



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

PART I: GENERAL INFORMATION

Local Sponsor	St. Lucie County Erosion District		
Federal ID Number (FEID)	59-6000835		
Primary Contact Name	Joshua Revord	Title	Senior Coastal Engineer
Mailing Address Line 1	3071 Oleander Ave.		
Mailing Address Line 2			
City	Fort Pierce, Florida	Zip Code	34982
Telephone Number	772-462-1269		
Email Address	revordjo@stlucieco.org		

Additional Contact Information

N/A

PART II: CERTIFICATION

I hereby certify that all information provided with this application is true and complete to the best of my knowledge.

Signature of Local Sponsor

Electronic or scanned signatures accepted.

Printed Name

Joshua Revord

Date 7/30/2021



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PART III: EVALUATION CRITERIA

1. Project Name: As listed in the Inlet Management Plan (IMP) or Strategic Beach Management Plan (SBMP)

Ft. Pierce Inlet IMP

2. Project Description: Include county, location with reference to DEP range monuments, brief project history, and description of proposed activities.

The Ft. Pierce Shore Protection project is an extension of a federally authorized project and consists of the restoration and maintenance of 2.3 miles of Atlantic shoreline immediately south of the Ft. Pierce Inlet (located in Ft. Pierce, St. Lucie County). Sand bypassing is being evaluated at the federal inlet (R-33 through R-34) as a potential source of supplemental beach fill for the down-drift beaches. The adopted management plan for Ft. Pierce Inlet indicates it is cost effective to utilize offshore sand sources to mitigate the erosive impacts due to the inlet on the down-drift shoreline, but to consider other sand bypassing alternatives (transfer of beach sand from the north side of the inlet to the south side) in the future.

A draft feasibility study to evaluate sand bypassing alternatives at the Ft. Pierce Inlet concluded in June 2003. In December 2008, specific work was completed to evaluate the deposition basin (sand trap) alternative that included substantial field measurements, data collection and computer modeling. In December 2009, work was performed resulting in additional data collection and modeling, along with a decision document. The report was subsequently embraced by FDEP and then presented at various workshops with the public and St. Lucie County's Erosion District Board. There was a consensus to move forward with the final design and permitting of the Alternate 2 sediment impoundment basin (180,000 cy capacity) with a construction phase to verify the basin's effectiveness via construction and monitoring of a small-scale (60,000 c.y. Phase 1 project) basin prior to full-scale basin construction. This alternative would include siting an inlet sand trap just inside Ft. Pierce Inlet, near the north jetty, with the intent of capturing sand migration from the adjacent beaches. This sand would then be available for future placement onto the adjacent down-drift beach (immediately south of the inlet). FDEP and the USACE have issued permits for this project. Partial state funding was recently appropriated for Phase 1 construction (60k cy basin) and final design plans and bid documents were completed in 2019. Efforts to successfully bid out the project are currently ongoing. St. Lucie County completed the permit required mitigation reef (0.3 acres) in June 2020. Bids for the Phase 1 Sand Trap project were recently received (July 26, 2021) after multiple attempts. A preliminary review of the bids suggest that cost will be in excess of the previously submitted option of probable cost (FY- 21/22 application). A cost breakdown is included within this application that outlines the differences between secured grant funding and the bid received from the best qualified, lowest and most responsive/responsible bidder.

An updated sediment budget report was completed and submitted to the Department in 2018 (currently under review). In addition, the evaluation of a historic, near-shore borrow area (adjacent to Fort Pierce Beach and used in 1971 & 1980) was completed to better understand how the removal of sand within a near-shore borrow area has impacted ebb shoal morphology, wave conditions, and sediment transport within the inlet and adjacent beaches. A Sediment Budget Summary Report was recently submitted to FDEP and is currently being reviewed. This document will form the basis for a future Inlet Management Plan update.



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

3. Use of Requested Program Funds: Provide a brief description of tasks to be completed in each requested phase (Feasibility, Design, Construction, or Monitoring). Indicate which tasks are cost reimbursement from previous fiscal years.

Construction: Additional construction funds are needed to complete the Fort Pierce Inlet Sand Trap (Phase 1) project. Consultant recommendation letter and a current grant funding breakdown are included as justification.

4. Map: Provide as an attachment.

- **Format:** The project area must be formatted at a minimum of 1" = 200' scale and include a compass rose and legend.
- **Required elements:** Project boundary, DEP reference monuments, shoreline designated as critically eroded, area of inlet influence, and permitted sand bypassing placement area

5. Project length: Total restored project boundary (in feet) as listed in the IMP or SBMP. 12,144 Linear Feet

6. Schedule and Budget: Provide as a separate attachment, if needed. Clearly indicate project phase: Feasibility (F), Design (D), Construction (C), or Monitoring (M). Include the year of post-construction monitoring in the description.

- **Cost Reimbursement:** Specify eligible costs incurred during the three years prior to the current application's fiscal year that are not in a current DEP agreement and have not been reimbursed (this includes fiscal years 19/20, 20/21, and 21/22). Eligible costs will be added to the current funding request.
- **Current and Future Costs:** Specify eligible costs for the current application's fiscal year that are not in a current DEP agreement and have not been reimbursed as well as the estimated costs for the next 4 years. Note: If Construction costs are requested in the current fiscal year, then the Year 1 Post-Construction Monitoring costs will be added to the current funding request.

Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
19/20	N/A	N/A				
19/20	N/A	N/A				
19/20	N/A	N/A				
20/21	N/A	N/A				
20/21	N/A	N/A				
20/21	N/A	N/A				



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

Fiscal Year	Project Phase	Description	Federal Cost	State Cost	Local Cost	Total Cost
21/22	N/A	N/A				
21/22	N/A	N/A				
21/22	N/A	N/A				
22/23	Construction	Sand Trap Phase 1 Construction (Budget Shortfall) @ 75%	0	1,080,000	360,000	1,440,000
22/23	Monitoring	2023 Post-Construction Physical/Biological Monitoring	0	27,500	27,500	55,000
22/23						
23/24	Construction	1st Construction Maintenance Event (Phase 1)	0	1,000,000	1,000,000	2,000,000
23/24	Monitoring	2024 Post-Construction Physical/Biological Monitoring	0	27,500	27,500	55,000
23/24						
24/25	Monitoring	2025 Post-Construction Physical/Biological Monitoring	0	27,500	27,500	55,000
24/25	Design	Phase 2 Construction (Trap Expansion to 180k cy) @ 75%	0	150,000	50,000	200,000
24/25						
25/26	Construction	Phase 2 Construction (Trap Expansion to 180k cy) @ 75%		6,000,000	2,000,000	8,000,000
25/26	Construction	Sand Trap (Phase 1) Maintenance/Beach Fill Placement		1,000,000	1,000,000	2,000,000
25/26	Monitoring	Pre and Post-Construction Physical/Biological Monitoring		150,000	50,000	200,000
26/27	Monitoring	Year 2 Post-Construction		100,000	100,000	200,000
26/27						
26/27						



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

7. Sand reaching the inlet

Provide the estimated annual quantity (cubic yards) of beach quality sand reaching the updrift boundary of the improved jetty or inlet channel:

112,000 c.y./year (Olsen, 2018)

8. Severity of erosion

Provide the annual bypassing objective (cubic yards/year) adopted by the IMP or SBMP or as determined by a Department-approved study:

130,000 c.y./year (CPE, 1996)

9. Balancing the sediment budget

Provide the current annual average of bypassed material (cubic yards) since the adoption of a bypass objective:

11,713 c.y.

Provide a brief description of when the last sediment budget engineering analysis was completed for the inlet and area of inlet influence. Discuss any proposals to update the sediment budget.

An updated sediment budget report was completed in September 2018 (Olsen) and subsequently submitted to the Department. In addition, a supplemental Near-Shore Borrow Area report was also completed in 2019. A Summary Report outlining all findings associated with recent inlet efforts was completed and is being reviewed. This document should form the basis for a future Inlet Management Plan update.



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

Historical bypassing volumes: In the table below, provide the annual bypassing volumes (cubic yards/year), for the previous ten years (from the last calendar year or the most recent calculation). Attach additional documentation as needed.

Year	Quantity Bypassed (cy) - Sand Transfer Plant	Quantity Bypassed (cy) - Dredging	Dredge Location	Placement or Disposal Area
2009	N/A	N/A	N/A	N/A
2010	N/A	N/A	N/A	N/A
2011	N/A	N/A	N/A	N/A
2012	N/A	N/A	N/A	N/A
2013	N/A	N/A	N/A	N/A
2014	N/A	164,100	Channel and Turning Basin (Fort Pierce Inlet)	FDEP Monument R-34 to R-37
2015	N/A	N/A	N/A	N/A
2016	N/A	N/A	N/A	N/A
2017	N/A	74,326	Flood Shoal (ICWW, F.I.N.D. - Beneficial Use)	FDEP Monument R-34 to R-37
2018	N/A	N/A	N/A	N/A
2019	N/A	N/A	N/A	N/A
2020	N/A	N/A	N/A	N/A
Total per method	N/A	238,426		

Total bypass volume:

Years since IMP adoption:

Annual average bypass:

Bypass objective:

Percentage of bypass objective:



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

10. Increased bypassing and cost-effectiveness

Provide the estimated increase in annual bypassing of sand (cubic yards/year) proposed for the project:

See Additional Comments

Provide the estimated shortfall of annual bypassing of sand (cubic yards/year) within the inlet system:

118,288 c.y.

Is the proposed project requesting construction phase funds for a major inlet management project component? ☐ Yes

If yes, and for the award of points for the cost-effectiveness of using inlet sand criteria, provide an opinion of probable cost per unit volume of the inlet and all other sand sources, certified by a licensed professional engineer.

11. Inlet Management Plans

Select all that apply:

- ☐ **Existing IMP:** The proposed project has an existing IMP or completed Inlet Management Study that has been approved by the Department.
- ☒ **Updated IMP:** The Department has received and approved an update to an existing IMP in the form of a current Inlet Management Study/sediment budget analysis within the previous five years, or there is an update proposed to an existing IMP in the current application.
- ☐ **New IMP:** A new inlet management study is proposed for submission to the Department for an adoption in an IMP.

12. Enhanced longevity of proximate beach nourishment projects

Annualized beach nourishment volume of proximate beach nourishment project:

252,147 c.y.; since 1998

13. Active permits

Does the project have an active state permit? ☐ Yes

Permit number: JCP-0327791-001-JC

Authorization date: May 2, 2016

Expiration date: May 2, 2031

Does the project have an active federal permit? ☐ Yes

Permit number: SAJ-2014-02065 (SP-KDS)

Authorization date: August 8, 2019

Expiration date: March 16, 2032



Beach Management Funding Assistance Program
Local Government Funding Request
Fiscal Year 2022/2023
Inlet Projects Application

14. Federal funds available

Does the proposed project have federal funds available? If so, provide supporting documentation.

No

15. Secured local funds

Has the necessary local funding been secured for the proposed project? If so, provide a copy of the draft Resolution. The signed Resolution is due by September 21, 2021.

Yes

Additional
comments

7) Sand Reaching the Inlet

This metric is difficult to pin down, based on what we know about Fort Pierce Inlet. The intent of the metric is to identify the impact of the inlet. Currently, it is estimated that 40,000 c.y./year passes through the north jetty. This is the amount that is lost through the jetty, and does not account for the total impact the inlet has on the system. Considering this, this metric should consider all sands reaching the inlet and not just those that pass through. This impact was thoroughly discussed in the recently submitted sediment budget update (Olsen, 2018). Impacts associated with the inlet are estimated on the order of 112,000 c.y./year.

9) Balancing the Sediment Budget:

The Fort Pierce Inlet Management Study Implementation Plan states placement for a "combined total of material from all sources equals or exceeds 130,000 cubic yards on an average annual basis at a minimum." Historical nourishment meets and exceeds the 130,000 cubic yard parameter.

Historical Bypassing since Inlet Management Plan was adopted (1997):

1997 - 19,400 c.y.

1998 - 23,300 c.y.

2014 - 164,100 c.y.

2017 - 74,300 c.y.

10) Increase Bypassing and Cost-Effectiveness:

90,000 cubic yards: The two sand trap alternatives recommended for consideration in the sand bypassing study identify

1) Alternative 1 - bypassing 348,000 cubic yards every two years and 2) Alternative 2 - bypassing 180,000 cubic yards every 2 years (i.e., equivalent to 174,000 cy/yr. or 90,000 cy/yr. respectively). There was a consensus to move forward with the final design and permitting of Alternate 2, with construction phasing to verify the basins' effectiveness via construction and monitoring of a small-scale (60,000 cy pilot project) basin prior to full-scale basin construction.

