid vegetated dunes. The excavation will be conducted utilizing heavy equipment between tidal cycles,

over a 3 month period. As material is removed during a tidal cycle, new sand replenishes the newly excavated area daily, which prevents the development of a large depression in the borrow area when stretched out over an extended work period as proposed. Transport trucks will utilize the existing approved motorized vehicle beach access route to carry the excavated material to the construction site.

3.4 Monitoring

In order to insure that the proposed project performs as proposed, the applicant will monitor the site in accordance with the following conditions:

1. The Permittee will monitor the beach profiles annually, from the borrow area to the southern end of Sea Island, for 5 years after renourishment.
2. After renourishment, the permittee will confer with DNR as to whether the renourished beach should be tilled to reduce compaction. If DNR recommends tilling, the permittee will till the renourished beach as recommended.
3. Before May 1 of each year any escarpment in the beach renourishment area that is higher than 18 inches and more than 100 feet in length will be mechanically leveled to the then-existing beach contour.

3.5 Dune Revegetation Plan

Upon completion of construction of the new dune, the applicant proposes to install sand fencing in accordance with CRD guidelines to promote accumulation of wind-driven sand. Additionally, the applicant will plant native dune species to include sea oats (*Uniola paniculata*), seashore paspalum (*Panicum vaginatum*), beach sunflower (*Helianthus debilis*), and railroad vine (*Ipomoea pes-caprae*). A revegetation plan is included at Attachment O.

4.0 Shoreline Dynamics

Due to the existing natural dynamics of the sand sharing system of Sea Island and the relatively small scale of the proposed project, the project will minimize storm-wave damage and erosion at the project location and will not adversely affect the ability of the existing sand-sharing system to minimize storm-wave damage and erosion at other shoreline locations.

The existing south groin has allowed some sand bypassing, as the south catchment area has generally been at or above capacity. Nevertheless, the area south of the existing south groin, not anchored by a rock revetment or any other shoreline engineering measures, has continued to shift landward at historic rates, and an offset has developed between the shorelines north and south of the existing south groin. Based upon aerial photography dating from 1988 to 2014, it appears that the seaward edge of the vegetated dune immediately south of the existing groin has receded an average of approximately 61 feet over 26 years, or +/- 2.3' per year in the project area (Attachment E, Photographs 1, 2). Analysis by Oertel in 2012 of beach profiles for the south end of Sea Island for the 18

year period between 1990 and 2008 revealed MHW and MLW recession rates of about -9.6 ft/yr and -3.3 ft/yr respectively. When sand bypasses around the existing groin, it is offset approximately 500 feet seaward of the southern shoreline, with the result that much of that material makes its way back onto the beach further south.

The proposed project will include a new area of constructed sand dune and renourished beach and a new groin approximately half the length of the existing groin. The constructed sand dune and renourished pocket beach will fill up the area between the existing south groin and the new shorter groin. The renourished beach will extend seaward beyond the new groin, facilitating the bypass of sand south of the new groin to the beach to the south. Being shorter, the new groin will provide a more gradual transition to the shoreline, and the shorter groin will allow more sand bypassing. The project will thereby provide a transition from the south groin catchment area to the shoreline and enhance sand movement along a tapered shoreline, around the proposed groin toward Black Banks Spit.

The tapered groin field is generally consistent with the Corps of Engineers' recommendation for a tapered transition from a groin field to a natural beach. U.S. Army Corps of Engineers, Coastal Engineering Manual, 2006, Part V, Section 3, figure V-3-32. (see Attachment D, Figure 10, page 19).

