

# PRELIMINARY AGENDA

1

## FLORIDA INLAND NAVIGATION DISTRICT Board of Commissioners Meeting

9:00 a.m., Friday, November 17, 2023

Wyndham Grand Jupiter at Harbourside Place,  
122 Soundings Ave.,  
Jupiter, (Palm Beach County), Florida 33477

### **Item 1.**      **Call to Order.**

Chair Crowley will call the meeting to order.

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### **Item 2.**      **Pledge of Allegiance.**

Commissioner Isiminger will lead the Pledge of Allegiance to the United States of America.

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### **Item 3.**      **Roll Call.**

Secretary Davenport will call the roll.

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### **Item 4.**      **Consent Agenda.**

The consent agenda items are presented for approval. Commissioners may remove any items from this agenda that they have questions on or would like the Board to discuss in depth. Any items removed would then be included in the regular agenda in an order assigned by the Chair.

- a) Waterway Cleanup Funding Assistance to the Matanzas Riverkeeper for the 2023-2024 Matanzas River Litter Gitter Annual Waterway Cleanup Project in St. Johns County.
- b) City of Ft. Lauderdale Small-Scale Derelict Vessel Removal Program Application, Broward County, FL.

*(Please see back up pages 7-15)*

RECOMMEND:      Approval of the Consent Agenda.

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### **Item 5.**      **Additions or Deletions.**

Any additions or deletions to the meeting agenda will be announced.

RECOMMEND:      Approval of a Final Agenda.

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**Item 6.      Public Comments.**

The public is invited to provide comments on issues that are NOT on today's agenda. All comments regarding a specific agenda item will be considered following Board discussion of that agenda item. *Please note: Individuals who have comments concerning a specific agenda item should fill out a speaker card and communicate with staff prior to that agenda item.*

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**Item 7.      Board Meeting Minutes.**

The minutes of the following meetings are presented for approval.

- September 7, 2023 – First Tax and Budget Mtg. *(Please see back up pages 16-18).*
- September 8, 2023 – Finance & Budget Com. Mtg. *(Please see back up pages 19-20).*
- September 8, 2023 – Board Meeting *(Please see back up pages 21-31).*
- September 20, 2023 – Final Tax and Budget Mtg. *(Please see back up pages 32-34).*

RECOMMEND:      Approval of the minutes as presented.

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**Item 8.      Staff Report on Palm Beach County Area Status and Projects.**

Staff will present a report on the District's Palm Beach County area status and projects. *(Please see back up pages 35-64)*

RECOMMEND:      *(This item is presented for Board review and discussion only.)*

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**Item 9.      Comments and Project Status from the U.S. Army Corps of Engineers.**

Staff of the U.S. Army Corps of Engineers (USACE) Intracoastal Waterway Project Management is scheduled to present an update on projects and activities.

Further, the USACE will be performing operation and maintenance (O&M) dredging along the AIWW in the vicinity of Sawpit Creek. Dredging material will be placed on Amelia Island State Park Beach and Dredge Material Management Area DU-2. In accordance with the Memorandum of Agreement and Contributed Funds Agreement between the USACE and FIND, the USACE is requesting supplemental funding for the dredging of this important project.

*(Please see back up pages 65-81)*

RECOMMEND:      Approval of Work Order #61-2023-05 with the U.S. Army Corps of Engineers to request District funding for required maintenance dredging of the AIWW in the vicinity of Sawpit Creek, Nassau County, FL.

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**Item 10. Palm Beach County Projects and Partnership Presentation.**

Representatives from Palm Beach County Department of Environmental Resource Management are scheduled to provide a project & partnership update highlighting some of their recent successes in beneficial reuse of dredge material and habitat creation/restoration. The District has effectively partnered with the County on numerous projects thru the Waterway Assistance Program (WAP), Interlocal Agreements, the reuse of dredge material from the Palm Beach IWW Deepening, and the off-loading of Peanut Island, to name a few. Both the County and the District have enjoyed great success from this longstanding partnership to the benefit of our mutual constituents and the health of the waterways.

RECOMMEND: *(This item is presented for Board review and discussion only.)*

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**Item 11. Washington D.C. Report.**

Jim Davenport with Thorn Run Partners, the District's federal governmental relations firm, will provide an update on the federal budgetary process and legislative activity pertaining to the District's federal issues.

RECOMMEND: *(This item is presented for Board review and discussion only.)*

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**Item 12. Scope of Professional Services and Cost Proposal for: A) Additional Engineering and Review Work Associated With Pipeline Relocation at Dredged Material Management Area SJ-14, St. Johns County FL., and B) Coordination with Neighboring Interests and Drainage Concerns at Dredged Material Management Area BV-11, Brevard County, FL.**

Taylor Engineering has prepared a scope of work and fee quote for additional work review and coordination work at Dredged Material Management Area (DMMA) SJ-14 pertaining to the requested pipeline relocation and reconstruction by neighboring PARC Group. Funds will be utilized as needed and are scheduled to not exceed \$25,000.00.

In addition, Taylor Engineering has been called as an expert witness and the engineer of record for improvements associated with DMMA BV-11. The Navigation District is answering a lawsuit brought by the neighboring property owner concerning potential drainage and easement issues at the site. The additional work for Taylor engineering is estimated to not exceed \$18,000.00.

*(Please see back up pages 82-85*

RECOMMEND: Approval of a scope of professional services and fee quote in the amount of: a) \$25,000.00 for additional review work associated with pipeline relocation at DMMA SJ-14, St. Johns County, FL.; and b) \$18,000 for additional coordination and testimony for legal proceedings pertaining to drainage issues at DMMA BV-11, Brevard County, FL.

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**Item 13.**      **Pipeline Easement and Structure Modification Request for Dredged Material Management Area (DMMA) SJ-14, St. Johns County, FL.**

This item is a continuation of the item first brought to the Board at the September 2023 meeting. PARC Group (PG), the owner of the adjacent land surrounding the eastern half of the pipeline easement at DMMA SJ-14, is constructing the next phase of residential development, referenced as Marsh Harbor South (MHS). To minimize conflict, PG has requested to realign and replace approximately 700' of the easternmost portion of the District's pipeline easement and associated infrastructure.

In September, the Board reviewed a preliminary proposal and provided PG and District Staff input and directive on this matter. Since that meeting, PG, District, USACE, and Taylor Engineering staff have been working diligently to address the identified concerns. Numerous changes have been implemented to ensure that the District's long-term interests and operational capabilities at DMMA SJ-14 are protected. PG has remained cooperative throughout the process and additional coordination will be needed to resolve specific technical details and ensure a quality product at the time of construction. Mr. Maurice "Mo" Rudolph of PG is scheduled to attend the Board meeting to answer any further questions. At this time, Board approval is needed for the Easement Amendment language and the revised easement alignment. Please note that the USACE is expected to conduct an internal review and approval before the easement can be modified. The finalize amendment and disclosure language and will distribute that at the Board Meeting.

*(Please see back up pages 85-95)*

RECOMMEND:      Approval of a modification and realignment to a portion of the pipeline and access easement for DMMA SJ-14, St. Johns County, FL.

**Item 14.**      **Scope of Professional Services for the Development of the District Geographic Information System (GIS) Online WebMaps.**

At the October 2023 Board meeting, Taylor Engineering's Director of Geospatial Science, Mr. Patrick Lawson, (GISP, CFM) provided an update pertaining to the District's Geographic Information System (GIS) system. Taylor Engineering has provided Geographic Information Systems (GIS) services to the District since 2016. Initial GIS tasks for the District included updating archived GIS data to a modern geodatabase format, bathymetric data collection and surface creation, and map book creation for all District managed properties and DMMAs. More recent GIS services include mobile field map applications to assist District staff and contractors with site and well locations.

In response to a request from the Board to make relevant portions of FIND's GIS data readily available to the public, Taylor Engineering has prepared a Scope of Services and fee quote to create the District WebMap, and public facing WebMap and Data Portal which will both be accessible to the public and all interested parties. The WebMap and Data Portal, will provide visual access and downloadable files of District properties, easements, and channel data. Taylor Engineering will complete the work described in Tasks 1, 2 and 3 for a lump sum fee of \$18,648.00.

*(Please see back up pages 96-99)*

RECOMMEND:      Approval of a scope of professional services and fee quote from Taylor Engineering in the amount of \$18,648.00 to establish and populate FIND's District WebMap, public facing WebMap and Public Data Portal.



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**Item 15.**      **Scope of Work for Professional Services to Update Waterway Channel Shoaling Calculations Based on U.S. Army Corps of Engineers 2022 District-wide Bathymetric Survey.**

In 2022, U.S. Army Corps of Engineers (USACE) conducted a complete bathymetric survey of the Intracoastal Waterway (IWW). From this data, existing shoals, shoaling rates, and dredged material quantities can be determine which will allow staff to best plan for predicted dredging projects and coordinate the construction of those Dredged Material Management Areas (DMMA's) necessary to receive project materials.

Taylor Engineering has prepared a Scope of Services and fee quote to develop updated shoaling calculations based on the most recent USACE comprehensive bathymetric survey of the Waterway. Staff will use these results to prepare the next 5-year plan, prioritizing DMMA design and construction to best match future maintenance dredging projects. Taylor Engineering will complete the work described in Tasks 1 and 2 for a lump sum fee of \$48,672.00.

(Please see back up pages 100-103)

RECOMMEND:      Approval of a scope of professional services and fee quote from Taylor Engineering in the amount of \$48,672.00 to provide updated shoaling calculations based on the most recent U.S. Army Corps of Engineers (USACE) comprehensive bathymetric survey of the Intracoastal Waterway (IWW and AIWW).

**Item 16.**      **Assistance Program Rule Revision.**

Each year, upon completion of the assistance program application cycle, staff reviews the program, notes Commissioners comments and proposes changes to the assistance program rules which would improve the process for the District and the applicants. Based on comments at our July 2023 meeting, staff has prepared draft rule language. It is the staff's intention to make the approved changes to both the Waterways Assistance Program (WAP) and Cooperative Assistance Program (CAP) rules as applicable.

(Please see back up page 104)

RECOMMEND:      Approval of the proposed rule language amendments for rulemaking.

**Item 17.**      **Personnel Committee Report.**

The District's Personnel Committee met prior to the Board meeting and will provide their recommendations concerning items on the Committee's agenda.

(Please refer to the Finance and Budget Committee Agenda Package)

RECOMMEND:      Approval of the recommendations of the District's Personnel Committee.

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**Item 18.**      **Finance and Budget Committee Report.**

The District's Finance and Budget Committee met prior to the Board meeting and will provide their recommendations concerning items on the Committee's agenda.

*(Please refer to the Finance and Budget Committee Agenda Package)*

RECOMMEND:      Approval of the recommendations of the District's Finance and Budget Committee.

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**Item 19.**      **Additional Staff Comments and Additional Agenda Items.**

- AIWA conference
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**Item 20.**      **Additional Commissioner Comments.**

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**Item 21.**      **Adjournment.**

*If a person decides to appeal any decision made by the board, agency, or commission with respect to any matter considered at such meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose, he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.*

**PRELIMINARY CONSENT AGENDA**

**FLORIDA INLAND NAVIGATION DISTRICT**

**Board of Commissioners Meeting**

**9:00 a.m., Friday, November 17, 2023**

**Wyndham Grand Jupiter at Harbourside Place  
122 Soundings Ave.,  
Jupiter, Palm Beach County, Florida 33477**

**Item a.      Waterway Cleanup Funding Assistance to the Matanzas Riverkeeper for the 2023-2024 Matanzas River Litter Gitter Annual Waterway Cleanup Project in St. Johns County.**

The Matanzas Riverkeeper has submitted a funding request for the 2023-2024 Matanzas River Litter Gitter Annual Waterway Cleanup Project in St. Johns County. The District has previously funded this cleanup organization, and it was very successful. The request is for \$5,000. The proposal is consistent with the District's program rules.

*(Please see back up pages 8-10)*

RECOMMEND:      Approval of the request from the Matanzas Riverkeeper for assistance with the 2023-2024 Matanzas River Litter Gitter Annual Waterway Cleanup Project in St. Johns County in an amount not to exceed \$5,000.

**Item b.      City of Ft. Lauderdale Small-Scale Derelict Vessel Removal Program Application, Broward County, FL.**

The City of Ft. Lauderdale has submitted a funding assistance request for the removal of one (1) derelict vessel located on the District's waterways within Broward County. The total project cost is estimated to be \$5,700.00. Consistent with Rule 66B-2.015, Small-Scale Derelict Vessel Removal Projects, the project is eligible for up to 75% District funding reimbursement. The City of Ft. Lauderdale is requesting \$4,275.00 (75%) District funding reimbursement.

*(Please see back up pages 11-15)*

RECOMMEND:      Approval of the City of Ft. Lauderdale's request for up to \$4,275.00 cost-share through the District's Small-Scale Derelict Vessel Removal Projects program, Broward County, FL.

October 13, 2023

Florida Inland Navigation District (FIND)  
1314 Marcinski Rd  
Jupiter, FL 33477



**Re: FIND Waterway Cleanup Grants – Request for Funding**

Dear Mr. Kelley,

Thank you so much to the Florida Inland Navigation District (FIND) for its continued support through the FIND Waterway Cleanup Grant program. Our cleanup program, the Litter Gitter, has become a staple in our community, combining environmental stewardship with community service, and we are looking forward to the opportunity to continue to partner with FIND.

**About Us**

Matanzas Riverkeeper is a nonprofit organization dedicated to protecting the health of the Guana, Tolomato, and Matanzas River watershed through advocacy, education, and community engagement. Our work includes everything from advocating for stronger water quality protections, to organizing river cleanups, to teaching children and adults alike how to be good stewards of our environment. Litter is one of the most visually apparent threats to our water quality, and therefore one that many people can easily understand. We work in an area that is becoming rapidly urbanized and is regularly impacted by severe storms. As a result, we are continually seeing trash and debris ending up in our local waterways.



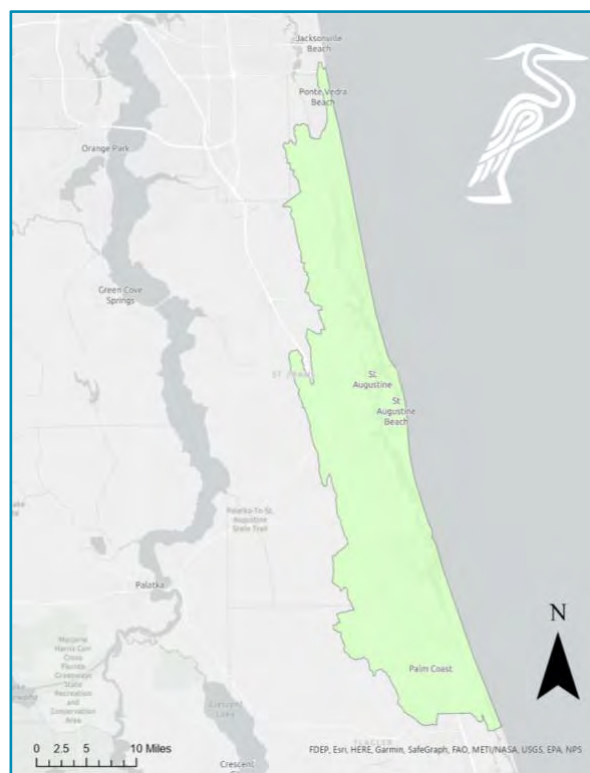
The Litter Gitter is a program of Matanzas Riverkeeper that takes members of our community out on the intracoastal waterway and its tributaries to remove trash and to learn about the issues surrounding marine debris and litter. The namesake of the program is the Litter Gitter II: a bright yellow 24-foot Carolina skiff, specially equipped for removing large volumes of debris. The program is based out of Genung's Fish Camp in St. Augustine, FL and conducts cleanups along the intracoastal waterway in St. Johns County and beyond. The Litter Gitter program works to ensure that our local waterways stay clean and healthy while giving volunteers an opportunity to get their hands dirty and to do their part. The most apparent result of this program is cleaning up our waterways by removing trash, but the benefits run much deeper than that. We aim to educate participants about the problems associated with single-use plastics and the shortfalls of the recycling industry and to teach them about local pollution sources and water quality issues.

## Results

Since her maiden voyage in February of 2016, the Litter Gitter has removed almost 43,000 pounds of debris from the Matanzas River—much of which was light-weight, single-use plastic! We have collaborated with diverse groups for waterway cleanups including school groups, civic organizations, local governments, rehabilitation programs, environmental organizations, and many more. The locations of our cleanups have spanned the intracoastal waterway from Fernandina Beach down to New Smyrna, with a focus on the intracoastal waterway in St. Johns and northern Flagler County. Additionally, we have begun to host more land-based coastal cleanups to tackle litter in high traffic/high trash areas. In May of 2023 we hired our Program Director, Capt. Silas Tanner, to manage and expand the Litter Gitter program. Silas is a licensed Captain who grew up fishing St. Augustine's water as well as a water quality scientist. With Capt. Tanner onboard, we will be able to expand the reach and number of our Litter Gitter trips.

## Request for Support

**Thanks to FIND's support, since September of 2022 we were able to host 20 Litter Gitter and land-based cleanups with over 300 volunteers to remove over 2,800 pounds of trash and debris from St. Johns County waterways and shorelines.** Unfortunately, with regular storm events we are seeing an increase in litter and debris along our coast. In addition to pollution issues, large debris can cause hazards for boaters and swimmers alike. As our program has grown, we have begun to receive more requests for cleanups in areas of the intracoastal waterway further north and south of our office in Crescent Beach. This requires us to trailer the boat to a new location and launch at a different boat ramp for the cleanup. Years of regular heavy use in a saltwater environment has deteriorated the axles, leaf springs, and winch on our trailer, so we are requesting funds to repair the trailer. Additionally, we are requesting funding for the continued operation of the vessel including fuel, insurance fees, and vessel maintenance costs.



*Our project area includes the Guana, Tolomato, and Matanzas Rivers and their watersheds through St. Johns and Flagler counties.*



## Projected Budget

Description	Cost	Notes
Fuel & Supplies	\$1,500	Fuel and supplies for the vessel to conduct waterway cleanups to access hard to reach areas where debris builds up that would be inaccessible by land and supplies to keep volunteers safe and dry during both Litter Gitter and land-based cleanups
Vessel Operation & Maintenance	\$2,500	Vessel registration, insurance, and maintenance as well as a portion of the costs associated with repairing the vessel trailer to facilitate additional trips at more locations
Shirts	\$1,000	Shirts to ensure that volunteers are identifiable as volunteers while participating in cleanups
<b>Total</b>	<b>\$5,000</b>	

Additional expenses for the Litter Gitter program that will be covered with funds other than the FIND Waterway Cleanup Grant include:

- Salary for a licensed captain
- Volunteer time for participating in cleanups
- Staff hours for recruiting volunteers, coordinating cleanups, and cataloging debris data
- Dumpster for bulk of small trash
- Disposal of large items such as lumber and tires that must be taken to the landfill
- Additional costs associated with repairing the Litter Gitter trailer

## Recognizing FIND

In order to ensure that FIND's support to the Litter Gitter program is recognized, FIND will be highlighted in the following ways:

- FIND's logo will be featured in the sponsor section of the [Litter Gitter page on our website](#)
- An announcement thanking FIND in the Matanzas Riverkeeper newsletter (1,400+ subscribers)
- An announcement thanking FIND on our Facebook and Instagram pages (over 6.4k followers)
- Including FIND's logo on the Litter Gitter informational brochures
- Maintaining a decal of FIND's logo on Litter Gitter equipment

We sincerely appreciate your consideration and support. Please do not hesitate to reach out with any questions or comments.



**Jen Lomberg, Esq.**

Matanzas Riverkeeper

[Jen@MatanzasRiverkeeper.org](mailto:Jen@MatanzasRiverkeeper.org)



ATTACHMENT A  
**FLORIDA INLAND NAVIGATION DISTRICT**  
**SMALL-SCALE DERELICT VESSEL REMOVAL PROGRAM APPLICATION**

Applicant: City of Fort Lauderdale

Project Title: Abandoned 28' Carver

Contact Person: Greg Chavarria

Title: City Manager

Address: 100 North Andrews Ave.

Fort Lauderdale, Florida Zip Code: 33301

Telephone: 954-828-5343 Fax: 954-468-1599

Email: jluscomb@fortlauderdale.gov

Number of Vessels and waterway locations: 1, Seminole River Canal, Fort Lauderdale  
(Please include pictures and map locations on a separate worksheet) 26 06 10.32 N / 080 07 22.81 W

Vessel Distance from the Intracoastal Waterway 1,200 feet

Total Estimated Costs to removal all vessels: \$ 5700; FIND Funding Requested: \$ 4,275.00  
% of total cost: 75. Please complete and attach a cost estimate sheet (Form # 01-06) for each vessel to be removed, in addition to a contractor bid sheet)

Amount and Source of Applicants Matching Funds: \$1,425 Broward Boating Improvement Program Grant on hand.

Other (non-FIND) Assistance applied for (name of program and amount) \_\_\_\_\_

Have all vessels been identified by the Florida Fish & Wildlife Conservation Commission (FFWCC) (or other applicable marine law enforcement agency) as derelict? \_\_\_\_\_ If not, explain: \_\_\_\_\_  
City of Fort Lauderdale Marine Police Unit. Case Number: 342303061098-1

Have all necessary permits and or approvals been approved for the removal of the derelict vessels? \_\_\_\_\_

If not, please explain: Deemed Abandoned by City of Fort Lauderdale Marine Police

I hereby certify that the information provided in this application is true and accurate.

SIGNATURE:  DATE: 8/30/23

## ATTACHMENT B

**FLORIDA INLAND NAVIGATION DISTRICT  
SMALL-SCALE DERELICT VESSEL REMOVAL PROGRAM APPLICATION**

**PROJECT COST ESTIMATE**

(See Rule Sections 66B-2.005, 2.008 & 2.015 for eligibility and funding ratios)

**APPLICANT:** \_\_\_\_\_

**PROJECT:** \_\_\_\_\_

**VESSEL LOCATION AND IDENTIFICATION:** \_\_\_\_\_

<b>Project Elements</b> <i>(Please list the project cost elements and provide a general cost break out for each one.)</i>	<b>Quantity Estimated Cost</b> <i>(Number or cost per vessel )</i>	<b>Applicant's Cost</b>	<b>FIND Cost</b>
Remove and properly Dispose of Abandoned 28' Carver Motor Yacht	\$ 5,700	\$1,425	\$4,275

**\*\* TOTALS =**                      \$ 5,700                      \$ 1,425                      \$ 4,275



**ATTACHMENT C**  
**Small-Scale Derelict Vessel Removal Projects Funding Policy**  
**(Rule 66B-2.015)**

Proposals shall be accepted for financial assistance for the removal of derelict vessels within the District's waterways. The applicable provisions of this rule apply to these applications with the following additions or exceptions:

(1) Application Procedure — Applications shall be submitted on a completed FIND Form No. 05-01 (effective date 04-24-06), hereby incorporated by reference and available from the District office. Applications may be submitted to the District and considered by the Board at any time during the year.

(2) The District shall only fund applicants that have identified derelict vessels to be removed and have an outstanding bid for removal for such vessels, subject to eligibility under these program rules.

(3) The program must be sponsored by an eligible government agency or not-for profit organization.

(4) District funding shall be limited to \$75,000 per county, per year, provided on a reimbursement basis only.

(5) The eligible applicant must provide the remaining matching funds for project completion. In no case shall the District's cost-share contribution exceed 75% of the total project costs. In-house project management or administration costs are not eligible costs or matching costs.

(6) The derelict vessel must be located in, the District's waterways, as defined in subsection 66B-2.003(28) "Waterways".

(7) The District shall be recognized when possible in all written, audio or video advertising and promotions as a participating sponsor of the program.

(8) The funding provided by the District shall only be allocated for removal of derelict vessels. The District is providing program reimbursement funds only and shall be held harmless with regards to the activities initiated by the applicant.

(9) The applicant shall be responsible for all maintenance, management, disposal and operating expenses associated with the program.

(10) Funds derived from the sale of any derelict vessels or vessel parts removed through this grant program must be reinvested into the applicant's derelict vessel removal program.

(11) The District Board shall make all final decisions concerning the provision of funding for this program.

or 29 2023 12:43:36  
auderdale, FL 33316  
Fort Lauderdale  
Community Enhancement & Enforcement  
cer Garcia 149



**NOTICE**

**CITY OF FORT LAUDERDALE POLICE DEPARTMENT**

**TO THE OWNER AND ALL INTERESTED PARTIES IN THE ATTACHED PROPERTY**

THIS PROPERTY \_\_\_\_\_

IS UNLAWFULLY UPON PUBLIC PROPERTY KNOWN AS \_\_\_\_\_

AND MUST BE REMOVED WITHIN 5 DAYS; OTHERWISE, IT WILL BE REMOVED AND DISPOSED OF  
PURSUANT TO Chapter 705, FLORIDA STATUTES. THE OWNER WILL BE LIABLE FOR THE COSTS OF  
REMOVAL, STORAGE AND PUBLICATION OF NOTICE.

CASE # \_\_\_\_\_

DATE \_\_\_\_\_

OFFICER \_\_\_\_\_

1300 WEST BROWARD BLVD.

FORT LAUDERDALE, FL 33302

954-828-5440





**MINUTES OF THE  
FLORIDA INLAND NAVIGATION DISTRICT**

**First Public Tax and Budget Hearing**

**5:05 p.m., Thursday, September 7, 2023**

**Frances Langford Dockside Pavilion at Indian Riverside Park  
1707 NE Indian River Dr, Jensen Beach (Martin County), FL 34957**

**ITEM 1.      Call to Order.**

The First Public Tax and Budget Hearing of the Board of Commissioners of the Florida Inland Navigation District was called to order by Chair Crowley at 5:06 p.m.

**ITEM 2.      Pledge of Allegiance to the Flag.**

Commissioner Cuzzo led the Pledge of Allegiance to the Flag of the United States of America.

**ITEM 3.      Roll Call.**

Assistant Executive Director Janet Zimmerman called the roll and Chair Crowley and Commissioners Boehning, Davenport, Blow, Cuzzo, Isiminger, Sansom, Stapleford were present. Commissioners Gernert, Williams, and O'Steen were absent. Ms. Zimmerman stated that a quorum was present.

Also present were Executive Director Mark Crosley, Deputy Director Chris Kelley, Finance Director Glenn Scambler, and Attorney Peter Breton.

**ITEM 4.      Announcement of the percent (0%) by which the proposed millage rate (0.0288) exceeds the calculated rolled-back rate (0.0288).**

Chair Crowley announced the percent (0%) by which the proposed millage rate (0.0288) exceeds the calculated rolled-back rate (0.0288).

**ITEM 5.      Invitation for Public Comments.**

There were no public comments.

**ITEM 6.      Comments by District Commissioners.**

Commissioner Isiminger stated he was very proud to go with the roll-back rate and that people do notice.

Commissioner Blow stated he was initially concerned about using the roll back rate due to inflation until he saw the TRIM notice and the significant tax increases in his county.

The Commissioners discussed the WAP cap for each county and the possibility of raising the current percentage rate of 80%. Mr. Breton noted that the current threshold is set at 80% so the District has money for its other primary functions. Commissioner Stapleford asked if the Board would consider raising the percentage. Commissioner Blow noted that the growth of each county and increase in taxable values increases the 80% cap.

Commissioner Isiminger noted that the WAP programs are important but not FIND's primary mission.

Commissioner Sansom stated that in 1987, the State Legislature added to FIND's primary mission to include these projects.

Mr. Breton noted that the counties also have flexibility such as phasing, multi-year projects, and interlocal agreements.

Commissioner Boehning suggested discussing a way to bank funds for future use of the community as an upcoming agenda item.

Ms. Zimmerman stated that staff will look at the rules and Legislative direction with regard to county caps with grants and provide a presentation at a future Board meeting.

**ITEM 7. Amendments to the Tentative Budget.**

There were no amendments to the Tentative Budget.

**ITEM 8. Re-computation of the Tentative Tax Millage Rate.**

Chair Crowley stated that the re-computation of the tentative tax millage rate is unnecessary.

**ITEM 9. Announcement of the Percent by Which the Re-computed Proposed Millage Rate Exceeds the Calculated Rolled-Back Rate.**

This item was not applicable.

**ITEM 10. Additional Public Comments on the Budget Amendments and Tax Millage Re-computation.**

There were no additional public comments.

**ITEM 11. Adoption of the Tentative Tax Millage Rate.**

Commissioner Isiminger motioned to approve the adoption of the tentative tax millage rate. Commissioner Blow seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 12. Adoption of the Tentative Budget.**

Commissioner Blow motioned to approve the adoption of the tentative budget. Commissioner Stapleford seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 13.      Announcement of the Date, Time and Place of the Final Tax and Budget Hearing.**

Mr. Crosley announced that the Final Tax and Budget Hearing will be held September 20 at the Village of Tequesta Council Chambers at 345 Tequesta Drive, Tequesta, FL 33469 at 5:05 p.m.

**ITEM 14.      Adjournment.**

Chair Crowley adjourned the meeting at 5:35 pm.

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Spencer Crowley, Chair

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Attest                      Buddy Davenport, Secretary  
(SEAL)

**MINUTES OF THE  
FLORIDA INLAND NAVIGATION DISTRICT**

**Finance and Budget Committee Meeting**

**8:45 a.m., Friday, September 8, 2023**

**Hutchinson Shores Resort  
3793 NE Ocean Blvd.  
Jensen Beach (Martin County), FL 34957-6514**

**ITEM 1.      Call to Order.**

Committee Chair Boehning called the meeting to order at 8:45 a.m.

**ITEM 2.      Roll Call.**

Assistant Executive Director Janet Zimmerman called the roll and Chair Crowley, Commissioners Gernert, Davenport, Boehning, Blow and Sansom were present. Ms. Zimmerman stated that a quorum was present. Also in attendance were Executive Director Mark Crosley and Finance Director Glenn Scambler.

**ITEM 3.      Additions or Deletions.**

There were no additions or deletions. Commissioner Blow motioned to approve the agenda as presented. Commissioner Sansom seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 4.      Public Comments.**

There were no public comments.

**ITEM 5.      Financial Statements for June and July 2023.**

Mr. Crosley presented the District's June and July 2023 financial statements.

Mr. Scambler stated that the District currently has \$110M on hand. All the banks holding District funds have a five-star star rating, and all CDs and money market accounts are above 4%. The investment yield is \$4.6M in interest.

Commissioner Blow stated that Mr. Scambler is doing a great job.

Commissioner Blow motioned to recommend the Financial Statements for June and July 2023. Commissioner Sansom seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 6.      June and July 2023 Budget Summary and Project Status Expenditure Reports.**

Mr. Crosley presented the Budget Summary and Project Status Expenditure Reports for June and July 2023. He noted that page 31 reflects the carrying of significant funding for grants project. The District is making good progress on the projects and DMMA 0-23 was completed.

Ms. Zimmerman noted that the District does expect about \$3M of budgeted funds to roll back into the budget from grants that have expired and not been completed.

**ITEM 7. Delegation of Authority Report.**

Mr. Crosley noted that page 45 reflects the capped abandoned artisan well.

**ITEM 8. Additional Agenda Items or Staff Comments.**

There were none.

**ITEM 9. Additional Commissioners' Comments.**

Commissioner Blow noted although the District appears to have a lot of cash, every dollar is committed to projects.

Commissioner Boehning stated that he traveled to the District office to meet with staff, and it was a good learning experience to sit with Mr. Scambler and learn all fronts of the budget, banking, and finances.

**ITEM 10. Adjournment.**

Commissioner Gernert stated that hearing no further business the meeting was adjourned at 8:58 a.m.

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Stephen Boehning, Acting Committee Chair

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Attest  
(SEAL)

Buddy Davenport, Secretary



**MINUTES OF THE  
FLORIDA INLAND NAVIGATION DISTRICT**

**Board of Commissioners Meeting**

**9:00 a.m., Friday, September 8, 2023**

**Hutchinson Shores Resort  
3793 NE Ocean Blvd.  
Jensen Beach (Martin County), FL 34957-6514**

**ITEM 1.      Call to Order.**

Chair Crowley called the meeting to order at 9:01 am.

**ITEM 2.      Pledge of Allegiance.**

Mr. Don Donaldson led the Pledge of Allegiance to the Flag of the United States of America.

**ITEM 3.      Roll Call.**

Deputy Director Chris Kelley called the roll and Chair Crowley, Vice Chair Gernert, and Commissioners Davenport, Boehning, Blow, Isiminger, Sansom, Stapleford, and Williams were present. Commissioner Cuzzo arrived at 10:14 a.m. and Commissioner O'Steen was absent. Also in attendance were Executive Director Mark Crosley, Assistant Executive Director Janet Zimmerman, Operations Director Ian Eyeington, Finance Director Glenn Scambler, Attorney Peter Breton, Mr. Don Donaldson of Martin County, Mr. Jerry Scarborough of Taylor Engineering, Mr. Joshua Revord of St. Lucie County, and Mr. Eduardo Marin of USACE.

**ITEM 4.      Consent Agenda.**

Commissioner Boehning motioned to approve the consent agenda. Commissioner Blow seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 5.      Additions or Deletions.**

Mr. Crosley requested that two agenda items be added: Item 19a, Revised Access Easement Agreement for DMMA BV-4b; and Item 19b, City of Ft. Lauderdale Small Scale Vessel Application.

Commissioner Blow motioned to approve the agenda as modified. Commissioner Stapleford seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 6.      Public Comments.**

Mr. Don Donaldson, County Administrator of Martin County and former St. Lucie County FIND Commissioner, welcomed the Board to Martin County. He stated he was looking forward to the District's good work and that the hotel is a fine facility and partner to District. He also highlighted some of the projects the County was working on, including: a boat ramp under construction at Sansprit Park; the St. Lucie Canal sea wall; commercial activities; and Okeechobee Waterway restoration projects. He also noted that Ms. Zimmerman will be awarded a public service award from Florida Shore and Beach Preservation Association.

Mr. Joshua Revord, Director of Port Inlet Beaches for St. Lucie County, stated he was happy to report that within nine months after construction, the sand trap has completely filled and is a success. He thanked the Board for their support and stated they are now in the planning phase with the state to use that sand regionally. He also discussed an upcoming project in St. Lucie to bring a regional boat ramp to that location with three launches.

**ITEM 7. Board Meeting Minutes.**

Chair Crowley presented the June 16, 2023, Finance and Budget Committee Minutes and the June 16-17, 2023, Board Meeting Minutes for approval. Commissioner Blow motioned to approve the minutes as presented. Commissioner Davenport seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 8. Staff Report on Martin County Area Status and Projects.**

Mr. Crosley reviewed the projects beginning on page 75 of the agenda.

He stated that four of the seven sites in the county are finished and staff is looking to offload DMMA-M5 at the first opportunity. The economic study output on Martin County waterway activity is \$1.2B.

Commissioner Sansom asked if the District is engaged in studies to reduce dredging needs in Martin County. Mr. Crosley replied yes, Taylor Engineering looked at the optimization of dredging at the crossroads of IWW and OWW, and the implementation of a widener has been successful. Mr. Scarborough noted that the widener decreased dredging time from every three years to every five years.

**ITEM 9. Comments and Project Status from the U.S. Army Corps of Engineers.**

Mr. Eduardo Marin, USACE Project Manager, reviewed the project statuses beginning on page 96 of the agenda.

He stated that work was completed at DMMA O-23 and USACE is working on a closeout for September.

Mr. Marin stated that IWW Palm Valley South had surplus money from the project, which will apply to future jobs.

At IWW Volusia, the stockpile design for dredge disposal is complete. There is a backup plan to place the material in the near shore north of the inlet in case the county doesn't get all the easements.

Mr. Crosley asked if the USACE Dredge Murden is able to get in and buy time. Mr. Marin stated USACE is down one hopper dredge for maintenance.

At AIWW Sawpit, USACE is finalizing plans and specs and will request additional funds in December due to the project being pushed back.

Mr. Marin stated that for IWW Matanzas, USACE is expected to receive \$4M in the FY23 President's Budget. The project will include maintenance dredging of the IWW near Matanzas Inlet in St. Johns County. The permit was modified to include the Summer Haven River shoal drifting into the IWW.

Mr. Crosley stated that there is critical shoaling at Crossroads and USACE may be unable to mobilize there in time for a full project. On the agenda is a necessary benthic survey to conduct before the seagrass survey window closes.

Mr. Marin stated that dredging was completed between cuts M5-M7, and dredging is needed at M1-M7. Mr. Crosley noted that the District is pursuing individual permits as the Regional General Permit has expired.

Mr. Marin stated that the Draft Project Partnership Agreement is currently under review and getting traction. SAJ received the additional SAD's comments and is working through the comments.

Commissioner Williams asked where the District stands with USACE for dredging on the AICW by Fernandina. Mr. Marin noted that a survey was done in Nassau and FY24 would be the earliest funding, with February/March to start plans and specs and get permits and the estimated award in early 2025.

Mr. Crosley asked if it would be effective to come to FIND with a scope to get started while waiting for federal funding and suggested having that discussion with USACE.

**ITEM 10. Martin County Derelict Vessel Removal Program Presentation.**

Mr. Jeff Dougherty, Director of the Martin County Building Department, presented on Martin County's Derelict Vessel Removal Program's processes and experiences. The Derelict Vessel Removal Program is a part of the Code Enforcement Division within the Building Department. Operating in conjunction with Law Enforcement, it functions to maintain safe passage within navigable waterways, and to protect the marine environment.

Chair Crowley noted it is very complicated process to navigate and requires different elements to pull together, and it's great to see how the County has done this on the local government side. He suggested Mr. Dougherty think about FIND's programs and how the District can better serve them through the grants programs.

Mr. Dougherty noted that the key is integration between the county government and the Sheriff's office.

Commissioner Davenport asked how the County is contacted about the derelict vessels. Mr. Dave Holcomb stated they are notified by the Sheriff's office.

Commissioner Stapleford asked what rights a property owner has over a derelict vessel docked on their property. Mr. Holcomb noted they will try to work with both parties to come to a resolution, but if a vessel is docked without permission, it can be removed per statute.

The Commissioners discussed the VTIP program from FWC.

**ITEM 11. Dredged Material Management Area SJ-14 Pipeline Easement Relocation.**

The existing pipeline easement for Dredged Material Management Area (DMMA) SJ-14 was established in its current configuration around 2009. This easement contains both a permanent underground discharge outfall and allows for the ingress of the dredge pipe during Intracoastal Waterway dredging projects. The U.S. Army Corps of Engineers (USACE) recently completed a maintenance dredging of the Palm Valley South portion of the nearby Intracoastal Waterway (IWW). Numerous issues arose from a combination of issues with the condition of the existing pipeline and obstructions within the easement. This request was originally reviewed by the Board in April of 2016.

Earlier this year, District staff were again approached by the neighboring developer (the PARC Group) to discuss the possibility of relocating a portion of the District's pipeline

easement. The PARC Group owns the land that is east of Davis Park Road, which surrounds much of the SJ-14 pipeline easement. The PARC Group is planning the next phase of a residential development, known as Marsh Harbour South (MHS). The development of MHS will impact the eastern extent of the District's pipeline easement near the IWW. The development's proposed design will require that approximately 700 linear feet of easement will need to be realigned, along with moving the existing buried discharge pipeline and associated manholes in this area. The PARC Group has been cooperative and responsive in preliminary discussions; however, they are on a constricted timeline for permitting approval. Staff, the District's Engineer and the District Attorney believe more time is needed to review the specifics of the proposed design changes and easement language to ensure that the long-term interests of the District are protected. Staff is recommending conditional Board approval, with the ability of staff (et al.) to continue to negotiate with the PARC Group for project and easement specifics.

Commissioner Isiminger asked if the easement needs to be relocated and if the District made representation before the plan was developed that they were willing to move the easement. He noted that looking at plans, the easement will overlap a paved portion of the road and asked if this is a worse easement physically.

Mr. Maurice "Mo" Raudolf, managing director of this project, gave a brief history of the project.

Commissioner Blow noted that he sent an email to staff that points out concerns, with his biggest concern being that it is a very tight area for the contractor to drag the intake line and not damage the area or disrupt the residents. He asked how the District should document that it has advised purchasers that the easement is there and that dredging will be done every 5 years.

The Commissioners discussed moving the utilities out of the easement. Mr. Peter Breton asked Mr. Raudolf if the 10 ft FPL easement had been granted or dedicated? He replied no, they have just begun coordination with FPL and suggested they may be able to shift it to the other side of the road, but asked the Board to consider keeping the waterline on that side of the road and potentially burying it deeper.

Chair Crowley suggested a conditional approval subject to staff and the developer working to minimize utility conflicts.

Chair Crowley noted six items that need to be addressed: deed notification; notification through HOA docs; access; signage; pipe sleeve; and FPL/JEA.

Commissioner Blow noted that the design of the retaining wall has to be built to withstand a bulldozer pulling pipe and that wetland impacts will need mitigation credits. The Board discussed mitigation credits.

Commissioner Cuzzo suggested bringing this item back to the Board for final approval.

Chair Crowley noted he was conceptually ok with working with the developer but the item has to come back to the Board, and as certain issues discussed at this meeting need further resolution.

Mr. Raudolf stated he was hoping to get a conditional approval from staff and get permitting submitted to agencies. He noted PARC will do everything they can to work out suggestions from this meeting.

**ITEM 12. Miami Dade County Waterfront Recreation Access Plan (WRAP) Presentation.**

Miami-Dade County Parks and Recreation staff presented on the Miami-Dade County Waterfront Recreation Access Plan (WRAP). The Miami-Dade County Parks Recreation and Open Spaces Department (MDPROS) served as the lead agency in coordinating this waterfront access plan between commercial and public marine interests, environmental and transportation agencies and the 20 municipalities that border Biscayne Bay and the Intracoastal Waterway (IWW). The purpose of the WRAP is to promote and maximize the public benefit and enjoyment of Biscayne Bay, the IWW, and connections to other navigable waterways, and to identify and prioritize waterway access needs of individual communities. The WRAP will provide a five (5) year planning analysis and forecast for future maritime needs.

Mr. Tom Morgan, Miami Dade Parks, Kathy Healy, and Dorothy Mills-Mayer presented on behalf of Miami.

Commissioner Sansom stated it was a transformational presentation.

Chair Crowley noted the District needs to help the County with increasing trailer access and parking, and additional boat slips.

Commissioner Davenport asked how the County plans to expand the parking spaces. Chair Crowley noted that the District has offered assistance to buy property in the past.

Commission Sansom noted FIND should help facilitate changes even if procedures have to be modified to do so, as they are the largest contributor to the District's fund base.

Commissioner Isiminger suggested implementing incentives for boaters to use the waterway during the week instead of the weekends and that as an industry and commission, congestion has to be considered at some point.

Chair Crowley noted that spoil islands trash management is an issue, and the County is trying to expand Small Scale Spoil Island Restoration grants.

Chair Crowley motioned to approve to help the County review the manatee plan and support the plan. Commissioner Sansom seconded the motion. All were in favor of the resolution of support including working to modify the manatee plan. The motion passed unanimously.

### **ITEM 13. Presentation on Coastal Vulnerability Analysis in Florida.**

In 2021, the Florida State Legislature passed Senate Bill 1954 requiring a state-wide flood vulnerability and sea level rise analysis. The Legislature then funded over \$1.3 billion in project appropriations over the next three years (2021, 22, and 23) for Regional Resilience Coalitions, Resilient Florida Planning Grants, and the Statewide Resilience Plan. This has helped to engage local municipalities in understanding their flood risks, primarily in coastal areas.

Mr. Michael DelCharco of Taylor Engineering presented and discussed resiliency grants in the state.

Chair Crowley suggested completing a resiliency analysis for the District.

Commissioner Sansom noted the District should help marinas and marine facilities to accommodate sea level rise and to let infrastructure customers know that this grant program is available.

Mr. DelCharco suggested to have FIND send to the state critical infrastructure pieces to put in their database.

### **ITEM 14. Assistance Projects Extension Requests.**

Several Assistance Program Project Sponsors have requested extensions of their FY 2021-22 project agreements. In accordance with Chapter 374.96 F.S. and Rule 66B-2.009(1) or Rule 66B-1.009(1) these agreements can be extended with Board approval for one (1) additional year. (Revised project expiration date for each project will be September 30, 2024).

Commissioner Sansom motioned to approve the project extensions.

Chair Crowley stated he has a concern with the Legion Park Shoreline project because the City eliminated the boat ramp and why should the District extend afterward.

Commissioner Sansom amended his motion to remove Legion Park from this motion. Commissioner Blow seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 15. Regulatory Plan for Rule Adoption.**

Florida Statute 120.74 requires that the District prepare a regulatory plan to include a listing of each law the District expects to implement by rulemaking prior to July 1, 2024. Pursuant to this statute, staff has prepared a plan for the Board's review and approval. The plan must be submitted prior to October 1, 2023.

Commissioner Sansom motioned to approve the regulatory plan. Commissioner Cuozzo seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 16. Benthic Resource Survey for the Intracoastal Waterway at Crossroads, Martin County, FL.**

The Crossroads area in Martin County is formed by the merger of the Intracoastal Waterway, the St. Lucie Inlet, and the Okeechobee Waterway. This area has one of the District's highest dredging frequencies due largely to the volume of shoaling associated with the confluence of these waterways. The area is typically dredged every two to three years, and it is now need of dredging, as shoaling has become critical.