12) Enhanced longevity of proximate beach nourishment projects:

Since 1998 approximately 252,147 c.y. of sand have been placed (annualized beach nourishment volume).

10-YEAR COMPREHENSIVE BEACH MANAGEMENT PROJECT LIST - ST. LUCIE COUNTY
(Fiscal Years 2022 - 2032)

Recommended Plan Elements	Estimated Ten (10) Year Total Cost	Estimated Five (5) Year County Cost	Estimated Ten (10) Year County Cost	Fiscal Year 2022/23			Fiscal Year 2023/24			Fiscal Year 2024/25			Fiscal Year 2025/26			Fiscal Year 2026/27			Fiscal Year 2027/32		
				Estimated County Share	Estimated State Share	Estimated Federal Share	Estimated County Share	Estimated State Share	Estimated Federal Share	Estimated County Share	Estimated State Share	Estimated Federal Share	Estimated County Share	Estimated State Share	Estimated Federal Share	Estimated County Share	Estimated State Share	Estimated Federal Share	Estimated County Share	Estimated State Share	Estimated Federal Share
<i>Ft. Pierce 1.3-Mile Beach Project</i> ⁽¹⁾																					
Section 203 Report Post-Authorization (NEPA, Environmental) ⁽²⁾ - FDEP Grant 20SL1	\$0	\$0	\$0																\$0	\$0	\$0
Construction Oversight	\$150,000	\$50,000	\$75,000				\$50,000	\$50,000											\$25,000	\$25,000	\$0
<i>Shoreline Stabilization Alternatives</i>																					
Design & Permitting (Structures /T-groins) ^(4a) - FDEP Grant 20SL1	\$0	\$0	\$0																\$0	\$0	\$0
Design & Permitting - Section 111 (LRR) ⁽³⁾	\$100,000	\$0	\$50,000																\$50,000	\$50,000	\$0
Structure/ T-Groin Construction (concurrent w/Nourishment) ^{(4)(5)(5b)}	\$16,300,000	\$4,356,000	\$4,506,000				\$4,356,000	\$4,356,000	\$7,288,000										\$150,000	\$150,000	\$0
Emergency Truck Haul Project (Fall 2019/Spring 2020) ^(5a)	\$0	\$0	\$0																\$0	\$0	\$0
Long Term Beach Monitoring (Physical and Biological) - Including Required Tilling	\$3,400,000	\$825,000	\$1,700,000	\$150,000	\$150,000		\$150,000	\$150,000		\$175,000	\$175,000		\$175,000	\$175,000		\$175,000	\$175,000		\$875,000	\$875,000	\$0
Long Term Beach Maintenance-Renourishment ^{(6)(6)(5b)}	\$22,000,000	\$2,722,500	\$6,620,100				\$2,722,500	\$2,722,500	\$4,555,000										\$3,897,600	\$3,897,600	\$4,204,800
SUB-TOTAL	\$41,950,000	\$7,953,500	\$12,951,100	\$150,000	\$150,000	\$0	\$7,278,500	\$7,278,500	\$11,843,000	\$175,000	\$175,000	\$0	\$175,000	\$175,000	\$0	\$175,000	\$175,000	\$0	\$4,997,600	\$4,997,600	\$4,204,800
<i>Inlet Management Plan Sand By-Passing (Inlet Sand Trap)</i> ⁽⁷⁾																					
Construction (Phase 1) - Engineering - FDEP Grant 18SL1	\$0	\$0	\$0																\$0	\$0	\$0
Construction (Phase 1) - Monitoring - FDEP Grant 18SL1	\$0	\$0	\$0																\$0	\$0	\$0
Construction (Phase 1) - Inlet Sand Trap w/Mitigation Reef ^{7B} - Partial, FDEP Grant 18SL1	\$1,440,000	\$360,000	\$360,000	\$360,000	\$1,080,000														\$0	\$0	\$0
Design & Permitting (Phase 2) - Inlet Sand Trap	\$200,000	\$50,000	\$50,000							\$50,000	\$150,000								\$0	\$0	\$0
Construction (Phase 2) - Inlet Sand Trap (assumes 75% cost share)	\$8,000,000	\$2,000,000	\$2,000,000										\$2,000,000	\$6,000,000					\$0	\$0	\$0
Long Term Inlet Monitoring (Physical/ Biological) - FDEP Grant 20SL2 (Y1) / New Grant (Y2)	\$1,565,000	\$232,500	\$732,500	\$27,500	\$27,500		\$27,500	\$27,500		\$27,500	\$27,500		\$50,000	\$150,000		\$100,000	\$100,000		\$500,000	\$500,000	\$0
Long Term Operation & Maintenance ^(7A) (assumes 50% cost share)	\$12,000,000	\$2,000,000	\$6,000,000				\$1,000,000	\$1,000,000					\$1,000,000	\$1,000,000					\$4,000,000	\$4,000,000	\$0
Spur Jetty Repairs - Post Irma ⁽⁸⁾	\$0	\$0	\$0																\$0	\$0	\$0
SUB-TOTAL	\$23,205,000	\$4,642,500	\$9,142,500	\$387,500	\$1,107,500	\$0	\$1,027,500	\$1,027,500	\$0	\$77,500	\$177,500	\$0	\$3,050,000	\$7,150,000	\$0	\$100,000	\$100,000	\$0	\$4,500,000	\$4,500,000	\$0
<i>South County Beach Restoration</i> ⁽⁹⁾																					
Federal Feasibility Phase/Studies (50%cost share w/Corps)	\$0	\$0	\$0																\$0	\$0	\$0
Design & Permitting (Federal SPP)	\$100,000	\$0	\$56,510																\$56,510	\$43,490	\$0
Construction Oversight ^(9a)	\$0	\$0	\$0																\$0	\$0	\$0
Perpetual Easements (Ongoing Effort)	\$0	\$0	\$0																\$0	\$0	\$0
Long Term Beach Monitoring (USACE Federal Project) ⁽¹¹⁾ - Future FDEP Grants	\$1,320,000	\$745,932	\$745,932	\$248,644	\$191,356		\$248,644	\$191,356		\$248,644	\$191,356								\$0	\$0	\$0
Annual Beach Profiles (2013 Project)	\$0	\$0	\$0																\$0	\$0	\$0
Annual Beach Profiles (2021 Federal Project)	\$315,000	\$64,571	\$230,859										\$45,000			\$19,571	\$25,430		\$166,289	\$58,712	\$0
Future Federal Beach Maintenance-Renourishment ⁽¹⁰⁾ - FDEP Grants 19SL4 & 20SL3	\$0	\$0	\$0																\$0	\$0	\$0
Public Beach Access Easements - Init. Const./Future Maintenance ⁽¹²⁾ - FDEP Grant 18SL2	\$0	\$0	\$0																\$0	\$0	\$0
SUB-TOTAL	\$1,735,000	\$810,502	\$1,033,301	\$248,644	\$191,356	\$0	\$248,644	\$191,356	\$0	\$248,644	\$191,356	\$0	\$45,000	\$0	\$0	\$19,571	\$25,430	\$0	\$222,799	\$102,202	\$0
<i>Emergency Maintenance</i>																					
Beach & Dune Upland Sand Source Contract(s)	\$150,000	\$90,000	\$150,000	\$30,000						\$30,000						\$30,000			\$60,000	\$0	\$0
SUB-TOTAL	\$150,000	\$90,000	\$150,000	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$0	\$60,000	\$0	\$0
<i>Inlet Spur Jetty</i>																					
Long Term Maintenance	\$125,000	\$75,000	\$125,000	\$25,000						\$25,000						\$25,000			\$50,000	\$0	\$0
SUB-TOTAL	\$125,000	\$75,000	\$125,000	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000	\$0	\$0	\$50,000	\$0	\$0
ANNUAL TOTAL COST	\$67,165,000	\$13,571,502	\$23,401,901	\$841,144	\$1,448,856	\$0	\$8,554,644	\$8,497,356	\$11,843,000	\$556,144	\$543,856	\$0	\$3,270,000	\$7,325,000	\$0	\$349,571	\$300,430	\$0	\$9,830,399	\$9,599,802	\$4,204,800

(1) Project Cost Share: Federal (77.76%), Non-Federal (22.24%) - State typically provides 50% of the non-federal share (11.12%, County = 11.12% State). Existing cost share good thru November 2026 or until new Section 203 project authorization and construction, whichever comes first?

(2) Anticipated cost to address outstanding comments and NEPA/Environmental requirements associated with the Section 203 Report. Recent conversations with Jacksonville/ASA's offices suggest a cost share agreement for the PED phase of project development (FDEP Grant 21SL1 - Design Funding)

(3) Improved cost share may be possible through a Limited Reevaluation Report (LRR), under a new 50 year project life. Preliminary discussions with Jacksonville USACE indicate possibility; effort likely after Congressional Authorization is achieved (Spring 2022). Unknown as to whether or not the improvement can be attained before new design structure implementation (23/24). FDEP Grant 20SL1

(4) Anticipated construction cost for T-Groin structures based on cost estimate provided in the final Section 203 Report submitted to the ASA's office June 7, 2018.

(4a) State permitting to begin as soon as final Congressional Authorization is attained and outstanding Section 203 comments are addressed.

(5) Assuming future beach projects are under existing Federal cost share until reauthorization (see note 1). Federal participation associated with a new 50 year project @ 45.55%, Non-Federal @ 54.45%; Section 111 benefits NOT recognized in final Section 203 report (per ASA determination). Recurring Federal Renourishments after initial construction @35.04% Federal, 64.96% Non-Federal. State funding possible up to 50% of the non federal share. See note 6 for more information.

(5a) Emergency truck haul initiated March 2020 @ 100% County expense. 50% State reimbursement included in future Grant approved FY 21-22.

(5b) Section 203 Congressional Authorization in 2020. Resolve NEPA and Final Report with ASA by 2022. State permitting effort to follow as soon as possible.

(6) Cost estimates for future projects are based on 500,000 c.y. nourishments each - Actual size and cost will be dependent on need and/or Federal appropriations.

(7) Construction of the Phase 1 Sand Trap (60,000 cy trap) anticipated to begin Summer/Fall 2021.

(7a) Future inlet maintenance efforts may be subject to a 50% Local / 50% State cost share. Staff assumes future State funds for future inlet efforts will be secured but cannot guarantee this will be the case.

(7b) Cost of construction will likely be more than original estimate. 75% of the additional cost could be state cost shared in the future, pending successful LGFR application and State appropriation.

(8) Project was completed FY 2018/19. Status of future FEMA reimbursement pending....

(9) The 2013 non-federal Project cost share: State (43.49%), Local (56.51%). Project now Federally Authorized via WRDA 2018 (Preliminary Federal Cost Share @ 35%, Local @ 65%); Future Nourishment (27% Federal; 73% non-Federal). Additional funding option has been made available (South Hutchinson Island MSTU).

(9a) Construction oversight for FDEP compliance included in FDEP Grant 19SL4 and 20SL3.

(10) Initial Federal nourishment costs (\$22,803,000) identified in the Draft PPA dated 11/1/2018 (distributed to County January 2019). Cost further refined, and Non-Federal share due August 4, 2021.

(11) Post -Construction Biological/Physical Monitoring Per GEC. Anticipate three (3) years of post-construction monitoring (Draft PPA to include WIK Credit for post-construction monitoring). Assuming State funding @43.49% but cannot guarantee this will be the case. To date, sufficient funds in FDEP Grant 20SL3 (No 2022/2023 LGFR request needed).

(12) This effort was postponed due to the lack of participation.

RESOLUTION 2021-316

A RESOLUTION OF THE ST. LUCIE COUNTY EROSION DISTRICT
AUTHORIZING THE SUBMITTAL OF AN APPLICATION TO THE
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
FOR FISCAL YEAR 2022/23 FUNDS UNDER THE FLORIDA BEACH
MANAGEMENT FUNDING ASSISTANCE PROGRAM; SETTING
FORTH FINDINGS; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the St. Lucie County Erosion District ("District") and the Florida Department of Environmental Protection ("FDEP") have adopted the Fort Pierce Inlet Management Plan and desires to implement the recommendations contained therein; and,

WHEREAS, the District has established a Long-Range Budget Plan for the Florida Beach Management Funding Assistance Program and desires to implement specific projects contained therein; and,

WHEREAS, under the provisions of Section 161.101, Florida Statutes, FDEP accepts and processes applications for the Florida Beach Management Funding Assistance Program; and,

WHEREAS, under the Program guidelines of the Florida Beach Management Funding Assistance Program, the District is required to submit a supporting resolution with their application request.