The area of Sea Island south of the south groin has experienced periods of both erosion and accretion over the past 150 years. The rates of erosion and accretion have varied considerably depending on the time interval reviewed. However, the long-term trend of erosion at Black Banks Spit is natural, long-term and systematic. See the technical report entitled "*Sea Island Beaches: Shoreline Dynamics and Erosion-control Projects*," by George F. Oertel, PhD and David Basco, PhD, PE, which is submitted with the application, for a discussion of shoreline dynamics specific to this area (Attachment D). As explained therein, recession of the shoreline is expected to continue, likely related to sea-level rise and wave refraction patterns. However, it is not anticipated that the proposed project will have any significant impact on erosion on Sea Island south of the project or at Black Banks Spit.

Long-term shifts in the Georgia coastline are influenced primarily by sea level rise. For decades, sea level has been documented as rising and the Georgia coastline slowly retreating landward. However, the impacts vary widely from one location to another, and there are locations along the Georgia coast that have in recent years, and some that are today, experiencing considerable accretion. On Sea Island itself, the areas at the north and south groin experience accretion, partly as a result of sand from the renourished beach moving from the center of the island to both ends.

East Beach, on the south side of Gould's Inlet across from Sea Island, is currently experiencing significant accretion. Accretion and erosion at East Beach is affected by the position of the ebb and flood channels and sand bars in Gould's Inlet. The tidal delta at Gould's Inlet contains millions of cubic yards of sand in its sand shoals and sand bars.

The relatively small scale of the proposed project is such that it is not anticipated to have any significant impact on East Beach, other shoreline areas on St. Simons Island, or Gould's Inlet.

5.0 Alternatives Analysis

Structural and non-structural alternatives are available for mitigating the damaging effects of elevated sea level and high waves in coastal storm events. The proposed project is designed to protect the Reserve at Sea Island subdivision property but also to mitigate any adverse impacts to the sand-sharing system and its functioning at other locations. A number of alternatives were considered in the process of developing this application. Alternatives located outside of state and federal jurisdiction were considered that would not require state or federal approval, as well as numerous alternatives that would be located in jurisdiction and be subject to state and federal review, including the following:

5.1 Alternative Considered Outside the DNR and Corps Jurisdiction

- A vertical seawall landward of the SPA Jurisdictional Line was initially considered but not pursued, as the preferred alternative was determined to be more beneficial both environmentally and aesthetically. Additionally, this option would provide no protection for the existing beach and dune system that is located seaward of the current SPA jurisdiction line at the project site.

5.2 Shoreline Engineering Alternatives Requiring State and Federal Permits

Several structural alternatives and combinations of alternatives that require permits from the Shore Protection Committee and the Army Corps of Engineers were considered, including the following:

- **Rock Revetment:** this alternative was not pursued since it would not provide for the reestablishment of a dry-sand beach and dune system, which will be beneficial for wildlife and recreational use.
- **New Groin with Beach Renourishment:** This alternative was not pursued since it did not provide for dune creation, resulting in the loss of potential wildlife habitat and storm protection that would be provided by the constructed dune.
- **New Groin with Beach Renourishment and Rock Revetment:** This alternative was also not pursued because it did not provide for dune creation.
- **New Groin with Beach Renourishment, Sand Dune, and buried rock revetment:** this alternative was not pursued since the preferred design provides for the creation of a dune system that will provide for storm protection, and the buried rock revetment would be an unnecessary cost.
- **Remove existing south groin:** This alternative was not pursued since it would likely result in the loss of the existing beach north of the groin, and a gradual return of the entire Sea Island shoreline to pre-renourishment conditions where no high-tide beach is present.

- **Move existing south groin approximately 1,200 feet to the south:** This alternative was not pursued due to the potential loss of existing beach north of the existing groin. Additionally, the preferred alternative design, with a new tapered groin, provides for more efficient bypassing of sand to the natural beach.
- **No action alternative:** The “no action alternative” was determined not feasible, because of the short-term and long-term trend of erosion at this site, and the extremely valuable real property that warrants protection. Shoreline stabilization is appropriate at this location.
- **New Groin with Beach Renourishment and Sand Dune Creation (Preferred Alternative)**

After review of the various alternatives it was determined that the best solution is a new groin with beach renourishment and sand dune creation. The preferred alternative represents the most environmentally, scientifically, and technically effective solution and is consistent with the objectives of the Shore Protection Act found at O.C.G.A. § 12-5-239(c)(3)(c):

In the event that shoreline stabilization is necessary, either low-sloping porous rock structures or other techniques which maximize the dissipation of wave energy and minimize shoreline erosion shall be used. Permits may be granted for shoreline stabilization activities when the applicant has demonstrated that no reasonable or viable alternative exists; provided, however, that beach restoration and renourishment techniques are preferable to the construction of shoreline stabilization activities....”