At the October Board meeting, Taylor Engineering is expected to provide a scope of work and fee quote to initiate a maintenance dredging project. However, the project will require a benthic resource survey in this vicinity prior to the end of the survey season (the end of September). In order to facilitate the required survey in a timely manner, the District is requesting authorization from the Board for funding for this portion of the project.



Since the benthic resources survey is NOT subject to Florida's Consultant's Competitive Negotiation Act (CCNA), staff can budget for this project and request quotes from various contractors to complete the work in time for the forthcoming project.

Mr. Crosley stated it will cost around \$75k or less to get this done.

Commissioner Blow motioned to approve the budget to complete the benthic resource surveys. Commissioner Cuzzo seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 17. Finance and Budget Committee Report.**

Commissioner Boehning motioned to approve the Finance and Budget Committee Report to the full Board. Commissioner Davenport seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 18. Washington D.C. Report.**

Mr. Crosley reviewed the Washington D.C. report on page 222 of the agenda and noted he will be in touch with Mr. Jim Davenport regarding the Regional General Permit.

Ms. Zimmerman stated that staff is looking at a potential 2024 Washington, D.C. visit the third week of February.

**ITEM 19. Additional Staff Comments and Additional Agenda Items.**

Mr. Crosley noted the next meeting will be in Duval County, and staff will already be there for the WEDA conference October 10-11. The outreach will be October 12 and the Board meeting October 13. He also noted that the AIWA meeting is November 14-15 in Wilmington.

**ITEM 19a. Settlement for Revised Access and Pipeline Easement at Dredged Material Management Area BV-4B, Brevard County, Florida.**

Over the course of the past two years, the Florida Inland Navigation District (FIND) has been negotiating with the adjacent property owner, Brevard Mims Land LLC ("Owner"), for a small revision/relocation of the east end of the existing access/pipeline easement for Dredged Material Management Area (DMMA) BV-4B.

The Executive Director and FIND's attorneys negotiated a settlement with the Owner which exceeds the amounts previously authorized by the Board, Staff is seeking Board approval of the negotiated final settlement. The terms of the final settlement are: (1) payment to the Owner of an additional \$20,700.00 (note, \$14,300.00 was previously paid

to the registry of the court), (2) payment of attorneys' fee to Owner's counsel in the amount of \$4,125.00 based on the statutory formula, and (3) payment of \$19,179.25 for Owner's expert fees and costs. Payments will be made via cashier's check within the stipulated 20 days of FIND and the Owner executing a Stipulated Final Judgment.

Commissioner Sansom motioned to approve the item. Commissioner Blow seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 19b. City of Ft. Lauderdale Small Scale Vessel Application.**

Commissioner Cuzzo motioned to approve the item. Commissioner Blow seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 20. Additional Commissioner Comments.**

Commissioner Boehning thanked Commissioner Cuzzo for the well-attended outreach.

Commissioner Stapleford thanked staff for the outreach and meeting and noted there was a lot of good information.

Commissioner Isiminger stated it was a great outreach and good to see everybody.

Commissioner Cuzzo thanked everyone for coming and noted he will be travelling for the next couple of meetings.

Commissioner Blow stated it was an excellent outreach and beautiful county.

Commissioner Sansom noted he was sorry he didn't make the meeting in person and is looking forward to the next full meeting, and stated he was amazed by the report from Miami-Dade County.

Commissioner Davenport stated it was a great meeting and thanked staff, and Miami-Dade for the informative presentation.

Chair Crowley thanked Commissioner Cuzzo for hosting, and noted he loved the hotel and pavilion. He noted that Labor Day is the one-year anniversary of the boating accident in Miami-Dade County and asked if FIND can research ways to memorialize that event by naming the channel, bank, marker, etc.

**ITEM 21.     Adjournment.**

Chair Crowley stated that hearing no further business, the meeting was adjourned at 12:20 p.m.

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Spencer Crowley, Chair

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Attest                Buddy Davenport, Secretary  
(SEAL)

**THE MINUTES OF THE  
FLORIDA INLAND NAVIGATION DISTRICT  
Final Public Tax & Budget Hearing**

**Wednesday, September 20, 2023, at 5:05 PM.**

Village of Tequesta Council Chambers,  
345 Tequesta Dr., Tequesta (Palm Beach County), FL 33469  
(participation also via communication media technology, [www.aicw.org](http://www.aicw.org))

**ITEM 1.      Call to Order.**

Chair Crowley called the Final Public Tax and Budget Meeting of the Florida Inland Navigation District to order at 5:05 p.m.

**ITEM 2.      Pledge of Allegiance to the United States of America.**

Chair Crowley led the Pledge of Allegiance to the Flag of the United States of America.

**ITEM 3.      Roll Call.**

Assistant Executive Director Janet Zimmerman called the roll and Chair Crowley and Commissioners Boehning, Davenport, Blow, Cuzzo, Isiminger, Sansom, Stapleford, and Williams were present. Commissioner Gernert arrived late and Commissioner O'Steen was absent. Ms. Zimmerman stated that a quorum was present.

**ITEM 4.      Additions or Deletions.**

Ms. Zimmerman stated that there were no additions or deletions to the agenda. Commissioner Sansom motioned to approve the agenda as presented. Commissioner Blow seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 5.      Announcement of the percent (0%) by which the proposed millage rate (0.0288) exceeds the calculated rolled-back rate (.0288).**

Chair Crowley announced the percent (0%) by which the proposed millage rate (0.0288) exceeds the calculated roll back rate (0.0288).

**ITEM 6      Invitation for public comments.**

Mr. John Carlson of Hillsborough Beach attended via Zoom and provided the following questions and statements: How and when did taxpayers receive notice of the agency's decision to permit dredging of the ICW near Hillsborough Beach in 2018? Referencing Permit 364278 shows material to be removed near marker 68b near Caps Place in Pompano Beach. Why was

it not dredged? Who are the people who decided not to dredge that area, and provide the Cavache, Inc. contract to support that decision. Why aren't taxpayers emailed when dredging is about to happen in their area? Mr. Carlson stated that he can have the channel south of Marker 68b dredged for \$648k and asked if the District's insurance will cover the failure to dredge this area.

Ms. Zimmerman noted that the District will write the questions down and respond as appropriate to Mr. Carlson. There were no more public comments.

**ITEM 7. Amendments to the final budget.**

**A): Assistance Program Budget**

Ms. Zimmerman stated that one CAP Program applicant requested \$3M, and 41 WAP Program applicants requested \$15.1M in funds. Some of the original applicants dropped out due to lack of permits, and the total grant funds requested are \$18.1M. In order to fully fund the grant requests, the District will transfer \$783,085 from Operations, account 5553.60 to offload DMMA-M5, to the Waterway Assistance Program through a line-item transfer.

Commissioner Blow noted that St. Johns County is extremely appreciative of the award of their grant and extends thanks to the Commission.

Commissioner Davenport motioned to approve Item 7a. Commissioner Williams seconded the motion. All were in favor and the motion passed unanimously.

**B):** There were no other amendments.

**ITEM 8. Comments by District Commissioners.**

Commissioner Sansom stated he was glad to see that even with rollback rate, FIND is still able to accommodate all the grant requests.

Chair Crowley stated that it is good to see the District demonstrating fiscal responsibility but also grant support.

There were no other comments.

**ITEM 9. Re-computation of the final tax millage rate (if necessary).**

Chair Crowley stated that it was not necessary to re-compute the final tax millage rate.

**ITEM 10. Additional public comments on the budget amendments and tax millage re-computation.**

There were no additional public comments on the budget amendments and tax millage re-computation.

**ITEM 11. Final announcement of the District rolled-back rate for FY 2023-24 (0.0288), the final proposed millage rate for FY 2023-24 (0.0288), and the percentage by which the re-computed final millage rate exceeds the calculated rolled-back rate for FY 2023-24 (0%).**

Chair Crowley read the final announcement of the District rolled-back rate for FY 2023-24 (0.0288), the final proposed millage rate for FY 2023-24 (0.0288), and the percentage by which the re-computed final millage rate exceeds the calculated rolled-back rate for FY 2023-24 (0%).

**ITEM 12. Adoption of the final tax millage rate, Resolution No. 2023-02 (Please see attached Resolution).**

Commissioner Sansom motioned to approve the adoption of the final tax millage rate, Resolution No. 2023-02. Commissioner Davenport seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 13. Adoption of the final budget, Resolution No. 2023-03 (Please see attached Resolution).**

Commissioner Blow motioned to approve the adoption of the final budget, Resolution No. 2023-02. Commissioner Sansom seconded the motion. All were in favor and the motion passed unanimously.

**ITEM 14. Adjournment.**

Chair Crowley adjourned the meeting at 5:23 p.m.

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Spencer Crowley, Chair

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Attest                      Buddy Davenport, Secretary  
(SEAL)



## PALM BEACH COUNTY PROJECT STATUS UPDATE

**November 2023**

### **Dredged Material Management Plan**

Phase I of the Dredged Material Management Plan (DMMP) for the Intracoastal Waterway in Palm Beach County was completed in 1989. Phase II of the DMMP was completed in 1990 and all major land acquisitions were completed in 1991. The DMMP is scheduled for an update again in 2023.

The 50-year dredging projection for the 43 miles of channel in Palm Beach County is 2.9 million cu/yds and the storage projection is approximately 5.5 million cu/yds. The majority of this dredging (76%) is associated with Jupiter Inlet. *(Please see the attached location maps).*

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### **Dredged Material Management Area Development**

Six upland Dredged Material Management Areas (DMMA's) have been acquired and two beach placement areas have been secured to manage dredged materials from the Intracoastal Waterway (IWW) in Palm Beach County. DMMA's Peanut Island (PI) and MSA 641-A (Delray Beach) have been constructed and utilized. Material Storage Area (MSA) 617-C is currently undergoing plans, specifications and permitting for planned construction in 2025. Easements have been re-secured for beach placement of IWW material on the beach south of Jupiter Inlet (PB-JB).

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### **Waterway Dredging**

In 2013, the USACE completed a maintenance dredging project for Cuts P-1 through P-4 on the Intracoastal Waterway (IWW) in the vicinity of Jupiter Inlet. This 30,000 cu/yd project was funded through federal supplemental Operations & Maintenance funding via Hurricane Sandy relief. This area was previously dredged in 2009 and is regularly dredged approximately every 3 years.

In 2016, the Navigation District partnered with the Jupiter Inlet District to complete a cooperative dredging project for both the IWW and the Inlet. This action saved hundreds of thousands of dollars in mobilization/demobilization costs and resulted in an overall decreased unit costs for the larger quantity of material dredged. Approximately 150,000 cu/yds were removed during this project and placed on the beaches south of the inlet, with over 100,000 cu/yds originating from the IWW. This area was maintenance dredged through a USACE project in 2020. The contractor coordinated with the Jupiter Inlet District to complete maintenance dredging of their sand trap following the IWW project. . In 2023, the JID provided emergency dredging assistance of a shoal at the junction of the Jupiter Inlet and the Intracoastal Waterway channel. Approximately 36,000 cu/yd were dredged from Cuts P-3 and P-4 and, along with the JID's sand trap material, were placed on the inlet down-drift beaches.

A small but draft-limiting shoal in the vicinity of the Parker Bridge in Palm Beach Dredging Reach II (North Palm Beach) was removed in September of 2013. The dredged material (approximately 5,000 cu/yds) was placed on MSA 617-C and hauled away by the contractor.

In 2016, a portion of Palm Beach Reach III of the IWW north of the Port of Palm Beach was deepened from -10' MLW to 17' MLW. The contractor, Cavache, Inc. encountered significant rock in the dredge template, but was able to complete dredging of over 100,000 cu/yds for a successful project.



## PALM BEACH COUNTY PROJECT STATUS UPDATE

November 2023

The maintenance dredging (-10' MLLW) of PB Reach III South (which occurred from south of the Port of Palm Beach to near the docks of the Palm Beach Marina) was completed by the contractor (Orion Marine) in the summer of 2019. The successful project was modified, in cooperation with Palm Beach County, to place approximately 85,000 cu/yds yards of maintenance material on the County's Tarpon Cove Island Restoration Project. The material was originally scheduled to be placed at the Peanut Island Dredged Material Management Area (DMMA PB-PI).

The District continues to partner with Palm Beach County to maintenance dredge Cut P-50 near the South Lake Worth Inlet. The County has previously successfully dredged material from this section of the IWW during its maintenance dredging of the inlet, with the material placed on the inlet's down-drift beaches. This project is scheduled again in 2024.

*(Please see attached the maps).*

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### **Waterways Economic Study**

The Palm Beach County Waterways Economic Study was completed in 1998 and updated in 2007, 2011 2017 and 2022. The most recent study documented the County's waterway contributing up to \$2.06 billion in annual economic impacts, supporting approximately 24,300 jobs and approximately \$132 million in annualized economic property impacts related to the presence of the waterway. There are over 37,000 registered vessels in the county.

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### **Waterways Assistance Program**

Since 1986, the District has provided \$73.5 million in Waterways Assistance Program funding to 226 projects in the County having a total constructed value of approximately \$228.1 million. The County, fifteen waterfront cities, and the Port of Palm Beach all participated in the program.

Notable projects funded include Peanut Island Park, construction or rehabilitation of most of the area's saltwater boat ramps, South Cove, Riviera Beach Marina, Jupiter Riverwalk, Belle Glade Waterfront, Lake Park Marina, Bryant Park, Delray Intracoastal Park, the West Palm Beach Waterfront Renovations and Sawfish Island Restoration.

*(Please see the attached list and location map).*

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### **Cooperative Assistance Program**

The District's Cooperative Assistance Program has provided funding assistance for the following projects with elements in Palm Beach County: Florida Marine Patrol Officer Funding; Clean Marina Program; Clean Vessel Act; Ocean Avenue bridge replacement; Manatee Acoustic Warning System, and Shoreline Stabilization and Boat lift at the FWC Office. The District's funding assistance for the Palm Beach County portion of these projects was approximately \$2.6 million.

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**PALM BEACH COUNTY PROJECT STATUS UPDATE****November 2023****Interlocal Agreement Program**

The District's Interlocal Agreement Program (a sub-set of the WAP and CAP programs) has provided funding assistance for the following projects with elements in Palm Beach County: Clean Marina Program; Clean Vessel Act, Dredging of ICW Cut P-50, and the MSA 614-B Mitigation/Enhancement Project. The District's funding assistance for the Palm Beach County portion of these projects was approximately \$2,500,000.

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**Waterway Clean Up Program**

The District has partnered with Keep Palm Beach County Beautiful, Inc. for 19 years on successful waterway clean-up projects in the County.

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**Small-Scale Derelict Vessel Removal Program**

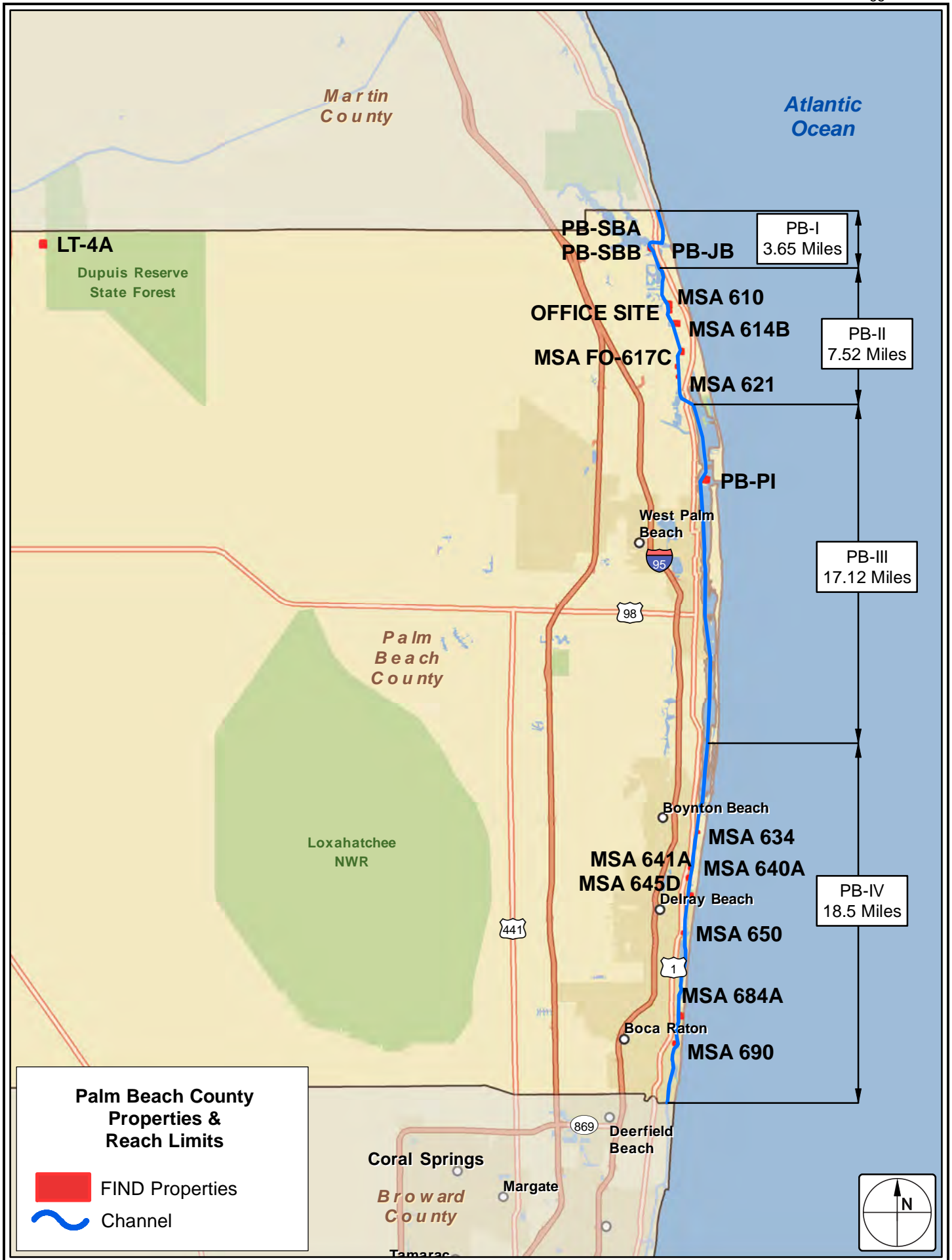
The District has assisted with the removal of 48 vessels in Palm Beach County through the Small-Scale Derelict Vessel Removal Program.

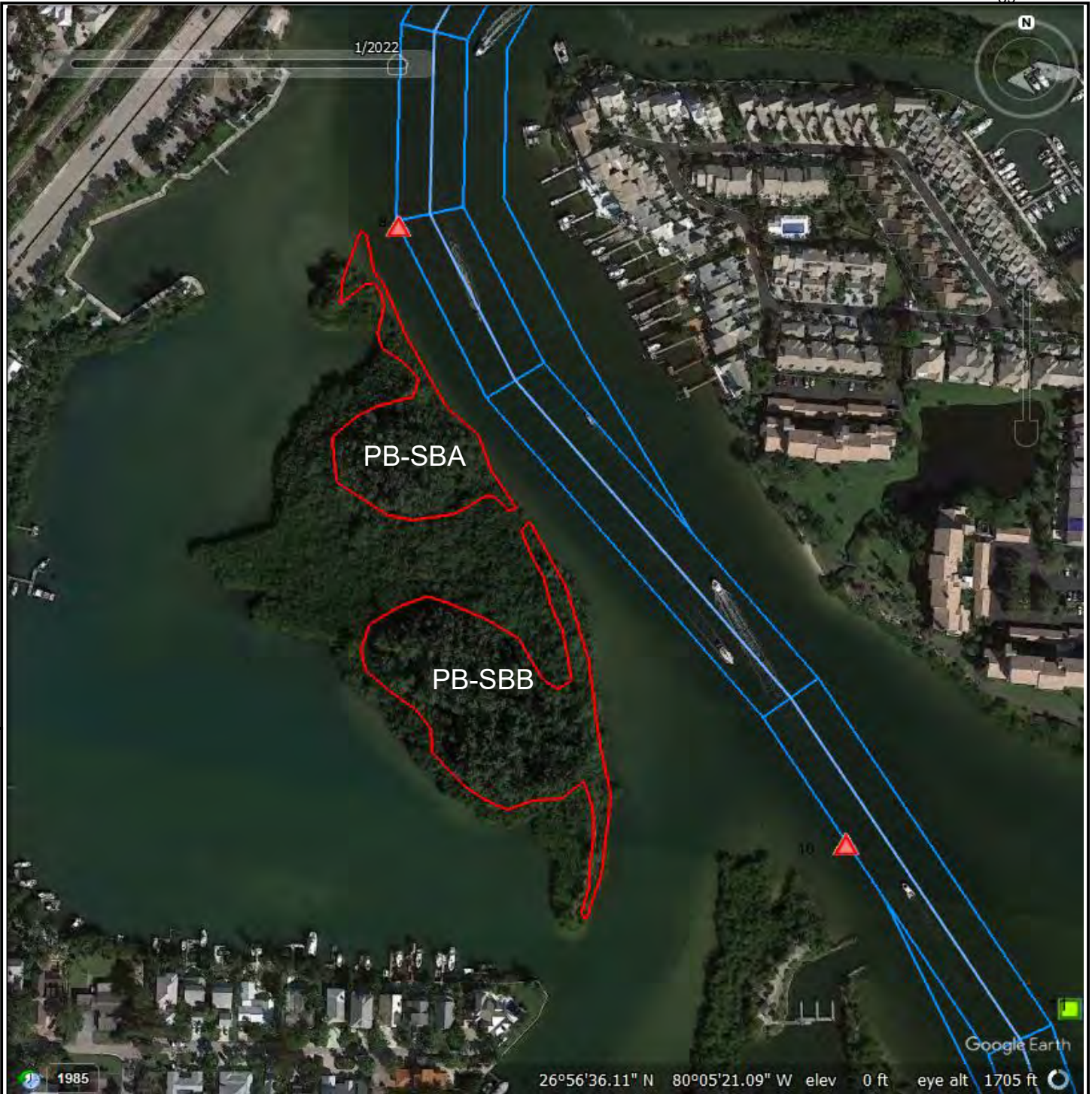
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**Small-Scale Spoil Island Enhancement and Restoration Program**

To date, the County has not participated in this program.

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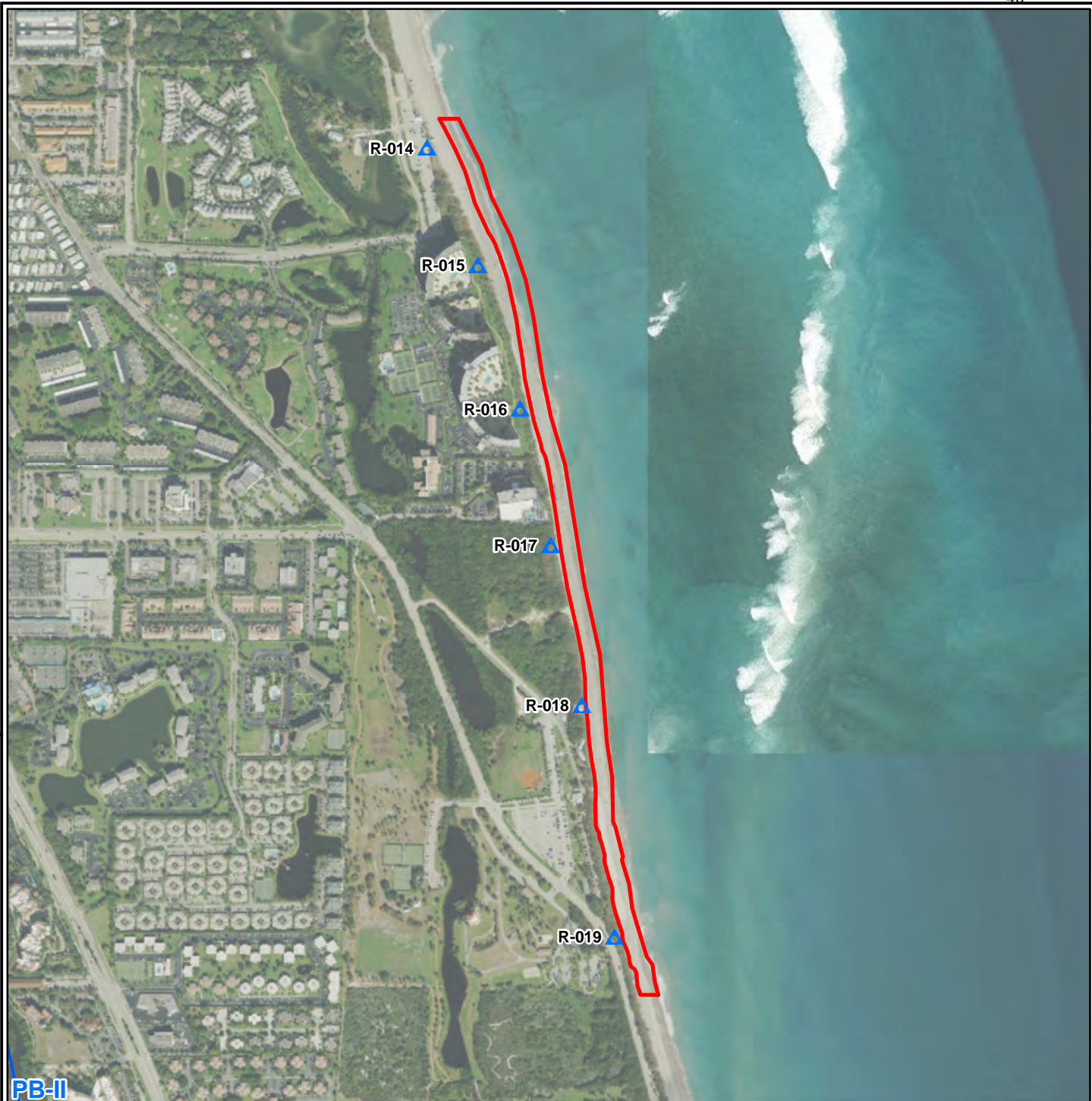
Site	PB-SBA and PB-SBB
Common Name	Mitigation Island N and S
County/City	Palm Beach/Jupiter
Geographic Proximity	ICWW near Burt Reynolds Park
Acquisition Dates	UNK
Status	Not constructed; mitigation area
Year Constructed	N/A
Reach/Cuts	PB-I / N/A
Site Acres	1.5 and 2.8
Basin Acres	N/A
Design Capacity (cy)	0

0 250 500 750  
Feet

**Legend**

- Site
- Easement (if shown)
- Reaches (if shown)
- Cuts (if shown)





PB-II

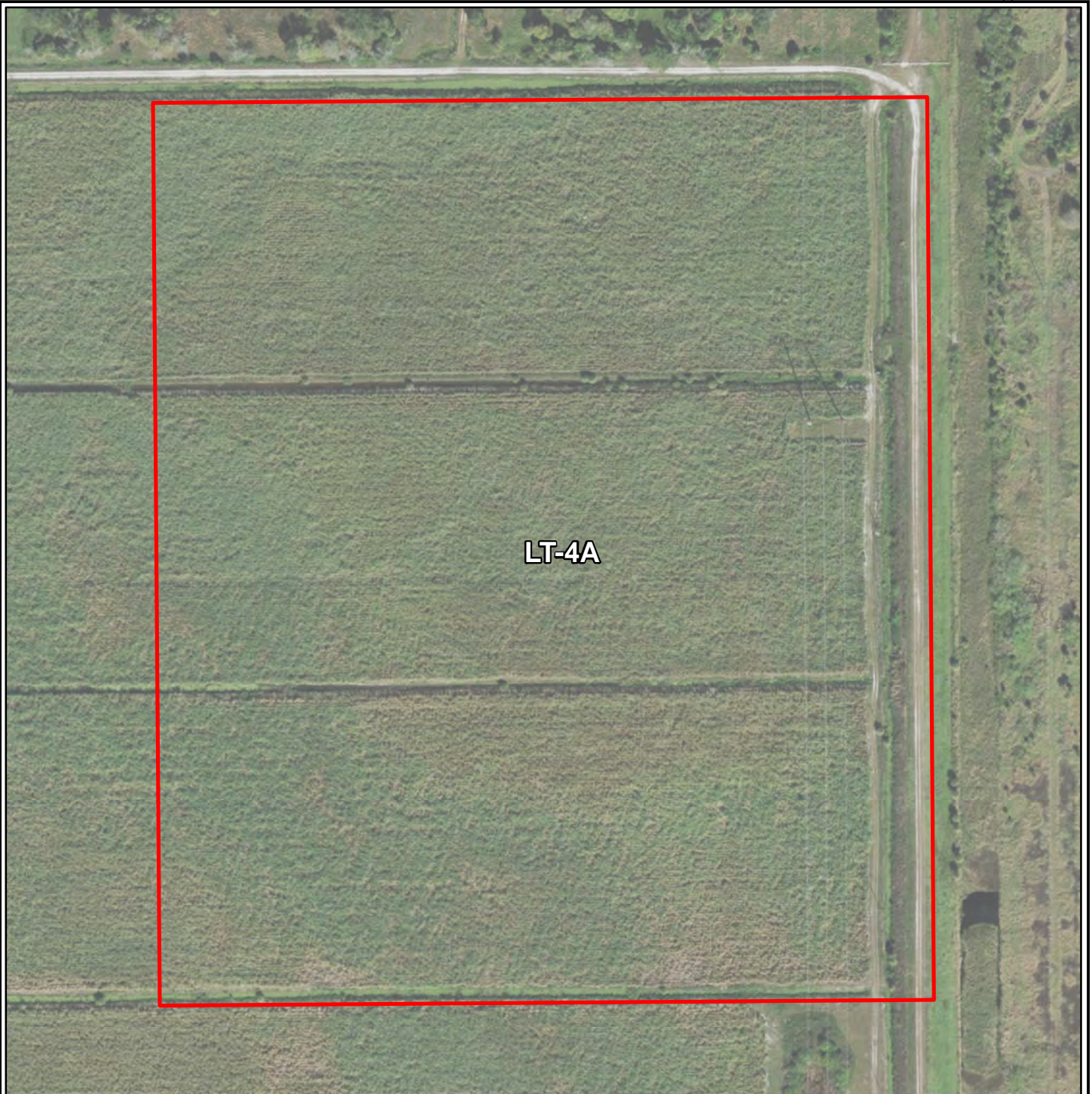
Site	PB-JB
Common Name	Jupiter Inlet
County/City	Palm Beach/Jupiter
Geographic Proximity	South of Jupiter Inlet
Acquisition Dates	
Status	
Year Constructed	
Reach/Cuts	
Site Acres	11.84
R Monument Range	R-14 to R-19
Design Capacity (cy)	

0 500 1,000 1,500 2,000  
Feet

**Legend**

- Beach Placement Site
- Easement (if shown)
- Reaches (if shown)
- Cuts (if shown)
- ▲ Range Monuments





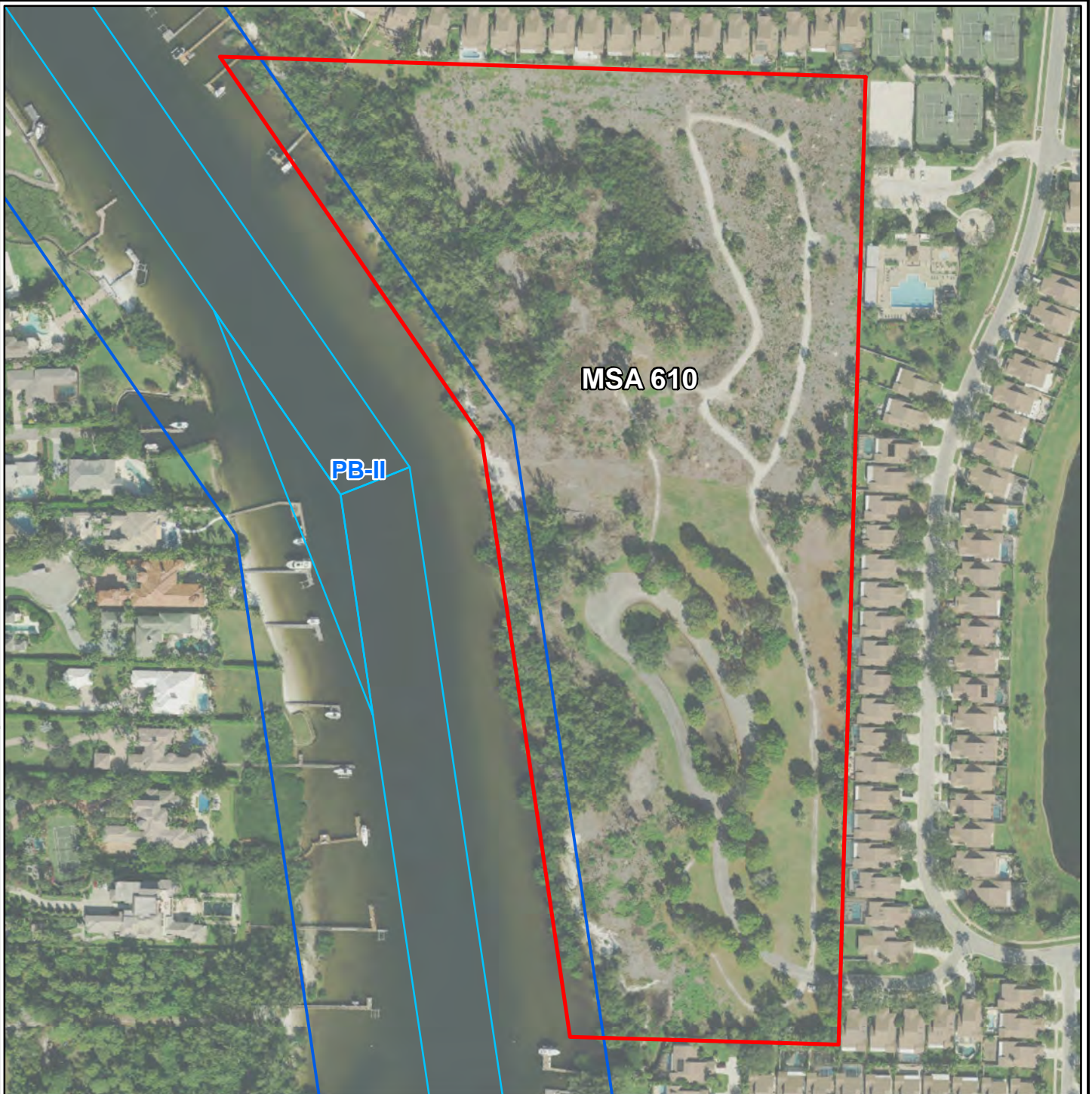
Site	LT-4A
Common Name	Sugarland
County/City	Palm Beach/Unincorporated
Geographic Proximity	Near Lake Okeechobee
Acquisition Dates	9/28/2009
Status	Not constructed: leased as farm land
Year Constructed	N/A
Reach/Cuts	Route 1, Rim Canal / 1 to 6, 1 - 74
Site Acres	47.9
Basin Acres	N/A
Design Capacity (cy)	128,000

0 250 500 750  
Feet

**Legend**

- Site
- Easement (if shown)
- Reaches (if shown)
- Cuts (if shown)



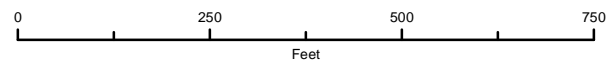


MSA 610

PB-II

**Site****MSA 610**

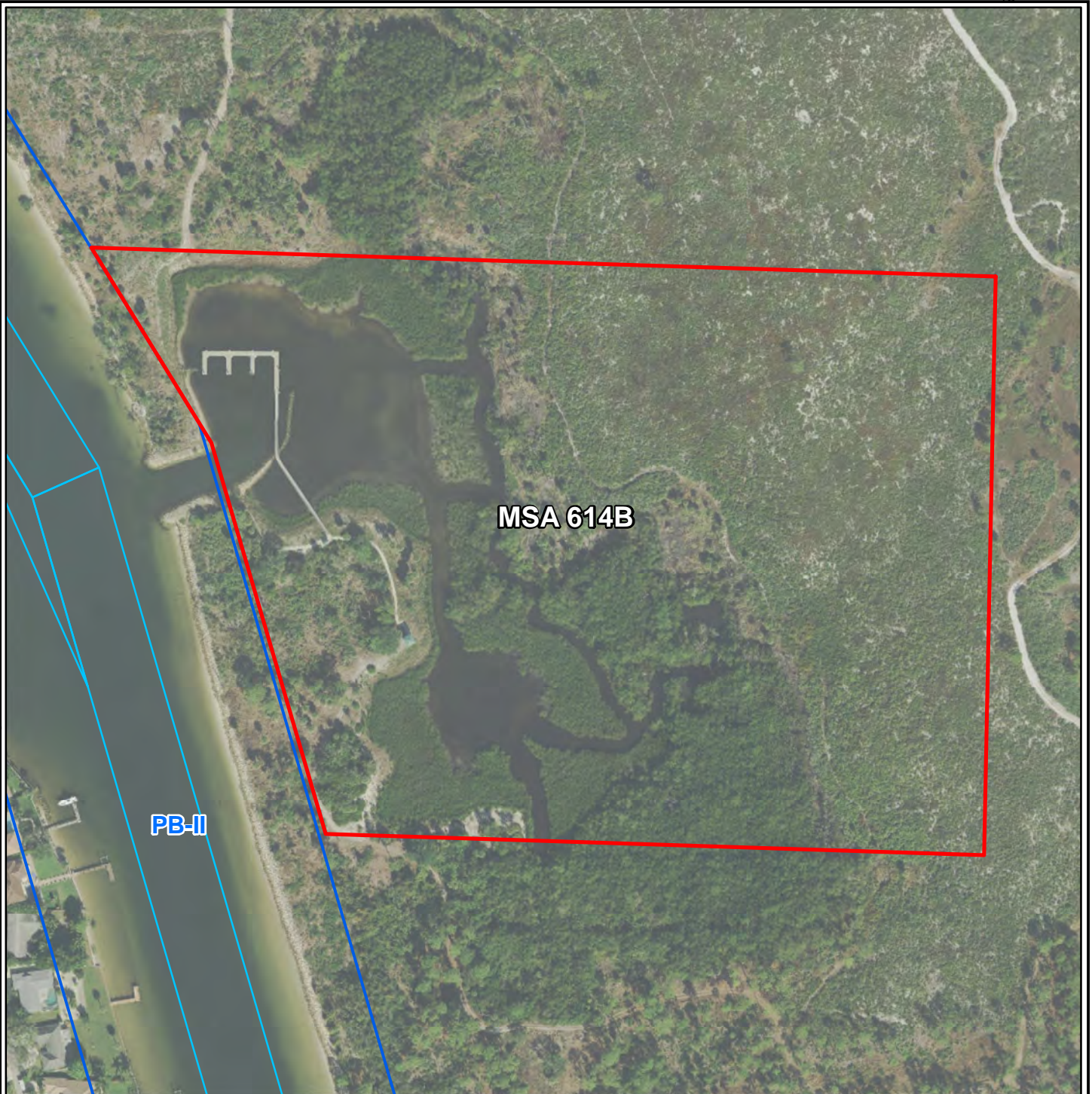
Common Name	Jupiter Dog Park
County/City	Palm Beach/Jupiter
Geographic Proximity	Near FIND office
Acquisition Dates	4/9/1935
Status	Property Acquired
Year Constructed	N/A
Reach/Cuts	PB-II / P-15 to P-32
Site Acres	26.1
Basin Acres	N/A
Design Capacity (cy)	33,500

**Legend**

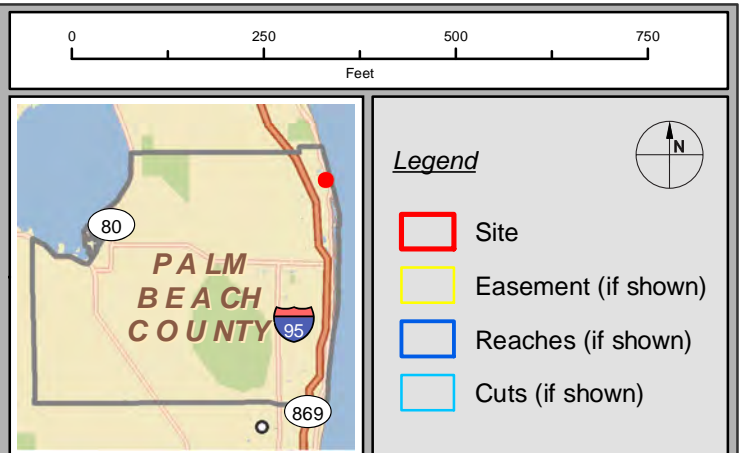
- Site
- Easement (if shown)
- Reaches (if shown)
- Cuts (if shown)







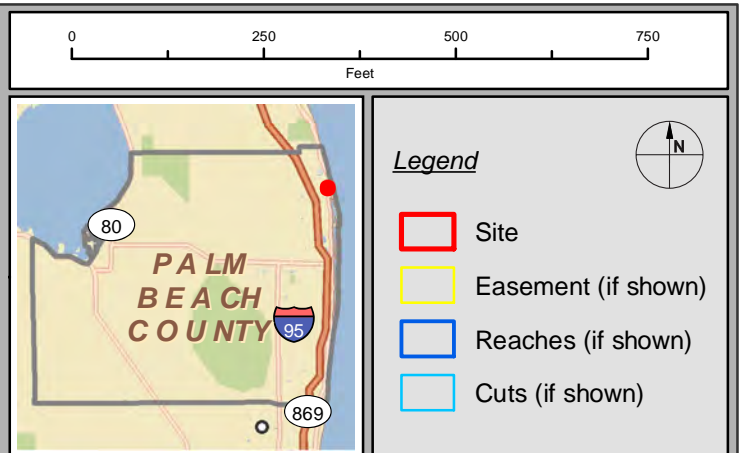
Site	MSA 614B
Common Name	Juno Park
County/City	Palm Beach/Juno Beach
Geographic Proximity	Juno Beach
Acquisition Dates	1/30/1945
Status	Not constructed; leased as passive park
Year Constructed	N/A
Reach/Cuts	PB-II / N/A
Site Acres	30.2
Basin Acres	N/A
Design Capacity (cy)	0



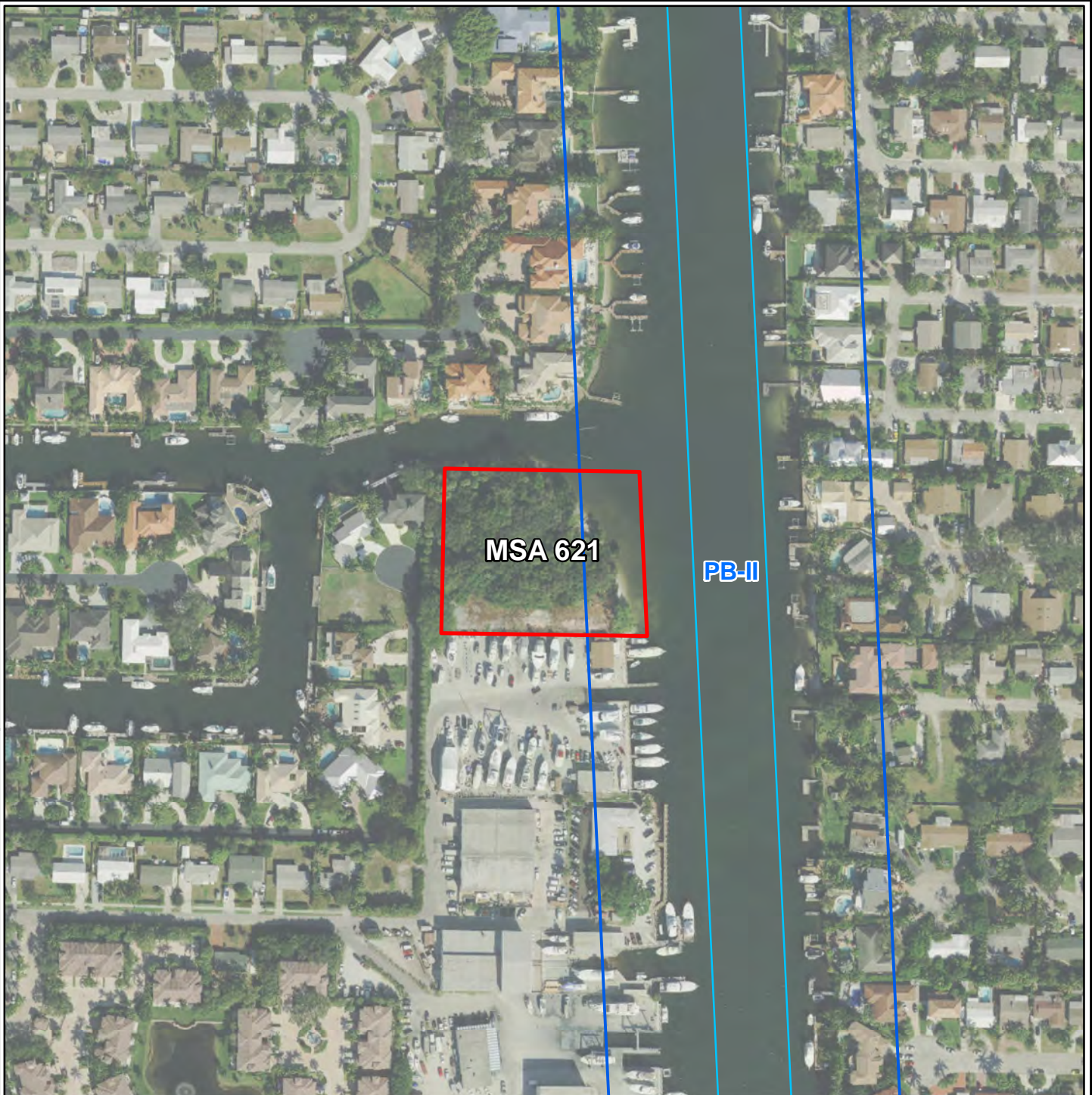




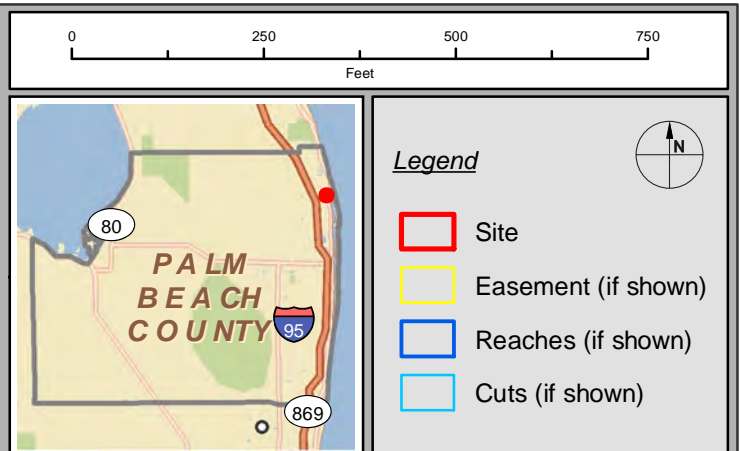
Site	MSA FO-617C
Common Name	Juno Isles
County/City	Palm Beach/Unincorporated
Geographic Proximity	Juno Beach
Acquisition Dates	10/1941; 11/13/1996
Status	Not constructed; partially cleared
Year Constructed	N/A
Reach/Cuts	PB-II / P-15 to P-32
Site Acres	14.1
Basin Acres	N/A
Design Capacity (cy)	83,032







