DEPARTMENT OF THE ARMY
JACKSONVILLE DISTRICT CORPS OF ENGINEERS
10117 PRINCESS PALM AVENUE, SUITE 120
TAMPA, FLORIDA 33610-8302

May 10, 2017

REPLY TO ATTENTION OF

Regulatory Division
West Branch
Tampa Permits Section
SAJ-2011-01840 (NW-CSH)

Southwest Florida Water Management District
Attn: Mark Hammond
7601 US Highway 301 North
Tampa, Florida 33637
Mark.Hammond@watermatters.org

Dear Mr. Hammond:

Your application for a Department of the Army permit received on February 7, 2017, has been assigned number SAJ-2011-01840. A review of the information and drawings provided shows the proposed work is to restore and create wetland and riverine habitat from the previously mined tract of Balm-Boyette Scrub Preserve. The major objectives of the restoration project are to restore and create wetland habitat from the open water pit and soil complex adjacent to Stallion Hammock, restore the western branch of Stallion Hammock (riverine creation), and improve the eastern tributary by re-routing flow through the currently bypassed lower natural wetland strand. The project will improve flow conditions by creating a series of more natural wetlands and connected streams. A forested and marsh wetland mosaic will be created by pushing-in the spoil piles left between the mine pits to create more natural grades. The tributary restoration will restore approximately 1,500-linear-feet of streambed characteristics via an accelerated hydraulic carving process. Work includes, partially filling open mine pits to create more natural wetland systems, specifically, emergent marsh, forested wetlands, and riverine wetlands. The steep slopes will be graded to gradual slopes. The upland communities, which consist of spoil mounds immediately adjacent to the pits, will remain, but will be lowered in elevation as material will be borrowed from these areas to partially fill the pits. A few upland areas will be converted to palustrine and riverine wetlands. The wetland restoration areas will be planted with appropriate vegetation and will be maintained for several years to remove species and allow the desirable vegetation to flourish. Selected plants for the restoration areas are Florida natives, known to perform well in restoration sites, and will include groundcover, shrub, and forested species. Upland buffers will be planted as well. The riverine restoration and connection is designed to restore natural water flows through the western branch, from natural wetlands that lie to the south of the project area, to natural wetlands that lie to the north. The net result will be increased and improved wetland habitat, increase habitat for wading birds and other wildlife, and improved water quality. The natural wetland systems upstream and downstream of the project area will not be disturbed.

The project is located within the Balm-Boyette Scrub Preserve, east of Balm-Boyette Road and north of CR 672, in Section 16, Township 31 South, Range 21 East, Riverview, Hillsborough County, Florida.

Your project, as depicted on the enclosed drawings, is authorized by Nationwide Permit (NWP) Number 27. In addition, project specific conditions have been enclosed. This verification is valid until **March 18, 2022**. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have 12 months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Please access the U.S. Army Corps of Engineers' (Corps) Jacksonville District's Regulatory Internet page to access Internet links to view the Final Nationwide Permits, Federal Register Vol. 82, dated January 6, 2017, specifically pages 1983 to 2008, and the table of Regional Conditions. The Internet page address is:

http://www.saj.usace.army.mil/Missions/Regulatory/SourceBook.aspx

Please be aware this Internet address is case sensitive and should be entered as it appears above. Once there you will need to click on "Nationwide Permits." These files contain the description of the Nationwide Permit authorization, the Nationwide Permit general conditions, and the regional conditions, which apply specifically to this verification for NWP 27. Enclosed is a list of the six General Conditions, which apply to all Department of the Army authorizations. You must comply with all of the special and general conditions and any project specific condition of this authorization or you may be subject to enforcement action. In the event you have not completed construction of your project within the specified time limit, a separate application or re-verification may be required.

The following special conditions are included with this verification:

1. **Reporting Address:** The Permittee shall submit all reports, notifications, documentation and correspondence required by the general and special conditions of this permit to CESAJ-ComplyDocs@usace.army.mil (not to exceed 10 MB). Files over 10MB can be uploaded to our web application at https://safe.amrdec.army.mil/safe. Permittee shall reference this permit number, SAJ-2011-01840-CSH, on all submittals

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

3. **Self-Certification:** Within 60 days of completion of the authorized work or at the expiration of the construction authorization of this permit, whichever occurs first, the Permittee shall complete the attached "Self-Certification Statement of Compliance" form and submit to the Corps. In the event that the completed work deviates, in any manner, from the authorized work, the Permittee shall describe, on the Self-Certification Form, the deviations between the work authorized by the permit and the work as constructed. Please note that the description of any deviations on the Self-Certification Form does not constitute approval of any deviations by the Corps.

4. **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 as an attachment to 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.

5. **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. 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 has been completed and the site has been stabilized.

6. **Fill Material:** The Permittee shall use only clean fill material for this project. The fill material shall be free from items such as trash, debris, automotive parts, asphalt, construction materials, concrete block with exposed reinforcement bars, and soils contaminated with any toxic substance, in toxic amounts in accordance with Section 307 of the Clean Water Act.

7. **Removal of Temporary Fills:** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

8. **Wetland Avoidance Areas:** The Permittee shall avoid the remaining onsite wetlands. These wetland areas were avoided as part of this permit application review process; and, therefore, the remaining wetland areas will not be disturbed by any activities that would degrade the ecological integrity of the site including dredging, filling, land clearing, or other construction work whatsoever except as required or authorized by this permit. The Corps reserves the right to deny review of any requests for future impacts to these avoided wetland areas.

9. **Temporary Wetland Impacts:** Within 30 days from the date of completing the work authorized by this permit, the Permittee shall restore temporary wetland impacts to pre-existing contours, elevations, vegetation, habitat type, and hydrology.

10. **Posting of Permit:** The Permittee shall ensure that all contractors, subcontractors, and entities associated with the implementation of the project review, understand, and comply with the approved plans and special conditions made part of this permit. The Permittee shall inform all parties associated with the activity of the construction area boundaries and the location of adjacent wetlands to be avoided. Complete copies of the permit and approved plans shall be available at the construction site at all times. Failure to comply with the approved plans and permit special conditions may subject the Permittee to enforcement action.

11. **Regulatory Agency Changes:** Should any other regulatory agency require changes to the work authorized or obligated by this permit, the Permittee is advised that a modification to this permit instrument is required prior to initiation of those changes. It is the Permittee's responsibility to request a modification of this permit from the Tampa Regulatory Office.

12. **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 U.S. Army 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.

13. **Cultural Resources/Historic Properties:** No structure or work shall adversely affect impact or disturb properties listed in the *National Register of Historic Places* (NRHP) or those eligible for inclusion in the NRHP. If during the ground disturbing activities and construction work within the permit area, there are archaeological/cultural materials encountered which were not the subject of a previous cultural resources assessment survey (and which shall include, but not be limited to: pottery, modified shell, flora, fauna, human remains, ceramics, stone tools or metal implements, dugout canoes, evidence of structures or any other physical remains that could be associated with Native American cultures or early colonial or American settlement), the Permittee shall immediately stop all work and ground-disturbing activities within a 100-meter diameter of the discovery and notify the Corps within the same business day (8 hours). The Corps shall then notify the Florida State Historic Preservation Officer (SHPO) and the appropriate Tribal Historic Preservation Officer(s) (THPO(s)) to assess the significance of the discovery and devise appropriate actions.

This letter of authorization does not obviate the necessity to obtain any other Federal, State, or local permits, which may be required. Prior to the initiation of any construction, projects qualifying for this Nationwide permit must qualify for an exemption under section 403.813(1), Florida Statutes or 373.406, Florida Statutes, or otherwise be authorized by the applicable permit required under Part IV of Chapter 373, Florida Statutes, by the Department of Environmental Protection, a water management district under section 373.069, Florida Statutes, or a local government with delegated authority under section 373.441, Florida Statutes, and receive Water Quality Certification and applicable Coastal Zone Consistency Concurrence or waiver thereto, as well as any authorizations required for the use of state-owned submerged lands under Chapter 253, Florida Statutes, and, as applicable, Chapter 258, Florida Statutes. You should check State-permitting requirements with the Florida Department of Environmental Protection or the appropriate water management district.

This letter of authorization does not include conditions that would prevent the 'take' of a state-listed fish or wildlife species. These species are protected under sec. 379.411, Florida Statutes, and listed under Rule 68A-27, Florida Administrative Code. With regard to fish and wildlife species designated as species of special concern or threatened by the State of Florida, you are responsible for coordinating directly with the Florida Fish and Wildlife Conservation Commission

(FWC). You can visit the FWC license and permitting webpage (http://www.myfwc.com/license/wildlife/) for more information, including a list of those fish and wildlife species designated as species of special concern or threatened. The Florida Natural Areas Inventory (http://www.fnai.org/) also maintains updated lists, by county, of documented occurrences of those species.

This letter of authorization does not give absolute Federal authority to perform the work as specified on your application. The proposed work may be subject to local building restrictions mandated by the National Flood Insurance Program. You should contact your local office that issues building permits to determine if your site is located in a flood-prone area, and if you must comply with the local building requirements mandated by the National Flood Insurance Program.

If you are unable to access the internet or require a hardcopy of any of the conditions, limitations, or expiration date for the above referenced NWP, please contact Caitlin Hoch by telephone at 813-769-7074 or electronic mail at Caitlin.S.Hoch@usace.army.mil.

Thank you for your cooperation with our permit program. The Corps Jacksonville District Regulatory Division is committed to improving service to our customers. We strive to perform our duty in a friendly and timely manner while working to preserve our environment. We invite you to visit http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey and complete our automated Customer Service Survey. Your input is appreciated – favorable or otherwise. Again, please be aware this Internet address is case sensitive and should be entered as it appears above.

Sincerely,

Caitlin Hoch

Caitlin Hoch
Project Manager

Enclosures

Copy/ies Furnished:
Thomas Ries, Scheda Ecological Associates, Inc.
CESAJ-RD-PE

GENERAL CONDITIONS
33 CFR PART 320-330

1. The time limit for completing the work authorized ends on **March 18, 2022**.

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 of 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 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 a representative 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.

DEPARTMENT OF THE ARMY PERMIT TRANSFER REQUEST

PERMIT NUMBER: SAJ-2011-01840 (NW-CSH)

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. Although the construction period for works authorized by Department of the Army permits is finite, the permit itself, with its limitations, does not expire.

To validate the transfer of this permit and the associated responsibilities associated with compliance with its terms and conditions, have the transferee sign and date below and mail to the U.S. Army Corps of Engineers, Enforcement Section, Post Office Box 4970, Jacksonville, FL 32232-0019, or email to: CESAJ-ComplyDocs@usace.army.mil.

_____
(TRANSFEREE-SIGNATURE)

_____
(DATE)

_____
(NAME-PRINTED)

_____

_____
(MAILING ADDRESS)

_____
(CITY, STATE, ZIP CODE)

_____
(SUBDIVISION)

_____ _____
(LOT) **(BLOCK)**

_____
(STREET ADDRESS)

SELF-CERTIFICATION STATEMENT OF COMPLIANCE

Permit Number: SAJ-2011-01840 (NW-CSH)

Permittee's Name & Address (please print or type): _____

_____

_____

Telephone Number: _____

Location of the Work: _____

_____

Date Work Started: _____ Date Work Completed: _____

PROPERTY IS inaccessible WITHOUT PRIOR NOTIFICATION: YES _____ NO_____

TO SCHEDULE AN INSPECTION PLEASE CONTACT _____
AT _____

Description of the Work (e.g. bank stabilization, commercial filling, docks, dredging, etc.):

_____

_____

_____

Acreage or Square Feet of Impacts to Waters of the United States: _____

Describe Mitigation completed (if applicable):_____

_____

_____

Describe any Deviations from Permit (attach drawing(s) depicting the deviations): _____

_____

_____

I certify that all work and mitigation (if applicable) was done in accordance with the limitations and conditions as described in the permit. Any deviations as described above are depicted on the attached drawing(s).

_____
Signature of Permittee

_____
Full Name of Permittee (printed or typed)

_____
Date

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 <u>LIVE</u> 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 <u>DEAD</u> 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.

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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.

ENGINEERING PLANS FOR:

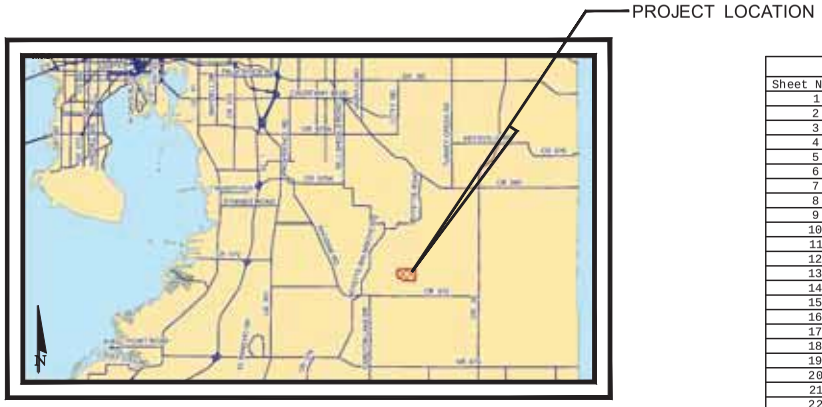
BALM BOYETTE - STALLION HAMMOCK

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

HABITAT RESTORATION

HILLSBOROUGH COUNTY, FLORIDA

AMEC FOSTER WHEELER PROJECT NUMBER: 600308.9



VICINITY MAP

HILLSBOROUGH COUNTY, FLORIDA
SECTIONS 16, 17 and 21, TOWNSHIP 31 S, RANGE 21 E

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Benchmark data is based upon North American Datum of 1988 (NAVD 88)

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

PROJECT PARTNERS:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION &
HILLSBOROUGH COUNTY

PREPARED FOR:

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DATE:
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PROJECT NUMBER: 600308.9 CITY: TAMPA
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GENERAL CONSTRUCTION NOTES

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.

2. THE CONTRACTOR SHALL CHECK PLANS AND FIELD CONDITIONS FOR CONFLICTS AND DISCREPANCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE OWNER'S ENGINEER OF ANY CONFLICT BEFORE PERFORMING ANY WORK IN THE AFFECTED AREA.

3. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND, THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY INSTRUCTION.

5. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO SHALL BE OF LATEST REVISIONS AND/OR LATEST EDITION.

6. ALL WORK PERFORMED SHALL COMPLY WITH THE LATEST STANDARDS, DETAILS, REGULATIONS, AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK. THESE AGENCIES INCLUDE, BUT ARE NOT LIMITED TO, COUNTY HEALTH DEPARTMENT, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT, U.S. ARMY CORPS OF ENGINEERS AND HILLSBOROUGH COUNTY.

7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE CONTRACTOR'S RESPONSIBILITY FOR PERFORMANCE OF THE ITEM.

8. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON SITE BY OTHER CONTRACTORS, UTILITY COMPANIES, AND BALM-BOYETTE PARK MANAGERS. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY WITH OWNER,OTHER CONTRACTOR'S AND UTILITY COMPANIES.

9. BACKFILL MATERIAL SHALL BE SOLIDLY TAMPED AND COMPACTED TO A FIRMNESS EQUAL TO THAT OF THE SOIL ADJACENT TO THE BACKFILL AREAS IN 6" LAYERS. IN AREAS TO BE CONCRETE PAVED, BACKFILL SHALL BE COMPACTED TO 100% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-99.

10. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 3,000 P.S.I. IN 28 DAYS, UNLESS OTHERWISE NOTED, SPECIFIED OR REQUIRED.

11. REINFORCING SHALL BE BILLET STEEL BARS CONFORMING TO ASTM A615 GRADE 40 OR BETTER.

12. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.

13. CONTRACTOR SHALL REVIEW SOIL REPORTS AND BORINGS (AND/OR HAND AUGERS) PRIOR TO BIDDING THE PROJECT AND COMMENCING CONSTRUCTION.

14. OWNER SPECIFIC SPECIFICATIONS TO BE PROVIDED TO CONTRACTOR DURING BIDDING.

15. ALL SITE WORK SHALL CONFORM TO THE LATEST SWFWMD, FDOT, CITY AND COUNTY REGULATIONS, SPECIFICATIONS, AND GUIDELINES.

16. THE CONTRACTOR IS RESPONSIBLE FOR THE ACQUISITION AND PROVISION OF ALL EQUIPMENT, TOOLS, SUPPLIES, MATERIALS, TRANSPORTATION, LABOR, AND SUPERVISION TO BE USED ON THIS PROJECT. SURVEYING SUPPORT SERVICES COSTS WILL BE INCLUDED IN THE CONTRACTOR'S BID.

17. THE ENGINEER RESERVES THE RIGHT TO INSPECT, AT ANY TIME, THE CONTRACTOR'S CERTIFICATIONS, DOCUMENTATIONS, PROCEDURES, EQUIPMENT, AND TECHNIQUES. INSPECTION DOES NOT RELIEVE THE CONTRACTOR OF ANY OBLIGATIONS OR RESPONSIBILITIES NOR DOES IT TRANSFER ANY LIABILITY TO THE ENGINEER.

18. THE CONTRACTOR WILL BE RESPONSIBLE FOR ACTIONS AND MISCALCULATIONS OF HIS OR HER PERSONNEL WHILE ON COUNTY-OWNED LAND. THE CONTRACTOR WILL ALSO BE RESPONSIBLE FOR DAMAGE OR DESTRUCTION TO COUNTY-OWNED, LEASED, OR MANAGED PROPERTY OR EQUIPMENT CAUSED BY THE CONTRACTOR'S EMPLOYEES OR SUBCONTRACTORS. THIS INCLUDES DAMAGE TO EXISTING ROADWAYS, CULVERTS, LOW WATER CROSSINGS, GATES, TREES, NATIVE VEGETATION, WILDLIFE, AND OTHER NATURAL RESOURCES AND EQUIPMENT.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF THE POLLUTION OF NATURAL AREAS BY FUEL, OILS, CHEMICALS, OR OTHER HARMFUL MATERIALS.

20. THE CONTRACTOR SHALL NOT PROVIDE ACCESS TO PARTIES OTHER THAN THOSE PERFORMING ACTIVITIES ASSOCIATED WITH THIS PROJECT.

21. THE CONTRACTOR SHALL REMOVE FROM THE AREA ALL EXTRANEOUS MATERIALS, EQUIPMENT, AND LITTER ASSOCIATED WITH THEIR CONSTRUCTION ACTIVITIES BEFORE FINAL COMPLETION.

22. THE CONTRACTOR MUST STOP WORK AND NOTIFY THE OWNER IF ANY HISTORICAL ARTIFACT IS DESCOVERED.

23. CONTRACTOR TO SUPPLY DEWATERING PLAN TO THE SWFWMD AND FDEP REPRESENTATIVES.

SAFETY NOTES

1. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, THE CONTRACTOR SHALL COMPLY WITH REGULATIONS. THE CONTRACTOR OR HES REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF ITS PERSONNEL. LABOR SAFETY REGULATIONS SHALL BE AS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF LABOR.

2. THE MINIMUM STANDARDS AS SET FORTH IN THE CURRENT EDITION OF THE STATE OF FLORIDA MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS SHALL BE FOLLOWED IN THE DESIGN APPLICATION, INSTALLATION, MAINTENANCE, AND REMOVAL OF ALL TRAFFIC CONTROL DEVICES, WARNING DEVICES, AND BARRIERS NECESSARY TO PROTECT THE PUBLIC AND WORKERS FROM HAZARDS WITHIN THE PROJECT LIMITS.

3. ALL TRAFFIC CONTROL MARKINGS, FLAGGERS, AND DEVICES SHALL CONFORM TO THE PROVISIONS SET FORTH IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PREPARED BY THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION.

4. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS. THE ABOVE INFORMATION HAS BEEN PROVIDED FOR THE CONTRACTOR'S INFORMATION ONLY AND DOES NOT IMPLY THAT THE OWNER OR ENGINEER WILL INSPECT AND/OR ENFORCE SAFETY REGULATIONS.

5. A CREW SUPERVISOR MUST BE ON-SITE WHENEVER WORK IS PERFORMED. THIS SUPERVISOR IS RESPONSIBLE FOR CREW SAFETY AND ALL ACTIVITIES WHILE ON SITE.

CLEARING AND EROSION CONTROL NOTES

1. CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS WILL BE SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL AS SOON AS GRADING IS COMPLETED AND/OR IS PRACTICABLE. AREAS ANTICIPATED BEING LEFT DISTURBED OR DENUDED FOR LONGER THAN 34 DAYS WILL BE STABILIZED WITH TEMPORARY STABILIZATION WITHIN 7 DAYS OF DISTURBANCE. NO AREAS SHALL BE LEFT DISTURBED OR DENUDED FOR LONGER THAN 34 DAYS.

2. ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH APPLICABLE REGULATIONS.

3. CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (TURBIDITY BARRIER, STAKED SILT FENCE OR APPROVED ALTERNATIVE) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS, WATERWAYS, AND EXISTING WETLANDS. IN ADDITION, CONTRACTOR SHALL PLACE STRAW, MULCH, OR OTHER SUITABLE MATERIAL ON GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO RECOVER SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.

4. IF WIND EROSION BECOMES SIGNIFICANT DURING CONSTRUCTION, THE CONTRACTOR SHALL STABELIZE THE AFFECTED AREA USING SPRINKLING, IRRIGATION, OR OTHER ACCEPTABLE METHODS.

5. THERE SHALL BE NO DISCHARGE (I.E. PUMPING, SHEET FLOW, SWALE, DITCH, ETC.) INTO AN EXISTING LAKE SYSTEM, WETLAND, OR RIVER, WITHOUT THE USE OF SETTLING PONDS. IF THE CONTRACTOR DESIRES TO DISCHARGE INTO THE EXISTING LAKE SYSTEM OR RIVER, A SETTLING POND PLAN MUST BE SUBMITTED AND APPROVED BY THE ENGINEER AND LOCAL REGULATORY AGENCY PRIOR TO CONSTRUCTION.

6. THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION AND SEDEMENT CONTROL FEATURES TO BE IN ACCORDANCE WITH PROJECT PLANS AND SPECIFICATIONS.

STANDARD UTILITY NOTES

1. CHAPTER 77-153 OF THE FLORIDA STATUTES REQUIRES THAT AN EXCAVATOR NOTIFY ALL GAS UTILITIES A MINIMUM OF TWO WORKING DAYS PRIOR TO EXCAVATING. THE ONLY SAFE AND PROPER WAY TO LOCATE EITHER MAINS OR SERVICE LINES IS BY AN ON-SITE INSPECTION BY THE RESPECTIVE GAS PERSONNEL. THEREFORE, EXCAVATORS ARE INSTRUCTED TO TELEPHONE THE RESPECTIVE GAS COMPANY TWO WORKING DAYS BEFORE ENTERING A CONSTRUCTION AREA.

2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ORDER TO PERMIT MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN ADVANCE OF CONSTRUCTION, BY CALLING FLORIDA SUNSHINE STATE ONE CALL CENTER OF FLORIDA, INC. AT 1-800-432-4770. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" FORTY-EIGHT (48) HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS.

3. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE. ALL UTILITIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, THE FOLLOWING SHOULD BE CONTACTED BY THE CONTRACTOR:
   1. GAS
   2. TELEPHONE
   3. CABLE
   4. POWER
   5. CITY/COUNTY WATER AND SEWER
   6. CITY/COUNTY/STATE TRAFFIC SIGNAL UTILITY (FIBER, HARDWIRE TRAFFIC SIGNAL INTERCONNECT)

4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION'S OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES WHICH INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANIES AND THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DRAINAGE SYSTEM NOTES

1. THE STRUCTURES SHALL BE SUBJECT TO A VISUAL INSPECTION BY THE OWNER'S ENGINEER PRIOR TO THE PLACEMENT OF BACKFILL. THE CONTRACTOR SHALL COORDINATE A FINAL INSPECTION OF THE COMPLETED STORM WATER MANAGEMENT SYSTEM PRIOR TO FINAL ACCEPTANCE BY THE OWNER. CONTRACTOR TO NOTIFY THE ENGINEER 48 HOURS IN ADVANCE TO SCHEDULE INSPECTION.

SURVEYOR'S NOTES:

1. THE EXISTING TOPOGRAPHIC INFORMATION DEPICTED WITHIN THIS SET OF CONSTRUCTION DRAWINGS IS COMBINED FROM THREE DATA SOURCES AND REPRESENTS THE BEST AVAILABLE INFORMATION FOR THIS PROJECT. A SPECIFIC PURPOSE SURVEY FOR STALLION CREEK, FIELD SURVEY DATED 11/06/2009 WAS PROVIDED BY SURVTECH SOLUTIONS, INC. THIS INFORMATION WAS COMBINED WITH LIDAR DATA, COLLECTED BETWEEN 1/12/2007 AND 1/20/2007, PROVIDED BY EARTHDATA INTERNATIONAL FOR SWFWMD. LIMITED BATHYMETRY DATA WAS ALSO COLLECTED IN SELECTED MINE PITS BY SCHEDA ECOLOGICAL ASSOCIATES, INC. EXISTING GRADE INFORMATION CONTAINED WITHIN THESE DRAWINGS SHOULD BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BIDDING.

2. THE VERTICAL DATUM USED FOR THIS PROJECT IS NAVD 1988, U.U. SURVEY FEET. THE BENCHMARK UTILIZED WAS HILLSBOROUGH COUNTY BENCHMARK 'ACA 2' WITH AN ELEVATION OF 128.242 FEET.

3. AERIAL IMAGERY SHOWN WITHIN THESE PLANS OBTAINED FROM SWFWMD, DATED 2010.

4. HYDROGRAPHIC CONTOURS ARE BASED ON LIMITED SOUNDING DATA AND ARE SHOWN TO GENERALLY DEPICT BOTTOM CONDITIONS. THES DATA IS NOT INTENDED FOR DESIGN OR VOLUME CALCULATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING GRADE INFORMATION FOR BIDDING AND CONSTRUCTION PURPOSES.

5. PROFESSIONAL FIELD SURVEY WAS LIMITED TO ESTABLISHING EXISTING CULVERT INVERTS AND DIMENSIONS, DRAINAGE OUTLET AND INLET ELEVATIONS AT OFFSITE PROJECT BOUNDARIES, WATER LEVELS AT TIME OF SURVEY, AND MONITORING WELL ELEVATIONS.GROUND CONTOURS WERE DERIVED FROM REMOTE SENSING DATA AND WERE NOT VERIFIED BY FIELD SURVEY. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING GRADE INFORMATION FOR BIDDING AND CONSTRUCTION PURPOSES

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CONSTRUCTION PLANS ARE AVAILABLE IN AUTODESK CIVIL 3D FORMAT ONLY.
ANY FILE CONVERSIONS WILL BE AT THE CONTRACTOR'S EXPENSE.

NO.	DATE	REVISION

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DATE: 10 6 16
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CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

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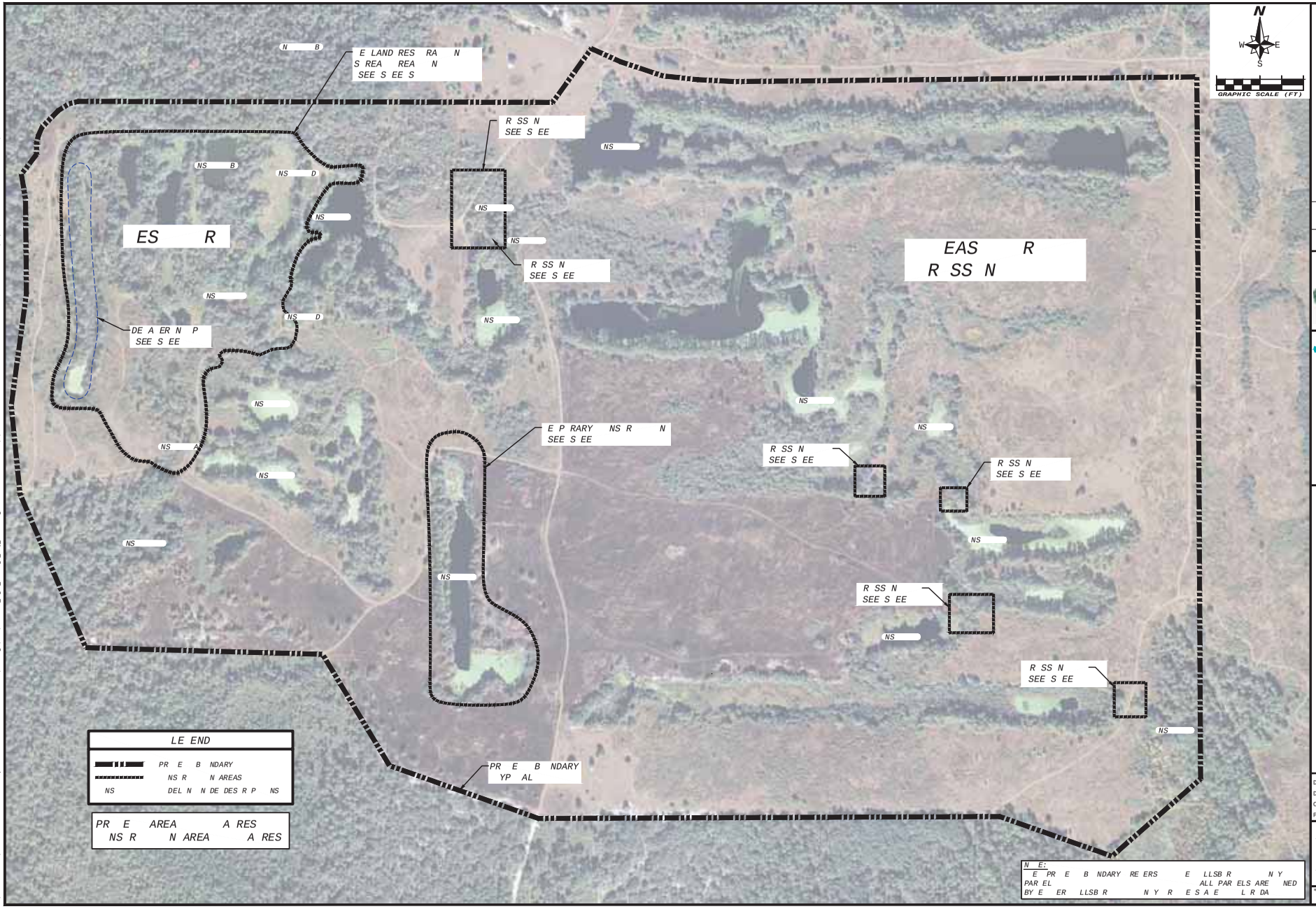

