FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
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TALLAHASSEE, FLORIDA 32399-2400

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SECRETARY

CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:
Janet Muccino
City of Key West
James K. Scholl, City Manager
3140 Flagler Avenue
Key West, Florida 33040

AGENT:
W. Mark Henry
Atkins North America, Inc.
2001 NW 107 Avenue
Miami, Florida 33172

PERMIT INFORMATION:

Permit Number: 0291485-002-JC

Project Name: Rest Beach Restoration

County: Monroe

Issuance Date: March 16, 2015

Expiration Date: March 16, 2030

REGULATORY AUTHORIZATION:

This permit is issued under the authority of Chapter 161 and 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 consists of the restoration and periodic nourishment of approximately 650 feet of shoreline using sand from Jahna's Ortona Sand Mine, Vulcan Materials Witherspoon Sand Mine and Stuart Mining Company's Ft. Pierce sand mine. To offset the direct project impacts to 1.59 acres of submerged aquatic vegetation (SAV), at least 6.29 acres of similar habitat will be restored. The beach design consists of an average berm width of approximately 90 feet, with a beach profile elevation of approximately +4.66 feet North American Vertical Datum (NAVD), and a foreshore slope of 1:10 (vertical:horizontal).

PROJECT LOCATION:

The beach restoration site extends from the eastern side of White Street Pier, for a distance of 650 feet, in Key West, Monroe County, Section 5, Township 68 South, Range 25 East, extending into the Straits of Florida, Class II Waters, in the Florida Keys National Marine Sanctuary and Florida Keys National Wildlife Refuge, Outstanding Florida Waters (OFW).

The two mitigation sites are located next to Bluefish Channel, approximately 4.5 miles north of the Island of Key West, Florida, in the Gulf of Mexico, within Great White Heron National Wildlife Refuge and the Florida Keys National Marine Sanctuary, OFW.

Jahna's Ortona Sand Mine is located in Moore Haven, Florida; Vulcan Materials Witherspoon Sand Mine is located in Moore Haven, Florida; and Stuart Mining Company's Ft. Pierce sand mine is located in Ft. Pierce, Florida.

PROPRIETARY AUTHORIZATION:

This activity also requires a proprietary authorization, as the activity is partially 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, F.S., Chapter 18-21 and Section 62-330.075, F.A.C., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the project described above, and has determined that both the placement of beach fill seaward of the mean high water line and the seagrass mitigation qualify 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.

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. When the Department received your permit application, a copy was sent to the U.S. Army Corps of Engineers (Corps) for review. The Corps will issue their authorization directly to you, or contact you if additional information is needed. If you have not heard from the Corps within 30 days from the date that your application was received by the Department, contact the nearest Corps

regulatory office for status and further information. 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 and Specific Conditions, 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.

GENERAL CONDITIONS:

1. All activities authorized by this permit shall be implemented as set forth in the 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 section 62B-49.008, Florida Administrative Code.

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 Beaches Inlets and Ports Program 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; or, 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, 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. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of sovereignty land of Florida seaward of the mean high-water line, or, if established, the erosion control line, unless herein provided and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State. The Permittee is

responsible for obtaining any necessary authorizations from the Board of Trustees of the Internal Improvement Trust Fund prior to commencing activity on sovereign lands or other state-owned lands.

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 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. Reasonable time may depend on the nature of the concern being investigated.

9. At least forty-eight (48) hours prior to commencement of activity authorized by this permit, the Permittee shall submit to the Beaches Inlets and Ports Program (JCP Compliance Officer) 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 historic or archaeological artifacts, such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Permittee shall immediately stop all activities in the immediate area that disturb the soil in the immediate locale and notify the State Historic Preservation Officer and the Beaches Inlets and Ports Program (JCP Compliance Officer). In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the

immediate area and the proper authorities notified in accordance with Section 872.02, F.S.

11. Within 30 days after completion of construction or completion of a subsequent maintenance event authorized by this permit, the Permittee shall submit to the Beaches Inlets and Ports Program (JCP Compliance Officer) 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 noted and explained on two paper copies and one electronic copy of as-built drawings submitted to the Beaches Inlets and Ports Program (JCP Compliance Officer).

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.

