
OPERATION AND MAINTENANCE INSPECTION CERTIFICATION

Instructions: Submit this form to the Agency within 30 days of completion of the inspection after any failure of a stormwater management system or deviation from the permit. This form may also be used to document inspections required under Section 12.4 of Applicant's Handbook Volume I, however submittal to the Agency is not required unless requested by the Agency.

Permit No.: _____ Application No.: _____ Date Issued: _____

Identification or Name of Stormwater Management System: _____

Phase of Stormwater Management System (if applicable): _____

Inspection Date: _____

Inspection results: (check all that apply)

☐ The undersigned hereby certifies that the works or activities are functioning in substantial conformance with the permit. This certification is based upon on-site observation of the system conducted by me or my designee under my direct supervision and my review of as-built plans.

☐ The following maintenance was conducted since the last inspection (attach additional pages if needed):

☐ The undersigned hereby certifies that I or my designee under my direct supervision has inspected this surface water management system and the system does not appear to be functioning in substantial conformance with the permit. I am aware that maintenance or alteration is required to bring the system into substantial compliance with the terms and conditions of the permit. As appropriate, I have informed the owner of the following:

- (a) The system does not appear to be functioning properly;
- (b) That maintenance or repair is required to bring the system into compliance; and
- (c) If maintenance or repair measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed subsequent to approval by the agency below.

The following components of the system do not appear to be functioning properly (attach additional pages if needed):

Any components of the constructed system that are not in substantial conformance with the permitted system shall require a written request to modify the permit in accordance with the provisions of Rule 62-330.315, F.A.C. If such modification request is not approved by the agency below, the components of the system that are not in conformance with the permit are subject to enforcement action under Sections 373.119, .129, .136, and .430, F.S.



Name of Inspector: _____ Florida Registration Number: _____

Company Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____ Fax: _____ Email: _____

Signature of Inspector Date

Report Reviewed by Permittee:

Name of Permittee: _____

Signature of Permittee Date

Title (if any)



DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
10117 PRINCESS PALM AVENUE, SUITE 120
TAMPA, FLORIDA 33610

May 22, 2017

REPLY TO
ATTENTION OF

Regulatory Division
West Permits Branch
Tampa Permits Section
SAJ-2014-02406 (SP-CMW)

Manatee County Parks and Natural Resources
Mr. Charlie Hunsicker
5502 33rd Avenue Drive West
Bradenton, FL 34209
Via Email: charlie.hunsicker@mymanatee.org

Dear Mr. Hunsicker:

The U.S. Army Corps of Engineers (Corps) is pleased to enclose the Department of the Army permit, which should be available at the construction site. Work may begin immediately but the Corps must be notified of:

- a. The date of commencement of the work,
- b. The dates of work suspensions and resumptions of work, if suspended over a week, and
- c. The date of final completion.

This information should be mailed to the Special Projects and Enforcement Branch of the Regulatory Division of the Jacksonville District at 1520 Royal Palm Square Blvd., Suite 310, Fort Myers, FL 33919. The Special Projects and Enforcement Branch is also responsible for inspections to determine whether Permittees have strictly adhered to permit conditions.

**IT IS NOT LAWFUL TO DEVIATE FROM
THE APPROVED PLANS ENCLOSED.**

Sincerely,

RYAN.ANGEL
A.C.13623944
29

Digitally signed by
RYAN.ANGEL.A.C.1362394429
DN: c=US, o=U.S. Government,
ou=DOD, ou=PR, ou=ISA,
cn=RYAN.ANGEL.A.C.1362394429
Date: 2017.05.22 14:37:32 -04'00'

For: Donald W. Kinard
Chief, Regulatory Division

Enclosures

Copies Furnished:

Beth Andrews, Stantec
Ryan Horstman, Icon Consulting
Damon Moore, Manatee County
CESAJ-RD-PE

DEPARTMENT OF THE ARMY PERMIT

Permittee: Manatee County Parks and Natural Resources
5502 33rd Avenue Drive West
Bradenton, Florida 34209

Permit No: SAJ-2014-02406-CMW

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 proposes to (1) place culvert under trail, (2) create upland area between backwater creek and existing ditch, (3) isolate created marsh/creek from existing agriculture ditch outfall, (4) establish banks of created basin features, (5) trail crossing, (6) re-grading of existing ditches to create wetland/surface water habitats, (7) connect proposed tidal basin to existing tidal canal, (8) deepen existing tidal canal, (9) place fill to restrict tidal flow and potential erosion, (10) dredge vegetated and unvegetated bay bottom to prevent harmful erosion/shoaling, and (11) excavate mangrove forest to enlarge tidal canal to benefit flushing. The proposed work will result in temporary impacts to 1.18 acres of jurisdictional waters and permanent impacts to 2.24 acres of jurisdictional waters, 0.32 acres of submerged aquatic vegetation, and 0.45 acre of mangrove wetlands. The work described above is to be completed in accordance with the 33 pages of drawings and 5 additional attachments affixed at the end of this permit instrument.

Project Location: The project would affect waters of the United States associated with Perico Bayou and Palma Sola Bay. The project site is located at 10350 9th Avenue NW, in Section 23, 25 and 26, Township 34 South, Range 16 East, Bradenton, Manatee County, Florida.

Directions to site: From US 41, head west on Manatee Avenue West (SR 64) to 75th Street NW and head north to 9th Avenue NW. Turn left on 9th Avenue NW. Site is at end of 9th Avenue NW.

Approximate Central Coordinates: Latitude: 27.507026 North
Longitude: 82.668885 West

Permit Conditions

General Conditions:

1. The time limit for completing the work authorized ends on **May 22, 2022**. 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 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:

PERMIT NUMBER: SAJ-2014-02406
PERMITTEE: Manatee County
PAGE 3 of 11

1. Reporting Address: The Permittee shall submit all reports, notifications, documentation and correspondence required by the general and special conditions of this permit to the following address:

a. For standard mail: U.S. Army Corps of Engineers, Regulatory Division, Special Projects and Enforcement Branch, 1520 Royal Palm Square Blvd., Suite 310, Fort Myers, FL 33919.

b. For electronic mail CESAJ-ComplyDocs@usace.army.mil (not to exceed 10 MB). The Permittee shall reference this permit number, SAJ-2014-02406(SP-CMW), on all submittals.

2. Commencement Notification: Within 10 days from the date of initiating the work authorized by this permit/Within 10 days from the date of initiating the work authorized by this permit for each phase of the authorized project, the Permittee shall provide a written notification of the date of commencement of authorized work to the Corps.

3. 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 3) 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.

4. Assurance of Navigation and Maintenance: The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structures or work herein authorized, or if in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

5. Posting of Permit: The Permittee shall have available and maintain for review a copy of this permit and approved plans at the construction site.

6. Turbidity Barriers: Prior to the initiation of any of the work authorized by this permit, the Permittee shall install floating turbidity barriers with weighted skirts around all work areas that are in, or adjacent to, surface waters. The turbidity barriers shall remain in place and be maintained until the authorized work has been completed and all suspended and erodible materials have been stabilized. Turbidity barriers shall be removed upon stabilization of the work area.

7. Erosion Control: Prior to the initiation of any work authorized by this permit, the Permittee shall install erosion control measures along the perimeter of all work areas to prevent the displacement of fill material outside the work area into waters of the United States. Immediately after completion of the final grading of the land surface, all slopes, land surfaces, and filled areas shall be stabilized using sod, degradable mats, barriers, or a combination of similar stabilizing materials to prevent erosion. The erosion control measures shall remain in place and be maintained until all authorized work is completed and the work areas are stabilized.

8. Manatee Conditions: The Permittee shall comply with the "Standard Manatee Conditions for In-Water Work – 2011" (Attachment 4).

9. 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 5).

10. Eastern Indigo Snake Protection Measures and Inspection: Permittee shall comply with U.S. Fish and Wildlife Service's "Standard Protection Measures for the Eastern Indigo Snake" dated August 12, 2013, as provided in Attachment 6 of this permit. All gopher tortoise burrows, active or inactive, shall be evacuated prior to site manipulation in the vicinity of the burrow. If excavating potentially occupied burrows,

active or inactive, individuals must first obtain state authorization via a Florida Fish and Wildlife Conservation Commission (FWC) Authorized Gopher Tortoise Agent permit. The excavation method selected shall minimize the potential for injury of an indigo snake. The Permittee shall follow the excavation guidance provided in the most current FWC Gopher Tortoise Permitting Guidelines found at <http://myfwc.com/gophertortoise>. If an indigo snake is encountered, the snake must be allowed to vacate the area prior to additional site manipulation in the vicinity. Holes, cavities, and snake refugia other than gopher tortoise burrows shall be inspected each morning before planned site manipulation of a particular area, and if occupied by an indigo snake, no work shall commence until the snake has vacated the vicinity of the proposed work.

11. Compensatory Mitigation: Within 18 months from the date of initiating the work authorized by this permit, the Permittee shall complete all construction and implementation mitigation activities in accordance with the approved final compensatory mitigation plan included as Attachment 7 of this permit.

12. Monitoring and Reporting Timeframes: To document achievement of the performance standards identified in the approved mitigation plan. In addition, provide monitoring reports as detailed in the Monitoring Requirements section of the approved mitigation plan.

13. Reporting Format: The Permittee shall submit all monitoring documentation to the Corps on 8½-inch by 11-inch paper, and include the following:

a. Project Overview:

- (1) Department of the Army Permit Number
- (2) Name and contact information of Permittee and consultant
- (3) Name of party responsible for conducting the monitoring and the date(s) the inspection was conducted
- (4) A brief paragraph describing the purpose of the approved project, acreage and type of aquatic resources impacted, and mitigation acreage and type of aquatic resources authorized to compensate for the aquatic impacts.
- (5) Written description of the location, any identifiable landmarks of the compensatory mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude, longitude, UTM, state plane coordinate system, etc.).
- (6) Dates compensatory mitigation commenced and/or was complete.
- (7) Short statement on whether the performance standards are being met.
- (8) Dates of any recent corrective or maintenance activities conducted since the previous report submission
- (9) Specific recommendations for any additional corrective or remedial actions.

b. Requirements: List the monitoring requirements and performance standards, as specified in the approved mitigation plan and special conditions of this permit, and evaluate whether the compensatory mitigation project site is successfully achieving the approved performance standards or trending towards success. A table is a recommended option for comparing the performance standards to the conditions and status of the developing mitigation site.

c. Summary Data: Summary data should be provided to substantiate the success and/or potential challenges associated with the compensatory mitigation project. Photo documentation may be provided to support the findings and recommendations referenced in the monitoring report and to assist the PM in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period. Submitted photos should be formatted to print on a standard 8½-inch x 11-inch piece of paper, dated, and clearly labeled with the direction from which the photo was taken. The photo location points should also be identified on the appropriate maps.

d. Maps and Plans: Maps shall be provided to show the location of the compensatory mitigation site relative to other landscape features, habitat types, locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the mitigation plan. In addition, the submitted maps and plans should clearly delineate the mitigation site perimeter(s). Each map or diagram should be formatted to print on a standard 8½-inch x 11-inch piece of paper and include a legend and the location of any photos submitted for review. As-built plans may be included.

e. Conclusions: A general statement shall be included that describes the conditions of the compensatory mitigation project. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the Permittee or sponsor, including a timetable, shall be provided. The District Commander will ultimately determine if the mitigation site is successful for a given monitoring period.

14. Remediation: If the compensatory mitigation fails to meet the performance standards 5 years after completion of the compensatory mitigation objectives, the compensatory mitigation will be deemed unsuccessful. Within 60 days of notification by the Corps that the compensatory mitigation is unsuccessful, the Permittee shall submit to the Corps an alternate compensatory mitigation proposal sufficient to create the functional lift required under this permit. The alternate compensatory mitigation proposal may be required to include additional mitigation to compensate for the temporal loss of wetland functions associated with the unsuccessful compensatory mitigation activities. The Corps reserves the right to fully evaluate, amend, and approve or reject the

alternate compensatory mitigation proposal. Within 120 days of Corps approval, the Permittee will complete the alternate compensatory mitigation proposal.

15. Mitigation Release: The Permittee's responsibility to complete the required compensatory mitigation, as set forth in the Compensatory Mitigation Special Condition of this permit will not be considered fulfilled until mitigation success has been demonstrated and written verification has been provided by the Corps. A mitigation area which has been released will require no further monitoring or reporting by the Permittee; however the Permittee, Successors and subsequent Transferees remain perpetually responsible to ensure that the mitigation area(s) remain in a condition appropriate to offset the authorized impacts in accordance with General Condition 2 of this permit.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

(X) 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.

PERMIT NUMBER: SAJ-2014-02406
PERMITTEE: Manatee County
PAGE 9 of 11

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.

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


(PERMITTEE)

5/17/17
(DATE)

DAMON MOORE ON BEHALF OF CHARLIE HUNSIKER
(PERMITTEE NAME-PRINTED)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

RYAN.ANGELA.C.
1362394429

Digitally signed by RYAN.ANGELA.C.1362394429
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=USA, cn=RYAN.ANGELA.C.1362394429
Date: 2017.05.22 14:40:37 -04'00'

5/22/2017

For:

(DISTRICT ENGINEER)
Jason A. Kirk, P.E.
Colonel, U.S. Army
District Commander

(DATE)

PERMIT NUMBER: SAJ-2014-02406
PERMITTEE: Manatee County
PAGE 10 of 11

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-2014-02406
PERMITTEE: Manatee County
PAGE 11 of 11

***Attachments to Department of the Army
Permit Number SAJ-2014-02406***

1. PERMIT DRAWINGS: 33 pages, dated April 19, 2017
2. WATER QUALITY CERTIFICATION: Specific Conditions of the water quality permit/certification in accordance with General Condition number 5 on page 2 of this DA permit. 18 pages.
3. AS-BUILT CERTIFICATION FORM: 2 pages
4. MANATEE CONDITIONS: 2 pages, *Standard Manatee Conditions for In-Water Work – 2011*
5. SEA TURTLE – SAWFISH CONDITIONS: 1 page, *Sea Turtle and Smalltooth Sawfish Construction Conditions, revised March 23, 2006*
6. EASTERN INDIGO SNAKE CONDITIONS: 6 pages
7. MITIGATION PROCEDURES: Compensatory mitigation plan, 17 pages

SCALE:		DATE: 11/13/2015	
SEC:	TWP:	RGE:	REV NO:
23, 25 & 26	34S	16E	1 REV PER RAMP 09/2016
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRAWN BY/EMP NO. A.SALAZAR/102871		SHEET NO: 1 OF 32	

REV No.	Revision	Date
---------	----------	------

SHEET NO:
2 OF 32

1. THE PURPOSE OF THIS PROJECT IS ECOLOGICAL ENHANCEMENT. THE CONTRACTORS WORKING ON THIS SITE SHALL TAKE GREAT CARE IN AVOIDING UNNECESSARY IMPACTS TO WETLANDS, VEGETATION, AND ANIMALS.
2. THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF WORK. ALL CONTRACTORS ARE DIRECTED PRIOR TO BIDDING TO CONDUCT INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT MAY BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.
3. THE CONTRACTOR SHALL OBTAIN AND/OR VERIFY EXISTENCE OF ALL REQUIRED PERMITS PRIOR TO STARTING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS NOT FURNISHED BY THE OWNER.
4. PRIOR TO THE START OF CONSTRUCTION ACTIVITY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY SUNSHINE STATE ONE CALL (1-800-432-4770); MANATEE COUNTY PUBLIC WORKS DEPARTMENT, FLORIDA POWER & LIGHT, VERIZON AND ANY OTHER UTILITIES (ELECTRIC, PHONE, GAS, CABLE, ETC.). IT IS THE CONTRACTORS RESPONSIBILITY TO PROTECT EXISTING UTILITIES FROM DAMAGE.
5. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS.
6. IF HUMAN REMAINS OR ARCHEOLOGICAL ARTIFACTS ARE DISCOVERED DURING THE COURSE OF CONSTRUCTION, THE CONTRACTOR MUST STOP WORK IMMEDIATELY AND PROMPTLY NOTIFY THE COUNTY PROJECT MANAGER AND FLORIDA DEPARTMENT OF STATE DIVISION OF HISTORICAL RESOURCES.
7. THE CONTRACTOR SHALL NOT ENTER UPON, OR ALTER THE WETLAND PRESERVE AREAS THAT MAY BE ON SITE OR DIRECTLY ADJACENT TO THE PROJECT AREA. ALL WORK PERFORMED IN THE VICINITY OF OPEN WATER, WETLANDS, AND WETLAND HABITAT RESTORATIONS IS TO BE PERFORMED IN COMPLIANCE WITH THE ENVIRONMENTAL PERMITS FOR THE SITE. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY FINE RESULTING FROM VIOLATION OF PERMIT CONDITIONS.
8. ELEVATIONS SHOWN HEREON ARE RELATIVE TO NATIONAL GEODETIC VERTICAL DATUM 1928 BASED ON MANATEE COUNTY BENCHMARK #48-29-12 (A CHISEL "X" CUT AT THE FACE OF SIDEWALK, 45' NORTH OF THE CENTERLINE OF 9TH AVENUE NW AND 160' WEST OF THE CENTERLINE OF 92ND STREET NW) WITH A PUBLISHED ELEVATION OF 6.128'.
9. THE CONTRACTOR SHALL CLEAR AND GRUB TO REMOVE STUMPS, ROOTS, TREES, VEGETATION AND OBSTRUCTIONS TO THE WORK IN ALL AREAS DESIGNATED FOR SITE GRADING. ALL STUMPS, ROOTS, AND OTHER DEBRIS SHALL BE REMOVED FROM WITHIN THE CONSTRUCTION AREAS TO A DEPTH OF AT LEAST 1 FOOT BELOW THE PROPOSED GRADE.
10. ALL CLEARING, GRUBBING AND EXCAVATED MATERIAL WILL BE BURNED OR REMOVED FROM SITE AS DIRECTED BY PROJECT MANAGER.
11. ALL CONSTRUCTION DEBRIS WILL BE REMOVED FROM THE SITE AND DISPOSED OF PROPERLY.
12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE AND VERIFY ALL CUT AND FILL QUANTITIES OF EARTHWORK FOR THE PROJECT. A BULKING/COMPACTION FACTOR SHOULD BE TAKEN INTO ACCOUNT WHEN FIGURING VOLUMES OF FILL PLACEMENT.
13. IMMEDIATELY BEFORE REQUESTING FINAL INSPECTIONS, THE CONTRACTOR SHALL CHECK ALL LINES AND DRESS TO THE PROPER GRADES/CONTOURS. ALL AREAS ARE TO BE STABILIZED AND MAINTAINED UNTIL ACCEPTANCE. WHEN UPLAND AND WETLAND PLANTING AREAS ARE INDICATED ON DRAWINGS OR SPECIFIED, THE CONTRACTOR SHALL MAKE ALLOWANCES WHEN ROUGH GRADING FOR THE FINISHED GRADES IN THESE AREAS.
14. POST GRADING SOIL CONDITIONS SHALL BE APPROPRIATE FOR PLANTING WITH LIMITED COMPACTION AS DETERMINED BY PROJECT ECOLOGIST.
15. ANY DISTURBED AREAS ABOVE MEAN HIGH WATER, NOT HARDESCAPED OR LANDSCAPED, WILL BE SEEDED/MULCHED, HYDROSEEDED, SODDED OR PLANTED WITH MATERIALS AS SPECIFIED.
16. EXISTING WELL HEADS TO BE PROTECTED & MARKED WITH ORANGE SAFETY FENCE (PLASTIC "SNOW FENCE") OR PROPERLY PLUGGED AND ABANDONED.
17. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE NPDES STORMWATER PERMITTING FOR CONSTRUCTION ACTIVITIES FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). THE CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COSTS FOR THE APPLICABLE PERMITTING APPLICATION AND SUPPORTING DOCUMENTATION.
18. IF IT IS NECESSARY FOR GROUNDWATER DEWATERING TO DISCHARGE OFFSITE, THEN THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITTING FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). THE CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COSTS FOR OBTAINING AND/OR MODIFYING ALL APPLICABLE PERMITTING FOR THE DISCHARGE OF GROUNDWATER DEWATERING AND FOR COMPLYING WITH ALL USACE, SWFWMD, AND FDEP PERMITTING CONDITIONS.
19. UPON COMPLETION OF CONSTRUCTION, GRASSED AREAS ARE TO BE MAINTAINED TO AVOID BARE EARTH CONDITIONS WHICH INCREASE THE POTENTIAL FOR EROSION.
20. SPECIFIC BRIDGE ALIGNMENT/CONFIGURATION IS SUBJECT TO CHANGE BASED ON STRUCTURAL DESIGN BY OTHERS.
21. PROPOSED TRAILS TO BE STAKED PRIOR TO INSTALLATION. TRAIL ALIGNMENT WILL BE FIELD REVIEWED BY COUNTY STAFF OR PROJECT ECOLOGIST. TRAIL ALIGNMENT MAY BE REVISED AND FIELD STAKED BY OR UNDER THE SUPERVISION OF COUNTY STAFF OR PROJECT ECOLOGIST WHERE IMPACTS TO ECOLOGICAL RESOURCES (E.G., TREES, ROOTS, OR DESIRABLE VEGETATION) MAY BE AVOIDED.

