



**CONTRACT DOCUMENTS AND  
SPECIFICATIONS  
FOR**

**SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

**BID NO. 2024004**

**PROJECT NO. IRC-2315**

PREPARED FOR  
THE BOARD OF COUNTY COMMISSIONERS  
INDIAN RIVER COUNTY, FLORIDA

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RICHARD B. SZPYRKA, P.E., PUBLIC WORKS DIRECTOR

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## SECTION – 00100 Advertisement for Bids

**BOARD OF COUNTY COMMISSIONERS**

1801 27<sup>th</sup> Street  
Vero Beach, Florida 32960



**ADVERTISEMENT FOR BIDS  
INDIAN RIVER COUNTY**

Sealed bids will be received by Indian River County until **2:00 P.M. on Wednesday, October 18, 2023**. Each bid shall be submitted in a sealed envelope and shall bear the name and address of the bidder on the outside and the words **“SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT“** and **Bid No. 2024004**. Bids should be addressed to Purchasing Division, Room B1-301, 1800 27th Street, Vero Beach, Florida 32960. All bids will be opened publicly and read aloud at 2:00 P.M. All bids received after 2:00 P.M., on the day specified above, will not be accepted or considered.

**INDIAN RIVER COUNTY PROJECT NO. IRC-2315  
INDIAN RIVER COUNTY BID NO. 2024004**

***PROJECT DESCRIPTION: The proposed project includes dune renourishment within the County’s Sector 3 Project Area via the placement of approximately 274,368 cubic yards of beach-compatible sand fill and the installation of about 728,633 native dune plants over approximately 6.6 miles of Atlantic Ocean beach in central Indian River County. Sand fill is proposed to be obtained from either (a) an upland sand source pre-qualified by the County, and/or (b) an upland sand source separately approved by the Florida Department of Environmental Protection. To avoid adverse impacts to nesting sea turtles, construction is expected to be completed during the period of November 1, 2023 to April 30, 2024.***

All material and equipment furnished and all work performed shall be in strict accordance with the plans, specifications, and contract documents pertaining thereto. Detailed specifications are available at: [www.demandstar.com](http://www.demandstar.com) or at [www.ircgov.com/departments/budget/purchasing](http://www.ircgov.com/departments/budget/purchasing) under “Current Solicitations”.

All bidders shall submit one (1) original and one (1) copy of the Bid Proposal forms provided within the specifications. Please note that the questionnaire must be filled out completely including the financial statement. BID SECURITY must accompany each Bid, and must be in the form of an AIA Document A310 Bid Bond, properly executed by the Bidder and by a qualified surety, or a certified check or a cashier’s check, drawn on any bank authorized to do business in

Advertisement for Bids - 00100 - 1



the State of Florida. Bid Security must be in the sum of not less than **Five Percent (5%)** of the total amount of the bid, made payable to Indian River County Board of County Commissioners. In the event the Contract is awarded to the Bidder, Bidder will enter in a Contract with the County and furnish the required 100% Public Construction Bond and certificates of insurance within the timeframe set by the County. If Bidder fails to do so, the Bid Security shall be retained by the County as liquidated damages and not as penalty.

This work will be funded by a FEMA Public Assistance Grant. Bidders must submit evidence of active registration, or registration submitted entity status in the SAM.gov database.

The County reserves the right to delay awarding of the Contract for a period of **ninety (90)** days after the bid opening, to waive informalities in any bid, or reject any or all bids in whole or in part with or without cause/or to accept the bid that, in its judgement, will serve the best interest of Indian River County, Florida. The County will not reimburse any Bidder for bid preparation costs.

A Pre-Bid Conference will be held on **Wednesday, October 4, 2023 at 10:00 A.M.**, in the first-floor conference room **A1-303** of the Indian River County Administration Building located at 1801 27th Street, Vero Beach, Florida, 32960. ATTENDANCE AT THIS CONFERENCE BY ALL BIDDERS IS HIGHLY ENCOURAGED.

INDIAN RIVER COUNTY

By: Jennifer Hyde  
Purchasing Manager

For Publication in the Indian River Press Journal  
Date: 09/17/2023

For: Indian River Press Journal

Please furnish tear sheet and Affidavit of Publication to:

INDIAN RIVER COUNTY  
PURCHASING DIVISION  
1800 27th Street  
Building "B"  
Vero Beach, FL 32960

**\*\* END OF SECTION \*\***

**SECTION 00200 – Instructions to Bidders**

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**SECTION 00200 – Instructions to Bidders**

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## SECTION 00200 – Instructions to Bidders

### ARTICLE 1 - DEFINED TERMS

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1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below which are applicable to both the singular and plural thereof:

- A. Bidder--The individual or entity who submits a Bid directly to OWNER.
- B. Issuing Office--The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- C. Successful Bidder--The lowest responsible Bidder submitting a responsive Bid to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.
- D. ENGINEER – References OWNER's Consultant, Aptim Environmental & Infrastructure, LLC.

### ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

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- 2.01 Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement for Bids or Invitation to Bid may be obtained from the Issuing Office.
- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 OWNER and ENGINEER in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

### ARTICLE 3 - QUALIFICATIONS OF BIDDERS

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- 3.01 To demonstrate Bidder's qualifications to perform the Work, within five days of OWNER's request Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be called for below.
  - A. Bidder must have at least five years' experience in the construction of similar projects of this size and larger.
  - B. Bidder must have successfully constructed, as prime CONTRACTOR, at least three projects similar in scope to this project.
  - C. Bidder must have good recommendations from at least three clients similar to the OWNER.
  - D. The Bidder's superintendent and assistants must be qualified and experienced in similar projects in all categories.
  - E. Bidder must be able to provide evidence of authority to conduct business in the jurisdiction in which the project is located.

- 3.02 Each bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.
- 3.03 The OWNER reserves the right to reject bids from Bidders that are unable to meet the listed required qualifications.
- 3.04 Bidder must be registered with and use, at their sole expense, the Department of Homeland Security's E-Verify system ([www.e-verify.gov](http://www.e-verify.gov)) to confirm the employment eligibility of all newly hired employees, as required by Section 448.095, F.S.. Owner, contractor, and subcontractors may not enter into a contract unless each party to the contract registers with and uses the E-Verify system. Contractor is also responsible for obtaining an affidavit from all subcontractors, as required in Section 448.095(5)(b), F.S., stating the subcontractor does not employ, contract with, or subcontract with an unauthorized alien. This requirement applies to any provider of services or goods.
- 3.05 Bidder must hold a current registration as a General Contractor in the State of Florida.
- 3.06 Conflict of Interest: Any entity submitting a bid or proposal or entering into a contract with the County shall disclose any relationship that may exist between the contracting entity and a County Commissioner or a County Employee. The relationship with a County Commissioner or a County Employee that must be disclosed is as follows: *father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half-brother, half-sister, grandparent, or grandchild*. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the entity. The disclosure of relationships shall be a sworn statement made on a County approved form. Failure to submit the form may be cause for rejection of the bid or proposal.
- 3.07 Public Entity Crimes: Pursuant to Florida Statutes Section 287.133(2)(a), all Bidders are hereby notified that a person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity (defined as the State of Florida, any of its departments or agencies, or any political subdivision); may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in Florida Statutes Section 287.017 for CATEGORY TWO [currently \$35,000] for a period of 36 months from the date of being placed on the convicted vendor list. A "public entity crime" means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.
- 3.08 Records/Audit: The Bidder shall maintain books, records and documents pertinent to performance under this Invitation and any resulting Agreement in accordance with generally accepted accounting principles consistently applied. The County and the Florida Office of the Inspector General shall have inspection and audit rights to such records for audit purposes during the term of the contract and for three years following the termination of obligations hereunder. Records which relate to any litigation, appeals or settlements of

claims arising from performance under this work or purchase shall be made available until a final disposition has been made of such litigation, appeals, or claims.

#### ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

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##### 4.01 Subsurface and Physical Conditions

###### A. The Supplementary Conditions identify:

1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Bidding Documents.

2. Those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Bidding Documents.

B. Copies of reports and drawings referenced in paragraph 4.01.A will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in paragraph 4.02 of the General Conditions has been identified and established in paragraph 4.02 of the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions or information contained in such reports or shown or indicated in such drawings.

##### 4.02 Underground Facilities

A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to OWNER and ENGINEER by OWNERS of such Underground Facilities, including OWNER, or others.

##### 4.03 Hazardous Environmental Condition

A. The Supplementary Conditions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that ENGINEER has used in preparing the Bidding Documents.

B. Copies of reports and drawings referenced in paragraph 4.03.A will be made available by OWNER to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the “technical data” contained therein upon which Bidder is entitled to rely as provided in paragraph 4.06 of the General Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any “technical data” or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which

was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 4.06 of the General Conditions.

4.05 Upon a request directed to the Purchasing Division ([purchasing@ircgov.com](mailto:purchasing@ircgov.com) or (772) 226-1416), OWNER will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

4.06 "This paragraph has been deleted intentionally"

4.07 It is the responsibility of each Bidder before submitting a Bid to:

A. examine and carefully study the Bidding Documents, including any Addenda and the other related data identified in the Bidding Documents;

**B. VISIT THE SITE AND BECOME FAMILIAR WITH AND SATISFY BIDDER AS TO THE GENERAL, LOCAL, AND SITE CONDITIONS THAT MAY AFFECT COST, PROGRESS, AND PERFORMANCE OF THE WORK;**

C. become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work;

D. carefully study all reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and carefully study all reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions;

E. obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (overhead, surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;

F. agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;

G. become aware of the general nature of the work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents;

H. correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;

I. promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by ENGINEER is acceptable to Bidder; and

J. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by ENGINEER are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

## ARTICLE 5 - PRE-BID CONFERENCE

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5.01 The date, time, and location for the Pre-Bid conference, if any, is specified in the Advertisement for Bids. Representatives of OWNER and ENGINEER will be present to discuss the Project. Bidders are **HIGHLY ENCOURAGED** to attend and participate in the conference. ENGINEER will transmit to all prospective Bidders of record such Addenda as ENGINEER considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

## ARTICLE 6 - SITE AND OTHER AREAS

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6.01 The Site is identified in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by OWNER unless otherwise provided in the Bidding Documents.

## ARTICLE 7 - INTERPRETATIONS AND ADDENDA

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7.01 CONE OF SILENCE. Potential bidders and their agents shall not communicate in any way with the Board of County Commissioners, County Administrator or any County staff other than Purchasing personnel in reference or relation to this solicitation. This restriction shall be effective from the time of bid advertisement until the Board of County Commissioners meets to authorize award. Such communication may result in disqualification.

7.02 All questions about the meaning or intent of the Bidding Documents are to be submitted to PURCHASING ([purchasing@ircgov.com](mailto:purchasing@ircgov.com)) in writing. Interpretations or clarifications considered necessary by ENGINEER in response to such questions will be issued by Addenda mailed or delivered to all parties through the Issuing Office as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered.



Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.03 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by OWNER or ENGINEER.

## ARTICLE 8 - BID SECURITY

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8.01 Each Bid must be accompanied by Bid Security made payable to OWNER in the amount of five percent of the Bidder's maximum base bid price and in the form of a certified check; cashier's check; or an AIA Document A310 Bid Bond issued by a surety meeting the requirements of Paragraph 5.01 of the General Conditions. The Bid Bond shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. The Surety must be authorized to issue surety bonds in Florida. The Bidder shall require the attorney-in-fact who executes any Bond, to affix to each a current certified copy of their Power of Attorney, reflecting such person's authority as Power of Attorney in the State of Florida. Further, at the time of execution of the Contract, the Successful Bidder shall for all Bonds, provide a copy of the Surety's current valid Certificate of Authority issued by the United States Department of the Treasury under 31 United States Code sections 9304-9308. The Surety shall also meet the requirements of paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that Bidder will be retained by the owner. The Bid Security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of seven days after the Effective Date of the Agreement or 91 days after the Bid opening, whereupon Bid Security furnished by such Bidders will be returned.

8.03 Bid Security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

## ARTICLE 9 - CONTRACT TIMES

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9.01 The number of calendar days within which, or the dates by which, the Work is to be (a) Substantially Completed and (b) also completed and ready for final payment are set forth in the Agreement.

## ARTICLE 10 - LIQUIDATED DAMAGES

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10.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

## ARTICLE 11 - SUBSTITUTE AND "OR-EQUAL" ITEMS

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11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement. The procedure for submission of any such application by CONTRACTOR and consideration by ENGINEER is set forth in the General Conditions and may be supplemented in the General Requirements.

## ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

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12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.

12.02 If apparent Successful Bidder declines to make any such substitution, OWNER may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in paragraph 6.06 of the General Conditions.

12.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

12.04 CONTRACTOR shall not purchase equipment for State or Local ownership under a Florida Department of Transportation LAP project.

## ARTICLE 13 - PREPARATION OF BID

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13.01 The Bid form is included with the Bidding Documents. Only the bid form provided by OWNER is acceptable (Bidders are not to recreate or modify the bid form). ***Bids not submitted on the bid form(s) shall be rejected, as will bids submitted on rewritten, recreated or modified bid forms.***

13.02 All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid signed. A Bid price shall be indicated for each section, Bid item, alternative, adjustment unit price item, and unit price item listed therein, or the words “No Bid,” “No Change,” or “Not Applicable” entered.

13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.

13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown below the signature.

13.06 A Bid by an individual shall show the Bidder's name and official address.

13.07 A Bid by a joint venture shall be executed by each joint venturor in the manner indicated on the Bid form. The official address of the joint venture must be shown below the signature.

13.08 All names shall be typed or printed in ink below the signatures.

13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid form.

13.10 The address and telephone number for communications regarding the Bid shall be shown.

13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number or county registration number for the state or county of the Project, if any, shall also be shown on the Bid form.

13.12 All supporting information requested in the Bid Form must be furnished. Do not leave any questions or requests unanswered.

13.13 In accordance with Florida Statutes Section 218.80, the "Public Bid Disclosure Act", Indian River County as OWNER is obligated to disclose all license, permit, impact, or inspection fees that are payable to Indian River County in connection with the construction of the Work by the accepted bidder. All permit, impact, or inspection fees payable to Indian River County in connection with the work on this County project will be paid by Indian River County, with the exception of re-inspection fees. The Bidder shall not include ANY PERMIT, IMPACT, NOR INSPECTION FEES payable to **Indian River County** in the bid.

13.14 CONTRACTOR shall furnish all labor, materials, equipment and incidentals necessary to perform additional work not covered on the Contract Drawings. The **FORCE ACCOUNT** is intended as a contingency for unforeseen work. Lump sum amount for **FORCE ACCOUNT** work is included in the bid schedule. The value of force account work will be determined in accordance with Article 12 of the General Conditions.

## ARTICLE 14 - BASIS OF BID; EVALUATION OF BIDS

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### 14.01 Unit Price

A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid schedule. Omission of unit prices where required will result in disqualification of the bid.

B. The total of all estimated prices will be determined as the sum of the products of the estimated quantity of each item and the unit price Bid for the item. The final quantities and Contract Price will be determined in accordance with paragraph 11.03 of the General Conditions.

C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

14.02 The Bid price shall include such amounts as the Bidder deems proper for overhead and profit on account of cash allowances, if any, named in the Contract Documents as provided in paragraph 11.02 of the General Conditions.

14.03 The Bidder's attention is called to the fact that any estimate of quantities of work to be done and materials to be furnished under the Specifications as shown on the Bid Schedule, or elsewhere, is approximate only and not guaranteed. The OWNER does not assume any responsibility that the final quantities shall remain in strict accordance with the estimated quantities, nor shall the Bidder plead misunderstanding or deception because of such estimate of quantities or of the character, location of the work, or other conditions pertaining thereto.

14.04 Per section 287.05701, Florida Statutes, as amended, OWNER may not request documentation of, or consider a Bidder's social, political, or ideological interests when determining if the Bidder is responsible, and may not give preference to a Bidder based on the Bidder's social, political, or ideological interests.

## ARTICLE 15 - SUBMITTAL OF BID

---

15.01 The Bid form is to be completed and submitted with the Bid security and the following data:

- A. Sworn Statement under Section 105.08, Indian River County Code, on Disclosure of Relationships.
- B. Sworn Statement under the Florida Trench Safety Act.
- C. Qualifications Questionnaire.
- D. List of Subcontractors.
- E. Certification Regarding Prohibition Against Contracting with Scrutinized Companies.
- F. Certification Regarding Lobbying

15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the advertisement or invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project Title and Bid Number (and, if applicable, the designated portion of the Project for which the Bid is submitted), Bid Number, the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If mail or other delivery system sends a Bid, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly

marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Indian River County, Purchasing Division, 1800 27<sup>th</sup> Street, Vero Beach, Florida, 32960.

## ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

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16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

16.02 If within 48 hours after Bids are opened any Bidder files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

## ARTICLE 17 - OPENING OF BIDS

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17.01 Bids will be opened at the time and place indicated in the advertisement or invitation to Bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

## ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

---

18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but OWNER may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

## ARTICLE 19 - AWARD OF CONTRACT

---

19.01 OWNER reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. OWNER further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsive. OWNER may also reject the Bid of any Bidder if OWNER believes that it would not be in the best interest of the Project to make an award to that Bidder. OWNER also reserves the right to waive all technicalities and informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder. The County will not reimburse any Bidder for bid preparation costs. Owner reserves the right to cancel the award of any Contract at any time before the execution of such Contract by all parties without any liability to the Owner. For and in consideration of the Owner considering Bids submitted, the Bidder, by submitting its Bid, expressly waives any claim to damages, of any kind whatsoever, in the event the Owner exercises its right to cancel the award in accordance herewith.

19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.

19.03 In evaluating Bids, OWNER will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

19.04 In evaluating Bidders, OWNER will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

19.05 OWNER may conduct such investigations as OWNER deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

19.06 If the Contract is to be awarded, OWNER will award the Contract to the Bidder whose Bid is in the best interests of the Project.

19.07 OWNER has no local ordinance or preferences, as set forth in FS 255.0991 (2) in place, therefore no preference prohibited by that section will be considered in the acceptance, review or award of this bid.

19.08 Bidders are hereby notified of the provisions of Section 287.05701, Florida Statutes, as amended, that the County will not request documentation of or consider a Bidder's social, political, or ideological interests when determining if the Bidder is responsible. Bidders are further notified that the County's governing body may not give preference to a Bidder based on the Bidder's social, political, or Ideological interests.

19.09 Any actual or prospective bidder or proposer who is aggrieved in connection with the bidding and/or selection process may protest to the OWNER's Purchasing Manager. The protest shall be submitted in writing to the Purchasing Manager within five (5) calendar days after the bidder or proposer knows or should have known of the facts giving rise to the protest.

19.10 CONTRACTOR certifies that it and its related entities as defined by Florida law are not on the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725 of the Florida Statutes, and are not engaged in a boycott of Israel. In addition, if this agreement is for goods or services of one million dollars or more, CONTRACTOR certifies that it and its related entities as defined above by Florida law are not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473 of the Florida Statutes and are not engaged in business operations in Cuba or Syria.

OWNER may terminate this Contract if CONTRACTOR is found to have submitted a false certification as provided under section 287.135(5), Florida Statutes, been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or been engaged in business operations in Cuba or Syria, as defined by section 287.135, Florida Statutes.

OWNER may terminate this Contract if CONTRACTOR, including all wholly owned subsidiaries, majority-owned subsidiaries, and parent companies, that exist for the purpose of making profit, is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel as set forth in section 215.4725, Florida Statutes.

Accordingly, firms responding to this solicitation shall return with their response an executed copy of the attached "Certification Regarding Prohibition Against Contracting With Scrutinized

Companies.” Failure to return this executed form with submitted bid/proposal/statement of qualifications will result in the response being deemed non-responsive and eliminated from consideration.

## ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

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20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth OWNER's requirements as to Public Construction Bond and insurance. When the Successful Bidder delivers the executed Agreement to OWNER, it must be accompanied by the required insurance certificate(s) and Bond, unless the Bond has been waived due to the total contract being less than \$100,000.

## ARTICLE 21 - SIGNING OF AGREEMENT

---

21.01 When OWNER gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within fifteen (15) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to OWNER.

21.02 OWNER shall return one fully signed counterpart to Successful Bidder.

21.03 Should Bidder to whom the Contract has been awarded refuse or fail to complete the requirements of Article 21.01 above, the additional time in calendar days, required to correctly complete the documents will be deducted, in equal amount, from the Contract time. Or, the OWNER may elect to revoke the Award and the OWNER shall hold the Bid Bond for consequential damages incurred, and the Contract may be awarded as the OWNER desires.

## ARTICLE 22 – FEDERAL TERMS

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22.01 OWNER will not make award to parties listed on the government-wide exclusions in the System for Award Management (SAM). The Bidder agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The Bidder further agrees to include a provision requiring such compliance in its lower tier covered transactions. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions. By submittal of a bid in response to this solicitation, Bidder asserts neither it nor its principals is presently debarred, suspended or proposed for debarment, declared ineligible, or voluntarily excluded from participation in this work by any Federal department or agency. For work funded by federal grant, contractor is required to have an active registration with the System for Award Management (SAM) (<https://www.sam.gov>) prior to execution of the agreement.

22.02 OWNER will not knowingly do business with vendors or contractors who discriminate on the basis of race, color or national origin, sex, sexual orientation, gender identity, age and/or disability. Through the course of providing services to OWNER, Contractors shall affirmatively comply with all applicable provisions of Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 and the Florida Civil Rights Act of 1992, as well as all other applicable regulations, guidelines and standards. Any person who believes their rights have been violated should report such discrimination to the County's Title VI/Nondiscrimination Coordinator through

the office of the County Attorney.

22.03 Bidder agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

22.04 Bidder agrees to comply with all Federal, State, and Local Laws and Regulations applicable to the production, sale, and delivery of the goods or the furnishing of any labor or services called for by the resulting Agreement, and any provisions required thereby to be included herein shall be deemed to be incorporated herein by reference. Noncompliance may be considered grounds for termination of award.

22.05 CONTRACTOR must take the following affirmative steps to ensure minority business, women's business enterprises and labor surplus area firms are used when possible:

- a. Placing qualified small and minority businesses and women's business enterprises on solicitation lists.
- b. Ensuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources.
- c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises.
- d. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.
- e. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

22.06 The Department of Homeland Security (DHS) seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials shall not be used by the Bidder without specific FEMA pre-approval.

**\* \* END OF SECTION \* \***



**SECTION 00300 – Bid Package Contents****THIS PACKAGE CONTAINS:**

<u>SECTION TITLE</u>	<u>SECTION NUMBER</u>
Bid Form	00310
Bid Bond	00430
Sworn Statement on Disclosure of Relationships	00452
Sworn Statement Under the Florida Trench Safety Act	00454
Qualifications Questionnaire	00456
List of Subcontractors	00458
Certification Regarding Prohibition Against Contracting with Scrutinized Companies	00460
Certification Regarding Lobbying	00465

**SUBMIT ONE (1) ORIGINAL AND ONE (1) COPY OF THIS COMPLETE PACKAGE WITH YOUR BID**

**\*\* END OF SECTION \*\***

**SECTION 00310 – Bid Form**

PROJECT IDENTIFICATION:

Project Name: **SECTOR 3 HURRICANES IAN AND NICOLE DUNE  
RENOURISHMENT PROJECT**

County Project Number: **IRC-2315**

Bid Number: **2024004**

Project Address: **SECTOR 3 – INDIAN RIVER COUNTY  
COASTLINE**

Project Description: ***The proposed project includes dune renourishment within the County’s Sector 3 Project Area via the placement of approximately 274,368 cubic yards of beach-compatible sand fill and the installation of about 728,633 native dune plants over approximately 6.6 miles of Atlantic Ocean beach in central Indian River County. Sand fill is proposed to be obtained from either (a) an upland sand source pre-qualified by the County, and/or (b) an upland sand source separately approved by the Florida Department of Environmental Protection. To avoid adverse impacts to nesting sea turtles, construction is expected to be completed during the period of November 1, 2023 to April 30, 2024.***

THIS BID IS SUBMITTED TO:

INDIAN RIVER COUNTY  
1800 27<sup>th</sup> Street  
VERO BEACH, FLORIDA 32960

**1.01** The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**2.01** Bidder accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. The Bid will remain subject to acceptance for 90 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of OWNER.

**3.01** In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

Addendum Date

Addendum Number

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and (2) reports and drawings of a Hazardous Environmental Condition, if any, which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.

E. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

I. Bidder has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to Bidder.

J. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

**4.01** Bidder further represents that this Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any individual or entity to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.

## ITEMIZED BID SCHEDULE

# PROJECT NAME: SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT

PROJECT NO. IRC - 2315

BID NO. 2024004

BIDDER'S NAME: \_\_\_\_\_

Item No.	Description	Unit	Quantity	Unit Price	Amount
1	MOBILIZATION/DEMOBILIZATION	LS	1		
2	FURNISH AND INSTALL SAND	CY	274,368		
3	BEACH TILLING	AC	43.00		
4	SURVEYS	LS	1		
5	DUNE VEGETATION	EA	728,633		
6	ENVIRONMENTAL COMPLIANCE	LS	1		
7	SITE RESTORATION	LS	1		
<b>SUB TOTAL</b>					
<b>FORCE ACCOUNT</b>					\$ 1,500,000.00
<b>TOTAL BID AMOUNT (INCLUDING FORCE ACCOUNT)</b>				<b>TOTAL</b>	

LS=Lump Sum EA=Each CY=Cubic Yard AC=Acre

**NOTE: IF THERE IS A DISCREPANCY BETWEEN THE PLANS (SUMMARY OF PAY ITEMS) AND THE ITEMIZED BID SCHEDULE, THE BID SCHEDULE WILL BE UTILIZED FOR BIDDING PURPOSES.**

**TOTAL PROJECT BID AMOUNT IN WORDS** \_\_\_\_\_

*BID ITEM NOTE: ITEM #1 MOBILIZATION/DEMOBILIZATION SHALL INCLUDE ALL THE COSTS ASSOCIATED WITH THE CONTRACTORS SELECTED METHODOLOGY FOR SAND PLACEMENT*  
*BID ITEM NOTE: ITEM #6 PERMIT ENVIRONMENTAL COMPLIANCE: SHALL INCLUDE ALL THE COSTS ASSOCIATED WITH THE CONTRACTORS SELECTED METHODOLOGY FOR SAND PLACEMENT*

**5.01** Bidder shall complete the Work in accordance with the Contract Documents for the price(s) contained in the Bid Schedule:

- A. The Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.
- B. The Owner reserves the right to omit or add to the construction of any portion or portions of the work heretofore enumerated or shown on the plans. Furthermore, the Owner reserves the right to omit in its entirety any one or more items of the Contract without forfeiture of Contract or claims for loss of anticipated profits or any claims by the Contractor on account of such omissions.
- C. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities provided. The quantities actually required to complete the contract and work may be less or more than so estimated, and, if so, no action for damages or for loss of profits shall accrue to the Contractor by reason thereof.
- D. Unit Prices have been computed in accordance with paragraph 11.03.B of the General Conditions.

**6.01** Bidder agrees that the Work will be substantially completed and ready for final payment in accordance with paragraph 14.07.B of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

**6.02** Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the times specified, which shall be stated in the Agreement.

**7.01** The following documents are attached to and made a condition of this Bid:

- A. Itemized Bid Schedule;
- B. Required Bid security in the form of \_\_\_\_\_;
- C. Sworn Statement under Section 105.08, Indian River Code, on Disclosure of Relationships;
- D. Sworn Statement Under the Florida Trench Safety Act;
- E. Qualifications Questionnaire with Bidder Qualifications required in Technical Specifications;
- F. List of Subcontractors;
- G. Certification Regarding Prohibition Against Contracting with Scrutinized Companies
- H. Certification Regarding Lobbying

8.01 The terms used in this Bid with initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

SUBMITTED on \_\_\_\_\_, 20\_\_.

State Contractor License No. \_\_\_\_\_

If Bidder is:

**An Individual**

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_ (SEAL)  
*(Individual's signature)*

Doing business as: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Email: \_\_\_\_\_

**A Partnership**

Partnership Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
*(Signature of general partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Email: \_\_\_\_\_

**A Corporation**

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_

Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

By: \_\_\_\_\_  
*(Signature -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

(CORPORATE SEAL)

Attest \_\_\_\_\_  
*(Signature of Corporate Secretary)*

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Email: \_\_\_\_\_

Date of Qualification to do business is \_\_\_\_\_.

**A Joint Venture**

Joint Venture Name: \_\_\_\_\_

(SEAL)

By: \_\_\_\_\_  
*(Signature of joint venture partner -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Email: \_\_\_\_\_

Joint Venture Name: \_\_\_\_\_

(SEAL)

By: \_\_\_\_\_  
*(Signature -- attach evidence of authority to sign)*

Name (typed or printed): \_\_\_\_\_

Title: \_\_\_\_\_

Business address: \_\_\_\_\_

Phone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

Email: \_\_\_\_\_

Phone and FAX Number, and Address for receipt of official communications:

\_\_\_\_\_

\_\_\_\_\_

(Each joint venturor must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

**\*\* END OF SECTION \*\***

**SECTION 00430 – Bid Bond**  
**AIA DOCUMENT A310 BID BOND**

The Contractor shall use the document form entitled “AIA Document A310 Bid Bond.”

END OF SECTION



**SECTION 00452 – Sworn Statement on Disclosure of Relationships**

**SWORN STATEMENT UNDER SECTION 105.08, INDIAN RIVER COUNTY CODE, ON DISCLOSURE OF RELATIONSHIPS**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement MUST be submitted with Bid, Proposal or Contract No. 2024004

for **SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

2. This sworn statement is submitted by: \_\_\_\_\_

\_\_\_\_\_

(Name of entity submitting Statement)

whose business address is:

\_\_\_\_\_

3. My name is \_\_\_\_\_

(Please print name of individual signing)

and my relationship to the entity named above is \_\_\_\_\_

4. I understand that an “affiliate” as defined in Section 105.08, Indian River County Code, means:

The term “affiliate” includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the entity.

5. I understand that the relationship with a County Commissioner or County employee that must be disclosed as follows:

Father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, or grandchild.

6. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. [Please indicate which statement applies.]

\_\_\_\_\_ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, have any relationships as defined in section 105.08, Indian River County Code, with any County Commissioner or County employee.

\_\_\_\_\_The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents, who are active in management of the entity have the following relationships with a County Commissioner or County employee:

Name of Affiliate or entity	Name of County Commissioner or employee	Relationship
_____	_____	_____
_____	_____	_____
_____	_____	_____

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by \_\_\_\_\_  
(name of person making statement).

\_\_\_\_\_  
(Signature of Notary Public - State of Florida)  
(Print, Type, or Stamp Commissioned Name of Notary Public)

who is personally known to me or  who has produced  
\_\_\_\_\_ as identification.

**\*\* END OF SECTION \*\***

**SECTION 00454 – Sworn Statement Under the Florida Trench Safety Act**

**THIS FORM MUST BE SIGNED BY THE BIDDER WHO WILL BE RESPONSIBLE FOR THE EXCAVATION WORK ("BIDDER"), OR ITS AUTHORIZED REPRESENTATIVE, IN THE PRESENCE OF A NOTARY PUBLIC AUTHORIZED TO ADMINISTER OATHS.**

1. This Sworn Statement is submitted with Project No. **IRC-2315** for **SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

2. This Sworn Statement is submitted by \_\_\_\_\_  
(Legal Name of Entity Submitting Sworn Statement)

\_\_\_\_\_, hereinafter "BIDDER". The BIDDER's address is \_\_\_\_\_.

BIDDER's Federal Employer Identification Number (FEIN) is \_\_\_\_\_.

3. My name is \_\_\_\_\_ and my relationship to the BIDDER  
(Print Name of Individual Signing)

is \_\_\_\_\_.  
(Position or Title)

I certify, through my signature at the end of this Sworn Statement, that I am an authorized representative of the BIDDER.

4. The Trench Safety Standards that will be in effect during the construction of this Project are contained within the Trench Safety Act, Section 553.60 et.seq. Florida Statutes and refer to the applicable Florida Statute(s) and/or OSHA Regulation(s) and include the "effective date" in the citation(s). Reference to and compliance with the applicable Florida Statute(s) and OSHA Regulation(s) is the complete and sole responsibility of the BIDDER. Such reference will not be checked by OWNER or ENGINEER and they shall have no responsibility to review or check the BIDDER's compliance with the Trench Safety Standards.

5. The BIDDER assures the OWNER that it will comply with the applicable Trench Safety Standards.

6. The BIDDER has allocated and included in its bid the total amount of \$\_\_\_\_\_, based on the linear feet of trench to be excavated over five (5) feet deep, for compliance with the applicable Trench Safety Standards, and intends to comply with said standards by instituting the following specific method(s) of compliance on this Project: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

The determination of the appropriate method(s) of compliance is the complete and sole responsibility of the BIDDER. Such methods will not be checked by the OWNER or ENGINEER for accuracy, completeness, or any other purpose. The OWNER and ENGINEER shall have no responsibility to review or check the BIDDER's compliance with the Trench Safety Standards.

7. The BIDDER has allocated and included in its bid the total amount of \$\_\_\_\_\_ based on the square feet of shoring to be used for compliance with shoring safety requirements and intends to comply with said shoring requirements by instituting the following specific method(s) of compliance on this Project: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

The determination of the appropriate method(s) of compliance is the complete and sole responsibility of the BIDDER. Such methods will not be checked by the OWNER or ENGINEER for accuracy, completeness or any other purpose. The OWNER and ENGINEER shall have no responsibility to review or check the BIDDER's compliance with the Trench Safety Standards.

- 8. The BIDDER, in submitting this bid, represents that it has obtained and considered all available geotechnical information, has utilized said geotechnical information and that, based on such information and the BIDDER's own information, the BIDDER has sufficient knowledge of the Project's surface and subsurface site conditions and characteristics to assure BIDDER's compliance with the applicable Trench Safety Standards in designing the trench safety system(s) for the Project.

BIDDER: \_\_\_\_\_

By: \_\_\_\_\_

Position or Title: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day \_\_\_\_\_ of 20\_\_\_\_\_, by \_\_\_\_\_

\_\_\_\_\_  
(name of person making statement).

\_\_\_\_\_  
(Signature of Notary Public - State of Florida)  
(Print, Type, or Stamp Commissioned Name of Notary Public)

who is personally known to me or  who has produced \_\_\_\_\_ as identification.

**\*\* END OF SECTION \*\***

## SECTION 00456 – Qualifications Questionnaire

NOTICE: THE OWNER RETAINS THE DISCRETION TO REJECT THE BIDS OF NON-RESPONSIBLE BIDDERS.

**Documentation Submitted with Project No: IRC-2315**

**Project Name: SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

1. Bidder's Name / Address: \_\_\_\_\_  
\_\_\_\_\_
2. Bidder's Telephone & FAX Numbers: \_\_\_\_\_  
\_\_\_\_\_
3. Licensing and Corporate Status:
  - a. Is Contractor License current? \_\_\_\_\_
  - b. Bidder's Contractor License No: \_\_\_\_\_  
[Attach a copy of Contractor's License to the bid]
  - c. Attach documentation from the State of Florida Division of Corporations that indicates the business entity's status is active and that lists the names and titles of all officers.
4. Number of years the firm has performed business as a Contractor in construction work of the type involved in this contract: \_\_\_\_\_
5. What is the last project OF THIS NATURE that the firm has completed?  
\_\_\_\_\_  
\_\_\_\_\_
6. Has the firm ever failed to complete work awarded to you? \_\_\_\_\_  
  
[If your answer is "yes", then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which the firm failed to complete the work.]
7. Has the firm ever been assessed liquidated damages? \_\_\_\_\_  
  
[If your answer is "yes", then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which liquidated damages have been assessed.]
8. Has the firm ever been charged by OSHA for violating any OSHA regulations? \_\_\_\_\_  
  
[If your answer is "yes", then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner's telephone number for each project in which OSHA violations were alleged.]
9. Has the firm implemented a drug-free workplace program in compliance with Florida Statute 287.087? \_\_\_\_\_

(In the case of a tie, preference will be given to businesses with drug-free workplace programs)

10. Has the firm ever been charged with noncompliance of any public policy or rules?  
\_\_\_\_\_

[If your answer is “yes”, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner’s telephone number for each project.]

11. Attach to this questionnaire, a notarized financial statement and other information that documents the firm’s financial strength and history.

12. Has the firm ever defaulted on any of its projects? \_\_\_\_\_

[If your answer is “yes”, then attach a separate page to this questionnaire that explains the circumstances and list the project name, Owner, and the Owner’s telephone number for each project in which a default occurred.]

13. Attach a separate page to this questionnaire that summarizes the firm’s current workload and that demonstrates its ability to meet the project schedule.

14. Name of person who inspected the site of the proposed work for the firm:

Name: \_\_\_\_\_ Date of Inspections: \_\_\_\_\_

15. Name of on-site Project Foreman: \_\_\_\_\_

Number of years of experience with similar projects as a Project Foreman: \_\_\_\_\_

16. Name of Project Manager: \_\_\_\_\_

Number of years of experience with similar projects as a Project Manager: \_\_\_\_\_

17. State your total bonding capacity: \_\_\_\_\_

18. State your bonding capacity per job: \_\_\_\_\_

19. Please provide name, address, telephone number, and contact person of your bonding company:

\_\_\_\_\_  
\_\_\_\_\_

20. Attach the following information required in Section TP-21, Table 5 to this form:

- a. Bidder’s proposed method of construction and overall schedule to demonstrate understanding of the Work and completion within the Contract time.
- b. The additional equipment proposed to complete this project, to include bulldozers, loaders, excavators, etc.

- c. Qualifications and prior experience of bidder's key personnel, to include proposed project manager, superintendent, site engineer, etc.
- d. Experience with beach and dune nourishment via truck hauling operations.
- e. Description of last project of this nature that the bidder completed.
- f. References for at least three (3) similar beach nourishment works within the previous five (5) years.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK]

19. Complete the following table for SIMILAR projects:

Name of Project	Date Completed	Owner	Contact Person: Name/ Email Address/Phone	Original Contract Amount	Final Contract Amount



**SECTION 00458 – List of Subcontractors**

The Bidder **MUST** list below the name and address of each Subcontractor who will perform work under this Contract in excess of one-half percent of the total bid price, and shall also list the portion of the work which will be done by such Subcontractor. After the opening of Bids, additions, changes or substitutions will not be allowed unless approved by Indian River County after a request for such a change has been submitted in writing by the Contractor, which shall include reasons for such request. Subcontractors must be properly licensed and hold a valid Certificate of Competency.

Documentation Submitted with Project No. **IRC-2315** for **SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

	<b>Work to be Performed</b>	<b>Subcontractor’s Name/Address</b>	<b>Portion of Work (%)</b>
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			

Note: Attach additional sheets if required.

**\*\* END OF SECTION \*\***

**SECTION 00460 – CERTIFICATION REGARDING PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES**

I hereby certify that neither the undersigned entity, nor any of its wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations, that exists for the purpose of making profit have been placed on the Scrutinized Companies that Boycott Israel List created pursuant to s. 215.4725 of the Florida Statutes, or are engaged in a boycott of Israel.

In addition, if this solicitation is for a contract for goods or services of one million dollars or more, I hereby certify that neither the undersigned entity, nor any of its wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations, that exists for the purpose of making profit are on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to s. 215.473 of the Florida Statutes, or are engaged in business operations in Cuba or Syria as defined in said statute.

I understand and agree that the County may immediately terminate any contract resulting from this solicitation upon written notice if the undersigned entity (or any of those related entities of respondent as defined above by Florida law) are found to have submitted a false certification or any of the following occur with respect to the company or a related entity: (i) it has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, or (ii) for any contract for goods or services of one million dollars or more, it has been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or it is found to have been engaged in business operations in Cuba or Syria.

Name of Respondent: \_\_\_\_\_

By: \_\_\_\_\_  
(Authorized Signature)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**SECTION 00465 – CERTIFICATION REGARDING LOBBYING**

The undersigned Contractor certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, \_\_\_\_\_, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

\_\_\_\_\_  
Signature of Contractor's Authorized Official

\_\_\_\_\_  
Name and Title of Contractor's Authorized Official

\_\_\_\_\_  
Date

**BOARD OF COUNTY COMMISSIONERS**



Month xx, 2022

via Email

Company

**Attn:**

Address

Address

Email address

**NOTICE OF AWARD**

**Reference:** *Indian River County Bid No. IRC-2315*

**Project Name:** **SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

Dear Mr./Ms. :

It is my pleasure to inform you that on [DATE] the Board of County Commissioners awarded the above-referenced project to your company. The following documents are required before the applicable County department can issue a "Notice to Proceed" letter.

1. Public Construction Bond (unrecorded) in the amount of **100%** of the award amount (**\$.....**).
2. Two Signed Copies of Enclosed Agreement.
3. Certificate of Insurance indicating coverage required by Article 5 of the General Conditions (section 00700 of the bid documents) and Supplemental Conditions (Section 00800 of the bid documents). Certificate(s) **must name Indian River County as additional insured** and must provide for a 30-day Notice of Cancellation.
4. W-9.

The Public Construction Bond must be executed in accordance with section 255.05(1)(a), Florida Statutes. Please submit the Bond, W-9, the Certificate(s) of Insurance and two fully-executed copies of the enclosed agreement to this office at the address provided below no later than [Due **DATE (15 days from award)**]. Failure to comply with the established deadline for submittal of required documents may be grounds for cancellation of award.

Thank you for your prompt attention and if you have any questions, please do not hesitate to contact our office.

Sincerely,

Jennifer Hyde, NIGP-CPP, CPPO  
Purchasing Manager

**Office of Management and Budget • Purchasing Division**  
**1800 27<sup>th</sup> Street, Vero Beach, Florida 32960•(772) 226-1416•Fax: (772) 770-5140**  
**E-mail: [purchasing@ircgov.com](mailto:purchasing@ircgov.com)**

Notice of Award - 00510-1

**SECTION 00520 Agreement (Public Works)**

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[The Remainder of THIS Page WAS LEFT BLANK INTENTIONALLY]

## SECTION 00520 Agreement (Public Works)

**THIS AGREEMENT** is by and between INDIAN RIVER COUNTY, a Political Subdivision of the State of Florida organized and existing under the Laws of the State of Florida, (hereinafter called OWNER)

and \_\_\_\_\_  
(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

### **ARTICLE 1 - WORK**

1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

*The proposed project includes dune renourishment within the County's Sector 3 Project Area via the placement of approximately 274,368 cubic yards of beach-compatible sand fill and the installation of about 728,633 native dune plants over approximately 6.6 miles of Atlantic Ocean beach in central Indian River County. Sand fill is proposed to be obtained from either (a) an upland sand source pre-qualified by the County, and/or (b) an upland sand source separately approved by the Florida Department of Environmental Protection. To avoid adverse impacts to nesting sea turtles, construction is expected to be completed during the period of November 1, 2023 to April 30, 2024.*

### **ARTICLE 2 - THE PROJECT**

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Project Name: **SECTOR 3 HURRICANES IAN AND NICOLE DUNE  
RENOURISHMENT PROJECT**

County Project Number: **IRC-2315**

Bid Number: **2024004**

Project Address: **SECTOR 3 INDIAN RIVER COUNTY COASTLINE**

### **ARTICLE 3 - ENGINEER**

3.01 The Indian River County Public Works Department is hereinafter called the ENGINEER and will act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

### **ARTICLE 4 - CONTRACT TIMES**

4.01 *Time of the Essence*

- A. All time limits for Milestones, if any, Final Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Days to Achieve Final Completion and Final Payment*

- A. The Work will be fully completed (Final Completion) and ready for final payment on or before the **180th** calendar day after the date when the Contract Times commence to run no later than April 30, 2024, as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions.

\*\*\*\*\*

4.03 *Liquidated Damages*

- A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. Liquidated damages will commence for this portion of work. The parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER **\$4,687.00** for each calendar day that expires after the time specified in paragraph 4.02 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by OWNER, CONTRACTOR shall pay OWNER **\$4,687.00** for each calendar day that expires after the time specified in paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

**ARTICLE 5 - CONTRACT PRICE**

5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents, an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 5.01.A and summarized in paragraph 5.01.B, below:

- A. For all Work, at the prices stated in CONTRACTOR's Bid, attached hereto as an exhibit.
- B. THE CONTRACT SUM subject to additions and deductions provided in the Contract:

Numerical Amount: \$ \_\_\_\_\_

Written Amount: \_\_\_\_\_

**ARTICLE 6 - PAYMENT PROCEDURES**

6.01 *Submittal and Processing of Payments*

- A. CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions and the Contract Documents.

## 6.02 *Progress Payments.*

- A. The OWNER shall make progress payments to the CONTRACTOR on the basis of the approved partial payment request as recommended by ENGINEER in accordance with the provisions of the Local Government Prompt Payment Act, Florida Statutes section 218.70 et. seq. The OWNER shall retain five percent (5%) of the payment amounts due to the CONTRACTOR until substantial completion of all work to be performed by CONTRACTOR under the Contract Documents.
- B. For construction projects less than \$10 million, at the time the OWNER is in receipt of the Certificate of Substantial Completion, the OWNER shall have 30 calendar days to provide a list to the CONTRACTOR of items to be completed and the estimated cost to complete each item on the list. OWNER and CONTRACTOR agree that the CONTRACTOR'S itemized bid shall serve as the basis for determining the cost of each item on the list. For projects in excess of \$10 million, OWNER shall have up to 45 calendar days following receipt of Certificate of Substantial Completion of the project to provide CONTRACTOR with said list.
- C. Payment of Retainage - Within 20 business days following the creation of the list, OWNER shall pay CONTRACTOR the remaining contract balance including all retainage previously withheld by OWNER except for an amount equal to 150% of the estimated cost to complete all of the items on the list. Upon completion of all items on the list, the CONTRACTOR may submit a payment request for the amount of the 150% retainage held by the OWNER. If a good faith dispute exists as to whether one or more of the items have been finished, the OWNER may continue to withhold the 150% of the total cost to complete such items. The OWNER shall provide CONTRACTOR written reasons for disputing completion of the list.

## 6.03 *Pay Requests.*

- A. Each request for a progress payment shall be submitted on the application provided by OWNER and the application for payment shall contain the CONTRACTOR'S certification. All progress payments will be on the basis of progress of the work measured by the schedule of values established, or in the case of unit price work based on the number of units completed.

## 6.04 *Paragraphs 6.02 and 6.03*

do not apply to construction services work purchased by the County as OWNER which are paid for, in whole or in part, with federal funds and are subject to federal grantor laws and regulations or requirements that are contrary to any provision of the Local Government Prompt Payment Act. In such event, payment and retainage provisions shall be governed by the applicable grant requirements and guidelines.

## 6.05 *Acceptance of Final Payment as Release.*

- A. The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER from all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with the work under



this Contract and for every act and neglect of the OWNER and others relating to or arising out of the work. Any payment, however, final or otherwise, shall not release the CONTRACTOR or its sureties from any obligations under the Contract Documents or the Public Construction Bond.

## **ARTICLE 7 - INDEMNIFICATION**

7.01 CONTRACTOR shall indemnify OWNER, ENGINEER, and others in accordance with paragraph 6.20 (*Indemnification*) of the General Conditions to the Construction Contract.

## **ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS**

8.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. CONTRACTOR has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions and (2) reports and drawings of a Hazardous Environmental Condition, if any, at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions.
- E. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto
- F. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract

Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

- I. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- J. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- K. Contractor is registered with and will use the Department of Homeland Security's E-Verify system ([www.e-verify.gov](http://www.e-verify.gov)) to confirm the employment eligibility of all newly hired employees for the duration of this agreement, as required by Section 448.095, F.S. Contractor is also responsible for obtaining an affidavit from all subcontractors, as required in Section 448.095(5)(b), F.S., stating the subcontractor does not employ, contract with, or subcontract with an unauthorized alien.

## **ARTICLE 9 - CONTRACT DOCUMENTS**

### 9.01 *Contents*

- A. The Contract Documents consist of the following:
  - 1. This Agreement (pages 00520-1 to 00520-10, inclusive);
  - 2. Notice to Proceed (page 00550-1);
  - 3. Public Construction Bond (pages 00610-1 to 00610-3, inclusive);
  - 4. Sample Certificate of Liability Insurance (page 00620-1);
  - 5. Contractor's Application for Payment (pages 00622-1 to 00622-6 inclusive);
  - 6. Contractor's Final Certification of the Work (pages 00632-1 to 00632-2, inclusive);
  - 7. Professional Surveyor & Mapper's Certification as to Elevations and Locations of the Work (page 00634-1);
  - 8. General Conditions (pages 00700-1 to 00700-38, inclusive);
  - 9. Supplementary Conditions (pages 00800-1 to 00800-12, inclusive);
  - 10. Construction Specifications Prepared by Aptim Environmental & Infrastructure, LLC, dated September 12, 2023
  - 11. Drawings consisting of a cover sheet (CS-1) and sheets numbered CD-1 through CD-3, OV-1, PV-1 through PV-24, XS-1 through XS-9, and D-1 through D-2, inclusive, with each sheet bearing the following general title: Sector 3 Hurricanes Ian and Nicole Repair Project Construction Plans;
  - 12. Addenda (if applicable \_\_\_\_\_);
  - 13. Appendices to this Agreement (enumerated as follows):

TBD

14. CONTRACTOR'S BID (pages 00310-1 to 00310-6, inclusive);
15. Bid Bond (page 00430-1);
16. Sworn Statement Under Section 105.08, Indian River County Code, on Disclosure of Relationships (pages 00452-1 to 00452-2, inclusive);
17. Sworn Statement Under the Florida Trench Safety Act (pages 00454-1 to 00454-2, inclusive);
18. Qualifications Questionnaire (page 00456-1 to 00456-2, inclusive);
19. List of Subcontractors (page 00458-1);
20. Certification Regarding Prohibition Against Contracting with Scrutinized Companies (page 00460-1);
21. Certification Regarding Lobbying (page 00465-1)
22. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
  - a) Written Amendments;
  - b) Work Change Directives;
  - c) Change Order(s);

## **ARTICLE 10 - MISCELLANEOUS**

### 10.01 *Terms*

- A. Terms used in this Agreement will have the meanings indicated in the General Conditions.

### 10.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

### 10.03 *Successors and Assigns*

- A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

#### 10.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

#### 10.05 Venue

- A. This Contract shall be governed by the laws of the State of Florida. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Contract shall be in Indian River County, Florida, or, in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

#### 10.06 Public Records Compliance

- A. Indian River County is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's Public Records Law. Specifically, the Contractor shall:

- (1) Keep and maintain public records required by the County to perform the service.
- (2) Upon request from the County's Custodian of Public Records, provide the County with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119 or as otherwise provided by law.
- (3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the County.
- (4) Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by the County to perform the service. If the Contractor transfers all public records to the County upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the Custodian of Public Records, in a format that is compatible with the information technology systems of the County.

**B. IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:**

**(772) 226-1424**  
**publicrecords@indianriver.gov**  
**Indian River County Office of the County Attorney**  
**1801 27<sup>th</sup> Street**  
**Vero Beach, FL 32960**

C. Failure of the Contractor to comply with these requirements shall be a material breach of this Agreement.

## **Article 11 – FEDERAL TERMS**

OWNER and CONTRACTOR will adhere to the following, as applicable to this work:

### *11.01 Equal Employment Opportunity*

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering

agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions as may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

*Provided*, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a state or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

#### 11.02 *Further Compliance with the Contract Work Hours and Safety Standards Act*

(1) The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.

(2) Records to be maintained under this provision shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Homeland Security, the Federal Emergency Management Agency, and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

#### 11.03 *Clean Air Act and Federal Water Pollution Control Act*

(1) Clean Air Act.

(a) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.

(b) The contractor agrees to report each violation to the OWNER and understands and agrees that the OWNER will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(c) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

(2) Federal Water Pollution Control Act

(a) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.

(b) The contractor agrees to report each violation to the OWNER and understands and agrees that the OWNER will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.

(c) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

#### 11.04 *Suspension and Debarment*

(1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such the contractor is required to verify that none of the contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

(2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

(3) This certification is a material representation of fact relied upon by OWNER. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to OWNER, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

#### 11.05 *Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended)*

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

#### 11.06 *Procurement of Recycled/Recovered Materials*

(1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

- (i) Competitively within a timeframe providing for compliance with the contract performance schedule;
- (ii) Meeting contract performance requirements; or
- (iii) At a reasonable price.

(2) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

(3) The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

#### 11.07 *Prohibition on Contracting for Covered Telecommunications Equipment or Services*

(a) Definitions. As used in this clause, the terms backhaul; covered foreign country; covered telecommunications equipment or services; interconnection arrangements; roaming; substantial or essential component; and telecommunications equipment or services have the meaning as defined in FEMA Policy 405-143-1, Prohibitions on Expending FEMA Award Funds for Covered Telecommunications Equipment or Services (Interim), as used in this clause—

(b) Prohibitions.

(1) Section 889(b) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232, and 2 C.F.R. § 200.216 prohibit the head of an executive agency on or after Aug. 13, 2020, from obligating or expending grant, cooperative agreement, loan, or loan guarantee funds on certain telecommunications products or from certain entities for national security reasons.

(2) Unless an exception in paragraph (c) of this clause applies, the contractor and its subcontractors may not use grant, cooperative agreement, loan, or loan guarantee funds from the Federal Emergency Management Agency to:

(i) Procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(ii) Enter into, extend, or renew a contract to procure or obtain any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology of any system;

(iii) Enter into, extend, or renew contracts with entities that use covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system; or

(iv) Provide, as part of its performance of this contract, subcontract, or other contractual instrument, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.



(c) Exceptions.

(1) This clause does not prohibit contractors from providing—

(i) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(2) By necessary implication and regulation, the prohibitions also do not apply to:

(i) Covered telecommunications equipment or services that:

i. Are not used as a substantial or essential component of any system; and

ii. Are not used as critical technology of any system.

(ii) Other telecommunications equipment or services that are not considered covered telecommunications equipment or services.

(d) Reporting requirement.

(1) In the event the contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the contractor is notified of such by a subcontractor at any tier or by any other source, the contractor shall report the information in paragraph (d)(2) of this clause to the recipient or subrecipient, unless elsewhere in this contract are established procedures for reporting the information.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause:

(i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e), in all subcontracts and other contractual instruments.

#### 11.08. *Domestic Preference for Procurements*

As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

For purposes of this clause:

Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

#### 11.09 *Access to Records*

The following access to records requirements apply to this contract:

(1) The contractor agrees to provide OWNER, the State of Florida, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

(2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(3) The contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

(4) In compliance with section 1225 of the Disaster Recovery Act of 2018, the OWNER and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

#### 11.10 *DHS Seal, Logo, and Flags*

The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval. The contractor shall include this provision in any subcontracts.

#### 11.11 *Compliance with Federal Law, Regulations, and Executive Orders*

This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable Federal law, regulations, executive orders, and FEMA policies, procedures, and directives.

#### 11.12 *No Obligation by Federal Government*

The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

#### 11.13 *Program Fraud and False or Fraudulent Statements or Related Acts*

The contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to its actions pertaining to the contract.

#### 11.14 *Affirmative Steps*

If subcontracts are to be let, the prime contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

[The remainder of this page was left blank intentionally]

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on \_\_\_\_\_ day \_\_\_\_\_ of 20\_\_\_\_ (the date the Contract is approved by the Indian River County Board of County Commissioners, which is the Effective Date of the Agreement).

**OWNER:**

**CONTRACTOR:**

INDIAN RIVER COUNTY \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_  
Joseph H. Earman, Chairman

By: \_\_\_\_\_  
(Contractor)

By: \_\_\_\_\_  
John A. Titkanich, Jr., County Administrator

(CORPORATE SEAL)

Attest \_\_\_\_\_

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

By: \_\_\_\_\_  
William K. DeBraal, County Attorney

Address for giving notices:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Ryan L. Butler, Clerk of Court and Comptroller

License No. \_\_\_\_\_  
(Where applicable)

Attest: \_\_\_\_\_  
Deputy Clerk

Agent for service of process: \_\_\_\_\_

(SEAL)

Designated Representative:  
Name: Eric Charest  
Title: Natural Resources Manager  
1801 27th Street  
Vero Beach, Florida 32960  
(772) 226-1569  
Facsimile: (772) 778-9391

Designated Representative:  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Phone: \_\_\_\_\_  
Facsimile: \_\_\_\_\_

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

**\*\* END OF SECTION \*\***

**SECTION 00550 – Notice to Proceed**

Dated

TO:

\_\_\_\_\_  
(BIDDER)

ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contract For:

**SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

(Insert name of Contract as it appears in the Contract Documents)

Project No: **IRC-2315**

IRC Bid No. **2024004**

\_\_\_\_\_  
\_\_\_\_\_

You are notified that the Contract Times under the above contract will commence to run on \_\_\_\_\_. By that date, you are to start performing your obligations under the Contract Documents. The Contract has allocated 180 calendar days for the completion of this project. In accordance with Article 4 of the Agreement the date of Final Completion is April 30,2024.

Before you may start any work at the site, you must obtain all insurance required under Article 5 of the General Conditions, and you must deliver to the Owner (with copies to Engineer and other identified additional insured), certificates of insurance that you are required to purchase and maintain in accordance with the Article 5 of the General Conditions, and the Owner has approved said insurance.

**INDIAN RIVER COUNTY  
(OWNER)**

By: \_\_\_\_\_  
(AUTHORIZED SIGNATURE)

**++ END OF SECTION ++**

## **SECTION 00610 - Public Construction Bond**

### **INSTRUCTION FOR PUBLIC CONSTRUCTION BOND**

The front or cover page to the required public construction payment and performance bond shall contain the information required by Fla. Stat. 255.05(1)(a), and be substantially in the format shown on the first page following this instruction.

The Public Construction Bond shall be in the form suggested by Fla. Stat. 255.05(3) as shown on the second page following this instruction.

A Power of Attorney from a surety insurer authorized to do business in Florida, authorizing the signature of the Attorney in Fact who executes the Public Construction Bond shall accompany that Bond.

**Public Work  
F.S. Chapter 255.05 (1)(a)  
Cover Page**

**THIS BOND IS GIVEN TO COMPLY WITH SECTION 255.05 OR SECTION 713.23 FLORIDA STATUTES, AND ANY ACTION INSTITUTED BY A CLAIMANT UNDER THIS BOND FOR PAYMENT MUST BE IN ACCORDANCE WITH THE NOTICE AND TIME LIMITATION PROVISIONS IN SECTION 255.05(2) OR SECTION 713.23 FLORIDA STATUTES.**

BOND NO: \_\_\_\_\_

CONTRACTOR NAME: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_

\_\_\_\_\_

CONTRACTOR PHONE NO: \_\_\_\_\_

SURETY COMPANY NAME: \_\_\_\_\_

SURETY PRINCIPAL

BUSINESS ADDRESS: \_\_\_\_\_

\_\_\_\_\_

SURETY PHONE NO: \_\_\_\_\_

OWNER NAME: \_\_\_\_\_

OWNER ADDRESS: \_\_\_\_\_

\_\_\_\_\_

OWNER PHONE NO: \_\_\_\_\_

OBLIGEE NAME: \_\_\_\_\_

**(If contracting entity is different from  
the owner, the contracting public entity)**

OBLIGEE ADDRESS: \_\_\_\_\_

\_\_\_\_\_

OBLIGEE PHONE NO: \_\_\_\_\_

BOND AMOUNT: \_\_\_\_\_

CONTRACT NO: \_\_\_\_\_

**(If applicable)**

DESCRIPTION OF WORK: \_\_\_\_\_

\_\_\_\_\_

PROJECT LOCATION: \_\_\_\_\_

\_\_\_\_\_

LEGAL DESCRIPTION: \_\_\_\_\_

**(If applicable)**

**FRONT PAGE**

**All other bond page(s) are deemed subsequent to this page regardless of any page number(s) that may be printed thereon.**

PUBLIC CONSTRUCTION BOND

Bond No. \_\_\_\_\_  
(enter bond number)

BY THIS BOND, We \_\_\_\_\_, as Principal and \_\_\_\_\_, a corporation, as Surety, are bound to \_\_\_\_\_, herein called Owner, in the sum of \$\_\_\_\_\_, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated \_\_\_\_\_, \_\_\_\_\_, between Principal and Owner for construction of \_\_\_\_\_, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section [255.05](#)(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section [255.05](#)(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON \_\_\_\_\_,

\_\_\_\_\_  
(Name of Principal)

By \_\_\_\_\_  
(As Attorney in Fact)

\_\_\_\_\_  
(Name of Surety)

**SECTION 620 – Sample Certificate of Liability Insurance**

<b>CERTIFICATE OF LIABILITY INSURANCE</b>	
<b>PRODUCER</b>	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
	COMPANIES AFFORDING COVERAGE
<b>INSURED</b>	COMPANY A -
	COMPANY B -
	COMPANY C -
	COMPANY D -
	COMPANY E -

**COVERAGES**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN THE INSURANCE ACCORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/D/YY)	LIMITS		
A	GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE - <input type="checkbox"/> OCCUR <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				EACH OCCURRENCE	\$ 1,000,000	
					FIRE DAMAGE (Any One Fire)	\$ 50,000	
					MED. EXP. (Any One Person)	\$ 5,000	
					PERSONAL & ADV INJURY	\$ 1,000,000	
					GENERAL AGGREGATE	\$ 1,000,000	
					PRODUCTS – COMP/OP AGG.	\$ 1,000,000	
						\$	
A	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS <input type="checkbox"/> <input type="checkbox"/>				COMBINED SINGLE LIMIT (Ea. Occurrence)	\$ 1,000,000	
					BODILY INJURY (Per Person)	\$	
					BODILY INJURY (Per Accident)	\$	
					PROPERTY DAMAGE	\$	
	GARAGE LIABILITY <input type="checkbox"/> <input type="checkbox"/>				AUTO ONLY – EA ACCIDENT	\$	
					OTHER THAN	EA ACC	\$
						AUTO ONLY	AGG
A	EXCESS LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION \$				EACH OCCURRENCE		
					AGGREGATE	\$	
						\$	
						\$	
A	WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY  THE PROPRIETOR/PARTNERS/ EXECUTIVE OFFICERS ARE: <input type="checkbox"/> INCL <input type="checkbox"/> EXCL				<input type="checkbox"/> WC STATUTORY LIMITS		
					E.L. EACH ACCIDENT	\$ 100,000	
					E.L. DISEASE – EA	\$ 500,000	
					E.L. DISEASE-POLICY LIMIT	\$ 100,000	
	OTHER: BUILDER'S RISK				FULL REPLACEMENT COST OF THE WORK		
DESCRIPTION OF OPERATIONS/LOCATIONS VEHICLES/SPECIAL ITEMS							
<b>CERTIFICATE HOLDER</b>		<b>ADDITIONAL INSURED; INSURER LETTER:</b>		<b>CANCELLATION</b>			
ADDITIONAL INSURED: INDIAN RIVER COUNTY 1801 27 <sup>TH</sup> STREET, VERO BEACH, FL 32960-3388				SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.			
				AUTHORIZED REPRESENTATIVE			



**SECTION 00622 – Contractor’s Application for Payment**  
**SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

Application for Payment No. \_\_\_\_\_

For Work Accomplished through the period of \_\_\_\_\_ through \_\_\_\_\_

To: Indian River County (OWNER)  
 From: \_\_\_\_\_ (CONTRACTOR)

Project No.: **IRC-2315**  
 Bid No.: **2024004**

**1) Attach detailed schedule and copies of all paid invoices.**

1.	Original Contract Price:	\$	
2.	Net change by Change Orders and Written Amendments (+ or -):	\$	
3.	Current Contract Price (1 plus 2):	\$	
4.	Total completed and stored to date:	\$	
5.	Retainage (per Agreement):		
	5% of completed Work:		
	_____ % of retainage:	\$	
	Total Retainage:	\$	
6.	Total completed and stored to date less retainage (4 minus 5):	\$	
7.	Less previous Application for Payments:	\$	
8.	<b>DUE THIS APPLICATION (6 MINUS 7):</b>	<b>\$</b>	

**CONTRACTOR'S CERTIFICATION:**

**UNDER PENALTY OF PERJURY**, the undersigned CONTRACTOR certifies that (1) the labor and materials listed on this request for payment have been used in the construction of this Work; (2) payment received from the last pay request has been used to make payments to all subcontractors, laborers, materialmen and suppliers except as listed on Attachment A, below; (3) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to OWNER at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to OWNER indemnifying OWNER against any such Lien, security interest or encumbrance); (4) all Work covered by this Application for Payment is in accordance with the Contract Documents and not defective; and (5) If this Periodic Estimate is for a Final Payment to project or improvement, I further certify that all persons doing work upon or furnishing materials or supplies for this project or improvement under this foregoing contract have been paid in full, and that all taxes imposed by Chapter 212 Florida Statutes, (Sales and Use Tax Act, as Amended) have been paid and discharged, and that I have no claims against the OWNER.

Attached to or submitted with this form are:

1. Signed release of lien forms (partial or final as applicable) from all subcontractors, laborers, materialmen and suppliers except as listed on Attachment A, together with an explanation as to why any release of lien form is not included;

2. Updated Construction Schedule per [Specification Section 01310](#).

Dated \_\_\_\_\_

By: \_\_\_\_\_  
(CONTRACTOR – must be signed by  
an Officer of the Corporation)

\_\_\_\_\_  
Print Name and Title

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online  
notarization, this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_, by \_\_\_\_\_  
(name of person making statement).

\_\_\_\_\_  
(Signature of Notary Public - State of Florida)  
(Print, Type, or Stamp Commissioned Name of Notary Public)

who is personally known to me or  who has produced  
\_\_\_\_\_ as identification.

**Please remit payment to:**

**Contractor's Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\*\*\*\*\*  
[The remainder of this page was left blank intentionally]

**SURETY'S CONSENT OF PAYMENT TO CONTRACTOR:**

The Surety, \_\_\_\_\_

\_\_\_\_\_, a corporation, in accordance with Public Construction Bond Number \_\_\_\_\_, hereby consents to payment by the OWNER to the CONTRACTOR, for the amounts specified in this CONTRACTOR's APPLICATION FOR PAYMENT.

**TO BE EXECUTED BY CORPORATE SURETY:**

Attest:

\_\_\_\_\_

Secretary

\_\_\_\_\_

Corporate Surety

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Business Address

BY: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

(Affix Corporate SEAL)

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, by \_\_\_\_\_ (name of person making statement).

\_\_\_\_\_  
(Signature of Notary Public - State of Florida)

(Print, Type, or Stamp Commissioned Name of Notary Public)

who is personally known to me or  who has produced \_\_\_\_\_ as identification.

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[The remainder of this page was left blank intentionally]

**CERTIFICATION OF PROJECT MANAGER:**

I certify that I have reviewed the above and foregoing Periodic Estimate for Partial Payment; that to the best of my knowledge and belief it appears to be a reasonably accurate statement of the work performed and/or material supplied by the Contractor. I am not certifying as to whether or not the Contractor has paid all subcontractors, laborers, materialmen and suppliers because I am not in a position to accurately determine that issue.

Dated \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE

**CERTIFICATION OF INSPECTOR:**

I have checked the estimate against the Contractor's Schedule of Amounts for Contract Payments and the notes and reports of my inspections of the project. To the best of my knowledge, this statement of work performed and/or materials supplied appears to be reasonably accurate, that the Contractor appears to be observing the requirements of the Contract with respect to construction, and that the Contractor should be paid the amount requested above, unless otherwise noted by me. I am not certifying as to whether or not the Contractor has paid all subcontractors, laborers, materialmen and suppliers because I am not in a position to accurately determine that issue.

Dated \_\_\_\_\_

\_\_\_\_\_  
SIGNATURE

\*\*\*\*\*

[The Remainder of This Page Was Left Blank Intentionally]

**ATTACHMENT A**

- 1. List of all subcontractors, laborers, materialmen and suppliers who have not been paid from the payment received from the last Pay Request and the reason why they were not paid (attach additional pages as necessary):**

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- 2. List of all subcontractors, laborers, materialmen and suppliers for which a signed release of lien form (partial or final as applicable) is not included with this Pay Request, together with an explanation as to why the release of lien form is not included (attach additional pages as necessary):**

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**SECTION 00632 - CONTRACTOR'S FINAL CERTIFICATION OF THE WORK**  
(TO ACCOMPANY CONTRACTOR'S FINAL APPLICATION FOR PAYMENT)

PROJECT NAME: **SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**  
PROJECT NO: **IRC-2315**

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

Personally before me the undersigned officer, authorized by the laws of said state to administer oaths, comes \_\_\_\_\_, who on oath says: That he is the CONTRACTOR with whom Indian River County, Florida, a political subdivision of said state, did on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, enter into a contract for the performance of certain work, more particularly described as follows:

***The proposed project includes a dune renourishment project within the County's Sector 3 Project Area via the placement of approximately 274,368 cubic yards of beach-compatible sand fill and the installation of about 728,633 native dune plants over approximately 6.6 miles of Atlantic Ocean beach in central Indian River County. Sand fill is proposed to be obtained from either (a) an upland sand source pre-qualified by the County, and/or (b) an upland sand source separately approved by the Florida Department of Environmental Protection. To avoid adverse impacts to nesting sea turtles, construction is expected to be completed during the period from November 1, 2023 to April 30, 2024.***

UNDER PENALTY OF PERJURY, affiant further says that said construction has been completed and the Contract therefore fully performed and final payment is now due and that all liens of all firms and individuals contracting directly with or directly employed by such CONTRACTOR have been paid in full EXCEPT:

Name	Description/Amount
_____	_____
_____	_____

who have not been paid and who are due the amount set forth.

Affiant further says that:

1. CONTRACTOR has reviewed the Contract Documents.
2. CONTRACTOR has reviewed the Work for compliance with the Contract Documents.
3. CONTRACTOR has completed the Work in accordance with the Contract Documents.
4. All equipment and systems have been tested in the presence of the ENGINEER or his representative and are fully operational with no defects or deficiencies except as listed below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 5. The Work is complete and ready for final acceptance by the OWNER.
- 6. CONTRACTOR hereby certifies that it has no claims against the OWNER.

(Corporate Seal)

\_\_\_\_\_  
(Contractor)

By: \_\_\_\_\_

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Sworn to (or affirmed) and subscribed before me by means of  physical presence or  online notarization, this \_\_\_\_\_ day \_\_\_\_\_ of 20\_\_\_\_, by \_\_\_\_\_

\_\_\_\_\_  
(name of person making statement).

\_\_\_\_\_  
(Signature of Notary Public - State of Florida)  
(Print, Type, or Stamp Commissioned Name of Notary Public)

who is personally known to me or  who has produced \_\_\_\_\_ as identification.

+ + END OF SECTION + +



**SECTION 00634 - PROFESSIONAL SURVEYOR AND MAPPER'S CERTIFICATION AS TO ELEVATIONS AND LOCATIONS OF THE WORK**

(TO BE COMPLETED BY A FLORIDA PROFESSIONAL SURVEYOR AND MAPPER RETAINED BY THE CONTRACTOR AND TO ACCOMPANY CONTRACTOR'S FINAL APPLICATION FOR PAYMENT)

I CERTIFY that I am a Florida Professional Surveyor and Mapper retained by:

\_\_\_\_\_  
\_\_\_\_\_  
(Insert name of CONTRACTOR)

Who is the CONTRACTOR for the following Project:

**PROJECT NAME: SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

**PROJECT # IRC-2315**

I FURTHER CERTIFY that I have personally performed the survey work for the preparation of Record Drawings for the CONTRACTOR for this project or that such work was performed under my direct control and supervision.

I FURTHER CERTIFY that all constructed elevations and locations of the Work are in conformance with the Contract Documents, except for discrepancies listed below.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
[Attach additional sheets as necessary]

(SURVEYOR'S SEAL)

**CERTIFIED BY:** \_\_\_\_\_

Printed Name: \_\_\_\_\_

Florida Professional Surveyor and Mapper Registration Number: \_\_\_\_\_

Date Signed and Sealed by Professional Surveyor and Mapper: \_\_\_\_\_

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

STANDARD  
GENERAL CONDITIONS  
OF THE  
CONSTRUCTION CONTRACT

Prepared by

**ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE**

and

Issued and Published Jointly By

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE  
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AMERICAN CONSULTING ENGINEERS COUNCIL

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National Society of Professional Engineers  
1420 King Street, Alexandria, VA 22314

American Consulting Engineers Council  
1015 15th Street N.W., Washington, DC 20005

American Society of Civil Engineers  
345 East 47th Street, New York, NY 10017

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# GENERAL CONDITIONS

## ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

---

### 1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other

relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other

CONTRACTOR submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

~~21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.~~

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER  
General Conditions - 00700 - 2

upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

49. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

## 1.02 Terminology

### A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

### B. Day

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

### C. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does

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not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

#### D. *Furnish, Install, Perform, Provide*

~~1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.~~

~~2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.~~

~~3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.~~

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

## ARTICLE 2 - PRELIMINARY MATTERS

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### 2.01 *Delivery of Bonds*

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

### 2.02 *Copies of Documents*

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

### 2.03 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the ninetieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

### 2.04 *Starting the Work*

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

### 2.05 *Before Starting Construction*

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and

3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

~~C. Evidence of Insurance: Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.~~

#### 2.06 Preconstruction Conference

~~A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.~~

#### 2.07 Initial Acceptance of Schedules

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a

workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

### ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

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#### 3.01 Intent

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

#### 3.02 Reference Standards

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER,

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ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

### 3.03 Reporting and Resolving Discrepancies

#### A. Reporting Discrepancies

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

#### B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

### 3.04 Amending and Supplementing Contract Documents

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amend-

ment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: ~~(i) a Field Order~~; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

### 3.05 Reuse of Documents

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

## ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

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### 4.01 Availability of Lands

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such

lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### 4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

#### 4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is

entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

#### C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or  
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becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

#### 4.04 *Underground Facilities*

A. *Shown or Indicated*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

#### B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

#### 4.05 *Reference Points*

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points

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and property monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

#### 4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible

creates a Hazardous Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created

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by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.E shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

## ARTICLE 5 - BONDS AND INSURANCE

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### 5.01 *Performance, Payment, and Other Bonds*

~~A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.~~

B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

### 5.02 *Licensed Sureties and Insurers*

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

### 5.03 *Certificates of Insurance*

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. ~~OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.~~

### 5.04 *CONTRACTOR's Liability Insurance*

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to

each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

#### 5.05 OWNER's Liability Insurance

~~—A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.~~

#### 5.06 Property Insurance

~~A. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:~~

~~1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;~~

~~2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and~~

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~~equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;~~

~~3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);~~

~~4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;~~

~~5. allow for partial utilization of the Work by OWNER;~~

~~6. include testing and startup; and~~

~~7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.~~

~~B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.~~

~~C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.~~

D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of

CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

~~E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.~~

#### 5.07 Waiver of Rights

~~A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.~~

~~B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER,~~  
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~~ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:~~

~~1. — loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and~~

~~2. — loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.~~

~~C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.~~

#### 5.08 *Receipt and Application of Insurance Proceeds*

~~A. Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.~~

~~B. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as~~

~~fiduciary shall give bond for the proper performance of such duties.~~

#### 5.09 *Acceptance of Bonds and Insurance; Option to Replace*

~~A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.~~

#### 5.10 *Partial Utilization, Acknowledgment of Property Insurer*

~~A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.~~

### ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

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#### 6.01 *Supervision and Superintendence*

~~A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of~~

construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

#### 6.02 Labor; Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

#### 6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials

and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

#### 6.04 Progress Schedule

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

#### 6.05 Substitutes and "Or-Equals"

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

1. "Or-Equal" Items: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or

equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

## 2. Substitute Items

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a

change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

*B. Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

*C. Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

*D. Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

*E. ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the General Conditions - 00700 - 15

provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

F. *CONTRACTOR's Expense*: CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

#### 6.06 Concerning Subcontractors, Suppliers, and Others

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any

obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

#### 6.07 *Patent Fees and Royalties*

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or

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ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

#### 6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

#### 6.09 *Laws and Regulations*

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

#### 6.10 *Taxes*

A. CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

B. OWNER qualifies for state and local sales tax exemption in the purchase of all material and equipment.

#### 6.11 *Use of Site and Other Areas*

##### A. *Limitation on Use of Site and Other Areas*

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or

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occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

#### 6.12 Record Documents

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

#### 6.13 Safety and Protection

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

#### 6.14 Safety Representative

A. CONTRACTOR shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

#### 6.15 Hazard Communication Programs

A. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

## 6.16 Emergencies

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued.

## 6.17 Shop Drawings and Samples

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

### D. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

- a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog

numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

### E. ENGINEER's Review

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for

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by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

#### F. *Resubmittal Procedures*

1. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

#### 6.18 *Continuing the Work*

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

#### 6.19 *CONTRACTOR's General Warranty and Guarantee*

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or
2. normal wear and tear under normal usage.

B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

1. observations by ENGINEER;
2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;
4. use or occupancy of the Work or any part thereof by OWNER;
5. any acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by OWNER.

