

CATEGORICAL EXCLUSION - TYPE 2

PROJECT DEVELOPMENT AND ENVIRONMENT STUDY

STATE ROAD 9 (I-95)

From North of Oakland Park Boulevard (SR 816)
to South of Glades Road (SR 808)
Mileposts 13.742-25.307 and 0.000-2.014



ETDM Number 3330
Broward and Palm Beach Counties
FPID Numbers 409359-1-22-01 and 409355-1-22-01
FAP Numbers 0951-609-I and 0951-608-I
Prepared for:



FDOT DISTRICT FOUR
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

FINAL

AUGUST 2013



Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

July 2, 2013

Mr. David Hawk
Acting Division Administrator
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, FL 32303

Attention: Mr. Mark Clasgens, Transportation Engineer

Dear Mr. Hawk:


SUBJECT: Transmittal of Type 2 Categorical Exclusion for Approval

State Road: SR 9/I-95 Project Development and Environment (PD&E) Study
From North of SR 816/Oakland Park Blvd. to South of SR 808/Glades Rd.
FM#: 409359-1-22-01 and 409355-1-22-01
ETDM#: 3330
County: Broward and Palm Beach

Enclosed are two (2) copies of the Preliminary Engineering Report (PER), Concept Plans and two (2) copies of the Type 2 Categorical Exclusion Report. Also enclosed is a certified transcript for the Public Hearing which was held on Tuesday, April 30, 2013, for the above referenced project (attached to the CATEX II Report). Additional backup documentation is included in the attached CD.

Upon your review and acceptance of these documents, we request your concurrence that this project is properly classified as a Categorical Exclusion as described in 23 CFR 771.115 and 771.117, and that the general project location and design concepts described in these documents are acceptable as allowable in 23 CFR 771.113. Please acknowledge your concurrence with these findings by signing and dating this request below and then returning a signed copy for our project file.

Sincerely,


Gustavo Schmidt, P.E.
District Planning and Environmental Engineer

Concurrence by FHWA:


for FHWA Division Administrator

GS/jt

Enclosures

8 / 27 / 13
Date



Categorical Exclusion – Type 2

State Road 9/Interstate 95 Project Development and Environment Study

Project Study Limits:

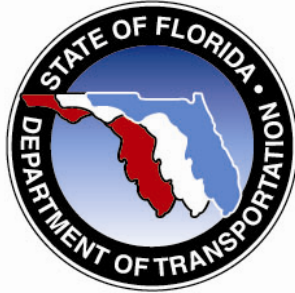
From North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808) in Broward (Mileposts 13.742-25.307) and Palm Beach (Mileposts 0.0-2.014) Counties

ETDM Number 3330

FPID Numbers 409359-1 and 409355-1

FAP Numbers 0951-609-I and 0951-608-I

Prepared for:



FDOT District Four
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

Prepared by:

*The Corradino Group
5200 NW 33rd Avenue, Suite 203
Fort Lauderdale, FL 33309*

AUGUST 2013

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM

1. GENERAL INFORMATION

County: Broward and Palm Beach
 Project Name: State Road 9/Interstate 95 Express Lanes
 Project Limits: From North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808) (Mileposts 13.742-25.307 and 0.000-2.014)
 Project Numbers: ETDM No. 3330
FPID Numbers 409359-1 and 409355-1
FAP Numbers 0951-609-I and 0951-608-I

2. PROJECT PURPOSE AND NEED

- a. Purpose and Need: See ***Attachment 2.A***
- b. Proposed Improvements: See ***Attachment 2.B***
- c. Project Planning Consistency: See ***Attachment 2.C***

Currently Adopted CFP-LRTP	Comments				
Yes	Identified in Broward County MPO, 2035 CFP-LRTP, Project ID 64 – I-95 Managed Lanes from I-595 to Palm Beach County Line; construction funding in Fiscal Years 2021-2025 with \$1,078.7 (year of expenditure dollars in millions)				
409359-2 – From Oakland Park Boulevard to Atlantic Boulevard					
Phase	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	Comments
PE (Final Design)	Yes	Yes	\$1,700,000	2015	
Right of Way	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with \$1,078.7 (year of expenditure dollars in millions). FDOT intends to fund construction as soon as possible. Currently, some construction funds are scheduled in approved 2 nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

409359-3 – From Atlantic Boulevard to Sample Road					
Phase	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	Comments
PE (Final Design)	Yes	Yes	\$1,500,000	2015	
Right of Way	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with \$1,078.7 (year of expenditure dollars in millions). FDOT intends to fund construction as soon as possible. Currently, some construction funds are scheduled in approved 2 nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.
409359-4 – From Sample Road to the Broward/Palm Beach County Line					
Phase	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	Comments
PE (Final Design)	Yes	Yes	\$1,100,000	2015	
Right of Way	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with \$1,078.7 (year of expenditure dollars in millions). FDOT intends to fund construction as soon as possible. Currently, some construction funds are scheduled in approved 2 nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.
409355-2 – From the Broward/Palm Beach County Line to Glades Road					
Phase	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	Comments
PE (Final Design)	Yes	Yes	\$900,000	2015	
Right of Way	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from the Broward County/Palm Beach County line to Indiantown Road is in Fiscal Years 2021-2025 with \$1,078.7 (year of expenditure dollars in millions). FDOT intends to fund construction as soon as possible. Currently, some construction funds are scheduled in approved 2 nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

* A copy of the Planning Consistency Checklist and pages from TIP/STIP/LRTP are included in **Appendix A**.

3. CLASS OF ACTION

a. Class of Action:

☒ Type 2 Categorical Exclusion

b. Other Actions:

☐ Section 4(f) Evaluation

☐ Section 106 Consultation

☒ Endangered Species Assessment

b. Public Involvement:

☐ A public hearing is not required, therefore, approval of this Type 2 Categorical Exclusion constitutes acceptance of the location and design concepts for this project.

☒ A public hearing was held on April 30, 2013, and a transcript is included (see **Appendix B**). Approval of this determination constitutes location and design concept acceptance for this project. See **Attachment 3.B** for additional information.

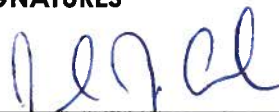
☐ An opportunity for a public hearing was afforded and a certification of opportunity is included. Approval of this determination constitutes acceptance of the location and design concepts for this project.

☐ A public hearing will be held and the public hearing transcript will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.

☐ An opportunity for a public hearing will be afforded and a certification of opportunity will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project location and design concepts.

d. Cooperating Agency: ☐ COE ☐ USCG ☐ FWS ☐ EPA ☐ NMFS ☒ None

4. REVIEWERS' SIGNATURES



FDOT Project Manager

7/1/13
Date



FDOT Environmental Administrator

6/20/13
Date

5. FHWA CONCURRENCE

(For) Division Administrator

 / /
Date

6. IMPACT EVALUATION

Topical Categories	Impact Determination ¹				Basis for Decision
	S	NS	N	NI	
A. SOCIAL & ECONOMIC					
1. Land Use Changes	[]	[✓]	[]	[]	See Attachment 6.A.1
2. Community Cohesion	[]	[]	[✓]	[]	See Attachment 6.A.2
3. Relocation Potential	[]	[]	[✓]	[]	See Attachment 6.A.3
4. Community Services	[]	[]	[✓]	[]	See Attachment 6.A.4
5. Nondiscrimination Considerations	[]	[]	[✓]	[]	See Attachment 6.A.5
6. Controversy Potential	[]	[]	[✓]	[]	See Attachment 6.A.6
7. Scenic Highways	[]	[]	[]	[✓]	See Attachment 6.A.7
8. Farmlands	[]	[]	[]	[✓]	See Attachment 6.A.8
B. CULTURAL					
1. Section 4(f)	[]	[]	[✓]	[]	See Attachment 6.B.1
2. Historic Sites/Districts	[]	[]	[✓]	[]	See Attachment 6.B.2
3. Archaeological Sites	[]	[]	[✓]	[]	See Attachment 6.B.3
4. Recreation Areas	[]	[]	[✓]	[]	See Attachment 6.B.4
C. NATURAL					
1. Wetlands	[]	[✓]	[]	[]	See Attachment 6.C.1
2. Aquatic Preserves	[]	[]	[]	[✓]	See Attachment 6.C.2
3. Water Quality	[]	[✓]	[]	[]	See Attachment 6.C.3
4. Outstanding Florida Waters	[]	[]	[]	[✓]	See Attachment 6.C.4
5. Wild and Scenic Rivers	[]	[]	[]	[✓]	See Attachment 6.C.5
6. Floodplains	[]	[✓]	[]	[]	See Attachment 6.C.6
7. Coastal Zone Consistency	[]	[]	[✓]	[]	See Attachment 6.C.7
8. Coastal Barrier Resources	[]	[]	[]	[✓]	See Attachment 6.C.8
9. Wildlife and Habitat	[]	[✓]	[]	[]	See Attachment 6.C.9
10. Essential Fish Habitat	[]	[]	[✓]	[]	See Attachment 6.C.10
D. PHYSICAL					
1. Noise	[]	[✓]	[]	[]	See Attachment 6.D.1
2. Air Quality	[]	[✓]	[]	[]	See Attachment 6.D.2
3. Construction	[]	[✓]	[]	[]	See Attachment 6.D.3
4. Contamination	[]	[✓]	[]	[]	See Attachment 6.D.4
5. Aesthetic Effects	[]	[✓]	[]	[]	See Attachment 6.D.5
6. Bicycles and Pedestrians	[]	[]	[]	[✓]	See Attachment 6.D.6
7. Utilities and Railroads	[]	[✓]	[]	[]	See Attachment 6.D.7
8. Navigation	[]	[✓]	[]	[]	See Attachment 6.D.8
a. [] FHWA has determined that a USCG Permit IS NOT required in accordance with 23 CFR 650, Subpart H.					
b. [✓] FHWA has determined that a USCG Permit IS required in accordance with 23 CFR 650, Subpart H.					

¹ Impact Determination: S = Significant; NS = Not Significant; N = None; NI = No Involvement.

E. PERMITS REQUIRED

See Attachment 6.E

7. COMMITMENTS AND RECOMMENDATIONS

See Attachment 7



ATTACHMENT 2 – PROJECT PURPOSE AND NEED

The Florida Department of Transportation (FDOT) District Four is conducting a Project Development and Environment (PD&E) Study for Interstate 95 (I-95/SR 9) from north of Oakland Park Boulevard (SR 816) to south of Glades Road (SR 808) in Broward and Palm Beach Counties. The total project length is approximately 13.5 miles. **Figure 1** depicts the project location and study limits. The study limits for each county are described below:

1. Broward County, from north of Oakland Park Boulevard to the Broward/Palm Beach County Line – 11.565 miles (FM# 409359-1) Mileposts 13.742-25.307.
2. Palm Beach County, from the Broward/Palm Beach County Line to south of Glades Road – 2.014 miles (FM #409355-1) Mileposts 0.000-2.014.