- = EXISTING HARD SURFACE
- = EXISTING SOFT SURFACE
- = AGRICULTURAL
- = ELEVATION
- = EXISTING
- = INVERT ELEVATION
- = MATCH EXISTING GROUND
- = MITERED END SECTION
- = OTHER SURFACE WATER
- = PLASTIC CORRUGATED PIPE
- = ROUND CONCRETE PIPE
- = STORM STRUCTURE
- = SURFACE WATER
- = TOP OF BANK
- = PROJECT BOUNDARY
- = LIMIT OF PHASE IIB CONSTRUCTION
- = DITCH TOP OF BANK
- = CENTERLINE OF SWALE
- = CENTERLINE OF INVERTED CROWN
- = PROPOSED GRADE CONTOUR
- = USAGE - JURISDICTIONAL SURFACE WATER EXCAVATION IMPACT
- = USAGE - JURISDICTIONAL SURFACE WATER FILL IMPACT
- = SEAGRASS AREA
- = MANGROVE FOREST MITIGATION (BETWEEN EL = 0.0 AND 2.5)
- = SEAGRASS MITIGATION AREA (BETWEEN EL = -1.1 AND -0.5)
- = TYPICAL FILL/EXCAVATION SECTION CALL
- = TYPICAL MITIGATION PLANTING SECTION CALL

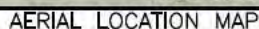
REV No.	Revision	Date
---------	----------	------

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

SCALE:		DATE: 11/13/2015	
SEC: 23, 25 & 26	TWP: 34S	RGE: 16E	REV NO: 1 REV. PEN RAMP 08/2016
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRAWN BY/EMP NO. A SALAZAR/102871		SHEET NO. 3 OF 32	



CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



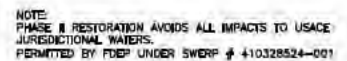
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

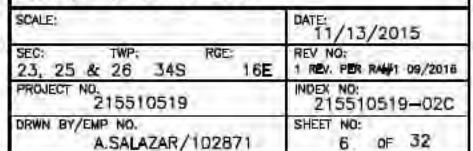
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stanlec without delay. The Copyrights to all designs and drawings are the property of Stanlec. Reproduction or use for any purpose other than that authorized by Stanlec is forbidden.

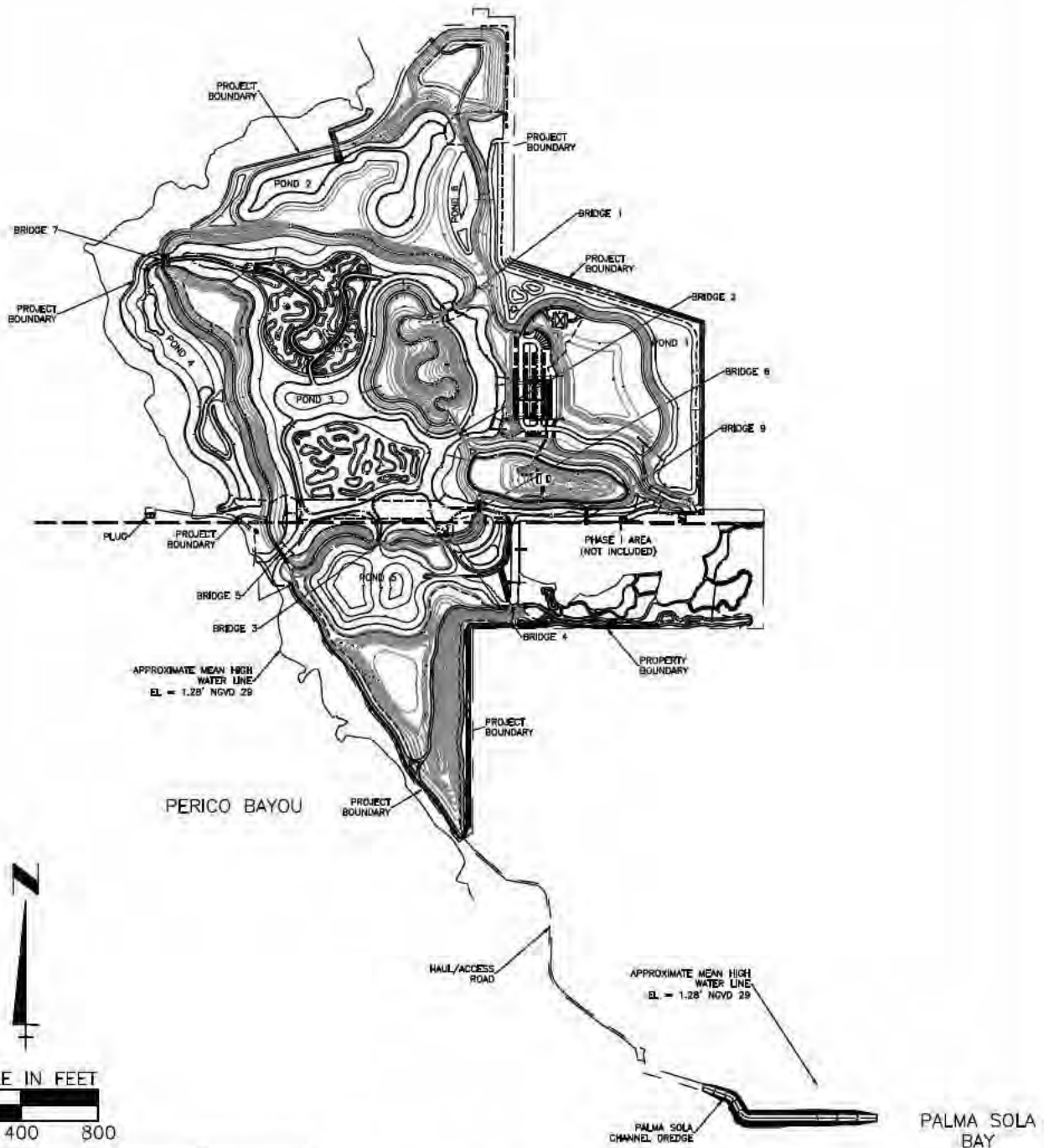
R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:		DATE: 11/13/2015	
SEC: 23, 25 & 26	TWP: 34S	RGE: 16E	REV NO: 1 REV. PER RA#1 09/2016
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRWN BY/EMP NO. A.SALAZAR/102871		SHEET NO: 4 OF 32	

PHASE II SITE PLAN

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL





REV No.	Revision	Date

PHASE IIB SITE PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL

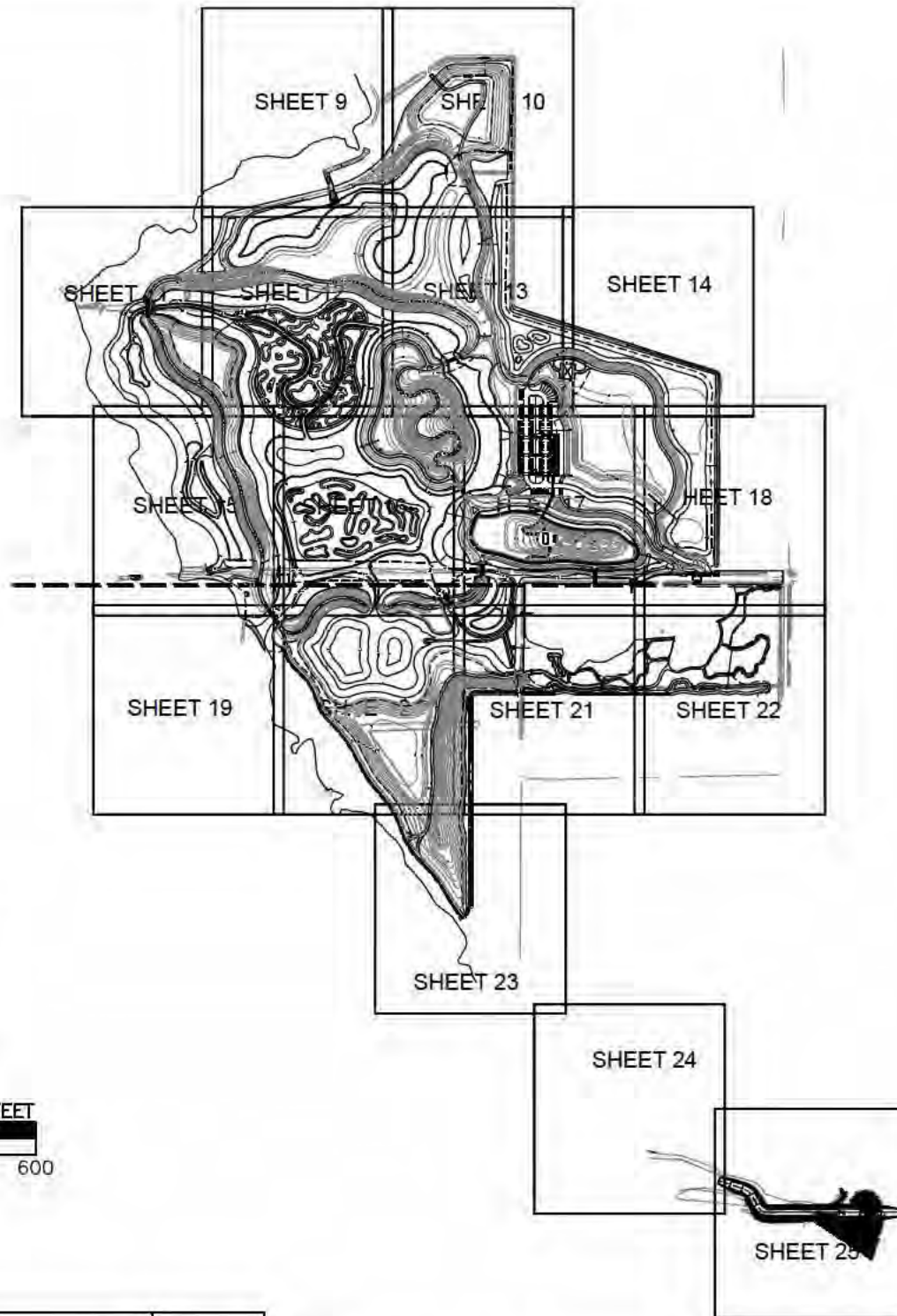

Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 TWP: 34S RGC: 16E	REV NO: 1 REV. PER RAM 09/2016
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 7 OF 32



REV No.	Revision	Date

PHASE IIB GRADING PLAN KEY SHEET

PROJECT: ROBINSON PRESERVE EXPANSION - PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL

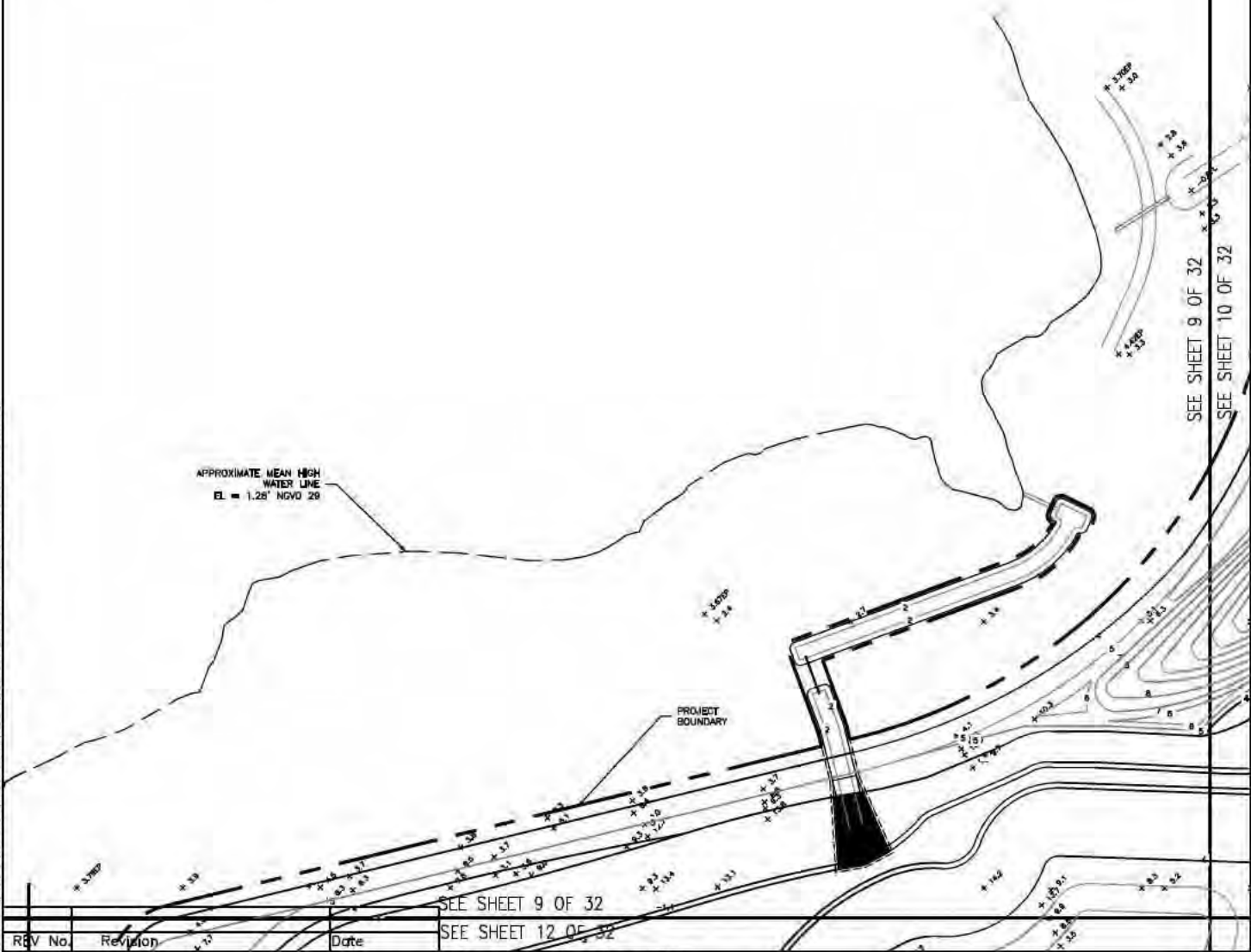

Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
 Phone 941-907-6900 • Fax 941-907-6910
 Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
 FLORIDA LICENSE NO. 49374

SCALE:	DATE:
SEC: TWP: RGE:	11/13/2015
23, 25 & 26 34S 16E	REV NO:
PROJECT NO:	1 REV. PER TRAP 09/2016
215510519	INDEX NO:
DRWN BY/EMP NO.	215510519-02C
A.SALAZAR/102871	SHEET NO:
	B OF 32



PROJECT: ROBINSON PRESERVE EXPANSION – PHASE IIB RESTORATION
CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

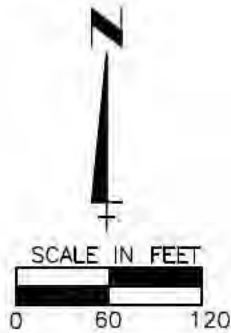
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stanlec without delay. The Copyrights to all designs and drawings are the property of Stanlec. Reproduction or use for any purpose other than that authorized by Stanlec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:		DATE: 11/13/2015	
SEC:	TWP:	RGE:	REV NO:
23, 25 & 26	34S	16E	1 REV. PER RA#1 08/2016
PROJECT NO.		INDEX NO:	
215510519		215510519-02C	
DRAWN BY/EMP NO.		SHEET NO:	
A. SALAZAR/102871		9 OF 32	



SCALE:		DATE: 11/13/2015	
SEC: 23, 25 & 26	TWP: 34S	RGE: 16E	REV NO: 1 REV. PER RAMP 09/2018
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRWN BY/EMP NO. A.SALAZAR/102871		SHEET NO: 10 OF 32	



