SC DEPARTMENT of ENVIRONMENTAL SERVICES

SEE SPECIAL CONDITION(S)

April 25, 2025

Town of Hilton Head Island
C/O Bryan McIlwee
1 Town Center Ct
Hilton Head, SC 29928

9489 0090 0027 6372 8335 56

Re: 2023-01324

Dear Mr. McIlwee:

The Bureau of Coastal Management (the Department) has reviewed your application to perform beach renourishment and construct breakwaters at the Pine Island Isthmus adjacent to Surrey Lane, Hilton Head, Beaufort County, South Carolina and has issued a permit for this work. You should carefully read the description of the authorized project and special conditions that have been placed on the permit, as these conditions may modify the permitted activity. In addition, there are a series of general conditions that should be reviewed. The original and one photocopy of the permit, as issued, are enclosed. After carefully reading the permit, if you wish to accept the permit as issued, sign and date in the signature block entitled "PERMITTEE" on the original version of the permit and **return it to this Department. Keep the photocopy for your records.**

PLEASE READ CAREFULLY: You are required to sign and return the original version of your permit to this Department within thirty (30) days. S.C. Code Ann. § 48-6-30(D)(2) provides, "Within thirty calendar days after the mailing of a decision [pursuant to S.C. Code Ann.§ 48-6-30(D)(1)], an applicant, permittee, licensee, certificate holder, or affected person desiring to contest the department decision may request a contested case hearing before the Administrative Law Court, in accordance with the Administrative Procedures Act."

In order to request a construction placard, please submit a critical area placard request through ePermitting. You must send in this request before the time you wish to start construction. At that time a construction placard will be sent to you to post at the construction site.

PLEASE NOTE: You are not authorized to commence work under the permit until we have received the original version of the entire permit signed and accepted by you, and a construction placard has been issued and posted at the construction site. The receipt of this permit does not relieve you of the responsibility of acquiring any other federal, state, or local permits that may be required. Please return the signed permit to the following address:

Bureau of Coastal Management
1362 McMillan Ave, Suite 400
Charleston, SC 29405

Sincerely,

Sarah Reed

Sarah E. Reed
Project Manager
Critical Area Permitting Section

Enclosure

Ec: Zak Bedell, Foth Infrastructure & Environment, LLC
Chris Creed, Foth Infrastructure & Environment, LLC

SOUTH CAROLINA DEPARTMENT OF ENVIRONMENTAL SERVICES
BUREAU OF COASTAL MANAGEMENT

CRITICAL AREA PERMIT & COASTAL ZONE CONSISTENCY CERTIFICATION

Permittee(s): **Town of Hilton Head Island**

Permit Number(s): **2023-01324**

Date of Issuance: **April 25, 2025**

Expiration Date: **April 25, 2030**

SEE SPECIAL CONDITION(S)

Location: **On and adjacent to Port Royal Sound at the Pine Island Isthmus adjacent to Surrey Lane, Hilton Head, Beaufort County, South Carolina**

This permit is issued under the provisions of S. C. Code Ann. Section 48-39-10, et seq., and 23A S.C. Code Ann. Regs. 30-1 through 30-18, *as amended*. **Please carefully read the project description and special conditions that appear on this permit/certification as they will affect the work that is allowed and may modify the work from that shown on the submitted plans. All special conditions attached to the permit will take precedent over submitted plans.** The general conditions are also a part of this permit/certification and should be read in their entirety. The S. C. Contractor's Licensing Act of 1999, enacted as S.C. Code Ann. Section 40-11-5 through 430, requires that all construction with a total cost of $5,000 or more be performed by a licensed contractor with a valid contractor's license for marine class construction, except for construction performed by a private landowner for strictly private purposes. Your signature on and acceptance of this permit denotes your understanding of the stated law regarding use of licensed contractors. **All listed special and general conditions will remain in effect for the life of the permit. This applies to permittee, future property owners, or permit assignees.**

DESCRIPTION OF THE PROJECT, AS AUTHORIZED

The plans submitted by you, attached hereto, show the work consists of the following: renourishing a beach and constructing breakwaters to restore and stabilize a barrier beach and dune system. In detail, the applicant proposes to place approximately 190,000 cubic yards of beach compatible sand and to construct six rock breakwaters between Dolphin Point and Pine Island. The sand will be sourced from the 15-acre offshore borrow site at Bay Point Shoals by cutter-suction pipeline dredge. The sand will be placed along approximately 2,200 feet (14 acres) of the Port Royal Sound shoreline. Placed sand will be shaped into a typical beach fill construction berm configuration with an upland tie in at approximately +5.5 ft (NAVD88), and a maximum crest elevation generally equivalent to the adjacent ambient beach elevations at +8 ft (NAVD88). Berm widths will vary. The landward and seaward slopes of the constructed berm will have a consistent and uniform initial slope of 1V:10H (vertical:horizontal). Beach fill will be placed prior to construction of the rock breakwaters. The rock breakwaters will be placed along 850 feet of the restored beach and dune. The breakwaters will consist of three 185' long rock structures with 120' stems, one 50' long detached breakwater, one 150' long detached breakwater and one 120' long riprap spur. The rock breakwaters will require approximately 9,700 cubic yards (21,000 tons) of rock.

SPECIAL CONDITIONS

1. The Reasonable and Prudent Measures, Terms and Conditions, and Monitoring and Reporting Requirements identified by the U.S. Fish and Wildlife Service in its Biological and Conference Opinion, including the amended Biological and Conference Opinion dated January 15, 2025, must be adhered to, as shown in Attachments A & B.

2. The beach renourishment construction window will be limited to June 1 – October 15 to minimize impacts to red knots as required by the USFWS BO/CO.

3. Sand fencing and dune vegetation that is installed must be consistent with the SC Critical Area Permitting Regulations in S.C. Code Ann. Regs. 30-13(L) and in accordance with the attached diagram (Attachment C).

4. Sand used must consist of appropriate grain sizes, quality, and color to be compatible for beach renourishment. If muddy sediments or excessively coarse sediments (rocks, large shell fragments, etc.) are observed while sand is being placed on the beach, dredging of that portion of the borrow area must be terminated immediately and the dredge must be moved to another location.

5. Qualified personnel, under the direction of a registered professional geologist or registered professional engineer, must be present on the beach during sand pumping activities to monitor the sediment quality and correlate it with borrow area conditions.

6. If accumulations of mud rollers or coarse sediments (rocks, large shell fragments, etc.) exceed the equivalent of one 15-cubic yard dump truck per 100 linear feet of beach, the material must be removed from the beach using hand labor or a beach-sweeping device as soon as practicable upon completion of the section or upon completion of the project.

7. The breakwaters must be installed as expeditiously as possible from the beach renourishment, so that a volume of sand greater than the trapping capacity of the groins/breakwaters is added to the beach as described in the permit application. A construction schedule detailing the anticipated start times and durations for both the beach renourishment and breakwater installation must be provided to the Department prior to initiating construction.

8. The Town of Hilton Head has demonstrated their financial commitment through the Beach Preservation Fee established by Ordinance 93-32 and Disaster Reserve Fund established by Ordinance 2006-16 and has adequate funds set aside in the event that complete removal and disposal of the breakwaters is required as result of storm damage or abandonment. Additionally, there must also be adequate funds in the event that remedial steps must be taken to alleviate any adverse effects on adjacent areas caused by the installation of the breakwaters. These remedial steps may include redesign and reconfiguration of the structures or even complete removal.

9. No dredging should occur within 400 feet of hardbottom habitat that may be present within the borrow areas.

10. Within the borrow areas, the contractor must begin dredge operations at the outer edges of higher elevation mounds of suitable material and proceed inwards rather than dig deep pits in the center of the borrow area whenever possible.

11. The permittee shall perform monitoring of the project and borrow sites, and monitoring reports shall be submitted to SCDES-BCM and USACE according to the schedule described in Special Condition # 12. The monitoring will include the following:
    a. Beach profile (topographic) surveys shall be performed at the Town's existing network of beach monitoring stations. Post-construction surveys shall compare beach volumes and contour positions to before-and-after project conditions to document beach volume changes and identify any erosion hotspots.
    b. Beach sediment samples shall be collected at representative locations within each sand placement area. Samples from each station shall be taken using a push core at the toe of the dune, crest of the berm, mid beach face, and shallow underwater zone. Samples shall be dried and tested for grain size distribution and shell content.
    c. Aerial photographs of the sand placement areas shall be collected.
    d. Compaction of the renourished beach shall be monitored as described in the USFWS BO/CO.
    e. Escarpment formation along the renourished beach shall be monitored as described in the USFWS BO/CO

SEE SPECIAL CONDITION(S)

SEE SPECIAL CONDITION(S)

12. The corresponding surveys and monitoring reports shall be performed on the following schedule:
    a. Beach profile (topographic) surveys – Performed pre-project within 90 days, post-project within 30 days, and then performed annually for 3 years from the post-project survey date.
    b. Beach sediment samples – Collected pre-project and post-project within 30 days.
    c. Aerial photographs – Performed pre-project within 90 days, post-project within 30 days, and then performed annually for 3 years from the post-project flight date.
    d. Compaction – Performed post-project within 30 days, and then performed within 30 days prior to May 1 for three subsequent years unless compaction results are within the native beach range after the first subsequent year.
    e. Escarpment formation monitoring – Performed post-project within 30 days, and then performed within 30 days prior to May 1 for three subsequent years if sand in the project area still remains on the dry beach.

13. All annual monitoring reports shall be submitted to USACE and SCDES-BCM within 90 days of data collection. The pre-project and baseline reports shall be submitted within 90 days of construction completion. Additionally, all pre-project, baseline, and annual monitoring reports shall be submitted as a standalone report under a separate cover. In addition to the required information for the baseline monitoring, the report should establish a comparison table in an appendix to be utilized for all subsequent annual reports to provide a straightforward comparison of all monitoring data. The monitoring reports must contain the following information at a minimum as shown in Table 1 below.

Report	TABLE 1: Required Monitoring Information, Comparisons, and Analysis				
	Beach Profile Figures	Beach Sediment Samples	Aerial Photos	Compaction	Escarpments
Pre-Project	X	X	X		
Baseline (Post-Project)	X	X	X	X	X
Year 1 Annual Report	X		X	X	X
Year 2 Annual Report	X		X	X	X
Year 3 Annual Report	X		X	X	X

14. Once the project has initiated it must be carried to completion in an expeditious manner in order to minimize the period of disturbance to the environment.

15. All necessary measures must be taken to prevent oil, tar, trash, debris and other pollutants from entering the adjacent waters or wetlands during construction.

16. The permittee is responsible for restoring adjacent or downdrift properties or critical areas if documented negative impacts are proven to the satisfaction of the Department and supported by substantial evidence to be a direct result of the renourishment project.