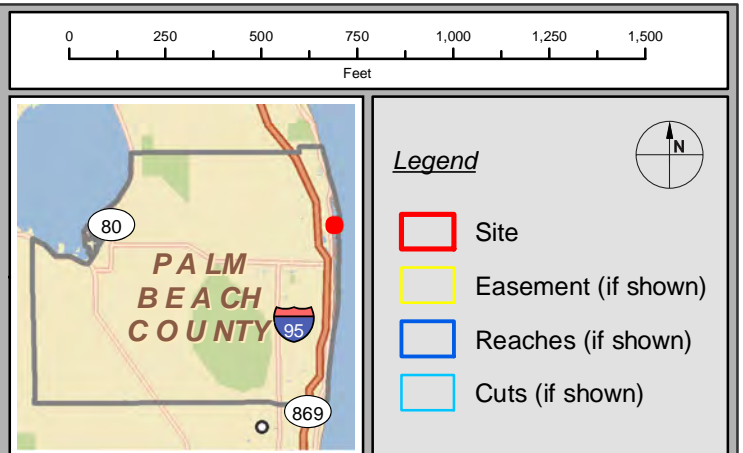
Site	MSA 621
Common Name	Prosperity Farms South
County/City	Palm Beach/Unincorporated
Geographic Proximity	North of PGA Blvd.
Acquisition Dates	2/19/1935
Status	Not constructed; no plans
Year Constructed	N/A
Reach/Cuts	PB-II / N/A
Site Acres	2.2
Basin Acres	N/A
Design Capacity (cy)	0







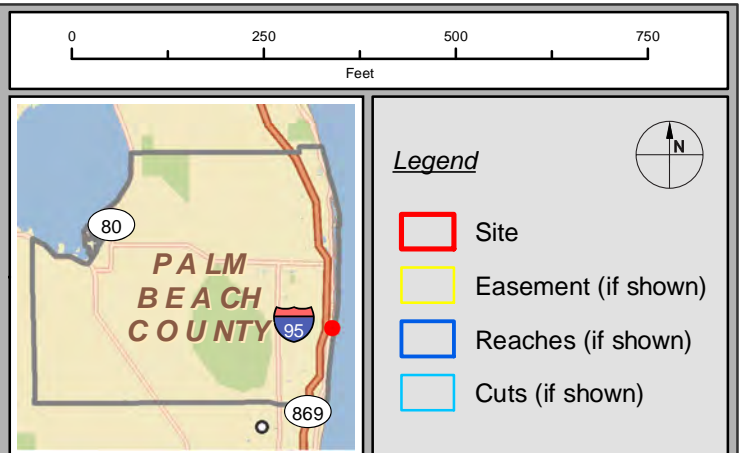
Site	PB-PI
Common Name	Peanut Island
County/City	Palm Beach/Unincorporated
Geographic Proximity	Lake Worth Inlet
Acquisition Dates	12/6/1991
Status	Constructed; 50-04766-P
Year Constructed	2001/2003
Reach/Cuts	PB-III / P-32 to P-50
Site Acres	121.1
Basin Acres	16.93
Design Capacity (cy)	365,000







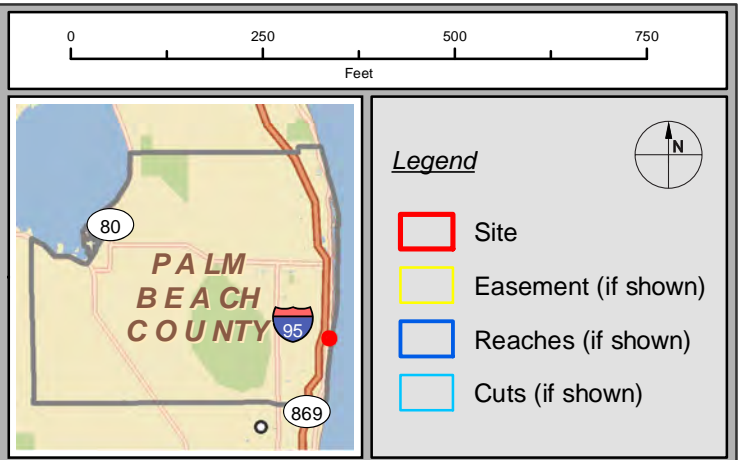
Site	MSA 634
Common Name	Ocean Ridge
County/City	Palm Beach/Ocean Ridge
Geographic Proximity	East of ICW - Ocean Ridge
Acquisition Dates	1940
Status	Not constructed; no plans
Year Constructed	N/A
Reach/Cuts	PB-II / N/A
Site Acres	1.8
Basin Acres	N/A
Design Capacity (cy)	0







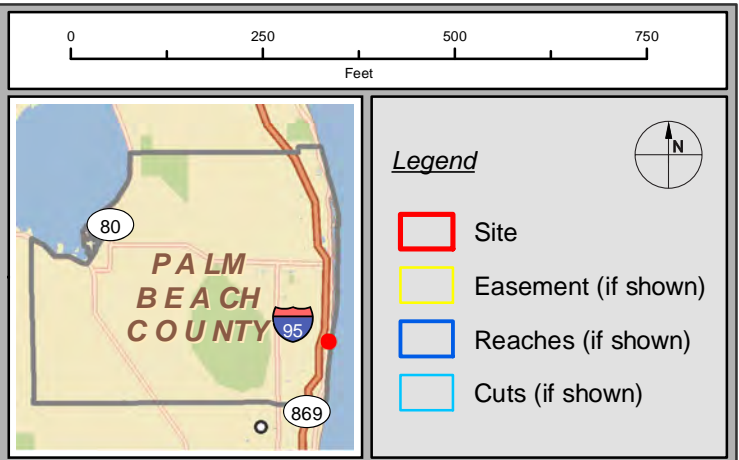
Site	MSA 640A
Common Name	Delray North
County/City	Palm Beach/Gulf Stream
Geographic Proximity	West of ICW - Gulf Stream
Acquisition Dates	12/20/1949
Status	Not constructed; partially cleared
Year Constructed	N/A
Reach/Cuts	PB-IV / P-51 to P-91
Site Acres	7.1
Basin Acres	N/A
Design Capacity (cy)	18,382







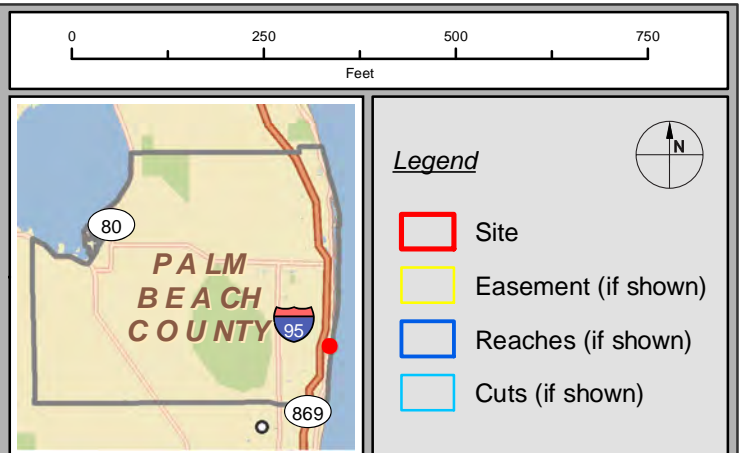
Site	MSA 641A
Common Name	Delray - Gulfstream Site
County/City	Palm Beach/Gulf Stream
Geographic Proximity	West of ICW - Gulf Stream
Acquisition Dates	1941
Status	Constructed; active site
Year Constructed	2008/2010
Reach/Cuts	PB-IV / P-51 to P-91
Site Acres	11.5
Basin Acres	6.98
Design Capacity (cy)	66,788



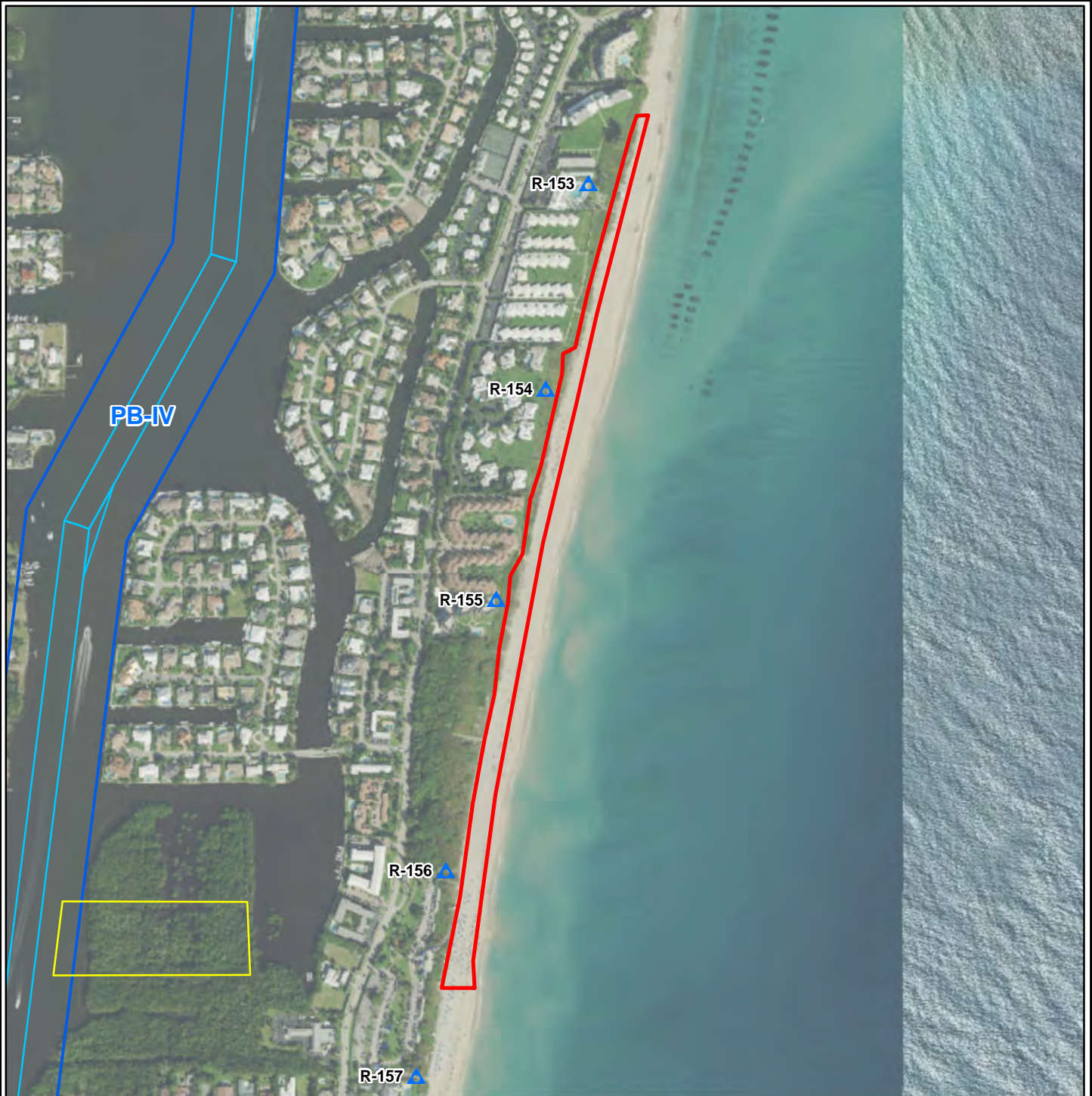




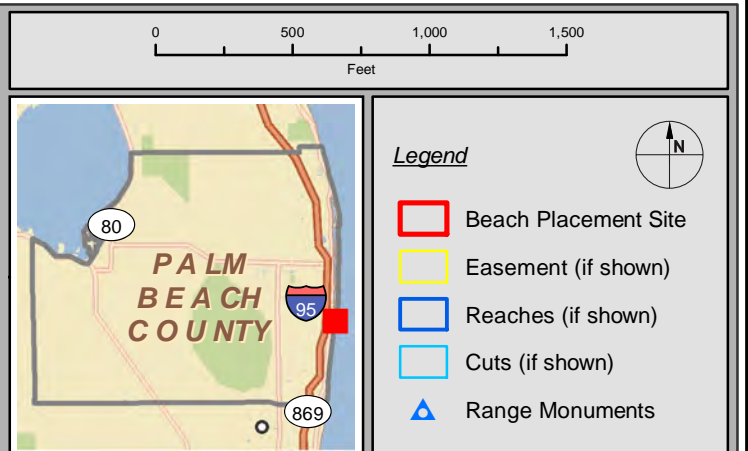
Site	MSA 645C
Common Name	Delray Site; East of ICW
County/City	Palm Beach/Delray Beach
Geographic Proximity	South of George Bush Blvd.
Acquisition Dates	1945
Status	Not constructed: no plans
Year Constructed	N/A
Reach/Cuts	PB-IV / N/A
Site Acres	2.4
Basin Acres	N/A
Design Capacity (cy)	0







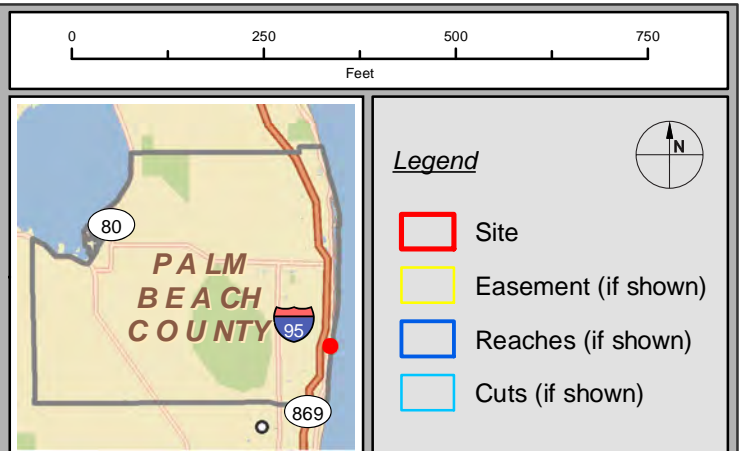
Site	PB-BB
Common Name	Boynton Inlet
County/City	Palm Beach/Ocean Ridge
Geographic Proximity	South of Boynton Inlet
Acquisition Dates	
Status	
Year Constructed	
Reach/Cuts	
Site Acres	9.35
R Monument Range	R-153 to R-157
Design Capacity (cy)	



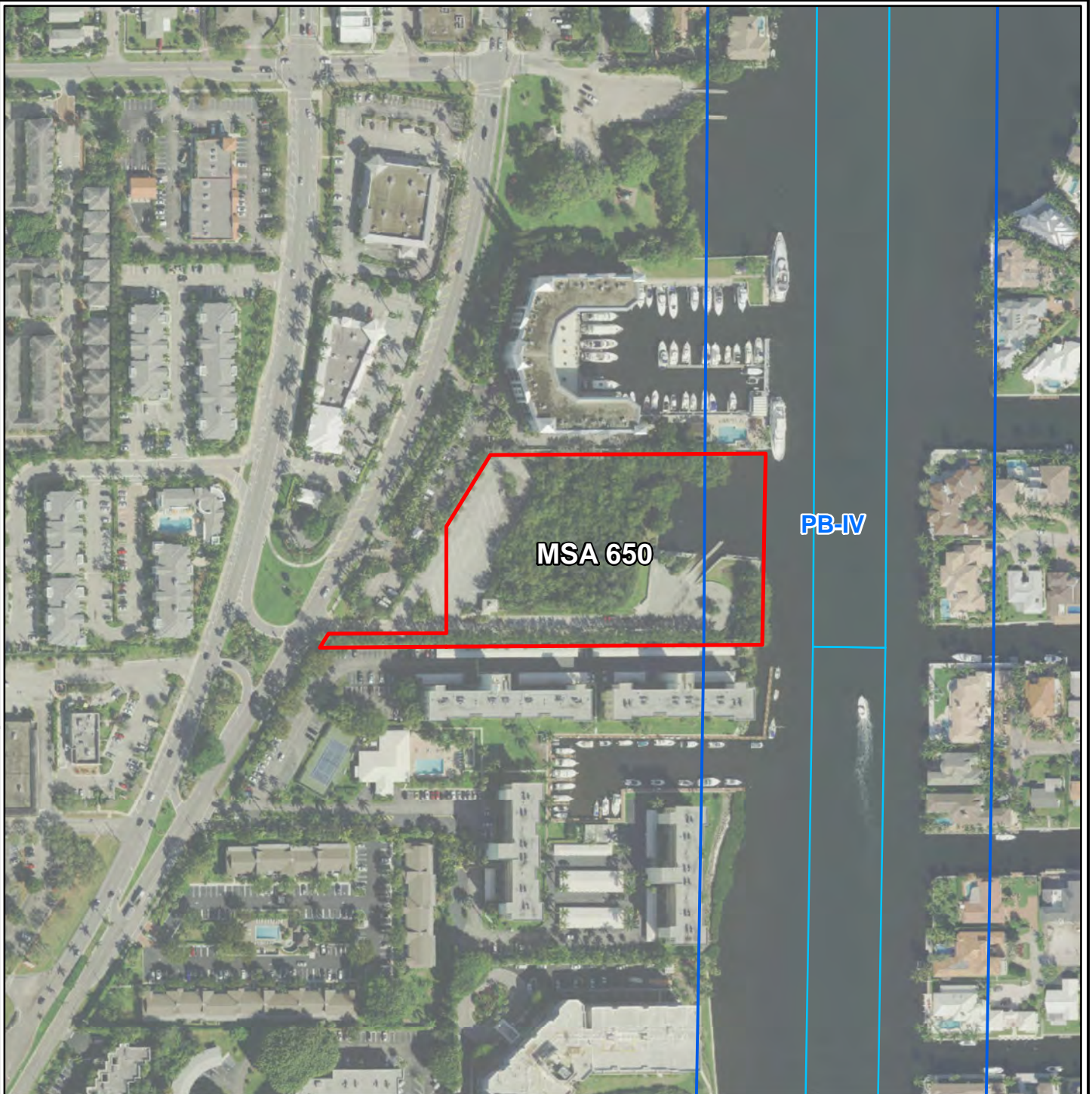




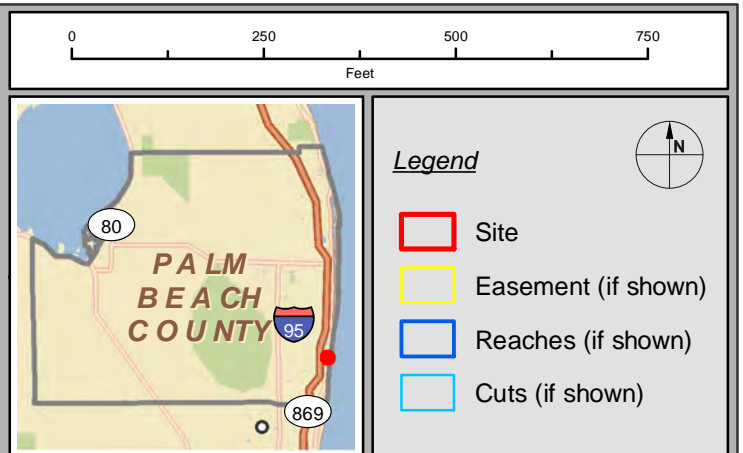
Site	MSA 645D
Common Name	Delray Site; East of ICW
County/City	Palm Beach/Delray Beach
Geographic Proximity	South of George Bush Blvd.
Acquisition Dates	1945
Status	Not constructed: no plans
Year Constructed	N/A
Reach/Cuts	PB-IV / N/A
Site Acres	5
Basin Acres	N/A
Design Capacity (cy)	0







Site	MSA 650
Common Name	Boca Boat Ramp
County/City	Palm Beach/Delray Beach
Geographic Proximity	North of Linton Blvd.
Acquisition Dates	UNK
Status	Not constructed; leased as boat ramp
Year Constructed	N/A
Reach/Cuts	PB-IV / N/A
Site Acres	4.2
Basin Acres	N/A
Design Capacity (cy)	0

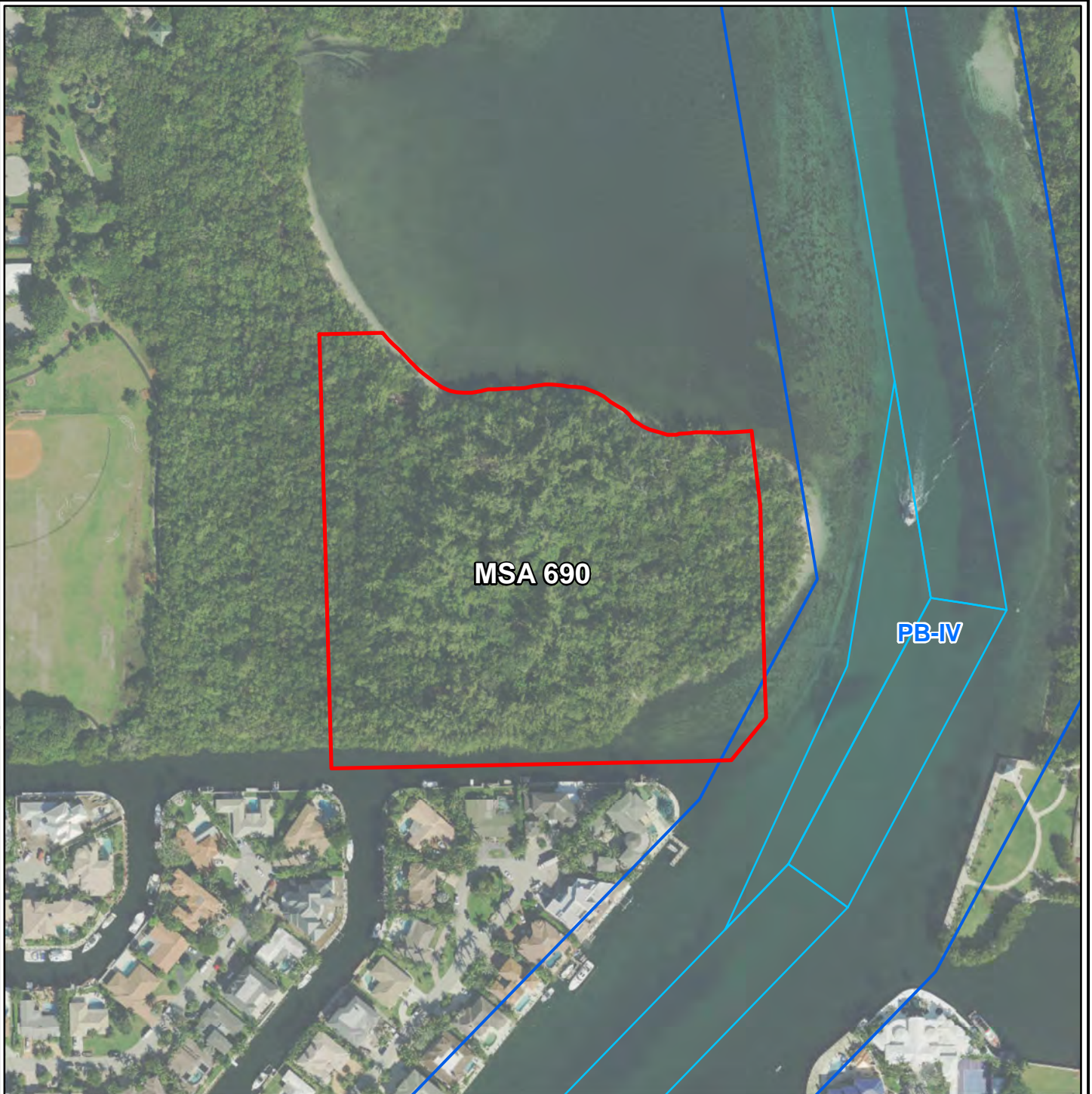




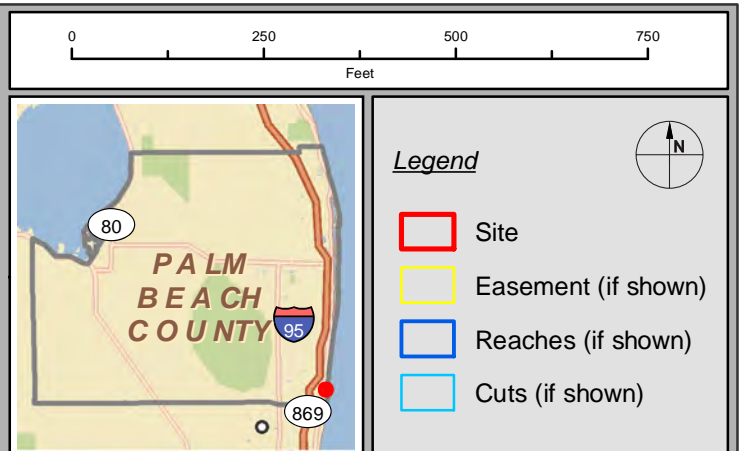


Site	MSA 684A		
Common Name	Spanish River Park		
County/City	Palm Beach/Boca Raton		
Geographic Proximity	South of Spanish River Blvd.		
Acquisition Dates	1/25/1977		
Status	Owned by City of Boca Raton; easement for spoil placement by FIND		
Year Constructed	N/A		
Reach/Cuts	PB-IV / P-51 to P-91		
Site Acres	20.1		
Basin Acres	N/A		
Design Capacity (cy)	0		
		<b>Legend</b>	
			Site
			Easement (if shown)
			Reaches (if shown)
			Cuts (if shown)





Site	MSA 690
Common Name	Lake Wyman
County/City	Palm Beach/Boca Raton
Geographic Proximity	South end of Lake Wyman
Acquisition Dates	8/4/1937
Status	Not constructed; leased as passive park
Year Constructed	N/A
Reach/Cuts	PB-IV / N/A
Site Acres	11.1
Basin Acres	N/A
Design Capacity (cy)	0





# ECONOMIC BENEFITS<sup>56</sup> OF THE DISTRICT WATERWAYS

## Palm Beach County, 2022

**TOTAL ANNUAL ECONOMIC IMPACT \$2.6B**

### TOURISM SPENDING

**\$1.9 Billion**

generated  
annually from  
503,000  
visitors



### BOATER SPENDING

**\$488 Million**

local boater spending  
from Registered Vessels



### PROPERTY SALES VALUE

**\$132 Million**

portion of property  
sales values  
attributed to  
ICW proximity



The luxury yacht market in Palm Beach County is epitomized by local business Rybovich, which provides premium service to yachts. Its customer base is 50% foreign, about 15% Florida residents, and about 35% other U.S. residents. Specialty sectors, including luxury yachts, make up over \$122M in economic impacts in Palm Beach County alone.



**Palm Beach County's  
Waterways currently  
support 24,300 jobs  
countywide**



### FIND INVESTMENT

in the ICW of **\$2.9 Million** annually  
protects annual  
economic impact of

**\$2.6 Billion**



## ANNUAL TAX BENEFITS

**\$232M**



**FEDERAL  
TAX REVENUE**

**\$169M**



**STATE AND LOCAL  
TAX REVENUES**



**Registered vessels  
utilizing the ICW  
26,374**



Pleasure boating	14,835
Fishing	8,477
Sailing & other activities	1,648
Watersports	1,413



# Economic Benefits of the District Waterways, 2022



The Florida Inland Navigation District (District) is the state sponsor for Federal navigation projects along the Intracoastal Waterway (ICW) in Palm Beach County. Over \$105 million has been invested in the past 10 years for navigation and other access projects. These investments and the Waterways itself generate significant economic impact throughout Palm Beach County and wider region.

Economic modeling techniques were used to estimate the value created by District Waterways. To find the share of property value that is attributable solely to the proximity to the ICW, hedonic price modeling was used. Hedonic modeling shows that proximity to the Intracoastal Waterway adds value to homes within 1500m of District Waterways in Palm Beach County. In total, the proximity to District Waterways makes up about \$37 Billion in property values across Palm Beach County. The ICW and its connecting navigable tributaries and canals makes up about \$132 million in annualized economic property impacts in Palm Beach County.

## Portion of Property Value Attributable to ICW Proximity

Property Type	Premium % of Sales Price	Total Waterway Amenity Value
Waterfront	40%	\$10.1B
Canal/river access to Waterways	32%	\$5.7B
Non-waterfront to 500m	18% - 23%	\$17.1B
500m - 1500m from Waterway	4% - 18%	\$4.5B
Total		\$37.4B

WATERWAYS ASSISTANCE PROGRAM PROJECTS PALM BEACH COUNTY  
1986-2023

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PROJECTNUM	PROJECTNAME	PROJECTS_SPONSER	GRANTAMOUNT	TOTALCOST
PB-00-90	Peanut Island Development - Phase I V	Palm Beach County	\$525,000.00	\$6,344,431.00
PB-01-94	Phil Foster Park - Phase I	Palm Beach County	\$100,000.00	\$200,000.00
PB-01-95	Ship For Kids	Palm Beach County	\$75,000.00	\$150,000.00
PB-02-101	Lake Worth Wetlands Restoration Project	Palm Beach County	\$400,000.00	\$13,968,377.00
PB-03-107	Lake Worth Lagoon Artificial Reef At Kelsey Park	Palm Beach County	\$100,000.00	\$200,000.00
PB-03-108	Phil Foster Park Development - Phase I I I	Palm Beach County	\$720,000.00	\$1,440,000.00
PB-04-110	Burt Reynolds Park Development - Phase A	Palm Beach County	\$400,000.00	\$1,000,000.00
PB-05-114	DuBois Park - Phase I	Palm Beach County	\$61,854.00	\$250,000.00
PB-06-121	Burt Reynolds Park - Phase I I	Palm Beach County	\$806,750.00	\$2,413,500.00
PB-07-126	Light Harbor Boat Ramp ( F.K.A. Moroso Wtwy Park)	Palm Beach County	\$987,000.00	\$2,476,321.00
PB-07-127	S. Lake Worth Inlet Sand Trap & Boat Channel Dredging	Palm Beach County	\$233,220.00	\$897,000.00
PB-08-132	John's Island Oyster Reef Project	Palm Beach County	\$200,000.00	\$680,000.00
PB-08-133	Snook Islands Public Use Facilities	Palm Beach County	\$639,575.00	\$1,279,150.00
PB-09-140	Dubois Park Marina & Shoreline Stabilization	Palm Beach County	\$987,000.00	\$2,587,975.00
PB-10-146	Burt Reynolds Park Staging Dock Extension	Palm Beach County	\$75,000.00	\$150,000.00
PB-10-147	Jupiter Ridge Shoreline Restoration Project	Palm Beach County	\$500,000.00	\$1,479,718.00
PB-10-148	South Cove Restoration And Boardwalk	Palm Beach County	\$1,000,000.00	\$4,388,000.00
PB-10-149	Waterway Park Design & Permitting - Phase I (Expired)	Palm Beach County	\$100,000.00	\$428,711.00
PB-11-152	Bert Winters Boat Ramp - Phase I (Expired)	Palm Beach County	\$90,000.00	\$180,000.00
PB-11-153	Bryant Park Wetland Restoration & Boat Ramp Facility	Palm Beach County	\$255,000.00	\$625,000.00
PB-11-154	John's Island Oyster Reef Project - Phase B	Palm Beach County	\$406,250.00	\$812,500.00
PB-11-155	Lake Wyman Restoration Project ( Expired)	Palm Beach County	\$372,868.00	\$745,736.00
PB-12-162	Burt Reynolds Park - West Side Design - Phase I	Palm Beach County	\$50,000.00	\$100,000.00
PB-12-163	Fullerton Island Restoration Project	Palm Beach County	\$794,030.00	\$2,532,710.00
PB-13-169	Bert Winters Park Acquisition	Palm Beach County	\$250,000.00	\$1,000,000.00
PB-13-170	Highland Beach Mangroves Shoreline Restoration	Palm Beach County	\$258,037.00	\$516,075.00
PB-13-171	Juno Dunes Shoreline Restoration	Palm Beach County	\$280,725.00	\$561,450.00
PB-13-172	Ocean Inlet Design And Permitting (Withdrawn)	Palm Beach County	\$75,000.00	\$150,000.00
PB-13-173	Waterway Park Development	Palm Beach County	\$1,420,396.00	\$2,840,792.00
PB-14-180	Burt Reynolds Park West Side Redevelopment	Palm Beach County	\$750,000.00	\$1,500,000.00
PB-14-181	Waterway Park Development - Phase IIB	Palm Beach County	\$1,254,604.00	\$2,509,208.00
PB-14-182	Old Bridge Park Natural Area	Palm Beach County	\$251,875.00	\$503,750.00
PB-14-183	Torry Island Reef Project	Palm Beach County	\$118,150.00	\$236,300.00
PB-14-184	Peanut Island Erosion Control & Reef Project	Palm Beach County	\$166,800.00	\$333,600.00
PB-15-186	West Palm Beach Living Shorelines	Palm Beach County	\$391,175.00	\$782,350.00
PB-15-188	Bert Winters Park - Phase IIA	Palm Beach County	\$1,000,000.00	\$2,000,000.00
PB-15-189	Burt Reynolds Park Westside Ph IIB (WITHDRAWN)	Palm Beach County	\$200,000.00	\$400,000.00
PB-18-200	Ocean Inlet Park Marina, PH I (2018-22)	Palm Beach County	\$200,000.00	\$400,000.00



WATERWAYS ASSISTANCE PROGRAM PROJECTS PALM BEACH COUNTY  
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PB-19-206	Bert Winters Park-Planning, PH 1B (Expired)	Palm Beach County Parks	\$125,000.00	\$250,000.00
PB-19-207	Lake Worth Inlet Flood Shoal Dredging Phase I	Palm Beach County ERM	\$140,000.00	\$280,000.00
PB-20-210	Ocean Inlet Park Marina, Phase II	Palm Beach County	\$1,500,000.00	\$3,000,000.00
PB-20-211	Sawfish Island Restoration	Palm Beach County	\$701,700.00	\$1,521,295.00
PB-21-214	Ocean Inlet Park Marina Phase IIB	Palm Beach County	\$1,500,000.00	\$3,000,000.00
PB-21-215	S. Lake Worth Inlet Sand Trap and Boat Channel Dredging	Palm Beach County	\$734,100.00	\$5,339,800.00
PB-22-218	Bert Winters Park Redevelopment Phase IC	Palm Beach County	\$7,645.00	\$1,000,000.00
PB-22-219	Peanut Island Dock Renovation Phase I	Palm Beach County	\$175,000.00	\$350,000.00
PB-22-220	Providencia Cay Habitat Restoration Project	Palm Beach County	\$365,000.00	\$730,000.00
PB-23-226	Bert Winters Park Redevelopment Phase IIB	Palm Beach County	\$800,000.00	
PB-89-5	Bert Winters Boat Ramp	Palm Beach County	\$71,500.00	\$143,000.00
PB-90-7	Dubois Park Restoration - Phase I	Palm Beach County	\$15,000.00	\$30,000.00
PB-90-8	Juno Park Improvements	Palm Beach County	\$12,500.00	\$25,000.00
PB-91-12	Ocean Inlet Marina Channel Dredging & Daymarking	Palm Beach County	\$60,000.00	\$66,975.00
PB-91-13	Munyon Island Restoration - Phase I	Palm Beach County	\$100,000.00	\$202,000.00
PB-92-18	Juno Beach Boat Ramp Improvement	Palm Beach County	\$60,354.00	\$120,708.00
PB-92-19	Burt Reynolds Park Boat Ramp Design	Palm Beach County	\$15,000.00	\$30,000.00
PB-92-20	Munyon Island Restoration - Phase I I	Palm Beach County	\$211,000.00	\$442,000.00
PB-93-26	Surveys For Munyon Island Restoration	Palm Beach County Board Of Comm.	\$21,704.00	\$43,408.00
PB-93-28	Burt Reynolds Park Boat Ramp & Parking	Palm Beach Board Of Commissioners	\$116,500.00	\$400,000.00
PB-93-29	Dubois Park Marina Shoreline Stabilization - Phase I	Palm Beach County	\$96,687.00	\$222,380.00
PB-94-33	Burt Reynolds Park Boat Ramp Construction & Improvement	Palm Beach County Board Commissioners	\$135,234.00	\$270,468.00
PB-94-34	Munyon Island Wetland Restoration - Phase I I	Palm Beach County Board Commissioners	\$223,500.00	\$1,170,083.00
PB-95-37	Inshore Artificial Reef Project	Palm Beach County	\$73,687.00	\$147,374.00
PB-95-38	Peanut Island Development - Phase I	Palm Beach County	\$456,216.00	\$912,433.00
PB-96-44	Peanut Island Park - Phase 1 B & 2 A	Palm Beach County	\$399,050.00	\$798,100.00
PB-96-45	Red Reef Park Estuarine Enhancement	Palm Beach County D.E.R.M.	\$57,270.00	\$114,540.00
PB-97-51	Light Harbor Marina - Phase I ( Project Expired)	Palm Beach County	\$80,000.00	\$164,552.00
PB-97-52	Waterway Safety, Education & Enforcement	Palm Beach County Sheriff's Office	\$52,000.00	\$61,400.00
PB-97-53	Inshore Artificial Reef	Palm Beach County Board Of Comm.	\$50,000.00	\$107,134.00
PB-97-54	C.D. R.O.M. & Web Site For Lake Worth Lagoon	Palm Beach County	\$70,000.00	\$92,000.00
PB-98-62	Light Harbor Marina Construction ( Project Expired)	Palm Beach County	\$500,000.00	\$2,100,000.00
PB-98-63	Habitat Enhancement Along Lake Worth Golf Course	Palm Beach County	\$15,000.00	\$30,000.00
PB-98-64	Preconstruction Work Munyon Island Boat Dock ( Expired)	Palm Beach County	\$10,000.00	\$20,000.00
PB-99-74	Exotic Vegetation Removal & Env. Restoration	Palm Beach County	\$5,250.00	\$10,500.00
PB-99-75	Inshore Artificial Reef Project	Palm Beach County	\$30,000.00	\$60,000.00
PB-99-76	Peanut Island Development - Phase 3	Palm Beach County	\$97,500.00	\$195,000.00
PB-BB-00-84	Boat Club Park Navigation Channel Dredging	City Of Boynton Beach	\$22,500.00	\$25,000.00
PB-BB-02-97	Boat Club Park Navigation Channel Dredging	City Of Boynton Beach	\$18,000.00	\$40,000.00

WATERWAYS ASSISTANCE PROGRAM PROJECTS PALM BEACH COUNTY  
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PB-BB-03-105	Boat Club Park Fishing/ Viewing Pier	City Of Boynton Beach	\$22,430.00	\$44,860.00
PB-BB-09-136	Jaycee Park Environmental Education	City Of Boynton Beach	\$77,045.00	\$154,090.00
PB-BB-20-212	Oyer Boat Club Park Improvements	City of Boynton Beach	\$600,000.00	\$1,200,000.00
PB-BB-22-221	Boynton Beach Fire and Police Dock and Lift Phase I	City of Boynton Beach	\$50,000.00	\$100,000.00
PB-BB-91-14	Boat Club Park Channel Maintenance Dredging	City of Boynton Beach	\$80,000.00	\$80,000.00
PB-BB-92-24	Mangrove Nature Preserve	City of Boynton Beach	\$15,250.00	\$30,500.00
PB-BB-94-36	Boynton Beach Downtown Mangrove Park	City Of Boynton Beach	\$195,000.00	\$898,234.00
PB-BB-98-71	Safe Waterways	City Of Boynton Beach	\$51,670.00	\$90,231.00
PB-BG-08-129	Okeechobee Waterway & Inland Marina Channels	City Of Belle Glade	\$480,500.00	\$961,000.00
PB-BG-09-135	Okeechobee Waterway & Navigation Channels	City Of Belle Glade	\$328,770.00	\$657,540.00
PB-BG-12-159	Restore Boardwalk, Nav. & Dockage, N. Marina Basin-ph I	City of Belle Glade	\$29,000.00	\$58,000.00
PB-BG-14-178	North Marina Basin Dock & Boardwalk - Phase II	City of Belle Glade	\$434,000.00	\$1,130,513.00
PB-BG-14-179	Pavilion Lake Ramp & Dredging - Phase I (Withdrawn)	City of Belle Glade	\$32,500.00	\$65,000.00
PB-BG-16-188	Campground Sewer Upgrade and Observation Tower	City of Belle Glade	\$425,000.00	\$850,000.00
PB-BG-17-194	Pavilion Lake Piers and Dock (2017-2022)	City of Belle Glade	\$349,692.00	\$699,384.00
PB-BG-87-1	Belle Glade Marina Wharf Repairs (GRANT CANCELLED)	City of Belle Glade	\$0.00	
PB-BG-87-2	Belle Glade Marina Seawall Construct.(GRANT CANCELLED)	City of Belle Glade	\$0.00	
PB-BG-92-22	Boat Ramp Parking Improvement - Belle Glade Marina	City of Belle Glade	\$32,500.00	\$65,000.00
PB-BR-00-82	Boca Raton Inlet Navigation Maintenance Program	City Of Boca Raton	\$100,000.00	\$200,000.00
PB-BR-00-83	Inflatable Rescue Boat Safety Program	City Of Boca Raton	\$13,762.00	\$18,350.00
PB-BR-02-96	Spanish River Police Dockage Facility	City Of Boca Raton	\$100,000.00	\$200,000.00
PB-BR-03-104	Boca Raton Fire Rescue Boat	City Of Boca Raton	\$37,502.00	\$75,004.00
PB-BR-12-160	Boca Raton Inlet Dredging Equipment	City Of Boca Raton	\$109,050.00	\$218,100.00
PB-BR-13-176	Hillsboro Canal Maintenance Dredge Project - Phase I	City Of Boca Raton	\$75,000.00	\$100,000.00
PB-BR-15-187	Hillsboro Canal Dredging - Phase II	City of Boca Raton	\$412,500.00	\$550,000.00
PB-BR-17-195	Lake Wyman and Rutherford Park, PH I (17-21)	City of Boca Raton	\$147,500.00	\$320,000.00
PB-BR-18-198	Boca Raton Inlet New Dredge Purchase	City of Boca Raton	\$60,000.00	\$1,200,000.00
PB-BR-20-213	Lake Wyman and Rutherford Park, Phase II	City of Boca Raton	\$1,380,000.00	\$4,451,900.00
PB-BR-21-216	Lake Wyman and Rutherford Park Restoration Phase IIA	City of Boca Raton	\$1,300,000.00	\$5,360,000.00
PB-BR-23-225	Spanish River Dock Rehabilitation Project Phase 1	City of Boca Raton	\$100,000.00	\$200,000.00
PB-BR-88-4	Lake Wyman Park Development	City of Boca Raton	\$115,800.00	\$231,600.00
PB-BR-96-48	Boating Safety	City Of Boca Raton	\$32,000.00	\$56,572.75
PB-BR-97-57	Inlet Navigation & Sand Transfer Project	City Of Boca Raton	\$42,200.00	\$404,487.00
PB-BR-98-66	Waterways Boating Safety Programs And Equipment	City Of Boca Raton	\$29,994.00	\$54,994.00
PB-BR-98-67	Boca Raton Inlet Dredging Equipment	City Of Boca Raton	\$240,000.00	\$546,000.00
PB-BR-99-77	El Rio Canal Dredging	City Of Boca Raton	\$23,052.00	\$92,200.00
PB-DB-00-85	Police Boat	City Of Delray Beach	\$47,229.00	\$62,974.00
PB-DB-00-86	Land Acquisition - Boat Ramp Parking	City Of Delray Beach	\$70,000.00	\$140,000.00
PB-DB-00-87	Municipal Marina	City Of Delray Beach	\$81,000.00	\$402,000.00