The preferred alternative provides the best balance between cost, storm protection, maintenance, aesthetics, wildlife protection and habitat creation, and minimization of effects on the dynamic dune system both at the project site and at other shoreline locations. The preferred alternative will replicate the success of the existing project, while providing for more efficient sand bypassing to the Black Banks Spit through a tapered groin design.

6.0 Landfill / Hazardous Waste

According to the Hazardous Site Index for Georgia, the subject property is not located over a landfill or hazardous waste site and is otherwise suitable for the proposed project.

7.0 Requirements and Restrictions Regarding Issuance of Permit

As discussed below, the proposed project meets the requirements under which a permit should be granted:

O.C.G.A. § 12-5-239(c) states:

*(c) No permit shall be issued except in accordance with the following provisions:
 (1) A permit for a structure or land alteration, including , but not limited to, private residences, motels, hotels, condominiums, and other commercial structures, in the dynamic dune field may be issued only when:*

(A) The proposed project shall occupy the landward area of the subject parcel and, if feasible, the area landward of the sand dunes;

The proposed project does not include residences, motels, hotels, condominiums, or other commercial structures or land alterations in the dynamic dune field, and therefore is not subject to regulation under this subsection.

(B) At least a reasonable percentage, not less than one-third, of the subject parcel shall be retained in its naturally vegetated and topographical condition;

The proposed project is not subject to the requirements of this subsection. However, the proposed project will result in not only the retention of 100% of the natural area within jurisdiction, but will also create and restore a substantial amount of dunes and dry beach, creating important habitat for wildlife while providing protection to valuable upland property.

(C) The proposed project is designed according to applicable hurricane resistant standards;

The proposed project is not subject to regulation under this subsection. However, the project will comply with the most current applicable hurricane standards.

(D) The activities associated with the construction of the proposed project are kept to a minimum, are temporary in nature, and, upon project completion, restore the natural topography and vegetation to at least its former condition, using the best available technology;

The proposed project is not subject to regulation under this subsection. However, the proposed project will result in the creation and restoration of a substantial dune and dry beach system, creating important wildlife habitat while providing storm protection to valuable upland property.

(E) The proposed project will maintain the normal functions of the sand-sharing mechanisms in minimizing storm-wave damage and erosion, both to the unaltered section of the subject parcel and at other shoreline locations.

The proposed project is not subject to regulation under this subsection. However, due to the existing natural dynamics of the sand sharing system of Sea Island and the relatively small scale of the proposed project, the project will minimize storm-wave damage and erosion at the project location and will not adversely affect the ability of the existing sand-sharing system to minimize storm-wave damage and erosion at other shoreline locations.

The proposed project is a small extension, approximately 1,200 feet, of the existing very successful beach renourishment project on more than 3 miles of the beach at Sea Island, representing an additional 7% increase to the existing previously authorized project. The project will add a new, shorter terminal groin on the south, which will provide a taper between the existing renourishment project and the natural beach of Black Banks Spit. The constructed sand dune and renourished pocket beach will fill up the area between the existing south groin and the new shorter groin. The renourished beach will extend seaward beyond the new groin, facilitating the bypass of sand south of the new groin to the beach to the south.