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NO.	DATE	REVISION

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DATE: 12/8/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

ENGINEER_NAME
FLA. REG. NO. PE_NO

DATE:

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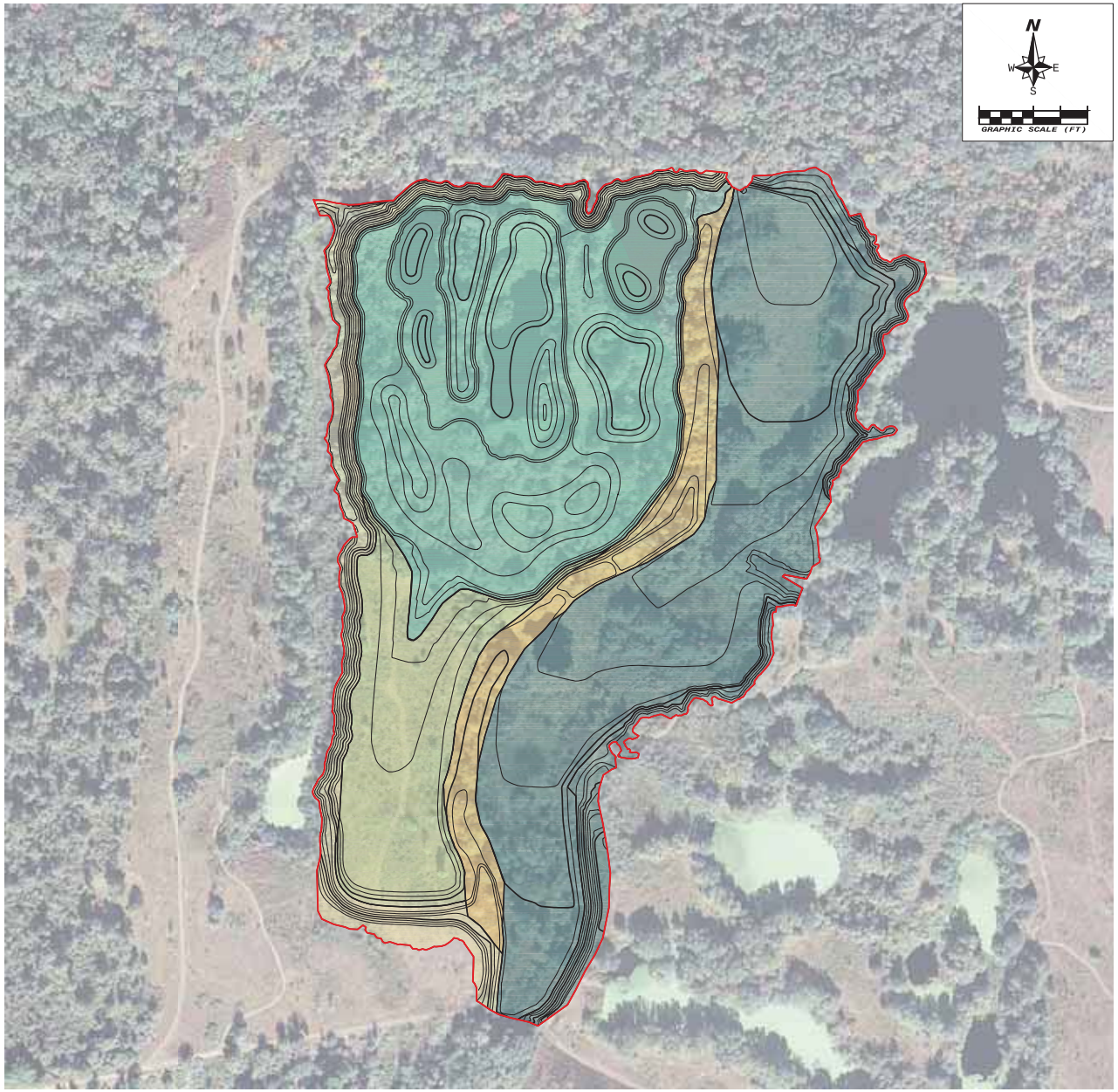

LE END

APPROXIMATE PROJECT AREA

ZONES

- RIDGE (2.13 ac)
- LEVEL POOL WETLAND (9.25 ac)
- RIVERINE (9.83 ac)
- SEEPAGE WETLAND (3.04 ac)
- UPLAND (2.31 ac)

N E: RAD N S R A ES

1. THE CONTRACTOR MUST SUBMIT A GRADING PLAN FOR THE PROJECT FOR OWNER APPROVAL PRIOR TO COMMENCING EARTHWORK. PLAN SHALL PROVIDE THE OVERALL CONSTRUCTION SEQUENCE FOR THE PROJECT, HAUL ROUTES, CUT SEQUENCE , AND FILL SEQUENCE FOR THE ENTIRE PROJECT AREA.
2. RIVERINE VALLEY AND RIDGE ARE PRIORITY AREAS THAT MUST BE GRADED AS DEPICTED IN PLANS (SEE SHEETS 6-8 AND 11-13 FOR DETAILS).
3. SEEPAGE WETLAND IS A VARIABLE BORROW AREA, INTENDED TO PROVIDE FILL MATERIAL TO BALANCE CUT AND FILL FOR THE PROJECT.
4. SEEPAGE WETLAND GRADING TO CEASE WHEN MATERIAL IS RECOVERED TO CREATE THE RIVERINE VALLEY, RIDGE, AND LEVEL POOL WETLAND AREAS, AS DEPICTED IN THE PLANS. ITS TERMINAL SLOPES ARE TO BE 4:1 H:V OR MORE GRADUAL IF THE SEEPAGE AREA IS NOT FULLY CONSTRUCTED TO THE LIMITS SHOWN IN PLANS. TERMINATION OF SEEPAGE WETLAND CONSTRUCTION MUST BE APPROVED BY OWNER.
5. LEVEL POOL WETLAND CAN BE GRADED WITH SELECTED DEEPER AREAS THAN SHOWN IN THE PLAN IF, AND ONLY IF, THE ENTIRE PROJECT AREA DOES NOT OTHERWISE PROVIDE A SUFFICIENT BALANCE OF MATERIAL TO ACHIEVE DESIGN GRADE AS DEPICTED IN THE PLANS.
6. CONTRACTOR MUST OBTAIN OWNER APPROVAL REGARDING FINAL GRADES IF THEY MUST DEVIATE FROM THE DRAWINGS IN THE SEEPAGE WETLAND OR LEVEL POOL AREAS TO ACHIEVE A CUT/FILL BALANCE PRIOR TO FINAL CONTOURING.

NO.	DATE	REVISION

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BAL B YE E S ALL N A
AB A RES RA N
RAD N S R A ES
LLSB R N Y L R DA

DATE: 11 28 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
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LEGEND

- PRIMARY GRADING LIMITS
- PROPOSED STREAM MEANDER BELTWIDTH
- RIPRAP
- GOPHER TORTOISE BURROW

NOTES:

1. SEE SHEETS 11-13 FOR SECTIONS A-A' THRU G-G'.
2. PROPOSED STREAM FLOWLINE VARIES WITHIN MEANDER BELTWIDTH. SEE SHEET 22.
3. SEE SHEET 5 FOR AREAS WITH DIFFERENT GRADING PRIORITIES.
4. A GOPHER TORTOISE SURVEY WAS CONDUCTED BY SCHEDA STAFF IN 2016 AND LOCATED SEVERAL POTENTIALLY OCCUPIED BURROWS WITHIN THE VICINITY OF THE PROJECT AREA. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THE SERVICES OF AN AUTHORIZED GOPHER TORTOISE AGENT AND CONDUCTING A GOPHER TORTOISE SURVEY WITHIN 25 FEET OF THE GRADING LIMITS OF THE PROJECT, AND ADHERE TO THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) GOPHER TORTOISE PERMITTING GUIDELINES, APRIL 2008, AND ALL SUBSEQUENT REVISIONS. IF POTENTIALLY OCCUPIED GOPHER TORTOISE BURROWS LOCATED WITHIN 25 FEET OF THE GRADING LIMITS CANNOT BE AVOIDED, THE CONTRACTOR WILL BE REQUIRED TO OBTAIN A 10 OR FEWER GOPHER TORTOISE PERMIT FROM THE FWC AND PERFORM THE RELOCATION.

CROSS SECTION COORDINATE TABLE

Point #	Description	Northing	Easting
1	A	1252960.01	585186.10
2	A'	1252790.45	585858.13
3	B	1253058.57	585209.43
4	B'	1253054.07	585865.56
5	C	1253383.27	585260.36
6	C'	1253134.51	585877.93
7	D	1253588.72	585261.60
8	D1	1253456.29	585761.60
9	D'	1253198.87	585962.09
10	E	1253717.32	585245.05
11	E1	1253639.35	585766.09
12	E'	1253424.25	586174.78
13	F	1253846.64	585248.29
14	F'	1253826.12	586294.65
15	G	1254068.17	585243.34
16	G1	1254001.34	585950.77
17	G'	1254096.34	586273.94

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK

HABITAT RESTORATION

GRADING PLAN WETLAND AND STREAM RESTORATION
HILLSBOROUGH COUNTY, FLORIDA

DATE: 1/17/17
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET – 6

PROJECT NUMBER: 600308.9 CITY: TAMPA
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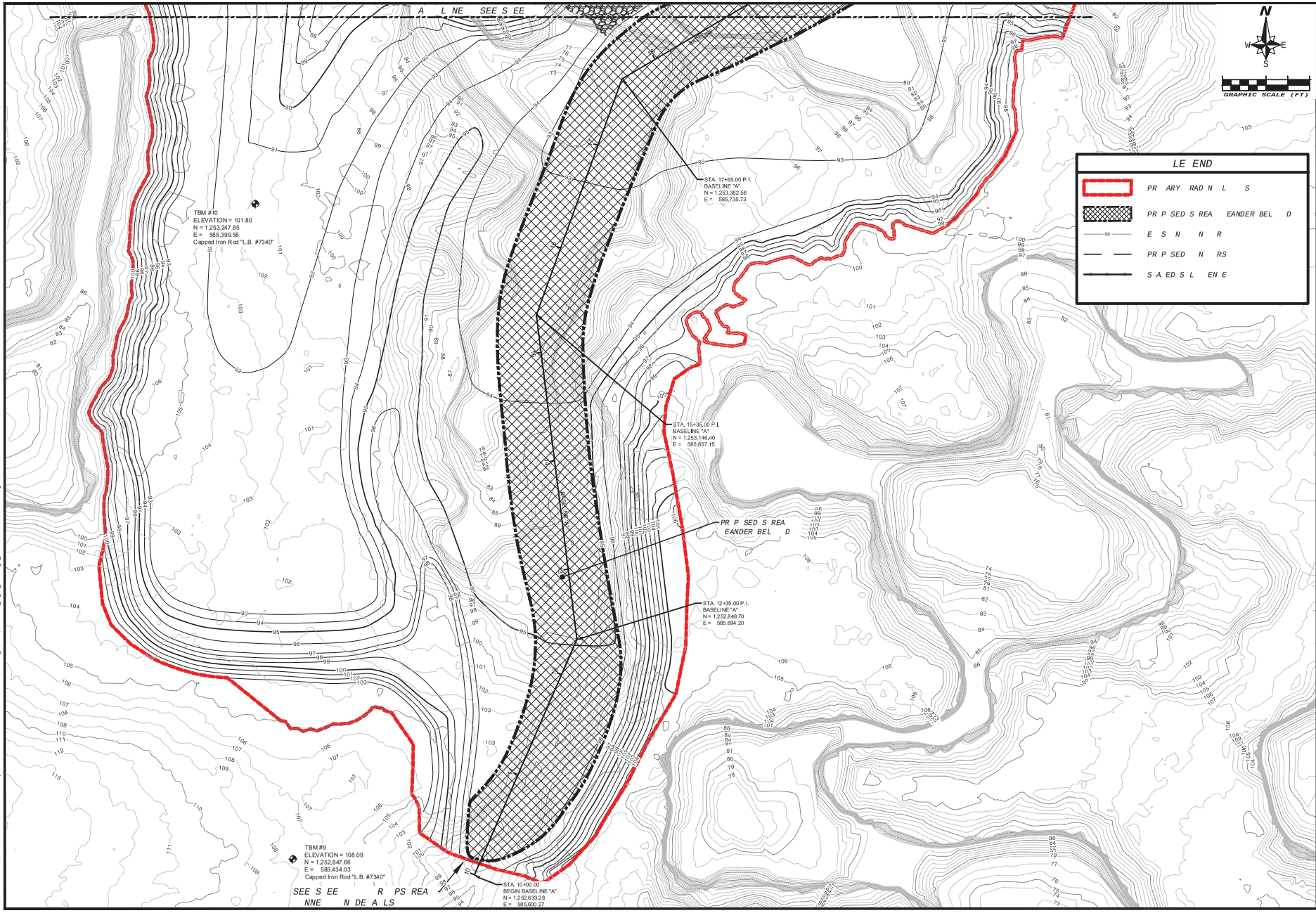