17. For work conducted during the sea turtle nesting season (May 1st – October 31st), the permittee must monitor daily sea turtle activity each morning prior to work being performed on the beach. The permittee may be able to utilize volunteers from the SCDNR Marine Turtle Conservation Program to fulfill this requirement. If not, they

SEE SPECIAL CONDITION(S)

must hire an environmental practitioner/consultant to do so. Regardless, a permit for monitoring for the purposes of avoiding and minimizing impacts to sea turtles associated with the proposed project must be acquired from SCDNR. Please visit the following link and choose Monitoring Permit: https://www.dnr.sc.gov/seaturtle/permit.htm. All nesting activity (evidence of successful nesting and false crawls) must be documented daily with GPS coordinates and photos. Any successful nests will need to be marked and all construction activities must avoid impacts to the nest and future hatchlings (e.g., do not place any obstacles, construction equipment, etc. in their pathway to access the ocean upon hatching). Should a nest be built within the construction footprint, please contact the SCDNR Marine Turtle Conservation Program Coordinator, Michelle Pate 843-384-0605 (cell) or 843-953-9052 (office). In the event a nest is disturbed during construction and/or an adult sea turtle or hatchling is encountered, all work must cease and the SCDNR Marine Turtle Conservation Program Coordinator should be contacted immediately.

18. During sea turtle nesting season, construction equipment and materials for project construction must be stored in a manner that will minimize impacts to sea turtles to the maximum extent practicable.

19. The permittee must hire monitors with sea turtle experience to patrol the beach at night in the project area if nighttime construction activities and equipment operation occur during the nesting season.

20. Appropriate measures must be taken to protect the integrity of roosting, feeding, and beach-nesting birds, with particular emphasis, but not limited to Piping Plovers and Red Knots during the course of the project and while conducting post-construction practices within the beaches or beach/dune system critical areas regarding compaction testing and tilling, escarpment remediation, sand fencing, and vegetation installation. Questions about minimizing disturbance to these species should be directed to the South Carolina Field Office of the U.S. Fish & Wildlife Service (USFWS) at 843-727-4707.

21. The applicant will implement the following Standard Manatee Construction Conditions:

    a. The permittee shall instruct all personnel associated with the project of the project of the potential presence of manatees and the need to avoid collision with manatees. All construction personnel must monitor water-related activities for the presence of manatee(s) during May 1 – November 15. Construction personnel are requested to monitor outside of that timeframe as manatees may be in the area before or after the above dates.

    b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.

    c. Any siltation barriers used during the project shall be made of material in which manatees cannot become entangled and must be properly secured, and regularly monitored to avoid manatee entrapment.

    d. All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible. e) If manatee(s) are seen within 100 yards of the active construction area all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.

SEE SPECIAL CONDITION(S)

e. The permittee understands and agrees that all in-water lines (rope, chain, and cable, including the lines to secure turbidity curtains) must be stiff, taunt, and non-looping. Examples of such lines are heavy metal chains or heavy cables that do not readily loop and tangle. Flexible in-water lines, such as nylon rope or any lines that could loop or tangle, must be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. In all instances, no excess line is allowed in the water. Where appropriate, in water wires, cables, should be fitted with PVC sleeve from the surface to the bottom to prevent any potential scraping of passing manatees.

f. Any collision with and/or injury to a manatee shall reported immediately to the U.S. Fish and Wildlife Service contacts: Melanie Olds, South Carolina Manatee Lead, Charleston Field Office, at 843-727-4707 ext. 205; or Terri Calleson, Manatee Recovery Coordinator, North Florida Field Office, at 904-731-3286. Reports to injured manatees may also be reported to the SCDNR at (800) 922-5431.

22. An as-built survey of the new breakwaters must be submitted to SCDES-BCM within 90 days from completion of construction. The survey must be performed by a registered land surveyor, must show all components of the breakwaters, and must list the starting and ending coordinates of the breakwaters in the SC State Plane Coordinate System, which can be obtained by survey-grade Global Positioning System equipment.

23. In the event that any historic or cultural resources and/or archaeological materials are found during the course of work, the applicant must notify the State Historic Preservation Office and the South Carolina Institute of Archaeology and Anthropology. Historic or cultural resources consist of those sites listed in the National Register of Historic Places and those sites that are eligible for the National Register. Archaeological materials consist of any items, fifty years old or older, which were made or used by man. These items include, but are not limited to, stone projectile points (arrowheads), ceramic sherds, bricks, worked wood, bone and stone, metal and glass objects, and human skeletal materials.

PERMITTEE'S ATTENTION IS DIRECTED TO GENERAL CONDITIONS NUMBERS FOUR (4) AND FIVE (5). BY ACCEPTANCE OF THIS PERMIT, PERMITTEE IS PLACED ON NOTICE THAT THE STATE OF SOUTH CAROLINA, BY ISSUING THIS PERMIT, DOES NOT WAIVE ITS RIGHTS TO REQUIRE PAYMENT OF A REASONABLE FEE FOR USE OF STATE LANDS AT A FUTURE DATE IF SO DIRECTED BY STATUTE.

THE PERMITTEE, BY ACCEPTANCE OF THIS PERMIT AGREES TO ABIDE BY THE TERMS AND CONDITIONS CONTAINED HEREIN AND TO PERFORM THE WORK IN STRICT ACCORDANCE WITH THE PLANS AND SPECIFICATIONS ATTACHED HERETO AND MADE A PART HEREOF. ANY DEVIATION FROM THESE CONDITIONS, TERMS, PLANS AND SPECIFICATIONS SHALL BE GROUNDS FOR REVOCATION, SUSPENSION OR MODIFICATION OF THIS PERMIT AND THE INSTITUTION OF SUCH LEGAL PROCEEDINGS AS THE DEPARTMENT MAY CONSIDER APPROPRIATE.

Permit Number: **2023-01324**

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

6/4/25

PERMITTEE(S) DATE

Bryan McIlwee / Town of Hilton Head Island

SHAWN COLIN

This permit becomes effective when the State official, designated to act for the Bureau of Coastal Management, has signed below.

Sarah Reed

4/25/2025

CRITICAL AREA PERMITTING PROJECT MANAGER DATE

Sarah E. Reed

Or Other Authorized State Official

SEE SPECIAL CONDITION(S)

SEE SPECIAL CONDITION(S)

GENERAL CONDITIONS:

This construction and use permit is expressly contingent upon the following conditions which are binding on the permittee:

1. The permittee, in accepting this permit, covenants and agrees to comply with and abide by the provisions and conditions herein and assumes all responsibility and liability and agrees to save the Department and the State of South Carolina, its employees or representatives, harmless from all claims of damage arising out of operations conducted pursuant to this permit.

2. If the activity authorized herein is not constructed or completed within five years of the date of issuance, this permit shall automatically expire. A request, in writing, for an extension of time shall be made not less than thirty days prior to the expiration date.

3. All authorized work shall be conducted in a manner that minimizes any adverse impact on fish, wildlife and water quality.

4. This permit does not relieve the permittee from the requirements of obtaining a permit from the U. S. Army Corps of Engineers or any other applicable federal agency, nor from the necessity of complying with all applicable local laws, ordinances, and zoning regulations. This permit is granted subject to the rights of the State of South Carolina in the navigable waters and shall be subject, further, to all rights held by the State of South Carolina under the public trust doctrine as well as any other right the State may have in the waters and submerged lands of the coast.

5. This permit does not convey, expressly or impliedly, any property rights in real estate or material nor any exclusive privileges; nor does it authorize the permittee to alienate, diminish, infringe upon or otherwise restrict the property rights of any other person or the public; nor shall this permit be interpreted as appropriating public properties for private use.

6. The permittee shall permit the Department or its authorized agents or representatives to make periodic inspections at any time deemed necessary to ensure that the activity being performed is in accordance with the terms and conditions of this permit.

7. Any abandonment of the permitted activity will require restoration of the area to a satisfactory condition as determined by the Department

8. This permit may not be transferred to a third party without prior written notice to the Department, either by the transferee's written agreement to comply with all terms and conditions of this permit or by the transferee subscribing to this permit and thereby agreeing to comply.

9. If the display of lights and signals on any structure or work authorized herein is not otherwise provided for by law, such lights and special signals as may be prescribed by the United States Coast Guard shall be installed and maintained by and at the expense of the permittee.

10. The permit construction placard or a copy of the placard shall be posted in a conspicuous place at the project site during the entire period of work.

11. The structure or work authorized herein shall be in accordance with the permit, as issued, and shall be maintained in good condition. Failure to build in accordance with the permit, as issued, or failure to maintain the structure in good condition, shall result in the revocation of this permit.

12. The authorization for activities or structures herein constitutes a revocable license. The Department may require the permittee to modify activities or remove structures authorized herein if it is determined by the Department that such activity or structures violates the public's health, safety, or welfare, or if any activity is inconsistent with the public trust doctrine. Modification or removal under this condition shall be ordered only after reasonable notice stating the reasons therefore and provision to the permittee of the opportunity to respond in writing. When the Permittee is notified that the Department intends to revoke the permit, Permittee agrees to immediately stop work pending resolution of the revocation.

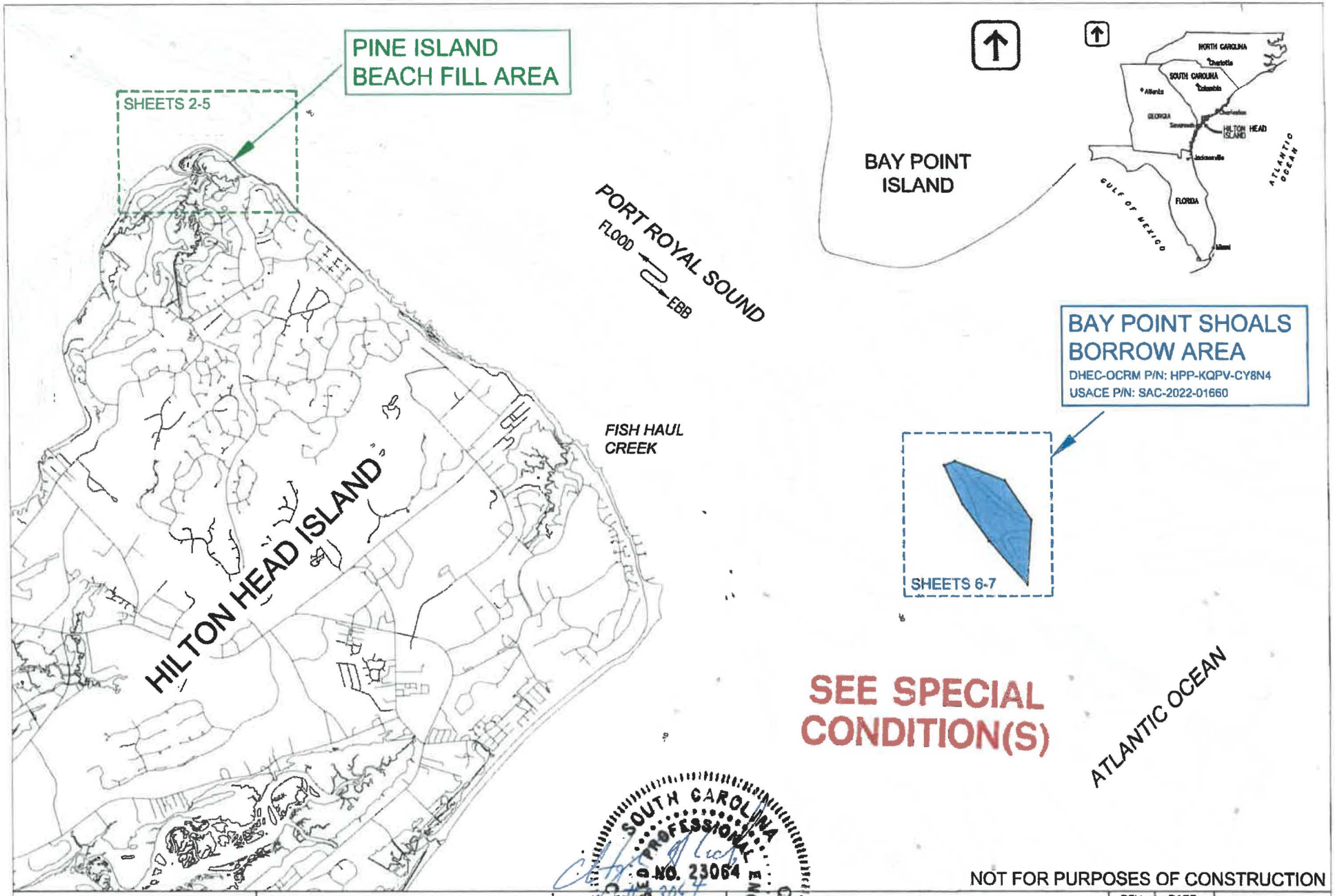
13. The Department shall have the right to revoke, suspend, or modify this permit in the event it is determined the permitted structure (1) significantly impacts the public health, safety and welfare, and/or is violation of Section 48-39-150, (2) adversely impacts public rights, (3) that the information and data which the permittee or any other agencies have provided in connection with the permit application is either false, incomplete or inaccurate, or (4) that the activity is in violation of the terms and/or conditions, including any special conditions of the permit. That the permittee, upon receipt of the Department's written intent to revoke, suspend, or modify the permit has the right to a hearing. Prior to revocation, suspension, or modification of this permit, the Department shall provide written notification of intent to revoke to the permittee, and permittee can respond with a written explanation to the Department.(South Carolina Code Section 1-23-370 shall govern the procedure for revocation, suspension or modification herein described).