#### 6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and
2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the

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Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

## ARTICLE 7 - OTHER WORK

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### 7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and
2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the

amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

### 7.02 *Coordination*

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

## ARTICLE 8 - OWNER'S RESPONSIBILITIES

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### 8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

### 8.02 *Replacement of ENGINEER*

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

### 8.03 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

### 8.04 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

### 8.05 *Lands and Easements; Reports and Tests*

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

### 8.06 *Insurance*

A. OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

### 8.07 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

### 8.08 *Inspections, Tests, and Approvals*

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

### 8.09 *Limitations on OWNER's Responsibilities*

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

### 8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

### 8.11 *Evidence of Financial Arrangements*

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

## ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

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### 9.01 *OWNER'S Representative*

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

### 9.02 *Visits to Site*

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER,

will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

#### 9.03 *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

#### 9.04 *Clarifications and Interpretations*

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

#### 9.05 *Authorized Variations in Work*

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ~~These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.~~

#### 9.06 *Rejecting Defective Work*

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

#### 9.07 *Shop Drawings, Change Orders and Payments*

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

#### 9.08 *Determinations for Unit Price Work*

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

#### 9.09 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of

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the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

#### 9.10 *Limitations on ENGINEER's Authority and Responsibilities*

A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and

approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

## ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

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### 10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in paragraph 10.05.

### 10.02 *Unauthorized Changes in the Work*

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

### 10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

#### 10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

#### 10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's

written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

### ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

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#### 11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

~~1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.~~

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

**B. Costs Excluded:** The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

**C. CONTRACTOR's Fee:** When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

**D. Documentation:** Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

#### 11.02 Cash Allowances

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

#### 11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of

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Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
2. there is no corresponding adjustment with respect any other item of Work; and
3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

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### 12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03 ); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. *CONTRACTOR's Fee*: The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
  - a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;
  - b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;
  - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
  - d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
  - e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and
  - f. when both additions and credits are involved in any one change, the adjustment

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in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

#### 12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

#### 12.03 *Delays Beyond CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

#### 12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

#### 12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

#### 12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any

Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

### ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

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#### 13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

#### 13.02 *Access to Work*

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

#### 13.03 *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

~~B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all~~

~~inspections, tests, or approvals required by the Contract Documents except:~~

~~1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;~~

~~2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and~~

~~3. as otherwise specifically provided in the Contract Documents.~~

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

#### 13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose,

or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

#### 13.05 *OWNER May Stop the Work*

~~A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.~~

#### 13.06 *Correction or Removal of Defective Work*

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

### 13.07 *Correction Period*

~~A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.~~

~~B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.~~

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

### 13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

### 13.09 *OWNER May Correct Defective Work*

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

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dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

## ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

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### 14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

### 14.02 *Progress Payments*

#### A. *Applications for Payments*

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other

arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

#### B. *Review of Applications*

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. The conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far

as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Written Amendment or Change Orders;

c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or

~~d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.~~

#### C. *Payment Becomes Due*

~~1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.~~

#### D. *Reduction in Payment*

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;

c. there are other items entitling OWNER to a set-off against the amount recommended; or

d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld. OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

#### 14.03 *CONTRACTOR's Warranty of Title*

A. CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

#### 14.04 *Substantial Completion*

~~A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.~~

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of

Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

#### 14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

#### 14.06 *Final Inspection*

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final  
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inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### 14.07 Final Payment

##### A. Application for Payment

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

##### B. Review of Application and Acceptance

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and

CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

##### C. Payment Becomes Due

~~1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.~~

#### 14.08 Final Completion Delayed

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

#### 14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from



CONTRACTOR's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

## ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

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### 15.01 OWNER May Suspend Work

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. ~~CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.~~

### 15.02 OWNER May Terminate for Cause

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the

same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

C. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

### 15.03 OWNER May Terminate For Convenience

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

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arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### 15.04 *CONTRACTOR May Stop Work or Terminate*

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, ~~or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due~~, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, ~~or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due~~, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

## ARTICLE 16 - DISPUTE RESOLUTION

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### 16.01 *Methods and Procedures*

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

## ARTICLE 17 - MISCELLANEOUS

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### 17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### 17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

### 17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

### 17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

### 17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

**SECTION 00800 - SUPPLEMENTARY CONDITION TO THE  
GENERAL CONDITIONS**

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Supplementary Conditions – 00800-1

## SECTION 00800 - SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS

### SC-1.00 Introduction

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. 1910-8, 1996 Edition) and other provisions of the Contract Documents as indicated below. All provisions, which are not so amended or supplemented, remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions.

### SC-1.01 Defined Terms

SC-1.01.A.20 *Add the following language to the end of GC 1.01.A.20.*

ENGINEERS:	APTIM Environmental and Infrastructure, LLC 6401 Congress Ave, Suite 140 Boca Raton, FL 33487
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SC-1.01.A.21. Delete paragraph GC 1.01.A.21 in its entirety.

### SC-1.02 Terminology

SC-1.02.D.1, 2, and 3 *Delete paragraphs GC-1.02.D.1, 2, and 3 in their entirety and insert the following paragraphs in their place:*

#### D. *Furnish, Install, Perform, Provide*

1. The word “furnish” shall mean to supply and deliver services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install” shall mean to put into use or place in final position services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide” shall mean to furnish and install services, materials, or equipment complete and ready for intended use.

### SC-2.05 Before Starting Construction

SC-2.05.C. *Delete paragraph GC 2.05.C in its entirety and insert the following paragraph in its place:*

- C. Evidence of Insurance: CONTRACTOR shall not commence work under this Contract until he has obtained all insurance required under Article 5 and such insurance has been delivered to the OWNER and approved by the OWNER, nor shall the CONTRACTOR allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been so obtained and approved. All such insurance shall remain in effect until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing *defective* Work in accordance with Article 13.

### SC-2.06 Preconstruction Conference

SC-2.06 *Delete paragraph GC-2.06.A in its entirety and insert the following paragraph in its place:*

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- A. Immediately after awarding the contract, but before the CONTRACTOR begins work, the Project Manager will call a preconstruction conference at a place the ENGINEER designates to establish an understanding among the parties as to the work and to discuss schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, and maintaining required records. Utility companies and others as appropriate will be requested to attend to discuss and coordinate work.
- B. Per the FDOT Standard Specifications for Road and Bridge Construction, the Contractor will certify to the Engineer the following:
  - 1. A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the contract,
  - 2. Actual Rate for items listed in Table 4-3.2.1 (see below),
  - 3. Existence of employee benefit plan for Holiday, Sick and Vacation benefits and a Retirement Plan, and,
  - 4. Payment of Per Diem is a company practice for instances when compensation for Per Diem is requested.

Such certification must be made by an officer or director of the Contractor with authority to bind the Contractor. Timely certification is a condition precedent to any right of the Contractor to recover compensations for such costs, and failure to timely submit the certification will constitute a full, complete, absolute and irrevocable waiver by the Contractor of any right to recover such costs. Any subsequent changes shall be certified to the Engineer as part of the cost proposal or seven calendar days in advance of performing such extra work.

FDOT Table 4-3.2.1	
Item	Rate
FICA	Rate established by Law
FUTA/SUTA	Rate established by Law
Medical Insurance	Actual
Holidays, Sick & Vacation Benefits	Actual
Retirement Benefits	Actual
Workers Compensation	Rates based on the National Council on Compensation Insurance basic rates tables adjusted by Contractor's actual experience modification factor in effect at the time of the additional work or unforeseen work
Per Diem	Actual but not to exceed State of Florida's rate
Insurance*	Actual
*Compensation for Insurance is limited solely to General Liability Coverage and does not include any other insurance coverage (such as, but not limited to, Umbrella Coverage, Automobile Insurance, etc.).	

**SC-3.06 Coordination of Plans, Specifications, and Special Provisions**

SC-3.06 Add the following new paragraphs immediately after paragraph GC-3.05:

*SC-3.06 Coordination of Plans, Specifications, and Special Provisions*

- A. In case of discrepancy, the governing order of the documents shall be as follows:
  - 1. Written Interpretations
  - 2. Addenda
  - 3. Specifications
  - 4. Supplementary Conditions to the General Conditions
  - 5. General Conditions

6. Approved Shop Drawings
  7. Drawings
  8. Referenced Standards.
- B. Written/computed dimensions shall govern over scaled dimensions.

#### **SC-4.02 Subsurface and Physical Conditions**

SC-4.02 *Add the following new paragraphs immediately after paragraph GC-4.02.B:*

- C. In the preparation of Drawings and Specifications, ENGINEER or ENGINEER's Consultants relied upon the following reports of explorations and tests of subsurface conditions at the Site:  
**N/A**
- D. Reports and drawings itemized in SC-4.02.C are included with the Bidding Documents in Appendix D.

#### **SC-5.01 Performance, Payment and Other Bonds**

SC-5.01.A. *Delete paragraph GC-5.01.A in its entirety and insert the following paragraphs in its place:*

Within fifteen (15) days of receipt of the Contract Documents for execution, the CONTRACTOR shall furnish a Public Construction Bond in an amount equal to 100% of the Contract Price.

1. In lieu of the Public Construction Bond, the CONTRACTOR may furnish an alternative form of security in the form of cash, money order, certified check, cashier's check, irrevocable letter of credit or a security as listed in Part II of F.S. Chapter 625. Any such alternative form of security shall be for the same purpose, and be for the same amount and subject to the same conditions as those applicable to the bond otherwise required. The determination of the value of an alternative form of security shall be made by the OWNER.
2. Such Bond shall continue in effect for one (1) year after acceptance of the Work by the OWNER.
3. The OWNER shall record the Public Construction Bond with the Public Record Section of the Indian River County Courthouse located at 2000 16th Avenue, Vero Beach, Florida 32960.

#### **SC-5.03 Certificates of Insurance**

SC-5.03 *Delete the second sentence of paragraph GC-5.03 in its entirety.*

#### **SC-5.04 CONTRACTOR's Liability Insurance**

SC-5.04 *Add the following new paragraphs immediately after paragraph GC-5.04.B:*

- C. The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
1. **Worker's Compensation:** To meet statutory limits in compliance with the Worker's Compensation Law of Florida. This policy must include Employer Liability with a limit \$100,000 for each accident, \$500,000 disease (policy limit) and \$100,000 disease (each employee). Such policy shall include a waiver of

subrogation as against OWNER and ENGINEER on account of injury sustained by an employee(s) of the CONTRACTOR.

2. Commercial General Liability: Coverage shall provide minimum limits of liability of \$1,000,000 per occurrence Combined Single Limit for Bodily Injury and Property Damage. This shall include coverage for:
  - a. Premises/Operations
  - b. Products/Completed Operations
  - c. Contractual Liability
  - d. Independent Contractors
  - e. Explosion
  - f. Collapse
  - g. Underground.
3. Business Auto Liability: Coverage shall provide minimum limits of liability of \$1,000,000 per occurrence Combined Single Limit for Bodily Injury and Property Damage. This shall include coverage for:
  - a. Owned Autos, and other vehicles
  - b. Hired Autos, and other vehicles
  - c. Non-Owned Autos, and other vehicles.
4. Special Requirements:
  - a. Ten (10) days prior to the commencement of any work under this Contract, certificates of insurance and endorsement forms in the exact wording and format as presented in these Contract Documents will be provided to the OWNER's Risk Manager for review and approval.
  - b. "Indian River County Florida" will be named as "Additional Insured" on both the General Liability and Auto Liability.
  - c. The OWNER will be given thirty (30) days notice prior to cancellation or modification of any stipulated insurance. Such notification will be in writing by registered mail, return receipt requested and addressed to the OWNER's Risk Manager.
  - d. An appropriate "Indemnification" clause shall be made a provision of the Contract (see paragraph 6.20 of the General Conditions).
  - e. It is the responsibility of the CONTRACTOR to insure that all subcontractors comply with all insurance requirements.
  - f. It should be remembered that these are minimum requirements, which are subject to modification in response to high hazard operation.
  - g. Insured must be authorized to do business and have an agent for service of process in Florida and have Best's Rating of A-VII or better.
  - h. All insurance requirements shall be at the Contractor's sole cost and expense, including any deductible or self-insured retention, without contribution from Indian River County or its insurance carriers.

D. Additional Insureds:

1. In addition to "Indian River County, Florida," the following individuals or entities shall be listed as "additional insureds" on the CONTRACTOR's liability insurance policies:
  - a. Town of Indian River Shores

E. Contractor shall be responsible for any deductible or self-insured retention.

**SC-5.05 OWNER's Liability Insurance**

SC-5.05 *Delete paragraph GC-5.05.A in its entirety.*

**SC-5.06 Property Insurance**

SC-5.06 *Delete paragraphs GC-5.06.A, B, and C in their entirety and insert the following paragraphs in their place:*

- A. CONTRACTOR shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof. This insurance shall:
  - 1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
  - 2. N/A
  - 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
  - 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and
  - 5. allow for partial utilization of the Work by OWNER;
  - 6. include testing and startup; and
  - 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.
- B. CONTRACTOR shall be responsible for any deductible or self-insured retention.
- C. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph SC-5.06 shall comply with the requirements of paragraph 5.06.C of the General Conditions.

SC-5.06.E *Delete paragraph GC-5.06.E in its entirety and insert the following in its place:*

- E. Additional Insureds:
  - 1. The following individuals or entities shall be listed as "additional insureds" on the CONTRACTOR's property insurance policies:
    - a. Indian River County, FL
    - b. Town of Indian River Shores

**SC-5.07 Waiver of Rights**

SC-5.07 *Delete GC-5.07 (paragraphs A, B, and C) in its entirety.*



**SC-5.08 Receipt and Application of Insurance Proceeds**

SC-5.08 *Delete GC-5.08 (paragraphs A and B) in its entirety.*

**SC-5.09 Acceptance of Bonds and Insurance; Option to Replace**

SC-5.09 *Delete GC-5.09 (paragraph A) in its entirety.*

**SC-6.02 Labor; Working Hours**

SC-6.02.B. *Add the following paragraphs immediately after paragraph GC-6.02.B:*

1. Regular working hours are defined as Monday through Friday, excluding Indian River County Holidays, from 7 a.m. 5 p.m.
2. Indian River County Holidays are: New Year's Day, Martin Luther King, Jr. Day, Good Friday, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, Christmas Eve and Christmas Day. Working on these days will not be permitted without prior written permission and approval from the Construction Coordination Manager.
3. The CONTRACTOR shall receive no additional compensation for overtime work, i.e., work in excess of eight hours in any one calendar day or 40 hours in any one calendar week, even though such overtime work may be required under emergency conditions and may be ordered by the ENGINEER in writing.
4. All costs of inspection and testing performed during overtime work by the CONTRACTOR, which is allowed solely for the convenience of the CONTRACTOR, shall be borne by the CONTRACTOR, and a credit given to the OWNER to deduct the costs of all such inspection and testing from any payments otherwise due the CONTRACTOR.
5. All costs of OWNER's employees and costs of ENGINEER's Consultant resulting from overtime work by the CONTRACTOR, which is allowed solely for the convenience of the CONTRACTOR, shall be borne by the CONTRACTOR, and a credit given to OWNER to deduct all such costs from any payments otherwise due the CONTRACTOR.
6. No work shall commence before 7 a.m. or continue after 5 p.m. except in case of emergency upon specific permission of the ENGINEER.
7. Planting of dune vegetation is encouraged outside of marine turtle nesting season. However, planting activities may occur during the marine turtle nesting season March 1 through October 31 under conditions as outlined on page 16 of 36 of the Florida Department of Environmental Protection Permit Number 0285993-009-JC. Said permit is part of these contract documents in Appendix A – Environmental Permits.

**SC-6.06 Concerning Subcontractors, Suppliers, and Others**

SC-6.06.C. *Add the following sentence at the end of paragraph GC-6.06.C:*

OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other individual or entity, to the extent practicable, information about amounts paid to CONTRACTOR on account of Work performed for CONTRACTOR by a particular Subcontractor, Supplier, or other individual or entity.

**SC-6.08 Permits**

SC-6.08 *Add the following paragraphs immediately after paragraph GC-6.08.A:*

1. The OWNER has obtained the following permits (copies of these permits are contained in Appendix A):
  - A. Florida Department of Environmental Protection – Permit No. 0285993-009-JC
  - B. Department of the Army – Permit No. SAJ-2007-01645 (SP-BJC)
2. The CONTRACTOR shall obtain and pay for all other required permits and licenses. The CONTRACTOR shall provide copies of the permits to the OWNER and ENGINEER and shall comply with all conditions contained in the permits at no extra cost to the OWNER.
3. The CONTRACTOR shall be familiar with all permit requirements during construction and shall be responsible for complying with these requirements. The cost of this effort shall be included in the pay item in which the work is most closely associated with.

**SC-9.05 Authorized Variations in Work**

SC-9.05.A. *Delete the second sentence in paragraph GC-9.05.A in its entirety.*

**SC-11.01 Cost of the Work**

SC-11.01.A.1. *Delete paragraph GC-11.01.A.1 in its entirety, and insert the following sentences in its place:*

1. CONTRACTOR will receive payment for actual costs of direct labor and burden (see SC-2.06.B) for the additional or unforeseen work. Labor includes foremen actually engaged in the work; and will not include project supervisory personnel nor necessary on-site clerical staff, except when the additional or unforeseen work is a controlling work item and the performance of such controlling work item actually extends completion of the project due to no fault of the Contractor. Compensation for project supervisory personnel, but in no case higher than a Project Manager's position, shall only be for the pro-rata time such supervisory personnel spent on the contract. In no case shall an officer or director of the Company, nor those persons who own more than 1% of the Company, be considered as project supervisory personnel, direct labor or foremen hereunder. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

**SC-13.03 Test and Inspections**

SC-13.03.B. *Delete paragraph GC-13.03.B in its entirety, and insert the following sentences in its place:*

- B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all initial inspections, tests, or approvals required by the Contract Documents except those inspections, tests, or approvals listed immediately below. Subsequent inspections, tests, or approvals required after initial failing inspections, tests, or approvals shall be paid for by the CONTRACTOR by back charge to subsequent applications for payment. The CONTRACTOR shall arrange, obtain, and pay for the following inspections, tests, or approvals:
  1. inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;
  2. costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B;
  3. tests otherwise specifically provided in the Contract Documents.

**SC-13.05 OWNER May Stop the Work**

SC-13.05.A. *Delete paragraph GC-13.05.A in its entirety and insert the following paragraph in its place:*

- A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to comply with permit requirements, or fails to comply with the technical specifications, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

**SC-13.07 Correction Period**

SC-13.07 A. *Delete the first sentence of paragraph GC-13.07.A in its entirety and insert the following sentence in its place*

- A. If within one year after the date of Final Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

SC-13.07 B. *Delete paragraph GC-13.07.B in its entirety and insert the following sentence in its place*

- B. In special circumstances where a particular item of equipment is placed in continuous service before Final Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

**SC-14.02 Progress Payments**

SC-14.02.B.5. *Delete paragraph GC-14.02.B.5.d in its entirety and insert the following paragraph in its place:*

- d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A; or

SC-14.02.B.5. *Add the following sentences at the end of paragraph GC-14.02.B.5:*

- e. OWNER has been required to pay ENGINEER additional compensation because of CONTRACTOR delays or rejection of defective Work; or
- f. OWNER has been required to pay an independent testing laboratory for subsequent

inspections, tests, or approvals taken after initial failing inspections, tests, or approvals.

SC-14.02.C.1. *Delete paragraph GC-14.02.C.1 in its entirety and insert the following paragraph in its place:*

- C. Payment Becomes Due
  - 1. Payment shall be made by OWNER to CONTRACTOR according to the Local Government Prompt Payment Act. F.S. 218.70 et. seq.

**SC-14.04 Substantial Completion**

14.04 Substantial Completion has been stricken out in its entirety.

**SC-14.07 Final Payment**

SC-14.07.C.1. *Delete paragraph GC-14.07.C.1 in its entirety and insert the following paragraph in its place:*

- C. Payment Becomes Due
  - 1. Payment shall be made by OWNER to CONTRACTOR according to the “Local Government Prompt Payment Act” , Florida Statutes section 218.70, et. seq.

**SC-15.01 OWNER May Suspend Work**

SC-15.01.A *Delete the last sentence in paragraph GC-15.01.A and insert the following in its place:*  
 CONTRACTOR shall be allowed an extension of the Contract Times, directly attributable to any such suspension if CONTRACTOR makes a Claim for an extension as provided in paragraph 10.05. CONTRACTOR shall not be allowed an adjustment of the Contract Price and CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such Work suspension.

**SC-15.02 OWNER May Terminate For Cause**

SC-15.02.A.5 and SC-15.02.A.6 *Add the following new paragraphs immediately after paragraph GC-15.02.A.4:*

- 5. CONTRACTOR’s violation of Section 02225 – “Erosion Control and Treatment of Dewatering Water From the Construction Site.”
- 6. CONTRACTOR’s failure to make payment to Subcontractors or Suppliers for materials or labor in accordance with the respective agreements between the CONTRACTOR and the Subcontractors or Suppliers.
- 7. CONTRACTOR certifies that it and its related entities as defined by Florida law are not on the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725 of the Florida Statutes, and are not engaged in a boycott of Israel. In addition, if this agreement is for goods or services of one million dollars or more, CONTRACTOR certifies that it and its related entities as defined above by Florida law are not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473 of the Florida Statutes and are not engaged in business operations in Cuba or Syria.

OWNER may terminate this Contract if CONTRACTOR is found to have submitted a false certification as provided under section 287.135(5), Florida Statutes, been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or been engaged in business operations in Cuba or Syria, as defined by section 287.135, Florida Statutes.

OWNER may terminate this Contract if CONTRACTOR, including all wholly owned subsidiaries, majority-owned subsidiaries, and parent companies, that exist for the purpose of making profit, is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel as set forth in section 215.4725, Florida Statutes.

#### **SC-15.04 CONTRACTOR May Stop Work or Terminate**

SC-15.04 *Delete the following text from the first sentence of paragraph GC-15.04.A:*

~~or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due,~~

SC-15.04 *Delete the following text from the second sentence of paragraph GC-15.04.A:*

~~or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due,~~

#### **SC-16 Dispute Resolution**

##### **SC-16.02 Mediation**

SC-16 *Add the following new paragraph immediately after paragraph GC-16.01.*

##### SC-16.02 Mediation

- A. OWNER and CONTRACTOR agree that they shall submit any and all unsettled Claims or counterclaims, disputes, or other matters in question between them arising out of or relating to the Contract Documents or the breach thereof, to mediation by a certified mediator of the 19<sup>th</sup> Judicial Circuit in Indian River County unless delay in initiating mediation would irrevocably prejudice one of the parties. The mediator of any dispute submitted to mediation under this agreement shall not serve as arbitrator of such dispute unless otherwise agreed.

#### **SC-17 Miscellaneous**

##### **SC-17.06 Liens**

*Add the following new paragraphs immediately after paragraph GC17.05:*

##### SC-17.06 Liens

- A. This project is a "Public Works" under Chapter 255, Florida Statutes. No merchant's liens may be filed against the OWNER. Any claimant may apply to the OWNER for a copy of this Contract. The claimant shall have a right of action against the CONTRACTOR for the amount due him. Such action shall not involve the OWNER in any expense. Claims against the CONTRACTOR are subject to timely prior notice to the CONTRACTOR as specified in Florida Statutes Section 255.05. The CONTRACTOR shall insert the following paragraph in

all subcontracts hereunder:

“Notice: Claims for labor, materials and supplies are not assessable against Indian River County and are subject to proper prior notice to (CONTRACTOR’S Name) and to (CONTRACTOR Surety Company Name), pursuant to Chapter 255 of the Florida Statutes. This paragraph shall be inserted in every sub-subcontract hereunder.” The payment due under the Contract shall be paid by the OWNER to the CONTRACTOR only after the CONTRACTOR has furnished the OWNER with an affidavit stating that all persons, firms or corporations who are defined in Section 713.01, Florida Statutes, who have furnished labor or materials, employed directly or indirectly in the Work, have been paid in full. The OWNER may rely on said affidavit at face value. The CONTRACTOR does hereby release, remiss and quit-claim any and all rights he may enjoy perfecting any lien or any other type of statutory common law or equitable lien against the job.

++END OF SUPPLEMENTARY CONDITIONS++

**SECTION 00942 – Change Order Form**

No. \_\_\_\_

DATE OF ISSUANCE: \_\_\_\_\_

EFFECTIVE DATE: \_\_\_\_\_

OWNER: Indian River County

CONTRACTOR \_\_\_\_\_

Project: SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT

OWNER's Project No. IRC-2315

OWNER'S Bid No. 2024004

You are directed to make the following changes in the Contract Documents:

Description:

Reason for Change Order:

Attachments: (List documents supporting change)

CHANGE IN CONTRACT PRICE:	
Description	Amount
Original Contract Price	\$ _____
Net Increase (Decrease) from previous Change Orders No. _____ to _____:	\$ _____
Contract Price prior to this Change Order:	\$ _____
Net increase (decrease) of this Change Order:	\$ _____
Contract Price with all approved Change Orders:	\$ _____

CHANGE IN CONTRACT TIMES	
Description	Time
Original Contract Time:	(days or dates) _____
Final Completion:	_____
Net change from previous Change Orders No. _____ to _____:	(days) _____
Final Completion:	_____
Contract Time prior to this Change Order:	(days or dates) _____
Final Completion:	_____
Net increase (decrease) this Change Order:	(days or dates) _____
Final Completion:	_____
Contract Time with all approved Change Orders:	(days or dates) _____
Final Completion:	_____

<b>ACCEPTED:</b>
By:
CONTRACTOR (Signature)
Date:

<b>RECOMMENDED:</b>
By:
ENGINEER (Signature)
Date:

<b>APPROVED:</b>
By:
OWNER (Signature)
Date:

SECTION 00948 – Work Change Directive

No. \_\_\_\_

DATE OF ISSUANCE: \_\_\_\_\_

EFFECTIVE DATE: \_\_\_\_\_

OWNER: Indian River County

CONTRACTOR \_\_\_\_\_

Project: **SECTOR 3 HURRICANES IAN AND NICOLE DUNE RENOURISHMENT PROJECT**

OWNER's Project No. **IRC-2315**

OWNER'S Bid No. 2024004

You are directed to proceed promptly with the following changes:

Description:

Reason for Change Order:

Attachments: (List documents supporting change)

If OWNER or CONTRACTOR believe that the above change has affected Contract Price any Claim for a Change Order based thereon will involve one or more of the following methods as defined in the Contract Documents.

Method of determining change in Contract Prices

- Unit Prices
- Lump Sum
- Other: \_\_\_\_\_
- By Change Order:

Method of determining change in Contract Times

- Contractor's Records
- Engineer's Records
- Other: \_\_\_\_\_
- By Change Order:

Estimated increase (decrease) of this Work Change Directive  
\$ \_\_\_\_\_

Estimated increase (decrease) in Contract Times:

If the change involves an increase, the estimated amount is not to be exceeded without further authorization.

Ready for Final Completion: \_\_\_\_\_ days.

If the change involves an increase, the estimated time is not to be exceeded without further authorization.

ACCEPTED:
By:
CONTRACTOR (Signature)
Date:

RECOMMENDED:
By:
ENGINEER (Signature)
Date:

APPROVED:
By:
OWNER (Signature)
Date:

**\*\* END OF SECTION \*\***



**INDIAN RIVER COUNTY  
SECTOR 3 HURRICANES IAN AND NICOLE REPAIR PROJECT  
IRC PROJECT NO. 2315**

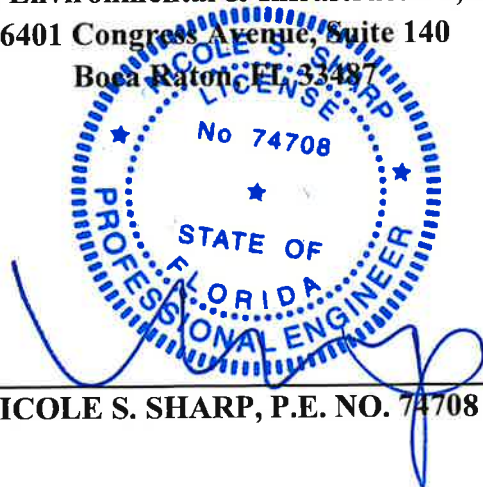
**CONSTRUCTION SPECIFICATIONS**



**Prepared for:  
Indian River County, FL  
Public Works Department  
Coastal Engineering Division  
1801 27<sup>th</sup> Street, Building A  
Vero Beach, FL 32960**



**Prepared by:  
Aptim Environmental & Infrastructure, LLC  
6401 Congress Avenue, Suite 140  
Boca Raton, FL 33487**



**NICOLE S. SHARP, P.E. NO. 74708**

**9/12/23  
DATE**

**September 2023**

**INDIAN RIVER COUNTY  
SECTOR 3 HURRICANES IAN AND NICOLE REPAIR PROJECT  
IRC PROJECT NO. 2315**

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SUPPLEMENTAL  
GENERAL PROVISIONS  
September 2023

**INDIAN RIVER COUNTY  
SECTOR 3 HURRICANES IAN AND NICOLE REPAIR PROJECT**

**CONSTRUCTION SPECIFICATIONS**

## PART I – SUPPLEMENTAL GENERAL PROVISIONS

### GP-1 SCOPE OF WORK

The Work covered by this section consists of furnishing all plant, labor, equipment, supplies and material, and of performing all operations and surveys in connection with hauling, transporting, placing, dressing, and grading beach and dune fill and supplying, installing, and monitoring dune vegetation as indicated in the Plans and in accordance with the Contract Documents. The Work shall be completed via truck haul method.

- 1.1 Permits:** Florida Department of Environmental Protection (FDEP), U.S. Army Corps of Engineers (USACE), and United States Fish and Wildlife Service (USFWS) permits for the project have been obtained by the COUNTY and are included in Appendix A and B, respectively. These Technical Provisions cite conditions within the FDEP permit and USACE permit. The CONTRACTOR shall comply with the Technical Provisions and the FDEP and USACE permits.
- 1.2 Other Permits:** The CONTRACTOR is solely responsible for obtaining, at his/her own cost, all other approvals for the excavation and transportation of fill and all other material to the project site. This includes, but is not limited to, any and all roadway permits, customs clearances, offsite storage and staging areas, and business licenses required to deliver material to the site.
- 1.3 Commencement, Prosecution, and Completion of Work:** The CONTRACTOR shall commence Work under the contract within fourteen (14) days after the Notice to Proceed has been issued by the COUNTY and shall complete all works within one hundred and eighty (180) days of the issuance of the Notice to Proceed or by April 30, 2024, whichever comes first. The time stated for completion shall include all aspects of the Work including grading, leveling of escarpments in the beach, tilling the beach, dune planting, final clean-up of the premises, and all repairs or restorations of facilities, structures, work areas, staging areas, vegetation, or any other items damaged by the CONTRACTOR or their subcontractors as a result of the project construction activities, and complete demobilization from the project site.
- 1.4 Construction Window:** Permits for the project restrict Work conducted on the beach associated with the placement of beach and dune fill and the installation of dune vegetation to the period from November 1, 2023 through April 30, 2024. The permit requires sea turtle nest surveys be completed each morning if construction occurs in November, March or April. No Work may be conducted on the beach outside of these construction windows. Any approved time extension shall occur within the following construction window.
- 1.5 Order of Work:** The CONTRACTOR must commence work at the northernmost project limits, near R-20 or otherwise as dictated by obtained easements, due to sea turtle nesting restrictions. No Work may occur from R-40+400 and south without

explicit approval from the COUNTY while active sea turtle nests remain on the beach within the project area.

## **GP-2 PROJECT DESCRIPTION**

The project is located on the east coast of Florida bordering the Atlantic Ocean within Indian River County. Indian River County is located approximately 150 miles north of Miami and 100 miles southeast of Orlando. The total project area encompasses approximately 6.6 miles of coastline in North Beach, the Town of Orchid, Wabasso Beach, Indian River Shores, and unincorporated Indian River County. The total fill volume to be placed within the beach and dune construction templates above Mean High Water (MHW) is approximately 274,368 cubic yards of beach quality sand from R-20 to R-55. Salt-tolerant dune vegetation (approximately 728,633 plantings) will be planted on the restored dunes.

The staging and access areas are located at Treasure Shores Beach Park, Golden Sands Beach Park, Wabasso Beach Park, Sea Grape Beach Access, and Turtle Trail Beach. Only the approved access points within the construction footprint are to be utilized during project construction. The project will be constructed using beach sand from an approved upland sand source. It is assumed that the sand will have a relationship of 1.5 tons/cy for sand delivery from an upland source and volume computations. The equivalent fill volume is estimated to be 411,552 tons.

The CONTRACTOR shall be expressly aware of the beach location and dynamic nature of this project site. This beach is a major tourist attraction and is highly utilized by tourists and residents throughout the year. Throughout the project, the CONTRACTOR shall put forth the utmost care and attention to public safety by maintaining a clean and organized site free from the accumulation of debris, and by restricting public access to the Work and staging areas.

## **GP-3 DELAYS AND EXTENSIONS OF TIME**

- 3.1 Notice of Delays:** Whenever the CONTRACTOR experiences any delay in the execution of the Work, the CONTRACTOR shall, immediately upon the occurrence of any event giving rise to a delay, and in any event no later than 72 hours after the onset of the delay, notify the ENGINEER in writing of the occurrence of such delay and its cause and probable length in order that the ENGINEER may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the execution and completion of the Work are to be delayed thereby. The notice must also demonstrate that the CONTRACTOR will or has used all reasonable means to minimize the delay and contain an estimate of the probable effect that such delay will have on the progress and final completion of the Work. Notification of occurrence of delay will not be considered unless submitted IN WRITING. Delays due to ocean conditions shall not apply to land-based work.

- 3.2 Remedies for Avoidable Delays:** If (a) the Work called for under this Contract is not finished and completed by the CONTRACTOR in accordance with all requirements, and within the time specified for completion in the Contract Documents, including authorized Change Orders or suspensions of Work not due to the CONTRACTOR's failure to perform according to the Contract Documents; or, (b) if at any time prior to the expiration of said time it should appear to the COUNTY that the CONTRACTOR will be unable to finish and complete said Work as aforesaid within said time, then in that event the COUNTY may terminate this Contract as provided in the COUNTY's Standard Terms and Conditions; or in the exercise of its sole and absolute discretion, allow the CONTRACTOR to complete the Work, providing permits and approvals may be modified to extend the Work period, but charge to CONTRACTOR and deduct from the final payment due to the Work, engineering, construction observation, legal and/or administrative expenses computed on the basis equal to the amount of Liquidated Damages specified herein per day until completion of the Work. Any remobilization/demobilization necessary to complete the Work will be done at the CONTRACTOR's expense. Notwithstanding an election made pursuant to this paragraph, the COUNTY may thereafter terminate the Contract, as provided in the COUNTY's Standard Terms and Conditions, if the COUNTY is not adequately assured of prompt completion.
- 3.3 Time Extension for Delays for Weather or Sea State which Prevent Work From Being Accomplished:** The CONTRACTOR shall become familiar with the weather and sea conditions for the project site prior to submitting a bid for the Work and shall include appropriate downtime based on the equipment being proposed to execute the Work within the contractual time for completion. Time extension for delays for unusual weather or sea state which prevent Work from being accomplished by the CONTRACTOR will be granted if:
- (a) Project permits allow the Work to continue, or time extension to be granted;
  - (b) A request is made in writing within 72 hours of the delay;
  - (c) The delay is substantiated, in writing and with wave or weather data, within 72 hours of the onset of the delay;
  - (d) The wave or weather data indicates that critical equipment had to be removed from the project area for safety reasons;
  - (e) If steps (b), (c) and (d) are not addressed or could not be proven, the COUNTY may not grant an extension of time to complete the project.
- 3.4 Permit Time Extensions:** If construction is not completed within the time frame of the permits, the COUNTY may seek modification of permits to allow construction past the permit deadline for construction completion. If the COUNTY attempted to extend the permits deadlines and is unsuccessful in obtaining an extension of time in the permits to complete construction, or if the time extension granted to the COUNTY is not sufficient to complete construction, then the COUNTY may take one of the following actions:

- (a) Terminate the Contract and compensate the CONTRACTOR for fill placed within the construction template(s) and for demobilization from the project site in accordance with Contract Documents.
- (b) Negotiate with the CONTRACTOR to seek an acceptable agreement allowing for project completion when (if) permits and regulatory agencies allow for the resumption of project construction activities at a later date.
- (c) Require the CONTRACTOR to remobilize, at the CONTRACTOR's own expense, to complete the project as permit conditions and time frames allow if it is determined by the COUNTY that the CONTRACTOR failed to complete the project by the end of the construction period as identified in the Contract Documents or the permits due to the negligence of the CONTRACTOR.

#### **GP-4 LIQUIDATED DAMAGES**

In case of failure on the part of the CONTRACTOR to complete the Work including truck haul sand placement of the construction templates and demobilization from the beach within the time fixed in the Contract Documents, the CONTRACTOR will be liable for Liquidated Damages (LD) for each and every day's delay over and above the number of calendar days prescribed for completing the Work. Refer to the County's standard general conditions for terms and conditions associated with Liquidated Damages.

#### **GP-5 PERFORMANCE OF WORK BY CONTRACTOR**

Please refer to the COUNTY's Standard Terms and Conditions in addition to the following:

- 5.1 Contractor Participation:** Refer to the County's standard conditions for minimum Contractor participation requirements.
- 5.2 Continuous Construction:** The CONTRACTOR and his/her subcontractors shall continuously maintain at the project site and on the job, materials, equipment and adequate personnel required to continuously construct the project. Under no circumstances will the CONTRACTOR remove equipment, materials, subcontractors, and adequate numbers of personnel from the project site without the written consent of the COUNTY unless one or more of the following occurs: the project is determined by the COUNTY to be complete; weather or sea state conditions require movement from the project site; a condition exists which threatens the safety and welfare of personnel or threatens equipment; or the time frame provided for project construction in the Contract Documents, the State of Florida or Federal permits has expired. Removal of equipment, personnel, materials, or subcontractors from the project site which interrupts Work progress, without valid reason, prior to the completion of the project, will result in the imposition of liquidated damages.
- 5.3 Capacity:** The CONTRACTOR shall meet the standards for capacity, productivity, and ability to maintain it throughout the time allotted for construction.



## GP-6 SUBCONTRACTORS

Please refer to the COUNTY's Standard Terms and Conditions in addition to the following:

- 6.1 Subcontractor Qualifications:** The CONTRACTOR shall furnish within the bid documents the names of subcontractors proposed for any portion of the Work and provide appropriate information in the bid, such as company experience, personnel experience, equipment, and references to verify the qualifications of the subcontractor to complete the assigned portion of the Work. The CONTRACTOR may use the subcontractors listed in the bid to conduct the Work and shall identify the Work to be performed by the subcontractor.
- 6.2 List of Subcontractors:** A complete list of Subcontractor's shall be provided in writing to the COUNTY and ENGINEER fourteen (14) days prior to the Pre-Construction Conference.
- 6.3 Subcontractor Insurance Coverage:** Refer to the COUNTY's Standard Terms and Conditions.
- 6.4 Statutes, Laws and Regulations:** The CONTRACTOR hereby agrees and shall be solely responsible for ensuring that the CONTRACTOR and any subcontractors fully comply with the requirements of any applicable ordinances, statutes, laws or regulations which may affect this project or the CONTRACTOR's/subcontractor's Work under this project. The CONTRACTOR further agrees that neither the COUNTY nor its ENGINEER shall be responsible for ensuring compliance or notification on any changes or modifications to any such applicable ordinances, laws, statutes, rules or regulations.

## GP-7 SUPERINTENDENT

- 7.1 Superintendent Qualifications:** The CONTRACTOR shall propose, in writing to the ENGINEER and COUNTY, the name and qualifications of the superintendent(s) whom will be on site for the duration of the beach nourishment project, who will be the CONTRACTOR's job site representative, and will control project construction for the CONTRACTOR. The name and qualifications of the superintendent(s) shall be submitted to the ENGINEER and COUNTY fourteen (14) days prior to the Pre-Construction Conference. The COUNTY and/or ENGINEER may reject the superintendent proposed by the CONTRACTOR. If the proposed superintendent is rejected, the CONTRACTOR will propose an alternate superintendent as soon as possible and without additional cost to the COUNTY.
- 7.2 Requirements:** Refer to the COUNTY's Standard Terms and Conditions.

## GP-8 ENGINEER

- 8.1 Technical Issues:** The ENGINEER shall decide all technical issues of whatever nature may arise relative to the interpretation of the technical portions of the Contract Documents, the Plans, surveys and beach fill volume measurement, and prosecution and fulfillment of this Contract, and as to the character, quality, amount, and value of any Work done and materials furnished under this Contract.
- 8.2 Engineer Access to the Work Site:** The ENGINEER shall have unlimited access to the beach nourishment construction site. The CONTRACTOR shall furnish, at the request of the ENGINEER, safe and suitable transportation from the staging area to and from the beach fill area, or as required to administer the Contract Documents. The presence or absence of the ENGINEER shall not relieve the CONTRACTOR of the responsibility for the proper execution of the Work in accordance with the Contract Documents.

## GP-9 TECHNICAL DISPUTE RESOLUTION

The CONTRACTOR shall perform the Work as specified by the Contract Documents. The ENGINEER will interpret the requirements of the technical portion of the Work, as specified in the Technical Provisions and Plans of the Contract Documents. If the CONTRACTOR objects to the ENGINEER's decision, the CONTRACTOR shall, within 48 hours of receiving the ENGINEER's decision, notify the ENGINEER in writing of the CONTRACTOR's objection thereto. The CONTRACTOR and ENGINEER will mutually attempt to resolve the issue; nevertheless, the ENGINEER's decision will be binding upon the CONTRACTOR.

## GP-10 MEETINGS

- 10.1 Pre-Bid Meeting:** See Invitation for Bid.
- 10.2 Contract Pre-Construction Conference:** A mandatory pre-construction conference will be held at the COUNTY's offices with the ENGINEER, COUNTY, and CONTRACTOR. After the Contract is awarded and before construction operations commence, the CONTRACTOR shall meet with the ENGINEER and COUNTY at the COUNTY's office to discuss the quality control requirements, the permits, and the project. This shall be referred to as a Contract pre-construction conference. The meeting shall develop mutual understanding relative to details of the system, including the forms to be used for recording the quality control operations, inspections, daily reports, applications for payment, administration of the system and the interrelationship of the CONTRACTOR, ENGINEER and COUNTY and their respective personnel. During the meeting, the CONTRACTOR shall present their proposed means of construction, including methodology for building the construction template, to the COUNTY and ENGINEER.
- 10.3 Permit Pre-Construction Conference:** A mandatory pre-construction meeting will be held at the COUNTY's offices with the ENGINEER, COUNTY,

CONTRACTOR, marine turtle license holder, shorebird monitor, appropriate State and Federal agencies, and any other individuals as required in compliance with project permit requirements, to discuss permit conditions. This meeting is separate from the pre-construction conference described above, which will also be held in Indian River County. These two meetings may be coordinated to occur at the same location, and/or on the same day, pending agency availability.

- 10.4 Weekly Progress Meetings:** Mandatory weekly progress meetings will be by teleconference or in-person at the COUNTY's offices during construction with the ENGINEER, COUNTY, and CONTRACTOR to discuss project progress.

## GP-11 SUBMITTALS AND NOTIFICATIONS

The CONTRACTOR shall submit the following items to the ENGINEER at the appropriate times:

- 11.1 Construction Schedule and Methods:** A minimum of seven (7) days prior to the contract pre-construction conference, the CONTRACTOR shall prepare and submit to the ENGINEER, for approval, a practicable construction schedule and methodology statement for construction of each portion of the Work. The order of Work may be modified at the contract pre-construction meeting to accommodate local priorities. The project schedule shall indicate, at a minimum, start of Work, construction period, fill placement (and/or dredging) completion date, beach tilling, and completion of all Work. The CONTRACTOR shall propose the order in which the Work will be performed, including the anticipated progression of fill placement in the project area. The project schedule shall be updated weekly during construction and submitted at each progress meeting so that local property owners can plan for the CONTRACTOR's activity, if needed. No Work on site shall begin until the schedule is provided to the ENGINEER. Approval by the ENGINEER indicates an acknowledgement and not an endorsement of the CONTRACTOR's means and methods. The methodology statement shall include a description of the CONTRACTOR's truck ticket tracking system, direction of the Work, and utilization plan of the construction accesses.
- 11.2 Material and Equipment Transport, Storage, and Access:** At least seven (7) days prior to the contract pre-construction conference, the CONTRACTOR shall provide to the ENGINEER a description of the routes and areas he intends to use to transport and store material and equipment during the project. The description shall also describe how the CONTRACTOR intends to access the Work area. All transport routes, Work areas, storage areas, access areas, and facilities are subject to review by the ENGINEER and COUNTY for compliance with the Plans and Specifications.
- 11.3 Contact List:** At least seven (7) days prior to the contract pre-construction conference, the CONTRACTOR shall submit a list of project personnel, including subcontractors, and their telephone, e-mail address, telefax, and other numbers by which key personnel can be reached for purposes of notification and other matters

discussed in these Specifications. Nevertheless, the CONTRACTOR remains responsible for all Work and shall be the point of contact and in responsible charge of the subcontractor for the duration of the Work.

- 11.4 Daily Quality Control Reports:** The CONTRACTOR shall submit daily reports that summarize the Work completed at the end of each workday. Daily Quality Control Reports shall be submitted every contract day during the construction period (even when no Work is done) between the time at which the Notice to Proceed is issued and the time of final acceptance. Reports shall be submitted by 12:00 p.m. to the ENGINEER and COUNTY on a daily basis via e-mail. The reports shall include all Work activity including, but not limited to, the location (coordinates or stationing) of Work, daily and cumulative quantities of sand placed, placement surveys, weather conditions, personnel, materials, and on-site equipment. A copy of the required daily report is included in Appendix A of the Specifications. The CONTRACTOR shall use the Upland Sand Source daily report.
- 11.5 Unsuitable Material:** The ENGINEER or COUNTY will provide daily observations and take samples from trucks at the mine and/or at the beach. This does not alleviate the CONTRACTOR from any responsibilities for unsuitable materials. It is the CONTRACTOR's responsibility to ensure fill material placed on the beach/dune template meets or exceeds project specifications. The CONTRACTOR shall notify the ENGINEER and COUNTY immediately upon the discovery of any unsuitable material delivered to or within the fill area. Further actions to be taken upon encountering unsuitable materials are defined in the Sediment QA/QC Plan provided in Appendix D.
- 11.6 Surveys:** The CONTRACTOR shall provide pay surveys (pre- and post-placement) for review by the ENGINEER.
- 11.7 Maintenance of Traffic:** The CONTRACTOR shall provide a Traffic Control Plan at least seven (7) days prior to the contract pre-construction conference. The Plan shall outline the signage and methods the CONTRACTOR will use to minimize disturbance to normal traffic flows in the project area as part of the Plan. The CONTRACTOR shall utilize flagmen when unloading materials and mobilizing or demobilizing equipment from the construction site. The ENGINEER or COUNTY may request modifications to the Plan.
- 11.8 Pre-/Post-Construction Condition:** The CONTRACTOR shall provide copies of the pre-construction video and/or photography at least one (1) day prior to the start of construction documenting the condition of the project site including, but not limited to, construction accesses, staging areas, infrastructure, and vegetation. In addition to documenting project site conditions, the CONTRACTOR shall document beach conditions at least one (1) day prior to the start of construction and immediately after construction using an Unmanned Aerial Vehicle (UAV). The path of the pre-construction and post-construction UAV flight shall be within the fill template at a sufficient elevation to capture the entire dry beach. Post-construction video

and/or photography shall be provided after completion of Work to allow for final payment.

**11.9 Grade Stake Recovery Plan & Log:** This Plan applies if grade stakes are used. Within seven (7) days of Notice to Proceed, the CONTRACTOR shall submit a Grade Stake Recovery Plan acceptable to the ENGINEER and the COUNTY. The Plan shall outline the steps that the CONTRACTOR will implement to recover all the stakes used on the project as required. This Plan shall include the use of an inventory log that will be made available for review by the ENGINEER. Upon completion of the project, the CONTRACTOR shall furnish a final grade stake log to the COUNTY.

**11.10 General Plans and Information:** The CONTRACTOR shall provide the following additional submittals at least seven (7) days prior to commencement of the Work:

- (a) Quality Control Plan
- (b) Accident Prevention Plan
- (c) Environmental Protection Plan
- (d) Hurricane and Severe Storm Plan
- (e) Transport, Storage, and Access Plan

**11.11 General Notifications:** The CONTRACTOR shall provide the following notifications at the appropriate times, if applicable:

- (a) Notification of Plans/Specifications Discrepancy
- (b) Notification of Cultural Resource Discovery
- (c) Notification of Misplaced Material
- (d) Notification of Occurrence of Delays in Work
- (e) Claims and Disputes
- (f) Reports of All Inspections, Surveys, and Tests and Remedial Actions

Further details on submittals and notifications, including their due dates, are provided in the contract and herein. A schedule of submittals required in the General Provisions is provided in Table 1.

**Table 1: Schedule of Submittals Required by the General Provisions**

SPEC REFERENCE	DELIVERABLE	SUBMITTAL
GP - 6.2	List of Subcontractors	14 days prior to Contract Pre-Construction Conference
GP - 7.1	Names and Qualifications of Superintendent(s)	14 days prior to Contract Pre-Construction Conference
GP - 10.1	Pre-Bid Meeting	Non-Mandatory Attendance; but strongly encouraged. See Invitation for Bid
GP - 10.2	Contract Pre-Construction Conference	Prior to Construction
GP - 10.3	Permit Pre-Construction Conference	Prior to Construction
GP - 11.1	Construction Schedule and Methods	Minimum of 7 days prior to Contract Pre-Construction Conference

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<b>GP - 11.2</b>	Material and Equipment Transport, Storage, and Access	Minimum of 7 days prior to Contract Pre-Construction Conference
<b>GP - 11.3</b>	Contact List	Minimum of 7 days prior to Contract Pre-Construction Conference
<b>GP - 11.7</b>	Maintenance of Traffic	Minimum of 7 days prior to Contract Pre-Construction Conference
<b>GP - 11.8</b>	Pre-/Post-Construction Condition (Imagery)	Minimum of 1 day prior to the start of construction and prior to final payment
<b>GP - 11.9</b>	Grade Stake Recovery Plan and Log	Within 7 days of the Notice to Proceed
<b>GP - 11.10(a)</b>	Quality Control Plan	Minimum of 7 days prior to commencement of the Work
<b>GP - 11.10(b)</b>	Accident Prevention Plan	Minimum of 7 days prior to commencement of the Work
<b>GP - 11.10 (c)</b>	Environmental Protection Plan	Minimum of 7 days prior to commencement of the Work
<b>GP - 11.10 (d)</b>	Hurricane and Severe Storm Plan	Minimum of 7 days prior to commencement of the Work
<b>GP - 11.10 (e)</b>	Transport, Storage, and Access Plan	Minimum of 7 days prior to commencement of the Work
<b>GP - 11.11(a)</b>	Notification of Plans/Specifications Discrepancy	Appropriate Times
<b>GP - 11.11 (b)</b>	Notification of Cultural Resource Discovery	Appropriate Times
<b>GP - 11.11 (c)</b>	Notification of Misplaced Material	Appropriate Times
<b>GP - 11.11 (d)</b>	Notification of Occurrence of Delays in Work	Appropriate Times
<b>GP - 11.11 (e)</b>	Claims and Disputes	Appropriate Times
<b>GP - 11.11 (f)</b>	Reports of All Inspections, Surveys, and Tests and Remedial Actions	Appropriate Times
<b>GP - 18.1.1</b>	Notification of Intended Mobilization Date	At least 4 days prior to the Intended Mobilization Date
<b>GP - 18.1.2</b>	Notification of the Establishment of Survey Control	At least 2 days prior to the Establishment of Survey Control
<b>GP - 18.1.3</b>	Notification of the Intended Commencement of Sand Placement	At least seven (7) days prior to the commencement of truck hauls transporting sand from an upland source
<b>GP - 18.1.4</b>	Notification of Pre-Construction and As-Built Surveys	At least three (3) days prior to conducting pre-construction and as-built surveys for the dune fill and dune vegetation
<b>GP - 18.1.5</b>	Notification of Substantial Completion - Sand Fill	At least three (3) days prior to the date of expected substantial completion of sand fill placement
<b>GP - 18.1.6</b>	Notification of Substantial Completion - Dune Vegetation	At least three (3) days prior to the date of expected substantial completion of installation of dune vegetation
<b>GP - 18.1.7</b>	Notification of Final Completion	At least three (3) days prior to the date of expected final completion of the entire Work

**GP-12 PHYSICAL DATA**

Information and data furnished or referred to in the contract documents are furnished for informational purposes only and may not be representative of conditions at the time of construction and shall not be solely relied upon for estimating and/or prosecution of the Work. It is expressly understood that the ENGINEER or COUNTY will not be responsible for any interpretation or conclusion drawn therefrom by the CONTRACTOR. Likewise, the ENGINEER or COUNTY will not be responsible for any information provided to the CONTRACTOR by any information agency or other party.

### **GP-13 WEATHER CONDITIONS**

The project area may be affected by tropical storms and hurricanes primarily from June through November, and by stormy and/or rainy weather, including severe thunderstorms, during any time of the year. Wave activity can occur at any time. The CONTRACTOR shall be responsible for obtaining information concerning rain, wind, and wave conditions that could influence safety and construction operations prior to making a bid.

### **GP-14 SURVEY STANDARDS AND SURVEYOR QUALIFICATIONS**

The CONTRACTOR's surveying personnel shall be duly qualified and experienced to perform all required surveys in a manner satisfactory to the COUNTY. A surveyor registered in the State of Florida shall be responsible for and certify all survey work under their direction. The registered surveyor is not obligated to actually perform the surveys. All surveys shall be in accordance with professional standards and practices. Survey notes shall be reduced to elevations, be neat, legible, and in accordance with accepted practices and shall include the date performed, weather conditions, bench marks or monument used, name and title of each member of the survey party, and the name of COUNTY's representative present. Survey notes lacking information, illegible, or in error, will be returned to the CONTRACTOR for correction. Surveying instruments shall be checked for adjustment at least once per week and such checks shall be recorded in survey notes and on the quality control sheet.

The commencement point for each profile shall follow the control listed within the Plans. Topographic surveys shall use FDEP Division of Water Resource Management "A" monuments or other National Geodetic Survey (NGS) published 2nd order or higher marks as a basis for survey control. Tabular listings of all horizontal and vertical control on all existing "A" monuments shall be obtained through either the FDEP website or directly from the FDEP office.

All GPS base station control or range/azimuth system control shall be established or recovered from FDEP control monuments (typically "A" stations) and shall meet or exceed Geospatial Positioning Accuracy Standards, Range VIII. Designation, stamping, description, horizontal position, horizontal RMSE, elevation (in NAVD) and elevation RMSE shall be provided to the ENGINEER for all established base station control. Even if the FDEP R-monuments have been recently verified using "A" monuments, they should be re-verified by the CONTRACTOR. New or replaced FDEP and intermediate monuments shall be based on "A" monuments.

### **GP-15 ACCEPTANCE SECTIONS**

Acceptance sections are defined as the portion of the restored beach lying between two immediately adjacent pay profile lines. Once fill placement begins in an acceptance section, it must be completed before moving to the adjacent acceptance section, unless otherwise authorized by the ENGINEER. Pay profiles will be established by the CONTRACTOR according to the Plans. The CONTRACTOR shall establish intermediate profiles in addition to those shown in the Plans to construct the project in accordance with plan view layout. The CONTRACTOR may submit the intermediate profiles for payment subject to review and approval by the ENGINEER.

## GP-16 ACCESS, WORK AREAS, AND STORAGE AREAS

- 16.1 General:** The general location and extent of the construction access areas, staging areas, and work areas are indicated in the Plans. Access points should be minimized as much as practicable. Unless otherwise directed in writing by the COUNTY, the CONTRACTOR is responsible for removing existing vegetation, fencing, and other impediments, as necessary, to allow equipment access and material deliveries to the work area. The CONTRACTOR shall landscape and restore those areas where access routes and staging areas are developed. The cost of preparing and maintaining the project area shall be included in the unit price cost for Supply/Deliver/Place Sand or Beach and Dune Fill; the cost of restoring the project area shall be included in the lump sum cost for Site Restoration & Grading.
- 16.2 Construction Access:**
- 16.2.1 Land Access to the Project Site.** Land access to the project area is through five (5) construction access locations shown in the Plans. The accesses include Treasure Shores Beach Park (R-25), Golden Sands Beach Park (R-32), Wabasso Beach Park (R-39.5), Seagrape Trail (R-47.5), and Turtle Trail (R-51.5). Only the approved access points within the construction footprint are to be utilized during project construction. The use of these accesses must be coordinated with the COUNTY to reduce disruption to the public's use of these areas and congestion of the local traffic. The CONTRACTOR is responsible for adhering to all weight and traffic regulations on all roadways.
- 16.3 Construction Access and Staging Area:** Construction access and staging areas provided by the COUNTY are shown in the Plans. The CONTRACTOR shall cordon off and/or fence the area to secure the area from the public. In an attempt to reduce impacts to public recreation and use of the beach, the CONTRACTOR shall consolidate construction activities, equipment, and materials to limit the number of construction access and staging areas being utilized at a given time. Coordination with the COUNTY and ENGINEER will be required. All costs associated with restoring the construction access and staging areas upon project completion shall be included in the CONTRACTOR's lump sum cost for site restoration. If additional staging areas are required, they shall be procured and permitted by, and at the expense of, the CONTRACTOR.
- 16.4 Exclusion of Public:** The CONTRACTOR will be required to exclude the public for safety purposes from the staging area and work areas in the immediate vicinity of the fill placement areas under active construction, transport operations, or any other area that may be dangerous to the public. The CONTRACTOR will minimize the areas closed to the public.



## GP-17 PERMISSIBLE WORKDAYS AND HOURS

- 17.1 Upland Sand Source Project Time:** Due to the sea turtle protection requirements in the project permits, construction activities related to sand fill placement for the Project must be conducted outside of the peak sea turtle nesting season between November 1, 2023 and April 30, 2024. Construction activities related to planting dune vegetation for the Project must be completed between November 1, 2023 and April 30, 2024. Upland construction activities (beach dressing, grading, and truck hauls) are allowed from sunrise to sunset only, five (5) days a week. Allowed construction hours and days may be increased at the discretion of the COUNTY based upon need. Other activities occurring at the beach access are allowed during daylight hours. Daylight is that period defined as from dawn until dusk. The CONTRACTOR is strongly encouraged to conduct as much required beach work as possible during daylight hours. The CONTRACTOR shall minimize noise so as not to disturb residents living along the beach in the Project area.
- 17.2 Holidays:** Unless otherwise requested by the CONTRACTOR and approved by the COUNTY, the CONTRACTOR is not permitted to Work on all holidays. The CONTRACTOR must submit this request five (5) days in advance of the holiday. However, special consideration shall be made by the CONTRACTOR to avoid planned events and potential conflicts with the public, business owners, and Disney's Vero Beach Resort. The CONTRACTOR will be responsible for overtime payment of the County inspector.

## GP-18 NOTIFICATION & INSPECTION

- 18.1 Notification.** The CONTRACTOR shall specifically notify the ENGINEER:
- 18.1.1** at least four (4) days prior to the CONTRACTOR's intended date of commencement of mobilization to the project site;
  - 18.1.2** at least two (2) days prior to the establishment of horizontal and vertical control work;
  - 18.1.3** at least seven (7) days prior to the commencement of truck hauls transporting sand from an upland source;
  - 18.1.4** at least three (3) days prior to conducting pre-construction and as-built surveys for the dune fill and dune vegetation;
  - 18.1.5** at least three (3) days prior to the date of expected substantial completion of sand fill placement;
  - 18.1.6** at least three (3) days prior to the date of expected substantial completion of installation of dune vegetation;

**18.1.7** at least three (3) days prior to the date of expected final completion of the entire Work.

## **GP-19 CHANGES AND EXTRAS**

**19.1 Changes in the Work:** The COUNTY shall have the right, within the general scope of the Work and without notice to any surety or sureties of the CONTRACTOR, to make changes in the Work, including but not limited to changes in the Plans, General Provisions, Technical Provisions, and Environmental Provisions pertaining to beach width, beach elevation, beach volume, beach length, environmental protection, Contract time, Contract price, in or to the method or manner of performance of the Work, in or to equipment, materials, service or site, in or to the mode or manner of payment for the Work, or directing a change in the rate of performance of the Work. All changes shall, except in the case of emergencies endangering the safety of personnel or property, be made by modification of the Contract Documents or by written Change Order/Work Change Directive duly executed by the COUNTY, ENGINEER, and CONTRACTOR. Work necessary in connection with emergency changes in the Work shall be strictly limited to the minimum necessary to alleviate the immediate emergency; Work beyond such minimum shall be undertaken only pursuant to a properly issued Change Order/ Work Change Directive received from the ENGINEER. The CONTRACTOR shall promptly comply with any and all written Change Orders/ Work Change Directives issued by the ENGINEER, notwithstanding any disputes. No such Change Order/ Work Change Directive shall be deemed to invalidate the Contract.

**19.2 No Adjustment of Unit Price:** The volume of material to be placed on the beach is based on beach surveys conducted prior to the construction of the project. It is almost a certainty that the forces of wind and waves have altered the beach since development of the estimated fill volume for the project. No adjustment shall be made in any Unit Price of the Contract for changes ordered by the COUNTY that cause an increase or decrease equal to, or less than twenty-five percent (25%) in the amount of the Work, or by the estimated volume provided in the bid documents of material that is to be placed within fill templates. It is further provided, however, that no adjustments shall be made in the Contract price or time of performance for either lump sum or unit price work if the change is expressly or reasonably implied by the Contract Drawings and Specifications or is incidental thereto, or if the Work becomes more difficult than the bid price and Contract Documents would reflect, or if the CONTRACTOR failed to protest, negotiate, comment or otherwise call to the COUNTY's attention, in writing, any omissions, ambiguities or conflicts in the Contract Documents that the CONTRACTOR could have discovered prior to the submission of its bid or execution of the Contract.

## **GP-20 STATE AND FEDERAL PERMITS, EASEMENTS AND LICENSES**

The CONTRACTOR shall comply with all requirements set out in all permits applicable to the Work. Copies of project permits and relevant project attachments are provided as appendices to

these Construction Specifications and are considered part of the Contract Documents. Specifically, the CONTRACTOR will familiarize himself with general and specific conditions contained in the Florida Department of Environmental Protection permit (FDEP) Permit No. 0285993-009-JC, and the U.S. Army Corps of Engineers (USACE) Permit No. SAJ-2007-1645, and other State and Federal approvals for the project, including public easements, use of sovereign submerged lands and referenced attachments. The CONTRACTOR shall follow the applicable Terms and Conditions in the following Biological Opinions (BO) that are incorporated by reference in the USACE Permit: U.S. Fish and Wildlife Service (USFWS) Statewide Programmatic Biological Opinion (SPBO) for sea turtles, dated July 9, 2015; USFWS Programmatic Piping Plover Biological Opinion (P<sup>3</sup>BO) for piping plovers and red knots, dated May 22, 2013; and the National Marine Fisheries Service (NMFS) South Atlantic Regional Biological Opinion (SARBO). The SARBO can be found at this link: <https://www.fisheries.noaa.gov/content/endangered-species-act-section-7-biological-opinions-southeast>. Any other licenses or approvals required for the prosecution of the Work shall be secured and paid for by the CONTRACTOR.

## GP-21 CONTRACTOR QUALITY CONTROL

- 21.1 Responsibilities of the CONTRACTOR:** The CONTRACTOR is responsible for quality control and shall provide and maintain an effective quality control plan that is received by the COUNTY and ENGINEER seven (7) days prior to the pre-construction conference. For fill placement operations, the CONTRACTOR shall follow the FDEP approved Sediment QA/QC Plan provided in the appendices.
- 21.2 Daily Quality Control Reports:** The CONTRACTOR is required to prepare a Daily Quality Control Report (QCR), and copies shall be furnished to the COUNTY and ENGINEER on a daily basis without exception, by 12:00 p.m. of the following day. Electronic submittal of the Daily QCR is acceptable. Daily QCRs will be provided from the Notice to Proceed issuance to the last day of demobilization, including site clean-up. Reports shall be required for each and every day, regardless of whether Work is accomplished. An example copy of the Daily QCR is appended to these Construction Specifications. The CONTRACTOR may substitute their own quality control report format if: (1) it contains, at minimum, all of the information required by the format example in the Construction Specifications and (2) the CONTRACTOR'S quality control report format is approved by the ENGINEER.
- 21.3 Quality Control:** The CONTRACTOR shall establish a quality control system to perform sufficient inspections and tests of all items of Work, including that of their subcontractors, and to ensure conformance to applicable provisions of the Contract Documents and Plans with respect to the materials, workmanship, construction, finish, and functional performance. This control will be established for all construction except where the Contract provides for specific COUNTY or ENGINEER control by observation, tests or other means. The CONTRACTOR's control system will specifically include the surveillance and tests required in the Construction Specifications.

- 21.4** The CONTRACTOR's quality control system is the means by which the CONTRACTOR is assured that the construction complies with the requirements of the Contract Documents, including all project permits. The controls shall be adequate to cover all construction operations and shall be keyed to the proposed construction sequence.
- 21.5** The CONTRACTOR's job supervisory staff may be used for quality control, supplemented as necessary by additional personnel for surveillance, by special technicians, or by testing facilities with the expertise to provide for the controls required by the Construction Specifications.
- 21.6** All compliance inspections will be recorded on the Daily QCR, including, but not limited to, the specific items required in each technical section of the specifications. This form shall include records of corrective action taken.
- 21.7** If reoccurring deficiencies in an item or items indicate that the quality control system is not adequate, or reports are not being provided in a timely manner, the CONTRACTOR shall undertake such corrective actions as necessary to meet all Contract requirements.
- 21.8** No separate payment will be made for CONTRACTOR quality control or Daily QCR.
- 21.9** **Delay of Payment:** Failure to provide Daily QCR to the ENGINEER and COUNTY may result in delay in payments to the CONTRACTOR until all due Daily QCR are received and are acceptable to the ENGINEER.
- 21.10** The CONTRACTOR shall be responsible for making such inspections, surveys and tests as may be necessary to assure compliance with all the requirements of the Contract Documents and applicable permits. Reports of all inspections, surveys and tests and remedial actions shall be submitted to the ENGINEER in writing.
- 21.11** The ENGINEER reserves the right to utilize the CONTRACTOR's control testing laboratory, survey and other equipment to make random tests and surveys, and to check the CONTRACTOR's testing and survey procedures, techniques, and results (where applicable).

## **GP-22 SITE CLEAN-UP**

- 22.1** **General:** It is the intent of the COUNTY that the Work be accomplished with minimum disturbance to the natural resources adjacent to the work area (specifically, the adjacent upland, lawns, landscaping, trees, dunes and nearshore areas), and that the immediate and general vicinity of the work area remain in its pre-project state subsequent to completion of the Work. All materials utilized by the

CONTRACTOR during construction shall be removed from the site; including survey stakes, flagging and other temporary survey controls. All rock fragments greater than 0.75 inches in any dimension shall be removed from the beach and construction access areas. The CONTRACTOR shall not create circumstances that may result in extensive clean-up that is incidental to the Contract work to be performed. All accesses to the beach shall be restored to the topographic and vegetative conditions that existed prior to construction. No direct payment for the cost of site clean-up shall be made. All costs associated with these activities shall be included in the unit price for Supply/Deliver/Place Sand or Beach and Dune Fill and the lump sum price for site restoration.

- 22.2 Lost Material:** Should the CONTRACTOR during the progress of the Work, lose, dump, sink, or misplace any material or equipment, the CONTRACTOR shall recover and remove same within twenty-four (24) hours of receipt of said notice at no additional cost to the COUNTY.
- 22.3 Road Debris:** The CONTRACTOR shall immediately have those streets or access roadways used for transport of construction materials swept of spilled material that resulted from the carriage of material for this Work. Collected material shall be disposed of in a legal manner and at his own expense.
- 22.4 Work Area:** The CONTRACTOR shall continually inspect the work areas to ensure that all debris left by the CONTRACTOR's and subcontractor's workers has been removed from the work areas and properly disposed of. This includes, for example, lunch bags, soda cans, drink cups, etc.
- 22.5 Final Site Clean-Up:** Final clean-up shall include the removal of the CONTRACTOR's plant and all equipment and materials, and all debris, either for disposal or reuse. Unless otherwise approved in writing by the COUNTY, the CONTRACTOR will not be permitted to abandon stakes or other equipment or materials in the disposal area, water areas, underwater in the Atlantic Ocean, on the beach or other areas adjacent to the work site. Any stakes or other markers placed by the CONTRACTOR must be removed as a part of the final clean-up. All stakes, including grade stakes, placed during the fill operation shall be completely removed and shall not be left buried in the fill. All debris shall be removed from the beach. Final payment will be delayed until all grade stakes are removed from the beach area.

## **GP-23 LEGAL RESTRICTIONS AND TRAFFIC PROVISIONS**

The CONTRACTOR shall conform to all applicable laws, regulations, or ordinances with regard to labor equipment certification, laws, hours of work and their general operations. The CONTRACTOR shall conduct their operations so that navigation shall not interfere in any way with traffic on railway or highways without the consent of the proper authorities. The regulations the CONTRACTOR shall adhere to are those established by, but not necessarily limited to, the

Department of the Army, American Bureau of Shipping, all environmental agencies, Florida Department of Environmental Protection, Florida Department of Transportation, and Indian River County.

The CONTRACTOR is responsible for complying with all Department of Transportation, County, and other local regulations regarding weight limits for bridges and roads utilized for transport. The CONTRACTOR is likewise responsible for complying with all applicable traffic, safety and speed laws. Repeated failure of the CONTRACTOR to comply with applicable load and traffic regulations will result in suspension of transport operations until the CONTRACTOR demonstrates to the satisfaction of the ENGINEER that the CONTRACTOR has taken sufficient steps to ensure compliance with these regulations. The CONTRACTOR shall notify, and coordinate with, local law enforcement and highway agencies regarding transport activities that shall be undertaken for the Work.

#### **GP-24 ELECTRICITY AND OTHER UTILITIES**

All electric current and other utilities required by the CONTRACTOR shall be furnished at the CONTRACTOR's own expense.

#### **GP-25 ASSIGNMENT**

Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other nor shall the CONTRACTOR assign any monies due or to become due to him hereunder, without the previous written consent of the COUNTY.

#### **GP-26 PROTECTION OF PROPERTY AND WORK**

- 26.1 CONTRACTOR Responsibility:** The CONTRACTOR will not be responsible for maintenance of beach sections previously accepted by the ENGINEER, unless the beach is eroded or damaged due to the activities of the CONTRACTOR.
- 26.2 Risk of Weather Events:** All loss or damage arising out of the nature of the Work, or from the action of the elements, or from weather events, hurricanes, tropical storms, adverse sea state or from any unusual obstruction or difficulty, or any other natural or existing circumstances either known or unforeseen, that may be encountered in the prosecution of the Work, shall be sustained and borne by the CONTRACTOR at its own cost and expense, including all fill placement that has not been accepted by the ENGINEER for payment.
- 26.3 Beach Erosion:** The CONTRACTOR shall be aware of the dynamic nature of the project site and account for the potential of a change in beach conditions including, but not limited to, beach erosion and accretion, sediment migration and shoaling, and changes to the volume required by the project fill template. Based on the CONTRACTOR's pre-placement surveys, the ENGINEER will evaluate the conditions and make a determination regarding adjustments to the Work as prescribed in these Contact Documents. The CONTRACTOR is not responsible for naturally-

occurring erosion of any section of the beach fill after it has been accepted for payment by the ENGINEER; however, the CONTRACTOR is responsible for maintaining the beach fill until it is accepted by the ENGINEER and to avoid preventable damage to sections that have been accepted by the ENGINEER. The CONTRACTOR is also responsible to grade and eliminate all beach scarps or cliffs in the project fill area regardless of ENGINEER acceptance, prior to being considered substantially complete and eligible for final payment and closeout.

## **GP-27 PROTECTION OF EXISTING STRUCTURES FROM CONSTRUCTION ACTIVITY**

**27.1 General:** Bulkheads, revetments, utilities, upland structures (including dune cross-overs), anchor points, and other structures within the Work area shall be protected by the CONTRACTOR to prevent damage thereto by the CONTRACTOR'S operations.

**27.2 Documentation:** The CONTRACTOR shall be responsible for determining and documenting the pre-construction condition of existing structures within the project area, inclusive of all staging and access areas. The CONTRACTOR shall take appropriate measures to prevent damage to any structures during construction, and for performing a post-construction verification inspection of those structures previously inspected. Pre-construction structure condition documentation by the CONTRACTOR shall include video and/or photographic documentation. Copies of the pre-construction structure condition video and/or photography will be provided to the ENGINEER prior to the start of construction. The CONTRACTOR shall assume all responsibility for damages to existing structures within and bordering the project boundaries as a result of construction activities. This includes, but is not limited to, damages as a result of equipment impact and vibration due to operation of equipment close to existing structures.

**27.3 Underground Utilities:** CONTRACTOR shall call "SUNSHINE" 1-800-432-4770 before beginning any Work at the project site and familiarize himself with any nearby utilities.

## **GP-28 PRESERVATION OF HISTORICAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES**

If during project construction the CONTRACTOR observes items that may have historical, cultural, or archeological value, the CONTRACTOR shall immediately cease all activities that may result in the destruction of these resources and shall prevent his employees and subcontractors from trespassing on, removing, or otherwise damaging such resources. Such observations shall be reported immediately to the COUNTY and ENGINEER so that the appropriate authorities may be notified, a determination made as to their significance and what, if any, special disposition of the finds should be made. The CONTRACTOR shall report any observed unauthorized removal or destruction of such resources by any person to the COUNTY and ENGINEER and appropriate State of Florida authorities. The CONTRACTOR shall relocate construction activities and resume

construction of the project, and not return to the site in question, until State authorities have rendered judgment concerning the artifacts of interest.

**GP-29 OTHER INSURANCE**

Insurance required to be maintained by the CONTRACTOR is specified in the COUNTY's Standard Terms and Conditions.

**GP-30 AS-BUILT DRAWINGS**

The CONTRACTOR shall submit to the ENGINEER, for approval, the surveyed profile data of the Work in addition to a surveyed plan view of the Work. The profile and plan view information must be submitted to the ENGINEER within fourteen (14) calendar days of the completion of the site Work.

- 30.1** The profile and plan view data shall be that described in the Technical Provisions for Upland Sand Source.
- 30.2** Upon completion of the Work, the CONTRACTOR shall sign the as-built drawings in the following manner: "I CERTIFY THAT THESE DRAWINGS INDICATE CONSTRUCTION AS ACTUALLY PERFORMED AND ARE AN ACCURATE REPRESENTATION OF THE SPECIFIED WORK." The COUNTY reserves the right to withhold final payment until acceptable as-built drawings have been submitted.

**END OF PART I – SUPPLEMENTAL GENERAL PROVISIONS**



## **PART II – TECHNICAL PROVISIONS UPLAND SAND SOURCE**

### **TP-1 SECTOR 3 BEACH AND DUNE RENOURISHMENT PROJECT**

The Work covered by this section consists of furnishing all plant, labor, equipment, supplies and material, and of performing all operations and surveys in connection with excavating, transporting, placing, dressing, and grading beach and dune fill and supplying, installing, and monitoring dune vegetation as indicated in the Plans and in accordance with the Contract Documents. The fill material shall be excavated and transported from the permitted upland sand sources that are subject to the approval of the ENGINEER, COUNTY, and State and Federal permitting agencies. The total fill volume to be placed within the beach and dune construction templates above MHW is approximately 274,368 cubic yards (411,552 Tons) of beach quality sand. Salt-tolerant dune vegetation (approximately 728,633 plantings) will be planted on the restored dunes.

### **TP-2 CONTRACTOR QUALIFICATIONS**

The CONTRACTOR shall provide the labor, equipment, supplies, and materials to perform all operations in connection with supplying, transporting, placing, grading and tilling the beach fill, debris removal, and returning the project site to its pre-construction condition as required by the Contract Documents. In order for the CONTRACTOR to be deemed qualified and responsive, the following must be provided with the bid under cover labeled “BIDDER QUALIFICATIONS” or similar title:

- a) Bidder’s proposed method of construction and overall schedule to demonstrate understanding of the Work and completion within the Contract time.
- b) The additional equipment proposed to complete this project, to include bulldozers, loaders, excavators, etc.
- c) Qualifications and prior experience of bidder’s key personnel, to include proposed project manager, superintendent, site engineer, etc.
- d) Experience with beach and dune nourishment via truck hauling operations.
- e) Description of last project of this nature that the bidder completed.
- f) References for at least three (3) similar beach nourishment works within the previous five (5) years.

### **TP-3 CONSTRUCTION ON THE BEACH**

The CONTRACTOR shall limit construction activities to the fill area shown on the Plans or as otherwise approved by the ENGINEER. The CONTRACTOR shall exercise caution when accessing and driving on the beach. Sections of the beach are heavily used by people during all periods of the year, and CONTRACTOR shall not trespass landward of MHW line in areas where easements have not been obtained.

### **TP-4 PRE-PLACEMENT AND POST-PLACEMENT SURVEYS – SUPPLY/DELIVER/PLACE SAND**

Pre-placement and post-placement surveys shall be conducted by the CONTRACTOR. Surveys may be required to be conducted in the presence of the ENGINEER or a representative, at the

option of the ENGINEER. The CONTRACTOR shall provide at least three (3) working days advance notice to the ENGINEER prior to conducting surveys.