SPECIFIC CONDITIONS:

1. Pursuant to Chapter 161.141, F.S., prior to construction of the beach restoration, the Board of Trustees must establish the line of mean high water for any area affected by this project that does not already have an Erosion Control Line (ECL). This is required to establish the boundary line between sovereignty lands of the state bordering on the Straits of Florida and the upland properties. No work shall commence until the Erosion Control Line has been established to the satisfaction of the Department and recorded in the public records of the county in which the project is located.

2. All reports or notices relating to this permit shall be electronically submitted to the Department's JCP Compliance Officer (e-mail address: JCPCompliance@dep.state.fl.us) unless otherwise specified in the specific conditions of this permit.

3. The Permittee shall not store or stockpile tools, equipment, materials, etc., within littoral zones or elsewhere within surface waters of the state without prior written approval from the Department. Storage, stockpiling or access of equipment on, in, over or through beds of submerged aquatic vegetation, wetlands or hardbottom is prohibited unless it occurs within a work area or ingress/egress corridor that is specifically approved by this permit. Anchoring or spudding of vessels and barges within beds of aquatic vegetation or hardbottom is also prohibited.

4. 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.

5. No work shall be conducted under this permit until the Permittee has received a written notice to proceed from the Department for each construction event. At least 45 days prior to the requested date of issuance of the notice to proceed, the Permittee shall submit a written request for a Notice to Proceed along with the following items for review and approval by the Department:

    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 of this permit and the attached permit drawings, and shall also be certified by a professional engineer (P.E.), who is registered in the State of Florida. 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. Documentation that the ***Erosion Control Line*** has been executed and recorded in the County Records;

c. ***Turbidity monitoring qualifications***. Construction at the project site shall be monitored closely by an individual(s) with formal training in water quality monitoring and professional experience in turbidity monitoring for coastal construction projects to assure that turbidity levels do not exceed the compliance standards established in this permit. The monitor(s) shall not be directly employed by the design engineer's company or the Permittee, but may be a sub-contractor. Also, an individual familiar with beach construction techniques and turbidity monitoring shall be present at all times when fill material is being placed on the beach. This individual shall have authority to alter construction techniques or shut down the beach construction operations if turbidity levels exceed the compliance standards established in this permit. The names and qualifications of those individuals performing these functions, along with 24-hour contact information, shall be submitted for approval; and

d. 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

6. **Pre-Construction Conference.** The Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with Permittee's contractors, the engineer of record, those responsible for turbidity monitoring 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:

JCP Compliance Officer
e-mail: JCPCompliance@dep.state.fl.us

DEP South District Office
Submerged Lands & Environmental Resources
2796 Overseas Highway, Suite 221

Marathon, Florida 33050
phone: 305-289-7070
fax: 850-412-0590

Imperiled Species Management Section
Florida Fish & Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
phone: (850) 922-4330
fax: (850) 921-4369 or email: marineturtle@myfwc.com

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.

7. Sediment quality shall be assessed as outlined in the approved Sediment quality assurance/quality control (QA/QC) Plan (attached). Any occurrences of placement of material 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 JCP Compliance Officer within 90 days following the completion of beach construction.

   a. The Sediment QC/QA Plan includes the following:

      i. If, during construction, the Permittee or Engineer 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 JCP Compliance Officer.

      ii. The Permittee shall submit post-construction sediment testing results and an analysis report as outlined in the Sediment QC/QA plan to the JCP Compliance Officer within 90 days following beach construction. The sediment testing results shall be certified by a professional engineer (P.E.) or professional geologist (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 QC/QA 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.

iii. If non-compliant material is placed on the beach, the Permittee shall submit a post-remediation report to the JCP Compliance Officer containing the site map, sediment analysis, and volume of noncompliant fill material removed and replaced. This report shall be submitted within 7 days following completion of remediation activities.

8. ***Beach Maintenance.*** All derelict concrete, metal, and coastal armoring material and other debris shall be removed from the beach prior to any fill placement. If debris removal activities will take place during shorebird breeding or sea turtle nesting seasons, the work shall be conducted during daylight hours only and shall not commence until completion of daily seabird, shorebird or sea turtle surveys each day. All excavations and temporary alterations of the beach topography shall be filled or leveled to the natural beach profile prior to 9 p.m. each day, unless otherwise authorized by the Florida Fish & Wildlife Conservation Commission (FWC).