APPROXIMATE MEAN HIGH
WATER LINE
EL. = 1.28' NGVD 29

PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



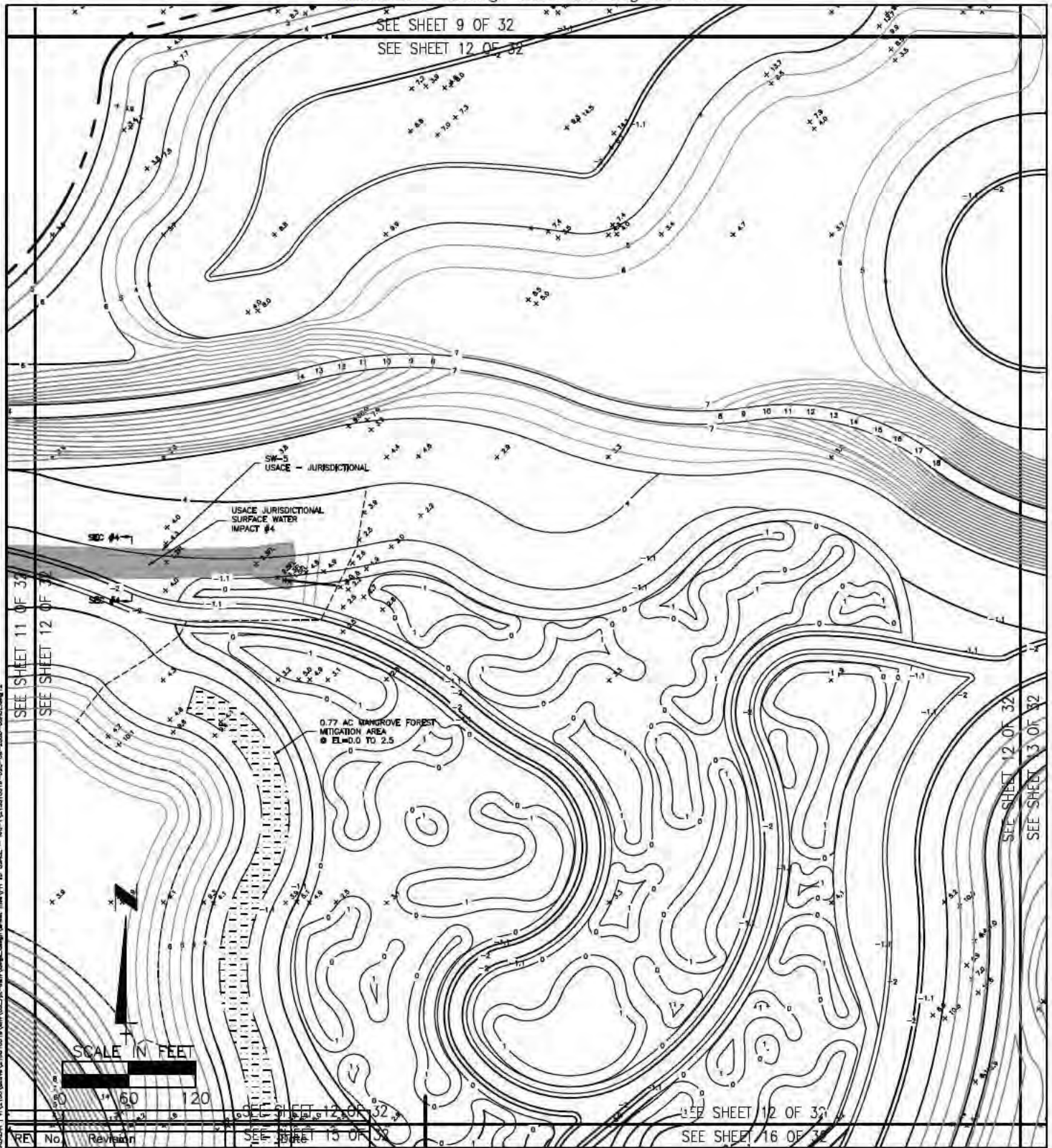
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE:
SEC: 23, 25 & 26 34S	11/13/2015
PROJECT NO. 215510519	REV. NO. 1
DRWN BY/EMP NO. A.SALAZAR/102871	REV. PER RAN 09/2016
	INDEX NO. 215510519-02C
	SHEET NO. 11 OF 32



PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



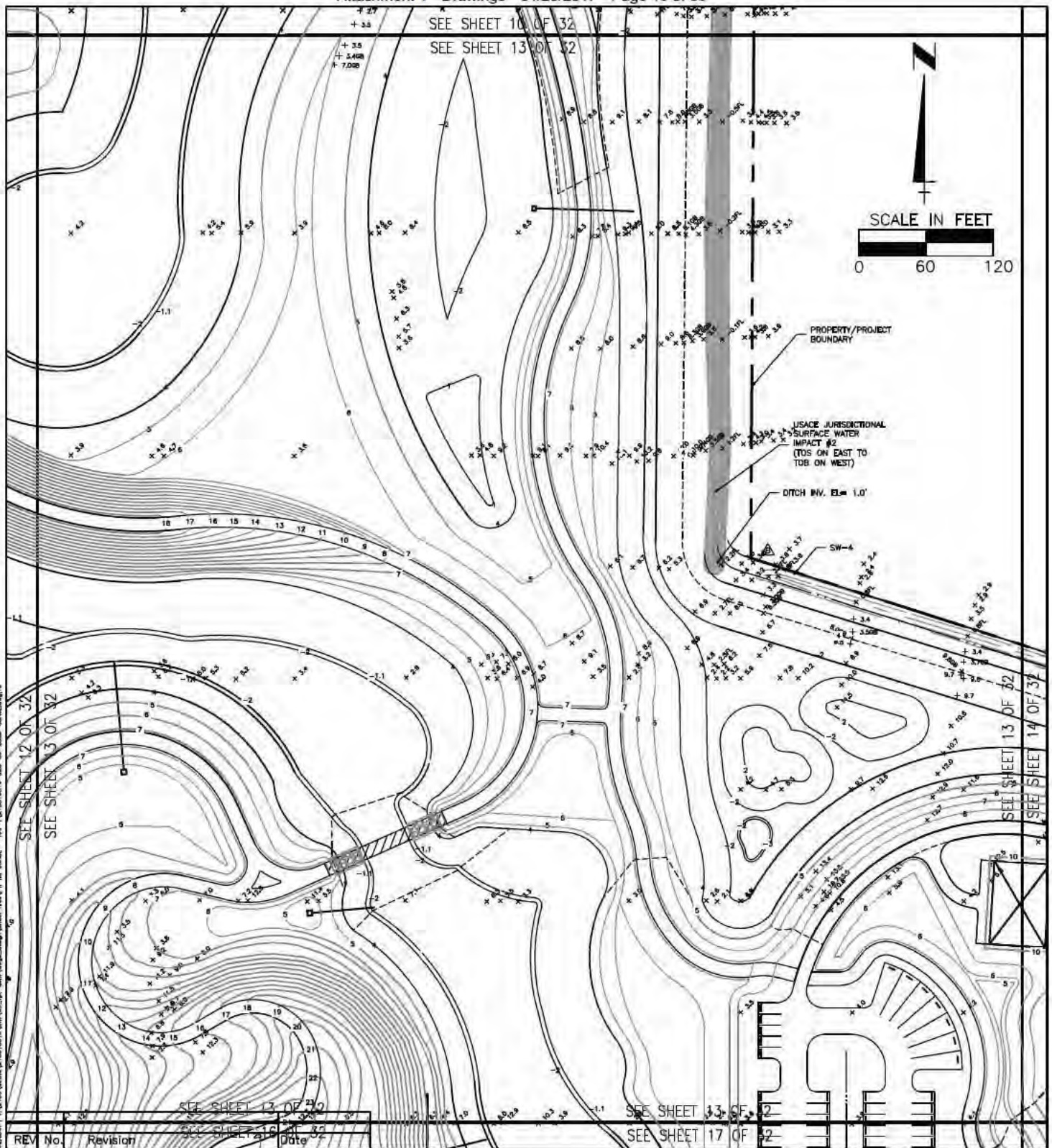
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE:
SEC: 23, 25 & 26 34S	11/13/2015
RGE: 16E	REV. NO:
PROJECT NO. 215510519	1 REV. PER RAI # 1 09/2016
DRWN BY/EMP NO. A.SALAZAR/102871	INDEX NO: 215510519-02C
	SHEET NO: 12 OF 32



REV No. Revision Date

PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



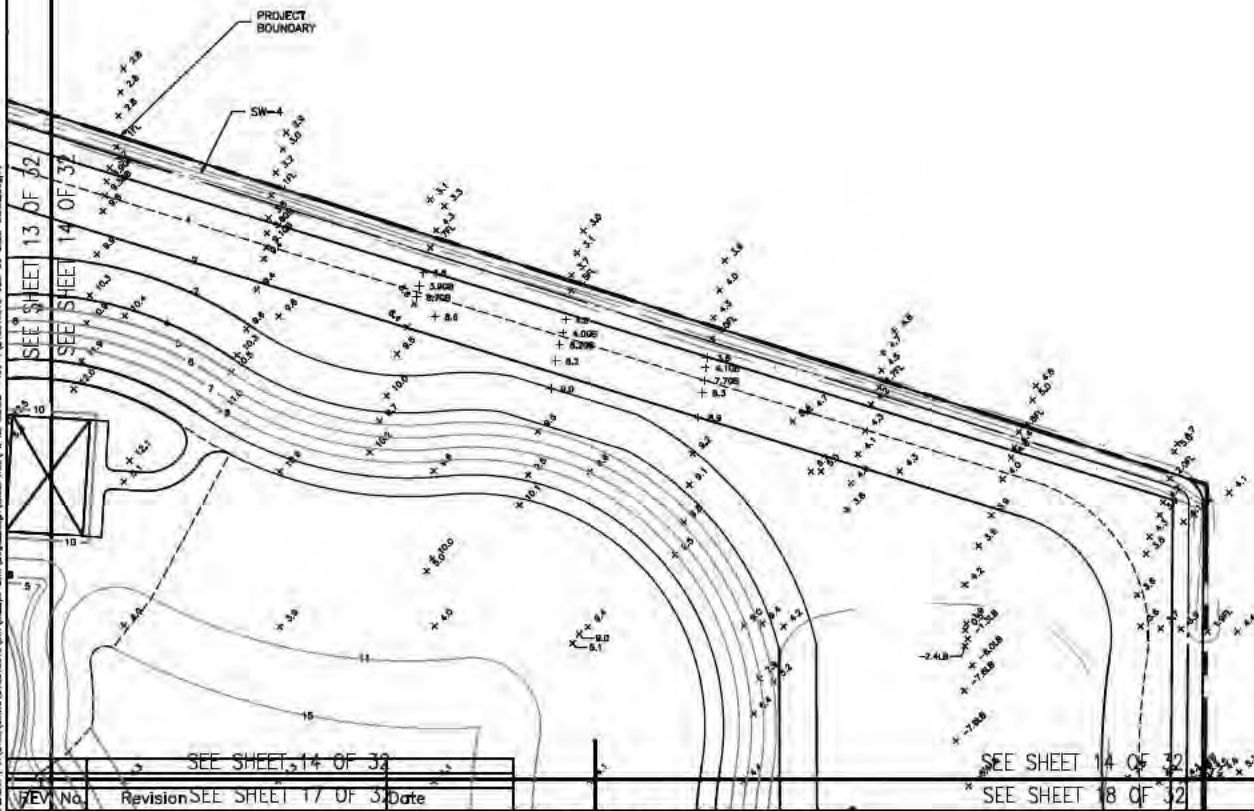
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

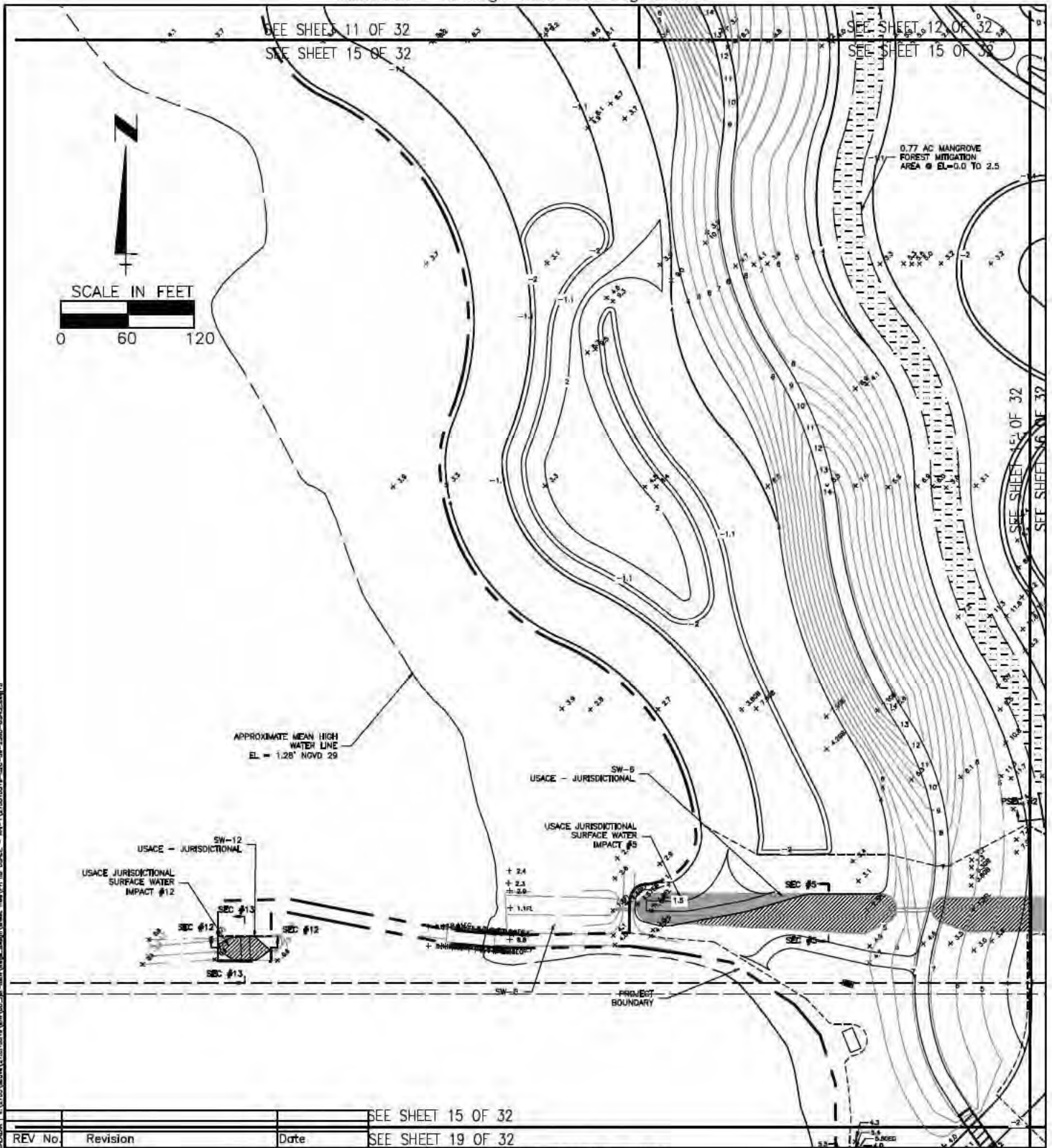
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 34S	16E
PROJECT NO. 215510519	INDEX NO. 215510519-02C
DRWN BY/EMP NO. A.SALAZAR/102871	SHEET NO. 13 OF 32



SCALE:		DATE: 11/13/2015	
SEC:	TWP:	RGE:	REV NO:
23, 25 & 26	34S	16E	1 REV. PER RA#1 09/2016
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRAWN BY/EMP NO. A.SALAZAR/102871		SHEET NO: 14 OF 32	



REV No	Revision	Date

PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



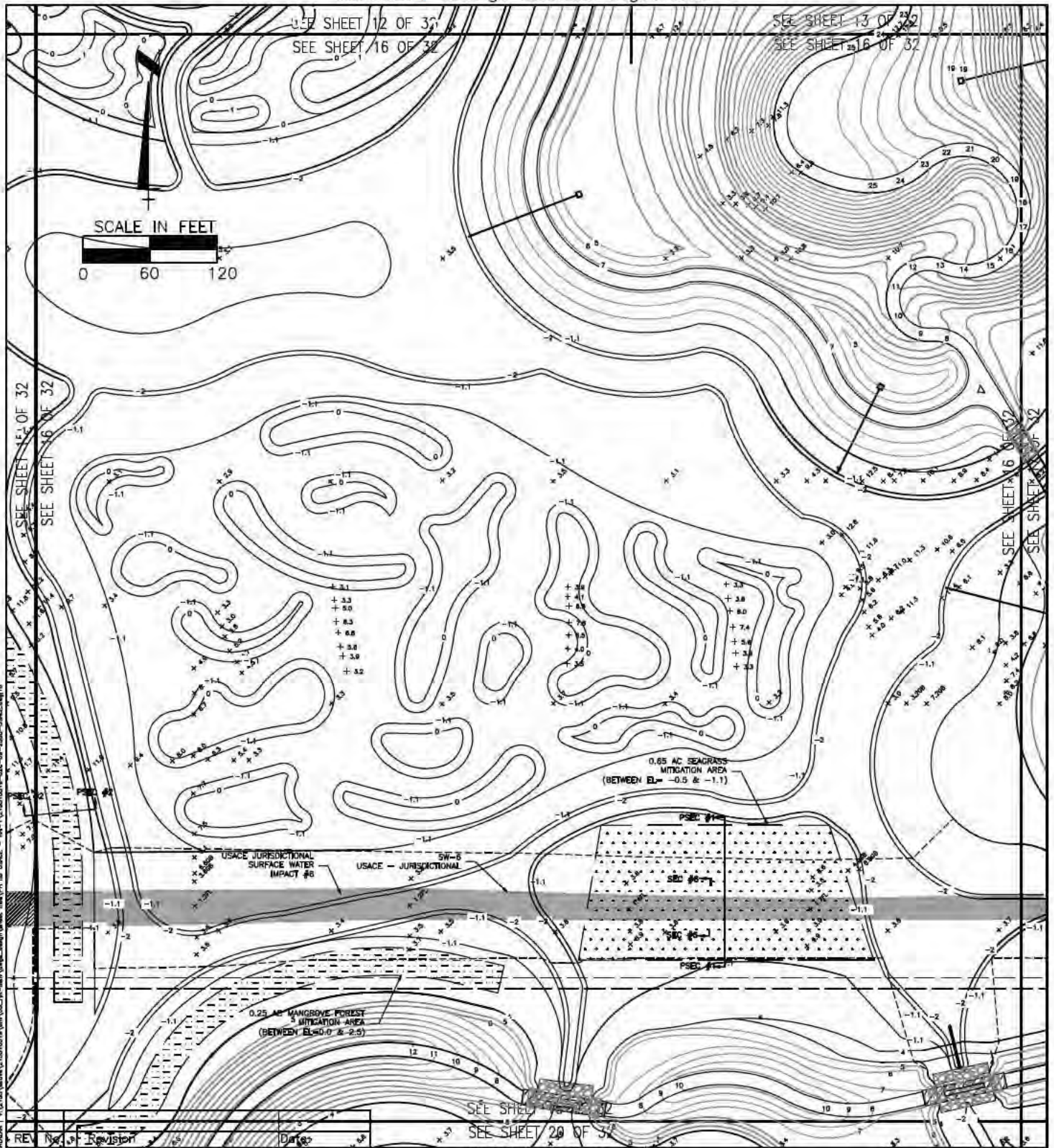
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 34S 16E	REV. NO: 1 REV. PER RA #1 09/2016
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 15 OF 32



PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



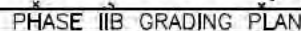
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
 Phone 941-907-6900 • Fax 941-907-6910
 Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
 FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 34S	REV. NO: 1
TWP: 16E	REV. PER: 1
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 16 OF 32

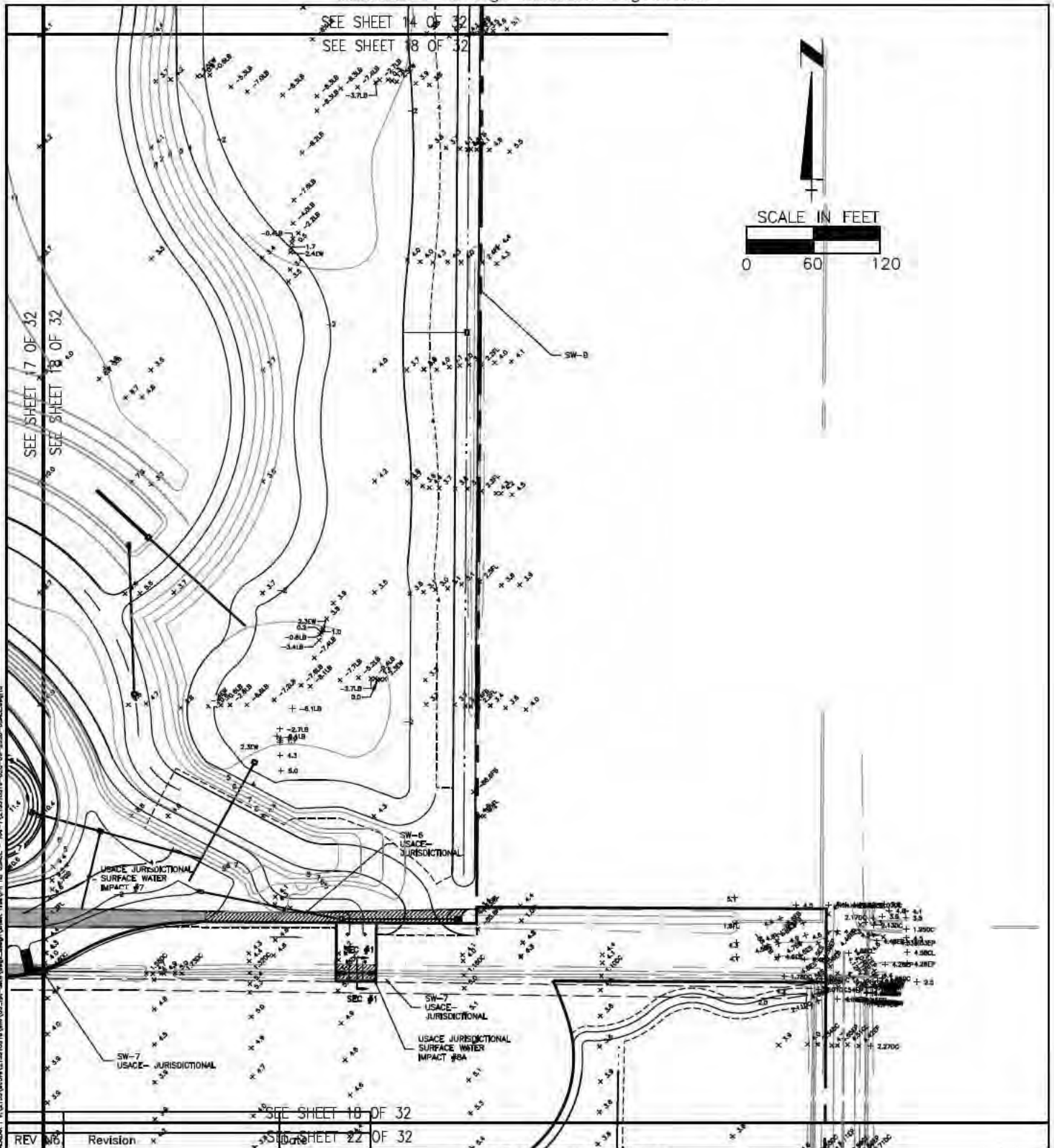


CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Slantec without delay. The Copyrights to all designs and drawings are the property of Slantec. Reproduction or use for any purpose other than that authorized by Slantec is forbidden.

SCALE:	DATE: 11/13/2015
SEC: TWP: RGE: 23, 25 & 26 34S 16E	REV NO: 1 REV PER R441 08/2016
PROJECT NO. 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO. A.SALAZAR/102871	SHEET NO: 17 OF 32



PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
 Phone 941-907-6900 • Fax 941-907-6910
 Certificate of Authorization #27013 • www.stantec.com

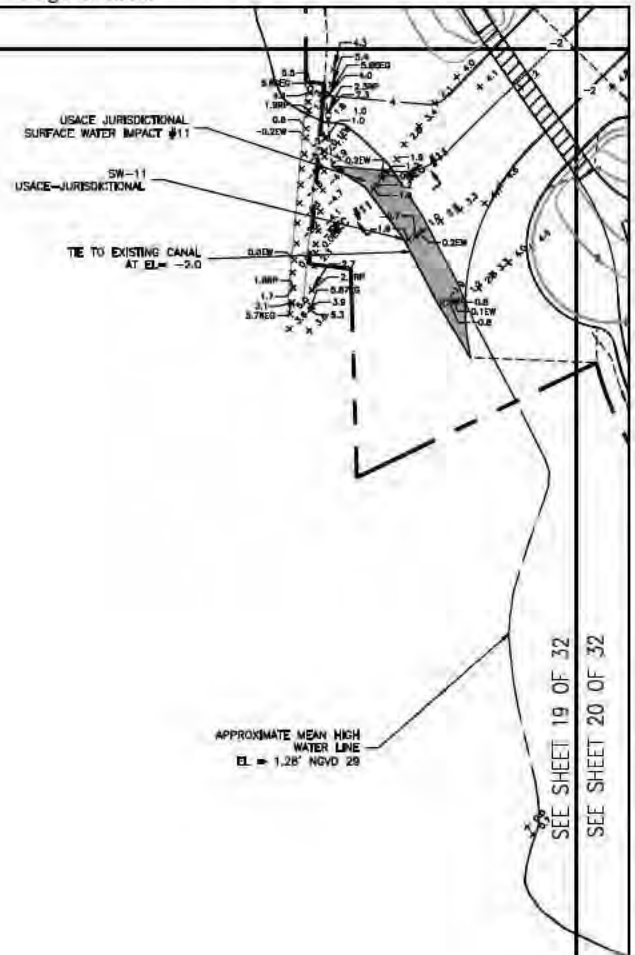
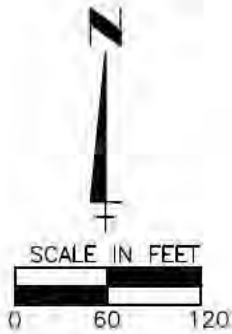
The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
 FLORIDA LICENSE NO. 49374

SCALE:	DATE:
SEC: 23, 25 & 26 34S 16E	11/13/2015
PROJECT NO. 215510519	REV NO. 1
DRWN BY/EMP NO. A.SALAZAR/102871	REV. PER RAMP 09/2016
	INDEX NO. 215510519-02C
	SHEET NO. 18 OF 32

SEE SHEET 15 OF 32

SEE SHEET 19 OF 32



REV No.	Revision	Date

PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



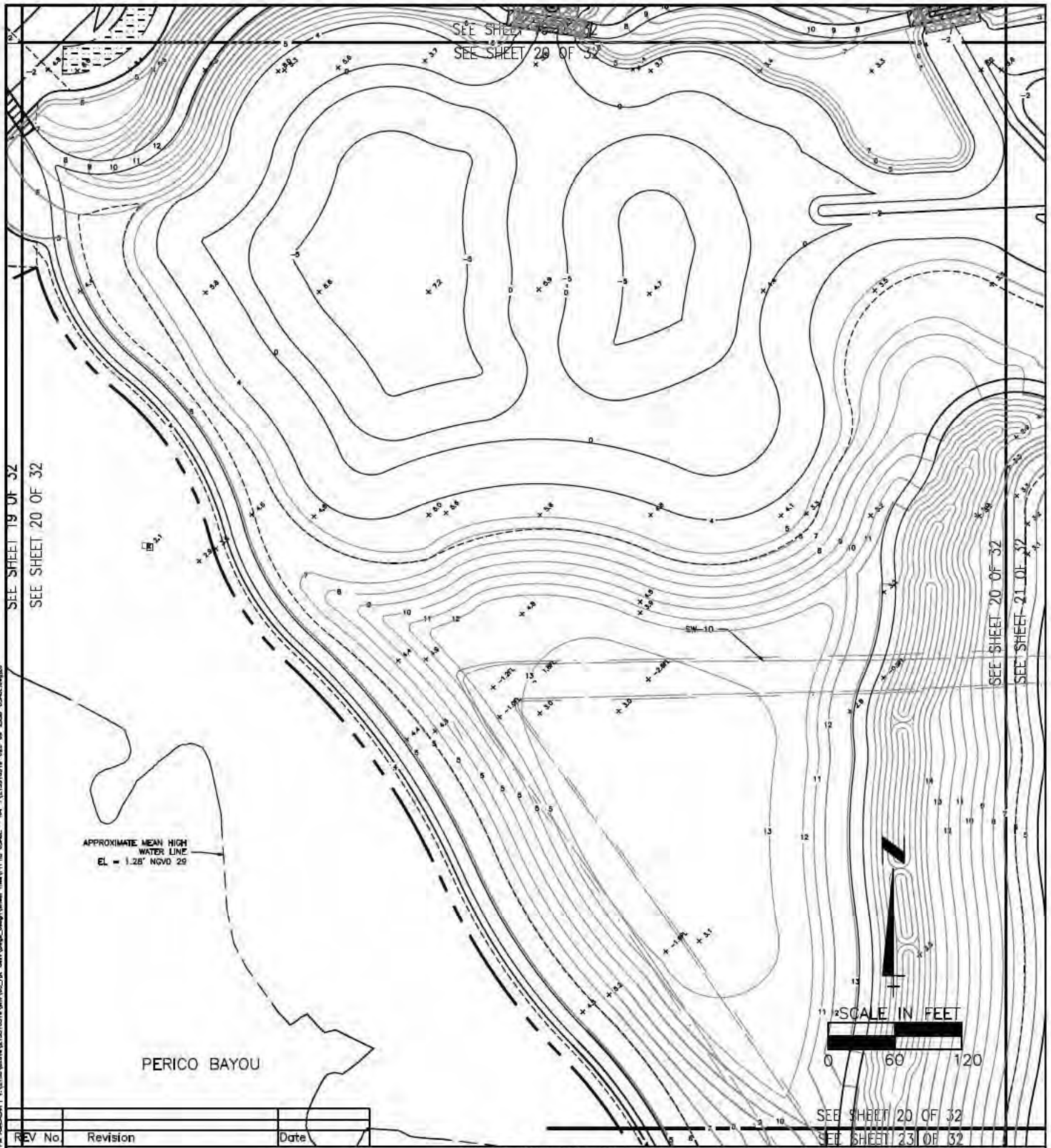
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
 Phone 941-907-6900 • Fax 941-907-6910
 Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
 FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 34S 16E	REV NO: 1 REV. PER RAMP 08/2016
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 19 OF 32



PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



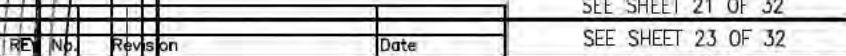
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:			DATE:
SEC: 23, 25 & 26 34S 16E			11/13/2015
PROJECT NO. 215510519			REV NO. 1 REV. PER RAK 09/2016
DRWN BY/EMP NO. A.SALAZAR/102871			INDEX NO. 215510519-02C
			SHEET NO. 20 OF 32



PROJECT: ROBINSON PRESERVE EXPANSION – PHASE IIB RESTORATION
CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL

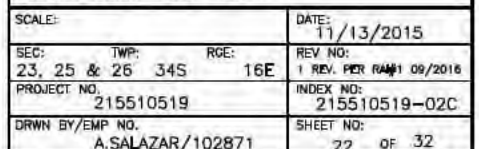


The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

SCALE:	DATE:
SEC: TWP: RGE:	11/13/2015
23, 25 & 26 34S 16E	REV NO:
PROJECT NO:	1 RE PER RAIL 09/2015
215510519	INDEX NO:
	215510519-02C
DRAWN BY/EMP NO.	SHEET NO:
A.SALAZAR/102871	21 OF 32



CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



SEE SHEET 23 OF 32

SEE SHEET 24 OF 32

HAUL/ACCESS ROAD

APPROXIMATE MEAN HIGH
WATER LINE
CL = 1.28' NGVD 29IN-WATER ACCESS/
BARGE ROUTE

SCALE IN FEET

0 60 120

SEE SHEET 24 OF 32

SEE SHEET 25 OF 32

PHASE IIB GRADING PLAN

PROJECT: ROBINSON PRESERVE EXPANSION — PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL

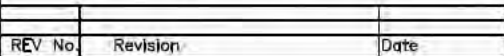

Stantec

 6900 Professional Parkway East, Sarasota, FL 34240-8414
 Phone 941-907-6900 • Fax 941-907-6910
 Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

 R. QUINCE SELLERS, P.E.
 FLORIDA LICENSE NO. 49374




SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 34S 16E	REV NO: 1 REV. PER RAMP 09/2016
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 24 OF 32



SCALE:		DATE: 11/13/2015	
SEC: 23, 25 & 26	TWP: 34S	RGE: 16E	REV NO: 1 REV PER R441 08/2016
PROJECT NO: 215510519		INDEX NO: 215510519-02C	
DRAWN BY/EMP NO: A.SALAZAR/102871		SHEET NO: 25 OF 32	



0 400 800

-  USACE WATERS OF THE US
EXCAVATION IMPACT
 USACE WATERS OF THE US
FILL IMPACT
 SEAGRASS AREA

2	REVISED PER RAB1	09/2018
REV No.	Revision	Date

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



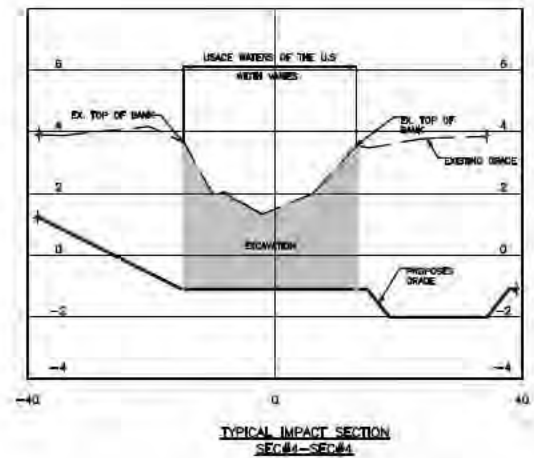
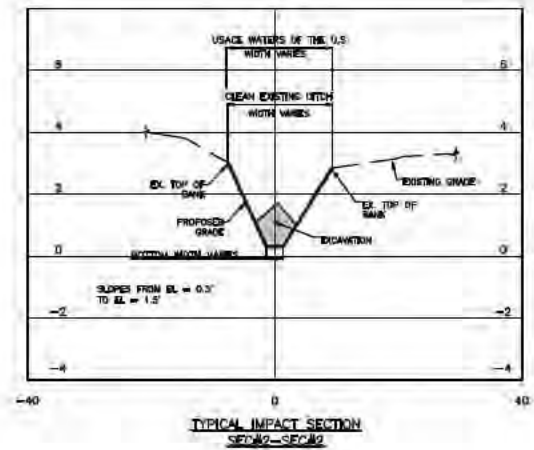
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

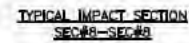
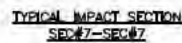
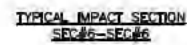
R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:		DATE: 11/13/2015	
SEC: 23, 25 & 26	TWP: 34S	RGE: 16E	REV NO: 1 01/2016
PROJECT NO. 215510519		INDEX NO. 215510519-02C	
DRAWN BY/EMP NO. A. SALAZAR/102871		SHEET NO. 26 OF 32	

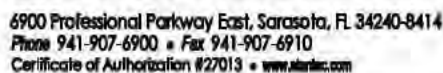


REV No.	Revision	Date
---------	----------	------

SCALE:		DATE: 11/13/2015	
SEC:	TWP:	RGE:	REV NO:
23, 25 & 26 34S		16E	1 REV. PER RAMP 09/2018
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRAWN BY/EMP NO. A. SALAZAR/102871		SHEET NO: 27 of 32	

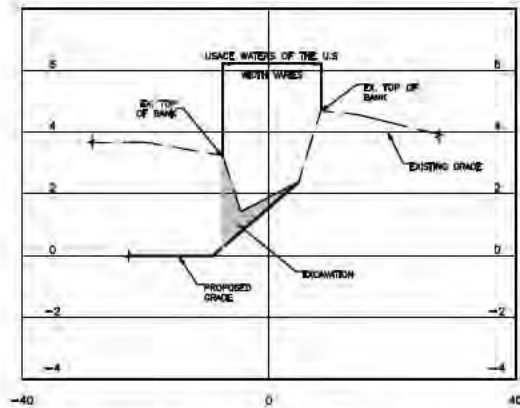
 USAGE WATERS OF THE U.S.
FILL IMPACT

PHASE IIB USACE WATERS OF THE U.S. IMPACTS	
PROJECT:	ROBINSON PRESERVE EXPANSION – PHASE IIB RESTORATION
CLIENT:	BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL

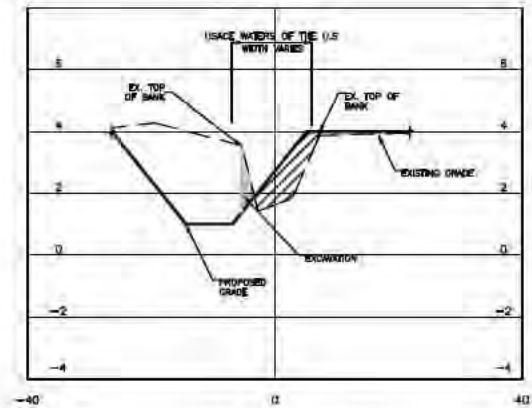


R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

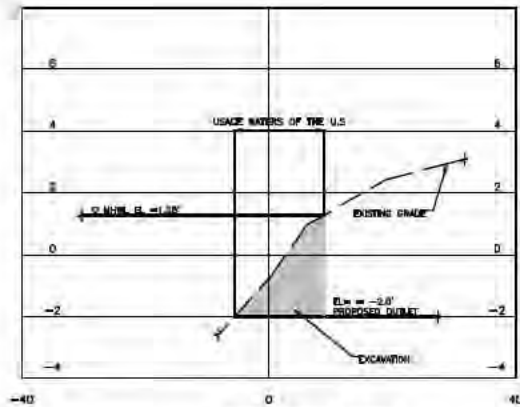
SCALE:		DATE: 11/13/2015	
SEC:	TWP:	RGE:	REV NO:
23, 25 & 26	34S	16E	1 REV. PER RAMP 09/2016
PROJECT NO. 215510519		INDEX NO: 215510519-02C	
DRAWN BY/EMP NO. A SALAZAR/102871		SHEET NO: 28 OF 32	