- 4.1 Survey Components:** The CONTRACTOR shall measure and submit to the ENGINEER plan and profile surveys of the beach/dune depicting the following:
- a) Pre-placement conditions of the beach/dune.
  - b) Design template and fill tolerances for the beach/dune fill.
  - c) Post-placement (immediate post-construction) conditions of the beach/dune.
- 4.2 Survey Timeframes:** The CONTRACTOR shall conduct and submit pre-placement surveys for the active fill placement area or sections thereof to the ENGINEER no more than twenty-eight (28) days prior and no less than seven (7) days prior to the commencement of beach and dune fill placement within the specific fill sections surveyed. Surveys greater than twenty-eight (28) days old will be rejected unless otherwise requested for consideration by the CONTRACTOR to the ENGINEER and COUNTY. This will allow the ENGINEER to prepare updated cross-sections for the fill templates and assess volumetric requirements based on the pre-construction conditions. The CONTRACTOR shall not commence fill placement until cross-sections, based upon the pre-placement surveys, have been prepared by the ENGINEER. The ENGINEER will provide to the CONTRACTOR the revised template at each project profile in a spreadsheet or cross section format; the Plans will not be updated and/or reissued. Placement of fill in an area prior to completion and review of the pre-construction surveys is at the CONTRACTOR's risk and may or may not be approved for payment. The CONTRACTOR shall conduct post-placement surveys within seven (7) days upon the completion of fill placement and grading within an acceptance section. The CONTRACTOR shall submit as-built surveys to the ENGINEER within seven (7) days following the completion of each survey and at least seven (7) days prior to submittal of an Application for Progress Payment and the Final Application for Payment. If CONTRACTOR fails to submit an as-built survey to the ENGINEER within seven (7) days of the completion date for that survey, a mandatory meeting will occur the next day between the COUNTY, the ENGINEER, and the CONTRACTOR to discuss the overdue as-built survey. If the CONTRACTOR does not present the as-built survey during the meeting, all construction operations must cease until the survey is provided.
- 4.3 Survey Requirements:** All profile surveys shall be conducted by RTK (real time kinetic) GPS or conventional survey techniques. Loop closures shall be performed on all profile control. The closure shall be less than 0.04 feet.
- 4.4 Profile Spacing:** The pre-placement and post-placement surveys shall be measured along the project profiles defined in the Plans. The spacing between profiles is on average 100 feet. The profiles shall be surveyed at an azimuth of 70° clockwise from grid north as shown in the Plans. The coordinates for the project profiles listed in the Plans represent the project baseline. On each profile, the baseline shall be

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referenced as Range 0+00. Data points collected east of the baseline shall be reported as a positive offset while data points west of the baseline shall have a negative offset.

- 4.5 Collection of Survey Points:** A sufficient number of points shall be taken along each profile to ensure adequate description of topographic features, such as the dune crest, foreshore, slope breaks, and intersections of the fill with the existing grade. Data points shall be taken at a spacing of not more than ten (10) feet with a maximum elevation difference of approximately one (1) foot between adjacent points. All topographic points shall be within ten (10) feet horizontally of the established profile line. Surveys shall extend a minimum of fifty (50) feet landward of the landward toe of fill and offshore to at least the -0.5 foot, NAVD contour. The product shall be a continuous line representing the entire fill template of the beach and dune.
- 4.6 Submission Requirements:** All survey data should be submitted in electronic ASCII x,y,z format. All survey data shall also be submitted in graphical form with the pre-project conditions, design templates, allowable tolerances, and post-project conditions depicted. All cross-sections shall include the data and the identifying baseline station number. All survey information submitted, and included in any depiction, shall include the date of the survey. Vertical elevations shall be in feet referenced to the NAVD 1988 datum, Geoid 2012a. Horizontal distances shall be in feet. Locations shall be specified in Florida State Plane grid coordinates, East zone, NAD 1983/90 datum. Survey drawings shall be at an appropriate scale with the horizontal scale equal to the vertical scale. All field notes, survey and volume computations, and the records used by the CONTRACTOR to compute the CONTRACTOR's estimate of payment fill quantity shall be furnished to the ENGINEER with the Application for Progress Payment and Final Application for Payment.
- 4.7 Personnel:** All surveys shall be performed under the direction of an independent Florida licensed professional surveyor and mapper (P.S.M.). All surveys shall meet minimum technical standards.

#### **TP-5 AS-BUILT SURVEYS – DUNE VEGETATION**

- 5.1 Survey Components:** The CONTRACTOR shall measure and submit to the ENGINEER plan view surveys of the installed dune vegetation depicting the footprint of the planting.
- 5.2 Survey Timeframes:** The CONTRACTOR shall submit as-built surveys to the ENGINEER at least seven (7) days prior to submittal of an Application for Progress Payment and the Final Application for Payment.
- 5.3 Survey Requirements:** The CONTRACTOR shall survey the perimeter of the installed dune vegetation within each Acceptance Section by RTK (real time kinetic) GPS or conventional survey techniques. Data points shall be taken at a spacing of not more than ten (10) feet and at inflection points within the planting layout. The

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result shall be a continuous line along the perimeter of the dune vegetation installed within an Acceptance Section. The CONTRACTOR shall count and report the number and type of plants installed within an Acceptance Section.

- 5.4 Submission Requirements:** All survey data should be submitted in electronic ASCII x,y,z format. All survey data shall also be submitted in graphical form (plan view) with the dune fill construction template, project profiles, number of plants installed in each Acceptance Section, the date that planting was complete within each Acceptance Section and as-built extents of the installed dune vegetation depicted. All survey information submitted, and included in any depiction, shall include the date of the survey. Horizontal distances shall be in feet. Locations shall be specified in Florida State Plane grid coordinates, East zone, NAD 1983/90 datum. Survey drawings shall be at an appropriate scale to depict the project features. All field notes and the records used by the CONTRACTOR to compute the CONTRACTOR's estimate of the number of plants installed shall be furnished to the ENGINEER with the Application for Progress Payment and Final Application for Payment.

## TP-6 SURVEY LAYOUT AND CONTROL

- 6.1 Control Data:** Descriptions of the monument control in the vicinity of the project area are furnished in the Plans.
- 6.2 Horizontal and Vertical Limits:** The CONTRACTOR shall establish their survey control for the Work. The CONTRACTOR shall layout the horizontal and vertical limits of the Work from the tabulated control provided in the Plans. The CONTRACTOR shall be responsible for maintaining the accurate alignment and layout of the beach and dune fill templates during construction. The CONTRACTOR shall not scale dimensions from the Plans for the purposes of work layout. The CONTRACTOR shall be responsible for all measurements that may be required for the execution of the Work to the location and limit marks prescribed in the Plans and in these specifications. Based on the pre-placement survey, the ENGINEER reserves the right to modify the locations and elevations of the dune fill template as may be required to meet changes to existing conditions. If the CONTRACTOR discovers a conflict during layout of the Work, the CONTRACTOR shall notify the ENGINEER.
- 6.3 Temporary Benchmarks:** If the CONTRACTOR elects to establish temporary benchmarks through the work site, they shall be established by a closed loop of levels from a permanent benchmark or a line of levels between two permanent benchmarks. Any such temporary benchmark shall be located upon fixed objects such as utilities, roadways, driven stakes, etc. to assure reliability through the duration of the Work.
- 6.4 Construction Stakes:** The CONTRACTOR shall furnish, at his own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out any part of the Work from the monuments, control data and

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elevations. The CONTRACTOR shall maintain and preserve the established stakes and other marks. If such marks are destroyed by the CONTRACTOR, they may be replaced by the ENGINEER at his discretion, and the expense of replacement will be deducted from any amounts due or to become due. Work may be suspended at any time when location and limit marks established by the CONTRACTOR are not adequate to permit checking of the Work. All marking stakes (including grade stakes) placed by the CONTRACTOR must be a metal material and must be completely removed upon completion of the Project unless otherwise specifically accepted in writing by the ENGINEER. The CONTRACTOR shall also maintain a grade stake recovery log.

- 6.5 No Fill Areas:** The CONTRACTOR shall be responsible for delineating no-fill areas and preventing the placement of fill in such areas. No-fill areas include but are not limited to areas which easements have not been procured. The CONTRACTOR shall not operate equipment or allow operations within the designated no fill areas landward of the MHW line.
- 6.6 Drawing Modification:** All levels and measurements as given on the drawings are binding for the CONTRACTOR. The ENGINEER reserves the right to modify the locations and elevations of the limit marks as may be required to meet changed conditions or as a result of necessary modifications to the Contract work. Modifications to the drawings will not form the basis for a change in unit price unless the modifications increase or decrease the quantity of work by twenty-five percent (25%) or more.

## TP-7 PAY PROFILES

- 7.1 General:** The surveys required to supplement construction and payment shall be taken at pay profile locations indicated in the Plans. The CONTRACTOR shall establish intermediate profiles in addition to those shown in the Plans to construct the project in accordance with plan view layout. The CONTRACTOR may submit the intermediate profiles for payment subject to review and approval by the ENGINEER. The CONTRACTOR shall survey between the +13, +14, or +15 foot NAVD contour (depending on profile location) or 50 feet landward of the landward edge of fill to 100 feet beyond the seaward toe of fill or to the -0.5 foot contour, whichever is more seaward. The landward edge of fill is located at the edge of vegetation, seawall, or the +13, +14, or +15 foot NAVD contour intersection with the existing beach. The pay profiles shall be labeled as their distance along the project baseline.

Payment for beach fill placement will be based on the quantity of sand placed within the fill template and allowable tolerances as computed and verified by comparison of the pre- and post-placement surveys conducted on the dressed beach and certified by the CONTRACTOR's surveyor. The ENGINEER will verify the pay quantities provided by the CONTRACTOR, based on the comparison of pre- and post-placement surveys conducted by the CONTRACTOR's surveyor and accepted by the ENGINEER. Surveys will be performed by a surveyor employed by, or a

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subcontractor of, the CONTRACTOR. The CONTRACTOR shall notify the ENGINEER a minimum of three (3) days prior to when the surveys will be conducted so that the ENGINEER may observe the survey as it is conducted. The CONTRACTOR's surveyor shall certify all surveys and the ENGINEER must agree, based on submissions provided by the CONTRACTOR's surveyor, that the survey may be used for payment purposes. All survey work conducted by the CONTRACTOR for payment is subject to acceptance by the ENGINEER. The ENGINEER, at their discretion, may conduct surveys to verify surveys performed by the CONTRACTOR for payment purposes.

- 7.2 Pre-Construction Survey:** The most-recent semiannual beach survey conducted by the COUNTY as part of the county-wide monitoring program, performed in June 2023, was used as the pre-construction survey for this project to update fill volumes prior to the commencement of construction and to satisfy environmental permit requirements.
- 7.3 Pre-Placement Survey:** Pre-placement surveys shall be conducted by the CONTRACTOR at the spacing and location of pay profile lines as identified in the Plans, which are generally 100 feet apart. Pre-placement surveys shall be conducted to a minimum distance of 100 feet seaward of the construction toe of fill. The pre-placement survey will be used as the baseline for payment for the beach fill project. The CONTRACTOR shall not commence construction until the ENGINEER has received the certified (signed and sealed) pre-placement survey and has reviewed the survey for use as the pre-placement survey. The fill template and volume may be revised at the ENGINEER's discretion using the pre-placement survey results, as the bid volume may vary since the design and pre-construction survey.
- 7.4 Post-Placement Survey:** Post-placement surveys shall be conducted by the CONTRACTOR at the same spacing and location as the pre-placement surveys. Post-placement surveys shall not be conducted until the beach has been dressed to provide a level and uniform beach surface, removing all depressions, gullies, or other features in the beach which may affect the accuracy of the survey and the volume computation. The post-placement pay survey shall be conducted prior to tilling the beach.
- 7.5 Post-Construction Survey:** The COUNTY's surveyor will conduct the post-construction survey as part of the county-wide monitoring program to satisfy environmental permit requirements.
- 7.6 Survey Field Notes Submittal:** The CONTRACTOR shall submit survey field notes to the ENGINEER upon completion of each pre-placement or post-placement survey to expedite review of each survey. All field notes, survey and volume computations, and the records used by the CONTRACTOR to compute the payment fill quantity shall be furnished to the ENGINEER with the application for progress or final payment. Failure to provide the specified information will delay recommendation and payment.

- 7.7 Survey Error or Volume Computation Discrepancy:** If there is an error or discrepancy in the survey conducted by the CONTRACTOR which affects the payment volume, the CONTRACTOR and the ENGINEER's surveyors will attempt to resolve the survey discrepancy or error. If the discrepancy or error cannot be resolved, the ENGINEER will compute the fill volume for payment purposes. Likewise, if there is an error or discrepancy concerning the payment volume computation, the ENGINEER and CONTRACTOR will attempt to resolve the issue. Nevertheless, the volume determined to be correct by the ENGINEER shall be the volume used for payment purposes.
- 7.8 Fill Section Rejection:** The notification of rejection of a fill section will be based on notification to the CONTRACTOR from the ENGINEER. After the survey data has been received by the ENGINEER, the ENGINEER will have seven (7) days to review the data and prepare a written response if a section has been rejected, and the reason for rejection.
- 7.9 Beach Fill Pay Profile Lines:** The pre- and post-placement surveys shall be conducted at the intervals and locations as indicated in the Plans and shall extend offshore a minimum distance of 100 feet seaward of the termination of the construction toe of fill. Profiles to be used for payment purposes are strictly limited to profiles specifically defined by the project baseline in the Plans. For example, FDEP R-monument profile line R-20 will be the first payment station, with payment profile lines spaced generally at 100 foot intervals to the south except at the location of the FDEP monuments where the spacing varies to include the FDEP profile location. Pay quantity verification calculations will utilize the distance between adjacent pay profile lines as shown in the Plans.
- 7.10 Survey Requirements:** All beach profile surveys shall be conducted by either differential leveling techniques or with RTK-GPS technology to a minimum distance of 100 feet seaward of the termination of the construction toe of fill. The CONTRACTOR shall close all level loops; the closure shall be less than 0.04 feet. All onshore points shall be within  $\pm$  ten (10) feet of the established profile line.
- 7.11 Profile Line Azimuth and Measurements:** Profile line surveys shall be conducted along the azimuth indicated in the Plans. A sufficient number of points will be taken along each line to ensure adequate measurements of the entire profile line including topographic features, major breaks in slope, beach berms, foreshore, and intersection of the fill with the bottom, with a maximum elevation difference of approximately one (1) foot between adjacent points. Data points shall be taken at a spacing of not more than ten (10) feet. The product shall be a continuous line representing the entire beach fill profile plus a minimum of 100 feet seaward of the construction toe of fill.
- 7.12 Beach Survey Deliverables to the Engineer:** Deliverables to the ENGINEER shall include processed survey data of easting, northing, and elevation (XYZ) from each of the pay stations in ASCII format provided digitally (via email, FTP, flash drive, or on a compact disk (CD)) and illustrated in cross-sections on digital or hard

copy plots. Cross-section plots shall show the survey, the construction template, the upper and lower tolerance, and the mean high water line. Additional information to be provided to the ENGINEER shall include any corrections and field notes.

- 7.13 Survey Documentation:** All survey work shall be documented and copies supplied to the ENGINEER. The surveys may be conducted in the presence of the ENGINEER or their representative, at the option of the ENGINEER. The CONTRACTOR shall provide one (1) day advance notice to the ENGINEER prior to conducting surveys for payment.

## **TP-8 CHARACTER OF BEACH FILL MATERIAL**

- 8.1 Fill Material:** The CONTRACTOR shall provide clean, debris-free, rock-free, beach compatible sand purchased from the FDEP approved upland sand sources permitted for construction of the Project. Based on limited geotechnical analysis and information, the sources are capable of producing the quality and quantity of sand for this project. Additional geotechnical testing will be required prior to shipment. The “Construction Access and Staging Areas” identified in the Plans are available to the CONTRACTOR for the storage of materials and equipment consistent with these Specifications.

The CONTRACTOR shall take the necessary actions to ensure that material delivered to the project site is in compliance with the Contract Documents and Table 2 of the Sediment QA-QC Plan for Upland Sand Sources (Appendix D).

- 8.2 Characteristics of Fill Material:** It is the responsibility of the CONTRACTOR to supply beach compatible material. The material should be beach quality, quartz sand material. The material shall be clean, washed, non-organic, cohesionless, free of deleterious substances, and free of elongated or flat particles, which are susceptible to degradation. No material that is inconsistent with the samples provided or that originates from sources other than those permitted for construction may be used. The material shall meet the sediment compliance specifications cited in Table 1 of the Sediment QA-QC Plan for Upland Sand Sources (Appendix D).

- 8.3 Material Testing:** It is the responsibility of the CONTRACTOR to supply beach compatible material in accordance with Sediment QA-QC Plan for Upland Sand Sources, included by reference as (Appendix D). Samples of the fill at the upland sources and at the placement area will be collected, tested, and reported by the CONTRACTOR throughout the construction as required by the Sediment QA-QC Plan for Upland Sand Sources. All samples collected by the CONTRACTOR shall be stored at the CONTRACTOR’s expense for a minimum of 120 days after Final Acceptance of the Project. The ENGINEER reserves the right to perform independent sampling and testing of fill material at the upland sand sources and the placement area.

The COUNTY and ENGINEER may observe and sample fill material at the project site prior to being offloaded from each of the trucks originating from the mine. The



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CONTRACTOR shall provide the necessary equipment, personal, and safety protocols to facilitate the COUNTY and ENGINEERS' observations. This may include, but is not limited to, ladders, removing transport covers, and adjusting the traffic pattern of trucks.

- 8.4 Unacceptable Material, Rock, Rubble, or Debris:** In the event that unsuitable material is detected as part of the CONTRACTOR's or the COUNTY and ENGINEER's material testing procedures, the CONTRACTOR will immediately stop providing such material and shall be responsible for immediately removing the unsuitable material prior to any further construction. If the CONTRACTOR fails to remove the unacceptable material, rock, rubble or debris, to the satisfaction of the ENGINEER, such debris may be removed by the COUNTY and the cost of such removal may be deducted from any money due, or to become due, to the CONTRACTOR or may be recovered under his bond.
- 8.5 Sediment QA/QC Plan:** FDEP has developed a Sediment QA/QC Plan for the upland sand source that applies to this project. This Plan must be applied to maintain the quality of the beach nourishment project and extensive testing is an integral part of the Plan.

The CONTRACTOR shall have "Benchmark Sample" which is labeled with the permit number, date collected, site name, and information on where the sample was attained. The benchmark sample shall be material that has been deemed beach compatible in accordance with the specifications of Table 1 in the Sediment QA/QC plan (Appendix D). This sample shall be tested at a Licensed Testing Laboratory.

At the upland sand source or stockpile, the CONTRACTOR shall collect a sediment sample at not less than 4 sample for each 3,000 cubic yards or stockpiled material no less than 6 inches below the surface to visually assess the grain size, Munsell color, gravel content, and silt content against the benchmark sample. The sample shall be a minimum of 1 U.S. pint (approximately 200 grams). Sediment sampling results shall be provided to COUNTY and ENGINEER prior to any portion of the 3,000 cubic yards of material represented by that sample being transported to the construction access/site.

The material shall be observed by the CONTRACTOR at the project site. The CONTRACTOR shall perform an assessment during placement at a minimum of once each hour. The assessment will consist of handling the fill material to ensure that it is predominantly sand and to note the physical characteristics, and assure the sediment meets the Sediment Compliance Specifications in Table 1 of the Sediment QA/QC Plan (Appendix D). If deemed necessary, quantitative assessment of the sand will be conducted.

Additional details relative to observations, sampling, and testing are presented in the Sediment QA/QC Plan. Post-construction sediment sampling and testing will be completed by the ENGINEER. Sediment Compliance parameters are shown in Table 2: .

**Table 2: Sediment Compliance Specifications**

Sediment Parameter	Parameter Definition	Compliance Value
Median Grain Size	50% larger/smaller by weight*	0.30 – 0.55 mm
Mean Grain Size	Calculated by moment method*	0.33 mm – 0.55 mm
Max. Silt Content	Passing #230 sieve	2%
Max. Gravel Content	Retained on #4 sieve	2%
Munsell Color	Moist Hue	10 YR, 2.5Y, or 5Y
	Moist Value	≥ 7
	Moist Chroma	≤ 2
The beach fill material shall not contain construction debris, toxic material, or other foreign matter.		

\*Determined using the sieves listed in the QA/QC Plan

**TP-9 SUPPLY/DELIVER/PLACE SAND**

- 9.1 General:** All sand excavated from the upland sand sources and transported to the Project area shall be deposited on the beach within the lines, grades and cross sections shown on the Plans. The CONTRACTOR shall maintain and protect the fill in a satisfactory condition at all times until final completion and acceptance of the Work. CONTRACTOR shall receive no payment for any fill sand that is not (a) contained within the limits of the fill area shown in the Plans; (b) contiguous to the fill template and above the pre-construction profile. The CONTRACTOR must place a minimum of 95% of the design volume between project profile lines and achieve the minimum fill tolerance in order to be considered for payment of that acceptance section, unless otherwise accepted by the ENGINEER in writing.
- 9.2 Same Day Delivery:** Truck loads shall be delivered to the project site the same days as they were loaded at the sand mine. Drivers that do not adhere to this guideline may be disqualified from continuing to work on this project. If there are extenuating circumstances that prevent a load from being delivered, the CONTRACTOR shall notify the COUNTY that day so that daily quantities may still be rectified.
- 9.3 Weight Ticket Reconciliation:** Reconciliation of weight ticket quantities will occur daily between the COUNTY, ENGINEER or ENGINEER’S REPRESENTATIVE, and CONTRACTOR. Failure to provide weight tickets may result in a cease of operations at the CONTRACTOR’s expense.
- 9.4 Removal of All Debris from the Fill Area:** Prior to placement of fill, the CONTRACTOR shall remove from the site all trash, snags, and similar debris lying within the foundation limits of the dune fill section. All materials removed shall be taken from the beach area and disposed of in an appropriate and legal manner and at the expense of the CONTRACTOR. Grading and other construction equipment will not be permitted outside the project limits as shown in the Plans except for

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ingress or egress to and from the site. Under no circumstances will construction equipment be allowed on the beach farther than 800 feet from either end of the Project area without written consent from the ENGINEER.

- 9.5 Transportation to Project Site:** The method of transporting construction equipment and materials to and from the work area shall be by truck. Expenses incurred by the CONTRACTOR relating to any pertinent road use and delivery expenses shall be paid by the CONTRACTOR. All necessary transportation easements, accesses, and permission must be obtained by the CONTRACTOR prior to mobilizing equipment to the project site.

The CONTRACTOR is responsible for complying with all Department of Transportation, County, and other local regulations regarding weight limits for bridges and roads utilized for transport. The CONTRACTOR is likewise responsible for complying with all applicable traffic, safety and speed laws. Repeated failure of the CONTRACTOR to comply with applicable load and traffic regulations will result in suspension of transport operations until the CONTRACTOR demonstrates to the satisfaction of the ENGINEER that the CONTRACTOR has taken sufficient steps to ensure compliance with these regulations. The CONTRACTOR shall notify, and coordinate with, local law enforcement and highway agencies regarding transport activities that shall be undertaken for the Work.

- 9.6 Transportation of Fill on the Beach:** The CONTRACTOR shall transport and place fill only between the “Landward Limit of Fill” and the “Construction Toe of Fill” as shown on the Plans unless restricted by easements. It is anticipated that the CONTRACTOR will need to transport and place fill in front of structures, along narrow sections of the Project, and to areas with low template fill densities via off-road trucks. Stockpiled material shall be located within the footprint of the fill placement area and may not exceed an elevation of +20 feet, NAVD88. The method of transporting the fill alongshore to the fill area shall be proposed by the CONTRACTOR at the time of the bid on the plant and equipment schedule. The method of transport will be a CONTRACTOR decision; however, construction and performance of the Work must comply with all Project permits, production, and environmental requirements cited in the Contract Documents.

- 9.7 Fill Placement Requirements:** The material shall be placed and brought to rest on the beach to the lines, grades, and cross-sections indicated on the Plans, unless otherwise provided for herein or directed by the ENGINEER or restricted by easements. The beach/dune is subject to changes and the elevations on the beach/dune at the time the Work is done may vary from the elevations shown in the Plans. The CONTRACTOR is to place the fill on the beach in such a manner as to establish a uniform dune between adjacent profile lines as indicated in the Plans. The ENGINEER reserves the right to require minor grading of the placed fill to provide smooth transitions of the dunes and to prevent unstable fill configurations. Site specific field adjustments to the construction template (i.e. modifications to the grade elevations, slopes, and/or dimensions) may be required by the ENGINEER to re-work fill placed to facilitate pedestrian access at beach access points.

- 9.8 Fill Placement Restrictions:** The fill shall extend landward to the existing elevation contour that matches the dune/berm crest elevation shown in the Plans unless features (e.g. dunes, vegetation, or structures) or easements prohibit fill placement. If a feature extends to the design berm elevation or above, the fill shall terminate at the seaward face of the feature. If the top of structure is below the dune/berm crest elevation, then the fill shall taper landward using a one (1) foot vertical to five (5) feet horizontal slope to one (1) foot below the crest of the structure to prevent burial or overtopping with sediment. If a dune vegetation line is below the dune/berm crest elevation, then the fill shall taper landward using a one (1) foot vertical to five (5) feet horizontal slope to the edge of the vegetation.

Fill placed immediately landward of a seawall shall extend a minimum of one (1) foot below the top of the structure.

The ENGINEER shall direct the CONTRACTOR how to place fill at existing dune walkovers. This direction includes but is not limited to in-field directives by the ENGINEER and written directives supplied to the CONTRACTOR by the ENGINEER.

Beach fill material shall be placed on the dry beach only. Beach fill shall only be placed above MHW (+0.6' NAVD) for all locations in the project area to be in compliance with Chapter 161 of Florida Statutes. The CONTRACTOR shall coordinate with the ENGINEER during the pre-construction/placement surveys to adjust the final design to be in compliance with this provision.

- 9.9 Control of Fill:** The CONTRACTOR shall make every attempt to retain placed fill within the dune fill template until the Work is accepted. The CONTRACTOR shall maintain and protect the fill in a satisfactory condition at all times until final completion and acceptance of the Work.
- 9.10 Uniform Beach:** The filled beach between the construction profiles shall be graded, dressed, and uniform in dimension. Beach sections between construction profiles shall be filled to a minimum of ninety-five (95%) percent of the volume based on the fill templates shown in the fill template cross-sections in the Plans, and to the minimum tolerance everywhere unless restricted by easements. The constructed beach contour lines between construction profiles, including the beach berm break, will be approximately parallel and straight, indicating that the CONTRACTOR constructed a uniform (non-cusped) beach.
- 9.11 Underfilling Between Accepted Profile Lines:** If the ENGINEER observes or thinks they have observed underfilling of the dune between project profile lines, the ENGINEER may request an additional survey be conducted by the CONTRACTOR at the CONTRACTOR's expense. If found to be deficient, the CONTRACTOR shall place additional fill until the dune is uniform in appearance and dimensions between project profile lines, provides the shapes depicted in the Plans, provides a minimum of 95% of the design fill volume and meets the mini-

imum tolerance at all locations in the acceptance section in order to qualify for payment of that section. Fill will not be obtained from adjacent areas of the beach or dune to remedy under filling.

**9.12 Grading and Dressing the Dune Fill:** Upon completion of all filling operations within an acceptance section, and prior to surveying for payment, the fill shall be graded and dressed with a dragged pipe so as to eliminate any undrained pockets, ridges, and depressions in the beach fill surfaces. The CONTRACTOR is to grade and dress the fill on the beach in such a manner as to establish a uniform berm width and slope between adjacent pay profile lines with a positive seaward slope between the seaward toe of dune and seaward berm crest within the vertical tolerance specified in Section **Error! Reference source not found.** The bank or scarp caused by wave erosion shall be graded down to a slope not steeper than one (1) foot vertical to eight (8) feet horizontal to the water's edge. The CONTRACTOR shall grade down any and all beach scarps or sand cliffs in the entire restored beach that persist for longer than seven (7) days until the CONTRACTOR has demobilized from the project site. The project site will not be considered complete, nor the CONTRACTOR eligible for final payment, until all beach scarps in the entire project area are graded.

**9.13 Right to Vary Beach Design Dimensions:** The ENGINEER reserves the right to vary the width or grade of the dune from the lines and grades shown on the Plans or observed at the Project site in order to establish a uniform beach between adjacent project profile lines or for the entire length of the Project. The dune fill cross-sections shown in the Plans are for the purpose of estimating the amount of fill needed and will be used by the ENGINEER in making any change in the lines and grades.

**9.14 Tolerances:** The vertical tolerance is +/- 0.5 feet from the design template. Fill placement must at least meet the 0.5 feet tolerance below the template everywhere in the fill, and the minimum fill volume requirement. Any material placed more than 0.5 feet above the template may be left in place at the discretion of the ENGINEER. The CONTRACTOR shall refill any deficient section of beach to at least meet the below template tolerance, and 95% of the fill volume within the acceptance section. The COUNTY will withhold payment for those sections of dune that do not meet the minimum fill requirements until the appropriate fill placement, grading, and dressing has been completed by the CONTRACTOR.

Fill tolerances are provided to facilitate construction. Fill placed above the template and within the upper tolerance will not be eligible for payment. Fill placed above the template and within the upper tolerance will not be used to offset underfilling of the template elsewhere.

**9.15 Misplaced Materials:** If any material is deposited other than in places designated or approved, the CONTRACTOR may be required to remove such misplaced material and redeposit it where directed by the ENGINEER, at the CONTRACTOR's expense.

- 9.16 Restrictive Barrier:** The CONTRACTOR shall erect, maintain, and move as necessary, a restrictive fencing, barricades, warning signs, and/or flagmen to ensure public safety. If the CONTRACTOR is not able to keep and maintain the public at a safe distance from the active construction activity, the CONTRACTOR is to notify the COUNTY and request assistance in controlling public access to the construction site. For the purposes of this section, active construction activity is defined as all equipment staging/access areas and 500 feet north of and south of sand placement operations.
- 9.17 Dedicated Safety and Flag Person:** The CONTRACTOR shall have a dedicated safety and flag person(s) on site at all times, whose sole responsibility is preventing the public from entering the Work area and to prevent unsafe traffic conditions at the sand delivery locations. The CONTRACTOR shall provide and maintain barricades, warning signals and flagmen as required by Federal, State or local regulations and the CONTRACTOR'S traffic control plan. Any costs associated with this requirement shall be included in the unit cost for Beach and Dune Fill.
- 9.18 Unsuitable Material:** The CONTRACTOR shall notify the ENGINEER in the event that unsuitable material was placed in the beach/dune fill template. The unsuitable material shall be removed from the beach at the CONTRACTOR'S expense. Unsuitable material is defined within the FDEP and USACE permits and sediment quality control plan (Appendices A, B, and D).
- 9.19 Daily Reports:** The CONTRACTOR, and their subcontractor (if any), shall submit daily reports that summarize the sand fill work completed at the end of each day. Quality Control Report Form shall be submitted every working day during the construction period (even when no Work is performed) between the time at which the Notice to Proceed is issued and the time of Final Acceptance. A copy of the required daily report is included in Appendix C. The CONTRACTOR shall submit Daily Reports by 12:00 P.M. the following day to the COUNTY and ENGINEER.

#### **TP-10 BEACH TILLING AND ESCARPMENT LEVELING**

- 10.1 Escarpment Elimination:** The CONTRACTOR shall inspect the entire beach project area for the formation of sand escarpments. Any escarpments which persist for longer than seven (7) days and exceeds and 12 inches in height (on average), independent of the length, shall be leveled or smoothed to eliminate the escarpment. The ENGINEER will observe the beach after leveling of escarpments to ensure that the ENGINEER agrees that all escarpments have been leveled in compliance with the permits and Contract Documents. The CONTRACTOR shall level any escarpments found by the ENGINEER or COUNTY, at their request throughout the duration of the project.
- 10.2 Beach Tilling:** Following the completion of beach and dune filling, dressing, and payment survey, the CONTRACTOR will till the constructed portion of the beach to loosen the compaction of the placed material. Tilling will be to a minimum depth of 36 inches throughout the newly placed beach seaward to the visible high water

mark to the landward extent of fill placement. The tilling shall be by use of a tracked vehicle (bulldozer, loader, or equivalent) by pulling (rear mount) or pushing (front mount) a rake with the tines of a length appropriate to achieve a tilling depth of 36 inches. Tines will be spaced 15 to 18 inches apart. The CONTRACTOR shall conduct additional tilling as necessary to ensure all of the beach fill above the mean high water line has a compaction of less than 500 cone penetrometer units, as determined by the ENGINEER. Following tilling, the beach shall again be dressed by dragging a pipe (or similar) lengthwise over the beach. The pipe may be positioned immediately behind the tilling tines to allow for a single operation of tilling and dressing. All tilling and dressing will be conducted during daylight hours only.

## TP-11 CHARACTER OF DUNE VEGETATION MATERIAL

- 11.1 General:** The CONTRACTOR shall supply, deliver, and place approximately 728,633 plants of native salt tolerant dune vegetation as specified in the contract documents. The actual number of plants required and installed may vary depending upon the dimensions of the fill template based on the pre-construction survey and the as-built dimensions of the fill placed by the CONTRACTOR. The plants shall be installed on the dune crest of the constructed dune as depicted by the typical cross section shown in the Plans or unless directed otherwise by the COUNTY and ENGINEER.
- 11.2 Source of Plant Material:** Acceptable plants for the purpose of this contract are nursery grown plants produced vegetatively from first generation foundation material and/or plants produced vegetatively as accessional generations from foundation materials. Plants shall originate from the Florida peninsula. The contracting nursery shall acclimate plant materials by growing plants in full sun conditions for at least thirty (30) days before planting (i.e., not inside greenhouse, under glass, under shade cloth, etc.). Plants shall be available for inspection at the nursery by the ENGINEER. The CONTRACTOR shall provide written documentation as to the source of the planting units. Certification shall be provided that all plant materials have been produced in accordance with all applicable Federal and State laws. The CONTRACTOR shall secure all permits required for the transportation, collection, and propagation of nursery stock. A copy of all permits required shall be provided to the ENGINEER. Documentation shall include collection permits or contracts from a State, the U.S. Department of Agriculture, or other comparable documents.
- 11.3 Plant Size and Containers:** The liners for both grasses species shall be no less than 12" tall from the top of the root ball to the tip of the longest leaf. The liners for all three species of ground covers shall be no less than 6" tall from the top of the root ball to the tip of the longest leaf. Plants not meeting the minimum size requirement will be rejected.

The root ball for both grasses species shall be no less than 1" x 1" x 2.5" depth, the root ball for the three ground cover species shall be no less than 1.5" x 1.5" x 2.5" depth. The plants shall have a fully developed root ball, with white or light beige roots.

*Uniola paniculata* liners shall be multi-stemmed plants (at least 2 stems). *Ipomoea pes-caprae* liners shall be multi-stemmed plants (at least 2 stems). *Helianthus debilis* liners shall be multi-stemmed plants (at least 2 stems). *Panicum amarum* liners can be single-stemmed plants. The plant material in each liner constitutes one dune grass plant, regardless of the number of viable stems in the liner.

**11.4 Plants:** Plants species shall include sea oats (*Uniola paniculata*), bitter panicgrass (*Panicum amarum*), railroad vine (*Ipomoea pes-caprae*), and dune sunflower (*Helianthus debilis*). Approximately 728,633 plants are required for this Project. The COUNTY may adjust the quantity of plants based on field adjustments to the landward limit of fill at the time of construction. The estimated quantities and proportion of plants for the four (4) species used shall be as summarized in Table 3: . The COUNTY reserves the right to adjust or modify the quantities of plants by up to  $\pm 25\%$ . The actual number of plants required and installed may vary depending upon the dimensions of the fill template based on pre-construction surveys and the as-built dimensions of the fill placed by the CONTRACTOR. The percentage distributions shall be achieved regardless of the number of plants installed and within each acceptance section.

**Table 3: Dune Vegetation Distribution**

Plant Type	Distribution	Estimated Quantity
Sea Oats	80% - 85%	582,906
Bitter Panicgrass	10% - 15%	72,863
Railroad Vine	5% - 8%	36,432
Dune Sunflower	5% - 8%	36,432
<b>Total:</b>	<b>100%</b>	<b>728,633</b>

**11.5 Plant Condition:** All plants shall be “healthy and vigorous” according to horticultural standards. Their roots shall be disease free, moist, and milky white at the time of delivery and installation. The plants shall have a fully developed root ball, with white or light beige roots. Brown, black, or rotting root balls shall be rejected. The plants shall be free of defects, disfiguring, sun scalding, diseases, insects, insect eggs, borers, or other forms of infections or infestation. Plants showing signs of stress, either from drought, pest infestation, disease, or any visible mishandling shall be rejected and shall be replaced at the CONTRACTOR’s expense. Plants rejected under this Specification will not be considered as delivered to the site and; therefore, not eligible for payment under the unit cost schedule applying to planting units.

**TP-12 DUNE VEGETATIVE PLANTINGS**

**12.1 General:** Following the placement and acceptance of fill within an acceptance section, dune vegetation shall be installed on the constructed dune crest or unless otherwise directed by the COUNTY and ENGINEER. The plants shall be installed by accessing the dune crest from the beach to avoid damaging existing vegetation.



- 12.2 Transportation and Delivery:** All plants shall be specifically protected in such a manner as to ensure adequate protection against climatic, seasonal, mechanical, or other injury during transit, loading and unloading, holding, and planting. Special care shall be taken for prompt delivery and careful handling in loading and unloading. Plants shall be transported in an enclosed truck or trailer. Stems cannot be broken, nor physically damaged during transportation. Damaged plants will be rejected and shall be removed immediately at the CONTRACTOR’s expense. The CONTRACTOR shall submit in writing the method of transporting plants from the nursery to the delivery site and from the delivery site to the planting site to the ENGINEER for approval.
- 12.3** Each individual shipment of plants to the delivery site shall be accompanied by a delivery slip indicating the following information: 1) source of plant material (nursery name), 2) species (scientific and common name if applicable), 3) plant size, 4) quantity being delivered, and 5) date of delivery. Shipping slips are to be signed by the CONTRACTOR. Copies of the slips shall be provided with the daily quality control reports. The COUNTY and ENGINEER shall be notified three (3) days prior to any and each plant delivery to allow for plant count.
- 12.4 Planting Layout:** The specific location of planting boundaries, rows, and baselines shall be marked on site by the CONTRACTOR. The COUNTY and ENGINEER reserve the right to alter the boundaries, rows, and plant spacings, if necessary. Planting shall only occur after the dune within an Acceptance Section has been constructed and accepted by the COUNTY and ENGINEER.

Planting shall be as prescribed on the Plans except at locations seaward of existing seawalls where minimal fill is proposed. These seawall locations are listed in the Table 4 below.

**Table 4: Seawalls with No Planting Prescribed**

<b>Seawall Location</b>	<b>Length (feet)</b>
R-27+400 to R-27+850	550
R-33 to R-33+750	750
R-37+625 to R-39+600	1,950

**12.5 Planting Installation:**

- 12.5.1** The specific location of planting boundaries, rows, and baselines shall be marked on site by the CONTRACTOR. The plants shall be installed 9” on center in staggered, shore-parallel rows 9” apart.
- 12.5.2** Unvegetated areas for pedestrian access within COUNTY parks across dunes shall be roped off by the CONTRACTOR to prevent trampling of plants. The CONTRACTOR shall furnish and install rope and wood posts at the expense of the CONTRACTOR and as approved by COUNTY and ENGINEER.

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**12.5.3** Plants shall be planted on the same day they are delivered to the site if possible. Plants shall not become stressed prior to planting. Plants shall retain their stem and leaf rigidity at all times indicating adequate moisture is being received. Plants shall be watered within the salinity ranges they were grown. The CONTRACTOR must take the necessary precautions to ensure that plant materials receive adequate water during all phases of the contract prior to actual planting. Plants appearing discolored, shriveled, dehydrated, or otherwise stressed shall be rejected.

**12.5.4** All containerized plants shall be planted in a dug hole. The plant shall be removed from the container immediately prior to planting and placed into the hole. The depth of the hole shall be at least six (6) inches below normal ground. A minimum of 8 oz. of pre-hydrated gel shall be added prior to plant installation so that the root ball, not the stems, is in contact with the gel. A pre-hydrating water gel, such as stockosorb, or equivalent, shall be used for all planting units per gel manufacturer specifications. Once the gel is added and plant installed, the distance from the top of the root ball to the sand surface shall be no less than four (4) inches.

For each planting unit, slow release fertilizer shall be added to the gel prior to planting unit installation. A minimum of 2.5 grams of slow release fertilizer shall be included with each plant. The slow release (90-day) pelletized Osmocote or approved equivalent fertilizer shall have an N.P.K. ratio of 18.6.12 with trace elements.

**12.5.5** At the end of each workday, all debris, trays, buckets, etc. must be removed from the working areas.

**12.5.6** The CONTRACTOR's daily quality control report shall document the number of plants delivered and installed, watering methods, and other pertinent information.

## **12.6 Planting Irrigation and Fertilization:**

**12.6.1** The CONTRACTOR will be allowed to water-in (initially irrigate) all newly installed planting units according to a CONTRACTOR prepared and ENGINEER approved irrigation schedule. The CONTRACTOR will be responsible for all aspects of irrigation including compliance with all environmental permitting regulations, requirements and conditions stated in the permits which address maintenance irrigation and installation activities.

**12.6.2** The CONTRACTOR will be responsible for the provision of all irrigation water required under this bid. Freshwater (potable only) shall be provided by the CONTRACTOR and applied to the planting zones using a non-scouring spray applicator. The CONTRACTOR shall make all necessary arrangements with the appropriate local agencies if the use of local hydrants in the area is desired.

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- 12.6.3** The CONTRACTOR will be allowed to maintenance irrigate the installed planting units according to the CONTRACTOR prepared and ENGINEER approved irrigation schedule. The CONTRACTOR will be responsible for all aspects of the maintenance irrigation including compliance with all environmental permitting regulations, requirements and conditions stated in the permits which address maintenance irrigation and installation activities.
- 12.6.4** The application of maintenance fertilization during the 90-day warranty period may be undertaken by the CONTRACTOR at the CONTRACTOR's discretion. The cost of any and all fertilization shall be included in the per planting unit cost in the bid documents. Maintenance fertilization, if employed, will be undertaken in a manner which complies with all environmental permits applicable to the Project site. The CONTRACTOR will be allowed to maintenance fertilize the installed planting units according to the CONTRACTOR prepared and ENGINEER approved fertilization schedule. Whether the CONTRACTOR chooses to maintenance fertilize or not, compliance with all provisions of the Specifications including but not limited to, the survival guaranty and replanting sections of the Specifications, shall be met.
- 12.6.5** The cost of maintenance irrigation and fertilization events anticipated by the CONTRACTOR shall be included in the per planting unit cost in the bid documents.
- 12.7 Planting Survivability:**
- 12.7.1** The CONTRACTOR shall maintain 100% survival for an establishment period of fourteen (14) days after planting during the maintenance period. If replanting is necessary due to death, stress, etc., with the exception of those plants lost due to conditions beyond the control of the CONTRACTOR, the CONTRACTOR is responsible for the replacement of the affected plants within five (5) days following notice of delinquency. Replanting shall be performed by the CONTRACTOR at no cost to the COUNTY. The replacement planting units will be covered under the CONTRACTOR'S warranty bond.
- 12.7.2** The CONTRACTOR shall also be responsible for controlling weeds and prevention of invasive exotic and/or nuisance species encroachment within the planting area for the duration of the contract. At the end of the contract, the CONTRACTOR shall provide the ENGINEER with written instructions for the continued watering, if necessary, and care of the plants.
- 12.7.3** This survival criterion may be waived, at the discretion of the ENGINEER, in areas where it can be documented that plant survival has been adversely affected by unexpected pedestrian traffic, wind erosion, or overwash.

## 12.8 Planting Warranty Period:

- 12.8.1** The CONTRACTOR shall obtain a warranty bond to cover all costs associated with dune plants for a warranty period of 90 days. During this warranty period, for each of the planting areas a minimum survival rate of 80% of all planting units installed for all species shall be met. Within planting areas of questionable growth/success results, the ENGINEER or a representative reserve the right to inspect root penetration for possible replant by the CONTRACTOR. Thirty (30) plants within each questionable planting area may be randomly selected to be dug up for root growth inspection. Eighty (80%) percent of selected plants shall have achieved root penetration of 9” or greater for both grass species. The planting survival shall be deemed a success if both individual planting unit survival and root penetration are met. The CONTRACTOR shall provide a schedule of planting dates within seven (7) days of planting in order to determine warranty period.
- 12.8.2** If any of the above success criteria are not met, as determined by the ENGINEER, the CONTRACTOR shall replant non confirming units with viable (and within Specifications) planting units of the same type in all areas considered to be deficient according to the planting unit success criteria. The CONTRACTOR will provide continuing service to the COUNTY for the duration of the 90 day warranty period. The replanting of planting units will be the sole responsibility of the CONTRACTOR and will be completed at no additional cost to the COUNTY. Replanting shall not be conducted during sea turtle nesting season, and the CONTRACTOR may be required to replant the following Fall, depending on timing of replantings. All original maintenance, warranty, and survival Specifications and requirements shall apply to replanted planting units.
- 12.8.3** The success criterion during the warranty period may be waived, at the discretion of the ENGINEER, in areas where it can be documented that plant survival has been adversely affected by unexpected pedestrian traffic, wind erosion or overwash.

## TP-13 PAYMENT FOR MOBILIZATION/DEMobilIZATION

- 13.1 General:** The Work specified in this section consists of the preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of temporary offices, buildings, utilities, traffic control, safety equipment, first aid supplies, sanitary, and other facilities, as required by these Specifications, the special provisions, and applicable laws and regulations. The costs of bonds and any required insurance, and any other pre-construction expense necessary for the start of the Work, excluding the cost of construction materials, shall also be included in this section.

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- 13.2 Mobilization:** All costs connected with the mobilization and demobilization of all the CONTRACTOR's equipment and personnel will be paid for at the contract lump sum price for this item. Sixty percent (60%) of the lump sum price will be paid to the CONTRACTOR after the placement of a quantity of, at minimum, five-thousand (5,000) cubic yards (seven-thousand five-hundred (7,500) tons) of material on the beach and placed within the beach fill template for a minimum of four (4) days. The remaining forty percent (40%) will be included in the final payment for Work under this contract. Payments for mobilization and all payment except for the final payment will be subject to a retainage until final acceptance of the project by the COUNTY per the COUNTY's Standard Terms and Conditions.
- 13.3 Cost Review:** In the event that the cost for the mobilization and demobilization does not bear a reasonable relation to the cost of the entire Work in this contract, then the ENGINEER may require the CONTRACTOR to produce cost data to justify this portion of the bid. The ENGINEER will utilize previously bid projects of a similar nature as a guideline to evaluate the mobilization and demobilization costs. Failure to justify such price to the satisfaction of the ENGINEER will result in payment of mobilization costs, as estimated by the ENGINEER at the completion of mobilization, and payment of the remainder of this item in the final payment under this contract.

#### **TP-14 PAYMENT FOR ENVIRONMENTAL COMPLIANCE – BEACH FILL SITE**

Payment for labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with environmental compliance at the beach fill site shall be paid for at the lump sum price on the Bid Schedule for "Environmental Compliance – Beach Fill Site". Progress payments will be made based upon the percent of beach fill work completed and accepted during each month. All costs associated with environmental compliance of the Work shall be included in the lump sum price for Environmental Compliance. Acceptance of the Work will be determined from review by the ENGINEER of monthly activities and CONTRACTOR reporting.

#### **TP-15 PAYMENT FOR SUPPLY/DELIVER/PLACE SAND**

- 15.1 General:** Other than costs for mobilization, demobilization, environmental compliance, dune vegetation, site restoration and grading, and pre-construction and as-built surveying, all other costs associated with the beach nourishment project including but not limited to, debris removal, site cleanup and preparation, laboratory testing, site repairs, maintenance of traffic, sand transport, staging, and placement shall be included in the contract unit price per cubic yard on the bid form. The unit price shall also include all other items of overhead, profit, labor, material, and any other costs incidental to performing the Work.
- 15.2 Basis of Payment:** The basis of the payment will be the weight of sand delivered and placed on the beach within the design template, and the location and volume of placement will be verified by the pre- and post-placement surveys. Reconciliation of truck tickets created at the mine and collected at the beach stockpile is essential for accurate payments. The CONTRACTOR shall collect, log, and furnish PDF

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copies of all truck tickets at the project site prior to placement on the beach in accordance with the approved methodology statement described in TP-9. COUNTY inspectors or ENGINEER representative's will collect a copy of truck tickets at the beach delivery site. Sand removed from the beach and placed in the berm will not count towards the pay volume (tonnage). The CONTRACTOR shall not place or manipulate the sand to change its unit weight or volume prior to placement surveys. The CONTRACTOR's methodology to achieve desired fill volumes shall be presented at the pre-construction conference.

- 15.3 Requests for Payment:** The CONTRACTOR may request payment for beach and dune fill placement on a monthly basis, and at completion of the project, upon final acceptance by the ENGINEER of the completed beach nourishment sections. The CONTRACTOR will be eligible for progress payments when fill sections have been filled to a minimum of 95% of the total beach fill section volume. The beach fill volume for a section is the volume to completely fill the approximate 100 foot section along the project baseline to the construction template requirements shown on the Plans. The CONTRACTOR may conduct surveys for payment purposes after completion and dressing of five (5) adjacent fill sections. For all payments, the beach and dune fill shall be graded, dressed, and level between profiles, and approved for payment by the ENGINEER. The CONTRACTOR shall submit to the COUNTY and ENGINEER for review on a monthly basis, an Application for Progress Payment filled out and signed by CONTRACTOR covering the Work completed as is required by the Contract Documents and accompanied by such supporting documentation as is required by the Contract Documents and also as the ENGINEER may reasonably require. All payments will be subject to retainage per the COUNTY's Standard Terms and Conditions until final acceptance of the project.
- 15.4 Fill Tolerances:** Payment shall be for beach and dune fill placed within the construction template with a construction berm elevation as shown on the Plans. Payment shall also be provided for fill placed in the upper 0.5 feet beach berm tolerance. The minimum vertical tolerance below the template is 0.5 feet and shall be achieved everywhere within areas filled and for which payment has been requested. Notwithstanding these fill placement tolerances, beach and dune fill placement must at least meet the 0.5 foot tolerance below the construction template everywhere on the constructed beach berm from the north project limit to the south project limit shown on the Plans, and the minimum requirement of 95% of the fill volume for each acceptance section must be met. The CONTRACTOR shall fill any deficient section of beach to, at minimum, meet the lower template tolerance everywhere on the constructed beach berm, and to a minimum of 95% of the fill volume for the acceptance section. The COUNTY will withhold payment for acceptance sections that do not meet the minimum required beach and dune fill requirements until the required fill placement and dressing has been completed by the CONTRACTOR.

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- 15.5 Computation of Payment Volumes:** Computation of pay tonnage will be based on truck tickets collected for sand placed within the acceptance sections. Computations of volumes shall be made by the CONTRACTOR and ENGINEER using survey data provided by the CONTRACTOR to verify tonnage placed and to support regulatory requirements. Quantities of beach fill satisfactorily placed and meeting beach fill design template requirements and volumes will be computed for payment by use of the average end-area method. The distance between each profile line to be used for fill computation is the perpendicular distance between each profile line along the project baseline shown in the Plans. The CONTRACTOR shall account for this method of fill volume calculation when estimating the bid prices. Payment will be provided for fill contained within the payment profile construction templates, as shown in the Plans. No payment will be provided for fill placed above the tolerance, or outside of the template, except as indicated below. The CONTRACTOR's bid shall account for any costs associated with the payment profile requirements, the azimuth of profile lines, the profile measurement technique, survey requirements, potential loss of sand before section survey and acceptance, and the payment volume calculation methodology.

#### **TP-16 PAYMENT FOR DUNE VEGETATIVE PLANTINGS**

- 16.1 General:** Payment for mobilization, demobilization, labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with dune vegetation, including but not limited supplying, transporting, and installation of plants, and monitoring of planting success during the maintenance and warranty periods, shall be included in the lump sum price for Dune Vegetative Plantings. The cost shall also include overhead, profit, labor, material and any other costs incident to installing dune vegetation.
- 16.2 Basis for Payment of Dune Vegetation:** Payment for dune vegetation will be based upon the number of plants installed within the required limits of the layout area. To be eligible for payment, the CONTRACTOR shall document planting dates, quantities supplied, quantities installed, species type, survival rates, and conduct post-installation surveys of the perimeter of dune plantings. The planting shall achieve a 100% survival rate after the fourteen (14) day maintenance period and 80% planting survival rate after the 90-day warranty period from the date of initial planting. One hundred percent (100%) of the unit price for Dune Vegetative Plantings shall be paid upon successful demonstration of the survival rate after the fourteen (14) day maintenance period. Any defective work or plants that do not meet the 90-day warranty period covered by the warranty bond will be replaced at no cost to the COUNTY. Replanting shall not be conducted during sea turtle nesting season. All original maintenance, warranty, and survival Specifications and requirements shall apply to replanted planting units. The Dune Vegetative Plantings quantities shall be determined based on quantities delivered to the project site and verified by post-installation surveys conducted by the CONTRACTOR.

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- 16.3 Progress Payments:** Monthly progress payments shall be based on the number of plants installed within a completed acceptance section, which have been approved by the ENGINEER. The CONTRACTOR will be eligible for the initial progress payment when a minimum of five (5) acceptance sections have been completed and approved by the ENGINEER. Progress payments will not be made for partially completed acceptance sections. It should be noted that due to the dune fill placement areas and dimensions not all acceptance sections will require dune vegetation.

#### **TP-17 PAYMENT FOR SITE RESTORATION AND GRADING**

Payment for mobilization, demobilization, labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with site restoration, including tilling and scarp leveling of the restored beach, shall be included in the lump sum price for Site Restoration & Grading. No partial payments will be made for this Work. Acceptance of the Work shall be determined by visual inspection performed by the ENGINEER or COUNTY.

#### **TP-18 PAYMENT FOR PRE-PLACEMENT AND POST-PLACEMENT SURVEYS**

Payment for mobilization, demobilization, labor, materials, equipment, fuel, oil, and all other appropriate costs in connection with the pre- and post-placement surveys shall be included in the lump sum price for Pre-Placement & Post-Placement Surveys. Progress payments will be made based upon the percent of beach fill work completed and accepted during each month. Acceptance of the Work will be determined from review by the ENGINEER of monthly activities and CONTRACTOR reporting.

#### **TP-19 RIGHT TO REFUSE RECOMMENDATION FOR PAYMENT**

The ENGINEER may refuse to recommend the whole or any part of any payment if, in their opinion, such representations to the COUNTY would be inaccurate. The ENGINEER may also refuse to recommend any payment because of subsequently discovered evidence or the results of subsequent observations, measurements, or tests, nullify any such payment previously recommended to such extent as may be necessary in the ENGINEER's opinion to protect the COUNTY from loss because:

- a) The work is defective, inconsistent with the Plans and Specifications, or completed Work not accepted by the ENGINEER has been damaged requiring correction or replacement;
- b) Written claims have been made against the COUNTY or liens have been filed in connection with the Work;
- c) The contract price has been reduced because of modifications;
- d) The COUNTY has been required to correct defective work or complete the Work;
- e) The CONTRACTOR has not performed the Work in accordance with the contract documents;



- f) The CONTRACTOR has failed to make payment to subcontractors, for labor, materials, or equipment;
- g) The CONTRACTOR is claiming additional placement of fill volume for payment beyond that measured and calculated using the procedure established in the contract documents for computation of fill quantities for payment purposes;
- h) The CONTRACTOR is claiming additional payment for any reason not previously agreed to by the COUNTY; or
- i) The CONTRACTOR has not repaired damages caused by the CONTRACTOR's operation to the satisfaction of the COUNTY and/or affected private property owner.

## **TP-20 FINAL ACCEPTANCE AND PAYMENT**

- 20.1 Beach Escarpment Elimination before Final Payment:** At the completion of the entire fill placement and beach tilling, and prior to final payment, the CONTRACTOR will inspect the entire beach project area for the formation of sand escarpments. Any escarpments in the project area, independent of the escarpment height or the length, will be leveled or smoothed to eliminate the escarpment by the CONTRACTOR. The ENGINEER, upon request by the CONTRACTOR, will observe the beach after leveling of escarpments.
- 20.2 Road and Infrastructure Repair before Final Payment:** Roads, beach access, and infrastructure impacted by the CONTRACTOR's operation shall be repaired to a level acceptable to the COUNTY prior to final payment. Mobilization/Demobilization operations may cause impacts needing repairs, unless infrastructure is protected during construction.
- 20.3 Engineer's Recommendation for Final Payment:** The ENGINEER's recommendation of final payment for the project will constitute a representation by the ENGINEER to the COUNTY that, in the ENGINEER's opinion, the conditions precedent to the CONTRACTOR's being entitled to final payment as set forth in the contract documents have been fulfilled.
- 20.4 Completion of Work:** Upon written notice from the CONTRACTOR that the Work is substantially complete, the ENGINEER or COUNTY will observe the Work within seven (7) days of the receipt of the written notice from the CONTRACTOR and, if required, will notify the CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. All incomplete or defective work items will be placed on the Final Punch List. The CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.
- 20.5 Application for Final Payment:** After the CONTRACTOR has completed all such corrections to the satisfaction of the ENGINEER and COUNTY, and delivered any required quality control reports, water quality reports, data requested by the

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ENGINEER, guarantees, bonds, certificates of inspection, marked-up record documents, and all other documents as required by the contract documents or ENGINEER, and after the ENGINEER has indicated that the Work is acceptable to the ENGINEER and COUNTY, the CONTRACTOR may make application for final payment. The final application for payment shall be accompanied by all documentation called for in the contract documents and such other data and schedules as the ENGINEER may reasonably require, together with complete and legally effective releases or waivers (satisfactory to COUNTY) of all liens arising out of or filed in connection with the Work. In lieu thereof and as approved by the COUNTY, the CONTRACTOR may furnish the following set of documents: 1) receipts or releases in full; 2) an affidavit of the CONTRACTOR providing warranties, covenants, and representations that the releases and receipts include all labor, services, material and equipment bills, and other indebtedness connected with the Work for which the COUNTY or the COUNTY's property might in any way be responsible; 3) proof that all charges have been paid or otherwise satisfied. If any subcontractor, manufacturer, fabricator, supplier, or distributor fails to furnish a release or receipt in full, the CONTRACTOR may furnish a bond or other collateral satisfactory to the COUNTY to indemnify the COUNTY against any lien.

- 20.6 Recommendation for Final Payment:** If, on the basis of the ENGINEER's observation of the Work during construction and post-construction, and the ENGINEER's review of the final application for payment and accompanying documentation the ENGINEER is satisfied that the Work has been completed and the CONTRACTOR has fulfilled all of their obligations under the contract documents, the ENGINEER will, within seven (7) days after receipt of the final application for payment, indicate in writing their recommendation of payment and present the application to the COUNTY. If the application and accompanying documentation are acceptable as to form and substance, the COUNTY shall, within thirty (30) days after receipt of the ENGINEER's recommendation for final payment, pay the CONTRACTOR the amount recommended by the ENGINEER or other such amounts deemed appropriate by the COUNTY in consultation with the ENGINEER. If the ENGINEER is not satisfied that the Work is completed, the ENGINEER will return the application to the CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case the CONTRACTOR shall make the necessary corrections and resubmit the application.
- 20.7 Access to the Work:** The COUNTY shall have the right to exclude the CONTRACTOR from the Work after the date of completion, but the COUNTY shall allow the CONTRACTOR reasonable access to complete or correct items as allowed by project permits.
- 20.8 Contractor's Obligation to Complete Work:** The CONTRACTOR's obligation to perform and complete the Work in accordance with the contract documents shall be absolute. Neither recommendation of any payment by the ENGINEER, nor the issuance of any statement of certificate of completion or substantial completion, nor any payment by the COUNTY to the CONTRACTOR under the contract documents, nor any use of or occupancy of the Work of any part thereof by the

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COUNTY, nor any act of acceptance by the ENGINEER nor any failure to do so, nor the issuance of a notice of acceptability by the ENGINEER, nor any correction of defective work by the COUNTY shall constitute an acceptance of Work not in accordance with the contract documents or a release of the CONTRACTOR's obligation to perform the Work in accordance with the contract documents.

**20.9 Making and Acceptance of Final Payment:** The making and acceptance of final payment shall constitute:

a) A waiver of all claims by the COUNTY against the CONTRACTOR, except claims arising from unsettled liens, from defective work appearing after project completion, or from failure to comply with the contract documents or the terms of any guarantees specified therein; however, final payment shall not constitute a waiver by the COUNTY of any rights in respect to the CONTRACTOR's continuing obligations under the contract documents.

b) A waiver of all claims by the CONTRACTOR against the COUNTY other than those previously made in writing and still unsettled.

**20.10 Defective Work:**

**20.10.1 One Year Correction Period:** If within one (1) year after the date of completion or such longer period of time as may be prescribed by law or by the terms of any applicable guarantee required by the contract documents or by any specific provision of the contract documents, any Work is found to be defective, the CONTRACTOR shall promptly, without cost to the COUNTY and in accordance with the COUNTY's written instructions, either correct such defective work or, if it has been rejected by the COUNTY, remove it from the site and replace it with non-defective work. If the CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk or loss or damage, the COUNTY may have the defective work corrected or the rejected work removed and replaced. All costs associated with correction of defective work including compensation for additional professional services, shall be paid by the CONTRACTOR. The CONTRACTOR will not be held responsible for erosion of the beach fill after acceptance of completed fill segments by the ENGINEER. However, if unsuitable material including but not limited to rocks, debris, or construction materials placed as a result of the CONTRACTOR's operations are found within one (1) year of the project completion, the CONTRACTOR will be held responsible to correct this at no further cost to the COUNTY.

**20.10.2 Beach Erosion:** The CONTRACTOR will not be responsible for erosion of the accepted beach fill sections after final acceptance of fill sections by the ENGINEER. The CONTRACTOR shall remain responsible for beach fill sections until they are accepted for payment by the ENGINEER. The CONTRACTOR shall be responsible for the placement of material that is

not beach compatible or does not meet State of Florida standards for beach material.

**TP-21 SCHEDULE OF SUBMITTALS**

Submittals required by the Technical Provisions for Upland Sand Sources are provided in Table 5.

**Table 5: Schedule of Submittals for Technical Provisions for Upland Sand Source**

<b>SPEC REFERENCE</b>	<b>DELIVERABLE</b>	<b>SUBMITTAL</b>
<b>TP - 2(a-h)</b>	a) Bidder’s proposed method of construction and overall schedule to demonstrate understanding of the Work and completion within the Contract time.	Submitted with Bid Documents under cover labeled "BIDDER QUALIFICATIONS"
	b) The additional equipment proposed to complete this project, to include bulldozers, loaders, excavators, etc.	
	c) Qualifications and prior experience of bidder’s key personnel, to include proposed project manager, superintendent, site engineer, etc.	
	d) Experience with beach and dune nourishment via truck hauling operations.	
	e) Description of last project of this nature that the bidder completed.	
	f) References for at least three (3) similar beach nourishment works within the previous five (5) years.	
<b>TP - 4</b>	Notification of Pre-/Post-Placement Surveys - Beach and Dune Fill	At least three (3) working days advance notice to the ENGINEER prior to conducting surveys
<b>TP - 4.2</b>	Pre-Placement Surveys - Beach and Dune Fill	Conduct at least seven (7) days prior to the commencement of beach and dune fill placement at any particular section
<b>TP - 4.2</b>	Post-Placement Surveys - Beach and Dune Fill	Conduct within seven (7) days upon the completion of fill placement and grading within an acceptance section; submit at least seven (7) days prior to submittal of an Application for Progress Payment and the Final Application for Payment
<b>TP - 5</b>	As-Built Surveys - Dune Vegetation	Submit at least seven (7) days prior to submittal of an Application for Progress Payment and the Final Application for Payment.
<b>TP – 9.19</b>	Daily Quality Control Reports	Submitted by 12:00 PM the following day from the Notice to Proceed to Final Acceptance
<b>TP – 12.3</b>	Plant Delivery	Submit notice three (3) days prior to delivery

**END OF PART II - TECHNICAL PROVISIONS UPLAND SAND SOURCES**

## **PART III – ENVIRONMENTAL PROVISIONS**

### **EP-1 SCOPE**

The Environmental Provisions of the Contract Documents addresses CONTRACTOR responsibilities for the prevention of pollution and other environmental damage as the result of construction operations under the Contract Documents, including those measures set forth in the General Conditions and Technical Provisions. For the purpose of this specification, pollution and other environmental damages are defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; degrade the utility of the environment for aesthetic, cultural, and/or historical purposes; or unnecessarily damage/destroy environmental resources. The control of pollution and damage requires consideration of air, water, land, and the marine environment and includes management of construction activities, visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants.

The CONTRACTOR's cost for fulfilling the remainder of these specifications shall be included in the lump sum price for Environmental Compliance.

### **EP-2 QUALITY CONTROL**

The CONTRACTOR shall establish and maintain quality control for environmental protection for all items set forth herein. The CONTRACTOR shall record on Daily Contractor Quality Control Reports any problems in complying with laws, regulations, and ordinances, as well as project permits and corrective action taken.

At least seven (7) days prior to the pre-construction conference, the CONTRACTOR shall provide to the ENGINEER an Environmental Protection Plan. The plan shall outline the means and methods the CONTRACTOR will use to minimize impacts to the environment and comply with permit conditions and monitoring requirements. Submission of the plan does not constitute an endorsement on the part of the ENGINEER.

### **EP-3 PERMITS**

The CONTRACTOR shall comply with all requirements under the terms and conditions set out in all permits applicable to the Work. The COUNTY has received the appropriate permits and approvals from the Florida Department of Environmental Protection (FDEP), the U.S. Army Corps of Engineers (USACE), and the United States Fish and Wildlife Service (USFWS). The FDEP and USACE permits are included in Appendices A and B, respectively, and are part of the Contract Documents. Specifically, the CONTRACTOR will familiarize themselves with general and specific conditions contained in the FDEP and USACE permits and approvals. Any other licenses, easements, or approvals required, including, but not limited to, those which may be required by the COUNTY or local municipalities, shall be secured and paid for by the CONTRACTOR.

#### **EP-4 SUBCONTRACTORS**

Assurance of compliance with all sections of the Contract Documents by subcontractors shall be the responsibility of the CONTRACTOR, including compliance with all environmental and permit requirements.

#### **EP-5 NOTIFICATION**

The ENGINEER will notify the CONTRACTOR of any known non-compliance with the aforementioned Federal, State, or Local laws or regulations, permits, and other elements of the CONTRACTOR'S Environmental Protection Plan. Nevertheless, it remains the sole responsibility of the CONTRACTOR to comply with all applicable Federal, State, and Local laws and regulations, permits, and all elements of the Environmental Protection Plan. If there is known non-compliance, the ENGINEER will determine what action will be taken and such response will be transmitted to the CONTRACTOR by the ENGINEER, which may include stopping construction of the project until the CONTRACTOR complies with the Environmental Protection Plan. It shall also be the CONTRACTOR'S responsibility that all subcontractors comply with all applicable laws, regulations, permit requirements, and all elements of the Environmental Protection Plan.

#### **EP-6 PROTECTION OF ENVIRONMENTAL RESOURCES**

The environmental resources within the project boundaries and those affected outside the limits of permanent Work under this contract shall be protected during the entire period of this contract. To meet this requirement, the CONTRACTOR shall confine all activities to areas defined by the Plans and Specifications. The CONTRACTOR shall, at all times, maintain adequate stakes or other markers required to delineate and layout work areas, access areas and corridors, protected land or environmental resources, no entrance areas, and sensitive areas to ensure the protection of resources. The disturbance of lands and waters that are outside the limits of construction as marked on the Plans is prohibited, except as found necessary and approved by the ENGINEER. The CONTRACTOR shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials into streams, lakes, marshlands, bays, or the Atlantic Ocean. The CONTRACTOR shall also conduct his work in such manner as to prevent the placement of any fill material and the discharge of project-related discharges of turbid effluent and runoff into streams, lakes, marshlands, bays, or the Atlantic Ocean. Details regarding environmental protection shall be as stated in the following subparagraphs.

- 6.1 Protection of Land Resources:** Prior to the beginning of any construction, and at the request of the CONTRACTOR, the ENGINEER shall identify land resources (if any) to be preserved within the CONTRACTOR'S work area. Unless indicated in the Plans or directed by the ENGINEER, the CONTRACTOR shall not remove, cut, deface, injure, or destroy land resources including sand dunes, dune vegetation, trees, shrubs, vines, grasses, topsoil, and landforms without direct written permission from the ENGINEER. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized by the ENGINEER. Where such special emergency use is allowed, the CONTRACTOR shall provide effective protection for land and vegetation resources at all times as defined in the following paragraphs. The

- CONTRACTOR shall be responsible for the replacement of any damaged or destroyed vegetation outside the fill area and the restoration of any water bottoms and land forms to the satisfaction of the ENGINEER. Failure to replace damaged or destroyed vegetation or failure to restore damaged water bottoms and land forms outside the fill area by the CONTRACTOR may result in replacement by the COUNTY; the cost of replacement may be deducted from any money due, or to become due, to the CONTRACTOR or may be recovered under their bond
- 6.2 Work Area Limits:** Isolated areas (if any) within the work area that are to be saved and protected shall also be identified by the ENGINEER and marked or fenced by the CONTRACTOR. All survey monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be made visible by lighting. The CONTRACTOR shall convey to all subcontractors and personnel the purpose of marking and/or protection for all necessary objects.
- 6.3 Protection of Landscape:** Trees, shrubs, vines, grasses, land forms, and other landscape features within the work area shall be preserved unless directed by the ENGINEER, and shall be clearly delineated by the CONTRACTOR, by marking, fencing, or wrapping with boards, or any other technique approved by the ENGINEER. Unless otherwise approved by the ENGINEER, no trees, shrubs, vines, grasses, or other vegetation outside the Project area will be harmed or destroyed by the CONTRACTOR for any purpose.
- 6.4 Temporary Excavation:** Temporary excavation shall not cause direct or indirect damage to adjacent areas, landscapes, structures, etc.
- 6.5 Retardation and Control of Runoff:** Runoff from the construction site shall be controlled by the CONTRACTOR by the construction, maintenance, and operation of temporary retention dikes, use of turbidity control measures such as silt curtains, and active management of all effluent, discharge, and runoff.
- 6.6 Disposal of Solid Wastes:** Solid wastes (including cleared debris) and rubbish resulting from the CONTRACTOR'S activities shall be picked up daily and placed in containers. These containers shall be removed from the beach area and emptied on a regular schedule. The CONTRACTOR shall empty containers when three-quarters full and will avoid overflow conditions. The CONTRACTOR shall not burn any rubbish at the project site. Disposal of rubbish shall be at an approved off-site location and in a manner that complies with State and local laws and regulations. The CONTRACTOR shall be solely responsible for all costs associated with the collection, removal, and disposal of rubbish. All handling and disposal shall be conducted to prevent contamination. No steel, cables, wire, pipe, drums, or any other solid waste or debris shall be permitted to be disposed overboard into the waters of the Atlantic Ocean or any other water body. Disposal of solid wastes or debris in the Atlantic Ocean is a violation of State and Federal laws. If such debris is found, the debris shall be removed by the CONTRACTOR at his own cost. Failure to remove debris by the CONTRACTOR may

- result in removal by the COUNTY. The cost of removal may be deducted from any money due, or to become due, to the CONTRACTOR or may be recovered under their bond.
- 6.7 Disposal of Chemical Waste:** Chemical waste shall be stored in corrosion resistant containers, removed from the work area, and disposed of in accordance with Federal, State, and Local regulations. The CONTRACTOR shall perform all maintenance of equipment, including but not limited to refueling, filter changes, and replacement of hydraulic lines in a manner so as not to contaminate soils, ground or surface waters, or any other natural resources.
- 6.8 Disposal of Discarded Materials:** Discarded materials other than those which can be included in the solid waste category will be handled by the CONTRACTOR as directed by the COUNTY.
- 6.9 Use of Equipment:** The use of any wheeled or tracked vehicles outside the fill areas, as marked on the Plans, is prohibited. Any damage to wetland vegetation or change in the existing elevation (e.g., ruts, tracks, inappropriate excavation) greater than six inches in the beach, dune, construction staging areas, construction accesses, etc. occurring on the site or adjacent property, as a result of construction operations, shall be repaired by the CONTRACTOR at no additional expense to the COUNTY. If ruts persist on the beach for longer than three (3) days, a mandatory on-site meeting will occur between the COUNTY, the ENGINEER, and the CONTRACTOR to discuss the condition of ruts on the beach. If the CONTRACTOR has not leveled the ruts 24 hours after the meeting, all construction operations must cease until remedied and leveled.
- 6.10 Siltation / Turbidity Control:** The CONTRACTOR shall conduct Work in a manner that will not cause damaging siltation or pollution of any water bodies. All applicable Federal and State regulations of agencies and statutes relating to the prevention and abatement of pollution shall be complied with in the performance of the Contract.
- 6.11 Protection of Water, Fish, and Wildlife Resources:** The CONTRACTOR shall keep construction activities under continued surveillance, management, and control to minimize interference with, disturbance to, and damage of water, fish, wildlife, and hard-bottom resources and habitats. Species that require specific consideration, as well as measures for their protection, shall be addressed in the CONTRACTOR'S Environmental Protection Plan prior to the beginning of project construction. The CONTRACTOR shall comply with all conditions of the Endangered Species Act of 1973. The CONTRACTOR must comply with all Terms and Conditions of the FDEP permit, USACE permit, USFWS's Statewide Programmatic Biological Opinion (SPBO) dated March 13, 2015, USFWS's Programmatic Piping Plover Biological Opinion dated May 22, 2013, and the National Marine Fisheries Service (NOAA Fisheries) South Atlantic Regional Biological Opinion (SARBO) dated March 27, 2020. The SARBO is provided at: <https://www.fisheries.noaa.gov/content/endangered-species-act-section-7-biological-opinions-southeast>.



**6.11.1 Sea Turtle Protection:** Endangered and threatened species of sea turtles are known to occur, particularly during and around the time of their nesting season (March 1 through October 31), in the Project vicinity. The CONTRACTOR shall comply with all conditions of the Endangered Species Act of 1973. There are civil and criminal penalties for harming, harassing or killing sea turtles. The CONTRACTOR must comply with all Terms and Conditions of the FDEP permit, USACE permit, USFWS's Statewide Programmatic Biological Opinion dated March 13, 2015, the National Marine Fisheries Service (NOAA Fisheries) South Atlantic Regional Biological Opinion (SARBO) dated March 27, 2020, and NMFS's Sea Turtle and Construction Conditions dated March 23, 2006. Construction on nesting beaches in south Florida is prohibited during the main part of marine turtle nesting season between May 1st and October 31st. The CONTRACTOR shall instruct all personnel and subcontractors relative to the sea turtle protection regulations. The CONTRACTOR shall be liable for any non-compliance with the conditions of the permits, easements and terms of this contract attributable to their personnel or subcontractors. During the placement of fill material, if Work is done during the sea turtle nesting season (March 1 to November 30); (a) the ENGINEER's representative shall make daily visual inspections to check for the existence of nests, mark these nests, and subsequently avoid or relocate the nests as required by the permits, and (b) a meeting will be arranged by the ENGINEER between representatives of the CONTRACTOR, the COUNTY, the ENGINEER, the USFWS, FDEP, USACE, and the permitted person responsible for egg relocation at least 15 days prior to the start of construction and 30 days prior to the start of early sea turtle nesting season (by March 1); the ENGINEER shall notify all participants of the meeting at least 10 days prior to this meeting.

**6.11.1.1 Nesting Activity:** Monitoring sea turtle nesting activity shall be performed by the ENGINEER's representative during the nesting season. Any signs of turtle nesting activity observed by the CONTRACTOR shall be reported immediately to the ENGINEER, COUNTY, and the ENGINEER's representative. No construction activity shall occur in the vicinity of nesting turtles, turtle nests or hatching turtles until (a) the nests have been satisfactorily relocated or (b) the nesting or hatching turtles have been protected by the ENGINEER's representative. The CONTRACTOR shall instruct all personnel associated with the construction of the project, including subcontractors, about the presence of sea turtles and sea turtle nests in the area, stressing the need to avoid disturbance of nesting sea turtles, nests or hatchlings. If the project proceeds later than March 1, a daily marine turtle nesting survey will be required and performed by the ENGINEER's representative to identify and possibly relocate any nests in the project area. Construction activity may not commence until the completion of the marine turtle survey each day. Nests may be present on the beach outside of the work area at the time of construction. The CONTRACTOR shall not allow equipment on the beach outside of the designated work area.

