



Beach Management Funding Assistance Program  
FY 2021/22 Local Government Funding Request  
Inlet Projects Application

**PART I: GENERAL INFORMATION**

Local Sponsor

Local Sponsor Federal ID Number (FEID)

Contact Name  Title

Mailing Address Line 1

Mailing Address Line 2

City  Zip Code  Telephone Number

Email Address

Additional Contact Information

Alternate Contacts:  
Bruce Westberry, Fiscal Manager  
Mike Campbell, Project Manager  
239-533-8109

**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  Date



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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)

Blind Pass (Lee County) Bypassing

**2. Project Description:** Include county, location with reference to FDEP range monuments, brief project history, and description of proposed activities. Note: The box will expand as needed. To expand for printing purposes, click anywhere outside the box when complete.

Blind Pass is located in Lee County on the southwest coast of Florida connecting the Gulf of Mexico with Pine Island Sound. The inlet separates Captiva Island to the north and Sanibel Island to the south. Lee County maintains Turner Beach Park, immediately north of Blind Pass on Captiva Island, and a bridge crossing Blind Pass, which provides the only vehicular access to Captiva Island from Sanibel Island and the mainland. Blind Pass has had one of the most complicated geomorphological histories of any Florida inlet, which has seen multiple closures and openings over time.

The Department and Lee County sponsored a study in 2017-2018, to update the inlet's sediment budget and develop improved strategies for maintaining a more stable inlet while addressing chronic erosion conditions of northern Sanibel Island. This study included a literature review, data collection, development of a sediment budget, and an inlet management alternatives analysis with advanced numerical modeling to develop feasible inlet management strategies. Conceptual designs were evaluated individually and in combination employing the numerical model Delft3D. Study guidance was provided by a Technical Advisory Committee made up of representatives of Lee County, the City of Sanibel Island, the Captiva Erosion Prevention District, and the Department.

A comprehensive analysis was conducted of preliminary alternatives, which included various options involving beach fill, deposition basins, channel dredging, changes to the Captiva Island terminal groin, constructing various structures on northern Sanibel Island, adding a spur to the existing terminal groin, and conducting no action. Following this analysis, the most effective and feasible components of the preliminary alternatives were combined into three final alternatives for further study. These final alternatives included combinations of a truncated entrance channel dredge template, dredging connections to Pine Island Sound, placing beach fill on northern Sanibel Island, and adding a spur structure to the west end of the existing terminal groin on Captiva Island. Morphology, volumes, channel stability, and storm response were evaluated. While morphological trends were similar and benefits comparable for each final alternative, there were some differences in magnitude of changes. The final study recommendations were affirmed in the IMP adopted August 2019 which calls for the following: comprehensive monitoring; truncated seaward dredge template; Sanibel Island beach fill between R110.5 and R116 bypassing an average of 21,000 cubic yards per year; modified connections to Pine Island Sound with a re-established connection to Sunset Bay and Wulfert Channel extension; shore parallel spur at Blind Pass terminal groin.

This funding will implement bypassing as recommended. The channel will be excavated as suggested by the monitoring indicating approximately 91,500 cubic yards of material have infilled the design template as of August 2020. Truncation of the seaward dredge limit will be implemented as well as a request for a permit modification to adjust the permitted beach template to fill between R110.5 and R116.















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Year	Proposed Phase	Description	Total Estimated Cost	Federal Cost Share	State Cost Share	Local Cost Share
30/31	Monitoring	Year 3 post-construction monitoring	174,000	0	87,000	87,000
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						
30/31						



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**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:

51,000

**8. Severity of erosion**

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

21,000

**9. Balancing the sediment budget**

What is the current annual average of bypassed material (cubic yards) since the adoption of a bypass objective?

n/a

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.

The 2018 inlet management study for Blind Pass developed an updated sediment budget covering the time period from 2009 to 2015. Along the study area, the predominant direction of longshore sediment transport is from north to south. During the time period from 2009 to 2015, approximately 51,000 cubic yards per year of sand were transported from Captiva Island southward to Blind Pass. Northern Sanibel Island south of Blind Pass sustained an annual loss of -14,000 cubic yards of sand between R110.5 and R112, and another -58,000 cubic yards annually between R112 and R116. The sediment budget indicates that the inlet complex captures 21,000 cubic yards of sand per year.



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**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
2008				
2009		136,900	Blind Pass reopening	R112-R114
2010				
2011				
2012		63,300	Blind Pass ebb channel	R116-R118
2013		37,600	Blind Pass flood channel	R112-R113.5
2014				
2015				
2016				
2017		89,700	Blind Pass ebb and flood channel	R112-R114.2; R116-R118
2018				
2019				
<b>Total per method</b>				

Total bypass volume

Years since IMP adoption

Annual average bypass

Bypass objective

Percentage of bypass objective



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10. Increased bypassing and cost-effectiveness

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

n/a, status quo

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

0

Is the proposed project requesting construction phase funds for a major inlet management project component? No

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: Criteria is calculated by the Department.

Annualized beach nourishment volume of proximate beach nourishment project:

13. Active permits

Does the project have an active state permit? Yes

Does the project have an active federal permit? No

Permit number 0265943-003-JM

Permit number SAJ-2006-03865(RWR-MOD)

Authorization date Dec 9, 2011

Authorization date Jan 8, 2016

Expiration date Dec 9, 2026

Expiration date Jan 8, 2019



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**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 November 20, 2020.