PROJECT NUMBER: 600308.9 CITY: TAMPA
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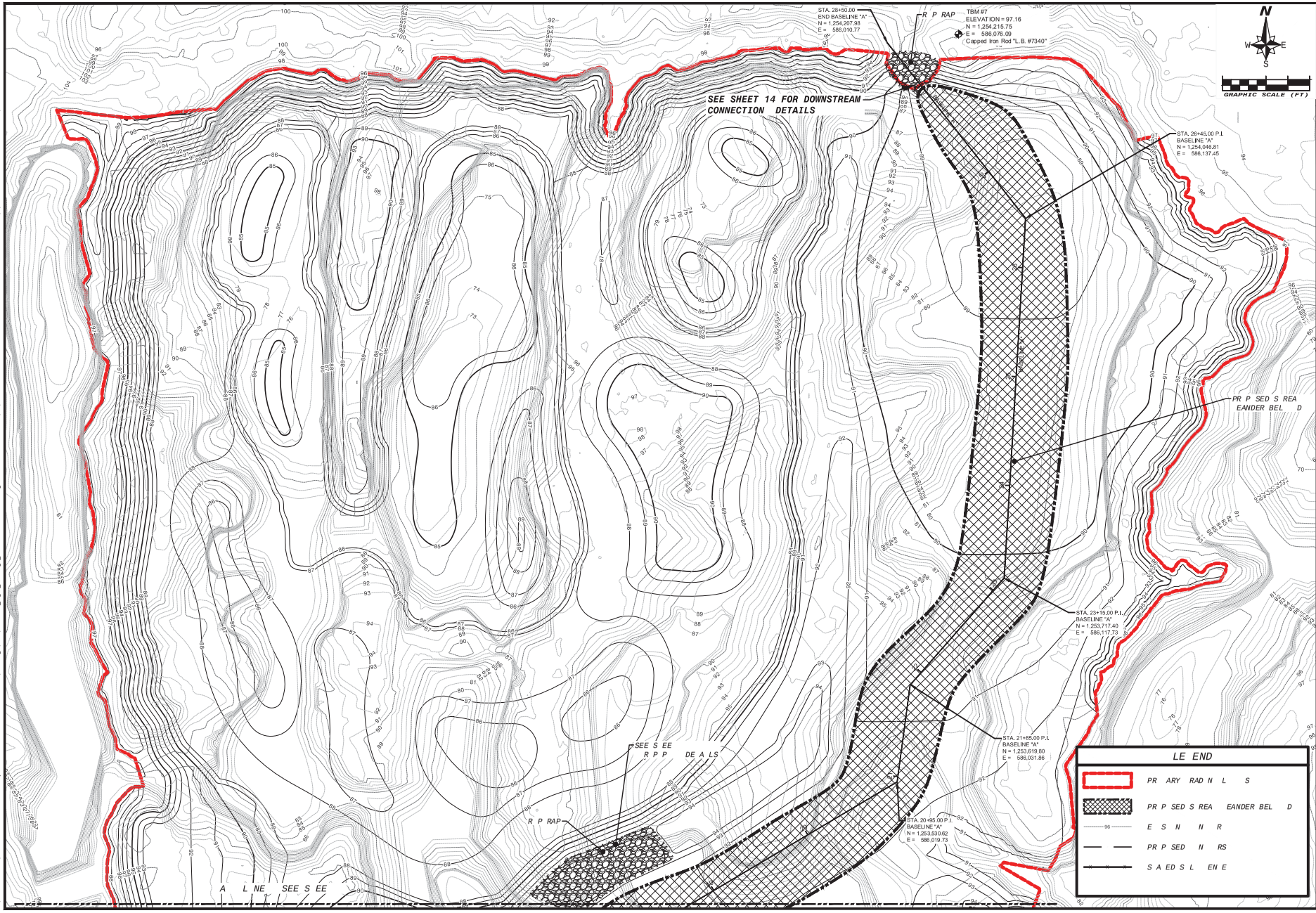
BAL B YE E S ALL N A
AB A RES RA N
RAD N DE A L E LAND AND S REA RES RA N
LLSB R N Y L R DA

DATE: 11 28 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET –



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NO.	DATE	REVISION

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LLSB R N Y L R DA

DATE: 11 28 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

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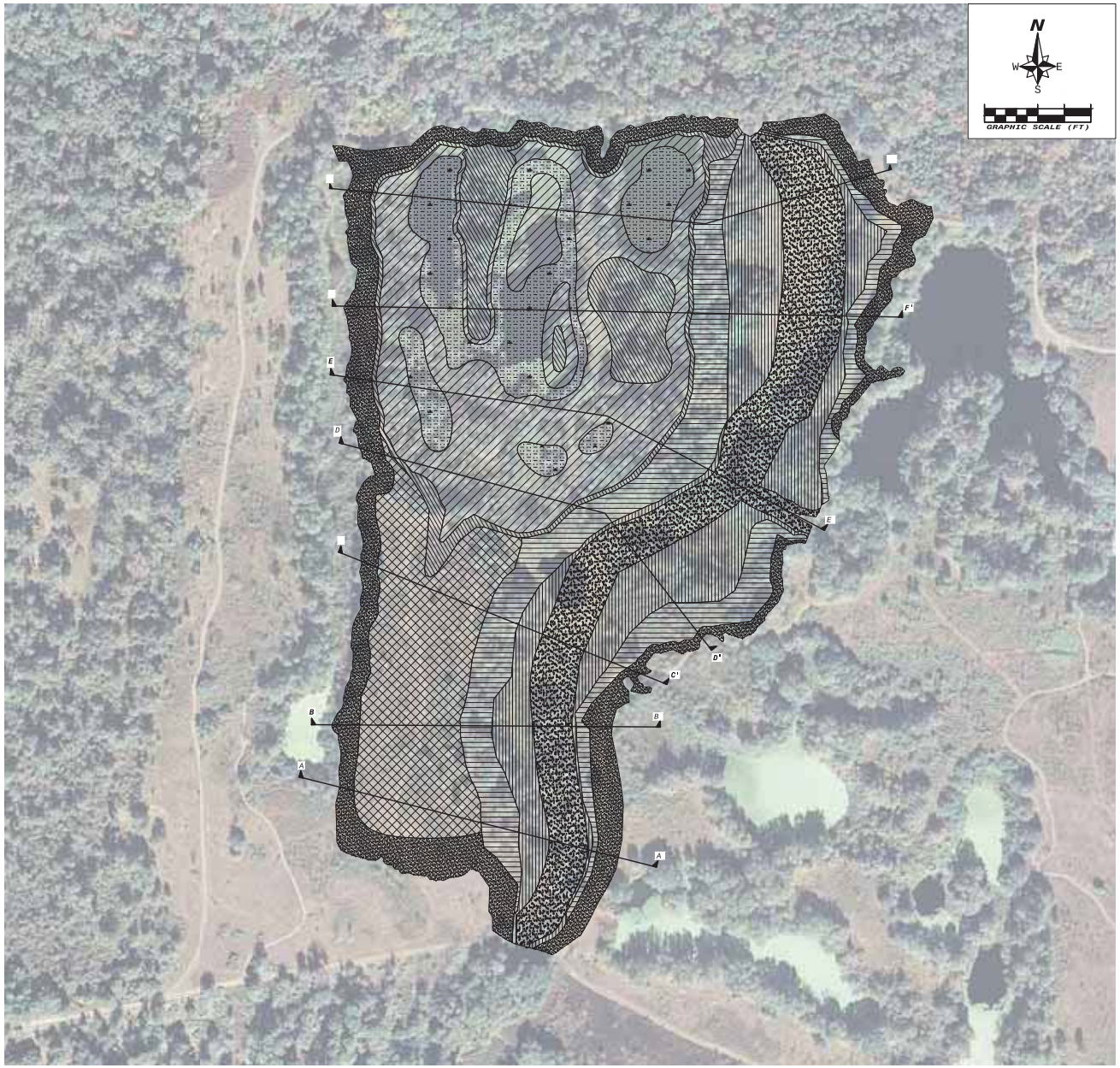

LEGEND

- PALUSTRINE EMERGENT PLANTING
- PALUSTRINE FORESTED PLANTING
- PALUSTRINE TRANSITIONAL PLANTING
- RIPARIAN WETLAND
- RIVERINE HIGH MARSH PLANTING
- RIVERINE TRANSITIONAL PLANTING
- SEEPAGE WETLAND
- UPLAND ENHANCEMENT PLANTING

NOTES:

1. SEE SHEETS 11 13 FOR SECTIONS.
2. SEE SHEET 10 FOR PLANTING SPECIES AND UANTITIES.

NO.	DATE	REVISION

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BALLBYE SALLNA
ABARES RANCH
PLANTING PLAN
LLSBRNY LRDA

DATE: 10/3/16
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 1991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
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Stallion Hammock Preserve Planting Specifications Table

Zone	Acres	Scientific Name	Common Name	Size	Spacing	Zone %	Quantity
Palustrine Emergent	2.41	Herbaceous					
		Pontederia cordata	pickerelweed	2" cell	3' o.c.	50%	6730
		Scirpus validus	softstem bulrush	2" cell	3' o.c.	50%	6730
Palustrine Forested	4.97	Herbaceous					
		Eleocharis cellulosa	coastal spikerush	2" cell	3' o.c.	20%	5551
		Pontederia cordata	pickerelweed	2" cell	3' o.c.	40%	11103
		Sagittaria lancifolia	arrowhead	2" cell	3' o.c.	40%	11103
		Tree					
		Fraxinus caroliniana	pop ash	1 gal.	10' o.c.	25%	626
		Taxodium distichum	bald cypress	1 gal.	10' o.c.	75%	1879
Palustrine Transitional	1.87	Herbaceous					
		Juncus effusus	softrush	2" cell	3' o.c.	10%	1044
		Panicum hemitomon	maidencane	2" cell	3' o.c.	60%	6266
		Polygonum hydropiperoides	smartweed	2" cell	3' o.c.	30%	3133
		Shrub					
		Cephalanthus occidentalis	buttonbush	1 gal.	10' o.c.	100%	942
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	30%	283
		Fraxinus caroliniana	pop ash	1 gal.	10' o.c.	30%	283
		Liquidambar styraciflua	sweetgum	1 gal.	10' o.c.	20%	188
		Ulmus americana	American elm	1 gal.	10' o.c.	20%	188
Riparian Wetland	3.68	Herbaceous					
		Juncus effusus	softrush	2" cell	3' o.c.	100%	20553
		Shrub					
		Cephalanthus occidentalis	buttonbush	1 gal.	10' o.c.	100%	1855
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	20%	371
		Fraxinus caroliniana	pop ash	1 gal.	10' o.c.	20%	371
		Ilex cassine	dahoon holly	1 gal.	10' o.c.	20%	371
		Magnolia virginiana	sweetbay	1 gal.	10' o.c.	20%	371
		Quercus laurifolia	laurel oak	1 gal.	10' o.c.	20%	371
Riverine High Marsh	3.6	Herbaceous					
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	100%	20106
		Shrub					
		Myrica cerifera	wax myrtle	1 gal.	10' o.c.	100%	1814
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	25%	454
		Celtis laevigata	hackberry	1 gal.	10' o.c.	25%	454
		Quercus laurifolia	laurel oak	1 gal.	10' o.c.	25%	454
		Ulmus americana	American elm	1 gal.	10' o.c.	25%	454
Riverine Transitional	3.4	Herbaceous					
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	100%	18989
		Shrub					
		Myrica cerifera	wax myrtle	1 gal.	10' o.c.	100%	1714
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	25%	428
		Celtis laevigata	hackberry	1 gal.	10' o.c.	25%	428
		Pinus elliotii	slash pine	1 gal.	10' o.c.	25%	428
		Quercus nigra	water oak	1 gal.	10' o.c.	25%	428
Seepage Wetland	2.96	Herbaceous					
		Juncus effusus	softrush	2" cell	3' o.c.	50%	8266
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	50%	8266
		Tree					
		Acer rubrum	red maple	1 gal.	10' o.c.	50%	746
		Magnolia virginiana	sweetbay	1 gal.	10' o.c.	50%	746
Upland Enhancement	3.68	Herbaceous					
		Spartina bakeri	sand cordgrass	2" cell	3' o.c.	100%	20553
		Shrub					
		Myrica cerifera	wax myrtle	1 gal.	10' o.c.	100%	1855
		Tree					
		Pinus elliotii	slash pine	1 gal.	10' o.c.	100%	1855

Stallion Hammock Preserve Optional Planting Specifications Table

Zone	Acres	Scientific Name	Common Name	Size	Spacing
Floating Leaf Emergent	up to 5	Herbaceous			
		Nuphar luteum	cow lily	bare root	10' o.c.
		Nelumbo lutea	American lotus	bare root	10' o.c.

NOTE:
CONTRACTOR TO INSTALL FLOATING LEAF EMERGENT COMMUNITY IN DEEP AREA ONLY IF DIRECTED BY OWNER. INSTALLATION OF THE COMMUNITY WILL ONLY OCCUR IF FILL DEFICITS RE UIRE AREAS OF COMPATIBLE GRADING DEPTHS IN THE LEVEL POOL WETLAND SEE SHEET

NOTE:
PLANT IN CLUSTERS
SEE SHEET 9 FOR VEGETATION ONES

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NO.	DATE	REVISION

BAL B YE E S ALL N A
AB A RES RA N
PLAN N AN ES
LLSB R N Y L R DA

DATE: 9/29/16
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 1991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET -

PROJECT NUMBER: 600308.9 CITY: TAMPA
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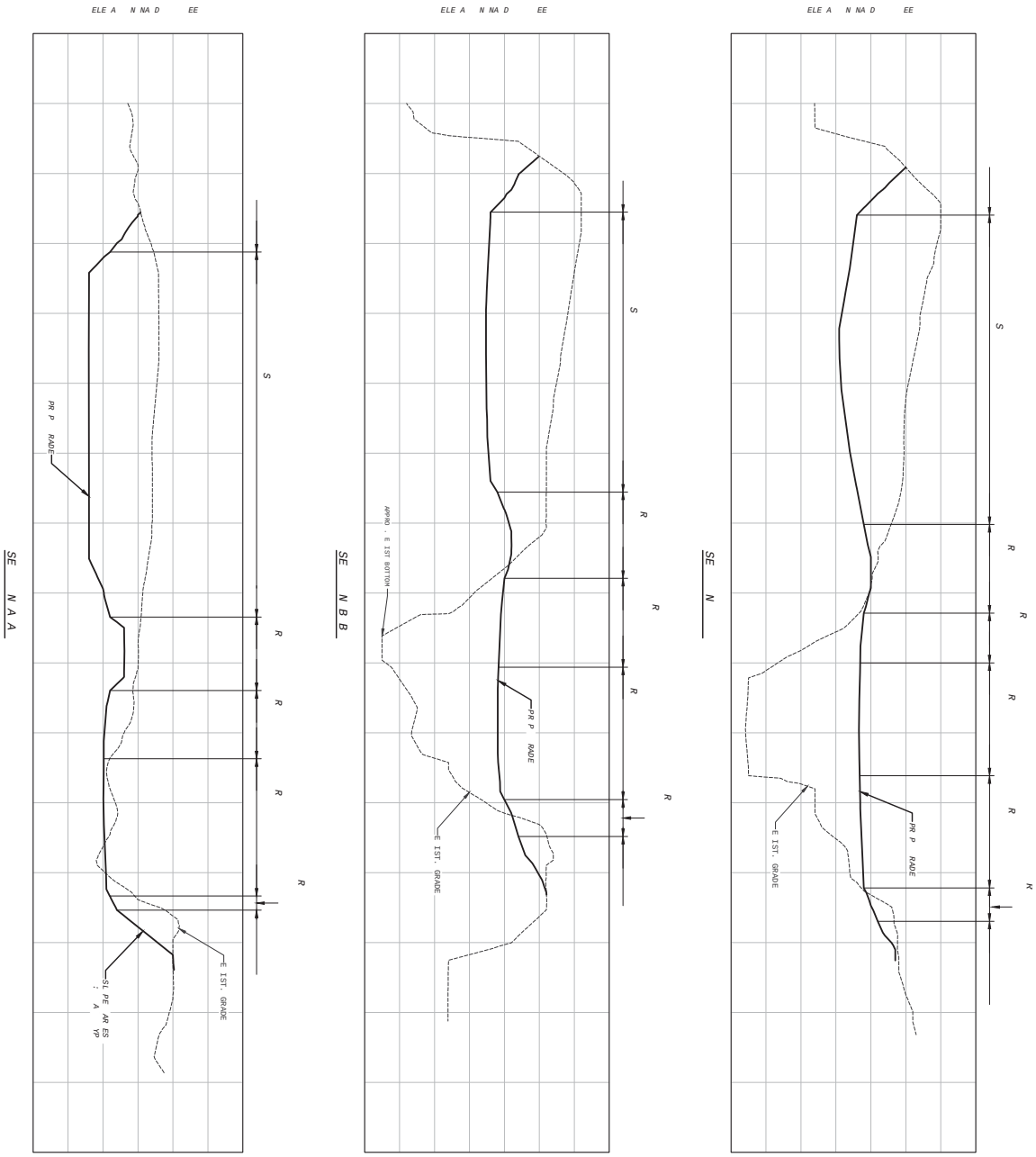