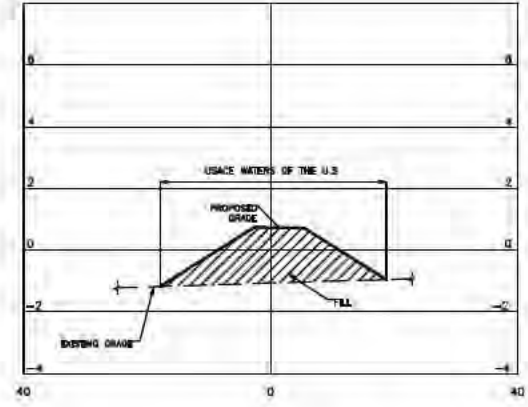
TYPICAL IMPACT SECTION
SEC#9-SEC#9



TYPICAL IMPACT SECTION
SEC#10-SEC#10



TYPICAL IMPACT SECTION
SEC#11-SEC#11



TYPICAL IMPACT SECTION
SEC#12-SEC#12

USACE WATERS OF THE U.S.
EXCAVATION IMPACT
USACE WATERS OF THE U.S.
FILL IMPACT

REV No.	Revision	Date

PHASE IIB USACE WATERS OF THE U.S. IMPACTS

PROJECT: ROBINSON PRESERVE EXPANSION – PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



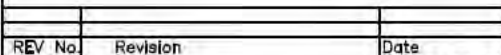
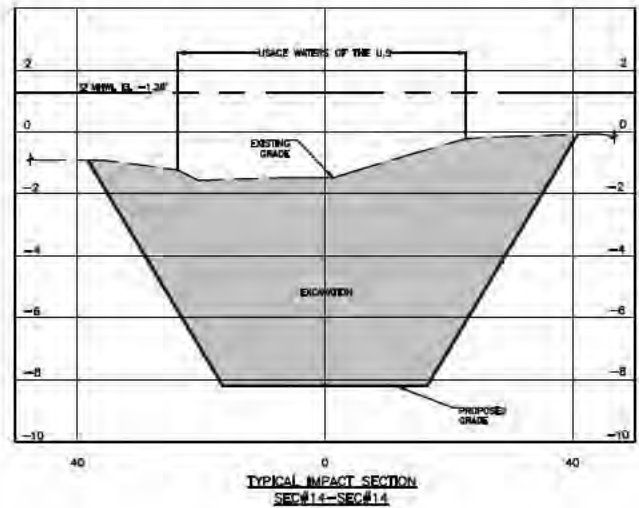
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26	TWP: 34S
PROJECT NO: 215510519	RGE: 16E
DRWN BY/EMP NO: A.SALAZAR/102871	REV NO: 1
	INDEX NO: 215510519-02C
	SHEET NO: 29 OF 32



SCALE:		DATE: 11/13/2015	
SEC: 23, 25 & 26	TWP: 34S	RGE: 16E	REV NO: 1 REV. PER RAMP 09/2015
PROJECT NO. 215510519		INDEX NO. 215510519-02C	
DRAWN BY/EMP NO. A.SALAZAR/102871		SHEET NO: 30 OF 32	

SURFACE WATER/ WETLAND ID	IMPACT #	IMPACT TYPE	PERMANENT OR TEMPORARY	IMPACT AREA (ACRE)	IMPACT VOL. FILL (CU.YD)	
					FILL	CUT
W1	W1	EXCAVATION	PERMANENT	0.40	0	4044
W2	W2	EXCAVATION	PERMANENT	0.02	0	125
W3	W3	EXCAVATION	PERMANENT	0.03	0	168
SW-3	2	EXCAVATION	TEMPORARY	0.36	0	200
	3	FILL	PERMANENT	0.09	350	0
SW-5	4	FILL AND EXCAVATION	PERMANENT	0.40	75	2107
SW-6	5	FILL AND EXCAVATION	PERMANENT	0.16	102	143
	6	FILL AND EXCAVATION	PERMANENT	0.63	166	4917
	7	FILL AND EXCAVATION	PERMANENT	0.29	106	1427
SW-7	8	FILL AND EXCAVATION	PERMANENT	0.25	180	366
	8A	FILL	PERMANENT	0.01	24	0
	9	FILL AND EXCAVATION	PERMANENT	0.09	232	41
	10	FILL AND EXCAVATION	PERMANENT	0.22	14	428
SW-11	11A	EXCAVATION	PERMANENT	0.05	0	129
	11B	EXCAVATION	TEMPORARY	0.42	0	2173
SW-12	12	FILL	PERMANENT	0.02	20	0
SW-13	13V	EXCAVATION	PERMANENT	0.32	0	2330
	13UV	EXCAVATION	TEMPORARY	0.40	0	2363
TOTAL PERMANENT IMPACT AREA				2.98	-	-
TOTAL TEMPORARY IMPACT AREA				1.18	-	-
TOTAL IMPACT VOLUME				-	1269	20961

2	REVISION FOR RAN	09/2018
REV No.	Revision	Date

PHASE IIB USACE WATERS OF THE U.S. IMPACTS

PROJECT: ROBINSON PRESERVE EXPANSION – PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL

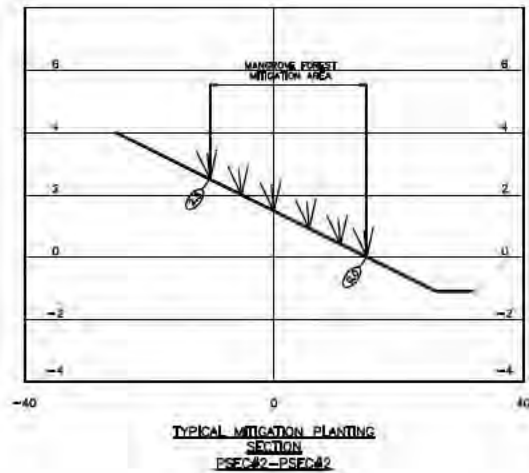
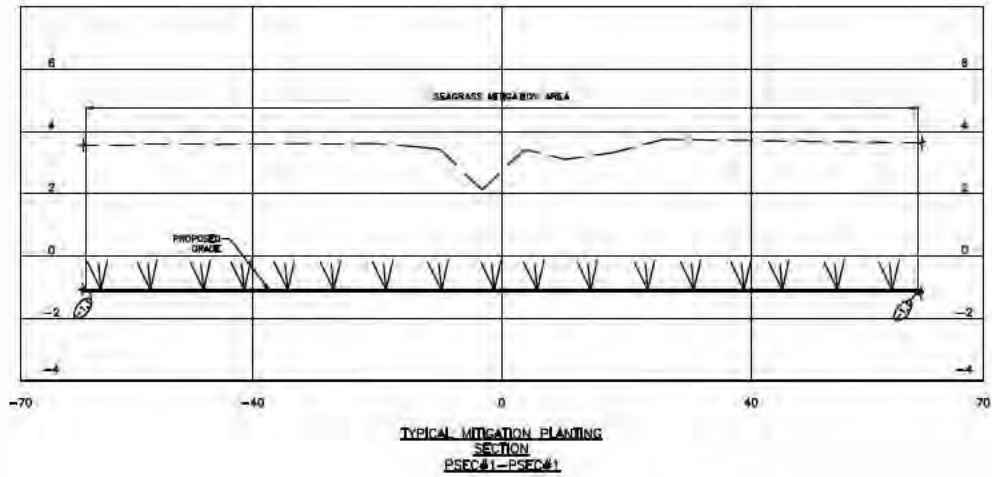

Stantec

 6900 Professional Parkway East, Sarasota, FL 34240-8414
 Phone 941-907-6900 • Fax 941-907-6910
 Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

 R. QUINCE SELLERS, P.E.
 FLORIDA LICENSE NO. 49374

SCALE:	DATE: 11/13/2015
SEC: 23, 25 & 26 TWP: 34S RGE: 16E	REV NO: 1 01/2016
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 31 OF 32



REV. No.	Revision	Date

PHASE IIB USACE TYPICAL MITIGATION PLANTING SECTIONS

PROJECT: ROBINSON PRESERVE EXPANSION – PHASE IIB RESTORATION

CLIENT: BOARD OF COUNTY COMMISSIONERS, MANATEE COUNTY, FL



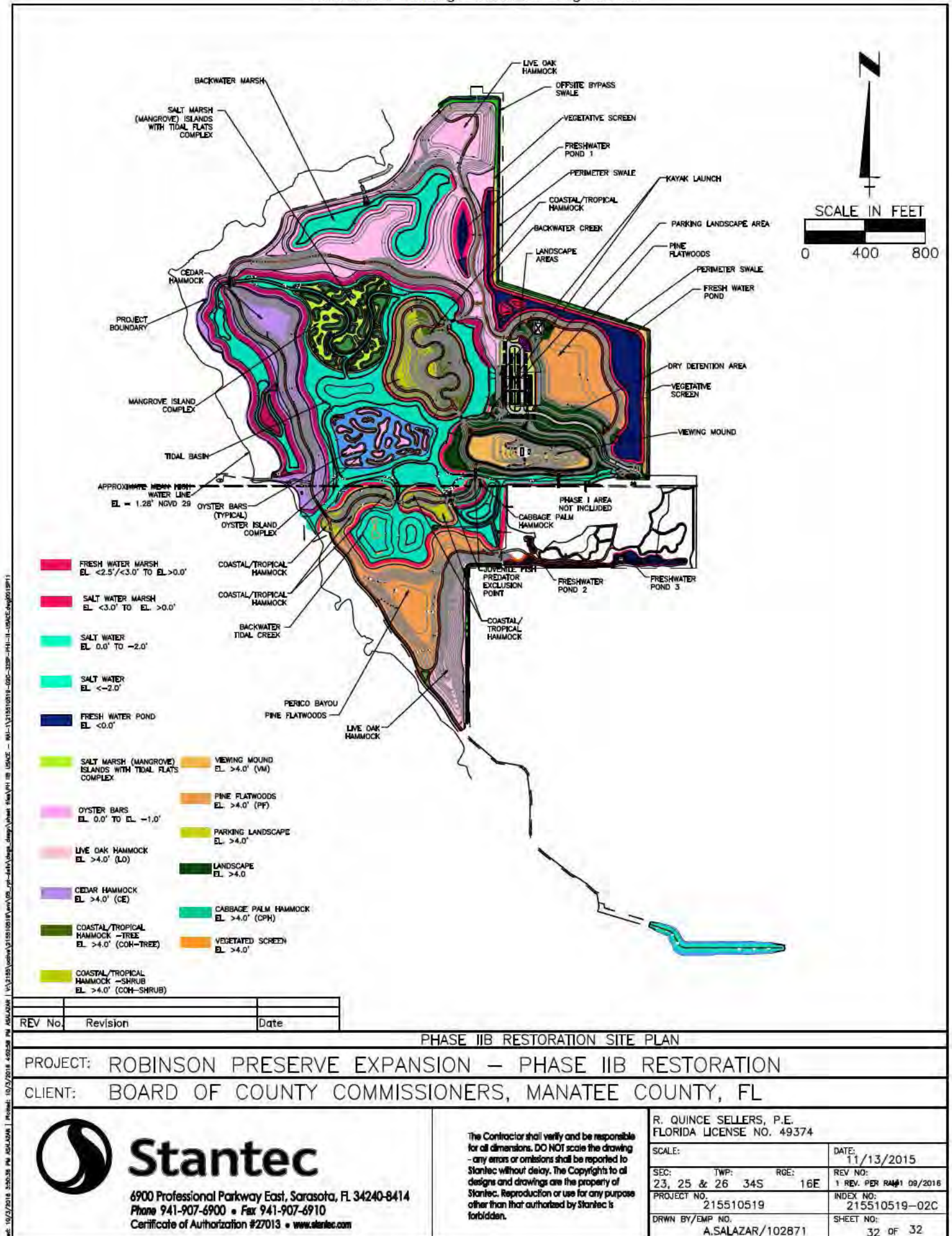
Stantec

6900 Professional Parkway East, Sarasota, FL 34240-8414
Phone 941-907-6900 • Fax 941-907-6910
Certificate of Authorization #27013 • www.stantec.com

The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing – any errors or omissions shall be reported to Stantec without delay. The Copyrights to all designs and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden.

R. QUINCE SELLERS, P.E.
FLORIDA LICENSE NO. 49374

SCALE:	DATE: 09/2016
SEC: 23, 25 & 26 34S	REV NO: 1
PROJECT NO: 215510519	INDEX NO: 215510519-02C
DRWN BY/EMP NO: A.SALAZAR/102871	SHEET NO: 31A OF 32





Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

Permittee/Authorized Entity:

Manatee County Parks and Natural Resources Department
c/o Charlie Hunsicker, Director
5502 33rd Avenue Drive West
Bradenton, FL, 34209

Robinson Preserve Expansion Phase II-B Restoration

Authorized Agent:

Stantec Consulting Services
c/o Quince R. Sellers, Senior Project Engineer
6900 Professional Parkway East
Sarasota, FL, 34240

Individual Environmental Resource Permit

State-owned Submerged Lands Authorization – Not Approved

U.S. Army Corps of Engineers Authorization – Not Approved

Permit No.: 41-0328524-004-EI

Permit Issuance Date: 12/30/2016

Permit Construction Phase Expiration Date: 12/30/2021



Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

Environmental Resource Permit

Permittee: Manatee County Parks and Natural Resource Department
Permit No: 41-0328524-004-EI

PROJECT LOCATION

The activities authorized by this permit are located at 10350 9th Avenue NW, Bradenton, Florida 34209, in Section 23 & 26, Township 34, Range 16 East in Manatee County, at latitude 27° 30' 34.90"/longitude 82° 39' 59.25".

PROJECT DESCRIPTION

The permittee is authorized to perform Phase II-B of the Robinson Preserve restoration project. Those activities include the restoration and creation of: approximately 25-acres of wetland habitats, including freshwater marsh, saltmarsh, and mangrove; approximately 43-acres of open water habitat, including estuarine waters, freshwater ponds, oyster bars, and tidal flats; approximately 10-acres of landscaping and passive recreation areas, including native trees and groundcover; and approximately 58-acres of upland habitat, including live oak hammock, pine flatwoods, cedar hammock, coastal/tropical hammock, cabbage palm hammock, and native wildflower meadow. The proposed activities also include the dredging of a "flushing cut" between the tidal backwater canal of Perico Bayou and the open waters of Palma Sola Bay, a Class II, Outstanding Florida Waterbody.

The permittee is authorized to construct an expanded parking area, kayak launch loop and access drive. These are the only areas of the project that will be subject to stormwater treatment. With this construction, a 1.36-acre dry detention area with effluent filtration will provide water quality treatment for a 5.74-acre basin. A portion of the basin associated with the kayak launch loop will not drain to the 1.36-acre dry detention area due to the design elevations. Therefore, a separate dry detention area with control structure and effluent filtration will be constructed to capture runoff from the paved kayak launch loop. These dry detention areas will treat the first 0.75 inches of stormwater runoff from the basin due to its discharge into Perico Bayou, an Outstanding Florida Water. Discharge rate attenuation is not required due to the project discharging into a tidal waterbody. Authorized activities are depicted on the attached exhibits.

Unavoidable permanent impacts to 0.45-acres of mangrove forest (FLUCCS 612) and 0.32-acres of seagrass habitat (FLUCCS 645) will be more than offset by the creation of 8.88-acres of mangrove habitat and 6.5-acres of seagrass habitat. Habitat creation will be achieved by both planting and natural recruitment.

AUTHORIZATIONS

Environmental Resource Permit

The Department has determined that the activity qualifies for an Environmental Resource Permit. Therefore, the Environmental Resource Permit is hereby granted, pursuant to Part IV of Chapter 373, Florida Statutes (F.S.), and Chapter 62-330, Florida Administrative Code (F.A.C.).

Sovereignty Submerged Lands Authorization

The activity is located on sovereignty submerged lands owned by the State of Florida. It therefore also requires authorization from the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Section 253.77, F.S. As staff to the Board of Trustees under Sections 253.002, F.S., the Department has determined that the activity qualifies for and requires a public easement, as long as the work performed is located within the boundaries as described and is consistent with the terms and conditions herein.

The final documents required to execute the public easement will be sent to the permittee by the Department's Division of State Lands for execution. The Department intends to issue the public easement, upon satisfactory execution of those documents, including payment of required fees and compliance with the conditions in the attached permit. **You may not begin construction of the activities described until you receive a copy of the executed public easement from the Department.**

Federal Authorization

Your proposed activity as outlined on your application and attached drawings **does not qualify** for Federal authorization pursuant to the State Programmatic General Permit and a **SEPARATE permit** or authorization **Shall be required** from the Corps. A copy of your permit application has been forwarded to the Corps for their 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 your application was received at the local FDEP Office, contact the Corps for status and further information. **Failure to obtain Corps authorization prior to construction could subject you to federal enforcement action by that agency.**

Authority for review - an agreement with the USACOE entitled "Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection, or Duly Authorized Designee, State Programmatic General Permit", Section 10 of the Rivers and Harbor Act of 1899, and Section 404 of the Clean Water Act.

Coastal Zone Management

Issuance of this authorization also 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 also constitutes a water quality certification under Section 401 of the Clean Water Act, 33 U.S.C. 1341

Other Authorizations

You are advised that authorizations or permits for this activity may be required by other federal, state, regional, or local entities including but not limited to local governments or municipalities. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

The activity described may be conducted only in accordance with the terms, conditions and attachments contained in this document. Issuance and granting of the permit and authorizations herein do not infer, nor guarantee, nor imply that future permits, authorizations, or modifications will be granted by the Department.

PERMIT CONDITIONS

The activities described must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to beginning the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings herein. If you are using a contractor, the contractor also should read and understand these conditions and drawings prior to beginning any activity. Failure to comply with these conditions, including any mitigation requirements, shall be grounds for the Department to revoke the permit and authorization and to take appropriate enforcement action. Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit, as described.

SPECIFIC CONDITIONS

1. Submittals required herein (e.g., progress reports, as-built drawings, etc.) shall include the permittee's name and permit number 41-0328524-004-EI and shall be directed by e-mail to SW_ERP@dep.state.fl.us with a subject line of "Compliance: permit number 41-0328524-004-EI", or by mail to:

Department of Environmental Protection
Southwest District
ATTN: ERP Compliance Assurance
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

2. The work authorized by this permit shall not be conducted on any property, other than that owned by the permittee, without the prior written approval of that property owner.
3. In the event the permittee files for bankruptcy prior to completion of work permitted and required by this permit, the permittee must notify the Department within 30 days of filing.

The notification shall identify the bankruptcy court and case number and shall include a copy of the bankruptcy petition.