The shoreline at the project area, as well as the shoreline to the south of the proposed groin, is currently retreating at a rates consistent with historical data . The project will halt the shoreline retreat at the Reserve at Sea Island, thereby protecting this valuable real

estate. Retreat of the shoreline to the south is expected to continue, but with the new terminal groin and sand that will drift around the seaward end of the new groin, adverse impacts to the shoreline to the south have been minimized.

Sea Island owns all the land south of the project area. In 2015 Sea Island conveyed to the St. Simons Land Trust a perpetual Conservation Easement over all land south of the Reserve at Sea Island development. The Conservation Easement prohibits any development, except for shoreline engineering projects that extend no more than 160 feet south of the northern boundary of the Conservation Easement area. As a result of the Conservation Easement, the land to the south does not have development potential, but it does have value as open space and wildlife habitat. The project is designed to reduce down-current erosion and therefore should have minimal impact on the quality of shorebird habitat in the Conservation Easement.

(2) No permits shall be issued for a structure on beaches, eroding sand dune areas, and submerged lands; provided, however, that a permit for a pier, boardwalk, or crosswalk in such an area may be issued, provided that:

(A) The activities associated with the construction of the proposed land alterations are kept to a minimum, are temporary in nature, and, upon project completion, the natural topography and vegetation shall be restored to at least their former condition, using the best available technology,

No structures as defined by the Act under O.C.G.A. § 12-5-232(19) are proposed as part of this project, and no piers, boardwalks, or crosswalks are proposed at this time.

(B) The proposed project maintains the normal functions of the sand-sharing mechanisms in minimizing storm-wave damage and erosion, both to the unaltered section of the subject parcel and at other shoreline locations.

The proposed project is not subject to regulation under this subsection. However, the proposed project will maintain the normal functions of the sand-sharing mechanisms in minimizing storm-wave damage and erosion, both to the unaltered section of the subject parcel and at other shoreline locations. Due to the existing natural dynamics of the sand sharing system of Sea Island and the relatively small scale of the proposed project, the project will minimize storm-wave damage and erosion at the project location and will not adversely affect the ability of the existing sand-sharing system to minimize storm-wave damage and erosion at other shoreline locations.

The proposed project is a small extension, approximately 1,200 feet, of the existing very successful beach renourishment project on more than 3 miles of the beach at Sea Island, representing an additional 7% increase to the existing previously authorized project. The project will add a new, shorter terminal groin on the south, which will provide a taper between the existing renourishment project and the natural beach of Black Banks Spit. The constructed sand dune and renourished pocket beach will fill up the area between the existing south groin and the new shorter groin. The renourished beach will extend seaward beyond the new groin, facilitating the bypass of sand south of the new groin to the beach to the south.

The shoreline at the project area, as well as the shoreline to the south of the proposed groin, is currently retreating at a rate consistent with historical data. The project will halt the shoreline retreat at the Reserve at Sea Island, thereby protecting this valuable real estate. Retreat of the shoreline to the south is expected to continue, but with the new terminal groin and sand that bypasses beyond the seaward end of the new groin, adverse impacts to the shoreline to the south have been minimized.

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8.0 Public Interest Statement

O.C.G.A. § 12-5-239(i) states:

(i) In passing upon the application for a permit, the permit-issuing authority shall consider the public interest which for the purposes of this part shall be deemed to be the following considerations:

(1) Whether or not unreasonably harmful, increased alteration of the dynamic dune field or submerged lands, or function of the sand-sharing system will be created;

Due to the existing natural dynamics of the sand sharing system of Sea Island and the relatively small scale of the proposed project, the project will minimize storm-wave damage and erosion at the project location and will not adversely affect the ability of the existing sand-sharing system to minimize storm-wave damage and erosion at other shoreline locations.

The proposed project is a small extension, approximately 1,200 feet, of the existing very successful beach renourishment project on more than 3 miles of the beach at Sea Island, representing an additional 7% increase to the existing previously authorized project. The project will add a new, shorter terminal groin on the south, which will provide a taper between the existing renourishment project and the natural beach of Black Banks Spit. The constructed sand dune and renourished pocket beach will fill up the area between the existing south groin and the new shorter groin. The renourished beach will extend seaward beyond the new groin, facilitating the bypass of sand south of the new groin to the beach to the south.