14. Any modification, suspension or revocation of this permit shall not be the basis of any claim for damages against the Department or the State of South Carolina or any employee, agent, or representative of the Department or the State of South Carolina.

15. All activities authorized herein shall be, if they involve a discharge or deposit into navigable waters or ocean waters, at all times consistent with all applicable water quality standards, effluent limitations, and standards of performance, prohibitions, and pretreatment standards established pursuant to applicable federal, state and local laws.

16. Extreme care shall be exercised to prevent any adverse or undesirable effects from this work on the property of others. This permit authorizes no invasion of adjacent private property, and the Department assumes no responsibility or liability from any claims of damage arising out of any operations conducted by the permittee pursuant to this permit.

SEE SPECIAL CONDITION(S)



NOT FOR PURPOSES OF CONSTRUCTION

olsen
associates, inc.
2618 Herschel Street
Jacksonville, FL. 32204
(904) 387-6114
COA No. C00530

TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND
STABILIZATION PROJECT

PROJECT LOCATION

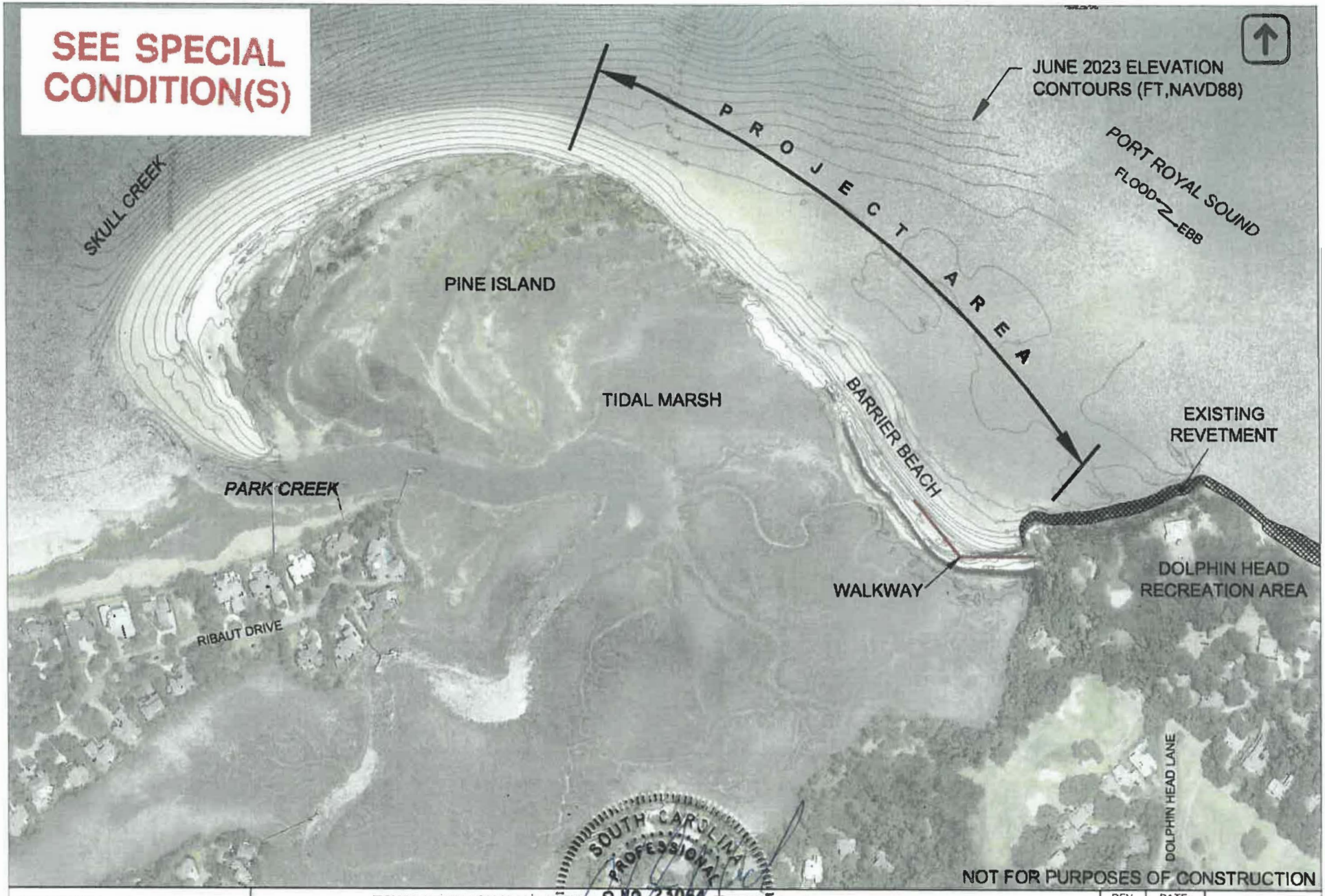
SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 23064
CHRISTOPHER L. HOEFER

0 0.5 mi 1 mi
CONTOUR DATUM - FT (NAVD88)
SURVEY - SEPT 2013

REV	DATE:
1	03/26/2024

12/04/2023
DRAWN BY: ML
SHEET 1 of 8

SEE SPECIAL CONDITION(S)



SOUTH CAROLINA PROFESSIONAL ENGINEER CHRISTOPHER G. LOCKLEAR # 29044 4-25

olsen associates, inc.
2618 Herschel Street
Jacksonville, FL. 32204
(904) 387-6114
COA No. C00530

TOWN OF HILTON HEAD ISLAND P.O. 23068
PINE ISLAND DUNE RESTORATION AND STABILIZATION PROJECT

PROJECT LOCATION

SCALE
200 FT 400 FT

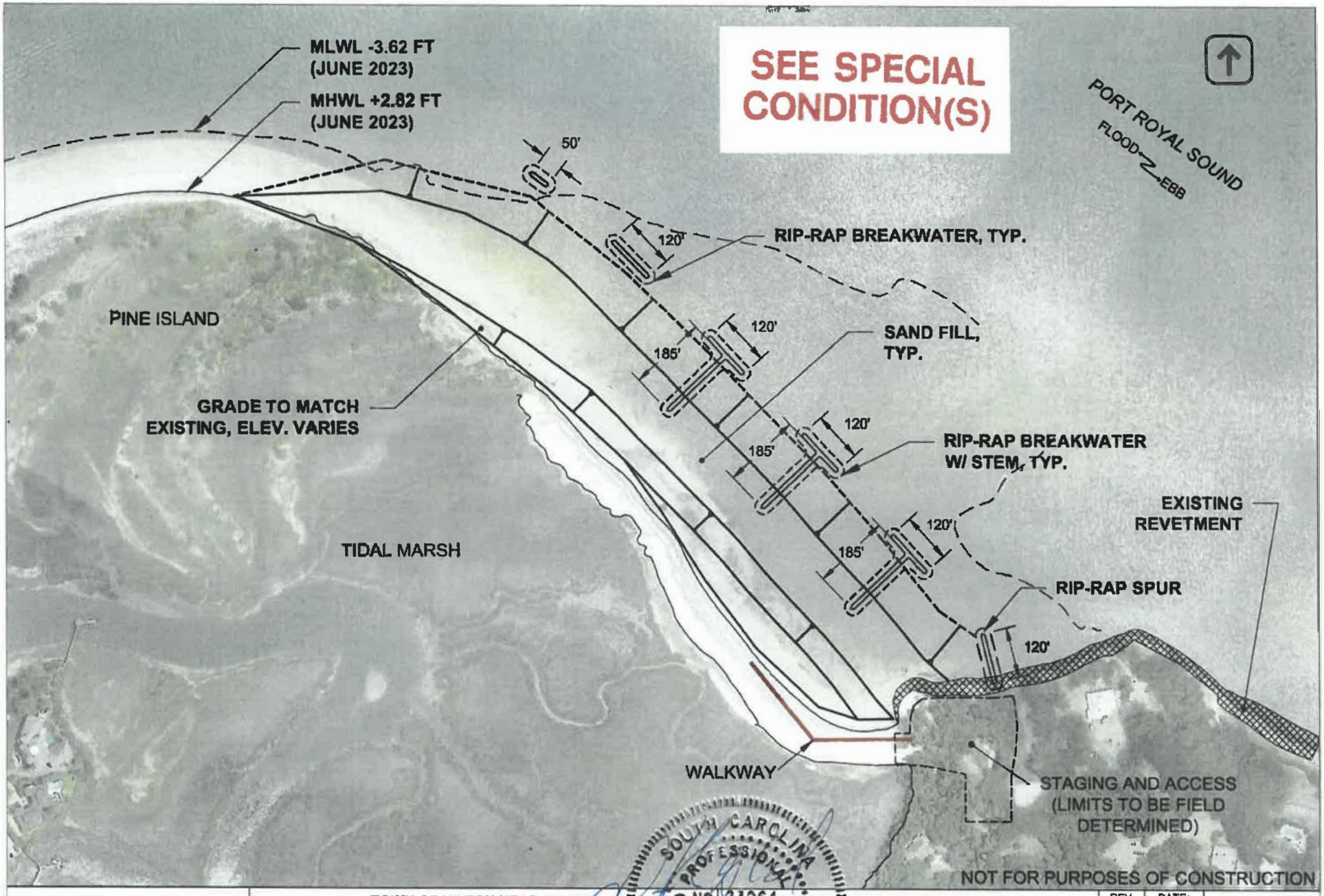
CONTOUR DATUM - FT (NAVD88)
SURVEY: JUNE 2023 AERIAL: JUNE 2023