SPECIFIC CONDITIONS - PRIOR TO ANY CONSTRUCTION

4. The terms, conditions, and provisions of the required public easement shall be met. Construction of this activity shall not commence on sovereign submerged lands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all required public easement (BOT No: 410240413) have been executed to the satisfaction of the Department.
5. Best management practices for erosion control shall be implemented prior to construction commencement and shall be maintained at all times during construction to prevent siltation and turbid discharges in excess of the ambient turbidity levels of the surrounding Outstanding Florida Waters. Methods may include, but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, staged construction and the installation of turbidity screens around the immediate project site. Erosion control methods shall be implemented as depicted in Sheet 31 of 32 of the attached permit drawings.

SPECIFIC CONDITIONS – CONSTRUCTION ACTIVITIES

6. Wetland areas or waterbodies that are outside the specific limits of construction authorized by this permit, must be protected from erosion, sedimentation, siltation, scouring, excess turbidity, and/or dewatering. There shall be no discharge in violation of the water quality standards in Chapter 62-302, F.A.C. Turbidity/erosion controls shall be installed prior to clearing, excavation or placement of fill material, shall be maintained until construction is completed, disturbed areas are stabilized, and turbidity levels have fallen to less than 29 NTU's above background. The turbidity and erosion control devices shall be removed within 14 days once these conditions are met.
7. Areas of exposed soils shall be isolated from wetlands or other surface waters to prevent erosion and deposition of these soils into wetlands or other surface waters during construction and operation of permitted activities.
8. The permittee shall be responsible for ensuring erosion control devices/procedures are inspected and maintained daily during all phases of construction authorized by this permit until areas disturbed during construction are sufficiently stabilized to prevent erosion, siltation, and turbid discharges.
9. Staked filter cloth shall be positioned at the edge of the permitted fill slopes adjacent to wetlands to prevent turbid run-off and erosion.
10. A floating turbidity apron/curtain shall be installed around the waterward boundary of the construction area, in the locations where such barrier is necessary, prior to construction and shall remain in place until construction is complete and turbidity levels within the work area have returned to background levels.

11. The following measures shall be taken immediately by the permittee when turbidity levels within waters of the State surrounding the project site exceed the ambient water quality levels of the Outstanding Florida Waters:

- a. Immediately cease work contributing to the water quality violation.
- b. Stabilize exposed soils contributing to the violation. Modify the work procedures responsible for the violation, install additional turbidity containment devices and repair non-functioning turbidity containment devices.
- c. Notify the Department within 24 hours of the time the violation is first detected.

12. Monitoring for turbidity shall be conducted for the duration of the project. Sampling will commence prior to initiation of any dredging or filling activities. Samples shall be taken every 4 hours during dredging construction activities as described below.

Background samples shall be collected at a minimum of two locations for the dredging activities. These samples as well as the compliance samples shall be collected at surface, mid-depth, and one-foot above bottom. Mid-depth samples are sufficient in water that is less than five feet deep. The two background sites will be marked by temporary buoys and shall be maintained for the duration of the sampling program; these sites shall not be changed without specific written authorization by the Department.

Samples shall be collected with a Kemmerer, Van Dorn or a similar sampler that is designed to collect in situ water samples. Samples shall be analyzed immediately after collection with a turbidimeter that produces results in Nephelometric measurements. The field sample results shall be accurately recorded to the precision capabilities (decimal place) of the instrument. Field turbidimeter results shall be rounded to the next whole number (ex. 15.23 NTUs shall be recorded; however the results shall be interpreted as 16.00 NTUs).

13. A minimum of two sampling locations shall be established within the dredge area. The first site shall be located at the construction limits within three meters of the required turbidity curtains within the most visible portion of the plume down-current of the turbidity source. This site will be used to collect the compliance samples (CS); a second compliance sample site shall be located at the construction limits within three meters of the required turbidity curtains, up current from the turbidity source so that samples may be collected during each tidal cycle.
14. The permittee shall comply with the following Quality Assurance/ Quality Control (QA/QC) requirements:
 - a. The instrument shall be calibrated each morning and each time the instrument is turned on, and recalibrated every four hours thereafter.

- b. Calibrations shall be performed against a blank, and at least one formazin or gel-type standard. The standard value shall be in the same range as the sample readings.
 - c. Calibration procedures shall be recorded in a permanent QA/QC logbook, and copies shall be submitted with the data.
15. Turbidity monitoring reports shall be submitted to the Department each Monday following project commencement. The reports shall include the permittee's name and permit number, and a cover page that states: "This information is being provided in partial fulfillment of the monitoring requirements in Permit No. 41-0328524-004-EI." Failure to submit reports in a timely manner shall constitute a violation of the permit and shall be grounds for revocation.

Monitoring data shall contain the following information:

- a. Permit number
- b. Dates of sampling and analysis
- c. A statement describing the methods used in collection and analysis of the samples
- d. A map showing the sampling locations, along with the latitude and longitude of the sampling locations
- e. Copies of the QA/QC log, and
- f. A statement by the individual responsible for implementation of the sampling program certifying the authenticity, precision and accuracy of the data

Monitoring reports shall also include the following information for each sample that is taken:

- a. Time of day samples were taken
 - b. Depth of water body
 - c. Depth of sample
 - d. Tidal stage and direction of flow, and
 - e. Antecedent weather conditions, including wind direction and velocity at the time the sample was taken.
16. Dredging shall be limited to day light; no dredging or dewatering activities are authorized to be conducted at night.

17. The dredged material shall be placed in a self-contained, upland site, which will prevent the escape of dredged material and associated effluent into wetlands and surface waters.
18. All dredged materials removed from State-owned submerged lands shall be used in the construction of this project, or for other public projects, or taken to a landfill for disposal, pursuant to Paragraph 18-21.011(3)(c), F.A.C.
19. Areas to be dredged shall be in accordance with the attached permit drawings and shall not exceed the areas and depths indicated on those drawings. The dewatering/staging area shall be constructed in a manner which shall prevent the escape of dredged material and associated effluent into wetlands and surface waters. Discharge of water or dredged material to waters of the State shall not be allowed during transport.
20. Watercraft associated with the construction of the permitted activities shall operate within waters of sufficient depth to preclude bottom scouring/ prop dredging. There shall be a minimum 12-inch clearance between the deepest draft of the vessel (with the motor in the down position) and the top of submerged resources as measured at mean low water.
21. This permit does not authorize the installation of water, sewer, cable or utility lines within wetlands or waterbodies.
22. Unauthorized impacts to wetlands or shoreline as a result of the authorized construction shall be reported to the Department within 24 hours.
23. Storage or stockpiling of tools and materials (i.e., lumber, pilings, debris) within wetlands or other surface waters is prohibited.

SPECIFIC MANATEE CONDITIONS

24. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with, and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
25. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate 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.
26. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers shall not impede manatee movement.
27. All on-site project personnel are responsible for observing water-related activities for the presence of manatees. All in-water operations, including vessels, shall be shutdown if a

manatee comes within 50 feet of the operation. Activities shall not resume until every manatee has moved beyond the 50-foot radius of the project operation, or until 30 minutes has elapsed wherein a manatee has not reappeared within 50 feet of the operation. Animals shall not be herded away or harassed into leaving.

28. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida.
29. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used. One sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shutdown of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. Please see the Florida Fish and Wildlife Conservation Commission website for information on how to obtain appropriate signs: http://www.myfwc.com/docs/WildlifeHabitats/Manatee_EducationalSign.pdf

SPECIFIC CONDITIONS- CONSTRUCTION COMPLETION

(The permittee shall comply with the following conditions prior to the transfer to operation phase of the facility. All documentation required below shall be included with the permittee's request to transfer the project to the operation phase [Form No. 62-330.310(2), F.A.C.])

30. The permittee shall submit one set of signed, dated and sealed as-built drawings to the Department via email at SW_ERP@dep.state.fl.us for review and approval within 30 days of completion of construction. (Please contact the Department for files that are too large to email for alternative means of submitting electronically.) The as-built drawings shall be based on the Department permitted construction drawings and any pertinent specific conditions, which should be revised to reflect changes made during construction. Both the original design and constructed elevations must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. Surveyed dimensions and elevations required shall be verified and signed, dated and sealed by a Florida registered professional. *As-builts shall be submitted to the Department regardless of whether or not deviations are present. In addition, the permittee shall submit the "As-Built Certification and Request for Conversion to Operation Phase" form (Ch. 62-330.310(1), F.A.C.); as required in General Condition #6.*

The following information shall be verified on the as-built drawings from the engineering drawings signed and sealed by R. Quince Sellers, P.E. #49374, on November 1, 2016:

Plan View/ Cross Section Name	Drawing Number
Grading and Drainage Plan	11 through 18 of 32

Grading Cross Sections	19 through 22 of 32
Construction Details	29 of 32

SPECIFIC CONDITIONS – SWMS MONITORING/REPORTING REQUIREMENTS

31. The dry detention pond is intended to become dry within 72 hours after a rainfall event. A system that is regularly wet shall not be considered in compliance with this permit and possible modifications to the system may be required.
32. The maintenance of the SWMS shall be in accordance with the attached “Operation & Maintenance Plan”. It is the responsibility of the permittee to ensure that the surface water management system is functioning as designed.
33. The SWMS conveyance pipes shall be maintained and free of blockage. Ponds must be kept free of obstructions or blockage by sediment. Any scouring or erosion at these locations must be repaired.
34. All ditches and swales from the point at which they receive runoff from the project area and through their entire downstream length shall be well maintained and stabilized to ensure that they are not subject to erosion.
35. The permitted SWMS shall only be used for the purpose of controlling surface water runoff from the site, and shall not be used to dispose of or store any solid/liquid waste or products generated or used during operation or construction of the facility.
36. The permittee shall notify the Department of any sinkhole development in the SWMS within 24 hours after discovery, and must submit a detailed sinkhole evaluation and repair plan for approval by the Department within 30 days of discovery.
37. The operation and maintenance entity shall provide for the inspection of the permitted project after conversion of the permit to the operation and maintenance phase. For systems utilizing effluent filtration or exfiltration or systems utilizing effluent filtration or exfiltration and retention or wet detention, the inspections shall be performed 24 months after operation is authorized and every 24 months thereafter.

The operation and maintenance entity must maintain a record of each inspection, including the date of inspection, the name and contact information of the inspector, whether the system was functioning as designed and permitted, and make such record available upon request of the District.

Within 30 days of any failure of a stormwater management system or deviation from the permit, an inspection report shall be submitted using Form 62-330.311(1), “Operation and Maintenance Inspection Certification” describing the remedial actions taken to resolve the failure or deviation.

**SPECIFIC CONDITIONS – MONITORING REQUIREMENTS FOR
MANGROVE/SEAGRASS CREATION AREAS**

38. A "Time Zero" Monitoring Report shall be submitted within 30 days of completion of construction and shall include the following:
- a. Date construction was completed;
 - b. Color photographs to provide an accurate representation of each mangrove and seagrass creation area. The photographs shall be taken from fixed reference points and directions which are shown on a scaled plan view drawing, and
 - c. A table depicting numbers, spacing, percent cover, and sizes (including tree height or blade length) of each species.
39. Subsequent monitoring reports referenced in specific condition 38 of this permit shall be submitted annually for five years.

The Monitoring reports shall include the following for each creation area:

- a. Color photographic prints taken from the reference points established in the Time Zero Monitoring Report.
- b. Detailed description of statistical methods used which must include the following:
 - i. Subsample method and map of sampling locations
 - ii. Method used to determine percent cover and growth
 - iii. Statistical analyses used to determine valid subsample size and to analyze results of sampling
- c. Total percent cover by any planted species.
- d. Plant species composition with estimates of the contribution of each species to percent cover.
- e. Plan view depicting the locations of specimens replanted. (Indicate numbers of each species replanted, if any).
- f. Growth data for tree species. Data shall include measurements of height, diameter, at breast height (dbh) and mean annual growth rate to date.
- g. Data documenting the hydrologic regime (seasonal high and normal pool; ordinary high; or mean high and low water elevations).
- h. Description of the pertinent climatological conditions preceding the monitoring event.

- i. Description of the soil moisture condition in the mitigation area(s), i.e., soil appears dry, saturated with water or with so many inches of standing water.
40. The mangrove and seagrass creation areas shall be deemed successful when the below criteria have been continuously met for a period of at least one (1) year, without intervention in the form of irrigation, removal of undesirable vegetation, or replanting of desirable vegetation.
 - a. Naturally recruited and/or planted wetland species within the 8.8-acre mangrove creation area have become established on at least 2.2-acres of the creation area. Within the approximate 2.2 acres of established mangrove forest area, the mangrove species have achieved greater than 50 percent cover.
 - b. Naturally recruited and/or planted seagrass species within the 6.5-acre seagrass creation area have become established on at least 1.3 acres of the creation area. Within the approximate 1.3 acres of established seagrass area, the seagrass species have achieved at least 50 percent cover.
 - c. Total contribution to percent cover by non-native wetland species and species not listed in 62-340.450, F.A.C. shall be maintained below 5%.
 - d. The Department's State Lands and Environmental Resource Program staff has inspected the mangrove and seagrass creation areas and determined that the project meets the above success criteria.
41. The responsibility to assess if the creation areas are meeting the permit-specified success criteria shall not fall solely on the Department. In the event the permittee becomes aware the project is not meeting the success criteria (based on either site observations or review of monitoring reports), the permittee, no later than six months before the permit construction phase expiration date, shall submit an alternative habitat creation plan to the Department for review and approval.
42. The permittee shall implement the alternative plan no later than 60 days after receiving Department approval.
43. Failure of the Department to notify the permittee of project failure does not prevent the Department from requiring the permittee to meet the success criteria as defined in specific condition No. 40.

GENERAL CONDITIONS FOR INDIVIDUAL PERMITS

The following general conditions are binding on all individual permits issued under chapter 62-330, F.A.C., except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate project-specific conditions.

1. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C. Any deviations that are not so authorized may subject the permittee to enforcement action and revocation of the permit under Chapter 373, F.S.
2. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.
3. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007)*, and the *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008)*, which are both incorporated by reference in subparagraph 62-330.050(9)(b)5., F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.
4. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice," [October 1, 2013], which is incorporated by reference [in](#) paragraph 62-330.350(1)(d), F.A.C., indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5), F.A.C. If available, an Agency website that fulfills this notification requirement may be used in lieu of the form.
5. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.
6. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:
 - a. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex – "Construction Completion and Inspection Certification for Activities Associated With a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or
 - b. For all other activities – "As-Built Certification and Request for Conversion to Operational Phase" [Form 62-330.310(1)].
 - c. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.
7. If the final operation and maintenance entity is a third party:

- a. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.3 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.
 - b. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation Entity" [Form 62-330.310(2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.
8. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.
9. This permit does not:
 - a. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;
 - b. Convey to the permittee or create in the permittee any interest in real property;
 - c. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or
 - d. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.
10. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, 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 of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.
11. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.
12. The permittee shall notify the Agency in writing:
 - a. Immediately if any previously submitted information is discovered to be inaccurate; and
 - b. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.
13. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

14. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any 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, work involving subsurface disturbance in the immediate vicinity of such discoveries shall cease. 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. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S.
15. 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 binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.
16. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.
17. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.
18. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with subsection 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

NOTICE OF RIGHTS

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the hearing process may result in a modification of the agency action or even denial of the application.

Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rule 28-106.201, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, any email address, any facsimile number, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

Mediation

Mediation is not available in this proceeding.

FLAWAC Review

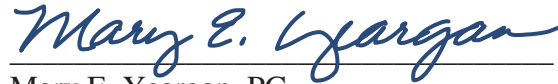
The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must 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.

Executed in Hillsborough County, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



Mary E. Yeargan, PG
Director
Southwest District

Attachments:

Project Drawings and Design Specs., (33 pages)
Construction Commencement Notice 62-330.350(1) (1 page)
As-built Certification and Request for Conversion to Operational Phase/ Form 62-330.310(1) (2 pages)
Request for Transfer to the Perpetual Operation Entity/Form 62-330.310(2) (1 page)
Request to Transfer Permit/Form 62-330.340(1) (2 pages)
Operation and Maintenance Inspection Certification 62-330.311(1) (2 Pages)
O&M Instructions (2 pages)

Copies furnished to:

U.S. Army Corps of Engineers; tampareg@usace.army.mil
Damon Moore, Manatee County Parks & Natural Resources Department, damon.moore@mymanatee.org
R. Quince Sellers, Stantec Consulting Services, Inc., quince.sellers@stantec.com
Michael Burton, Stantec Consulting Services, Inc., mike.burton@stantec.com
Dan J. Bond, Stantec Consulting Services, Inc., dan.bond@stantec.com

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this permit, including all copies, were mailed before the close of business on **December 30, 2016**, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under 120.52(7) of the Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Rhonda Hughes
Clerk

December 30, 2016
Date

AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

Submit this form and one set of as-built engineering drawings to the U.S. Army Corps of Engineers, Enforcement Section, 1520 Royal Palm Square Boulevard, Suite 310, Ft. Myers, Florida, 33919. If you have questions regarding this requirement, please contact the Enforcement Branch at 904-232-3131.

1. Department of the Army Permit Number: SAJ-2014-02406(SP-CMW)

2. Permittee Information:

Name: _____

Address: _____

3. Project Site Identification (physical location/address):

4. As-Built Certification: I hereby certify that the authorized work, including any mitigation required by Special Conditions to the permit, has been accomplished in accordance with the Department of the Army permit with any deviations noted below. This determination is based upon on-site observation, scheduled, and conducted by me or by a project representative under my direct supervision. I have enclosed one set of as-built engineering drawings.

Signature of Engineer

Name (*Please type*)

(FL, PR, or VI) Reg. Number

Company Name

City

State

ZIP

(Affix Seal)

Date

Telephone Number

Date Work Started:_____ Date Work Completed:_____

Identify any deviations from the approved permit drawings and/or special conditions (attach additional pages if necessary):

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK 2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species 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 area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

CAUTION: MANATEE HABITAT

All project vessels

IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must

SHUT DOWN

Report any collision with or injury to a manatee:



Wildlife Alert:

1-888-404-FWCC(3922)

cell *FWC or #FWC



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, FL 33701

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc



STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE
U.S. Fish and Wildlife Service
August 12, 2013

The eastern indigo snake protection/education plan (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida for use by applicants and their construction personnel. At least **30 days prior** to any clearing/land alteration activities, the applicant shall notify the appropriate USFWS Field Office via e-mail that the Plan will be implemented as described below (North Florida Field Office: jaxregs@fws.gov; South Florida Field Office: verobeach@fws.gov; Panama City Field Office: panamacity@fws.gov). As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the attached poster and brochure), no further written confirmation or “approval” from the USFWS is needed and the applicant may move forward with the project.

If the applicant decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or “approval” from the USFWS that the plan is adequate must be obtained. At least 30 days prior to any clearing/land alteration activities, the applicant shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

The Plan materials should consist of: 1) a combination of posters and pamphlets (see **Poster Information** section below); and 2) verbal educational instructions to construction personnel by supervisory or management personnel before any clearing/land alteration activities are initiated (see **Pre-Construction Activities** and **During Construction Activities** sections below).