9. ***Wildlife Pre-Construction Meeting.*** A meeting between representatives of the contractor, the FWC, the permitted sea turtle surveyor and Bird Monitors (as appropriate) shall be held prior to commencement of work on each nourishment event. At least 10-business days advance notice must be provided prior to conducting this meeting. The meeting will provide an opportunity for explanation and/or clarification of the protection measures as well as additional guidelines when construction occurs during nesting season, such as staging equipment and reporting within the work area as well as follow up meetings during construction. This meeting may be combined with the Pre-Construction Conference that is required in Specific Condition 6.

10. ***Nesting Seabird and Shorebird Protection Conditions:*** Nesting seabird and shorebird (i.e. shorebird) surveys shall be conducted by trained, dedicated individuals (Bird Monitor) with proven shorebird identification skills and avian survey experience. A list of candidate Bird Monitors with their contact information, summary of qualifications, including bird identification skills, and avian survey experience shall be provided to the FWC. This information shall be submitted to the FWC regional biologist (contact information attached) prior to any construction or hiring for shorebird surveys for revision and consultation. Bird Monitors shall use the following survey protocols:

a. 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 Florida Shorebird Database (FSD) website (www.FLShorebirdDatabase.org). An outline of data to be collected, including downloadable field data sheets, is available on the website.

b. Breeding season varies by species, but generally occurs in the Keys from March 15 through September 1. Most species have completed the breeding cycle by September 1, but flightless young may be present through September.

Breeding season surveys shall begin on the first day of the breeding season or 10 days prior to project commencement (including surveying activities and other pre-construction presence on the beach), whichever is later. Surveys shall be conducted through August 31st or until all breeding activity has concluded, whichever is later.

c. Breeding season 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. Portions of the project in which there is no potential for project-related activity during the nesting season may be excluded. One or more shorebird survey routes shall be established in the FSD website to cover these areas.

d. During the pre-construction and construction phases of the project, surveys for detecting breeding activity and the presence of flightless chicks shall be completed on a daily basis 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.

e. Surveys shall be conducted by walking the length of the project area and visually surveying for the presence of shorebirds exhibiting breeding behavior, shorebird/seabird chicks, or shorebird/seabird juveniles as outlined in the FSD *Breeding Bird Protocol for Shorebirds and Seabirds*. Use of binoculars is required.

   i. If an ATV or other vehicle is needed to cover large project areas, operators will adhere to the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/). Specifically, the vehicle must be operated at a speed <6 mph and run at or below the high-tide line. The Bird Monitor will stop at no greater than 200 meter intervals to visually inspect for breeding activity.

f. Once breeding is confirmed by the presence of a scrape, eggs, or young, the Bird Monitor shall notify the FWC Regional Species Conservation Biologist (contact information attached) within 24 hours. All breeding activity shall be reported to the FSD website within one week of data collection.

11. ***Seabird and Shorebird Buffer Zones and Travel Corridors.*** Within the project area, the Permittee shall establish a disturbance-free buffer zone around any location where shorebirds have been engaged in breeding behavior, including territory defense. A 300-foot-wide buffer is considered adequate based on published studies. However, a smaller, site-specific buffer may be implemented upon approval by the FWC Regional Species Conservation Biologist (**contact information attached**) as needed. All sources of human disturbance (including pedestrians, pets and vehicles) shall be prohibited in the buffer zone.

a. The Bird Monitor 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 width of the buffer zone shall be increased immediately to a sufficient size to protect breeding birds.

b. Reasonable and traditional pedestrian access shall not be blocked where breeding birds will tolerate pedestrian traffic. 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 tolerated when breeding was initiated within 300 feet of an established beach access pathway. The Permittee shall work with the FWC Regional Species Biologist to determine if pedestrian access can be accommodated without compromising nesting success.

c. Designated buffer zones shall be marked with posts, twine, and signs around the perimeter. The signs shall state "Do Not Enter, Important Nesting Area" or similar language and shall include the name and a phone number of the entity responsible for posting. Posts shall not exceed 3 feet in height once installed. Symbolic fencing (twine, string, or rope) shall be placed between all posts, at least 2.5 feet above the ground, and rendered clearly visible to pedestrians. If pedestrian pathways are approved by the FWC Regional Species Conservation Biologist within the 300-foot buffer zone, these shall be clearly marked. The posting shall be maintained in good repair until breeding is completed or terminated. Although solitary nesters may leave the buffer zone 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.

d. No construction activities, pedestrians, movement of vehicles or stockpiling of equipment shall be allowed within the buffer area.

e. Travel corridors shall be designated and marked 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. However, other activities such as stopping or turning 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 accompanied by the Bird Monitor who shall ensure no chicks are in the path of the moving vehicle and no tracks capable of trapping flightless chicks result.

f. To the maximum extent possible within the travel corridor, all ruts shall be filled or leveled to the natural beach profile prior to completion of daily construction during shorebird nesting season.

g. To discourage nesting within the travel corridor, it is recommended that the Permittee should maintain some activity within these corridors on a daily basis, without disturbing any nesting shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction.