NOW, THEREFORE, BE IT RESOLVED by the St. Lucie County Erosion District as follows:

1. FDEP is requested to approve and support the maximum State funding allowed for this application request for Fiscal Year 2022/23. The District will provide the required local share in accordance with the State Legislature's appropriation.
2. This Resolution shall take effect immediately upon its adoption.

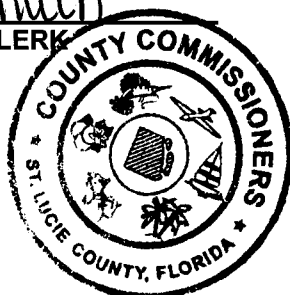
AFTER MOTION AND SECONDED, the vote on this Resolution was as follows:

Chair Frannie Hutchinson	AYE
Vice-Chair Cathy Townsend	AYE
Commissioner Linda Bartz	AYE
Commissioner Chris Dzadovsky	AYE
Commissioner Sean Mitchell	AYE

PASSED AND DULY ADOPTED this 27 day of July, 2021.

ATTEST:


DEPUTY CLERK

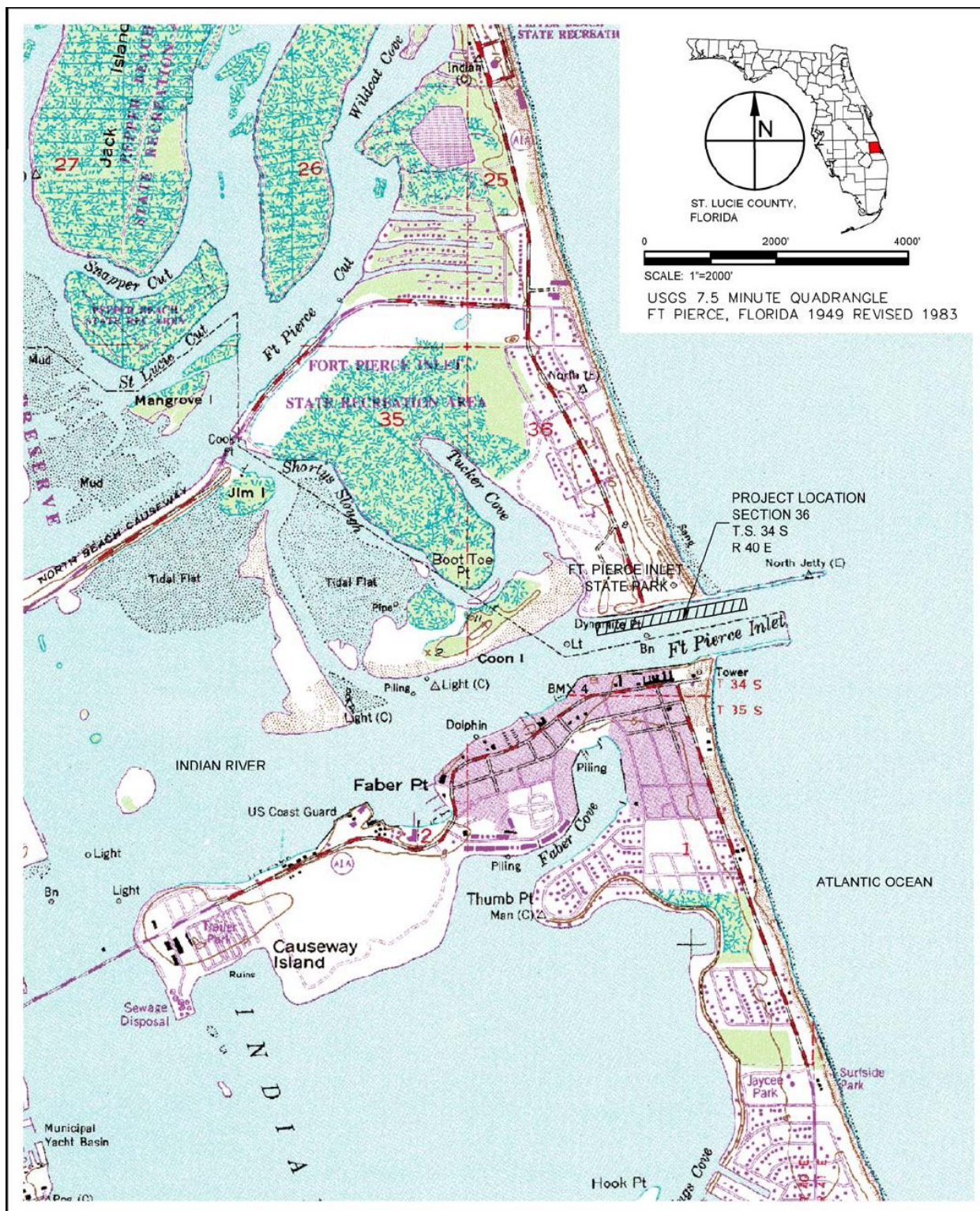


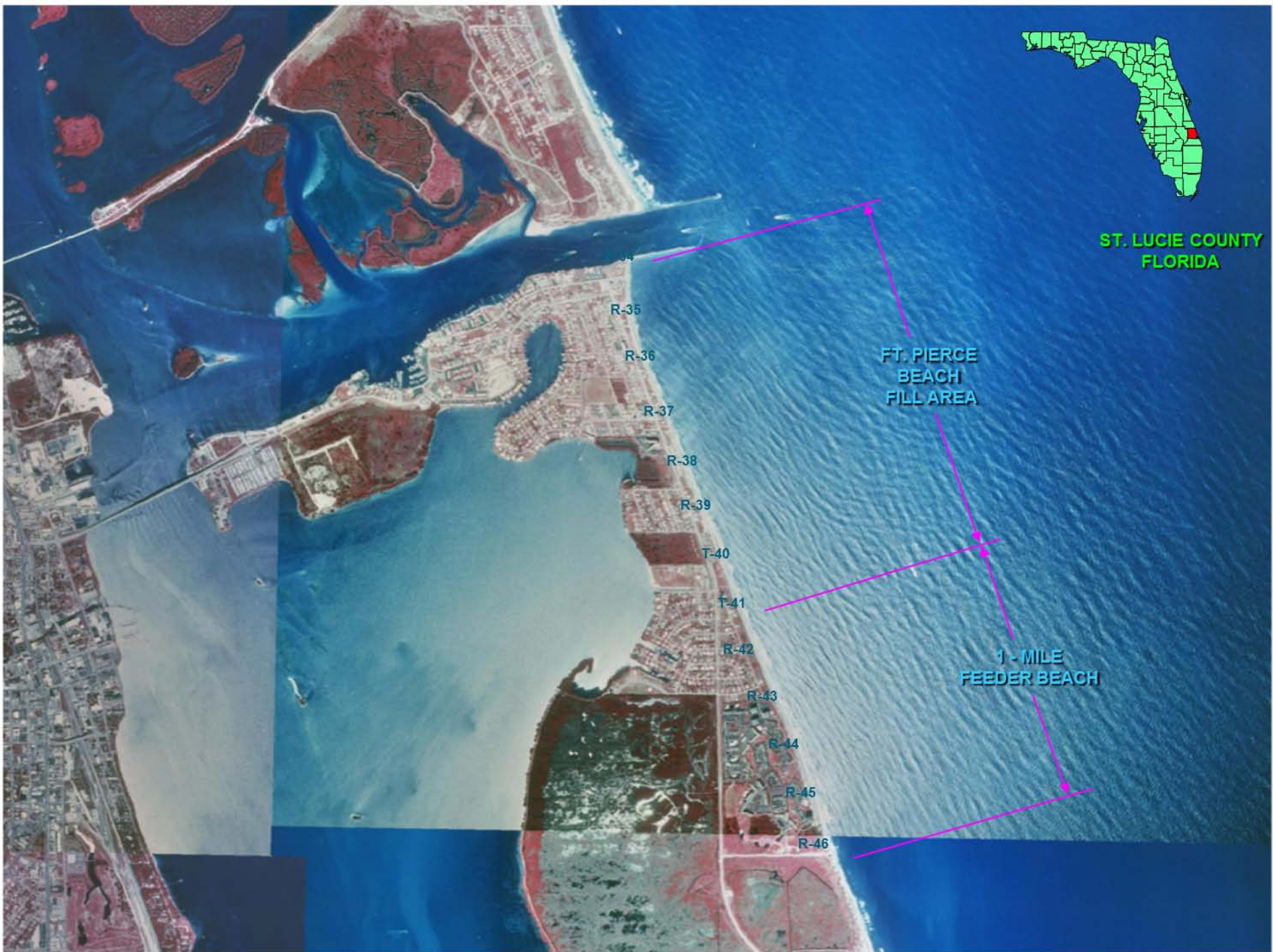
ST. LUCIE COUNTY EROSION DISTRICT

BY: 
CHAIR

APPROVED AS TO FORM AND
CORRECTNESS:

BY: 
COUNTY ATTORNEY





ST. LUCIE COUNTY
FLORIDA

FT. PIERCE
BEACH
FILL AREA

1 - MILE
FEEDER BEACH



Ft. Pierce Inlet and Adjacent Beaches



Department of Environmental Protection

Lawton Chiles
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
MAIL STATION 310

Virginia B. Wetherell
Secretary

June 6, 1997

Mr. Rawlins Collerain, Director
St. Lucie County Public Works
2300 Virginia Avenue
Fort Pierce, Florida 32920-0267

RE: Fort Pierce Inlet Management Plan

Dear Mr. Collerain:

I am pleased to inform you that the implementation plan for the Fort Pierce Inlet Management Study has been formally adopted by the Department of Environmental Protection. Enclosed for your records is an original certificate of adoption and the final plan. The certificate has been executed in duplicate, with the Department retaining the second copy.

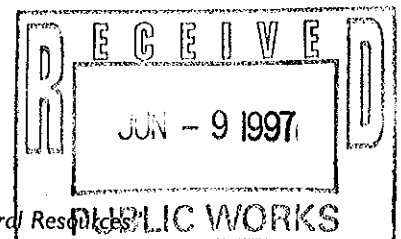
The Department, like St Lucie County, is anxious to continue efforts to implement the Fort Pierce Inlet Management Plan. I look forward to working with you and your staff in completing the implementation projects.

Sincerely,

Paden E. Woodruff, Environmental Administrator
Bureau of Beaches and Coastal Systems

PEW/acI
Enclosures

cc: Norman Beumel, CP&E
David Roach, FIND



"Protect, Conserve and Manage Florida's Environment and Natural Resources"

FORT PIERCE INLET MANAGEMENT STUDY IMPLEMENTATION PLAN

CERTIFICATE OF ADOPTION

WHEREAS the Department of Environmental Protection, in partnership with the St. Lucie County, has conducted a study of Fort Pierce Inlet, under the provisions of Section 161.161, Florida Statutes, for the purposes of evaluating the erosive impact of the inlet on adjacent beaches, and

WHEREAS the Department has developed an implementation plan which contains corrective measures to mitigate the identified impacts of the inlet, and

WHEREAS the implementation plan is consistent with the Department's program objectives under Chapter 161, Florida Statutes,

The Department does hereby adopt the following implementation actions:

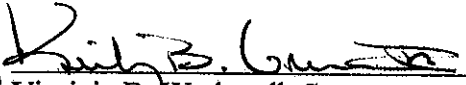
- 1) Initial restoration of 2.3 miles of beach south of the inlet.**
- 2) Placement of all beach compatible maintenance or offshore dredged material on downdrift beaches. Material shall be placed on beaches in areas of greatest need.**
- 3) Placement of supplemental material from upland sources, or dredged from nearshore north of the inlet, or from seaward of depth of closure on the beaches south of the inlet such that the combined total of material from all sources equals or exceeds 130,000 cubic yards on an average annual bases at a minimum.**
- 4) Improvement of the south jetty to incorporate a spur jetty or other measures to reduce backflow of material into the inlet.**
- 5) The sediment budget contained in the study report is adopted as an interim measure and shall be formally validated or redefined in subsequent revisions of the plan based on a comprehensive monitoring plan by December 31, 2001.**
- 6) Implement a comprehensive inlet, beach, and offshore monitoring program subject to approval of the Department.**
- 7) Evaluate possible alternatives to facilitate the bypassing of sand from the shoreline north of the inlet to the downdrift beaches.**

This plan is based on the supporting data contained in the study report, Fort Pierce Inlet Management Plan, Coastal Planning & Engineering, Inc., January 1996, studies conducted by the U.S. Army Corps of Engineers, and comments provided by public agencies and the citizenry of St. Lucie County. Each implementation action contained in this plan is subject to further evaluation, and subsequent authorization. Any action that may affect navigation associated with the inlet shall be consistent with all applicable federal requirements and subject to authorization from the U.S. Army Corps of Engineers.