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Phone: 813.989.9600
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NO.	DATE	REVISION

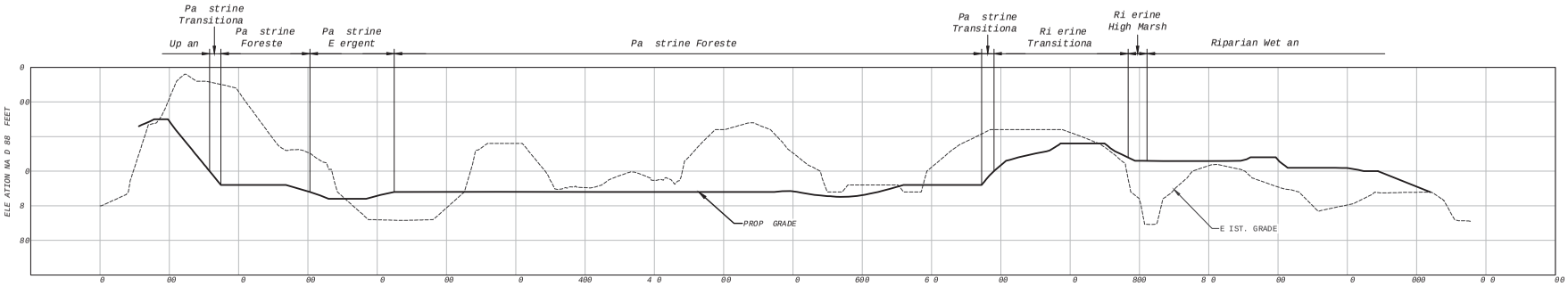
DATE: 11 29 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51901

DATE:

SHEET 1 OF 1

REFER TO ORIGINAL SEAL AND SIGNATURE REQUIREMENTS



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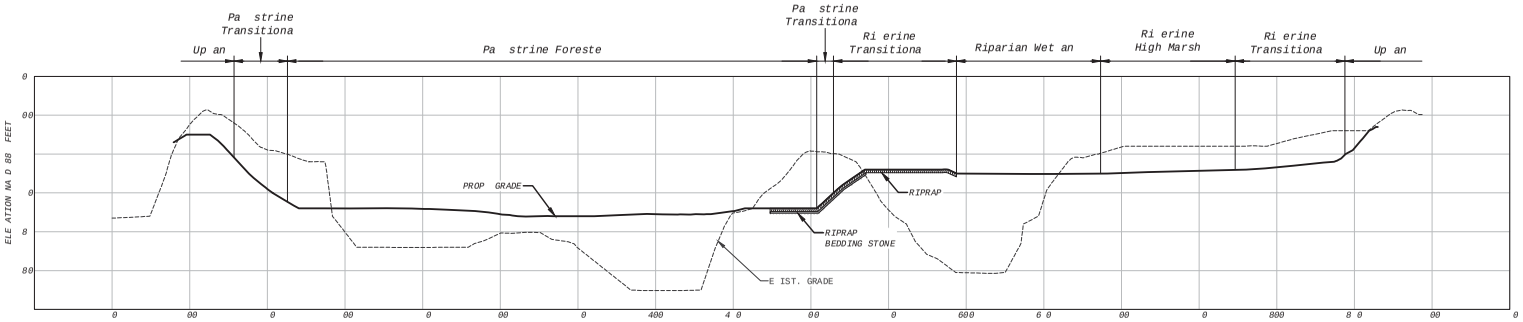

SECTION D-D'

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK

HABITAT RESTORATION

GRADING AND PLANTING CROSS SECTIONS
HILLSBOROUGH COUNTY, FLORIDA

DATE: 12 8 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
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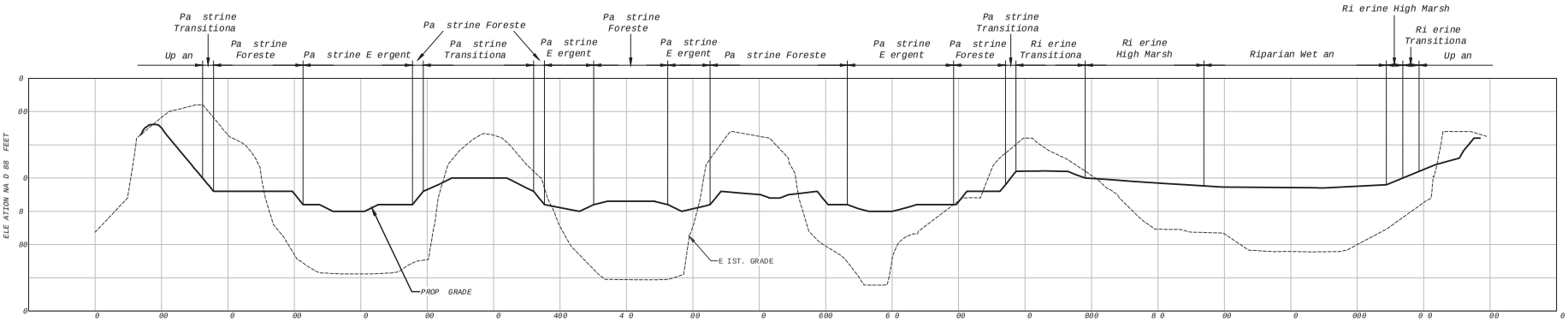

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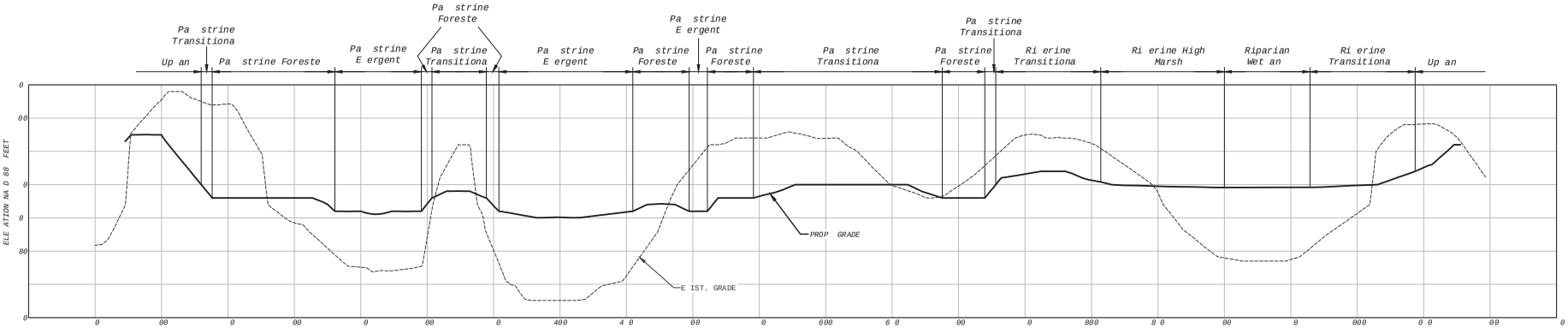

SECTION F-F'

NO.	DATE	REVISION

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BALM BOYETTE - STALLION HAMMOCK

HABITAT RESTORATION

GRADING AND PLANTING CROSS SECTIONS
HILLSBOROUGH COUNTY, FLORIDA

DATE: 11 28 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
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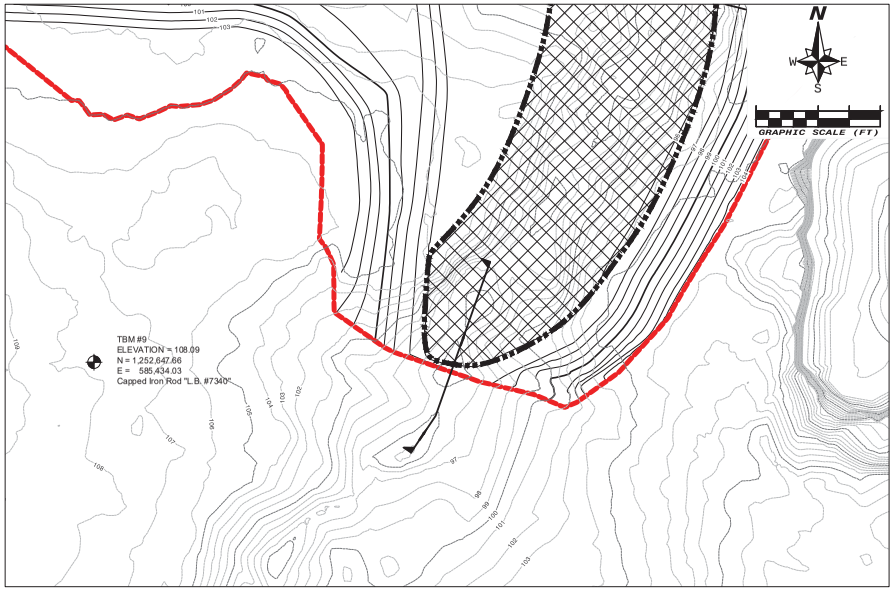

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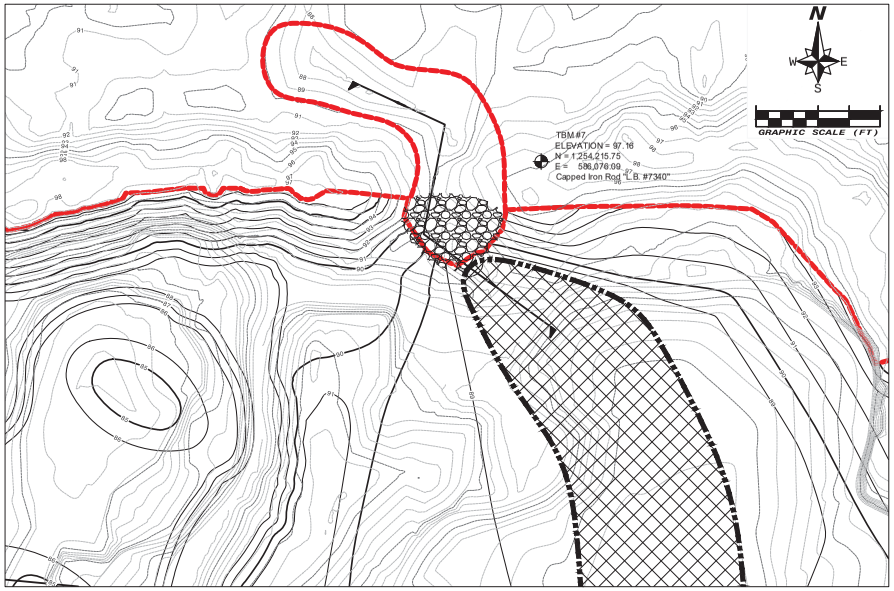

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LE END

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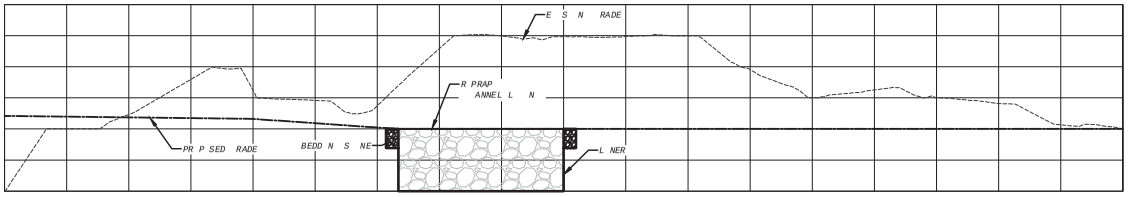
96	E S N N R
	PR P SED N RS



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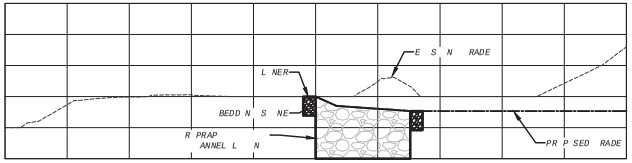


PS REA SE N

N E:

1. RIPRAP LOCATIONS APPROXIMATE, TO BE FIELD FIT AFTER HYDRAULIC CARVING.
2. DOWNSTREAM CONNECTION WILL REQUIRE ADDITIONAL GRADING TO MATCH RESTORED AND EXISTING CHANNEL ELEVATIONS AND DIMENSIONS. THIS WORK CONSISTS OF A CHANNEL EXTENSION WITH BASE WIDTH OF 10 TO 15 FEET, TOP WIDTH OF 40 FEET, AND LENGTH OF UP TO 120 FEET DOWNSTREAM FROM THE RIPRAP LIMITS. ALL EXPOSED SOILS ALONG THE CONTOURED CHANNEL EXTENSION TO BE FULLY LINED WITH A 3 YEAR RATED BIODEGRADABLE COIR EROSION CONTROL BLANKET.
3. DOWNSTREAM GRADE MAY VARY FROM THOSE DEPICTED TO EDGE-MATCH GRADES. EXPECTED TO OCCUR BETWEEN 87-88' NAVD.