REV	DATE:
1	03/26/2024

12/04/2023

DRAWN BY: ML

SHEET 2 of 8



olsen associates, inc.
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(904) 387-6114
COA No. C00530

TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND STABILIZATION PROJECT

PROJECT BEACH PLAN

SOUTH CAROLINA PROFESSIONAL ENGINEER LICENSED NO. 23064 CHRISTOPHER L. CHEE

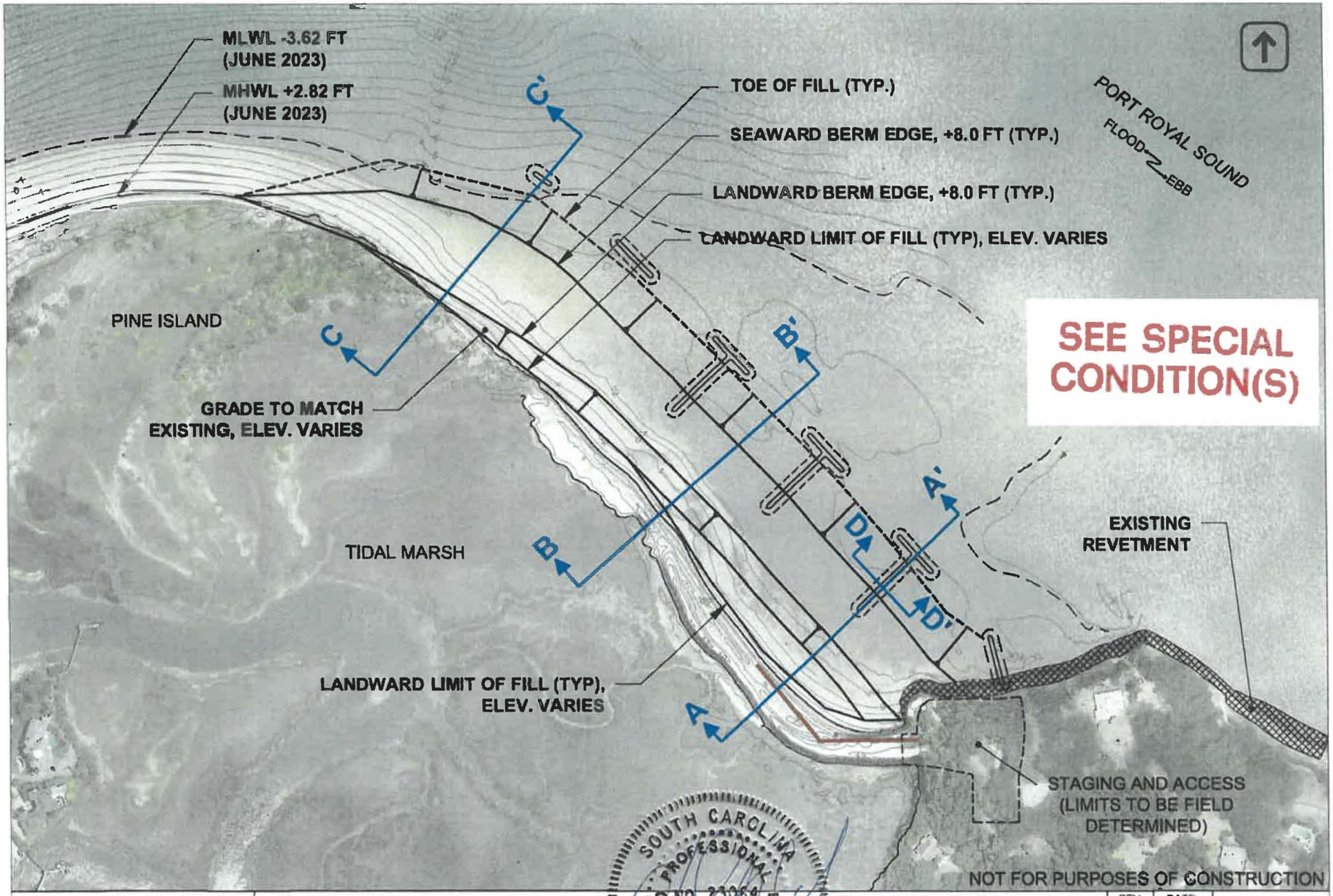
SCALE
0 150 FT 300 FT
CONTOUR DATUM - FT (NAVD88)
SURVEY: JUNE 2023 AERIAL: JUNE 2023

REV	DATE:
1	03/26/2024

12/04/2023

DRAWN BY: ML

SHEET 3 of 8



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Jacksonville, FL. 32204
(904) 387-6114
COA No. C00530

TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND
STABILIZATION PROJECT

PROJECT FILL PLAN AND STRUCTURE LAYOUT

SCALE
0 150 FT 300 FT
CONTOUR DATUM - FT (NAVD88)
SURVEY: JUNE 2023 AERIAL: JUNE 2023

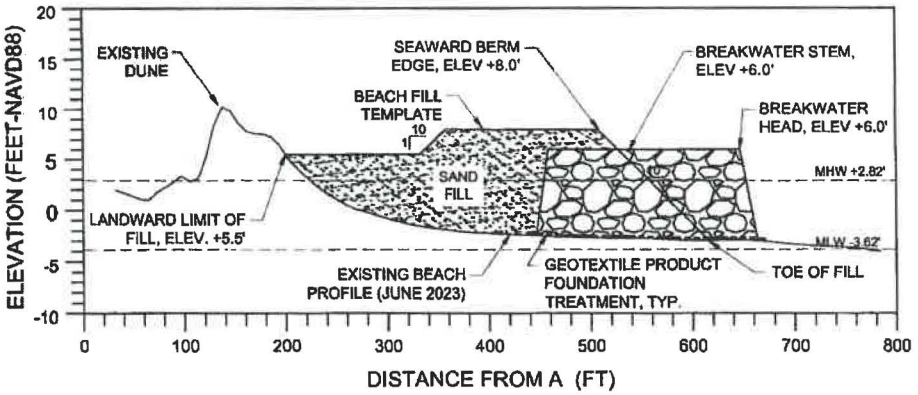
REV	DATE:
1	03/26/2024

12/04/2023

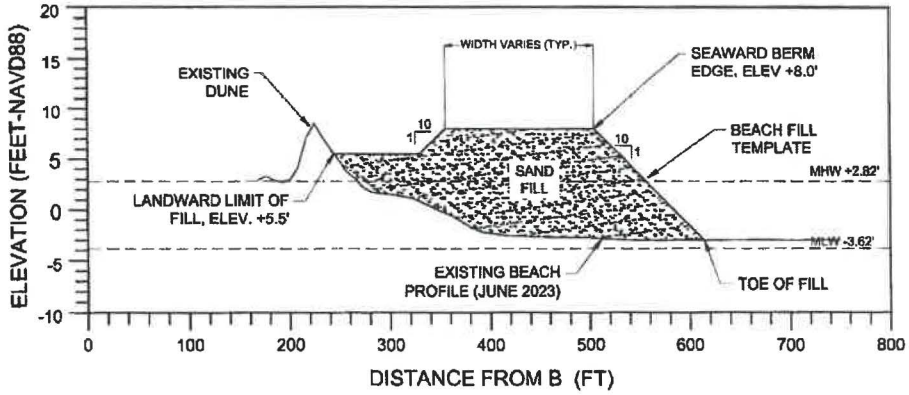
DRAWN BY: ML

SHEET 4 of 8

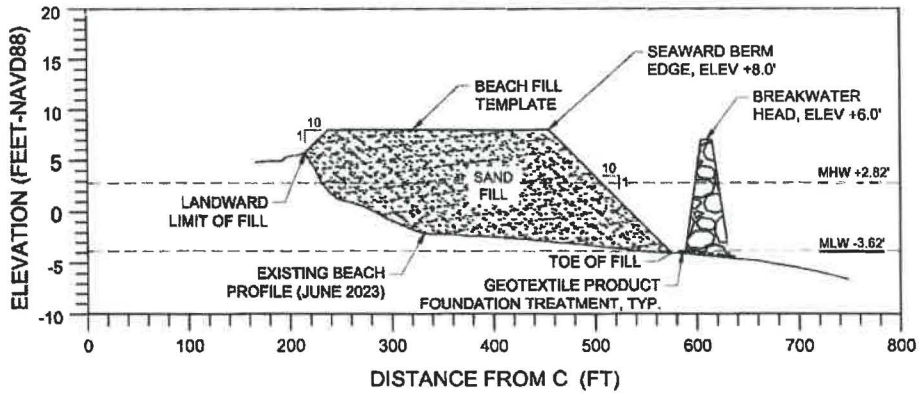
SECTION A-A'



SECTION B-B'



SECTION C-C'



DATUM	FEET
MHWL	+2.82
NAVD88	0.00
MSL	-0.30
NGVD29	-0.90
MLWL	-3.62

SEE SPECIAL CONDITION(S)

NOT FOR PURPOSES OF CONSTRUCTION

olsen associates, inc.
2618 Herschel Street
Jacksonville, FL. 32204
(904) 387-6114
COA No. C00530

TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND STABILIZATION PROJECT

BEACH FILL SECTIONS

SURVEY: JUNE 2023 (FT, NAVD88)
ELEVATION DATUM: NAVD88 (FT)

