



Healthy People. Healthy Communities.

June 8, 2017

City of Isle of Palms
c/o Ms. Linda Tucker
P.O. Box 508
Isle of Palms, SC 29451

**SEE SPECIAL
CONDITION(S)**

**Re: Permit #: 2016-00803
City of Isle of Palms Beach Renourishment**

Dear Ms. Tucker:

The SCDHEC Office of Ocean and Coastal Resource Management has reviewed your application to construct a beach renourishment project at 53rd Avenue to the 18th hole of the Wild Dunes Links Course and from Breach Inlet to 14th Avenue, Isle of Palms, Charleston 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. Please note that all sandbags and experimental Wave Dissipation System (WDS) structures must be removed in their entirety from the beach in conjunction with beach renourishment. 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. If this permit is not signed and returned within thirty (30) days of issuance, OR appealed within 15 days as described on the enclosed "Guide to Board Review", the Department reserves the right to cancel this permit. Please carefully review the enclosed "Guide to Board Review" for information and deadlines for appealing this permit.

We have also enclosed a "request for a construction placard" card. You must send in this card 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 or local permits that may be required. Please return the signed permit to the following address:

DHEC-OCRM
1362 McMillan Ave, Suite 400
Charleston, SC 29405

Sincerely,

Matthew J. Slagel
Project Manager, Critical Area Permitting

Enclosure

cc: Mr. Blair Williams, Critical Area Permitting Section Manager
Mr. Steven Traynum, Coastal Science & Engineering, Inc., Agent
Mr. Warren May, U.S. Army Corps of Engineers

**SEE SPECIAL
CONDITION(S)**

South Carolina Board of Health and Environmental Control

Guide to Board Review

Pursuant to S.C. Code Ann. § 44-1-60

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of \$100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation or settlement discussions during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference. In matters pertaining to decisions under the South Carolina Mining Act, appeals should be made to the South Carolina Mining Council.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR) and the required filing fee of one hundred dollars (\$100) must be received by Clerk of the Board within fifteen (15) calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after 5:00 p.m.
2. RFRs shall be in writing and should include, at a minimum, the following information:
 - The grounds for amending, modifying, or rescinding the staff decision;
 - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
 - the relief requested;
 - a copy of the decision for which review is requested; and
 - mailing address, email address, if applicable, and phone number(s) at which the requestor can be contacted.
3. RFRs should be filed in person or by mail at the following address:
South Carolina Board of Health and Environmental Control
Attention: Clerk of the Board
2600 Bull Street
Columbia, South Carolina 29201
Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).
4. The filing fee may be paid by cash, check or credit card and must be received by the 15th day.
5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.
6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor. All personal and financial identifying information will be redacted from the RFR and accompanying documentation before the RFR is released to the Board, Department staff or the public.
7. If an RFR pertains to an emergency order, the Clerk will, upon receipt, immediately provide a copy of the RFR to all Board members. The Chairman, or in his or her absence, the Vice-Chairman shall based on the circumstances, decide whether to refer the RFR to the RFR Committee for expedited review or to decline in writing to schedule a Final Review Conference. If the Chairman or Vice-Chairman determines review by the RFR Committee is appropriate, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response and RFR Committee review will be provided on an expedited schedule defined by the Chairman or Vice-Chairman.
8. The Clerk will email the RFR to staff and Office of General Counsel and request a Department Response within eight (8) working days. Upon receipt of the Department Response, the Clerk will forward the RFR and Department Response to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within a twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will

respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. Contested case guidance will be included within the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

9. If the RFR is to be considered by the RFR Committee, the Clerk will notify the Presiding Member of the RFR Committee and the Chairman that further review is requested by the Board. RFR Committee meetings are open to the public and will be public noticed at least 24 hours in advance.
10. Following RFR Committee or Board consideration of the RFR, if it is determined no Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Conference. Contested case guidance will be included within the letter.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.
2. The Clerk will request Department staff provide the Administrative Record.
3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publically noticed and should:
 - include the place, date and time of the Conference;
 - state the presentation times allowed in the Conference;
 - state evidence may be presented at the Conference;
 - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
 - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.
4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. Final Review Conference and Decision

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:
 - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
 - Type of decision (permit, enforcement, etc.) and description of the program.
 - Parties
 - Description of facility/site
 - Applicable statutes and regulations
 - Decision and materials relied upon in the administrative record to support the staff decision.
 - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
 - Rebuttal by Department staff [15 minutes]
 - Rebuttal by Requestor(s) [10 minutes]

Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.
2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the Conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the Conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at the conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court or in matters pertaining to decisions under the South Carolina Mining Act, to request a hearing before the South Carolina Mining Council.. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

**SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
OFFICE OF OCEAN AND COASTAL RESOURCE MANAGEMENT**

CRITICAL AREA PERMIT & COASTAL ZONE CONSISTENCY CERTIFICATION

Permittee: City of Isle of Palms

Permit Number: 2016-00803

Date of Issuance: June 8, 2017

Expiration Date: June 8, 2022

Location: On and adjacent to the Atlantic Ocean at 53rd Avenue to the 18th hole of the Wild Dunes Links Course and from Breach Inlet to 14th Avenue, Isle of Palms, Charleston County, South Carolina. TMS: Various.

**SEE SPECIAL
CONDITION(S)**

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 (Supp. 2005). **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 precedence 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 performing beach renourishment. Specifically, 2,000,000 cubic yards of beach quality sediment will be placed via hydraulic cutterhead dredge along 19,000 feet of shoreline. Reaches 1 & 2, from 53rd Avenue to the Wild Dunes Links Course 18th hole, will have up to 1,400,000 cubic yards placed. Reach 3, from Breach Inlet to 14th Avenue, will have up to 600,000 cubic yards placed. In addition to using a hydraulic cutterhead pipeline dredge, nourishment will be accomplished with other equipment typical of beach nourishment projects, including submerged pipelines, bulldozers, loaders, and accessory equipment. Temporary training dikes will be used to contain the slurry discharge parallel to the shore. Nourishment fill sections will be dependent on the condition of the beach at the specific location, varying from 30 cubic yards per foot to 400 cubic yards per foot with tapers at the ends of each fill reach. The construction berm elevation will be placed at +5.5 ft NAVD, and a small dune and storm berm will be constructed along the portions of the beach lacking any significant dune feature at the time of the project. The dune will consist of a crest elevation no greater than +10 ft NAVD and crest width no wider than 15 ft with a seaward slope of 1 on 4. The storm berm will be constructed at +7 ft to +8 ft NAVD and will extend up to 50 ft seaward of the dune toe. The seaward slope of the construction berm will be 1 on 20 between +5.5 ft and the mean high water (MHW) contour. Sand fencing and vegetation will be installed in strategic locations along the landward end of the berm to facilitate natural dune growth. Three borrow areas located about 2 miles offshore (E, F, and I) will be used for the project, and the maximum beach renourishment fill volume will require 150 acres of borrow area to be disturbed. Combined, borrow areas E, F, and I have 375 acres. The work as described is to restore the recreational beach along portions of Isle of Palms, restore protective beach

seaward of existing landward structures, provide a buffer between existing infrastructure and the ocean, eliminate the need for emergency erosion control measures, and improve beach aesthetics and enhance its recreational value.

SPECIAL CONDITIONS

1. The *Reasonable and Prudent Measures and Terms and Conditions* in the U.S. Fish and Wildlife Service's Biological Opinion dated April 17, 2017 must be followed. See Attachment A.
2. Work authorized in this permit may only be conducted between October 1 and March 31. No construction may occur between April 1 and September 30, in accordance with the U.S. Fish and Wildlife Service's Biological Opinion dated April 17, 2017 and EFH Conservation Recommendations provided by NOAA's National Marine Fisheries Service in a letter dated January 13, 2017.
3. The beach must be monitored for nesting and/or hatchling sea turtles before, during, and after project construction each day if the work occurs during the nesting season (May 1 – October 31). Specifically, the contractors performing work under this permit shall be in direct contact with the S.C. Department of Natural Resources (DNR) Marine Turtle Conservation Program (MTCP) representative. Daily, early surveys of the beach must be performed to document turtle nesting activity, and the MTCP representative shall be consulted each morning prior to any work being performed on the beach. In the event a nest is disturbed during construction and/or sea turtle adult is encountered, all work should cease and the DNR MTCP should be contacted immediately. The MTCP contact is Michelle Pate who can be reached at 843-953-9052 (office) or PateS@dnr.sc.gov.
4. Appropriate measures must be taken to protect the integrity of wintering and beach-nesting birds of State concern, with particular emphasis, but not limited to Piping Plovers and Red Knots during the course of the project and while conducting post-construction practices on the beach and dune system regarding compaction testing and tilling, escarpment remediation, sand fencing, and vegetation installation.
5. All sandbags and experimental Wave Dissipation System (WDS) structures must be removed in their entirety from the beach in conjunction with beach renourishment. If removal activities will take place from May 1 through October 31, the work must be conducted during daylight hours only and must not commence until completion of the sea turtle survey each day. Nourishment sand must not be placed on top of or landward of sandbags or WDS structures at any time. Coordinated sand placement seaward of sandbags and WDS structures and removal of sandbags and WDS structures may take place at the same time. Prior to sand placement in the areas with sandbags and WDS structures, DHEC-OCRM staff must be notified to observe the removal of these structures. Notification must be sent via email to Sean Briggs, Manager of the Compliance and Enforcement Section at briggssm@dhec.sc.gov.
6. 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. Maximum authorized dredge depth is -7 feet NAVD88 plus 1 foot over depth.

SEE SPECIAL CONDITION(S)

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7. Dredging must be performed by hydraulic cutterhead suction dredge only.
8. A 300-ft radius avoidance buffer should be established at Borrow Area E, centered to protect a cluster of four magnetic anomalies located near a charted shipwreck as identified in the *Phase 1 Remote Sensing Archaeological Survey of Three Proposed Borrow Sites, Isle of Palms, Charleston County, SC*, dated February 14, 2017.
9. No dredging should occur within 400 feet of hardbottom habitat that may be present within any of the three borrow areas.
10. All necessary measures must be taken to prevent oil, tar, trash, debris, and other pollutants from entering the adjacent waters or wetlands during construction.
11. Only clean sand, free from all potential sources of pollution, must be used for beach renourishment.
12. Sand used must consist of appropriate grain sizes 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.
13. Qualified personnel, under the direction of a registered professional geologist, must be present on the beach during sand pumping activities to monitor the sediment quality and correlate it with borrow area conditions.
14. 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.
15. At the sand placement areas on the beach, topographic and bathymetric surveys must be conducted before the project, after the project, and annually for 3 years following the project. Surveys will be conducted at profiles not to exceed 200 feet in spacing in the alongshore direction. The profiles will encompass the beach between a point landward of the stable dune and extend to depths of -12 ft NAVD, or a distance of 3,000 feet from the shoreline, whichever is closer. Sediment samples must also be collected along the beach at stations spaced 1,000 feet apart in the alongshore direction before and after the project. At each station, samples will be obtained at the toe of the dune, crest of the berm, mid beach face, and shallow underwater zone. Annual monitoring reports must be submitted to SCDHEC-OCRM.
16. At the borrow areas, bathymetric surveys of the dredge areas must be conducted before the project, after the project, and years 1, 3, and 5 following the project. Surveys will encompass the boundaries of the dredge areas and will include a minimum 400-ft buffer along the outside of each area. Surveys will be completed using track lines at a spacing not to exceed 100 feet. Sediment samples must also be collected in the dredge areas before the project, after the project, and years 1, 3, and 5 following the project to evaluate possible changes to the sediment characteristics over time as new sediment infills the borrow areas. Ten sediment samples will be collected at random locations within each borrow area during each monitoring effort. Annual monitoring reports must be submitted to SCDHEC-OCRM.