12. ***Notification.*** If shorebird breeding occurs 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".

13. ***Marine Turtle Nest Surveys and Relocation.*** For sand placement projects that occur during the period from May 1 through October 31, daily early morning (before 9 a.m.) surveys shall be conducted and eggs shall be relocated per the requirements below (13.a. to 13.d.) until completion of the project.

a. Marine turtle nesting surveys shall be initiated 65 days prior to sand placement activities, or by April 15, whichever is later, and shall comply with the following requirements.

b. Nesting surveys and nest marking shall only be conducted by persons with prior experience and training in these activities and who are authorized to conduct such activities through a valid permit issued by FWC, pursuant to FAC 68E-1. Please contact FWC's Marine Turtle Management Program in Tequesta at MTP@myfwc.com for information on the permit holder in the project area. Nesting surveys shall be conducted daily between sunrise and 9 a.m. The contractor shall not initiate work until daily notice has been received from the marine turtle permit holder that the morning survey has been completed. Surveys shall be performed in such a manner so as to ensure that construction activity does not occur in any location prior to completion of the necessary marine turtle protection measures.

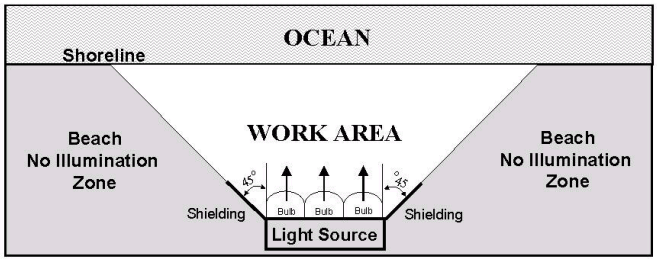
c. Only those nests in the area where sand placement will occur shall be relocated. Nests relocation shall not occur upon completion of sand placement. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocated nests shall not be placed in organized groupings, but rather shall be randomly staggered along the length and width of the beach. Relocated nests shall be placed in settings that are not expected to experience daily inundation by high tides, that are not known to routinely experience sever erosion and egg loss, or that are subject to artificial

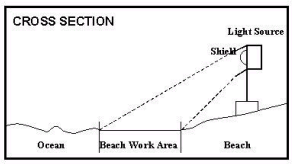
lighting. Nest relocations in association with construction activities shall cease when sand placement activities no longer threaten nests.

d. Nests deposited within areas where construction activities have ceased or will not occur for 65 days, or nests laid in the nourished berm prior to tilling, shall be marked and left in place unless other factors threaten the success of the nest. The turtle permit holder shall install an on-beach marker at the nest site and/or a secondary marker at a point as far landward as possible to assure that future location of the nest shall be possible should the on-beach marker be lost. No activity shall occur within this 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.

14. ***Marine Turtle or Nest Encounters.*** Upon locating a dead or injured sea turtle adult, hatchling or egg that may have been harmed or destroyed as a direct or indirect result of the project, the Permittee shall be responsible for notifying FWC Wildlife Alert at 1-888-404-FWCC (3922). Care shall be taken in handling injured sea turtles or eggs to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis. In the event a sea turtle nest is excavated during construction activities, 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.

15. ***Project Lighting.*** Direct lighting of the beach and nearshore waters shall be limited to the immediate construction area during the sea turtle nesting season and shall comply with safety requirements. Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and Occupational Safety and Health Administration (OSHA) requirements. Light intensity of lighting equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields shall be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area (**Figure below**).