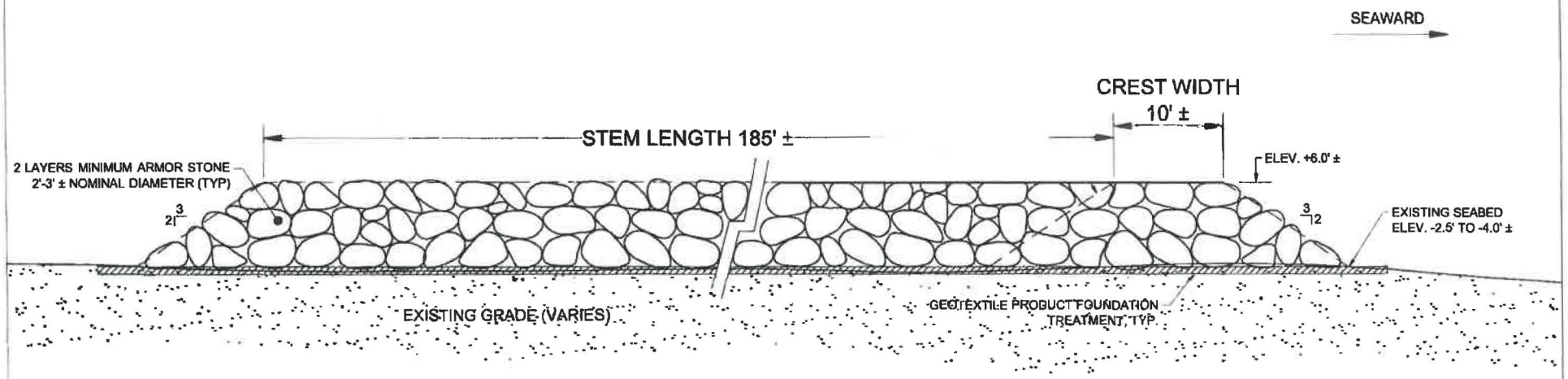
REV	DATE:
1	03/26/2024

12/04/2023

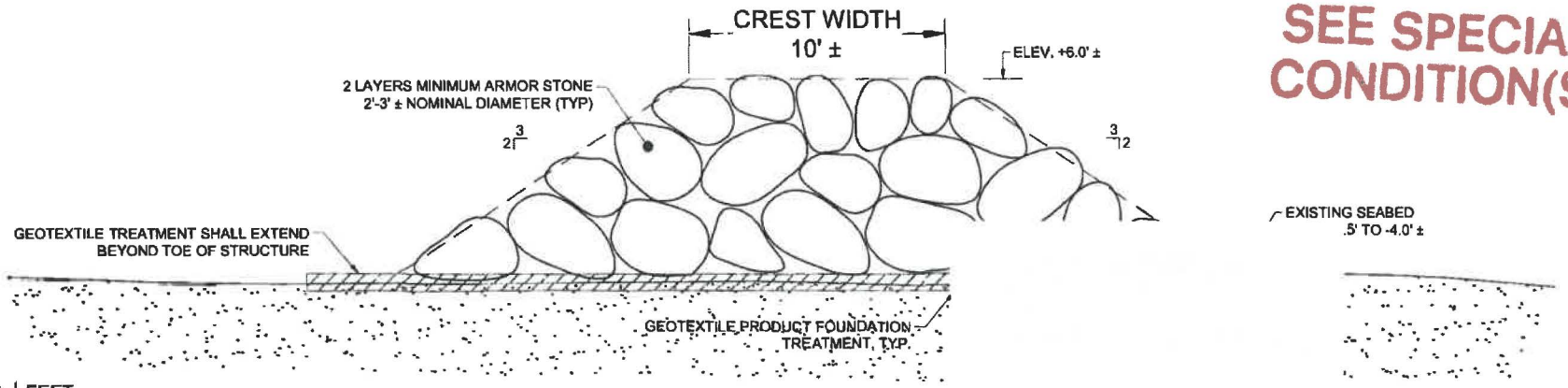
DRAWN BY: ML

SHEET 5 of 8

SECTION A-A': TYPICAL BREAKWATER STEM



SECTION D-D': TYPICAL BREAKWATER HEAD, STEM CROSS-SECTION, & SPUR



SEE SPECIAL CONDITION(S)

DATUM	FEET
MHWL	+2.82
NAVD88	0.00
MSL	-0.30
NGVD29	-0.90
MLWL	-3.62

FOR ILLUSTRATION, NOT TO SCALE
NOT FOR PURPOSES OF CONSTRUCTION

olsen associates, inc.
2618 Herschel Street
Jacksonville, FL. 32204
(904) 387-6114
COA No. C00530

TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND
STABILIZATION PROJECT

STRUCTURE SECTIONS

SURVEY: JUNE 2023 (FT, NAVD88)
ELEVATION DATUM: NAVD88 (FT)

REV	DATE:
1	03/26/2024

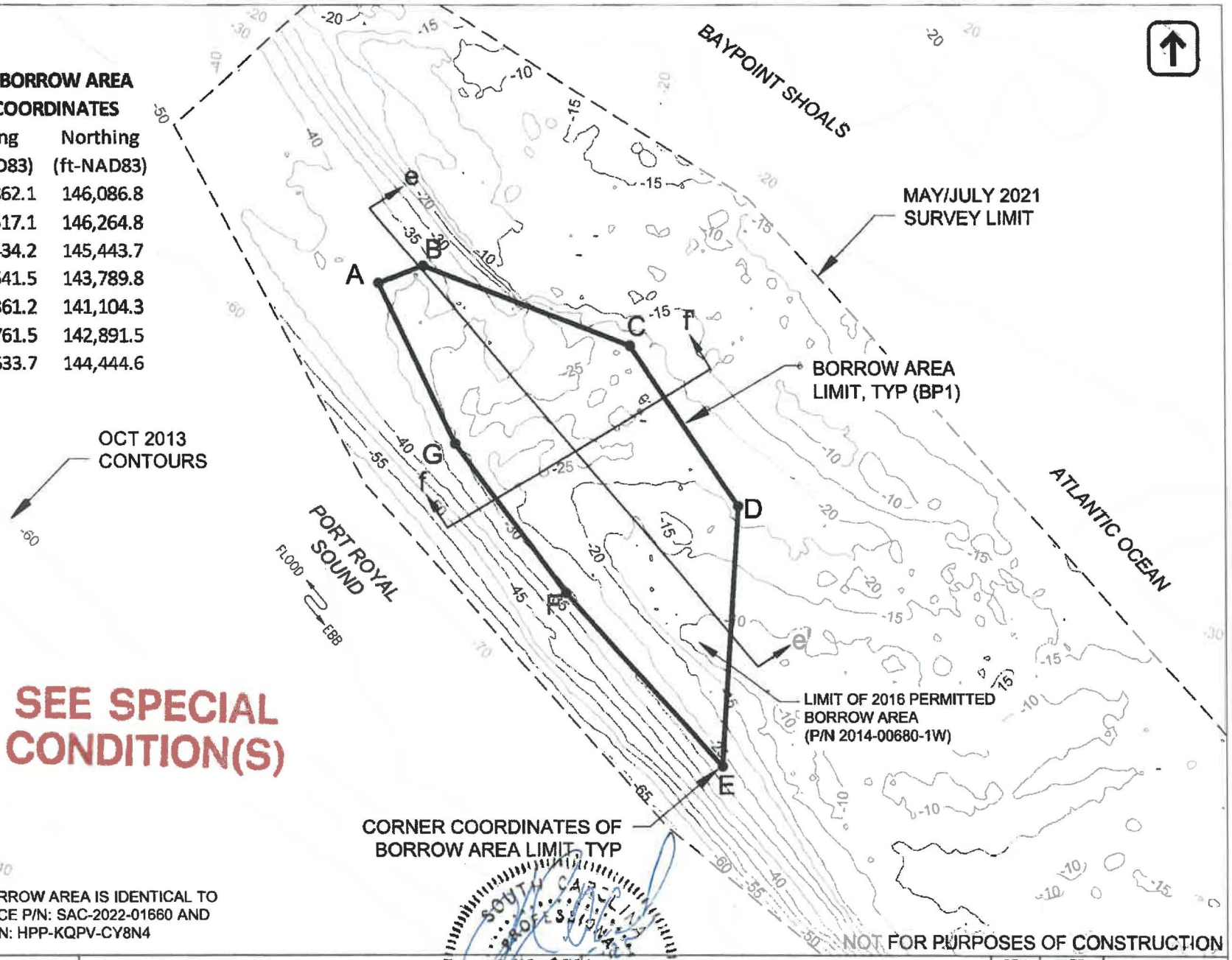
12/04/2023

DRAWN BY: ML

SHEET 6 of 8

BAY POINT BORROW AREA
CORNER COORDINATES

	Easting (ft-NAD83)	Northing (ft-NAD83)
A	2,114,862.1	146,086.8
B	2,115,317.1	146,264.8
C	2,117,434.2	145,443.7
D	2,118,541.5	143,789.8
E	2,118,361.2	141,104.3
F	2,116,761.5	142,891.5
G	2,115,633.7	144,444.6



SEE SPECIAL CONDITION(S)

NOTE: PROPOSED BORROW AREA IS IDENTICAL TO THAT FOR USACE P/N: SAC-2022-01660 AND DHEC-OCRM P/N: HPP-KQPV-CY8N4

NOT FOR PURPOSES OF CONSTRUCTION

olsen associates, inc.
2618 Herschel Street
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TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND STABILIZATION PROJECT

BAY POINT BORROW AREA PLAN

JOB NO. 2300 SCALE

0 700 FT 1400 FT

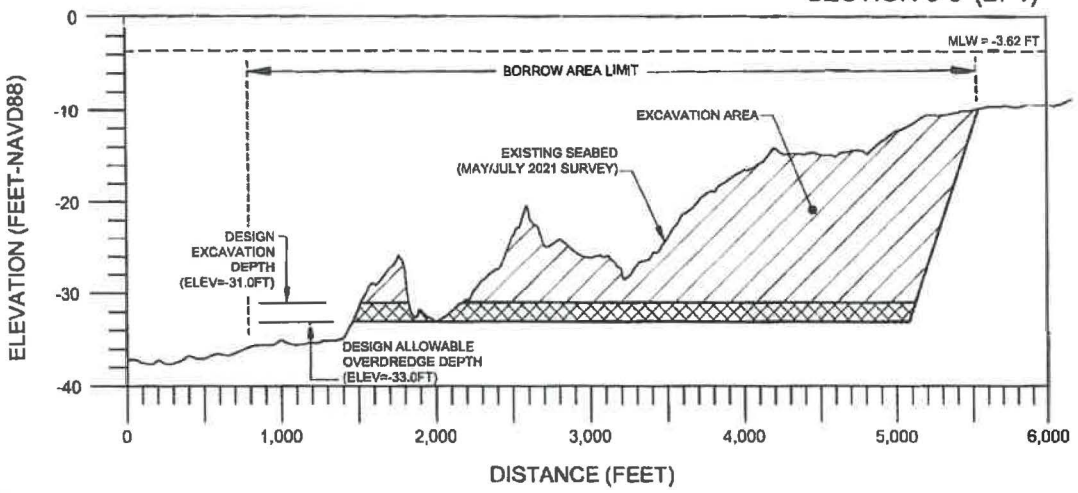
CONTOUR DATUM - FT (NAVD88)
SURVEY: MAY/JULY 2021

REV	DATE:
1	03/26/2024

12/04/2023

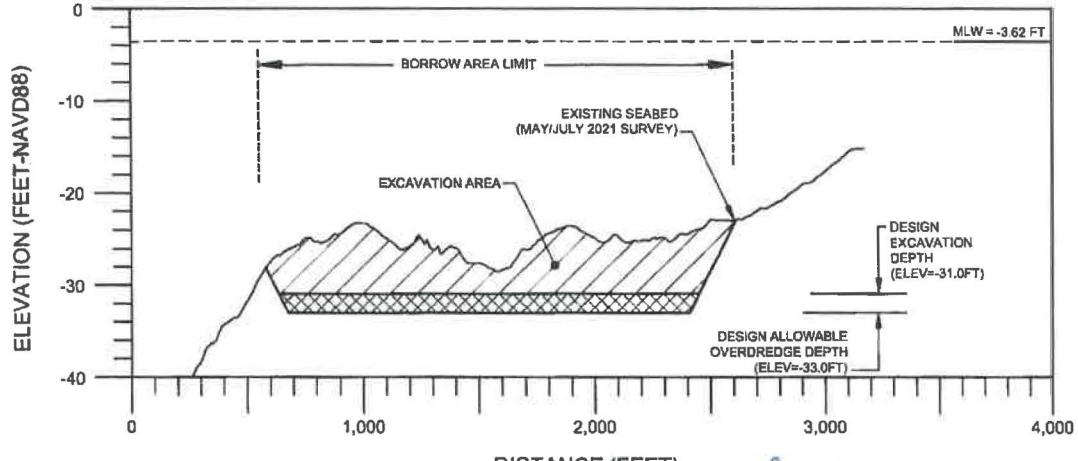
DRAWN BY: ML

SECTION e-e' (BP1)



SEE SPECIAL CONDITION(S)

SECTION f-f' (BP1)



DATUM	FEET
MHWL	+2.82
NAVD88	0.00
MSL	-0.30
NGVD29	-0.90
MLWL	-3.62

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TOWN OF HILTON HEAD ISLAND
PINE ISLAND DUNE RESTORATION AND STABILIZATION PROJECT

BAY POINT BORROW AREA SECTIONS

SURVEY: MAY/JULY 2021 (FT, NAVD88)

REV	DATE:
1	03/26/2024

12/04/2023

DRAWN BY: ML

SHEET 8 of 8

6.2.2. Rufa Red Knot

In addition to the adverse effects described in **Section 6.2.1.**, breakwater construction will destroy 1.1 acres of foraging habitat and result in high mortality of benthic infauna during construction (CEG 2024).