It is the intent of the Department to assist in the implementation of the plan through the provision of funds granted under the Florida Beach Erosion Control Program. The Department's financial obligations shall be contingent upon sufficient legislative appropriations.

Nothing in this plan precludes the evaluation and potential adoption of other alternatives or strategies for management at Fort Pierce Inlet.

APPROVED FOR ADOPTION

6 ✓ 
Virginia B. Wetherell, Secretary
Department of Environmental Protection

5.30.97
Date

FORT PIERCE INLET MANAGEMENT STUDY

SUMMARY OF FINDINGS REPORT

and

RECOMMENDED IMPLEMENTATION PLAN

Introduction

The Department of Environmental Protection, in partnership with St. Lucie County, completed an inlet management study of Fort Pierce Inlet. The study, Fort Pierce Inlet Management Plan, Coastal Planning & Engineering, Inc., January 1996, was conducted under the provisions of Section 161.161, Florida Statutes, for the purposes of evaluating the erosion impact of the inlet on adjacent beaches, and to recommend corrective measures to mitigate identified impacts.

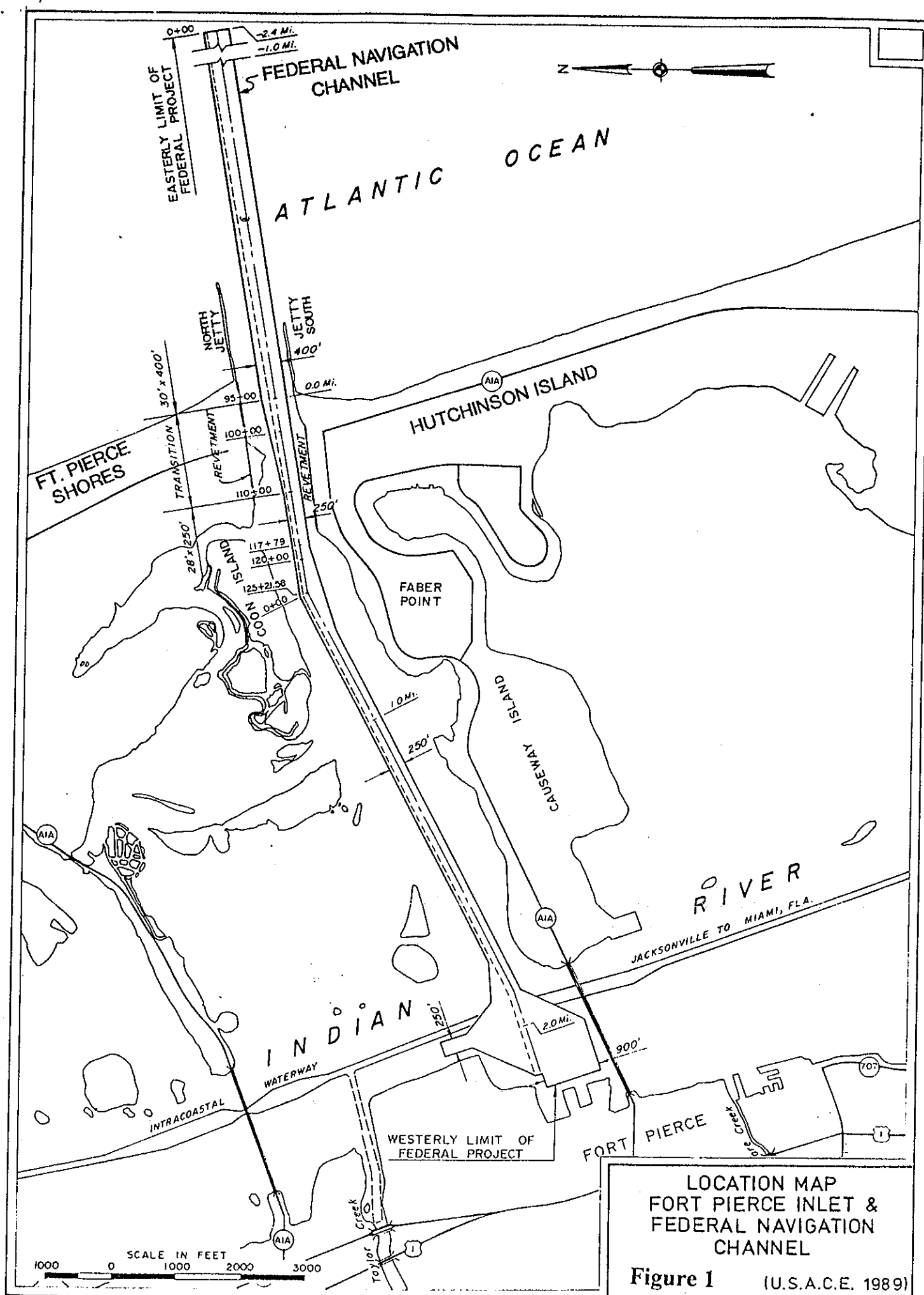
The study has been evaluated by the staff of the Bureau of Beaches and Coastal Systems as it relates to the Bureau's statutory responsibilities and program objectives. As a result of that evaluation, the Bureau has developed a recommended implementation plan. Adoption of the plan will facilitate and streamline the coastal construction permitting process during its implementation by providing a basis for consistency determination, and enable governmental entities to seek financial assistance from the Department to conduct inlet management activities authorized in the plan.

This report contains a brief history of Fort Pierce Inlet, a summary of the inlet study findings, and a consistency determination. The report also contains the recommended implementation plan.

History of Fort Pierce Inlet

Fort Pierce Inlet was historically a meandering natural passage from the Indian River to the Atlantic Ocean in St. Lucie County and was known as the Indian River Inlet. After 1892 with the opening of the St. Lucie Inlet, the Fort Pierce Inlet became unusable due to shoaling. In 1920-1921 the current inlet was first modified by dredging and the construction of jetties.

In 1926 the jetties were reconstructed 900 feet apart and extended. In 1935 the inlet became a Federal Navigation Project and the entrance channel, interior channel, and turning basin were dredged in 1938. In 1995 the U.S. Army Corps of Engineers modified the Fort Pierce Harbor and enlarged the entrance channel to 30 feet by 400 feet, the interior channel to 28 feet by 250 feet, and dredging of the turning basin to a depth of 28 feet (Figure 1). The existing south jetty is approximately 1,200 feet long while the northern jetty is approximately 1,600 feet long.



The inlet modifications have caused the interruption of longshore sand transport along the adjacent shorelines. The area of influence of the inlet in its current configuration is 15,000 feet to the north and 12,000 feet to the south. A sediment budget, developed as part of the study, estimates the need to bypass 130,000 cubic yards annually to offset the impacts of the inlet (Figure 2). The sediment budget is based primarily on the evaluation of data from 1966 to 1988.

Study Summary

To accomplish the plan objectives, the study evaluated numerous potential management activities in terms of environmental impacts, permitting constraints, fiscal concerns, and potential achievability. The study recommends six principle elements involving sand bypassing and inlet improvements (Figure 3).

- 1) Continuation of U.S. Army Corps of Engineers navigation channel dredging with sand disposal onto downdrift beaches.
- 2) Construction of a 200 foot spur jetty on the south jetty.
- 3) Beach restoration of the 2.3 miles of shoreline south of the inlet.
- 4) Periodic beach fill maintenance.
- 5) Conduct beach and inlet monitoring.
- 6) Conduct environmental monitoring

Consistency Determination and Comments

Each of the six primary recommendations has been evaluated for consistency with program objectives under Chapter 161, Florida Statutes. The consistency determination is based solely upon the recommendation as presented in the study report. A determination does not preclude further study of other potential management alternatives. Comments regarding each recommendation are as follows.

- 1) Continued maintenance dredging with beach disposal is consistent, but should include optimization of dredging cycles to facilitate sand bypassing. Efforts should be made to identify means to increase sand bypassing from north of the inlet. Management efforts should be undertaken with the State, the Corps of Engineers, and the local sponsor to ensure that maintenance dredging material is placed onto downdrift beaches in an optimal manner. There should also be an allowance for disposal sites to be located in areas of greatest need based on results from long term monitoring and be subject to Department approval.
- 2) Construction of a 200 foot spur jetty on the south jetty is consistent based on the expectation that it will reduce the amount of material migrating back into the navigation channel.

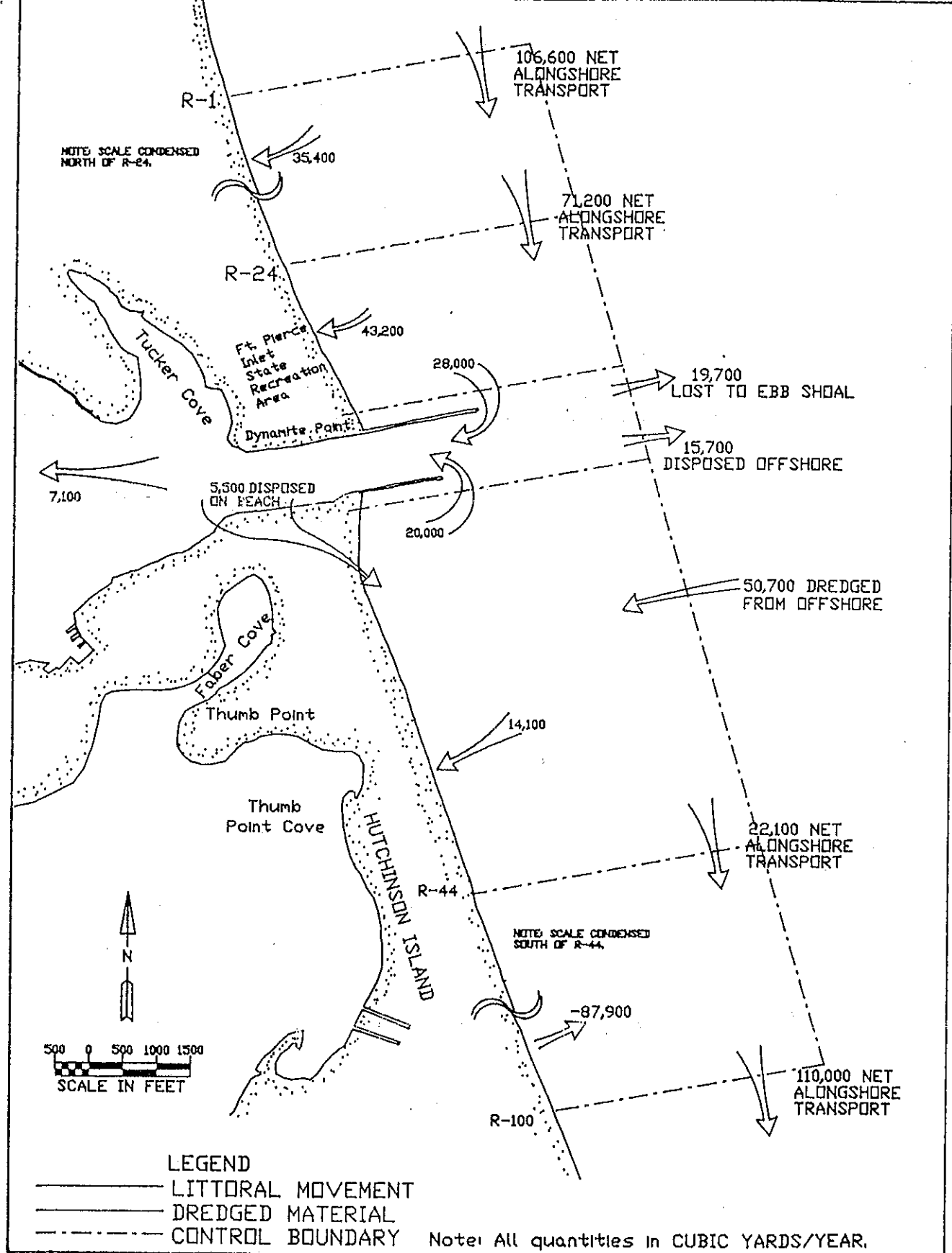


Figure 2

Coastal Planning and
Engineering, Inc.
(1996)