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PB-DB-02-98	Seawall Parks	City Of Delray Beach	\$20,000.00	\$40,000.00
PB-DB-06-117	Delray Intracoastal Park ( M.S.A. 650)	City Of Delray Beach	\$688,420.00	\$1,376,840.00
PB-DB-10-144	Mangrove Park Boat Ramp Reconstruction	City Of Delray Beach	\$85,740.00	\$175,000.00
PB-DB-22-222	Delray Beach Police Boat	City of Delray Beach	\$75,000.00	\$172,299.00
PB-DB-90-9	Veterans Park - Phase I	City of Delray Beach	\$157,500.00	\$315,032.00
PB-DB-94-35	Seawall Rehabilitation Project	City Of Delray Beach	\$164,950.00	\$408,900.00
PB-DB-97-58	Knowles Park Boat Ramp	City Of Delray Beach	\$77,261.00	\$154,522.00
PB-DR-88-3	Delray Beach Marina Improvements	City of Delray Beach	\$75,000.00	\$150,000.00
PB-JB-91-15	Environmental Boating Education Program	Town of Juno Beach	\$19,000.00	\$19,000.00
PB-JID-16-191	Loxahatchee River Railroad Bridge Span Phase I	Jupiter Inlet District	\$1,625,000.00	\$3,240,000.00
PB-JID-19-205	Loxahatchee River Railroad Bridge Span Modification	Jupiter Inlet District	\$1,250,000.00	\$2,500,000.00
PB-JU-00-88	Riverwalk - Phase II	Town Of Jupiter	\$500,000.00	\$1,000,000.00
PB-JU-00-89	Water Safety Program	Town Of Jupiter	\$13,445.00	\$17,926.00
PB-JU-02-99	Jupiter Riverwalk	Town Of Jupiter	\$500,000.00	\$1,002,589.00
PB-JU-03-106	Bridge Park Plaza	Town Of Jupiter	\$246,250.00	\$492,500.00
PB-JU-06-118	Make Our Waterways Safe ( Withdrawn)	Town Of Jupiter	\$30,000.00	\$95,000.00
PB-JU-07-123	Inlet Village Marina	Town Of Jupiter	\$200,000.00	\$400,000.00
PB-JU-09-137	Riverwalk At Harborside - Phase A	Town Of Jupiter	\$827,505.00	\$1,655,010.00
PB-JU-10-145	Riverwalk At Harbourside - Phase B	Town Of Jupiter	\$700,000.00	\$1,400,000.00
PB-JU-12-161	Jupiter Riverwalk & Public Docks at Marina (Withdrawn)	Town Of Jupiter	\$780,939.00	\$1,621,466.00
PB-JU-96-43	Safe Waterways	Jupiter Police Department	\$35,598.00	\$60,858.00
PB-JU-99-81	Jupiter Riverwalk - Phase I	Town Of Jupiter	\$429,025.00	\$1,255,050.00
PB-LA-13-175	North Lake Park	Town Of Lantana	\$104,000.00	\$208,000.00
PB-LA-92-25	Bicentennial Park	Town of Lantana	\$57,000.00	\$114,000.00
PB-LA-93-31	Sportsman's Park	Town Of Lantana	\$152,875.00	\$340,750.00
PB-LA-99-79	Lantana Nature Preserve	Town Of Lantana	\$143,750.00	\$495,000.00
PB-LP-00-91	Lake Park Marina Revitalization - Phase I I I	Town Of Lake Park	\$542,000.00	\$1,145,000.00
PB-LP-01-93	Lake Park Marina Revitalization - Phase I V	Town Of Lake Park	\$451,000.00	\$902,000.00
PB-LP-04-109	Lake Shore Park Seawall Replacement	Town Of Lake Park	\$187,500.00	\$375,000.00
PB-LP-07-124	Lake Shore Park Seawall Replacement	Town Of Lake Park	\$205,000.00	\$410,000.00
PB-LP-08-130	Lake Park Harbor Marina Breakwater-phase I ( Withdrawn)	Town Of Lake Park	\$62,254.00	\$124,508.00
PB-LP-09-138	Lake Park Harbor Marina Breakwater-ph I I ( Withdrawn)	Town Of Lake Park	\$349,292.00	\$698,585.00
PB-LP-13-174	Lake Park Harbor Marina Breakwater-ph I I ( Withdrawn)	Town Of Lake Park	\$249,115.00	\$498,230.00
PB-LP-16-192	Lake Park Harbor Marina Dock Retrofit (Withdrawn)	Town of Lake Park	\$55,000.00	\$110,000.00
PB-LP-94-32	Lake Park Municipal Marina Basin & Maintenance Dredging	Town Of Lake Park	\$67,803.00	\$123,752.00
PB-LP-98-73	Lake Park Marina Revitalization - Phase I	Town Of Lake Park	\$150,000.00	\$360,000.00
PB-LP-99-80	Lake Park Marina Revitalization - Phase I I	Town Of Lake Park	\$584,000.00	\$1,168,000.00
PB-LW-07-125	Bryant Park Seawall Restoration - Phase A	City Of Lake Worth	\$802,007.00	\$1,604,014.00
PB-LW-95-39	Bryant Park Boat Ramp Imp. & Bulkhead Repairs - Phase I	City Of Lake Worth	\$13,000.00	\$26,000.00

WATERWAYS ASSISTANCE PROGRAM PROJECTS PALM BEACH COUNTY  
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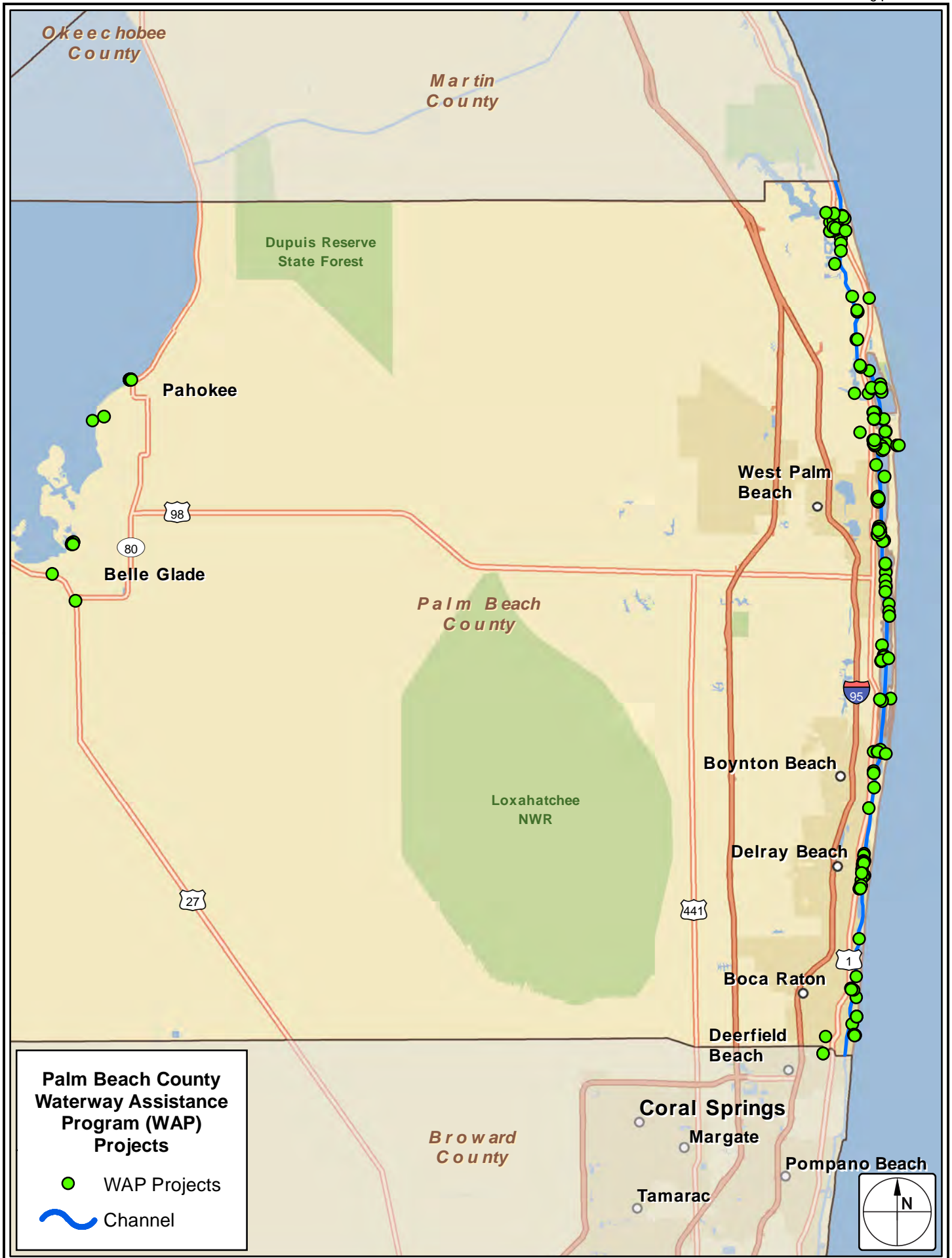
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PB-LW-96-42	Bryant Park Boat Ramp Improvements - Phase I I	City Of Lake Worth	\$180,000.00	\$360,000.00
PB-NPB-06-119	Lakeside Park	Village Of North Palm Beach	\$150,000.00	\$300,000.00
PB-NPB-08-131	Anchorage Park Improvements	Village Of North Palm Beach	\$200,000.00	\$700,000.00
PB-NPB-17-197	Anchorage Park	Village of North Palm Beach	\$200,000.00	\$400,000.00
PB-NPB-18-202	Anchorage Park, Part 2 (WITHDRAWN)	Village of North Palm Beach	\$300,000.00	\$600,000.00
PB-NPB-90-11	Lakeside Park	Village of North Palm Beach	\$53,000.00	\$106,000.00
PB-NPB-92-21	Shoreline Protection Project - NPB Country Club	Village of North Palm Beach	\$24,400.00	\$48,800.00
PB-NPB-95-41	Shoreline Protection Program	Village Of North Palm Beach	\$370,500.00	\$741,000.00
PB-NPB-98-70	Waterways Patrol And Rescue Vessel	Village Of North Palm Beach	\$30,411.00	\$44,078.00
PB-PA-02-100	Marina & Access Channel Dredging	City Of Pahokee	\$250,000.00	\$500,000.00
PB-PA-04-112ER	Pahokee Marina/ Channel Dredging	City Of Pahokee	\$250,000.00	\$350,000.00
PB-PA-05-113	Marine Reconstruction	City Of Pahokee	\$500,000.00	\$2,707,000.00
PB-PA-06-120	Shoreline Stablization & Marina Dredging	City Of Pahokee	\$425,000.00	\$975,325.00
PB-PA-11-156	Route 2 Channel Markers ( Expired)	Town Of Pahokee	\$20,850.00	\$30,000.00
PB-PA-11-157	Public Marina Wave Attenuator - Phase I (Expired)	Town Of Pahokee	\$37,500.00	\$75,000.00
PB-PA-91-16	Pahokee Marina and Park	City of Pahokee	\$80,000.00	\$195,000.00
PB-PA-96-46	Pahokee Marina Improvements	City Of Pahokee	\$30,000.00	\$60,000.00
PB-PA-98-65	Pahokee Marina Improvements	City Of Pahokee	\$98,950.00	\$197,900.00
PB-PB-09-139	Lake Worth Inlet Sand Transfer Plant Renovation	Town Of Palm Beach	\$300,000.00	\$2,248,000.00
PB-PB-12-164	Town Of Palm Beach Waterway - Phase I (Withdrawn)	Town Of Palm Beach	\$40,000.00	\$80,000.00
PB-PB-18-201	Town of Palm Beach Docks Replacement, PH I	Town of Palm Beach	\$325,000.00	\$650,000.00
PB-PB-19-208	Town of P. Beach Town Docks Replacement	Town of Palm Beach	\$3,062,000.00	\$6,124,000.00
PB-PB-20-209	Town of P. Beach Town Docks Replacement, Part II	Town of Palm Beach	\$1,000,000.00	\$32,968,000.00
PB-PB-92-23	Public Marina Dredging	Town of Palm Beach	\$200,000.00	\$250,000.00
PB-PB-96-47	Australian Dock Replacement & Expansion	Town Of Palm Beach	\$21,000.00	\$105,000.00
PB-PB-97-56	Australian Dock Repl. & Expansion - Phase I I	Town Of Palm Beach	\$382,000.00	\$1,959,482.00
PB-PBS-02-102	P.B.S. Inlet Park Redevelopment - Phase I	Town Of Palm Beach Shores	\$25,000.00	\$50,000.00
PB-PBS-05-115	Inlet Park Construction - Phase I I & I I I	Town Of Palm Beach Shores	\$150,000.00	\$300,000.00
PB-PBS-22-223	Lake Worth Inlet Flood Shoal Dredging Project Phase 2A	Town of Palm Beach Shores	\$3,500,000.00	\$4,666,667.00
PB-PPB-93-27	Palm Beach Maritime Museum Environmental Educ. Program	Port Of Palm Beach	\$60,000.00	\$60,000.00
PB-PPB-97-59	Docks For Environmental Education Project	Port Of Palm Beach	\$69,521.00	\$77,246.00
PB-RB-09-141	Municipal Marina Remediation - Phase I	City Of Riviera Beach	\$475,000.00	\$950,000.00
PB-RB-10-150	Municipal Marina Construction	City Of Riviera Beach	\$850,000.00	\$4,270,366.00
PB-RB-11-158	Municipal Marina Construction	City Of Riviera Beach	\$1,500,000.00	\$3,000,000.00
PB-RB-12-165	Bicentennial Park Improvements - Phase I	City Of Riveria Beach	\$50,000.00	\$100,000.00
PB-RB-12-166	Municipal Marina Construction - Phase B	City Of Riviera Beach	\$1,000,000.00	\$2,000,000.00
PB-RB-13-177	Municipal Marina Construction - Phase B1	City Of Riviera Beach	\$750,000.00	\$4,341,396.00
PB-RB-14-185	Riviera Beach Marina Construction - Part B, Phase I	City of Riviera Beach	\$75,000.00	\$150,000.00
PB-RB-16-189	Riviera Beach City Marina Dock G and Lifts (2016-2020)	City of Riviera Beach	\$1,157,500.00	\$2,315,000.00

WATERWAYS ASSISTANCE PROGRAM PROJECTS PALM BEACH COUNTY  
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PB-RB-17-196	Riviera Beach Marina Pier F (2017-2022)	City of Riviera Beach	\$1,200,000.00	\$2,400,000.00
PB-RB-18-199	Riviera Beach Municipal Marina Final Docks, PH I (2023)	City of Riviera Beach	\$325,000.00	\$650,000.00
PB-RB-19-203	Riviera Beach Municipal Marina, Pier E	City of Riviera Beach	\$250,000.00	\$500,000.00
PB-RB-19-204	Riviera Beach Public Mooring Field, PH I (EXPIRED)	City of Riviera Beach	\$75,000.00	\$150,000.00
PB-RB-21-217	Riviera Beach Marina G-B Connector Dock Phase IV	City of Riviera Beach	\$648,525.00	\$887,100.00
PB-RB-91-17	Palm Beach Maritime Museum Env. Education ( Expired)	City of Riviera Beach	\$45,000.00	\$45,000.00
PB-RB-96-49	Palm Beach Seaport Aquarium - Phase I ( Cancelled)	City Of Riviera Beach	\$40,000.00	\$140,000.00
PB-RB-96-50	S.V. Florida, The Ship For Kids ( Project Expired)	City Of Riviera Beach&living Classroom	\$194,700.00	\$491,600.00
PB-RB-98-68	Riviera Beach Municipal Marina Dredging	City Of Riviera Beach	\$136,200.00	\$152,000.00
PB-RB-99-78	Bicentennial Park Boardwalk & Fishing Pier ( Expired)	City Of Riviera Beach	\$41,945.00	\$83,890.00
PB-SB-02-103	Boat Ramp Park Expansion - Phase I ( Expired)	City Of South Bay	\$76,000.00	\$152,000.00
PB-SB-98-72	I.C.W. Tributary Channel Improvements - Ph I ( Expired)	City Of South Bay	\$15,000.00	\$27,000.00
PB-TE-16-193	Tequesta Marine Unit Project	Village of Tequesta	\$60,000.00	\$265,000.00
PB-WPB-00-92	Currie Park Boat Launching & Bulkhead Improvements	City Of West Palm Beach	\$125,000.00	\$255,000.00
PB-WPB-04-111	West Palm Beach Waterfront Park - Phase I	City Of West Palm Beach	\$250,000.00	\$750,000.00
PB-WPB-05-116	Waterfront Park - Phase I I	City Of West Palm Beach	\$1,000,000.00	\$3,500,000.00
PB-WPB-06-122	West Palm Beach Waterfront Park - Phase I I I	City Of West Palm Beach	\$1,000,000.00	\$3,000,000.00
PB-WPB-07-128	West Palm Beach Waterfront Park - Phase I V	City Of West Palm Beach	\$1,000,000.00	\$3,000,000.00
PB-WPB-08-134	City Commons & Waterfront Park - Phase V	City Of West Palm Beach	\$1,000,000.00	\$2,000,000.00
PB-WPB-09-142	City Commons & Waterfront Project - Phase V-2	City Of West Palm Beach	\$150,000.00	\$300,000.00
PB-WPB-09-143	Currie Park Boating Improvement	City Of West Palm Beach	\$233,800.00	\$467,600.00
PB-WPB-10-151	City Commons Kayak/ Paddle Boat Launch - Phase I	City Of West Palm Beach	\$30,000.00	\$60,000.00
PB-WPB-12-167	Currie Park Boat Access Improvement - Phase I (Expired)	City Of West Palm Beach	\$25,000.00	\$50,000.00
PB-WPB-12-168	Currie Park Fishing Piers Improvement Project	City Of West Palm Beach	\$394,000.00	\$788,000.00
PB-WPB-16-190	Currie Park Boat Access, PH II	City of West Palm Beach	\$428,000.00	\$856,000.00
PB-WPB-22-224	Currie Park Redevelopment Phase I	City of West Palm Beach	\$200,000.00	\$400,000.00
PB-WPB-89-6	Currie Park Improvements - Phase I	City of West Palm Beach	\$91,750.00	\$400,000.00
PB-WPB-90-10	Currie Park - Phase I I	City of West Palm Beach	\$100,000.00	\$230,000.00
PB-WPB-93-30	Renovation Of Fishing Pier @ 54th Street Park	City Of West Palm Beach	\$36,475.00	\$72,950.00
PB-WPB-95-40	Downtown Waterfront Park ( Project Expired)	City Of West Palm Beach	\$37,500.00	\$75,000.00
PB-WPB-97-61	Docks For Environmental Education Project	City Of West Palm Beach	\$135,882.00	\$150,980.00
<b>TOTALS</b>			<b>\$73,552,790.00</b>	<b>\$228,155,548.75</b>





**IWW STATUS  
UPDATE  
FIND Board of  
Commissioners Meeting  
November 17, 2023**



**1. WORK ACTIVITY: DMMA O-23 (Martin County)**

**CONTRACT AMOUNT:** \$4,174,500.00

**DESCRIPTION OF WORK:** Development of Plans and Specifications and Construction of DMMA O-23. DMMA will utilize the same weir system as O-7 and will have a 240k cy capacity. 100% of the funds for construction will be contributed funds from FIND.

**SCHEDULE:**

- |                               |                                     |
|-------------------------------|-------------------------------------|
| • Complete draft P&S          | 9 Apr 2020A                         |
| • NEPA/ERP complete           | 20 Apr 2021A                        |
| • BCOE Certification complete | 20 Apr 2021A                        |
| • Re Advertised               | 20 Jul 2021 A                       |
| • Open Bids                   | 19 Aug 2021A                        |
| • Award                       | 17 Sept 2021A                       |
| • Construction Complete       | <del>17 DEC 2022</del> 30 Aug 2023A |

**FIND WORK ORDER:** FIND work order for construction was approved at the Sept 2020 FIND Board meeting.

**NAME OF CONTRACTOR:** Contract was awarded on 17 Sept 2021 to Dickerson Florida, Inc out of Fort Pierce, FL in the amount of \$4,173,500.00.

**STATUS:** Project is physically complete as of 31 Aug 2023. Field office is fiscally closing out the contract.

**ACTION:** Information Only. No action by the Board is required.





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# IWW STATUS UPDATE FIND Board of Commissioners Meeting November 17, 2023





**IWW STATUS  
UPDATE  
FIND Board of  
Commissioners Meeting  
November 17, 2023**



**2. WORK ACTIVITY:** IWW Volusia (Volusia County)

**CONTRACT AMOUNT:** TBD

**DESCRIPTION OF WORK:** Maintenance dredging of the IWW Volusia Reach. Anticipate 300k-400k cy of material to be dredged out of the federal channel. Dredge material will be placed in the nearshore disposal area located south of the Ponce Inlet. This effort will be consolidated with Ponce Inlet O&M dredging as was done in the 2017/2018 event.

**SCHEDULE (DRAFT):**

- |                      |            |
|----------------------|------------|
| • P&S Kick off       | 27 Apr 22A |
| • BCOE Certification | 30 Apr 24  |
| • Advertise          | 30 May 24  |
| • Award              | 27 Aug 24  |
| • NTP                | 17 Sep 24  |

**FIND WORK ORDER:** Board approved work order but never executed.

**STATUS:** P&S is ongoing. Stockpile design for dredge disposal is complete. Team is updating the FDEP permit modification application that includes the stockpile and north nearshore options.

**ACTION:** Informational, no action is required by the Board.



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# IWW STATUS UPDATE FIND Board of Commissioners Meeting November 17, 2023







**IWW STATUS  
UPDATE  
FIND Board of  
Commissioners Meeting  
November 17, 2023**



**3. WORK ACTIVITY:** AIWW Sawpit Reach (Nassau County)

**CONTRACT AMOUNT:** TBD

**DESCRIPTION OF WORK:** USACE received \$5M in infrastructure funding for the AIWW Sawpit. Project will include maintenance dredging of the AIWW Sawpit Reach in Nassau County. We anticipate 400k-600k cy of material within the federal channel. 95% of the material will be placed on the beach at the State Park, with the remaining 5% being placed upland in DU-2.

**SCHEDULE (DRAFT):**

- |                      |                                  |
|----------------------|----------------------------------|
| • Kick off P&S       | 26 Apr 22A                       |
| • BCOE Certification | <del>30 Jun 23</del> 31 Jan 24   |
| • Advertise          | <del>18 Jul 23</del> 28 Feb 24   |
| • Award              | <del>25 Sep 23</del> 30 April 24 |

**FIND WORK ORDER:** Work Order submitted. 61-2023-05

**NAME OF CONTRACTOR:** TBD

**STATUS:** P&S kicked off on 26 Apr 22. Real Estate Use Agreement between FIND, USACE and the State Park for placement is complete. Received FDEP permit on 18 Oct 23.

**ACTION:** Request approval of Work Order No. 61-2023-05



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# IWW STATUS UPDATE FIND Board of Commissioners Meeting November 17, 2023





**IWW STATUS  
UPDATE  
FIND Board of  
Commissioners Meeting  
November 17, 2023**



**4. WORK ACTIVITY: IWW Matanzas**

**CONTRACT AMOUNT:** \$5,902,465.85

**DESCRIPTION OF WORK:** USACE expected to receive \$4M in FY 23 President's Budget. Project will include maintenance dredging of the IWW Matanzas in St. Johns County. It's anticipated that 300k-400k cy of material is within the federal channel. Placement of material will occur on the beach just south of Matanzas Inlet.

**SCHEDULE (DRAFT):**

- |                      |                                |
|----------------------|--------------------------------|
| • Kick off P&S       | 12 Jan 23A                     |
| • BCOE Certification | <del>5 Jun 23</del> 16 Jun 23A |
| • Advertise          | 29 Jun 23A                     |
| • Award              | 28 Aug 23A                     |

**FIND WORK ORDER:** Work Order approved by the FIND Board.

**NAME OF CONTRACTOR:** Contract was awarded to Southwind LLC at the amount of \$5,902,465.85.

**STATUS:** Contractor started to dredge on 20 Oct 2023. Expecting to apply for a permit modification to dredge additional areas.

**ACTION:** Information only. No action required by the board.





**IWW STATUS  
UPDATE  
FIND Board of  
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**5. WORK ACTIVITY:** IWW Crossroads Martin County & IWW near the vicinity of Jupiter Inlet Palm Beach County.

**CONTRACT AMOUNT:** TBD

**DESCRIPTION OF WORK:** USACE expected to receive \$4M in FY 24 President's Budget. Project will include maintenance dredging of both IWW Crossroads in Martin County and near Jupiter Inlet in Palm Beach County. It's anticipated that 150k cy of material is within the federal channel. Placement of material for Crossroads is in the St. Lucie Inlet Impoundment Basin and for Jupiter Inlet is on the beach south of the Inlet.

**SCHEDULE (DRAFT):**

- |                      |           |
|----------------------|-----------|
| • Kick off P&S       | 01 Nov 23 |
| • BCOE Certification | 02 Jun 25 |
| • Advertise          | 30 Jun 25 |
| • Award              | 26 Sep 25 |

**FIND WORK ORDER:** TBD

**NAME OF CONTRACTOR:** TBD

**STATUS:** P&S scheduled to kicked off in November of 2023. Recent surveys indicate shoaling in cuts M-1 through M-7. The active DEP permit only covers M-4 through M-7. Scope now included collecting additional geotechnical borings and permit modification to dredge cuts M-1 through M-7. USACE emergency dredging event planned to relieve 25k cy of shoaling blocking the channel. USACE Shallow Draft Dredge MURDEN is scheduled to arrive the first week of December 2023.

**ACTION:** Information only. No Action is required from the Board.





**TAYLOR ENGINEERING INC.**

10199 SOUTHSIDE BOULEVARD

SUITE 310

JACKSONVILLE, FL 32256

CERTIFICATE OF AUTHORIZATION # 4815

FLORIDA INLAND NAVIGATION DISTRICT  
CROSSROADS MAINTENANCE DREDGING  
MARTIN COUNTY, FLORIDA

PROJECT	C2018-064
DRAWN BY	SRM
SHEET	1 of 1
DATE	AUG 2023





**IWW STATUS  
UPDATE  
FIND Board of  
Commissioners Meeting  
November 17, 2023**



**6. WORK ACTIVITY:** AIWW Reach I Nassau County.

**CONTRACT AMOUNT:** TBD

**DESCRIPTION OF WORK:** FIND provided funding for USACE to start planning and designing for a maintenance dredging contract of Reach I of AIWW. Work also includes the necessary data collection to start the environmental consultation with state and federal agencies. It's anticipated that 360k CY of material is within the federal channel.

**SCHEDULE (DRAFT):**

- |                      |           |
|----------------------|-----------|
| • Kick off P&S       | 04 Dec 23 |
| • BCOE Certification | TBD       |
| • Advertise          | TBD       |
| • Award              | TBD       |

**FIND WORK ORDER:** Work Order 58-2023-02 AIWA Reach I approved for planning purposes.

**NAME OF CONTRACTOR:** TBD

**STATUS:** P&S is scheduled to start on 4 December 23. Team to investigate additional disposal areas in addition to DMMA NA-1 as the volume of shoal material is expected to exceed the design capacity of NA-1. In addition to working on obtaining an FDEP permit, the team will also need to perform an environmental assessment for NEPA compliance.



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Jacksonville District

# IWW STATUS UPDATE FIND Board of Commissioners Meeting November 17, 2023





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# IWW STATUS UPDATE FIND Board of Commissioners Meeting November 17, 2023







# IWW STATUS UPDATE FIND Board of Commissioners Meeting November 17, 2023



## 7. MISCELLANEOUS:

Establish FIND as the local sponsor for Martin and Palm Beach Counties along the OWW.

USACE OC has met with SFWMD OC regarding the path forward to make FIND the local sponsor for Martin and Palm Beach Counties along the OWW.

Background: In 2005 Florida legislature amended Section 374.984, Florida Statutes to assign responsibility and authority to FIND for the portion of the OWW located in Martin and Palm Beach Counties (link to the full statute:)

[http://www.leg.state.fl.us/statutes/index.cfm?App\\_mode=Display\\_Statute&Search\\_String=&URL=0300-0399/0374/Sections/0374.984.html](http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&Search_String=&URL=0300-0399/0374/Sections/0374.984.html).

Section 374.984 falls under Part II of Chapter 374, where Part II is “Florida Inland Navigation District Law”. Paragraph 6.h. of Section 374.984 states, “(h) The district is designated the local interest sponsor for the sole purpose of maintaining navigability of that portion of the Okeechobee Waterway located in Martin and Palm Beach Counties.”

Next step:

1. SFWMD will submit a letter to SAJ recognizing the Florida law that designates FIND as responsible for maintaining navigability of that portion of the OWW and requesting the termination of its responsibilities as non-federal sponsor (NFS) of the portion, with a copy furnished to FIND. - **DONE**
2. In parallel with SFWMD’s letter, FIND will submit a letter to SAJ requesting to be the NFS for the portion of the OWW within Martin and Palm Beach Counties, with a copy furnished to the SFWMD. - **DONE**
3. SAJ will draft an agreement for FIND to assume O&M responsibilities for the portion of the OWW within Martin and Palm Beach Counties. – **Draft Project Partnership Agreement is complete pending some items required for package submission per regulations.**
- SAJ can prioritize executing a Contributed Funds Agreement (CFA) while drafting the Project Partnership Agreement (PPA). FIND as requested to prioritize the CFA. –**SAD’s comments are addressed and a resubmission to SAD is being prepared.**
4. After execution of the PPA, SAJ will send a letter to SFWMD acknowledging the termination of its role as a NFS for the specified portion of the OWW and clarifying the SFWMD’s continued role as NFS for the remaining portion of the OWW, with a copy furnished to FIND.
5. The next item needed is a contributed funds agreement for the OWW. The contributed funds agreement unfortunately will not be of the magnitude of the IWW/AIWW one in that the new



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model only allows for a smaller duration and funding limit. For example, effort should be made for the maximum agreement duration, likely a 7-10 year contributed funds agreement with specific areas outlined (as compared to the existing IWW/AIWW agreement that is a 50-year agreement with no maximum contribution or specific reaches listed).





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## FLORIDA INLAND NAVIGATION DISTRICT INTRACOASTAL WATERWAY WORK ORDER No. 61-2023-05



In accordance with the Memorandum of Agreement (MOA) between the Department of the Army and the Florida Inland Navigation District (FIND) for acceptance of contributed funds for the Atlantic Intracoastal Waterway, entered into on September 3, 1997, as amended on October 22, 2001, by amendment number 1, work order number 61-2023-05 is described per the following requirements:

1. Project Name: Maintenance Dredging, AIWW 12-foot project, Vicinity of Sawpit Creek.

2. Detailed Scope of Work: The United States Army Corps of Engineers (Corps) will be performing operation and maintenance (O&M) dredging along the AIWW in the vicinity of Sawpit Creek. Dredging material will be placed on Amelia Island State Park Beach and Dredge Material Management Area DU-2.

3. Tentative Schedule:

FIND Board Approves Work Order 61-2023-05  
Advertise  
Award

17 November 2023  
29 March 2024  
16 May 2024

4. Funding arrangements providing for funding of obligation: Contributed funds must be received in accordance with the MOA, as amended, prior to awarding the contract modification.

5. The amount of funds required and available to accomplish the scope of work: Based on current estimates, it is anticipated that \$XXX of Contributed Funds is needed to implement this O&M dredging effort. Approximately \$2,203,002.87 of surplus from Work Order # 56-2022-02 will be used and additional \$XXX is being requested.

6. Identification of individual project managers: The Contributor's project manager is Mark Crosley, 561-627-3386. The Government's project manager is Eduardo Marin, 904-635-0665.

7. Types and frequency of reports: n/a

8. Identification of which party is responsible for contract administration, records maintenance, and contract audits: U.S. Corps of Engineers North Florida Resident Office.

9. Procedures for amending or modifying the work order: This work order can be amended or modified in writing with mutual consent of both parties.

10. Such other particulars as are necessary to describe clearly the obligations of the parties with respect to the requested goods and services for this work order: None

THE DEPARTMENT OF THE ARMY

FLORIDA INLAND NAVIGATION  
DISTRICT

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

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

James L. Booth  
Colonel, U.S. Army  
District Engineer

Thomas Spencer Crowley, III  
Chair, Florida Inland Navigation District

DATE:\_\_\_\_\_

DATE:\_\_\_\_\_

November 3, 2023

Mark Crosley, Executive Director  
Florida Inland Navigation District  
1314 Marcinski Road  
Jupiter, FL 33477

Re: Professional Engineering Services for: (A) Dredged Material Management Area (DMMA) SJ-14, Marsh Harbor Development, Easement and Pipeline Relocation Reviews and Recommendations, St. Johns County, Florida; and for (B) DMMA BV-11 Lawsuit Efforts, Brevard County, Florida.

Mr. Crosley:

Under the General Services contract with FIND, Taylor Engineering has been providing professional engineering services needed to fully investigate the feasibility and potential impacts associated with requested relocations of the easement and permanent discharge pipeline at DMMA SJ-14 to support expansion of the residential community in the area. The reviews have become quite extensive and are now considered beyond the scope intended for the General Services account.

Lessons learned from the recent Palm Valley South maintenance dredging event that utilized disposal into SJ-14 highlighted problems associated with a dredging event occurring with pipeline easement limitations. Therefore, extensive engineering efforts have been needed and significant time allotted to effectively examine the recommended plan and propose the adjustments needed to protect FIND's investment, minimize adverse impacts of the requested changes to what currently exists, and allow for future maintenance of the waterway in this area without incident. Due to these efforts the plan has been positively adjusted and future efforts will continue to refine the end result. Additionally, FIND has requested Taylor's oversight in the construction administration of the final contract.

In a similar fashion, Taylor Engineering has also been involved with Engineering reviews and provision of documents necessary to support FIND's position regarding the existing lawsuit brought against FIND from the adjacent landowner to DMMA BV-11, suggesting the newly constructed site is causing excess flooding on their property. This effort also began under General Services and is now considered beyond the scope intended for the General Services account. This endeavor is ongoing and potentially could involve expert testimony in a subsequent court case.

Therefore, we respectfully request funding to cover Taylor Engineering's costs to date and potential future costs to ensure a successful outcome to the suggested changes to FIND's existing conditions at SJ-14 and a ruling in FIND's favor to the BV-11 lawsuit. These funds will only be used on an as-needed basis and are estimated as follows:

- (A) SJ-14 \$25,000
- (B) BV-11 \$18,000

We appreciate this opportunity to continue to serve the FIND. If you have any questions concerning this request, please contact me.

Sincerely,

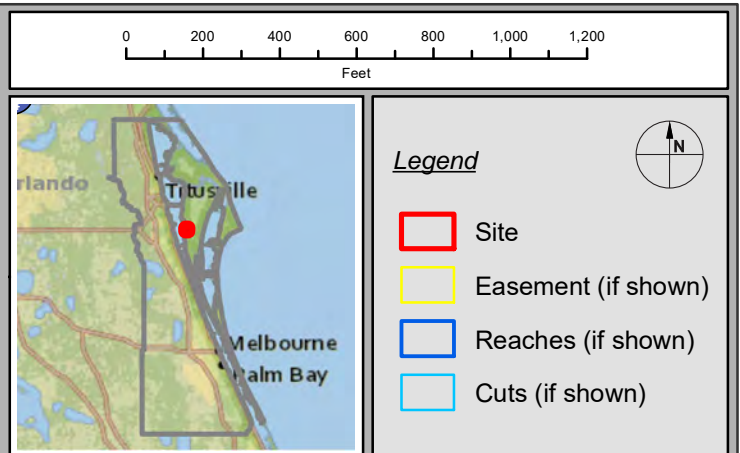
A handwritten signature in blue ink, appearing to read "Jerry Scarborough", with a long horizontal flourish extending to the right.

Jerry Scarborough, P.E.  
Senior Advisor, Waterfront Engineering

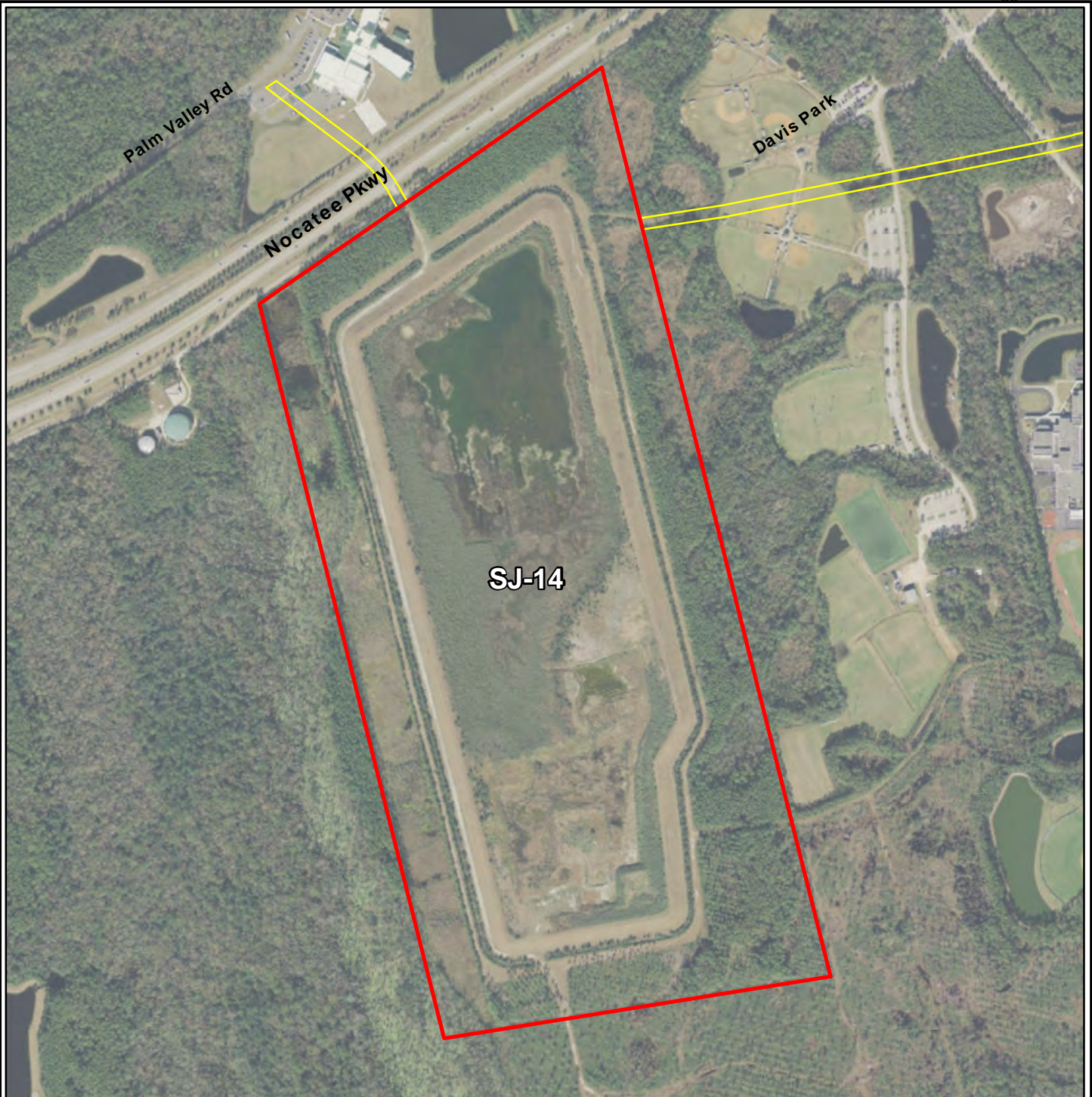




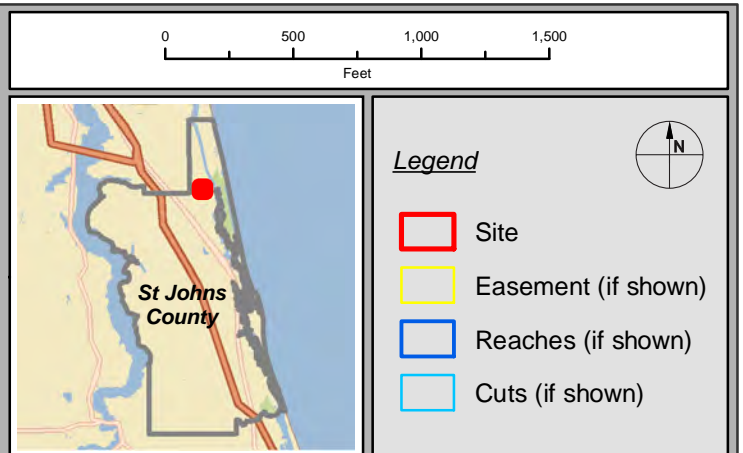
Site	BV-11
Common Name	Merritt Island
County/City	Brevard/Merritt Island
Geographic Proximity	On Merritt Island
Acquisition Dates	11/12/1991
Status	Constructed
Year Constructed	N/A
Reach/Cuts	BV-III / BV-14/88+79.77 – BV-19/75+00
Site Acres	95.8
Basin Acres	28.13
Design Capacity (cy)	512,350





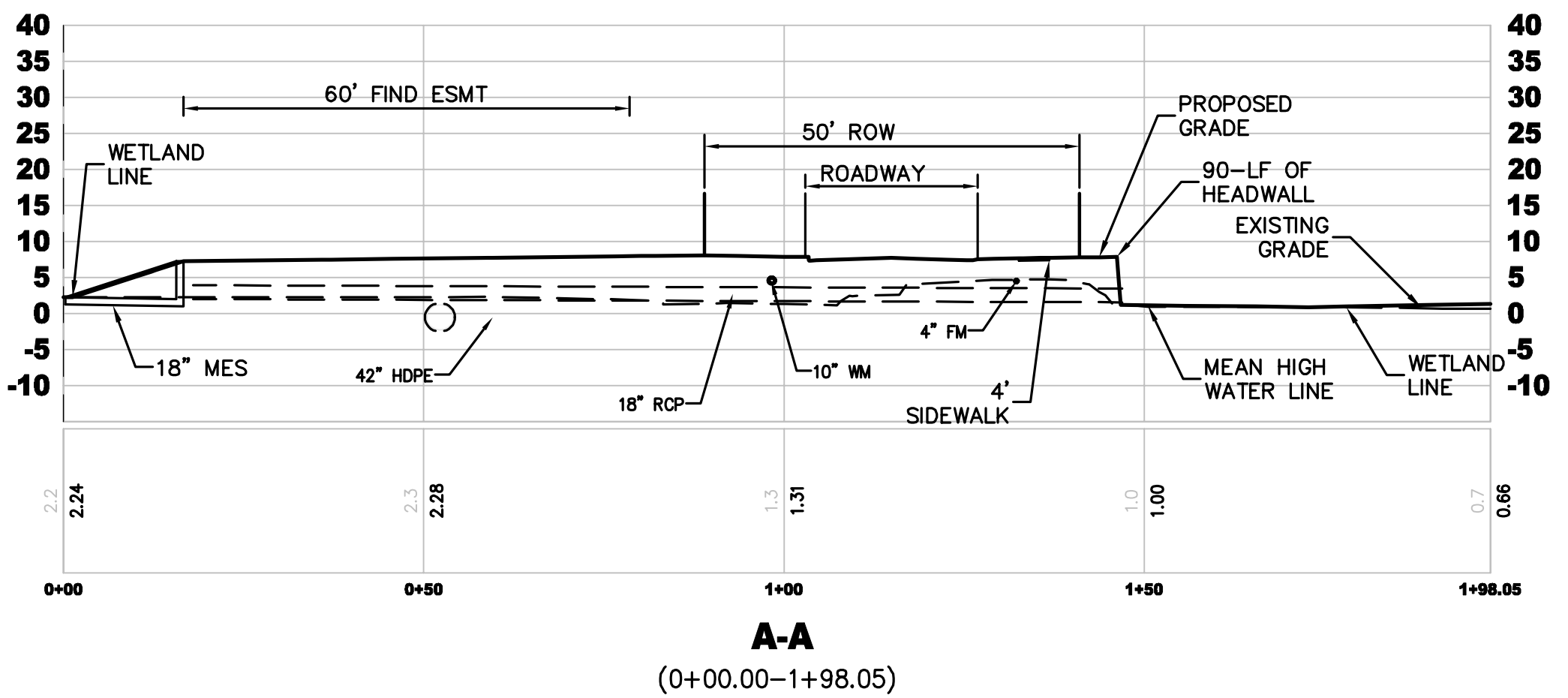
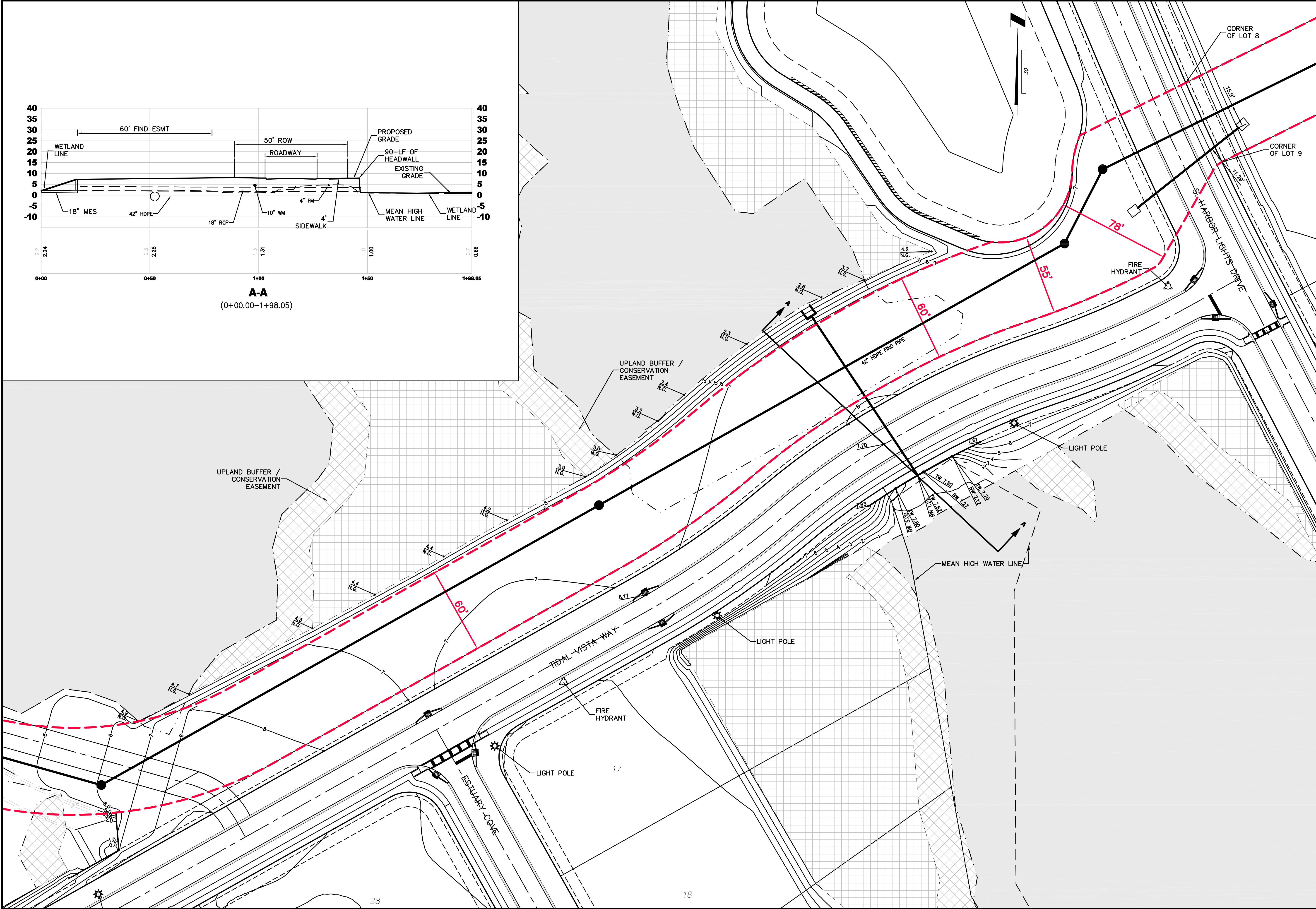


Site	SJ-14
Common Name	Nocatee
County/City	St. Johns/Unincorporated
Geographic Proximity	Palm Valley to Deep Creek
Acquisition Dates	2/27/1995, 10/8/2009
Status	Constructed
Year Constructed	2004
Reach/Cuts	SJ-I & II / SJ-4 to SJ-15
Site Acres	202.6
Basin Acres	103.02
Design Capacity (cy)	1,953,289





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ETM

VISION • EXPERIENCE • RESULTS

FIND CROSS SECTION

MARSH HARBOR SOUTH

CABBAGE HAMMOCK COMPANY, LLC

DRAWING NUMBER

1 OF 3

England • Thins & Miller, Inc.