POSTER INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (a final poster for Plan compliance, to be printed on 11” x 17” or larger paper and laminated, is attached):

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands

and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTION UNDER FEDERAL AND STATE LAW: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the live eastern indigo snake sufficient time to move away from the site without interference;
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant’s designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

Telephone numbers of USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336

Panama City Field Office – (850) 769-0552

South Florida Field Office – (772) 562-3909

PRE-CONSTRUCTION ACTIVITIES

1. The applicant or designated agent will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. A sample poster is attached.
2. Prior to the onset of construction activities, the applicant/designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office (a final brochure for Plan compliance, to be printed double-sided on 8.5" x 11" paper and then properly folded, is attached). Photos of eastern indigo snakes may be accessed on USFWS and/or FWC websites.
3. Construction staff will be informed that in the event that an eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Field Office. The contact information for the USFWS is provided on the referenced posters and brochures.

DURING CONSTRUCTION ACTIVITIES

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant's designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.

POST CONSTRUCTION ACTIVITIES

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion. The report can be sent electronically to the appropriate USFWS e-mail address listed on page one of this Plan.



ATTENTION:

THREATENED EASTERN INDIGO SNAKES MAY BE PRESENT ON THIS SITE!!!

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site without interference.
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate U.S. Fish and Wildlife Service (USFWS) office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

USFWS Florida Field Offices to be contacted if a live or dead eastern indigo snake is encountered:

North Florida Field Office – (904) 731-3336

Panama City Field Office – (850) 769-0552

South Florida Field Office – (772) 562-3909

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

DESCRIPTION:	The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.
SIMILAR SNAKES:	The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.
LIFE HISTORY:	The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.
PROTECTION:	The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. "Taking" of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. "Take" is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

**IF YOU SEE A LIVE EASTERN
INDIGO SNAKE ON THE SITE:**

- Cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site without interference.
- Personnel must NOT attempt to touch or handle snake due to protected status.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor or the applicant's designated agent, **and** the appropriate U.S. Fish and Wildlife Service (USFWS) office, with the location information and condition of the snake.
- If the snake is located in a vicinity where continuation of the clearing or construction activities will cause harm to the snake, the activities must halt until such time that a representative of the USFWS returns the call (within one day) with further guidance as to when activities may resume.

**IF YOU SEE A DEAD EASTERN
INDIGO SNAKE ON THE SITE:**

- Cease clearing activities and immediately notify supervisor or the applicant's designated agent, **and** the appropriate USFWS office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

**USFWS Florida Field Offices to be
contacted if a live or dead eastern indigo
snake is encountered:**

North Florida ES Office – (904) 731-3336
Panama City ES Office – (850) 769-0552
South Florida ES Office – (772) 562-3909

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, with individuals often reaching up to 8 feet in length. They derive their name from the glossy, blue-black color of their scales above and uniformly slate blue below. Frequently, they have orange to coral reddish coloration in the throat area, yet some specimens have been reported to only have cream coloration on the throat. These snakes are not typically aggressive and will attempt to crawl away when disturbed. Though indigo snakes rarely bite, they should NOT be handled.

SIMILAR SNAKES: The black racer is the only other solid black snake resembling the eastern indigo snake. However, black racers have a white or cream chin, thinner bodies, and WILL BITE if handled.

LIFE HISTORY: The eastern indigo snake occurs in a wide variety of terrestrial habitat types throughout Florida. Although they have a preference for uplands, they also utilize some wetlands and agricultural areas. Eastern indigo snakes will often seek shelter inside gopher tortoise burrows and other below- and above-ground refugia, such as other animal burrows, stumps, roots, and debris piles. Females may lay from 4 - 12 white eggs as early as April through June, with young hatching in late July through October.

Killing, harming, or harassing indigo snakes is strictly prohibited and punishable under State and Federal Law.

Only individuals currently authorized through an issued Incidental Take Statement in association with a USFWS Biological Opinion, or by a Section 10(a)(1)(A) permit issued by the USFWS, to handle an eastern indigo snake are allowed to do so.

LEGAL STATUS: The eastern indigo snake is classified as a Threatened species by both the USFWS and the Florida Fish and Wildlife Conservation Commission. “Taking” of eastern indigo snakes is prohibited by the Endangered Species Act without a permit. “Take” is defined by the USFWS as an attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage in any such conduct. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses, if convicted.



August 12, 2013

ATTENTION:
THREATENED EASTERN INDIGO
SNAKES MAY BE PRESENT ON
THIS SITE!!!



Please read the following information provided by the U.S. Fish and Wildlife Service to become familiar with standard protection measures for the eastern indigo snake.

**Robinson Preserve
Expansion-Ph II-B
Restoration**

SAJ-2014-02406(SP-CMW)

**Mitigation Plan including
USACE 12 Components of a
Mitigation Plan**



Prepared for:
**Manatee County Parks and Natural
Resources Department
5502 33rd Avenue Drive West
Bradenton, FL 34209**

Prepared by:
**Stantec Consulting Services Inc.
6900 Professional Parkway East
Sarasota, FL 34240
941.907.6900**

215510519

**October 3, 2016
Rev# 1 - March 27, 2017**

Table of Contents

1.0	INTRODUCTION	1.1
2.0	OBJECTIVES	2.2
3.0	SITE SELECTION	3.3
4.0	SITE PROTECTION INSTRUMENT	4.4
5.0	BASELINE INFORMATION	5.4
6.0	DETERMINATION OF CREDITS.....	6.5
7.0	MITIGATION WORK PLAN.....	7.5
7.1	SEAGRASS HABITAT CREATION	7.5
7.2	MANGROVE FOREST CREATION.....	7.7
8.0	MAINTENANCE PLAN	8.8
9.0	PERFORMANCE STANDARDS (SUCCESS CRITERIA)	9.8
10.0	MONITORING REQUIREMENTS	10.9
10.1	SEAGRASS HABITAT CREATION	10.10
10.2	MANGROVE FOREST CREATION.....	10.11
10.3	MONITORING RESULTS REPORTING	10.12
11.0	LONG TERM MANAGEMENT PLAN.....	11.13
12.0	ADAPTIVE MANAGEMENT PLAN	12.14
13.0	FINANCIAL ASSURANCES	13.15

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Introduction

October 3, 2016/Rev #1- March 27, 2017

1.0 INTRODUCTION

The proposed project, Robinson Preserve Expansion – Phase II-B Restoration, is an expansion and continuation of ecological restoration activities associated with work done in “Phase II completed in late 2016. Phase II received an Environmental Resource Permit (#41-0328524-001) from the Florida Department of Environmental Protection (FDEP) on September 19, 2014. The USACE received a copy of this permit and assigned it application number SAJ-2014-02406-JPF.

The Phase II project was designed and implemented to specifically avoid impacts to all surface waters and wetlands that are USACE-jurisdictional “waters of the U.S.”. This was necessary to facilitate a construction start deadline required by grant funding. Phase II work consisted of earthmoving for future ecological creation/restoration activities and passive recreation improvements. Phase II earthmoving consisted of re-contouring future upland habitat restoration areas and creation of 66 acres of water features from low ecological value uplands and two isolated and excavated farm ponds. Phase II passive recreation features consisted of constructing drives, trails, canoe/kayak launches, and wooden bridges over newly created water features.

The Phase II-B project proposes to connect the large water feature (basin) recently created in Phase II of the project (detailed above) to the tidal waters through the excavation of a flushing cut between the existing tidal canal (previously constructed as part of the original Robinson Preserve restoration; Permit No. SAJ-2004-213(IP-MLS)) and the newly created basin.

Based on the results of tidal exchange modeling of the proposed project design, the existing narrow channel leading from the tidal backwater channel to Palma Sola Bay will be widened and deepened to allow sufficient tidal exchange without causing harmful erosion and shoaling within Palma Sola Bay. In addition, estuarine habitat features (e.g. mangrove islands and oyster bars) will be constructed within the newly connected waterbodies constructed in Phase II. Internal waterbody connections will be established to provide a mosaic of habitats that specifically benefit juvenile fish.

The proposed project includes the restoration and creation of the following habitats: approximately 58 acres of uplands; approximately 10 acres of landscaping and passive recreation that includes native groundcover areas with native trees; approximately 25 acres of wetlands including freshwater marsh, saltmarsh, and mangrove; approximately 42 acres of open water including open estuarine waters, freshwater pond, and tidal flats; and approximately 2 acres of oyster bar. The oyster bars and mangrove islands were created within the excavated tidal basin by grading the former upland areas to appropriate elevations to support each of those habitat types. Planting of marsh cordgrass will follow which, through succession, will become mangrove forest. Cultch material (fossilized shell)) has been placed to provide suitable substrate for colonization by oysters.

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

objectives

October 3, 2016/Rev #1- March 27, 2017

Construction of the project will include channel dredging using a barge-mounted mechanical dredge (i.e. clamshell and/or bucket) to remove approximately 70,132 square feet (11,203 cubic yards) of material from 1 to 8 feet deep. Dredged material will be placed onsite within upland areas.

The proposed work will result in impacts to approximately 2.22 acres of jurisdictional waters, 0.32 acres of seagrass habitat, and 0.45 acres of mangrove wetlands. To compensate for these unavoidable impacts the project will create no less than 0.64 acre of submerged aquatic vegetation (SAV) and 0.90 acre of mangrove wetlands.

The following plan outlines the specific details for the creation of the SAV and mangrove compensatory areas including objectives, site selection, mitigation credit determination and mitigation work plan and addresses the *12 Components of a Mitigation Plan* as required in 33 CFR 332.4(c)(2)-(14)/ 40 CFR 230.94(c)(2)-(14).

This March 24, 2017 revised version of the plan incorporates changes based on comments received via email from Mark Sramek (NOAA NMFS – Fishery Management Specialist) on December 20, 2016 and February 9, 2017. On behalf of Manatee County, Stantec and ICON Consultant Group provided responses on January 26, 2017 and February 13, 2017 to address Mark Sramek's comments. Notification via email was received by Stantec from USACE on February 24, 2017 indicating that Mark Sramek's concerns had been adequately addressed. To provide accurate documentation, resulting from the referenced comment-response exchange, this plan has been updated to reflect those changes.

2.0 OBJECTIVES

The objective of this mitigation plan is to provide compensatory mitigation for submerged aquatic vegetation (i.e. seagrass) and mangrove forest impacts that are proposed as part of the Robinson Preserve Expansion Restoration Project Phase II-B. Specifically, the compensatory mitigation proposed herein is in addition to the extensive habitat creation and restoration activities that are the core focus of the Robinson Preserve Expansion Restoration Project and is proposed to satisfy the Essential Fish Habitat (EFH) Conservation Recommendations provided by the NMFS-HCD in accordance with the requirements of Section 305(B)(4)(A) of the Magnuson-Stevens Act.

To offset the proposed 0.32-acre impact to *Halodule wrightii* dominated seagrass habitat expected to result from the Palma Sola Bay channel dredge, the Permittee proposes to create 0.64 acre of *Halodule wrightii* dominated seagrass habitat within the proposed tidal basin proposed for construction as part of the project.

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Site Selection

October 3, 2016/Rev #1- March 27, 2017

To offset the proposed 0.45-acre impact to mangrove forest habitat along the Palma Sola Bay channel dredge, the Permittee proposes to create 0.90 acre of mangrove forest along the shoreline of the proposed tidal basin.

The seagrass and mangrove mitigation areas will be tidally connected to the waters that currently support the impacted seagrass and mangroves. Therefore, the mitigation areas are not only located within the same watershed basin, but in close enough proximity (approximately 1 mile) that habitat functions and benefits provided by the mitigation areas are expected to extend to the vicinity of the impact areas.

Habitat functions provided by the seagrass mitigation area will be very similar to the functions provided by the impacted seagrass. The seagrass in the proposed area of impact provides nursery habitat adjacent to the deeper waters of Palma Sola Bay and water quality benefits by providing nutrient uptake from waters flowing into Palma Sola Bay. Similarly, the mitigation area seagrass will provide nursery habitat adjacent to the deeper waters of the created tidal lagoon and will provide water quality benefits by providing nutrient uptake to waters flowing from the tidal lagoon to Palma Sola Bay.

Likewise, the mangrove mitigation areas will provide nursery habitat, shoreline stabilization, and bird roosting habitat similar to the proposed area of mangrove impact.

3.0 SITE SELECTION

Seagrass and mangroves are a part of the targeted habitats to be created as part of this Robinson Preserve Expansion Restoration Project. By selecting a mitigation site within the limits of the overall restoration project, habitat functions will continue to be provided within waters tidally connected to the impact area and the creation of these habitats will be consistent with the project goal of ecosystem restoration. Long-term protection is provided within the preserve, and therefore, onsite creation is the most economically viable option.

On a smaller scale, the specific mitigation areas were selected based on multiple criteria. The seagrass mitigation area was selected based on the proposed elevations, optimal tidal flushing, potential for natural recruitment, potential for upstream migration following establishment, and stability of sediment based on modeling results.

The mangrove mitigation areas were selected based on proposed elevations, potential for propagule/seed accumulation, and protection from human incursion.

4.0 SITE PROTECTION INSTRUMENT

The Robinson Preserve Expansion Property was purchased by the Conservation Foundation of the Gulf Coast, Inc. in 2012 and subsequently donated to Manatee County. To ensure perpetual protection of the Robinson Preserve Expansion Property as preservation lands, Manatee County granted a deed of conservation easement over the expansion property to the Conservation Foundation of the Gulf Coast, Inc. on December 27, 2012. This conservation easement provides perpetual protection of the site, including the subject seagrass and mangrove mitigation areas.

5.0 BASELINE INFORMATION

The seagrass impact site is located in the vicinity of an existing narrow canal connection to Palma Sola Bay. The canal was created to providing flooding relief for adjacent upstream properties that were used for agriculture. The canal flows into Palma Sola Bay and has created a meandering channel that is devoid of seagrass with higher elevations adjacent to the channel that are colonized by sparse to dense *Halodule wrightii* cover. A seagrass survey was conducted by Damon Moore (Manatee County) and Ryan Horstman (Project Ecologist – ICON Consultant Group) on September 17, 2015 at the impact site. The survey results determined that the average percent cover by seagrass within the vegetated portions of the impact area was estimated at 60 percent. Two one-meter quadrats were sampled within the impact area and recorded percent cover values were 36 percent and 84 percent. In addition, visual cover estimates within the impact area were identified as approximately 60 percent with seagrass cover ranging from sparse (20 percent) to dense (80 percent) throughout the impact area. Small areas of intermixed *Thalassia testudinum* were observed within the impact area. Seagrass habitat located north and south of the impact areas and existing flow channel have higher percent cover of seagrass with larger areas dominated by *T. testudinum*. Cover outside of the impact area and existing flow channel ranged from 60% cover by *H. wrightii* to 100% cover by *H. wrightii* and 7% cover by *T. testudinum*. It is likely that the unstable sediments in the vicinity of the flow channel adversely affect seagrass recruitment and establishment within the impact area.

The mangrove impact area consists of three separate areas located on the north side of the existing canal, the south side of the existing canal, and on a linear dredge spoil island adjacent to the canal. Both the north and south impact areas include black mangroves with red mangroves occurring near the channel. Pockets of Australian pine occur on spoil mounds within the mangrove forest.

Baseline conditions for the mitigation areas are most accurately described as fallow farmland dominated by nuisance/invasive species. Construction is currently underway to excavate a freshwater basin from the farmland, which will be tidally connected as part of this Phase II-B

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Determination of Credits

October 3, 2016/Rev #1- March 27, 2017

project. The seagrass and mangrove mitigation areas will be established within the created tidal basin. The location of the impact and mitigation sites are shown on the Permit Plans.

6.0 DETERMINATION OF CREDITS

The quantity of mitigation provided to compensate for the proposed impacts is based on the 2:1 (mitigation:impact) ratio recommended by NMFS-HCD in the May 18, 2016 letter provided to USACE from NMFS-HCD. Utilizing the 2:1 ratio, a 0.64-acre seagrass mitigation area and a 0.90-acre mangrove mitigation area will be established. The 2:1 ratio will sufficiently address the loss of habitat service from the time of impact through successful establishment and maturity of the mitigation sites to a point where the mitigation sites are providing equal or greater habitat services than the proposed impact area at the time of the impact.

The seagrass and mangrove mitigation sites will be established through planting of seagrass planting units and mangrove plants/propagules, respectively. The planting of the mitigation sites will reduce both the time it takes for habitat services to be compensated and the potential risk of delayed establishment using natural recruitment.

7.0 MITIGATION WORK PLAN

The seagrass and mangrove mitigation areas will be established as shown on Sheets 12, 15, 16 and 20 of the revised Permit Drawings. The mitigation areas will be constructed and established as part of the Phase II-B construction, which includes the construction activities resulting in the proposed impacts.

All mitigation work will be subject to observation and oversight by qualified staff of Manatee County Parks and Natural Resources and their designated consultants. Unlike typical construction projects, seagrass and mangrove mitigation construction needs to be a flexible process coordinated by individuals experienced in mitigation construction and management.

The general work plan for each mitigation area is described below in Sections 7.1 and 7.2.

7.1 SEAGRASS HABITAT CREATION

The seagrass habitat creation area will include one contiguous 0.64-acre area on the southern end of the excavated lagoon, approximately 300 feet from the excavated connection to the previously constructed Perico Preserve channel that is connected to Palma Sola Bay to the south and Tampa Bay to the north.

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Mitigation Work Plan

October 3, 2016/Rev #1- March 27, 2017

Most of the grading of the seagrass mitigation area has been recently completed as part of the on-going Phase II construction. The area has been graded to -1.1 feet NGVD29, which will provide seagrass habitat elevations similar to those at the Palma Sola Bay impact area and within neighboring seagrass beds in Perico Bayou to the west. This elevation is also consistent with estimated elevations of naturally-recruited seagrass habitat within the previously created habitats of original Robinson Preserve to the north. As part of the Phase II-B construction, the remainder of the seagrass mitigation area will be graded to -1.1 feet NGVD29. During the final grading of the seagrass mitigation area, depth variation will be created from the -1.1-foot elevation up to -0.5-foot elevation.

The timing of seagrass planting will be contingent upon completion of the channel dredging (seagrass impact), sufficient acclimation time for the excavated basin, and seasonal constraints associated with seagrass planting. The seagrass mitigation area will be fully prepared for planting at the same time when the seagrass impact is completed. However, to ensure that appropriate water chemistry and sediment characteristics (i.e. stability) are present at the time of seagrass planting it is anticipated that seagrass planting will occur within six months to one year following completion of project grading and tidal hydrology establishment. Sediment condition will be monitored following construction to ensure that the sediments have sufficiently settled and are stable enough for installed seagrass planting units to root and grow. The seagrass planting activities will be completed during the early part of the seagrass growing season (May – June) to take advantage of the most productive growth period.