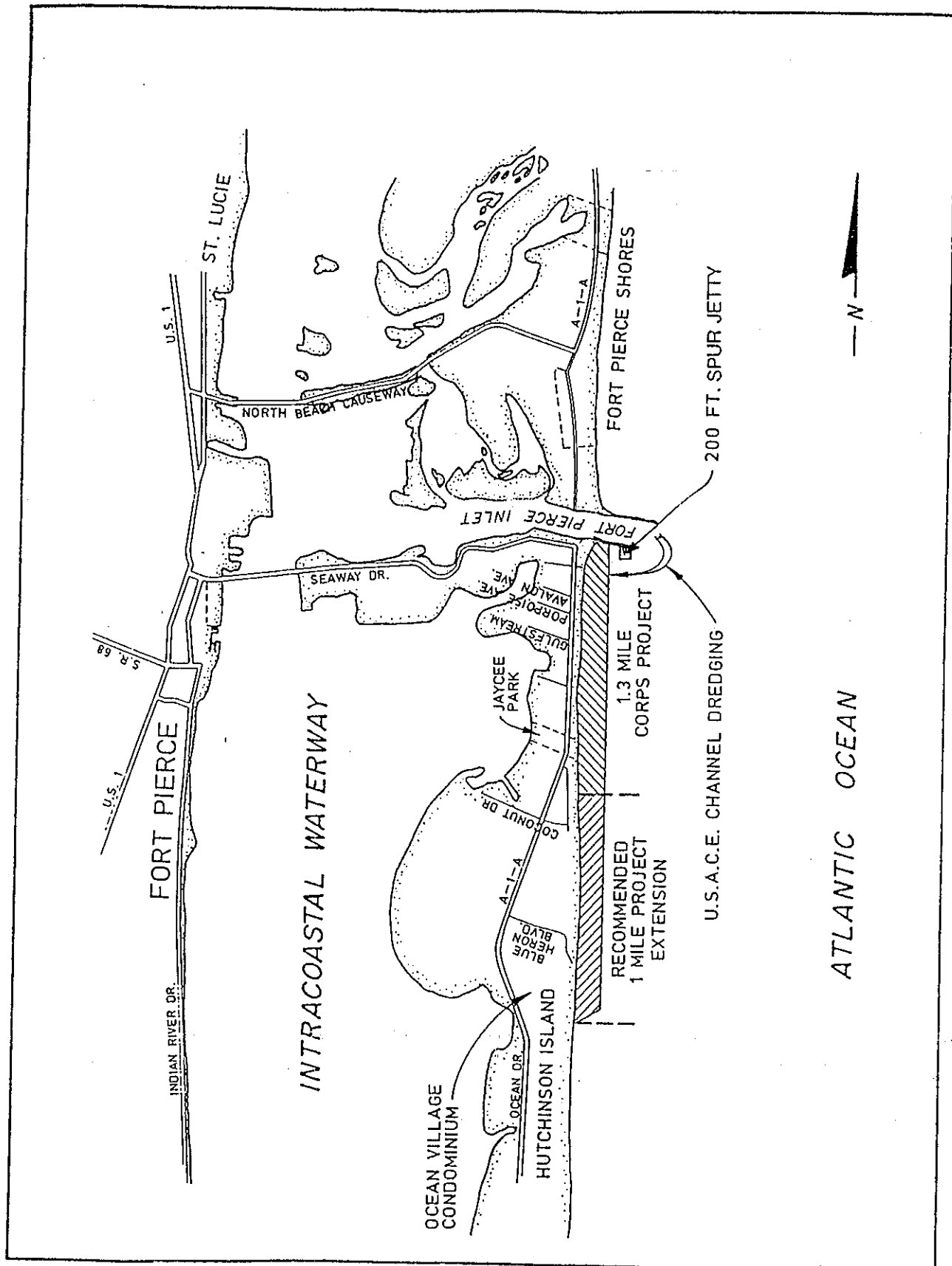


Figure 3

Coastal Planning and
Engineering, Inc.
(1996)

- 3) The initial restoration of 2.3 miles of eroded shoreline south of the inlet is consistent.
- 4) Restoration of the downdrift shoreline from offshore borrow sites is consistent, but subsequent nourishment of the this area from upland or offshore sources shall be considered beach nourishment for the purposes of Chapter 161.101 F.S.
- 5&6) Implementation of a comprehensive beach and offshore monitoring program is consistent, provided that the monitored areas are located within the influence of the inlet and sufficient control areas are established outside of the influence of the inlet.

Recommended Implementation Plan

The Bureau recommends the following implementation plan be adopted to meet the requirements of Chapter 161, Florida Statutes:

- 1) Initial restoration of 2.3 miles of beach south of the inlet.
- 2) Placement of all beach compatible maintenance or offshore dredged material on downdrift beaches. Material shall be placed on beaches in areas of greatest need.
- 3) Placement of supplemental material from upland sources, or dredged from nearshore north of the inlet, or from seaward of depth of closure on the beaches south of the inlet such that the combined total of material from all sources equals or exceeds 130,000 cubic yards on an average annual bases at a minimum.
- 4) Improvement of the south jetty to incorporate a spur jetty or other measures to reduce backflow of material into the inlet.
- 5) The sediment budget contained in the study report is adopted as an interim measure and shall be formally validated or redefined in subsequent revisions of the plan based on a comprehensive monitoring plan by December 31, 2001.
- 6) Implement a comprehensive inlet, beach, and offshore monitoring program subject to approval of the Department.
- 7) Evaluate possible alternatives to facilitate the bypassing of sand from the shoreline north of the inlet to the downdrift beaches.

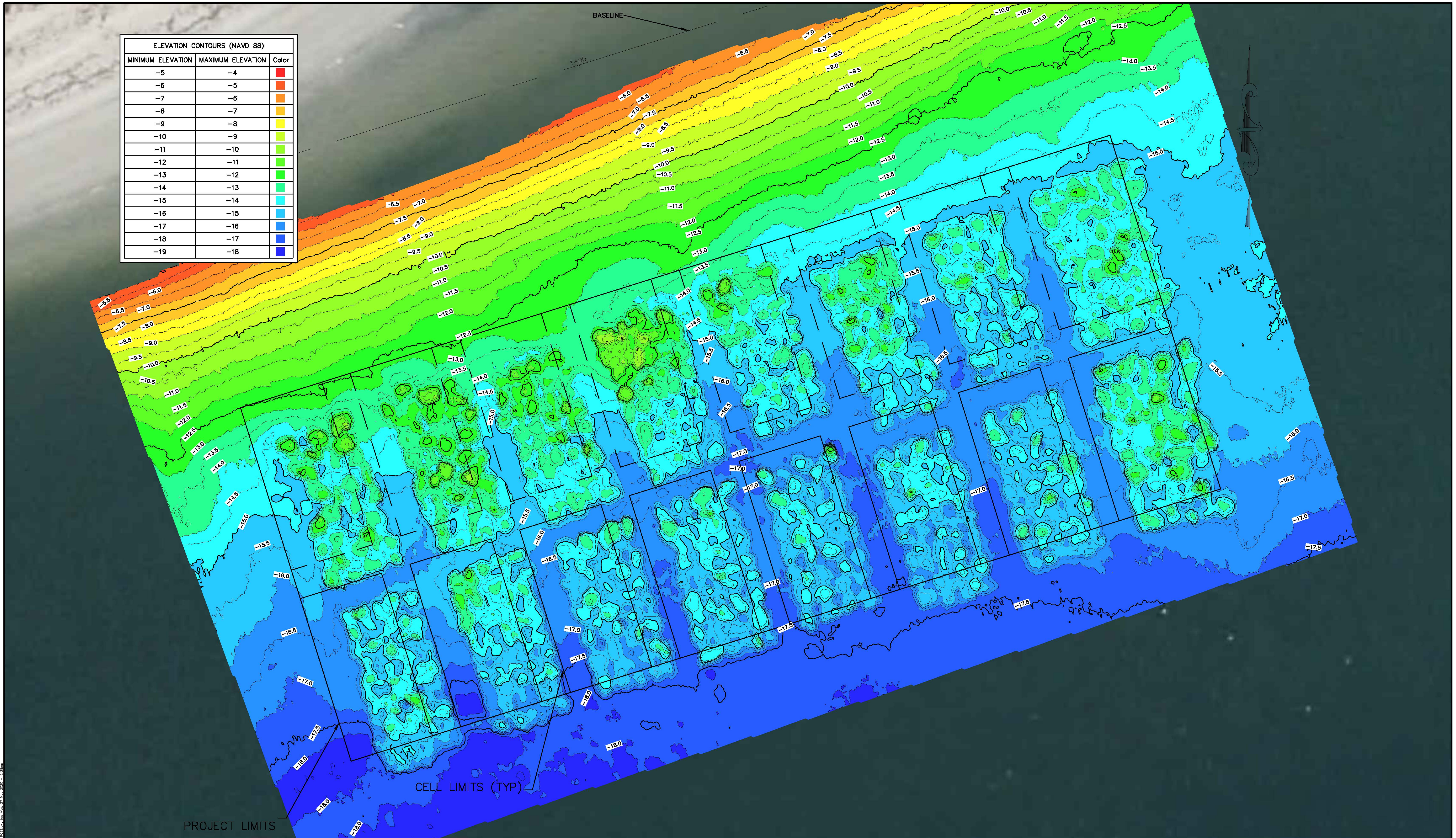
This plan is based on the supporting data contained in the study report, Fort Pierce Inlet Management Plan, Coastal Planning & Engineering, Inc. January, 1996, studies conducted by the U.S. Army Corps of Engineers and comments provided by public agencies and the citizenry of St Lucie County. Each implementation action contained in this plan is subject to further evaluation, and subsequent authorization or denial, as part of the Department's environmental permitting and authorization process. Any action that may affect navigation associated with the inlet shall be consistent with all applicable federal requirements and subject to

authorization from the U. S. Army Corps of Engineers.

The implementation activities identified above shall be eligible for state financial participation subject to Department approval and an appropriation from the Florida Legislature. The level of state funding shall be determined based upon the activity being conducted and Department policy. The Department may choose not to participate financially if the proposed method for implementation is not cost effective or fails to meet the intent of Section 161.142, Florida Statutes.

Nothing in this plan precludes the evaluation and potential adoption of other alternatives or strategies for management at Fort Pierce Inlet.

ELEVATION CONTOURS (NAVD 88)		
MINIMUM ELEVATION	MAXIMUM ELEVATION	Color
-5	-4	Red
-6	-5	Orange
-7	-6	Yellow
-8	-7	Light Green
-9	-8	Green
-10	-9	Light Blue
-11	-10	Blue
-12	-11	Dark Blue
-13	-12	Very Dark Blue
-14	-13	Black
-15	-14	Black
-16	-15	Black
-17	-16	Black
-18	-17	Black
-19	-18	Black



0 10' 20'
HORIZONTAL SCALE 1" = 10'
INTENDED DISPLAY SCALE



Morgan & Eklund Inc.

PROFESSIONAL SURVEY CONSULTANTS

4909 US HIGHWAY #1
VERO BEACH, FL 32967
PHONE: (772) 388-5364
FAX: (772) 388-3165

1612 NW 2ND AVENUE
SUITE 3
BOCA RATON, FL 33432
PHONE: (954) 421-6882
FAX: (954) 421-0425
LB #4298

CERTIFICATE OF SURVEYOR - I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS IN ACCORDANCE WITH A RECENT FIELD SURVEY MADE UNDER MY DIRECTION, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 63-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

David W.
Coggin

DAVID W. COGGIN, FSM
PROFESSIONAL LAND SURVEYOR #3520
STATE OF FLORIDA

Digitally signed by David W. Coggin
DN: cn=David W. Coggin, o=Morgan and
Eklund Inc., ou,
email=dwcoggin@morganandeklund.com, c=US
Date: 2020.06.09 15:51:35 -0400

ELEVATION CONTOURS - ENLARGEMENT (NAVD 88)
POST CONSTRUCTION BATHYMETRIC SURVEY
FORT PIERCE INLET MITIGATION REEF
ST LUCIE COUNTY
- FOR -
TAYLOR ENGINEERING, INC.