The primary objective of this project is to design a transportation system that will offer new commuting choices and more reliable travel during congested periods. The purpose of these improvements is to improve mobility and relieve congestion by adding additional capacity along the I-95 corridor. Additional capacity will maximize long-term capacity needs and long-term mobility needs of the project.

This project is guided by the FDOT *PD&E Manual*, the FDOT *ETDM Manual*, Section 339.155 of the Florida Statutes, Executive Orders 11990 and 11988, the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, and 23 Code of Federal Regulations 771. This PD&E study complies with the requirements of the National Environmental Policy Act, which requires the evaluation of the potential impacts (both positive and negative) that a project has on its physical, natural, social, and cultural environment.



Agency coordination for this project has occurred through the ETDM process (ETDM #3303), the Advance Notification (AN) process, and individual conversations with staff at regulatory agencies. The ETDM process was designed to provide resource agencies and the public access to transportation project plans and information about potential effects on resources through an online interactive Environmental Screening Tool, facilitating interaction among planners, regulatory and resource agencies, and affected communities to review and provide input on transportation projects. The ETDM process consists of three stages – Planning, Programming, and Project Development. The ETDM review occurred between May 21, 2004, and July 5, 2004, and the Programming Screen Summary Report was published on September 29, 2005. During the Programming Phase screening of the project, each reviewing agency had the opportunity to comment on and assign a “Degree of Effect” to each project issue. The agency Degree of Effect ratings are provided in **Table 1**. At the conclusion of the Programming Phase of the ETDM process, the ETDM Coordinator of the project (FDOT District Four) assigns a Summary Degree of Effect rating to all of the project issues. The Summary Degree of Effect ratings are shown in **Table 2**. The ETDM Programming Screen Summary Report is provided in **Appendix C**.



Figure 1 – Project Location Map



Table 1 Agency Degree of Effect Ratings		
Issue	Degree of Effect	Agency
Natural		
Air Quality	No reviews recorded.	
Coastal and Marine	No reviews recorded.	
Contaminated Sites	Moderate	FDEP
Farmlands	Minimal to None	NRCS
Floodplains	No reviews recorded.	
Infrastructure	No reviews recorded.	
Navigation	No reviews recorded.	
Special Designations	No reviews recorded.	
Water Quality and Quantity	No reviews recorded.	
Wetlands	Moderate	NMFS
Wetlands	Moderate	USACE
Wetlands	Minimal to None	USFWS
Wildlife and Habitat	Minimal to None	USFWS
Cultural		
Historic and Archeological Sites	Moderate	FHWA
Historic and Archeological Sites	Moderate	FDOS
Recreation Areas	Minimal to None	FHWA
Section 4(f) Potential	Minimal to None	FHWA
Community		
Aesthetics	Minimal to None	FDOT District 4
Economic	Minimal to None	FDOT District 4
Land Use	Minimal to None	FDOT District 4
Land Use	Minimal to None	FDCA
Mobility	Enhanced	FDOT District 4
Relocation	Minimal to None	FDOT District 4
Social	Minimal to None	FDOT District 4
Secondary and Cumulative		
Secondary and Cumulative Effects	No reviews recorded.	



Table 2 Summary Degree of Effect Ratings	
Issue	Degree of Effect
Natural	
Air Quality	No Degree of Effect Assigned
Coastal and Marine	No Degree of Effect Assigned
Contaminated Sites	Moderate
Farmlands	Minimal to None
Floodplains	No Degree of Effect Assigned
Infrastructure	No Degree of Effect Assigned
Navigation	No Degree of Effect Assigned
Special Designations	No Degree of Effect Assigned
Water Quality and Quantity	Minimal to None
Wetlands	Moderate
Wildlife and Habitat	Minimal to None
Cultural	
Historic and Archeological Sites	Moderate
Recreation Areas	Minimal to None
Section 4(f) Potential	Minimal to None
Community	
Aesthetics	Minimal to None
Economic	Minimal to None
Land Use	Minimal to None
Mobility	Enhanced
Relocation	Minimal to None
Social	Minimal to None
Secondary and Cumulative	
Secondary and Cumulative Effects	No Degree of Effect Assigned



A. PURPOSE AND NEED

PROJECT NEED

The overall project objectives of this PD&E study are described below:

- Design a transportation system that will offer new commuting choices and more reliable travel times during congested periods that can be constructed within the existing right of way resulting in a feasible and cost effective project.
- Evaluate future mainline improvements in terms of safety, capacity, operations and interstate access that can be constructed and open to traffic in a short term.
- Maximize long-term capacity needs and long-term mobility needs of the corridor.

The purpose and need for the project is based on the following criteria:

- **Capacity/Transportation Demand** – The I-95 project corridor operates at Level of Service (LOS) F. The high occupancy vehicle (HOV) lanes, depending on the location, are currently either operating near capacity or under capacity. Without improvements, the project corridor will continue to experience high delays and will continue to operate at LOS F in the year 2040. Driving conditions for residents and commuters will continue to deteriorate well below acceptable LOS standards.
- **Plan Consistency** – The I-95 capacity improvements project is in the 2035 Long-Range Transportation Plan (LRTP) and the five-year Transportation Improvement Program (TIP) for each of the respective counties as well as the State Transportation Improvement Program (STIP).
- **Growth Management Planning** – This section of I-95 is one of the most heavily traveled sections of urban interstate in the nation. As traffic levels increase due to population and employment growth, both along the corridor and in the region, capacity improvements will become increasingly important to continue facilitating north/south traffic movement throughout the tri-county area and Southeast Florida. The regional roadway system is close to build-out and the ability to add more traffic lanes is limited. The Broward County area is only able to grow inward since it is geographically constrained.



- **System Linkage** – This project is intended to evaluate strategies that maximize long-term capacity needs, long-term mobility needs, travel reliability and travel options for motorists and transit users along the I-95 corridor throughout Broward and Palm Beach Counties.
- **Modal Interrelationships (Freight Activity)** – Capacity improvements along the I-95 project corridor are critical in order to enhance the mobility of goods by alleviating current and future congestion along the corridor and on the surrounding freight network. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area (including connectors to freight activity centers/local distribution facilities or between the regional freight corridors).
- **Emergency Evacuation** – As part of the emergency evacuation route network designated by the Florida Division of Emergency Management, I-95 is critical in facilitating the movement of traffic during emergency evacuation periods. This facility connects other major arterials and highways designated on the state evacuation route network within the project limits, such as I-595 and the Florida's Turnpike. The project will allow for enhanced emergency access and incident response times.

B. ALTERNATIVES

NO-BUILD ALTERNATIVE

The No-Build Alternative proposes to keep the existing roadway and interchange configurations into the future without improvements. No traffic capacity, operation, or safety improvements would be implemented throughout the corridor. The effect associated with this alternative includes the acceptance of existing highly congested traffic conditions. Also, travel demand will increase significantly over the next 20 years, given the continued growth expected in Broward and Palm Beach Counties. This alternative is considered to be a viable alternative during the public hearing and final selection phase to serve as a comparison to the study's recommended alternatives.

The No-Build Alternative has a number of positive aspects, since it would not require expenditure of public funds for design, construction and/or utility relocation. Traffic would not be disrupted due to construction, therefore, avoiding inconveniences to local residents and businesses. Also, there would be no direct or secondary



impacts to the environment, the socio-economic characteristics, community cohesion, or system linkage of the area.

However, the No-Build Alternative fails to fulfill the needs of this project for the area.

If no long-term improvements are made, I-95 and the surrounding cross roads will experience heavy congestion during the peak hours and will operate at undesirable levels of services. The congestion within the area will cause additional impacts to these roadways. Such impacts may include excessive delays in travel time, a large reduction of average travel speeds, excess fuel consumption from idling vehicles, increased air pollutants (particularly hydrocarbons and carbon monoxide) and a potential increase in rear end and sideswipe collisions.

TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS ALTERNATIVE

The Transportation Systems Management and Operations (TSMO) alternatives are comprised of minor improvement options that are typically developed to alleviate specific traffic congestion and safety problems, or to get the maximum utilization out of the existing facility by improving operational efficiency. TSMO alternatives may include, but not limited to, the following improvements to the mainline and interchanges:

- Add auxiliary lanes between interchanges
- Add exclusive turn lanes at the interchange ramp terminals and adjacent intersections
- Increase turn-lane storage at the interchange ramp terminals and adjacent intersections
- Capacity improvements at the ramp junctions
- Signal optimization
- Enhance signage
- New ITS technologies and infrastructure

However, a TSMO Alternative will not significantly improve the capacity issues through the corridor by the design year 2040. Long-term improvements are necessary to mitigate the existing traffic conditions and increase capacity to accommodate future travel demand.



MULTI-MODAL ALTERNATIVES

Multi-modal alternatives are comprised of a range of improvements to each of the modal systems (roadway, transit and non-motorized) within a specific study area. The most common are Travel Demand Management and the expansion of current facilities and/or development of new facilities. This PD&E study is focused on providing highway capacity improvements along the I-95 mainline only. Therefore, multi-modal improvements were not considered as part of this study. As a result, alternative travel modes were not considered in this study.

CONCEPTUAL EVALUATION

The purpose of this section is to discuss the concepts that were developed during the initial phase of the study. All concepts were evaluated in a general manner and analyzed in order to select a build alternative.

The No-Build and TSMO Alternatives will not provide adequate traffic capacity or operational improvements to the corridor, therefore, additional study concepts were developed to increase capacity and improve traffic operations for the corridor. A discussion of the concepts evaluation is provided in the following sections.

Conceptual Typical Sections

Four conceptual typical sections were considered in the initial phase of the PD&E study. All the concepts propose to add two express lanes in each direction along I-95, provide access points at selected locations along the corridor to enter and exit the express lanes system and maintain the existing number of general purpose lanes throughout the corridor. In general, the concepts vary on the roadway width (lanes and shoulders) and type of separation between the express lanes and general purpose lanes. The preliminary development and evaluation of these concepts were based on established design controls for the various elements of the project such as roadway width, median width, shoulder width, horizontal alignment and drainage considerations. Other key evaluation features included interchange improvements, structures, environmental impacts, right of way, utility impacts, maintenance of traffic, and construction costs.