17. The renourished beach must be monitored for compaction following renourishment and when necessary, appropriate measures such as tilling must be implemented prior to sea turtle nesting season.
18. The renourished beach must be monitored for escarpment formation following renourishment and when necessary, appropriate measures such as leveling must be implemented prior to sea turtle nesting season.
19. The sand fencing and dune vegetation must be installed consistent with the South Carolina Critical Area Permitting Regulations in R.30-13(L).
20. 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: 2016-00803

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



 (PERMITTEE)

6/12/2017

 (DATE)

City of Isle of Palms

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



 (PROJECT MANAGER, CRITICAL AREA PERMITTING)

6/8/2017

 (DATE)

Matthew J. Slagel
 Or Other Authorized State Official

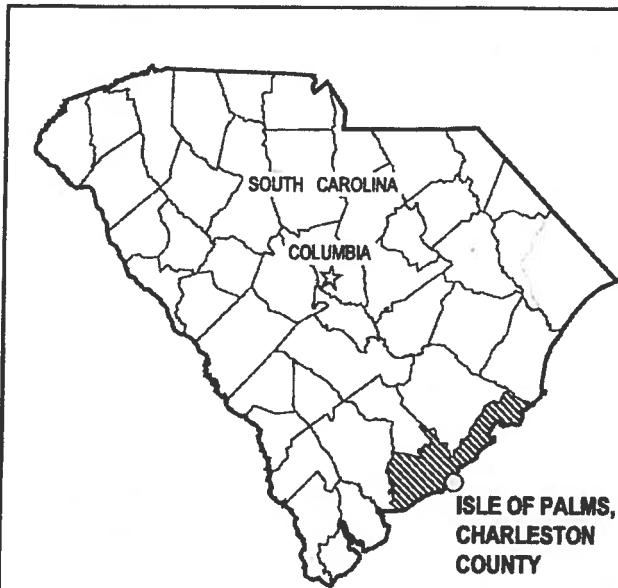
**SEE SPECIAL
 CONDITION(S)**

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 OCRM 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 OCRM or its authorized agents or representatives to make periodic inspections at any time deemed necessary in order 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 OCRM.
8. This permit may not be transferred to a third party without prior written notice to OCRM, 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. OCRM may require the permittee to modify activities or remove structures authorized herein if it is determined by OCRM 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 OCRM intends to revoke the permit, Permittee agrees to immediately stop work pending resolution of the revocation.
13. OCRM 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 OCRM'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, OCRM shall provide written notification of intent to revoke to the permittee, and permittee can respond with a written explanation to OCRM. (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 OCRM or the State of South Carolina or any employee, agent, or representative of OCRM or the State of South Carolina.
15. All activities authorized herein shall, if they involve a discharge or deposit into navigable waters or ocean waters, be 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 OCRM assumes no responsibility or liability from any claims of damage arising out of any operations conducted by the permittee pursuant to this permit.



DIRECTIONS:

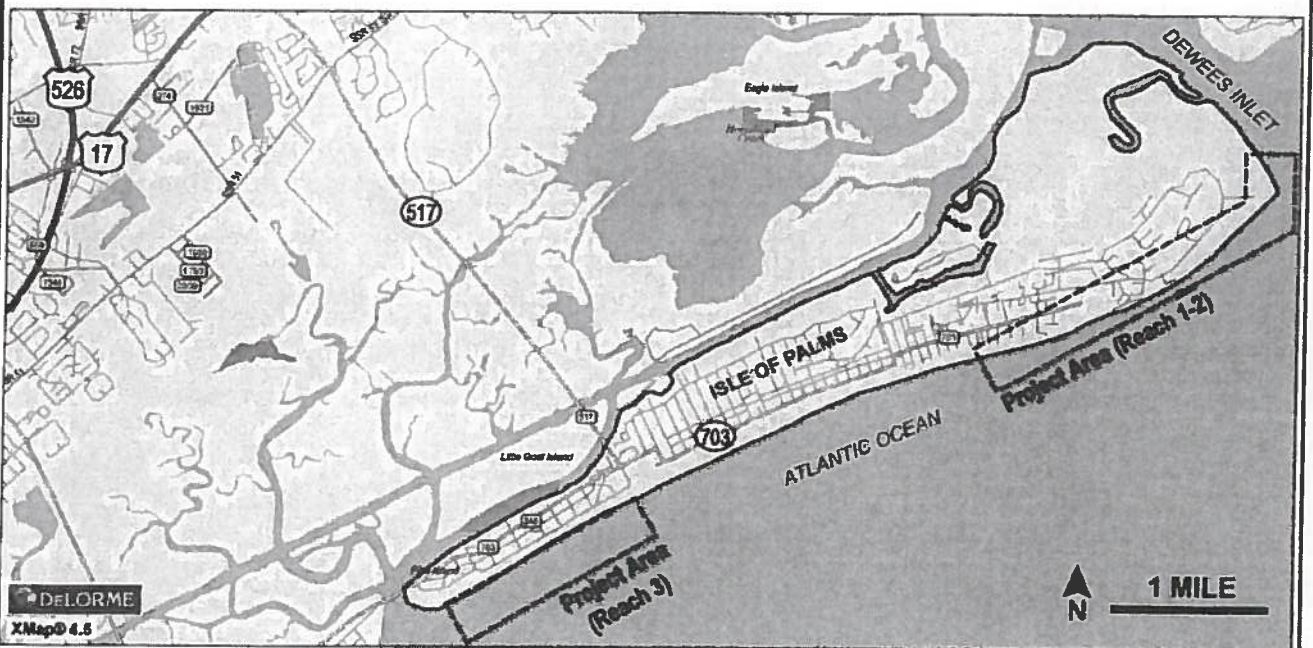
From Charleston, take US-17 North. Turn right onto SC 517 (Isle Of Palms connector). Turn left onto palm blvd. The project limits extend along the beach at Ocean Point Dr (Dewees Inlet) to approximately 53rd Ave and from the Pier at 14th Ave to Breach Inlet.

Project Location

Latitude: 32° 48.5' N

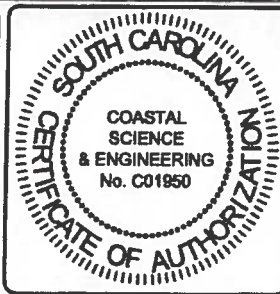
Longitude: 79° 43.4' W

**SEE SPECIAL
 CONDITION(S)**



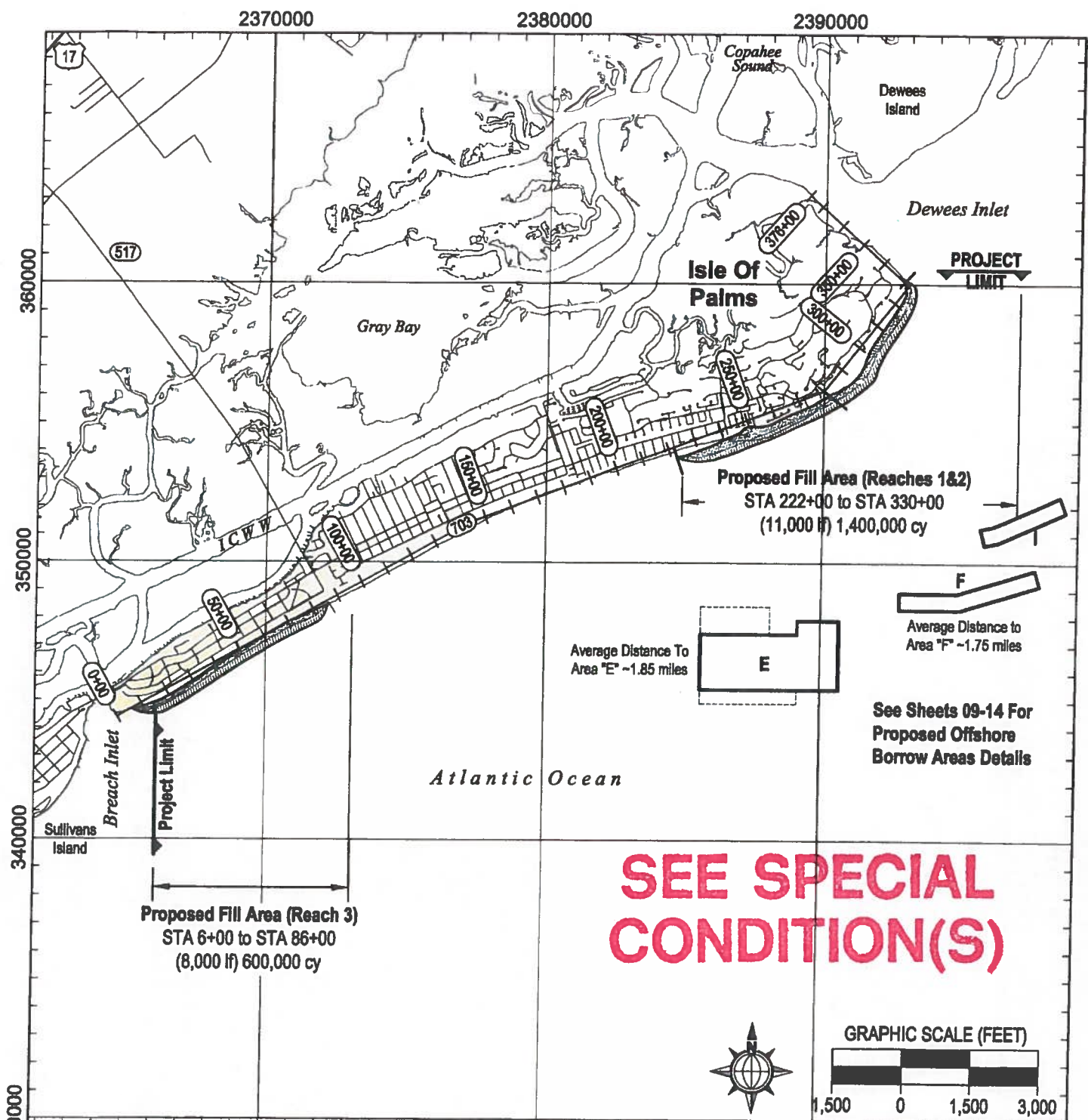
APPLICANT:
 CITY OF ISLE OF PALMS
 PO BOX 508
 ISLE OF PALMS SC 29451

DRAWING TITLE:
 VICINITY MAP



AGENT: *PN 2010...*
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

SCALE: AS SHOWN
DATE: Nov2016
TMS#
PROJECT #: 2435
SHEET #: **01**

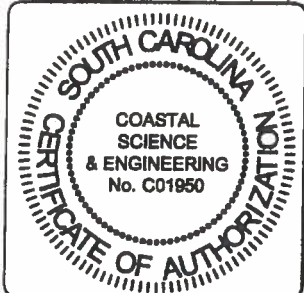


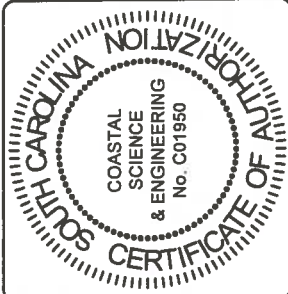
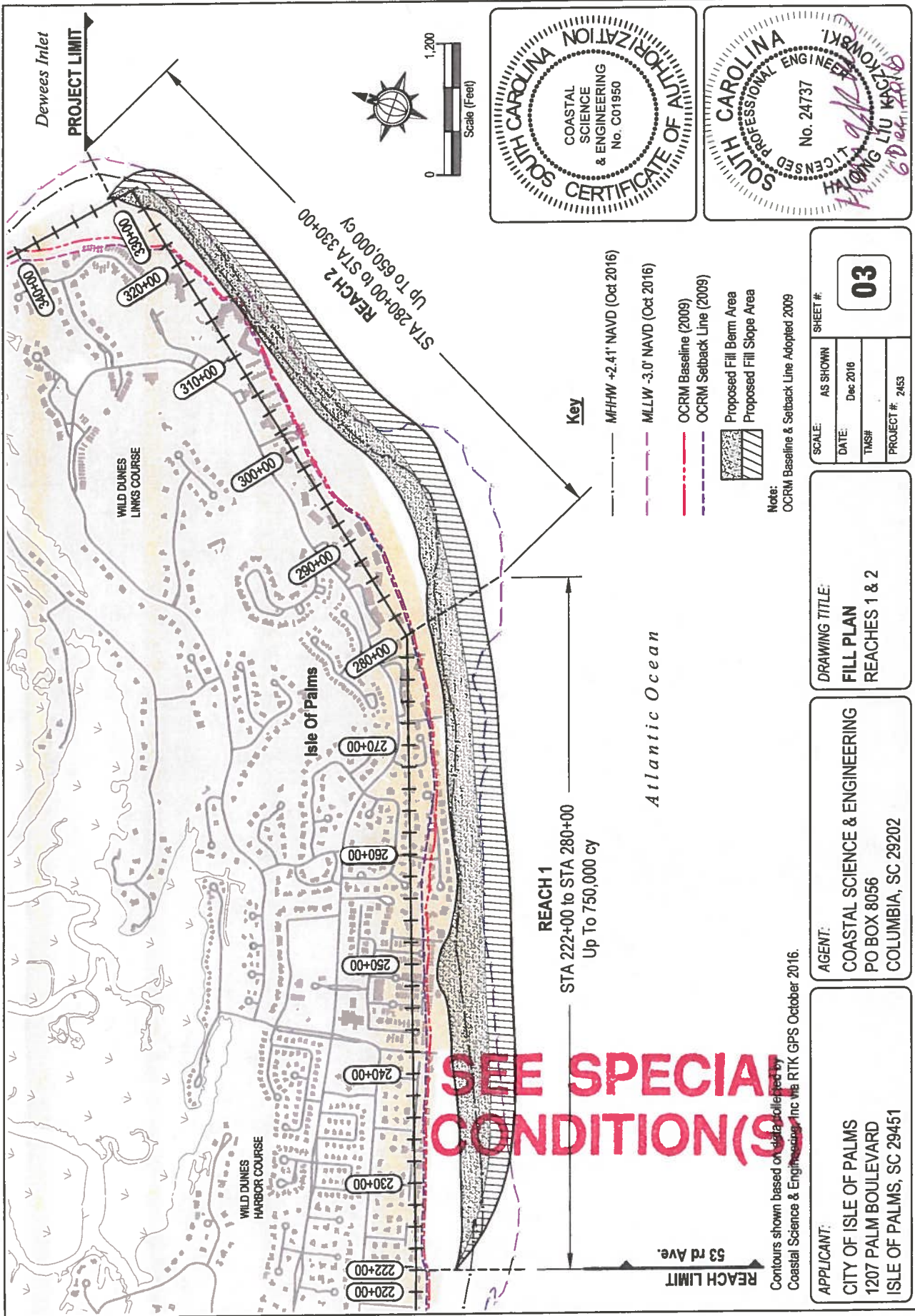
APPLICANT:
 CITY OF ISLE OF PALMS
 PO BOX 508
 ISLE OF PALMS SC 29451