NO.	DATE	REVISION

SCHIEFER ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.988.9800
Fax: 813.988.9870

amec foster wheeler
Amec Foster Wheeler
Environment & Infrastructure, Inc.
1101 Channelside Dr, Suite 200, Tampa, FL 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-5382

BAL B YE E S ALL N A
AB A RES RA N
S E NNE NS E LAND AND
S REA RES RA N
LLSB R N Y L R DA

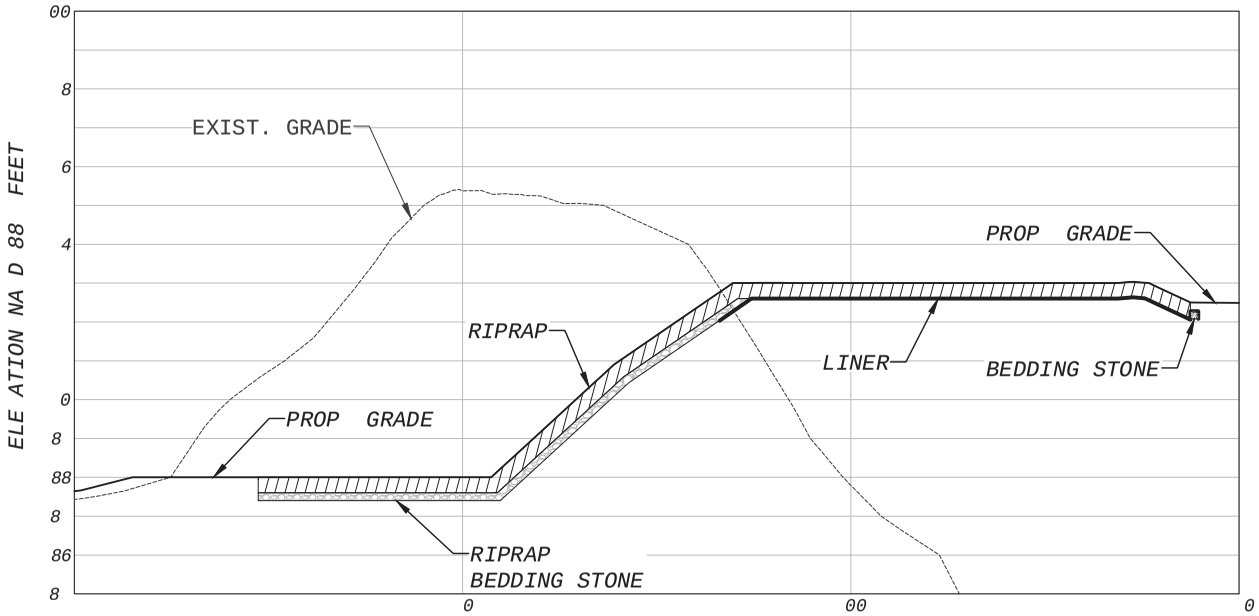
DATE: 11 29 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

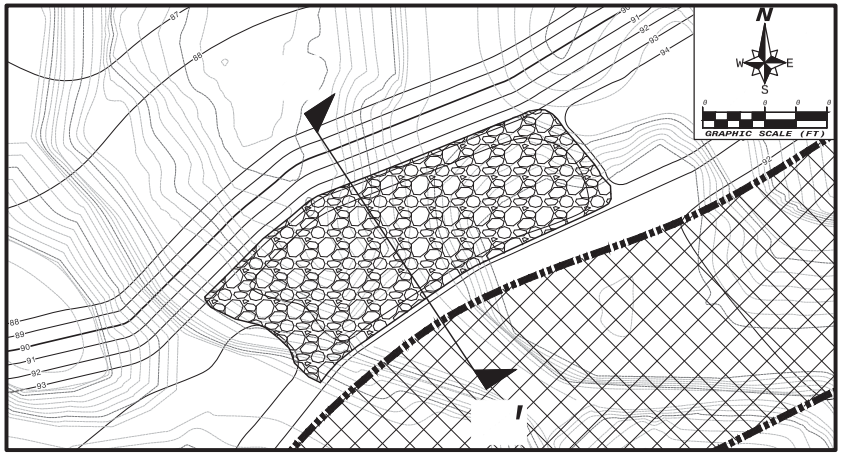
DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-14_Drainage_OUTFALL-DET.dwg LAYOUT: 14 SAVED: 11/29/2016 2:26 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 1/30/2017 11:14 AM DRAWN BY: VIVES, MARTIN



POPOFF CONNECTION DETAIL SECTION -



SECTION - ' REFER TO SHEET 8

LEGEND	
	PROPOSED STREAM MEANDER BELTWIDTH
96	E ISTING CONTOUR
6	PROPOSED CONTOURS

NO.	DATE	REVISION

SCHEIDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.988.0800
Fax: 813.988.9970

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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION

POPOFF CONNECTION DETAIL
HILLSBOROUGH COUNTY, FLORIDA

DATE: 1/12/1
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 1991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET -

PROJECT NUMBER: 600308.9 CITY: TAMPA
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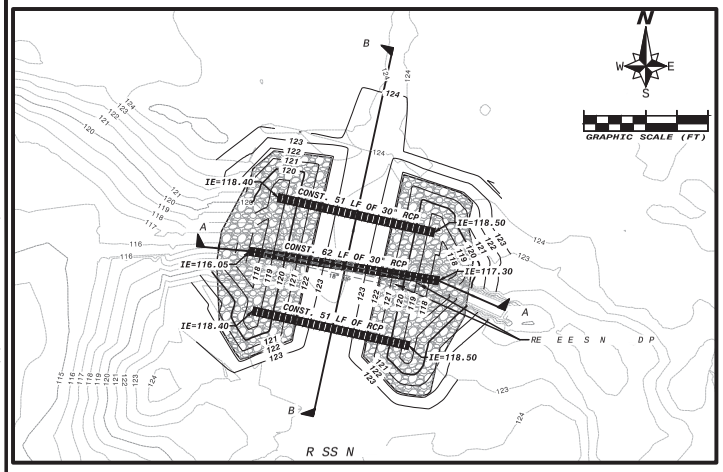

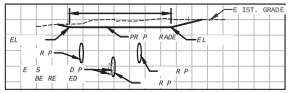

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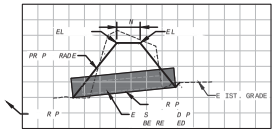

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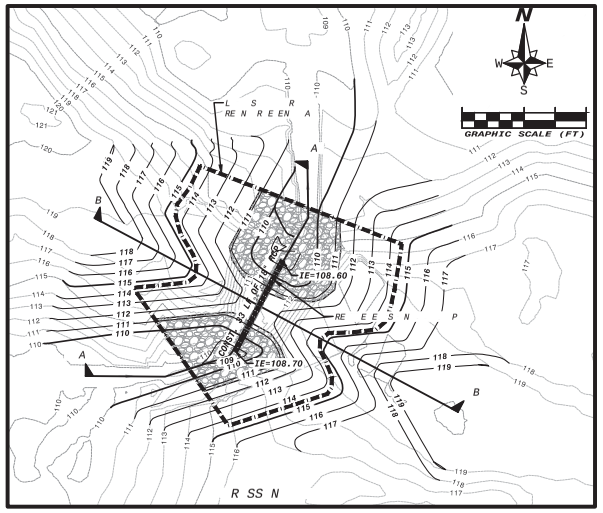

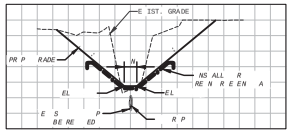

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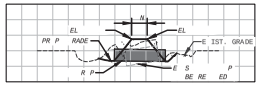

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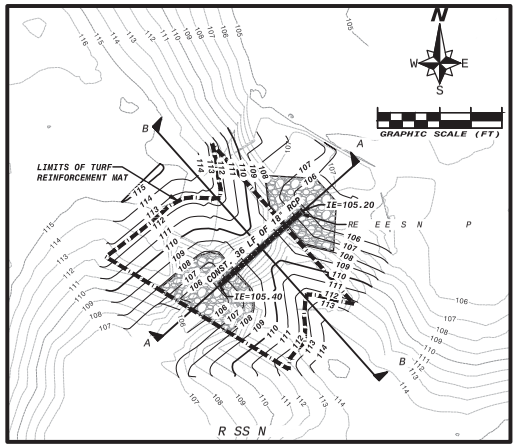

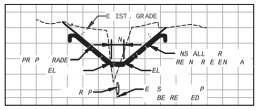

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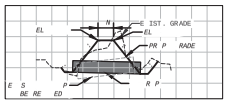

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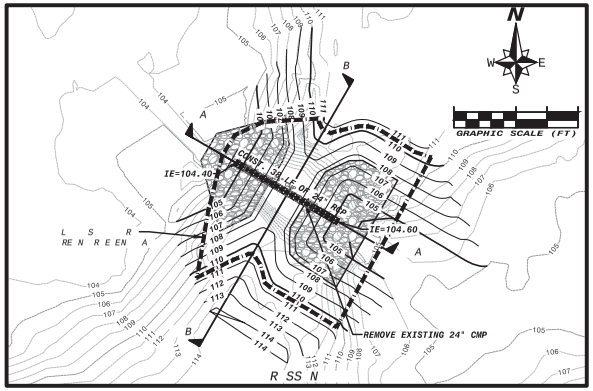

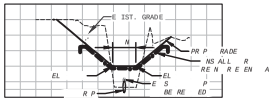

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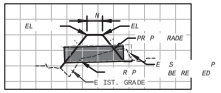

SE N A A

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R RE N R E EN A S PR D ED BY N R A ER AN REEN P NNED S D ERLAY R APPR ED E AL NS ALL PER AN A RER S RE ENDA NS

NS ALL R BBLE R PRAP D L N N A E PS REA AND D NS REA ENDS EA P PE A ALL R SS N S

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5932 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.358.9900
Fax: 813.985.9417

amec foster wheeler
Amec Foster Wheeler
Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL, 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-5362

BAL B YE E S ALL N A
AB A RES RA N

NNE N PR E EN S
LLSB R N Y L R DA

DATE: 11 29 16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO ISSR FOR TOTAL SHEETS INCLUDED:
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
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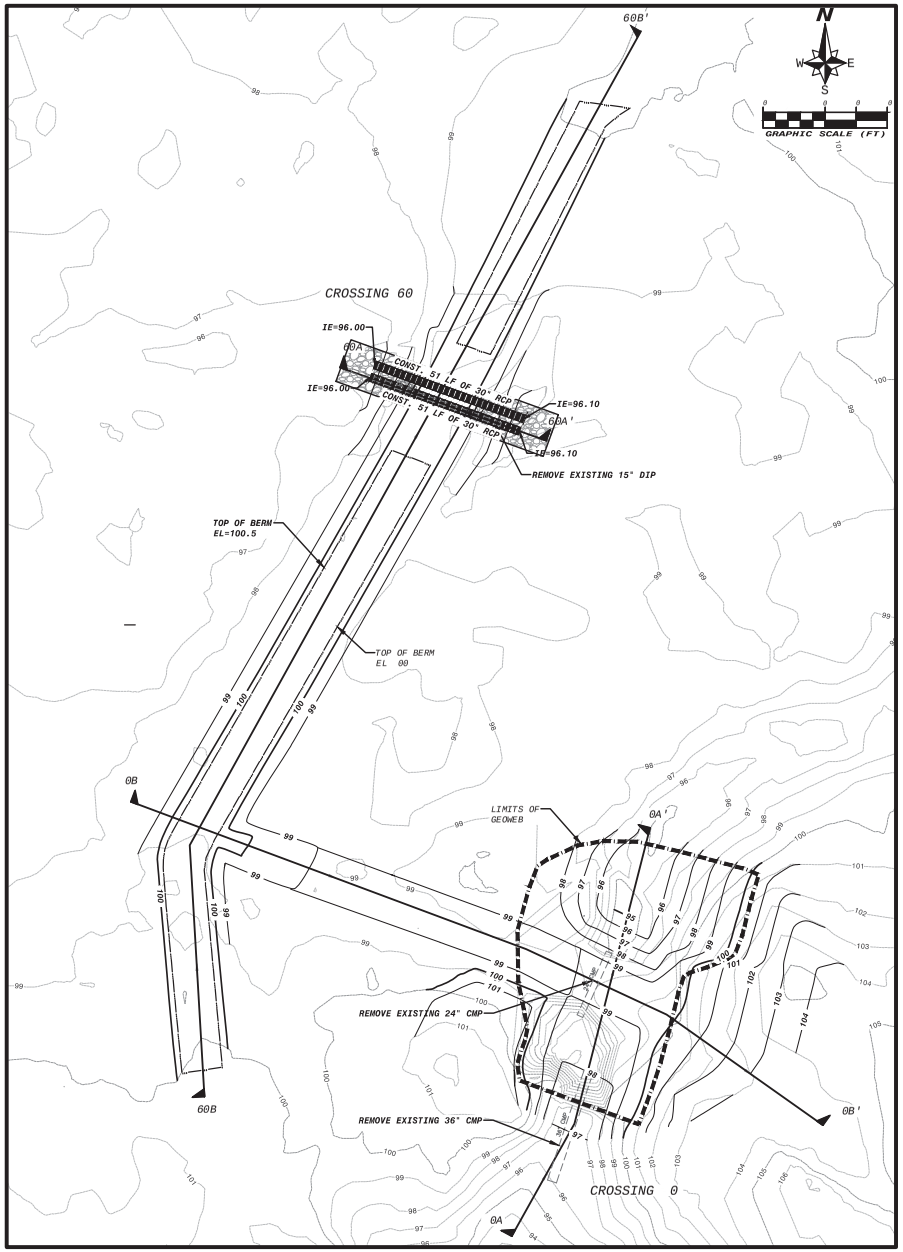

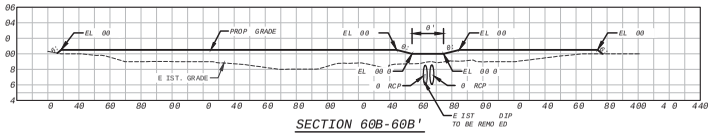

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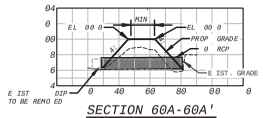

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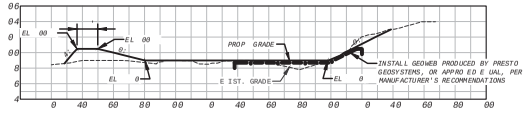

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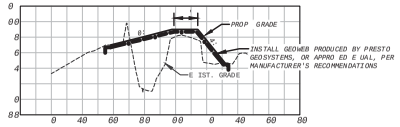

SECTION 0A- 0A'

NOTES:

TURF REINFORCEMENT MAT SC 0 PRODUCED BY NORTH AMERICAN GREEN WITH PINNED SOD O ERLAY, OR APPRO ED E UAL INSTALL PER MANUFACTURER'S RECOMMENDATIONS