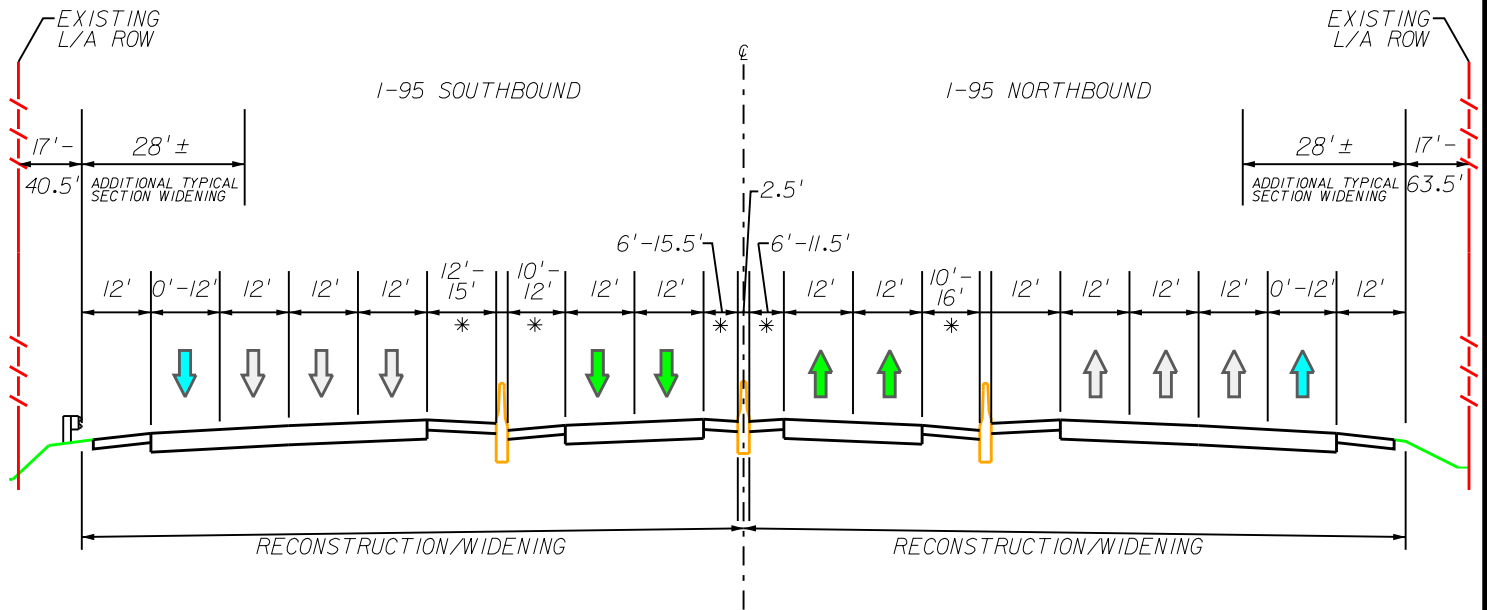
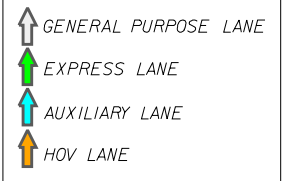
Concept #1 – Barrier Wall Separated Express Lanes

In Concept #1, the express lanes will be separated from the general purpose lanes with a rigid concrete barrier wall. The express lanes inside shoulder width will be six feet (6') wide and the outside shoulder width will be ten feet (10') wide (see **Figure 2**).

Concept #2 – Tubular Marker Separated Express Lanes

In Concept #2, the express lanes will be separated from the general purpose lanes with a tubular marker and a four-foot (4') wide buffer. The express lanes inside shoulder width will be twelve feet (12') wide (see **Figure 3**).

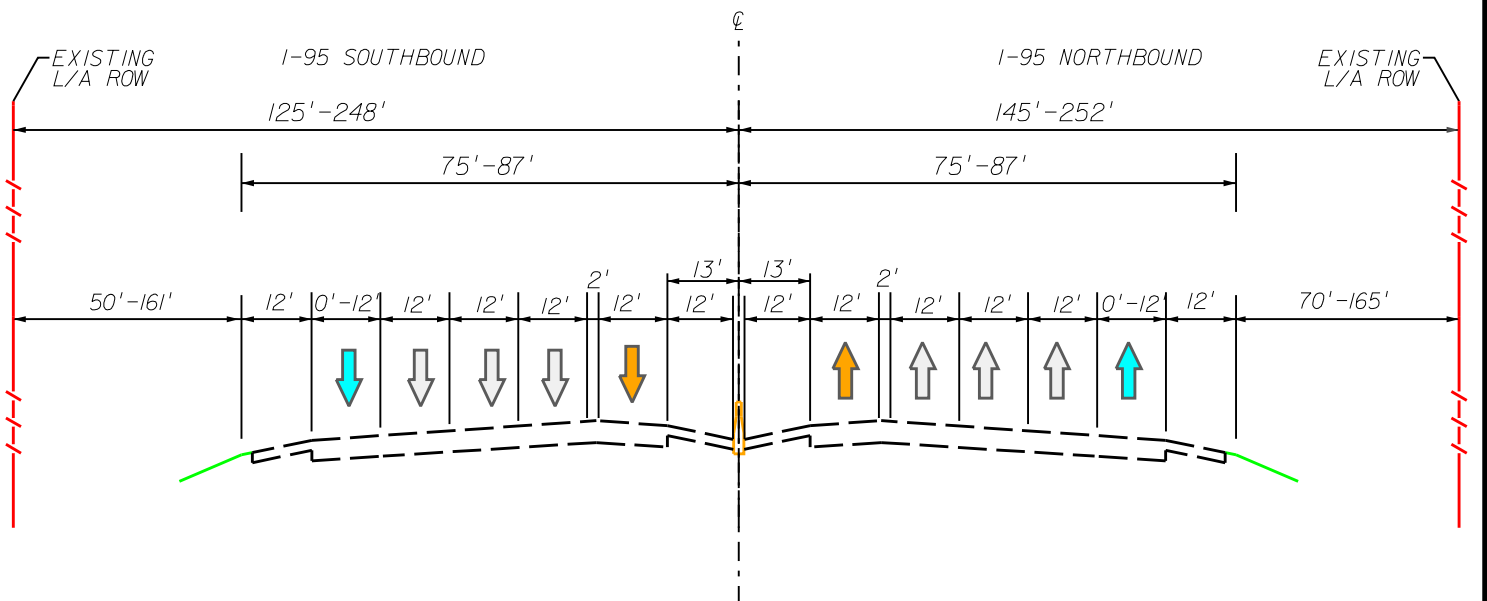
CONCEPT #1 TYPICAL SECTION



* LOW VALUE IS TYPICAL, BUT VARIES IN SPECIFIC LOCATIONS DUE TO STOPPING SIGHT DISTANCE CRITERION

NOTES: DESIGN SPEED = 65 MPH
L/A = LIMITED ACCESS

EXISTING TYPICAL SECTION



I-95 (SR 9) PD&E STUDY

FPID: 409359-I-22-01 (BROWARD COUNTY)
 FPID: 409355-I-22-01 (PALM BEACH COUNTY)
 ETOM: 3330



CONCEPT #1

CONCEPTUAL TYPICAL SECTION EVALUATION

FIGURE 2

PAGE 11

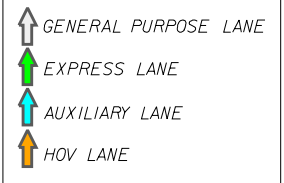


Concept #3 – Tubular Marker Separated Express Lanes

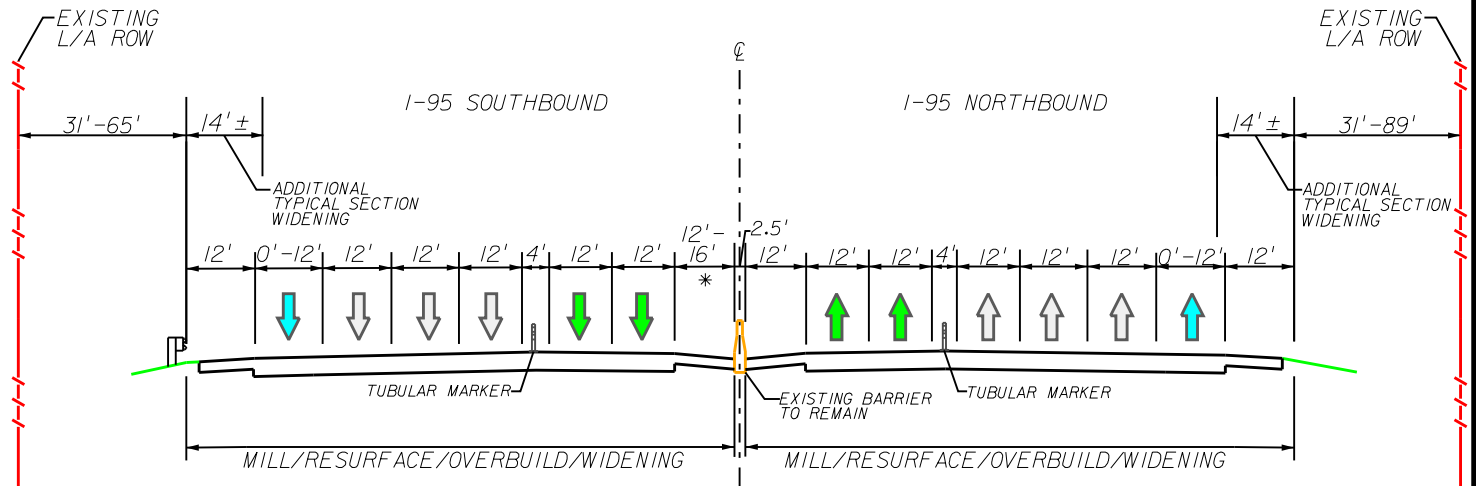
In Concept #3, the express lanes will be separated from the general purpose lanes with a tubular marker and a four-foot (4') wide buffer. Concept #3 is similar to Concept #2 (see **Figure 4**). The only difference is the reduction of the typical section width (express lanes, roadway shoulders and buffer widths) at the following five locations:

- Commercial Boulevard Interchange
- Andrews Avenue Overpass
- Racetrack Road Overpass
- NE 48th Street Overpass
- SW 10th Street Interchange

The existing footprint under these structures cannot accommodate the proposed roadway typical section. Therefore, the typical sections will need to be reduced in order to avoid reconstructing these cross streets (roadway and structure). **Figure 5** depicts the proposed typical sections at these constrained locations.