DRAWING TITLE:
 PROJECT PLAN MAP

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

SCALE: AS SHOWN **SHEET #:**
02
DATE: May 2017
TMS#
PROJECT #: 2463





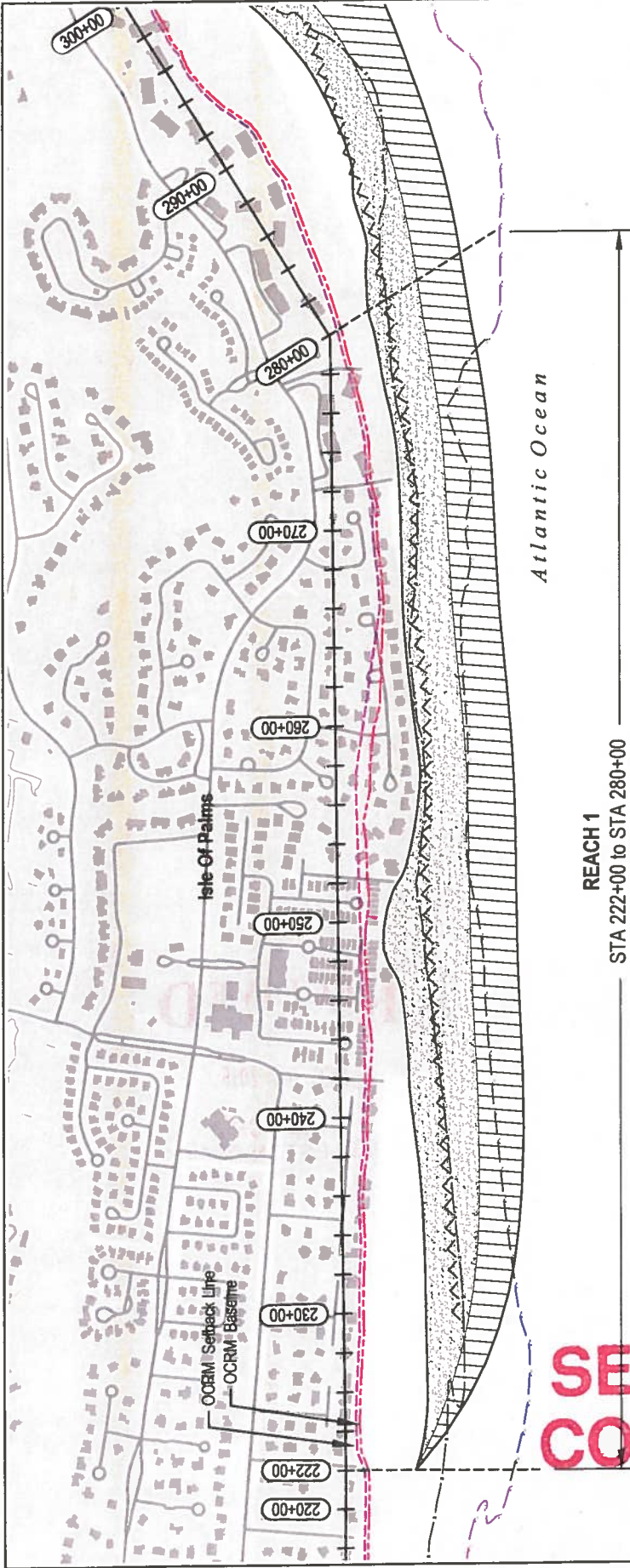
SCALE:	AS SHOWN	SHEET #:	03
DATE:	Dec 2016		
TMS#			
PROJECT #:	2453		

DRAWING TITLE:
FILL PLAN
 REACHES 1 & 2

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

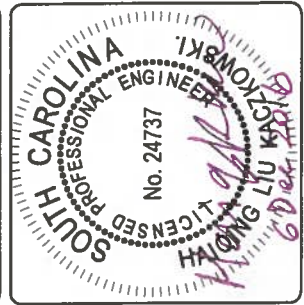
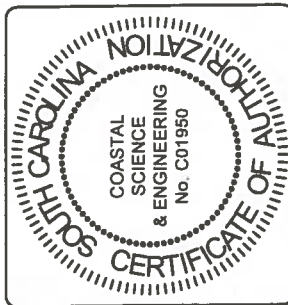
APPLICANT:
 CITY OF ISLE OF PALMS
 1207 PALM BOULEVARD
 ISLE OF PALMS, SC 29451

page 9 of 29

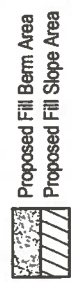


Atlantic Ocean

REACH 1
 STA 222+00 to STA 280+00
 UP TO 750,000 cy



- Key**
- Sand Fence / Vegetation
 - MHHW +2.41' NAVD (Oct 2016)
 - MLLW -3.0' NAVD (Oct 2016)
 - OCRM Baseline (2009)
 - OCRM Setback Line (2009)



Note:
 OCRM Baseline & Setback Line Adopted 2009



- Notes:**
- Exact fill limits and volumes to be determined at the time of construction.
 - Emergency measures will be removed before or during nourishment.
 - No fill will be placed on or landward of emergency erosion control measures.
 - A small dune may be constructed in areas lacking any dune features at time of construction (see sections).
 - Sand fencing and native vegetation will be installed along the landward end of the fill in accordance with OCRM guidelines.

SEE SPECIAL CONDITION(S)

Contours shown based on data collected by Coastal Science & Engineering, Inc via RTK GPS October 2016.

SCALE:	AS SHOWN	SHEET #:	04
DATE:	Dec 2016		
TMS#			
PROJECT #:	2453		

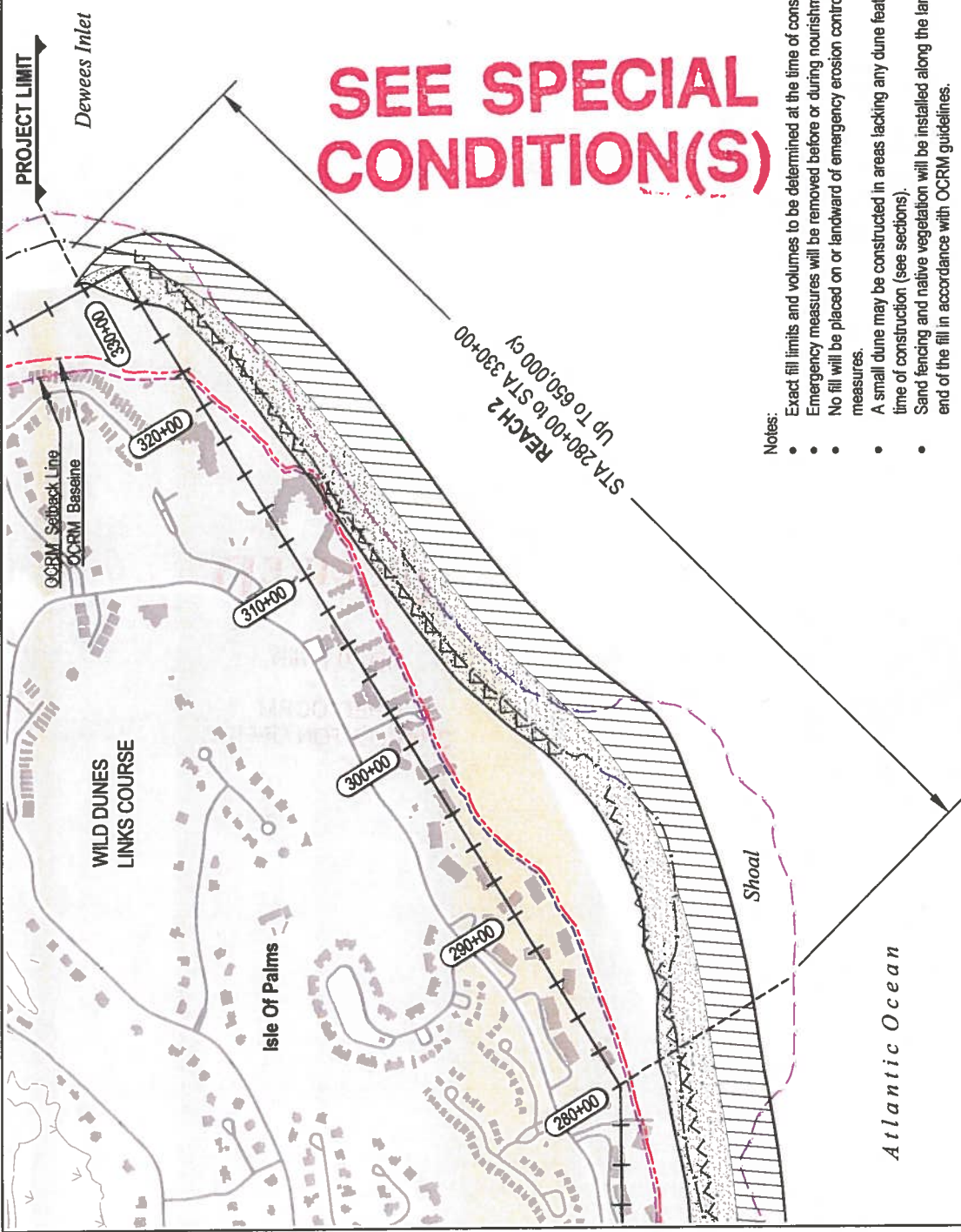
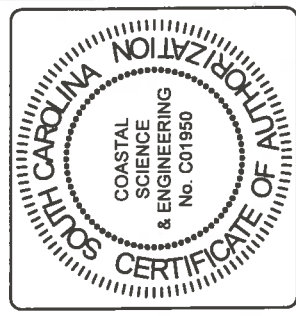
DRAWING TITLE:
REACH 1 PLAN
 STA 222+00 to 280+00

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

APPLICANT:
 CITY OF ISLE OF PALMS
 1207 PALM BOULEVARD
 ISLE OF PALMS, SC 29451

Note:
 OCRM Baseline & Setback Line Adopted 2009
 Contours shown based on data collected by
 Coastal Science & Engineering, Inc via RTK GPS
 October 2016.