- 6.11.1.2 Reporting:** All sea turtle sightings during construction must also be reported immediately. Any incidental takes or observations of dead, injured, or sick sea turtles shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division at (727-824-5312), the COUNTY (772-226-1648), the Sea Turtle Stranding and Salvage Network (STSSN) (seaturtlestranding@myfwc.com), and the USFWS's South Florida Ecological Services office in Vero Beach, Florida (772-562-3909), and the ENGINEER.
- 6.11.1.3 Compaction Testing:** The COUNTY shall perform compaction testing in accordance with FDEP permit conditions and contract documents.
- 6.11.1.4 Escarpment Formations:** The ENGINEER's representative shall monitor escarpment formations after final acceptance of the Work according to standard FDEP permit conditions. Prior to final acceptance of the Work, the CONTRACTOR shall be responsible for grading escarpments along the project shoreline in accordance with the FDEP permit conditions and the contract documents.
- 6.11.1.5 Artificial Lighting:** No temporary lighting of the construction area is authorized at any time during marine turtle nesting season (March 1 to October 31).
- 6.11.2 Hardbottom Protection:** Nearshore hardbottom communities exist immediately seaward of beaches in Indian River County including within the Project area. The CONTRACTOR shall place all fill above MHW, or the CONTRACTOR will be responsible for any and all fines, or legal expenses, or hardbottom repairs, mitigation, or monitoring requirements incurred by the CONTRACTOR, the COUNTY and the ENGINEER in the event that the CONTRACTOR has damaged hardbottom communities in the Project area.
- 6.12 Protection of Commercial Fisheries:** The CONTRACTOR shall note that bays, rivers, and water bodies in the vicinity of the project contain commercial fishery resources. The CONTRACTOR shall conduct all aspects of its operations to avoid any and all impacts to these resources.
- 6.13 Protection of Air Resources:** The CONTRACTOR shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes, and work operated or performed by the CONTRACTOR in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State and all Federal emission and performance laws and standards.
- 6.14 Dispensing of Fuel:** Secondary containment, which is capable of holding at minimum 110% of the tank contents, shall be provided by the CONTRACTOR for each fuel storage tank. Fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at the corners right below the bib. The edges of the pans shall

have an eight (8)-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the CONTRACTOR shall immediately contain the spill and contact the ENGINEER and the appropriate local authorities. The CONTRACTOR shall be solely responsible for any fines, penalties, or other legal activities related to fuel spills.

- 6.15 Temporary Sanitary Facility:** The CONTRACTOR shall furnish and maintain chemical toilets for use by its employees, the COUNTY, and ENGINEER on the project site. Chemical toilets shall be cleaned on a regular basis to ensure that odor does not become a nuisance. The CONTRACTOR shall be responsible to coordinate, maintain, and monitor a cleaning schedule that is appropriate for the number of CONTRACTOR personnel on site.
- 6.16 Storage of Lubricants:** All lubricants and other potential liquid pollutants shall be stored in sealed, non-corrosive containers. Individual containers shall be stored in metal pans with borders banded up and welded at the corners right below the bibb. Pans shall be deep enough to prevent contamination of the ground. Pans shall be kept clean of all spillage or leakage.

## **EP-7 PROTECTION OF MIGRATORY AND OTHER PROTECTED BIRDS**

The CONTRACTOR must comply with all Terms and Conditions of the USFWS Programmatic Piping Plover Biological Opinion (P<sup>3</sup>BO) for piping plovers and red knots, dated May 22, 2013.

- 7.1** Certain bird species are protected by the U.S. Fish and Wildlife Service and the Florida Department of Environmental Protection. Protected bird species most likely to be encountered include, but are not limited to, piping plover, snowy plover, least terns, brown pelicans, and red knot. The CONTRACTOR is invited to employ personnel familiar with protected birds to allow for easy identification of birds encountered during the execution of Work under this Contract.
- 7.2** The CONTRACTOR shall patrol daily beaches and dunes to identify any nesting birds between April 1<sup>st</sup> and September 1<sup>st</sup> throughout the period of construction. The CONTRACTOR shall especially patrol unvegetated or sparsely vegetated dunes and construction accesses, which are prime nesting habitat. The CONTRACTOR should note that created dune are premium nesting habitats; consequently, increased patrols of created dune habitat may be required to preclude the initiation of nesting on these areas during grading and shaping, as-built surveys, data processing, review and acceptance and sand fence installation. Such patrols shall be conducted continuously from April 1<sup>st</sup> through September 1<sup>st</sup> throughout the period of construction, or until all Work (including grading and shaping, installation of dune vegetation, and access activities) is completed for acceptance segments. In the event that the CONTRACTOR discovers any evidence of nests or eggs of any protected bird species, the CONTRACTOR shall

immediately cease Work in the immediate vicinity of the nest and shall immediately notify the ENGINEER.

- 7.3** The CONTRACTOR shall include a description of daily patrols (personnel, locations, time), patrol results (any bird observations, species observed, location, behavior, nests found), and any actions taken as a result of such patrols or observations in the CONTRACTOR's daily quality control report (Appendix C).

#### **EP-8 POST-CONSTRUCTION CLEANUP**

The CONTRACTOR shall clean-up any area used for construction as stated in the Contract Documents.

#### **EP-9 RESTORATION OF LANDSCAPE DAMAGE**

The CONTRACTOR shall restore all landscape features, land resources, water resources, and fish and wildlife resources damaged or destroyed during construction operations. Such restoration shall be in accordance with a Plan submitted for approval by the ENGINEER. This Work shall be accomplished at the CONTRACTOR's expense. Final payment to the CONTRACTOR shall not occur until the ENGINEER is satisfied with the CONTRACTOR's effort to restore landscape or any other damage caused by the CONTRACTOR or his subcontractors.

#### **EP-10 MAINTENANCE OF POLLUTION CONTROL FACILITIES**

The CONTRACTOR shall maintain constructed facilities and portable pollution control devices for the duration of the Contract or for that length of time that construction activities create the particular pollutant.

#### **EP-11 TRAINING OF CONTRACTOR PERSONNEL IN POLLUTION CONTROL AND ENVIRONMENTAL PROTECTION**

The CONTRACTOR shall train all subcontractors and personnel in all phases of environmental protection. Personnel and subcontractors shall be familiar with permit requirements and with the necessity of protection of all habitats. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and installation and care of facilities to insure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly trained in the proper use of monitoring devices and abatement equipment and shall be thoroughly knowledgeable of Federal, State, and Local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the CONTRACTOR. Quality Control personnel shall be identified in the Quality Control Plan submitted in accordance with the Specific Provisions.

#### **EP-12 ENVIRONMENTAL PROTECTION PLAN**

At least seven (7) days prior to the pre-construction meeting, the CONTRACTOR shall submit in writing an Environmental Protection Plan to the COUNTY and ENGINEER. Approval of the

CONTRACTOR'S plan will not relieve the CONTRACTOR of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. The Environmental Protection Plan shall include but may not be limited to the following:

- 12.1** Methods for protection of features and habitats to be preserved within authorized Work areas. The CONTRACTOR shall prepare a listing of methods to protect resources needing protection (i.e. all vegetation, trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological and cultural resources, and environmental resources).
- 12.2** Procedures to be implemented by the CONTRACTOR to assure compliance with the environmental protection requirements of Section 6.1 of the Environmental Provisions, Protection of Land Resources, and to comply with the applicable permits, laws, and regulations. The CONTRACTOR shall address each element of Environmental Protection described in Section 6.1 of the Environmental Provisions. The CONTRACTOR shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the Environmental Protection Plan.
- 12.3** Procedures to be implemented by the CONTRACTOR to assure compliance with the protection of water, fish, and wildlife resources, per the requirements of Section 6.11 of the Environmental Provisions, and to comply with the applicable permits, laws, and regulations. The CONTRACTOR shall address each element of the protection of water, fish, and wildlife resources as described in Section 6.11 of the Environmental Provisions. The CONTRACTOR shall also provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the Environmental Protection Plan.
- 12.4** A list of Federal, State, and Local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the CONTRACTOR'S proposed operations and the requirements imposed by those laws, regulations, and permits.
- 12.5** Drawings showing locations of any proposed temporary excavations or embankments for haul roads, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.
- 12.6** Environmental monitoring plans for the jobsite, including land, water, air, and noise monitoring.
- 12.7** Oil spill prevention.
- 12.8** Oil spill contingency plan.
- 12.9** Marine hardbottom protection plan.

- 12.10** Sea turtle protection plan.
- 12.11** A protection plan for threatened and/or endangered species within the project area.
- 12.12** Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. The Plan shall include measures for marking the limits of use areas.
- 12.13** The location of the solid disposal area.
- 12.14** A statement as to the person who will be responsible for implementation of the Environmental Protection Plan. The CONTRACTOR personnel responsible shall report directly to the CONTRACTOR'S top management and shall have the authority to act for the CONTRACTOR in all environmental protection matters.
- 12.15** A statement acknowledging that the CONTRACTOR is responsible for environmental protection, including all of the CONTRACTOR'S personnel and subcontractors.
- 12.16** The Environmental Protection Plan shall be dated and endorsed by the individual of top management in charge of the construction.

### **EP-13 NOISE CONTROL**

The CONTRACTOR shall comply with all Federal, state, and local sound control and noise level ordinances, regulations, and laws that apply to the project site. All hauling and excavating equipment used on this Work shall be equipped with satisfactory mufflers or other noise abatement devices.

### **END OF PART III – ENVIRONMENTAL PROVISIONS**

**APPENDIX A**  
**FDEP PERMIT**



# FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

**Ron DeSantis**  
Governor

**Jeanette Nuñez**  
Lt. Governor

**Noah Valenstein**  
Secretary

## CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

### PERMITTEE:

Indian River County  
Attn: Richard Szyrka  
1801 27<sup>th</sup> Street, Building A  
Vero Beach, Florida 32960  
[rszyrka@ircgov.com](mailto:rszyrka@ircgov.com)

### AGENT:

APTIM  
Attn: Doris Otero  
2481 N.W. Boca Raton Blvd.  
Boca Raton, Florida 33431  
[Doris.Otero@aptim.com](mailto:Doris.Otero@aptim.com)

### PERMIT INFORMATION:

Permit Number: 0285993-009-JC

Project Name: Indian River County Sector 3  
Beach and Dune Nourishment Project

County: Indian River

Issuance Date: July 17, 2020

Expiration Date: July 17, 2035

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### REGULATORY AUTHORIZATION:

This permit is issued under the authority of Chapter 161 which includes consideration of the provisions contained in Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

### PROJECT DESCRIPTION:

The project is to nourish the beach and dunes along approximately 6.6 miles of the Indian River County shoreline. Sand for the project will either be pumped to the project site from the offshore South Borrow Area or truck hauled from an approved upland sand source. The approved upland sand sources are the Vulcan Materials' Diamond, Witherspoon, and Sandland mines; the Stewart Mining Industries' Capron Trail mine; and the Jahna Industries' Independent North, Independent South, and Greenbay mines.

The authorized design template consists of dune and berm placement. The dune features a variable crest height between +11 and +15 feet NAVD, a backdune slope of 5:1 (Horizontal:Vertical) and a foredune slope of 3:1. Native dune vegetation will be planted on the



**Joint Coastal Permit  
Indian River County Sector 3 Beach and Dune Nourishment Project  
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constructed dune crest, as necessary. The berm features a variable width between 0 and 12 feet, a crest elevation varying between +7 and +8 feet NAVD, and a 10:1 foreslope from the seaward edge of the berm crest to existing grade.

Five upland staging and truck haul access areas have been authorized along the beach restoration site: Treasure Shores Beach Park (R-24.5 to R-25.6), Golden Sands Beach Park (R-31.8 to R-32.5), Wabasso Beach Park and the adjacent beach access (R-39.8), Sea Grape Trail (R-47.4) and Turtle Trail (R-51.5).

**PROJECT LOCATION:**

The beach and dune restoration site is located along approximately 6.6 miles of beach east of US Highway A1A between R-20 and R-55, in Indian River County; Section 1, Township 32 South, Range 39 East; Section 6, Township 32 South, Range 40 East; and Sections 3, 10, 14, 15, 23, 25, 26, and 36, Township 31 South, Range 39 East; Atlantic Ocean, Class III Waters. Portions of the project are located within the Archie Carr National Wildlife Refuge, which is designated as Outstanding Florida Waters. The South Borrow Area is located approximately 10,000 feet offshore, positioned between R-105 and R-119, just north of the Indian River County/St. Lucie County border.

**PROPRIETARY AUTHORIZATION:**

This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands held in trust by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Board of Trustees delegated, to the Department, the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. This proprietary authorization has been reviewed in accordance with Chapter 253, Chapter 18-21 and Section 62-330.075, F.A.C., and the policies of the Board of Trustees.

The Department has also determined that the beach and dune renourishment activity qualifies for a Letter of Consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

As staff to the Board of Trustees, the Department has reviewed the project described above, and has also determined that dredging of the borrow area requires a public easement for the use of those lands, pursuant to Chapter 253.77, F.S. The Department intends to modify the existing public easement, subject to the conditions outlined in the previously issued *Consolidated Intent to Issue* and in the Recommended Proprietary Action (entitled *Delegation of Authority*).

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The final documents required to execute the modification of Public Easement No. 40034 have been sent to the Department's Division of State Lands. The Department intends to issue the easement upon satisfactory execution of those documents. **You may not begin construction of this activity on state-owned, sovereign submerged lands until the easement has been executed to the satisfaction of the Department.**

**COASTAL ZONE MANAGEMENT:**

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act.

**WATER QUALITY CERTIFICATION:**

This permit constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

**OTHER PERMITS:**

Authorization from the Department does not relieve you from the responsibility of obtaining other permits (Federal, State, or local) that may be required for the project. Failure to obtain Corps authorization prior to construction could subject you to federal enforcement action by that agency.

**AGENCY ACTION:**

The above-named Permittee is hereby authorized to construct the work that is outlined in the Project Description and Project Location of this permit and as shown on the approved permit drawings, plans and other documents attached hereto. This agency action is based on the information submitted to the Department as part of the permit application, and adherence with the final details of that proposal shall be a requirement of the permit. **This permit and authorization to use sovereign submerged lands are subject to the General Conditions, General Consent Conditions, Specific Conditions, and attached Plans which are a binding part of this permit and authorization.** Both the Permittee and their Contractor are responsible for reading and understanding this permit (including the permit conditions and the approved permit drawings) prior to commencing the authorized activities, and for ensuring that the work is conducted in conformance with all the terms, conditions and drawings.

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**GENERAL CONDITIONS:**

1. All activities authorized by this permit shall be implemented as set forth in the project description, permit drawings, plans and specifications approved as a part of this permit, and all conditions and requirements of this permit. The Permittee shall notify the Department in writing of any anticipated deviation from the permit prior to implementation so that the Department can determine whether a modification of the permit is required pursuant to Rule 62B-49.008, F.A.C.
2. If, for any reason, the Permittee does not comply with any condition or limitation specified in this permit, the Permittee shall immediately provide the Department and the appropriate District office of the Department with a written report containing the following information: a description of and cause of noncompliance; and the period of noncompliance, including dates and times; and, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.
3. This permit does not eliminate the necessity to obtain any other applicable licenses or permits that may be required by federal, state, local or special district laws and regulations. This permit is not a waiver or approval of any other Department permit or authorization that may be required for other aspects of the total project that are not addressed in this permit.
4. Pursuant to Sections 253.77 and 373.422, F.S., prior to conducting any works or other activities on state-owned submerged lands, or other lands of the state, title to which is vested in the Board of Trustees, the Permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees shall not be considered received until it has been fully executed.
5. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under Section 373.421(2), F.S., provides otherwise.
6. This permit does not convey to the Permittee or create in the Permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the Permittee. The issuance of this permit does not convey any vested rights or any exclusive privileges.
7. This permit or a copy thereof, complete with all conditions, attachments, plans and specifications, modifications, and time extensions shall be kept at the work site of the

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- permitted activity. The Permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
8. The Permittee, by accepting this permit, specifically agrees to allow authorized Department personnel with proper identification and at reasonable times, access to the premises where the permitted activity is located or conducted for the purpose of ascertaining compliance with the terms of the permit and with the rules of the Department and to have access to and copy any records that must be kept under conditions of the permit; to inspect the facility, equipment, practices, or operations regulated or required under this permit; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
  9. At least 48 hours prior to commencement of activity authorized by this permit, the Permittee shall electronically submit to the Department, by email at [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us), and the appropriate District office of the Department a written notice of commencement of construction indicating the actual start date and the expected completion date and an affirmative statement that the Permittee and the contractor, if one is to be used, have read the general and specific conditions of the permit and understand them.
  10. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, shipwreck remains or anchors, dugout canoes or other physical remains that could be associated with Native American cultures, or early Colonial or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the immediate vicinity of such discoveries. The Permittee, or other designee, shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section at (850)245-6333 or (800)847-7278, as well as the appropriate permitting agency office. Project activities shall not resume without verbal and/or written authorization from the Division of Historical Resources. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, F.S.
  11. Within 30 days after completion of construction or completion of a subsequent maintenance event authorized by this permit, the Permittee shall electronically submit to the Department, by email at [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us), and the appropriate District office of the Department a written statement of completion and certification by a registered professional engineer. This certification shall state that all locations and elevations specified by the permit have been verified; the activities authorized by the permit have been performed in compliance with the plans and specifications approved as a part of the permit, and all conditions of the permit; or shall describe any deviations from the plans and specifications, and all conditions of the permit. When the completed activity differs substantially from the permitted plans, any substantial deviations shall be

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noted and explained on as-built drawings electronically submitted to the Department, by email at [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us).

**GENERAL CONSENT CONDITIONS:**

1. Authorizations are valid only for the specified activity or use. Any unauthorized deviation from the specified activity or use and the conditions for undertaking that activity or use shall constitute a violation. Violation of the authorization shall result in suspension or revocation of the grantee's use of the sovereignty submerged land unless cured to the satisfaction of the Board.
2. Authorizations convey no title to sovereignty submerged land or water column, nor do they constitute recognition or acknowledgment of any other person's title to such land or water.
3. Authorizations may be modified, suspended or revoked in accordance with their terms or the remedies provided in Sections 253.04 and 258.46, F.S., or Chapter 18-14, F.A.C.
4. Structures or activities shall be constructed and used to avoid or minimize adverse impacts to sovereignty submerged lands and resources.
5. Construction, use or operation of the structure or activity shall not adversely affect any species that is endangered, threatened or of special concern, as listed in Rules 68A-27.003, 68A-27.004 and 68A-27.005, F.A.C.
6. Structures or activities shall not unreasonably interfere with riparian rights. When a court of competent jurisdiction determines that riparian rights have been unlawfully affected, the structure or activity shall be modified in accordance with the court's decision.
7. Structures or activities shall not create a navigational hazard.
8. Structures shall be maintained in a functional condition and shall be repaired or removed if they become dilapidated to such an extent that they are no longer functional. This shall not be construed to prohibit the repair or replacement subject to the provisions of Rule 18-21.005, F.A.C., within one year, of a structure damaged in a discrete event such as a storm, flood, accident or fire.
9. Structures or activities shall be constructed, operated and maintained solely for water dependent purposes, or for non-water dependent activities authorized under paragraph 18-21.004(1)(f), F.A.C., or any other applicable law.

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**SPECIFIC CONDITIONS:**

1. Unless otherwise specified in the specific conditions of this permit all submittals required herein (e.g., progress reports, water-quality reports etc.) shall be electronically submitted (via e-mail, file transfer site or hard drive). Email submittals shall be sent to the Department's JCP Compliance Officer (e-mail address: [JCPCompliance@dep.state.fl.us](mailto:JCPCompliance@dep.state.fl.us)). If a file transfer site is used, a link shall be e-mailed to the JCP Compliance Officer. If data are too large to be submitted via e-mail or file transfer site, the Permittee may submit the data via an external hard drive, provided by the Permittee. The external hard drive shall be mailed to:

Department of Environmental Protection  
Office of Resilience and Coastal Protection  
Attn: JCP Compliance Officer  
2600 Blair Stone Road, Mail Station 3566  
Tallahassee, FL 32399-2400

2. The Permittee shall not store or stockpile tools, equipment, or materials within littoral zones or elsewhere within surface waters of the state without prior written approval from the Department. Storing, stockpiling, or accessing equipment on, in, over, or through areas with benthic biological resources (including beds of submerged aquatic vegetation, wetlands, oyster reefs, or hardbottom) is prohibited unless it occurs within a work area or ingress / egress corridor that is specifically approved by this permit and is shown on the approved permit drawings. Anchoring or spudding of vessels and barges within areas with benthic biological resources (including beds of aquatic vegetation, oyster reefs, or hardbottom) is also prohibited.
3. The Permittee shall not conduct project operations or store project-related equipment in, on or over dunes, or otherwise impact dune vegetation, outside the approved staging, beach access and dune restoration areas designated in the permit drawings.
4. The terms, conditions and provisions of the required easement (No. 40034) shall be met. Construction of this activity shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees, until all easement documents have been executed to the satisfaction of the Department.
5. For each construction event under this permit, no work shall commence until the Permittee has satisfactorily submitted all information noted in this condition. At least **45** days prior to commencement of construction, the Permittee shall submit the following items for review by the Department. Unless otherwise notified by the Department within 15 days of receipt of all information specified below, the Permittee shall assume the submittals are satisfactory:

- a. An electronic copy of detailed ***final construction plans and specifications*** for all authorized activities. The plans and specifications must be consistent with the project description, conditions and approved drawings of this permit. These documents shall be certified by a professional engineer (P.E.), who is registered in the State of Florida. The Permittee shall point out any deviations from the Project Description of this permit (as stated above) or the approved permit drawings (attached to this permit), and any significant changes that would require a permit modification. The plans and specifications shall include a description of the dredging and construction methods to be utilized and drawings and surveys that show all biological resources and work spaces (e.g., anchoring areas, pipeline corridors, staging areas, boat access corridors, etc.) to be used for this project.
  
- b. ***Turbidity Monitoring:*** In order to assure that turbidity levels do not exceed the compliance standards established in this permit, construction at the project site shall be monitored closely by an independent third party with formal training in water quality monitoring and professional experience in turbidity monitoring for coastal construction projects. Also, an individual familiar with beach construction techniques and turbidity monitoring shall be present at all times when turbidity generating activities are occurring. This individual shall have authority to alter construction techniques or shut down the dredging or beach construction operations if turbidity levels exceed the compliance standards established in this permit.
  - i. ***Qualifications:*** The names, credentials (demonstrating experience and qualifications) and 24-hour contact information of those individuals performing these functions;
  
  - ii. A ***Scope of Work*** for the turbidity monitoring to ensure that the right equipment is available to conduct the monitoring correctly at any location, and under any conditions;
  
  - iii. ***Draft turbidity sampling map.*** An example of the geo-referenced map that will be provided with turbidity reports, including aerial photography and the boundaries of biological resources and/or OFW (pursuant to Specific Condition 29)
  
- c. ***Fish & Wildlife Monitoring Qualifications:*** To ensure that individuals conducting monitoring of fish and wildlife resources have appropriate qualifications, the Permittee shall provide documentation demonstrating expertise/experience in surveying the types of resources that are present in the project. The Department and the Florida Fish and Wildlife Conservation Commission (FWC) will review this information for confirmation that the monitors are capable of meeting the requirements in this authorization. This documentation shall include the following:

- i. ***Marine Turtle Protection:*** Monitoring plan, including a list of the names and permit numbers for the Marine Turtle Permit Holders.
- ii. ***Shorebird Protection:*** Monitoring plan, including a list of Bird Monitors with their contact information, summary of qualifications including bird identification skills and avian survey experience, proposed locations of shorebird survey routes, and the locations of travel routes.

**d. Biological Monitoring:**

- i. ***Qualifications.*** At least 30 days prior to conducting any surveys or monitoring, the Permittee shall submit the names and qualifications of the individuals performing biological surveys and monitoring via email to the JCP Compliance Officer for review by the Department (see Section 4.0 of the Biological Monitoring Plan). Individuals that will be performing biological surveys and monitoring shall be certified SCUBA divers, shall have a BS degree or higher in the study of marine biology or a comparable field, shall have scientific knowledge of local benthic marine hardbottom habitats and their flora and fauna, and shall have professional experience in conducting hardbottom monitoring surveys. If additional monitoring team(s) are subcontracted, or new staff are added to the monitoring team, proposed changes as well as names and qualifications of individuals shall be submitted by the Permittee to the JCP Compliance Officer for Department review at least 30 days prior to conducting any surveys or monitoring. The Permittee shall instruct, and is responsible for ensuring, that their selected biological monitoring firm provides training for new staff members and subcontractors on required survey and monitoring procedures and conducts QA/QC verification of their work;
- ii. Prior to the initial (first) fill placement event ONLY, the Permittee shall submit ***Baseline Nearshore Hardbottom Monitoring Results***. The results of the full pre-construction (baseline) survey of nearshore hardbottom (see Sections 2.0 and 5.2.1 of the Biological Monitoring Plan).
- iii. Prior to each construction event in which the borrow area will be the sand source and pipelines will be used to transport fill material to the placement area, the Permittee shall submit:
  - (1) ***Pipeline Corridor Hardbottom Survey Results.*** All pre-construction pipeline corridor hardbottom survey data collected for the upcoming construction (nourishment) event (see Sections 3.1 and 5.2.2 of the Biological Monitoring Plan).



- (2) ***Pipeline Corridor Hardbottom Survey Report.*** A detailed pre-construction pipeline corridor survey report for the upcoming construction event (see Sections 3.2 and 5.2.2 of the Biological Monitoring Plan and Specific Condition 30 of this permit).
  - (3) ***Post-Placement Pre-Pumping Pipeline Survey Results.*** When required (see Section 3.3 of the approved Biological Monitoring Plan and see Specific Condition 30 of this Permit). Post-placement pre-pumping pipeline Survey Data shall be submitted to the JCP Compliance officer 72 hours prior to the intended or actual start of pumping. See Section 5.2.3 of the Biological Monitoring Plan for reporting requirements.
- e. Documentation from the U.S. Fish and Wildlife Service (FWS) that this work will be covered under a Statewide Programmatic **Biological Opinion** or a Biological Opinions (BO) issued for construction on this project site. If the BO contains conditions that are not already contained herein, a permit modification may be required prior to construction to include those additional conditions.
  - f. Documentation confirming that the approved upland source is currently producing the quantity and quality of the authorized sand product required for the upcoming event, as required by Specific Condition 26.
  - g. Documentation that the modification of **Public Easement** No. 40034 has been executed to the satisfaction of the Department.
  - h. ***Pre-Construction Conference.*** After all items required by a through g above have been submitted to the Department, the Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with the Permittee's contractors, the engineer of record, those responsible for turbidity monitoring, those responsible for protected species monitoring, staff representatives of the Fish and Wildlife Conservation Commission (FWC) and the JCP Compliance Officer (or designated alternate) prior to each construction event. In order to ensure that appropriate representatives are available, at least twenty-one (21) days prior to the intended commencement date for the permitted construction, the Permittee is advised to contact the Department, and the other agency representatives listed below:

DEP, JCP Compliance Officer  
e-mail: [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us)

FWC, Imperiled Species Management Section  
e-mail: [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com)

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FWC, Regional Biologist

Contact list: <http://myfwc.com/conservation/you-conserve/wildlife/shorebirds/>

The Permittee is also advised to schedule the pre-construction conference at least a week prior to the intended commencement date. At least seven (7) days in advance of the pre-construction conference, the Permittee shall provide written notification, advising the participants of the agreed-upon date, time and location of the meeting, and also provide a meeting agenda and a teleconference number.

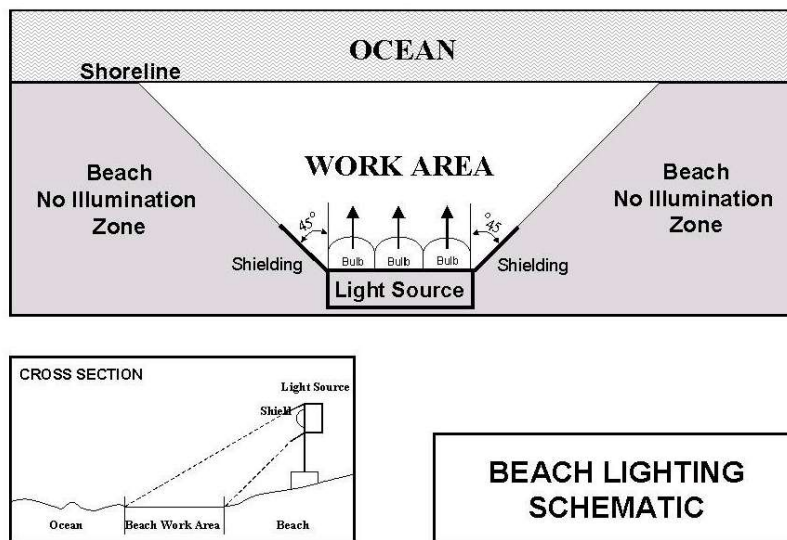
If the actual construction start date is different from the expected start date proposed during the preconstruction conference, at least 48 hours prior to the commencement of each construction event, the Permittee shall ensure that notification is sent to the FWC, at [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com), indicating the actual start date and the expected completion date. The Permittee shall also ensure that all contracted workers and observers are provided a copy of all permit conditions.

6. When discharging slurried sand onto the beach from a pipeline, the Permittee shall employ best management practices (BMPs) to reduce turbidity. At a minimum, these BMPs shall include the following:
  - a. Use of shore-parallel sand dike to promote settlement of suspended sediment on the beach before return water from the dredged discharge reenters the Atlantic Ocean; and
  - b. The pipeline discharge location shall be a minimum of 50 feet landward from open water. If 50 feet is not attainable due to a narrow beach berm, the pipeline discharge location shall be placed as far landward on the beach berm as possible without disturbing the dune.
  
7. Sediment quality shall be assessed as outlined in the offshore and upland Sediment QA/QC Plans (as appropriate for the source), dated May 26, 2020. Placement of material that is not in compliance with the Plan shall be handled according to the protocols set forth in the Sediment QA/QC Plan. The sediment testing result shall be submitted to The Department within 90 days following the completion of beach construction. The following requirements are included in the Sediment QA/QC Plan:
  - a. If, during construction, the Permittee determines that the beach fill material does not comply with the sediment compliance specifications, the Permittee shall take measures to avoid further placement of noncompliant fill, and the sediment inspection results shall be reported to the Department.
  - b. The Permittee shall submit post-construction sediment testing results and an analysis report as outlined in the Sediment QA/QC plan to the Department within 90 days following beach construction. The sediment testing results will be certified by a P.E.

- or P.G. from the testing laboratory. A summary table of the sediment samples and test results for the sediment compliance parameters as outlined in Table 1 of the Sediment QA/QC plan shall accompany the complete set of laboratory testing results. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the geotechnical investigation shall be included in the sediment testing results report.
- c. A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced shall be submitted to the Department within 7 days following completion of remediation activities.
8. The following upland sand source products were reviewed and authorized for use in this project: (1) Beach Sand product from the Vulcan Materials' Diamond, Witherspoon, and Sandland mines; (2) BCH450 and BCH320 products from the Stewart Mining Industries' Fort Pierce mine; and (3) Beach Sand product from Jahna Industries' Independent – North, Independent – South, and Greenbay mines. Any additional upland sand sources will require review and authorization through the permit modification process.
9. Prior to each construction event, the Permittee (or Permittee's Representative) shall submit documentation confirming that the authorized upland sand source(s) is currently producing both the quantity and quality of the authorized sand product(s) to meet the needs of the upcoming event. The documentation shall be signed and sealed by a Registered Professional in the State of Florida (i.e., a P.E. or P.G.) and shall indicate the name(s) of the product(s), the upland sand source(s) and the approximate volume (per product per source) needed for the upcoming event. The Permittee shall submit the documentation to the Department as a preconstruction submittal item no later than 45 days prior to construction. *Note: If the upland source(s) is no longer producing a product consistent with the approved Sediment QA/QC plan, a permit modification will be required to authorize an alternate source.*
10. **In-water Activity.** The Permittee shall adhere to the following requirements for all in-water activity:
- a. The Permittee shall instruct all personnel associated with the project about the presence of marine turtles and manatees, and the need to avoid collisions with (and injury to) these protected marine species. The Permittee shall be responsible for harm to these resources and shall require their contractors to advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees or marine turtles, which are protected under the Endangered Species Act, the Marine Mammal Protection Act, the Marine Turtle Protection Act and the Florida Manatee Sanctuary Act.

- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate project area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels shall follow routes of deep water whenever possible.
  - c. Siltation or turbidity barriers (if used) shall be made of material in which manatees and marine turtles cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers shall not impede manatee or marine turtle movement or travel.
  - d. The Permittee is responsible for all on-site project personnel and shall require them to observe water-related activities for the presence of marine turtles and manatee(s). All in-water operations shall be immediately shut down if a marine turtle or manatee comes within 50 feet of the operation. For unanchored vessels, operators shall disengage the propeller and drift out of the potential impact zone. If drifting would jeopardize the safety of the vessel then idle speed may be used to leave the potential impact zone. Activities shall not resume until the animal(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the animal(s) has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.
  - e. Any collision with (or injury to) a marine turtle or manatee shall be reported immediately to the FWC Hotline at 1-888-404-3922, and to FWC at [ImperiledSpecies@myFWC.com](mailto:ImperiledSpecies@myFWC.com). Any collision with (and/or injury to) a marine turtle shall also be reported immediately to the Sea Turtle Stranding and Salvage Network (STSSN) at [SeaTurtleStranding@myfwc.com](mailto:SeaTurtleStranding@myfwc.com).
  - f. Temporary signs concerning manatees shall be prominently posted prior to and during all in-water project activities, at sufficient locations to be regularly and easily viewed by all personnel engaged in water-related activities. Two temporary signs, which have already been approved for this use by the FWC, shall be posted at each location. One sign shall read "Caution Boaters – Watch for Manatees". A second sign measuring at least 8 ½" by 11", shall explain the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations. All signs shall be removed by the Permittee upon completion of the project. These signs can be viewed at [MyFWC.com/manatee](http://MyFWC.com/manatee). Questions concerning these signs can be sent to [ImperiledSpecies@myFWC.com](mailto:ImperiledSpecies@myFWC.com).
11. **Construction Area Project Lighting. No temporary lighting of the construction area is authorized at any time during the main portion of marine turtle nesting season (May 1 through October 31).** During early and late nesting season, direct lighting of the beach and nearshore waters shall be limited to the immediate area of active construction while meeting safety requirements as required by law. Lighting on offshore and onshore

equipment shall be minimized by reducing the number of fixtures, shielding, lowering the height and appropriately placing fixtures to avoid excessive illumination of the water's surface and nesting beach. The intensity of lighting shall be reduced to the minimum standard required for general construction area safety. Shields shall be affixed to the light housing on dredge and land-based lights and be large enough to block lamp light from being transmitted outside the construction area or to the adjacent marine turtle nesting beach. (Figure 1 below).



**Figure 1**

12. **All Beach Related Activities.** The Permittee shall adhere to the following requirements for all beach-related activities during marine turtle and shorebird nesting/breeding seasons (March 1 through October 31) in Indian River County.
  - a. The Permittee shall require their contractor and protected species monitors to inspect all work areas that have excavations and temporary alteration of beach topography to determine which areas have deviations (such as depressions, ruts, holes and vehicle tracks) capable of trapping flightless shorebird chicks or marine turtle hatchlings each day. If so, the deviations shall be filled or leveled from the natural beach profile prior to 9:00 p.m. each day. The beach surface shall also be inspected after completion of the project, and all tracks, mounds, ridges or impressions, etc. left by construction equipment on the beach shall be smoothed and leveled.
  - b. If any debris, including derelict construction or coastal armoring material, concrete and metal occurs on the beach placement site, it shall be removed from the beach to the maximum extent practicable prior to any placement of fill material. If debris

removal activities will take place during protected species nesting seasons, the work shall be conducted during daylight hours only, and shall not commence until completion of daily monitoring surveys.

- c. **Equipment Storage and Placement.** Staging areas and temporary storage for construction equipment and pipes shall be located off the beach to the maximum extent practicable during March 1 through October 31. Nighttime storage of construction equipment that is not in use shall be located off the beach. All construction pipes that are in use on the beach shall be located as far landward as possible without compromising the integrity of the existing or reconstructed dune system, and if placed parallel to the dune shall be 5 to 10 feet away from the toe of the dune.
  - d. If it is necessary to extend construction pipes past a known shorebird nesting site, then those pipes shall be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a shorebird nesting site during the shorebird nesting season. If such placement is not feasible for the project, FWC's Regional Biologist shall be contacted for alternative measures. See contacts available at <http://myfwc.com/conservation/you-serve/wildlife/shorebirds/contacts>.
  - e. **Beach Driving.** All vehicles shall be operated at speeds less than 6 mph and run at or below the high-tide line. All personnel associated with the project shall be instructed about the potential presence of onsite protected species, and the need to avoid injury and disturbance to these species. In addition, all vehicles operated on the beach shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (<http://myfwc.com/conservation/you-serve/wildlife/beach-driving/>). *Note: when flightless chicks are present within or adjacent to travel corridors, construction-related vehicles shall not be driven through the corridor unless a Bird Monitor is present.*
13. **Dune Planting Conditions.** Planting of dune vegetation is encouraged outside of marine turtle nesting season. However, planting activities may occur during the marine turtle nesting season March 1 through October 31 under the following conditions:
- a. It is the responsibility of the Permittee to ensure that the project area and access sites are surveyed for marine turtle nesting activity. All nest surveys and activities involving marine turtles shall be conducted only by persons with a valid FWC permit issued pursuant to Florida Administrative Code 68E-1. For information regarding marine turtle permit holders, contact the FWC at [MTP@myfwc.com](mailto:MTP@myfwc.com). a. Marine turtle nest surveys shall be initiated at the beginning of the nesting season or 65 days prior to installation of plants (whichever is later). Surveys shall continue until completion of the project or through September 15 (whichever is earliest). Surveys shall be conducted throughout the project area and all beach access sites.

- b. Any nests deposited in the area shall be left in place. The marine turtle permit holder shall install an on-beach marker at any nest site and a secondary marker located at a point as far landward as possible to ensure that future location of the nest will be possible should the on-beach marker be lost. A series of stakes and survey ribbon or string shall be installed to establish an area of 3 feet radius surrounding the nest. No planting or other activity shall occur within this area nor shall any activity occur which might cause indirect impacts within this area. Nest sites shall be inspected daily to ensure nest markers have not been removed.
  - c. The use of heavy equipment (including vehicles such as trucks) is not authorized in marine turtle nesting habitat. A lightweight (ATV style) vehicle, with tire pressures of 10 p.s.i. or less can operate on the beach if required.
  - d. Any vegetation planting shall be installed by hand labor/tools only.
  - e. All activity shall be confined to daylight hours and shall not occur prior to the completion of all necessary marine turtle surveys and conservation activities within the project area. Nighttime storage of equipment or materials shall be off the beach.
  - f. In the event a nest is disturbed or uncovered during planting activity, the Permittee shall cease all work and immediately contact the marine turtle permit holder responsible for marine turtle conservation measures within the project area. If a nest(s) cannot be safely avoided during construction, all activity within the affected project area shall be delayed until complete hatching and emergence of the nest.
  - g. All planting related activities must avoid marked marine turtle nests including those that may be on the beach before and after the marine turtle nesting season dates (March 1 through October 31). Any impacts to nests or marine turtles that inadvertently occur shall be immediately reported the Florida Fish and Wildlife Conservation Commission (FWC) at [MarineTurtle@myfwc.com](mailto:MarineTurtle@myfwc.com), and all work shall stop until authorized to continue by the Department and FWC.
  - h. All irrigation lines for the dune restoration planting, if proposed, will be temporarily installed along the landward side of the dune only and will be removed once the plants have become established. Any watering necessary along the seaward side of the dune will be done by hand on an “as needed” basis.
14. **Marine Turtle Protection Conditions.** Beach nourishment shall occur outside of the main part of marine turtle nesting season, starting after October 31 and completed before May 1. During the May 1 through October 31 period, no construction equipment shall be placed or stored on the beach. Temporary approvals of work to extend into marine turtle nesting season may be authorized on a case by case basis. Such authorizations shall be in writing from the Department with FWC approval and accompanied by proof the



extension is covered under a valid Biological Opinion. If such an authorization is granted all conditions below shall be followed.

15. Construction-related activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or dune crest and all sandy beach areas such as those used for beach access during the early nesting season (March 1 through May 1) and late nesting season (November 1 through November 30) under the following conditions:
  - a. Daily early morning marine turtle nest surveys shall start at the beginning of marine turtle nesting season (March 1). Daily nesting surveys shall continue through November 30, or until two weeks after the last crawl in the project area, whichever is earlier.
  - b. Daily nesting surveys shall be conducted beginning ½ hour prior to sunrise, and no construction activity may commence until completion of the marine turtle survey each day.
  - c. The Permittee shall ensure that marine turtle nesting surveys are conducted as required in this authorization, and only conducted by personnel with a valid FWC Marine Turtle Permit, that covers all project activities as required by Chapter 68E-1, F.A.C. If needed, contact FWC at [MTP@myfwc.com](mailto:MTP@myfwc.com) for information on the authorized Marine Turtle Permit Holders in the project area.
  - d. Only those nests laid in the area where sand placement will occur shall be relocated, and nest relocation shall cease after the sand placement is completed. Nests requiring relocation shall be moved no later than 9 a.m., the morning following deposition (no longer than 12 hours from the time the eggs are laid), to a nearby self-release beach site in a secure setting, where artificial lighting will not interfere with hatchling orientation. The relocation site shall be determined in conjunction with and approved by FWC prior to nest relocations. Relocated nests shall not be placed in organized groupings. Relocated nests shall be randomly staggered along the length and width of beach settings that are not expected to experience any of the following: inundation by high tides; severe erosion; previous egg loss; or illumination by artificial lighting.
  - e. Nests deposited within areas where construction activities will not occur for 65 days, or nests laid in the nourished berm prior to tilling, shall be marked and left in place. The Marine Turtle Permit Holder shall install on-beach markers at the nest site and shall also install a secondary marker at a point as far landward as possible to assure that the nest can be located should the on-beach marker be lost. No activity shall occur within the marked area, nor shall any activities occur that could result in impacts to the nest. Nest sites shall be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activity.



- f. Beginning March 1, daytime surveys shall be conducted for leatherback marine turtle nests. Nighttime surveys for leatherback marine turtles shall begin when the first leatherback crawl is recorded within the project or adjacent beach area through April 30, or until completion of the project, whichever is earliest. Nightly nesting surveys shall be conducted from 9 p.m. until 6 a.m. The project area shall be surveyed at 1-hour intervals and eggs shall be relocated per the preceding requirements. Since leatherbacks require at least 1.5 hours to complete nesting, the 1-hour interval will ensure that all nesting leatherbacks are encountered.
16. **Fill Restrictions.** During the marine turtle nesting season, the contractor shall not advance the beach fill more than 500 feet along the shoreline between dusk and the following day, until the daily nesting survey is completed, and the beach has been cleared for fill advancement. If the 500-foot advancement limitation is not feasible for the project, an alternative distance shall be established during the preconstruction meeting, if a distance can be agreed upon in consultation with FWC. If the work area is extended, nighttime nesting surveys are required, and a Marine Turtle Permit Holder is required to be present on-site to ensure that no nesting and hatching marine turtles are present. If any nesting turtles are sighted on the beach within the immediate construction area, activities shall cease immediately until the turtle has returned to the water and the Marine Turtle Permit Holder responsible for nest monitoring has relocated the nest.
17. **Marine Turtle or Nest Encounters.** Upon locating a dead or injured marine turtle, a hatchling, or egg that may have been harmed or destroyed as a result of the project, the Permittee shall be responsible for notifying FWC Wildlife Alert at 1-888-404-FWCC (3922). Care shall be taken in handling injured marine turtles or exposed eggs to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials for later analysis. If a marine turtle nest is excavated during construction activities, but not as part of the authorized nest relocation process outlined in these specific conditions, the permitted person responsible for egg relocation for the project shall be notified immediately so the eggs can be moved to a suitable relocation site.
18. **Tilling, Compaction and Escarpment Remediation Requirements.** For the years after the first-year sand placement (out-year), compaction monitoring, tilling and escarpment monitoring are not required if placed material no longer remains on the dry beach.
  - a. **Compaction Sampling.** Sand compaction shall be monitored in the area of sand placement immediately after completion of the nourishment event, and two weeks prior to marine turtle nesting season, for three (3) subsequent years. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area shall be tilled prior to the beginning of marine turtle nesting season. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required. Compaction monitoring shall be in accordance with the following protocol:

- i. Compaction sampling stations shall be located at 500-foot intervals along the project area. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station shall be midway between the dune line and the high-water line (normal wrack line).
  - ii. At each station, the cone penetrometer shall be pushed to depths of 6, 12 and 18 inches three times (i.e., three replicates at each depth). 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 shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports shall include all 18 values for each transect line, and the final 6 averaged compaction values.
  - iii. If values exceeding 500 psi are distributed throughout the project area, but do not exist at two adjacent stations at the same depth, then the Permittee shall consult with the FWC to determine if tilling is required. A tilling waiver based on these compaction values shall be submitted to the FWC at [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com).
- b. **Tilling Requirements.** If tilling is performed regardless of post-construction compaction levels or tilling is required based on compaction measurements, the area shall be tilled to a depth of 36 inches.
- i. All tilling activity shall be completed prior to the marine turtle nesting season. If the project is completed during the marine turtle nesting season, tilling shall not be performed in areas where nests have been left in place or relocated.
  - ii. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling. A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling.
  - iii. Tilling shall occur landward of the wrack line and shall avoid all naturally vegetated areas that are at least 3 square feet in size, as well as any planted areas that have been authorized by the Department. A 3-foot-wide No-Tilling buffer shall be maintained around vegetated areas. The slope between the mean high-water line and the mean low water line shall be maintained to approximate natural slopes.
- c. **Escarpment Surveys.** Visual surveys for escarpments along the project area shall be made immediately after completion of sand placement, two weeks prior to marine

turtle nesting season, and weekly for three (3) subsequent years, each year placed sand remains on the beach. Escarpment remediation shall be as follows:

- i. Prior to marine turtle nesting season, escarpments that interfere with marine turtle nesting or that exceed 18 inches in height for a distance of at least 100 feet shall be leveled to the natural beach contour or the beach profile shall be reconfigured to minimize scarp formation. Any escarpment removal shall be reported relative to R- monument location to FWC at [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com), with a copy sent to the JCP Compliance Officer.
- ii. If weekly surveys during the marine turtle nesting season document escarpments that exceed 18 inches in height for a distance of at least 100 feet and have persisted for more than two weeks, the FWC shall be contacted immediately to determine the appropriate action to be taken. Submitted information shall include locations and measurements of the escarpments and marine turtle nests located within 20 feet of the escarpments, with photographs when possible. Upon written notification, the Permittee shall level escarpments in accordance with methods that minimize impacts to any existing nest in coordination with the FWC and the marine turtle permit holder. An annual summary of escarpment surveys and actions taken shall be submitted electronically to FWC ([marineturtle@myfwc.com](mailto:marineturtle@myfwc.com)).
- d. If compaction sampling, tilling or escarpment removal occurs during shorebird breeding season, the Shorebird Conditions (including surveys) included in this authorization shall be followed. No heavy equipment shall operate, and no compaction sampling or tilling shall occur within 300 feet of any shorebird nest. If flightless shorebird chicks are present within the work zone or equipment travel corridor, a Bird Monitor shall be present during the operation to ensure that no heavy equipment operates within 300 feet of the flightless young. It is the responsibility of the Permittee to ensure that their contractors avoid tilling, scarp removal or dune vegetation planting in areas where nesting birds are present.

**19. Post-Construction Monitoring and Reporting Marine Turtle Protection Conditions**

- a. For each sand placement event, reports for all required marine turtle nesting surveys shall be provided for the post construction (partial or remaining) nesting season and for two full nesting seasons post construction in accordance with the Table 1 (below). If nesting and reproductive success is less than the criteria in the table below, an additional year of monitoring and reporting may be required. If criteria are not met, additional conditions prior to the next sand placement on this beach may be required by the Department and FWC.

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- b. Data shall be reported and summarized for the nourished areas in accordance with Table 1 (below). Reports shall summarize all crawl activity, hatching success of a representative sampling of nests left in place (if any) by species, project name and applicable project permit numbers and dates of construction. Data shall be submitted in electronic format (Excel spreadsheets) which are available upon request from [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com). Reports shall be sent to the FWC Imperiled Species Management section at [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com) and **copied to** [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us). All summaries should be submitted by January 15th of the following year.

**Table 1. Marine Turtle Monitoring for Beach Placement of Material**

<b>Date</b>	<b>Duration</b>	<b>Variable</b>	<b>Criterion</b>
Nesting Success	Year of in-season construction and two entire nesting seasons post construction, with possible additional year <sup>1 &amp; 2</sup>	Number of nests and non-nesting emergences by day by species	40 percent or greater
Hatching success	Year of in-season construction and one entire nesting season post construction, with possible additional year <sup>1 &amp; 2</sup>	Number of hatchlings by species to hatch from egg	60 percent or greater (a statistically valid number of loggerhead and green nests, and all leatherback nests)
Emergence Success	Year of in-season construction and one entire nesting season post construction, with possible additional year <sup>1 &amp; 2</sup>	Number of hatchlings by species to emerge from nest onto beach	Average must not be significantly different than the average hatching success
Disorientations	Year of in-season construction and two entire nesting seasons post construction <sup>1</sup>	Number of nests and individuals that misorient or disorient	
Nests affected by erosion or inundation	Year of construction and two years post construction if placed sand remains on the beach	Number of nests lost and/or affected, by species	
Lighting Surveys	Two in-season surveys the year following construction; First survey between May 1 and May 15 and second survey between July 15 and August 1 <sup>1</sup>	Number, location and photographs of lights visible from nourished berm, corrective actions and notifications made	Lighting survey and meeting resulting with plan for reduction in lights visible from nourished berm

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<b>Date</b>	<b>Duration</b>	<b>Variable</b>	<b>Criterion</b>
Compaction	Three nesting seasons beginning with the year of construction. Not required if the beach is tilled prior to nesting seasons <sup>1</sup>	Shear resistance	Less than 500 psi
Escarpment Surveys	Weekly during nesting season for three years beginning with year of construction <sup>1</sup>	Number of scarps 18 inches or greater extending for more than 100 feet that persist for more than 2 weeks	Successful remediation of all persistent scarps as needed
<p>1 If placed sand remains on the beach  2 Additional years may be required if variable does not meet criterion based on previous year</p>			

20. **Post-Construction Lighting Surveys.** The Permittee shall ensure that lighting surveys be conducted from the nourished berm and the following actions taken to address potential adverse impacts expected with artificial lights visible from any dry portion of the newly elevated beach. The surveys shall be conducted from the top of the foreshore slope (i.e., the seaward edge of the filled berm before it slopes into the water), facing landward. The survey shall follow standard techniques for such a survey, such as including the number and type of visible lights, location of lights, and photo documentation (see additional techniques as per the 2015 USFWS Statewide Programmatic Biological Opinion).
- a. The first survey shall be conducted between May 1 and May 15 for the first nesting season following construction. For each visible light source, the Permittee shall document that the property owners have been notified and has been provided with recommendations for correcting the light as soon as possible. Recommendations shall be in accordance with local lighting ordinances. A report summarizing all visible lights and the recommendations for correcting the light shall be forwarded to local code enforcement. If no lighting ordinances exist, the recommendations to the property owners shall be consistent with FWC lighting guidelines, which include no lights or light sources shall be visible from the newly elevated beach. The second survey shall be conducted between July 15 and August 1 to assess any remaining visible lights requiring corrective action.
  - b. A summary report of the surveys and what corrective actions or local enforcement actions have been taken shall be submitted to FWC at [marineturtle@myfwc.com](mailto:marineturtle@myfwc.com) and copied to [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us) by December 31 of the year in which surveys are conducted. Upon request by the FWC, the Permittee shall set up and hold a meeting with the those responsible for code enforcement (when applicable), FWC and the USFWS to discuss the report and potential additional corrective action needed, as well as any documented marine turtle disorientations in or adjacent to the project area.

21. **Shorebird Protection.** The term “shorebird” refers to all solitary nesting shorebirds and colonial nesting seabirds. If any project activities as described below are conducted, the following shorebird protection conditions are required during the shorebird breeding cycle, which includes nesting. The following conditions are intended to avoid direct impacts associated with the construction of the project and may not address all potential take incidental to the operation and use related to this authorization.
- a. Shorebird breeding season dates for this project area are March 1 through September 1. Note that while most species have completed the breeding cycle by September 1, flightless young may be present through September and must be protected if present.
  - b. Any parts of the project where “project activities” on the beach take place entirely outside the breeding season, do not require shorebird surveys. The term “project activities” includes operation of vehicles on the beach, movement or storage of equipment on the beach, sand placement or sand removal, and other similar activities that may harm or disturb shorebirds. Bird survey routes must be established and monitored throughout the entire breeding season in any parts of the project area where: 1) potential shorebird breeding habitat occurs, and 2) project activities are expected to occur at any time within the breeding season.
  - c. Bird surveys shall be conducted in all potential beach-nesting bird habitats within the project boundaries that may be impacted by construction or pre-construction activities. One or more shorebird survey routes shall be established by the Permittee to cover project areas which require shorebird surveys. These routes must be approved by the FWC Regional Biologist as part of the Environmental Protection Plan approval process. Routes shall not be modified without prior FWC approval.
  - d. During the pre-construction and construction phases of the project, the Permittee shall ensure that surveys for detecting breeding activity and the presence of flightless chicks shall be completed on a daily basis by a qualified bird monitor prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt breeding behavior or cause harm to the birds or their eggs or young. If all project activities are completed and all personnel and equipment have been removed from the beach prior to the end of the breeding season, route surveys shall continue to be conducted at least weekly through the end of the breeding season. If breeding or nesting behavior is confirmed by the presence of a scrape, eggs or young, the Permittee (or their designee) shall establish a 300-foot buffer around the site and notify the FWC Regional Biologist within 24 hours.
  - e. The Bird Monitor shall conduct a shorebird education and identification program (and/or provide educational materials) with the on-site staff to ensure protection of precocial (mobile) chicks. All personnel are responsible for watching for shorebirds, nests, eggs and chicks. If the Bird Monitor finds that shorebirds are breeding within

the project area, a bulletin board shall be placed and maintained in the construction staging area with the location map of the construction site showing the bird breeding areas and a warning, clearly visible, stating that “NESTING BIRDS ARE PROTECTED BY LAW INCLUDING THE FLORIDA ENDANGERED AND THREATENED SPECIES ACT AND THE STATE and FEDERAL MIGRATORY BIRD ACTS”.

- f. **Bird Monitor Requirements.** The Permittee shall ensure that shorebird surveys are conducted by trained, dedicated individuals (Bird Monitor) with proven shorebird identification skills and avian survey experience. Bird Monitors shall review and become familiar with the general information, employ the data collection protocol, and implement data entry procedures outlined on the FWC’s FSD website (<http://www.flshorebirddatabase.org> or [Florida Shorebird Database](#)). The Permittee shall submit a list of Bird Monitors, with their contact information and a summary of qualifications, including bird identification skills and avian survey experience to the FWC Regional Biologist for approval. The Permittee shall submit the names and contact information of the Bird Monitors who have been approved by FWC to [JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us), prior to any construction or shorebird surveys. In order to be approved, the Bird Monitors must meet the following minimum qualifications:
- i. Has previously participated in beach-nesting bird surveys in Florida (provide references or resume). Experience with previous projects must document the ability to 1) identify all species of beach-nesting birds by sight and sound, 2) identify breeding/territorial behaviors, and find nests of shorebirds that occur in the project area, and 3) identify habitats preferred by shorebirds nesting in the project area.
  - ii. Have a clear working knowledge of, and adhere to, the Breeding Bird Protocol for Florida’s Seabirds and Shorebirds.
  - iii. Have completed full-length webinars: Route-Surveyor Training and Rooftop Monitoring Training, including the annual refresher training. Training resources can be found on the Florida Shorebird Database (FSD) website.
  - iv. Familiar with FWC beach driving guidelines.
  - v. Experience posting beach-nesting bird sites, consistent with Florida Shorebird Alliance (FSA) Guidelines.
  - vi. Has registered as a contributor to the FSD.

22. **Shorebird Survey Protocols.** Shorebird survey protocols, including downloadable field data sheets, are available on the [FSD website](#). All breeding activity shall be reported to the FSD website within one week of data collection. If the use of this website is not feasible for data collection, the FWC Regional Biologist must be contacted for alternative methods of reporting. The Permittee shall ensure that the Bird Monitors use the following survey protocols:
- a. Surveys shall be conducted by walking the length of all survey routes and visually surveying for the presence of shorebirds exhibiting breeding behavior, shorebird chicks or shorebird juveniles, as outlined in the FSD Breeding Bird Protocol for Shorebirds and Seabirds. Use of binoculars (minimum 8x40) is required and use of spotting scope may be necessary to accurately survey the area. If an ATV or other vehicle is needed to cover large survey routes, the Bird Monitor shall stop at intervals of no greater than 600 feet to visually inspect for breeding activity.
  - b. Once breeding is confirmed by the presence of a scrape, eggs or young, the Permittee (or their designee) shall notify the FWC Regional Biologist within 24 hours.
23. **Shorebird Buffer Zones and Travel Corridors.** The Permittee shall require the Bird Monitor(s) and Contractor(s) to meet the following:
- a. The Bird Monitor(s) shall establish a disturbance-free buffer zone around any location within the project area where the Bird Monitor has observed shorebirds engaged in breeding behavior, including territory defense. A 300-foot buffer shall be established around each nest or around the perimeter of each colonial nesting area. A 300-foot buffer shall also be placed around the perimeter of areas where shorebirds are seen digging nest scrapes or defending nest territories. All construction activities, movement of vehicles, stockpiling of equipment, and pedestrian traffic are prohibited in the buffer zone. **Smaller, site-specific buffers may be established if approved in writing by the FWC Regional Biologist.** Travel corridors shall be designated and marked outside the buffer areas for pedestrian, equipment or vehicular traffic.
  - b. The Bird Monitor(s) shall keep breeding sites under sufficient surveillance to determine if birds appear agitated or disturbed by construction or other activities in adjacent areas. If birds do appear to be agitated or disturbed by these activities, then the Bird Monitor(s) shall immediately widen the buffer zone to a sufficient size to protect breeding birds.
  - c. The Bird Monitor(s) shall ensure that where breeding birds will tolerate pedestrian traffic, traditional pedestrian access will not be blocked. This is generally the case with lateral movement of beach-goers walking parallel to the beach at or below the highest tide line. Pedestrian traffic may also be allowed when breeding was initiated within 300 feet of an established beach access pathway.



- d. The Bird Monitor(s) shall ensure that the perimeters of designated buffer zones shall be marked according to FSA Posting Guidelines: (<http://flshorebirdalliance.org/resources/instructions-manuals.aspx>) with posts, twine and FWC-approved signs stating “Do Not Enter, Important Nesting Area” or similar language around the perimeter (see example of signage for marking designated buffer zones at <http://myfwc.com/conservation/you-serve/wildlife/shorebirds/> ). Posts shall not exceed 3 feet in height once installed. Symbolic fencing (twine, string or rope) should be placed between all posts at least 2.5 feet above the ground and rendered clearly visible to pedestrians. If pedestrian pathway and/or equipment travel corridor modifications are approved by the FWC Regional Biologist, these shall be clearly marked. **Posting shall be maintained in good repair until no active nests, eggs, or flightless young are present.** Although solitary nesters may leave the buffer zone temporarily with their chicks, the posted area continues to provide a potential refuge for the family until breeding is complete. Breeding is not considered to be completed until all chicks have fledged.
  - e. The Permittee shall ensure that the Bird Monitor(s) designate and mark travel corridors outside the buffer areas so as not to cause disturbance to breeding birds. Heavy equipment, other vehicles, or pedestrians may transit past breeding areas in these corridors. Stopping or turning heavy equipment and vehicles shall be prohibited within the designated travel corridors adjacent to the breeding site. When flightless chicks are present within or adjacent to travel corridors, movement of vehicles shall be adequately monitored by the Bird Monitor(s), who shall advise the contractor whose responsibility it is to ensure no chicks are in the path of the moving vehicle. In addition, tracks, ruts, or holes capable of trapping flightless chicks shall be smoothed or leveled after the Bird Monitor(s) inspect them for the presence of flightless young.
  - f. Any injury or death of a shorebird (including crushing eggs or young) resulting from project activities shall be reported immediately to the FWC Regional Biologist.
24. Subarea 2 of the South Borrow Area shall be used for the initial construction event. Subarea 2 shall be completely used prior to dredging Subarea 3. The borrow areas shall be dredged in such a manner that the material remaining shall be practicable and feasible to dredge in the subsequent event should an entire subarea not be used for a single dredge event.
  25. Subarea 1 of the South Borrow Area shall be reserved for use as a sand source for emergency beach repair in the event that a storm or other event causes damage to the beach within the authorized project area.
  26. Sediment quality shall be assessed as outlined in the Sediment QA/QC Plan, dated May 26<sup>th</sup>, 2020. Placement of material that is not in compliance with the Plan shall be handled according to the protocols set forth in the Sediment QA/QC Plan. The sediment testing

results shall be submitted to The Department within 90 days following the completion of beach construction. The following requirements are included in the Sediment QA/QC Plan:

- a. If, during construction, the Permittee determines that the beach fill material does not comply with the sediment compliance specifications, the Permittee shall take measures to avoid further placement of noncompliant fill, and the sediment inspection results shall be reported to the Department.
- b. The Permittee shall submit post-construction sediment testing results and an analysis report as outlined in the Sediment QA/QC Plan to the Department within 90 days following beach construction. The sediment testing results shall be certified by a P.E. or P.G. from the testing laboratory. A summary table of the sediment samples and test results for the sediment compliance parameters, as outlined in Table 1 of the Sediment QA/QC Plan, shall accompany the complete set of laboratory testing results. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the geotechnical investigation shall be included in the sediment testing results report.
- c. A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced shall be submitted to the Department within 7 days following completion of remediation activities.

**MONITORING REQUIRED:**

27. Water Quality - Turbidity shall be monitored as follows:

Units: Nephelometric Turbidity Units (NTUs).

Frequency: Monitoring shall be conducted 3 times daily, approximately 4 hours apart, and at any other time that there is a likelihood of an exceedance of the turbidity standard, during all dredging and sand placement operations. At the dredge site, sampling shall be conducted after overflow from the hopper begins and the associated turbidity plume has reached the edge of the mixing zone. At the fill placement site, sampling shall be conducted after discharge from the hopper begins and the associated turbidity plume has reached the edge of the mixing zone.

Sampling shall be conducted **while the highest project-related turbidity levels are crossing the edge of the mixing zone**. Since turbidity levels can be related to pumping rates, the dredge pumping rates shall be recorded, and provided to the Department upon request. The compliance samples and the corresponding background samples shall be collected at approximately the

same time, i.e., background sample shall immediately follow the compliance sample.

**Location:** Background: Sampling shall occur at surface (approximately one foot below the surface), mid-depth (for sites with depths greater than 6 feet), and bottom (approximately 6 feet-above the bottom for sites with depths greater than 25 feet). All background sampling shall occur clearly outside the influence of any artificially generated turbidity plume or the influence of an outgoing inlet plume.

**Borrow Site:** Samples shall be collected at least 300 meters up-current from the source of turbidity at the dredge site.

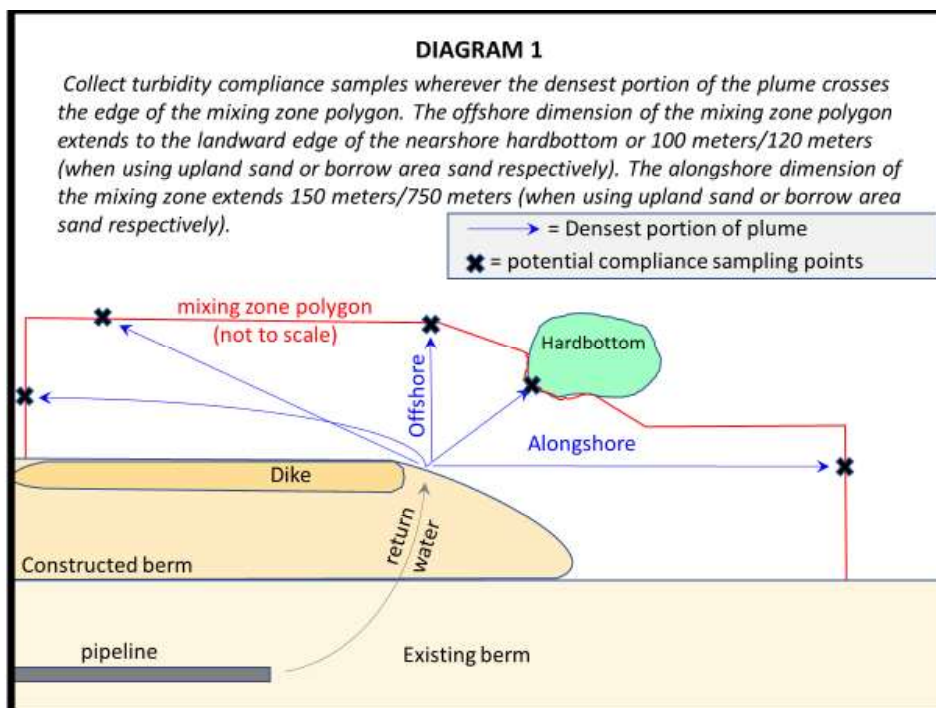
**Beach Site:** Samples shall be collected at least 300 meters up-current from any portion of the beach that has been, or is being, filled during the current construction event, at the same distances offshore as the associated compliance samples.

**Compliance:** Sampling shall occur at surface (approximately one foot below the surface), mid-depth (for sites with depths greater than 6 feet), and bottom (approximately 6 feet above the bottom for sites with depths greater than 25 feet).

**Borrow Site:** Samples shall be collected 150 meters down-current from the cutterhead or the hopper dredge overflow point, or at the edge of the nearest seagrass bed/hardbottom in the downcurrent direction, whichever is closest to the cutterhead or overflow point **and** from any other source of turbidity generated by the dredge, in the densest portion of any visible turbidity plume. If no plume is visible, follow the likely direction of flow.

**Beach Site (when placing sand from upland source):** Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone polygon, which measures up to 100 meters offshore or to the landward edge of the nearshore hardbottom, whichever is closer, and up to 150 meters alongshore from the point where the return water from the dredged discharge reenters the Atlantic Ocean. *Note: If the plume flows parallel to the shoreline, the densest portion of the plume may be close to shore, in shallow water. In that case, it may be necessary to access the sampling location from the shore, in water that is too shallow for a boat. See Figure 2 (below).*

**Beach Site (when placing sand from offshore source):** Samples shall be collected where the densest portion of the turbidity plume crosses the edge of the mixing zone polygon, which measures up to 120 meters offshore or to the landward edge of the nearshore hardbottom, whichever is closer, and up to 750 meters alongshore from the point where the return water from the dredged discharge reenters the Atlantic Ocean. *Note: If the plume flows parallel to the shoreline, the densest portion of the plume may be close to shore, in shallow water. In that case, it may be necessary to access the sampling location from the shore, in water that is too shallow for a boat. See Figure 2 (below).*



**Calibration:** The instruments used to measure turbidity shall be fully calibrated with primary standards within one month of the commencement of the project, and at least once a month throughout the project. Calibration with secondary standards shall be verified each morning prior to use, after each time the instrument is turned on, and after field sampling using two secondary turbidity “standards” that bracket the anticipated turbidity samples. If the post-sampling calibration value deviates more than 8% from the previous calibration value, results shall be reported as estimated and a description of the problem shall be included in the field notes.

Analysis of turbidity samples shall be performed in compliance with DEP-SOP-001/01 FT 1600 Field Measurement of Turbidity:

<http://publicfiles.dep.state.fl.us/dear/sas/sopdoc/2008sops/ft1600.pdf>

If the turbidity monitoring protocol specified above prevents the collection of accurate data, the person in charge of the turbidity monitoring shall contact the JCP Compliance Officer to establish a more appropriate protocol. Once approved in writing by the Department, the new protocol shall be implemented through an administrative permit modification.

28. The **compliance** locations given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the **compliance** sites that are greater than 11 NTUs above the corresponding background turbidity levels when the plume extends into OFW, or 29 NTUs above the corresponding background turbidity levels outside of OFW, construction activities shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the JCP Compliance Officer via email at [JCPCompliance@dep.state.fl.us](mailto:JCPCompliance@dep.state.fl.us) and include in the subject line, "TURBIDITY EXCEEDANCE", and the Project Name and Permit Number. Also notify the Department's Southeast District office.

Any project-associated turbidity source other than dredging or fill placement for beach nourishment (e.g., scow or pipeline leakage) shall be monitored as close to the source as possible. If the turbidity level exceeds 11NTUs above background within OFW or 29 NTUs above background outside of OFW, the construction activities related to the exceedance shall **cease immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. This turbidity monitoring shall continue every hour until background turbidity levels are restored or until otherwise directed by the Department. The Permittee shall notify the Department, by separate email to the JCP Compliance Officer, of such an event within 24 hours of the time the Permittee first becomes aware of the discharge. The subject line of the email shall state "OTHER PROJECT-ASSOCIATED DISCHARGE, TURBIDITY EXCEEDANCE".

- a. When reporting a turbidity exceedance, the following information shall also be included:
- i. the Project Name;
  - ii. the Permit Number;
  - iii. location and level (NTUs above background) of the turbidity exceedance;
  - iv. the time and date that the exceedance occurred; and
  - v. the time and date that construction ceased.

- b. Prior to re-commencing the construction, a report shall be emailed to the Department with the same information that was included in the “Exceedance Report”, plus the following information:
    - i. turbidity monitoring data collected during the shutdown documenting the decline in turbidity levels and achievement of acceptable levels;
    - ii. corrective measures that were taken; and
    - iii. cause of the exceedance.
29. **Turbidity Reports:** All turbidity monitoring data shall be submitted within one week of analysis. The data shall be presented in tabular format, indicating the measured turbidity levels at the compliance sites for each depth, the corresponding background levels at each depth and the number of NTUs over background at each depth. Any exceedances of the turbidity standard (11 NTUs above background within OFW, 29 NTUs above background outside of OFW) shall be highlighted in the table. In addition to the raw and processed data, the reports shall also contain the following information:
- a. time of day samples were taken;
  - b. dates of sampling and analysis;
  - c. GPS location of sample and source. *When possible, coordinates should be provided in decimal degrees with a 5 decimal level of precision (i.e., 0.00001). Please also indicate the datum;*
  - d. depth of water body;
  - e. depth of each sample
  - f. antecedent weather conditions, including wind direction and velocity;
  - g. tidal stage and direction of flow;
  - h. water temperature;
  - i. a geo-referenced map, overlaid on an aerial photograph, indicating the sampling locations (background and compliance), location of active construction, the visible plume pattern and direction of flow. The map shall also include the boundaries of any benthic resources or OFW. A sample map shall be submitted to and reviewed by the Department prior to construction (Specific Condition 5);

- j. a statement describing the methods used in collection, handling, storage and analysis of the samples;
- k. a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, calibration of the meter, accuracy of the data and precision of the GPS measurements;
- l. When samples cannot be collected, include an explanation in the report. If unable to collect samples due to severe weather conditions, include a copy of a current report from a reliable, independent source, such as an online weather service.

Monitoring reports shall be submitted by email to the Department's JCP Compliance Officer. In the subject line of the reports, include the Project Name, Permit Number and the dates of the monitoring interval. Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the Department's JCP Compliance Officer, on the cover page to the submittal and at the top of each page, please state: "**This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0285993-009-JC, for the Indian River County Sector 3 Beach and Dune Nourishment Project**"

30. **Biological Monitoring**

- a. The Permittee shall adhere to the current, Department-approved **Biological Monitoring Plan (BMP)** (dated April 29, 2020), which is a binding part of this permit. The Permittee is responsible for ensuring that their selected contractor(s) / subcontractor(s) are knowledgeable of all permit conditions pertaining to monitoring requirements (including the BMP); not just the scope of work in the contract prepared by the Permittee / contractor. The Permittee shall acquire written approval from the Department prior to implementing any revisions to the BMP. Table 2 (below), titled "Hardbottom Monitoring Summary", summarizes surveys, monitoring events, and tasks required by the Biological Monitoring Plan; these are described in detail in the Biological Monitoring Plan itself.

**No impacts to hardbottom resources are authorized by this permit.** Biological monitoring shall be conducted to provide the Department with reasonable assurance that any unpermitted, project-related, persistent or temporary, negative impacts (direct or indirect) to hardbottom resources will be documented, if they occur. Unpermitted project-related impacts shall be mitigated for. Impacts and their mitigation may be handled through compliance and enforcement action, and the amount of mitigation may be determined according to the Department's UMAM assessment.

- b. **Nearshore Hardbottom Monitoring.** Nearshore hardbottom adjacent to the fill template, beyond the ETOF, shall be monitored (see Section 2.0 of the BMP). A

single pre-construction monitoring event shall be conducted prior to the initial fill placement event conducted under this Permit (see Specific Condition 5.d.ii of the permit). This pre-construction monitoring event shall serve as the baseline for all post-construction monitoring conducted under this Permit. An immediate post-construction monitoring event (within six months of project completion) and three annual post-construction monitoring events (Years 1, 2, and 3 post-construction) shall be conducted following each fill placement event (i.e., each fill placement event shall trigger a complete round of post-construction monitoring). Unless otherwise approved in writing by DEP staff, all monitoring events shall be conducted during summer months (May through September), as close as practicable to the date the baseline survey was conducted. Standard operating procedures shall be used during each monitoring event to provide consistent and repeatable collection of data. Monitoring data and reports are required to be submitted following each monitoring event, according to the Plan.

- c. **Pipeline Corridor Monitoring.** Prior to each fill placement event in which the borrow area will be the sand source and pipelines will be used to transport fill material to the placement area, Pre-Construction Pipeline Corridor Surveys shall be conducted to determine the current presence or absence of hardbottom resources and, if present, to determine the current distribution and condition of hardbottom resources within each authorized pipeline corridor and the area 25 meters to the right and left of each pipeline corridor (see Section 3.1 of the BMP).

For survey areas documented as currently containing hardbottom resources, the Permittee shall use the results of the Pre-Construction Pipeline Corridor Surveys to determine where hardbottom resources can be avoided when placing and using pipelines. For hardbottom resources that cannot be avoided within pipeline corridors, the Permittee shall, to the greatest extent practicable, use the results of the Pre-Construction Pipeline Corridor Surveys to determine the least impactful placement for each pipeline within each corridor and the locations along each pipeline where Minimization Measures (e.g., collars or risers or floating pipeline) can be used to limit impacts to resources. Following survey completion and data analysis, the Permittee shall submit all raw Data and a written Pre-Construction Pipeline Corridor Survey Report to the DEP (see Section 3.2 of the BMP and Specific Conditions 5.d.iii.(1) and (2) of the permit).

Results of the current Pre-Construction Pipeline Corridor Surveys as well as the avoidance and minimization measures that will be employed by the Permittee shall determine whether additional surveys, monitoring of hardbottom resources, or activities to provide assurance are required within project areas. If monitoring is required, the type of monitoring that shall be conducted will be based on current survey results, as specified below:



- i. If results of the current Pre-Construction Pipeline Corridor Surveys demonstrate that hardbottom resources are currently absent within a pipeline corridor and the 25-meter buffer to either side of the corridor, then no additional surveys or monitoring will be required for the corridor for the current construction event.
  - ii. If results of the Pre-Construction Pipeline Corridor Surveys demonstrate that hardbottom resources are currently present within a pipeline corridor or the 25-meter buffer to either side of the corridor, and if the Permittee will avoid hardbottom resources documented within the pipeline corridor and corridor buffer during construction (e.g., during pipeline placement and use), then the Department will require reasonable assurance that resources within the corridor have successfully been avoided. The Permittee shall conduct a Post-Placement Pre-Pumping Pipeline Survey and provide the results (data) of the survey to the Department (see Section 3.3 of the BMP and see Specific Condition 5.d.iii.(3) of the permit). To meet the Department's reasonable assurance requirement for Avoidance, results of the Post-Placement Pre-Pumping Pipeline Survey must demonstrate that hardbottom resources are absent within 25-meter to either side of the placed pipeline. Hardbottom resources that have not been avoided shall be Monitored (see Section 3.4 of the BMP for monitoring methods).
  - iii. If hardbottom resources within a pipeline corridor and corridor buffer area cannot be avoided during construction (e.g., during pipeline placement and use), then resources within close proximity to placed pipelines (i.e., present within 25-meter to either side of a pipeline) shall be monitored. The Permittee shall conduct a Post-Placement, Pre-Pumping Pipeline Survey and provide the results of the survey to the Department (see Section 3.3 of the BMP and Specific Condition 5.d.iii.(3) of the permit). The type of monitoring required for each hardbottom patch/feature in close proximity to the pipeline shall depend on whether the pipeline, once placed, runs adjacent to or across/through hardbottom resources (see Section 3.4 of the BMP for required monitoring methods). Reports are required to be submitted following each survey, according to the Plan.
- d. **Reporting Requirements for Biological Monitoring.** See Section 5.0 of the BMP for reporting requirements.
- e. **Hardbottom Monitoring Summary.** All pre-construction survey tasks shall be completed prior to the start of any and all related construction activities, respectively. Post-placement pipeline surveys and initial corridor monitoring events shall be completed prior to the initiation of pumping activities. Other pre- and post-construction monitoring shall be conducted as specified in each individual section of the approved Biological Monitoring Plan. Surveys, monitoring, and tasks required for nearshore hardbottom and pipeline corridors are summarized in Table 2, below. See the Biological Monitoring Plan for details.