14775 Old St. Augustine Road

Jacksonville, FL 32258

TEL: (904) 642-8990

FAX: (904) 646-9485

REG - 2584 LC - 0000316

REVISIONS:

ETM NO. 14-213-03
DRAWN BY: MEW
DESIGNED BY: MEW
CHECKED BY: JAN
DATE: OCT 2022

PLANS PREPARED UNDER THE DIRECTION OF:

PLotted: November 3, 2023 - 3:42 PM, BY: Lindsay Keller

T:\2014\14-213-03\LandDev\Design\Plots\Exhibits\2023-09-29 FIND ESMT 14-213-03.dwg



MHS F.I.N.D. ROUTE

PONTE VEDRA, FLORIDA

PREPARED FOR

CABBAGE HAMMOCK COMPANY, LLC

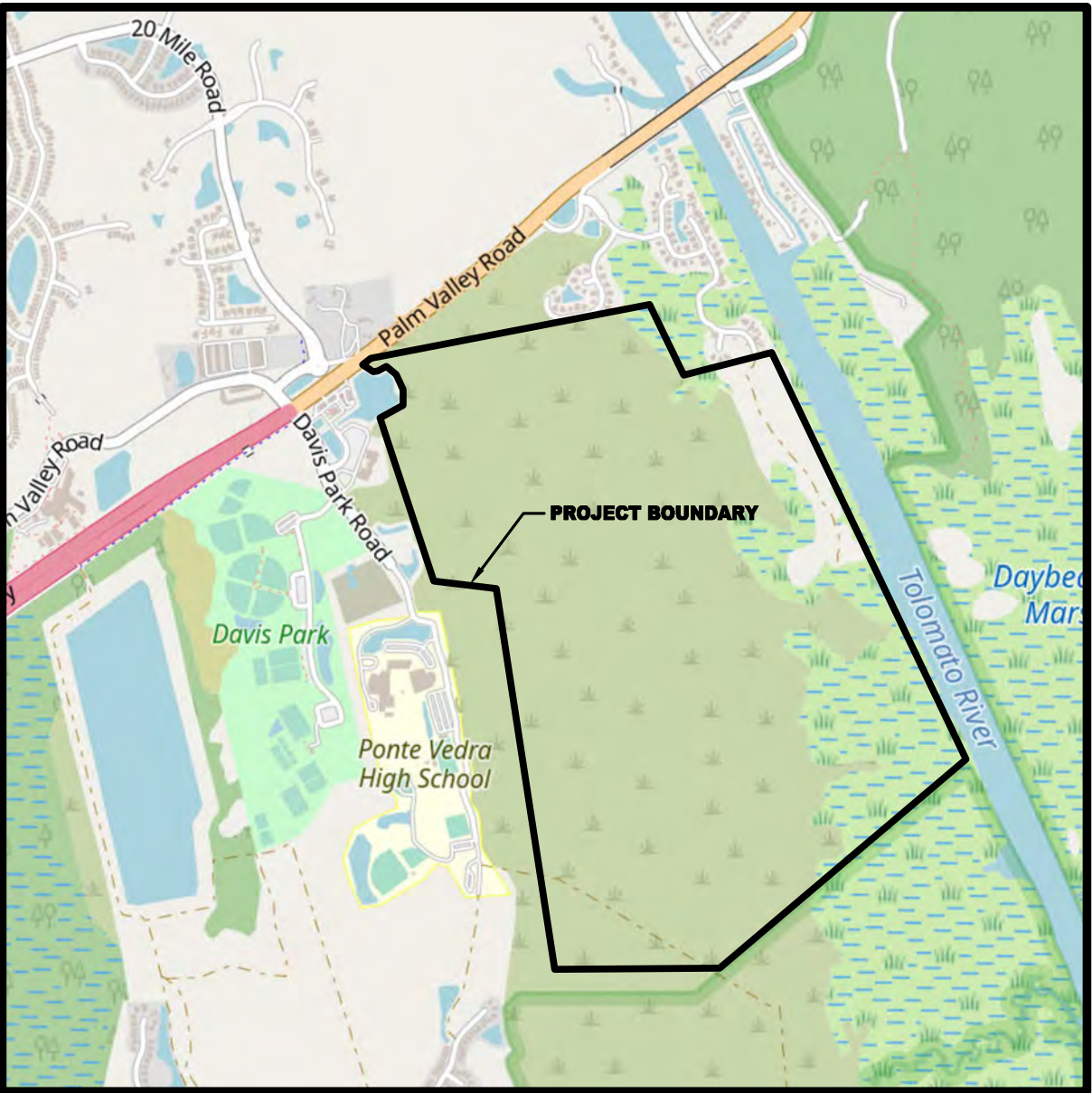
4314 PABLO OAKS CT  
JACKSONVILLE, FL 32224  
(904) 992-9750

ETM

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England-Thimys & Miller, Inc.

14775 Old St. Augustine Road  
Jacksonville, FL 32258  
TEL: (904) 642-8990  
FAX: (904) 646-9485  
CA - 00002584 LC - 0000316



LOCATION MAP  
N.T.S.

DRAWING INDEX			
PDF SHEET NUMBER	DRAWING NUMBER	DRAWING TITLE	REVISION
1	1	COVER SHEET	
2	2	GENERAL NOTES	
3	3	DEMOLITION PLAN	
4	4	MASTER SITE PLAN	
5-7	5A-5C	PAVING AND DRAINAGE PLAN	
8	6	DOCK PLAN	
9-11	7A-7C	PAVING AND DRAINAGE DETAILS	
12-14	8A-8C	SEDIMENT AND EROSION CONTROL PLAN	
15	9	SEDIMENT AND EROSION CONTROL DETAILS	
16	10	STORMWATER POLLUTION PREVENTION PLAN	
17	11	SWPP CONTRACTORS CERTIFICATION	

NOTE:  
IF YOU DIG IN FLORIDA, YOU ARE REQUIRED TO  
CALL SUNSHINE STATE ONE-CALL OF FLORIDA,  
INC. 1-800-432-4770 FOR LOCATES. IT'S THE  
LAW.

REVISIONS

VERTICAL DATUM USED FOR  
THIS PROJECT: NAVD88

COVER SHEET

MHS F.I.N.D. ROUTE  
FOR  
CABBAGE HAMMOCK COMPANY, LLC

DRAWING NUMBER

1

England-Thimys & Miller, Inc.  
14775 Old St. Augustine Road  
Jacksonville, FL 32258  
TEL: (904) 642-8990  
FAX: (904) 646-9485  
REG - 2584 LC - 0000316

ETM

VISION • EXPERIENCE • RESULTS

REVISIONS:

ETM NO. 14-213-03 FND  
DRAWN BY: MEW  
DESIGNED BY: LDK  
CHECKED BY: JAN  
DATE: NOV 2023

PLANS PREPARED UNDER THE  
DIRECTION OF:  
  
LYNDSEY KELLER, PE  
P.E. NUMBER: 77763

PLOTTED: November 3, 2023 - 3:38 PM, BY: Lyndsey Keller

87



GENERAL SITE NOTES:

1. ALL WORK SHALL BE PERFORMED IN A SAFE MANNER. ALL SAFETY RULES AND GUIDELINES OF O.S.H.A. SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES OF PERSONS AND PROPERTY FOR ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT. ALL COSTS ASSOCIATED WITH COMPLYING WITH OSHA REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTORS BID.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS, EITHER SURFACE OR SUB-SURFACE, WHICH MAY AFFECT THE WORK TO BE PERFORMED, AND THE EQUIPMENT, LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THE CONSTRUCTION CONTRACT. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA (811) FOR UTILITY LOCATES IN ACCORDANCE WITH STATE LAW PRIOR TO EXCAVATING. THE CONTRACTOR IS ALSO URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF OR WITHIN THE PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION, AND TO AID IN RESOLVING POSSIBLE FUTURE ISSUES THAT MAY OCCUR DUE TO THE CONSTRUCTION OF THE PROJECT.
3. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING STRUCTURES, IMPROVEMENTS, UTILITIES, PROPERTY LINES, AND CONFIRM ALL PROPOSED DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCING ANY CONSTRUCTION OR ORDERING ANY MATERIALS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF GOOD AND PROPER PER ST. JOHNS COUNTY LDC AND STANDARDS AND MEETING THE NPDES FINAL STABILIZATION REQUIREMENTS.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EITHER CONDUCT ANY FIELD EXPLORATION OR ACQUIRE ANY GEOTECHNICAL ASSISTANCE REQUIRED TO ESTIMATE THE AMOUNT OF UNSUITABLE MATERIAL THAT WILL REQUIRE REMOVAL AND/OR TO ESTIMATE THE AMOUNT OF OFF SITE. BORROW THAT WILL BE REQUIRED. FAILURE OF THE CONTRACTOR TO IDENTIFY/QUANTIFY THE AMOUNT OF UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED DURING THE BID PROCESS WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THE CONSTRUCTION CONTRACT.
6. ALL MATERIALS AND WORKMANSHIP SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE DEVELOPER AND ST. JOHNS COUNTY FOR A PERIOD OF 26 MONTHS FROM DATE OF ACCEPTANCE BY THE OWNER AND ST. JOHNS COUNTY.
7. THE LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND IMPROVEMENTS SHOWN ON THE DRAWINGS IS BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN THE LOCATION OF THE UTILITIES. THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION. IF THE LOCATIONS SHOWN ARE CONTRARY TO THE ACTUAL LOCATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF THE DISCREPANCY. THIS DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITIES AND IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR AND SHALL REPAIR OR PAY FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH HE SHALL CONNECT, AND NOTIFY THE OWNER AND ENGINEER OF ANY DISCREPANCIES.
8. UNLESS DIRECTED OTHERWISE BY THE OWNER OR THE ENGINEER, THE CONTRACTOR WILL CONDUCT AN INDEPENDENT TESTING LABORATORY TO PERFORM MATERIAL TESTING AND SOIL TESTING IN ACCORDANCE WITH COUNTY REQUIREMENTS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE FOR THE PROJECT INCLUDING ST. JOHNS COUNTY RIGHT-OF-WAY PERMITS FOR WORK IN THE COUNTY RIGHT-OF-WAY OR EASEMENT. CONTRACTOR IS RESPONSIBLE FOR CONTROL OF SEDIMENTATION AND RUNOFF RESULTING FROM RAINFALL EVENTS DURING THE CONSTRUCTION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH REGULATORY PERMITS ISSUED FOR THE PROJECT.
10. THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN COUNTY OR STATE RIGHT-OF-WAY WITH THE APPROPRIATE AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION & REPAIR.
11. IF DEWATERING CAPACITY REQUIRES A CONSUMPTIVE USE PERMIT (C.U.P.) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE PERMIT THROUGH THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND THE DISTRICT FOR APPROVAL OF ALL DEWATERING OPERATIONS PRIOR TO COMMENCEMENT.
12. PRIOR TO ANY DISCHARGE OF GROUND WATER (DEWATERING) FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT TO WATERS OF THE STATE (INCLUDING, BUT NOT LIMITED TO, WETLANDS, SWALES AND MUNICIPAL STORM SEWERS), THE CONTRACTOR SHALL TEST THE EFFLUENT (WATER TO BE DISCHARGED) IN ACCORDANCE WITH RULE 62-621.300(2), F.A.C. IF THE TEST RESULTS ON THE EFFLUENT ARE BELOW THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL SUBMIT A SUMMARY OF THE PROPOSED CONSTRUCTION ACTIVITY AND THE TEST RESULTS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISTRICT OFFICE, WITHIN ONE (1) WEEK AFTER DISCHARGE BEGINS. THE CONTRACTOR SHALL CONTINUE TO SAMPLE THE EFFLUENT AS REQUIRED THROUGHOUT THE PROJECT AND COMPLY WITH ALL CONDITIONS OF RULE 62-621.300(2), F.A.C. IF THE GROUND WATER EXCEEDS THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL COMPLY WITH OTHER APPLICABLE RULES AND REGULATIONS PRIOR TO DISCHARGE OF THE EFFLUENT (GROUND WATER) TO SURFACE WATERS OF THE STATE.

GENERAL SITE NOTES:

13. ALL AREAS SHOWN TO BE FILLED SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH ST. JOHNS COUNTY LDC AND STANDARD MAPS AND SHALL BE FILLED WITH CLEAN STRUCTURAL FILL COMPACTED AND TESTED IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION REPORT.
14. CLEARING AND GRUBBING REQUIRED FOR ALL ROADWAY, UTILITIES, DITCHES, BERMS, RIGHTS-OF-WAYS AND EASEMENTS (INCLUDING ELECTRIC EASEMENTS) IS INCLUDED IN THIS PROJECT.
15. ALL ACCESS EASEMENTS ARE TO BE STABILIZED AND DRIVABLE.
16. ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR.
17. BURNING OF TREES, BRUSH AND OTHER MATERIAL SHALL BE APPROVED, PERMITTED AND COORDINATED WITH ST. JOHNS COUNTY FIRE MARSHALL AND ALL OTHER PERMITTING AUTHORITIES BY THE CONTRACTOR.
18. UNSUITABLE MATERIALS UNDER UTILITY OR STORM PIPE, STRUCTURES, PAVEMENT, BUILDING PADS, OR HARDSCAPE ELEMENTS SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
19. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS. IF A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.
20. ALL UNDERGROUND UTILITIES TO BE INSTALLED UNDER PAVEMENT MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.
21. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION WITH ALL OTHER CONTRACTORS. IN THE EVENT OF ANY CONFLICT WHATSOEVER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.
22. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL MATERIALS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY OR STORM PIPE OR STRUCTURE.
23. AUGER BORINGS PROVIDED BY ECS FLORIDA, LLC, DATED: 2022/03/07.
24. FLOOD ZONE BASED UPON FEMA INSURANCE RATE MAPS PANEL NO. 12109C0185J DATED: 2018/12/07.
25. FOR SEDIMENT AND EROSION CONTROL PLANS, DETAILS AND NOTES REFER TO DRAWINGS 8A-8C. THE CONTRACTOR IS TO COORDINATE WITH AUTHORITY FOR INSPECTIONS PRIOR TO CLEARING OPERATIONS.
26. ELEVATIONS ARE BASED ON NAVD88.
27. TOPOGRAPHIC INFORMATION BASED ON SURVEY PROVIDED BY ROBERT M. ANGAS ASSOCIATES, INC., DATED: 2015/10/19.
28. BOUNDARY INFORMATION BASED ON FIELD NOTES PROVIDED BY THE OWNER
29. ALL WORK AND MATERIALS SHALL BE IN COMPLETE ACCORDANCE WITH ALL RELATIVE SECTIONS OF THE PROJECT SPECIFICATIONS AND ALL CURRENT ST. JOHNS COUNTY LDC AND STANDARD DETAILS AND REQUIREMENTS OF OTHERS HAVING JURISDICTION. THE WORK SHALL ALSO BE PERFORMED AND TESTED IN ACCORDANCE WITH THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEER'S REPORT.
30. ALL EXCESS SUITABLE AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE ENGINEER OR OWNER.
31. SUBMITTAL OF AS-BUILT SITE SURVEY, INCLUDING BENCHMARKS, IS REQUIRED IN COMPLIANCE WITH SECTION 6.04.00 OF THE ST. JOHNS COUNTY LAND DEVELOPMENT CODE AND SECTION 15, 'AS-BUILTS' OF THE DEVELOPMENT REVIEW MANUAL PRIOR TO SCHEDULING A FINAL INSPECTION OF THE BUILDING BY THE BUILDING DEPARTMENT OR THE FIRE MARSHALL.
32. ST. JOHNS COUNTY DEVELOPMENT REVIEW INSPECTOR SHALL BE CONTACTED 24 HOURS PRIOR TO ALL NECESSARY SITE WORK INSPECTIONS AND 5 DAYS PRIOR TO THE FINAL INSPECTION.
33. FOR BOUNDARY, ROADWAY AND LOT GEOMETRY INFORMATION SEE PLAT.
34. PROJECT LOCATION: PONTE VEDRA, FLORIDA.
35. THESE PLANS WERE GENERATED UTILIZING AUTOCAD CIVIL 3D 2022.
36. THESE PLANS ARE PREPARED IN GENERAL COMPLIANCE WITH THE ST. JOHNS COUNTY LAND DEVELOPMENT CODE, DATED 07/09/2020.

PAVING AND DRAINAGE NOTES:

1. ALL DRAINAGE STRUCTURES TO HAVE TRAFFIC BEARING GRATES.
2. ALL DRAINAGE PIPE JOINTS ARE TO BE FILTER FABRIC WRAPPED.
3. ALL INVERTS IN DRAINAGE STRUCTURES TO BE PRECAST OR BRICK WITH LAYER OF MORTAR BETWEEN EACH LAYER OF BRICK, OR REDDI-MIX CONCRETE WITH #57 STONE.
4. ALL PIPE LENGTHS ARE SCALED DIMENSIONS. ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH COUNTY REQUIREMENTS AND SHALL BE CONSTRUCTED TO CONFORM WITH CURBING, PROPERTY LINES AND LOW POINTS AS SHOWN ON THE PLANS.
5. CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEAN AND FUNCTIONING PROPERLY AT TIME OF ACCEPTANCE.
6. "AS-BUILT" DRAWINGS - DRAINAGE AS-BUILTS PROVIDED TO ST. JOHNS COUNTY AND THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED AND SURVEYOR THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION, FIELD LOCATIONS, CERTIFICATION AND SUBMITTAL OF "AS-BUILT" DRAWINGS IN ACCORDANCE WITH CURRENT COUNTY STANDARDS AND SPECIFICATIONS, AND SJRWMD REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROCESS THE AS-BUILT DRAWINGS FOR APPROVAL BY THE COUNTY. IN ADDITION TO THE DRAINAGE SYSTEM THE "AS-BUILTS" SHALL SHOW THE ELEVATIONS AND LOCATION OF THE TOP OF BANK, WATER LEVEL, ANY POINTS OF CHANGE OF SLOPE, TOE OF SLOPE AND POND BOTTOM AT 100' MAXIMUM INTERVALS ALONG POND BANK FOR ALL POND CONSTRUCTION. ALL DIMENSIONS AND ELEVATIONS ON THE CONTROL STRUCTURE DETAILS SHALL BE SHOWN ON AS-BUILT DRAWINGS. CONTRACTOR SHALL SHOW ALL CASING AND SLEEVE LOCATIONS AND INVERT ELEVATIONS. ALL DEVIATIONS FROM PLANS SHALL BE CLEARLY INDICATED ON THE AS-BUILT DRAWINGS.
7. ALL PAVEMENT MARKINGS IN RIGHT-OF-WAY SHALL BE EXTRUDED THERMOPLASTIC, IN ACCORDANCE WITH FDOT SPECIFICATIONS. REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS.
8. THE CONTRACTOR SHALL PROVIDE ACCESSIBLE RAMPS AT ALL SIDEWALK AND CURB CONNECTIONS. ACCESSIBLE RAMPS SHALL MEET ALL APPLICABLE ADA AND ST. JOHNS COUNTY REQUIREMENTS.
9. FOR SPECIAL PAVING AND DRAINAGE DETAILS SEE DRAWING NOS. 7A-7C. FOR ALL STANDARD DETAILS SEE ST. JOHNS COUNTY LDC AND STANDARD DETAILS, LATEST REVISIONS.
10. UNDERDRAIN SHOWN HEREON IS THE MINIMUM REQUIRED BASED ON GEOTECHNICAL REPORT, PREPARED BY ECS FLORIDA, LLC, PROJECT NO. , DATED: 2022/03/07. FINAL DETERMINATION OF LIMITS OF UNDERDRAIN WILL BE MADE BASED ON TEST HOLE OBSERVATION AT TIME OF ROADWAY CONSTRUCTION AND SHALL BE MADE BY GEOTECHNICAL ENGINEER AND APPROVED BY ST. JOHNS COUNTY AT TIME OF CONSTRUCTION.
11. ALL STORM DRAINS SHALL BE VIDEO INSPECTED AND RECORDED IN ACCORDANCE WITH ST. JOHNS COUNTY LDC. CONTRACTOR SHALL SUBMIT VIDEO TAPES TO ENGINEER OF RECORD PRIOR FOR REVIEW PRIOR TO INSTALLATION OF PAVEMENT.
12. A PRE-CONSTRUCTION/PRE PERMIT MEETING WITH ST. JOHNS COUNTY IS REQUIRED PRIOR TO STARTING ANY SITE ACTIVITIES. PRE CONSTRUCTION MEETING CAN BE HELD IN CONJUNCTION WITH SJCD/JEA PRECONSTRUCTION CONFERENCE IF APPLICABLE. CONTACT CARL COLEE AT 904-209-0736 TO SCHEDULE A MEETING.
13. ALL DETECTABLE WARNING SURFACES FOR SIDEWALK AT CURB CUT HANDICAP RAMPS UNDER THE JURISDICTION OF ST. JOHNS COUNTY SHALL BE A COUNTY APPROVED YELLOW COLORED COMPOSITE MATERIAL, ANCHORED IN THE CONCRETE SIDEWALK RAMP. ANCHORED COMPOSITE WARNING AREA INSERTS ARE TO BE COLORED 'SAFETY YELLOW', ARE TO BE SET INTO THE CONCRETE AND ARE TO BE FLUSH WITH CONCRETE SURFACE ALONG ALL FOUR SIDES. DESIGN DIMENSIONS OF DETECTABLE WARNING AREA SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD INDEX 522-002, SHEETS 1 THROUGH 7, AND 28 CODE OF FEDERAL REGULATIONS (CFR) PART 36, APPENDIX A LATEST REVISION, AS WELL AS APPLICABLE COUNTY REQUIREMENTS. ACCEPTABLE PRODUCTS ARE CAST IN PLACE COMPOSITE TACTILE BY ADA SOLUTIONS, INC., AND CAST IN PLACE DETECTABLE WARNING PANEL BY ARMORCAST. THE STANDARD COLOR FOR THE DETECTABLE WARNING SURFACE SHALL BE YELLOW. A DIFFERENT CONTRASTING COLOR MAY BE APPROVED WHEN SUBMITTED AS PART OF A UNIFORM SIGNAGE PLAN FOR A DEVELOPMENT. ANY TYPE OF ADHESIVE OR GLUE DOWN MATS, STAMPED CONCRETE OR ANY VARIATION OTHER THAN WHAT IS SPECIFIED ABOVE WILL NOT BE ACCEPTED BY THE COUNTY. THE COUNTY WILL CONSIDER ALTERNATIVES THAT ARE EQUAL TO THE PRODUCTS SPECIFIED ABOVE. THE COUNTY ENGINEER AND THE CHIEF ENGINEER FOR DEVELOPMENT SERVICES WILL HAVE THE SOLE RESPONSIBILITY FOR DETERMINING THE PRODUCT ACCEPTABILITY.
14. ALL EROSION AND SEDIMENT CONTROL MEASURES, INCLUDING SILT FENCE, COIR BALES, AND FILTER FABRIC INSIDE DRAINAGE STRUCTURES SHALL BE REMOVED PRIOR TO FINAL INSPECTION, UNLESS OTHERWISE DIRECTED BY THE OWNER OR THE ENGINEER.

WATER, REUSE, & SEWER REQUIREMENTS

1. ALL WATER, REUSE WATER, SANITARY SEWER AND STORM SEWER CONSTRUCTION SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR, LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUTES. THE CONTRACTOR SHALL FURNISH A COPY OF THE CURRENT LICENSE AND QUALIFIERS TO THE DESIGN ENGINEER PRIOR TO START OF CONSTRUCTION. ALL WATER, REUSE WATER AND SEWER CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH JEA STANDARDS, DETAILS AND MATERIALS MANUAL (LATEST REVISIONS) UNLESS MORE STRINGENT STANDARDS ARE SPECIFIED.
  2. FIRE PROTECTION MAINS (NON-JEA OWNED WATER SYSTEMS) SHALL BE C-900 PVC DR18 PIPE AND SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH NFPA REQUIREMENTS BY A FLORIDA LICENSED CONTRACTOR QUALIFIED TO INSTALL FIRE PROTECTION MAINS. LOCAL PERMITTING AND INSPECTION OF FIRE PROTECTION SYSTEM INSTALLATION, FLUSHING AND TESTING IS REQUIRED. CONTRACTOR IS RESPONSIBLE FOR LOCAL PERMIT, NOTICE, AND COMPLIANCE WITH PERMIT.
  3. FINAL CONNECTION TO THE JEA SYSTEM MAY BE CONTINGENT UPON THE CONSTRUCTION DEDICATION AND FINAL ACCEPTANCE OF OFF-SITE SYSTEMS.
  4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER (AND THE JEA IF REQUIRED) ON ALL STRUCTURES AND MATERIALS, FOR REVIEW AND APPROVAL PRIOR TO PURCHASE OR FABRICATION OF ANY UTILITY PIPE OR STRUCTURE.
  5. UNSUITABLE MATERIALS UNDER UTILITY PIPES AND STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL, PROPERLY COMPACTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
  6. MECHANICALLY RESTRAINED JOINTS ARE REQUIRED ON PRESSURE MAINS AT VALVES, FITTINGS AND DEAD ENDS IN ACCORDANCE WITH JEA STANDARDS.
  7. CONTRACTOR SHALL FURNISH AND INSTALL LOCATE WRING ON ALL PVC WATER MAINS, REUSE MAINS, FORCE MAINS, POLYETHYLENE AND PVC WATER SERVICES. INSTALLATION SHALL BE IN ACCORDANCE WITH JEA STANDARDS, DETAILS AND MATERIAL MANUAL, LATEST EDITION.
  8. ALL POINTS OF CONNECTION FOR WATER, REUSE WATER AND SEWER MUST BE IN ACCORDANCE WITH THE AVAILABILITY RESPONSE FROM JEA.
  9. F.D.E.P. PERMITS SUBMITTED THROUGH THE DEPARTMENT FOR PROCESSING SHALL BE IN CONFORMANCE WITH BOTH THE DESIGN PLANS AND THE WATER AND SEWER AVAILABILITY RESPONSE. ANY MINOR OR MAJOR DEVIATIONS BETWEEN THE PRELIMINARY DESIGN AND FINAL DESIGN SUBMITTAL SHALL REQUIRE REVISED F.D.E.P. PERMITS REFLECTING THESE CHANGES.
  10. A JEA PRE-CONSTRUCTION CONFERENCE MUST BE HELD PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL CONTACT THE JEA NEW DEVELOPMENT PROJECT COORDINATION TO SCHEDULE THIS CONFERENCE.
  11. A TAP APPLICATION FEE IS REQUIRED AND SHALL BE PAID @ 515 N. LAURA ST., 1ST FLOOR. THIS MUST BE ACCOMPLISHED PRIOR TO CONNECTION TO THE JEA'S SYSTEM (WATER, SEWER, REUSE). IN ADDITION, CAPACITY FEES MUST BE PAID AT TIME OF OR PRIOR TO THE TAP FEE AND WILL BE BASED ON THE TOTAL NUMBER OF FUTURE UNITS AND OR AVERAGE DAILY FLOWS.
  12. THE CONTRACTOR SHALL MINIMIZE SERVICE INTERRUPTIONS AND MAINTAIN ANY EXISTING WATER AND SEWER SERVICE TO MEET THE SYSTEM DEMANDS AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED CUSTOMERS AND UTILITY A MINIMUM OF 48 HOURS IN ADVANCE OF ANY INTERRUPTION OF SERVICE.
  13. CONTRACTOR SHALL OBTAIN A COPY OF THE F.D.E.P. OR JEA WATER AND SEWER PERMITS FROM THE ENGINEER PRIOR TO START OF CONSTRUCTION AND MUST COMPLY WITH ALL CONDITIONS OF PERMIT(S).
  14. ALL JEA ELECTRICAL CONDUIT WORK SHALL BE COMPLETED PRIOR TO THE PRESSURE TESTING OF WATER MAINS, REUSE MAINS AND SEWAGE FORCE MAINS. ALL PRESSURE TESTING AND PUMP TESTING SHALL BE WITNESSED BY JEA AND THE ENGINEER.
- WATER AND REUSE MAINS**
15. UNLESS OTHERWISE INDICATED, ALL WATER MAINS AND REUSE MAINS WILL BE PVC DR18, C-900/C-905 (AS APPROPRIATE) PIPE. ALL 2" MAINS SHALL BE HDPE CTS SDR 9.
  16. WATER MAINS AND REUSE MAINS SHALL HAVE A MINIMUM OF 30" COVER UNDER UNPAVED AREAS AND 36" MINIMUM COVER FROM FINISHED GRADE UNDER PAVED AREAS UNLESS OTHERWISE SHOWN. ADDITIONAL COVER IS REQUIRED FOR VALVE INSTALLATION CLEARANCE FOR PIPE GREATER THAN 8 INCHES IN DIAMETER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT INSTALLED PIPING UNTIL FINAL ACCEPTANCE BY F.D.E.P. AND JEA.
  17. ALL WATER MAINS AND REUSE MAINS SHALL BE FLUSHED IN ACCORDANCE WITH, AND UNDER THE DIRECTION OF THE JEA.
  18. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND REUSE MAINS AND HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND REUSE MAINS TO OTHER UTILITIES SHALL BE IN ACCORDANCE WITH JEA AND F.D.E.P. REQUIREMENTS.
  19. ALL GATE VALVES SHALL BE JEA STANDARD. VALVES SHALL BE MECHANICAL JOINT, CAST IRON, BRONZE FITTED WITH RESILIENT SEAT. ALL VALVES SHALL OPEN BY TURNING TO THE LEFT. VALVES SHALL BE RATED AT 250 PSI WORKING PRESSURE AND 500 PSI TEST PRESSURE.
  20. ALL NEW AND / OR RELOCATED WATER MAIN AND REUSE MAIN PIPE AND FITTINGS SHALL NOT CONTAIN MORE THAN EIGHT PERCENT LEAD, AND ALL PACKING AND JOINT MATERIALS USED IN THE JOINTS SHALL CONFORM WITH ALL APPLICABLE AWWA STANDARDS. ALL NEW AND / OR RELOCATED SERVICES AND PLUMBING SHALL CONTAIN NO MORE THAN EIGHT PERCENT LEAD AND ALL SOLDER AND FLUX SHALL CONTAIN NO MORE THAN 0.2 PERCENT LEAD.
  21. ALL FIRE HYDRANTS SHALL BE JEA STANDARD. FIRE HYDRANTS LOCATED WITHIN JEA RIGHT OF WAYS OR EASEMENTS SHALL BE PAINTED YELLOW. ALL PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED, OR IN ACCORDANCE WITH LOCAL REQUIREMENTS.

WATER, REUSE, & SEWER REQUIREMENTS

22. ALL FIRE HYDRANTS THAT ARE SUPPLIED BY A FIRE PUMP AND SUBJECT TO HIGH PRESSURE (IN EXCESS OF 60 P.S.I.) SHALL BE PAINTED GREEN WITH RED LETTERS "H.P." APPROXIMATELY 2" HIGH. THESE LETTERS SHALL BE STENCILED ON THE HYDRANT IN A CONSPICUOUS/ VISIBLE AREA.
23. ALL NEW FIRE HYDRANT INSTALLATIONS, PUBLIC AND PRIVATE, SHALL HAVE A BLUE F.D.O.T. TYPE REFLECTIVE PAVEMENT MARKER INSTALLED IN THE CENTER OF THE TRAFFIC LANE NEAREST THE NEW FIRE HYDRANT.
24. ALL WACKER MAINS SHALL BE BACTERIOLOGICAL AND PRESSURE TESTED AT 150 PSI FOR 2 HOURS IN ACCORDANCE WITH AWWA STANDARDS AND JEA STANDARD REQUIREMENTS. NO CONNECTION TO THE EXISTING POTABLE WATER SYSTEM SHALL BE ALLOWED UNTIL ALL PROPOSED WATER LINES HAVE BEEN PRESSURE TESTED, DISINFECTED, AND CLEARED FOR SERVICE. THE ENGINEER MUST BE NOTIFIED 48 HOURS PRIOR TO PERFORMING THE PRESSURE TEST. DISINFECTION SHALL BE IN ACCORDANCE WITH AWWA-C-651. REUSE MAINS REQUIRE PRESSURE TEST ONLY.
25. ALL BACKFLOW PREVENTORS SHALL BE IN ACCORDANCE WITH JEA CROSS CONNECTION CONTROL PROGRAM. BACKFLOW PREVENTORS MUST BE TESTED AFTER INSTALLATION BY A CERTIFIED TESTER AND ANNUALLY THEREAFTER. JEA CONTACT: DAVID KAPLAN AT (904) 665-5522. BACKFLOW PREVENTORS ON FIRE LINES OR COMBINATION FIRE/POTABLE MAINS SHALL BE HAVE FREEZE PROTECTION.
26. THE WATER TAPS DEPICTED ON THESE DESIGN PLANS SHALL BE CONSTRUCTED AS FOLLOWS: ALL POTABLE, REUSE, AND IRRIGATION WATER TAPS, FIRE LINE SERVICES AND FIRE HYDRANT INSTALLATIONS SHALL BE PERFORMED BY A LICENSED MASTER PLUMBER OR UNDERGROUND UTILITY CONTRACTOR UNDER THE FOLLOWING CONDITIONS:
  - 1.) THE TAPS ARE TO BE SCHEDULED 48 HOURS IN ADVANCE WITH JEA.
  - 2.) TAPS REQUIRING METER INSTALLATIONS OF SIZE 2" AND BELOW MUST INCLUDE THE SERVICE PIPE, METER BOX, AND CORP. STOP SIZED READY TO ACCEPT THE METER INSTALLATION BY JEA FORCES.
  - 3.) JEA FORCES WILL INSTALL THE METER UPON APPLICATION AND PAYMENT BY LICENSED MASTER PLUMBER OR UTILITY CONTRACTOR AT JEA WATER AND SEWER, 515 N. LAURA ST., 1ST FLOOR.
  - 4.) ALL TAPS REQUIRING METER INSTALLATIONS OF SIZE 3" AND ABOVE SHALL TERMINATE SIZED READY FOR VAULT, METER AND BYPASS INSTALLATION. VAULT FURNISHED BY CONTRACTOR. INSTALLATION BY JEA FORCES. SPECIAL ESTIMATE REQUIRED.
27. WATER METERS SHALL NOT BE LOCATED WITHIN PAVEMENT, CURB AND GUTTER OR DRIVEWAYS.
28. IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH, WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED. WITH APPROVAL OF THE PERMITTING AGENCY, DUCTILE IRON PIPE, FITTINGS AND SOLVENT RESISTANT GASKET MATERIAL SUCH AS FLUOROCARBON SHALL BE USED IN THE CONTAMINATED AREA. THE DUCTILE PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED. ANY CONTAMINATED SOIL THAT IS EXCAVATED SHALL BE PLACED ON AN IMPERMEABLE MAT AND COVERED WITH A WATERPROOF COVERING. THE PROPER AUAITIES WILL BE NOTIFIED AND THE CONTAMINATED SOIL HELD FOR PROPER DISPOSAL.
29. ALL SEWER MAINS SHALL BE PVC (ASTM-3034) SDR 26 UNLESS OTHERWISE INDICATED. FORCE MAINS SHALL BE PVC OR 18 PIPE UNLESS OTHERWISE INDICATED. FORCE MAINS SHALL BE PRESSURE TESTED THE SAME AS WATER AND REUSE MAINS.
30. SANITARY SEWER SERVICES SHALL BE 6" PVC WITH A MINIMUM SLOPE OF 0.01 FEET PER FOOT AND SHALL BE TERMINATED AT THE RIGHT-OF-WAY LINE WITH A DEPTH OF 30" TO 60" UNLESS OTHERWISE DETAILED OR RESTRICTED DUE TO DEPTH OF SEWER MAIN. FORCE MAINS SHALL HAVE A MINIMUM COVER OF 30 INCHES IN UNPAVED AREAS AND 36 INCHES IN PAVED AREAS UNLESS OTHERWISE INDICATED. SEE FORCE MAIN PROFILE SHEET(S).
31. SEWER LINES AND FORCE MAINS ARE DESIGNED TO FINISHED GRADES AND SHALL BE PROTECTED UNTIL WORK IS COMPLETED AND ACCEPTED BY F.D.E.P. AND JEA.
32. PRIOR TO THE PLACEMENT OF THE LIMEROCK BASE COURSE, THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A SCHEDULE OF INVERT ELEVATIONS OF ALL SANITARY MANHOLES. THIS SCHEDULE SHALL BE PROVIDED BY THE REGISTERED LAND SURVEYOR SUBMITTING THE "AS-BUILT" DRAWINGS FOR THIS PROJECT.
33. THE CONTRACTOR SHALL INSTALL ANY ADDITIONAL AIR RELEASE VALVES AT CHANGES IN ELEVATION OF 2 FT. DUE TO ACTUAL FIELD CONDITIONS OR CONFLICTS NOT IDENTIFIED ON THESE DESIGN PLANS.
34. TELEVISION INSPECTION SHALL BE REQUIRED ON ALL GRAVITY SEWER MAINS. INSPECTION SHALL BE RECORDED ON VIDEO TAPE OR DVD. ALL LINES ARE TO BE CLEANED AND FLUSHED PRIOR TO INSPECTION. A FULL WRITTEN REPORT AS TO THE CONDITION OF THE PIPE WITH PERTINENT DATA SUCH AS DISTANCE BETWEEN MANHOLES, LOCATION OF SERVICES, ETC. SHALL BE SUBMITTED TO THE OWNER AND ENGINEER PRIOR TO ACCEPTANCE AND ONE COPY OF THE VIDEO INSPECTION SHALL BE SUBMITTED TO THE JEA. ALL DEFECTIVE AREAS AND ITEMS SHALL BE REPLACED OR REPAIRED PRIOR TO FINAL ACCEPTANCE. ALL REPAIRED SECTIONS MUST BE REINSPECTED PRIOR TO ACCEPTANCE. THE MAXIMUM DEFLECTION SHALL NOT EXCEED 7.5% OF THE NOMINAL DIAMETER IN ACCORDANCE WITH JEA STANDARDS. INFILTRATION AND/OR EXFILTRATION TESTING OF GRAVITY SEWERS MAY BE REQUIRED IF DEEMED NECESSARY BY THE ENGINEER. THE MAXIMUM ALLOWABLE INFILTRATION-EXFILTRATION RATE WILL BE 50 GALLONS PER INCH DIAMETER PER MILE PER DAY.

PAVING AND DRAINAGE LEGEND

EXISTING	PROPOSED	
		SPOT ELEVATION
		CONTOURS
		BOUNDARY
		DRAINAGE DIVIDE
		STORM SEWER AND SIZE
		STORM SEWER INLET
		STORM SEWER MANHOLE
		MITERED END SECTION
		DRAINAGE FLOW ARROWS
		DITCH FLOW ARROWS
		STRUCTURE NUMBERS
		DRAINAGE AREA
		SOIL BORING LOCATION
		UNDERDRAIN
		CONCRETE SIDEWALK
		CONCRETE CURB AND GUTTER
		JURISDICTIONAL WETLANDS
		SILT FENCE
		COIR BALES

WATER AND SEWER LEGEND

EXISTING	PROPOSED	
		SANITARY SEWER LINE
		SANITARY SEWER SERVICE
		SANITARY SEWER MANHOLE
		CLEANOUT
		FORCE MAIN
		WATER MAIN
		REUSE WATER MAIN
		FIRE PROTECTION MAIN
		FIRE HYDRANT
		FLUSHING HYDRANT
		GATE VALVE
		REDUCER
		TEE
		BEND
		WATER METER
		BACKFLOW PREVENTER

GENERAL NOTES

MHS F.I.N.D. ROUTE FOR CABBAGE HAMMOCK COMPANY, LLC

DRAWING NUMBER 2

REVISIONS:

ETM NO. 14-213-03 FND

DRAWN BY: MEW

DESIGNED BY: LDK

CHECKED BY: JAN

DATE: NOV 2023

ENG: Thins & Miller, Inc.