- Key**
- Sand Fence / Vegetation
 - MHHW +2.41' NAVD (Oct 2016)
 - MLLW -3.0' NAVD (Oct 2016)
 - OCRM Baseline (2009)
 - OCRM Setback Line (2009)
 - Proposed Fill Berm Area
 - Proposed Fill Slope Area



**SEE SPECIAL
 CONDITION(S)**

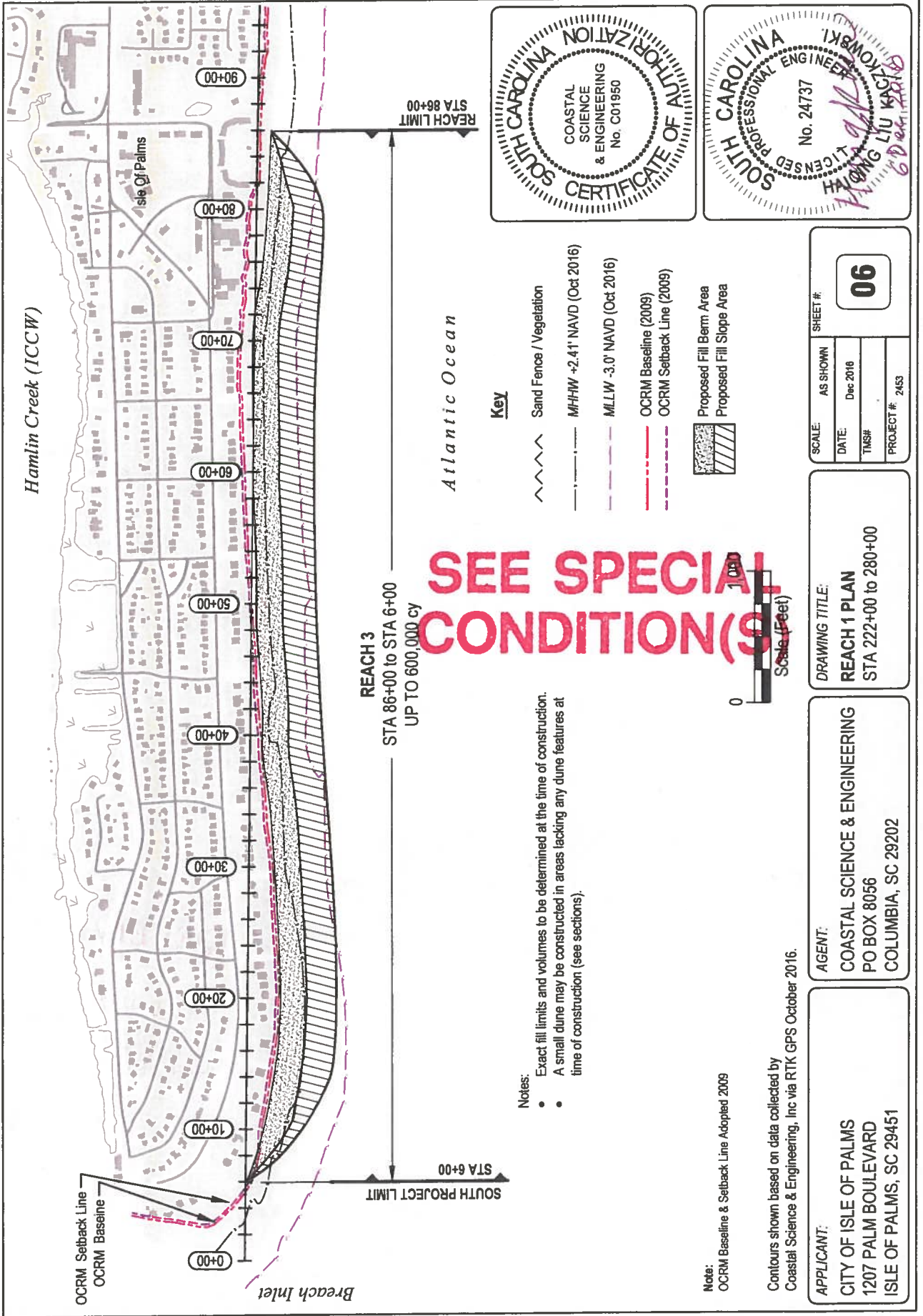
- Notes:
- Exact fill limits and volumes to be determined at the time of construction.
 - Emergency measures will be removed before or during nourishment.
 - No fill will be placed on or landward of emergency erosion control measures.
 - A small dune may be constructed in areas lacking any dune features at time of construction (see sections).
 - Sand fencing and native vegetation will be installed along the landward end of the fill in accordance with OCRM guidelines.

SCALE:	AS SHOWN	SHEET #:	05
DATE:	Dec 2016		
TMS#:		PROJECT #:	

DRAWING TITLE:
REACH 2 PLAN
 STA 280+00 to 330+00

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

APPLICANT:
 CITY OF ISLE OF PALMS
 1207 PALM BOULEVARD
 ISLE OF PALMS, SC 29451



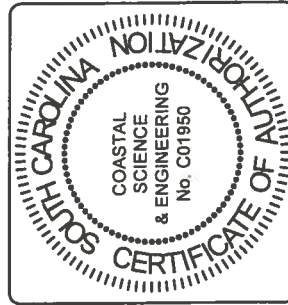
Hamlin Creek (ICCW)

OCRM Setback Line
OCRM Baseline

Breach Inlet

REACH 3
STA 86+00 to STA 6+00
UP TO 600,000 cy

Atlantic Ocean



- Key**
- ~ ~ ~ ~ Sand Fence / Vegetation
 - MHHW +2.41' NAVD (Oct 2016)
 - - - MLLW -3.0' NAVD (Oct 2016)
 - OCRM Baseline (2009)
 - - - OCRM Setback Line (2009)
 - [Hatched Box] Proposed Fill Berm Area
 - [Hatched Box] Proposed Fill Slope Area

- Notes:**
- Exact fill limits and volumes to be determined at the time of construction.
 - A small dune may be constructed in areas lacking any dune features at time of construction (see sections).

SEE SPECIAL CONDITION(S)

Note:
OCRM Baseline & Setback Line Adopted 2009

Contours shown based on data collected by
Coastal Science & Engineering, Inc via RTK GPS October 2016.

APPLICANT:
CITY OF ISLE OF PALMS
1207 PALM BOULEVARD
ISLE OF PALMS, SC 29451

AGENT:
COASTAL SCIENCE & ENGINEERING
PO BOX 8056
COLUMBIA, SC 29202

DRAWING TITLE:
REACH 1 PLAN
STA 222+00 to 280+00

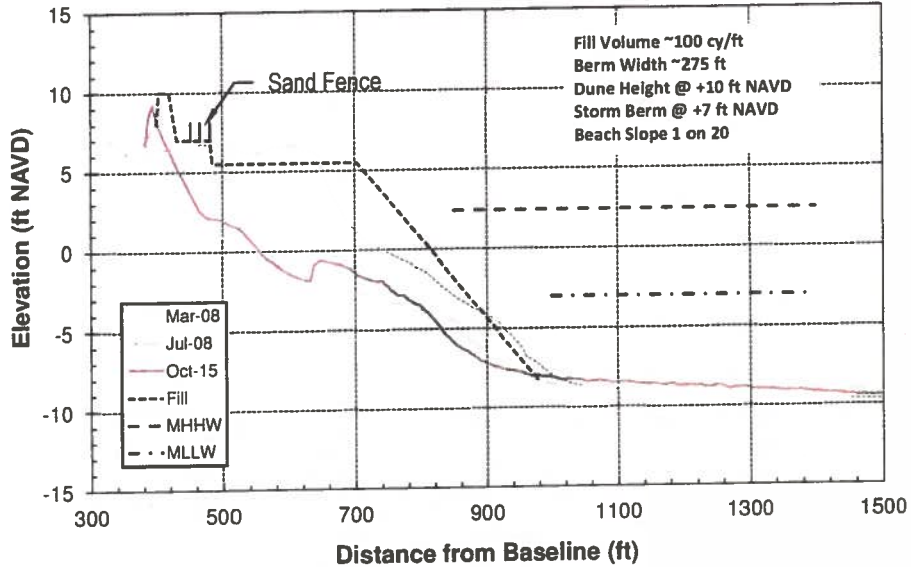
SCALE: AS SHOWN
DATE: Dec 2016
TMS#
PROJECT #: 2453

06

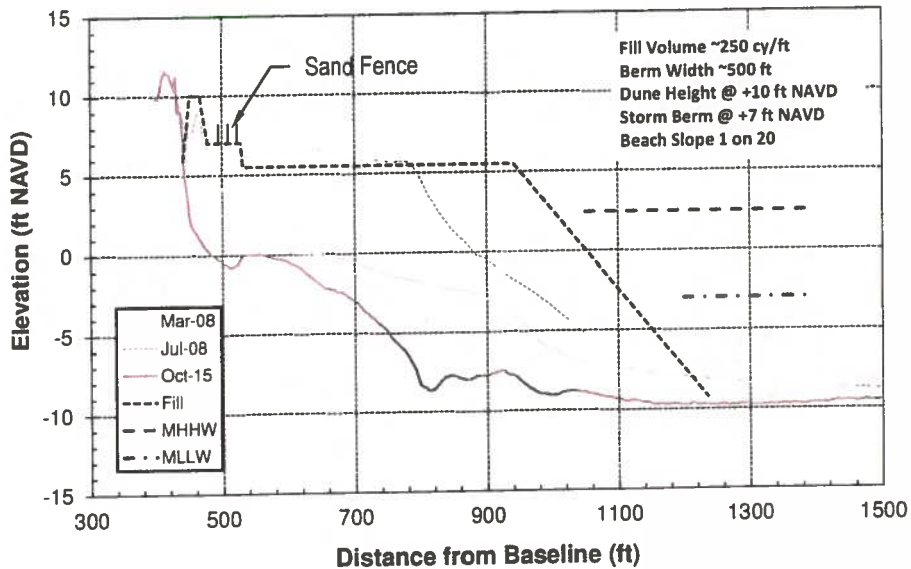
SHEET #:

**SEE SPECIAL
CONDITION(S)**

Station: 246+00



Station: 258+00



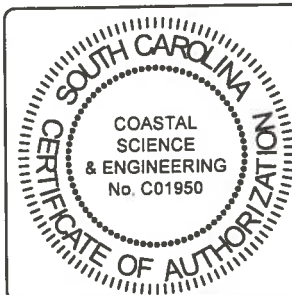
APPLICANT:
CITY OF ISLE OF PALMS
PO DRAWER 508
ISLE OF PALMS SC 29451

DRAWING TITLE:
**FILL SECTIONS
REACH 1**

AGENT:
COASTAL SCIENCE & ENGINEERING
PO BOX 8056
COLUMBIA, SC 29202

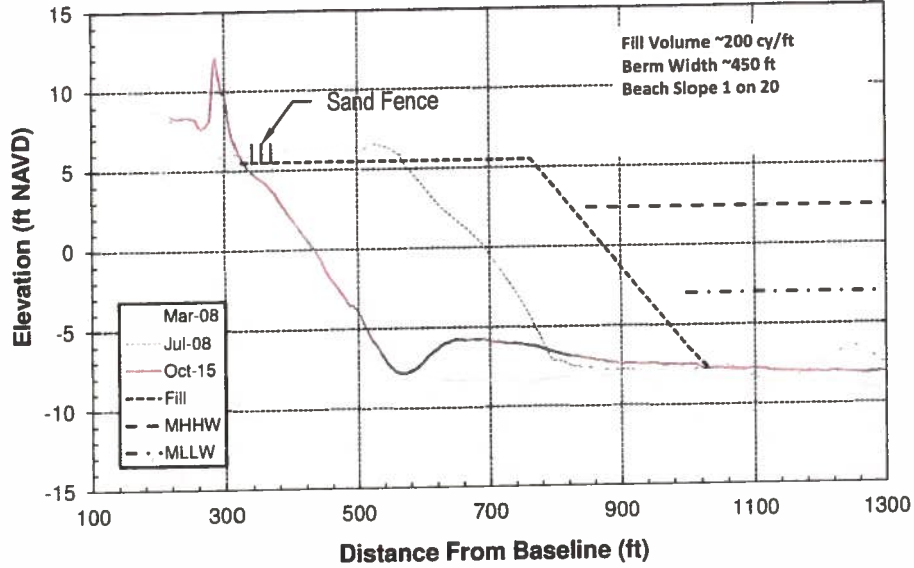
SCALE: AS SHOWN SHEET #:
DATE: DEC 2016
TMS#
PROJECT #: 2453