Yes

Additional  
comments

4. Maps attached.  
10. OPC attached  
15. Draft resolution attached.



LER-100

LER-101

**Legend**

- Critical
- Critical Inlet
- Noncritical
- Noncritical Inlet

**Layer**

- Inlet AOI
- 2004 ECL
- BEACH PLACEMENT 2012
- BEACH PLACEMENT 2013
- 2017 Bypassing
- IMP Bypass Target







Blind Pass

LE R-104

- Critical
- Critical Inlet
- Noncritical
- Noncritical Inlet

**Layer**

- Inlet AOI
- 2004 ECL
- BEACH PLACEMENT 2012
- BEACH PLACEMENT 2013
- 2017 Bypassing
- IMP Bypass Target





LE R-105

- Critical
- Critical Inlet
- Noncritical
- Noncritical Inlet

**Layer**

- Inlet AOI
- 2004 ECL
- BEACH PLACEMENT 2012
- BEACH PLACEMENT 2013
- 2017 Bypassing
- IMP Bypass Target





**Legend**

- Critical
- Critical Inlet
- Noncritical
- Noncritical Inlet

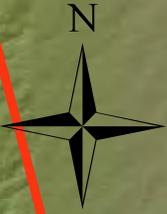
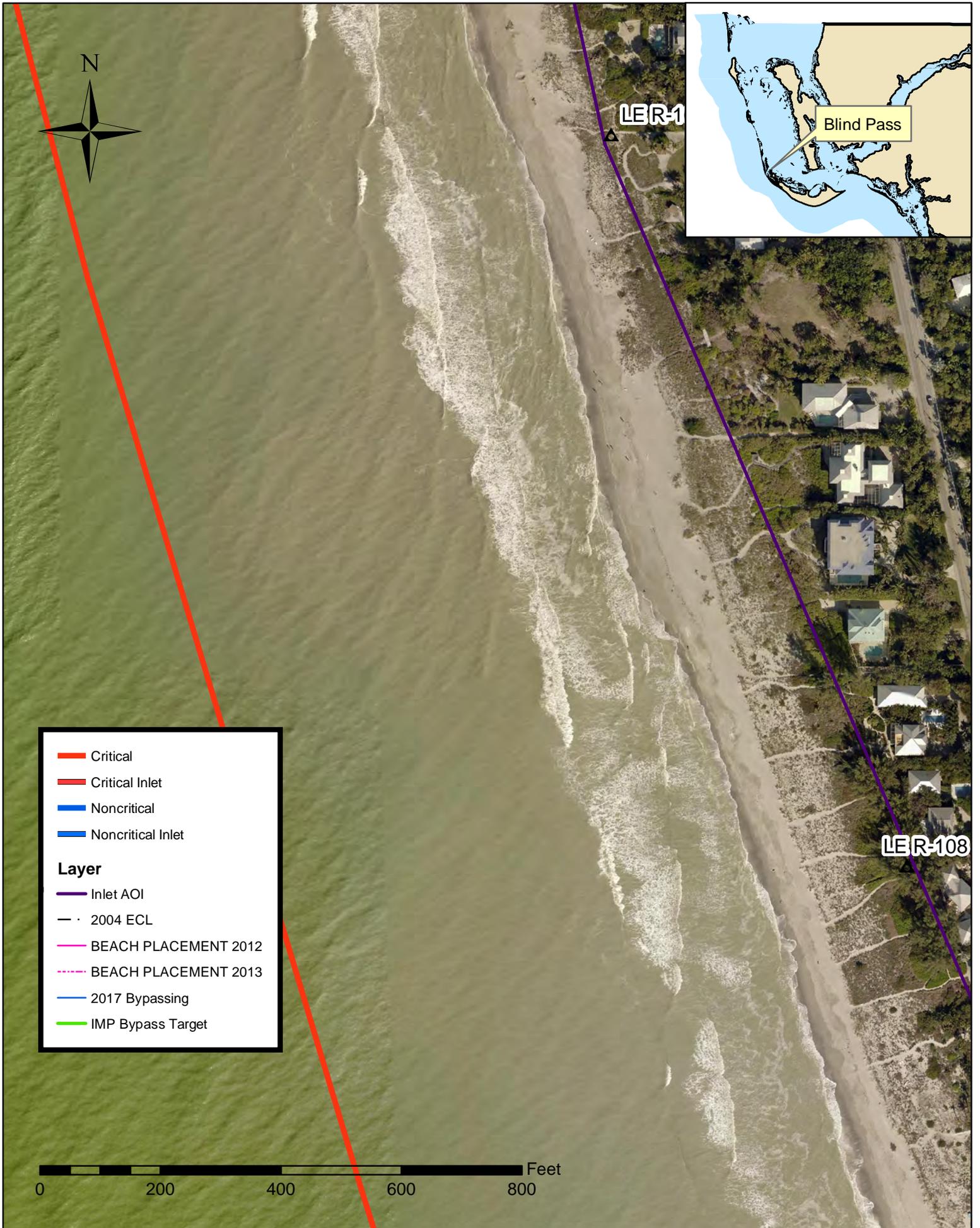
**Layer**

- Inlet AOI
- 2004 ECL
- BEACH PLACEMENT 2012
- BEACH PLACEMENT 2013
- 2017 Bypassing
- IMP Bypass Target