SEE SPECIAL CONDITION(S)

6.2.3. Loggerhead Sea Turtle

Beneficial Effects

Breakwater construction in conjunction with sand placement that is designed to extend the life of the sand placement project may benefit sea turtles more than an eroding beach it replaces.

Adverse Effects

Potential adverse effects during the breakwater construction phase include disturbance of existing nests, which may have been missed by surveyors and thus not marked for avoidance, disturbance of females attempting to nest, and disorientation of emerging hatchlings. In addition, heavy equipment will be required to construct the breakwaters. This equipment will have to traverse the beach portion of the Action Area, which could result in harm to nesting sea turtles, their nests, and emerging hatchlings.

Many of the direct effects of shoreline stabilization projects may persist over time and become indirect impacts. These indirect effects include increased susceptibility of relocated nests to catastrophic events, changes in the physical characteristics of the beach, and the formation of escarpments.

6.2.4. Critical Habitat for the Piping Plover

Breakwater construction will occur outside of designated critical habitat. Therefore, no adverse effects are anticipated.

6.2.5. Critical Habitat for the Rufa Red Knot (Proposed)

Breakwater construction along the shoreline of Pine Island is outside of proposed critical habitat unit. Therefore, no adverse effects are anticipated.

7. CUMULATIVE EFFECTS

The implementing regulations for section 7 define cumulative effects to include the effects of future State or private activities that are reasonably certain to occur within the action area of the federal action subject to consultation (50 CFR 402.02). Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

"Cumulative effects are those effects of future State or private activities, not involving federal activities, that are reasonably certain to occur within the action area of the federal action subject

to consultation" (50 CFR §402.02). Additional regulations at 50 CFR §402.17(a) identify factors to consider when determining whether activities are reasonably certain to occur. These factors include, but are not limited to: existing plans for the activity; and any remaining economic, administrative, and legal requirements necessary for the activity to go forward.

In its request for consultation, the Corps did not describe, and the Service is not aware of, any future non-federal activities that were not already considered and that are reasonably certain to occur within the Action Area. Therefore, we anticipate no cumulative effects that we must consider in formulating our opinion for the Action.

8. CONCLUSION

The Service concludes that the proposed Action is likely to adversely affect some piping plover, rufa red knot, and loggerhead sea turtle individuals. For the piping plover, the proposed Action is anticipated to further lower survival rates of all (up to 32) individuals wintering on Hilton Head Island, which is the largest known wintering population in South Carolina. The proposed Action will cause non-lethal take as harassment of all wintering individuals and an unknown number of migrating individuals on Hilton Head Island during construction and the wintering season following construction. The proposed Action will cause lethal take as harm of an unknown percentage of wintering individuals on Hilton Head Island during construction and the wintering season following construction. Project impacts resulting in harm to individuals from the Great Lakes population, the smallest and most vulnerable to extinction, could reduce the current breeding population by up to two and a half percent (2.5%) based on the highest known proportion of Great Lakes birds (four) wintering on Hilton Head Island at one time. Project impacts resulting in harm to individuals from the Atlantic Coast and Northern Great Plains populations, which are much larger, are anticipated to affect less than one percent (<1%) of each population. Potential effects include: (1) Harassment in the form of project-related activities disturbing or interfering with individuals foraging and/or roosting within the boundaries of the Action Area; (2) Displacement in the form of project-related activities pushing individuals into less optimal habitat; (3) Degrading optimal habitat by project-related activities altering the sediment characteristics that support preferred prey items; (4) Harassment through project-related activities facilitating human recreational disturbance at all stages of the tide; (5) Harm in the form of further lowering the baseline survival rates of individuals wintering within the Action Area. Although the proposed Action is expected to result in adverse effects to the piping plover, we have determined that the species' reproduction, numbers, and distribution will not be appreciably reduced as a result of the proposed Action.

For the rufa red knot, the proposed Action is anticipated to cause non-lethal take as harassment of all wintering individuals (up to 344) and an unknown number of migrating individuals on Hilton Head Island during construction and the wintering season following construction. Potential effects include: (1) Harassment in the form of project-related activities disturbing or interfering with individuals foraging and/or roosting within the boundaries of the Action Area; (2) Displacement in the form of project-related activities pushing individuals into less optimal habitat; (3) Degrading optimal habitat by project-related activities altering the sediment characteristics that support preferred prey items; (4) Harassment through project-related activities facilitating human recreational disturbance at all stages of the tide. Although the proposed Action is expected to result in adverse effects to the rufa red knot, we have determined

that the species' reproduction, numbers, and distribution will not be appreciably reduced as a result of the proposed Action.

For the loggerhead sea turtle, the proposed Action is anticipated to cause non-lethal take of 40-103 nesting female loggerheads and lethal take for seven percent of undiscovered loggerhead sea turtle nests during the nesting season(s) that overlap with project construction. Potential effects include: (1) Destruction of nests deposited within the boundaries of the Action Area; (2) Harassment in the form of disturbing or interfering with female turtles attempting to nest within the construction area or on adjacent beaches as a result of construction activities; (3) Disorientation of hatchling turtles on beaches adjacent to the construction area as they emerge from the nest and crawl to the water as a result of project lighting; and (4) Behavior modification of nesting females during the nesting season resulting in false crawls or situations where they choose marginal or unsuitable nesting areas to deposit eggs due to escarpment formation within the Action Area. Although the proposed Action is expected to result in adverse effects to the loggerhead sea turtle, we have determined that the species' reproduction, numbers, and distribution will not be appreciably reduced as a result of the proposed Action.

After reviewing the current status of the three species (piping plover, rufa red knot, and loggerhead sea turtle), the environmental baseline for Hilton Head Island, and the effects of the island-wide beach renourishment project and the Pine Island beach renourishment and breakwater construction project, it is the Service's Opinion that the Action is not likely to jeopardize the continued existence of these species. After reviewing the current status of critical habitat for the piping plover and proposed critical habitat for the rufa red knot, the environmental baseline for Hilton Head Island, and the effects of the projects, it is the Service's Opinion that the proposed Action is not likely to destroy or adversely modify critical habitat because the value as a whole will not be appreciably diminished.

Our conclusion considered the following information:

1. For the piping plover, project construction in the Fish Haul Creek and Pine Island sections will occur June 1 – October 15, which only overlaps a portion of the wintering season. This will also minimize the timeframe for benthic recovery, recolonization, and recruitment.
2. For the piping plover, we considered the proportions of each of the three breeding populations wintering on the island. Impacts to piping plovers from the Great Lakes population are more likely to have population-level impacts due to the population's very small size.
3. For the rufa red knot, project construction in the Fish Haul Creek and Pine Island sections will occur June 1 – October 15, which is outside of spring migration when the highest number of individuals would be present.
4. For the loggerhead sea turtle, the Action Area contains only 0.03% of the NRU nesting totals and nest relocations will conserve 93-100% of the nests in the Action Area.
5. For critical habitat for the piping plover, project construction is anticipated to temporarily create roosting habitat above the high tide line and impact foraging habitat below the high tide line along 3,000 linear feet of shoreline by reducing the quality of PBFs within the project footprint overlapping Unit SC-15.
6. For proposed critical habitat for the rufa red knot, project construction is anticipated to temporarily create roosting habitat above the high tide line and impact foraging habitat below

the high tide line along 7,410 linear feet of shoreline by temporarily reducing the quality of PBFs within the project footprint overlapping Unit SC-22.

7. Take of three species will be minimized by implementation of the Reasonable and Prudent Measures, and Terms and Conditions outlined below. These measures have been shown to help minimize adverse impacts to these species.

The Service's conclusion is based on, but not limited to, the information presented in the Assessments (CEG 2023, 2024); correspondence during this consultation process; information in the Service's files; and informal discussions between the Service, Corps, and other personnel.

9. INCIDENTAL TAKE STATEMENT

Section 9 of the Act and federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and applicable threatened fish and wildlife species, respectively, without specific exemption. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct." Harm is defined by the Service as an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined as "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering" (50 CFR 17.3).

Incidental take is defined as take "that results from, but is not the purpose of, carrying out another wise lawful activity conducted by the federal agency or applicant" (50 CFR 402.02). Under the terms of ESA §7(b)(4) and §7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered prohibited, provided that such taking is in compliance with the terms and conditions (T&Cs) of an incidental take statement (ITS).

9.1. Form and Amount or Extent of Take Anticipated

This section specifies the extent of take of listed wildlife species that the Action is reasonably certain to cause, which we estimated in the "Effects of the Action" section(s) of this Opinion.

Table 9-1 identifies the species, stage(s) of the annual cycle, estimated number of acres of suitable habitat, the form of take anticipated, and the section of the Opinion that contains the supporting analysis. We describe procedures for monitoring take that occurs during Action implementation for piping plovers, red knots, and loggerhead sea turtles in section 9.4.

Surrogate Measures for Monitoring

For the piping plover and red knot, detecting take that occurs incidental to the Action is not practical because it is difficult to determine the number of individuals using a site annually in the absence of consistent surveys during the nonbreeding season using a passage population survey protocol (Lyons *et al.* 2016, Smith *et al.* 2017, Gibson *et al.* 2018, Lyons *et al.* 2018).

SEE SPECIAL CONDITION(S)

When it is not practical to monitor take in terms of individuals of the listed species, the regulations at 50 CFR §402.14(i)(1)(i) indicate that an ITS may express the amount or extent of take using a surrogate (*e.g.,* a similarly affected species, habitat, or ecological conditions), provided that the Service also:

- Describes the causal link between the surrogate and take of the listed species; and
- Sets a clear standard for determining when the level of anticipated take has been exceeded.