07

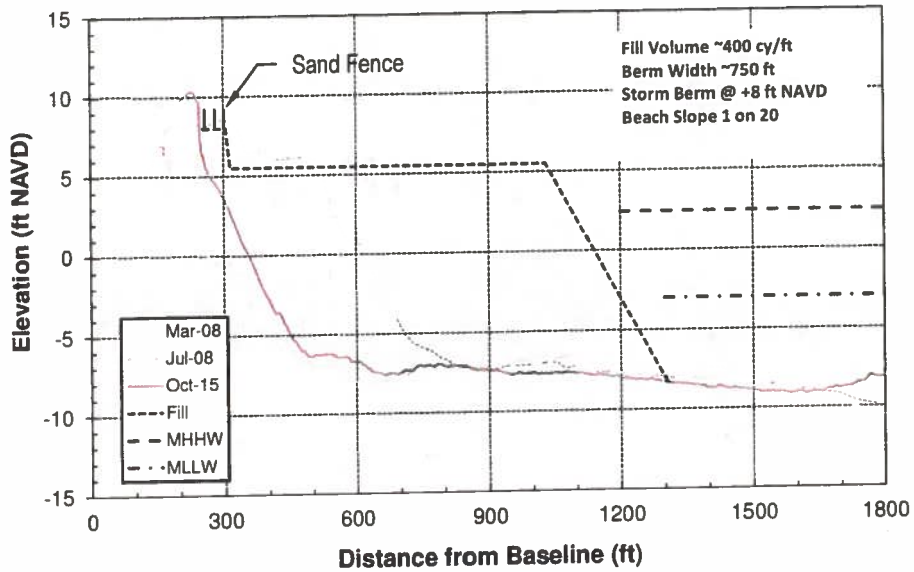


**SEE SPECIAL
CONDITION(S)**

Station: 306+00



Station: 316+00



APPLICANT:
 CITY OF ISLE OF PALMS
 PO DRAWER 508
 ISLE OF PALMS SC 29451

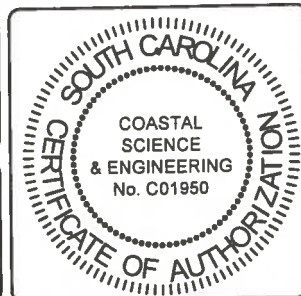
DRAWING TITLE:
**FILL SECTIONS
 REACH 2**

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

SCALE: AS SHOWN
 DATE: DEC 2016
 TMS#
 PROJECT #: 2453

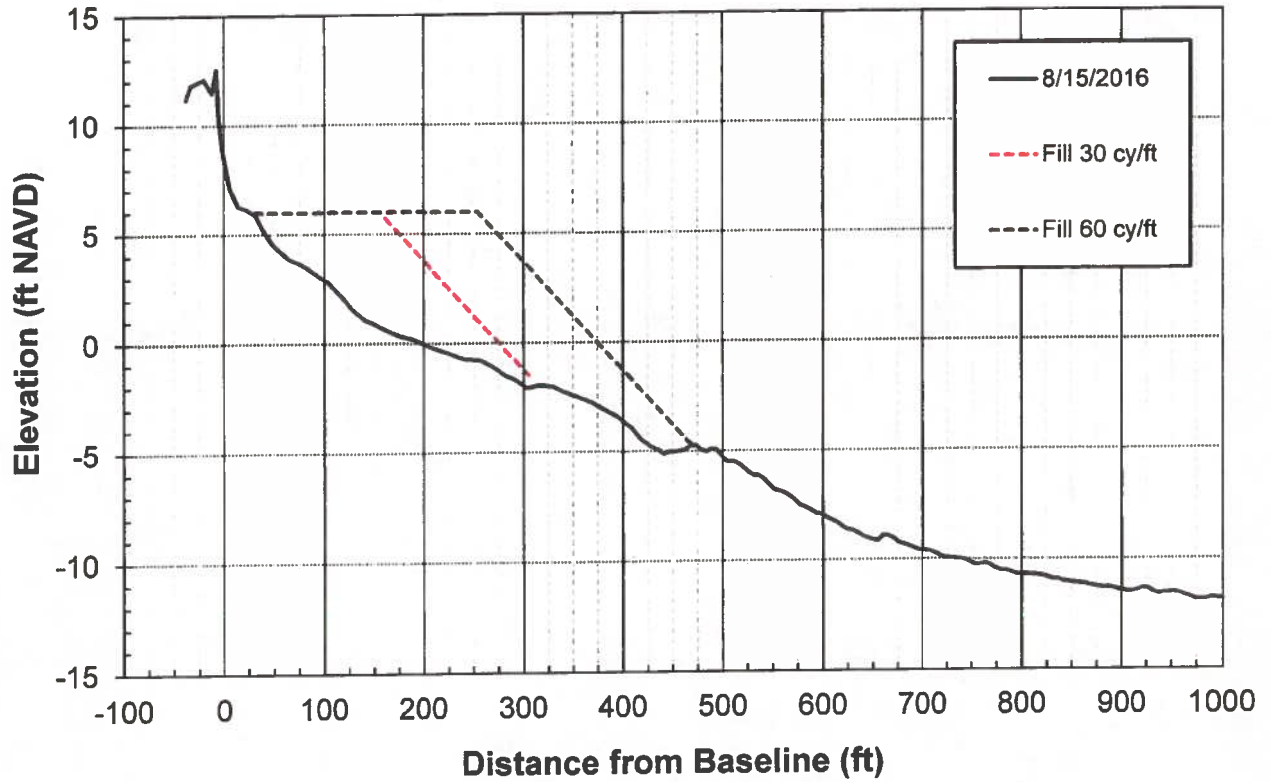
SHEET #:

08



**SEE SPECIAL
CONDITION(S)**

Station: 60+00 (8th Ave)



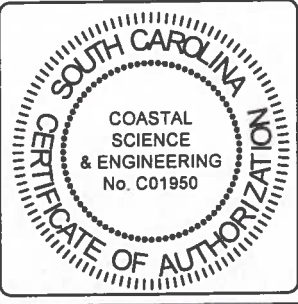
APPLICANT:
CITY OF ISLE OF PALMS
PO DRAWER 508
ISLE OF PALMS SC 29451

DRAWING TITLE:
**FILL SECTION
REACH 3**

AGENT:
COASTAL SCIENCE & ENGINEERING
PO BOX 8056
COLUMBIA, SC 29202

SCALE: AS SHOWN SHEET #
DATE: DEC 2018
TMS#
PROJECT # 2453

09

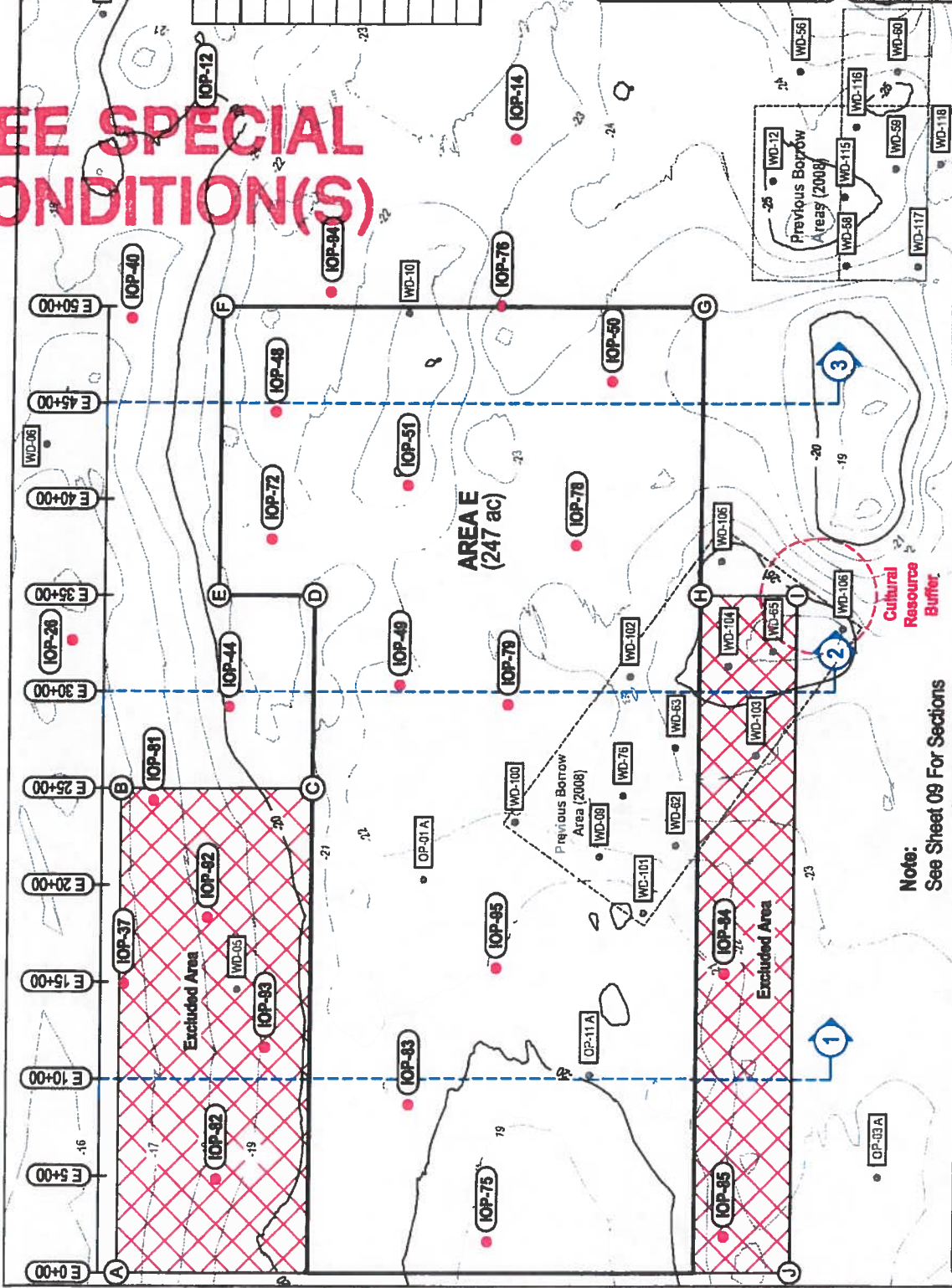
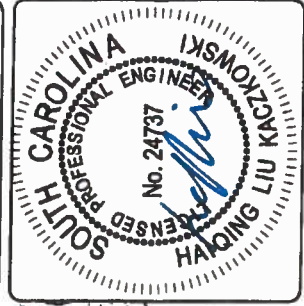
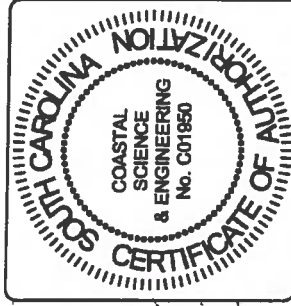


**SEE SPECIAL
CONDITION(S)**

Datum:
Horizontal: NAD83 SPCS (feet)
SC Zone 3800
Vertical: NAVD '88 (FEET)

Contours Shown based on data
collected 14 Jan 2016.