**Table 2. Hardbottom Monitoring Summary**

Project Area	Survey	Survey Type	Survey Period & Number of Events	Deliverables
Nearshore Hardbottom	38 Permanent Transects outside of ETOF (N=24 Biological and N=14 Sediment Only; Max 50 m long each; and Permanent Quadrats (0.5 m <sup>2</sup> ))	Line-Intercept (all transects)	<b>Pre-Construction</b> (N=1): Once prior to initial fill placement (Baseline).  <b>Post-Construction</b> (N=4 per fill placement event): Immediately (within 6 months) and annually for 3 years (years 1, 2, and 3).	Excel spreadsheet, PDF of field sheets
		Interval Sediment Depth (all transects)		Excel spreadsheet, PDF of field sheets
		Video (all transects)		Video
		Quadrat Sampling (only biological transects)		Excel spreadsheet, PDF of field sheets
	Hardbottom Edge	In-situ Delineation of Edge (from R-19.5 to R-57)		Shapefiles
Pipeline Corridors	Pre-Construction Corridor Area Surveys	Sonar Survey	<b>Pre-Construction</b> (N=1 full survey of all 6 corridors prior to each fill placement event)	Sonar survey data
		Diver Verification Survey		PDF of field sheets, Photos/Video
		Hardbottom Mapping		Shapefiles
	Post-Placement Pipeline Survey	Mapping	<b>Pre-Pumping</b> (N=1 per corridor per fill placement event): Prior to pumping	Shapefiles
	Corridor Monitoring – All Monitoring Types (1 & 2)	Transect Video Survey	<b>Pre-Pumping</b> (N=1 per corridor per fill placement event): Prior to pumping  <b>Post-Construction</b> (N=1 per corridor per fill placement event)	Video
	Type 1 Corridor Monitoring Only	Transect Video Survey	<b>During-Construction</b> (Weekly – multiple events per fill placement)	Video

31. **Physical Monitoring:** The physical monitoring and associated reporting shall be conducted in accordance with the approved physical monitoring plan (approved April 2020) and the conditions of this permit.

One electronic copy of the monitoring report and one electronic copy of the survey data shall be submitted to the JCP Compliance Officer. When submitting any monitoring information to the Department, please include a transmittal cover letter clearly labeled with the following at the top of each page: **“This monitoring information is submitted in accordance with Item No. 3.4 of the approved Physical Monitoring Plan for Permit No. 0285993-009-JC for the monitoring period [XX].”**

32. If the Permittee is unable to complete two maintenance events within the 15-year life of the permit, the Permittee may request (prior to the expiration date of the permit), and the Department shall grant, an extension of the permit expiration date in order to allow

completion of the second maintenance event. The extension would be documented through an administrative modification.

33. **Post-Construction Meeting.** Within 60 days following each construction activity authorized by this permit, the Permittee shall hold a post-construction conference. Attendees shall include at minimum, the Permittee, Agent, Department representative, and FWC representative.

#### **FLAWAC Review**

The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when this order is filed with the Clerk of the Department.

#### **Judicial Review**

Once this decision becomes final, any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this action is filed with the Clerk of the Department.

#### **EXECUTION AND CLERKING:**

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION



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Gregory W. Garis.  
Program Administrator  
Beaches, Inlets and Ports Program  
Office of Resilience and Coastal Protection

**Joint Coastal Permit  
Indian River County Sector 3 Beach and Dune Nourishment Project  
Permit No. 0285993-009-JC  
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**Attachments:** Approved Permit Drawings (29 pages)  
Upland Sediment QA/QC Plan (approved on May 26, 2020)  
Offshore Sediment QA/QC Plan (approved on May 26, 2020)  
Biological Monitoring Plan (approved April 29, 2020)  
Physical Monitoring Plan (Approved April 2020)

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy clerk hereby certifies that this permit and all attachments were sent on the filing date below.

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to Section 120.52, F. S., with the designated Department Clerk, receipt of which is hereby acknowledged.

  
\_\_\_\_\_  
**Clerk**

July 17, 2020  
**Date**

**APPENDIX B**  
**USACE PERMIT**

# DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Indian River County, Public Works  
Attn: Mr. Richard Szpyrka  
1801 27<sup>th</sup> Street, Building A  
Vero Beach, Florida 32960

**Permit No:** SAJ-2007-01645 (SP-BJC)

**Issuing Office: U.S. Army Engineer District, Jacksonville**

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** The applicant seeks authorization for a 15-year permit to restore and maintain the Sector 3 beach. Approximately 461,700 cubic yards (cy) of in-place material is required to fill the design template based on the July 2018 beach condition. The proposed beach nourishment project includes sand nourishment in the form of a restored dune and a narrow berm feature that intersects the existing beach near the waterline. The proposed beach renourishment project extends along the same shoreline originally permitted, between FDEP reference monuments R-20 and R-55, which includes portions of North Beach, Orchid, Wabasso Beach, Indian River Shores, and unincorporated portions of Indian River County

The work described above is to be completed in accordance with the 32 pages of drawings [and 16 attachments] affixed at the end of this permit instrument.

**Project Location:** The project would affect waters of the United States associated with the Atlantic Ocean. The project site is located along the shoreline of the Atlantic Ocean beginning at Florida Department of Environmental Protection (FDEP) Range Monument (R) R-20, approximately at Seaview Boulevard, and extending south to R-55 at approximately 640 Ocean Road. The project limits are referred to as Sector 3. The project is located in Sections 1, 3, 6, 10, 14, 15, 23, 25, 26, and 36, Townships 31 and 32 South, Ranges 39 and 40 East, Indian River County, Florida.

**Directions to site:** From I-95 Southbound, take State Road 60 (20<sup>th</sup> Street) east approximately 13 miles, to Indian River Boulevard (A1A). Turn left and travel north on Indian River Boulevard for approximately 5.2 miles to southern terminus of Sector 3 (R-

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PERMITTEE: Indian River County Public Works  
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55) located beachside at approximately 640 Ocean Road. For the northern terminus continue north on A1A approximately 6.6 miles until Seaview Boulevard on the east side of A1A.

**Approximate Coordinates:**

Start: Latitude 27.8115836°  
Longitude -80.42233373°

End: Latitude 27.72468001°  
Longitude -80.37893356°

**Permit Conditions**

**General Conditions:**

1. The time limit for completing the work authorized ends on **October 9, 2035**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature and the mailing address of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this

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PERMITTEE: Indian River County Public Works  
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permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

**Special Conditions:**

1. **Reporting Address:** The Permittee shall submit all reports, notifications, documentation and correspondence required by the general and special conditions of this permit to either (not both) of the following addresses:
  - a. For electronic mail (preferred): [SAJ-RD-Enforcement@usace.army.mil](mailto:SAJ-RD-Enforcement@usace.army.mil) (not to exceed 15 MB).
  - b. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Enforcement Section, P.O. Box 4970, Jacksonville, FL 32232-0019.

The Permittee shall reference this permit number, SAJ-2007-01645 (SP-BJC), on all submittals.

2. The attached Specific Conditions of Water Quality Certification/Permit number 0285993-009-JC dated July 17, 2020, issued by the FDEP (Attachments 2-6), are hereby incorporated in this Department of the Army (DA) permit. The Permittee agrees that should the above referenced State permit be modified in any way the Permittee will apply to the Corps for a modification to this permit instrument.
3. **Commencement Notification:** Within 10 days from the date of initiating the authorized work, the Permittee shall provide to the Corps a written notification of the date of commencement of work authorized by this permit.
4. **Fill Material:** Based on the beach profile survey conducted in July 2018, the Permittee shall place +/-461,700 cubic yards of beach quality sand within the permitted template along 6.6 linear miles of Atlantic Ocean shoreline between FDEP Reference Monuments R-20 and R-55. The volume may vary based on updated profile survey of the beach in accordance with Special Condition No. 31 of the FDEP permit (0285993-009-JC). The varying volume of material shall maintain the project design intent to not impact nearshore hardbottom. The Permittee shall use only clean, beach-compatible fill material for this project. The



fill material shall be free from items such as trash, debris, construction materials, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act. All beach fill material utilized shall comply with the FDEP-approved Sediment Quality Control/Quality Assurance Plans (Attachments 3 and 4). Sampling reports required by the plan shall be provided to the Corps Enforcement Section. If the beach fill material placed at the project site does not meet the specifications of the Sediment Quality Control/Quality Assurance Plan and/or the specifications of the terms and conditions of the FWS Biological Opinion, the Corps and FWS shall be notified immediately and any necessary remediation efforts shall be coordinated with Corps Enforcement Section staff. To the extent the Sediment Quality Control/Quality Assurance Plan conflicts with the terms and conditions of the attached FWS Biological Opinion, the FWS Biological Opinion shall prevail.

- 5. South Atlantic Regional Biological Opinion:** The authorized work is approved under the current National Marine Fisheries Service (NMFS) South Atlantic Regional Biological Opinion (SARBO) and its references, which can be viewed on the following website in the folder titled Information:  
<https://www.fisheries.noaa.gov/content/endangered-species-act-section-7-biological-opinions-southeast>

**Note** – Please use an alternate browser in the event you have trouble opening the above website.

The Permittee is responsible for obtaining and complying with the SARBO. If the Permittee is unable to view the SARBO at this website, the Permittee shall contact the Corps to receive a copy of the SARBO. The Permittee shall implement all reasonable and prudent measures identified in the SARBO. NMFS has issued the SARBO to the Corps for projects that limit the take of listed turtles, whales, sturgeon, sawfish, and any other species listed in the SARBO. Authorization under this permit is conditional upon compliance with all of the mandatory terms and conditions associated with the SARBO, which terms and conditions are incorporated by reference in this permit. The mandatory terms and conditions include adherence to the Project Design Criteria (PDC) applicable to the authorized project. The applicable PDCs are identified with a check mark in Attachment 7. Failure to comply with the terms and conditions associated with the SARBO, where a take of the listed species occurs, would constitute noncompliance with this permit. Failure to comply with this permit will be the basis for suspension and revocation of this permit and may be the basis for other enforcement action. NMFS has directed that this SARBO issued to the Corps serve as the formal consultation for all projects in the area covered by the

SARBO; however, where the terms and conditions of the SARBO differ from the special conditions of this permit, the special conditions of this permit will take precedence as the more stringent condition.

- 6. Incidental Take Statement:** This permit does not authorize the Permittee to take an endangered species, in particular sea turtles, sturgeon, whales, or any other endangered species listed in the SARBO. The SARBO includes an Incidental Take Statement (ITS) issued to the Corps. The Permittee understands and agrees that, even where it is in full compliance with the terms and conditions of the SARBO ITS and this permit, incidental take by the Permittee or other hopper dredging operations within the area covered by the SARBO may result in suspension or modification of this permit by the Corps. The amount of incidental take that will trigger suspension, and the need for any such suspension, shall be determined at the discretion of the Corps. The Permittee understands and agrees on behalf of itself, its agents, contractors, and other representatives, no claim, legal action in equity or for damages, adjustment, or other entitlement against the Corps shall arise as a result of such suspension or related action.
- 7. Project timing:** The USACE and/or BOEM will determine project timing and necessary minimization measures to reduce the risk of take of ESA-listed species through the Risk Based Adaptive Management process outlined in Section 2.9.2.2 of the 2020 SARBO and Appendix J. Additional timing requirements apply within the range of certain species, as outlined in the North Atlantic Right Whale Conservation Plan (Appendix F) and sturgeon PDCs (Appendix E).
- 8. Dredging Quality Management (DQM):** Dredging and dredged material disposal and monitoring of dredging projects using the Dredging Quality Management (DQM) system shall be implemented for this permit. The Permittee shall ensure that each hopper dredge assigned to the work authorized by this permit is equipped with DQM, previously known as 'Silent Inspector', for hopper dredge monitoring. The Permittee's DQM system must have been certified by the DQM Support Team within one calendar year prior to the initiation of the dredging/disposal. Questions regarding certification should be addressed to the DQM Support Center at 877-840-8024. Additional information about the DQM System can be found at <https://dqm.usace.army.mil/>. The Permittee is responsible for insuring that the DQM system is operational throughout the dredging and disposal project and that project data are submitted to the DQM National Support Center in accordance with the specifications provided at the aforementioned website. The data collected by the DQM system shall, upon

request, be made available to the Regulatory Division of the U.S. Army Corps of Engineers - Jacksonville District.

9. **Biological Monitoring Plan:** The Permittee shall comply with the attached biological monitoring plan (Attachment 5). The biological monitoring reports shall be submitted to the Corps Enforcement Section within 90 days of survey completion. To the extent the biological monitoring plan conflicts with the terms and conditions of the FWS Biological Opinion AND/OR the NMFS 2020 SARBO, the FWS and NMFS Biological Opinions shall prevail.
10. **Deflector Device Submittal:** The Permittee shall ensure drawings of the proposed sea turtle deflector device and the completed "Hopper Dredge Deflector Device Checklist" form (Attachment 10) and all required documentation are submitted to the Corps at least 30 days prior to initiating the authorized work to the addresses listed in the **Reporting Special Condition**. No dredging shall be performed by a hopper dredge without the inclusion of an approved, rigid, sea turtle deflector device. The Permittee shall not commence hopper dredging until approval of the sea turtle deflector device has been granted by the Corps. A copy of the approved drawings, calculations, and signed "Hopper Dredge Deflector Device Checklist" form shall be available on the vessel during dredging operations.
11. **Hopper Dredging Pre-Dredging Inspection Submittal:** The Permittee shall submit the completed "Hopper Dredge Pre-Dredge Inspection Checklist" form (Attachment 11) to the Corps, at least 5 days prior to initiating the authorized work. This checklist can be accessed at:

<https://dgm.usace.army.mil/odess/>

**Note** – Please use a different browser if experiencing trouble opening the above link.

12. **Statewide Programmatic Biological Opinion (SPBO):** The Permittee provided information to the U. S. Fish and Wildlife Service (FWS) during consultation for loggerhead sea turtle, leatherback sea turtle, green sea turtle, hawksbill sea turtle, Kemp's Ridley sea turtle, West Indian manatee, southeastern beach mouse. The Permittee has reviewed the Reasonable and Prudent Measures, Terms and Conditions of the SPBO dated March 13, 2015, and agreed to follow the measures included to minimize impacts to the above-mentioned species. The FWS provided concurrence the maintenance dredging activities and sand

placement activities are consistent with the SPBO provide the Permittee follows the term and conditions contained herein (Attachment 12).

- 13. Programmatic Piping Plover Biological Opinion (P<sup>3</sup>BO):** The Permittee provided information to the U. S. Fish and Wildlife Service (FWS) during consultation for piping plover and red knot. The Permittee has reviewed the Conservation Measures of the P<sup>3</sup>BO dated May 22, 2013, and agreed to follow the measures included to minimize impacts to the above-mentioned species. The FWS provided concurrence the maintenance dredging activities and sand placement activities are consistent with the P<sup>3</sup>BO provide the Permittee follows the term and conditions contained herein (Attachment 13).
- 14. Manatee Protection:** The permittee shall comply with the “Standard Manatee Conditions for In-Water Work – 2011” (attachment 14).
- 15. Sea Turtle and Smalltooth Sawfish Conditions:** The Permittee shall comply with National Marine Fisheries Service's “Sea Turtle and Smalltooth Sawfish Construction Conditions” dated March 23, 2006, (Attachment 15).
- 16. As-Built Certification:** Within 60 days of completion of the work authorized by this permit, the Permittee shall submit as-built drawings of the authorized work and a completed “As-Built Certification By Professional Engineer” form (Attachment 16) to the Corps. The as-built drawings shall be signed and sealed by a registered professional engineer and include the following:
  - a. A plan view drawing of the location of the authorized work footprint, as shown on the permit drawings, with transparent overlay of the work as constructed in the same scale as the permit drawings on 8½-inch by 11-inch sheets. The plan view drawing should show all "earth disturbance," including wetland impacts and water management structures.
  - b. A list of any deviations between the work authorized by this permit and the work as constructed. In the event that the completed work deviates, in any manner, from the authorized work, describe on the attached “As-Built Certification By Professional Engineer”\_form the deviations between the work authorized by this permit and the work as constructed. Clearly indicate on the as-built drawings any deviations that have been listed. Please note that the depiction and/or description of any deviations on the drawings and/or “As-Built Certification By Professional Engineer” form does not constitute approval of any deviations by the Corps.

- c. Include the Department of the Army permit number on all sheets submitted.
- d. Include pre- and post-construction aerial photographs of the project site if available

**17. Cultural Resources/Historic Properties:**

- a. No structure or work shall adversely affect impact or disturb properties listed in the *National Register of Historic Places* (NRHP) or those eligible for inclusion in the NRHP.
- b. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps within the same business day (8 hours). The Corps shall then notify the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.
- c. Additional cultural resources assessments may be required of the permit area in the case of unanticipated discoveries as referenced in accordance with the above Special Condition; and if deemed necessary by the SHPO, THPO(s), or Corps, in accordance with 36 CFR 800 or 33 CFR 325, Appendix C (5). Based on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume on non-federal lands without written authorization from the SHPO for finds under his or her jurisdiction, and from the Corps.
- d. In the unlikely event that unmarked human remains are identified on non-federal lands, they will be treated in accordance with Section 872.05 Florida Statutes. All work and ground disturbing activities within a 100-meter diameter of the unmarked human remains shall immediately cease and the Permittee shall immediately notify the medical examiner, Corps, and State Archeologist within the same business day (8-hours). The Corps shall then

notify the appropriate SHPO and THPO(s). Based, on the circumstances of the discovery, equity to all parties, and considerations of the public interest, the Corps may modify, suspend or revoke the permit in accordance with 33 CFR Part 325.7. Such activity shall not resume without written authorization from the State Archeologist and from the Corps.

**Further Information:**

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

Section 404 of the Clean Water Act (33 U.S.C. 1344)

Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413)

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal projects.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. **Reliance on Applicant's Data:** The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. **Reevaluation of Permit Decision:** This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. **Extensions:** General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

PERMIT NUMBER: SAJ-2007-01645  
PERMITTEE: Indian River County Public Works  
PAGE 11 of 13

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

Richard B. Szpyrka P.E. Digitally signed by Richard B. Szpyrka P.E  
Date: 2020.12.04 15:26:50 -05'00'

December 4, 2020

\_\_\_\_\_  
(PERMITTEE)

\_\_\_\_\_  
(DATE)

Richard B. Szpyrka - Public Works Director

\_\_\_\_\_  
(PERMITTEE NAME-PRINTED)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

**PALMER.JOHN.C.1364  
675034**

Digitally signed by  
PALMER.JOHN.C.1364675034  
Date: 2020.12.15 11:31:01 -05'00'

\_\_\_\_\_  
(DISTRICT ENGINEER)

\_\_\_\_\_  
(DATE)

Andrew D. Kelly Jr.  
Colonel, U.S. Army  
District Commander



PERMIT NUMBER: SAJ-2007-01645  
PERMITTEE: Indian River County Public Works  
PAGE 12 of 13

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
(TRANSFEREE-SIGNATURE)

\_\_\_\_\_  
(DATE)

\_\_\_\_\_  
(NAME-PRINTED)

\_\_\_\_\_  
(ADDRESS)

\_\_\_\_\_  
(CITY, STATE, AND ZIP CODE)

PERMIT NUMBER: SAJ-2007-01645  
PERMITTEE: Indian River County Public Works  
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***Attachments to Department of the Army  
Permit Number SAJ-2007-01645***

1. PERMIT DRAWINGS: 32 pages, dated February, March, April 2019, and February 2020.
2. WATER QUALITY CERTIFICATION: Specific Conditions of the permit/certification in accordance with General Condition number 5 on page 2 of this DA permit.
3. Upland Sediment QA/QC Plan
4. Offshore Sediment QA/QC Plan
5. Biological Monitoring Plan
6. Physical Monitoring Plan
7. SARBO PDC Checklist
8. SARBO Pre/Post Construction Reporting Form
9. SARBO ESA Take Reporting Form
10. Hopper Dredge Deflector Device Checklist
11. Hopper Dredge Pre-Dredge Inspection Checklist
12. USFWS Biological Opinion – SPBO. 193 pages
13. USFWS Biological Opinion – P3BO. 64 pages
14. Standard Manatee Conditions for In-Water Work - 2011: 2 pages
15. Sea Turtle and Smalltooth Sawfish Construction Conditions – 2006: 1 page
16. As-Built Certification Form: 2 pages



**Archie Carr National Wildlife Refuge**  
**General Activities**  
**Special Use Permit**  
*(For Official Use Only)*

Permit #: 41575202003

Permit Term: From: 8/6/2020 To: 8/1/2025

- 1) Permittee Name/Business: James Ennis, IRC Public Works Coastal Div.
- 2) Permit Activity Type: Indian River County beach renourishment
- 2) Permit Status:  Approved *If approved, provide special conditions (if any) in the text box below.*  
 Denied *If denied, provide justification in the text box below.*

Permittee will send any reports (annual and final) to the Archie Carr Refuge Manager.

- 3) Are there additional special conditions attached to the permit?  Yes  No  N/A
- 4) Are other licenses/permits required, and have they been verified?  Yes  No  N/A
- 5) Are Insurance and/or Certification(s) required, and have they been verified?  Yes  No  N/A
- 6) Record of Payments:  Full  Partial  Exempt
- 7) Is a surety bond or security deposit required?  Yes  No  N/A

This permit is issued by the U.S. Fish and Wildlife Service and accepted by the applicant signed below, subject to the terms, covenants, obligations, and reservations, expressed or implied therein, and to the notice, conditions, and requirements included or attached. A copy of this permit should be kept on-hand so that it may be shown at any time to any refuge staff

8) Permit approved/issued by: (Signature and title)

OLIVER  
Biologist VAN DEN ENDE  
Date: 2020.08.06  
06:21:26 -04'00'

9) Permit accepted by: (Signature of permittee)

JAMES W. ENNIS, ASST. PUBLIC WORKS DIRECTOR  
Date: 8/6/2020

**APPENDIX C**  
**CONTRACTOR DAILY REPORT FORMAT**

INDIAN RIVER COUNTY

SECTOR 3 – HURRICANES IAN AND NICOLE REPAIR PROJECT

DAILY CONTRACTOR QUALITY CONTROL REPORT

Date: \_\_\_\_\_ - \_\_\_\_\_ Contract Day: \_\_\_\_\_  
(Report is due by 12:00 p.m. of the following day)

Beach Access Utilized: \_\_\_\_\_

WEATHER: (Clear) (P. Cloudy) (Cloudy) (Rain)      TEMP.      Min.      Max.

Wind speed: \_\_\_\_\_ mph      Wind Direction: \_\_\_\_\_

Wave Height: \_\_\_\_\_ feet      Wave Direction: \_\_\_\_\_

GRADING/DRESSING OPERATIONS:

COMPLETE FROM: \_\_\_\_\_ feet (north/south) of profile line no. \_\_\_\_\_

COMPLETE TO: \_\_\_\_\_ feet (north/south) of profile line no. \_\_\_\_\_

FILL PLACEMENT OPERATIONS:

COMPLETE FROM: \_\_\_\_\_ feet (north/south) of profile line no. \_\_\_\_\_

COMPLETE TO: \_\_\_\_\_ feet (north/south) of profile line no. \_\_\_\_\_

DUNE VEGETATION INSTALLATION:

COMPLETE FROM: \_\_\_\_\_ feet (north/south) of profile line no. \_\_\_\_\_

COMPLETE TO: \_\_\_\_\_ feet (north/south) of profile line no. \_\_\_\_\_

1. Work Performed Today: (Indicate location and description of work performed. Provide beach fill advance over last 24 hours.)
  
2. Results of Surveillance: (Include satisfactory work completed or deficiencies with action to be taken.)

3. Sand Quality Monitoring: Did all sand placed today meet the requirements of the contract? Yes/No? \_\_\_\_\_
4. Verbal Instructions Received: (List any instructions given by the ENGINEER or COUNTY, construction deficiencies, retesting required, etc., with action to be taken.)
5. Equipment Data: (Indicate items of construction equipment other than hand tools at job site and whether or not used and if operable.)
6. Progress Summary:

Description	This Day	To Date
Worked Hours		
Downtime Hours (Explain Below)		
Length of Fill Placement Advance on Beach ( <i>ft</i> )		
Number of Truck Deliveries (if applicable)		
Sand Volume Placed (estimated c.y.)		
Volume Pay (cy in accepted sections only)		
Linear % Completed		

Explanation of Downtime:

CONTRACTOR's Verification: The above report is complete and correct, equipment used, and works performed during this reporting period are in compliance with the contract drawings and Specifications except as noted above.

\_\_\_\_\_  
Contractor's Approved Authorized Representative

**APPENDIX D**  
**UPLAND QA/QC PLAN**

**DRAFT SEDIMENT QUALITY CONTROL/QUALITY ASSURANCE PLAN  
FOR BEACH OR DUNE RESTORATION USING AN UPLAND SAND SOURCE**

0285993-009-JC

Indian River County

Sector 3 Beach and Dune Restoration Project

May 26<sup>th</sup>, 2020

**A. INTRODUCTION**

Pursuant to Fla. Admin. Code r. 62B-41.008 (1) (k) 4.b., permit applications for inlet excavation, beach restoration, or nourishment shall include a quality control/assurance plan that will ensure that the sediment from the borrow areas to be used in the project will meet the standard in Fla. Admin. Code r. 62B-41.007(2)(j). To protect the environmental functions of Florida's beaches, only beach compatible fill shall 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.

The Department has received the results of geotechnical investigations that provide adequate data concerning the character of the sediment and the quantities available within the spatial limits of the upland sand source(s). The Department has received an analysis of the existing or native sediment and the sediment within the permitted upland sand source(s), including the methods of mining and post-mining processing, that demonstrates its compatibility with the naturally occurring beach sediment in accordance with Fla. Admin. Code r. 62B-41.007(2)(j). The sediment analysis and volume calculations were performed using established industry standards, and are certified by a Professional Engineer or a Professional Geologist registered in the State of Florida.

Based upon this information, the Department of Environmental Protection (Department) has determined that use of the sediment from the upland sand source(s) will maintain the general character and functionality of the sediment occurring on the beach and in the adjacent dune and coastal system. Furthermore, this information provides sufficient quality control/quality assurance (QC/QA) that the mean grain size and carbonate content of the sediment from the upland sand source(s) will meet the requirements of Fla. Admin. Code r. 62B-41.007(2)(j); hence, additional QC/QA procedures beyond those described in this permit are not required for these sediment parameters during construction.

This plan outlines the responsibilities of each stakeholder in the project as they relate to the placement of beach compatible material on the beach. These responsibilities are in response to the possibility that non-beach compatible sediments may exist within the upland sand source(s) and could be unintentionally placed on the beach. The QC Plan specifies the minimum construction management, inspection, and reporting requirements placed on the Contractor and enforced by the Permittee, to ensure that the sediment from the upland sand source(s) to be used in the project meet the compliance specifications. The QA Plan specifies the minimum construction oversight, inspection, and reporting requirements to be undertaken by the Permittee or the Permittee's On-Site Representative to observe, sample, and test the placed sediments to verify the sediments are in compliance.

**B. SEDIMENT QUALITY SPECIFICATIONS**

The sediment from the upland sand source(s) is similar in Munsell color and grain size distribution to the material in the existing coastal system at the beach placement site. The Department and the Permittee acknowledge that it is possible that discrete occurrences of non-beach compatible sediments may exist within the permitted upland sand source(s) that do not comply with the limiting parameters of Fla. Admin. Code r. 62B-41.007(2)(j) 1. – 5 or vary in Munsell color from the composite value. Furthermore, the Department may consider more restrictive values for the sediment parameters to ensure that the sediment from the upland sand source(s) is similar in color and grain size distribution to the sediment in the existing coastal system at the beach placement site. Therefore, fill material compliance specifications for the sediment from the upland sand source(s) proposed for this project are provided in Table 1.



The compliance specifications take into account the variability of sediment on the native or existing beach, and are values which may reasonably be attained given what is known about the upland sand source(s). Beach fill material which falls outside of these limits will be considered unacceptable and subject to remediation, as described in Section E.

**Table 1- Sediment Compliance Specifications**

<b>Sediment Parameter</b>	<b>Parameter Definition</b>	<b>Compliance Value</b>
Median Grain Size	50% larger/smaller by weight*	0.30 to 0.55
Mean Grain Size	calculated by moment method*	0.33 to 0.55
Max. Silt Content	passing #230 sieve	2%
Max. Gravel Content*	retained on #4 sieve	2%
Munsell Color	moist Hue	10YR, 2.5Y, or 5Y
	moist Value	≥ 7
	moist Chroma	≤ 2
<b>The beach fill material shall not contain construction debris, toxic material, other foreign matter, or coarse gravel or rocks.</b>		

\*Determined using sieves listed in Section D.7.b.

### C. QUALITY CONTROL PLAN

The contract documents shall incorporate the following technical requirements, or equivalent language that addresses the sediment quality monitoring on the beach, and, if necessary, remedial actions. The Permittee will seek to enforce these contract requirements during the execution of work. For each construction event, the Contractor shall submit a Quality Control Plan for review and acceptance by the Permittee. This Plan shall comply with the quality control measures set forth in this permit, and also address sediment quality assurance by including: (1) the specific sampling frequency and testing methodology to be provided by the Contractor, (2) the name, address and point of contact for the Licensed Testing Laboratory to be used for the required collection of samples and laboratory testing, and (3) how the Contractor intends to assess compliance with the Sediment Compliance Specifications as shown in Table 1.

The characteristics of the in-situ materials in the upland sand source(s) are indicated by geotechnical data, including the boring logs and grain size distribution curves. The characteristics of the processed material are also included with the geotechnical data. However, the Contractor should be aware that it is possible for material of differing characteristics to be present and that the mining process may correspondingly require revisions during construction to produce beach compatible sand consistent with the Sediment Compliance Specifications in Table 1.

**1. Assessment at Upland Sand Source.** The material shall be observed by the Contractor while the material is being loaded into the trucks for transport to the Construction Access/Staging Area. Both the Contractor and the Permittee will have benchmark samples labeled with the permit number, “Benchmark Sample”, date collected, site name, and information on where the sample was attained. The benchmark sample shall be material that has been deemed beach compatible in accordance with the Sediment Compliance Specifications in Table 1 and shall serve as the minimum requirement for the material being placed on the beach. If any material appears to be non-compliant, it shall be set aside for testing and/or further processing and not transported to the beach.

**a. For conventional hydraulic excavation and stockpiling.** The Contractor will collect a sediment sample at not less than 4 sample for each 3,000 cubic yards of stockpiled material no less than 6 inches below the surface to visually assess grain size, Munsell color, gravel content, and silt content against the benchmark sample. The sample shall be a minimum of 1 U.S. pint (approximately 200 grams). Each sample will be archived with the date, time, and location of the sample. This assessment will consist of handling the fill material to ensure that it is predominantly sand and to evaluate if the physical characteristics of the material meets the Sediment Compliance Specifications in Table 1. If deemed that the material may not be in compliance, the sample shall be tested at a Licensed Testing Laboratory using the criteria outlined in Section D.7.b. Sediment testing results shall be provided to the Permittee and Project Engineer prior to any portion of the 3,000 cubic yards of material

represented by that sample being transported to the Construction Access/Staging Area. Sediment testing results shall reference a specific stockpile name and GPS location within the mine. The results of daily inspections, regardless of the quality of the sediment, will be appended to or notated on the Contractor's Daily Report. All samples will be stored by the Permittee for at least 120 days after project completion.

**b. For material requiring special handling and material processing.** If special handling and material processing are necessary to produce beach compatible material consistent with the Sediment Compliance Specifications in Table 1, then sampling and laboratory testing of the processed sand shall be conducted at the upland mine(s) from the stockpiled material before the material is transported to the Construction Access/Staging Areas. The Contractor will collect not less than 4 representative samples from approximately every 3,000 cubic yards of material in the stockpile no less than 6 inches below the surface from the middle of the stockpile. The sample shall be a minimum of 1 U.S. pint (approximately 200 grams). Each sample will be archived with the stockpile name, date, time, and GPS location of the sample. The samples shall be tested at a Licensed Testing Laboratory using the criteria outlined in Section D.7.b. Sediment testing results shall be provided to the Permittee and Project Engineer prior to any portion of the 3,000 cubic yards of material represented by that sample being transported to the Construction Access/Staging Area. The laboratory testing results will be appended to or notated on the Contractor's Daily Report. All samples will be stored for at least 120 days after project completion and shall be made available to the Permittee upon request.

If a sample does not meet the Sediment Compliance Specifications in Table 1, then the 3,000 cubic yards of material represented by that sample shall not be transported to the Construction Access/Staging Area. The material may undergo further processing to meet the Sediment Compliance Specifications with additional laboratory testing to verify the additional processing produces material that meets the Sediment Compliance Specifications, or the material shall be set aside and not used.

**2. Beach Observation.** The Contractor will continuously visually monitor the sediment being placed on the beach to assess grain size, silt content, gravel content, and Munsell color. An assessment will be made during placement at a minimum of once every hour. This assessment will consist of handling the fill material to ensure that it is predominantly sand and to note the physical characteristics, and assure the material meets the Sediment Compliance Specifications in Table 1. If deemed necessary, quantitative assessment of the sand will be conducted for grain size, silt content, gravel content, and Munsell color using the methods outlined in Section D.7.b. If noncompliant sediment is placed on the beach, the Contractor will immediately cease placement until any stockpiled material at the beach construction staging area can be verified as beach compatible. The Contractor will notify the Permittee, providing the time, location, and description of the noncompliant sediment. The Contractor will take the appropriate actions to remediate the noncompliant material to achieve and document compliance with the Sediment Compliance Specifications. The Contractor, in cooperation with the Permittee or Project Engineer, will utilize the sampling records at the upland source(s) to determine where the material originated from to avoid additional placement of noncompliant sediment.

#### **D. QUALITY ASSURANCE PLAN**

The Permittee will seek to enforce the construction contract and Department permits related to sediment quality. In order to do so, the following steps shall be followed:

**1. Construction Observation and Sampling for Visual Assessment.** Construction observation by the Permittee's On-Site Representative will be performed on a daily basis during periods of active construction. The Permittee's On-Site Representative will collect a sediment sample to visually assess grain size, Munsell color, gravel content, and silt content. The observation will include handling the fill material to ensure that it is predominantly sand and to evaluate if the physical characteristics of the material meet the Sediment Compliance Specifications in Table 1. If the Permittee or Project Engineer determines that the beach fill material does not comply with the Sediment Compliance Specifications, the Permittee or Project Engineer will immediately instruct the Contractor to cease placement and take the necessary actions to avoid further placement of noncompliant sediment. If deemed necessary, quantitative assessments of the sand will be conducted for grain size, silt content, gravel content, and Munsell color using the methods outlined in section D.7.b. If noncompliant sediment is placed on the beach, the Permittee or Project Engineer will document the time, location, and description of the noncompliant sediment. The noncompliant sediment will be subject to remediation, as described in Section E. The Permittee or Project Engineer, in cooperation with the

Contractor, will utilize the sampling records at the upland source(s) to determine where the material originated from to avoid additional placement of noncompliant sediment.

**2. On-Site Representative.** The Permittee will provide on-site observation by individuals with training or experience in beach nourishment and construction inspection and testing, and who are knowledgeable of the project design and permit conditions. The Project Engineer will actively coordinate with the Permittee's On-Site Representative, who may be an employee or sub-contractor of the Permittee or the Project Engineer. Communications will take place between the Project Engineer and the Permittee's On-Site Representative on a daily basis during periods of active construction.

**3. Pre-Construction Meeting.** The project QC/QA Plan will be discussed as a matter of importance at the pre-construction meeting. The Contractor will be required to acknowledge the goals and intent of the above described QC/QA Plan, in writing, prior to commencement of construction.

**4. Contractor's Daily Reports.** The Permittee's On-Site Representative or Project Engineer will review the Contractor's Daily Reports which will characterize the nature of the sediments encountered at the upland sand source and placed along the project shoreline with specific reference to moist sand color and the occurrence of rock, rubble, gravel, silt, or debris.

**5. On Call.** The Project Engineer will be continuously on call during the period of construction for the purpose of making decisions regarding issues that involve QC/QA Plan compliance.

**6. Addendums.** Any addendum or change order to the Contract between the Permittee and the Contractor will be evaluated to determine whether or not the change in scope will potentially affect the QC/QA Plan.

**7. Post-Construction Sampling for Laboratory Testing.** To assure that the fill material placed on the beach was adequately assessed by the borrow area investigation and design, the Project Engineer or Permittee's On-Site Representative will conduct assessments of the sediment as follows:

a. Post-construction sampling and testing of the fill material will be conducted to verify that the sediment placed on the beach meets the expected criteria/characteristics provided during the geotechnical investigation and borrow area design process. Upon completion of sections of constructed beach, the project Engineer will collect two (2) duplicate sand samples will be collected at each FDEP Reference Monument to quantitatively assess the grain size distribution, moist Munsell color, gravel content, and silt content for compliance. The collected sediment samples shall be a minimum of 1 U.S. pint (at least 200 grams) each and obtained from the bottom of a test hole a minimum of 12 inches deep within the limits of the constructed berm. If the constructed section was filled only at the dune, then the sediment sample will be obtained from the dune. The Engineer will visually assess grain size, Munsell color, gravel content, and silt content of the material. The observation will include handling the fill material to ensure that it is predominantly sand, and to further note the physical characteristics. The Engineer will note the existence of any layering or rocks within the test hole. One sample will be sent for testing at a Licensed Testing Laboratory while the other sample will be archived by the Permittee for 120 days after project completion. All samples and laboratory test results will be labeled with the Project name, FDEP Reference Monument, date sample was obtained, and "Construction Fill Sample."

b. Samples collected for laboratory testing will be evaluated for visual attributes (Moist Munsell color and shell content), sieved in accordance with the applicable sections of ASTM D422-63 (Standard Test Method for Particle-Size Analysis of Soils), ASTM D1140 (Standard Test Method for Amount of Material in Soils Finer than No. 200 Sieve), and ASTM D2487 (Classification of Soils for Engineering Purposes), and analyzed for carbonate content. The samples will be sieved using the following U.S. Standard Sieve Numbers: 3/4", 5/8", 7/16", 5/16", 3.5, 4, 5, 7, 10, 14, 18, 25, 35, 45, 60, 80, 120, 170, 200, and 230.

c. Laboratory testing results will include a cumulative grain size distribution table and curve for each sample tested. A summary table of the sediment samples and test results for the sediment compliance parameters shall accompany the complete set of laboratory testing results. The column headings will include: Sample Number; Mean Grain Size (mm, calculated by moment method); Median Grain Size (mm); Sorting Value (phi); Silt Content (% passing #230 sieve); Gravel Content (% retained above #4 sieve); Carbonate Content (%); Munsell

Color Value; and a column stating whether each sample MET or FAILED the compliance values found in Table 1. The sediment testing results will be certified by a P.E or P.G. registered in the State of Florida. A statement of how the placed fill material compares to the sediment analysis and volume calculations from the sand search investigation shall be included in the sediment testing results report. The Permittee will submit post-construction sediment testing results and analysis report to the Department within 90 days following beach construction.

d. In the event that a section of beach contains fill material that is not in compliance with the Sediment Compliance Specifications, then the Department will be notified. Notification will indicate the volume, aerial extent and location of any unacceptable beach areas, and remediation planned.

## **E. REMEDIATION**

1. **Compliance Area.** If a sample does not meet the compliance requirement to not contain coarse gravel or rocks, construction debris, toxic material, or other foreign matter, the Permittee shall determine the aerial extent of the noncompliant beach fill material and remediate regardless of the extent of the noncompliant material. If a sample is noncompliant for the grain size, silt content, gravel content, or Munsell color, and the aerial extent exceeds 10,000 square feet of beach berm or 100 linear feet of dune for dune-only projects, the Permittee shall remediate.

2. **Notification.** If an area of newly constructed beach or dune does not meet the Sediment Compliance Specifications, then the Department ([JCPCCompliance@dep.state.fl.us](mailto:JCPCCompliance@dep.state.fl.us)) will be notified. Notification will indicate the aerial extent and location of any areas of noncompliant beach fill material and remediation planned. As outlined in Section E.4 below, the Permittee will immediately undertake remediation actions without additional approvals from the Department. The results of any remediation will be reported to the Department following completion of the remediation activities and shall indicate the volume of noncompliant fill material removed and replaced.

3. **Sampling to determine extent.** In order to determine if an area greater than 10,000 square feet of beach berm or 100 linear feet of dune for dune-only projects is noncompliant, the following procedure will be performed by the Permittee's On-site Representative or Project Engineer:

- a. Upon determination that the first sediment sample is noncompliant, at minimum, five (5) additional sediment samples will be collected at a maximum 25-foot spacing in all directions and assessed. If the additional samples are also noncompliant, then additional samples will be collected at a 25-foot spacing in all directions until the aerial extent is identified.
- b. The samples will be visually assessed to evaluate compliance with the Sediment Compliance Specifications. If deemed necessary by the Project Engineer, quantitative assessments of the sand will be conducted for grain size, silt content, gravel content, and Munsell color using the methods outlined in Section D.7.b. Samples will be archived by the Permittee.
- c. A site map will be prepared depicting the location of all samples and the boundaries of all areas of noncompliant fill.
- d. The total square footage will be determined.
- e. The site map and analysis will be included in the Contractor's Daily Report.

4. **Actions.** The Permittee or Project Engineer shall have the authority to determine whether the material placed on the beach is compliant or noncompliant. If placement of noncompliant material occurs, the Contractor will be directed by the Permittee or Project Engineer on the necessary corrective actions. Should a situation arise during construction that cannot be corrected by the remediation methods described within this QC/QA Plan, the Department will be notified. The remediation actions for each sediment parameter are as follows:

- a. Mean grain size: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value, or removing the noncompliant fill material and replacing it with compliant fill material.
- b. Silt content: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value, or removing the noncompliant fill material and replacing it with compliant fill material.

- c. Gravel content: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.
- d. Munsell color: blending the noncompliant fill material with compliant fill material within the adjacent construction berm or dune sufficiently to meet the compliance value or removing the noncompliant fill material and replacing it with compliant fill material.
- e. Coarse gravel or rocks: screening and removing the noncompliant fill material and replacing it with compliant fill material.
- f. Construction debris, toxic material, or other foreign matter: removing the noncompliant fill material and replacing it with compliant fill material.

All noncompliant fill material removed from the beach will be transported to an appropriate upland disposal facility located landward of the Coastal Construction Control Line or returned to the upland mine.

**5. Post-Remediation Testing.** Re-sampling shall be conducted following any remediation actions in accordance with the following protocols:

- a. Within the boundaries of the remediation actions, samples will be taken at maximum of 25-foot spacing.
- b. The samples will be visually assessed to evaluate compliance with the Sediment Compliance Specifications. If deemed necessary by the Project Engineer, quantitative assessments of the sand will be conducted for grain size, silt content, gravel content, and Munsell color using the methods outlined in Section D.7.b. Samples will be archived by the Permittee.
- c. A site map will be prepared depicting the location of all samples and the boundaries of all areas of remediation actions.

**6. Reporting.** A post-remediation report containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced will be submitted to the Department within 7 days following completion of remediation activities.

All reports or notices relating to this permit shall be emailed or sent to the Department at:

**FDEP Office of Resilience and Coastal Protection**

JCP Compliance Officer

Mail Station 3544

3900 Commonwealth Boulevard

Tallahassee, Florida 32399-3000

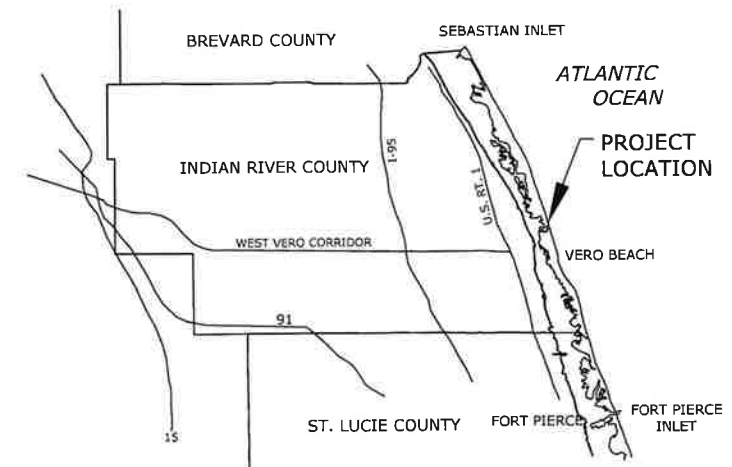
phone: (850) 245-7539

e-mail: [JCPCompliance@dep.state.fl.us](mailto:JCPCompliance@dep.state.fl.us)

End of Plan



# SECTOR 3 HURRICANES IAN AND NICOLE REPAIR PROJECT (IRC PROJECT NO. 2315) INDIAN RIVER COUNTY, FLORIDA



SHEET INDEX	
1	COVER SHEET
2-4	CONTROL DATA SHEETS
5	PROJECT OVERVIEW - APPROVED UPLAND SAND SOURCES
6-29	PLAN VIEWS
30-38	CROSS SECTIONS
39	TYPICAL SECTIONS
40	DUNE PLANTING DETAILS

**PLAN VIEW LEGEND:**

- R-15 FDEP MONUMENT AND ID
- JUNE 2023 MEAN HIGH WATER LINE
- PROJECT BASELINE
- FILL PLACEMENT
- 2009 EROSION CONTROL LINE
- CONSTRUCTION ACCESS
- DUNE PLANTING
- 2016 LANDWARD EDGE OF HARDBOTTOM (DIVER DELINEATED)
- 2019 DIVER DELINEATED HARDBOTTOM



I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708

DATE 9/13/23

NOTE: PLANS SHOULD BE PLOTTED IN COLOR.

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
 FAX (561) 391-8116  
 C.O.A. - FL. #9317  
 www.APTIM.com

REVISIONS	No.	Date	Description

Checked by:	NS
Reviewed by:	JA
Submitted by:	NS
Date:	08/18/23
Project No.:	631033527
AS NOTED	

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 COVER SHEET

DRAWING NO.  
**CS-1**

SHEET 1 OF 40



PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
10+00	1264626.57	842851.59	100'	70.0
11+00	1264535.84	842893.64	100'	70.0
12+00	1264445.10	842935.68	100'	70.0
13+00	1264354.37	842977.73	100'	70.0
14+00	1264263.64	843019.77	100'	70.0
15+00	1264172.91	843061.82	100'	70.0
16+00	1264082.18	843103.86	100'	70.0
17+00	1263991.45	843145.91	100'	70.0
18+00	1263900.72	843187.95	100'	70.0
19+00	1263809.98	843230.00	91'	70.0
19+91	1263727.02	843268.45	109'	70.0
21+00	1263628.52	843314.09	100'	70.0
22+00	1263537.79	843356.14	100'	70.0
23+00	1263447.06	843398.18	100'	70.0
24+00	1263356.33	843440.23	100'	70.0
25+00	1263265.59	843482.27	100'	70.0
26+00	1263174.86	843524.32	100'	70.0
27+00	1263084.13	843566.36	100'	70.0
28+00	1262993.40	843608.41	100'	70.0
29+00	1262902.67	843650.45	109'	70.0
30+09	1262803.48	843696.41	91'	70.0
31+00	1262721.21	843734.54	100'	70.0
32+00	1262630.47	843776.59	100'	70.0
33+00	1262539.74	843818.63	100'	70.0
34+00	1262449.01	843860.68	100'	70.0
35+00	1262358.28	843902.72	100'	70.0
36+00	1262267.55	843944.77	100'	70.0
37+00	1262176.82	843986.81	100'	70.0
38+00	1262086.09	844028.86	100'	70.0
39+00	1261995.35	844070.90	100'	70.0
40+00	1261904.62	844112.95	31'	70.0
40+31	1261876.59	844125.94	69'	70.0
41+00	1261813.89	844154.99	100'	70.0
42+00	1261723.16	844197.04	100'	70.0
43+00	1261632.43	844239.08	100'	70.0
44+00	1261541.70	844281.13	100'	70.0
45+00	1261450.97	844323.17	100'	70.0
46+00	1261360.23	844365.22	100'	70.0
47+00	1261269.50	844407.27	100'	70.0
48+00	1261178.77	844449.31	100'	70.0
49+00	1261088.04	844491.36	100'	70.0
50+00	1260997.31	844533.40	31'	70.0
50+31	1260969.24	844546.41	69'	70.0
51+00	1260906.58	844575.45	100'	70.0
52+00	1260815.84	844617.49	100'	70.0
53+00	1260725.11	844659.54	100'	70.0
54+00	1260634.38	844701.58	100'	70.0
55+00	1260543.65	844743.63	100'	70.0
56+00	1260452.92	844785.67	100'	70.0
57+00	1260362.19	844827.72	100'	70.0
58+00	1260271.46	844869.76	100'	70.0

PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
59+00	1260180.72	844911.81	100'	70.0
60+00	1260089.99	844953.85	100'	70.0
61+00	1259999.26	844995.90	49'	70.0
61+49	1259954.45	845016.66	51'	70.0
62+00	1259908.53	845037.94	100'	70.0
63+00	1259817.80	845079.99	100'	70.0
64+00	1259727.07	845122.03	100'	70.0
65+00	1259636.34	845164.08	100'	70.0
66+00	1259545.60	845206.12	100'	70.0
67+00	1259454.87	845248.17	100'	70.0
68+00	1259364.14	845290.21	100'	70.0
69+00	1259273.41	845332.26	100'	70.0
70+00	1259182.68	845374.30	112'	70.0
71+12	1259080.75	845421.54	88'	70.0
72+00	1259004.69	845465.12	100'	70.0
73+00	1258917.94	845514.85	100'	70.0
74+00	1258831.18	845564.58	100'	70.0
75+00	1258744.42	845614.31	100'	70.0
76+00	1258657.66	845664.04	100'	70.0
77+00	1258570.90	845713.77	100'	70.0
78+00	1258484.14	845763.50	71'	70.0
78+71	1258422.35	845798.92	29'	70.0
79+00	1258397.38	845813.23	100'	70.0
80+00	1258310.63	845862.95	100'	70.0
81+00	1258223.87	845912.68	100'	70.0
82+00	1258137.11	845962.41	100'	70.0
83+00	1258050.35	846012.14	100'	70.0
84+00	1257963.59	846061.87	100'	70.0
85+00	1257876.83	846111.60	100'	70.0
86+00	1257790.08	846161.33	100'	70.0
87+00	1257703.32	846211.06	100'	70.0
88+00	1257616.56	846260.79	100'	70.0
89+00	1257529.80	846310.52	21'	70.0
89+21	1257511.77	846320.85	79'	70.0
90+00	1257441.38	846357.19	100'	70.0
91+00	1257352.53	846403.07	100'	70.0
92+00	1257263.67	846448.95	100'	70.0
93+00	1257174.82	846494.83	100'	70.0
94+00	1257085.96	846540.70	100'	70.0
95+00	1256997.10	846586.58	100'	70.0
96+00	1256908.25	846632.46	100'	70.0
97+00	1256819.39	846678.34	100'	70.0
98+00	1256730.54	846724.21	75'	70.0
98+75	1256663.79	846758.68	25'	70.0
99+00	1256641.68	846770.09	100'	70.0
100+00	1256552.83	846815.97	100'	70.0
101+00	1256463.97	846861.85	100'	70.0
102+00	1256375.12	846907.72	100'	70.0
103+00	1256286.26	846953.60	100'	70.0
104+00	1256197.41	846999.48	100'	70.0
105+00	1256108.55	847045.36	100'	70.0

PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
106+00	1256019.70	847091.24	100'	70.0
107+00	1255930.84	847137.11	100'	70.0
108+00	1255841.99	847182.99	95'	70.0
108+95	1255757.58	847226.57	105'	70.0
110+00	1255664.28	847274.75	100'	70.0
111+00	1255575.42	847320.62	100'	70.0
112+00	1255486.57	847366.50	100'	70.0
113+00	1255397.71	847412.38	100'	70.0
114+00	1255308.86	847458.26	100'	70.0
115+00	1255220.00	847504.13	100'	70.0
116+00	1255131.15	847550.01	100'	70.0
117+00	1255042.29	847595.89	100'	70.0
118+00	1254953.44	847641.77	35'	70.0
118+35	1254922.42	847657.78	65'	70.0
119+00	1254863.68	847685.84	100'	70.0
120+00	1254773.45	847728.95	100'	70.0
121+00	1254683.22	847772.06	100'	70.0
122+00	1254592.99	847815.17	100'	70.0
123+00	1254502.76	847858.28	100'	70.0
124+00	1254412.53	847901.39	100'	70.0
125+00	1254322.30	847944.50	100'	70.0
126+00	1254232.07	847987.61	100'	70.0
127+00	1254141.84	848030.72	92'	70.0
127+92	1254058.55	848070.51	108'	70.0
129+00	1253961.38	848116.94	100'	70.0
130+00	1253871.15	848160.05	100'	70.0
131+00	1253780.92	848203.16	100'	70.0
132+00	1253690.69	848246.27	100'	70.0
133+00	1253600.46	848289.38	100'	70.0
134+00	1253510.23	848332.49	100'	70.0
135+00	1253420.00	848375.60	100'	70.0
136+00	1253329.77	848418.71	100'	70.0
137+00	1253239.53	848461.82	84'	70.0
137+84	1253164.07	848497.87	116'	70.0
139+00	1253057.96	848545.63	100'	70.0
140+00	1252966.77	848586.67	100'	70.0
141+00	1252875.58	848627.71	100'	70.0
142+00	1252784.39	848668.75	100'	70.0
143+00	1252693.20	848709.79	100'	70.0
144+00	1252602.01	848750.83	100'	70.0
145+00	1252510.82	848791.87	100'	70.0
146+00	1252419.63	848832.91	100'	70.0
147+00	1252328.44	848873.96	45'	70.0
147+45	1252287.75	848892.27	55'	70.0
148+00	1252237.25	848915.00	100'	70.0
149+00	1252146.05	848956.04	100'	70.0
150+00	1252054.86	848997.08	100'	70.0
151+00	1251963.67	849038.12	100'	70.0
152+00	1251872.48	849079.16	100'	70.0
153+00	1251781.29	849120.20	100'	70.0
154+00	1251690.10	849161.24	100'	70.0

PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
155+00	1251598.91	849202.28	100'	70.0
156+00	1251507.72	849243.32	100'	70.0
157+00	1251416.53	849284.36	100'	70.0
158+00	1251325.34	849325.41	100'	70.0
159+00	1251234.45	849367.09	100'	70.0
160+00	1251143.55	849408.77	100'	70.0
161+00	1251052.65	849450.45	100'	70.0
162+00	1250961.75	849492.13	100'	70.0
163+00	1250870.85	849533.81	100'	70.0
164+00	1250779.95	849575.50	100'	70.0
165+00	1250689.05	849617.18	100'	70.0
166+00	1250598.15	849658.86	63'	70.0
166+63	1250541.07	849685.03	37'	70.0
167+00	1250507.25	849700.54	100'	70.0
168+00	1250416.35	849742.22	100'	70.0
169+00	1250325.46	849783.91	100'	70.0
170+00	1250234.56	849825.59	100'	70.0
171+00	1250143.66	849867.27	100'	70.0
172+00	1250052.76	849908.95	100'	70.0
173+00	1249961.86	849950.63	100'	70.0
174+00	1249870.96	849992.32	100'	70.0
175+00	1249780.06	850034.00	100'	70.0
176+00	1249689.16	850075.68	45'	70.0
176+45	1249648.32	850094.41	55'	70.0
177+00	1249598.26	850117.36	100'	70.0
178+00	1249507.36	850159.04	100'	70.0
179+00	1249416.47	850200.72	100'	70.0
180+00	1249325.57	850242.41	100'	70.0
181+00	1249234.67	850284.09	100'	70.0
182+00	1249143.77	850325.77	100'	70.0
183+00	1249052.87	850367.45	100'	70.0
184+00	1248961.97	850409.13	100'	70.0
185+00	1248871.07	850450.82	118'	70.0
186+18	1248763.43	850500.17	82'	70.0
187+00	1248689.27	850534.18	100'	70.0
188+00	1248598.37	850575.86	100'	70.0

**NOTES:**

1. ALL PAY PROFILES SHALL BE SURVEYED AT THE AZIMUTH SHOWN IN THE PAY PROFILES TABLE.
2. CONTRACTOR SHALL ONLY BE PAID FOR SAND PLACED WITHIN THE LINES AND GRADES AS SHOWN ON SHEETS PV-1 TO PV-2.
3. COORDINATES ARE IN FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
4. ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



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PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
189+00	1248507.48	850617.54	100'	70.0
190+00	1248416.58	850659.23	100'	70.0
191+00	1248325.68	850700.91	100'	70.0
192+00	1248234.78	850742.59	100'	70.0
193+00	1248143.88	850784.27	100'	70.0
194+00	1248052.98	850825.95	100'	70.0
195+00	1247962.08	850867.63	79'	70.0
196+00	1247870.59	850907.88	100'	70.0
196+79	1247890.10	850900.64	21'	70.0
197+00	1247776.82	850942.62	100'	70.0
198+00	1247683.05	850977.36	100'	70.0
199+00	1247589.28	851012.11	100'	70.0
200+00	1247495.51	851046.85	100'	70.0
201+00	1247401.73	851081.59	100'	70.0
202+00	1247307.96	851116.34	100'	70.0
203+00	1247214.19	851151.08	100'	70.0
204+00	1247120.42	851185.82	100'	70.0
205+00	1247026.65	851220.56	81'	70.0
205+81	1246950.30	851248.85	119'	70.0
207+00	1246844.32	851302.04	100'	70.0
208+00	1246754.95	851346.89	100'	70.0
209+00	1246665.57	851391.75	100'	70.0
210+00	1246576.19	851436.60	100'	70.0
211+00	1246486.82	851481.46	100'	70.0
212+00	1246397.44	851526.31	100'	70.0
213+00	1246308.07	851571.17	100'	70.0
214+00	1246218.69	851616.02	100'	70.0
215+00	1246129.31	851660.87	100'	70.0
216+00	1246039.94	851705.73	67'	70.0
216+67	1245980.24	851735.69	33'	70.0
217+00	1245952.34	851753.69	100'	70.0
218+00	1245868.31	851807.91	100'	70.0
219+00	1245784.29	851862.13	100'	70.0
220+00	1245700.26	851916.35	100'	70.0
221+00	1245616.24	851970.58	100'	70.0
222+00	1245532.22	852024.80	100'	70.0
223+00	1245448.19	852079.02	100'	70.0
224+00	1245364.17	852133.24	100'	70.0
225+00	1245280.14	852187.46	100'	70.0
226+00	1245196.12	852241.68	71'	70.0
226+71	1245136.87	852279.91	29'	70.0
227+00	1245110.92	852293.92	100'	70.0
228+00	1245022.93	852341.43	100'	70.0
229+00	1244934.93	852388.94	100'	70.0
230+00	1244846.94	852436.45	100'	70.0
231+00	1244758.95	852483.96	100'	70.0
232+00	1244670.95	852531.47	100'	70.0
233+00	1244582.96	852578.97	100'	70.0
234+00	1244494.97	852626.48	100'	70.0
235+00	1244406.97	852673.99	100'	70.0
236+00	1244318.98	852721.50	100'	70.0

PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
237+00	1244230.99	852769.01	100'	70.0
238+00	1244142.99	852816.52	100'	70.0
239+00	1244055.00	852864.03	100'	70.0
240+00	1243967.00	852911.54	32'	70.0
240+32	1243939.11	852926.60	68'	70.0
241+00	1243878.12	852957.35	100'	70.0
242+00	1243788.83	853002.37	100'	70.0
243+00	1243699.54	853047.40	100'	70.0
244+00	1243610.25	853092.42	100'	70.0
245+00	1243520.96	853137.44	100'	70.0
246+00	1243431.67	853182.46	100'	70.0
247+00	1243342.38	853227.49	100'	70.0
248+00	1243253.09	853272.51	100'	70.0
249+00	1243163.79	853317.53	100'	70.0
250+00	1243074.50	853362.56	100'	70.0
251+00	1242985.21	853407.58	100'	70.0
252+00	1242895.92	853452.60	100'	70.0
253+00	1242806.63	853497.62	100'	70.0
254+00	1242717.34	853542.65	100'	70.0
255+00	1242628.05	853587.67	100'	70.0
256+00	1242538.75	853632.69	100'	70.0
257+00	1242449.46	853677.72	30'	70.0
257+30	1242422.74	853691.19	70'	70.0
258+00	1242360.17	853722.74	100'	70.0
259+00	1242270.88	853767.76	100'	70.0
260+00	1242181.59	853812.78	100'	70.0
261+00	1242092.30	853857.81	100'	70.0
262+00	1242003.01	853902.83	100'	70.0
263+00	1241913.72	853947.85	100'	70.0
264+00	1241824.42	853992.88	100'	70.0
265+00	1241735.13	854037.90	100'	70.0
266+00	1241645.84	854082.92	64'	70.0
266+64	1241589.03	854111.56	36'	70.0
267+00	1241555.83	854126.44	100'	70.0
268+00	1241464.57	854167.32	100'	70.0
269+00	1241373.31	854208.20	100'	70.0
270+00	1241282.05	854249.09	100'	70.0
271+00	1241190.79	854289.97	100'	70.0
272+00	1241099.53	854330.85	100'	70.0
273+00	1241008.27	854371.74	100'	70.0
274+00	1240917.01	854412.62	100'	70.0
275+00	1240825.75	854453.50	100'	70.0
276+00	1240734.49	854494.39	46'	70.0
276+46	1240692.59	854513.15	54'	70.0
277+00	1240643.22	854535.27	100'	70.0
278+00	1240551.96	854576.15	100'	70.0
279+00	1240460.70	854617.04	100'	70.0
280+00	1240369.44	854657.92	100'	70.0
281+00	1240278.18	854698.80	100'	70.0
282+00	1240186.92	854739.69	100'	70.0
283+00	1240095.66	854780.57	100'	70.0

PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
284+00	1240004.40	854821.45	100'	70.0
285+00	1239913.14	854862.34	100'	70.0
286+00	1239821.88	854903.22	22'	70.0
286+22	1239801.73	854912.25	78'	70.0
287+00	1239730.18	854943.11	100'	70.0
288+00	1239638.35	854982.71	100'	70.0
289+00	1239546.53	855022.31	100'	70.0
290+00	1239454.70	855061.91	100'	70.0
291+00	1239362.88	855101.52	100'	70.0
292+00	1239271.06	855141.12	100'	70.0
293+00	1239179.23	855180.72	100'	70.0
294+00	1239087.41	855220.32	100'	70.0
295+00	1238995.58	855259.92	111'	70.0
296+11	1238893.29	855304.04	89'	70.0
297+00	1238811.94	855339.13	100'	70.0
298+00	1238720.11	855378.73	100'	70.0
299+00	1238628.29	855418.33	100'	70.0
300+00	1238536.46	855457.93	100'	70.0
301+00	1238444.64	855497.54	100'	70.0
302+00	1238352.81	855537.14	100'	70.0
303+00	1238260.99	855576.74	100'	70.0
304+00	1238169.17	855616.34	100'	70.0
305+00	1238077.34	855655.94	100'	70.0
306+00	1237985.52	855695.55	47'	70.0
306+47	1237942.01	855714.30	53'	70.0
307+00	1237892.40	855731.86	100'	70.0
308+00	1237798.13	855765.21	100'	70.0
309+00	1237703.86	855798.57	100'	70.0
310+00	1237609.58	855831.92	100'	70.0
311+00	1237515.31	855865.28	100'	70.0
312+00	1237421.04	855898.63	100'	70.0
313+00	1237326.76	855931.99	100'	70.0
314+00	1237232.49	855965.35	100'	70.0
315+00	1237138.22	855998.70	100'	70.0
316+00	1237043.95	856032.06	67'	70.0
316+67	1236980.49	856054.51	33'	70.0
317+00	1236949.67	856065.41	100'	70.0
318+00	1236855.40	856098.77	100'	70.0
319+00	1236761.13	856132.13	100'	70.0
320+00	1236666.85	856165.48	100'	70.0
321+00	1236572.58	856198.84	100'	70.0
322+00	1236478.31	856232.19	100'	70.0
323+00	1236384.04	856265.55	100'	70.0
324+00	1236289.76	856298.91	100'	70.0
325+00	1236195.49	856332.26	100'	70.0
326+00	1236101.22	856365.62	52'	70.0
326+52	1236052.49	856382.86	48'	70.0
327+00	1236005.52	856394.15	100'	70.0
328+00	1235908.28	856417.51	100'	70.0
329+00	1235811.05	856440.86	100'	70.0
330+00	1235713.81	856464.22	100'	70.0

PAY PROFILES				
STATION	NORTHING	EASTING	PERPENDICULAR DISTANCE TO NEXT STATION	AZIMUTH (DEGREES)
331+00	1235616.58	856487.58	100'	70.0
332+00	1235519.34	856510.93	100'	70.0
333+00	1235422.11	856534.29	100'	70.0
335+00	1235227.64	856581.00	100'	70.0
336+00	1235130.41	856604.38	84'	70.0
336+84	1235049.06	856624.35	116'	70.0
338+00	1234935.94	856651.07	100'	70.0
339+00	1234838.71	856674.43	100'	70.0
340+00	1234741.47	856697.78	100'	70.0
341+00	1234644.24	856721.14	100'	70.0
342+00	1234547.01	856744.50	100'	70.0
343+00	1234449.77	856767.85	100'	70.0
344+00	1234352.54	856791.21	100'	70.0
345+00	1234255.30	856814.57	100'	70.0
346+00	1234158.07	856837.92	100'	70.0
347+00	1234060.83	856861.28	100'	70.0
348+00	1233963.60	856884.64	100'	70.0
349+00	1233866.37	856907.99	100'	70.0
350+00	1233769.13	856931.35	100'	70.0
351+00	1233671.90	856954.70	100'	70.0
352+00	1233574.66	856978.06	100'	70.0
353+00	1233477.43	857001.42	100'	70.0
354+00	1233380.20	857024.77	100'	70.0
355+00	1233282.96	857048.13	100'	70.0
356+00	1233185.73	857071.49	70'	70.0
356+70	1233117.61	857087.85	0'	70.0

NOTES:

1. ALL PAY PROFILES SHALL BE SURVEYED AT THE AZIMUTH SHOWN IN THE PAY PROFILES TABLE.
2. CONTRACTOR WILL ONLY BE PAID FOR SAND PLACED WITHIN THE LINES AND GRADES AS SHOWN ON SHEETS PV-1 TO PV-24.
3. COORDINATES ARE IN FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
4. ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).



NICOLE S. SHARP, P.E. NO. 74708

9/13/23 DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 PH. (661) 391-8102  
 FAX (661) 391-8116  
 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.aptim.com

Checked by:	Designed by:	Reference File:
NS	NS	



FDEP R-MONUMENTS

STATION	RANGE	NORTHING	EASTING	ELEVATION	AZIMUTH	STAMPING
R-20	0	1264644	842898.8	8.52	70°	R-20 IND. R. 72
R-21	0	1263722	843254.5	8.04	70°	R-21 IND. R. 72
R-22	0	1262824	843751.7	8.14	70°	R-22 IND. R. 72
R-22	0	1262779	843652.7	12.53	70°	R-22 IND. R. -110 1986
R-23	0	1261888	844158.1	8.45	70°	R23 IR 97
R-24	0	1260976	844565.8	11.75	70°	R24 IR 97
R-25	0	1259968	845052.9	10.15	70°	R-25 IND. R. 72
R-26	0	1259089	845441.6	8.9	70°	R-26 IND. R. RESET-00-1986
R-27	0	1258429	845818	10	70°	R-27 IND. R. 72
R-28	0	1257512	846320.9	12.73	70°	R-28 IND. R. 72
R-29	0	1256682	846807.7	13.84	70°	R-29 IND. R. 72
R-30	0	1255774	847271.1	16.99	70°	R-30 IND. R. 72
R-31	0	1254930	847677.8	18.02	70°	T-31 IND. R. 1978
R-32	0	1254060	848087	14.16	70°	R-32 IND. R. 72
R-33	0	1253164	848497.9	16.47	70°	R-33 IND. R. 72
R-34	0	1252279	848868.8	13.87	70°	R-34 IND. R. 72
R-35	0	1251317	849305.3	15.16	70°	R-35 IND. R. 72
R-36	0	1250523	849634.5	12.96	70°	T-36 IND. R. 1978
R-37	0	1249637	850067.1	11.89	70°	R-37 IND. R. 72
R-38	0	1248753	850470.1	14.92	70°	T-38 IND. R. 1978
R-39	0	1247858	850813.7	13.12	70°	R-39 IND. R. RESET-00-1986
R-40	0	1246965	851288.1	---	70°	R40 IR 97
R-41	0	1245993	851770	15.85	70°	R-41 IND. R. 72
R-42	0	1245137	852279.9	17.65	70°	R-42 IND. R. 72
R-43	0	1243939	852926.6	15.66	70°	R-43 IND. R. 1986
R-44	0	1243353	853257.5	13.04	70°	R44 IR 97
R-45	0	1242409	853652.5	13.22	70°	T-45 IND. R. 1978
R-46	0	1241568	854053.3	13.95	70°	T-46 IND. R. 1978
R-47	0	1240694	854515.6	---	70°	R47 IR 97
R-48	0	1239743	854750.4	15.53	70°	R48 IR 97
R-49	0	1238891	855298.9	12.85	70°	R-49 IND. R. 72
R-50	0	1237923	855660.9	13.13	70°	R-50 IND. R. 72
R-51	0	1236972	856032.2	16.28	70°	R-51 IND. R. 72
R-51	0	1236979	856050.8	15.12	70°	R-51 O/S RNG. 20 2001
R-52	0	1236045	856362.9	13.86	70°	R-52 IND. R. 72
R-53	0	1235049	856624.4	15.78	70°	R-53 IND. R. +96 1986
R-54	0	1234074	856897.5	14	70°	R-54 IND. R. 72
R-55	0	1233118	857087.9	15.01	70°	R-55 IND. R. 72

BENCHMARK CONTROL POINTS  
SECOND ORDER CONTROL (A-MONUMENTS)

FDEP MONUMENT ID	NORTHING	EASTING	ELEVATION (FT, NAVD88)	STAMPING
A-09	1260281.76	844426.04	6.93	88-78-A09
A-10	1255223.74	847007.70	8.2	88-78-A10
A-11	1251561.73	848670.12	7.94	88-78-A11
A-12	1248469.92	850063.84	5.53	88-78-A12
A-15	1238793.85	854935.12	9.84	88-78-A15
A-16	1234676.88	856148.19	8.85	88-78-A16

WATER LEVEL TABLE

TIDAL DATUM	ELEVATION (FT, NAVD88)
MEAN HIGH WATER (MHW)	+0.60
MEAN LOW WATER (MLW)	-2.82

NOTES:

- COORDINATES ARE IN FEET BASED ON THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83).
- ELEVATIONS ARE IN FEET REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- R-MONUMENT AND WATER LEVEL DATA FOR REFERENCE ONLY. ALL CONTROL SHALL BE SET BY SECOND ORDER A-MONUMENTS.
- TIDAL DATUMS AT INDIAN RIVER COUNTY, ATLANTIC OCEAN WERE OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM (LABINS), BASED ON EPOCH 1983-2001, TIDE INTERPOLATION POINT #101033, QUAD MAP NAME SEBASTIAN.



I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

9/13/23  
DATE

APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC  
6401 CONGRESS AVENUE, SUITE 140  
BOCA RATON, FLORIDA 33487  
PH. (561) 391-8102  
FAX (561) 391-8116  
C.O.A. FL. #9317  
www.APTIM.com

REVISIONS	No.	Date	Description

Designed by: NS	Checked by: NS
Drawn by: JA	Reviewed by: JA
Date: 08/18/23	Submitted by: NS
Plot Scale: AS NOTED	Comm. No.: 631033527

Reference Files:

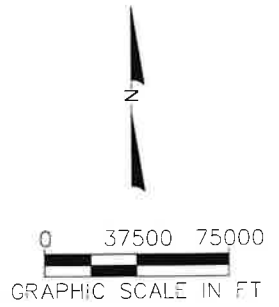
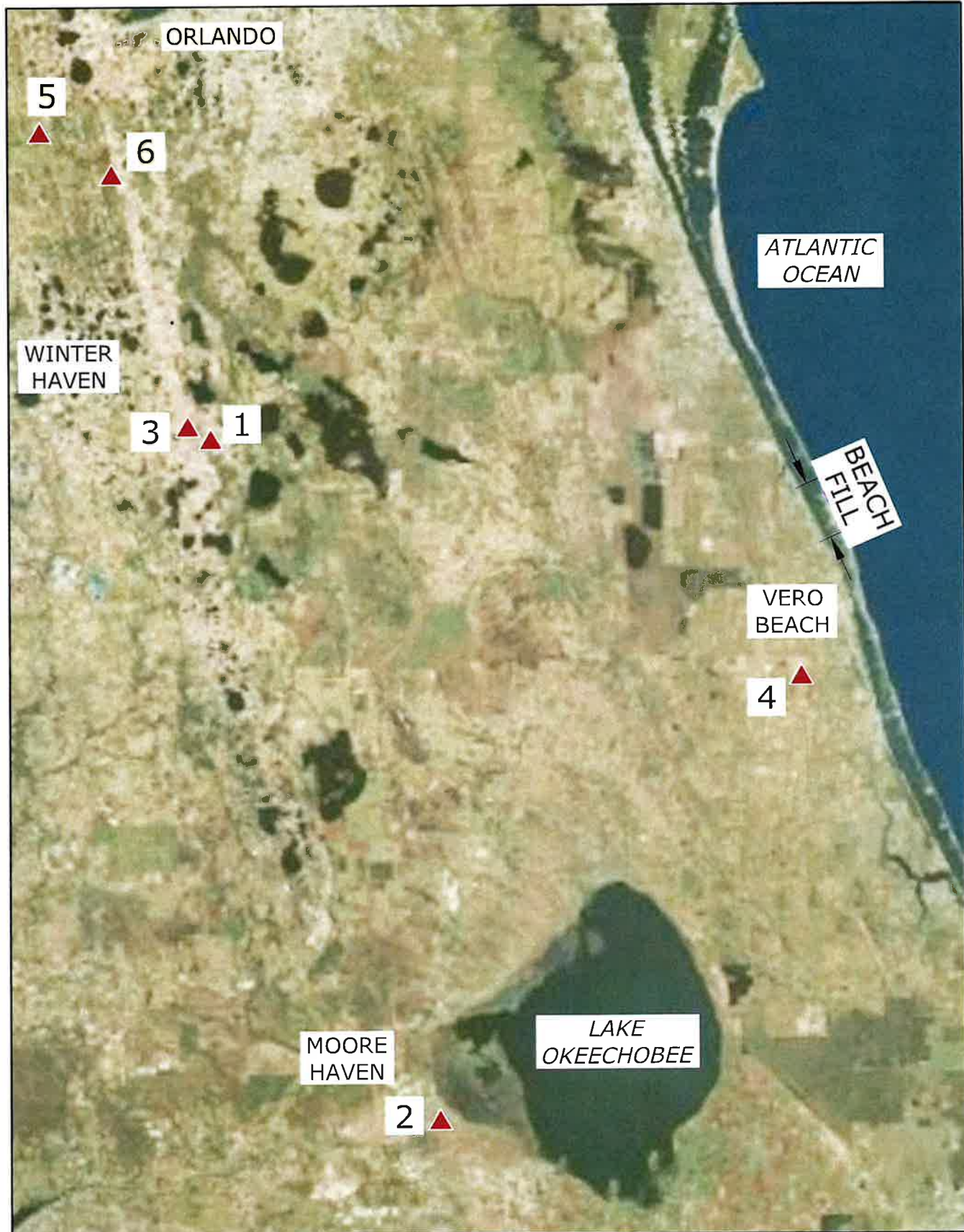
SECTOR 3  
HURRICANES JAW AND NICOLE REPAIR PROJECT  
CONSTRUCTION PLANS  
INDIAN RIVER COUNTY, FLORIDA  
CONTROL DATA SHEET

DRAWING NO.