INSTALL RUBBLE RIPRAP DITCH LINING AT THE UPSTREAM AND DOWNSTREAM ENDS OF EACH PIPE AT ALL CROSSINGS

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5932 E. Fowler Ave.
Tampa, Florida 33617
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Environment & Infrastructure, Inc.
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www.amecfw.com CA-3362

BALM BOYETTE - STALLION HAMMOCK

HABITAT RESTORATION

CONNECTION IMPRO EMENTS
HILLSBOROUGH COUNTY, FLORIDA

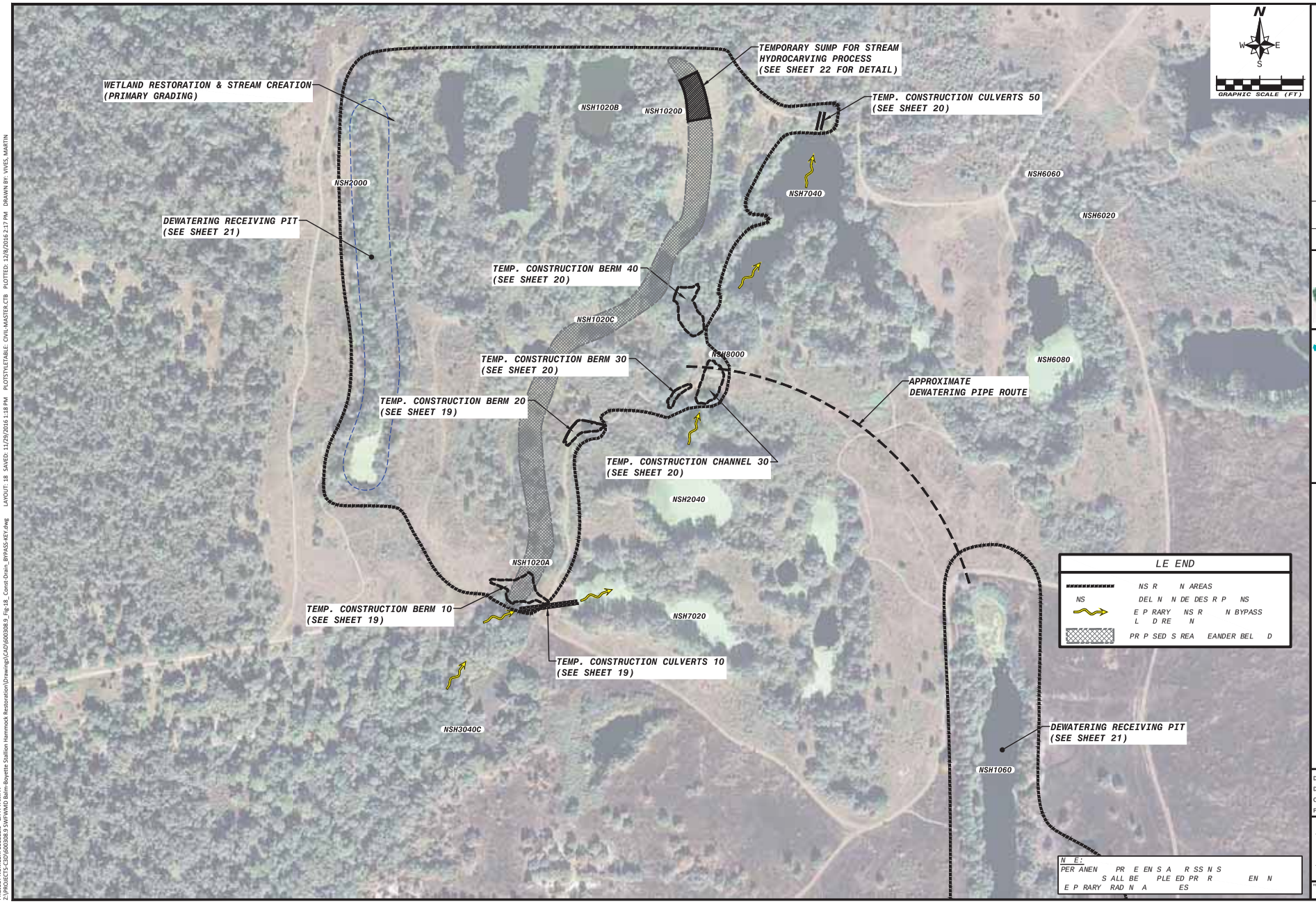
DATE: 11 29 16
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INR FOR TOTA SHEETS INCLUDED
SHEET –

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-CID\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-16_Drainage_XSECT.dwg LAYOUT: 17 SAVED: 11/29/2016 1:04 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 11/29/2016 1:07 PM DRAWN BY: VIVES, MARTIN



NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
Phone: 813.988.9800
Fax: 813.988.9819

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Amec Foster Wheeler Environment & Infrastructure, Inc.
1101 Channelside Dr., Suite 200, Tampa, FL, 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-3382

BAL B YE E S ALL N A
AB A RES RA N

E P RARY BYPASS SYS E EY S EE
LLSB R N Y L R DA

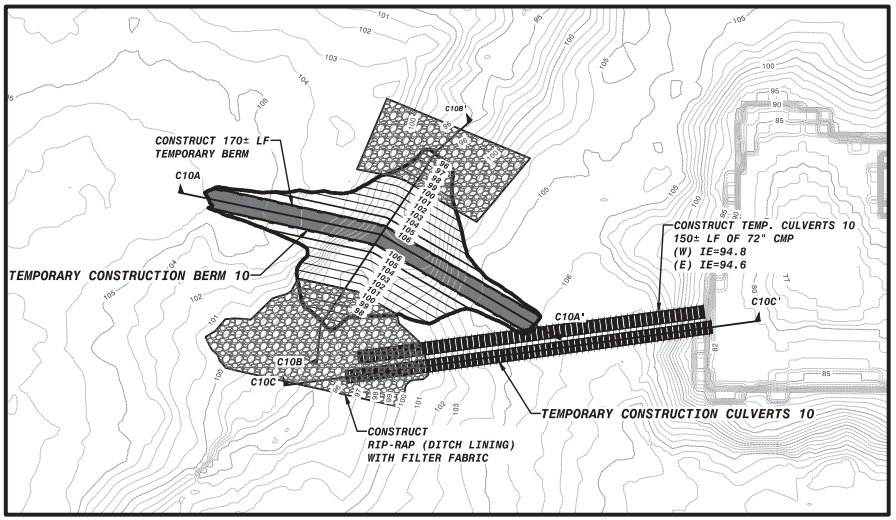
DATE: 11 29 16
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

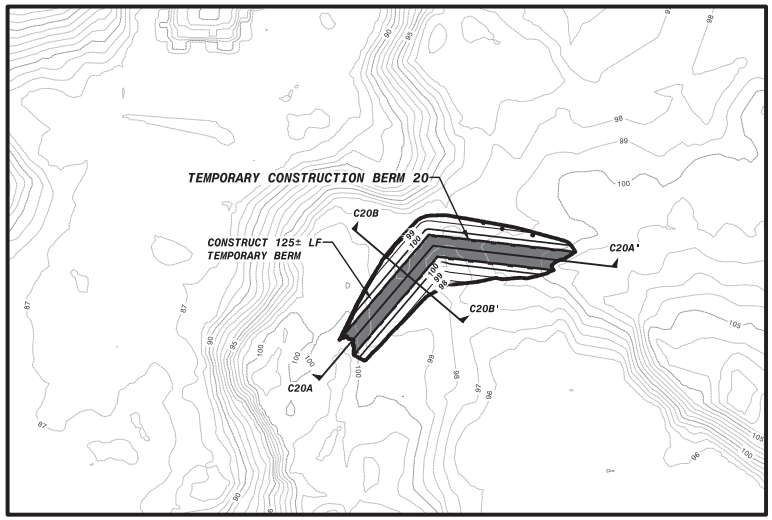
JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO INK FOR TOTA SHEETS INCLUDED
SHEET -

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-18_ Const-Drain_BYPASS-KEY.dwg LAYOUT: 18 SAVED: 11/29/2016 1:18 PM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 12/8/2016 2:17 PM DRAWN BY: VIVES, MARTIN





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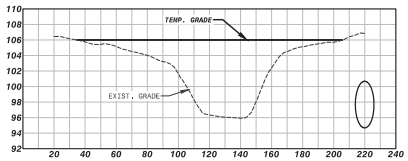
GRAPHIC SCALE (FT)



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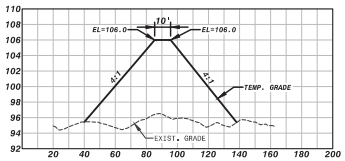

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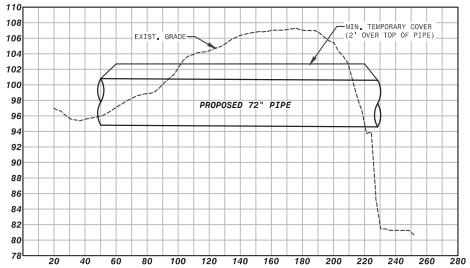

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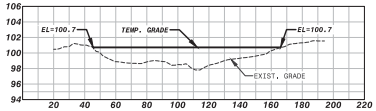

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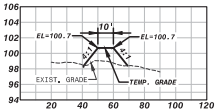

SECTION C20B-C20B'

NOTES:
1. ALL TEMPORARY EARTHWORK TO BE COVERED WITH TEMPORARY ROLLED EROSION CONTROL PRODUCT RECP NORTH AMERICAN GREEN SC1 0BN BIONET OR APPROVED E UAL. INSTALL PER MANUFACTURER S INSTRUCTIONS.
2. INSTALL DITCH LINING RIPRAP AS INDICATED ON PLANS OVER RECP.
3. ALL TEMPORARY FILL MATERIAL TO BE REMOVED RETURNED TO ORIGINAL OR PERMANENT DESIGN GRADE AS INDICATED ON PLAN.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
5892 E. Fowler Ave.
Tampa, Florida 33617
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Amec Foster Wheeler
Environment & Infrastructure, Inc.
1101 Channelside Dr. Suite 200, Tampa, FL 33602
Phone: 1.813.289.0750 Fax: 1.813.289.5474
www.amecfw.com CA-3382

BAL B YE E S ALL N A
AB A RES RA N

E P RARY BYPASS S R RE DE A LS
LLSB R N Y L R DA

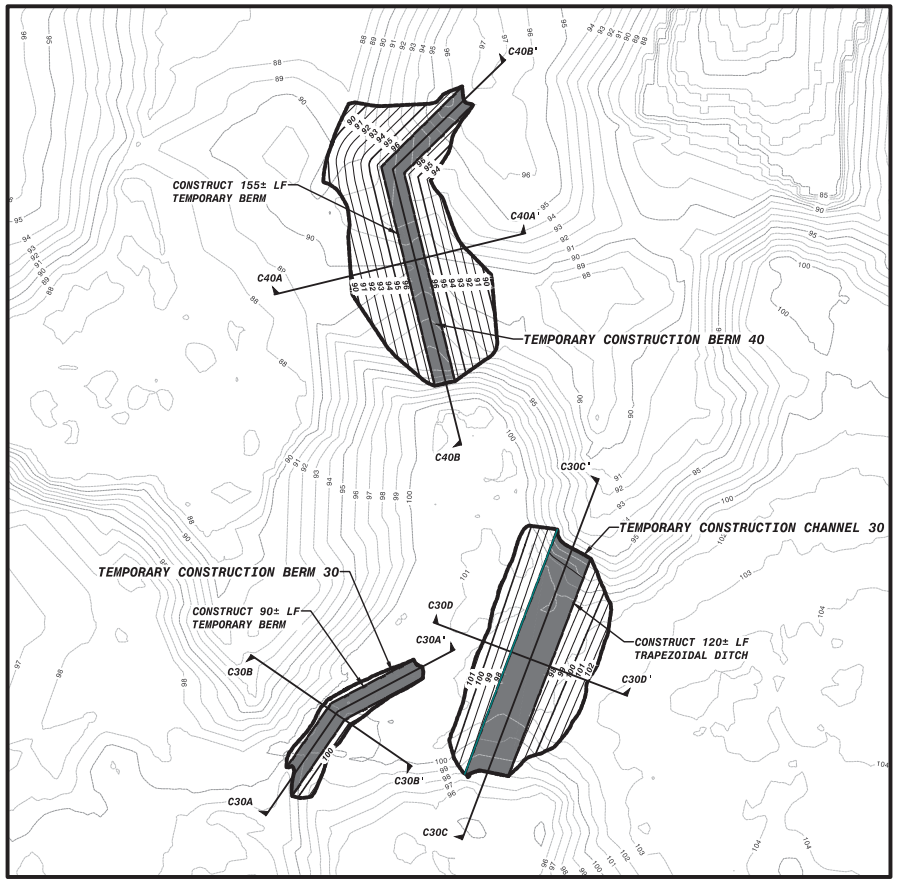
DATE: 11/20/16
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

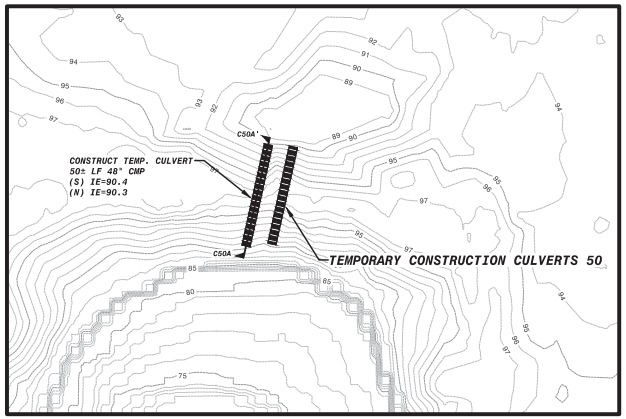
JOHN H. KIEFER
FLA. REG. NO. 1991

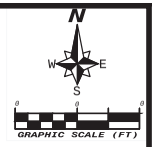
DATE:

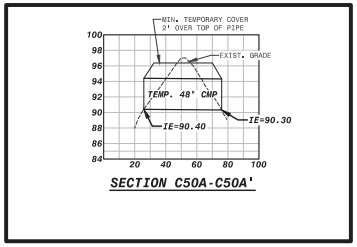
REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET -

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-19_Const-Drain_BYPASS.dwg LAYOUT: 19 SAVED: 11/29/2016 11:45 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 1/11/2017 9:58 AM DRAWN BY: VIVES, MARTIN









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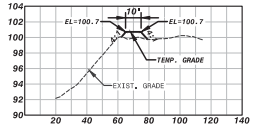

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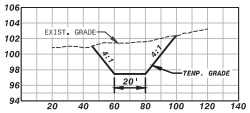

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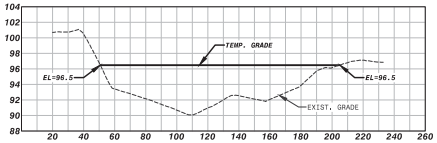

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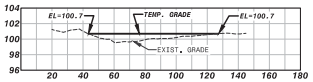

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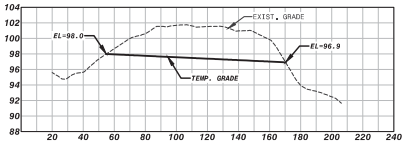

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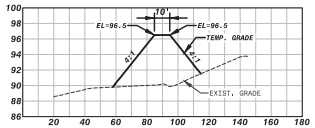

SECTION C40A-C40A'

NOTES:
1. ALL TEMPORARY EARTHWORK TO BE COVERED WITH TEMPORARY ROLLED EROSION CONTROL PRODUCT NORTH AMERICAN GREEN SC1 0BN BIONET OR APPROVED E UAL.
2. INSTALL DITCH LINING RIPRAP AS INDICATED ON PLANS OVER RECP.
3. ALL TEMPORARY FILL MATERIAL TO BE REMOVED RETURN TO ORIGINAL OR PERMANENT GRADE AS INDICATED ON PLAN.