BORROW AREA E COORDINATES		
Point	Northing	Easting
A	348,500	2,396,500
B	348,500	2,389,000
C	347,500	2,389,000
D	347,500	2,390,000
E	348,000	2,390,000
F	348,000	2,391,500
G	345,500	2,391,500
H	345,500	2,390,000
I	345,000	2,390,000
J	345,000	2,386,500



SCALE:	As Shown
DATE:	May 2017
TMS#	
PROJECT #:	2453
SHEET #:	10

DRAWING TITLE:
PROPOSED OFFSHORE
BORROW AREA E

AGENT:
COASTAL SCIENCE & ENGINEERING
PO BOX 8056
COLUMBIA, SC 29202

APPLICANT:
CITY OF ISLE OF PALMS
PO DRAWER 508
ISLE OF PALMS SC 29451

Note:
See Sheet 09 For Sections

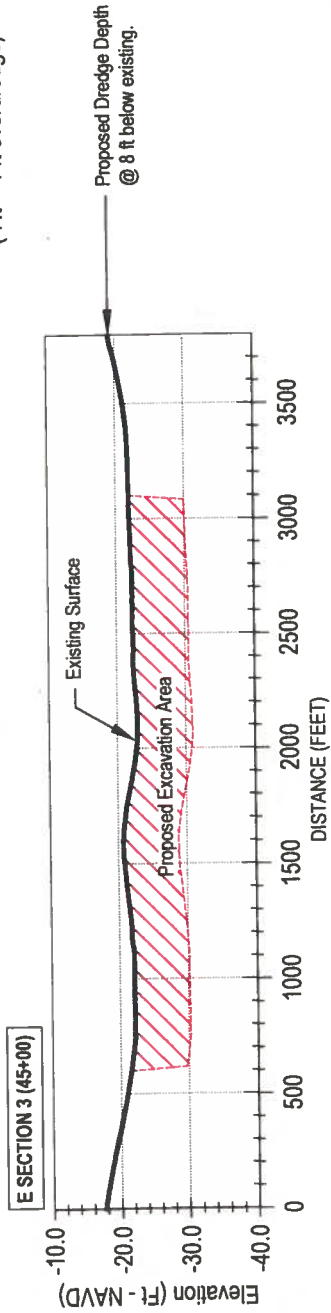
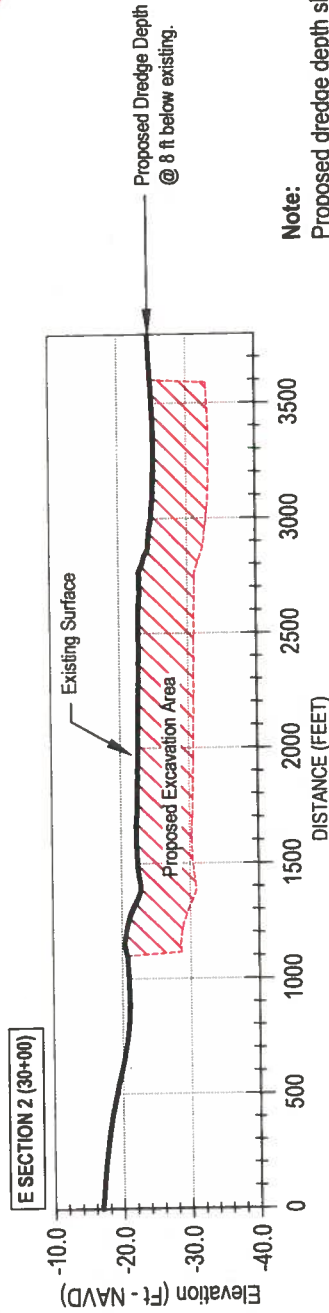
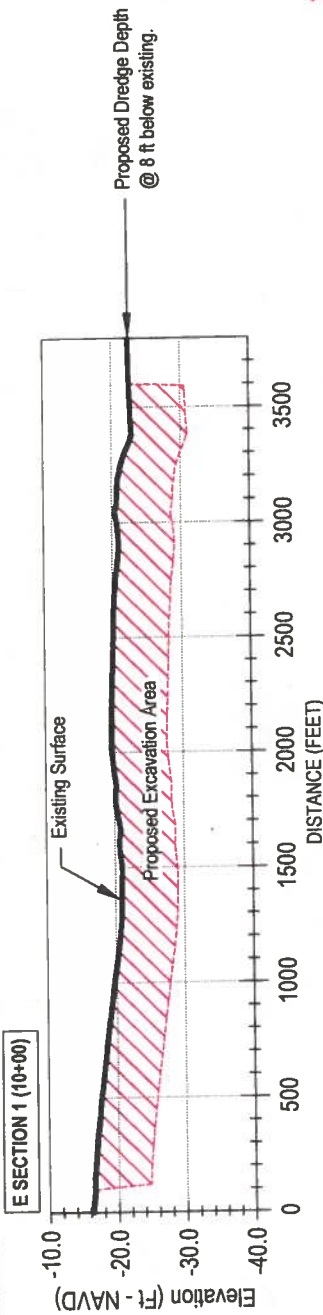
**SEE SPECIAL
CONDITION(S)**

SURVEY DATUM:

HORIZONTAL:
SPCS NAD 83 FEET
SC ZONE 3900

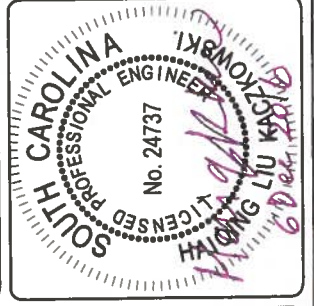
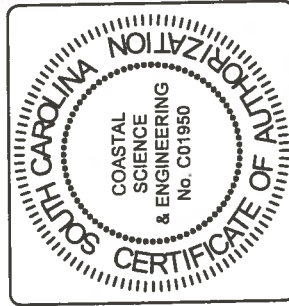
VERTICAL:
NAVD 1988 FEET
EXAGGERATION: 30

Elevations Shown based on
data collected 14 Jan 2016.



Note:
Proposed dredge depth shall
be 8 ft below existing surface.
(7ft + 1 ft overdredge)

- Existing Condition (Jan 2016)
- ▨ Proposed Excavation Area
- Excavation Limit



SCALE: AS SHOWN	SHEET #:
DATE: Dec 2016	11
TMS#:	
PROJECT #: 2453	

DRAWING TITLE:
OFFSHORE
BORROW AREA E
SECTIONS 1-3

AGENT:
COASTAL SCIENCE & ENGINEERING
PO BOX 8056
COLUMBIA, SC 29202

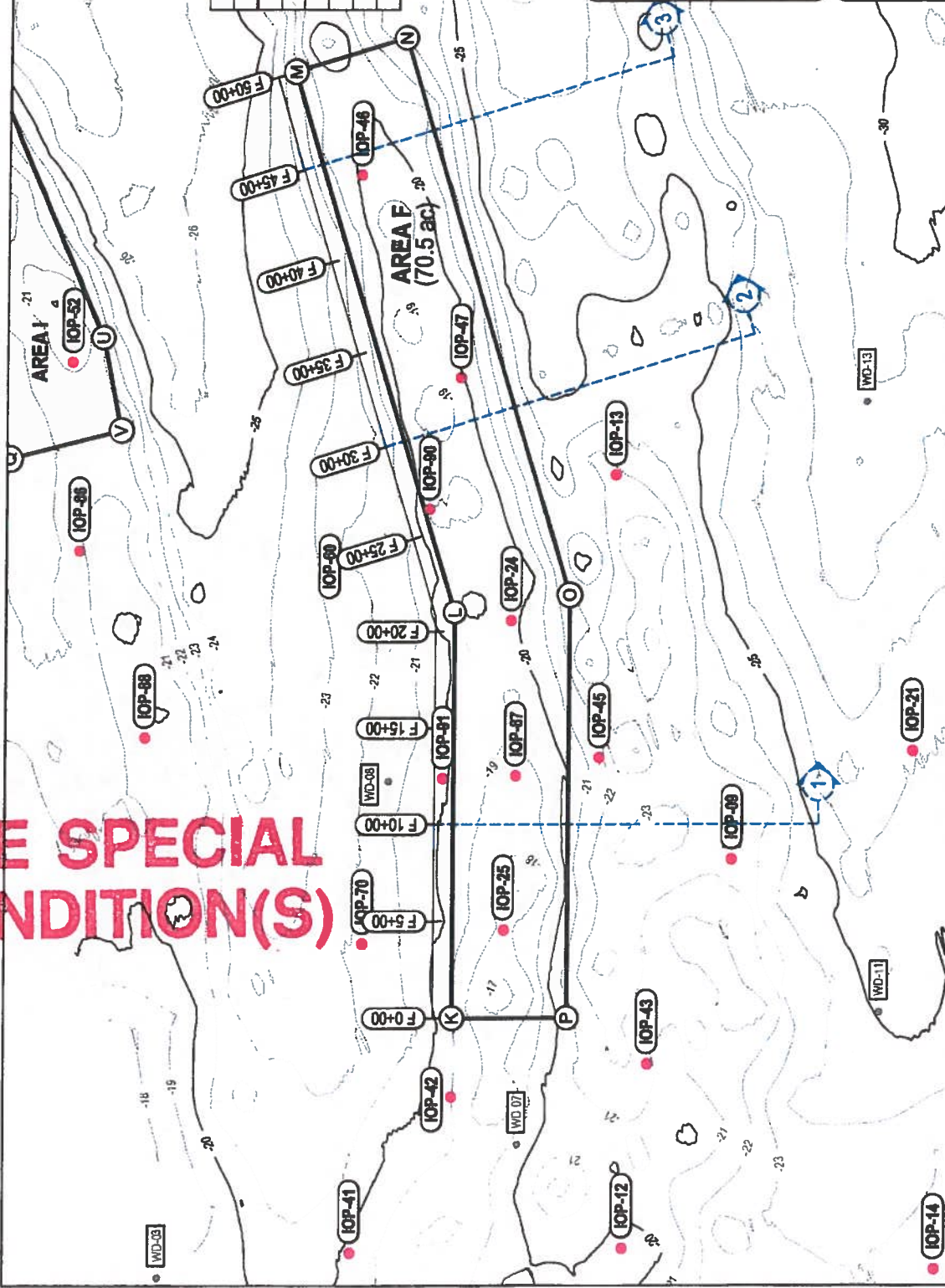
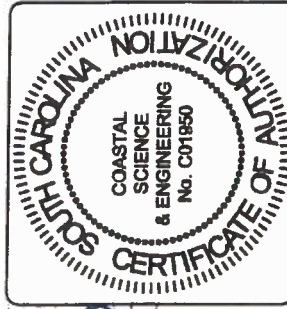
APPLICANT:
CITY OF ISLE OF PALMS
PO DRAWER 508
ISLE OF PALMS SC 29451

**SEE SPECIAL
CONDITION(S)**

Datum:
Horizontal: NAD'83 SPCS (feet)
SC Zone 3800
Vertical: NAVD '88 (FEET)
Contours Shown based on data
collected 14 Jan 2016.

BORROW AREA F COORDINATES		
Point	Northing	Easting
K	349,000	2,393,658
L	349,000	2,395,758
M	349,856	2,398,560
N	349,282	2,398,735
O	348,400	2,395,847
P	348,400	2,393,658

Note:
See Sheet 11 For Sections



SCALE: As Shown
DATE: May 2017
TMS#
PROJECT #: 2453

SHEET #: **12**

DRAWING TITLE:
**PROPOSED OFFSHORE
BORROW AREA F**

AGENT:
COASTAL SCIENCE & ENGINEERING
PO BOX 8056
COLUMBIA, SC 29202

APPLICANT:
CITY OF ISLE OF PALMS
PO DRAWER 508
ISLE OF PALMS SC 29451

SURVEY DATUM:
HORIZONTAL:
 SPCS NAD 83 FEET
 SC ZONE 3900

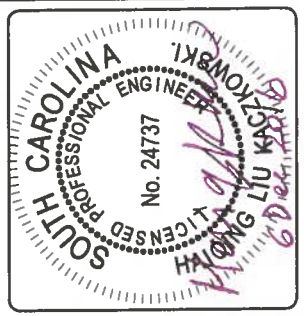
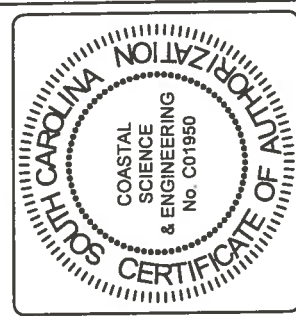
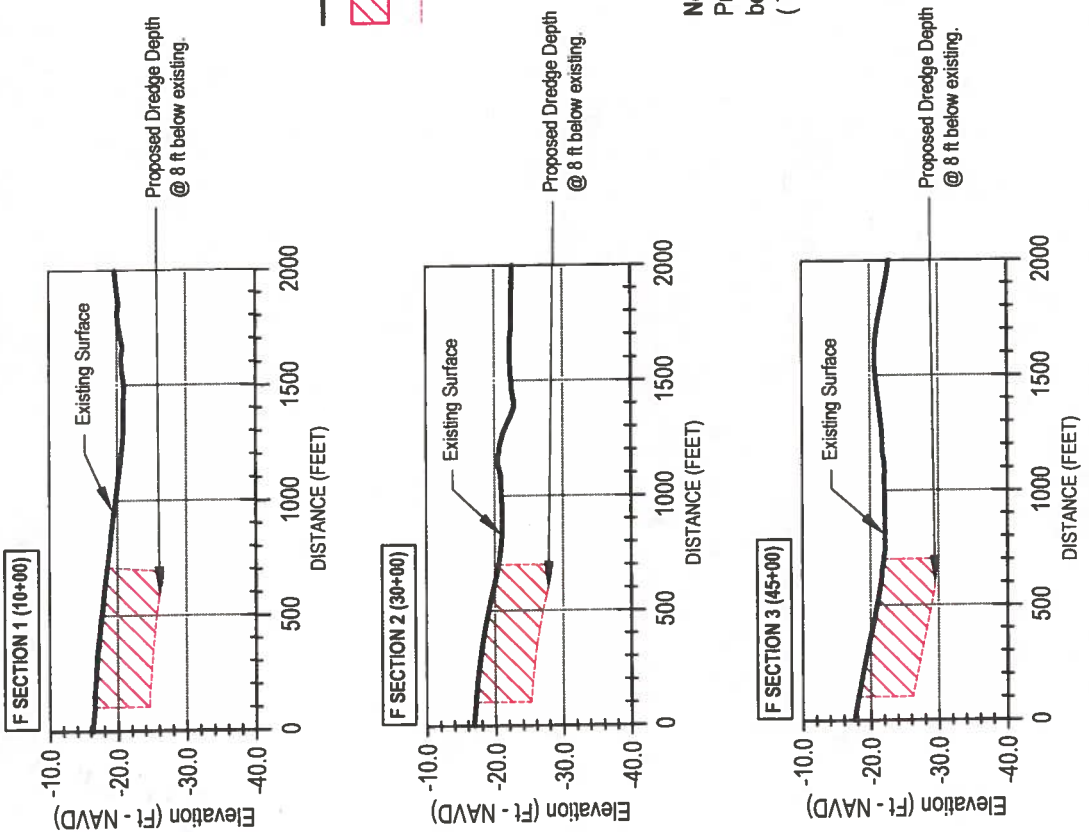
VERTICAL:
 NAVD 1988 FEET
 EXAGGERATION: 30

Elevations Shown based on
 data collected 14 Jan 2016.