CD-3

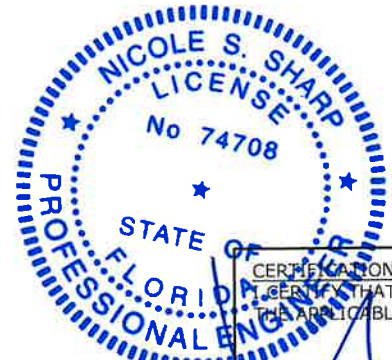
SHEET 4 OF 40





- UPLAND SAND SOURCES**
1. VULCAN – DIAMOND MINE  
205 STORY ROAD  
LAKE WALES, FL 33898
  2. VULCAN – WITHERSPOON MINE  
7425 W. STATE ROAD 78  
MOORE HAVEN, FL 33471
  3. VULCAN – SANDLAND MINE  
2200 BURNS AVENUE  
LAKE WALES, FL 33898
  4. STEWART – CAPRON TRAILS MINE  
13575 INDRIO ROAD  
FORT PIERCE, FL 34945
  5. JAHNA – INDEPENDENT NORTH MINE  
8455 COUNTY ROAD 474  
CLERMONT, FL 34714
  6. JAHNA – GREEN BAY MINE  
4949 SAND MINE ROAD  
DAVENPORT, FL 33897

**NOTES:**  
1. AERIAL PHOTOGRAPHY: JANUARY 2023



**CERTIFICATION:**  
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

*Nicole S. Sharp*  
NICOLE S. SHARP, P.E. NO. 74708  
DATE: 9/13/23

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
PH. (661) 391-8102  
FAX (661) 391-9116  
C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
BOCA RATON, FLORIDA 33487  
www.APTIM.com

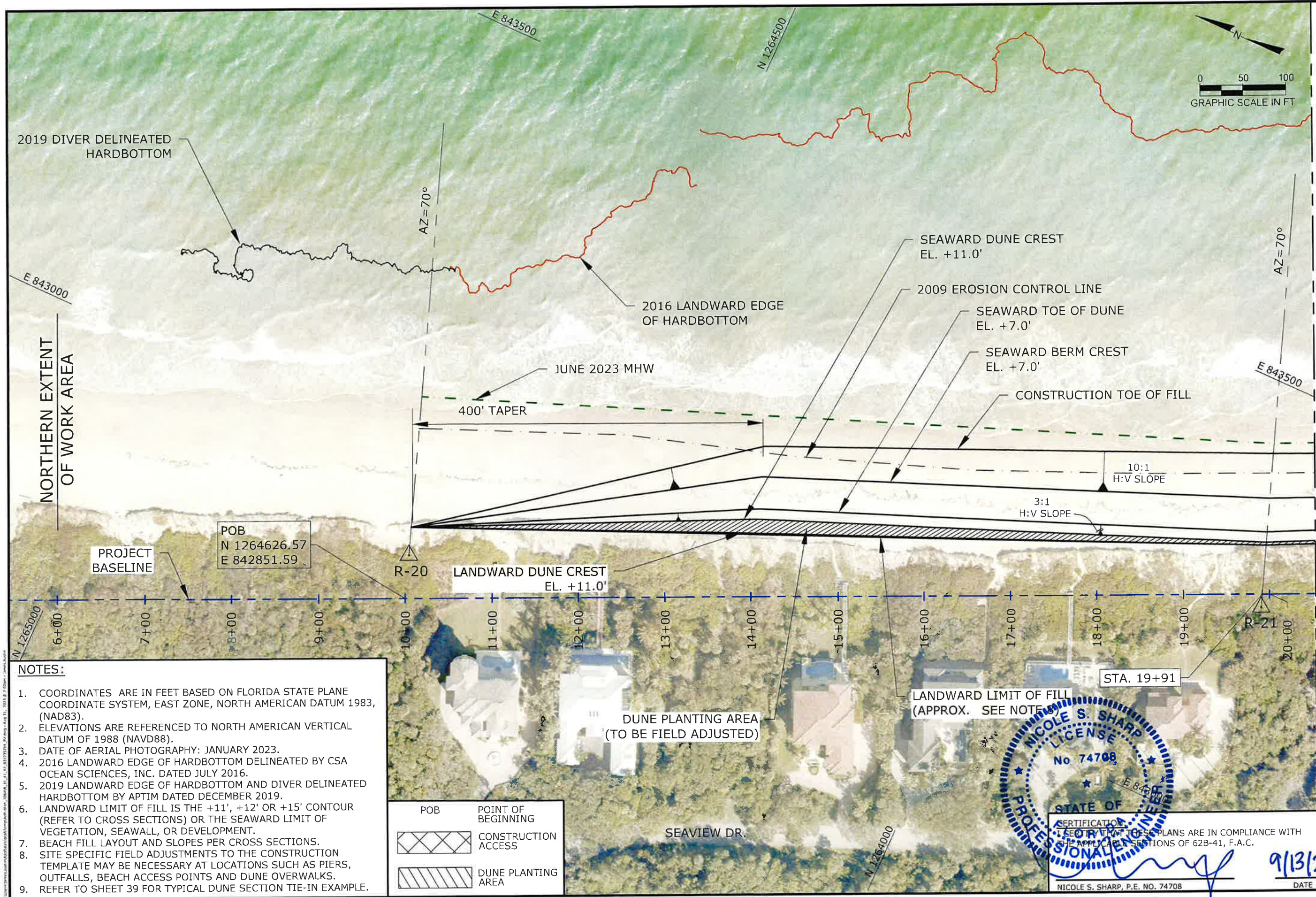
Reference File:	Checked by:	Reviewed by:	Submitted by:	Comm. No.:
	NS	JA	NS	631033527

Revisions	No.	Date	Description

SECTOR 3  
HURRICANES IAN AND NICOLE REPAIR PROJECT  
CONSTRUCTION PLANS  
INDIAN RIVER COUNTY, FLORIDA  
PROJECT OVERVIEW  
APPROVED UPLAND SAND SOURCES

DRAWING NO. **OV-1**  
SHEET 5 OF 40





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
  - ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - DATE OF AERIAL PHOTOGRAPHY: JANUARY 2023.
  - 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
  - 2019 LANDWARD EDGE OF HARDBOTTOM AND DIVER DELINEATED HARDBOTTOM BY APTIM DATED DECEMBER 2019.
  - LANDWARD LIMIT OF FILL IS THE +11', +12' OR +15' CONTOUR (REFER TO CROSS SECTIONS) OR THE SEAWARD LIMIT OF VEGETATION, SEAWALL, OR DEVELOPMENT.
  - BEACH FILL LAYOUT AND SLOPES PER CROSS SECTIONS.
  - SITE SPECIFIC FIELD ADJUSTMENTS TO THE CONSTRUCTION TEMPLATE MAY BE NECESSARY AT LOCATIONS SUCH AS PIERS, OUTFALLS, BEACH ACCESS POINTS AND DUNE OVERWALKS.
  - REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.

POB	POINT OF BEGINNING
	CONSTRUCTION ACCESS
	DUNE PLANTING AREA

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
 FAX (561) 391-9116  
 C.O.A. FL. #9317  
 www.APTIM.com

REVISIONS	No.	Date	Description

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
Plot No.:	AS NOTED	Contract No.:	631033327

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

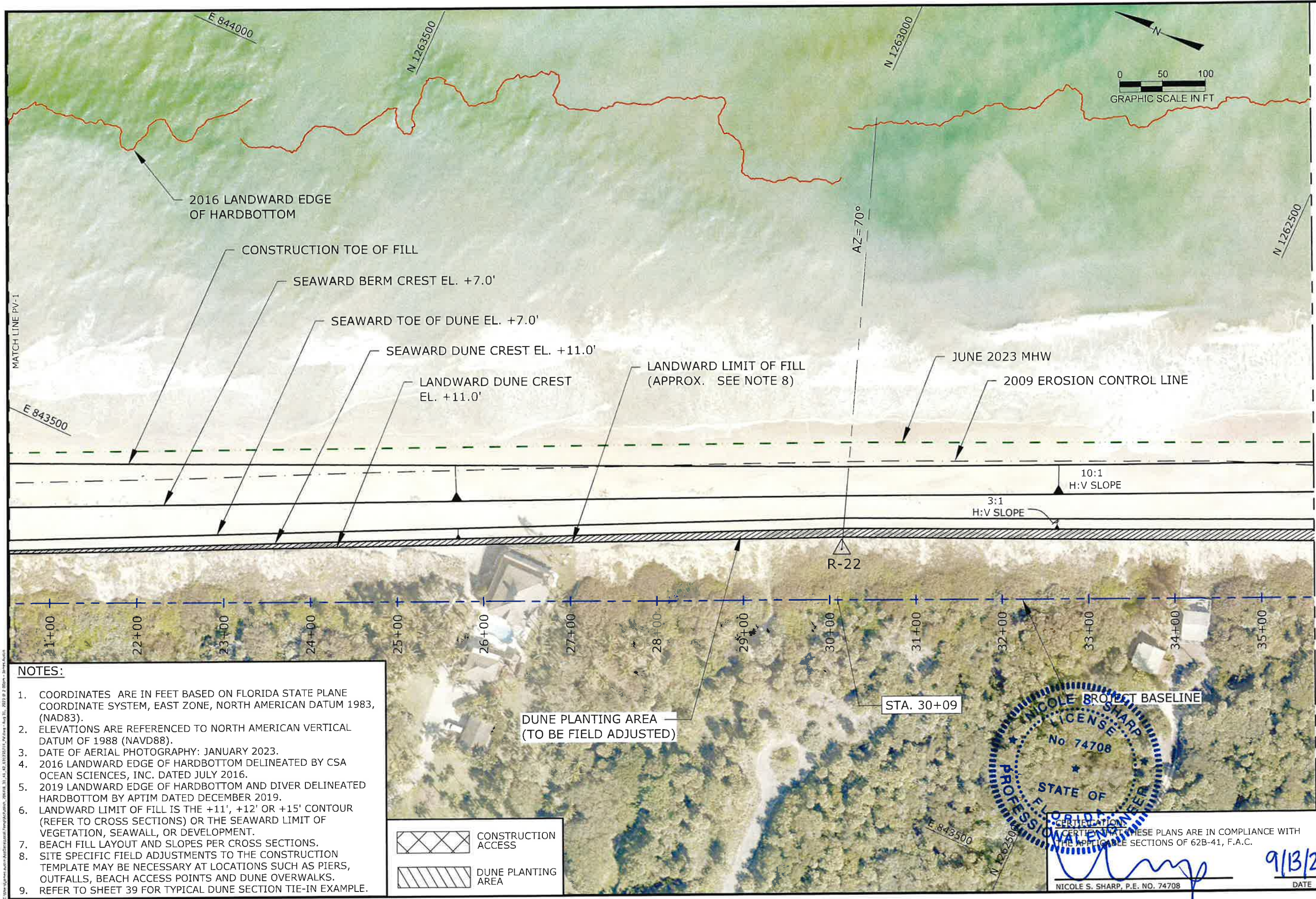
DRAWING NO. PV-1  
 SHEET 6 OF 40

**NICOLE S. SHARP**  
 LICENSE No 74708  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

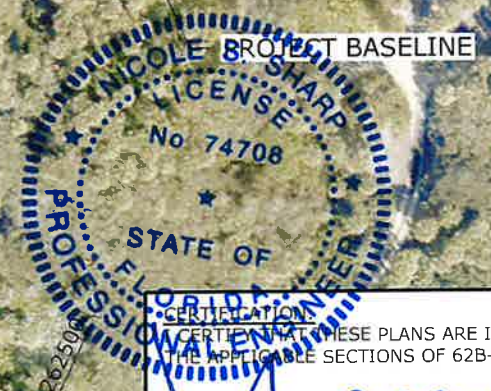
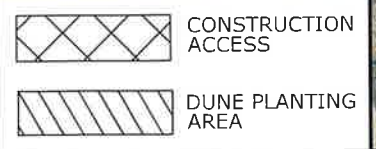
CERTIFICATION  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708  
 DATE 9/13/23





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
  - ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - DATE OF AERIAL PHOTOGRAPHY: JANUARY 2023.
  - 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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  - SITE SPECIFIC FIELD ADJUSTMENTS TO THE CONSTRUCTION TEMPLATE MAY BE NECESSARY AT LOCATIONS SUCH AS PIERS, OUTFALLS, BEACH ACCESS POINTS AND DUNE OVERWALKS.
  - REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

*Nicole S. Sharp*  
 NICOLE S. SHARP, P.E. NO. 74708  
 DATE 9/13/23

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 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
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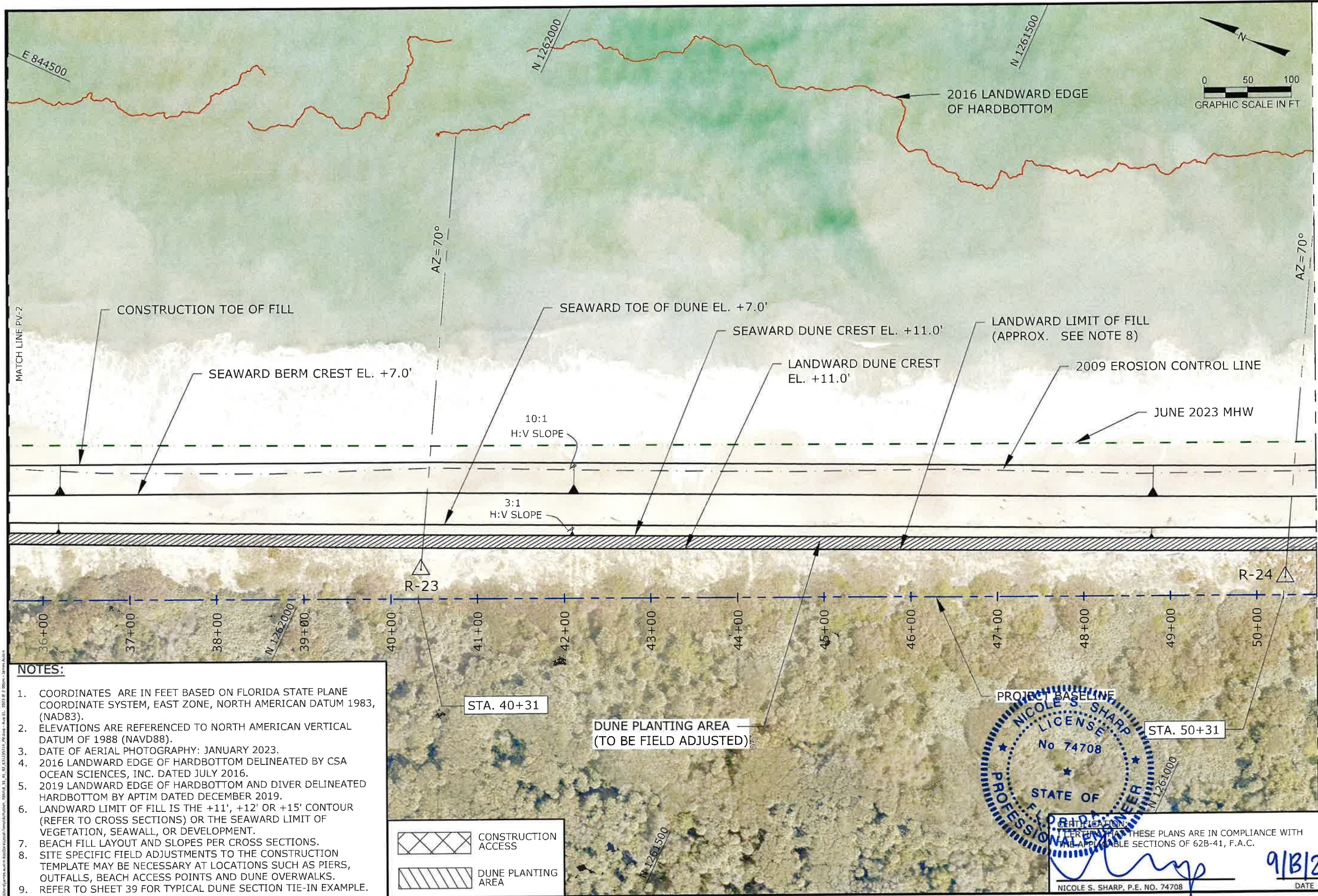
REVISIONS	No.	Date	Description

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
Proj. No.:	631033527	Proj. No.:	631033527
AS NOTED		AS NOTED	

SECTOR 3  
 HURRICANE IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-2  
 SHEET 7 OF 40





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
  - ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - DATE OF AERIAL PHOTOGRAPHY: JANUARY 2023.
  - 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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  - REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



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 PH. (661) 391-8102  
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 C.O.A. FL. #8317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

REVISIONS	No.	Date	Description

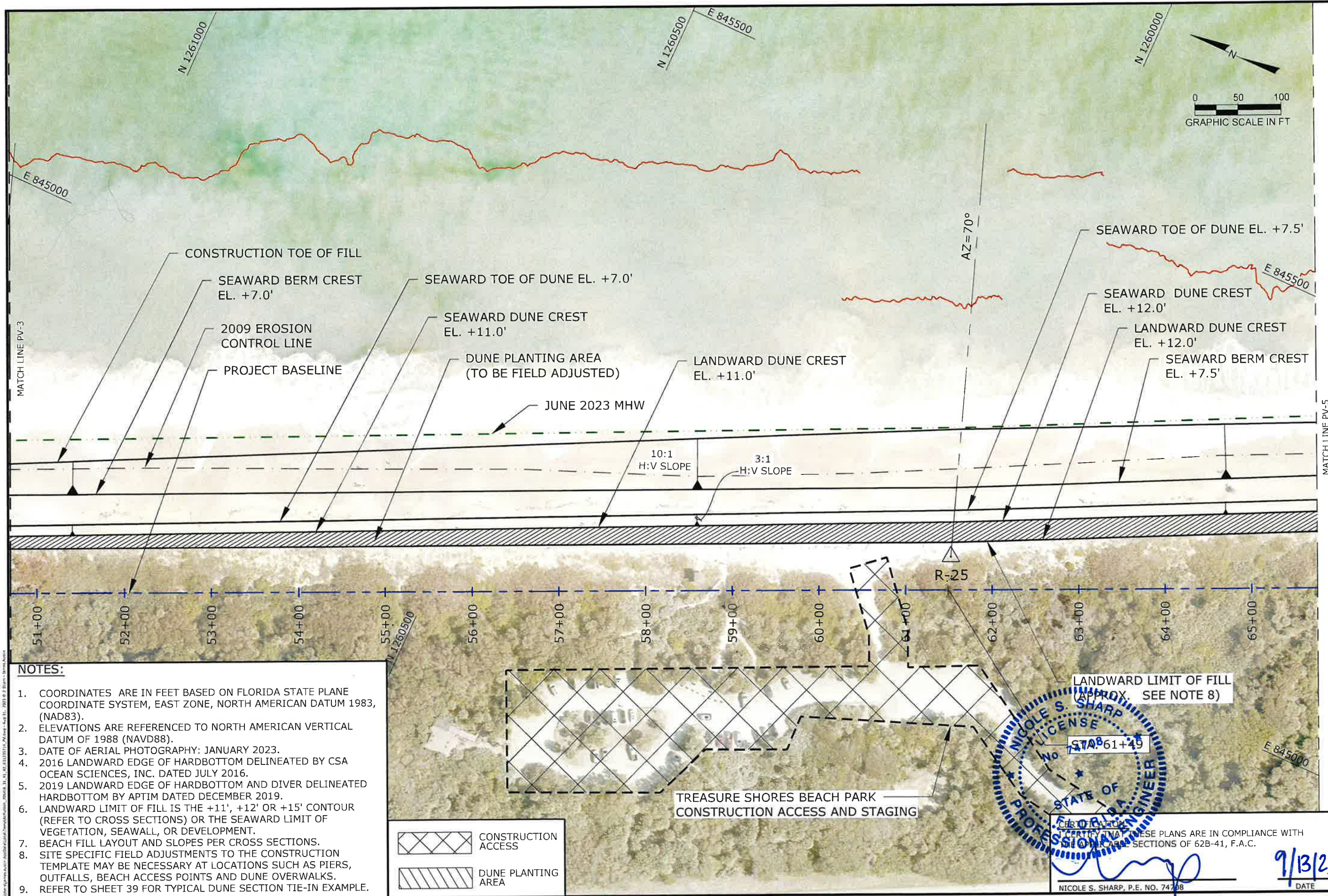
Checked by: NS  
 Reviewed by: JA  
 Drawn by: JA  
 Date: 09/18/23  
 P&S Scale: AS NOTED  
 Cont. No.: 631033527  
 AS NOTED

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

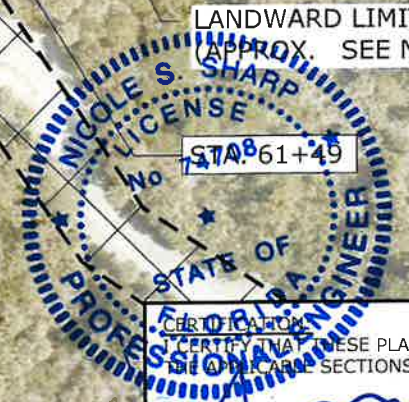
DRAWING NO. PV-3  
 SHEET 8 OF 40

DATE: 9/18/23  
 NICOLE S. SHARP, P.E. NO. 74708





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
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  - REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



CERTIFICATION  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.  
 NICOLE S. SHARP, P.E. NO. 747861+49  
 DATE 9/13/23

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
 FAX (561) 391-9116  
 C.O.A. FL. #9317  
 www.APTIM.com

NO.	DATE	DESCRIPTION

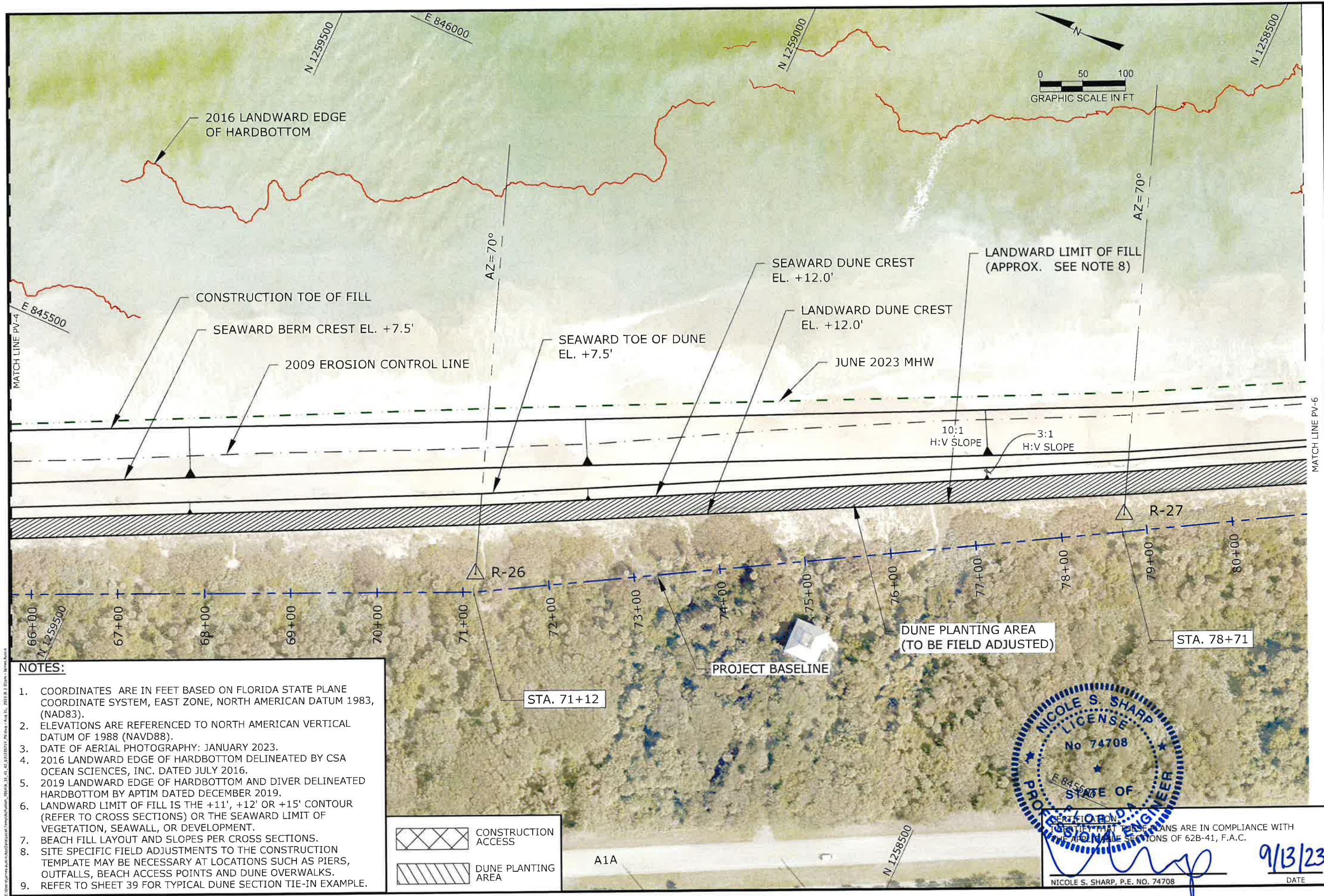
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 Designed by: NS  
 Drawn by: JA  
 Date: 08/18/23  
 Pkg. Scale: AS NOTED

Checked by: NS  
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 Submitted by: NS  
 Comm. No.: 631033527  
 AS NOTED

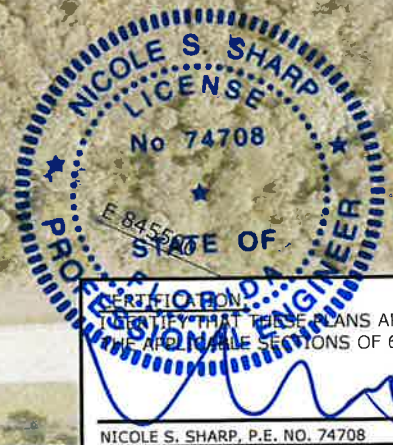
SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-4  
 SHEET 9 OF 40





- NOTES:**
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DATE: 9/13/23  
 NICOLE S. SHARP, P.E. NO. 74708

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 FAX: (561) 391-9116  
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6401 CONGRESS AVENUE, SUITE 140  
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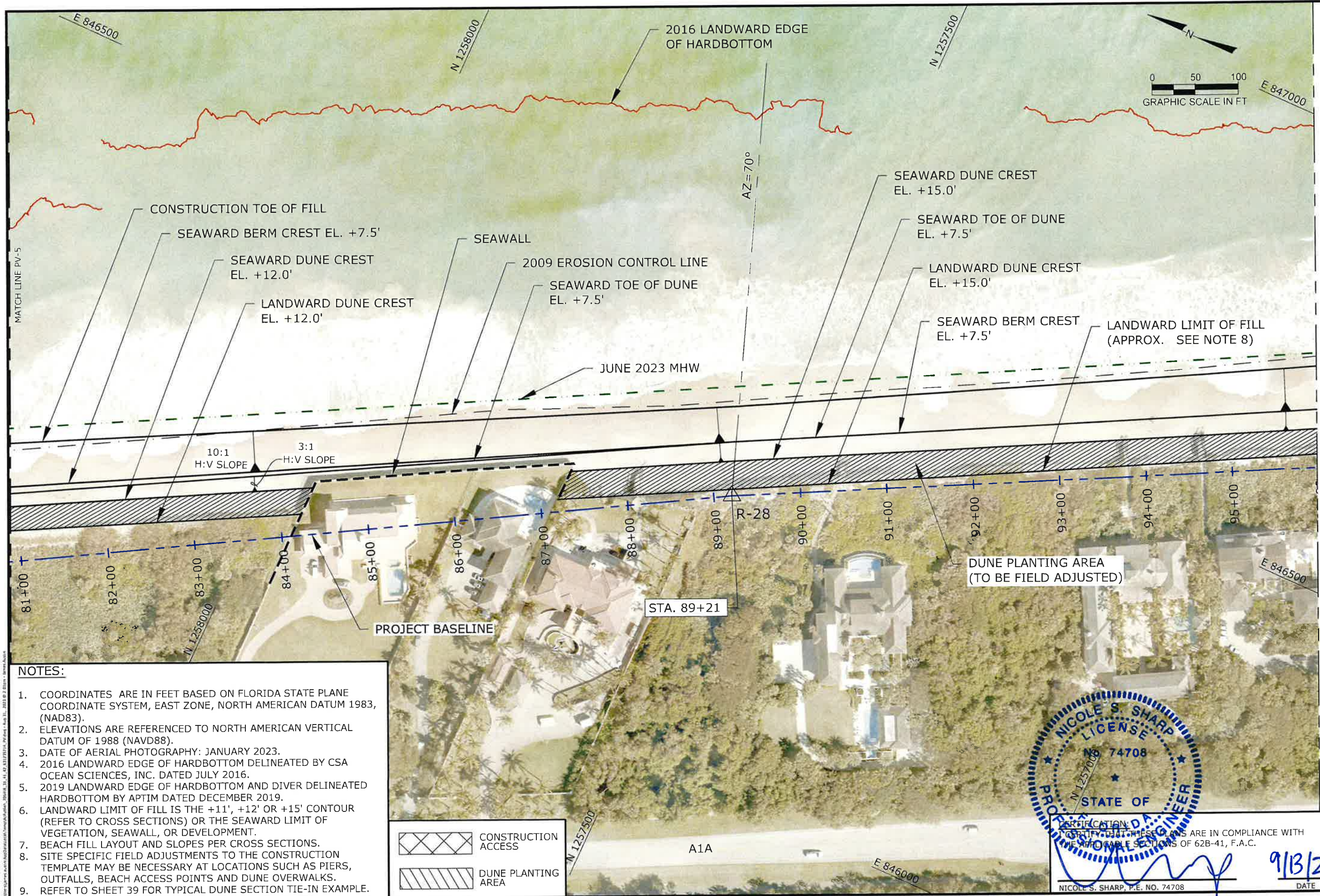
REVISIONS:	No.	Date	Description

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Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
Proj. No.:	631033527	Com. No.:	631033527
Scale:	AS NOTED		

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-5  
 SHEET 10 OF 40





- NOTES:**
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NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
 DATE

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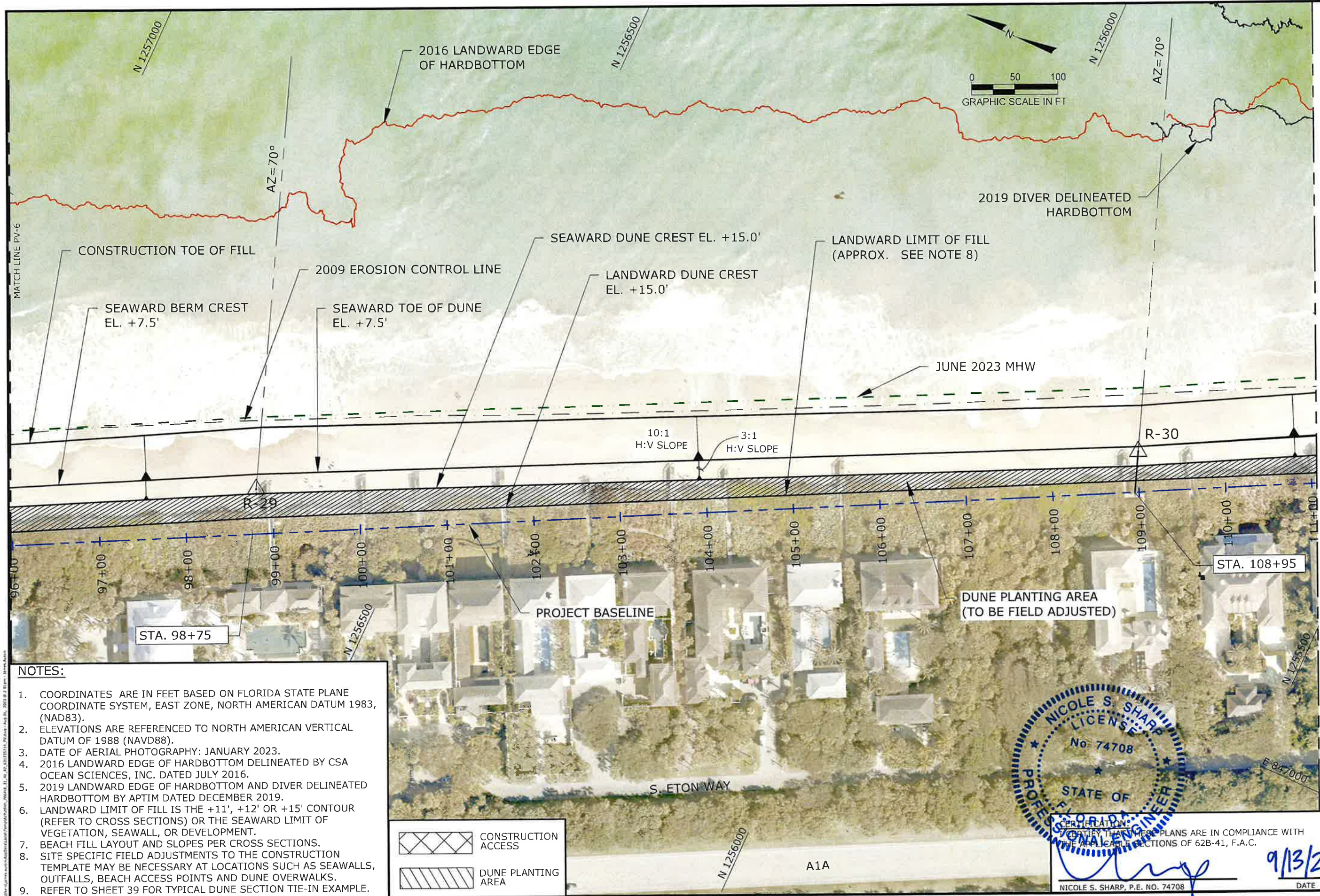
DESIGNED BY:	CHECKED BY:
NS	NS
JA	JA
08/18/23	08/18/23
AS NOTED	AS NOTED
63.1033527	63.1033527

HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-6



SHEET 11 OF 40





**NOTES:**

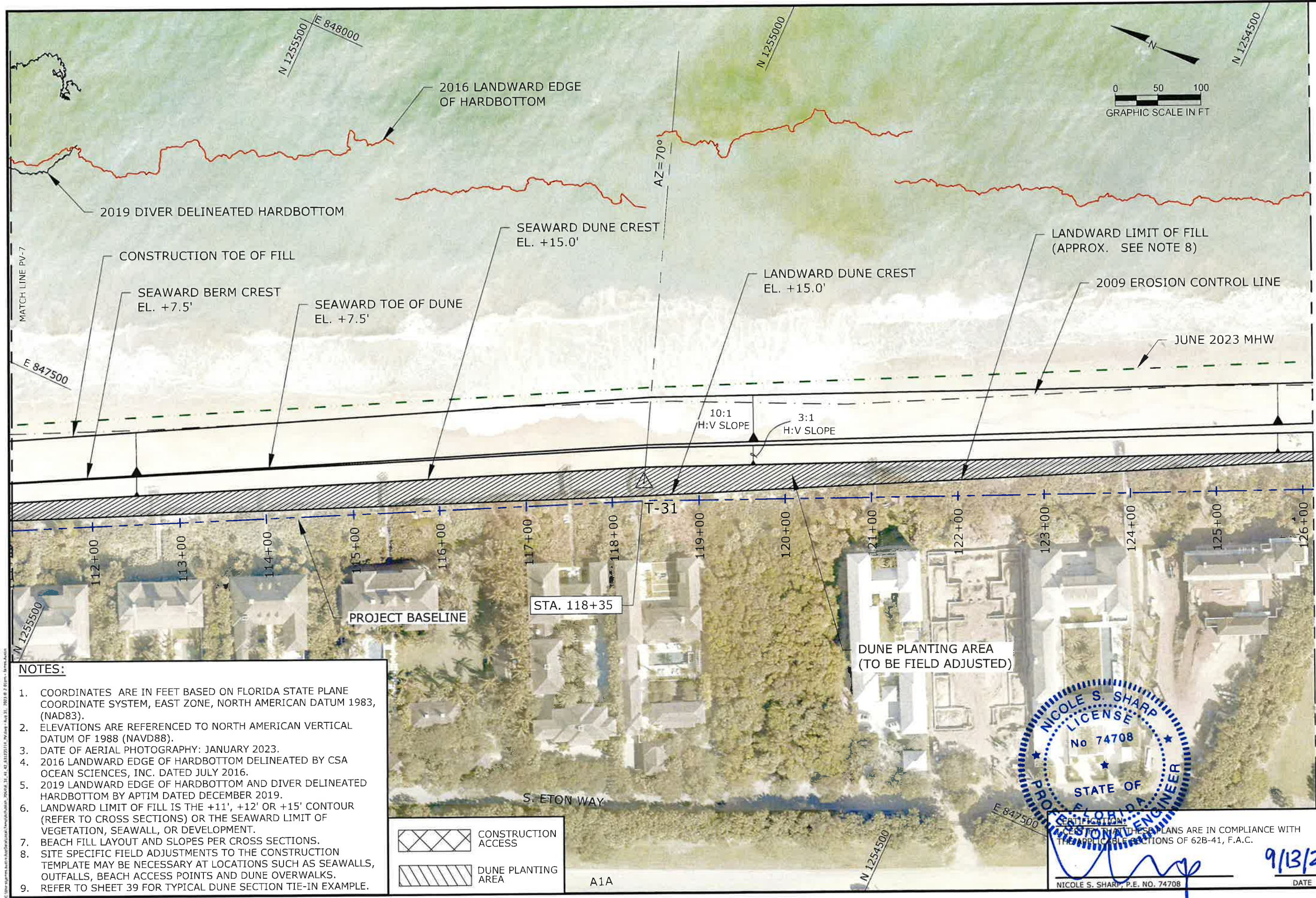
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	CONSTRUCTION ACCESS
	DUNE PLANTING AREA

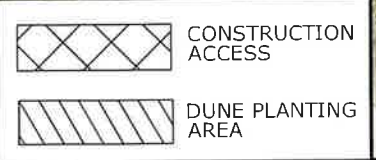
  
 CERTIFICATION:  
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<b>APTIM ENVIRONMENTAL &amp; INFRASTRUCTURE, LLC</b>																									
6401 CONGRESS AVENUE, SUITE 140 BOCA RATON, FLORIDA 33487 PH. (561) 391-8102 FAX (561) 391-9116 C.O.A. FL. #9317 www.APTIM.com																									
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SECTOR 3 HURRICANES IAN AND NICOLE REPAIR PROJECT CONSTRUCTION PLANS INDIAN RIVER COUNTY, FLORIDA PLAN VIEW																									
DRAWING NO.	<b>PV-7</b>																								
SHEET 12 OF 40																									





- NOTES:**
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NICOLE S. SHARP, P.E. NO. 74708  
 DATE: 9/13/23

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 PH. (661) 391-8102  
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 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

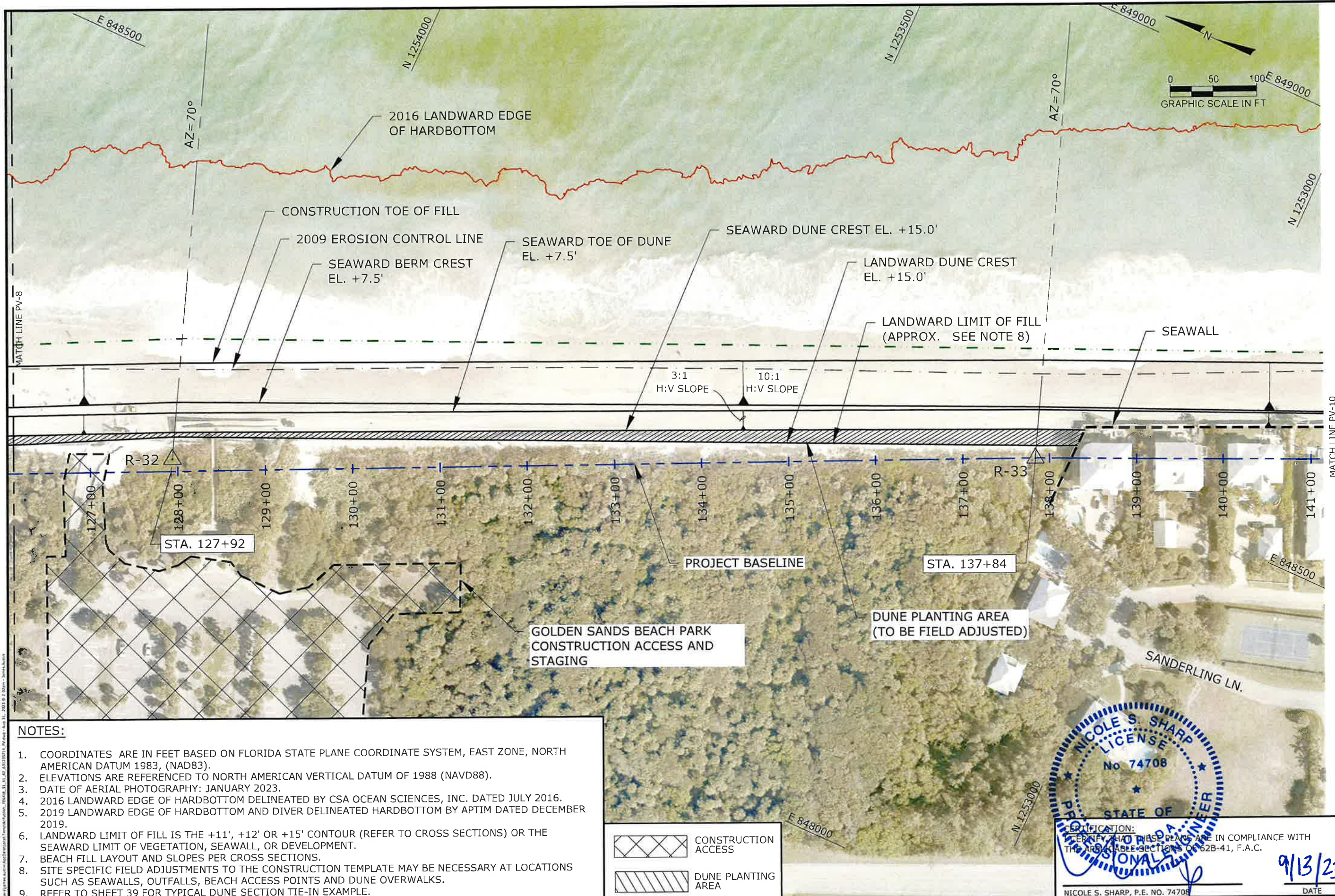
No.	Description	Date

Designed by: NS	Checked by: NS	Drawn by: JA	Reviewed by: JA
Date: 09/18/23	Submitted by: NS	Proj. No.:	631033327
P&S NOTED			

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. **PV-8**  
 SHEET 13 OF 40





**NOTES:**

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NICOLE S. SHARP  
 LICENSE  
 No 74708  
 STATE OF  
 PROFESSIONAL ENGINEER

CERTIFICATION:  
 I HEREBY CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708  
 DATE 9/13/23

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 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
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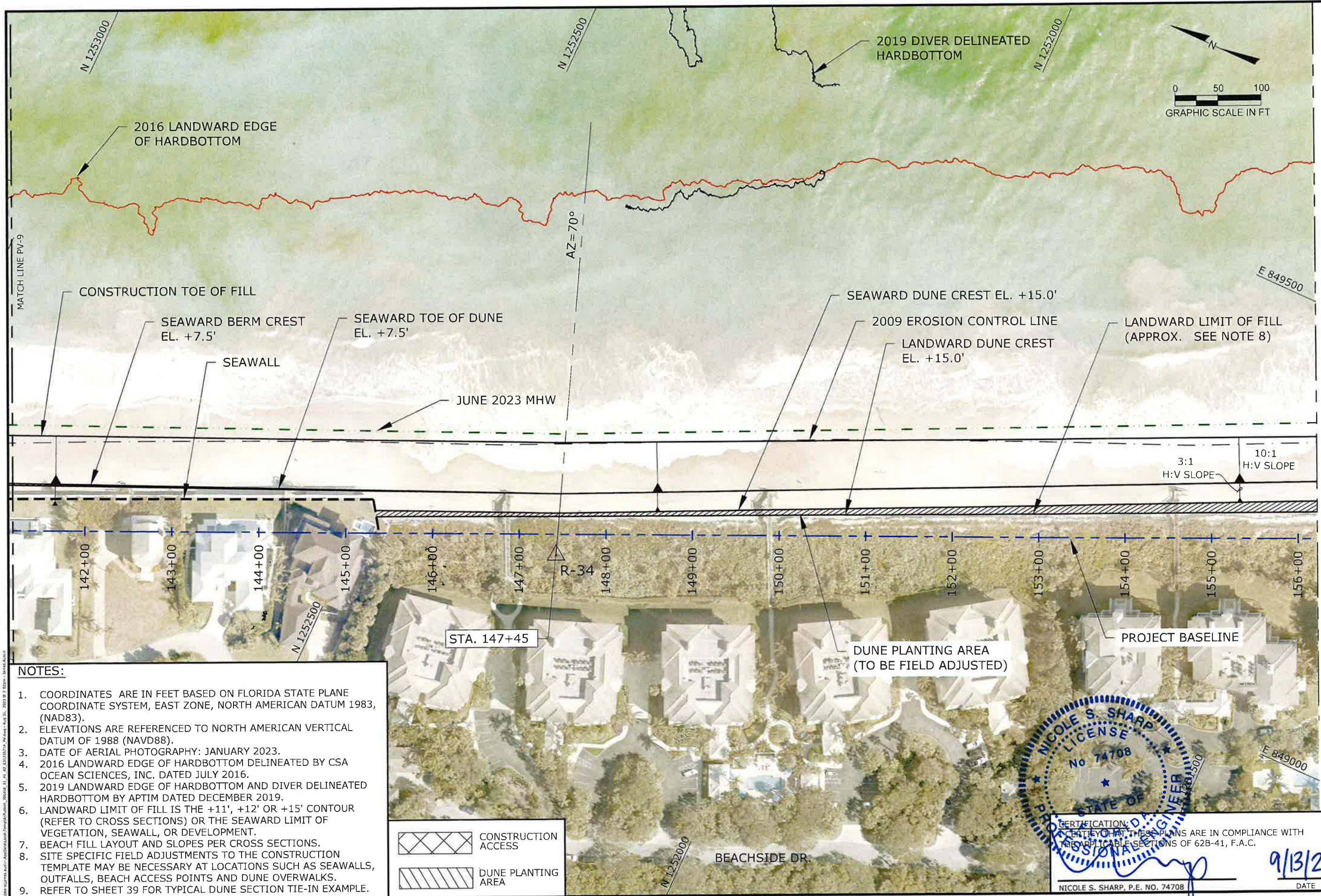
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 Designed by: NS  
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 Date: 08/18/23  
 PLOT Scale: AS NOTED

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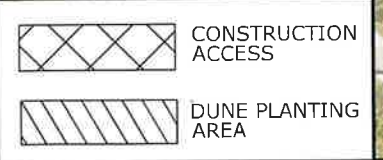
SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-9  
 SHEET 14 OF 40





- NOTES:**
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 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

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Reference Files:

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 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

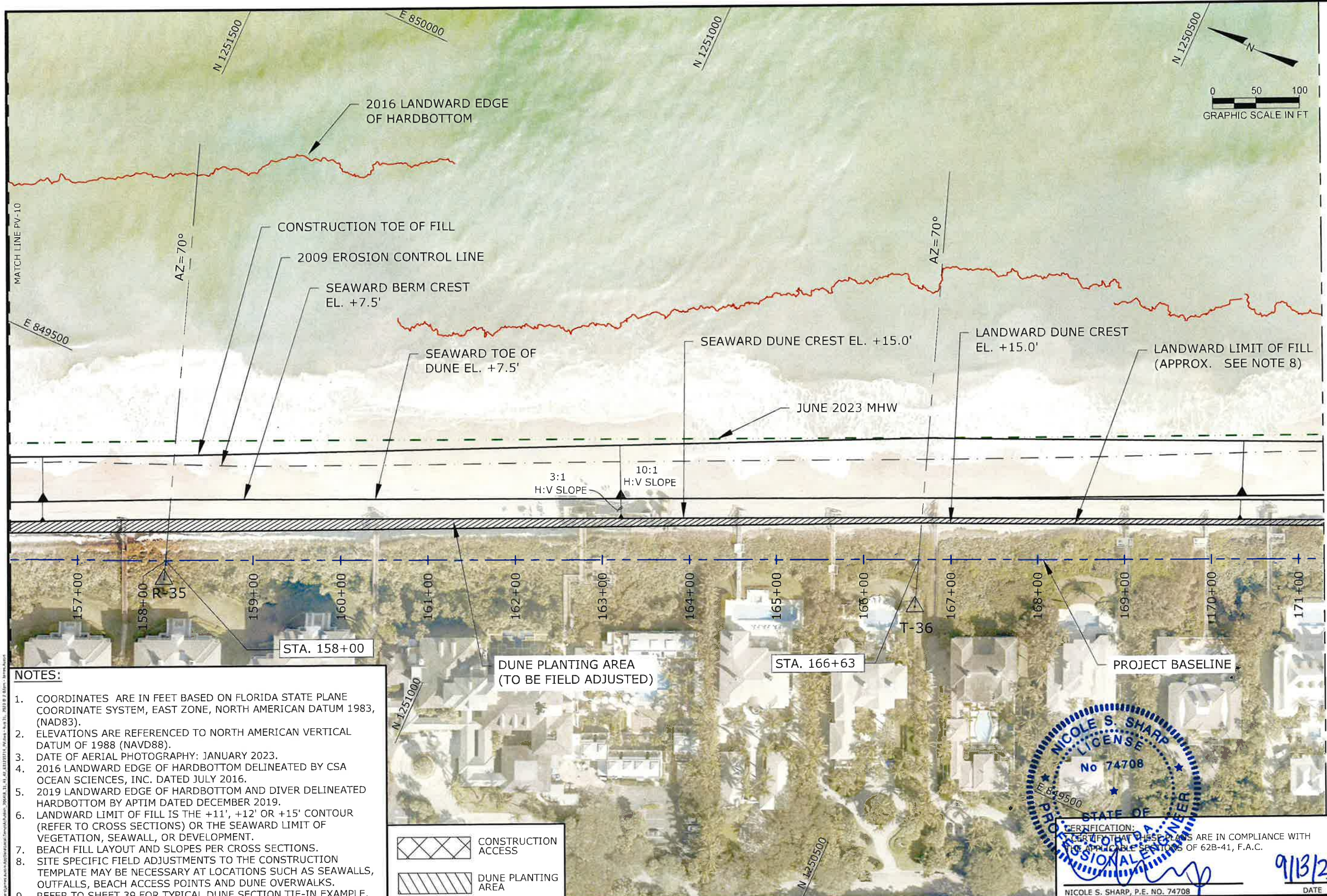
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 SHEET 15 OF 40

**NICOLE S. SHARP**  
 LICENSE No. 74708  
 PROFESSIONAL ENGINEER  
 STATE OF FLORIDA

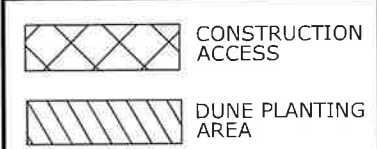
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*Nicole S. Sharp*  
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REVISIONS	No.	Date	Description

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/16/23	Submitted by:	NS
Plot Scale:	AS NOTED	Comm. No.:	631033527

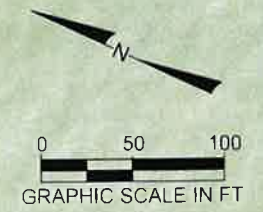
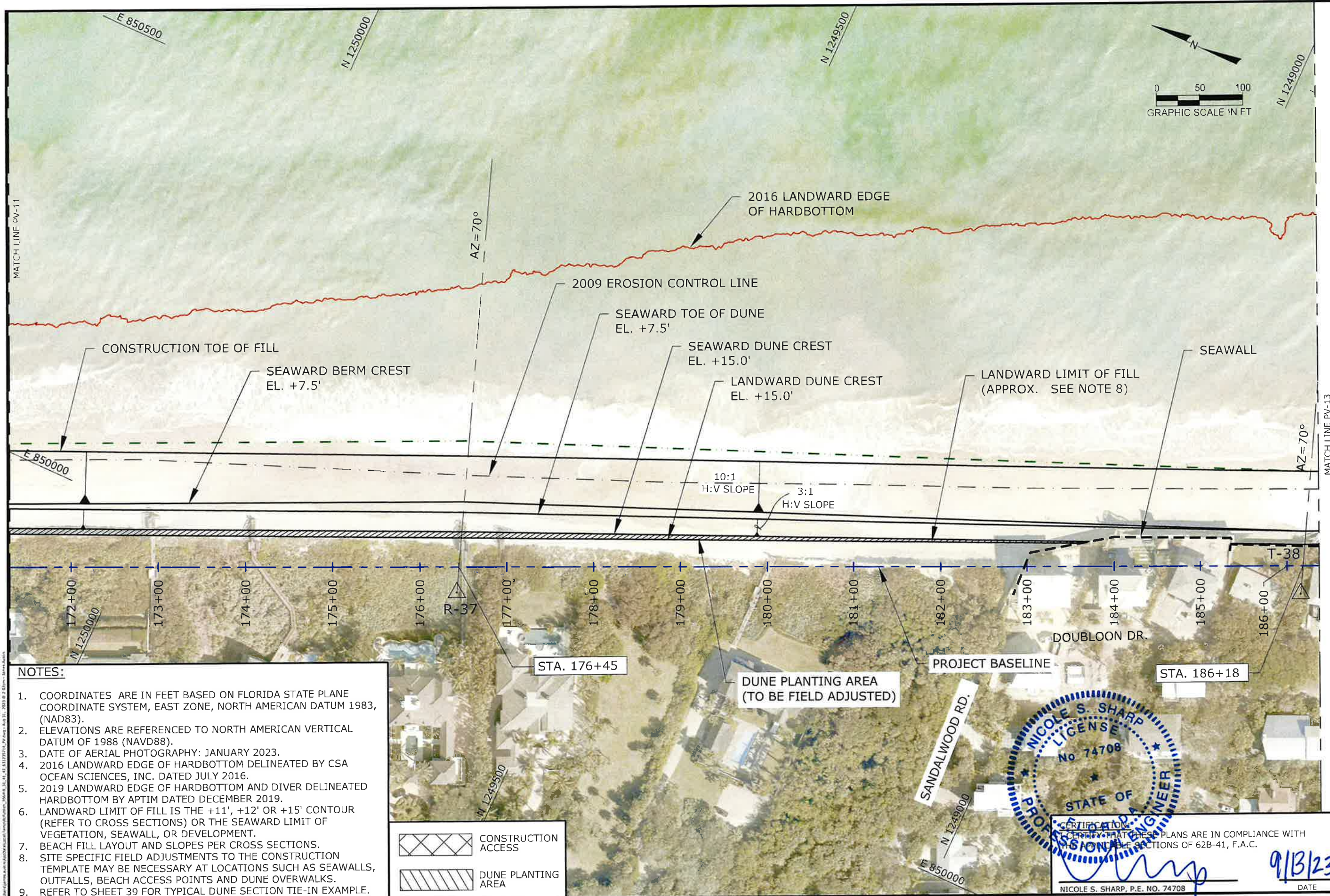
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 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-11  
 SHEET 16 OF 40

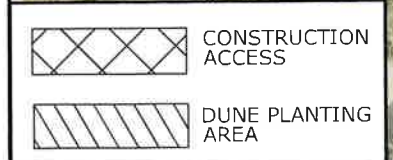
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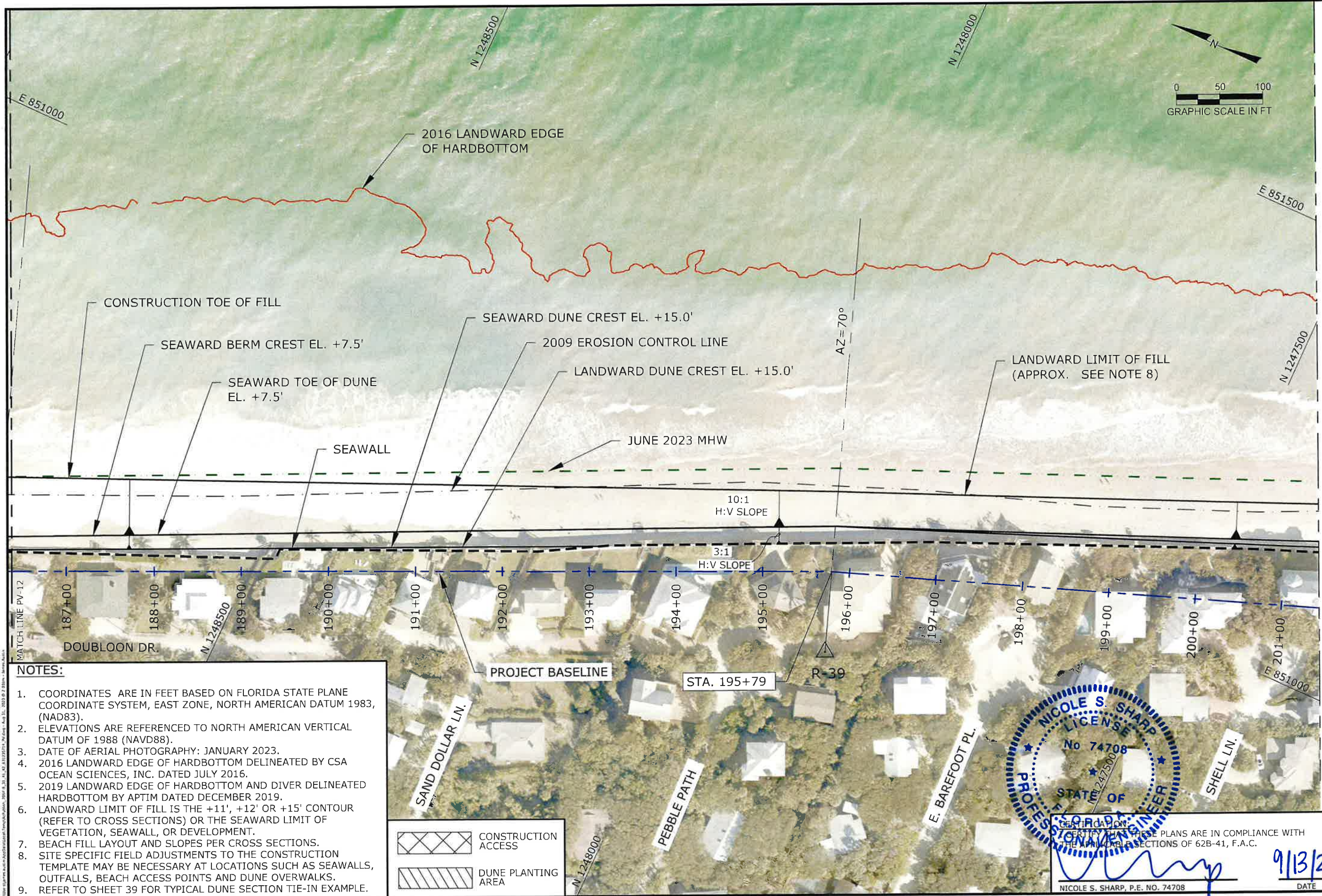
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SECTOR 3  
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 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO.  
**PV-12**

SHEET 17 OF 40





- NOTES:**
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Designed by: NS	Checked by: NS	Submitted by: NS	Comm. No.: 631033527
Drawn by: JA	Reviewed by: JA	Date: 08/18/23	Proj. No.: AS NOTED

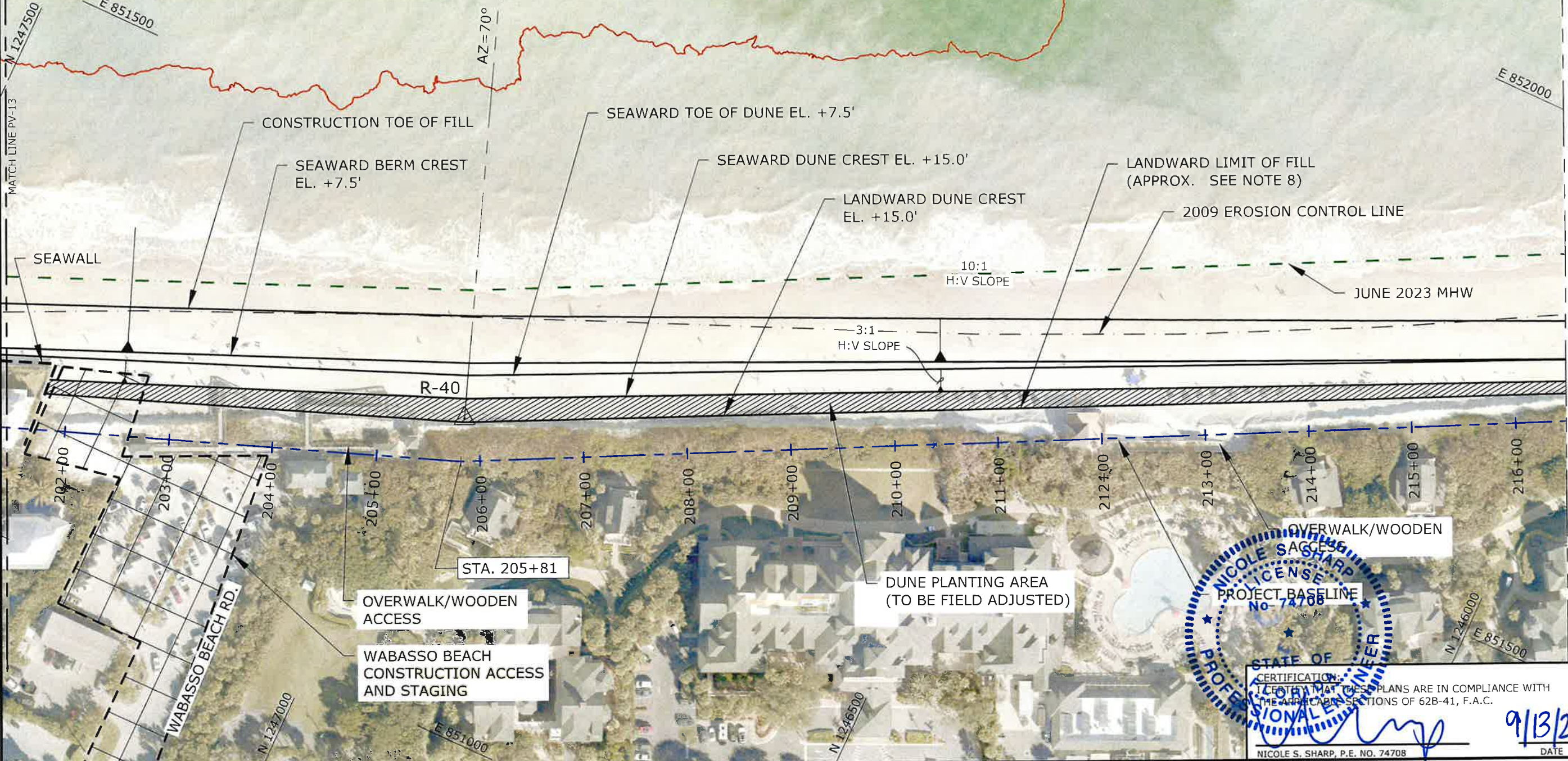
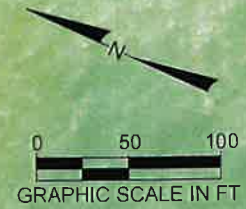
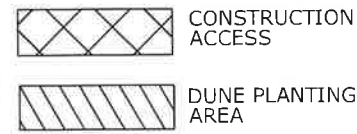
HURRICANES TAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-13  
 SHEET 18 OF 40



**NOTES:**

- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- DATE OF AERIAL PHOTOGRAPHY: JANUARY 2023.
- 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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- BEACH FILL LAYOUT AND SLOPES PER CROSS SECTIONS.
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- REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 PH. (561) 391-8102  
 FAX (561) 391-8116  
 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

REVISIONS	No.	Date	Description

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/16/23	Submitted by:	NS
Proj. No.:	631033527	Contract No.:	631033527
Scale:	AS NOTED		

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

**NICOLE S. SHARP**  
 LICENSE NO. 74708  
 PROJECT BASELINE  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

CERTIFICATION:  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708

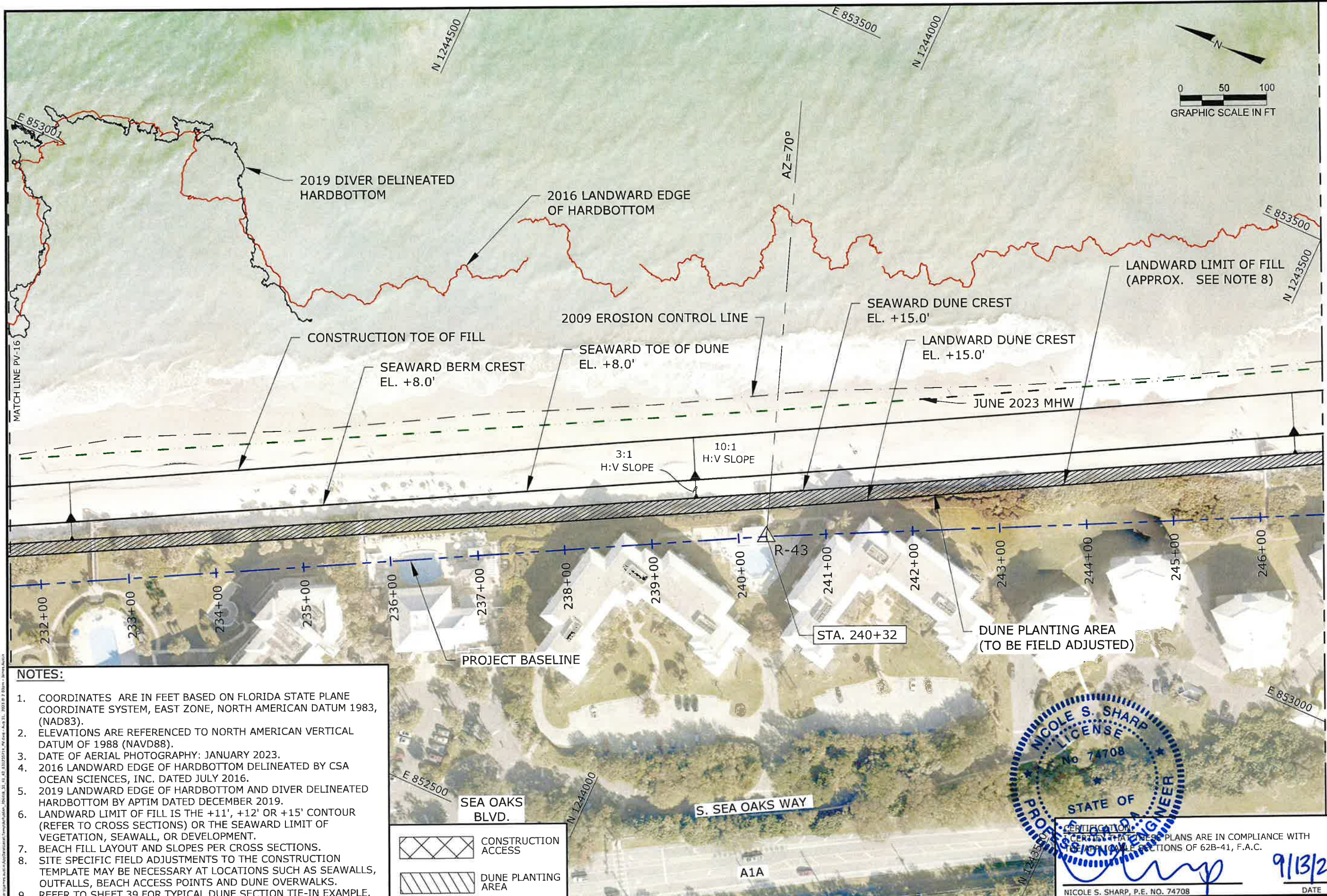
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 9/13/23

DRAWING NO.  
 PV-14  
 SHEET 19 OF 40

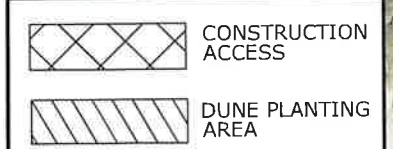








- NOTES:**
1. COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
  2. ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  3. DATE OF AERIAL PHOTOGRAPHY: JANUARY 2023.
  4. 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
  5. 2019 LANDWARD EDGE OF HARDBOTTOM AND DIVER DELINEATED HARDBOTTOM BY APTIM DATED DECEMBER 2019.
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  7. BEACH FILL LAYOUT AND SLOPES PER CROSS SECTIONS.
  8. SITE SPECIFIC FIELD ADJUSTMENTS TO THE CONSTRUCTION TEMPLATE MAY BE NECESSARY AT LOCATIONS SUCH AS SEAWALLS, OUTFALLS, BEACH ACCESS POINTS AND DUNE OVERWALKS.
  9. REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



NICOLE S. SHARP  
 LICENSE  
 No. 74708  
 STATE OF  
 FLORIDA  
 PROFESSIONAL ENGINEER

CERTIFICATION:  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

\_\_\_\_\_  
 NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
 DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com  
 PH. (561) 391-8102  
 FAX (561) 391-9116  
 C.O.A. FL. #9317

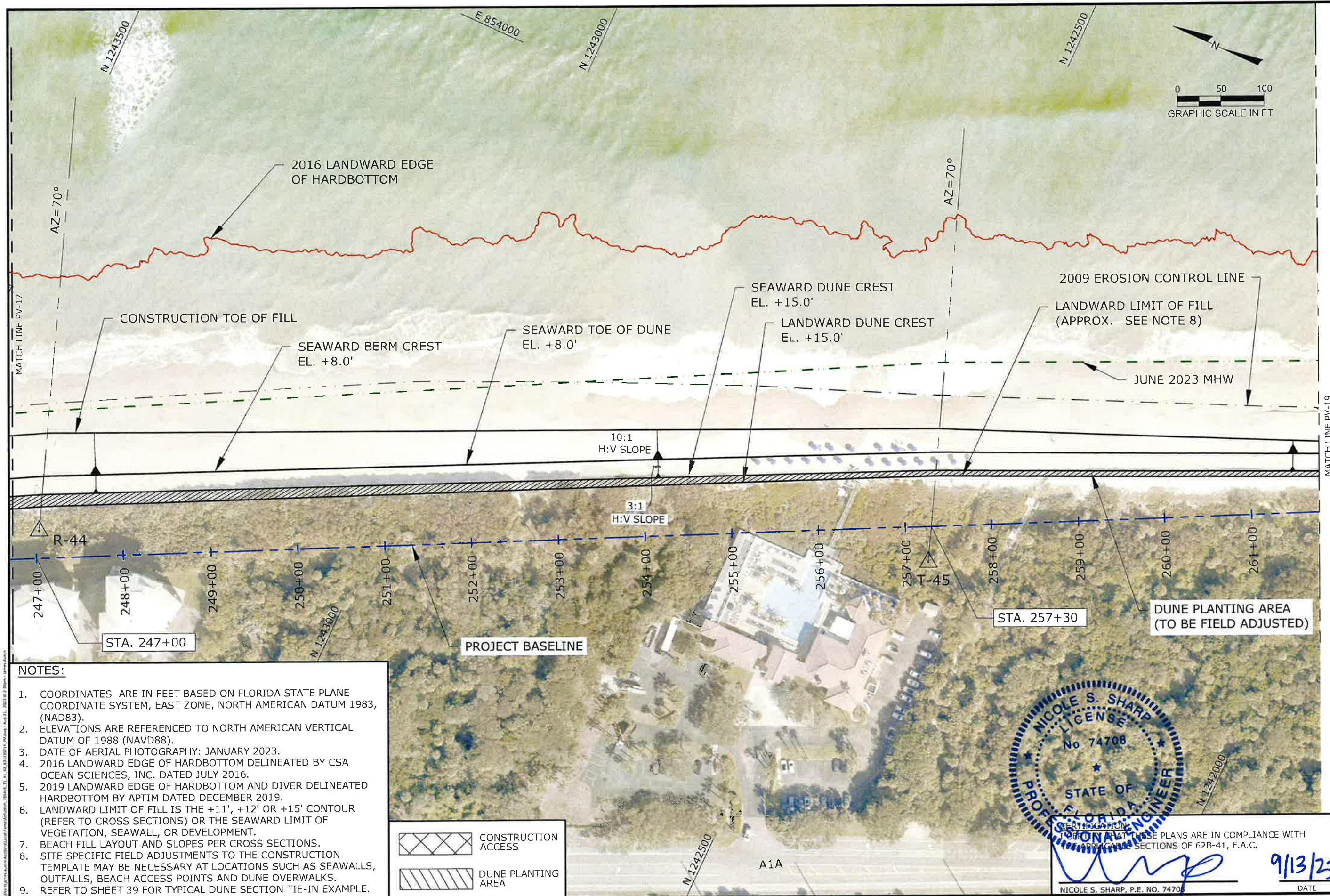
REVISED	No.	Description

Designed by:	Checked by:	Reviewed by:	Submitted by:	Comm. No.:
NS	NS	JA	NS	631033527
Drawn by:	Date:	Plot Scale:	AS NOTED	
JA	08/18/23	AS NOTED		

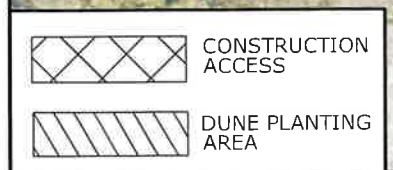
SECTOR 3  
 HURRICANE IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO.  
**PV-16**  
 SHEET 21 OF 40





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
  - ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
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  - REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



CERTIFICATION  
 THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPROPRIATE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
 DATE

<b>APTIM ENVIRONMENTAL &amp; INFRASTRUCTURE, LLC</b>	
6401 CONGRESS AVENUE, SUITE 140 BOCA RATON, FLORIDA 33487 PH: (561) 391-8102 FAX: (561) 391-8116 C.O.A. FL. #8317 <a href="http://www.APTIM.com">www.APTIM.com</a>	
<b>REVISIONS</b>	
No.   Date   Description	
Checked by: NS Designed by: NS Drawn by: JA Date: 08/18/23 Reg. No.: AS NOTED	Reviewed by: JA Submitted by: NS Comm. No.: 631033527
Reference files:	
HURRICANES TAN AND NICOLE REPAIR PROJECT CONSTRUCTION PLANS INDIAN RIVER COUNTY, FLORIDA PLAN VIEW	
DRAWING NO.	PV-17
SHEET 22 OF 40	

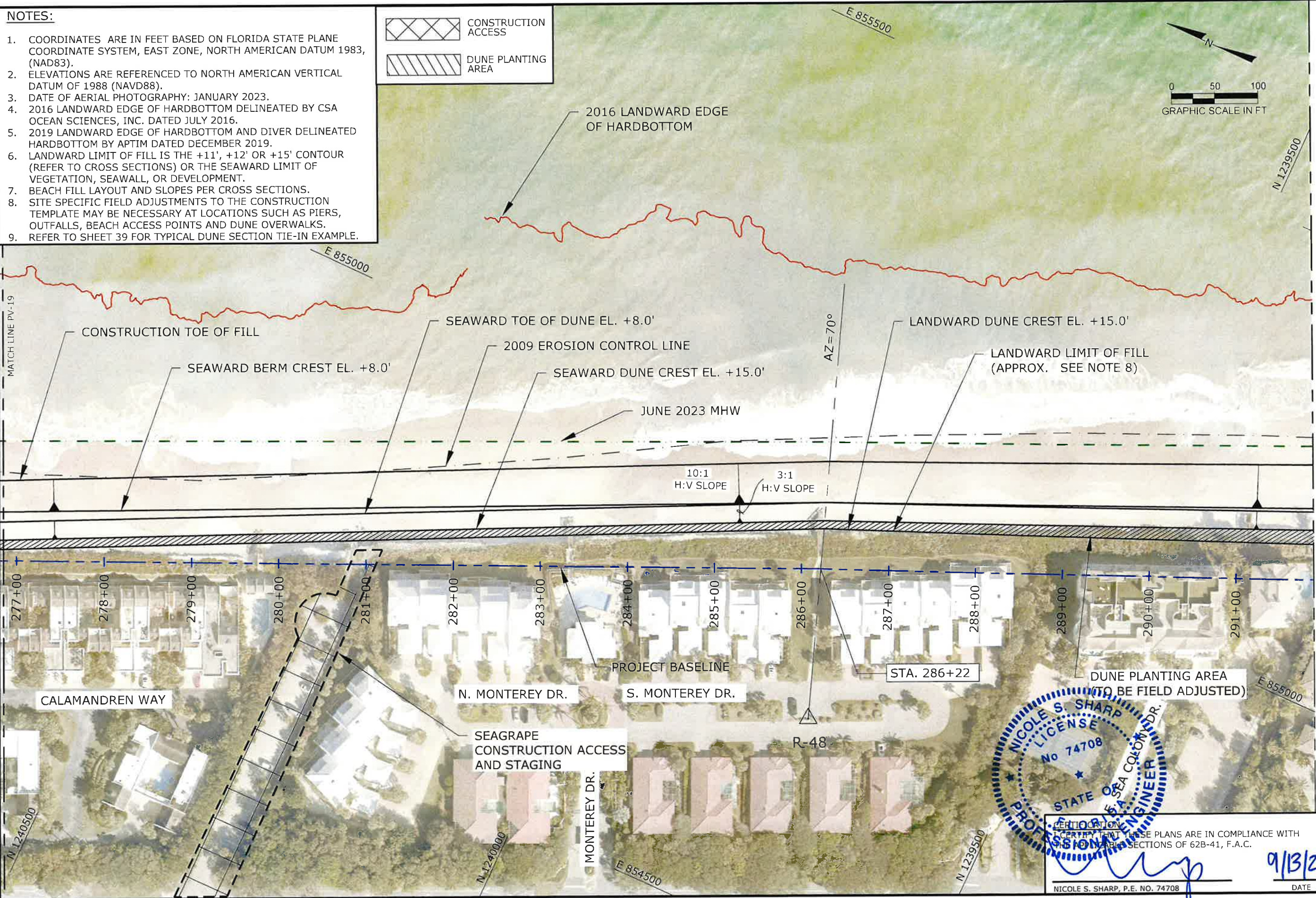
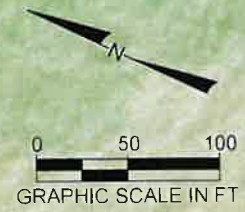
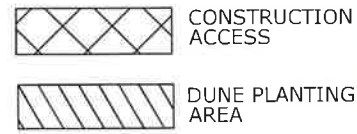






**NOTES:**

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- REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.