BEACH LIGHTING SCHEMATIC

16. ***Fill Restrictions.*** During the sea turtle nesting season, the contractor shall not extend the beach fill more than 500 feet along the shoreline between dusk and the following day until the daily nesting survey has been completed and the beach cleared for fill advancement. An exception to this may occur if there is permitted sea turtle surveyor present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500 feet is not feasible for the project, an agreed upon distance shall be established during the preconstruction meeting. Once the beach has been cleared, and the necessary nest relocations have been completed, the contractor shall be allowed to proceed with the placement of fill during daylight hours until dusk, at which time the 500-foot length limitation shall apply.

17. ***Compaction Sampling.*** Sand compaction shall be monitored in the area of sand placement immediately after completion of the project and prior to April 15th for three (3) subsequent years, and shall be monitored in accordance with a protocol agreed to by the FWC, and the Permittee. The requirement for compaction monitoring may be eliminated if the decision is made to till regardless of post-construction compaction levels. Out-year compaction monitoring and remediation are not required if placed material no longer remains on the beach.

    a. At a minimum, the protocol provided under a. and b. below shall be followed. 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 immediately prior to April 15th. If values exceeding 500 psi are distributed throughout the project area, but in no case do those values exist at two adjacent stations at the same depth, then the Permittee shall consult with the FWC to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling shall not be required.

    b. 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).

    c. At each station the cone penetrometer shall be pushed to depths of 6, 12 and 18 inches three times at each depth (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates 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. Compaction reports shall be submitted to the FWC

and shall include all 18 values for each transect line, and the final 6 averaged compaction values.

d. No compaction sampling shall occur within 300 feet of any shorebird nest.

e. Any vehicles operated on the beach in association with compaction surveys shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

18. ***Tilling Requirements.*** If tilling is required, as specified above, the area shall be tilled to a depth of 36 inches. All tilling activity shall be completed prior to the marine turtle nesting season. If tilling occurs during shorebird nesting season (March 15 through September 1), shorebird surveys prior to tilling shall be required per the Shorebird Conditions included within this document. The Permittee shall ensure that the contractors avoid tilling, scarp removal, or dune vegetation planting in areas where nesting birds are present. Each pass of the tilling equipment shall be overlapped to allow thorough and even tilling. 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. If compaction measurements are taken, a report on the results of the compaction monitoring shall be submitted electronically to FWC at marineturtle@myfwc.com prior to any tilling actions being taken.

a. No tilling shall occur within 300 feet of any shorebird nest.

b. If flightless shorebird young are observed within the work zone or equipment travel corridor, a Shorebird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young.

c. 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.

d. Tilling shall occur landward of the wrack line, and avoid all vegetated areas of 3 square feet or greater, with a 3-foot buffer around the vegetated areas. The slope between the mean high water line and the mean low water line shall be maintained in such a manner as to approximate natural slopes.

e. Any vehicles operated on the beach in association with tilling shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

19. ***Escarpment Surveys.*** Visual surveys for escarpments along the project area shall be made immediately after completion of the sand placement, weekly during sea turtle nesting season and during March 15 to April 15. This shall be done for three (3) subsequent years if sand from the project area still remains on the beach.

    Escarpments that interfere with sea turtle nesting, or that exceed 18 inches in height for a distance of at least 100 feet, shall be leveled and the beach profile shall be reconfigured by April 15 to minimize scarp formation. Any escarpment removal shall be reported by location. If the project is completed during the sea turtle nesting and hatching season, the FWC may require escarpments to be leveled immediately, while protecting nests that have been relocated or left in place. FWC shall be contacted immediately if subsequent reformation of escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet occurs during the nesting and hatching season to determine the appropriate action to be taken. If it is determined that escarpment leveling is required during the nesting or hatching season, the FWC will provide a brief written authorization that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken shall be submitted electronically to marineturtle@myfwc.com. If escarpment removal occurs during shorebird breeding season (March 15 – September 1), shorebirds surveys shall be required per the *Shorebird Conditions* included within this document prior to removal. **NOTE:** Out-year escarpment monitoring and remediation are not required if placed material no longer remains on the dry beach.

    a. No heavy equipment shall operate within 300 feet of any shorebird nest.

    b. If flightless shorebird young are observed within the work zone or equipment travel corridor, a Shorebird Monitor shall be present during the operation to ensure that equipment does not operate within 300 feet of the flightless young.

    c. Any vehicles operated on the beach in association with escarpment surveys or removal shall operate in accordance with the FWC's Best Management Practices for Operating Vehicles on the Beach (http://myfwc.com/conservation/you-conserve/wildlife/beach-driving/).