Existing Condition (Jan 2016)
 Proposed Excavation Area
 Excavation Limit

**SEE SPECIAL
 CONDITION(S)**

Note:
 Proposed dredge depth shall
 be 8 ft below existing surface.
 (7ft + 1 ft overdredge)



SCALE:	AS SHOWN
DATE:	Dec 2016
TMS#	
PROJECT #:	2453
SHEET #:	13

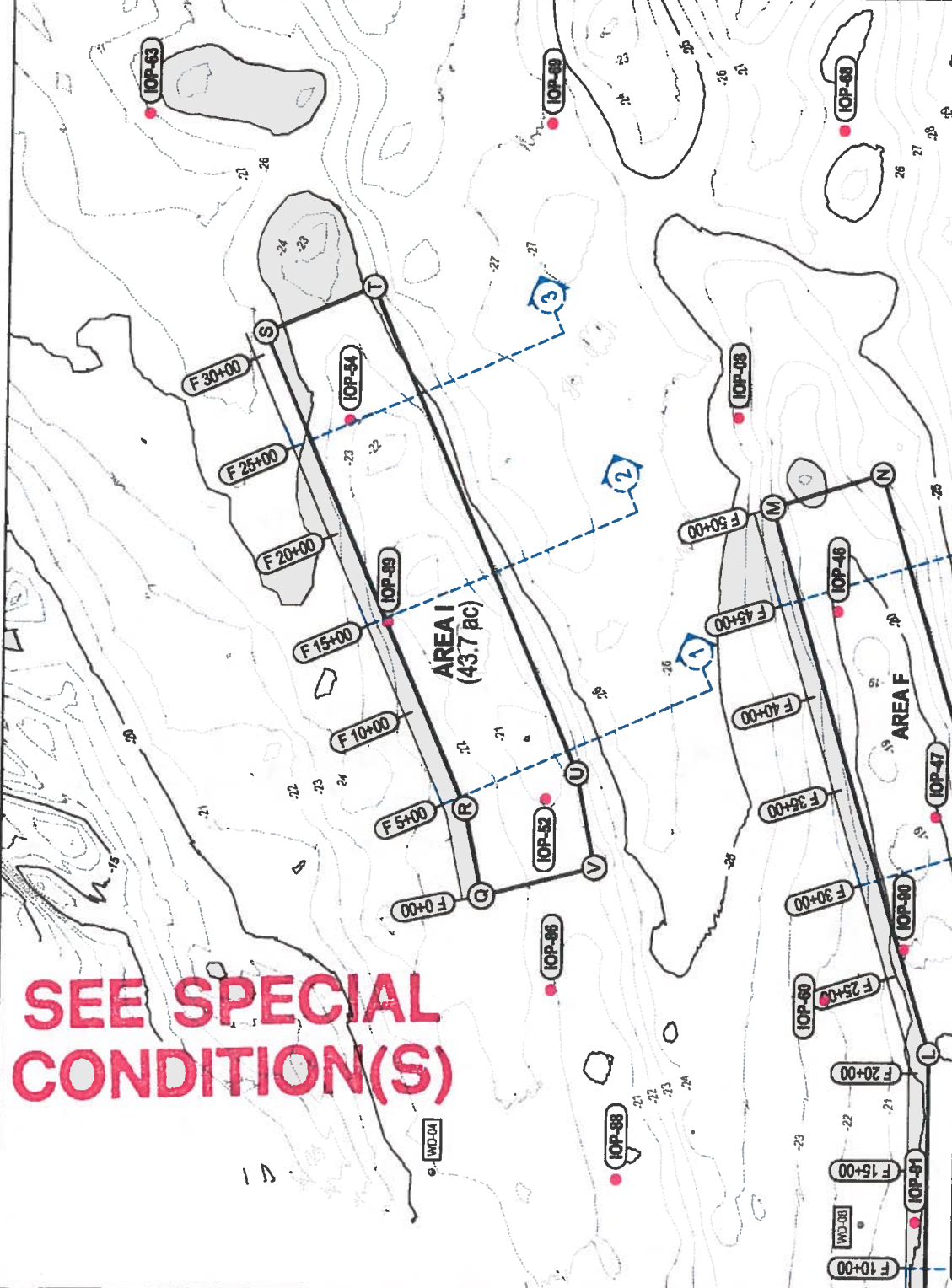
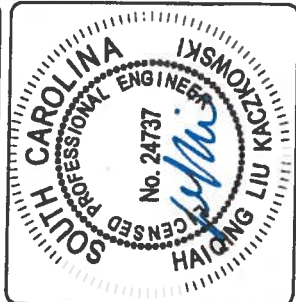
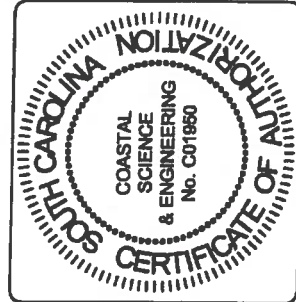
DRAWING TITLE:
**OFFSHORE
 BORROW AREA E
 SECTIONS 1-3**

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

APPLICANT:
 CITY OF ISLE OF PALMS
 PO DRAWER 508
 ISLE OF PALMS SC 29451

Datum: NAD'83 SPCS (feet)
 Horizontal: NAD'83 SPCS (feet)
 SC Zone 3800
 Vertical: NAVD '88 (FEET)
 Contours Shown based on data collected 14 Jan 2016.

Proposed Borrow Area Coordinates		
POINT	NORTHING	EASTING
Q	351330.2382'	2398557.4629'
R	351420.9145'	2397005.6835'
S	352476.1508'	2398455.8259'
T	351923.8959'	2398690.2829'
U	350845.2247'	2397185.7079'
V	350747.5873'	2398702.7549'



SCALE: As Shown	SHEET #: 14
DATE: May 2017	
TMS#	
PROJECT #: 2463	

DRAWING TITLE:
**PROPOSED OFFSHORE
 BORROW AREA I**

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

APPLICANT:
 CITY OF ISLE OF PALMS
 PO DRAWER 508
 ISLE OF PALMS SC 29451

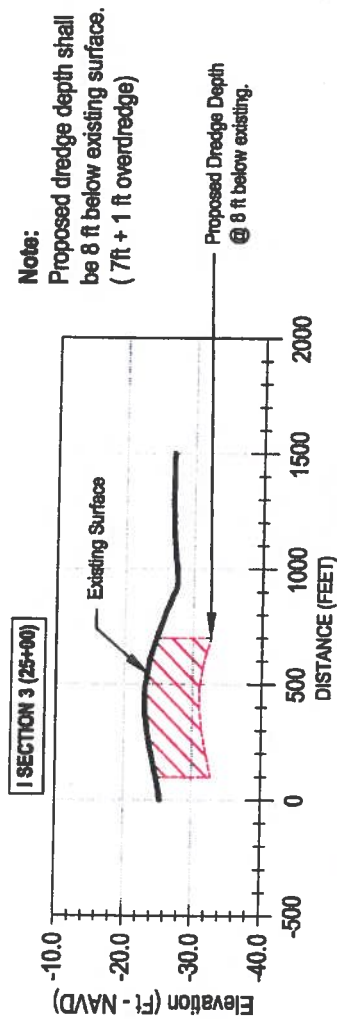
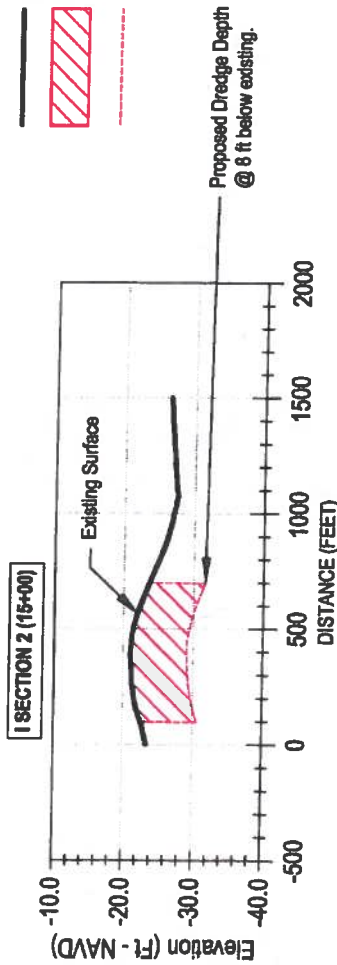
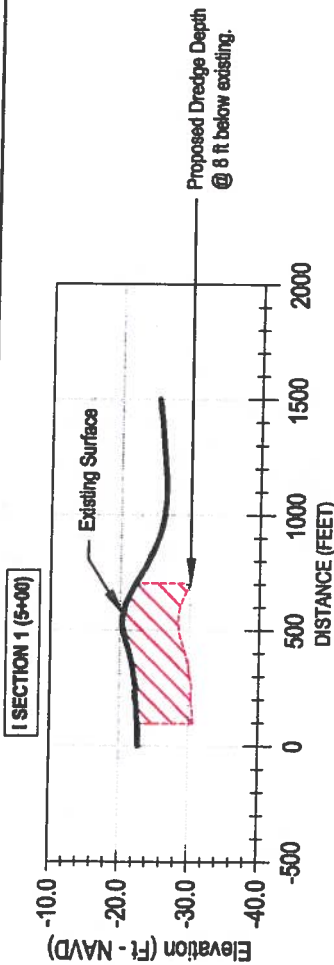
SURVEY DATUM:
HORIZONTAL:
 SPCS NAD 83 FEET
 SC ZONE 3900

VERTICAL:
 NAVD 1988 FEET
 EXAGGERATION: 30

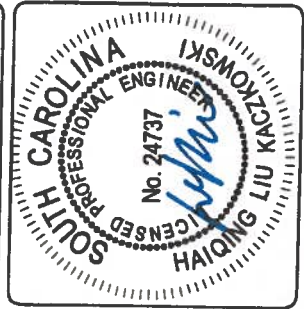
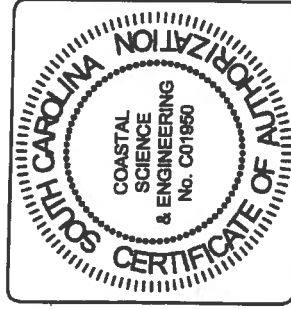
Elevations Shown based on
 data collected 14 Jan 2016.

**SEE SPECIAL
 CONDITION(S)**

Existing Condition (Jan 2016)
 Proposed Excavation Area
 Excavation Limit



Note:
 Proposed dredge depth shall be 8 ft below existing surface. (7ft + 1 ft overdredge)



SCALE:	AS SHOWN	SHEET #:	15
DATE:	May 2017		
TNS#:			
PROJECT #:	2453		

DRAWING TITLE:
 OFFSHORE
 BORROW AREA I
 SECTIONS 1-3

AGENT:
 COASTAL SCIENCE & ENGINEERING
 PO BOX 8056
 COLUMBIA, SC 29202

APPLICANT:
 CITY OF ISLE OF PALMS
 PO DRAWER 508
 ISLE OF PALMS SC 29451

ATTACHMENT A

AMOUNT OR EXTENT OF TAKE ANTICIPATED

The Service anticipates 19,000 linear feet of nesting beach habitat could be taken as a result of this proposed action. The take is expected to be in the form of destruction of all nests that may be constructed and eggs that may be deposited and missed by a nest survey and nest relocation program (May 1 – October 31) within the boundaries of the proposed project.