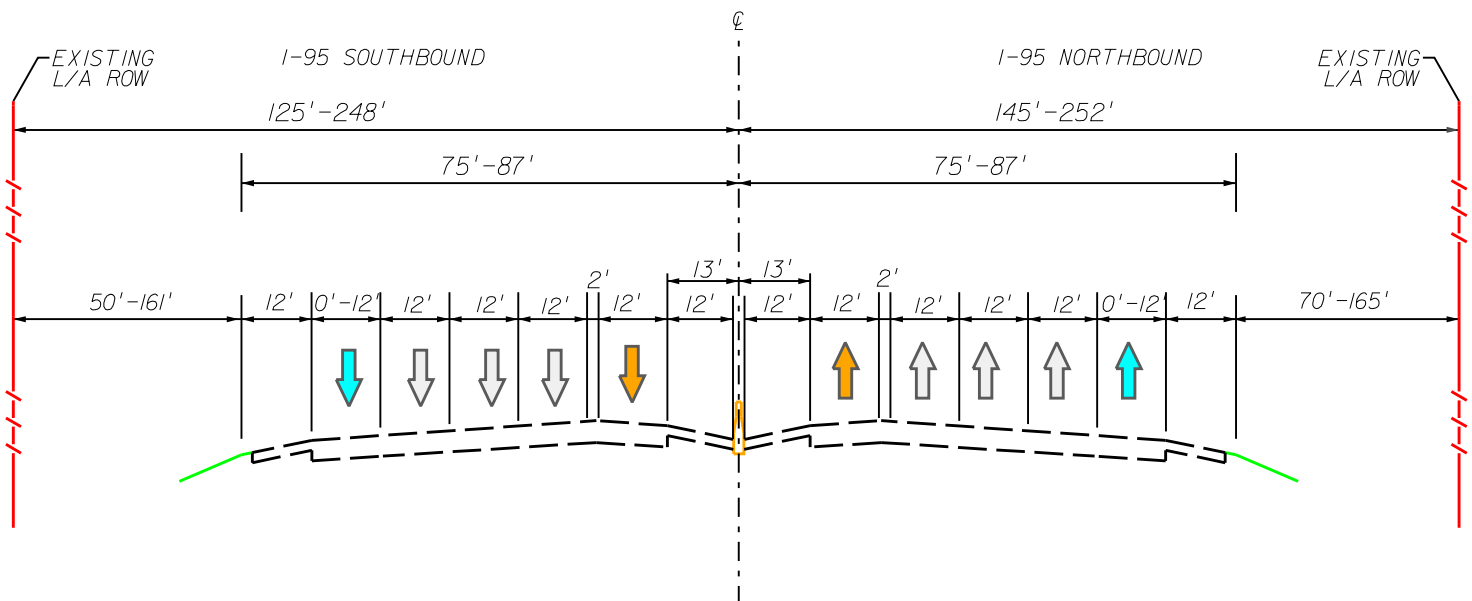


CONCEPT #3 TYPICAL SECTION



* LOW VALUE IS TYPICAL, BUT VARIES
IN SPECIFIC LOCATIONS DUE TO
STOPPING SIGHT DISTANCE CRITERION

EXISTING TYPICAL SECTION



I-95 (SR 9) PD&E STUDY

FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)
ETOM: 3330



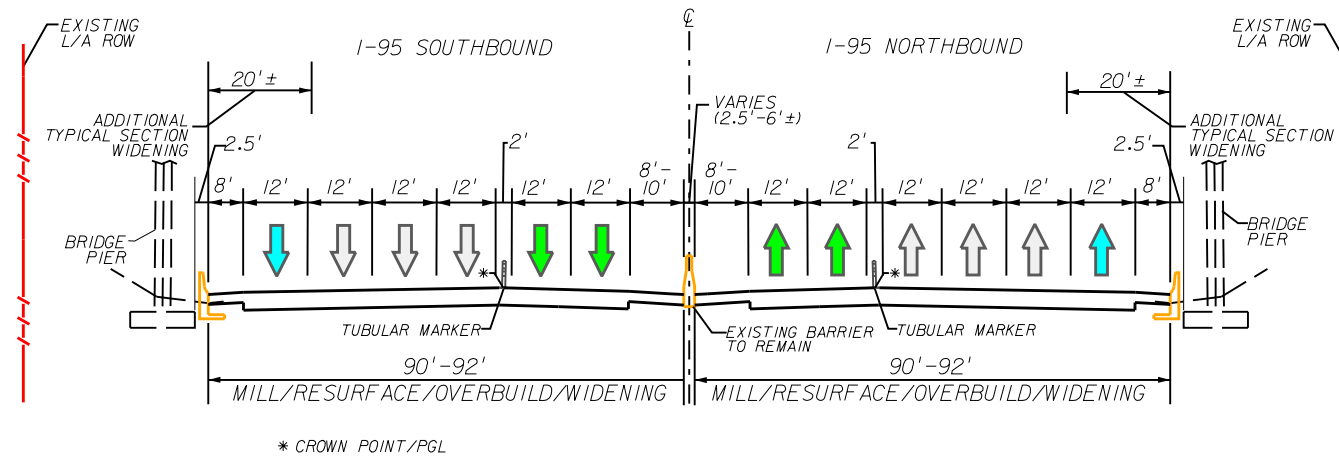
CONCEPT # 3

CONCEPTUAL TYPICAL SECTION EVALUATION

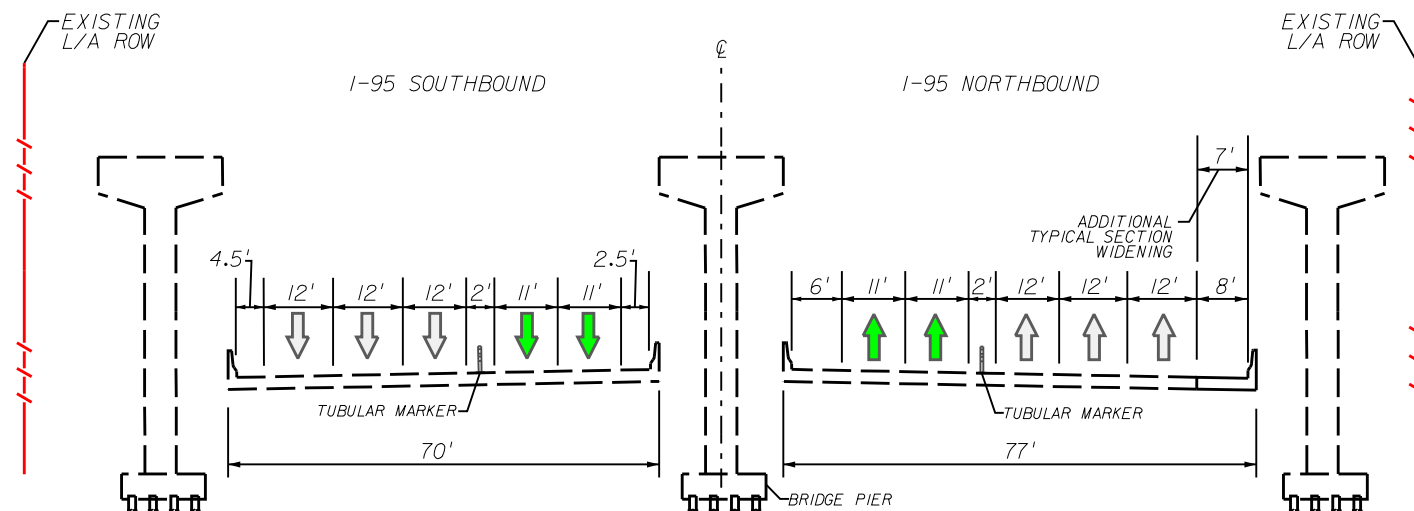
FIGURE 4

PAGE 14

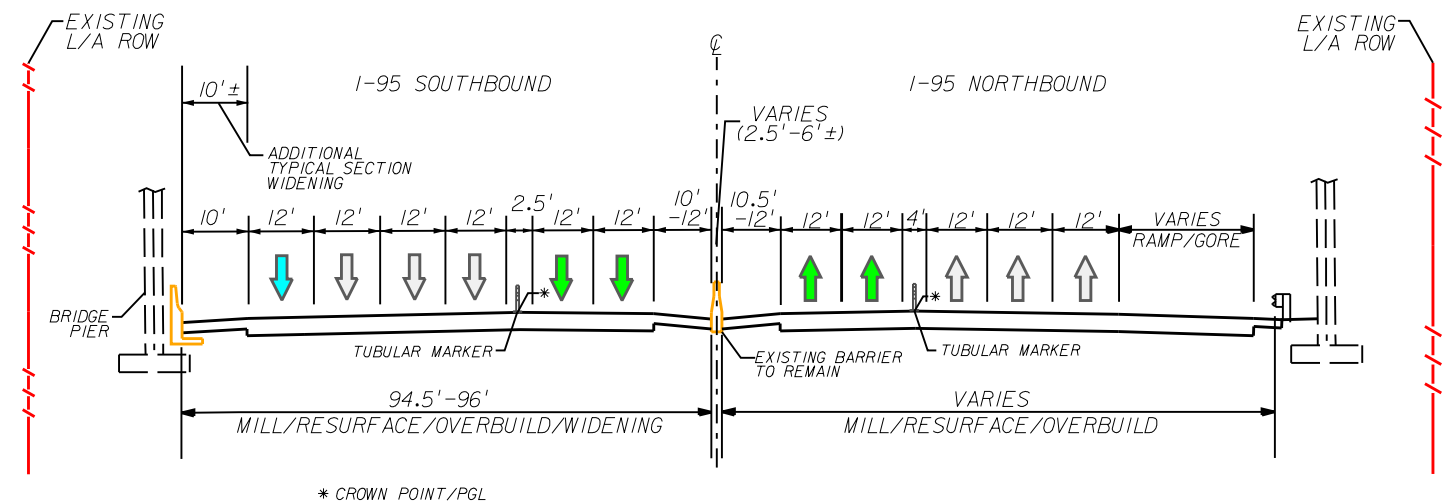
**TYPICAL SECTION IN CONSTRAINED AREA
(NE 48TH STREET)**



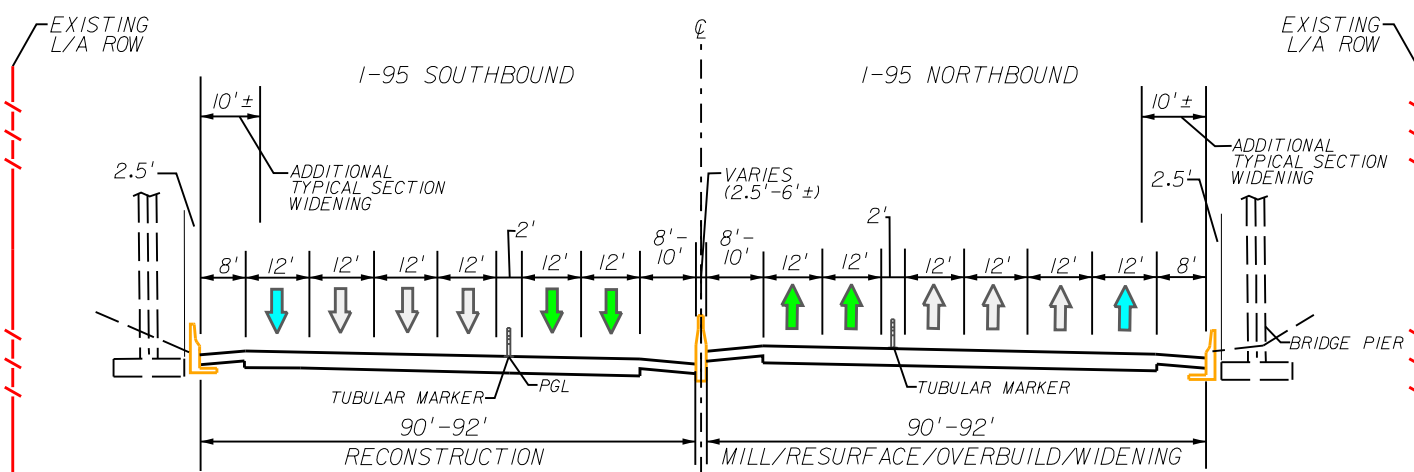
**TYPICAL SECTION IN CONSTRAINED AREA
(COMMERCIAL BOULEVARD)**



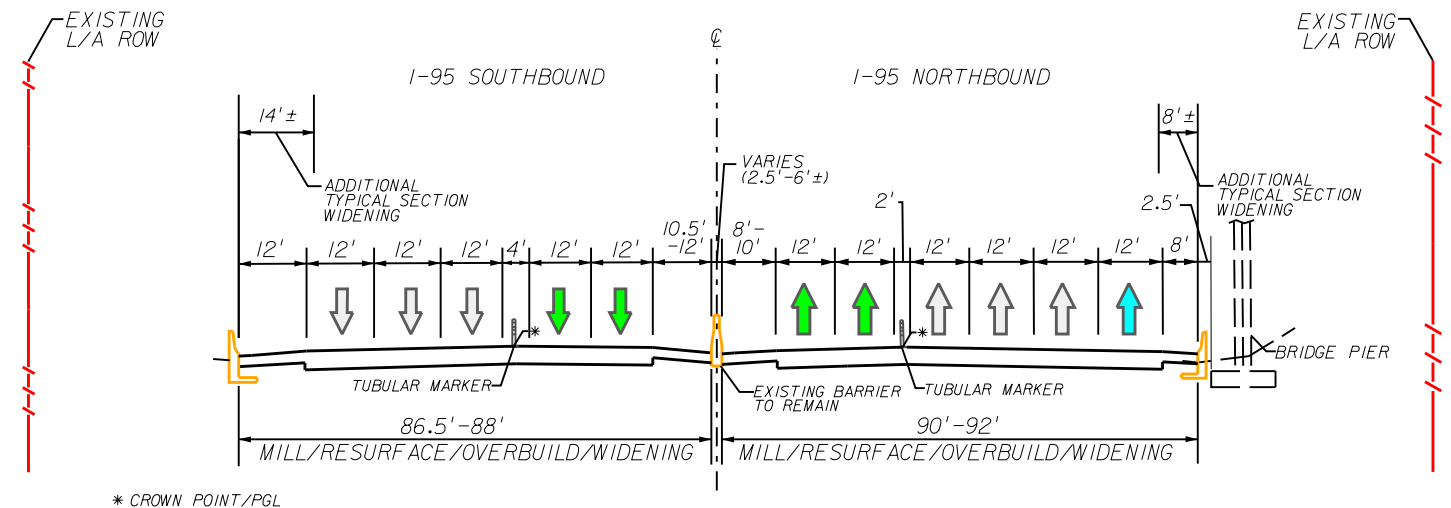
**TYPICAL SECTION IN CONSTRAINED AREA
(RACE TRACK ROAD)**



**TYPICAL SECTION IN CONSTRAINED AREA
(ANDREWS AVENUE)**



**TYPICAL SECTION IN CONSTRAINED AREA
(SW 10TH STREET)**



I-95 (SR 9) PD&E STUDY
 FPID: 409359-I-22-01 (BROWARD COUNTY)
 FPID: 409355-I-22-01 (PALM BEACH COUNTY)
 ETDM: 3330



NOTES/LEGEND:

↑ GENERAL PURPOSE LANE ↑ EXPRESS LANE ↑ AUXILIARY LANE
 DESIGN SPEED = 65 mph
 L/A ROW = LIMITED ACCESS RIGHT OF WAY

CONCEPT # 3 - CONSTRAINED LOCATIONS

CONCEPTUAL TYPICAL SECTION EVALUATION