DRAWN BY
LFP

CHECKED BY
DWC

FIELD BOOK
PAGE NO.
SEE
COVER

DATE OF SURVEY
5/26/20

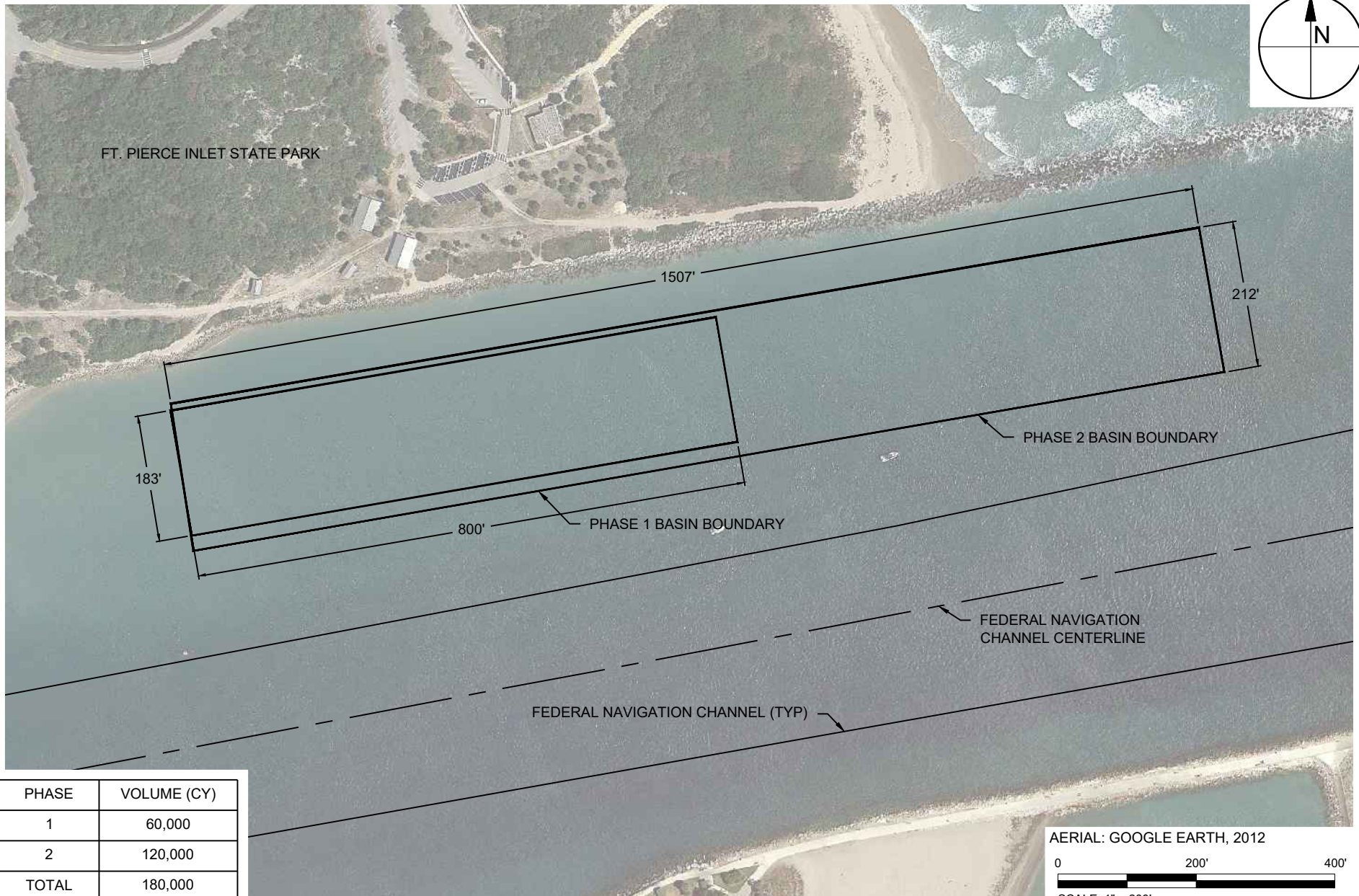
COMMISSION NO.
35304-7

SCALE
1" = 10'

DATE
5/27/20

SHEET 3 OF 4

ANTON X:\S\PROJECTS\2012\007 FT PIERCE INLET SAND TRAP\PERMIT\REV2014\SUBMITTAL\TRAP PLAN WITH PHASE1.DWG 9/29/2016 10:55:08 AM



TAYLOR ENGINEERING INC.

10151 DEERWOOD PARK BLVD.
BLDG. 300, SUITE 300
JACKSONVILLE, FL 32256
CERTIFICATE OF AUTHORIZATION # 4815

FT. PIERCE INLET SEDIMENT DEPOSITION BASIN
PHASE 1 AND PHASE 2 BASIN BOUNDARIES
ST. LUCIE COUNTY, FLORIDA

PROJECT C2012-007

DRAWN BY AF

SHEET

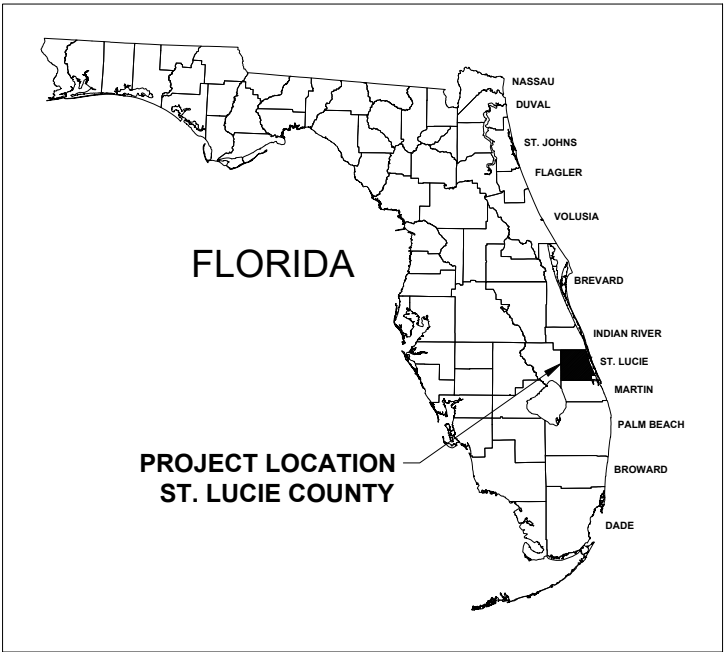
DATE SEPT 2016

SEAL

MICHAEL E. TRUDNAK P.E.# 58200

DATE

PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.



LOCATION MAP
N.T.S.

FORT PIERCE INLET SAND TRAP

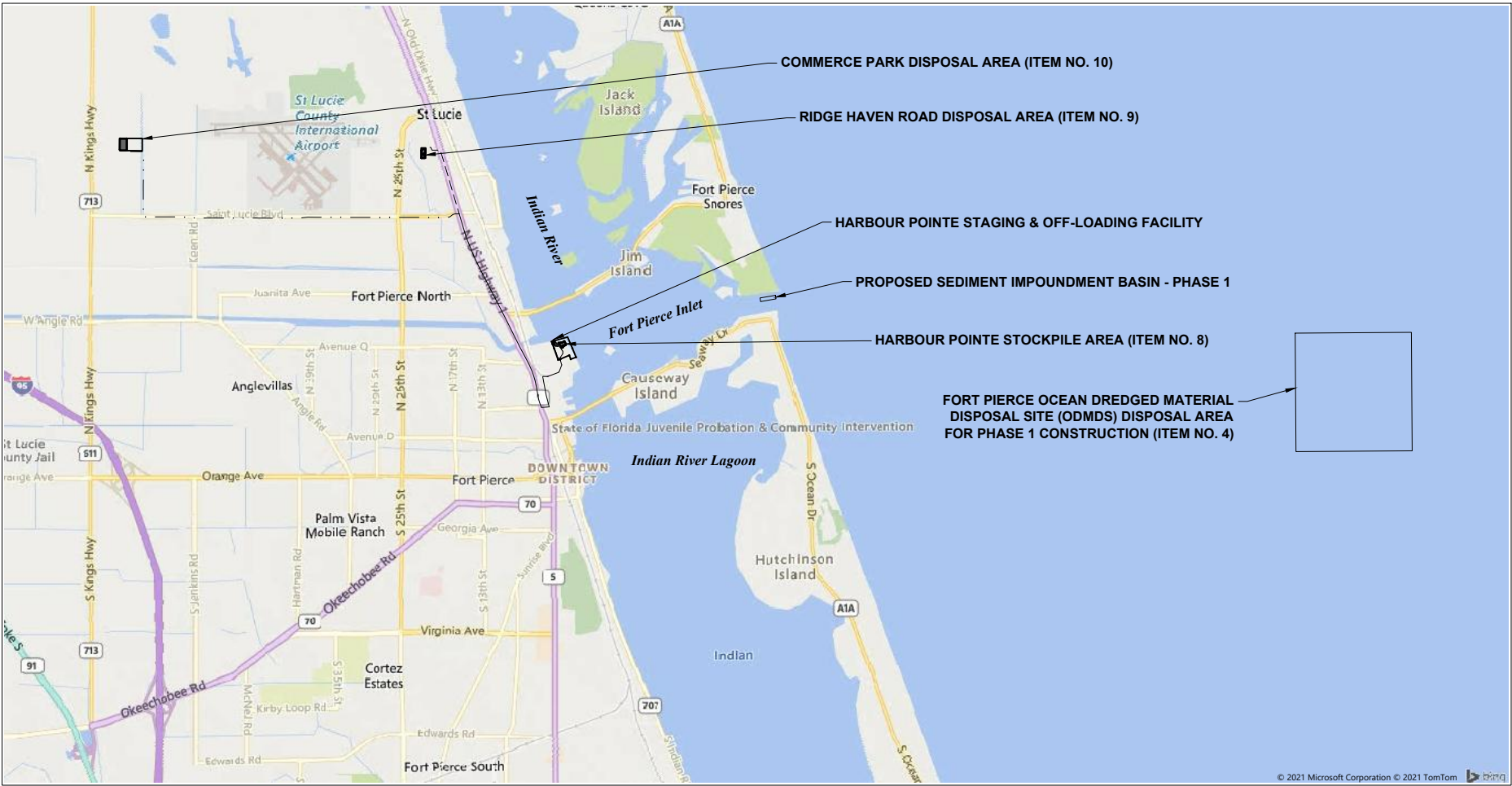
ST. LUCIE COUNTY, FLORIDA



ST. LUCIE COUNTY EROSION DISTRICT BOARD
FRANNIE HUTCHINSON, CHAIR
CATHY TOWNSEND, VICE-CHAIR
LINDA BARTZ
CHRIS DZADOVSKY
SEAN P. MITCHELL

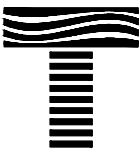
DRAWING INDEX

- C-1 COVER SHEET
- C-2 GENERAL NOTES AND PROJECT OVERVIEW
- C-3 SEDIMENT IMPOUNDMENT BASIN PLAN
- C-4 SEDIMENT IMPOUNDMENT BASIN SECTIONS
- C-5 HARBOUR POINTE STOCKPILE AREA (ITEM NO. 8)
- C-6 TRUCK HAUL ROUTES TO DISPOSAL AREAS
- C-7 RIDGE HAVEN ROAD AND COMMERCE PARK DISPOSAL AREAS (ITEM NO. 9 & ITEM NO. 10)
- C-8 EROSION CONTROL DETAILS



VICINITY MAP
1"= 4,000' (22x34)
1"= 8,000' (11x17)

Call 811 before you dig.