14775 Old St. Augustine Road

Jacksonville, FL 32258

TEL: (904) 646-8990

FAX: (904) 646-9485

REG - 2884 LC - 0000316

VISION \* EXPERIENCE \* RESULTS

PLANS PREPARED UNDER THE DIRECTION OF:

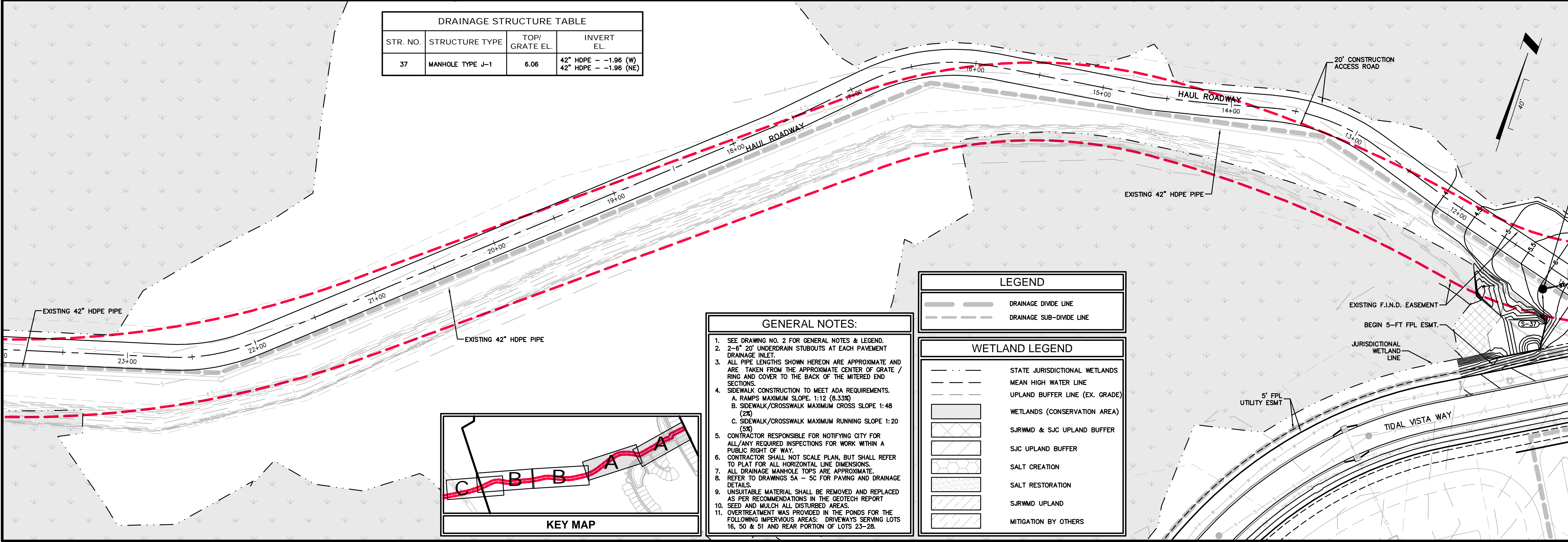
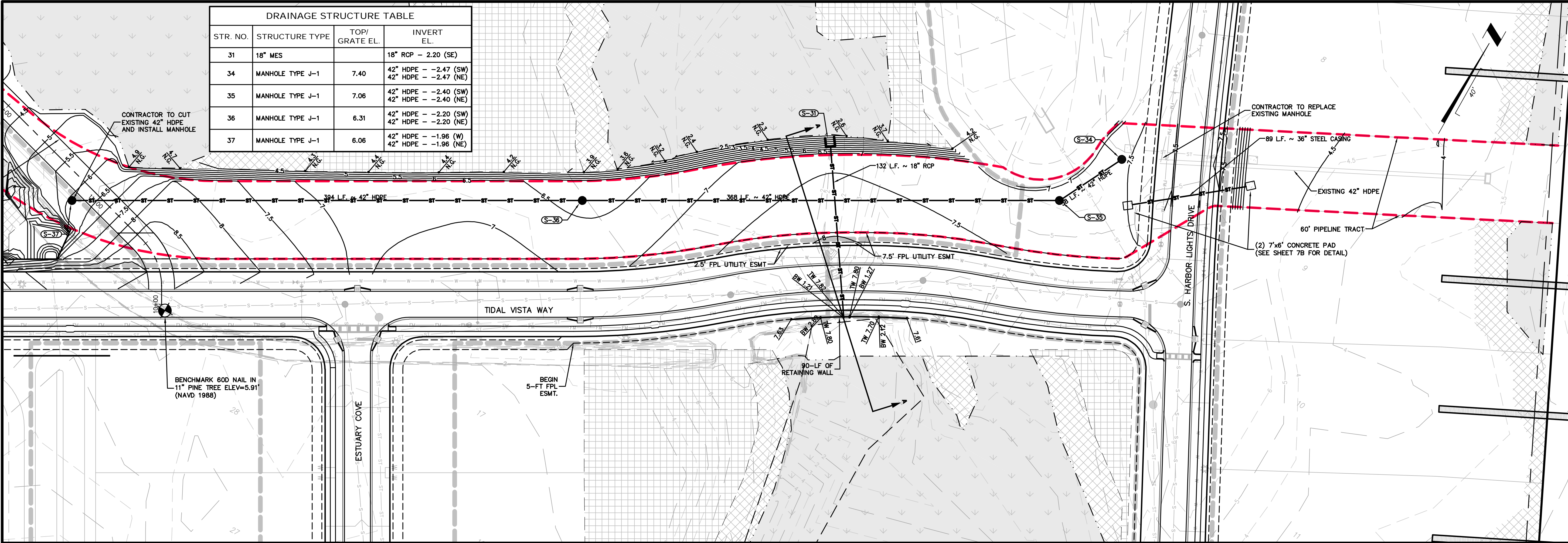
LYNDSEY KELLER, PE

P.E. NUMBER: 77763

PLOTTED: November 3, 2023 ~ 3:38 PM, BY: Lyndsey Keller

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**KEY MAP**

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 14-213-03.FIN	ETM NO. 14-213-03.FIN
DRAWN BY: MEW	DRAWN BY: MEW
DESIGNED BY: LDK	DESIGNED BY: LDK
CHECKED BY: JAN	CHECKED BY: JAN
DATE: NOV 2023	DATE: NOV 2023

**England-Thins & Miller, Inc.**  
14775 Old St. Augustine Road  
Jacksonville, FL 32258  
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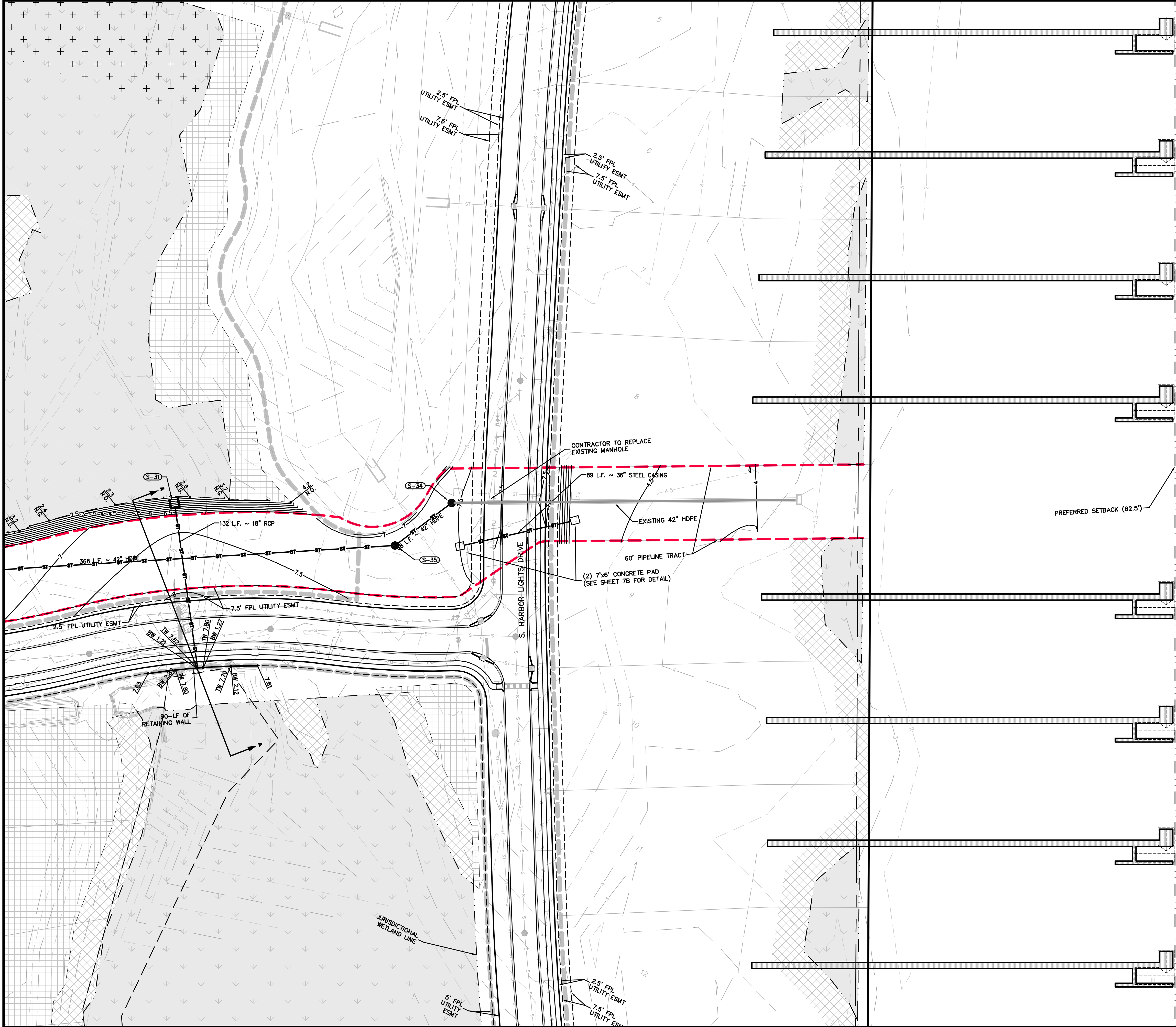
**ETM**  
VISION • EXPERIENCE • RESULTS

**PAVING AND DRAINAGE PLAN**

**MHS F.I.N.D. ROUTE FOR CABBAGE HAMMOCK COMPANY, LLC**

DRAWING NUMBER  
**5A**





INTERCOASTAL WATERWAY  
(FEDERAL CHANNEL)



DRAWING NUMBER <b>6</b>		<b>DOCK PLAN</b> MHS F.I.N.D. ROUTE FOR CABBAGE HAMMOCK COMPANY, LLC	
ETM VISION • EXPERIENCE • RESULTS		<b>England, Thins &amp; Miller, Inc.</b> 14775 Old St. Augustine Road Jacksonville, FL 32258 TEL: (904) 645-8990 FAX: (904) 645-9485 REG - 2584 LC - 0000316	
REVISIONS:		ETM NO. 14-213-03 FIND	
DRAWN BY: WEW		DESIGNED BY: LDK	
CHECKED BY: JAN		DATE: NOV 2023	
PLANS PREPARED UNDER THE DIRECTION OF:		LYNDSEY KELLER, PE P.E. NUMBER: 77763	



F.I.N.D. SPECIFICATIONS FOR PIPE INSTALL

SPECIFICATIONS PROVIDED BY JOHN F ADAMS, PE, SENIOR ADVISOR WITH TAYLOR ENGINEERING, INC.  
VIA EMAIL MARCH 30, 2016

DIVISION 31: EARTHWORK

SECTION 31.23.33

DEWATERING, TRENCHING, BEDDING, AND BACKFILL FOR PIPES

PART 1 – GENERAL

1.01 SUMMARY

- A. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTALS NECESSARY TO PERFORM ALL EXCAVATION, BACKFILL, FILL, GRADE, AND SLOPE PROTECTION REQUIRED IN COMPLETING THE WORK SHOWN ON THE CONSTRUCTION DRAWINGS AND SPECIFIED HEREIN. THE WORK SHALL INCLUDE BUT NOT NECESSARILY LIMITED TO, PIPE AND MANHOLES; ALL DEWATERING, ALL BACKFILLING, FILL, AND REQUIRED BORROW, GRADING; DISPOSAL OF SURPLUS AND UNSUITABLE MATERIALS; QUALITY CONTROL TESTING, AND ALL RELATED WORK SUCH AS SHEETING, BRACING, AND WATER HANDLING.
- B. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE CALL OF FLORIDA PRIOR TO CONSTRUCTION TO PERFORM UTILITY LOCATION MARKINGS NEAR THE CONSTRUCTION WORK AREA AND CONSTRUCTION ACCESS ROADS.

1.02 RELATED WORK

- A. DOCUMENTS AFFECTING WORK OF THIS SECTION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND DIVISION 1 OF THESE SPECIFICATIONS.

1. SECTION 00 31 32 GEOTECHNICAL INFORMATION  
2. SECTION 33 41 00 HDPE DRAINAGE PIPE  
3. SECTION 33 49 00 DRAINAGE STRUCTURES  
4. SECTION 31 51 14 HELICAL SCREW ANCHORS OR EQUIVALENT

1.03 REFERENCES

THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED. THE PUBLICATIONS ARE REFERRED TO WITHIN THE TEXT BY THE BASIC DESIGNATION ONLY. ALL PUBLICATIONS ARE "LATEST EDITION" UNLESS SPECIFIED OTHERWISE.

A. AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)

ASTM D698 STANDARD TEST METHOD FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT(12,400 FT-LB/FT<sup>3</sup> (600 KN-M/M<sup>3</sup>))

ASTM D3740 STANDARD PRACTICE FOR MINIMUM REQUIREMENTS FOR AGENCIES ENGAGED IN TESTING AND/OR INSPECTION OF SOIL AND ROCK AS USED IN ENGINEERING DESIGN AND CONSTRUCTION

B. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)

FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION  
FDOT STANDARD DETAILS

C. FLORIDA TRENCH SAFETY ACT (90-96, LAWS OF FLORIDA)

D. OSHA EXCAVATION SAFETY STANDARDS 29, CFR PART 1926.650 SUBPART P

1.04 SUBMITTALS

THE FOLLOWING SUBMITTALS SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 01330 – SUBMITTAL PROCEDURES.

A. GEOTECHNICAL ENGINEER'S CREDENTIALS

1. THE CONTRACTOR SHALL SUBMIT THE NAME AND CREDENTIALS OF THE GEOTECHNICAL COMPANY WHO WILL BE PERFORMING THE QUALITY CONTROL TESTS FOR ENGINEER'S APPROVAL AT THE PRECONSTRUCTION MEETING. THE COMPANY MUST SHOW EXPERIENCE IN THIS TYPE OF WORK AND TESTING MUST BE OVERSEEN BY A REGISTERED PROFESSIONAL ENGINEER.

B. QUALITY CONTROL TESTS

1. THE CONTRACTOR SHALL SUBMIT QUALITY CONTROL TESTS TO THE ENGINEER FOR APPROVAL WITHIN TWO CALENDAR DAYS OF FINAL TEST RESULTS.
- C. SUNSHINE STATE ONE CALL TICKET: THE CONTRACTOR SHALL FURNISH THE SUNSHINE STATE ONE CALL TICKET FOR THE ENGINEER'S INFORMATION PRIOR TO CONSTRUCTION.
- D. DEWATERING PLAN: THE CONTRACTOR SHALL FURNISH A DEWATERING PLAN TO THE ENGINEER FOR APPROVAL AT THE PRECONSTRUCTION MEETING. THE DEWATERING PLAN SHALL PROVIDE A COPY OF ANY NECESSARY DEWATERING PERMITS.
- E. TRENCH EXCAVATION PLAN: THE CONTRACTOR SHALL FURNISH A TRENCH EXCAVATION PLAN TO THE ENGINEER FOR APPROVAL AT THE PRECONSTRUCTION MEETING. THE PLAN SHALL PROVIDE REASONABLE ASSURANCE THAT THE CONTRACTOR WILL PROVIDE A SAFE WORKING ENVIRONMENT IN ACCORDANCE WITH THE FLORIDA TRENCH SAFETY ACT, WHICH ESTABLISHES THE SAFETY STANDARDS OF OSHA EXCAVATION SAFETY STANDARDS 29, CFR PART 1926.650 SUBPART P. THE CONTRACTOR MUST PROVIDE SIGNED AND SEALED DRAWINGS BY A LICENSED ENGINEER REGISTERED IN THE STATE OF FLORIDA FOR SOIL TEMPORARY SHEETING, SHORING, AND BRACING TO SUPPORT OPEN TRENCH SIDE SLOPES.
- F. COMPACTION TESTS: THE CONTRACTOR SHALL SUBMIT A STANDARD PROCTOR TEST PER EACH SOIL TYPE AND IN PLACE DENSITY TESTING RESULTS.
- G. OFFSITE FILL MATERIAL: FOR EACH MATERIAL OBTAINED FROM OTHER THAN ON-SITE SOURCES, (AT LEAST TEN CALENDAR DAYS PRIOR TO THE DATE OF ANTICIPATED USE OF SUCH MATERIAL) THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE SOURCE OF THE MATERIAL AND SHALL STORE A REPRESENTATIVE SAMPLE ON-SITE FOR THE ENGINEER'S APPROVAL.

1.05 QUALITY ASSURANCE

- A. TESTING AND INSPECTION SERVICES: CONTRACTOR SHALL EMPLOY AND PAY FOR A QUALIFIED INDEPENDENT GEOTECHNICAL TESTING LABORATORY TO PERFORM SOIL TESTING AND PROVIDE INSPECTION SERVICES DURING EARTHWORK OPERATIONS.
- B. TESTING LABORATORY QUALIFICATIONS: TO QUALIFY FOR ACCEPTANCE, THE GEOTECHNICAL TESTING LABORATORY MUST DEMONSTRATE TO THE ENGINEER SATISFACTORY BASED ON EVALUATION OF LABORATORY-SUBMITTED CRITERIA CONFORMING TO ASTM D3740, THAT IT HAS THE EXPERIENCE AND CAPABILITY TO CONDUCT REQUIRED FIELD AND LABORATORY GEOTECHNICAL TESTING WITHOUT DELAYING THE PROGRESS OF THE WORK.
- C. CODES AND STANDARDS: PERFORM EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

1.06 QUALITY-CONTROL

- A. THE CONTRACTOR SHALL HIRE AN INDEPENDENT GEOTECHNICAL ENGINEERING COMPANY ACCEPTABLE TO THE ENGINEER TO PERFORM QUALITY-CONTROL TESTING FOR CONSTRUCTION. TO ACHIEVE THE REQUIRED IN-PLACE DENSITY THE CONTRACTOR SHALL FOLLOW THE COMPACTION METHOD DESCRIBED BELOW.

1.07 JOB CONDITIONS

- A. CONTRACTOR SHALL NOT LEAVE OPEN TRENCHES UNATTENDED OUTSIDE OF WORKING HOURS. CONTRACTOR SHALL PLACE TEMPORARY FENCING AROUND THE OPEN TRENCHES AT THE END OF EACH WORKDAY.
- B. ALL EXCAVATION OPERATIONS SHALL BE IN ACCORDANCE WITH THE FLORIDA TRENCH SAFETY ACT, WHICH ESTABLISHES THE SAFETY STANDARDS OF 29 CFR, PART 1926, SUBPART P.
- C. PER THE FDOT PERMIT 55-129248-003-EG (APPENDIX A), THE MAXIMUM ALLOWABLE WIDTH OF THE EXCAVATED TRENCH IN THE WETLANDS IS 8 FEET. TEMPORARY SPOIL BANKS IN WETLAND AREAS SHOULD NOT EXCEED TEN FEET IN WIDTH.
- D. THE CONTRACTOR SHALL EXAMINE THE SITE AND REVIEW THE AVAILABLE SOIL BORINGS INFORMATION PRIOR TO SUBMITTING HIS BID, TAKING INTO CONSIDERATION ALL CONDITIONS THAT MAY AFFECT HIS WORK. BORING LOG DATA AND SOIL SAMPLES EVALUATIONS ARE AVAILABLE IN SECTION 00 31 32 GEOTECHNICAL INFORMATION.
- E. EXISTING UTILITIES: LOCATE EXISTING UNDERGROUND UTILITIES IN THE AREAS OF WORK. IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF PROTECTION DURING EARTHWORK OPERATIONS.
1. SHOULD UNCHARTED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING EXCAVATION, CONSULT THE ENGINEER AND THE OWNER OF SUCH PIPING OR UTILITY IMMEDIATELY FOR DIRECTIONS.
2. COOPERATE WITH OWNER AND UTILITY COMPANIES IN KEEPING RESPECTIVE SERVICES AND FACILITIES IN OPERATION. REPAIR DAMAGED UTILITIES TO SATISFACTION OF UTILITY OWNER.
- F. PROTECTION OF PERSONS AND PROPERTY: PROTECT STRUCTURES, UTILITIES, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTHWORK OPERATIONS.
- G. CONTRACTOR SHALL RETURN THE SITE TO ORIGINAL CONDITIONS EXCEPT AS NOTED IN THE CONSTRUCTION DRAWINGS. THIS INCLUDES PERIMETER DRAINAGE DITCHES, ACCESS ROAD, GRADES AND OTHER ADJACENT SITE FEATURES.

1.08 DEWATERING

- A. IF DEWATERING IS NECESSARY, CONTRACTOR SHALL APPLY FOR ALL REQUIRED DEWATERING PERMITS.
- B. CONTRACTOR SHALL SUBMIT DEWATERING PLAN TO ENGINEER FOR REVIEW AND APPROVAL.

1.09 TRENCH PROTECTION

- A. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN SHEETING AND BRACING AS REQUIRED TO SUPPORT THE SIDES OF EXCAVATIONS, TO PREVENT ANY MOVEMENT WHICH COULD IN ANY WAY DIMINISH THE WIDTH OF THE EXCAVATION BELOW THAT NECESSARY FOR PROPER CONSTRUCTION; AND TO PROTECT ADJACENT STRUCTURES, EXISTING PIPING AND/OR FOUNDATION MATERIAL FROM DISTURBANCE, UNDERMINING, OR OTHER DAMAGE. CARE SHALL BE TAKEN TO PREVENT VOIDS OUTSIDE OF THE SHEETING, AND IF VOIDS ARE FORMED, THEY SHALL BE IMMEDIATELY FILLED AND RAMMED.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. BACKFILL: MATERIAL CONSIDERED SUITABLE FOR BACKFILL SHALL CONSIST OF GENERALLY SANDY, NON-PLASTIC SOIL CONTAINING LESS THAN 12% FINE MATERIAL WITH NO MORE THAN 3% ORGANIC MATTER BY DRY WEIGHT. SUITABLE SOILS SHALL BE CLASSIFIED BY THE UNIFIED SOIL CLASSIFICATION SYSTEM AS SP, OR SP-SM. ROCK IN EXCESS OF 1 INCH IN DIAMETER SHALL NOT BE USED IN THE BACKFILL MATERIAL. BACKFILL SHALL NOT CONTAIN HARDPAN, ROOTS, DEBRIS, OR OTHER SIMILAR MATERIALS.
- B. IF USED, GRAVEL IN THE PIPE TRENCH SHALL BE CONSTRUCTED OF NATURAL STONE MEETING THE GRADATION REQUIREMENTS FOR NO. 57 STONE AS OUTLINED IN THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 901. STONE SHALL HAVE A MINIMUM DENSITY OF 140 LBS/CF AND SHALL CONTAIN LESS THAN 2% FINE MATERIAL. MAXIMUM LOSS AS TESTED UNDER THE LOS ANGELES ABRASION TEST SHALL BE 45%.

PART 3 – EXECUTION

3.01 GENERAL

- A. ALL EXCAVATION, BACKFILL, AND GRADING NECESSARY TO COMPLETE THE WORK SHALL BE MADE BY THE CONTRACTOR AND THE COST THEREOF SHALL BE INCLUDED IN THE CONTRACT PRICE.
- B. MATERIAL SHALL BE OBTAINED ON-SITE, OR SHALL BE FURNISHED AS REQUIRED FROM OFF SITE SOURCES AND HAULED TO THE SITE WITH THE APPROVAL OF THE OWNER.
- C. THE CONTRACTOR SHALL TAKE ALL THE NECESSARY PRECAUTIONS TO MAINTAIN THE WORK AREA IN A SAFE AND WORKABLE CONDITION.
- D. THE CONTRACTOR SHALL PROTECT HIS WORK AT ALL TIMES BY FLAGGING, MARKING, LIGHTING AND BARRICADING. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE AND PROTECT ALL ABOVE AND UNDERGROUND UTILITIES, PIPELINES, CONDUITS, CABLES, DRAINS OR UTILITIES EXISTING AT THE TIME HE ENCOUNTERS THEM. FAILURE OF THE CONSTRUCTION DRAWINGS TO SHOW THE EXISTENCE OF THESE OBSTRUCTIONS SHALL NOT RELIEVE THE CONTRACTOR FROM THIS RESPONSIBILITY. THE COST OF REPAIR OF ANY DAMAGE THAT OCCURS TO THESE UTILITIES DURING OR AS A RESULT OF CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR WITHOUT ADDITIONAL COST TO THE OWNER.

3.02 TRENCH EXCAVATION

- A. CONTRACTOR SHALL PERFORM EXCAVATION FOR ALL TRENCHES TO A SUITABLE DEPTH TO INSTALL PIPES AT INVERTS INDICATED ON THE CONSTRUCTION DRAWINGS. TRENCH DEPTH SHALL PROVIDE A MINIMUM OF 24-INCH CLEAR COVER OVER THE PIPE UNLESS OTHERWISE NOTED ON THE CONSTRUCTION DRAWINGS, AND TO SUFFICIENT DEPTH TO PROVIDE THE BEDDING DEPTH INDICATED ON THE CONSTRUCTION DRAWINGS. EXCAVATE IN SUCH MANNER AND TO SUCH WIDTHS AS WILL GIVE SUITABLE ROOM FOR LAYING THE PIPE. THE TRENCH WIDTH AT THE TOP OF THE PIPE SHALL NOT EXCEED THE ALLOWABLE AS DETERMINED BY THE DEPTH OF CUT AND THESE SPECIFICATIONS.
- B. IF PIPES ARE LAID DIRECTLY ON THE TRENCH BOTTOM, THE LOWER PARTS OF THE TRENCHES SHALL NOT BE EXCAVATED TO THE TRENCH BOTTOM BY MACHINERY. THE LAST OF THE MATERIAL BEING EXCAVATED SHALL BE DONE MANUALLY IN SUCH A MANNER THAT WILL GIVE A FLAT BOTTOM TRUE TO GRADE SO THAT PIPE OR DUCT CAN BE EVENLY AND UNIFORMLY SUPPORTED ALONG ITS ENTIRE LENGTH ON UNDISTURBED MATERIAL OR BEDDING ROCK.
- C. EXPOSED SANDY SOILS AT THE PIPELINE BOTTOM SHALL BE COMPACTED USING WALK-BEHIND VIBRATORY COMPACTION EQUIPMENT THAT IS ACCESSIBLE TO THE EXCAVATION UNTIL DENSITIES EQUIVALENT TO 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D 1557) ARE UNIFORMLY OBTAINED TO A DEPTH OF 12 INCHES. THE GROUNDWATER LEVEL SHALL BE MAINTAINED AT LEAST 2 FEET BELOW THE EXCAVATION SURFACE IN ORDER TO FACILITATE COMPACTION OPERATIONS.
- D. IF CLAYEY OR SILTY SANDS ARE ENCOUNTERED AT THE PIPELINE OR DRAINAGE STRUCTURE BEARING LEVEL, THESE SOILS SHALL BE EVALUATED BY A GEOTECHNICAL ENGINEER OR A QUALIFIED ENGINEERING TECHNICIAN WORKING UNDER THE DIRECTION OF A GEOTECHNICAL ENGINEER. THE ACCEPTABILITY OF THESE SOILS SHALL BE DETERMINED USING AUGER BORINGS AND MANUAL CONE PENETROMETER SOUNDINGS. SOME OVER-EXCAVATION OF SOFT OR VERY LOOSE SOILS MAY BE NECESSARY AT SOME LOCATIONS. THE LATERAL LIMITS OF ANY REQUIRED OVER-EXCAVATION SHALL EXTEND ONE FOOT BEYOND THE OUTER EDGE OF THE EXCAVATION. THE CONTRACTOR SHALL PROVIDE A PLAN OF THE OVER-EXCAVATION. THESE OVER-EXCAVATED AREAS MAY BE BACKFILLED WITH EITHER COMPACTED SAND OR GRAVEL/CRUSHED STONE. SAND USED TO BACKFILL SUCH OVER-EXCAVATIONS SHALL BE COMPACTED IN 6-INCH LIFTS UNTIL DENSITIES OF AT LEAST 95 PERCENT OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY ARE ACHIEVED. GRAVEL/CRUSHED STONE SHALL RECEIVE SEVERAL PASSES OF A PLATE COMPACTOR. BUT DENSITY OF SPRING OR BEDDING MATERIAL IS NOT CONSIDERED NECESSARY. WHEN THESE CLAYEY OR SILTY SOILS ARE ENCOUNTERED AND DETERMINED BY THE GEOTECHNICAL ENGINEER TO BE ACCEPTABLE, PROVISIONS SHALL BE MADE FOR THE PLACEMENT OF A "MUD MAT" CONSISTING OF A 2 TO 3 INCHES OF LEAN CONCRETE (1,500 PSI-COMPRESSIVE STRENGTH) OR 8 TO 10 INCHES OF A NO. 57 GRADATION CRUSHED STONE/GRAVEL OR RECYCLED CONCRETE AGGREGATE IN ORDER TO PROVIDE A WORKING PLATFORM FOR SUBSEQUENT CONSTRUCTION OPERATIONS, AND TO PROTECT THE UNDERLYING CLAYEY OR SILTY SOILS FROM DISTURBANCE. IF ORGANIC SOILS ARE ENCOUNTERED AT THE BEARING LEVEL IN PIPELINE OR DRAINAGE STRUCTURE AREAS, THESE SOILS SHALL BE COMPLETED EXCAVATED AND REPLACED.

3.03 BEDDING

- A. SOIL BEDDING SHALL CONSIST OF AT LEAST 12 INCHES OF SUITABLE BEDDING AND BACKFILL MATERIAL COMPACTED TO 100% OF THE STANDARD PROCTOR (ASTM D698) MAXIMUM DRY DENSITY. THE BEDDING SURFACE SHALL BE FREE OF ROOTS AND DEBRIS. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO MAINTAIN THE SOIL BEDDING IN A COMPACTED STATE AND TO PREVENT WASHING, EROSION OR LOSING OF THE BED. IF THE CONTRACTOR ENCOUNTERS UNSUITABLE MATERIAL, THE UNSUITABLE MATERIAL SHOULD BE REMOVED AND REPLACED WITH SUITABLE BACKFILL MATERIAL.
- B. IF USED, GRAVEL BEDDING SHALL CONSIST OF AT LEAST 6 INCHES OF #57 STONE AS OUTLINED IN SECTION 901 OF THE FDOT STANDARD SPECIFICATIONS. THE ROCK SHALL BE PLACED IN THE TRENCH TO THE PROPOSED ELEVATION OF THE CENTERLINE OF THE PIPE PRIOR TO LAYING THE PIPING. THE GRAVEL TRENCH BEDDING SHALL NOT BE USED UNDER ANY CIRCUMSTANCES AS A DRAIN FOR GROUNDWATER. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO MAINTAIN THE GRAVEL TRENCH BEDDING IN A COMPACTED STATE AND TO PREVENT WASHING, EROSION OR LOOSENING OF THIS BED.

3.04 BACKFILLING

- A. BACKFILLING OVER PIPES AND AROUND MANHOLES SHALL BEGIN AS SOON AS PRACTICABLE AFTER THE STRUCTURES HAVE BEEN LAID, JOINED, HYDROSTATIC TESTED (PER SECTION 33 41 00 HDPE DISCHARGE PIPE) SURVEYED AND INSPECTED. BACKFILL SHALL BE FILLED WITH SUITABLE COMPACTED MATERIAL TO THE MID-DIAMETER OF THE PIPE.
- B. STRUCTURAL BACKFILL, AS REQUIRED, MAY BE PLACED IN LIFTS NOT EXCEEDING 6 INCHES IN LOOSE THICKNESS WHEN USING A RELATIVELY LIGHTWEIGHT, WALK-BEHIND VIBRATORY SLED, MECHANICAL TAMPER OR HAND EQUIPMENT. MOST TYPES OF POWER TAMPERS, WHICH CAN WORK IN CONFINED AREAS, ARE SATISFACTORY. A POLE OR 2-INCH TIE IS GENERALLY REQUIRED FOR TAMPING UNDER THE HAUNCHES OF PIPE STRUCTURES. HAND TAMPERS FOR HORIZONTAL LAYERS SHALL WEIGH NO LESS THAN 20 POUNDS AND SHALL HAVE A TAMPING FACE NO LARGER THAN 6 SQUARE INCHES. THE LEVEL OF THE BACKFILL SHALL REMAIN RELATIVELY CONSTANT ON BOTH SIDES OF THE PIPELINE AND DRAINAGE STRUCTURES WHILE BACKFILLING FROM THE EXCAVATION BOTTOM TO THE TOP OF THE PIPELINE. BACKFILL (OR ANY NECESSARY PORTLAND CEMENT FILL) SHALL CONSIST OF AN INORGANIC, NON-PLASTIC, GRANULAR SOIL CONTAINING LESS THAN 10 PERCENT MATERIAL PASSING THE NO. 200 MESH SIEVE (RELATIVE CLEAN SAND WITH A UNIFIED SOIL CLASSIFICATION OF SP, SP-SC, OR SP-SM). ANY SOILS EXCAVATED FROM BELOW THE GROUNDWATER LEVEL WILL REQUIRE DRYING PRIOR TO COMPACTION. CLAYEY OR SILTY SANDS SHALL BE COMPACTED WITHIN 2 PERCENT OF THEIR OPTIMUM MOISTURE CONTENT (AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST).
- C. CARE SHALL BE TAKEN TO PROTECT ANY STOCKPILED EXCAVATION SOILS FROM THE ELEMENTS IN AN ATTEMPT TO MAINTAIN THESE MATERIALS IN A RELATIVELY DRY STATE. EACH LIFT OF SANDY BACKFILL, (FINES CONTENT UP TO 15%) SHALL BE ROUGHLY COMPACTED TO DENSITIES EQUIVALENT TO AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698).

3.05 COMPACTION TESTING

- A. PIPELINE: FOR EVERY 100 LINEAL FEET OF PIPELINE, CONDUCT ONE TEST IN THE COMPACTED BEARING LEVEL SOILS, AND ONE TEST IN EACH 12-INCH THICK LIFT OF BACKFILL, ALTERNATING ON EACH SIDE OF THE PIPELINE WITH EACH SUCCESSIVE LIFT.
- B. DRAINAGE STRUCTURES: FOR EACH STRUCTURE, CONDUCT ONE TEST IN THE COMPACTED BEARING LEVEL SOILS, AND ONE TEST IN EACH 12-INCH THICK LIFT OF BACKFILL, ALTERNATING ON EACH SIDE OF THE STRUCTURE WITH EACH SUCCESSIVE LIFT.

3.06 GRADING

- A. GRADING SHALL BE PERFORMED AS INDICATED ON THE CONSTRUCTION DRAWINGS, TO THE LINES, GRADES, AND ELEVATIONS SHOWN OR AS DIRECTED BY THE ENGINEER. ALL UNACCEPTABLE MATERIAL ENCOUNTERED, OF WHATEVER NATURE WITHIN THE LIMITS INDICATED, SHALL BE REMOVED AND DISPOSED OF AS DIRECTED. DURING THE PROCESS OF EXCAVATION, THE GRADE SHALL BE MAINTAINED IN SUCH A MANNER THAT IT WILL BE IN ACCORDANCE WITH THE GRADE AS REQUIRED, TEMPORARY DRAINS AND DRAINAGE DITCHES SHALL BE INSTALLED TO INTERCEPT OR DIVERT SURFACE WATER THAT MAY AFFECT THE PERFORMANCE OR CONDITION OF THE WORK.
- B. IF AT THE TIME OF EXCAVATION IT IS NOT POSSIBLE TO PLACE ALL AVAILABLE MATERIAL IN ITS PROPER SECTION OF THE PERMANENT STRUCTURE, THE EXCESS MATERIAL SHALL BE STOCKPILED IN APPROVED AREAS FOR LATER USE. STOCKPILE OR DOUBLE HANDLING OF EXCAVATION MATERIAL SHALL NOT BEAR ANY ADDITIONAL COST TO THE OWNER.
- C. THE OWNER, THROUGH HIS ENGINEER, RESERVES THE RIGHT TO MAKE ADJUSTMENTS OR REVISIONS IN LINES OR GRADES, IF FOUND NECESSARY AS THE WORK PROGRESSES, DUE TO DISCREPANCIES ON THE CONSTRUCTION DRAWINGS, ADVERSE FIELD CONDITIONS, OR IN ORDER TO OBTAIN SATISFACTORY CONSTRUCTION.
- D. STONES OR ROCK FRAGMENTS LARGER THAN 1 INCH IN THEIR GREATEST DIMENSIONS WILL NOT BE PERMITTED IN THE TOP 6 INCHES BELOW THE SUBGRADE LINE OF ALL FILLS.
- E. ALL FILL SLOPES SHALL BE UNIFORMLY DRESSED TO THE SLOPE, CROSS-SECTION AND ALIGNMENT SHOWN ON THE CONSTRUCTION DRAWINGS, OR AS DIRECTED BY THE ENGINEER.
- F. IN CUTS, ALL LOOSE OR PROTRUDING ROCKS ON THE SIDE SLOPES SHALL BE BARRED LOOSE OR OTHERWISE REMOVED TO LINE OR FINISHED GRADE OF SLOPE. ALL CUT SLOPES SHALL BE UNIFORMLY GRADED TO THE SLOPE, CROSS-SECTION AND ALIGNMENT SHOWN ON THE CONSTRUCTION DRAWINGS OR AS DIRECTED BY THE ENGINEER.
- G. NO GRADING IS TO BE DONE IN AREAS WHERE EXISTING PIPELINES MAY BE UNCOVERED OR DAMAGED UNTIL SUCH LINES THAT MUST BE MAINTAINED ARE PROJECTED OR RELOCATED; OR, WHERE LINES ARE TO BE ABANDONED, ALL REQUIRED VALVES ARE CLOSED AND DRAINS PLUGGED.
- H. THE CONTRACTOR SHALL REPLACE ALL ROADWAY AND PERIMETER DITCHES DAMAGED DURING THE PROGRESS OF THE WORK TO ORIGINAL CONDITION AND SLOPES.

3.07 DISPOSAL OF UNSUITABLE AND SUPPLY MATERIAL

- A. ALL SURPLUS AND/OR UNSUITABLE EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ONE OF THE FOLLOWING WAYS AS DIRECTED BY THE ENGINEER.
1. TRANSPORT TO DREDGED MATERIAL MANAGEMENT AREA BASIN AS DIRECTED BY THE ENGINEER.
2. TRANSPORT FROM OWNER'S PROPERTY AND LEGALLY DISPOSE OF OFF-SITE. ANY PERMIT REQUIRED FOR THE HAULING AND DISPOSING OF THIS MATERIAL BEYOND OWNER'S PROPERTY SHALL BE OBTAINED PRIOR TO COMMENCING HAULING OPERATIONS.
- SUITABLE EXCAVATED MATERIAL MAY BE USED FOR FILL MATERIAL IF IT MEETS THE SPECIFICATIONS FOR FILL MATERIAL AND IS APPROVED BY THE ENGINEER. EXCAVATED MATERIAL SO APPROVED MAY BE NEATLY STOCKPILED AT THE SITE WHERE DESIGNATED BY THE OWNER/ENGINEER PROVIDED THERE IS AN AREA AVAILABLE WHERE IT WILL NOT INTERFERE WITH THE OPERATION OF THE FACILITY NOR INCONVENIENCE TRAFFIC OR ADJOINING PROPERTY OWNERS.

---END OF SECTION---

DIVISION 31: EARTHWORK

SECTION 31 51 14

HELICAL SCREW ANCHORS

PART 1 – GENERAL

1.01 SUMMARY

- A. THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO PERFORM ALL HELICAL SCREW ANCHOR (HSA) INSTALLATION WORK SHOWN ON THE CONSTRUCTION DRAWINGS AND SPECIFIED HEREIN. THE CONTRACTOR SHALL INCLUDE, BUT NOT BE NECESSARILY LIMITED TO, HELICAL ANCHOR MATERIALS, TOOLS, LOAD TESTING, LABOR AND SUPERVISION AND INSTALLATION TECHNIQUES.

1.02 RELATED WORK

- A. DOCUMENTS AFFECTING WORK OF THIS SECTION INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, AND SECTIONS IN DIVISION 1 OF THESE SPECIFICATIONS.
1. SECTION 31 23 33 DEWATERING, TRENCHING, BEDDING, AND BACKFILL FOR PIPES
2. SECTION 33 41 00 HDPE DISCHARGE PIPE

1.03 REFERENCES

THE PUBLICATIONS LISTED BELOW FORM A PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED. THE SPECIFICATION TEXT REFERS TO THESE REFERENCES BY BASIC DESIGNATION ONLY. IN CASE OF CONFLICT, THE PARTICULAR REQUIREMENTS OF THIS SPECIFICATION SHALL PREVAIL. ALL PUBLICATIONS ARE "LATEST EDITION" UNLESS SPECIFIED OTHERWISE.

A. AMERICAN SOCIETY OF TESTING MATERIALS (ASTM)

- ASTM A29/A29M STANDARD SPECIFICATION FOR STEEL BARS, CARBON AND ALLOY, HOT-WROUGHT, GENERAL REQUIREMENTS FOR
- ASTM A36/A36M STANDARD SPECIFICATION FOR CARBON STRUCTURAL STEEL
- ASTM A153/A153M STANDARD SPECIFICATION FOR ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE
- ASTM A320/A320M STANDARD SPECIFICATION FOR ALLOY-STEEL AND STAINLESS STEEL BOLTING MATERIALS FOR LOW-TEMPERATURE SERVICE
- ASTM A572/A572M STANDARD SPECIFICATION FOR HIGH-STRENGTH LOW-ALLOY COLUMBIUM-VANADIUM STRUCTURAL STEEL
- ASTM A656/A656M STANDARD SPECIFICATION FOR HOT-ROLLED STRUCTURAL STEEL, HIGH-STRENGTH LOW-ALLOY PLATE WITH IMPROVED FORMABILITY
- ASTM A1018/A1018M STANDARD SPECIFICATION FOR STEEL SHEET AND STRIP, HEAVY-THICKNESS COILS, HOT-ROLLED, CARBON, COMMERCIAL, DRAWING, STRUCTURAL, HIGH-STRENGTH LOW-ALLOY, HIGH-STRENGTH LOW-ALLOY WITH IMPROVED FORMABILITY, AND ULTRA-HIGH STRENGTH

1.04 SUBMITTALS

- A. THE CONTRACTOR MUST SUBMIT THE FOLLOWING SUBMITTALS IN ACCORDANCE WITH SECTION 01330 – SUBMITTAL PROCEDURES. THE CONTRACTOR SHALL NOT BEGIN PRE-PRODUCTION TESTING WORK UNTIL RECEIPT AND ENGINEER APPROVAL OF SUBMITTALS A, AND B. THE CONTRACTOR SHALL NOT COMMENCE PRODUCTION WORK UNTIL RECEIPT AND APPROVAL OF SUBMITTAL C.

A. HSA CONSTRUCTION PROCEDURES

1. THE CONTRACTOR SHALL SUBMIT A DETAILED DESCRIPTION OF THE PROPOSED CONSTRUCTION PROCEDURES. AT MINIMUM THIS SUBMITTAL SHALL INCLUDE THE FOLLOWING:
- a. A LIST OF QUALIFIED ON-SITE PERSONNEL INVOLVED WITH THE WORK
- b. A LIST OF MAJOR CONSTRUCTION EQUIPMENT.
- c. HSA NUMBER, LOCATION, AND PATTERN BY ASSIGNED IDENTIFICATION NUMBER
- d. HSA DESIGN LOAD
- e. TYPE AND SIZE OF CENTRAL STEEL SHAFT
- f. HELIX CONFIGURATION (NUMBER AND DIAMETER OF HELIX PLATES)
- g. MINIMUM EFFECTIVE INSTALLATION TORQUE
- h. HSA ATTACHMENT TO PIPELINE (I.E. BANDING, OR STRAPPING METHOD)
- B. HSA SHOP DRAWINGS
1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL HSA COMPONENTS, INCLUDING CORROSION PROTECTION AND STRAPPING AND CONNECTOR DETAILS TO THE ENGINEER FOR REVIEW AND APPROVAL. THIS INCLUDES HSA LEAD SECTION AND EXTENSION SECTION IDENTIFICATION (MANUFACTURER'S CATALOG NUMBERS).
- C. HSA PRE-PRODUCTION INSTALLATION TESTING RECORDS
1. THE CONTRACTOR SHALL PROVIDE THE ENGINEER FORMAL COPIES OF THE PRE-PRODUCTION INSTALLATION RECORDS NO LESS THAN 5 WORKING DAYS PRIOR TO THE START OF PRODUCTION HSA INSTALLATION, AND PRIOR TO ORDERING PRODUCTION HSAS. THE PRE-PRODUCTION TESTING RECORDS SHALL INCLUDE THE INFORMATION SUMMARIZED IN THE HSA INSTALLATION RECORDS SECTION.