NO.	DATE	REVISION

SCHEDA ECOLOGICAL ASSOCIATES, INC.
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BALM BOYETTE - STALLION HAMMOCK
HABITAT RESTORATION
TEMPORARY BYPASS STRUCTURE DETAILS
HILLSBOROUGH COUNTY, FLORIDA

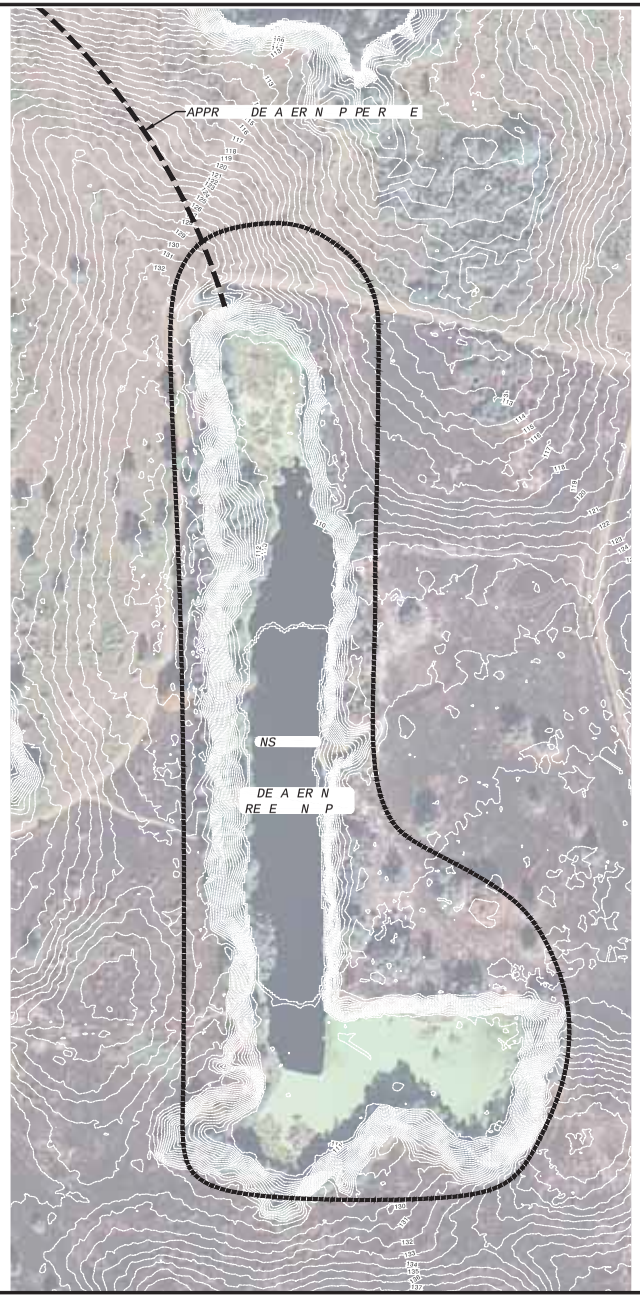
DATE: 11/20/16
DRAWN BY: M.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

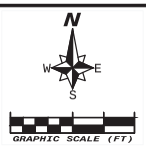
JOHN H. KIEFER
FLA. REG. NO. 1991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED
SHEET – 0

PROJECT NUMBER: 600308.9 CITY: TAMPA
Z:\PROJECTS-C3D\600308.9 SWFWMD Balm-Boyette Stallion Hammock Restoration\Drawings\CAD\600308.9_Fig-19_Const-Drain_BYPASS.dwg LAYOUT: 20 SAVED: 11/29/2016 11:45 AM PLOTSTYLETABLE: CIVIL-MASTER.CTB PLOTTED: 1/11/2017 10:00 AM DRAWN BY: VIVES, MARTIN





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CONSTRUCTION DEWATERING NOTES

1. CONTRACTOR SHALL ENSURE DISCHARGES FROM DEWATERING RECEIVING PITS SHALL MEET OR EXCEED WATER QUALITY STANDARDS FOR CLASS III WATERS.
2. WATER BODIES IDENTIFIED AS NSH1060 NSH2000 SHALL BE UTILIZED AS NECESSARY FOR CONSTRUCTION DEWATERING. DEWATERING DISCHARGE TO OTHER WATER BODIES IS PROHIBITED.
3. CONSTRUCTION DEWATERING PIPELINES SHALL BE LOCATED WITHIN THE DEWATERING PIPELINE CORRIDOR, AS INDICATED ON THE CONSTRUCTION PLANS.
4. DEWATERING PIPELINE TO BE LAID ON GRADE WITH THE EXCEPTION OF CROSSINGS UNDER EXISTING ACCESS DRIVES OR TRAILS. FOLLOWING COMPLETION OF DEWATERING ACTIVITIES, DISTURBED AREAS SHALL BE RESTORED TO PRE-DISTURBANCE CONDITIONS.

NO.	DATE	REVISION

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BAL B YE E S ALL N A
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NS R N P ASE DE A ER N PLAN
LLSB R N Y L R DA

DATE: 1/12/1
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 1991

DATE:

REFER TO INDEX FOR TOTAL SHEETS INCLUDED.
SHEET -

PROJECT NUMBER: 600308.9 CITY: TAMPA
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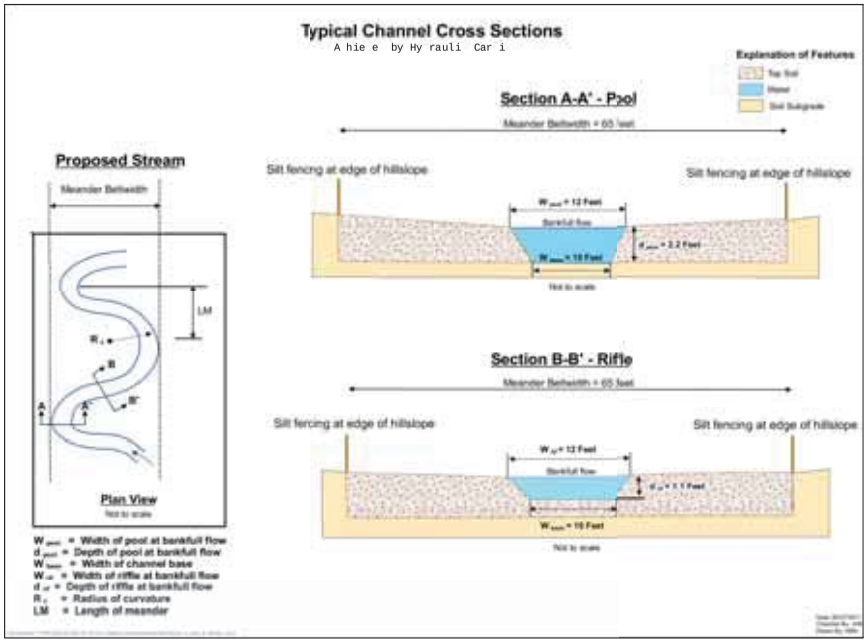

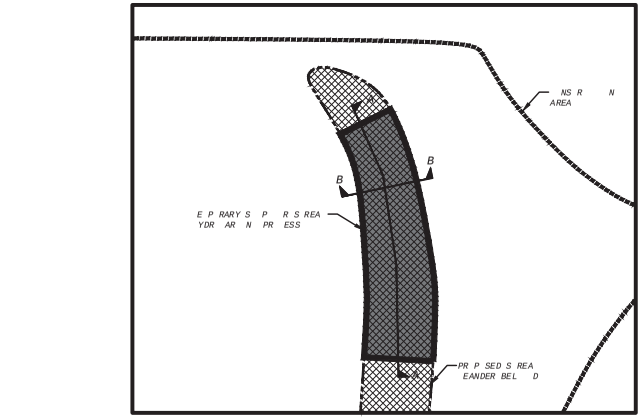

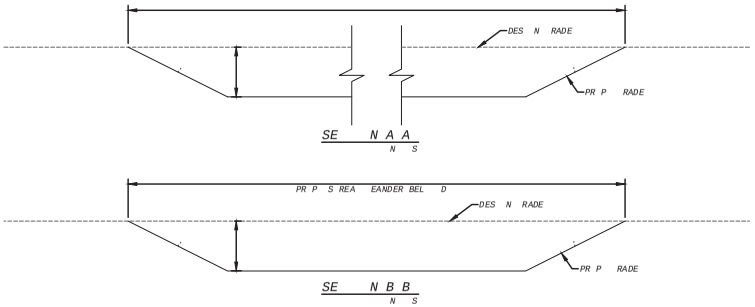

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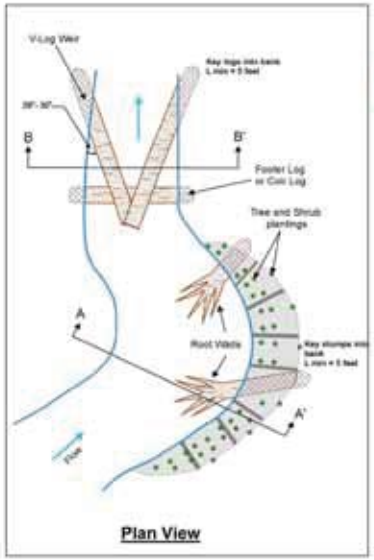

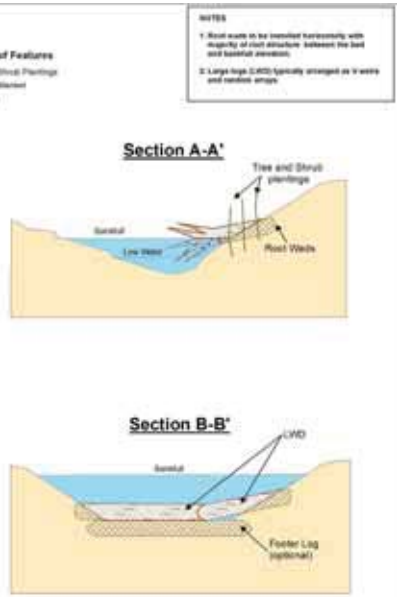

Stallion Hammock Preserve Large Woody Debris Specifications Table						
Habitat Amendment Type	Number of Amendments to be Installed	Installation Location	Materials	Diameter (in)	Length (ft)	Quantity
V-log Weir	12	To be installed at determined locations along streambed	Wood log	6-10	16 ± 2	24
			Coir or natural log footer	6-10	18 ± 2	12
			Rebar or duckbill anchor	N/A	N/A	24
Random Large Woody Debris	58	To be installed randomly along stream at approximate density of 3 per 100 LF	Wood log	4-12	4-10	58
			Rebar or duckbill anchor	N/A	N/A	116
Root Wad	10	To be installed on outer bank at determined locations	Root wad	12" minimum	5' minimum trunk for keying into bank	10

NOTES:

1. LOGS MEETING SPECIFICATIONS FOR LARGE WOODY DEBRIS (LWD) TO BE SALVAGED DURING CLEARING ACTIVITIES.
2. SUMP TO BE INSTALLED PRIOR TO COMMENCEMENT OF HYDRAULIC CARVING.
3. LOGS TO BE TEMPORARILY STOCKPILED IN SEVERAL PILES SCATTERED ALONG THE CONTOURED STREAM VALLEY'S MEANDER BELT PRIOR TO HYDRAULIC CARVING. THIS INDUCES LARGE MEANDERS DURING HYDRAULIC CARVING.
4. LOGS TO BE PERMANENTLY INSTALLED APPROXIMATELY 4 TO 8 WEEKS INTO HYDRAULIC CARVING, PER SPECIFICATIONS AS V-LOG WEIRS, ROOT WADS, AND RANDOM DEPLOYMENTS AT LOCATIONS TO BE APPROVED BY THE ENGINEER.
5. HYDRAULIC CARVING TO CONTINUE AT LEAST 2 WEEKS SUBSEQUENT TO LWD INSTALLATIONS.
6. HYDRAULIC CARVING IS REQUIRED FOR 5 DAYS PER WEEK, UP TO 12 WEEKS TOTAL. CONTRACTOR MAY CEASE CARVING ONCE CHANNEL DIMENSIONS SHOWN IN THE PLAN ARE ACHIEVED ALONG THE ENTIRE VALLEY OR UPON 12 WEEKS OF PUMPING (AT LEAST 60 12-HOUR DAYS), WHICHEVER OCCURS FIRST.
7. SUMP TO BE FILLED AND CONTOURED TO MATCH ADJACENT GRADES AND CREATE CHANNEL CONTINUITY FROM THE CARVED CHANNEL TO THE PROJECT BOUNDARY STREAM. AFTER HYDRAULIC IS COMPLETED, SOME MECHANICAL CHANNEL CONSTRUCTION WILL BE NECESSARY TO CREATE CONNECTIONS BETWEEN THE LIMITS OF CARVING AND THE UPSTREAM AND DOWNSTREAM CHANNELS ADJACENT TO THE PROJECT AREA. CONNECTING CHANNELS TO MATCH BOUNDARY GRADES AND TO BE LINED BY TEMPORARY ROLLED EROSION CONTROL PRODUCT NORTH AMERICAN GREEN SC150BN BIONET, OR APPROVED EQUAL.
8. FINAL CONNECTION TO OFFSITE WATERS TO OCCUR AFTER VEGETATION AND STABILIZATION, SUBJECT TO FDEP AND ENGINEER'S APPROVAL.

NO.	DATE	REVISION

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DATE: 11 29 16
DRAWN BY: H.VIVES
CHECKED BY: J.H.KIEFER
PROJECT NO.: 600308.9

JOHN H. KIEFER
FLA. REG. NO. 51991

DATE:

REFER TO IDEX FOR TOTAL SHEETS INCLUDED
SHEET – 22

PROJECT NUMBER: 600308.9 CITY: TAMPA
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