Seagrass transplanting will involve the use of the “modified shovel method” to harvest approximately 9-inch by 11-inch *Halodule wrightii* donor units from donor beds for transplanting into the seagrass mitigation (recipient) area. Only *H. wrightii* will be harvested for transplanting. The seagrass donor units will be harvested from the donor site and planted in the recipient site on 5-foot centers along transects spaced 5 feet apart. A minimum of 1,116 planting units will be harvested and planted within the 0.64-acre seagrass mitigation site. The donor and recipient site transects will be located with sub-meter DGPS units for use during subsequent monitoring activities.

Seagrass planting units will be maintained moist and protected from desiccation during the transplanting process. All planting units will be installed the same day that they are harvested. Installation will be completed using the same 9-inch by 11-inch shovel that is used to harvest the seagrass units.

Multiple options for seagrass donor material are available. The specific seagrass donor area(s) will be delineated and provided to the USACE and NMFS-HCD for review and approval prior to commencement of seagrass transplanting activities. In addition, all required state permits/authorizations for the donor area(s) will be obtained prior to commencement of transplanting. Seagrass donor material will be harvested from healthy, dense *H. wrightii* dominated seagrass beds in Perico Bayou or Palma Sola Bay adjacent to the impact site. If possible, the donor area(s) will be located on submerged land owned by Manatee County to eliminate the need for

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Mitigation Work Plan

October 3, 2016/Rev #1- March 27, 2017

state approval for use of state-owned sovereign submerged land. All seagrass donor material will only be harvested from areas with a minimum Braun-Blanquet (BB) cover-abundance of "4" (see Table 1 below).

Table 1. Braun-Blanquet Abundance Scores.

Score	Cover
0	Taxa absent from quadrat
0.1	Taxa represented by a solitary shoot, <5% cover
0.5	Taxa represented by a few (<5) shoots, <5% cover
1	Taxa represented by many (>5) shoots, <5% cover
2	Taxa represented by many (>5) shoots, 5 - 25% cover
3	Taxa represented by many (>5) shoots, 25 - 50% cover
4	Taxa represented by many (>5) shoots, 50 - 75% cover
5	Taxa represented by many (>5) shoots, 75 - 100% cover

7.2 MANGROVE FOREST CREATION

The mangrove forest creation area(s) will be established along the shoreline of the constructed tidal lagoon. The design includes a linear mangrove forest similar to the mangrove forests observed along the shoreline of Perico Bayou, Palma Sola Bay, and within the created tidal waterbodies of the original Robinson Preserve. Extensive mangrove recruitment is anticipated, but the installation of mangrove plants and propagules will be conducted to reduce the time period between the loss of mangrove habitat services and the establishment of compensatory mangrove habitat services.

The grading of the mangrove mitigation areas has been recently completed as part of the on-going Phase II construction. The gentle slopes will allow a wide band of mangrove forest to be created with zonation ranging from red mangroves at the deeper edge to black and white mangroves further upslope. The lower red mangrove elevation will be approximately 0.0 feet NGVD29 and the upper white mangrove elevation will be approximately 2.5 feet NGVD29, landward of mean high water (1.28' NGVD29).

The timing of mangrove planting will be contingent on completion of the channel dredging (mangrove impact), seasonal constraints on propagule availability, and avoidance of potential freezing temperatures during and immediately following planting.

Mangrove planting will include the installation of a combination of container-grown material, including liner (2 inch and 4 inch), and wild-harvested red mangrove propagules. Containerized material will be installed on 5-foot centers throughout the mangrove mitigation area(s) and red

SAJ-2014-02406(SP-CMW)

Maintenance Plan

October 3, 2016/Rev #1- March 27, 2017

mangrove propagules will be interspersed on 3-foot centers in the area(s) waterward of mean high water (1.28' NGVD29).

8.0 MAINTENANCE PLAN

The seagrass mitigation area should require minimal maintenance since invasive plant species are not a concern for seagrass mitigation. Proposed maintenance during the seagrass mitigation area establishment (Time Zero to ± 5 years) phase may include repair and replanting of areas that experience erosion or damage from human incursion. Repair and replanting will only be accomplished if the extent or severity of the damage is anticipated to affect long-term establishment of the seagrass habitat. In addition, the use of herbivory exclusion devices will be evaluated and implemented if wildlife herbivory is observed to the extent and severity that long-term establishment of seagrass habitat would be affected.

The mangrove mitigation areas will be maintained to encourage the growth of mangroves and development of the mangrove forest. Maintenance of the mangrove mitigation area will include quarterly herbicide treatment or hand removal of nuisance/invasive species during the first year post-planting, semi-annual herbicide treatment or hand removal of nuisance/invasive species during years two through five post-planting, and annual herbicide treatment or hand removal of nuisance/invasive species beyond five years post-planting (as required).

In addition, any damage from human incursion to the extent and severity that long-term establishment would be affected will be repaired through the planting of additional mangroves in the damaged areas.

It should be noted that the seagrass and mangrove mitigation areas will be located within the limits of a larger ecosystem restoration project that will be undergoing long-term management activities.

9.0 PERFORMANCE STANDARDS (SUCCESS CRITERIA)

Performance standards (success criteria) have been established for the seagrass mitigation area and the mangrove mitigation area(s). These performance standards are focused on determining whether the mitigation areas are on a positive trend to mature into the intended habitats that will sufficiently offset the habitat that is lost, as a result of the proposed impacts. The purpose of the performance standards is not intended to determine whether the habitat has attained maturity. The mitigation areas will be considered successful at the time the success criteria are met. The success criteria must be met within 5 years following completion of mitigation implementation or the Permittee will propose a remedial action plan detailing activities to be implemented to meet the success criteria.

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Monitoring Requirements

October 3, 2016/Rev #1- March 27, 2017

Seagrass Habitat Creation

1. The seagrass mitigation area can reasonably be classified as E2AB3 (Estuarine-Intertidal-Aquatic Bed-Rooted Vascular) habitat based on the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, et. Al. 1979).
2. A minimum of 60 percent cover by persistent seagrass species (e.g. *Halodule wrightii*, *Thalassia testudinum*, or *Syringodium filiforme*) based on annual monitoring results.
3. Documented recovery of seagrass donor areas demonstrating that individual harvest sites are not visible and no visible grid pattern of seagrass loss is evident.

Mangrove Forest Creation

1. The mangrove forest creation areas meet the definition of a wetland in accordance with the USACE 1987 Wetland Delineation Manual and the Final Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region and can reasonably be classified as E2SS3 (Estuarine-Intertidal-Scrub-Shrub-Broad-Leaved Evergreen) habitat based on the *Classification of Wetlands and Deepwater Habitats of the United States*.
2. Estimated areal percent cover by mangrove species for the mitigation area is 50 percent or greater.
3. A positive annual growth rate is documented.
4. Cover by nuisance and invasive species is less than 10 percent throughout the mitigation area.

10.0 MONITORING REQUIREMENTS

A separate monitoring program will be implemented for the seagrass habitat creation area and mangrove forest creation area(s) immediately upon completion of construction and planting (Time Zero). The standard monitoring requirements for the USACE are integrated into the monitoring plan and are listed below. However, Item C. has been revised to reflect annual monitoring for all five years since semi-annual monitoring of seagrass and mangrove habitat mitigation does not provide valuable information relative to progression to the success criteria.

- a. Perform a Time Zero monitoring event of the mitigation area(s) within 60 days of completion of the compensatory mitigation construction and implementation activities.
- b. Submit the Time Zero report to the USACE within 30 days of completion of the monitoring event. The report will include at least one paragraph depicting baseline conditions of the mitigation site(s) prior to initiation of the compensatory mitigation objectives and a detailed plan view drawing of all created, enhanced and/or restored mitigation areas.
- c. Subsequent to the completion of the compensatory mitigation objectives, perform annual monitoring of the mitigation areas for no less than 5 years of monitoring.
- d. Submit annual monitoring reports to the USACE within 30 days of completion of the monitoring event.
- e. Monitor the mitigation area(s) and submit annual monitoring reports to the USACE until released.

The specific monitoring requirements for the mitigation areas are detailed below.

10.1 SEAGRASS HABITAT CREATION

Annual monitoring will be completed between June 1 and September 30 to coincide with the seagrass growing season. Monitoring events will be scheduled to occur during the same, two-month time period each year for consistency. Monitoring events will be extended beyond Year 5 if the performance standards (success criteria) have not been achieved.

A Time Zero monitoring event will be conducted and a Time Zero report will be prepared following construction and transplanting. The Time Zero report will document the post-construction conditions including as-built grading, number of planting units installed, donor site area boundaries, and representative photographs.

To assess the success of the seagrass mitigation site, a tiered monitoring protocol will be implemented as follows.

Year 1 to Coalescence

1. Utilize a random subset of planting transects as monitoring transects.
2. Randomly select planting units along each transect for monitoring.
3. Monitor each randomly selected planting unit using 0.25 m² (0.5 m x 0.5 m) quadrat divided into 5 cm x 5 cm cells.
4. Note survival (at least 1 live shoot).
5. Count total cells containing seagrass and seagrass per species (if relevant) to document growth.
6. Note observations of fauna, algae, epiphytes, bioturbation, etc.

Once seagrass units have coalesced (i.e. grown together so there is no discernable edge) over approximately 70% of the mitigation area, monitoring will adhere to the following protocol:

Post-Coalescence

1. Select random planting units along a random subset of transects for monitoring.
2. At each randomly selected planting unit, extend a 20 m transect line, 10 m each side, in a randomly selected orientation (sampling design will be mapped in GIS prior to sampling to ensure no transect overlap and to ensure transects fall entirely within the mitigation area).
3. Monitor along each transect at stations 0, 2, 4, 6, 8, 10 (center), 12, 14, 16, 18, and 20 m positions using 1-m² quadrat divided into 10 cm x 10 cm cells.
4. Count total cells containing seagrass and seagrass per species (if relevant).
5. Note observations of fauna, algae, epiphytes, bioturbation, etc.

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Monitoring Requirements

October 3, 2016/Rev #1- March 27, 2017

During each monitoring event, qualitative assessments will be conducted by swimming the area to note and map areas of recruited seagrass outside of planting units and, following coalescence, to note significant areas lacking seagrass cover that are not represented in the quadrat survey.

Donor site monitoring will be conducted annually for three (3) years, or until the bare patches from the harvested planted units are no longer discernable during qualitative monitoring, whichever is sooner. Coordinates will be recorded using sub-meter DGPS for the start and end points of each transect where *H. wrightii* donor planting units are harvested. To document the recovery of the seagrass donor site, the transects where seagrass planting units were harvested will be monitored annually. During each survey, biologists will swim the length of the monitoring transects and assess the condition of each donor location along the transect. The biologists will be specifically looking for locations where the bare patches from the harvested planting units appear to be expanding in size or not reducing in size relative to the original harvest unit size of approximately 9 inches by 11 inches. It is anticipated that the bare patches where the planting units were harvested will fill in quickly through coalescence of surrounding seagrass, but if/when bare patches are observed to expand or not reduce in size, a 0.25 m² (0.5 m x 0.5 m) quadrat divided into 5 cm x 5 cm cells will be used to assess the site. A quadrat cell count will be collected and documented for comparison during the following annual survey.

10.2 MANGROVE FOREST CREATION

Annual monitoring will be completed for five years and will be scheduled to occur during the same, two-month time period each year for consistency. Monitoring events will be extended beyond Year 5 if the performance standards (success criteria) have not been achieved.

A Time Zero monitoring report will be prepared and submitted to USACE for approval within 30 days of the completion of planting activities. The Time Zero report will document the post-construction conditions including as-built grading, installed plant information (e.g. quantity, species, size), observed hydrological conditions, and representative photographs.

The mangrove monitoring will consist of a qualitative assessment and quantitative assessment, as detailed below. The qualitative assessment will include a visual inspection of the entire mitigation area to note general observations of reduced/exceptional mangrove growth, estimated nuisance/invasive species cover, areas of erosion, and fauna utilization.

The quantitative assessment will provide data suitable for estimating areal percent cover by mangroves, areal percent cover by nuisance/exotic species, and annual growth rate. Quantitative monitoring will be conducted using line intercept transects in randomly selected locations within the mangrove mitigation area. Detailed monitoring procedures are as follows:

1. The MHW line will be utilized as a linear baseline through the area and will be stationed in 10-foot sections starting at zero at the southern terminus.

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Monitoring Requirements

October 3, 2016/Rev #1- March 27, 2017

2. Using GIS, a minimum of 15 transects will be generated at random 10-foot stations oriented perpendicular to the baseline.
3. Each monitoring transect will be field located and the start and end points will be marked at the edge of mangrove canopy cover.
4. A measuring tape will be extended between the markers with the zero (0) point on the waterward end of the transect.
5. Starting at zero, the species and height of the nearest mangrove individual to the line will be collected every 0.5 meter. This data will be used to calculate annual growth rate.
6. Starting at zero, continue along the entire transect line noting where any canopy or basal portion of plants cross or touch the line. Record the measurements and species. Where two species cross or touch at the same location, record both species. This data will be used to calculate percent cover for mangroves and nuisance/exotic species.

Representative photographs of each monitoring transect line and the entire mitigation area will be taken.

10.3 MONITORING RESULTS REPORTING

The monitoring report will be provided on letter-size (8.5" x 11") pages and follow the standard USACE report format, which includes:

a. Project Overview:

- (1) Department of the Army Permit Number
- (2) Name and contact information of Permittee and consultant
- (3) Name of party responsible for conducting the monitoring and the date(s) the inspection was conducted
- (4) A brief paragraph describing the purpose of the approved project, acreage and type of aquatic resources impacted, and mitigation acreage and type of aquatic resources authorized to compensate for the aquatic impacts.
- (5) Written description of the location, any identifiable landmarks of the compensatory mitigation project including information to locate the site perimeter(s), and coordinates of the mitigation site (expressed as latitude, longitude, UTM, state plane coordinate system, etc.).
- (6) Dates compensatory mitigation commenced and/or was complete.
- (7) Short statement on whether the performance standards are being met.
- (8) Dates of any recent corrective or maintenance activities conducted since the previous report submission

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Long Term Management Plan

October 3, 2016/Rev #1- March 27, 2017

- (9) The specific recommendations for any additional corrective or remedial actions.
- b. Requirements: List the monitoring requirements and performance standards, as specified in the approved mitigation plan and special conditions of this permit, and evaluate whether the compensatory mitigation project site is successfully achieving the approved performance standards or trending towards success. A table is a recommended option for comparing the performance standards to the conditions and status of the developing mitigation site.
 - c. Summary Data: Summary data should be provided to substantiate the success and/or potential challenges associated with the compensatory mitigation project. Photo documentation may be provided to support the findings and recommendations referenced in the monitoring report and to assist the PM in assessing whether the compensatory mitigation project is meeting applicable performance standards for that monitoring period. Submitted photos should be formatted to print on a standard 8½-inch x 11-inch piece of paper, dated, and clearly labeled with the direction from which the photo was taken. The photo location points should also be identified on the appropriate maps.
 - d. Maps and Plans: Maps shall be provided to show the location of the compensatory mitigation site relative to other landscape features, habitat types, locations of photographic reference points, transects, sampling data points, and/or other features pertinent to the mitigation plan. In addition, the submitted maps and plans should clearly delineate the mitigation site perimeter(s). Each map or diagram should be formatted to print on a standard 8½-inch x 11-inch piece of paper and include a legend and the location of any photos submitted for review. As-built plans may be included.
 - e. Conclusions: A general statement shall be included that describes the conditions of the compensatory mitigation project. If performance standards are not being met, a brief explanation of the difficulties and potential remedial actions proposed by the Permittee or sponsor, including a timetable, shall be provided. The District Commander will ultimately determine if the mitigation site is successful for a given monitoring period.

The monitoring report will summarize the observed habitat conditions during the annual monitoring events. The report will include clear statements regarding the status of the mitigation area relative to the Performance Standards. The report will include recommendations of activities necessary to alleviate adverse conditions or activities that would encourage an increase in wetland quality.

11.0 LONG TERM MANAGEMENT PLAN

Manatee County will be responsible for long-term management of the mitigation areas following determination that the wetland areas have met the permitted Performance Standards (Success Criteria). Upon completion of the Robinson Preserve Expansion Phase II-B construction, a

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Adaptive Management Plan

October 3, 2016/Rev #1- March 27, 2017

management plan will be developed and implemented for all the constructed/restored habitats, including the mitigation areas.

Both the seagrass mitigation area and the mangrove mitigation areas will be self-sustaining habitats that should require minimal management or maintenance. Manatee County's management plan for the mitigation areas should address the following potential activities, conditions, and issues:

- a) Recruitment and establishment of nuisance/invasive/exotic plant species;
- b) Changes in tidal range resulting from channel shoaling; and
- c) Damage from human incursion and activities.

To address these long-term management conditions/issues Manatee County's management plan should include the following activities:

- 1) Inspection and control of nuisance/invasive/exotic plant species;
- 2) Annual inspections of channel conditions;
- 3) Periodic inspection to identify detrimental human incursion; and
- 4) Implementation of measures (e.g. fencing, signage, etc.) to deter detrimental human incursion.

12.0 ADAPTIVE MANAGEMENT PLAN

The adaptive management plan addresses potential conditions that have been either identified as adverse conditions or opportunistic conditions. The goal is to identify these conditions and potential activities that either eliminate adverse conditions or promote opportunistic conditions.

As stated above, the seagrass and mangrove mitigation areas will have minimal potential for adverse conditions given the self-sustaining nature of these habitats and the location of the mitigation areas within Robinson Preserve. Robinson Preserve, including the expansion area, are staffed by full-time Manatee County rangers that continuously monitor and inspect the preserve for adverse conditions. This constant monitoring reduces the potential for adverse conditions to arise and develop into significant issues that could affect the mitigation areas.

The following lists potential adverse conditions and recommendations to address each one:

- Tidal fluctuation changes from channel shoaling
 - Maintenance dredge accumulated sediments to restore flow
 - Install oyster shell bags or similar erosion protection to eliminate shoaling
- Detrimental human incursion
 - Provide signage and barriers to restrict access
 - Conduct habitat repair activities (e.g. re-grading or re-planting)

ROBINSON PRESERVE EXPANSION-PH II-B RESTORATION

SAJ-2014-02406(SP-CMW)

Financial Assurances

October 3, 2016/Rev #1- March 27, 2017

The following lists potential opportunistic conditions that Manatee County could implement to benefit the establishment of the mitigation area:

- Utilize extensive volunteer resources to augment habitats
 - Collect/install mangrove propagules
 - Install native marsh grasses to help trap propagules along the shoreline
- Provide educational signage
 - Install signage educating park users on the importance of seagrass and mangrove habitats
 - Where access restriction is necessary, add information regarding the fragile nature of the habitats.

13.0 FINANCIAL ASSURANCES

The Robinson Preserve Expansion Phase II and Phase II-B projects are being funded by multiple sources, including Manatee County General Funds, SWFWMD Cooperative Funding Grants, and Restore Act grants. Short-term and long-term maintenance and management will be conducted by the Manatee County Parks and Natural Resources Department funded by Manatee County's General Funds.