We have identified surrogate measures in our analyses of effects that satisfy these criteria for monitoring take of the species named above during Action implementation. **Table 9-1** lists the species, stage of the annual cycle, surrogate measure, and the section of the Opinion that explains the causal link between the surrogate and the anticipated taking. We describe procedures for this monitoring in section 9.4.

Table 9-1. Surrogate measures for monitoring take of listed wildlife species caused by the Action, based on the cited BO effects analyses.

Common Name	Stage of Annual Cycle	Surrogate (units)	Quantity	Opinion Effects Analysis Section
Piping plover	Nonbreeding	Foraging habitat Linear feet (lf)	9,410 lf	6.1.1
Rufa red knot	Nonbreeding	Foraging habitat Linear feet (lf)	9,410 lf	6.1.2
Loggerhead sea turtle	Breeding	Nesting habitat Linear feet (lf)	48,700 lf	6.1.3

For piping plovers, this equates to harassment of all wintering piping plovers rising to the level of harm of an unknown percentage of up to 32 wintering plovers and harassment of an uncertain number of migrating plovers (**Section 6.1.1**). For red knots, this equates to the harassment of up to 344 wintering birds and an uncertain number of migrating knots (**Section 6.1.2**). Surveys conducted immediately prior to project construction will determine the actual number of piping plovers and rufa red knots present in the Action Area. For sea turtles, this equates to the potential harassment of 40-103 (0.03% of NRU) nesting females and harm of seven percent (12-32) nests laid within the project area that are missed (**Section 6.1.3**).

9.2. Reasonable and Prudent Measures

The Service considers the reasonable and prudent measures (RPMs) we describe in this section for the piping plover, rufa red knot, and loggerhead sea turtle to be necessary or appropriate to minimize the impact of the incidental take on the species caused by the Action.

RPM#1. Conservation Measures included in the permit application/project plans (**Section 2.5** of this Opinion) must be implemented as revised in T&C#1 in **Section 9.3**.

RPM#2. A virtual meeting/conference call between representatives of the Corps, the Town and its representatives, SCESFO, SCDNR, and shorebird and sea turtle monitors must be

held prior to the commencement of work on this Action.

RPM#3. The Town's contractor will use beach compatible sand for sand placement.

Shorebirds

RPM#4. The Town must implement the revised and approved *Town of Hilton Head Shorebird Conservation and Management Plan* (Plan) from 2015 before project construction begins. The Plan will include beach management measures aimed at reducing human recreational disturbance to offset the anticipated take resulting from the proposed Action.

Sea Turtles

RPM#5. The Town will hire sea turtle monitors to survey the project area during the sea turtle nesting season (May 1 – October 31) or until the last nest relocated out of the project area is inventoried.

RPM#6. The Town's contractor(s) will store construction equipment and materials for project construction off the beach to minimize impacts to sea turtles to the maximum extent practicable and monitor beach conditions (escarpments, lighting, and sand compaction) during the sea turtle nesting season.

9.3. Terms and Conditions

For the exemption from the take prohibitions of §9(a)(1) and of regulations issued under §4(d) of the ESA to apply to the Action, the Corps' Applicant must comply with the terms and conditions (T&Cs) of this statement, provided below, which carry out the RPMs described in the previous section. These T&Cs are mandatory. As necessary and appropriate to fulfill this responsibility, the Corps must require any permittee, contractor, or grantee to implement these T&Cs through enforceable terms that are added to the permit, contract, or grant document.

T&C#1. Conservation Measures included in the permit application/project plans must be implemented in the proposed project. The sand placement window for Fish Haul Creek and Pine Island will be limited to June 1 – October 15 to minimize impacts to piping plovers and rufa red knots. The sand placement window for the Central Island section will be September 15 – May 15 to minimize impacts to sea turtles. The Service will not put seasonal restrictions on the Heel or South Beach sections. The final construction schedule for these sections will be determined through collaborative discussions with the Town and its representatives, SCESFO, SCDNR, and the SCDNR permit holder for Hilton Head Island and implemented based on current habitat conditions and sea turtle nesting densities.

T&C#2. A virtual meeting/conference call between representatives of the Corps, Town and its representatives, SCESFO, SCDNR, and the shorebird and sea turtle monitors must be held prior to project construction. At least ten business days advance notice will be provided prior to conducting this meeting/call. The meeting/conference call will

provide an opportunity for explanation and/or clarification of the protection measures.

T&C#3. Beach compatible fill must be placed on the beach or in any associated dune system. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system. Such material must be predominately of carbonate, quartz or similar material with a particle size distribution ranging between 0.062 mm and 4.76 mm (classified as sand by either the Unified Soils or the Wentworth classification), must be similar in color and grain size distribution (sand grain frequency, mean and median grain size and sorting coefficient) to the material in the historic beach sediment at the disposal site, and must not contain:

a. Greater than five percent, by weight, silt, clay or colloids passing the #230 sieve;

b. Greater than five percent, by weight, fine gravel retained on the #4 sieve (-2.25φ);

c. Coarse gravel, cobbles or material retained on the 3/4 inch sieve in a percentage or size greater than found on the native beach;

d. Construction debris, toxic material or other foreign matter; and

e. Material that will result in cementation of the beach.

If rocks or other non-specified materials appear on the surface of the filled beach more than 50% of background in any 10,000 square foot area, then surface rock should be removed from those areas. These areas must also be tested for subsurface rock percentage and remediated as required. If the natural beach exceeds any of the limiting parameters listed above, then the fill material must not exceed the naturally occurring level for that parameter on nearby native beaches.
These standards must not be exceeded in any 10,000 square foot section extending through the depth of the nourished beach. If the native beach exceeds any of the limiting parameters listed above, then the fill material must not exceed the naturally occurring level for that parameter on nearby native beaches.

Shorebirds

T&C#4. The Town will implement the revised and approved *Town of Hilton Head Shorebird Conservation and Management Plan* (Plan) from 2015 before project construction begins unless another written agreement between the Town, Service, and Corps is reached in the interim. The Plan will include permanent, year-round dog restricted access areas along Pine Island and the Fish Haul Creek area shorelines of Port Royal Sound to minimize existing human recreational disturbance to piping plovers, red knots, and other shorebirds. These areas fall within the Town's jurisdiction and align with beach access points (**Appendix A**). The Town or its contractor will install signage at beach access points and above the spring high tide line to delineate where

the restricted area(s) begin. The Town will also install marked buoys at the mid-tide and low-tide lines to delineate the area(s) when the tide is below the high-tide line.

T&C#5. The Town will work with the Service and its shorebird partners to develop a positive messaging campaign regarding the changes to dog rules along key sections of shoreline to reduce human recreational disturbance to shorebirds. Available resources can be found at https://sos.atlanticflywayshorebirds.org/resources/.

T&C#6. The Town will hire a contractor to conduct shorebird surveys. Seasonal abundance and distribution surveys for piping plovers and rufa red knots will be conducted during project construction (if applicable depending on construction timing) and for a period of five years post-construction. Two surveys spaced one to three days apart will be conducted monthly between August and May around mid-month as tide and weather conditions allow. The survey area will include beach monument markers HI-25 through HI-39 and Pine Island from Dolphin Head Recreation Area to Park Creek. Surveys should be scheduled to start within an hour after high tide when birds will still be concentrated, but starting to forage so legs will be easier to see for re-sighting bands. Survey data will be filled out on the datasheet in the field and entered in the corresponding Excel forms in a database provided by the Service's SCESFO. Survey data will be provided to the Service's SCESFO annually by July 31.

The survey area must be surveyed for recreational use to document implementation of beach management practices and human recreational disturbance. Disturbance surveys will follow the Atlantic Flyway Disturbance Project Standard Operation Procedures (available at https://sos.atlanticflywayshorebirds.org/data-collection/). Points for point counts will be selected with input from the SCESFO. Point counts will be conducted during regularly scheduled surveys once a month August through May. Band combinations (flags, flag color, flag code, band color, and band code) on any banded shorebirds will be recorded and photographed.

T&C#7. The Town will hire a contractor to conduct roosting habitat surveys and identify and maintain posted areas in key roosting habitat. Roosting habitat surveys will be conducted and mapped before project construction and after on an annual basis until the next island-wide renourishment cycle. The Town or its contractor will seasonally post and maintain roosting habitat that is consistently occupied. Signs and string (if applicable) for posted areas will be checked during monthly surveys or after king tide and/or storm events to make sure signs and string (if applicable) are still intact. Posted areas will need to be relocated as appropriate as habitat conditions change.

Sea Turtles

T&C#8. Daily early morning surveys for sea turtle nests will be required if construction overlaps with the sea turtle nesting season (May 1 – October 31). If work will begin before October 31, daily nesting/hatching surveys must be conducted until the last nest is inventoried. If nests are laid in areas where they may be affected by construction activities, the nests must be relocated per the following requirements.

SEE SPECIAL CONDITION(S)

a. Nesting surveys and nest relocation will only be conducted by personnel with prior experience and training in nesting survey and nest marking procedures. Surveyors must have a valid SCDNR permit. Nesting surveys must be conducted daily between sunrise and 9:00 AM.

b. Only those nests that may be affected by sand placement activities will be relocated. Nests requiring relocation will be moved no later than 9:00 AM the morning following deposition to a nearby area where artificial lighting will not interfere with hatchling orientation. Relocated nests will not be placed in organized groupings. Relocated nests will be randomly staggered along the length and width of the beach in settings that are not expected to experience daily inundation by high tides or known to routinely experience severe erosion and egg loss, or subject to artificial lighting. Nest relocations in association with construction activities must cease when construction activities no longer threaten nests.

c. Nests deposited within areas where construction activities have ceased (pipeline has been removed) or will not occur for 75 days or nests laid in the nourished berm prior to tilling must be marked and left in situ unless other factors threaten the success of the nest. The turtle permit holder will install an on-beach marker at the nest site. No activity will occur within this area nor will any activities occur which could result in impacts to the nest. Nest sites will be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activity.

T&C#9. The Town must hire nighttime sea turtle monitors to patrol the beach at night in the project area (including the entire length of the pipeline) if nighttime construction activities and equipment occur during the nesting season. Monitors should be familiar with locating sea turtle tracks in the dark at all stages of the tide. Monitors must patrol the entire length of the pipeline for nesting females during the nesting portion of the season (May 1 – August 31). Monitors must check all access ramps over the pipeline multiple times a night to make sure a nesting female does not get stuck behind the pipeline. Monitors must also escort any construction-related vehicles (heavy equipment and crew/supply transport vehicles) driving on the beach between dusk and dawn outside of the active nighttime project area. Vehicles should always drive along the current water line and not exceed 10 MPH. In the unlikely event that a nesting female crawls within 100 feet of the active nighttime construction area where construction equipment is operating, operations must shut down until the turtle returns to the water or the nest is relocated. If a nest is laid, a SCDNR permitted sea turtle monitor must relocate the nest before nighttime construction operations resume. Beginning July 1, sea turtle monitors must check all nests due to emerge on a nightly basis after 9 pm until three nights after the first sign of emergence or the inventory of the nest contents. Monitors must note nightly if construction lighting is visible from nests due to emerge and work with the contractor to correct any lighting issues before nest emergence.