LER-107

0 200 400 600 800 Feet



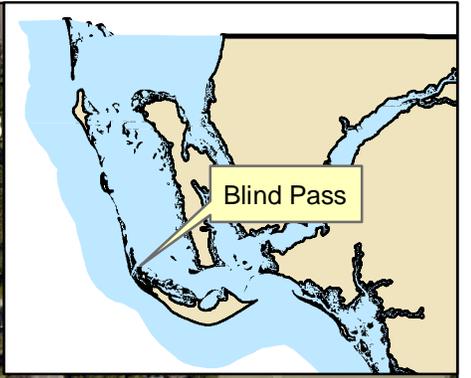
LER-1

Blind Pass

LER-108

	Critical
	Critical Inlet
	Noncritical
	Noncritical Inlet
<b>Layer</b>	
	Inlet AOI
	2004 ECL
	BEACH PLACEMENT 2012
	BEACH PLACEMENT 2013
	2017 Bypassing
	IMP Bypass Target

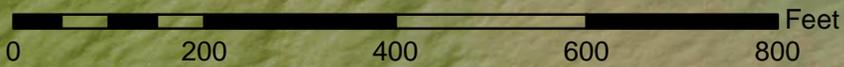


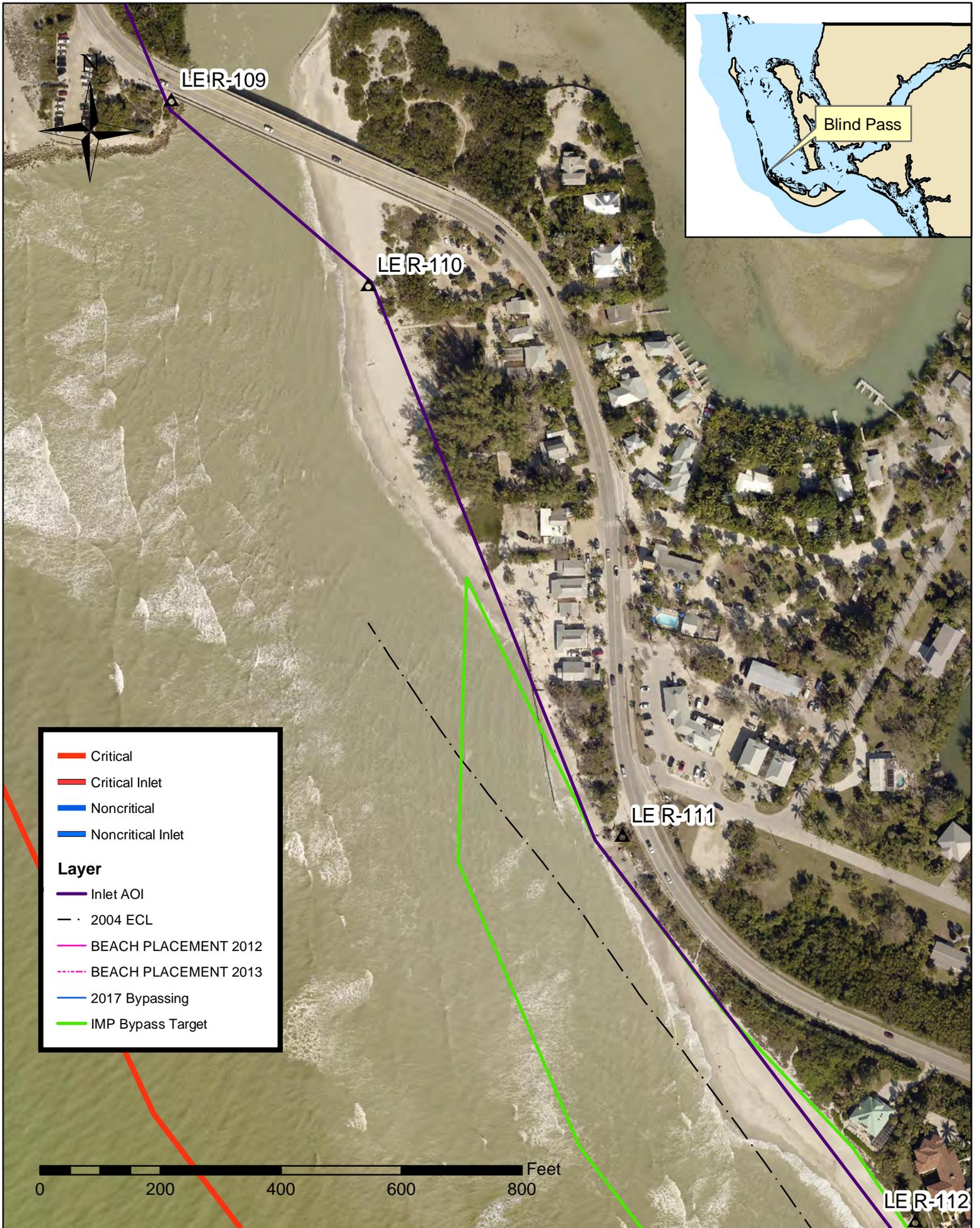


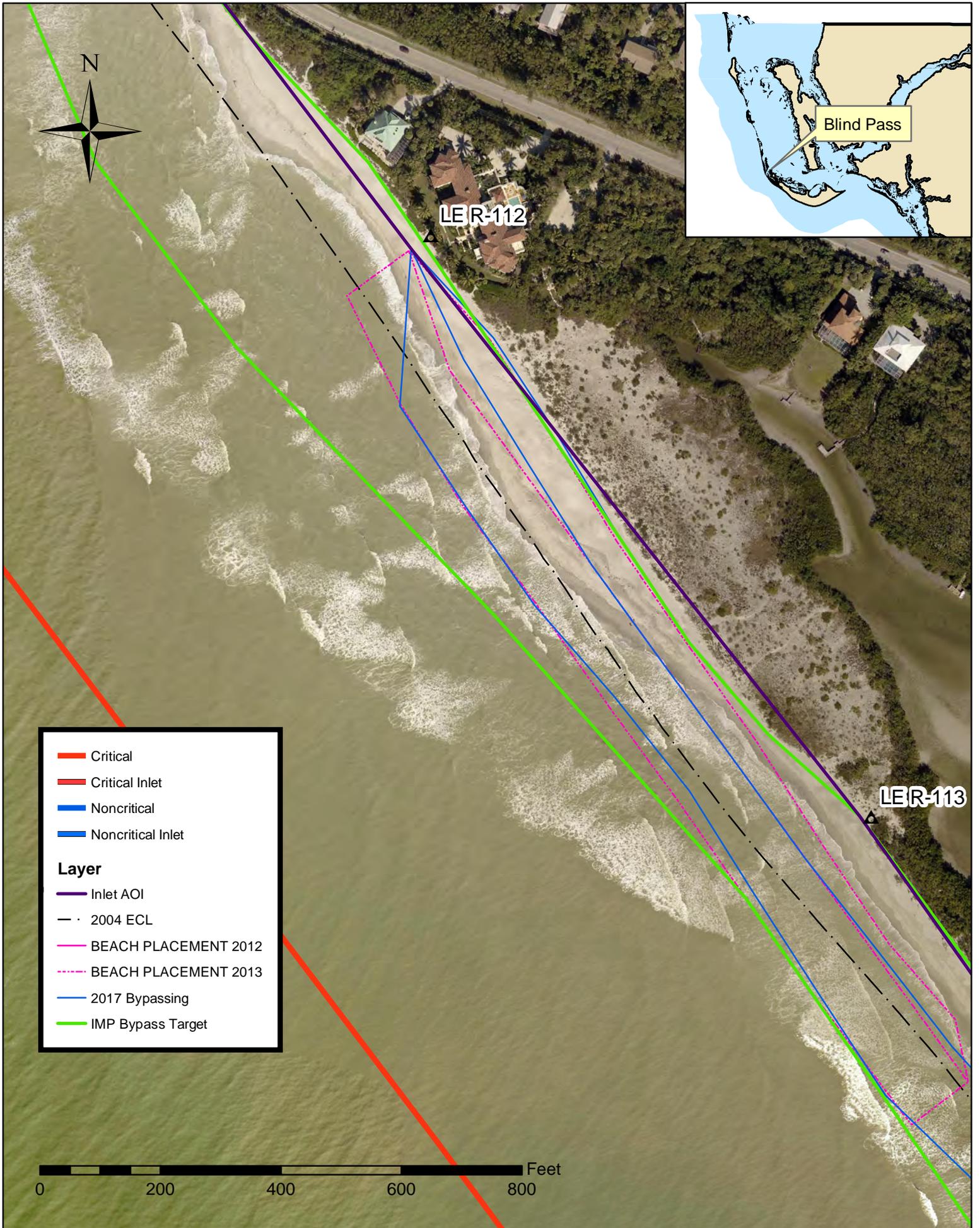
LER-108

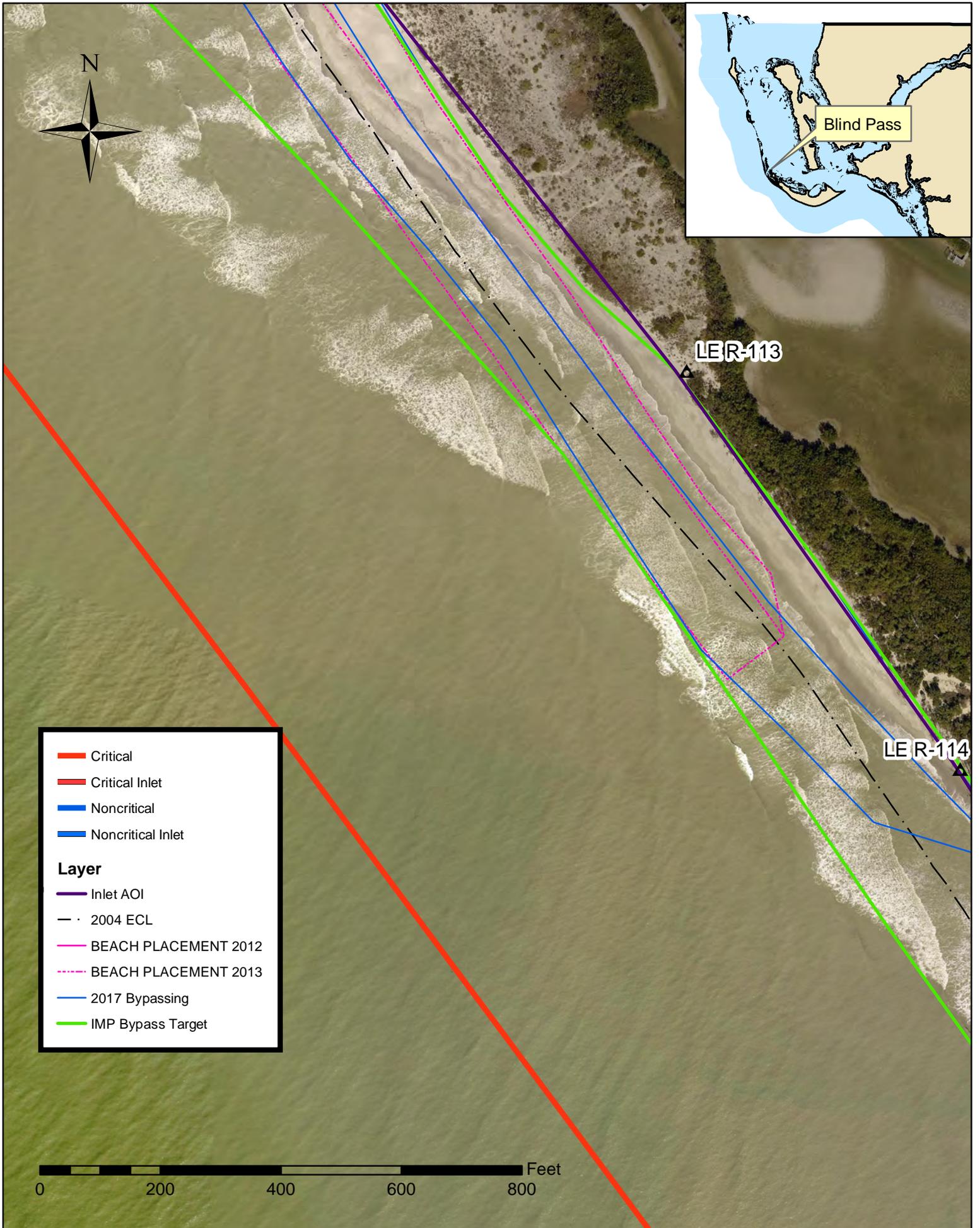