FIGURE 5

PAGE 15



Concept #4 – 95 Express Phase 2 (Tubular Marker Separated Express Lanes)

In Concept #4, the express lanes will be separated from the general purpose lanes with a tubular marker and a three-foot (3') wide buffer. Concept #4 is similar to Concepts #2 and #3 (see **Figure 6**). The main difference is the reduction of the typical section width (express lanes width, one general purpose lane width and roadway shoulders width) is throughout the entire project study limits. This typical section is consistent with the 95 Express Phase 2 typical sections, currently under construction between the Golden Glades Interchange in Miami-Dade County and Interstate 595 in Broward County. The following three locations will require further roadway typical reduction in order to avoid recontouring these cross streets (roadway and structure):

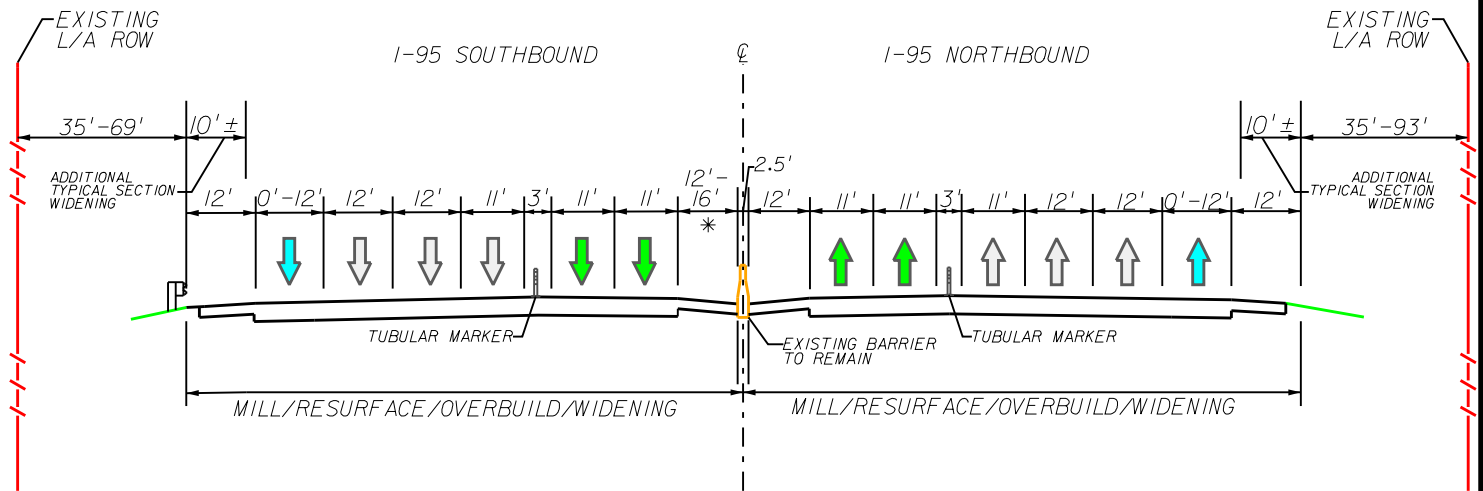
- Commercial Boulevard Interchange
- Andrews Avenue Overpass
- SW 10th Street Overpass

Figure 7 depicts the proposed typical section at these constrained locations.

The detailed analysis and evaluation of these concepts are documented in the Preliminary Engineering Report.