SEE SPECIAL CONDITION(S)

T&C#10. During the sea turtle nesting season, nighttime storage of construction equipment not in use must be off the beach to minimize disturbance to sea turtles. Staging areas, including temporary storage, for construction equipment and pipes must be located off the beach to the maximum extent practicable. All construction pipes placed on the beach must be located as far landward as possible without compromising the integrity of the dune system. Pipes placed parallel to the dune must be 5 to 10 feet away from the toe of the dune if the width of the beach allows.

T&C#11. During the sea turtle nesting season, the contractor must not extend the beach fill more than 500 feet (or other agreed upon length) along the shoreline between dusk and dawn and the following day until the daily nesting survey has been completed and the beach cleared for fill advancement. An exception to this may occur if there is permitted nighttime sea turtle monitor is present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500 feet is not feasible for the project, an agreed upon distance will be decided on during the preconstruction meeting. Once the beach has been cleared and the necessary nest relocations have been completed, the contractor will be allowed to proceed with the placement of fill and work activities during daylight hours until dusk at which time the 500-foot length (or other agreed upon length) limitation must apply.

T&C#12. Visual surveys for escarpments along the project area must be made daily during the nesting season or after project completion outside of the nesting season and within 30 days prior to May 1. Escarpments that exceed 18 inches in height for 100 feet must be leveled and the beach profile must be reconfigured to minimize scarp formation. During the nesting season, escarpments should be leveled at first light after the area is cleared by a nighttime sea turtle monitor. The section of beach is considered cleared for escarpment removal after all crawls and nests have been documented and nests have been relocated out of the area.

T&C#13. Sand compaction must be monitored in sand placement areas immediately after completion of the project and prior to May 1 for three subsequent years unless compaction results are within the native beach range after the first subsequent year. If tilling is needed, the area must be tilled to a depth of 24 inches. Each pass of the tilling equipment must be overlapped to allow more thorough and even tilling. All tilling activity must be completed at least once prior to nesting season. An electronic copy of the results of the compaction monitoring must be submitted to the SCESFO prior to any tilling actions being taken or if a request not to till is made based on compaction results. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post construction compaction levels. Additionally, out-year compaction monitoring and remediation are not required if placed material no longer remains on the dry beach.

a. Compaction sampling stations must be located at 500-foot intervals along the sand placement template. One station must be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station must be

SEE SPECIAL CONDITION(S)

midway between the dune line and the high-water line (normal wrack line).

b. At each station, the static digital cone penetrometer must be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates must be located as close to each other as possible, without interacting with the previous hole or disturbed sediments. The three replicate compaction values for each depth must be averaged to produce final values for each depth at each station. Reports will include all 18 values for each transect line, and the final six averaged compaction values. If values are measured in kilogram per square centimeter (kg/cm^2), they should be converted to pounds per square inch (psi).

c. If the average value for any depth exceeds 500 psi for any two or more adjacent stations, then that area must be tilled immediately prior to May 1.

d. If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then consultation with the SCESFO will be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required.

e. Tilling must occur landward of the wrack line and avoid all vegetated areas three square feet or greater with a three-square foot buffer around the vegetated areas.

T&C#14. Predator-proof trash receptacles must be installed and maintained during construction at all beach access points used for the project construction to minimize the potential for attracting sea turtle nest predators. The contractors conducting the work must provide predator-proof trash receptacles for the construction workers. All contractors and their employees must be briefed on the importance of not littering and keeping the project area trash and debris free.

T&C#15. Direct lighting of the beach and nearshore waters must be limited to the immediate construction area during nesting season and must comply with safety requirements. Lighting on all equipment must be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, Corps EM 385-1-1, and OSHA requirements. Light intensity of lighting equipment must be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields must be affixed to the light housing and be large enough to block light from all on-beach lamps from being transmitted outside the active nighttime construction area or to the adjacent sea turtle nesting beach (Figure 8-1). The Town's contractor will take corrective measures to address construction-related lighting

Attachment B

United States Department of the Interior

FISH AND WILDLIFE SERVICE

South Carolina Ecological Services Field Office
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407
https://www.fws.gov/office/south-carolina-ecological-services

In Reply Refer to:
FWS/R4/ES/SCFO/2023-0091041

January 15, 2025

LTC Robert Nahabedian, District Engineer
U.S. Army Corps of Engineers
69A Hagood Avenue
Charleston, SC 29403

SEE SPECIAL CONDITION(S)

Attn: Chelsea Fannin

Re: Town of Hilton Head Island Island-wide and Pine Island Beach Renourishment Project– Beaufort County, South Carolina – Biological and Conference Opinion Amendment

Dear Lieutenant Colonel Nahabedian:

This letter constitutes an amendment to the August 8, 2025, Biological and Conference Opinion (BO/CO) for the Town of Hilton Head's 2025 Island-wide Beach Renourishment project. This amendment of the Terms and Conditions (T&Cs) of the BO/CO is based on correspondence and meetings between the U.S. Fish and Wildlife Service (Service), the Town of Hilton Head Island (Town), and the Town's consultants. The following T&Cs are substituted for T&Cs 4-7 of the August 8, 2025, BO/CO. Changes to the original text are underlined.

T&C#4. The Town will implement the revised and approved Town of Hilton Head Shorebird Conservation and Management Plan (Plan) from 2015 before project construction begins unless another written agreement between the Town, Service, and Corps is reached in the interim. The Plan will include <u>one</u> permanent, year-round dog restricted access area along the Fish Haul Creek shoreline of Port Royal Sound to minimize existing <u>and future</u> human recreational disturbance to piping plovers, red knots, and other shorebirds. <u>The specific location will be finalized in coordination with and approved by the Service.</u> This area falls within the Town's jurisdiction (Appendix A, <u>Figure 13.1</u>). The Town or its contractor will install signage at <u>nearby</u> beach access points and above the spring high tide line to delineate where the restricted area begins. The Town will also install <u>signage and/or</u> marked buoys at the mid-tide and low-tide lines to delineate the area when the tide is below the high-tide line.

T&C#5. The Town will work with the Service and its shorebird partners to develop a positive messaging campaign regarding the changes to dog rules along the Fish Haul Creek shoreline to reduce human recreational disturbance to shorebirds. Available resources can be found at https://sos.atlanticflywayshorebirds.org/resources/.

T&C#6. The Town will hire a contractor or use qualified Town staff (approved by USFWS) to conduct shorebird surveys. Seasonal abundance and distribution surveys for piping plovers and rufa red knots will be conducted during project construction (if applicable depending on construction timing) and for a period of five years post-construction. Surveys will start in August of 2025 before construction starts on the Port Royal Sound shoreline (Pine Island and Fish Haul Creek). Two surveys spaced one to three days apart will be conducted monthly between August and May around mid-month as tide and weather conditions allow. The survey area will include beach monument markers HI- 25 through HI-39 and Pine Island from Dolphin Head Recreation Area to Park Creek. Surveys should be scheduled to start within an hour after high tide when birds will still be concentrated, but starting to forage so legs will be easier to see for re-sighting bands. Survey data will be filled out on the datasheet in the field and entered in the corresponding Excel forms in a database provided by the Service's SCESFO. Survey data will be provided to the Service's SCESFO annually by July 31.

The survey area must be surveyed for recreational use to document implementation of beach management practices and human recreational disturbance. Disturbance surveys will follow the Atlantic Flyway Disturbance Project Standard Operation Procedures (available at https://sos.atlanticflywayshorebirds.org/data-collection/). Points for point counts will be selected with input from the SCESFO. Point counts will be conducted during regularly scheduled surveys once a month August through May for the duration of the seasonal abundance and distribution surveys. Band combinations (flags, flag color, flag code, band color, and band code) on any banded shorebirds will be recorded and photographed.

T&C#7. The Town will hire a contractor or use qualified Town staff (approved by USFWS) to conduct roosting habitat surveys and identify and maintain posted areas in key roosting habitat. Roosting habitat surveys will be conducted and mapped before project construction and after on an annual basis until the next

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island-wide renourishment cycle. The Town or its contractor will seasonally post and maintain roosting habitat that is consistently occupied. Signs and string (if applicable) for posted areas will be checked during monthly surveys or after king tide and/or storm events to make sure signs and string (if applicable) are still intact. Posted areas will need to be relocated as appropriate as habitat conditions change.

Figures 13.1 and 13.2 in Appendix A on page 85 are removed and Figure 13.3 is replaced with Figure 13.1 below.

Figure 13.1 Dog Restricted Access Area along Fish Haul Creek Shoreline

Thank you for your continued interest in the conservation of threatened and endangered species. If you have any questions regarding this consultation, please contact Melissa Chaplin of this office at 843-906-7991 or Melissa_Chaplin@fws.gov.

Sincerely,

Christy Johnson-Hughes

Christy Johnson-Hughes
Project Leader

SEE SPECIAL CONDITION(S)

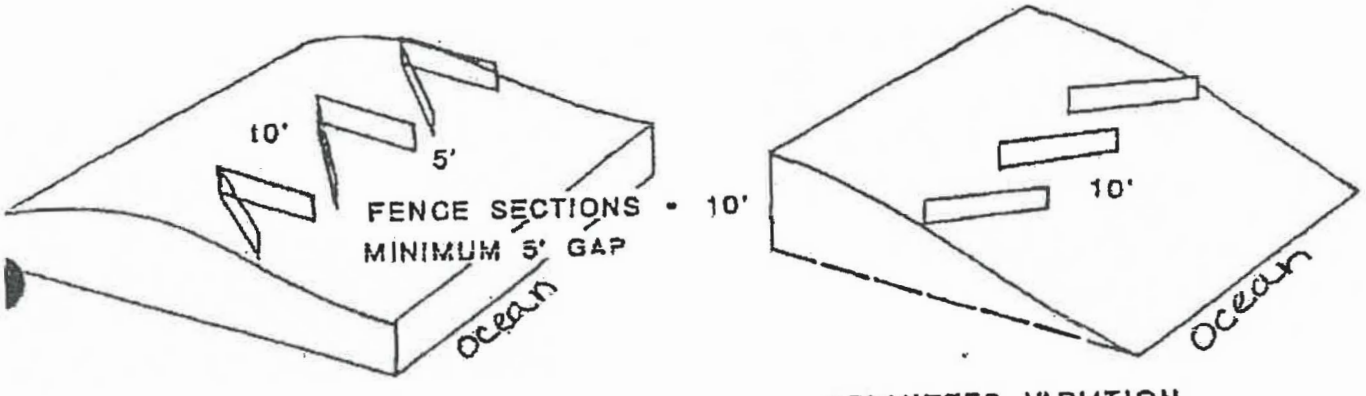
SEE SPECIAL CONDITION(S)

Attachment C

SAND FENCING

PERMITTED CONFIGURATIONS OF FENCE TO TRAP WIND-BLOWN SAND

NORMAL DUNE



SECTION ANGLE MAY VARY
90 TO 140 DEGREES

PERMITTED VARIATION