LER-109

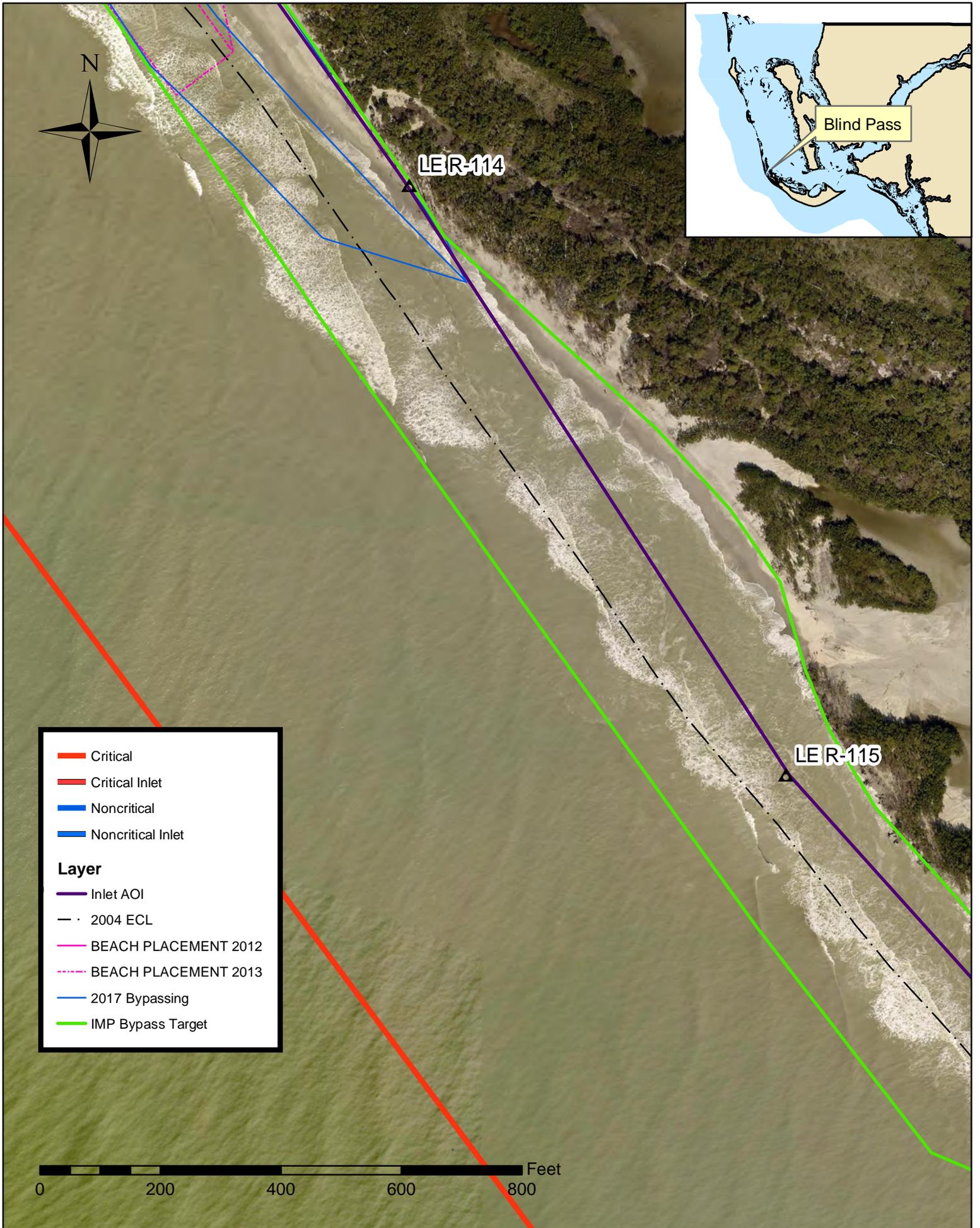
	Critical
	Critical Inlet
	Noncritical
	Noncritical Inlet
<b>Layer</b>	
	Inlet AOI
	2004 ECL
	BEACH PLACEMENT 2012
	BEACH PLACEMENT 2013
	2017 Bypassing
	IMP Bypass Target