 TAYLOR ENGINEERING INC. 10199 SOUTHSIDE BLVD SUITE 310 JACKSONVILLE, FLORIDA 32256 (904)-731-7040	PRELIMINARY DRAWINGS: THESE DRAWINGS ARE NOT IN FINAL FORM, BUT ARE BEING TRANSMITTED FOR AGENCY REVIEW.		SEAL
	PROJECT TITLE		
	FORT PIERCE INLET SAND TRAP ST. LUCIE COUNTY, FLORIDA		KENNETH R. CRAIG II P.E.# 52605
	PROJECT NO	C2019-064	C-1 SHEET 1 OF 8
DATE	FEB 2021		

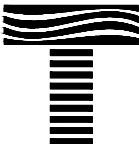
GENERAL NOTES

- BATHYMETRIC SURVEY OF FORT PIERCE INLET PROVIDED BY MORGAN & EKLUND INC., DATED AUGUST 29, 2018.
- COORDINATES ARE REFERENCED TO FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE N.A.D. 1983.
- ALL ELEVATIONS ARE IN FEET AND REFERENCED TO N.A.V.D. 1988.
- AERIAL REFERENCE OBTAINED FROM GOOGLE EARTH 2012.
- STAGING AREA: HARBOUR POINTE

PROJECT DESCRIPTION

- THE PROJECT WORK CONSISTS OF DREDGING APPROXIMATELY 65,000 CUBIC YARDS OF PREDOMINANTLY MEDIUM GRAINED SAND (WITH SILT, SHELL, AND ROCK) BY HYDRAULIC CUTTER SUCTION, MECHANICAL, OR HOPPER DREDGE TO CONSTRUCT A SEDIMENT IMPOUNDMENT BASIN INSIDE FORT PIERCE INLET, ST. LUCIE COUNTY, FLORIDA. CONTRACTOR SHALL ANTICIPATE DIFFICULT EXCAVATION CONDITIONS.
- FOR THE PURPOSE OF THIS BID, THE OWNER ANTICIPATES AWARDED DISPOSAL OF MATERIAL AT EITHER ODMDS ONLY OR UPLAND DISPOSAL AREAS ONLY. AT NO POINT DOES THE OWNER INTEND TO AWARD BOTH ODMDS AND UPLAND DISPOSAL OPTIONS.
- THE CONTRACTOR SHALL FORMULATE BIDS BASED ON TRANSPORT AND DISPOSAL OPTIONS LISTED BELOW:
 - OFFSHORE DISPOSAL
 - WITHIN THE FORT PIERCE OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS) LOCATED APPROXIMATELY FOUR MILES OFF-SHORE
 - UPLAND DISPOSAL
 - TRANSPORTED TO HARBOUR POINTE OFFLOADING FACILITY AND STOCKPILED IN THE ADJACENT STOCKPILING AREA (ITEM NO.8) AS PRESENTED ON CONSTRUCTION DRAWINGS. THE OWNER WILL THEN ASSUME RESPONSIBILITY OF THE MATERIAL.
 - TRANSPORTED TO HARBOUR POINTE OFFLOADING FACILITY AND TRANSPORTED VIA HAUL TRUCK TO RIDGE HAVEN ROAD UPLAND DISPOSAL AREA (ITEM NO. 9) AS PRESENTED ON CONSTRUCTION DRAWINGS AND TECHNICAL SPECIFICATIONS.
 - OFFLOADED AT HARBOUR POINTE AND TRANSPORTED VIA TRUCK TO COMMERCE PARK (AIRPORT) UPLAND DISPOSAL AREA (ITEM NO.10) AS PRESENTED ON CONSTRUCTION DRAWINGS AND TECHNICAL SPECIFICATIONS.
- THE CONTRACT WILL INCLUDE DREDGING, TRANSPORT, AND PLACEMENT OF DREDGED MATERIAL PAYABLE AS A UNIT COST ITEM PER CUBIC YARD DREDGED, FOR THE PURPOSE OF BIDDING AND PROJECT PLANNING, THE ESTIMATED VOLUME TO BE EXCAVATED IS 65,000 CUBIC YARDS; HOWEVER, PROJECT CONSTRUCTION MAY ENTAIL DREDGING SLIGHTLY MORE OR LESS AT THE TIME OF CONSTRUCTION.

- THE ESTIMATED VOLUME OF DREDGE MATERIAL TRANSFERRED TO EACH RESPECTIVE UPLAND DISPOSAL AREA IS AT THE DISCRETION OF THE OWNER. THE OWNER OR ENGINEER WILL DIRECT THIS PLACEMENT AT THE TIME OF CONSTRUCTION DEPENDING ON MATERIAL QUALITY. THE BID SCHEDULE IDENTIFIES ESTIMATED VOLUMES FOR EACH UPLAND DISPOSAL OPTION; HOWEVER, THE OWNER MAY CHANGE THESE VOLUMES AT ANY TIME DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE AWARE THAT ESTIMATED VOLUMES TRANSFERRED TO UPLAND DISPOSAL AREAS ARE INVERSELY PROPORTIONAL TO EACH OTHER. IN OTHER WORDS, IF THE OWNER DIRECTS ADDITIONAL VOLUME TO RIDGE HAVEN UPLAND DISPOSAL AREA, THIS WILL DECREASE THE VOLUME ESTIMATED FROM THE OTHER UPLAND DISPOSAL OPTIONS.
- THE CONTRACT WILL INCLUDE DREDGING, TRANSPORT, AND PLACEMENT OF DREDGED MATERIAL PAYABLE AS A UNIT COST ITEM PER CUBIC YARD DREDGED, AS WELL AS MOBILIZATION/DEMOLITION, ENVIRONMENTAL PROTECTION, RECORD DRAWINGS, AND SURVEYS. NOTE THAT THE AUGUST 2018 SURVEY OF THE PROJECT AREA APPEARS IN THE DRAWINGS. THIS SURVEY IS AVAILABLE TO THE CONTRACTOR UPON REQUEST. THE DESIGN ELEVATION OF SAND TRAP DREDGING IS -32 FT-NAVD88, WITH A VERTICAL TOLERANCE OF ±0.5 FT. THE HORIZONTAL LIMITS ARE SHOWN ON THE DRAWINGS.
- THE CONTRACTOR SHALL PERFORM PRE- AND POST-DREDGE SURVEYS OF THE SAND TRAP FOR THE PURPOSE OF ESTABLISHING CONTRACT FINAL PAY QUANTITIES AND VERIFYING EXCAVATION ELEVATIONS AND LOCATIONS.
- PROGRESS PAYMENT WILL BE EVALUATED AND ISSUED AS FOLLOWS:
 - OFFSHORE DISPOSAL
 - CONTRACTOR SHALL SUBMIT PROGRESS DREDGE SURVEYS, SIGNED AND SEALED BY A LICENSED SURVEYOR IN THE STATE OF FLORIDA.
 - UPLAND DISPOSAL
 - CONTRACTOR SHALL COMPLETE AND SUBMIT TOPOGRAPHIC PROGRESS SURVEYS OF STOCKPILES AT FINAL DISPOSAL LOCATION. CONTRACTOR SHALL DETERMINE AN EXPECTED SHRINKAGE/SWELL MATERIAL FACTOR TO ADJUST VOLUMES FROM IN-SITU STATE FOR ENGINEER APPROVAL. PROGRESS PAYMENT SURVEYS SHALL BE SIGNED AND SEALED BY A LICENSED SURVEYOR IN THE STATE OF FLORIDA.
 - SEE NOTE 2.
- THE TOTAL PROGRESS PAYMENT VOLUME ISSUED FOR UPLAND DISPOSAL OPTIONS SHALL NOT EXCEED 90% OF TOTAL ESTIMATED VOLUME TO BE EXCAVATED. FINAL PAYMENT SHALL BE ISSUED BASED ON PRE- AND POST-CONSTRUCTION SURVEY.



TAYLOR ENGINEERING INC.
10199 SOUTHSIDE BLVD
SUITE 310
JACKSONVILLE, FLORIDA 32256
(904)-731-7040

REGISTRY # 4815

KENNETH R. CRAIG II P.E.# 52605

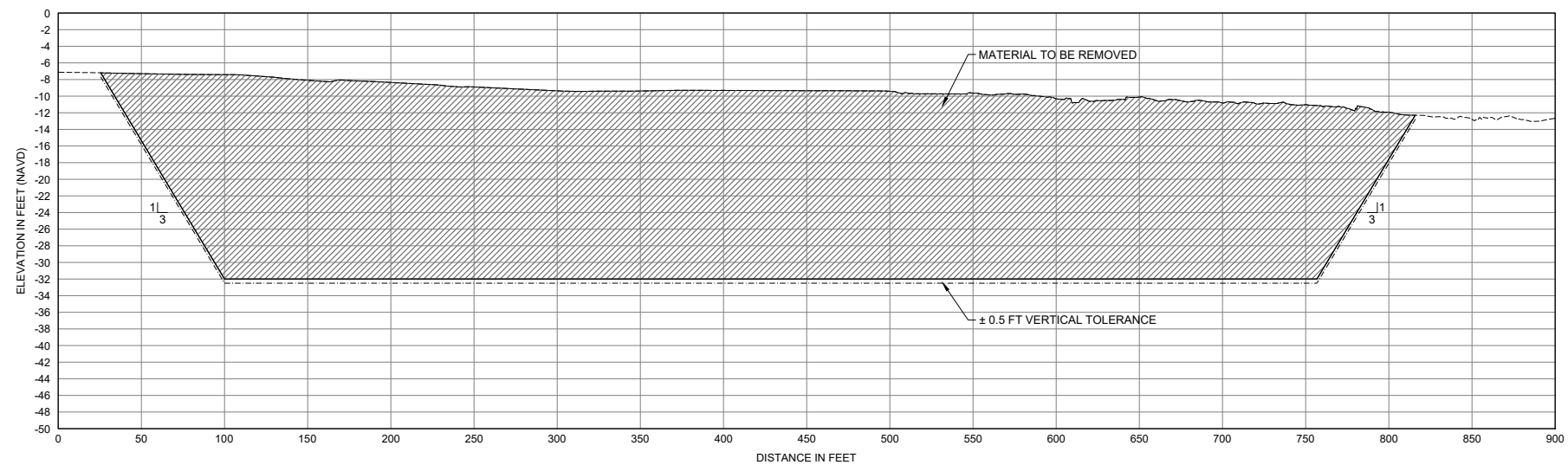
PROJECT TITLE

FORT PIERCE INLET SAND
TRAP
ST. LUCIE COUNTY, FLORIDA

Call 811 before you dig.

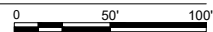
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BASELINE PROFILE

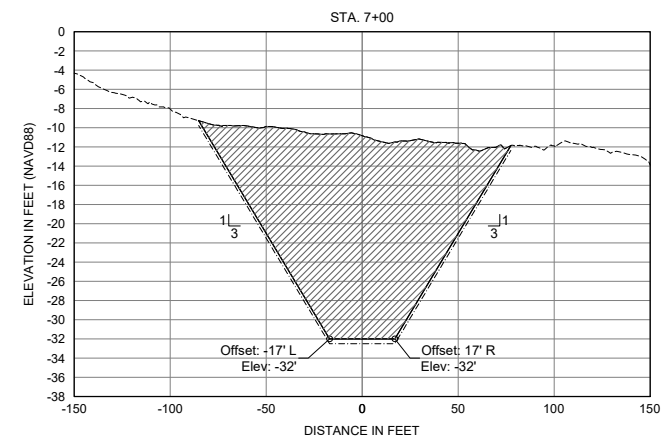
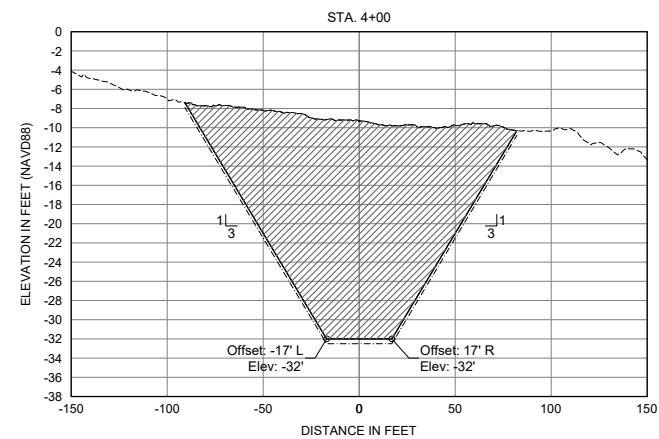
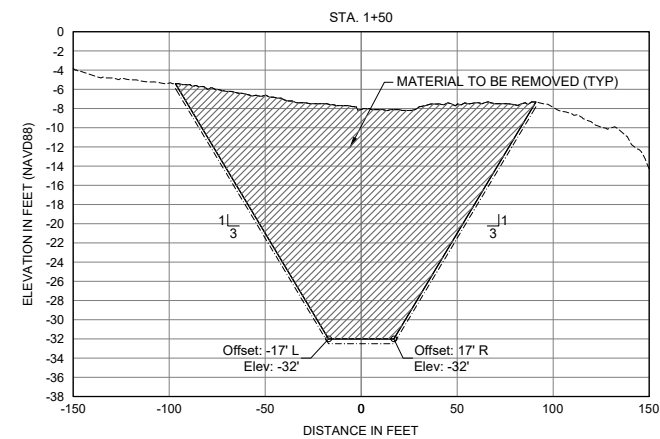
22x34: 1" = 50'
11x17: 1" = 100'
V-SCALE: 1" = 10' (22X34)
V-SCALE: 1" = 20' (11X17)



LEGEND:

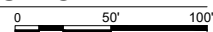
———— INITIAL CONSTRUCTION BOUNDARY
----- AUGUST 29, 2018 SURVEY

NOTE:
THE DESIGN ELEVATION OF SAND TRAP DREDGING IS -32 FT
NAVD88. THE VERTICAL TOLERANCE FOR ACCEPTANCE IS
±0.5 FT; HOWEVER, EXCAVATION VOLUMES BELOW -32 FT
NAVD ARE NOT ELIGIBLE FOR PAYMENT.



CROSS-SECTIONS

22x34: 1" = 50'
11x17: 1" = 100'
V-SCALE: 1" = 10' (22x34)
V-SCALE: 1" = 20' (11x17)



TAYLOR ENGINEERING INC.