Incidental take is anticipated for only the 19,000 linear feet of beach that have been identified. The Service anticipates incidental take of sea turtles will be difficult to detect for the following reasons: (1) The turtles nest primarily at night and all nests are not found because [a] natural factors, such as rainfall, wind, and tides may obscure crawls and [b] human-caused factors, such as pedestrian and vehicular traffic, may obscure crawls, and result in nests being destroyed because they were missed during a nesting survey and nest mark and avoidance program, (2) The total number of hatchlings per undiscovered nest is unknown.

EFFECT OF THE TAKE

In the accompanying BO, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species. Critical habitat has not been designated in the project area; therefore, the project will not result in destruction or adverse modification of critical habitat. Incidental take of nesting and hatchling sea turtles is anticipated to occur during project construction and during the life of the project. Take will occur on nesting habitat on 19,000 feet of shoreline.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize “take” of the loggerhead sea turtle.

1. Conservation Measures included in the permit application/project plans must be implemented (unless revised below in the Terms and Conditions) in the proposed project.
2. Beach quality sand will be used for sand placement on Isle of Palms.
3. All coastal armoring material including sandbags and both WDS will be removed from the beach prior to or immediately after any material placement.
4. The applicant will hire qualified sea turtle monitors if work will occur during a portion of the nesting season. During the sea turtle nesting season (May 1 – October 31) immediately prior to project construction, surveys for nesting sea turtles must be conducted on the entire island. If nests are constructed in the project footprint, the

**SEE SPECIAL
CONDITION(S)**

- eggs must be relocated to minimize sea turtle nest burial, crushing of eggs, or nest excavation. Nest relocation will be on a selected area of beach that is not expected to experience daily inundation by high tides or known to routinely experience severe erosion and egg loss, predation, or subject to artificial lighting.
5. Construction equipment and materials for project construction must be stored in a manner that will minimize impacts to hatchling sea turtles to the maximum extent practicable.
 6. Predator-proof trash receptacles must be installed and maintained at all beach access points used for project construction to minimize the potential for attracting predators of sea turtles.
 7. The applicant must take actions to minimize sea turtle misorientations/disorientations on the beach caused by the projects' construction-related lighting and artificial lighting associated with oceanfront development adjacent to the project area and within the project limits during the nesting season from May 1 through October 31.
 8. Prior to the beginning of the project, the applicant must submit a lighting plan for the dredge that will be used in this project. The plan must include a description of each light source that will be visible from the beach and the measures implemented to minimize this lighting.
 9. The applicant must hire monitors with sea turtle experience to patrol the beach at night in the project area if nighttime construction activities and equipment occur during the nesting season.
 10. During the sea turtle nesting season, the contractor must not extend the beach fill more than 500 feet along the shoreline and must confine work activities within this area between dusk and the following day's nesting survey unless nighttime monitors patrol the beach to reduce the impacts to emerging sea turtles and burial of new nests.
 11. Sand compaction must be monitored and tilling (non-vegetated areas) must be conducted if needed immediately after completion of the sand placement work and prior to the next three nesting seasons to reduce the likelihood of impacting sea turtle nesting and hatching activities.
 12. Escarpment formation will be monitored and leveling will be conducted if needed immediately after completion of the sand placement project and prior to the next three nesting seasons to reduce the likelihood of impacting nesting and hatchling sea turtles.
 13. Post construction surveys of all artificial lighting visible from the project beach must be completed.

14. During the portion of the nesting season that overlaps with the construction window, on-beach access to the construction site will be restricted to the wet sand below mean high water (MHW).
15. The Service's South Carolina Field Office (SCFO) and South Carolina Department of Natural Resources (SCDNR) must be notified if a sea turtle adult, hatchling, or egg is harmed or destroyed as a direct or indirect result of the project.
16. A meeting/conference call between representatives of the contractor, the SCFO, SCDNR, and the permitted sea turtle monitor(s) must be held prior to the commencement of work on this project.
17. A report describing the actions taken to implement the terms and conditions of this incidental take statement must be submitted to the SCFO following completion of the proposed work.
18. Existing vegetated habitat at each of the beach access points must be protected to the maximum extent practicable and must be delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor. Any vegetated areas impacted must be restored to pre-construction conditions. New beach access locations created for the project work must be approved by the SCFO and SCDNR.
19. Expanded or newly created beach access points must be restored to dune habitat within three months following project completion. The habitat restoration must consist of restoring the dune topography and planting with appropriate native dune vegetation (i.e., native to coastal dunes in South Carolina).

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the ESA, the Corps will include the following terms and conditions, which implement the reasonable and prudent measures (RPM), described above and outline required reporting/monitoring requirements. These terms and conditions (T&Cs) are non-discretionary.

1. Conservation Measures included in the permit application/project plans must be implemented in the proposed project. Construction must be completed by June 30. Based on SCDNR nest emergence dates for Isle of Palms, construction can begin October 1 if the project is not completed by June 30. No construction will occur July 1 – September 30.
2. Daily early morning surveys for sea turtle nests will be required if construction coincides with the sea turtle nesting season. Nesting surveys must be conducted May 1–October 31 in the project area if work will begin before October 31. If nests are constructed in areas where they may be affected by construction activities, the nests must be relocated per the following requirements.

- 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 self-release beach site in a secure setting 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 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 or a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. 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.
3. During the sea turtle nesting season, nighttime storage of construction equipment not in use must be off the beach to minimize disturbance to sea turtle hatching activities.
 4. Staging areas for construction equipment must be located off the beach. Nighttime storage of construction equipment not in use must be off the beach to minimize disturbance to sea turtle nesting and hatching activities. In addition, 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. Temporary storage of pipes must be off the beach to the maximum extent possible. If the pipes are stored on the beach, they must be placed in a manner that will minimize the impact to nesting habitat and must not compromise the integrity of the dune systems.
 5. Two post-construction surveys must be conducted of all lighting visible from the beach placement area using standard techniques for such a survey (**Appendix B**). The timing of these surveys will be coordinated with the SCFO prior to commencement of the work. Summary reports of both surveys will be provided to the SCFO. The summary report from the post-construction surveys (including the following information: methodology of

the survey, a map showing the position of the lights visible from the beach, a description of each light source visible from the beach, recommendations for remediation, and any actions taken) will be provided to the SCFO within three months after the survey is conducted. After the report is completed, a meeting must be set up with the Corps, the project sponsors, SCDNR, and the Service to discuss the survey report, as well as any documented sea turtle disorientations in or adjacent to the project area. Any action related to artificial beachfront lighting will be addressed by the appropriate project sponsor, as mentioned in RPM #7. If the project is completed during the nesting season and prior to May 1, the lighting surveys may be conducted during the year of construction.

6. Sand compaction must be monitored in the area of sand placement immediately after completion of the project and prior to May 1 for three subsequent years. 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 SCFO 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.
7. 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 midway between the dune line and the high water line (normal wrack line).
8. At each station, the 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.
9. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area must be tilled immediately prior to May 1.
10. 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 SCFO 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.

11. 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.
12. Visual surveys for escarpments along the project area must be made immediately after completion of the sand placement and within 30 days prior to May 1 for three subsequent years if sand in the project area still remains on the dry beach. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet must be leveled and the beach profile must be reconfigured to minimize scarp formation by the dates listed above. Any escarpment removal must be reported by location. If the project is completed during the early part of the sea turtle nesting and hatching season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. The SCFO must be contacted immediately if subsequent reformation of escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet occurs during the nesting and hatching season to determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the SCFO will provide a brief written authorization within 30 days that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken must be submitted to the SCFO.
13. Prior to the beginning of the project, the applicant must submit a lighting plan for the dredge that will be used in the project. The plan must include a description of each light source that will be visible from the beach and the measures implemented to minimize this lighting. This plan must be reviewed and approved by the SCFO.
14. 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 construction area or to the adjacent sea turtle nesting beach (**Figure 4**). The applicant must monitor compliance with the lighting schematic on a weekly basis by making unscheduled night site visits from May 1 through October 31 to minimize adult and hatchling disorientations. Noncompliance documented twice during this window will result in no construction from 9 PM until 6 AM through October 31.

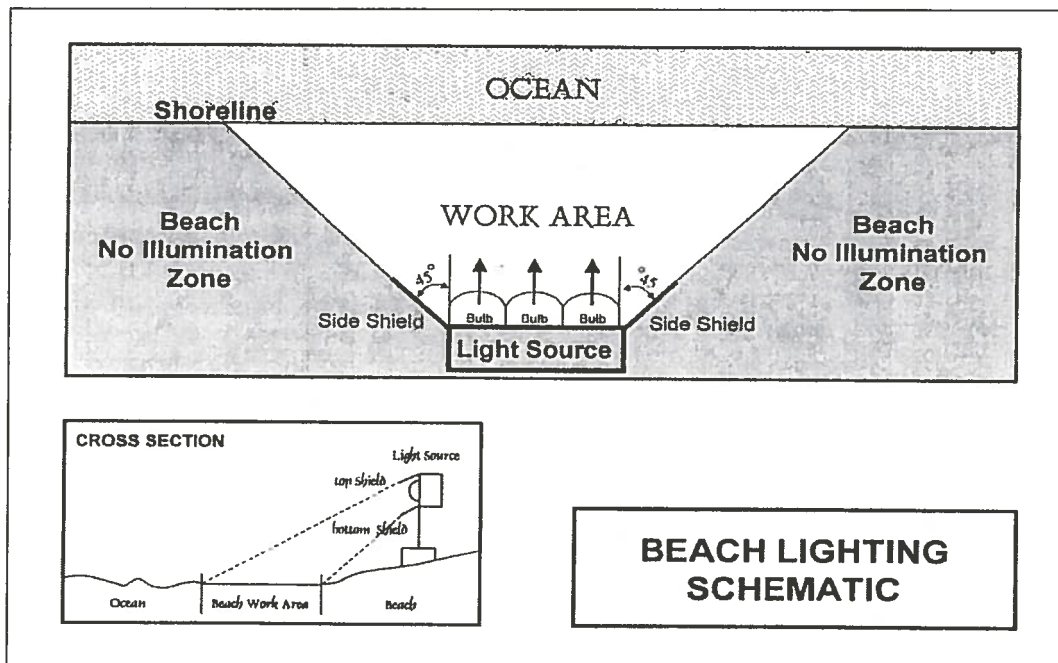


Figure 4. Beach lighting schematic.

15. 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 sea turtle surveyor 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. If any nesting turtles are sighted on the beach within the immediate construction area, activities must cease immediately until the turtle has returned to the water and the sea turtle permit holder responsible for nest monitoring has relocated the nest.
16. 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 predators of sea turtle (**Appendix C**). 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.
17. During the nest laying and hatching season, on-beach access to the construction site will be restricted to the wet sand below MHW.

18. A meeting or conference call between representatives of the contractor, SCFO, SCDNR, and the permitted sea turtle surveyor will be held prior to the commencement of work on this project. At least ten business days advance notice will be provided prior to conducting this meeting. The meeting/conference call will provide an opportunity for explanation and/or clarification of the sea turtle protection measures as well as additional guidelines when construction occurs during the sea turtle nesting season, such as storing equipment, minimizing driving, as well as follow up meetings during construction.
19. A report with the information listed below must be submitted to the SCFO within three months of the completion of construction.
 - Project location (latitude and longitude coordinates)
 - Project description (include linear feet of beach, and access points)
 - Dates of actual construction activities
 - Names and qualifications of personnel involved in sea turtle nesting surveys and nest relocation
 - Escarpment formation
 - Remedial action

Monitoring and Reporting

20. A report describing the work conducted during the year and actions taken to implement the reasonable and prudent measures and terms and conditions of this incidental take statement must be submitted to the SCFO within 90 days of completing the proposed work.
21. Upon locating a dead or injured sea turtle adult, hatchling, or egg that may have been harmed or destroyed as a direct or indirect result of the project, the Corps, permittee, and/or local sponsor will be responsible for notifying the SCDNR Hotline (1-800-922-5431) and the SCFO (843-727-4707). Care must be taken in handling injured sea turtles, eggs, or piping plovers to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. Educational signs should be placed where appropriate at beach access points explaining the importance of the area to sea turtles and/or the life history of sea turtle species that nest in the area.