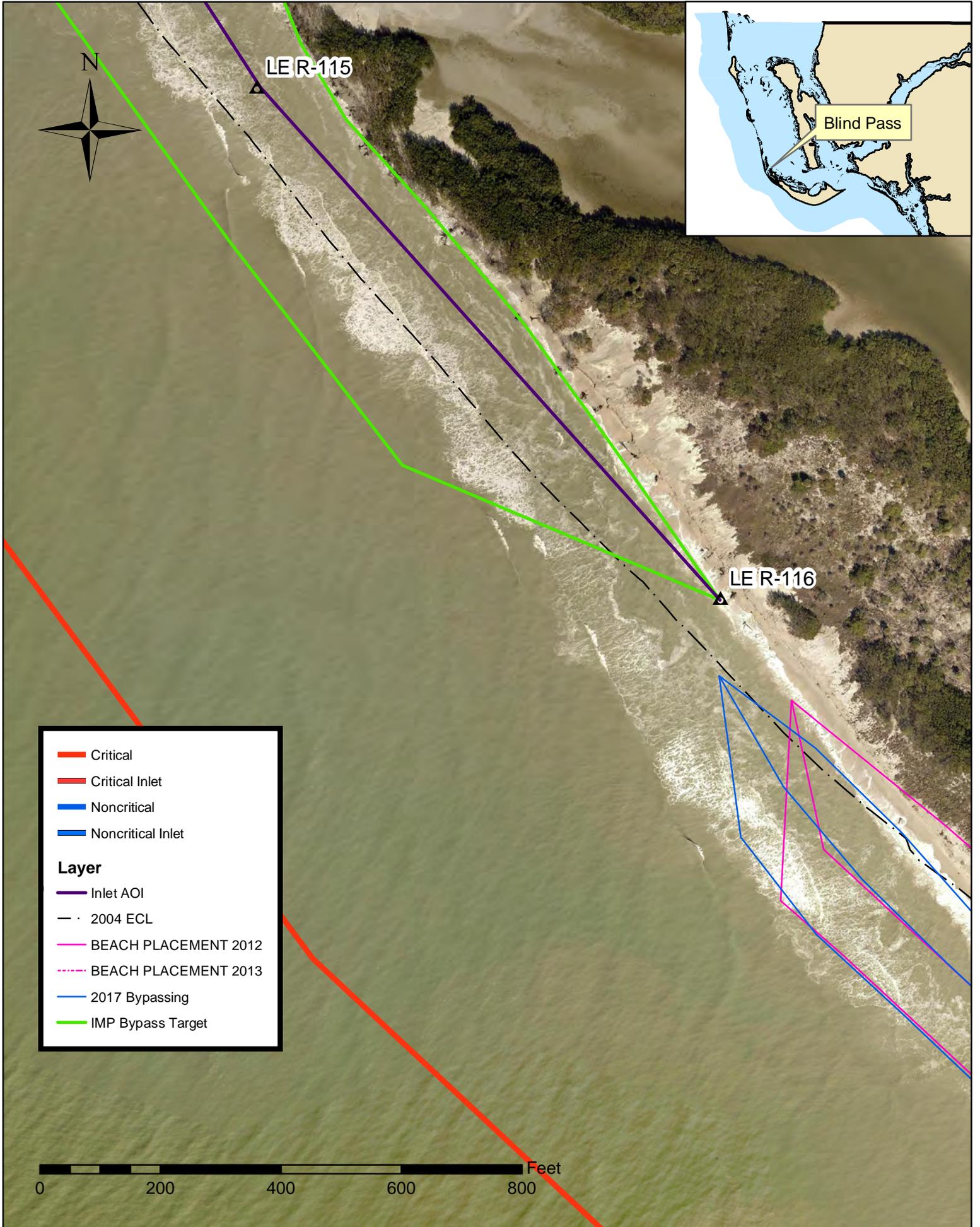












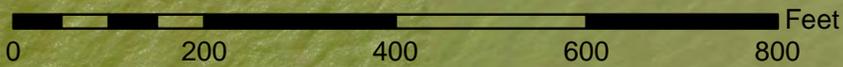


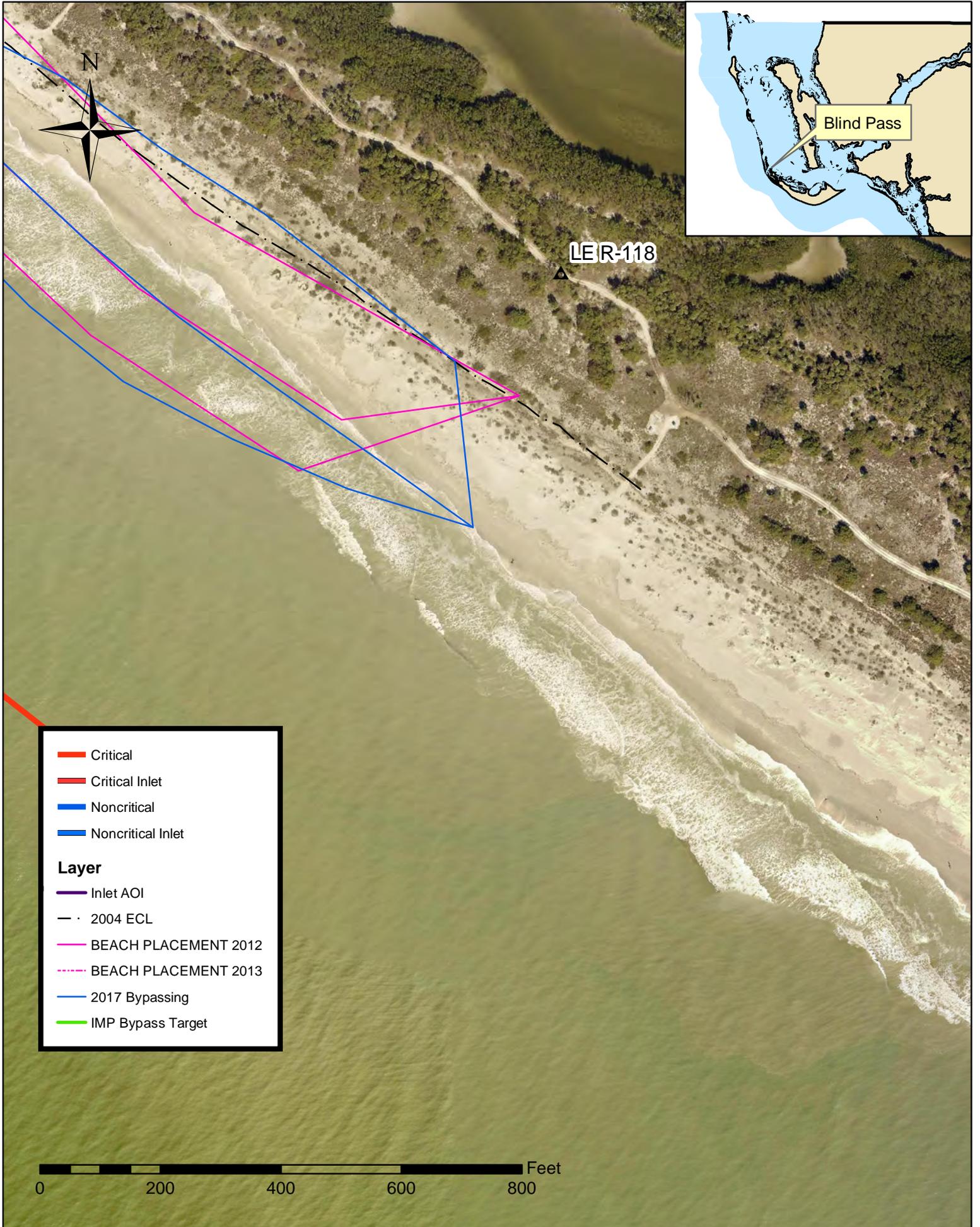
LER-117

- Critical
- Critical Inlet
- Noncritical
- Noncritical Inlet

**Layer**

- Inlet AOI
- 2004 ECL
- BEACH PLACEMENT 2012
- BEACH PLACEMENT 2013
- 2017 Bypassing
- IMP Bypass Target





**BLIND PASS DREDGING AND SANIBEL ISLAND RENOURISHMENT**

OPINION OF PROBABLE CONSTRUCTION COST: INLET SAND SOURCE

ANTICIPATED YEAR OF CONSTRUCTION: FY2021-22

Item	Description	Unit	Quantity	Unit Price	Extended Price <sup>1</sup>
1	Mobilization/Demobilization	LS	1	\$1,022,000	\$1,022,000
2	Beach Fill	CY	97,000	\$11.10	\$1,077,000
3	Environmental Protection	LS	1	\$24,000	\$24,000
4	Turbidity Monitoring	Days	80	\$500	\$40,000
5	Shorebird Abatement	Days	90	\$500	\$45,000
<b>Subtotal</b>					<b>\$2,208,000</b>
<b>10% Contingency</b>					<b>\$221,000</b>
<b>Grand Total</b>					<b>\$2,429,000</b>
<b>Overall Unit Price</b>					<b>\$25.04</b>