Post-construction Shorebird Protection Conditions:

20. If beach cleaning will occur on the nourished beach, a minimum of 30% of the biotic material within the wrack line shall be left on the beach at the strand line after cleaning. The biotic material shall be left in a natural configuration to ensure that the nourished beach re-establishes its function as foraging habitat for shorebirds. This shall occur for as long as the placed sand remains on the beach.

Post-construction Monitoring and Reporting Marine Turtle Protection Conditions:

21. Reports on all marine turtle nesting activity shall be provided to the FWC for the initial marine turtle nesting season (May 1 through September 15) and hatching season (through October 31) and for up to three additional nesting seasons as follows:

    a. For the initial nesting season and the following year, the number and type of emergences (nests or false crawls) shall be reported per species in accordance with the table below. An additional year of nesting surveys may be required if nesting success for any species on the nourished beach is less than 40%.

    b. For the initial nesting season, reproductive success shall be reported per species in accordance with the table below. Reproductive success shall be reported for all sea turtle nests if possible. Otherwise a statistically significant number of nests for each species shall be reported.

    c. In the event that the reproductive success documented by species meets or exceeds required criteria (outlined in table below) for each species, monitoring for reproductive success shall be recommended, but not required for the second year post-construction.

    d. Monitoring of nesting activity in the seasons following construction shall include daily surveys and any additional measures authorized by the FWC. Summaries shall include all crawl activity, nesting success rates, hatching success of all relocated nests, hatching success of a representative sampling of nests left in place (if any) by species, project name, permit number and dates of construction.

    e. Data shall be reported for the nourished areas in accordance with the table below and shall include number of nests that were lost to erosion or that were washed out. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets) to the FWC Imperiled Species Management section at MTP@myfwc.com. All summaries shall be submitted by January 15 of the following year. The FWC Excel spreadsheet is available upon request from MTP@myfwc.com.

Table 1. Marine Turtle Monitoring:

Metric	Duration	Variable	Criterion
Nesting Success	Year of construction, one year to two or three years post construction if placed sand remains on beach and variable does not meet criterion based on previous year	Number of nests and non-nesting emergences by day by species	40% or greater
Hatching Success	Year of construction and one to three years post construction if placed sand remains on beach and variable does not meet criterion based on previous year	Number of hatchlings by species to completely escape egg	Average of 60% or greater (data must include washed out nests)
Emergence Success	Year of construction and one to three years post construction if placed sand remains on beach and variable does not meet success criterion based on previous year	Number of hatchlings by species to emerge from nest onto beach	Average must not be significantly different than the average hatching success
Disorientation	Year of construction and one to three years post construction if placed sand remains on beach	Number of nests and individuals that misorient or disorient	
Lighting Surveys	Two surveys the year following construction , one survey between May 1 and May 15 and second survey between July 15 and August 1	Number, location and photographs of lights visible from nourished berm, corrective actions and notifications made	100% reduction in lights visible from nourished berm within one to two month period
Compaction	Not required if the beach is tilled prior to nesting season each year placed sand remains on beach	Shear resistance	Less than 500 psi
Escarpment Surveys	Weekly during nesting season for up to three years each year placed sand remains on the beach	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

22. Two lighting surveys shall be conducted of all artificial lighting visible from the nourished berm. The first survey shall be conducted between May 1 and May 15 of the first nesting season following construction, or immediately after placement if construction is not completed until after May 15, and a second survey shall be conducted between July 15 and August 1. The surveys shall include a landward view from the seaward most extent of the new beach profile. The survey shall follow standard techniques for such a survey and include the number and types of visible lights, locations of the lights and photo documentation. For each light source visible, the Permittee shall document that the property owner(s) have been notified of the problem light, and provided with recommendations for correcting the light. Recommendations shall be in accordance with the Florida Model Lighting Ordinance for Marine Turtle Protection (Chapter 62B-55, F.A.C.) and local lighting restrictions. In addition to local code enforcement, actions shall be taken by the Permittee to ensure that no lights or light sources are visible from the newly elevated beach within their respective areas. A report summarizing all lights visible shall be submitted to FWC Imperiled Species Management Section at marineturtle@myfwc.com by the 1st of the month following survey. A summary report documenting what corrective actions have been taken and all compliance and enforcement actions shall also be submitted by December 15 of that year. After the annual report is completed, a meeting shall be set up with the Permittee, county or municipality, and the FWC to discuss the survey report, as well as any documented sea turtle disorientations in or adjacent to the project area.