- ↑ GENERAL PURPOSE LANE
- ↑ EXPRESS LANE
- ↑ AUXILIARY LANE
- ↑ HOV LANE

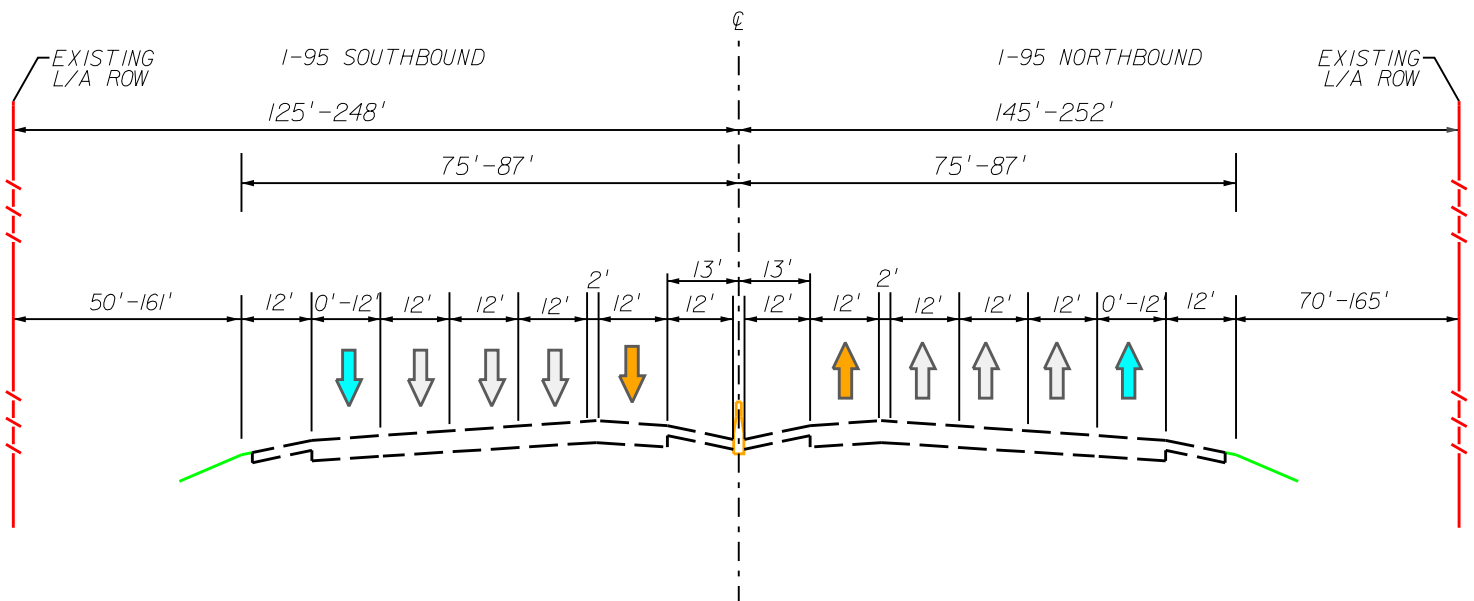
CONCEPT #4 TYPICAL SECTION



* LOW VALUE IS TYPICAL, BUT VARIES IN SPECIFIC LOCATIONS DUE TO STOPPING SIGHT DISTANCE CRITERION

NOTES: DESIGN SPEED = 65 MPH
L/A = LIMITED ACCESS

EXISTING TYPICAL SECTION



I-95 (SR 9) PD&E STUDY

FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)
ETOM: 3330



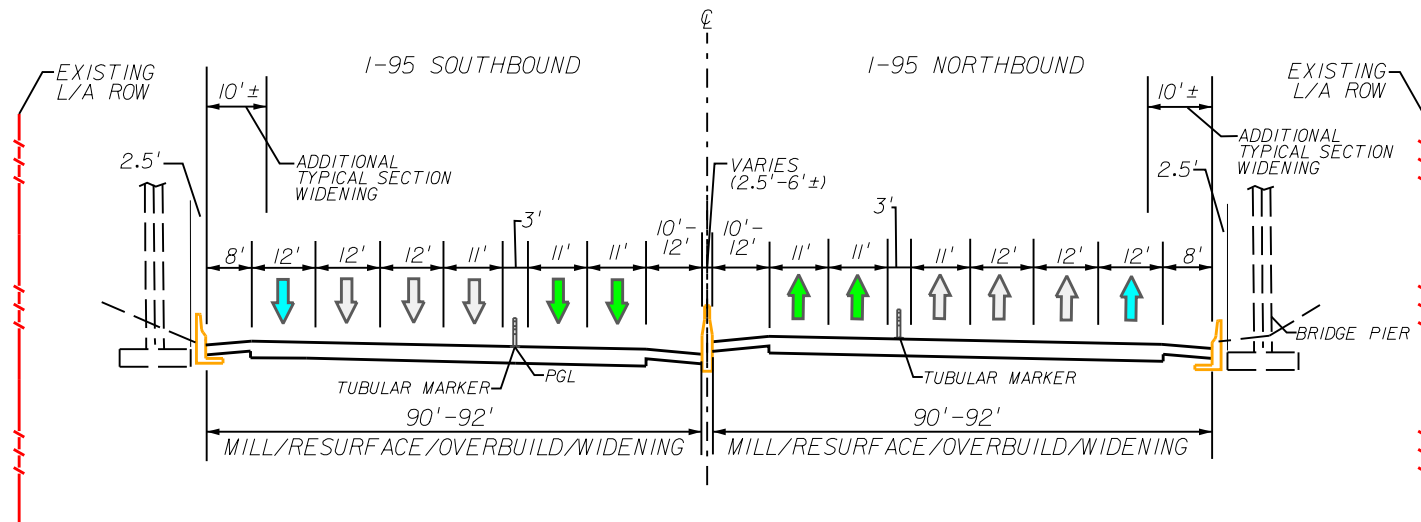
CONCEPT # 4

CONCEPTUAL TYPICAL SECTION EVALUATION

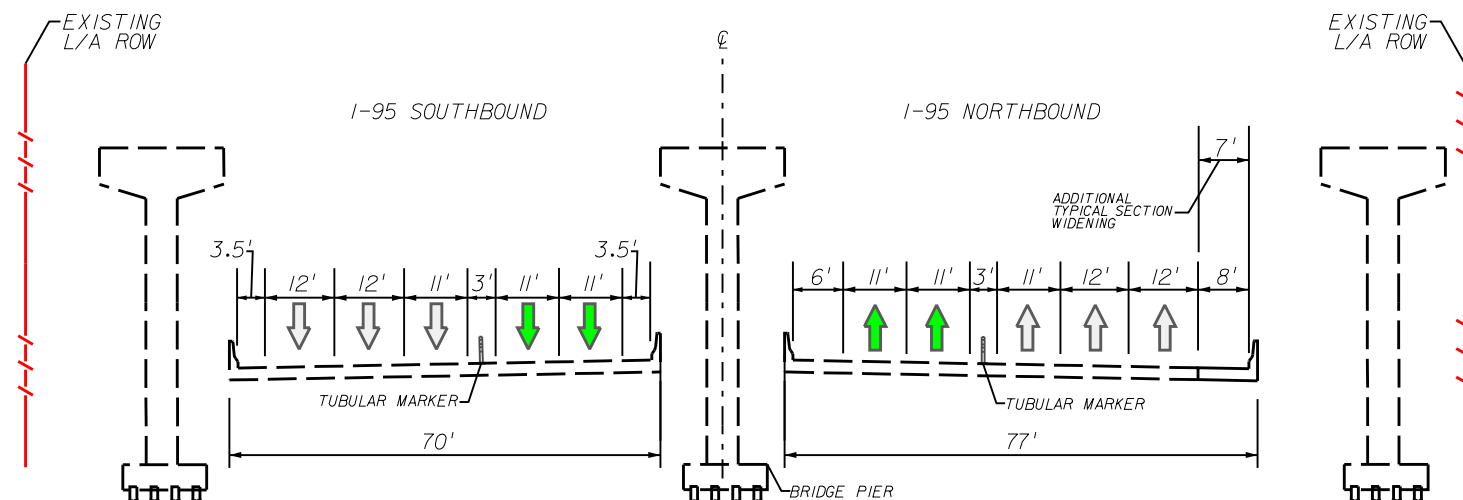
FIGURE 6

PAGE 17

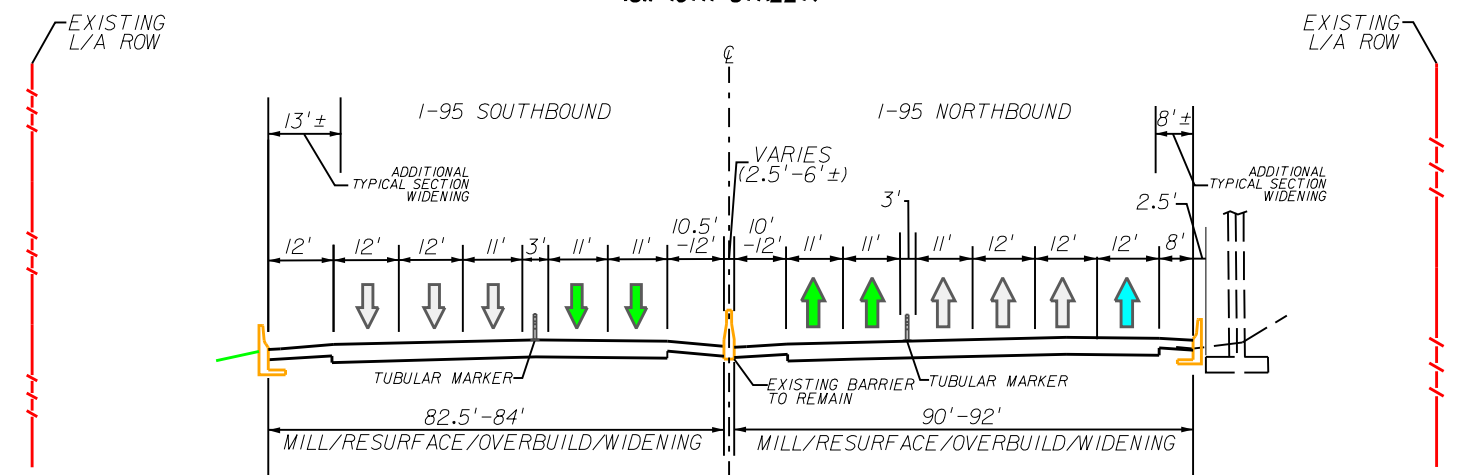
**TYPICAL SECTION IN CONSTRAINED AREA
(ANDREWS AVENUE)**



PROPOSED TYPICAL SECTION
TYPICAL SECTION IN CONSTRAINED AREA
(COMMERCIAL BOULEVARD)

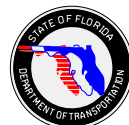


PROPOSED TYPICAL SECTION
TYPICAL SECTION IN CONSTRAINED AREA
(SW 10TH STREET)



I-95 (SR 9) PD&E STUDY

FPID: 409359-1-22-01 (BROWARD COUNTY)
FPID: 409355-1-22-01 (PALM BEACH COUNTY)
ETDM: 3330



NOTES/LEGEND:

↑ GENERAL PURPOSE LANE ↑ EXPRESS LANE ↑ AUXILIARY LANE

DESIGN SPEED = 65 mph
L/A ROW = LIMITED ACCESS RIGHT OF WAY

CONCEPT # 4 - CONSTRAINED LOCATIONS

CONCEPTUAL TYPICAL SECTION EVALUATION

FIGURE 7

AGE 18



Conceptual Typical Section Selection

The typical sections for Concepts #1 and #2 meet all design criteria and standards as required by the FDOT and the American Association of State Highway and Transportation Officials (AASHTO). However, constructing these wider typical sections along I-95 to accommodate the FDOT and AASHTO design criteria would require major reconstruction of the facility and/or major impacts to highly traveled arterial cross streets. Concept #1 would require substantial right of way acquisition and would impact all the adjacent properties and arterial cross streets along the corridor. In addition, a wider footprint would result in environmental and drainage impacts to the canals and wetlands abutting and crossing the corridor. Concept #2 will significantly impact three of the most highly traveled arterial cross streets within the study limits:

- Commercial Boulevard – Six-lane divided corridor within a three level diamond interchange under I-95
- Andrews Avenue – Four-lane divided corridor over I-95
- SW 10th Street – Six-lane divided corridor within a diamond/one quadrant loop interchange over I-95

These three corridors would require reconstruction (roadway and bridge) in order to accommodate the proposed typical section. The cost associated with the reconstruction, property impacts and environmental impacts would substantially increase the total project cost, resulting in an unfeasible project. Therefore, Concepts #1 and #2 were eliminated from further analysis.

Concepts #3 and #4 were developed in order to preserve the existing roadway alignment, maintain the existing footprint of the facility without the reconstruction of the mainline corridor and to minimize arterial cross street impacts. Concept #4 proposes to reduce the express lanes and one general purpose lane to eleven feet (11') wide and the buffer width to three feet (3') wide. During the concept's reviews by the FDOT and the Federal Highway Administration (FHWA), reducing the travel lanes throughout the corridor was not a design the reviewers were supporting during the typical section development.

Speed was a primary consideration when evaluating the potential adverse impacts of lane width on safety. On high-speed corridors like I-95, an increased risk of cross-centerline sideswipe crashes is a concern because drivers may have more difficulty



staying within the travel lane. On high-speed roadways, the primary safety concern with reductions in lane width is crash types related to lane departure. In addition, trucks and other large vehicles can affect safety and operations by off-tracking into adjacent lanes, buffer and/or the shoulder. Therefore, not providing the required lane widths along the corridor could produce an unfavorable effect by reducing the relative safety factors. As a result, Concept #4 was eliminated from further analysis.

Based on the conceptual evaluation conducted and documented during the initial phase of the study, it is clear that Concept #3 will meet the overall project objectives of this PD&E study. These objectives are:

- Design a transportation system that will offer new commuting choices and more reliable travel times during congested periods with the implementation of an express lanes system that can be constructed within the existing right of way resulting in a feasible and cost effective project.
- Advance the region's emerging express lanes network to provide immediate congestion relief with minimal impacts to the existing facility.
- Evaluate future mainline improvements in terms of safety, capacity, operations and interstate access that can be constructed and open to traffic in a short term.
- Improve the overall mobility of the I-95 daily users, especially the long trips.