D. HSA INSTALLATION RECORDS

1. THE CONTRACTOR SHALL PROVIDE THE ENGINEER DRAFT COPIES OF HSA INSTALLATION RECORDS WITHIN 24 HOURS AFTER COMPLETION OF EACH INSTALLATION. THE CONTRACTOR WILL FOLLOW THESE DAILY SUBMITTALS WITH FORMAL FINAL REPORTS ON A WEEKLY BASIS. THE FINAL AS-BUILT SURVEY WILL INCLUDE THE LOCATION AND ELEVATION OF EACH HSA. THESE INSTALLATION RECORDS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING INFORMATION:
- a. NAME OF PROJECT AND CONTRACTOR
- b. LOCATION (NORTHING AND EASTING IN NAD 83, AND ELEVATION IN NGVD 29) OF HSA BY ASSIGNED IDENTIFICATION NUMBER
- c. NAME OF CONTRACTOR'S SUPERVISOR DURING INSTALLATION
- d. NAME AND MODEL OF INSTALLATION EQUIPMENT
- e. TYPE OF TORQUE MEASUREMENT DEVICE USED
- f. ACTUAL HSA TYPE AND CONFIGURATION – INCLUDING LEAD SECTION (NUMBER AND SIZE OF HELIX PLATES), AND NUMBER AND TYPE OF EXTENSION SECTIONS (MANUFACTURER'S SKU NUMBERS) IF APPLICABLE
- g. DATE AND TIME OF INSTALLATION
- h. HSA INSTALLATION DURATION AND OBSERVATIONS
- i. TOTAL LENGTH OF INSTALLED HSA
- j. CUT-OFF ELEVATION
- k. INCLINATION ANGLE OF HSA
- l. INSTALLATION TORQUE AT ONE-FOOT INTERVALS
- m. COMMENTS PERTAINING TO INTERRUPTIONS, OBSTRUCTIONS, OR OTHER RELEVANT INFORMATION
- n. RATED LOAD CAPACITIES OF EACH HSA

1.05 QUALITY ASSURANCE

- A. HELICAL SCREW ANCHORS SHALL BE INSTALLED BY A CONTRACTOR TRAINED BY A. B. CHANCE (OR EQUIVALENT) COMPANY AND/OR THEIR AUTHORIZED REPRESENTATIVES.
- B. THE CONTRACTOR SHALL EMPLOY AN ADEQUATE NUMBER OF SKILLED WORKERS WHO ARE EXPERIENCED WITH THE NECESSARY CRAFTS AND WHO ARE FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK OF THIS SPECIFICATION.
- C. THE CONTRACTOR SHALL INSTALL ALL HSAS IN THE PRESENCE OF A DESIGNATED REPRESENTATIVE OF THE ENGINEER OR OWNER UNLESS SAID REPRESENTATIVE INFORMS THE CONTRACTOR OTHERWISE. THE DESIGNATED REPRESENTATIVE SHALL HAVE THE RIGHT TO ACCESS ALL FIELD INSTALLATION RECORDS AND TEST REPORTS.
- D. SCREW ANCHOR COMPONENTS AS SPECIFIED HEREIN SHALL BE MANUFACTURED BY A FACILITY WHOSE QUALITY SYSTEMS CONFORM WITH ISO (INTERNATIONAL ORGANIZATION OF STANDARDS) 9001 REQUIREMENTS. CERTIFICATES OF REGISTRATION DENOTING ISO STANDARDS NUMBER SHALL BE PRESENTED UPON REQUEST TO THE ENGINEER, OWNER OR THEIR REPRESENTATIVE.

1.06 PAYMENT

- A. NO SEPARATE PAYMENT WILL BE MADE FOR THE MATERIALS AND WORK DESCRIBED IN THIS SECTION AND ALL APPROPRIATE COSTS IN CONNECTION THEREWITH OR INCIDENTAL THERETO SHALL BE INCLUDED IN THE APPLICABLE CONTRACT LUMP SUM PRICE FOR "HELICAL ANCHORS". PAYMENT SHALL BE DUE UPON COMPLETION OF THE HELICAL ANCHOR INSTALLATION IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND SPECIFICATIONS.
- 1.07 QUALIFICATIONS OF THE HSA INSTALLATION CONTRACTOR
- THE HSA CONTRACTOR SHALL BE EXPERIENCED IN PERFORMING DESIGN AND CONSTRUCTION OF HELICAL SCREW ANCHORS AND/OR FOUNDATIONS AND SHALL FURNISH ALL MATERIALS, LABOR, AND SUPERVISION TO PERFORM THE WORK. THE CONTRACTOR SHALL BE TRAINED BY A. B. CHANCE (OR EQUIVALENT) COMPANY AND/OR THEIR AUTHORIZED REPRESENTATIVES IN THE PROPER METHODS OF DESIGN AND INSTALLATION OF HELICAL SCREW ANCHORS. THE CONTRACTOR SHALL PROVIDE NAMES OF ON-SITE PERSONNEL MATERIALLY INVOLVED WITH THE WORK, INCLUDING THOSE WHO CARRY DOCUMENTED CERTIFICATION FROM A. B. CHANCE (OR EQUIVALENT) COMPANY. AT A MINIMUM, THESE PERSONNEL SHALL INCLUDE FOREMAN, MACHINE OPERATOR, AND PROJECT ENGINEER/MANAGER.
- THE HSA CONTRACTOR SHALL NOT SUBLET THE WHOLE OR ANY PART OF THE CONTRACT WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE ENGINEER.

1.08 ALLOWABLE TOLERANCES

- A. CENTERLINE OF HELICAL SCREW ANCHORS SHALL NOT BE MORE THAN 3 INCHES FROM INDICATED PLAN LOCATION.
- B. HELICAL SCREW ANCHOR PLUMBNESS SHALL BE WITHIN 2 OF DESIGN ALIGNMENT.
- C. TOP ELEVATION OF HELICAL SCREW ANCHOR SHALL BE WITHIN +1 INCH TO -2 INCHES OF THE DESIGN VERTICAL ELEVATION.

PART 2 – PRODUCTS AND MATERIALS

2.01 CENTRAL STEEL SHAFT

- A. THE CENTRAL STEEL SHAFT, CONSISTING OF LEAD SECTIONS, HELICAL EXTENSIONS, AND PLAIN EXTENSIONS, SHALL BE TYPE SSS AS MANUFACTURED BY A. B. CHANCE (CENTRALIA, MO) (OR EQUIVALENT).
- B. SSS 1-1/2" MATERIAL: SHALL BE HOT-ROLLED ROUND-CORNERED-SQUARE (RCS) SOLID STEEL BARS MEETING DIMENSIONAL AND WORKMANSHIP REQUIREMENTS OF ASTM A36. THE BAR SHALL BE MODIFIED MEDIUM CARBON STEEL GRADE (SIMILAR TO AISI 1044) WITH IMPROVED STRENGTH DUE TO FINE GRAIN SIZE.
- C. MAX. TORSIONAL STRENGTH RATING = 5,500 FT-LB
- D. MINIMUM YIELD STRENGTH = 70 KSI

2.02 HELIX BEARING PLATE

- DIES TO TRUE HELICAL SHAPE AND UNIFORM FIT. BEARING PLATE MATERIAL SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS.
- SSS MATERIAL: PER ASTM A572, OR A1018, OR A656 WITH MINIMUM YIELD STRENGTH OF 50 KSI. PLATE THICKNESS IS 3/8".
- 2.03 BOLTS
- THE SIZE AND TYPE OF BOLTS USED TO CONNECT THE CENTRAL STEEL SHAFT SECTIONS TOGETHER SHALL CONFORM TO THE FOLLOWING ASTM SPECIFICATIONS.
- SSS AND SS150 1-1/2" MATERIAL: 3/4" DIAMETER BOLT PER ASTM A320 GRADE L7.

2.04 COUPLINGS

- SHALL BE FORMED AS AN INTEGRAL PART OF THE PLAIN AND HELICAL EXTENSION MATERIAL FOR TYPE SS MATERIAL. THE COUPLINGS SHALL BE HOT UPSET FORGED SOCKETS.
- 2.05 PLATES, SHAPES, OR PIER CAPS
- STRUCTURAL STEEL PLATES AND SHAPES FOR HSA TOP ATTACHMENTS SHALL CONFORM TO ASTM A36 OR ASTM A572 GRADE 50.

2.06 CORROSION PROTECTION

- GALVANIZATION: ALL A. B. CHANCE (OR EQUIVALENT) TYPE SS MATERIAL SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 AFTER FABRICATION.

PART 3 – EXECUTION

3.01 PRE-PRODUCTION INSTALLATION TESTING

- A. THE CONTRACTOR SHALL PROVIDE PRE-PRODUCTION INSTALLATION TESTING ON NO LESS THAN 3 HSA LOCATIONS PRIOR TO THE START OF PRODUCTION HSA INSTALLATION, AS WITH THE PRODUCTION INSTALLATION TESTING. THE PRE-PRODUCTION TESTING SHALL UTILIZE A TORQUE INDICATOR TO CORRELATE A CAPACITY FOR THE HSAS. THE PRE-PRODUCTION INSTALLATION TESTING WILL SERVE TO VERIFY THE TYPE AND QUANTITY OF HSA INDICATED IN THE CONSTRUCTION DRAWINGS.

3.02 SITE CONDITIONS

- A. PRIOR TO COMMENCING HSA INSTALLATION, THE CONTRACTOR SHALL INSPECT THE WORK OF ALL OTHER TRADES TO VERIFY THAT THE SAID WORK IS COMPLETED TO THE POINT WHERE HSAS MAY COME WITHOUT RESTRICTION.
- B. THE CONTRACTOR SHALL VERIFY THAT ALL HSAS INSTALLATION MAY PROCEED IN ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS REGARDING SUCH ITEMS AS UNDERGROUND OBSTRUCTIONS, RIGHT-OF-WAY LIMITATIONS, UTILITIES, ETC.

3.03 INSTALLATION EQUIPMENT

- A. INSTALL EQUIPMENT SHALL BE ROTARY TYPE, HYDRAULIC POWER DRIVEN TORQUE MOTOR WITH CLOCKWISE AND COUNTER-CLOCKWISE ROTATION CAPABILITIES. THE TORQUE MOTOR SHALL

- BE CAPABLE OF CONTINUOUS ADJUSTMENT TO REVOLUTIONS PER MINUTE (RPM'S) DURING INSTALLATION. THE CONTRACTOR MAY NOT APPLY PERCUSSION DRILLING EQUIPMENT. THE TORQUE MOTOR SHALL HAVE TORQUE CAPACITY AT LEAST 15% GREATER THAN THE TORSIONAL STRENGTH RATING OF THE SPECIFIED CENTRAL STEEL SHAFT.
- B. EQUIPMENT SHALL BE CAPABLE OF APPLYING ADEQUATE DOWN PRESSURE (CROWD) AND TORQUE SIMULTANEOUSLY TO SUIT PROJECT SOIL CONDITIONS AND LOAD REQUIREMENTS. THE EQUIPMENT SHALL BE CAPABLE OF CONTINUOUS POSITION ADJUSTMENT TO MAINTAIN PROPER HSA ALIGNMENT.

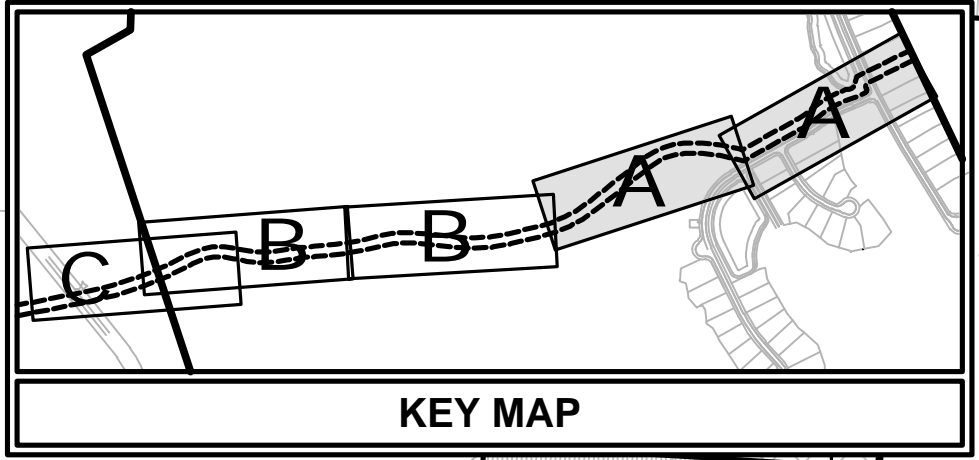
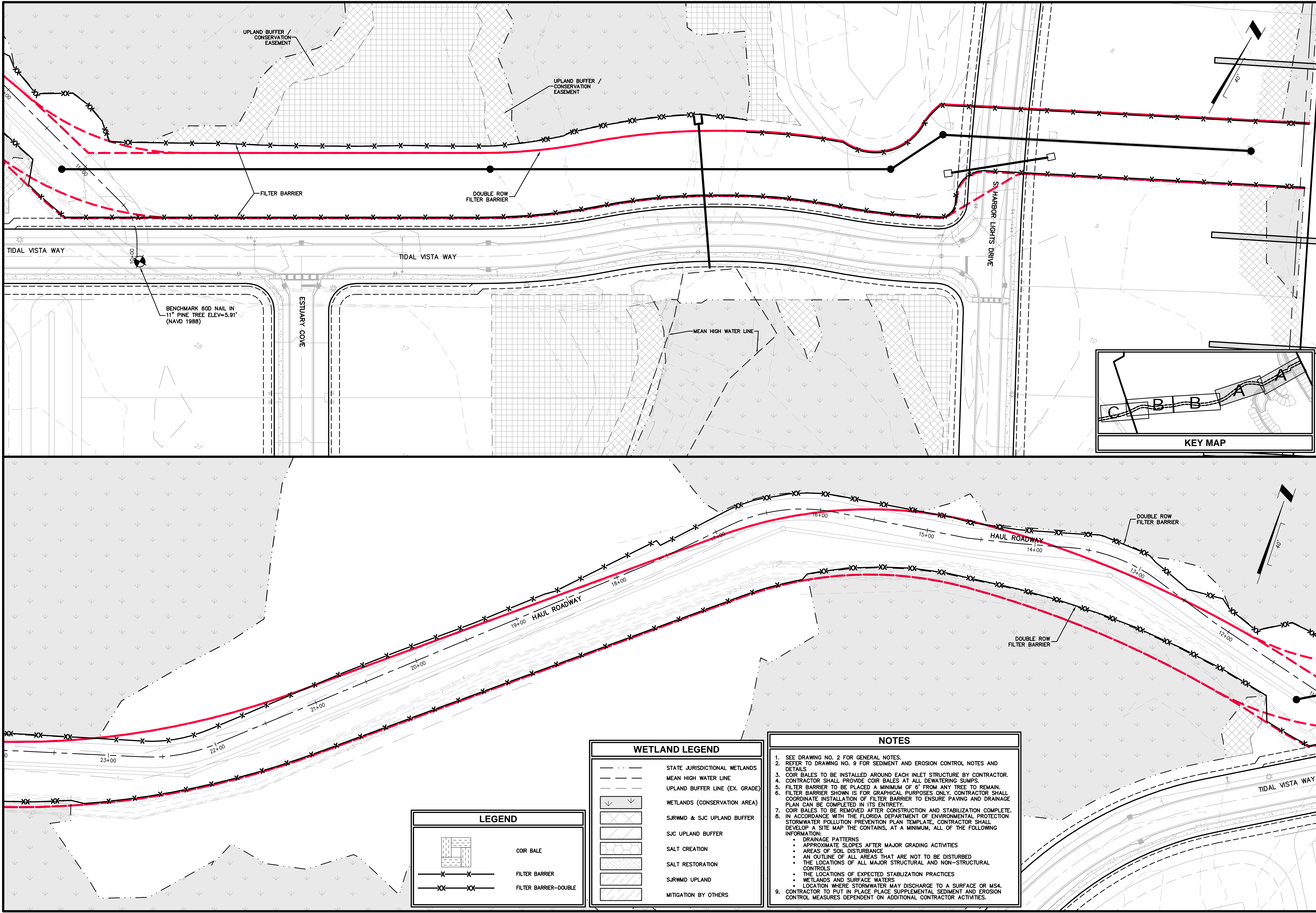
3.04 INSTALLATION TOOLING

- A. TOOLING SHALL CONSIST OF A KELLY BAR ADAPTER (KBA) AND TYPE SSS DRIVE TOOL AS MANUFACTURED BY A. B. CHANCE (OR EQUIVALENT) COMPANY AND USED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.
- B. THE CONTRACTOR SHALL APPLY A









LEGEND	
	COIR BALE
	FILTER BARRIER
	FILTER BARRIER-DOUBLE

WETLAND LEGEND	
	STATE JURISDICTIONAL WETLANDS
	MEAN HIGH WATER LINE
	UPLAND BUFFER LINE (EX. GRADE)
	WETLANDS (CONSERVATION AREA)
	SJRWMD & SJC UPLAND BUFFER
	SJC UPLAND BUFFER
	SALT CREATION
	SALT RESTORATION
	SJRWMD UPLAND
	MITIGATION BY OTHERS

NOTES	
1.	SEE DRAWING NO. 2 FOR GENERAL NOTES.
2.	REFER TO DRAWING NO. 9 FOR SEDIMENT AND EROSION CONTROL NOTES AND DETAILS.
3.	COIR BALES TO BE INSTALLED AROUND EACH INLET STRUCTURE BY CONTRACTOR.
4.	CONTRACTOR SHALL PROVIDE COIR BALES AT ALL DEWATERING SUMPS.
5.	FILTER BARRIER TO BE PLACED A MINIMUM OF 6' FROM ANY TREE TO REMAIN.
6.	FILTER BARRIER SHOWN IS FOR GRAPHICAL PURPOSES ONLY. CONTRACTOR SHALL COORDINATE INSTALLATION OF FILTER BARRIER TO ENSURE PAVING AND DRAINAGE PLAN CAN BE COMPLETED IN ITS ENTIRETY.
7.	COIR BALES TO BE REMOVED AFTER CONSTRUCTION AND STABILIZATION COMPLETE.
8.	IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STORMWATER POLLUTION PREVENTION PLAN TEMPLATE, CONTRACTOR SHALL DEVELOP A SITE MAP THAT CONTAINS, AT A MINIMUM, ALL OF THE FOLLOWING INFORMATION: <ul style="list-style-type: none"><li>• DRAINAGE PATTERNS</li><li>• APPROXIMATE SLOPES AFTER MAJOR GRADING ACTIVITIES</li><li>• AREAS OF SOIL DISTURBANCE</li><li>• AN OUTLINE OF ALL AREAS THAT ARE NOT TO BE DISTURBED</li><li>• THE LOCATIONS OF ALL MAJOR STRUCTURAL AND NON-STRUCTURAL CONTROLS</li><li>• THE LOCATIONS OF EXPECTED STABILIZATION PRACTICES</li><li>• WETLANDS AND SURFACE WATERS</li><li>• LOCATION WHERE STORMWATER MAY DISCHARGE TO A SURFACE OR MS4.</li></ul>
9.	CONTRACTOR TO PUT IN PLACE PLACE SUPPLEMENTAL SEDIMENT AND EROSION CONTROL MEASURES DEPENDENT ON ADDITIONAL CONTRACTOR ACTIVITIES.

SEDIMENT AND EROSION CONTROL

PLAN  
MHS F.I.N.D. ROUTE  
FOR  
CABBAGE HAMMOCK COMPANY, LLC



England-Thoms & Miller, Inc.  
14775 Old St. Augustine Road  
Jacksonville, FL 32258  
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ETM NO. 14-213-03.FIN
DRAWN BY: MHW
DESIGNED BY: LDK
CHECKED BY: JAN
DATE: NOV 2023

PLANS PREPARED UNDER THE  
DIRECTION OF:

LYNDSEY KELLER, PE  
P.E. NUMBER: 77763

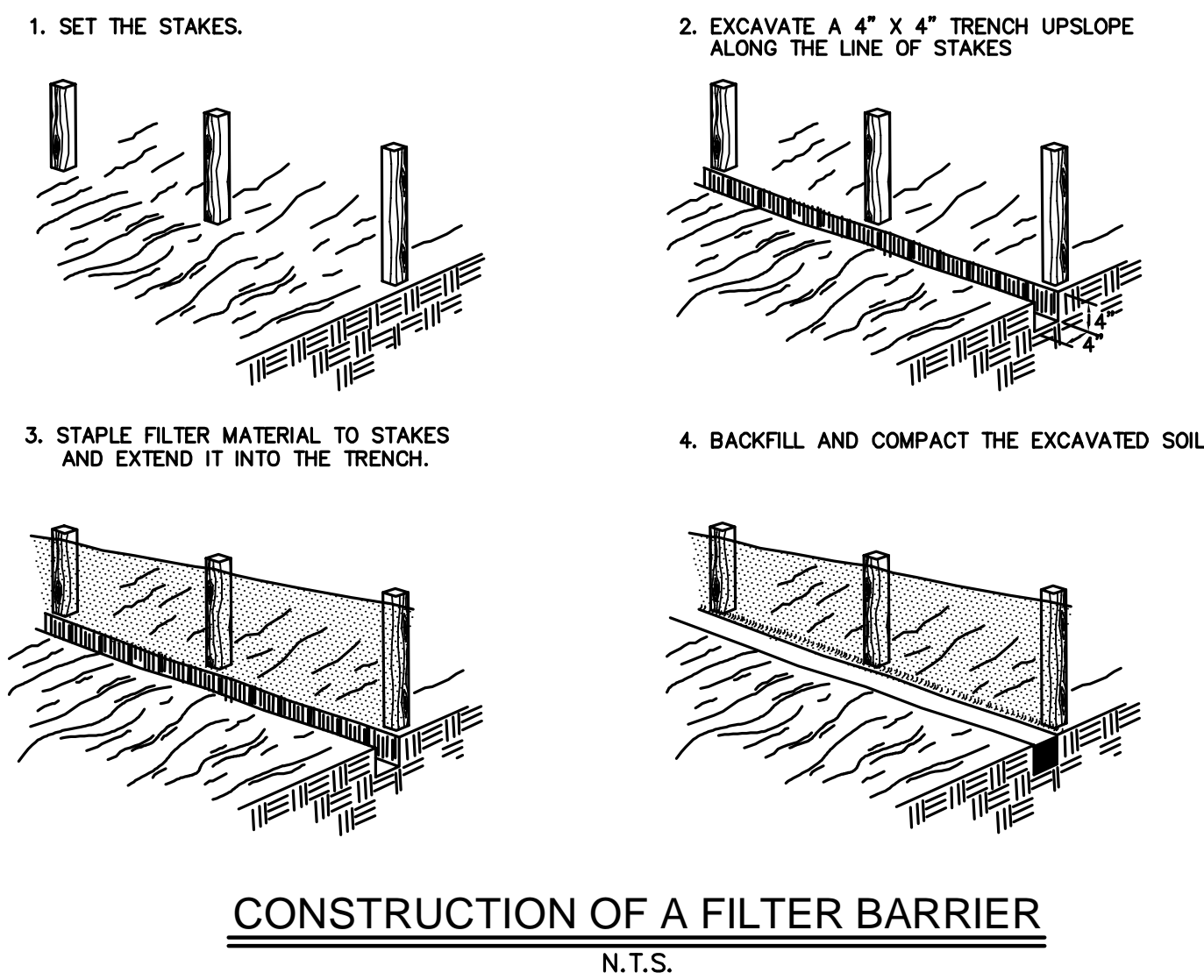
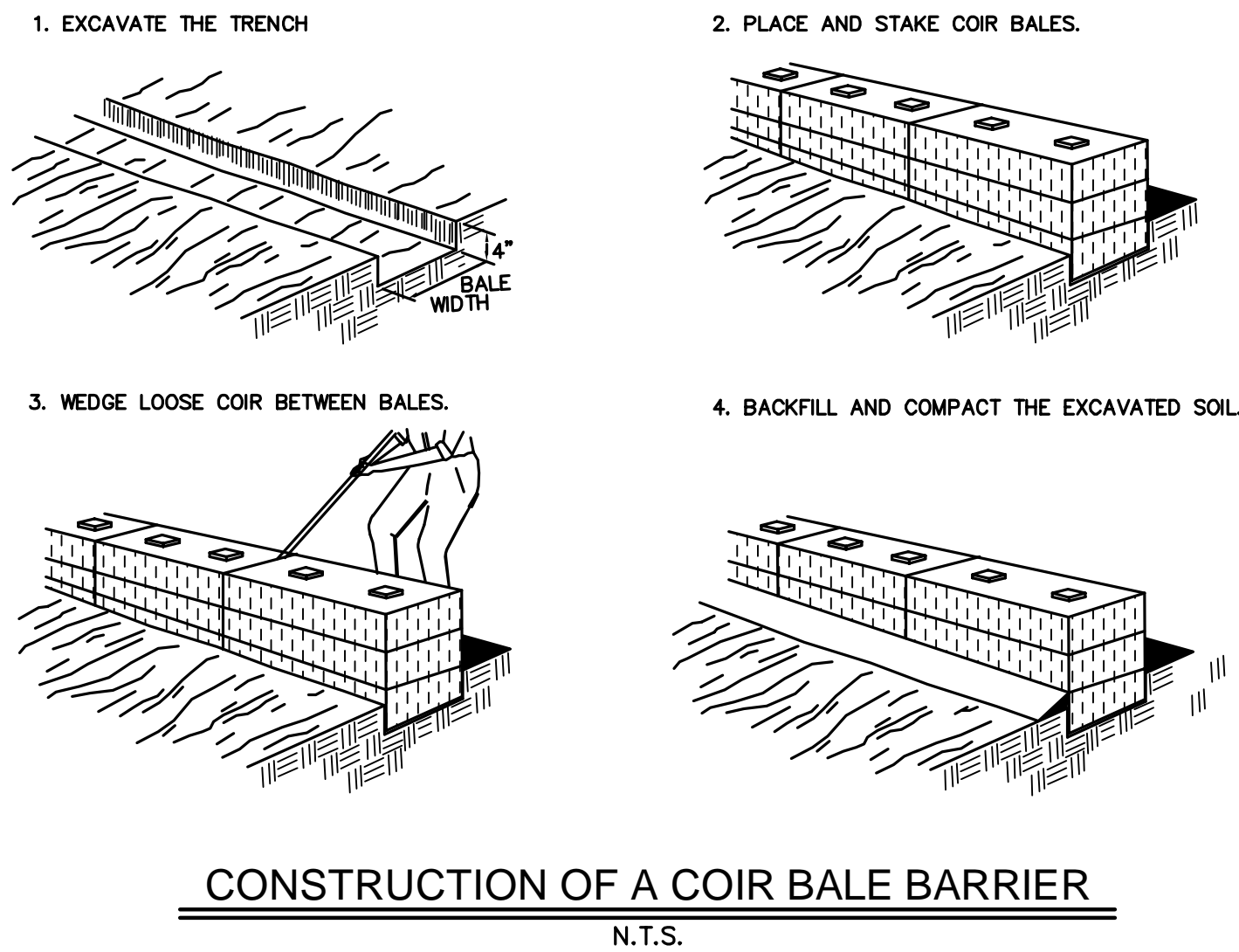
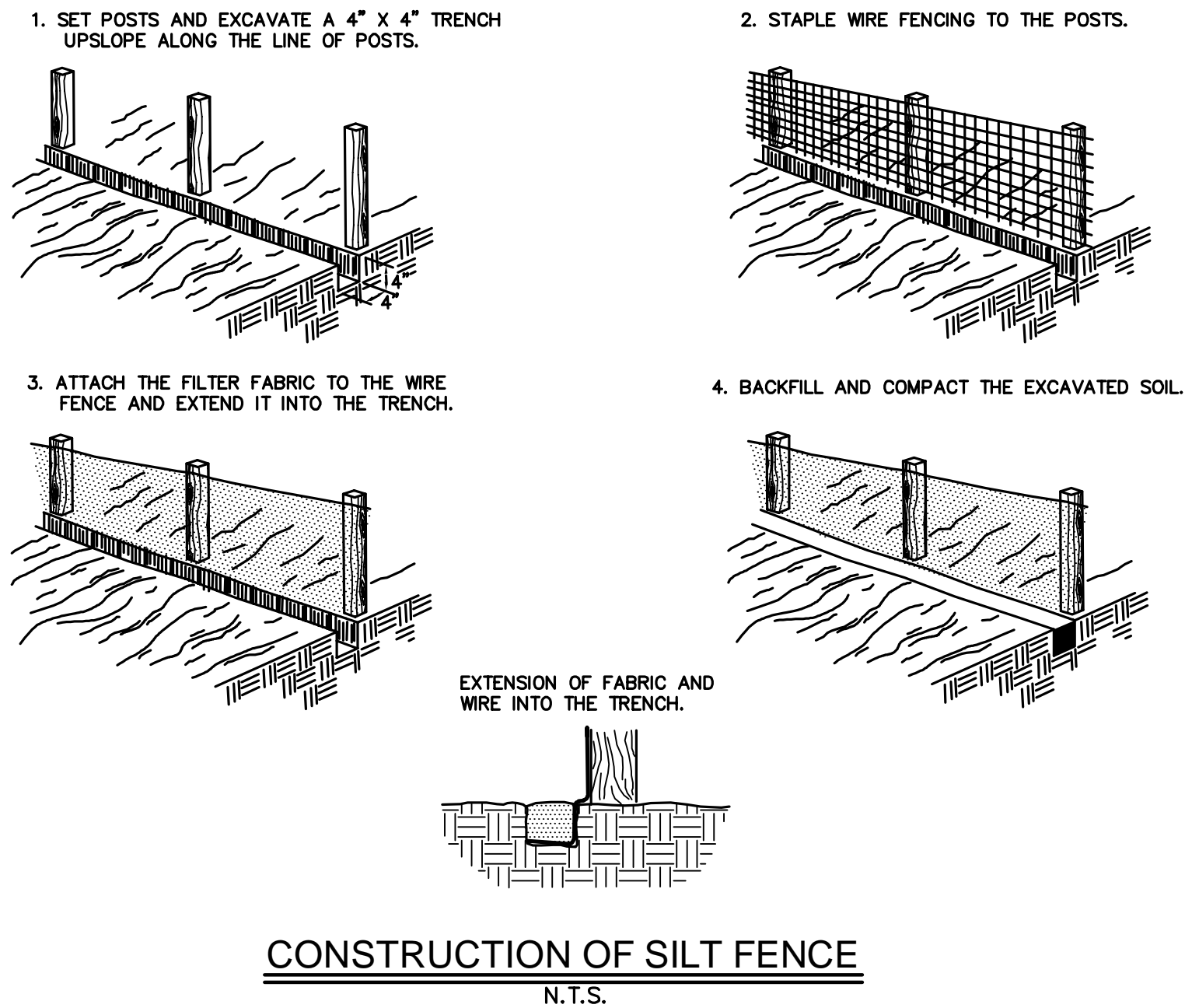
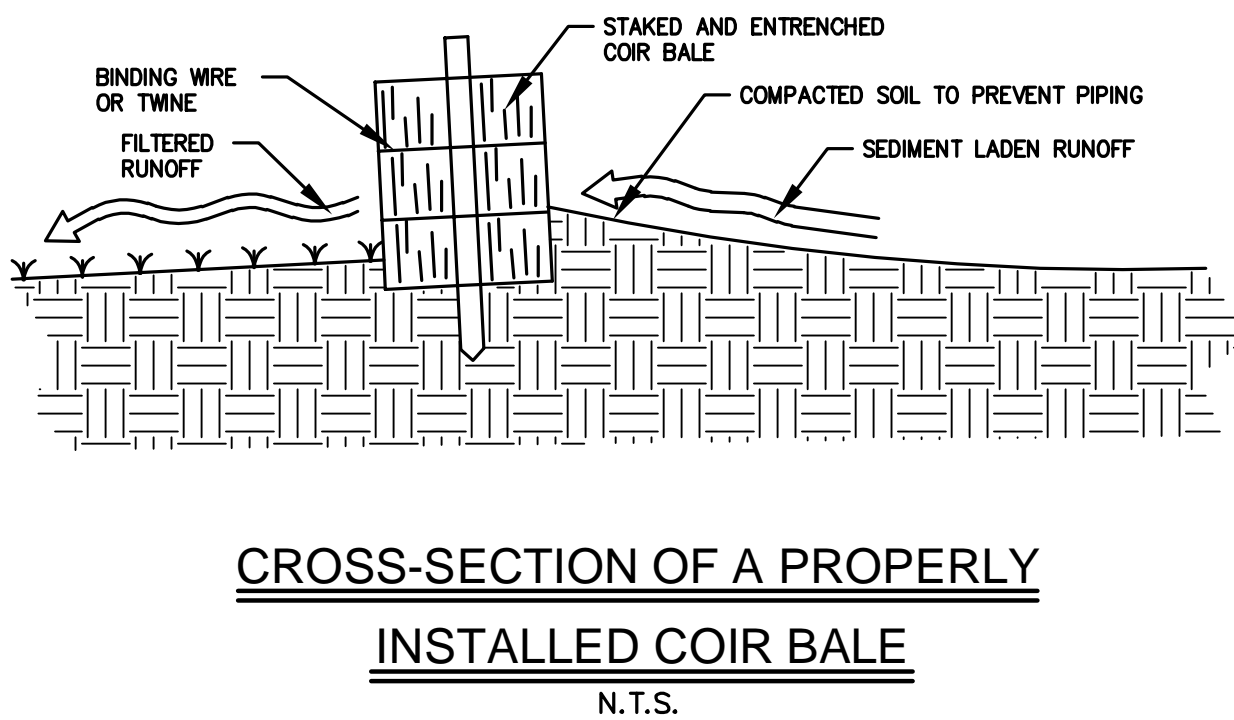
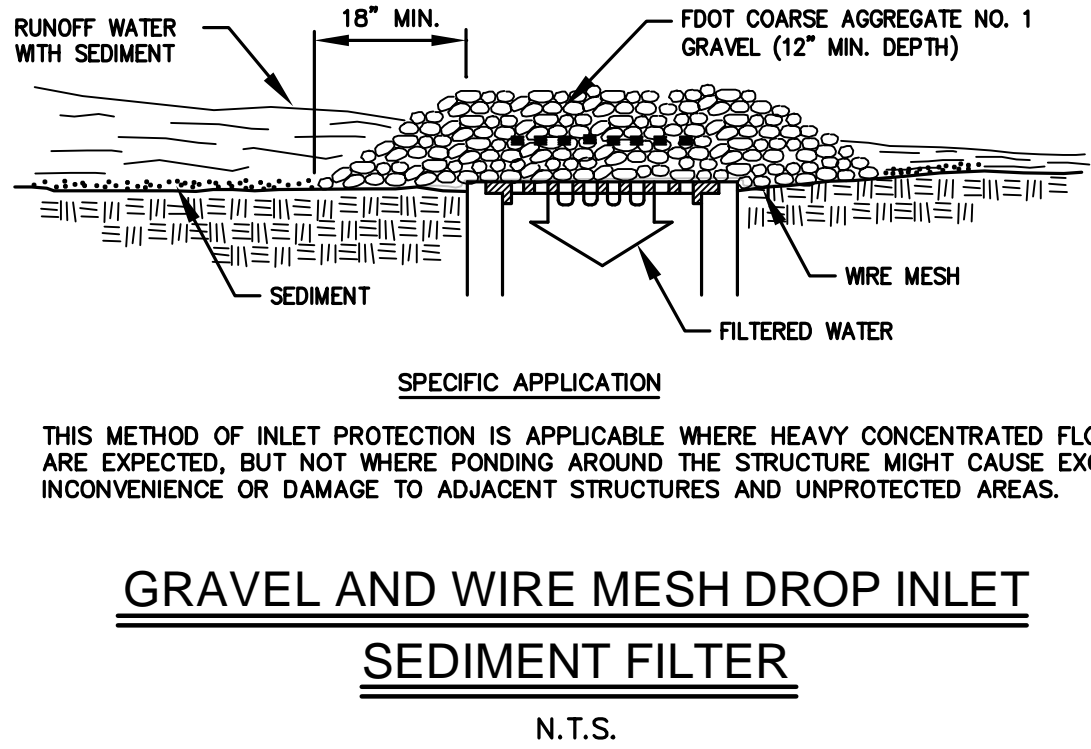
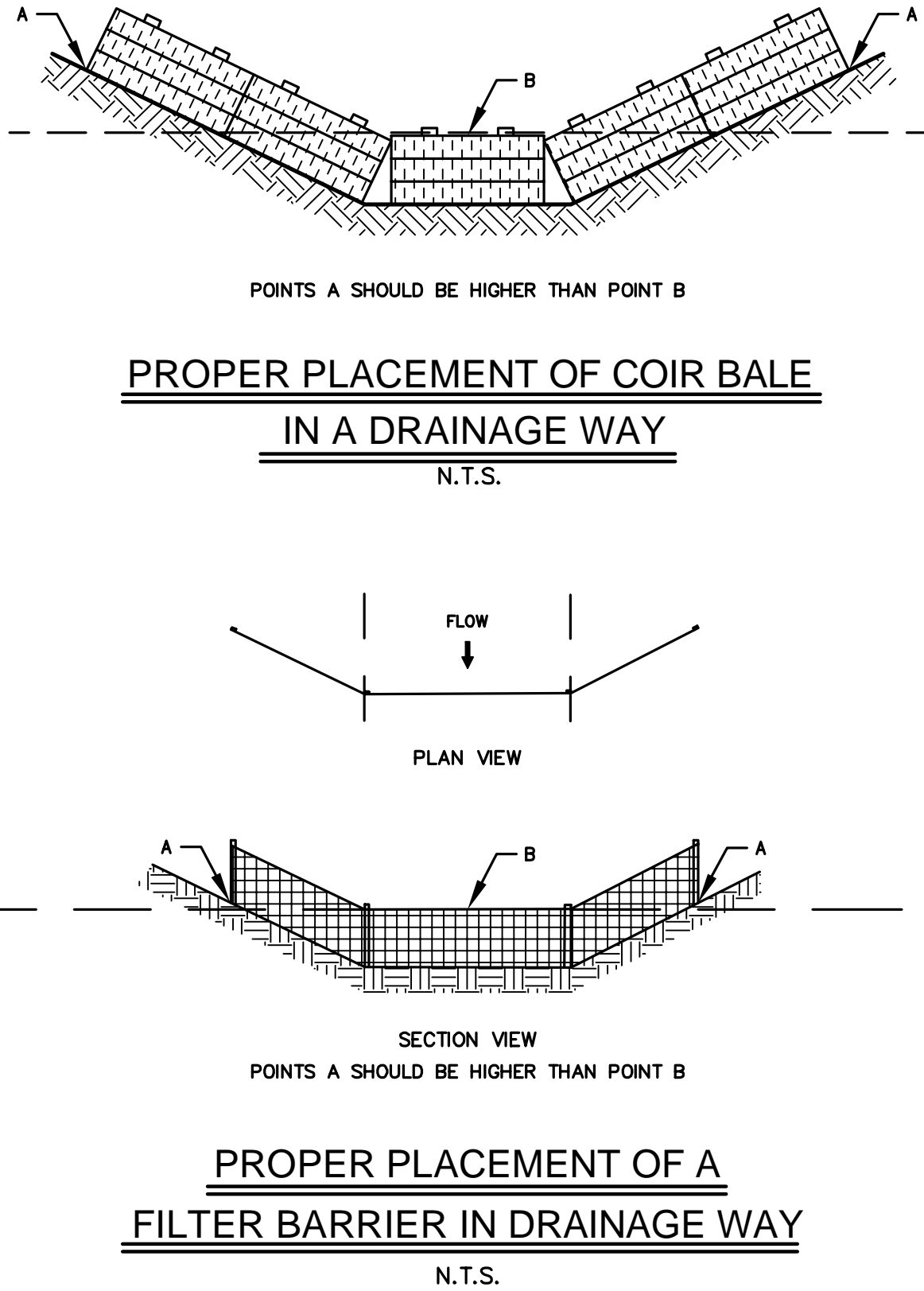
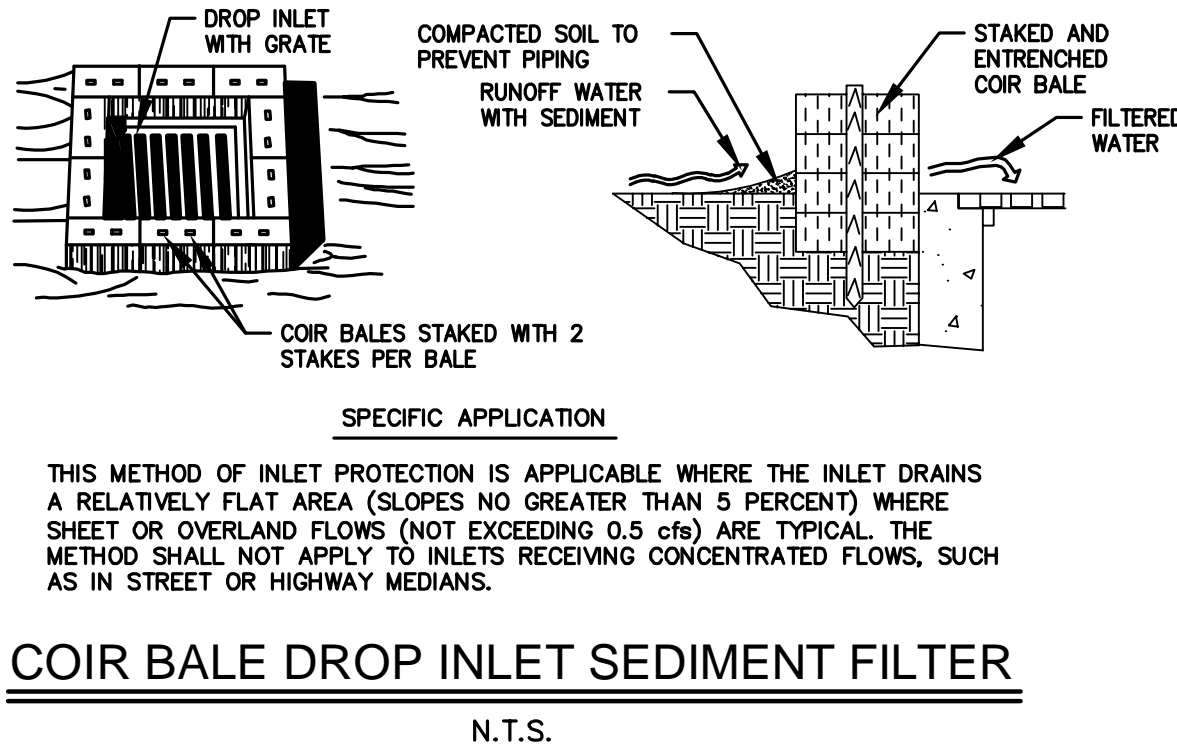
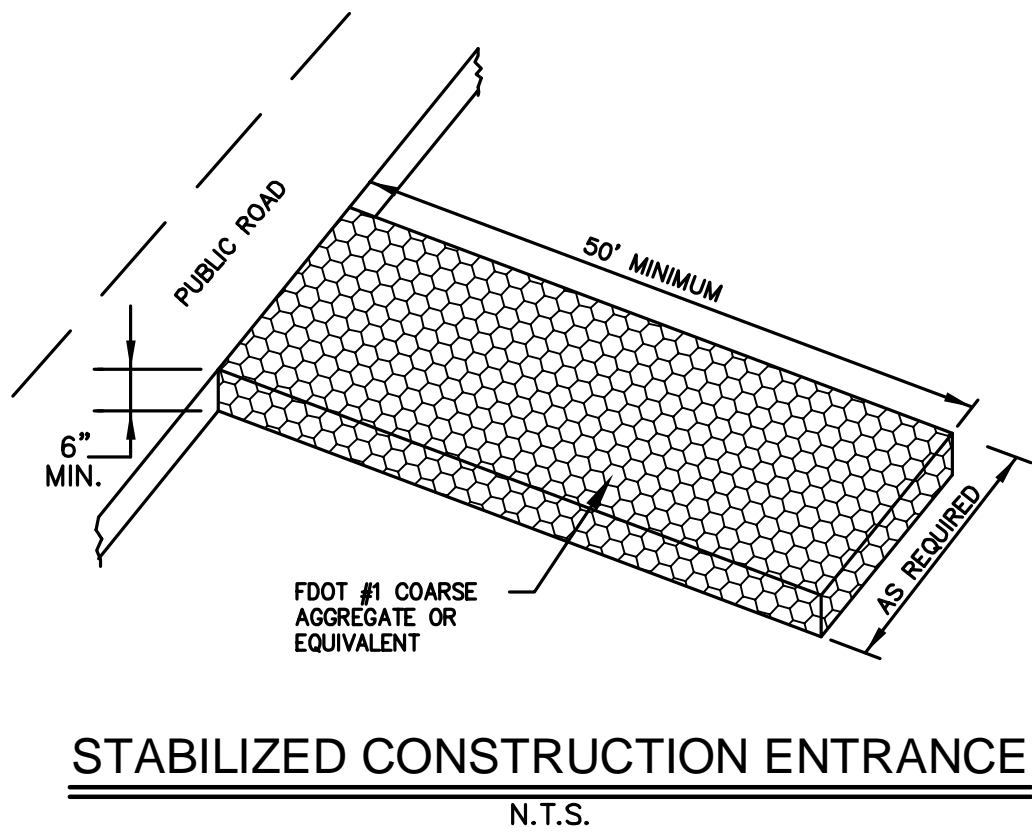
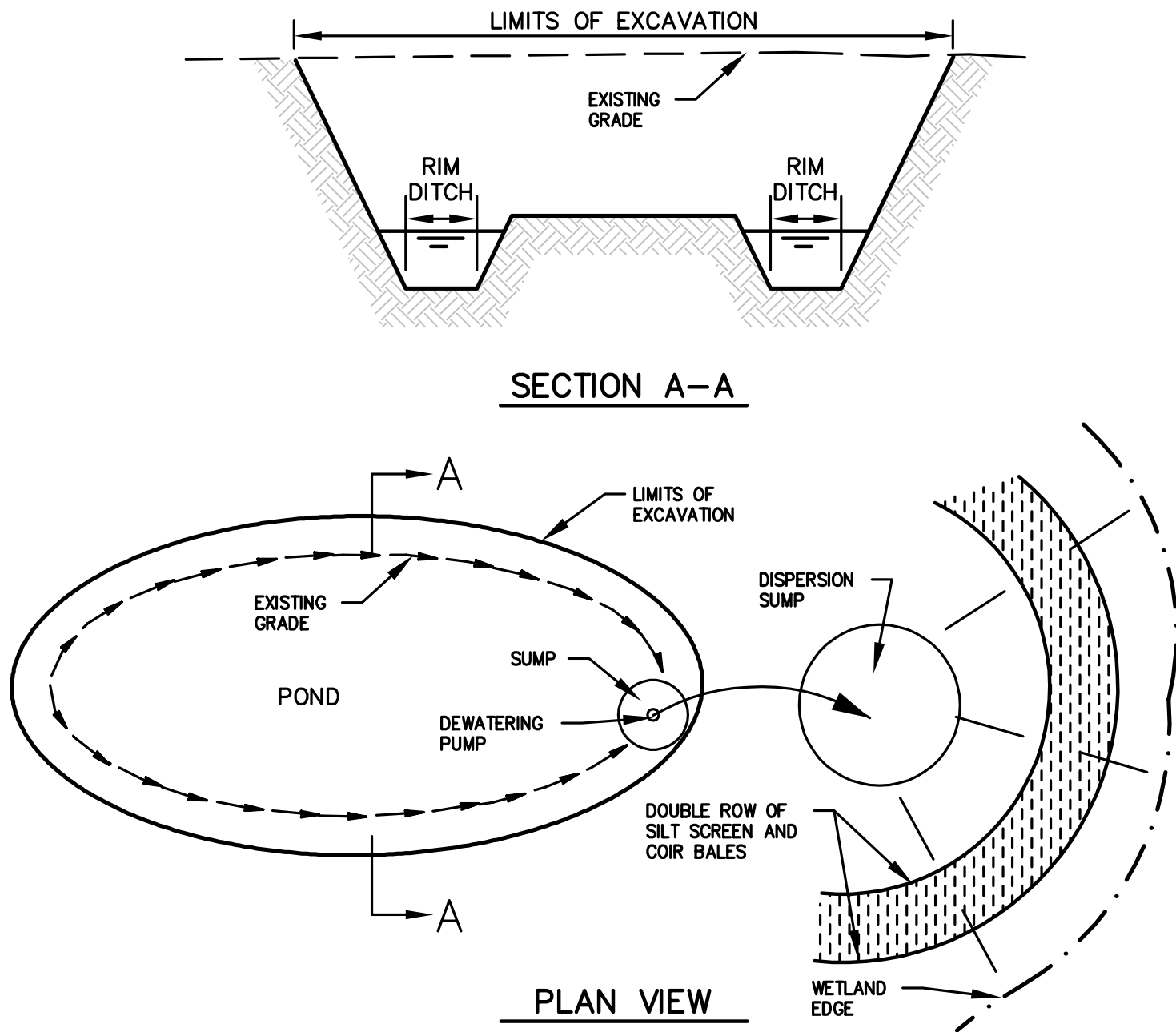


SEDIMENT AND EROSION CONTROL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION IN ADDITION TO THE ABOVE MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNSEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS REQUIRED, THE STRIPS SHALL BE OVERLAPPED.
6. FOOT NO. 1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON SEDIMENT FILTER DETAIL (SEE DETAIL THIS SHEET). THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
12. LOOSE COIR SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. COIR BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE GIVEN TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. IT MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE, AFTER THE COIR BALE OR FILTER BARRIERS, AND OR SILT FENCES ARE NO LONGER REQUIRED, SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
18. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
20. STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS REQUIRED.
21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND ST. JOHNS RIVER WATER MANAGEMENT DISTRICT RULES AND REGULATIONS.
23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (F.D.E.P.) CHAPTER 6.
24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION. SEE DETAILS (THIS SHEET) FOR TYPICAL CONSTRUCTION.
25. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
26. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
27. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT.
28. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED AND MULCHED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED. CONTRACTOR SHALL USE ADDITIONAL MEASURES TO STABILIZE DISTURBED AREAS THROUGH COMPACTION, SILT SCREENS, COIR BALES, AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOLID SOD.
29. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION, AND REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
30. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
31. THE CONTRACTOR SHALL BE REQUIRED TO RESPOND TO ALL WATER MANAGEMENT DISTRICT INQUIRIES, RELATIVE TO COMPLIANCE OF SURVMD FOR EROSION AND SEDIMENTATION CONTROL. THE COST OF THIS COMPLIANCE SHALL BE PART OF THE CONTRACT.
32. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS AND PRESERVATION EASEMENTS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A PERMANENT STAND OF SOD AND/OR GRASS PER THE CONTRACT DOCUMENTS AND MEETING THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT, ST. JOHNS COUNTY AND NPDES FINAL STABILIZATION REQUIREMENTS.
34. THESE PLANS INCLUDING THE POLLUTION PREVENTION PLAN INDICATE THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO

SOUND LAND AND WATER MANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (F.D.E.P.) CHAPTER 6. CONTRACTOR SHALL PROVIDE EROSION PROTECTION AND TURBIDITY CONTROL AS REQUIRED TO INSURE CONFORMANCE TO STATE AND FEDERAL WATER QUALITY STANDARDS AND MAY NEED TO INSTALL ADDITIONAL CONTROLS TO CONFORM TO AGENCIES REQUIREMENTS. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSULTANT FEES, CONSTRUCTION COSTS, AND FINES.

35. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS. (FOR ANY CONSTRUCTION NOT COVERED BY THE OWNER'S "NOTICE OF INTENT" PERMIT)



SEDIMENT AND EROSION CONTROL DETAILS

MHS F.I.N.D. ROUTE FOR CABBAGE HAMMOCK COMPANY, LLC

DRAWING NUMBER

9

REVISIONS:

ETM NO. 14-213-03 FIND	NEW	DESIGNED BY: LDK	CHECKED BY: JAN	DATE: NOV 2023
DRAWN BY:				

England-Thins & Miller, Inc.

14775 Old St. Augustine Road  
Jacksonville, FL 32258  
TEL: (904) 645-8990  
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REG - 2584 LC - 0000316

ETM

VISION • EXPERIENCE • RESULTS

PLANS PREPARED UNDER THE DIRECTION OF:

LYNDSEY KELLER, PE  
P.E. NUMBER: 77763



OWNER'S REQUIREMENTS

SITE DESCRIPTION

PROJECT NAME AND LOCATION:  
MHS F.I.N.D. ROUTE  
PONTE VEDRA, FLORIDA

OWNER/DEVELOPER NAME AND ADDRESS:  
CABBAGE HAMMOCK COMPANY, LLC  
4314 PABLO OAKS CT  
JACKSONVILLE, FL 32224  
(904) 992-9750

DESCRIPTION:  
  
THIS PROJECT WILL CONSIST OF:  
CONSTRUCTION OF A SINGLE-FAMILY DEVELOPMENT. CONSTRUCTION WILL CONSIST OF INSTALLATION OF UNDERGROUND UTILITIES, CLEARING, GRADING, STORMWATER MANAGEMENT FACILITIES ROADWAYS, PARKING AREAS AND ASSOCIATED CONSTRUCTION.

SOIL DISTURBING ACTIVITIES WILL INCLUDE:  
CLEARING AND GRUBBING; INSTALLING A STABILIZED CONSTRUCTION ENTRANCE, PERIMETER, AND OTHER EROSION AND SEDIMENT CONTROLS; GRADING; EXCAVATION FOR THE SEDIMENTATION POND, STORM SEWER, UTILITIES, AND BUILDING FOUNDATION; CONSTRUCTION OF CURB AND GUTTER, ROAD, AND PARKING AREAS; AND PREPARATION FOR FINAL PLANTING AND SEEDING.

GENERALIZED RUNOFF CURVE NUMBERS (REFER TO DRAINAGE CALCULATIONS FOR ACTUAL CURVE NUMBER FOR EACH BASIN)

1. PRE-CONSTRUCTION = 84±  
2. DURING CONSTRUCTION = 98±  
3. POST-CONSTRUCTION = 89±

SOILS:  
\* SEE ATTACHED FOR SOILS DATA

SITE MAPS:  
\* SEE ATTACHED DWG. No. 5A - 5C FOR POST DEVELOPMENT GRADES, AREAS OF SOILS, DISTURBANCE, LOCATION OF SURFACE WATERS, WETLANDS, PROTECTED AREAS, MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS AND STORM WATER DISCHARGE POINTS.

\* SEE ATTACHED DWG. No. 8A - 8C FOR LOCATION OF TEMPORARY STABILIZATION PRACTICES, AND TURBIDITY BARRIERS

SITE AREA:  
1. TOTAL AREA OF SITE = 703.50 AC±  
2. TOTAL AREA TO BE DISTURBED = 104 AC±

NAME OF RECEIVING WATERS: HEADWATERS OF INTERCOASTAL WATERWAY

GENERAL

THE CONTRACTOR SHALL AT A MINIMUM IMPLEMENT THE CONTRACTOR'S REQUIREMENTS OUTLINED BELOW AND THOSE MEASURES SHOWN ON THE EROSION AND TURBIDITY CONTROL PLAN. IN ADDITION THE CONTRACTOR SHALL UNDERTAKE ADDITIONAL MEASURES REQUIRED TO BE IN COMPLIANCE WITH APPLICABLE PERMIT CONDITIONS AND STATE WATER QUALITY STANDARDS. DEPENDING ON THE NATURE OF MATERIALS AND METHODS OF CONSTRUCTION THE CONTRACTOR MAY BE REQUIRED TO ADD FLOCCULANTS TO THE RETENTION SYSTEM PRIOR TO PLACING THE SYSTEM INTO OPERATION.

SEQUENCE OF MAJOR ACTIVITIES:

THE ORDER OF ACTIVITIES WILL BE AS FOLLOWS:

1. INSTALL STABILIZED CONSTRUCTION ENTRANCE	9. INSTALL UTILITIES, STORM SEWER, CURBS & GUTTER.
2. INSTALL SILT FENCES AND COIR BALES AS REQUIRED	10. APPLY BASE TO PARKING AREAS
3. CLEAR AND GRUB FOR DIVERSION SWALES/DIKES AND SEDIMENT BASIN	11. COMPLETE GRADING AND SEEDING/SOD AND PLANTING
4. CONSTRUCT SEDIMENTATION BASIN	12. COMPLETE FINAL PAVING
5. CONTINUE CLEARING AND GRUBBING	13. REMOVE ACCUMULATED SEDIMENT FROM BASINS
6. STOCK PILE TOP SOIL IF REQUIRED	14. WHEN ALL CONSTRUCTION ACTIVITY IS COMPLETE AND THE SITE IS STABILIZED, REMOVE ANY TEMPORARY DIVERSION SWALES/DIKES AND RESEED/SOD AS REQUIRED
7. PERFORM PRELIMINARY GRADING ON SITE AS REQUIRED	
8. STABILIZE DENUDEED AREAS AND STOCKPILES AS SOON AS PRACTICABLE	

NOTE: VERTICAL CONSTRUCTION OF THE BUILDING WILL BE TAKING PLACE DURING ALL THE SEQUENCE STEPS LISTED ABOVE

TIMING OF CONTROLS/MEASURES

AS INDICATED IN THE SEQUENCE OF MAJOR ACTIVITIES, THE SILT FENCES AND COIR BALES, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT BASIN WILL BE CONSTRUCTED PRIOR TO CLEARING OR GRADING OF ANY OTHER PORTIONS OF THE SITE. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN AREA, THAT AREA WILL BE STABILIZED PERMANENTLY IN ACCORDANCE WITH THE PLANS. AFTER THE ENTIRE SITE IS STABILIZED, THE ACCUMULATED SEDIMENT WILL BE REMOVED FROM THE SEDIMENT TRAPS AND THE EARTH DIKE/SWALES WILL BE REGRADED/REMOVED AND STABILIZED IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN (DRAWING NO. 8A-8C)

CONTROLS

THIS PLAN UTILIZES BEST MANAGEMENT PRACTICES TO CONTROL EROSION AND TURBIDITY CAUSED BY STORM WATER RUN OFF. DWG. No. 8A-8C HAVE BEEN PREPARED TO INSTRUCT THE CONTRACTOR ON PLACEMENT OF THESE CONTROLS. IT IS THE CONTRACTORS RESPONSIBILITY TO INSTALL AND MAINTAIN THE CONTROLS AS PER PLAN AS WELL AS ENSURING THE PLAN IS PROVIDING THE PROPER PROTECTION AS REQUIRED BY FEDERAL, STATE AND LOCAL LAWS. REFER TO "CONTRACTORS REQUIREMENTS" FOR A VERBAL DESCRIPTION OF THE CONTROLS THAT MAY BE IMPLEMENTED.

AREAS WHICH ARE NOT DEVELOPED BUT WILL BE REGRADED SHALL BE STABILIZED IMMEDIATELY AFTER GRADING IS COMPLETE.

EROSION AND SEDIMENT CONTROLS  
STABILIZATION PRACTICES

1. COIR BALE BARRIER: COIR BALE BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:  
A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.  
B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.  
C. WHERE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.  
D. EVERY EFFORT SHOULD BE MADE TO LIMIT THE USE OF COIR BALE BARRIERS CONSTRUCTED IN LIVE STREAMS OR IN SWALES WHERE THERE IS THE POSSIBILITY OF A WASHOUT. IF NECESSARY, MEASURES SHALL BE TAKEN TO PROPERLY ANCHOR BALES TO INSURE AGAINST WASHOUT.

2. FILTER FABRIC BARRIER: FILTER FABRIC BARRIERS CAN BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WITH THE FOLLOWING LIMITATIONS:  
A. WHERE THE MAXIMUM SLOPE BEHIND THE BARRIER IS 33 PERCENT.  
B. IN MINOR SWALES OR DITCH LINES WHERE THE MAXIMUM CONTRIBUTING DRAINAGE AREA IS NO GREATER THAN 2 ACRES.

3. BRUSH BARRIER WITH FILTER FABRIC: BRUSH BARRIER MAY BE USED BELOW DISTURBED AREAS SUBJECT TO SHEET AND RILL EROSION WHERE ENOUGH RESIDUE MATERIAL IS AVAILABLE ON SITE.

4. LEVEL SPREADER: A LEVEL SPREADER MAY BE USED WHERE SEDIMENT-FREE STORM RUNOFF IS INTERCEPTED AND DIVERTED AWAY FROM THE GRADED AREAS ONTO UNDISTURBED STABILIZED AREAS. THIS PRACTICE APPLIES ONLY IN THOSE SITUATIONS WHERE THE SPREADER CAN BE CONSTRUCTED ON UNDISTURBED SOIL AND THE AREA BELOW THE LEVEL LIP IS STABILIZED. THE WATER SHOULD NOT BE ALLOWED TO RECONCENTRATE AFTER RELEASE.

5. STOCKPIILING MATERIAL: NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT RUNOFF DIRECTLY OFF THE PROJECT SITE INTO ANY ADJACENT WATER BODY OR STORM WATER COLLECTION FACILITY.

6. EXPOSED AREA LIMITATION: THE SURFACE AREA OF OPEN, RAW ERODIBLE SOIL EXPOSED BY CLEARING AND GRUBBING OPERATIONS OR EXCAVATION AND FILLING OPERATIONS SHALL NOT EXCEED 10 ACRES. THIS REQUIREMENT MAY BE WAIVED FOR LARGE PROJECTS WITH AN EROSION CONTROL PLAN WHICH DEMONSTRATES THAT OPENING OF ADDITIONAL AREAS WILL NOT SIGNIFICANTLY AFFECT OFF-SITE DEPOSIT OF SEDIMENTS.

POLLUTION PREVENTION PLAN CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNED: \_\_\_\_\_

TITLE: \_\_\_\_\_  
CORPORATE OFFICER, GENERAL PARTNER, PROPRIETOR, EXECUTIVE OFFICER, OR RANKING ELECTED OFFICIAL

DATE: \_\_\_\_\_

CONTRACTOR'S REQUIREMENTS

INLET PROTECTION: INLETS AND CATCH BASINS WHICH DISCHARGE DIRECTLY OFF-SITE SHALL BE PROTECTED FROM SEDIMENT -LADEN STORM RUNOFF UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS THAT MAY CONTRIBUTE SEDIMENT TO THE INLET.

TEMPORARY SEEDING: AREAS OPENED BY CONSTRUCTION OPERATIONS AND THAT ARE NOT ANTICIPATED TO BE RE-EXCAVATED OR DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN 7 DAYS SHALL BE SEEDDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING.

TEMPORARY SEEDING AND MULCHING: SLOPES STEEPER THAN 6:1 THAT FALL WITHIN THE CATEGORY ESTABLISHED IN PARAGRAPH 8 ABOVE SHALL ADDITIONALLY RECEIVE MULCHING OF APPROXIMATELY 2 INCHES LOOSE MEASURE OF MULCH MATERIAL CUT INTO THE SOIL OF THE SEEDDED AREA ADEQUATE TO PREVENT MOVEMENT OF SEED AND MULCH.

TEMPORARY GRASSING: THE SEEDDED OR SEEDDED AND MULCHED AREA(S) SHALL BE ROLLED AND WATERED OR HYDROMULCHED OR OTHER SUITABLE METHODS IF REQUIRED TO ASSURE OPTIMUM GROWING CONDITIONS FOR THE ESTABLISHMENT OF A GOOD GRASS COVER.

TEMPORARY REGRASSING : IF, AFTER 14 DAYS FROM SEEDING, THE TEMPORARY GRASSED AREAS HAVE NOT ATTAINED A MINIMUM OF 75 PERCENT GOOD GRASS COVER, THE AREA WILL BE REWORKED AND ADDITIONAL SEED APPLIED SUFFICIENT TO ESTABLISH THE DESIRED VEGETATIVE COVER.

MAINTENANCE: ALL FEATURES OF THE PROJECT DESIGNED AND CONSTRUCTED TO PREVENT EROSION AND SEDIMENT SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION AS THEY WERE ORIGINALLY DESIGNED AND CONSTRUCTED.

PERMANENT EROSION CONTROL: THE EROSION CONTROL FACILITIES OF THE PROJECT SHOULD BE DESIGNED TO MINIMIZE THE IMPACT ON THE OFFSITE FACILITIES.

PERMANENT SEEDING: ALL AREAS WHICH HAVE BEEN DISTURBED BY CONSTRUCTION WILL, AS A MINIMUM, BE SEEDDED. THE SEEDING MIX MUST PROVIDE BOTH LONG-TERM VEGETATION AND RAPID GROWTH SEASONAL VEGETATION. SLOPES STEEPER THAN 4:1 SHALL BE SEEDDED AND MULCHED OR SODDED.

STRUCTURAL PRACTICES

1. TEMPORARY DIVERSION DIKE: TEMPORARY DIVERSION DIKES MAY BE USED TO DIVERT RUNOFF THROUGH A SEDIMENT-TRAPPING FACILITY.

2. TEMPORARY SEDIMENT TRAP: A SEDIMENT TRAP IS USUALLY INSTALLED IN AN DRAINAGEWAY AT A STORM DRAIN INLET OR AT OTHER POINTS OF DISCHARGE FROM A DISTURBED AREA WITH THE FOLLOWING LIMITATIONS:  
A. THE SEDIMENT TRAP MAY BE CONSTRUCTED EITHER INDEPENDENTLY OR IN CONJUNCTION WITH A TEMPORARY DIVERSION DIKE.

3. OUTLET PROTECTION: APPLICABLE TO THE OUTLETS OF ALL PIPES AND PAVED CHANNEL SECTIONS WHERE THE VELOCITY OF FLOW AT DESIGN CAPACITY OF THE OUTLET WILL EXCEED THE PERMISSIBLE VELOCITY OF THE RECEIVING CHANNEL OR AREA.

4. SEDIMENT BASIN: WILL BE CONSTRUCTED AT THE COMMON DRAINAGE LOCATIONS THAT SERVE AN AREA WITH 10 OR MORE DISTURBED ACRES AT ONE TIME, THE PROPOSED STORM WATER PONDS (OR TEMPORARY PONDS) WILL BE CONSTRUCTED FOR USE AS SEDIMENT BASINS. THESE SEDIMENT BASINS MUST PROVIDE A MINIMUM OF 3,600 CUBIC FEET OF STORAGE PER ACRE DRAINED UNTIL FINAL STABILIZATION OF THE SITE. THE 3,600 CUBIC FEET OF STORAGE AREA PER ACRE DRAINED DOES NOT APPLY TO FLOWS FROM OFFSITE AREAS AND FLOWS FROM ONSITE AREAS THAT ARE EITHER UNDISTURBED OR HAVE UNDERGONE FINAL STABILIZATION WHERE SUCH FLOWS ARE DIVERTED AROUND BOTH THE DISTURBED AREA AND THE SEDIMENT BASIN. ANY TEMPORARY SEDIMENT BASINS CONSTRUCTED MUST BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR STRUCTURAL FILL. ALL SEDIMENT COLLECTED IN PERMANENT OR TEMPORARY SEDIMENT TRAPS MUST BE REMOVED UPON FINAL STABILIZATION.

OTHER CONTROLS

WASTE DISPOSAL  
WASTE MATERIALS  
ALL WASTE MATERIALS EXCEPT LAND CLEARING DEBRIS SHALL BE COLLECTED AND STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER WILL MEET ALL LOCAL AND STATE SOLID WASTE MANAGEMENT REGULATIONS. THE DUMPSTER WILL BE EMPTIED AS NEEDED AND THE TRASH WILL BE HAULED TO A STATE APPROVED LANDFILL. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. NOTICES STATING THESE PRACTICES WILL BE POSTED AT THE CONSTRUCTION SITE BY THE CONSTRUCTION SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PROCEDURES ARE FOLLOWED.

HAZARDOUS WASTE  
ALL HAZARDOUS WASTE MATERIALS WILL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER. SITE PERSONNEL WILL BE INSTRUCTED IN THESE PRACTICES AND THE SITE SUPERINTENDENT, THE INDIVIDUAL WHO MANAGES DAY-TO-DAY SITE OPERATIONS, WILL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED.

SANITARY WASTE  
ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NEEDED TO PREVENT POSSIBLE SPILLAGE. THE WASTE WILL BE COLLECTED AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL WASTE DISPOSAL REGULATIONS FOR SANITARY SEWER OR SEPTIC SYSTEMS.

OFFSITE VEHICLE TRACKING  
A STABILIZED CONSTRUCTION ENTRANCE WILL BE PROVIDED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEEP DAILY TO REMOVE ANY EXCESS MUD, DIRT OR ROCK TRACKED FROM THE SITE. DUMP TRUCKS HAULING MATERIAL FROM THE CONSTRUCTION SITE WILL BE COVERED WITH A TARPAULIN.

INVENTORY FOR POLLUTION PREVENTION PLAN

THE MATERIALS OR SUBSTANCES LISTED BELOW ARE EXPECTED TO BE PRESENT ONSITE DURING CONSTRUCTION:

Concrete	Fertilizers	Wood
Asphalt	Petroleum Based Products	Masonry Blocks
Tar	Cleaning Solvents	Roofing Materials
Detergents	Paints	Metal Studs

SPILL PREVENTION

MATERIAL MANAGEMENT PRACTICES  
THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT WILL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORM WATER RUNOFF.

GOOD HOUSEKEEPING  
THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ONSITE DURING THE CONSTRUCTION PROJECT.

\* AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.  
\* ALL MATERIALS STORED ONSITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.  
\* PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.  
\* SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.  
\* WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.  
\* MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.  
\* THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE MATERIALS ONSITE RECEIVE PROPER USE AND DISPOSAL.

HAZARDOUS PRODUCTS  
THESE PRACTICES ARE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS.  
\* PRODUCTS WILL BE KEPT IN ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE.  
\* ORIGINAL LABELS AND MATERIAL SAFETY DATA WILL BE RETAINED; THEY CONTAIN IMPORTANT PRODUCT INFORMATION.  
\* IF SURPLUS PRODUCT MUST BE DISPOSED OF, MANUFACTURER'S OR LOCAL AND STATE RECOMMENDED METHODS FOR PROPER DISPOSAL WILL BE FOLLOWED.

PRODUCT SPECIFIC PRACTICES  
THE FOLLOWING PRODUCT SPECIFIC PRACTICES WILL BE FOLLOWED ONSITE:

PETROLEUM PRODUCTS  
ALL ONSITE VEHICLES WILL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE. PETROLEUM PRODUCTS WILL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT SUBSTANCES USED ONSITE WILL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

FERTILIZERS  
FERTILIZERS USED WILL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER. ONCE APPLIED, FERTILIZER WILL BE MIXED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. STORAGE WILL BE IN A COVERED AREA, THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER WILL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.

PAINTS  
ALL CONTAINERS WILL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT WILL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM BUT WILL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURERS' INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.

CONCRETE TRUCKS  
CONCRETE TRUCKS WILL NOT BE ALLOWED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ON THE SITE.

SPILL CONTROL PRACTICES

IN ADDITION TO THE GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTIONS OF THIS PLAN, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:

MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED ON SITE AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES.

MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ONSITE. EQUIPMENT AND MATERIALS WILL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, LIQUID ABSORBENT (I.e. KITTY LITTER OR EQUAL), SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE.

ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.

THE SPILL AREA WILL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.

SPILL OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE OF THE SPILL.

THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.

THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY SITE OPERATIONS, WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE/SHE WILL DESIGNATE AT LEAST ONE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IF APPLICABLE, IN THE OFFICE TRAILER ONSITE.

MAINTENANCE/INSPECTION PROCEDURES

EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES  
THE FOLLOWING ARE INSPECTION AND MAINTENANCE PRACTICES THAT WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS.

\* NO MORE THAN 10 ACRES OF THE SITE WILL BE DENUDE AT ONE TIME WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

\* ALL CONTROL MEASURES WILL BE INSPECTED BY THE SUPERINTENDENT, THE PERSON RESPONSIBLE FOR THE DAY TO DAY SITE OPERATION OR SOMEONE APPOINTED BY THE SUPERINTENDENT, AT LEAST ONCE A WEEK AND FOLLOWING ANY STORM EVENT OF 0.50 INCHES OR GREATER.

\* ALL TURBIDITY CONTROL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.

\* BUILT UP SEDIMENT WILL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED ONE-THIRD THE HEIGHT OF THE FENCE.

\* SILT FENCE WILL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, TO SEE IF THE FABRIC IS SECURELY ATTACHED TO THE FENCE POSTS, AND TO SEE THAT THE FENCE POSTS ARE FIRMLY IN THE GROUND.

\* THE SEDIMENT BASINS WILL BE INSPECTED FOR THE DEPTH OF SEDIMENT, AND BUILT UP SEDIMENT WILL BE REMOVED WHEN IT REACHES 10 PERCENT OF THE DESIGN CAPACITY OR AT THE END OF THE JOB.

\* DIVERSION DIKES/SWALES WILL BE INSPECTED AND ANY BREACHES PROMPTLY REPAIRED.

\* TEMPORARY AND PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

\* A MAINTENANCE INSPECTION REPORT WILL BE MADE AFTER EACH INSPECTION. A COPY OF THE REPORT FORM SHALL BE COMPLETED BY THE INSPECTOR. THE REPORTS WILL BE KEPT ON SITE DURING CONSTRUCTION AND AVAILABLE UPON REQUEST TO THE OWNER, ENGINEER OR ANY FEDERAL, STATE OR LOCAL AGENCY APPROVING SEDIMENT AND EROSION PLANS, OR STORM WATER MANAGEMENT PLANS. THE REPORTS SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE THAT THE SITE IS FINALLY STABILIZED AND THE NOTICE OF TERMINATION IS SUBMITTED. THE REPORTS SHALL IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE.

\* THE SITE SUPERINTENDENT WILL SELECT UP TO THREE INDIVIDUALS WHO WILL BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND FILLING OUT THE INSPECTION AND MAINTENANCE REPORT.

\* PERSONNEL SELECTED FOR INSPECTION AND MAINTENANCE RESPONSIBILITIES WILL RECEIVE TRAINING FROM THE SITE SUPERINTENDENT. THEY WILL BE TRAINED IN ALL THE INSPECTION AND MAINTENANCE PRACTICES NECESSARY FOR KEEPING THE EROSION AND SEDIMENT CONTROLS USED ONSITE IN GOOD WORKING ORDER.

NON-STORM WATER DISCHARGES

\* IT IS EXPECTED THAT THE FOLLOWING NON-STORM WATER DISCHARGES WILL OCCUR FROM THE SITE DURING THE CONSTRUCTION PERIOD:

\* WATER FROM WATER LINE FLUSHING

\* PAVEMENT WASH WATERS (WHERE NO SPILLS OR LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE OCCURRED).

\* UNCONTAMINATED GROUNDWATER (FROM DEWATERING EXCAVATION).

ALL NON-STORM WATER DISCHARGES WILL BE DIRECTED TO THE SEDIMENT BASIN PRIOR TO DISCHARGE.

CONTRACTOR'S CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

DEWATERING

PRIOR TO ANY DISCHARGE OF GROUND WATER (DEWATERING) FROM CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT TO WATERS OF THE STATE (INCLUDING, BUT NOT LIMITED TO, WETLANDS, SWALES AND MUNICIPAL STORM SEWERS), THE CONTRACTOR SHALL TEST THE EFFLUENT (WATER TO BE DISCHARGED) IN ACCORDANCE WITH RULE 62-621.300(2), F.A.C. IF THE TEST RESULTS ON THE EFFLUENT ARE BELOW THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL SUBMIT A SUMMARY OF THE PROPOSED CONSTRUCTION ACTIVITY AND THE TEST RESULTS TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION DISTRICT OFFICE, WITHIN ONE (1) WEEK AFTER DISCHARGE BEGINS. THE CONTRACTOR SHALL CONTINUE TO SAMPLE THE EFFLUENT AS REQUIRED THROUGHOUT THE PROJECT AND COMPLY WITH ALL CONDITIONS OF RULE 62-621.300(2), F.A.C. IF THE GROUND WATER EXCEEDS THE SCREENING VALUES OF RULE 62-621.300(2), F.A.C., THE CONTRACTOR SHALL COMPLY WITH OTHER APPLICABLE RULES AND REGULATIONS PRIOR TO DISCHARGE OF THE EFFLUENT (GROUND WATER) TO SURFACE WATERS OF THE STATE.

SIGNATURE	BUSINESS NAME AND ADDRESS OF CONTRACTOR & ALL SUBS	RESPONSIBLE FOR/DUTIES
		GENERAL CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR
		SUB-CONTRACTOR

PLANS PREPARED UNDER THE DIRECTION OF:

REVISIONS:

ETM NO. 14-213-03 FND

DRAWN BY: NEW

DESIGNED BY: LDK

CHECKED BY: JAN

DATE: NOV 2023

England-Thins & Miller, Inc.  
14775 Old St. Augustine Road  
Jacksonville, FL 32258  
TEL: (904) 646-8990  
FAX: (904) 646-9485  
REG - 2584 LC - 0000316

STORMWATER POLLUTION PREVENTION PLAN

MHS F.I.N.D. ROUTE FOR CABBAGE HAMMOCK COMPANY, LLC

DRAWING NUMBER

10

LYNDSAY KELLER, PE  
P.E. NUMBER: 77763

PLOTTED: November 3, 2023 - 3:40 PM, BY: Lynsasy Keller

November 3, 2023

Mr. Mark Crosley  
Executive Director  
Florida Inland Navigation District  
1314 Marcinski Rd  
Jupiter, FL 33477

RE: Scope of GIS Services  
District-wide Online GIS WebMaps

Mr. Crosley:

Per your request, Taylor Engineering has prepared the attached Scope of Services (Attachment A) and Cost Proposal (Attachment B) for the following GIS Services:

Task 1 Public Facing WebMap  
Task 2 Public Facing Data Portal  
Task 3 District Use WebMap

The public facing WebMap and Data Portal will both be accessible to the public and all interested parties and provide visual access and downloadable files of District properties, easements and channel data. Attributes for these features will be limited to avoid liability to the District. The District use WebMap will provide District staff with the up-to-date, live GIS data of all of the District's GIS data vs. static data that must be updated periodically.

Taylor Engineering will complete the work described in Tasks 1-3 for a lump sum amount of \$18,648.00. Please contact me with any questions you have regarding this effort. We can begin work upon your notice to proceed.

Sincerely,



Jerry Scarborough, P.E.  
Senior Advisor. Waterfront Engineering  
Attachments (2)

## **SCOPE OF GEOGRAPHIC INFORMATION SYSTEM SERVICES DISTRICT-WIDE GIS WEBMAPS**

### **INTRODUCTION**

The Florida Inland Navigation District (District) requests both public facing and District use only WebMaps. This scope of services describes Taylor Engineering's effort to create two District-wide Online GIS WebMaps. One WebMap will be a public facing WebMap with a data download portal to facilitate public access to some of the District's GIS data. The other will be a private WebMap with GIS data only available to District staff.

### **TASK 1 PUBLIC FACING WEBMAP**

#### **1.1 Public Facing WebMap**

The District does not currently host a public facing WebMap. To fill this need, Taylor Engineering proposes to develop an online GIS WebMap using Environmental Systems Research Institute's (ESRI) ArcGIS Online interface. To limit liability, the WebMap will require visitors to agree to a "Terms of Use" statement. With the District's approval, a link to the WebMap can be added to the District's website (AICW.ORG).

The WebMap will be hosted on the District's ArcGIS Online account to allow updates by District staff or the District's GIS contractor. All data hosted on the WebMap will be stored using ESRI's ArcGIS Online cloud services. Using ESRI's ArcGIS Online cloud-based interface provides added security against data/WebMap hacking vs. a location-based enterprise data server. This added security is partially due to the lack of a direct connection of cloud stored data to a physical computer.

#### **1.2 Data Hosted on Public Facing WebMap**

To help reduce liability to the District, the GIS data hosted on the District's public facing WebMap will be limited to publicly available channel-based data and DMMA parcel/easement boundaries. Channel data hosted on the WebMap will include Intracoastal Waterway and Okeechobee Waterway channel boundaries, channel setbacks, reach limits, cut limits, channel stationing, river miles and USAC Right-Of-Way boundaries. Attribute information on some files (specifically DMMA parcels) will be limited to reduce liability.

### **TASK 2 PUBLIC DATA PORTAL**

To enable public access to the District's GIS data, Taylor Engineering will create an online data portal. The data portal will be accessible through the District's primary website. Data hosted on the District's public facing WebMap will be available for download on the data portal in Google Earth KML, shapefile, GeoJSON and ESRI's File Geodatabase format. Each data type will include a description of the data and a link to filter and preview the data before downloading.

In addition to hosting downloadable GIS spatial data, the data portal can also be used as a source to download PDF maps that portray District property or other items the District would like to provide in downloadable format.



### TASK 3 DISTRICT USE WEBMAP

To allow District staff and District BOC access to all District owned GIS data, Taylor Engineering will create a password protected WebMap. This District use only WebMap will include all data created under previous and ongoing GIS service contracts with Taylor Engineering. The benefit of this WebMap vs. the viewing the data using in-house GIS software, or Google Earth KML files, is to allow live data updates by District staff or Taylor Engineering GIS staff. Similar to the public facing WebMap, all data hosted on the WebMap will be stored using ESRI's ArcGIS Online cloud services.

### ESTIMATED SCHEDULE

We anticipate completing this scope of work within four months from notice to proceed, as shown in the table below.

No.	Task	Months from Notice to Proceed			
		Dec	Jan	Feb	Mar
1	Public Facing WebMap				
2	Public Data Portal				
3	District Use WebMap				

**TAYLOR ENGINEERING, INC.**  
**COST SUMMARY BY TASK**  
**C2023-196: DISTRICT-WIDE GIS WEBMAPS**

**TASK 1: Create Public Facing WebMap**

<i>Labor</i>	Hourly Rate	Hours	Burdened Cost	Task Totals
Vice President/Principal	\$268.00	2.0	536.00	
Senior GIS Specialist	\$183.00	24.0	4,392.00	
Project GIS Specialist	\$123.00	8.0	984.00	
Total Labor Hours		34.0		
Total Labor Cost				5,912.00

**Total Task 1** **\$5,912.00**

**TASK 2: Create Public Data Portal**

<i>Labor</i>	Hourly Rate	Hours	Burdened Cost	Task Totals
Vice President/Principal	\$268.00	2.0	536.00	
Senior GIS Specialist	\$183.00	40.0	7,320.00	
Project GIS Specialist	\$123.00	16.0	1,968.00	
Total Labor Hours		58.0		
Total Labor Cost				9,824.00

**Total Task 2** **9,824.00**

**TASK 3: Create District WebMap**

<i>Labor</i>	Hourly Rate	Hours	Burdened Cost	Task Totals
Vice President/Principal	\$268.00	2.0	536.00	
Senior Professional	\$210.00	2.0	420.00	
Senior GIS Specialist	\$183.00	8.0	1,464.00	
Project GIS Specialist	\$123.00	4.0	492.00	
Total Labor Hours		16.0		
Total Labor Cost				2,912.00

**Total Task 3** **2,912.00**

**Project Total** **\$18,648.00**



November 3, 2023

Mr. Mark Crosley  
Executive Director  
Florida Inland Navigation District  
1314 Marcinski Rd  
Jupiter, FL 33477

RE: Scope of Professional Engineering Services  
Updated Channel Shoaling Calculations

Mr. Crosley:

Per your request, Taylor Engineering has prepared the attached Scope of Services (Attachment A) and Cost Proposal (Attachment B) for the following services related to recalculating shoaling based on the USACE's most recent District-wide bathymetric survey.

Task 1 Data Acquisition/Validation, Algorithm Development and Testing  
Task 2 Districtwide Shoaling Calculations and Reporting

Taylor Engineering will complete the work described in Tasks 1 and 2 for a lump sum fee of \$48,672. Please contact me with any questions you have regarding this effort. We can begin work upon your notice to proceed.

Sincerely,

Jerry Scarborough, P.E.  
Senior Advisor. Waterfront Engineering  
Attachments (2)



**SCOPE OF PROFESSIONAL ENGINEERING SERVICES  
FINAL DESIGN AND BID ADMINISTRATION FOR  
UPDATED DISTRICTWIDE SHOALING CALCULATIONS**

**INTRODUCTION**

This scope of professional engineering services describes Taylor Engineering's effort to develop updated shoaling calculations based on the most recent U.S. Army Corps of Engineers (USACE) comprehensive bathymetric survey of the Intracoastal Waterway (IWW). Notably, Taylor Engineering identified discrepancies in the USACE's reported shoaling results during our recent update of the St. Lucie County Long-Range Dredged Material Management Plan (DMMP). As such, FIND requested a reevaluation of the shoaling results throughout the District.

The work described in this proposal will provide FIND with updated georeferenced shapefile data and tabulated shoaling locations and volumes throughout each of the 12 District counties. These data are key to planning future maintenance dredging projects.

**ASSUMPTIONS**

Taylor Engineering has developed this scope of services based on the following assumptions:

- Survey data received from the U.S. Army Corps of Engineers are sufficiently documented allow for validation of the data.
- The updated GIS-based shoaling algorithm will reproduce the discrepancies identified during the St. Lucie County DMMP update and produce similar results in a second test county (TBD).

If any of these assumptions prove incorrect, Taylor Engineering will work with the FIND to develop an appropriate additional scope of services and cost.

**TASK 1 DATA ACQUISITION/VALIDATION, ALGORITHM DEVELOPMENT AND TESTING**

Task 1 includes labor to organize and evaluate the USACE's 2022 bathymetric survey data against two (2) test counties.

Taylor Engineering will acquire and validate the USACE's bathymetric survey data. Validation efforts will include confirmation of datums (horizontal and vertical), review of all associated metadata, and confirmation of sufficient spatial coverage to allow for meaningful shoaling calculations.

We will prepare a districtwide 3-D channel template in GIS format that accounts for authorized channel depths, widths, and side slopes as well as any localized wideners. The channel template will provide a consistent reference for this and future shoaling calculations.

We will calculate shoaling results in St. Lucie County and compare to our recent CAD-centric computations and the USACE's results. Once verified, we will examine a second county to verify that the previously identified discrepancies are not isolated to St. Lucie County and are, in fact, districtwide.

**TASK 2        DISTRICTWIDE SHOALING CALCULATION AND REPORTING**

Following verification of a systemic discrepancy with the USACE reported shoaling data, Taylor Engineering will process and quality control the remaining counties. We will update each county's shoaling table and provide updated georeferenced shapefiles of all shoals identified in the analyses. We will meet with FIND to discuss any significant changes in prior results to assist with planning for future maintenance dredging projects.

**ESTIMATED SCHEDULE**

We anticipate completing this scope of work within six months from notice to proceed, as shown in the table below.

No.	Task	Months from Notice to Proceed					
		Dec	Jan	Feb	Mar	Apr	May
1	Data acquisition/validation, algorithm development, testing						
2	Districtwide shoaling calcs & reporting						

**TAYLOR ENGINEERING, INC.**  
**COST SUMMARY BY TASK**  
**C2023-195: FIND: CHANNEL SHOALING CALCS**

**TASK 1: Data validation and process development/verification**

<i>Labor</i>	Hourly Rate	Hours	Burdened Cost	Task Totals
Vice President/Principal	\$268.00	16.0	4,288.00	
Senior CAD Designer	\$170.00	8.0	1,360.00	
Senior GIS Specialist	\$183.00	52.0	9,516.00	
Project GIS Specialist	\$123.00	16.0	1,968.00	
Administrative/Intern	\$70.00	24.0	1,680.00	
Total Labor Hours		116.0		
Total Labor Cost				18,812.00

**Total Task 1** **\$18,812.00**

**TASK 2: Districtwide Shoaling Calcs**

<i>Labor</i>	Hourly Rate	Hours	Burdened Cost	Task Totals
Vice President/Principal	\$268.00	6.0	1,608.00	
Senior Advisor	\$269.00	4.0	1,076.00	
Senior GIS Specialist	\$183.00	48.0	8,784.00	
Project GIS Specialist	\$123.00	104.0	12,792.00	
Administrative/Intern	\$70.00	80.0	5,600.00	
Total Labor Hours		242.0		
Total Labor Cost				29,860.00

**Total Task 2** **29,860.00**

**Project Total** **\$48,672.00**



# FLORIDA INLAND NAVIGATION DISTRICT



TO: All FIND Commissioners, Executive Director

FROM: Janet Zimmerman, Assistant Executive

DATE: Director November 6, 2023

SUBJECT: Proposed Language for Assistance Program Rule Changes

## COMMISSIONERS

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DIRECTOR

In working with the Assistance Program and listening to the Board discussion over the past few months, staff has prepared the following revised rule language for consideration by the Board. The language provided below will be applied to 66B-1 (CAP) and 66B-2 (WAP) rules.

### 66B-2.008 Project Eligibility.

66B-2.008(1)(c)2. Marine fire-fighting, Marine law enforcement and other vessels are eligible for a maximum of \$125,000 ~~\$100,000~~ in initial District funding. All future replacement and maintenance costs of the vessel and related equipment will be the responsibility of the applicant.

### 66B-2.014 Small-Scale Spoil Island Restoration and Enhancement Projects

(4) Funds Allocation: Funds shall be allocated pursuant to Rule 66B-2.005, F.A.C., subject to the exceptions identified in this rule, and with the following additions:

(a) The District shall fund a maximum of up to \$10,000 ~~\$7,500~~ per project, not to exceed \$30,000 ~~\$22,500~~ per County, per fiscal year.

(b) The Project Sponsor may contribute in-kind construction labor; such in-kind construction labor costs will be valued at the Independent Sector estimated national value of each volunteer hour ~~not be counted by the District as exceeding \$10.00 per hour~~. No administrative costs can be incorporated into the Project as Project costs.

(c) The funding provided by the District shall only be allocated for specific Project expenses such as construction materials, trash removal and management, sign installation, plant materials, herbicides, etc. The funding provided by the District shall not be allocated for parties, food or beverages

### 66B-2.015 Small-Scale Derelict Vessel Removal Projects.

(4) District funding shall be limited to \$150,000 ~~\$75,000.00~~ per county, per year, provided on a reimbursement basis only. The limitation on pre-agreement expenses may be waived by the Board in accordance with subsection 66B-2.005(3), F.A.C.