Water Quality

23. When placing fill material or regrading waterward of the mean high water line, the Permittee shall employ best management practices (BMPs) to reduce turbidity. At a minimum, these BMPs shall include the the installation of turbidity curtains to surround the beach restoration site and any portions of the mitigations sites that will be filled or regraded. The Permittee shall not damage SAV resources outside of the equilibrium toe of fill (ETOF) during the installation or removal of the curtains. The curtains at each site shall be removed following the completion of construction activities at those sites.

24. **Turbidity** shall be monitored as follows:

Units: Nephelometric Turbidity Units (NTUs).

Frequency: 3 times daily, at least 4 hours apart, during all sand placement operations. Sampling shall be conducted **while the highest project-related turbidity levels are crossing the edge of the mixing zone**. The compliance samples and the corresponding background samples shall be collected at approximately the same time, i.e., one shall immediately follow the other.

Location: Background: mid-depth, clearly outside the influence of any artificially generated turbidity plume.

Beach Site: Samples shall be collected at least 200 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.

Mitigation Sites: Samples shall be collected at least 200 meters up-current from any portion of the mitigation site that has been filled or regraded.

Compliance: At mid-depth.

Beach Site: Samples shall be collected 10 meters outside of the turbidity curtains that surround the construction site, within the densest portion of any turbidity plume. If no plume is visible, follow the likely direction of flow.

Mitigation Sites: Samples shall be collected 10 meters outside of the turbidity curtains that surround the construction site, within the densest portion of any turbidity plume. If no plume is visible, follow the likely direction of flow. Turbidity monitoring will not be required for seagrass planting in those portions of the mitigation sites that do not include filling or regrading.

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 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.

25. 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 **0 NTUs** above the corresponding background turbidity levels, 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 and include in the subject line, "TURBIDITY EXCEEDANCE", and the Project Name and Permit Number. Also notify the Department's South District Branch office in Marathon.

    When reporting a turbidity exceedance, the following information shall also be included:

    a. the Project Name;

    b. the Permit Number;

    c. location and level (NTUs above background) of the turbidity exceedance;

    d. the time and date that the exceedance occurred; and

    e. the time and date that construction ceased.

    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:

    a. turbidity monitoring data collected during the shutdown documenting the decline in turbidity levels and achievement of acceptable levels;

    b. corrective measures that were taken; and

    c. cause of the exceedance.

26. **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 (0 NTUs above background) 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;

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 map, overlaid on an aerial photograph, indicating the sampling locations, beach fill locations, and direction of flow. A sample map shall reviewed and approved by the Department prior to construction;

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;

27. The Permittee shall conduct **physical monitoring** in accordance with the attached Physical Monitoring Plan dated September 8, 2014.

28. **Biological monitoring** at the beach site is required to determine if unanticipated impacts to SAV occur as a result of the project. All monitoring shall be conducted in accordance with the attached Biological Monitoring Plan. A survey of the SAV communities on the outside of the ETOF shall be conducted during the peak growing season prior to construction to establish a resource baseline. If unanticipated impacts to SAV occur as a result of the project, the Permittee shall offset those impacts with additional mitigation, the design and amount of which shall be subject to review and approval by the Department.

29. Submerged natural resources shall be surveyed between June 1 and August 31 (before construction) and between June 1 and August 31 (post construction). If this is not possible the Permittee may request (in writing) a waiver of this requirement from the Department. If approved, the Department will acknowledge the waiver by written notification to the Permittee, without the need for a permit modification.

30. The Permittee shall require the biological monitoring company to submit raw data, as collected in the field, simultaneously to the Department, contractor and Permittee no later than 45 days after completing the survey. The Department shall communicate directly with the biological monitoring company on issues related to biological data collection and methodology, and field sampling logistics without having to coordinate through the Permittee and/or contractor. Biological monitoring companies shall assess biological monitoring results independently and without consultation with the Permittee or its contractors and shall submit draft reports simultaneously to the Department, contractor and Permittee no later than 90 days after completing the survey. Any issues involving changes to the biological monitoring or mitigation plan or changes to the permit conditions shall involve coordination with the Permittee. This condition does not authorize the Department to change the scope of the biological monitoring without coordinating with the Permittee.