ALTERNATIVE EVALUATION

The No-Build and TSMO Alternatives will not provide adequate traffic capacity or operational improvements to the corridor. Therefore, additional study concepts were developed to increase capacity and improve traffic operations for the corridor. Various corridor typical section concepts were considered during the early stages of the PD&E study (see ***Conceptual Evaluation*** section). After the Department's review and concurrency of the final conceptual evaluation of the corridor typical section concepts, a build alternative was identified to move forward in the study. Based on this preliminary evaluation, Concept #3 was selected as the proposed Build Alternative.

A No-Build Alternative and one Build Alternative were considered in this PD&E study as the only viable alternatives.



The Build Alternative proposes the following corridor improvements:

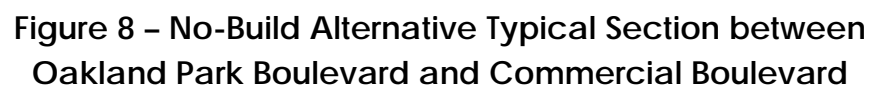
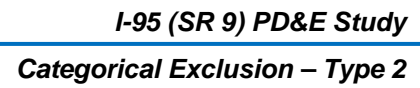
- Convert the existing HOV lane to a tolled express lane.
- Add one tolled express lane for a total of two express lanes in each direction in the center of the corridor.
- Provide access points at selected locations along the corridor to enter and exit the express lanes system.
- The express lanes will have variable toll pricing based on congestion to optimize traffic flow.
- Maintain the existing number of general purpose lanes and auxiliary lanes.
- Create an opportunity for a Bus Rapid Transit (BRT). A BRT is an express bus service that will operate within the express lanes system.
- Transit (buses) and registered HOVs with three or more people (HOV-3) will be able to use the express lane system at no cost.

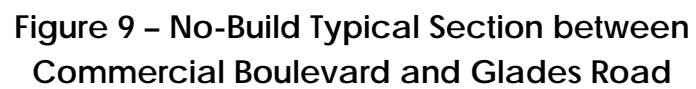
Typical Sections

The No-Build Alternative typical section is the same as the existing typical section. The No-Build Alternative consists of the following roadway elements:

- Two 12-foot (12') wide HOV lanes (one in each direction)
- Six 12-foot (12') wide general purpose lanes (three in each direction)
- Two-foot (2') wide buffer separating the general purpose lanes from the HOV lanes
- A 12-foot (12') wide paved inside shoulder
- A 12-foot (12') wide outside shoulder (ten-foot (10') paved and two-foot (2') unpaved)
- A two and a half-foot (2.5') wide center barrier wall
- Twelve-foot (12') wide auxiliary lanes exist at selected locations.

The I-95 corridor typical section, south of Commercial Boulevard, has an additional general purpose lane in each direction for a total of eight general purpose lanes. The southbound on-ramp at Commercial Boulevard from the existing westbound to southbound flyover becomes the fourth lane south of the interchange. In the northbound direction, the additional fourth lane ends and becomes the off-ramp to Commercial Boulevard. **Figures 8** and **9** show the No-Build Alternative typical sections.







The Build Alternative typical section will consist of the following roadway elements:

- Four 12-foot (12') wide express lanes (two in each direction)
- Six 12-foot (12') wide general purpose lanes (three in each direction)
- Four-foot (4') wide buffer with tubular markers separating the general purpose lanes from the express lanes
- A 12-foot (12') wide paved inside shoulder
- A 12-foot (12') wide outside shoulder (ten-foot (10') paved and two-foot (2') unpaved)
- A two and a half-foot (2.5') wide center barrier wall
- Twelve-foot (12') wide auxiliary lanes at selected locations

Figure 10 shows the Build Alternative typical section.

The Build Alternative typical section will need to be reduced (express lanes, roadway shoulders and/or buffer widths) at the following five locations in order to avoid reconstructing these cross streets (roadway and structure). The existing footprint under these structures cannot accommodate the proposed roadway typical section.

- Commercial Boulevard Interchange
- Andrews Avenue Overpass
- Racetrack Road Overpass
- NE 48th Street Overpass
- SW 10th Street Interchange

The design exceptions and variations required to implement the Build Alternative are summarized in ***Appendix D.***

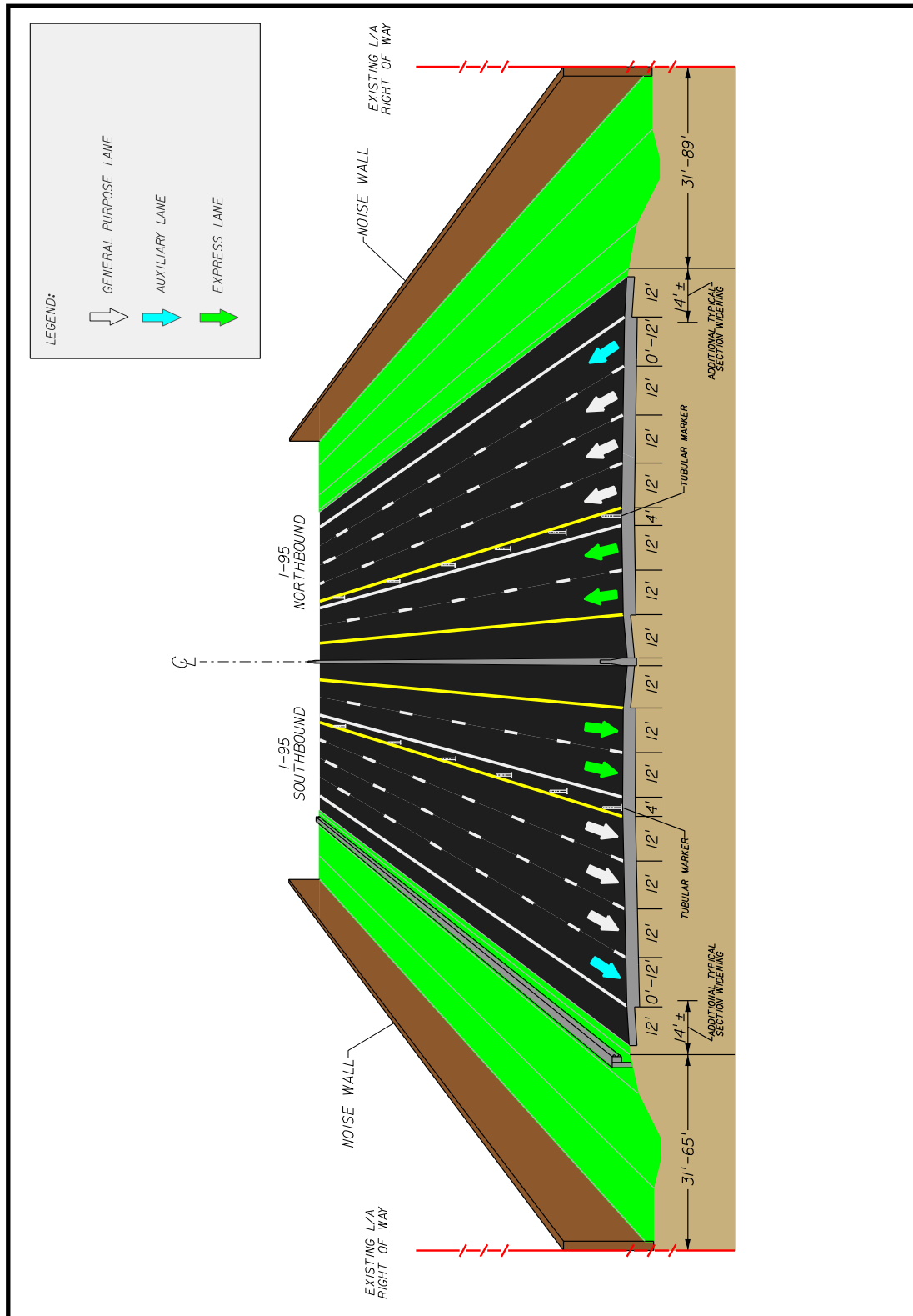


Figure 10 – Build Typical Section between
Oakland Park Boulevard and Glades Road



C. PROJECT PLANNING CONSISTENCY

The I-95 capacity improvements project is in the 2035 LRTP and the 2012/2013-2016/2017 TIP for each of the respective counties as well as the STIP. The design and construction phases are listed in the FDOT Work Program under four financial project identification numbers (see *Table 3*).

Table 3 Project Funding Plan					
Financial Project Identification Number	Project Limit	Design		Construction	
		Fiscal Year	Funds	Fiscal Year	Funds
409359-2	From Oakland Park Boulevard to Atlantic Boulevard	2015	\$1,700,000	2022	\$85,600,000
409359-3	From Atlantic Boulevard to Sample Road	2015	\$1,500,000	2024	\$72,500,000
409359-4	From Sample Road to the Broward/Palm Beach County Line	2015	\$1,100,000	2024	\$82,700,000
409355-2	From the Broward/Palm Beach County Line to Glades Road	2015	\$900,000	2024	\$46,800,000

Source: FDOT Work Program

The design and construction of the proposed improvements from north of Oakland Park Boulevard to south of Glades Road are currently federally funded. Design is funded in the 1st five years of the FDOT Work Program (FY 2015) and construction is funded in the 2nd five years of the SIS Plan (FY 2022 and 2024). The 2nd five years of the SIS Plan is comprised of SIS projects that are scheduled to be funded in the five years (2019-2023) following the 1st five years of the FDOT Work Program (FY 2014-2018). Construction funding and delivery methods will be evaluated by the FDOT to determine the final construction funding plan for this segment and the entire next phase of 95 Express from Stirling Road (SR 848) to Linton Boulevard. Work Program Public Hearings will be held in November of this year (2013). During these annual hearings, the public will be informed of the federal funding associated with this project.

FDOT District Four will continue to coordinate with Broward County, Palm Beach County, Broward MPO and Palm Beach MPO to ensure that funding is identified for future project phases in the TIP, LRTP, STIP and FDOT SIS Cost Feasible Plan.



ATTACHMENT 3 – CLASS OF ACTION

B. PUBLIC INVOLVEMENT

A public involvement program was developed and implemented for the I-95 PD&E Study. The program is documented in the *Public Involvement Program* (PIP), a companion document to this PD&E study. The PIP was updated and amended throughout the project development process to incorporate the latest public involvement policies and techniques as they evolved during the life of the study. The purpose of the program is to outline the public involvement approach to be taken with the project, provide and share project information with people living and working in the area, listen to ideas and concerns and to solicit and incorporate input received during the study process. For this project, the PIP focused on the ETDM process, elected official and agency meetings, a series of public informational meetings and several community outreach techniques including a project website and project newsletters.