**NICOLE S. SHARP**  
 LICENSE  
 No 74708  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 SEASIDE COASTAL DR.

I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE RELEVANT SECTIONS OF 62B-41, F.A.C.  
 NICOLE S. SHARP, P.E. NO. 74708  
 9/13/23  
 DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 PH: (561) 391-8102  
 FAX: (561) 391-9116  
 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
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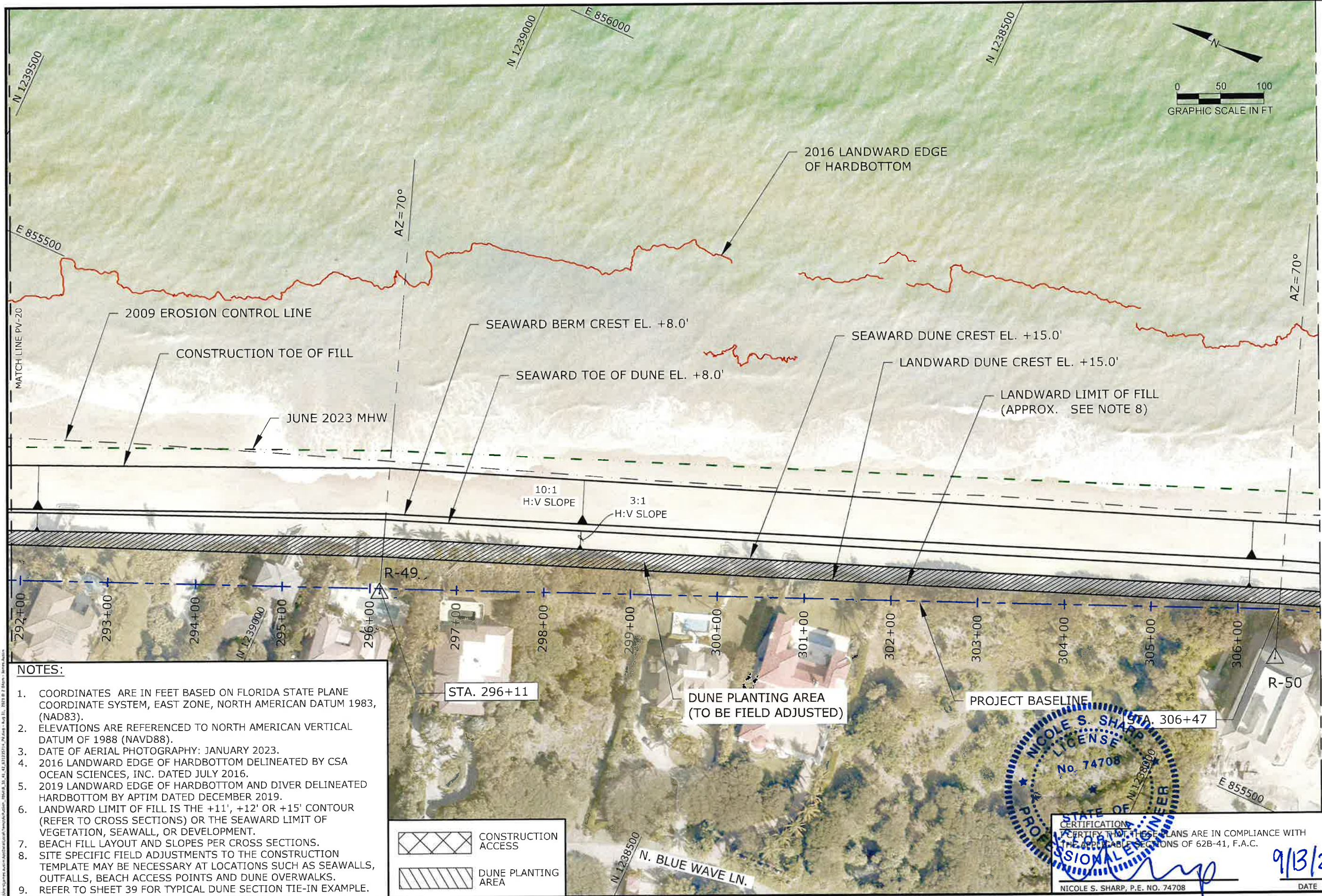
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	NS	NS
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REVISIONS	No.	Date	Description

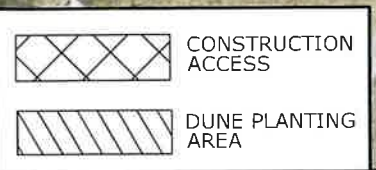
SECTOR 3  
 HURRICANES JAM AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO.  
 PV-19  
 SHEET 24 OF 40





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
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 BOCA RATON, FLORIDA 33487  
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REVISIONS	No.	Date	Description

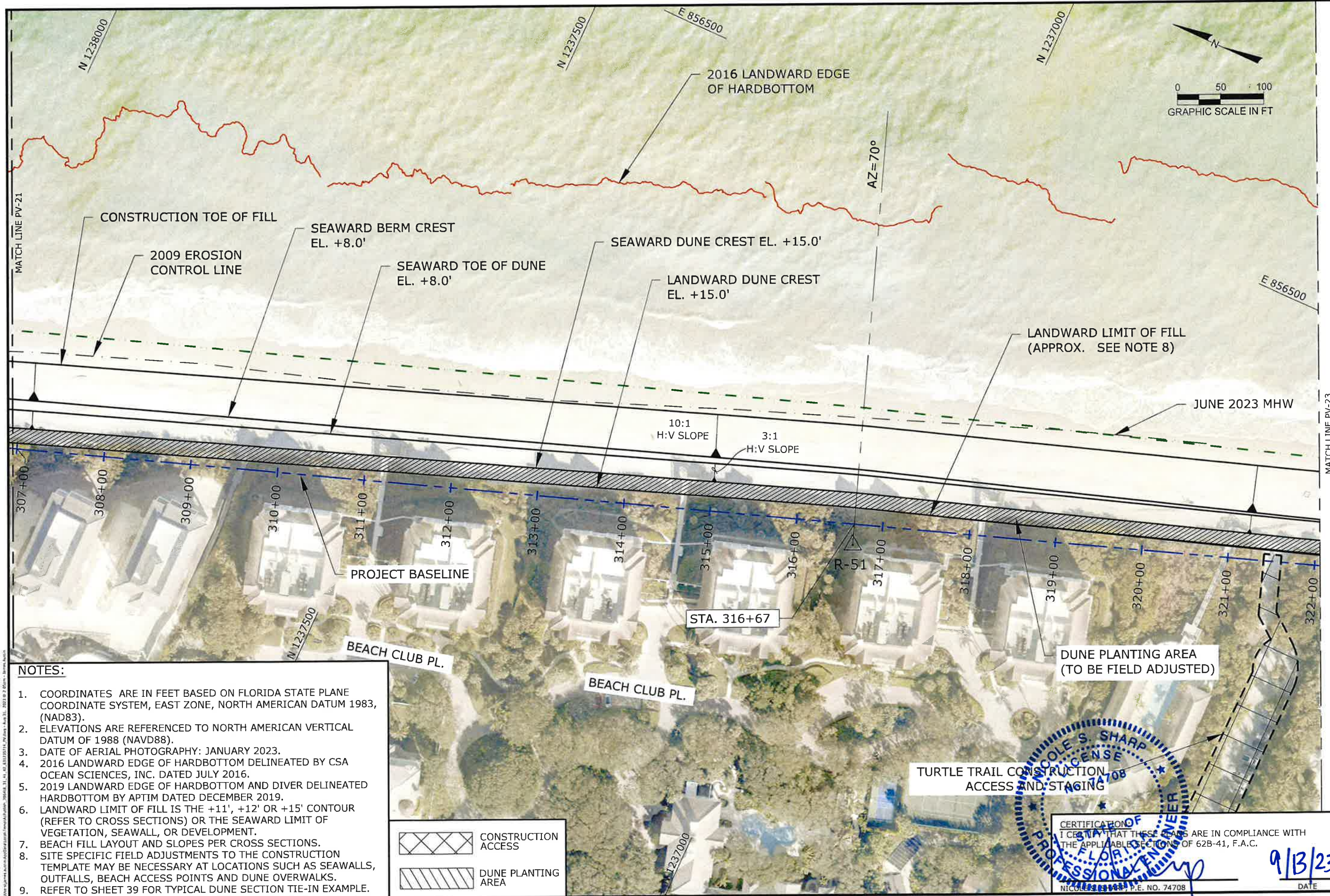
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Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
Proj. No.:	631033527	Comm. No.:	631033527
AS NOTED			

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-20  
 SHEET 25 OF 40

STATE OF FLORIDA  
 PROFESSIONAL ENGINEER  
 NICOLE S. SHARP  
 LICENSE No. 74708  
 CERTIFICATION  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.  
 NICOLE S. SHARP, P.E. NO. 74708  
 DATE 9/13/23





- NOTES:**
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 FAX (661) 391-9116  
 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

Reference Files:	Designed by:	Checked by:
	NS	NS
	JA	JA
	08/18/23	NS
	AS NOTED	631033527

SECTOR 3  
 HURRICANES TAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-21  
 SHEET 26 OF 40

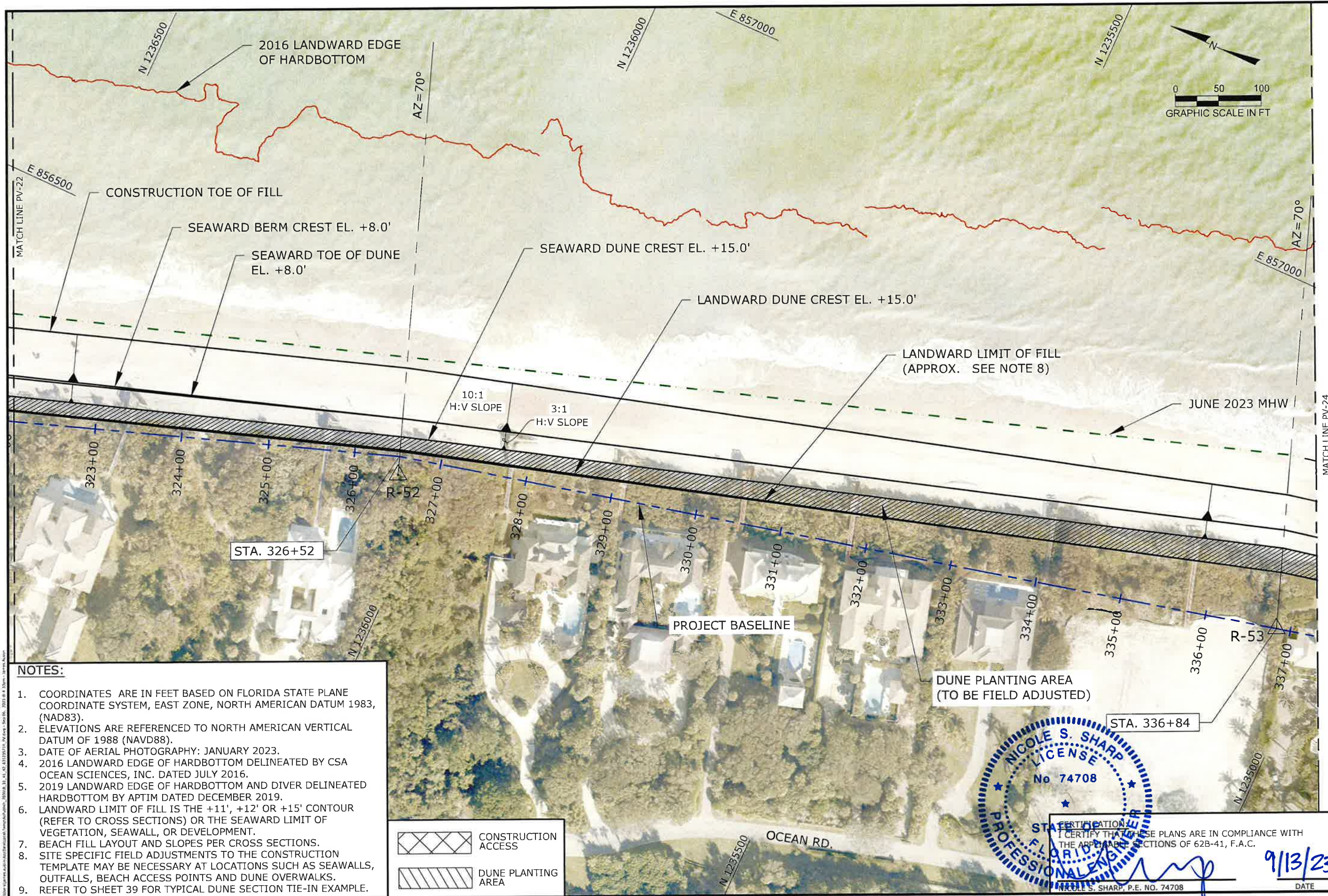
CERTIFICATION OF  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

**NICOLE S. SHARP**  
 PROFESSIONAL ENGINEER  
 FLORIDA LICENSE #74708

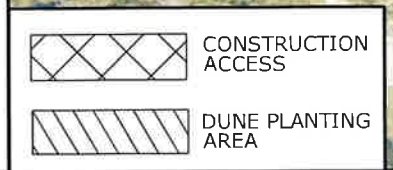
DATE: 9/13/23

NICOLE S. SHARP, P.E. NO. 74708





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
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**NICOLE S. SHARP**  
 LICENSE  
 No 74708  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

DATE: 9/13/23

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**

PH. (661) 391-8102  
 FAX (661) 391-9116  
 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

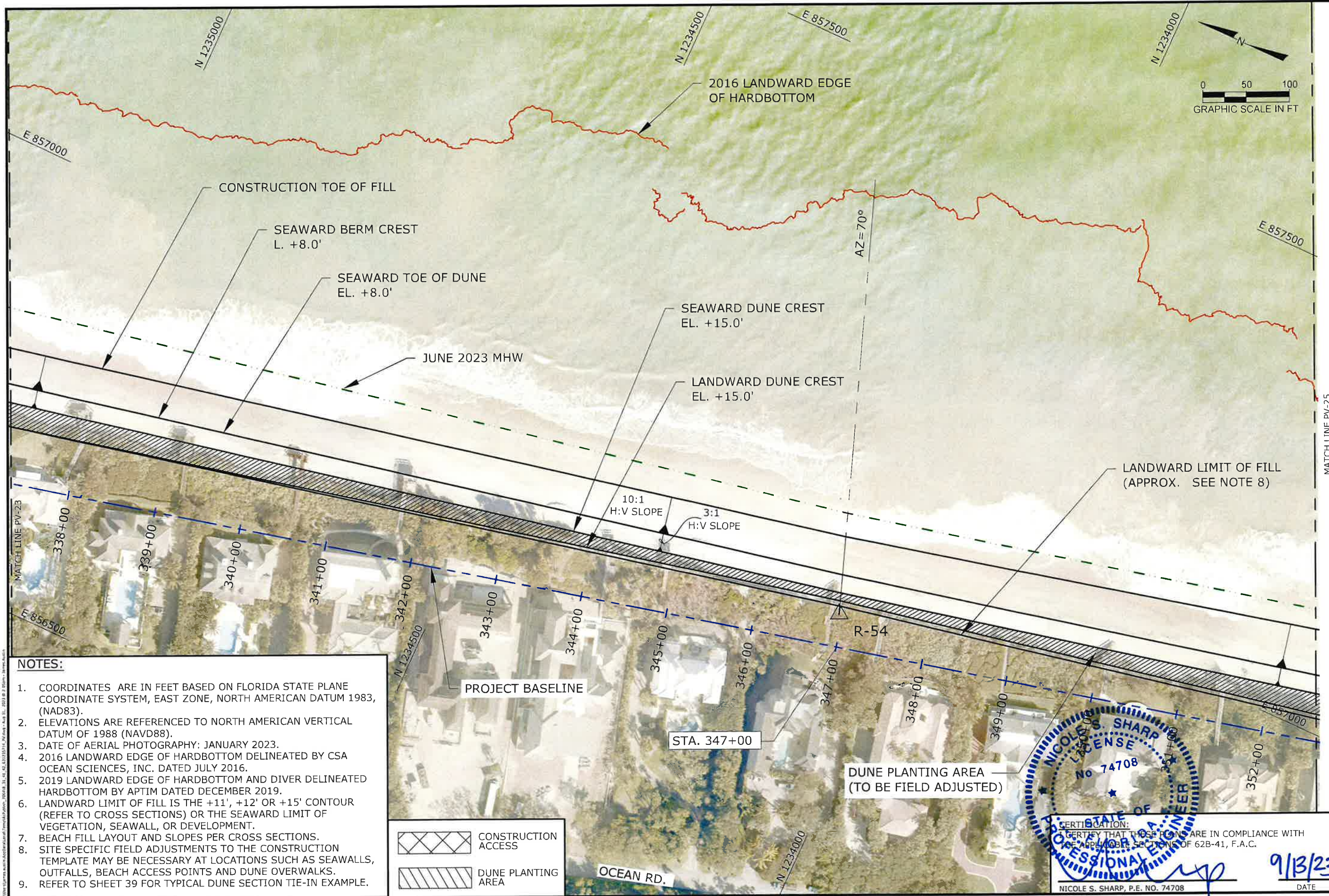
No.	Date	Description

Checked by: NS  
 Reviewed by: JA  
 Submitted by: NS  
 Date: 08/18/23  
 Pkg. Scale: AS NOTED  
 Corrm. No.: 631033527

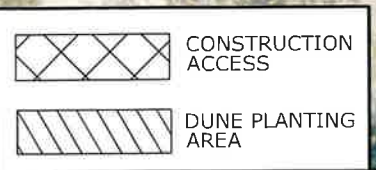
HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO. PV-22  
 SHEET 27 OF 40





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
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CERTIFICATION:
   
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH
   
 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.
   
 NICOLE S. SHARP, P.E. NO. 74708
   
 9/13/23

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**

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 FAX: (661) 391-9116  
 C.O.A. FL. #8317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

REV. NO.	DESCRIPTION	DATE	BY

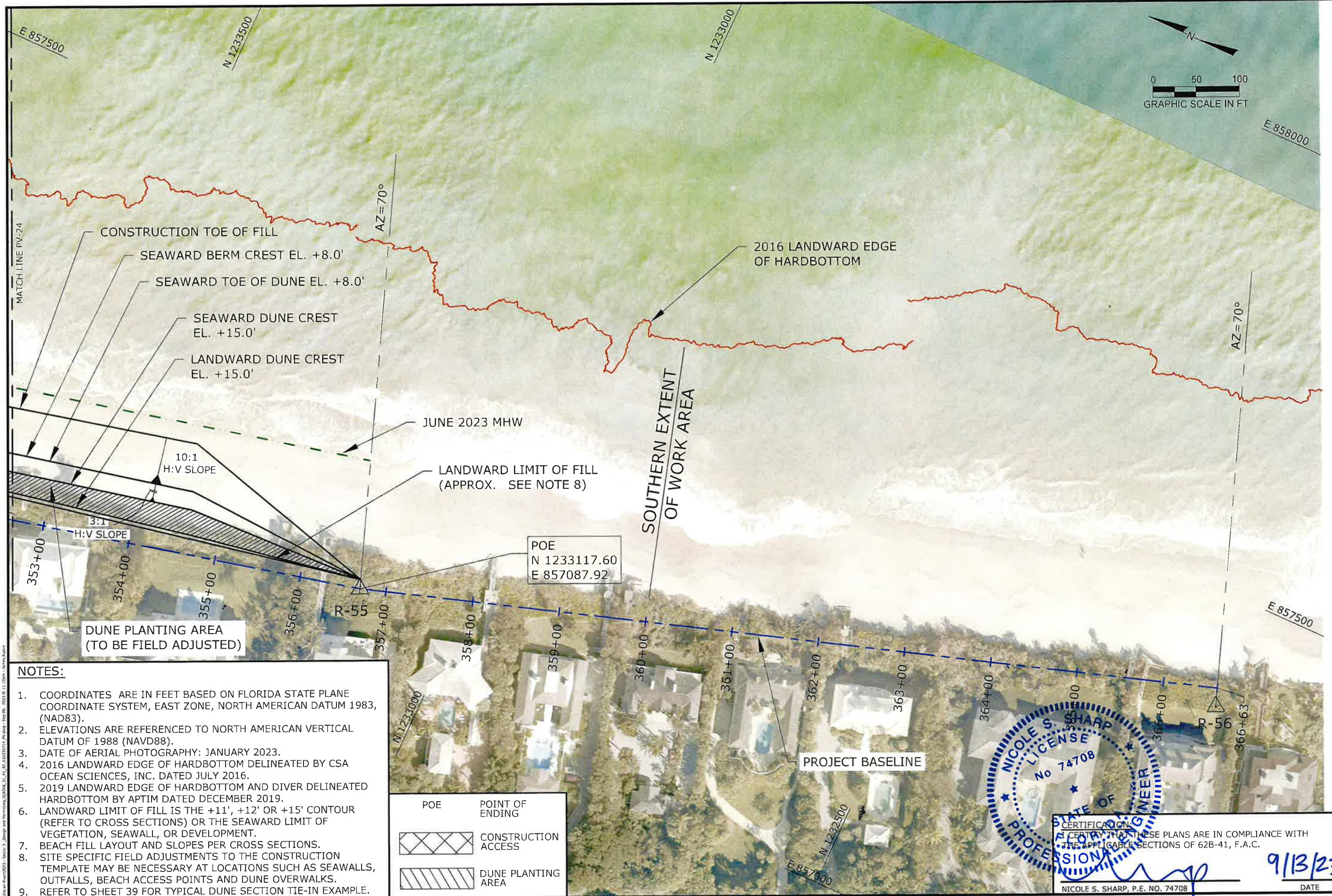
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Designed by: NS	Checked by: NS	Submitted by: NS	Comp. No.: 631033527
Drawn by: JA	Reviewed by: JA	Date: 09/18/23	Reg. No.:
AS NOTED			

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO.  
**PV-23**  
 SHEET 28 OF 40





- NOTES:**
- COORDINATES ARE IN FEET BASED ON FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM 1983, (NAD83).
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	POE	POINT OF ENDING
	CONSTRUCTION ACCESS	
	DUNE PLANTING AREA	

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
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 FAX: (561) 391-8116  
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REVISIONS	NO.	DATE	DESCRIPTION

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
Proj. No.:	631033527	Comm. No.:	631033527
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Reference Files:

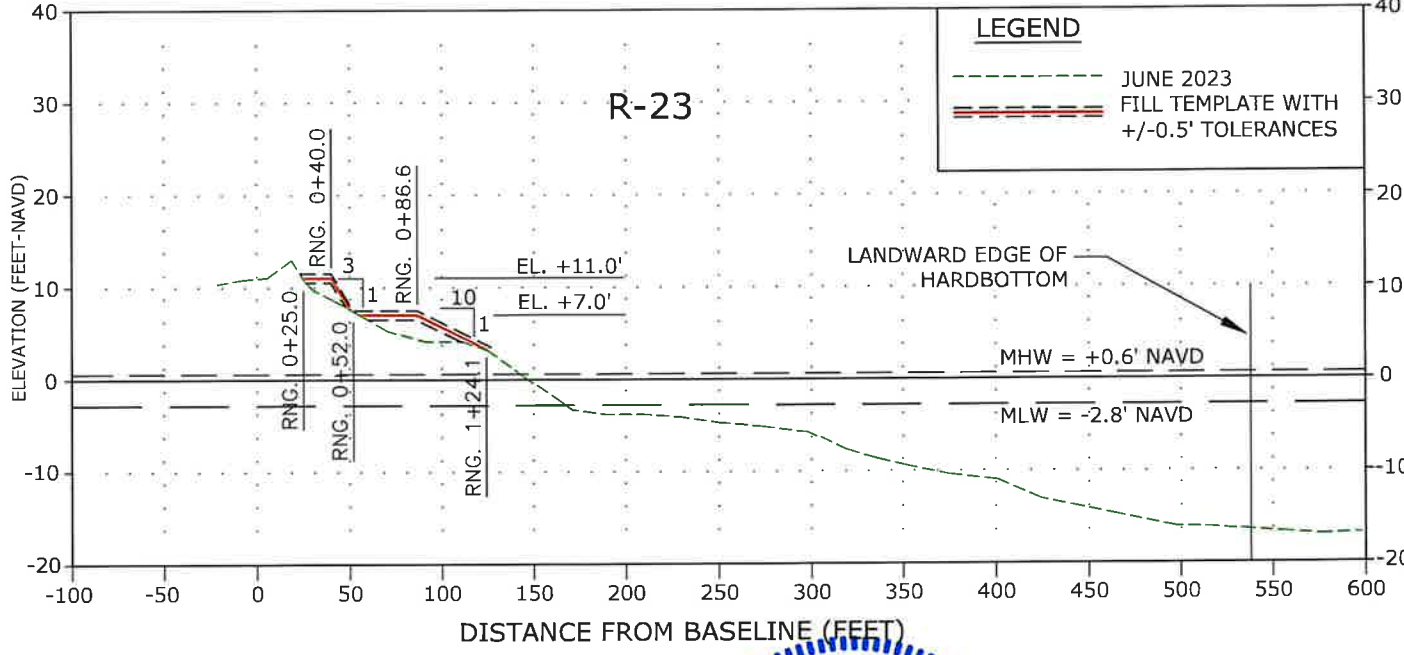
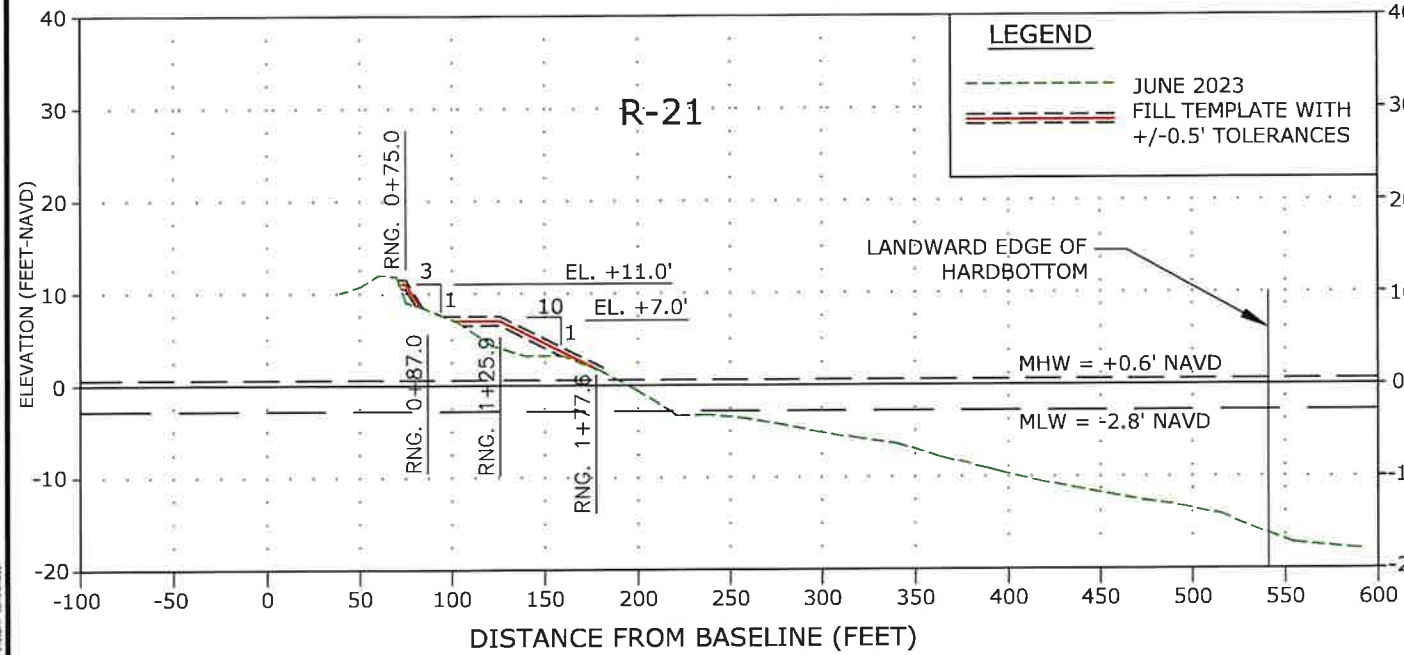
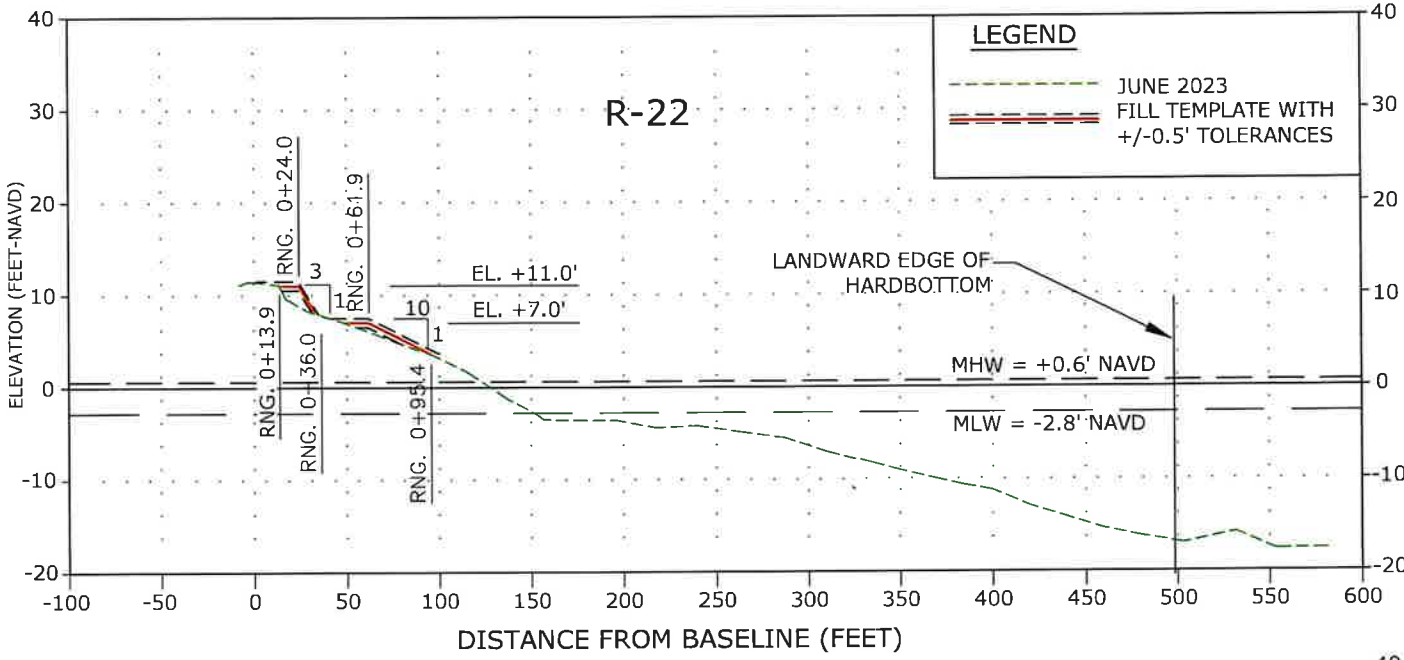
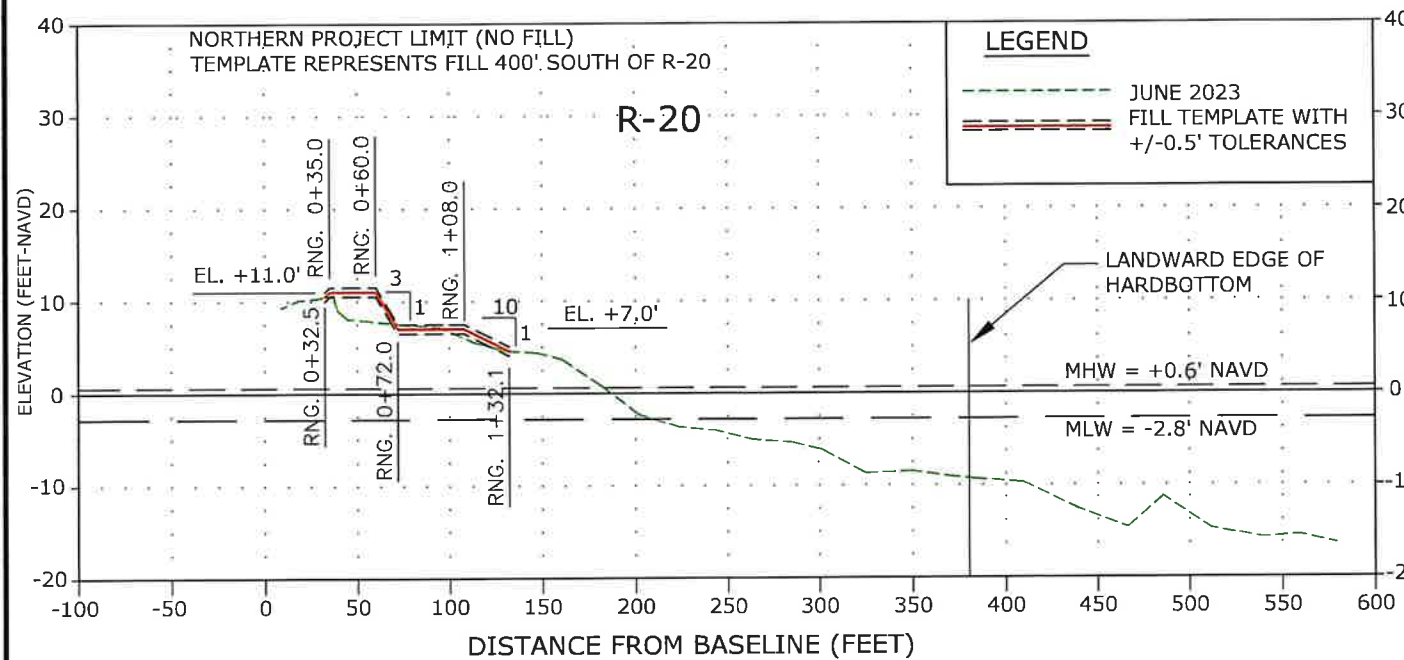
SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 PLAN VIEW

DRAWING NO.  
**PV-24**

SHEET 29 OF 40

CERTIFICATION: I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.  
 NICOLE S. SHARP, P.E. NO. 74708  
 9/13/23  
 DATE





- NOTES:**
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  - REFER TO SHEET 39 FOR TYPICAL DUNE SECTION TIE-IN EXAMPLE.

**NICOLE S. SHARP**  
 LICENSE  
 No 74708  
 STATE OF  
 PROFESSIONAL ENGINEER

CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

*Nicole S. Sharp*  
 NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
 DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com  
 PH. (561) 391-8102  
 FAX (561) 391-9116  
 C.O.A. FL. #95317

REVISIONS	No.	Date	Description

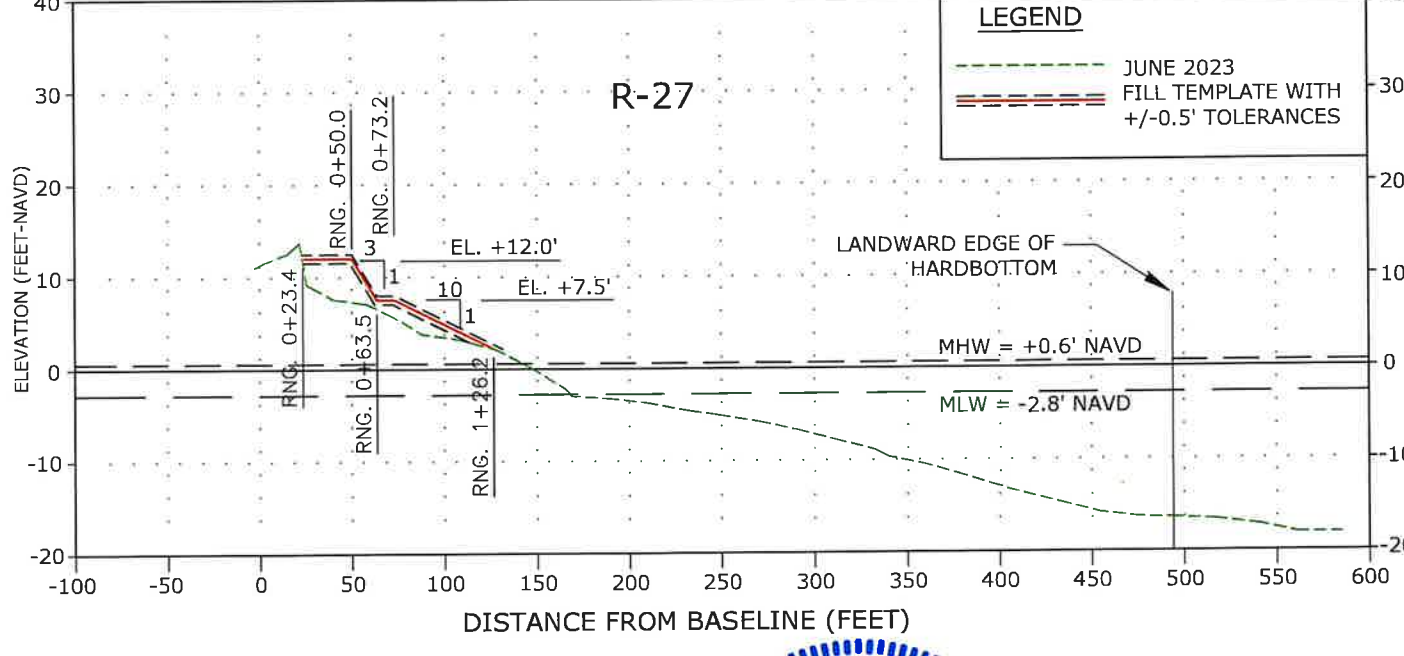
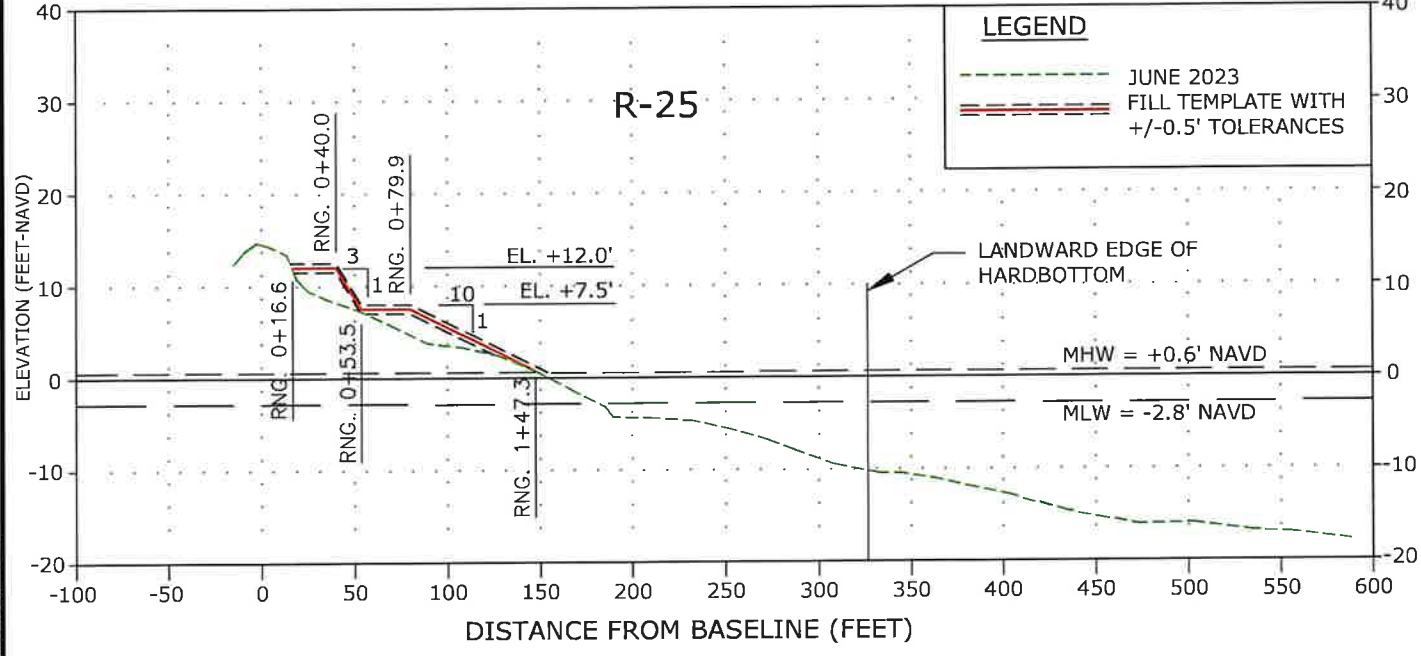
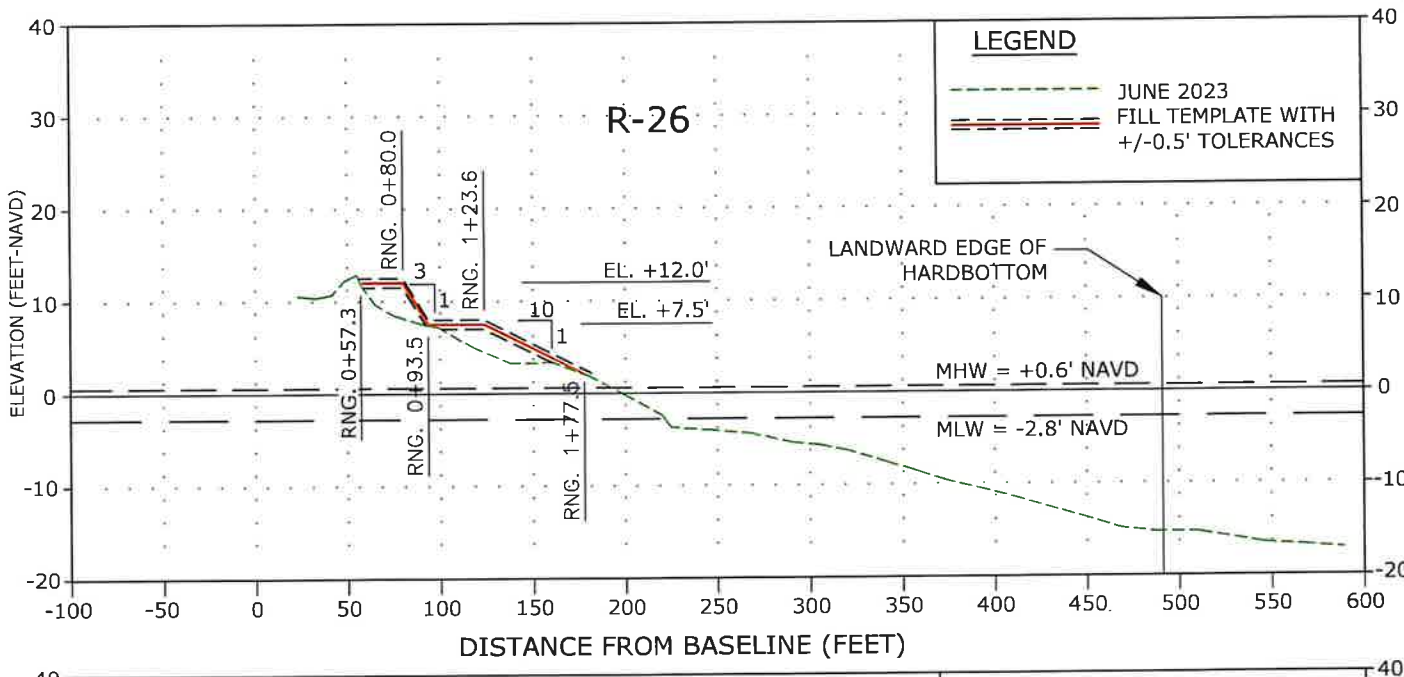
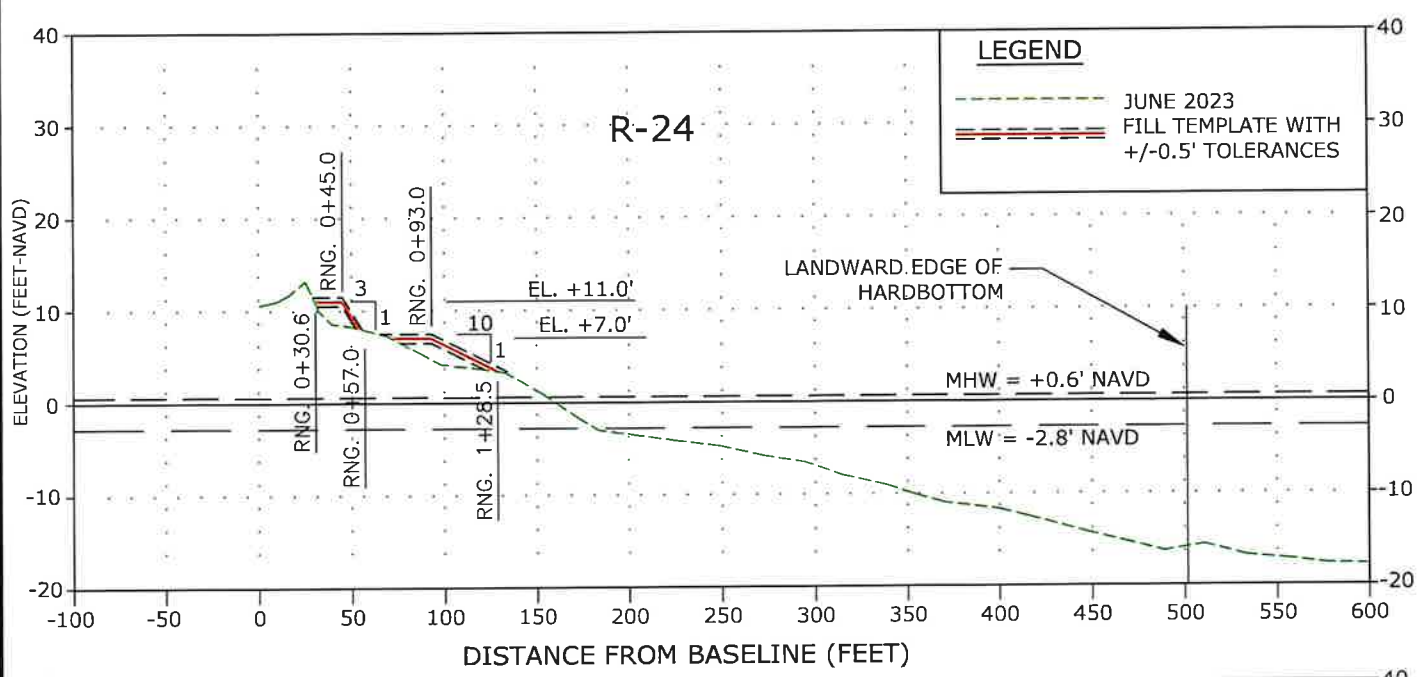
Checked by:	NS
Reviewed by:	JA
Drawn by:	JA
Date:	09/13/23
Per Scale:	AS NOTED
Comm. No.:	931033227

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

DRAWING NO.  
**XS-1**

SHEET 30 OF 40





**NOTES:**

- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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**NICOLE S. SHARP**  
 LICENSE  
 No 74708  
 STATE OF  
 PROFESSIONAL ENGINEER  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

9/13/23  
 DATE

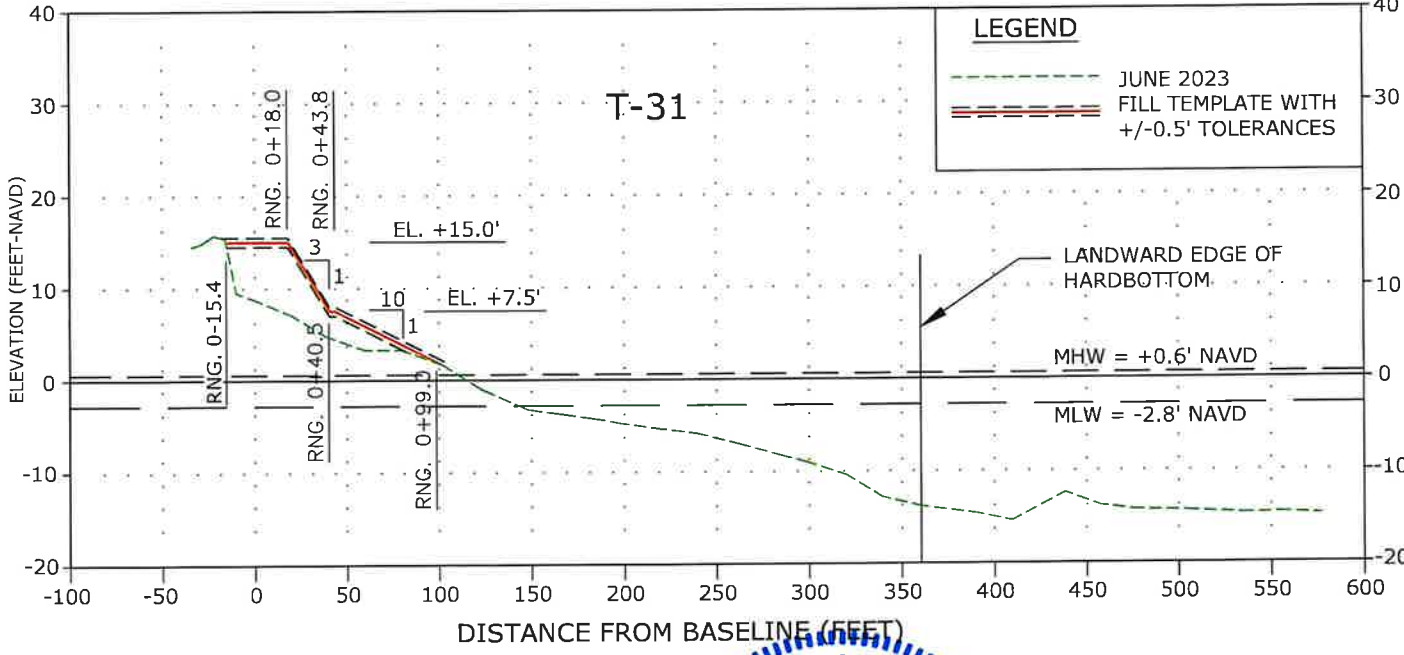
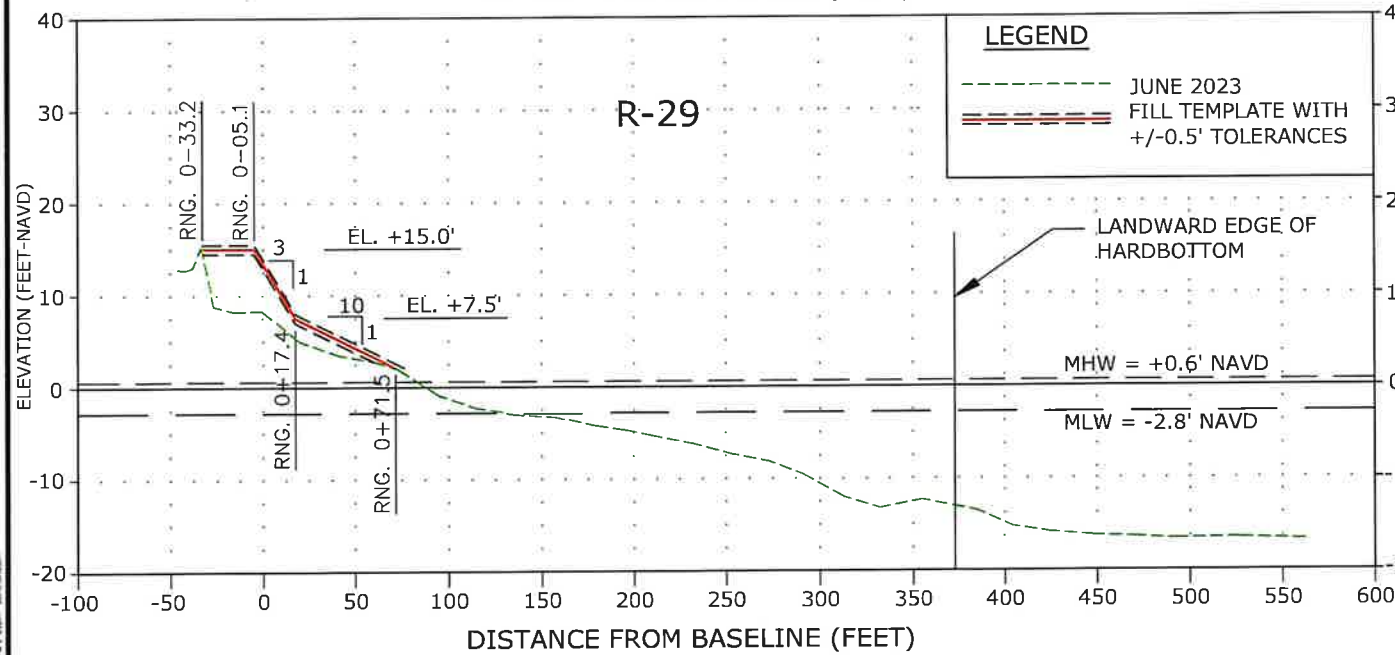
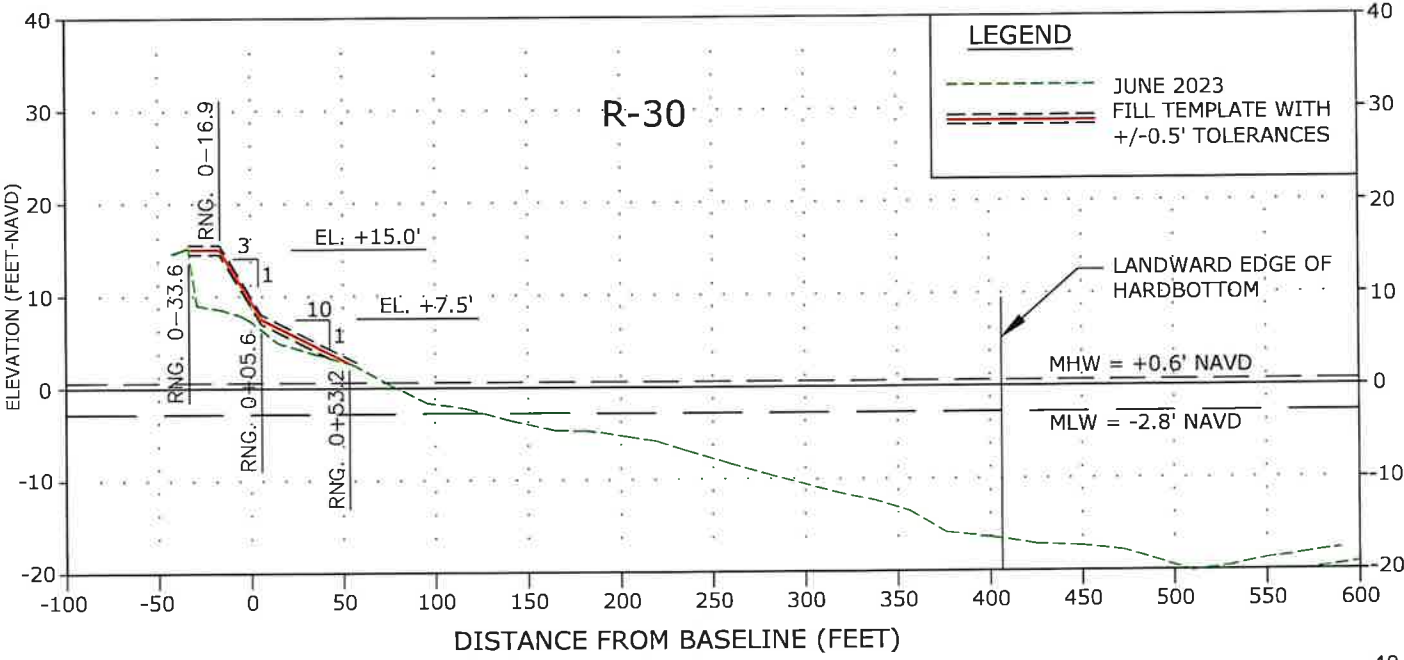
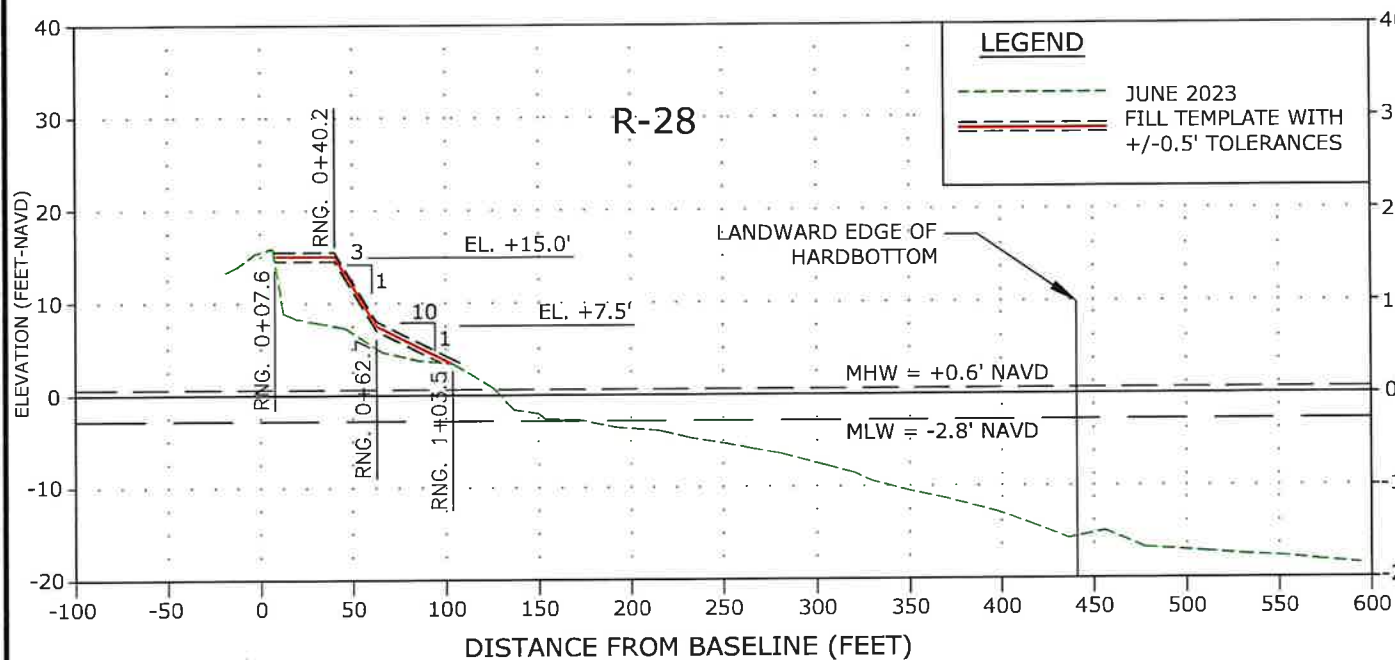
REVISIONS	No.	Date	Description

Designed by:	NS	Reviewed by:	JA	Submitted by:	NS	Comm. No.:	631033527
Drawn by:	JA	Date:	08/18/23	Fig. Scale:	AS NOTED		

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

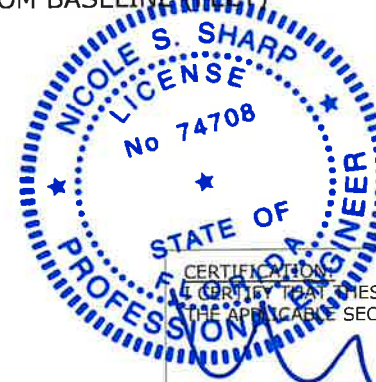
DRAWING NO.  
**XS-2**

SHEET 31 OF 40



**NOTES:**

- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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CERTIFICATION  
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH: (561) 391-8102  
 FAX: (561) 391-9116  
 C.O.A. FL. #9317  
 www.APTIM.com

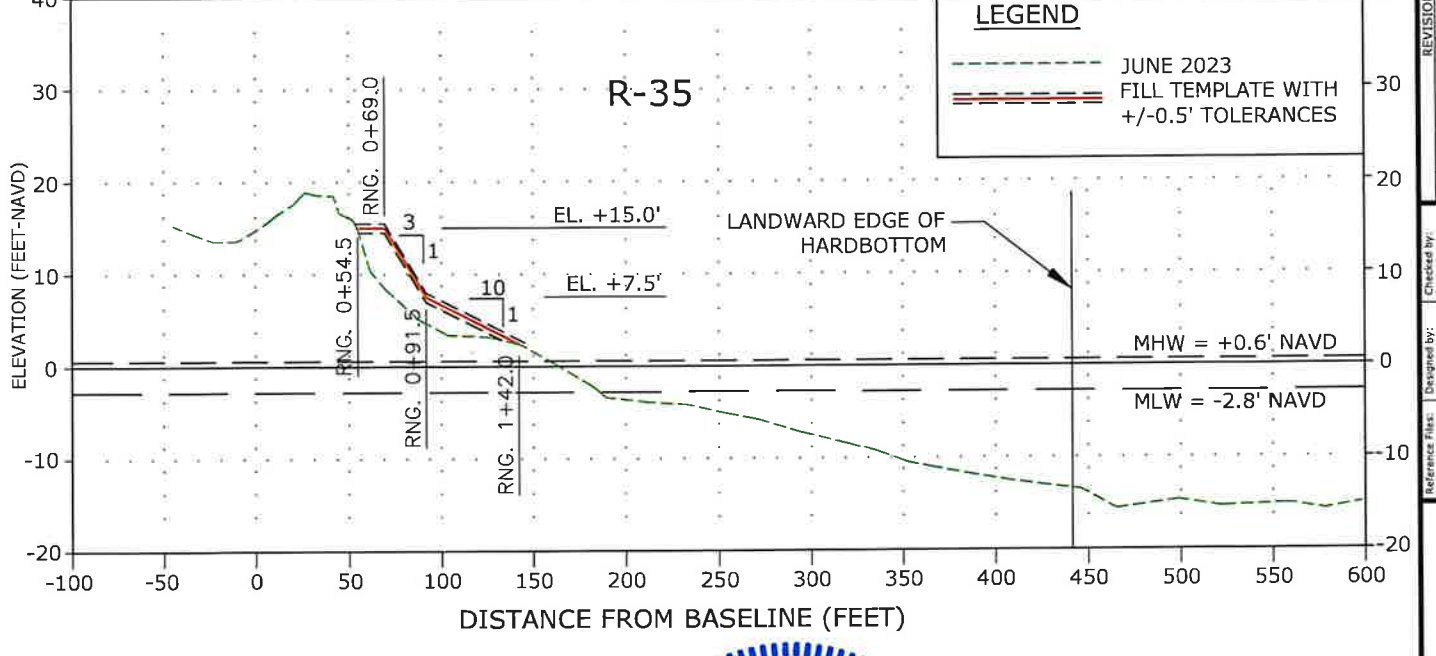
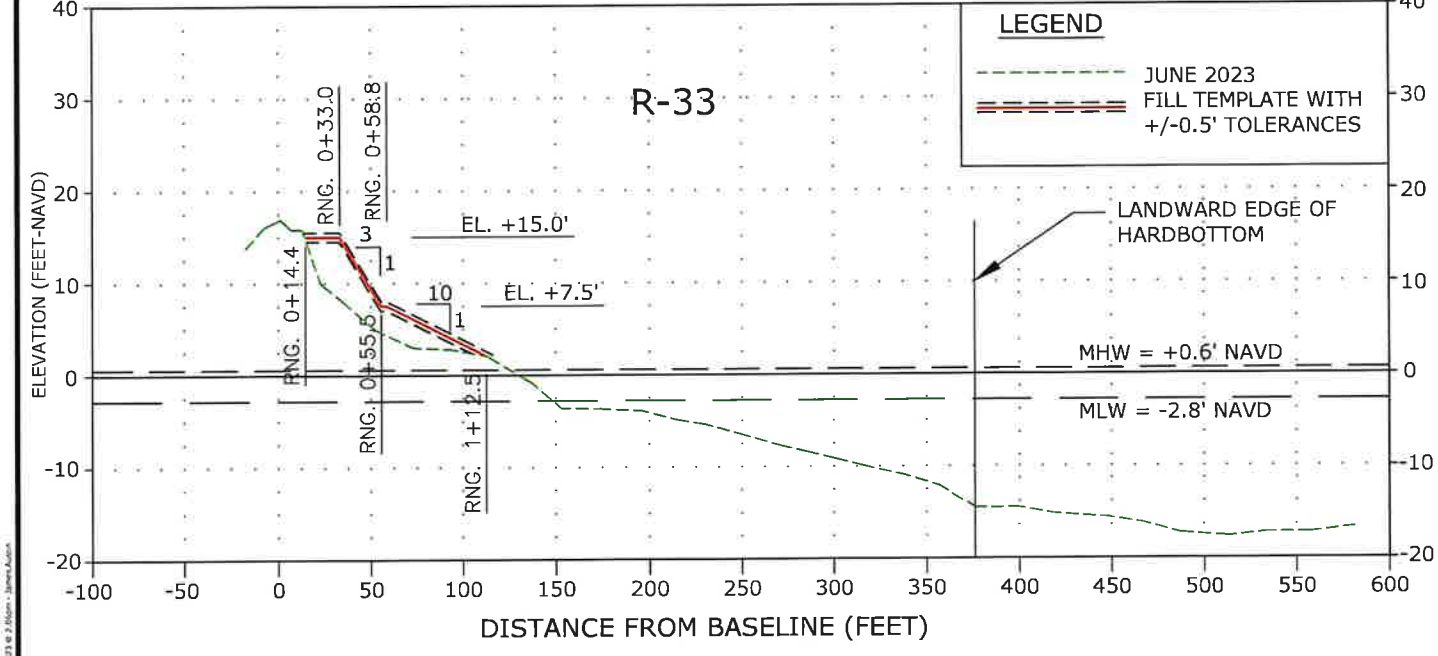
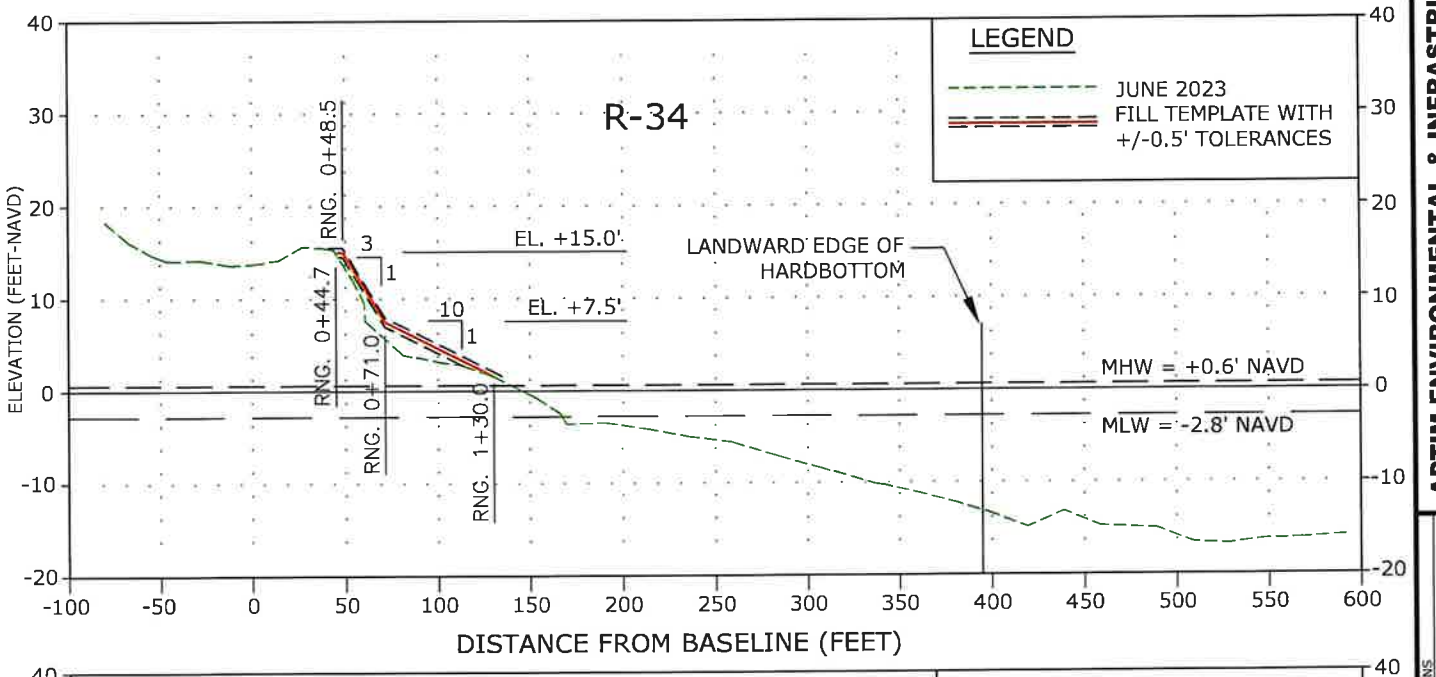
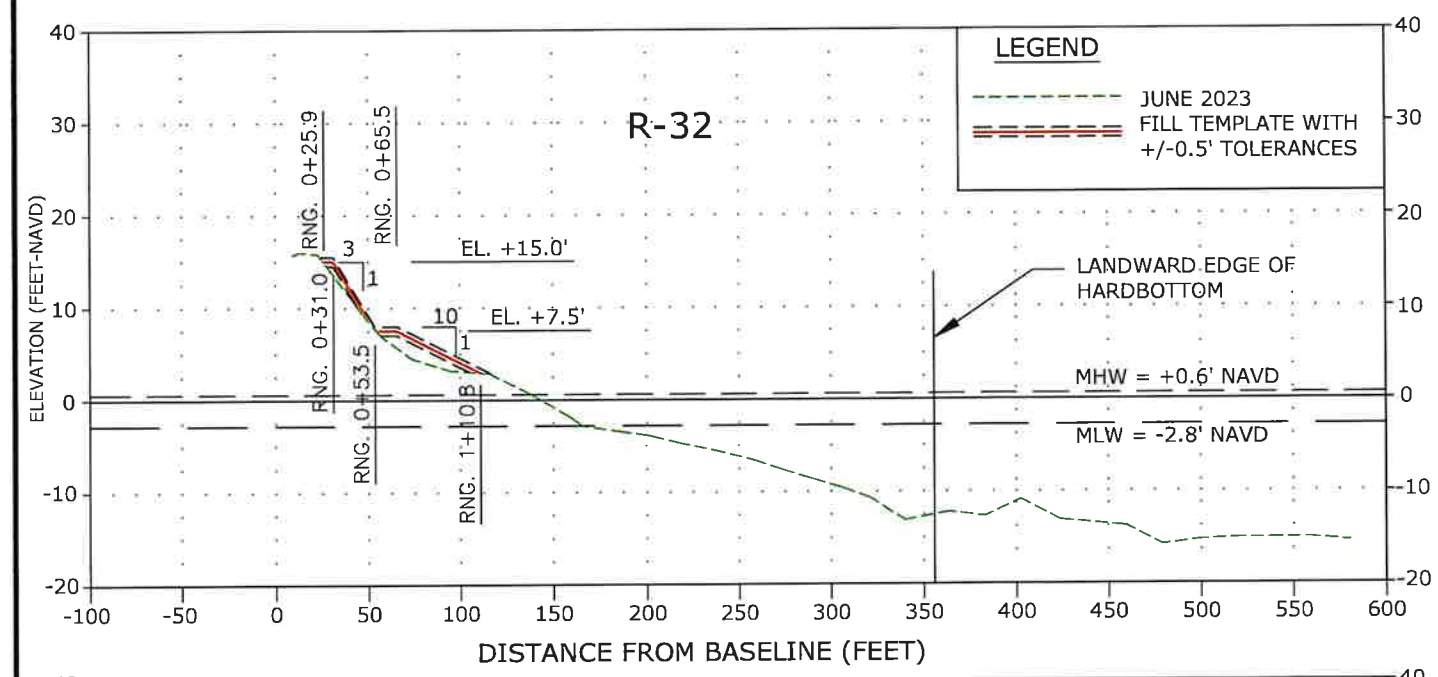
REVISIONS	No.	Date	Description

Checked by:	NS
Reviewed by:	JA
Drawn by:	NS
Date:	08/18/23
Proj. No.:	AS NOTED
Comm. No.:	63103527

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

DRAWING NO. XS-3  
 SHEET 32 OF 40





**NOTES:**

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CERTIFICATE OF THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
DATE