The shoreline at the project area, as well as the shoreline to the south of the proposed groin, is currently retreating at a rate consistent with historical data. The project will halt the shoreline retreat at the Reserve at Sea Island, thereby protecting this valuable real estate. Retreat of the shoreline to the south is expected to continue at existing natural

rates, but with the new terminal groin and sand that bypasses beyond the seaward end of the new groin, adverse impacts to the shoreline to the south have been minimized.

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(2) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with the conservation of marine life, wildlife, or other resources;

The applicant's proposed project will not unreasonably interfere with the conservation of marine life, wildlife, or other resources. The applicant has conducted extensive studies of shorebirds and sea turtles in the project area, and has been actively involved with regulatory agencies in the monitoring and management of sea turtles since the original renourishment project. Studies in turtle nesting areas have demonstrated that renourished beaches increase the number of turtle nests (Broadwell 1991; Nelson et al. 1987).

No negative impacts are expected for sea turtles during the proposed project. Nesting data collected on Sea Island indicates that the work window from November 1 to April 30 will not overlap with the nesting season for loggerhead sea turtles, green sea turtles, or leatherback turtles on Sea Island. Upon completion, the proposed project will result in the creation of valuable sea turtle nesting habitat that does not currently exist at the project site. A Biological Assessment of the potential effects on threatened and endangered species has been prepared and is included at Attachment F.

The project vicinity also provides valuable habitat for shorebirds, including the federally protected Piping Plover (*Charadrius melodus*) and Red Knot (*Calidris canutus rufa*). A shorebird survey was conducted in the winter-spring of 2015 by Normandeau Associates, Inc. (Attachment G). Potential effects on shorebirds have been evaluated and are included in the Biological Assessment (Attachment F). While the proposed project has the potential to affect piping plover critical habitat Unit GA-14, as well as overwintering and migrating plovers and red knots within the proposed project area, the project is not likely to adversely affect piping plovers, red knots, or piping plover designated critical habitat areas due to the low suitability of the project area for the plovers and red knots for the following reasons:

- The project site is currently close to a beach access point, with high levels of disturbance
- The site currently has no little to no beach above the high tide mark

- The site has a narrow beach backed by high vegetation-covered dunes immediately above the high tide mark and, as such, is less favored by the plovers than more open beach (Nichols and Baldassarre 1990)

An Essential Fish Habitat Assessment has also been prepared, and is included as Attachment H.

(3) Whether or not the granting of a permit and the completion of the applicant's proposal will unreasonably interfere with reasonable access by and recreational use and enjoyment of public properties impacted by the project. The proposed project is to be constructed on private property where residents and guests are already granted access. The project will not interfere with access to or use and enjoyment of public properties.

9.0 Warranty Deed

The warranty deed conveying the subject property (Tract No. 1, Parcel 5; Tract No. IV, Parcel 5; Tract No. IX, Parcel 5; and Parcel 56) from Sea Island Company to Sea Island Acquisition, LLC, recorded in Deed Book 2808, page 498-770, on December 16, 2010 is included as Attachment I.

10.0 Vicinity Map

A map of the subject property is included as Attachment B.

11.0 Adjoining Property Owners

The adjoining property owners are depicted in Attachment J.

12.0 Zoning Certification

Zoning certification has been requested from Glynn County Planning & Development. A copy of the request is included as Attachment K.

13.0 Hurricane Certification

A letter certifying that the project has been designed and will be constructed in accordance with applicable hurricane resistant standards is included as Attachment L.

14.0 Permit Drawings

Drawings titled *The Reserve at Sea Island*, dated September 10, 2015 are included as Attachment C.

15.0 Application Fee

A check for the application fee of \$500.00 is included as Attachment M.