10199 SOUTHSIDE BLVD
SUITE 310
JACKSONVILLE, FLORIDA 32256
(904)-731-7040

REGISTRY # 4815

SEAL

KENNETH R. CRAIG II P.E.# 52605

PROJECT TITLE

FORT PIERCE INLET SAND TRAP

ST. LUCIE COUNTY, FLORIDA



PRELIMINARY DRAWINGS: THESE DRAWINGS
ARE NOT IN FINAL FORM, BUT ARE BEING
TRANSMITTED FOR AGENCY REVIEW.

[illegible]

PROJECT NO	C2019-064
DATE	FEB 2021
DESIGNED	KRC
DRAWN	CAS
CHECKED	CHECKBY
REVIEWED	JB
SCALE	AS SHOWN

DRAWING TITLE

SEDIMENT IMPOUNDMENT BASIN SECTIONS

C-4

SHEET 4 OF 8



- GENERAL NOTES:
1. NO TREES ARE TO BE REMOVED OR IMPACTED UNLESS APPROVED BY THE OWNER.
 2. CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL AND STORMWATER PREVENTION MEASURES AT ALL TIMES IN STRICT ACCORDANCE WITH PERMITS.
 3. ESTIMATED VOLUMES PRESENTED ON THIS SHEET ARE APPROXIMATE AND PRELIMINARY IN NATURE.



REGISTRY # 4815

SEAL

KENNETH R. CRAIG II P.E.# 52605

PROJECT TITLE

FORT PIERCE INLET SAND
TRAP
ST. LUCIE COUNTY, FLORIDA



PRELIMINARY DRAWINGS: THESE DRAWINGS
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[illegible]

PROJECT NO	C2019-064
DATE	FEB 2021
DESIGNED	KRC
DRAWN	CAS
CHECKED	CHECKBY
REVIEWED	JB
SCALE	AS SHOWN

DRAWING TITLE

RIDGE HAVEN ROAD AND
COMMERCE PARK DISPOSAL AREAS
(ITEM NO. 9 & ITEM NO. 10)

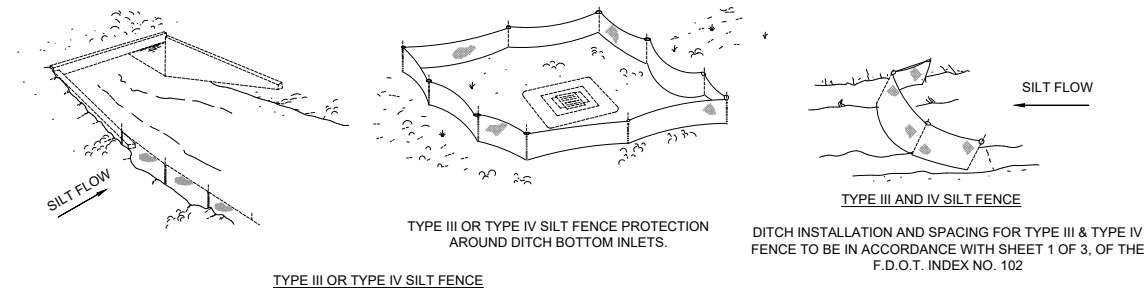
C-7

SHEET 7 OF 8



CATHY SHELL, 6/22/2021 10:31:55 AM, X:\sys\Projects\2012-007 F1 Pierce Inlet Sand Trap\Construction\2019-064\2019-064-C-Disposal Sites.dwg

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION CONTROL MEASURES AS NECESSARY TO COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS AND COMPLY WITH STATE WATER QUALITY CRITERIA FOR STORMWATER DISCHARGE. EROSION CONTROL MEASURES INCLUDE BUT ARE NOT LIMITED TO TURBIDITY SCREENS, MULCHING, HAY BALES, AND SILT FENCE. IF A WATER QUALITY VIOLATION OCCURS, THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL DAMAGE AND ALL COSTS WHICH MAY RESULT INCLUDING LEGAL FEES, CONSTRUCTION COSTS, AND FINES.
2. DISTURBED AREAS SHALL BE VEGETATED, FERTILIZED, MULCHED, AND MAINTAINED IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING PERMANENT VEGETATION AT ALL DISTURBED AREAS PER NPDES FINAL STABILIZATION REQUIREMENTS.
4. EROSION CONTROL MEASURES SHALL BE MAINTAINED FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL PERMANENT VEGETATION IS ESTABLISHED.
5. EROSION CONTROL MEASURES SHALL BE PLACED TO CONTAIN ALL POINTS OF DISCHARGE TO SURFACE WATERS OR WETLANDS INCLUDING CURB INLETS, DITCH BOTTOM INLETS, DITCHES, AND DOWNSTREAM PORTIONS OF NATURAL DRAINAGE PATHWAYS, STREAMS, CANALS, AND TIDAL WATERS ADJACENT TO CONSTRUCTION.
6. 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR WILL SUBMIT A "NOTICE OF INTENT" TO THE EPA IN ACCORDANCE WITH NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM RULES AND REGULATIONS.
7. 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.
8. 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.



5" MAX
POST SPACING

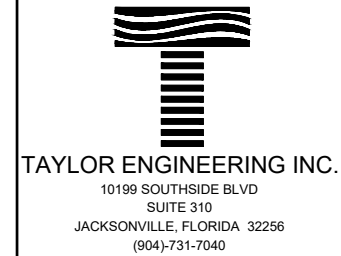
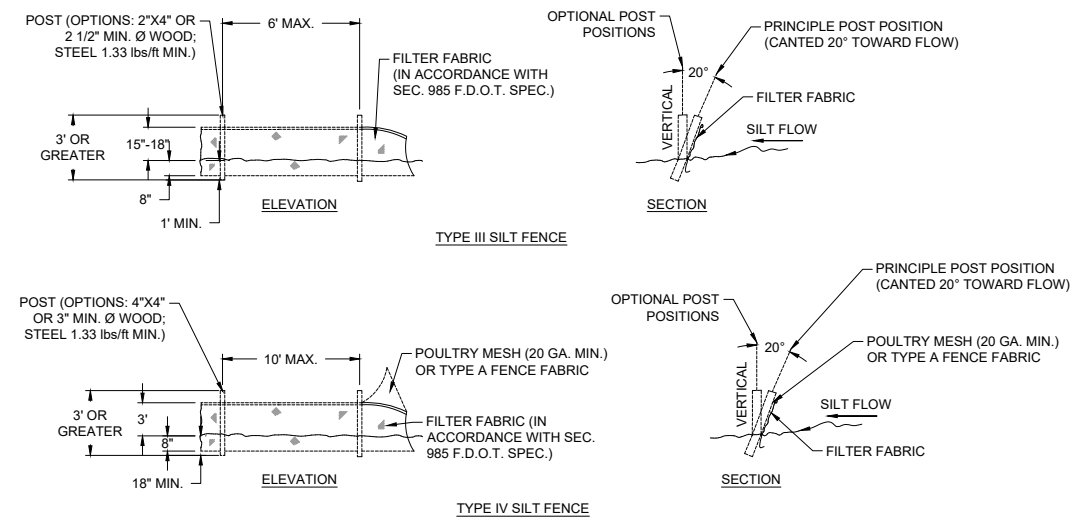
FASTENERS - MIN. NO. 10 GAGE
WIRE OR 50 LB PLASTIC ZIP TIES
MIN. 3 PER POST.

2" MIN

18" MIN. DRIVEN
POST EMBEDMENT

FILTER FABRIC

ELEVATION



FORT PIERCE INLET SAND
TRAP
ST. LUCIE COUNTY, FLORIDA

PRELIMINARY DRAWINGS: THESE DRAWINGS
ARE NOT IN FINAL FORM, BUT ARE BEING
TRANSMITTED FOR AGENCY REVIEW.

PROJECT NO	C2019-064
DATE	FEB 2021
DESIGNED	KRC
DRAWN	CAS
CHECKED	CHECKBY
REVIEWED	JB
SCALE	AS SHOWN

C-8

SHEET 8 OF 8

FDEP Grant 18SL1	
State Share (75%)	\$2,497,815.00
Local Share (25%)	\$832,605.00
Total	\$3,330,420.00
FDEP Grant 18SL1 - To Date Encumbrances (FDEP Approved)	
Work Authorization No 12 (Taylor)	\$77,064.00
Work Authorization No 17 (Taylor)	\$306,568.00
Work Authorization No. 17 (Taylor) - Amend #1	\$49,924.00
Inlet Sand Trap (Phase 1) Mitigation Reef Construction	\$433,493.00
Total	\$867,049.00
FDEP Grant 18SL1 - Remaining Balance	
\$2,463,371.00	
FDEP 2021/2022 Appropriation (Pending)	
\$900,000.00	
Total Grant Funding Available (To-Date)	
\$3,363,371.00	
Lowest Responsible Bidder	
\$4,802,283.20	
Total LGFR Funding Request (2022/2023)	
\$1,438,912.20	



St. Lucie County
Fort Pierce Sediment Impoundment Basin – Phase 1
Bidding Summary
July 30, 2021

BID RECEIVED

St. Lucie County received a total of two bids at 3:00PM on Monday, July 26, 2021 for the above-referenced project.

SUMMARY OF BIDS

On July 27, 2021, St. Lucie County provided Taylor Engineering with the bid packages via separate digital (PDF) documents. Taylor Engineering has reviewed the bid companies and their respective bid submittal. The table below presents the two bidders and Total Bid per disposal option for Ahtna Marine & Construction Company, LLC (Ahtna) and Custom Built Marine Construction, Inc. (Custom Built Marine).

Bidder	Total Bid including 10% Contingency	
Ahtna Marine & Construction Company, LLC	(Offshore Disposal)	\$ 4,802,283.20
	(Upland Disposal)	n/a
Custom Built Marine Construction Inc.	(Offshore Disposal)	\$ 3,448,500.00
	(Upland Disposal)	\$ 3,448,500.00

BIDDER'S CHECK LIST

	Ahtna	Custom Built Marine
5% Bid bond	X	X
Bidder's Checklist and Bid Form	X	X
Two (2) copies of State Certification or County Competency Card	X	X
Non-Collusion Affidavit	X	X
Confirmation of Drug Free Workplace	X	X
Vendor Affidavit Regarding Scrutinized Companies List	X	X
Bidder Qualification Questionnaire	X	Incomplete

BID REVIEW

Working conditions in Fort Pierce Inlet require extensive contractor experience in and around ocean inlets in order to safely execute the work.

Custom Built Marine – provided bids for both the offshore and upland disposal options. Bid totals for both options were identical at \$3,135,000.00. Adding in the 10% contingency results in a final bid for both the

offshore and upland options of \$3,448,500.00. Custom Built Marine failed to provide examples of any inlet-related work as part of the Bidder Qualification Questionnaire. Questions 8 and 10 both require examples of three projects of similar scope and nature. The bid document references a separate sheet which was not provided. In addition, Question 9 requires a Work Plan which also was not provided. Without demonstrable inlet-related project experience or a plan to conduct the work, we consider Custom Built Marine's bid to be both non-responsive and non-responsible.

Ahtna – provided a bid for the offshore disposal option only. The bid total for the offshore options was \$4,365,712.00. Adding in the 10% contingency results in a final bid for the offshore disposal option of \$4,802,283.20. Ahtna provided all required documentation in their bid package. Two of the three projects provided for Question 8 involve work in or around inlets and nearshore areas. Two of the three separate projects provided for Question 10 involve work in or around inlets and nearshore areas while the third project involved port-related dredging. Question 9 requires submittal of a Work Plan. Ahtna submitted a comprehensive Work Plan demonstrating a working knowledge of key issues and challenges involved in inlet-related working conditions.

RECOMMENDATION

During our review, and based on the Bidder's Check List requirements provided in the Contract Documents, we have determined Custom Built Marine Construction Inc. to be a non-responsive, non-responsible bidder based on the following reasons:

- Bidder provided an incomplete Bidder's Qualification Questionnaire. Bid Submittal did not include any project experience.
- Bidder did not include a work plan in Bid Submittal

Conversely, Ahtna's bid proved to be comprehensive and clearly demonstrated that they are both responsive and responsible.

Given 1) the project's history (County's fourth bidding attempt), 2) our understanding that sufficient funds are likely available from the combination of St. Lucie County and the Florida Department of Environmental Protection, and 3) the significant need to move this project forward to allow other critical components of the County's beach management plans to proceed, Taylor Engineering recommends award to **Ahtna Marine & Construction Company, LLC**.

During your review, please let me know if you have any questions or concerns.

Sincerely,



Kenneth R. Craig, P.E.
Senior Vice President