**BLIND PASS DREDGING AND SANIBEL ISLAND RENOURISHMENT**

OPINION OF PROBABLE CONSTRUCTION COST: OFFSHORE SAND SOURCE

ANTICIPATED YEAR OF CONSTRUCTION: FY2021-22

Item	Description	Unit	Quantity	Unit Price	Extended Price <sup>1</sup>
1	Mobilization/Demobilization	LS	1	\$7,000,000	\$7,000,000
2	Beach Fill	CY	97,000	\$14.20	\$1,377,000
3	Environmental Protection	LS	1	\$24,000	\$24,000
4	Turbidity Monitoring	Days	13	\$1,000	\$13,000
5	Sea Turtle Observations	Days	13	\$1,240	\$16,000
6	Turtle Trawling	Days	13	\$2,850	\$37,000
7	Shorebird Abatement	Days	23	\$500	\$12,000
<b>Subtotal</b>					<b>\$8,479,000</b>
<b>10% Contingency</b>					<b>\$848,000</b>
<b>Grand Total</b>					<b>\$9,327,000</b>
<b>Overall Unit Price</b>					<b>\$96.15</b>

**BLIND PASS DREDGING AND SANIBEL ISLAND RENOURISHMENT**

OPINION OF PROBABLE CONSTRUCTION COST: UPLAND QUARRY SAND SOURCE

ANTICIPATED YEAR OF CONSTRUCTION: FY2021-22

Item	Description	Unit	Quantity	Unit Price	Extended Price <sup>1</sup>
1	Mobilization/Demobilization	LS	1	\$40,000	\$40,000
2	Beach Fill	CY	97,000	\$34.70	\$3,366,000
3	Maintenance of Traffic	LS	1	\$154,000	\$154,000
4	Environmental Protection	LS	1	\$18,000	\$18,000
5	Turbidity Monitoring	Days	60	\$500	\$30,000
6	Shorebird Abatement	Days	70	\$500	\$35,000
<b>Subtotal</b>					<b>\$3,643,000</b>
<b>10% Contingency</b>					<b>\$364,000</b>
<b>Grand Total</b>					<b>\$4,007,000</b>
<b>Overall Unit Price</b>					<b>\$41.31</b>

<sup>1</sup> Values rounded to the nearest \$1,000



RESOLUTION NO. 20-11-11

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF LEE COUNTY, FLORIDA, APPROVING AND SUPPORTING THE PROPOSED ACTIVITIES AS OUTLINED IN THE 2021/22 LOCAL GOVERNMENT FUNDING REQUEST TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND AFFIRMING THE COUNTY'S COMMITMENT TO PROVIDE LOCAL FUNDING

WHEREAS, beaches provide vital economic, recreational, storm damage reduction, and environmental benefits, and

WHEREAS, Lee County has supported previous federal, state and local initiatives in correcting beach erosion problems throughout the County, and

WHEREAS, Lee County prepared and submitted a Long Range Beach Erosion Control Budget Plan (Budget Plan) in March 1997, and has annually submitted updated information in accordance with guidelines developed by the Florida Department of Environmental Protection, and

WHEREAS, Lee County seeks to update the Budget Plan for the next Florida Department of Environmental Protection Fixed Capital Outlay Legislative Budget Request, and

WHEREAS, Lee County supports the Florida Department of Environmental Protection's beach and coastal management programs in accordance with Section 161.101 and 161.161, Florida Statutes, and

WHEREAS, Lee County supports all components of the Budget Plan consistent with the Lee County Comprehensive Plan and agrees to fund the local government share of all County beach and inlet projects approved for funding by the Florida Legislature in Fiscal Year 2021-2022 through the existing dedicated tourism development tax revenues, special taxing units, or other funding resources as applicable, and

WHEREAS, Lee County agrees to serve as the local sponsor for all County projects identified in the Budget Plan.

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners, Lee County, Florida, that:

Section 1. Lee County is requesting state funding and providing its support for the Blind Pass Inlet Management Plan, Bonita Beach Nourishment, Estero Barriers Inlet Management Study, and the Lovers Key Nourishment Projects, and affirms its ability to provide the local match as necessary to implement state-funded beach and inlet projects as requested.

Section 2. The County hereby supports Project regionalization where possible to conserve sand resources and/or reduce project costs and will work with the Town of Fort Myers Beach to coordinate bidding and construction of the Estero Island Shore

Protection Project, Lovers Key Nourishment, and Bonita Beach Nourishment where possible.

Section 3. The County Manager or Deputy County Manager of the Lee County Board of County Commissioners is hereby authorized to execute change orders and amendments for existing and future grant agreements as previously approved by the Florida Department of Environmental Protection and Lee County Board of County Commissioners under the State of Florida Beach Management Funding Assistance Program that do not result in a change to the local cost share percentage or require a budget amendment resolution.

Commissioner Manning made the motion to adopt the foregoing resolution, seconded by Commissioner Sandelli. The vote was as follows:

John Manning	<u>Aye</u>
Cecil L Pendergrass	<u>Absent</u>
Ray Sandelli	<u>Aye</u>
Brian Hamman	<u>Aye</u>
Frank Mann	<u>Aye</u>

DULY PASSED AND ADOPTED this 10th day of November, 2020.

ATTEST:  
LINDA DOGGETT, CLERK

BY: Joyce Townsend  
DEPUTY CLERK

BOARD OF COUNTY COMMISSIONERS  
LEE COUNTY,

Brian Hamman  
Chairman

APPROVED AS TO FORM FOR THE  
RELIANCE OF LEE COUNTY ONLY

BY: Joseph Adame  
Office of the County Attorney