31. **Mitigation:** The Permittee shall offset the direct impacts to 1.59 acres of SAV by restoring at least 6.29 acres of similar habitat. If the post construction SAV monitoring reveals any secondary impacts beyond the ETOF, additional mitigation would be required. Mitigation requirements for the impact areas are described in the Department-approved Mitigation Plan and are summarized below.

    a. ***Seagrass Mitigation*.** Two (2) ship grounding sites (the Bluefish Channel site and the Legacy Site) shall be restored by filling or regrading the mitigation sites (as necessary) to match the surrounding elevations that currently support seagrasses. If Permittee determines, and the Department agrees, that portions of the mitigation sites can be successfully restored to their pre-impact condition with seagrass planting alone, then regrading may be omitted in those areas. The bare areas shall be planted with seagrass acquired from the beach impact site, as well as from donor sites. Nutrients shall be temporarily provided through bird stakes and/or fertilizer tubes. If a seagrass donor site outside the beach impact area is determined to be necessary, the site shall be approved in writing by the Department and Florida Keys National Marine Sanctuary and may be contingent upon the submittal of a harvesting and monitoring plan.

    b. **Seagrass transplanting and restoration as mitigation.** The Permittee shall comply with the following conditions in completing the mitigation for the SAV impacts:

        i. All required seagrass planting activities shall be completed prior to the completion of the beach restoration event, within the appropriate timelines for seagrass planting activities. If transplanting from the impact area, seagrasses shall be harvested from within the estimated ETOF.

ii. The seagrass restoration (transplantation) mitigation plan provides adequate detail regarding appropriate site selection, water depth through full tidal range, sediment composition, salvage methods, transplantation methods, sediment preparation, equipment, personnel, timing, schedule, seasonality and water quality protection. The plan provides drawings and /or figures that that effectively illustrate the proposed restoration techniques and methods. The mitigation plan provides specific details concerning seagrass transplanting timelines and seasonality, demonstrates that planting will be conducted during the appropriate seasons, accounting for water temperatures, seagrass growth and senescence, extreme weather conditions, proximity to navigation channels and existing prop scars, seasonal increases in boat traffic, etc., all of which could influence seagrass restoration performance and success. The plan also provides a monitoring program that details the monitoring and reporting protocol. The target seagrass community at the seagrass restoration sites shall be similar to the adjacent, undisturbed seagrass beds with respect to cover and density, while initially transplanting the seagrass species found within impacted community at the beach fill site.

c. **Mitigation Site Monitoring.** Mitigation site(s) monitoring shall be conducted as outlined in the permit and the attached mitigation and monitoring plan.

d. **Success Criteria for Mitigation Sites:**

i. Approximately 6 months after mitigation site construction is completed, the site(s) will have a planting unit survival rate of 70% or better;

ii. At the end of the four-year monitoring program, the mitigation site(s) shall contain a minimum of 70% of the SAV species composition and density as the adjacent, undisturbed seagrass beds, as determined in the preconstruction assessment;

iii. The SAV restoration area(s) shall have SAV coverage of at least 70%; and

iv. The SAV restoration area(s) shall be fully stabilized, and none are being scoured by the currents.

32. The Permittee shall submit an initial report on the mitigation implementation to the JCP Compliance Officer within 90 days of completion of the initial beach restoration event. The report shall include details on the implementation dates, follow-up activities, and success criteria as described in the permit and the Mitigation and Monitoring Plans.

33. If all of the mitigation success criteria in 31 d. above, are not met by the end of the four-year monitoring program, the Permittee shall propose corrective action to the

Department, which may require repare, replacement, redesign, an alternative mitigation plan or a combination thereof. Once approved by the Department, the Permittee shall implement the corrective action during the next available planting period. Monitoring of the mitigation project shall continue until success is achieved.

34. 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.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Martin K. Seeling, Administrator
Beaches, Inlets and Ports Program

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Megan Stirk

03/16/2015

Deputy Clerk Date

Prepared by Gregory Garis.

Attachments: Permit Drawings (10 pages for construction and 8 pages for mitigation)
Rest Beach Physical Monitoring Plan (Approved September 8, 2014)
Rest Beach Seagrass Mitigation Monitoring Plan (dated March 2, 2014)
Upland Sand Beach QA/QC Plan (Approved September 30, 2014)
FWC Shorebird Monitor Contact Information Sheet