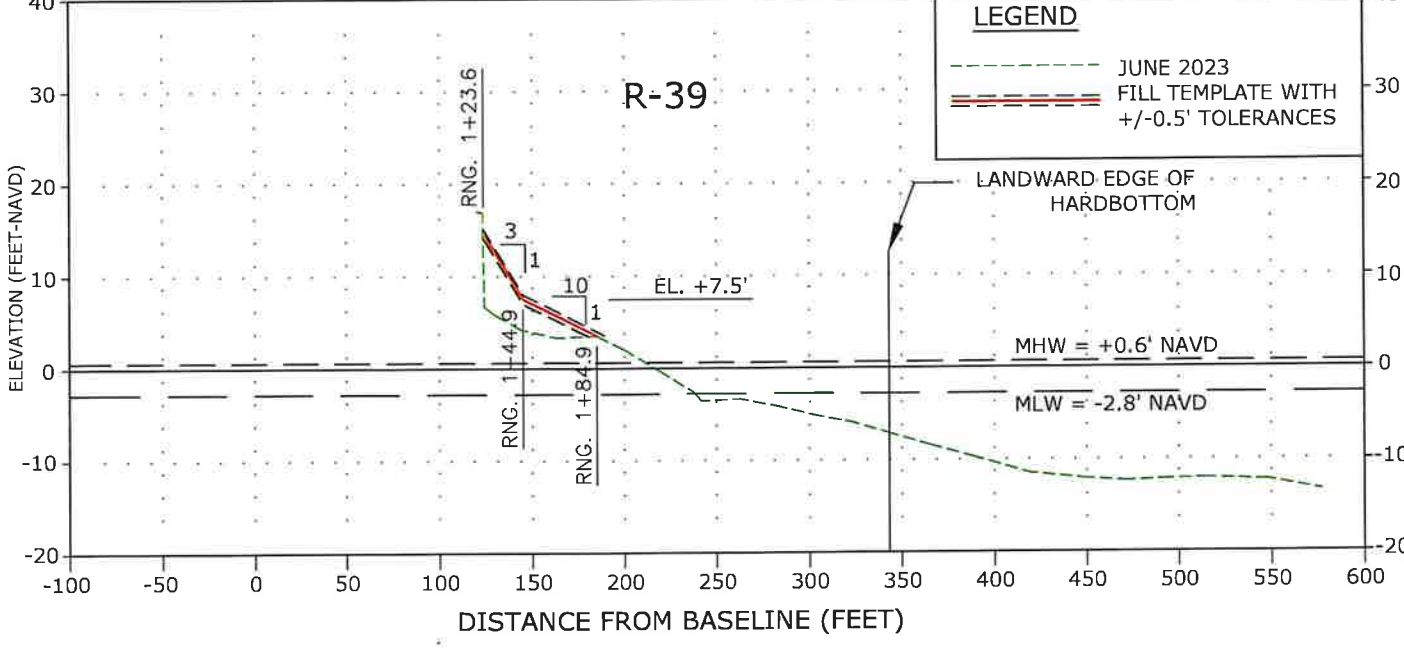
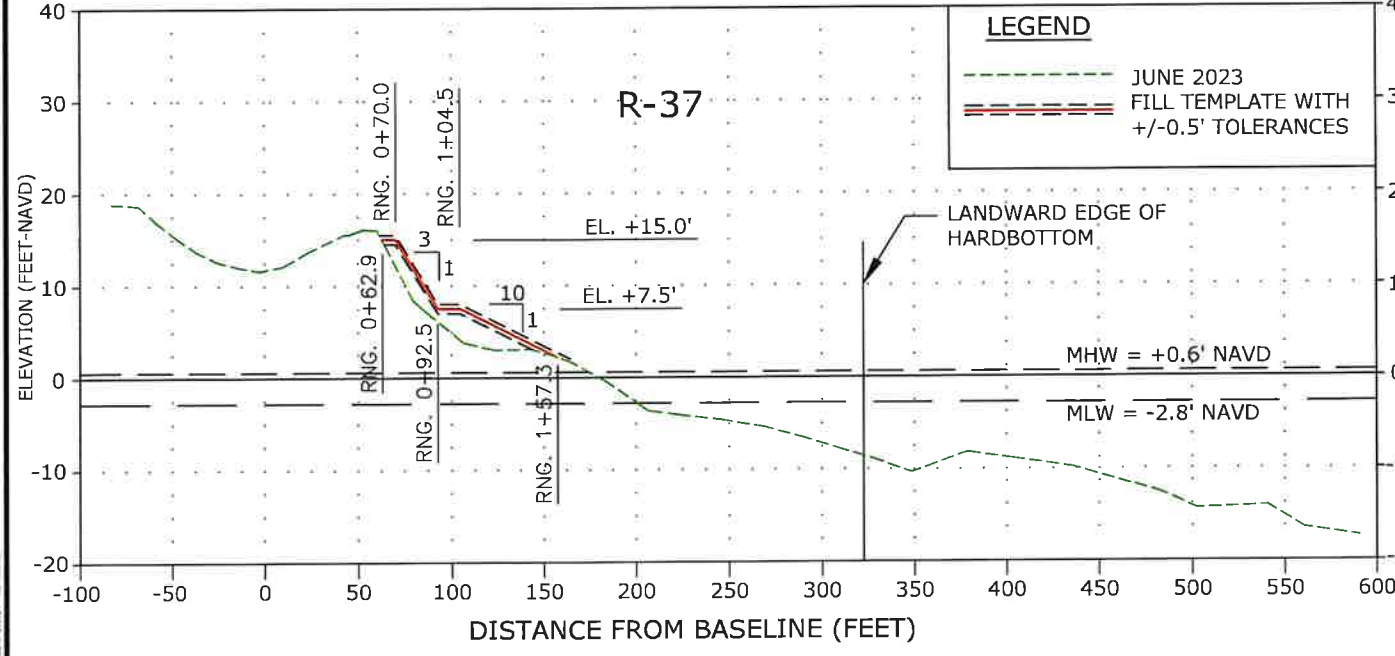
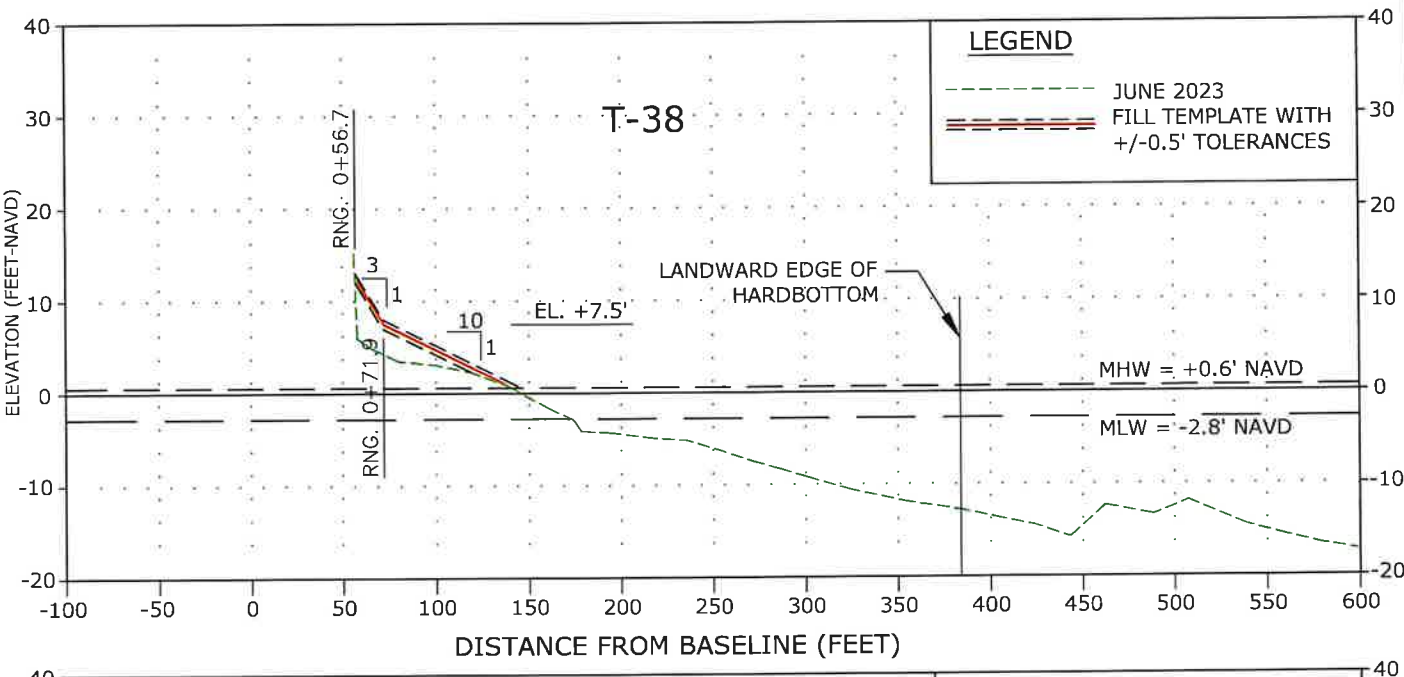
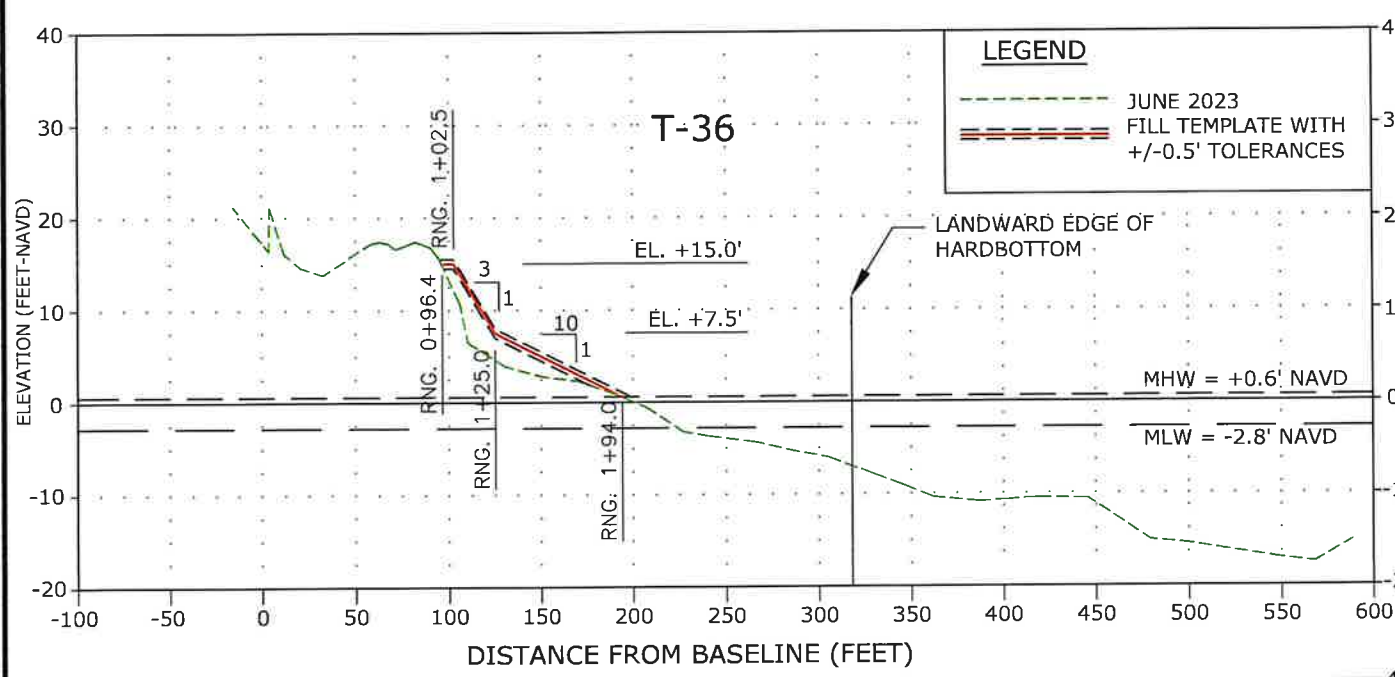
**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
 FAX (561) 391-9116  
 C.O.A. FL. #9317  
 www.APTIM.com

REVISIONS	No.	Date	Description

Checked by:	NS
Reviewed by:	JA
Drawn by:	NS
Date:	09/18/23
Plot Scale:	AS NOTED
Comm. No.:	631039527

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

DRAWING NO.  
**XS-4**  
 SHEET 33 OF 40



**NOTES:**

- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
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CERTIFICATION:  
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

9/13/23  
DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
PH: (851) 391-8102  
FAX: (851) 391-8116  
C.O.A. FL. #9317  
6401 CONGRESS AVENUE, SUITE 140  
BOCA RATON, FLORIDA 33487  
www.aptim.com

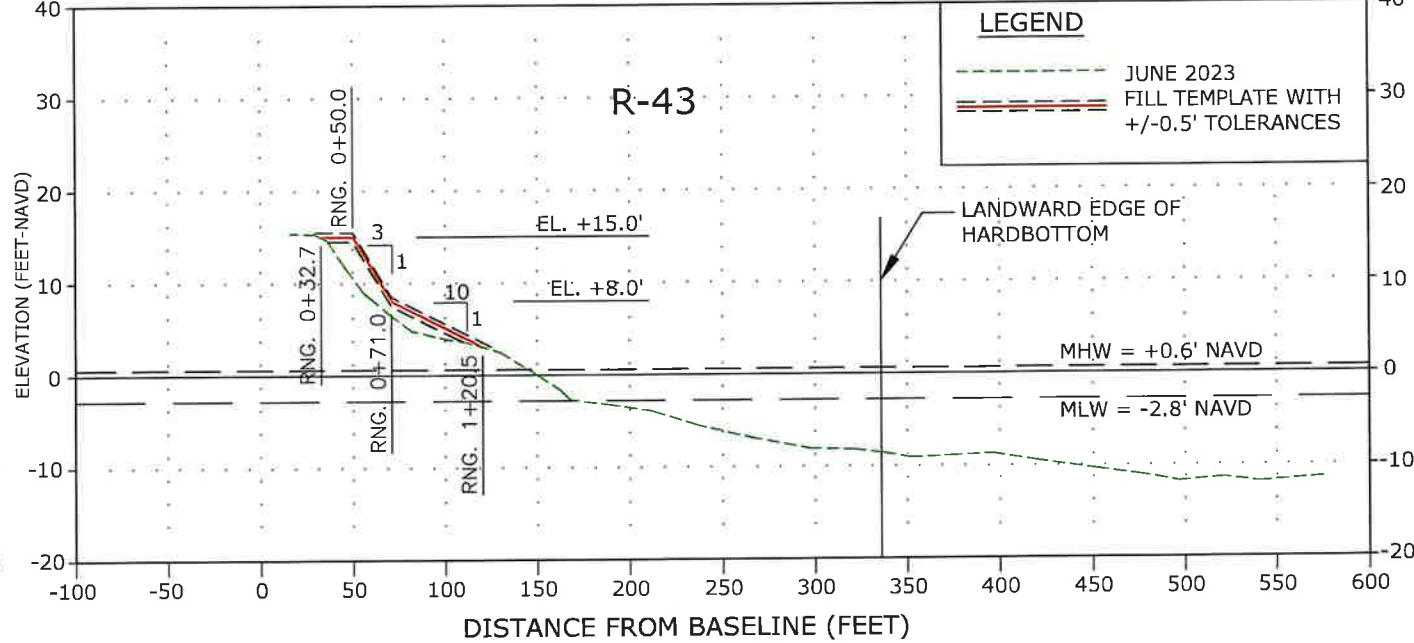
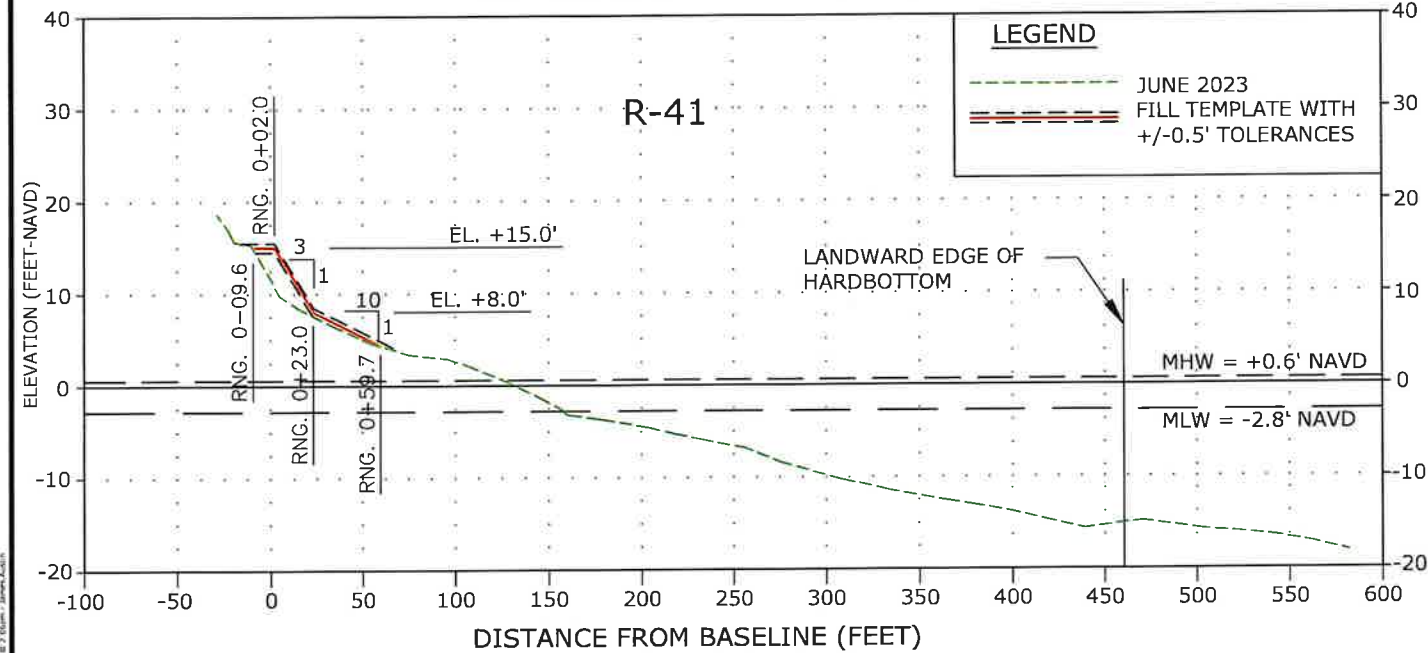
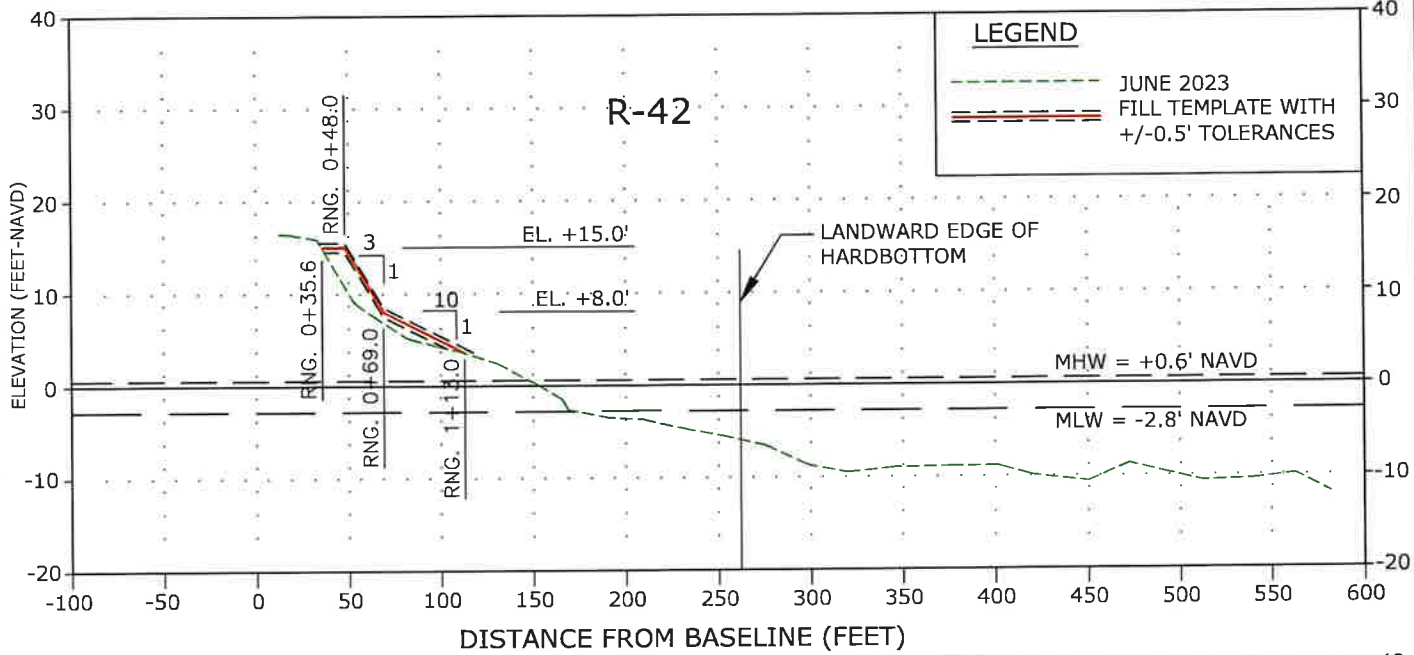
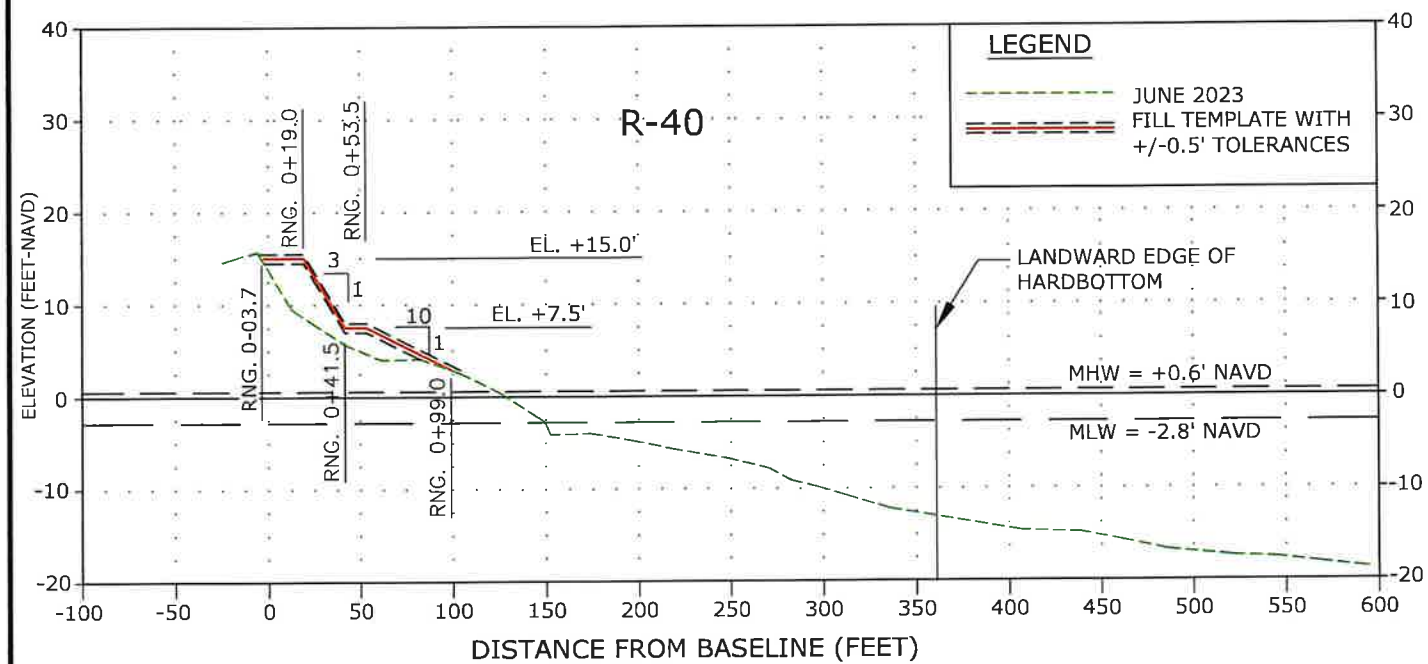
REVISIONS	No.	DATE	Description

Checked by:	NS	Date:	
Reviewed by:	JA	Date:	
Drawn by:	DR	Date:	
Disc. by:	NS	Date:	
Project No.:	631033527		
AS NOTED			

SECTOR 3  
HURRICANES IAN AND NICOLE REPAIR PROJECT  
CONSTRUCTION PLANS  
INDIAN RIVER COUNTY, FLORIDA  
CROSS SECTIONS

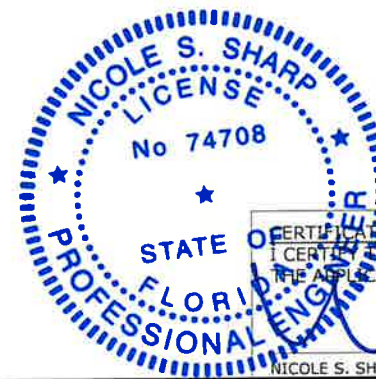
DRAWING NO.  
**XS-5**  
SHEET 34 OF 40





**NOTES:**

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CERTIFICATION:  
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 THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

NICOLE S. SHARP, P.E. NO. 74708

9/13/23

DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 PH. (661) 391-8102  
 FAX (661) 391-8116  
 C.O.A. FL. #9317

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

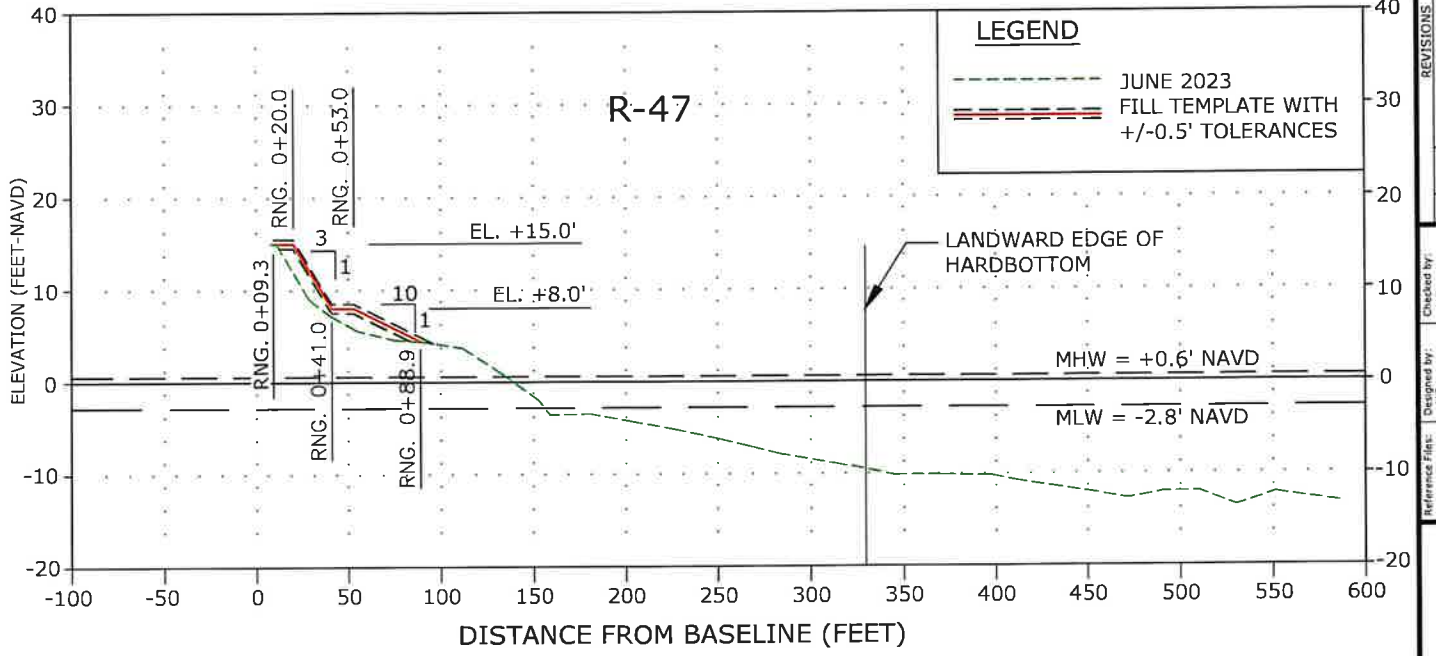
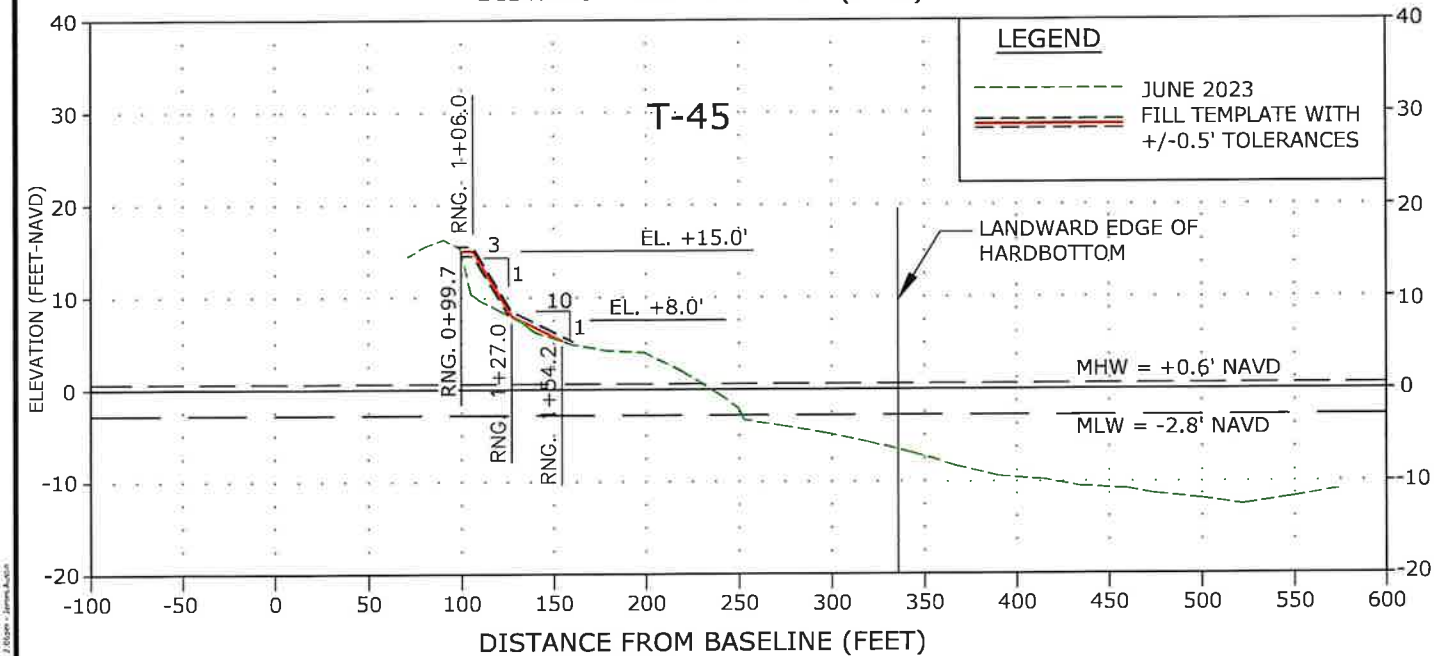
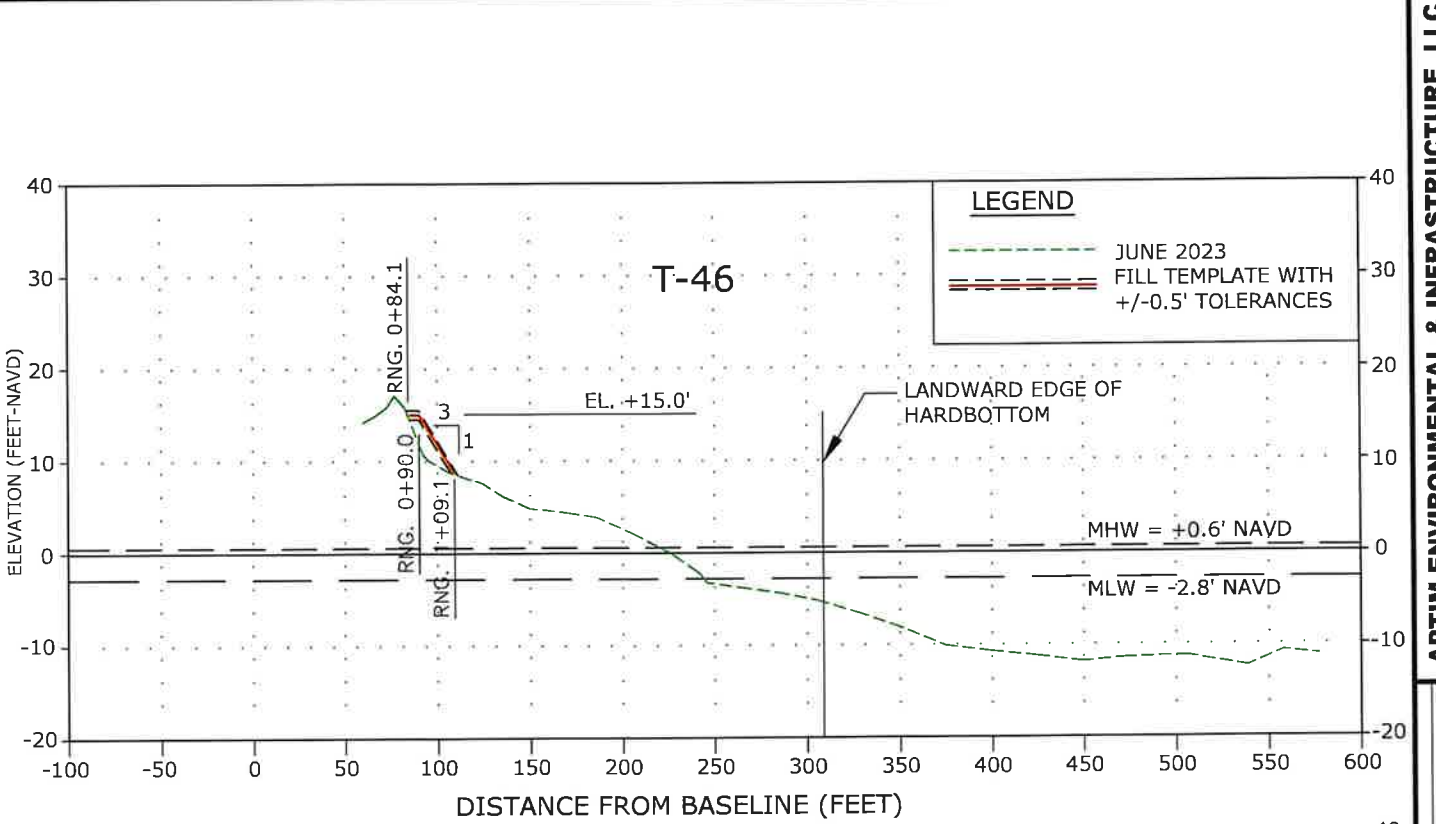
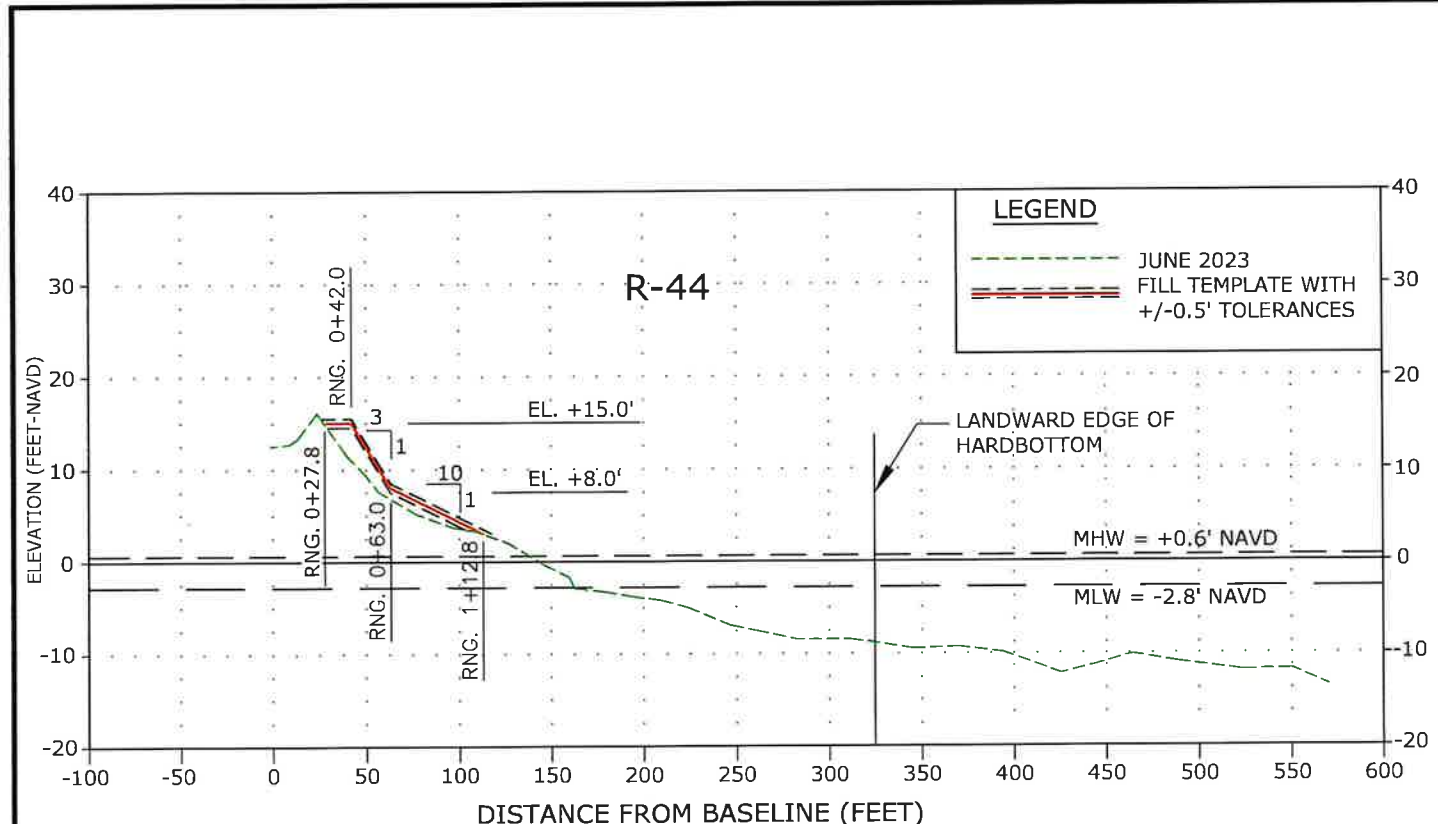
REVISED	NO.	DATE	DESCRIPTION

Checked by:	NS	Date:	
Reviewed by:	JA	Date:	
Drawn by:	NS	Date:	
Submitted by:	NS	Date:	
Project No.:	631033527		
AS NOTED			

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

DRAWING NO.  
**XS-6**  
 SHEET 35 OF 40





- NOTES:**
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**NICOLE S. SHARP**  
 LICENSE  
 No 74708  
 STATE OF FLORIDA  
 PROFESSIONAL ENGINEER

**CERTIFICATION:**  
 I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

*Nicole S. Sharp*  
 NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
 DATE

**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 PH: (861) 391-9102  
 FAX: (861) 391-9116  
 C.O.A. FL. #9517

6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 www.APTIM.com

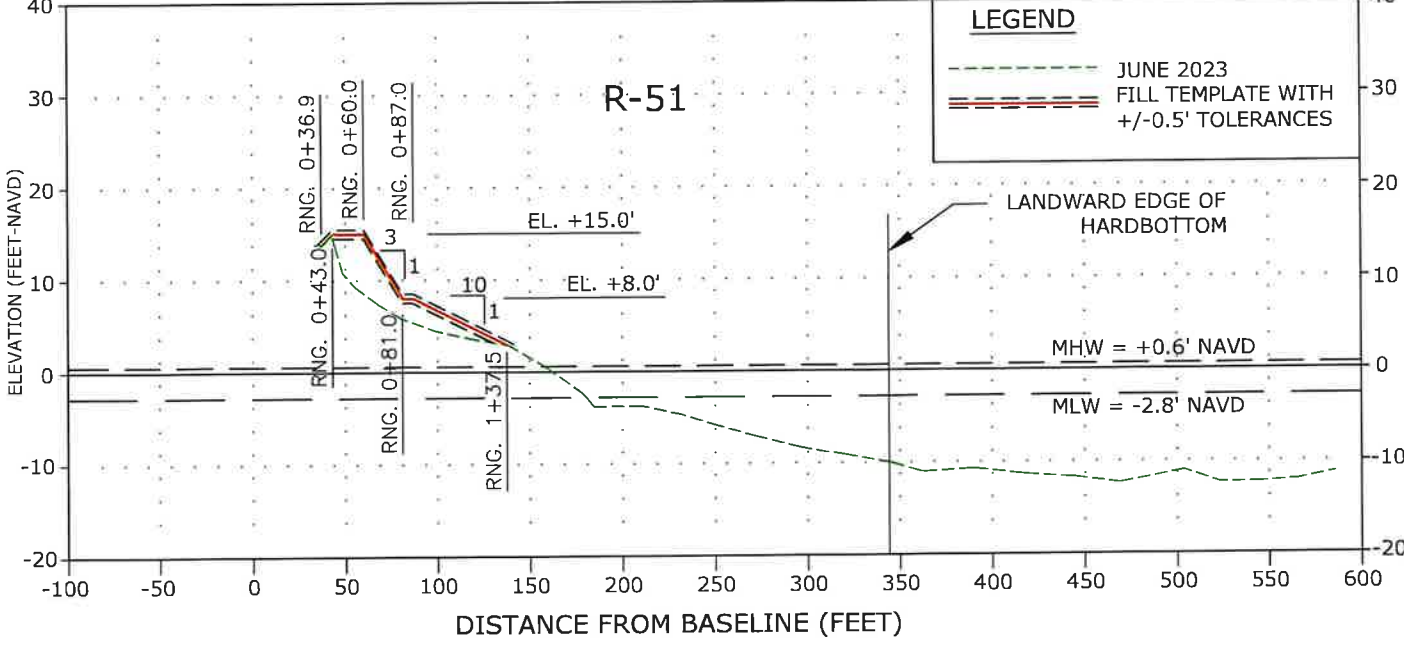
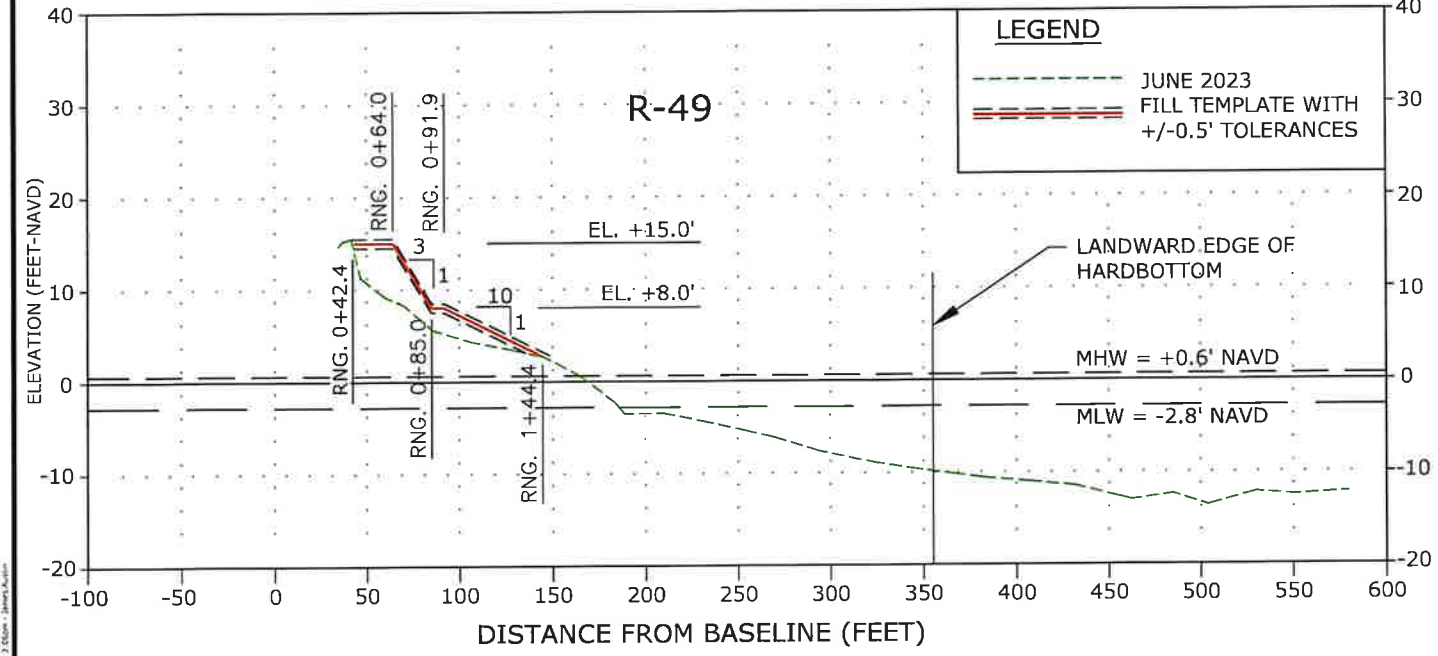
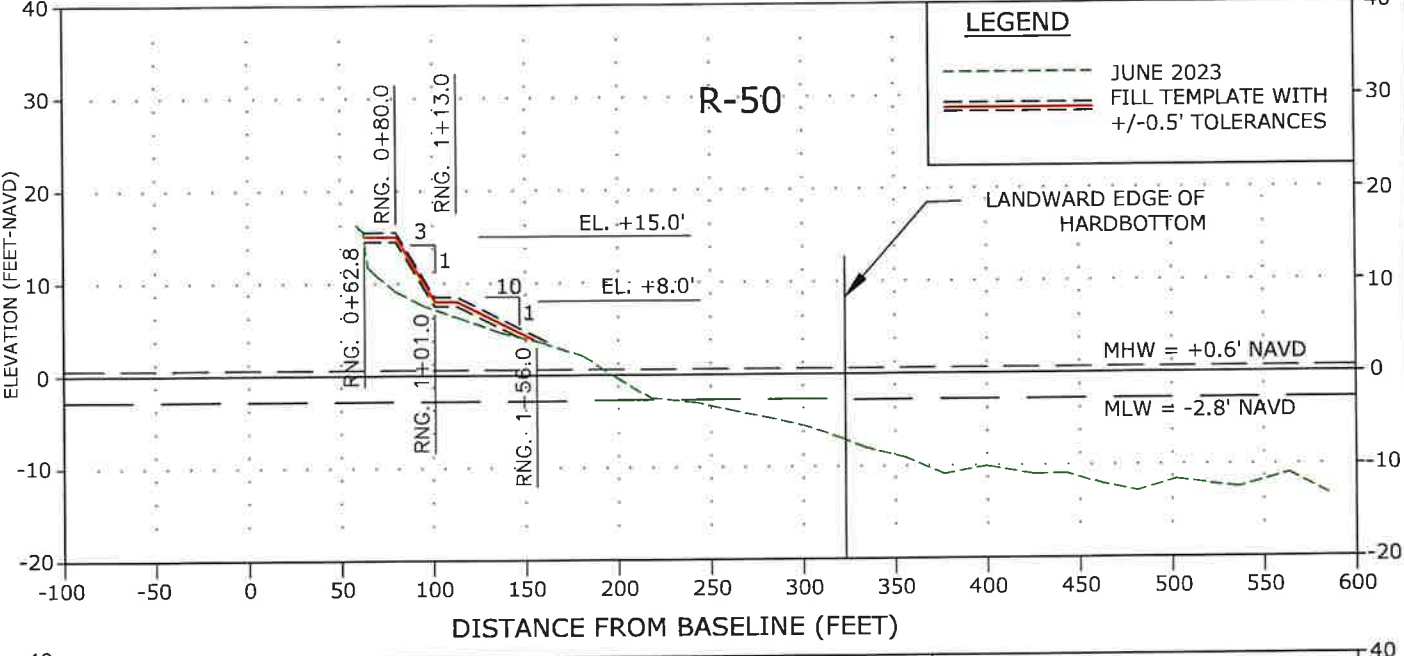
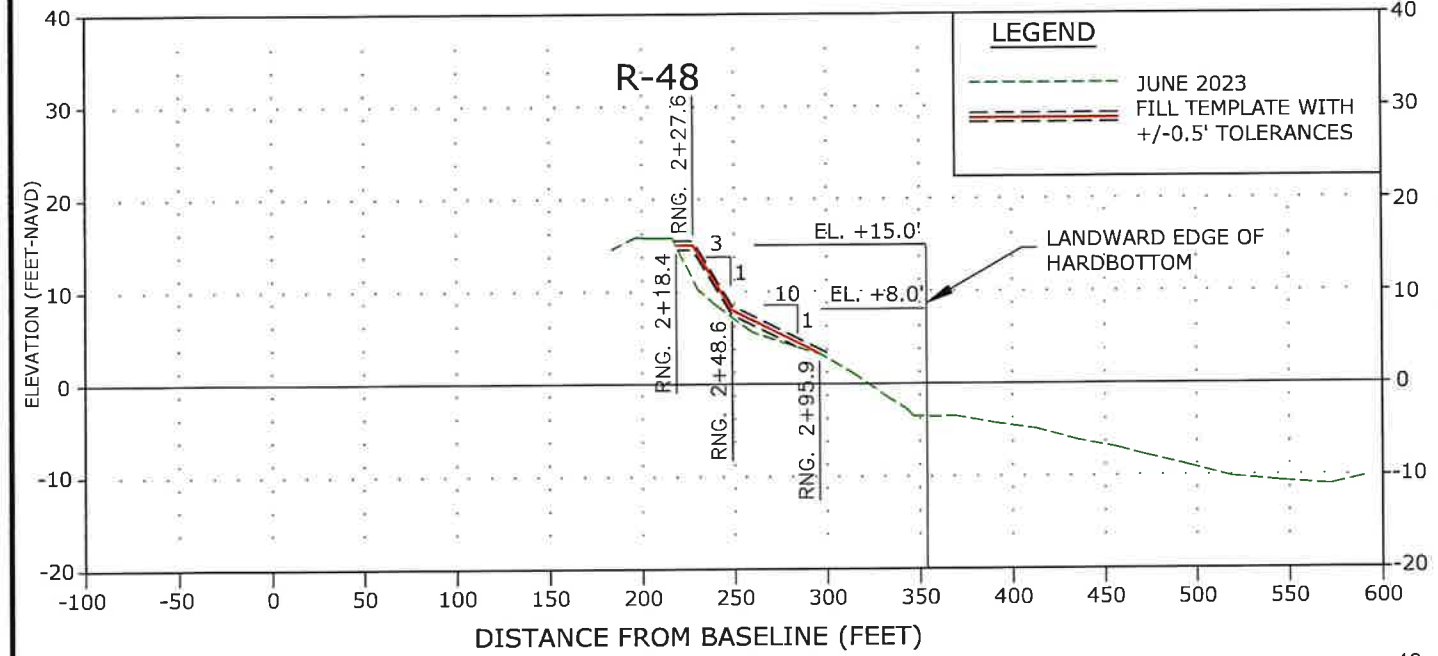
REVISIONS	No.	Date	Description

Checked by:	NS	
Reviewed by:	JA	
Drawn by:	JA	
Date:	08/18/23	
Project No.:	631033527	
AS NOTED		

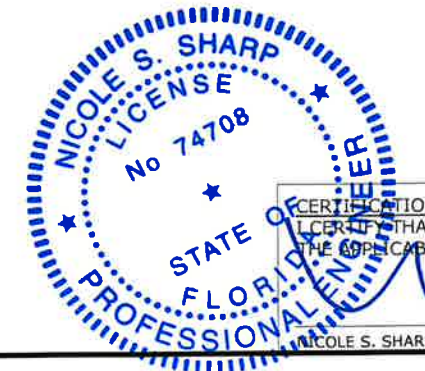
SECTOR 3  
 HURRICANES TAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

DRAWING NO.  
**XS-7**

SHEET 36 OF 40



- NOTES:**
- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
  - 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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**CERTIFICATION:**  
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NICOLE S. SHARP, P.E. NO. 74708

9/13/23

DATE

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 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-9102  
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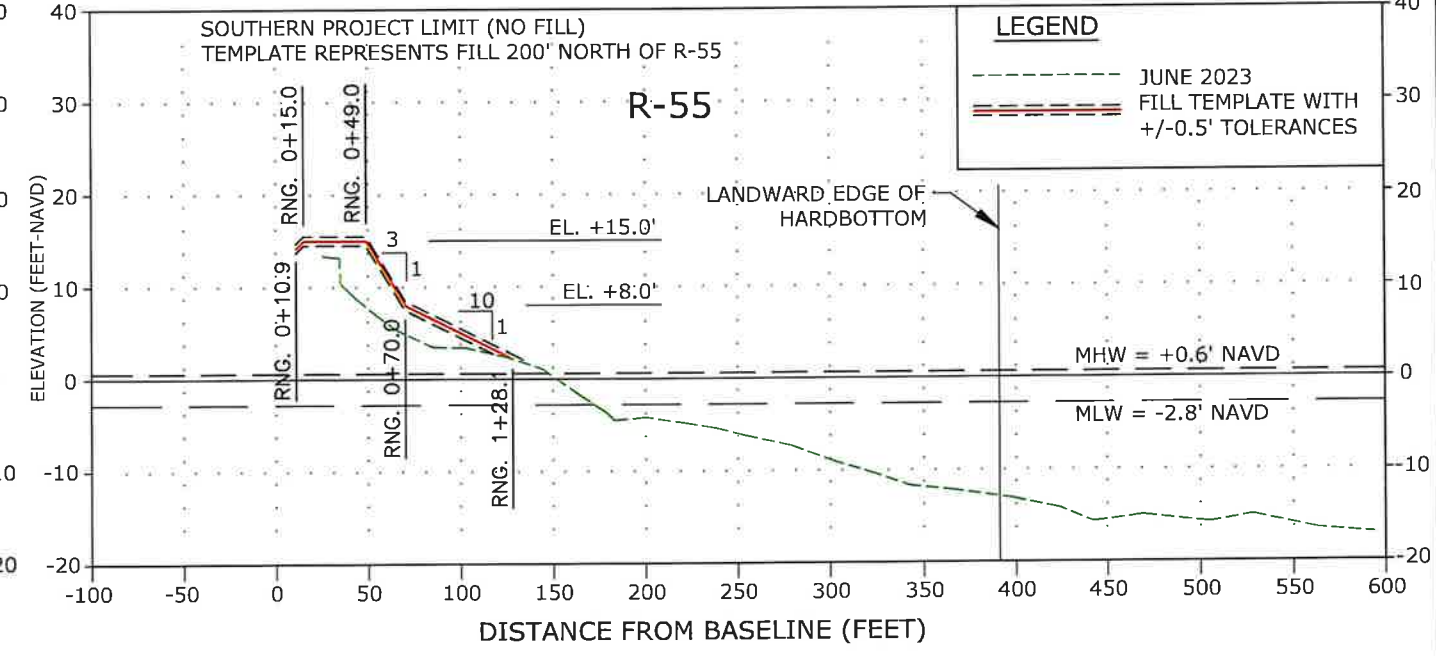
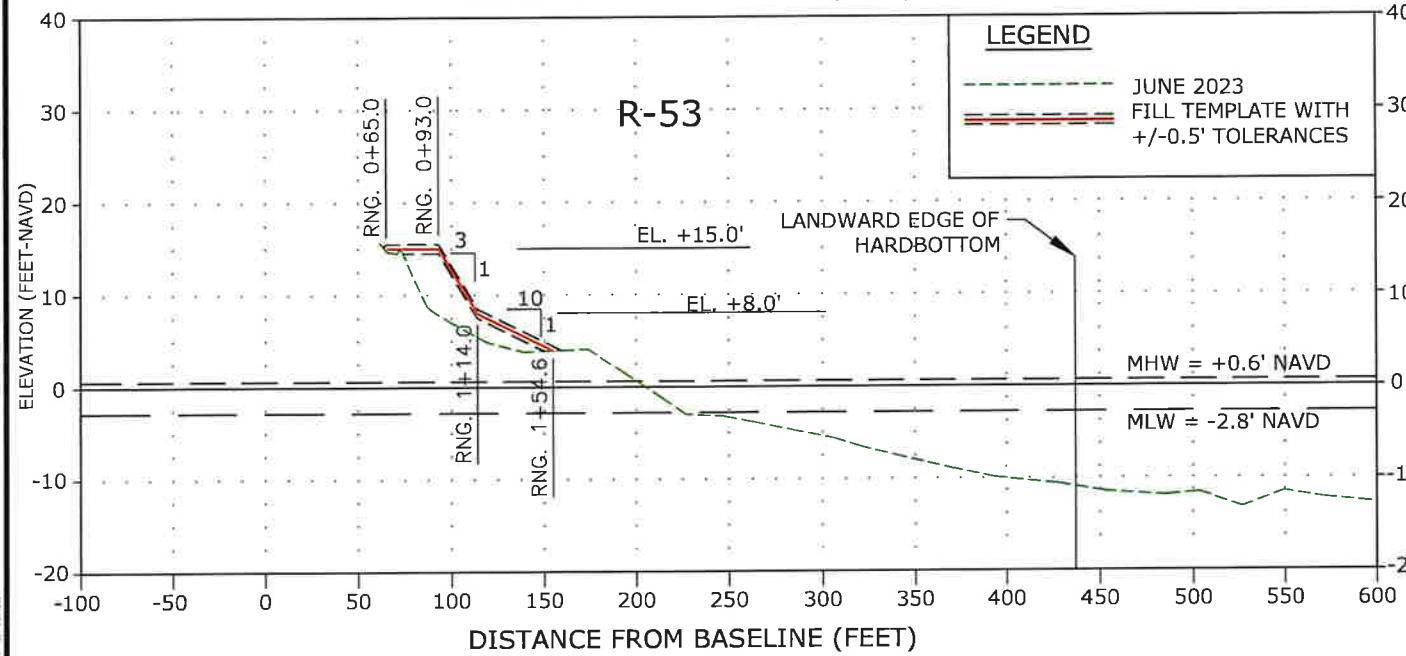
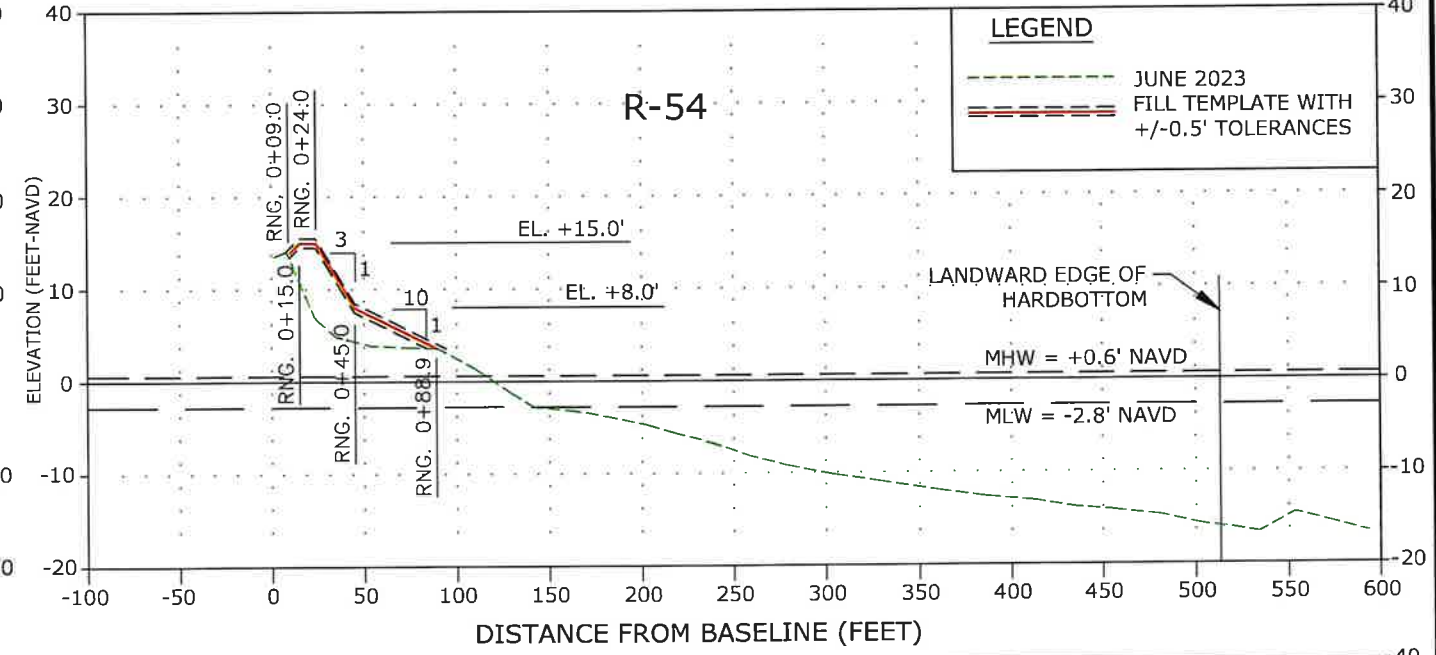
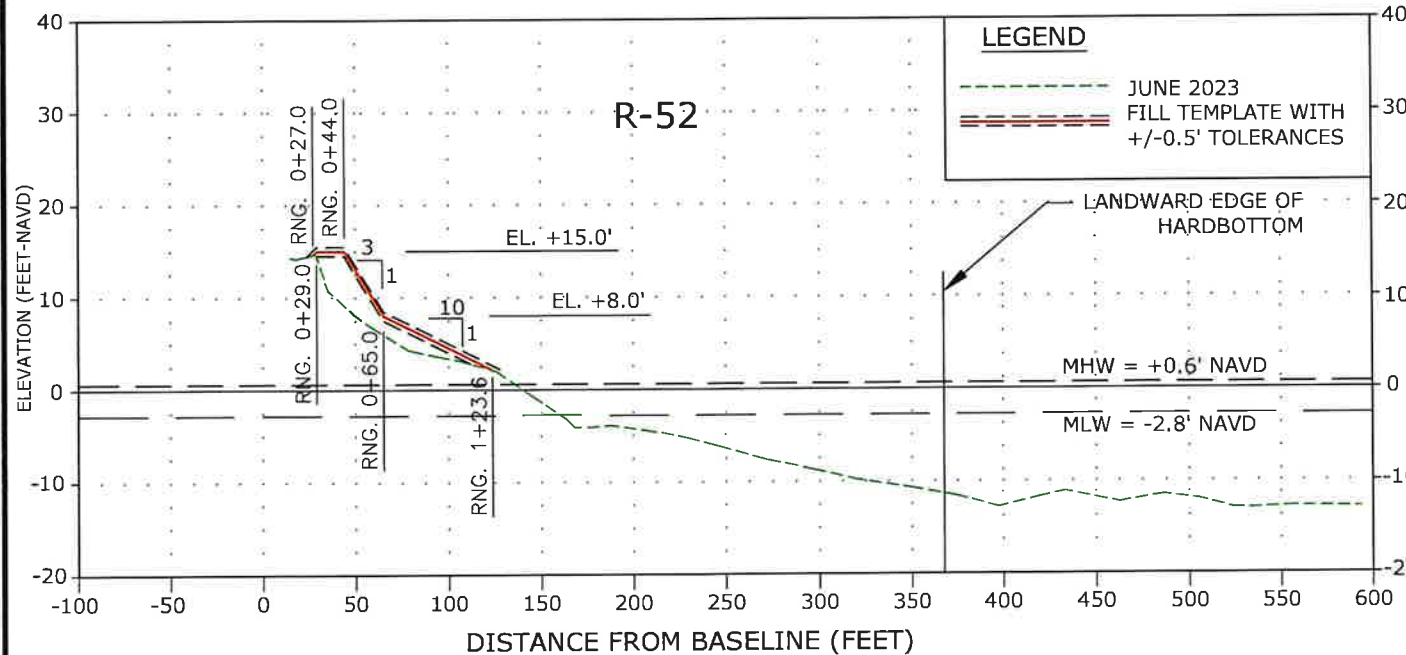
NO.	DATE	DESCRIPTION

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
File No.:	AS NOTED	Contract No.:	631031527

SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

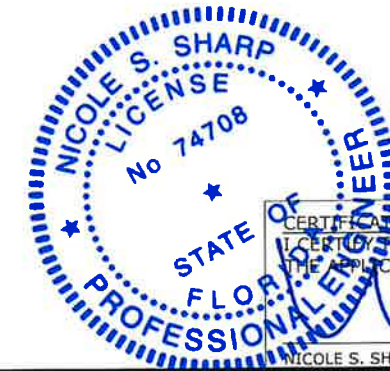
DRAWING NO.  
**XS-8**  
 SHEET 37 OF 40





**NOTES:**

- ELEVATIONS ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 2016 LANDWARD EDGE OF HARDBOTTOM DELINEATED BY CSA OCEAN SCIENCES, INC. DATED JULY 2016.
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DATE

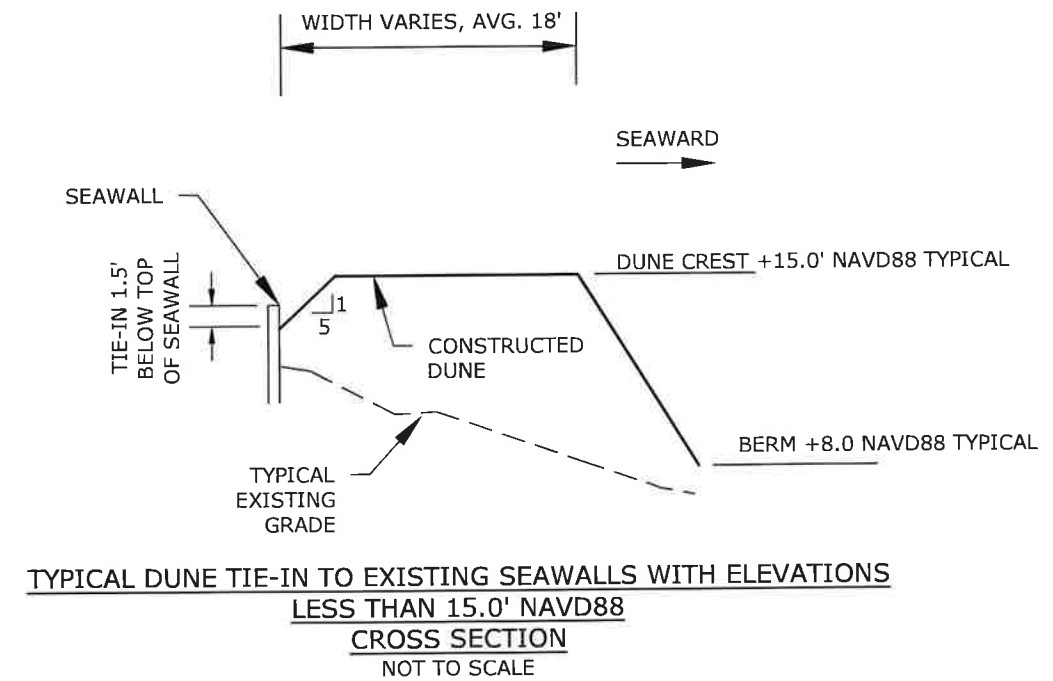
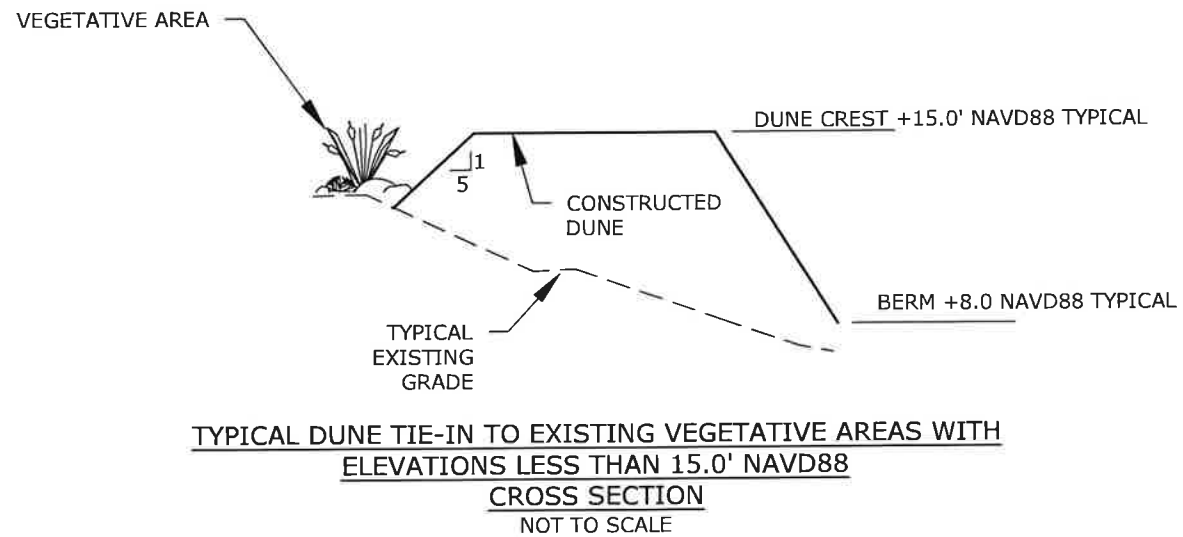
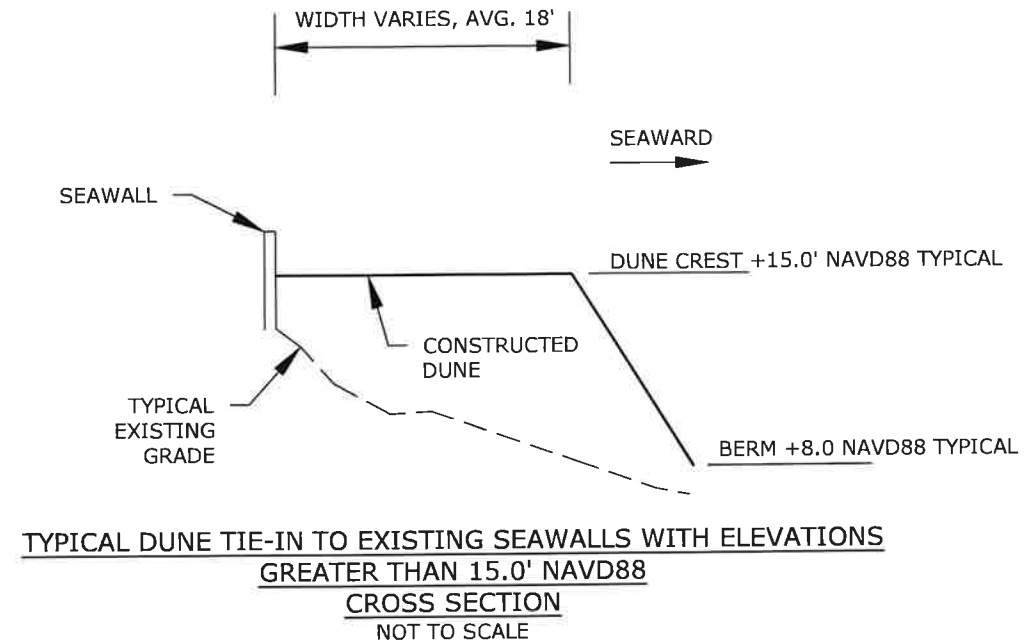
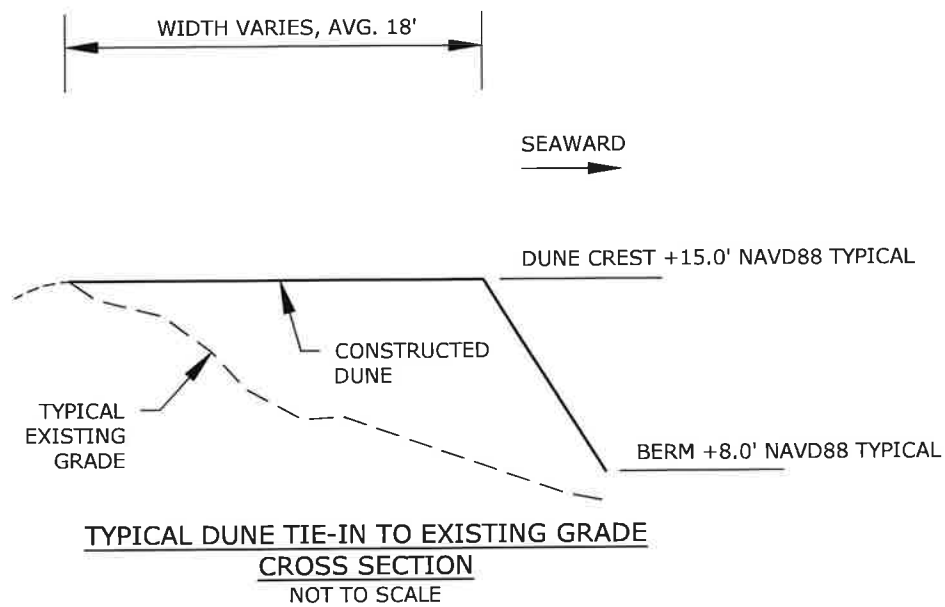
**APTIM ENVIRONMENTAL & INFRASTRUCTURE, LLC**  
 6401 CONGRESS AVENUE, SUITE 140  
 BOCA RATON, FLORIDA 33487  
 PH. (561) 391-8102  
 FAX (561) 391-8116  
 C.O.A. FL. #9317  
 www.APTIM.com

REVISIONS	No.	Date	Description

Designed by:	NS	Checked by:	NS
Drawn by:	JA	Reviewed by:	JA
Date:	08/18/23	Submitted by:	NS
Plot Scale:	AS NOTED	Comm. No.:	631033527

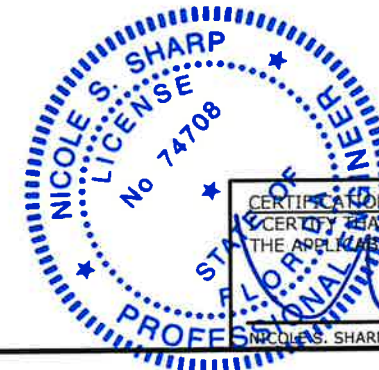
SECTOR 3  
 HURRICANES IAN AND NICOLE REPAIR PROJECT  
 CONSTRUCTION PLANS  
 INDIAN RIVER COUNTY, FLORIDA  
 CROSS SECTIONS

DRAWING NO.  
**XS-9**  
 SHEET 38 OF 40



**NOTES:**

1. SITE SPECIFIC FIELD ADJUSTMENTS TO THE CONSTRUCTION TEMPLATE MAY BE NECESSARY AT LOCATIONS SUCH AS SEAWALLS, OUTFALLS, BEACH ACCESS POINTS AND DUNE OVERWALKS.
2. DUNE CREST ELEVATION VARIES BETWEEN +11.0', +12.0', AND +15.0' NAVD88 DEPENDING ON LOCATION. REFER TO CROSS SECTIONS FOR DUNE CREST ELEVATIONS.
3. BERM CREST ELEVATION VARIES BETWEEN +7.0', +7.5', AND +8.0' NAVD88 DEPENDING ON LOCATION. REFER TO CROSS SECTIONS FOR BERM CREST ELEVATIONS.



CERTIFICATION  
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH  
THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

*Nicole S. Sharp*  
NICOLE S. SHARP, P.E. NO. 74708

9/13/23  
DATE

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Proj. No.:	031033527	Comm. No.:	AS NOTED

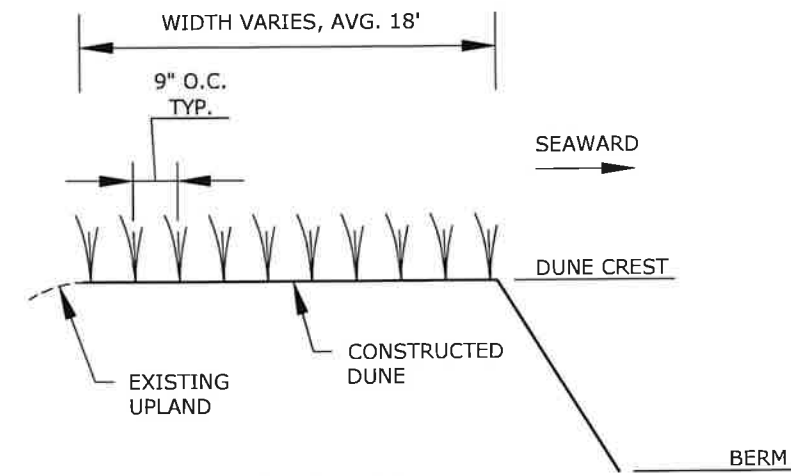
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SECTOR 3  
HURRICANES IAN AND NICOLE REPAIR PROJECT  
CONSTRUCTION PLANS  
INDIAN RIVER COUNTY, FLORIDA  
TYPICAL SECTIONS

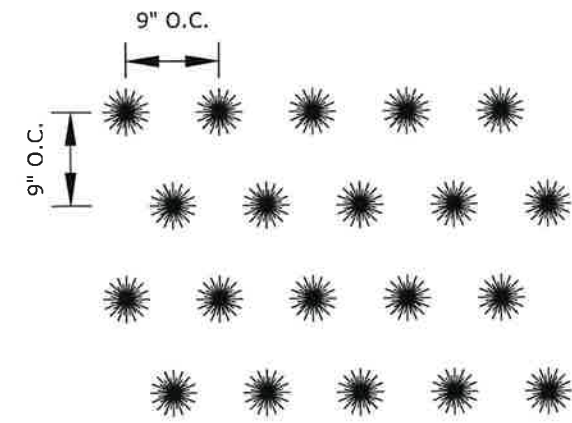
DRAWING NO.  
**D-1**  
SHEET 39 OF 40



PLANTING DETAIL					
PLANT TYPE	SCIENTIFIC NAME	PERCENT DISTRIBUTION	QUANTITY (APPROX.)	SIZE	SPACING
SEA OATS	UNIOLA PANICULATA	80% to 85%	582,906	LINER	9" O.C.
BITTER PANICGRASS	PANICUM AMARUM	10% TO 15%	72,863	LINER	9" O.C.
RAILROAD VINE	IPOMOEA PES-CAPRAE	5% TO 8% (RELATIVELY EQUAL ABUNDANCE OF EACH)	36,432	LINER	9" O.C.
DUNE SUNFLOWER	HELIANTHUS DEBILIS		36,432	LINER	9" O.C.



TYPICAL DUNE PLANTING CROSS SECTION  
NOT TO SCALE

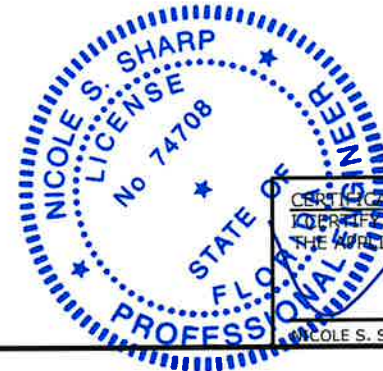


TYPICAL DUNE PLANTING STAGGERED LAYOUT  
NOT TO SCALE

**NOTES:**

- CONTRACTOR SHALL FIELD LOCATE DUNE AREA PRIOR TO PLANTING. TEMPORARY STAKES DENOTING SEAWARD LIMITS SHALL BE PROVIDED. CONTRACTOR SHALL OBTAIN APPROVAL OF LOCATION FROM COUNTY OR ENGINEER PRIOR TO PLANTING.
- PLANTS SHALL BE INSTALLED FOLLOWING GOOD HORTICULTURE PRACTICES WITH A SLOW RELEASE FERTILIZER IN EACH HOLE.
- CONTRACTOR SHALL PROVIDE INITIAL WATERING. CONTRACTOR SHALL COORDINATE WITH COUNTY REGARDING USE OF LOCAL COUNTY SOURCES, OTHERWISE CONTRACTOR SHALL PROVIDE WATER. CONTRACTOR SHALL PROVIDE SUPPLEMENTAL WATERING AS NEEDED FOR 30 DAYS DEPENDING ON RAINFALL. AT END OF 30 DAYS, CONTRACTOR SHALL PROVIDE COUNTY WITH WRITTEN WATERING INSTRUCTIONS.
- CONTRACTOR SHALL WARRANTY PLANTS AT THE FOLLOWING SCHEDULE:
 

0-14 DAYS	100% SURVIVING
14-90 DAYS	80% SURVIVING
- CONTRACTOR SHALL MONITOR PLANTING MONTHLY FOR 3 MONTHS. AT THE END OF 3 MONTHS, A SUMMARY REPORT OF SURVIVAL AND RECOMMENDATION FOR MAINTENANCE SHALL BE PROVIDED TO COUNTY.
- ALL DUNE VEGETATION WORK SHALL BE IN COMPLIANCE WITH ALL FDEP PERMIT REQUIREMENTS.
- NO EXISTING VEGETATION TO BE REMOVED.
- THE ROOT BALL FOR BOTH GRASSES SPECIES SHALL BE NO LESS THAN 1" X 1" X 2.5" DEPTH. THE ROOT BALL FOR THE THREE GROUND COVER SPECIES SHALL BE NO LESS THAN 1.5" X 1.5" X 2.5" DEPTH.
- UNIOLA PANICULATA LINERS SHALL BE MULTI-STEMMED PLANTS (AT LEAST 2 STEMS). IPOMOEA PES-CAPRAE LINERS SHALL BE MULTI-STEMMED PLANTS (AT LEAST 2 STEMS). HELIANTHUS DEBILIS LINERS SHALL BE MULTI-STEMMED PLANTS (AT LEAST 2 STEMS). PANICUM AMARUM LINERS CAN BE SINGLE-STEMMED PLANTS. THE PLANT MATERIAL IN EACH LINER CONSTITUTES ONE DUNE GRASS PLANT, REGARDLESS OF THE NUMBER OF VIABLE STEMS IN THE LINER.
- THE LINERS FOR BOTH GRASSES SPECIES SHALL BE NO LESS THAN 12' TALL FROM THE TOP OF THE ROOT BALL TO THE TIP OF THE LONGEST LEAVE. THE LINERS FOR ALL THREE SPECIES OF GROUND COVERS SHALL BE NO LESS THAN 6" TALL FROM THE TOP OF THE ROOT BALL TO THE TIP OF THE LONGEST LEAVE.



CERTIFICATION:  
I CERTIFY THAT THESE PLANS ARE IN COMPLIANCE WITH THE APPLICABLE SECTIONS OF 62B-41, F.A.C.

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CONSTRUCTION PLANS  
INDIAN RIVER COUNTY, FLORIDA  
DUNE PLANTING DETAILS

DRAWING NO.

D-2

SHEET 40 OF 40