Public information meetings began in the winter of 2011 and have continued throughout the study process. Exhibits and project information were provided for public review and comment at each meeting. FDOT representatives were available at each meeting to discuss the project and answer questions, as were members of the consultant team.

KICK-OFF MEETING

Two Public Kick-Off Meetings were held in December 2011 in Broward and Palm Beach Counties. The purpose of these meetings was to provide the community a forum through which to learn about the improvements being studied as well as the PD&E process in general, and to provide the FDOT with initial concerns and areas to look into as part of the study. Numerous exhibits and project information were provided for public review. A project newsletter describing the I-95 PD&E Study was distributed to all the attendees. The following is a summary of the items discussed in the meeting:



- PD&E Process
- Project Location
- Existing and Potential Future Roadway Typical Sections
- Project Issues Map
- Preliminary Project Schedule

The Broward County meeting was held on Tuesday, December 6, 2011 at the Florida Department of Transportation District Four Auditorium from 5:30 p.m. to 7:30 p.m. A total of nine written comments were received at this meeting. Approximately 25 people attended the meeting.

The Palm Beach County meeting was held on Thursday, December 8, 2011 at the Florida Atlantic University Marleen & Harold Forkas Alumni Center in Boca Raton from 5:30 p.m. to 7:30 p.m. A total of 11 written comments were received at this meeting. Approximately 25 people attended the meeting.

The following are some of the comment topics provided at the meetings:

- Interchange Improvements
- Noise Walls
- Transit Improvements
- Pedestrian Overpass Improvements
- Number of Express Lanes
- Construction Hours
- Project Schedule
- Toll Collection
- Lane Width Design
- Air Quality

ALTERNATIVES PUBLIC WORKSHOP

Two Alternatives Public Workshops were held in October 2012 in Broward and Palm Beach Counties. The purpose of these workshops was to present alternative highway improvement concepts along I-95. Numerous exhibits and project information were provided for review. A project newsletter describing the I-95 PD&E Study was distributed to all the attendees. The following is a summary of the items discussed in the meeting:



- PD&E Process
- Project Location
- Previous Planning Corridor Studies along I-95
- Existing Roadway Typical Sections
- Scope of the Project
- Considered Future Roadway Typical Sections
- Considered Future Roadway Typical Sections Evaluation Matrix
- Existing and Future Traffic Volumes
- Express Lanes Tolling Information
- Adjacent I-95 Express Lanes Projects
- Preliminary Project Schedule
- Potential Express Lanes Access Point Locations
- South Florida Express Lanes Network

The Broward County meeting was held on Tuesday, October 16, 2012 at the Florida Department of Transportation District Four Auditorium from 6:00 p.m. to 8:00 p.m. A total of ten written comments were received at this meeting. Approximately 25 people attended the meeting.

The Palm Beach County meeting was held on Thursday, October 18, 2012 at the Florida Atlantic University Marleen & Harold Forkas Alumni Center in Boca Raton from 6:00 p.m. to 8:00 p.m. A total of four written comments were received at this meeting. Approximately 31 people attended the meeting.

The following are some of the comment topics provided at the meetings:

- Interchange Improvements
- Noise Walls
- Lane Width Design
- Separation between the Express Lanes and the General Purpose Lanes
- Express Lanes Access Point Locations
- Landscaping
- I-95 Corridor Planning Study
- Drainage Design
- Construction Noise



PUBLIC HEARING

A Public Hearing was held in April 2013 in Broward County. The purpose of this hearing was to present the recommended alternative and afford all interested persons the opportunity to express their views concerning the location, conceptual design, social, economic and environmental effects of the proposed corridor improvements. Numerous exhibits and project information were provided for public review. A project newsletter describing the I-95 PD&E Study was distributed to all the attendees. The following is a summary of the items discussed in the meeting:

- PD&E Process
- Project Location
- Existing Roadway Typical Sections
- Proposed Roadway Typical Sections
- Proposed Structures Information
- Existing and Future Traffic Volumes
- Environmental Impacts
- Express Lanes Tolling Information
- Potential Express Lanes Access Point Locations
- Preliminary Construction Costs
- Preliminary Project Schedule
- Proposed Corridor Improvements
- Summary of Improvements
- Draft Engineering and Environmental Documents
- Adjacent I-95 Express Lanes Projects
- South Florida Express Lanes Network

The Public Hearing was held on Tuesday, April 30, 2013 at the DoubleTree by Hilton Hotel in Deerfield Beach from 6:00 p.m. to 8:00 p.m. A total of 15 comments were received at the hearing and a total of 13 comments were received within the 10-day comment period after the hearing. Approximately 52 people attended the hearing.



The attendees were able to provide comments concerning the project in any of the following five ways:

1. Completing a speaker card and making an oral statement at the microphone after the formal presentation.
2. Making an oral statement to the court reporter.
3. Completing a comment form and dropping it in the comment box provided at the hearing.
4. Emailing the comments to the FDOT Project Manager or by visiting the project website within the 10-day comment period following the hearing.
5. Mailing all written comments to the FDOT Project Manager within the 10-day comment period following the hearing.

The formal presentation was followed by a public testimony period. Ten people made statements for the public record. The following are some of the most common comments expressed during the hearing and/or the comment period:

- Proposed express lanes access point locations
- Access to the express lanes system
- Opposition to toll the I-95 corridor
- Request for additional noise barrier walls
- Right of way acquisition
- Maintenance of the existing noise barrier walls

The content of the hearing was transcribed and the transcript is part of the official public record for the project. The Public Hearing Transcript is included in ***Appendix B***.



ATTACHMENT 6 – IMPACT EVALUATION

A. SOCIAL & ECONOMIC

1. Land Use Changes

Existing Land Use

The I-95 project corridor is located within two counties (Broward and Palm Beach Counties) and five municipalities (Fort Lauderdale, Oakland Park, Pompano Beach, Deerfield Beach, and Boca Raton). The project corridor traverses a number of land use categories on record with the Broward County Planning and Redevelopment Division and Palm Beach County Planning, Zoning, and Building Department. **Figure 11** illustrates the existing land use within the study limits in Broward and Palm Beach counties. The project study area encompasses a mixture of land use classifications:

- Agricultural
- Industrial
- Institutional
- Mining
- Public and Semi-Public
- Recreational
- Residential
- Retail and Office
- Vacant Non-residential
- Vacant Residential

In general, I-95 corridor acts as delineation between the distinct areas to the west and east of the project study area. Along the east side of the I-95 project study area, the majority of land uses are comprised of Residential areas with pockets of Retail and Office space and Public and Semi-public land uses. The majority of the west side of the study area is comprised of Industrial land uses with a lesser amount of Retail and Office space and Residential land uses.

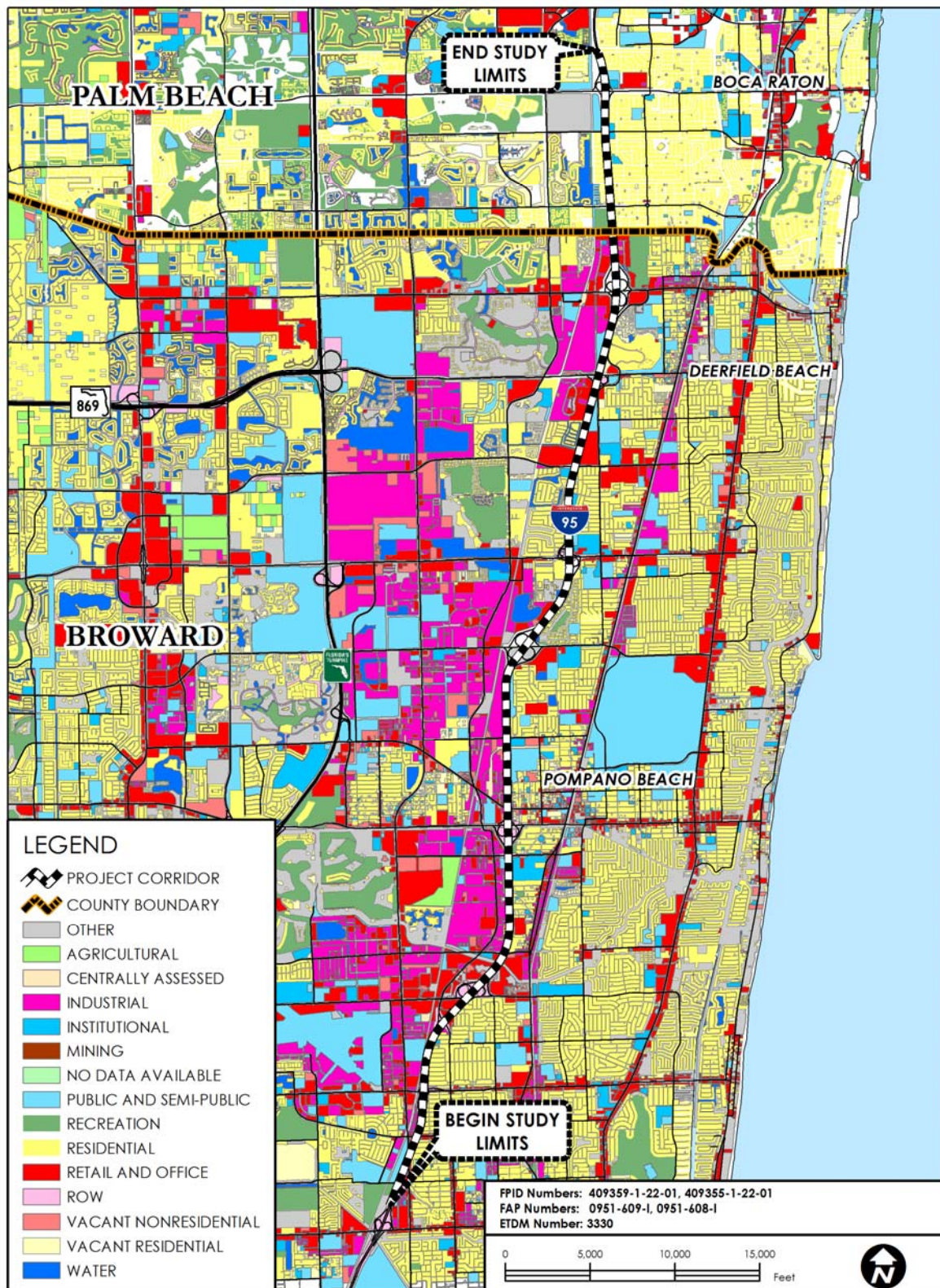


Figure 11 – Existing Land Use Map



Future Land Use

Broward and Palm Beach Counties and each of the cities along the project corridor (Fort Lauderdale, Oakland Park, Pompano Beach, Deerfield Beach, and Boca Raton) each have a Comprehensive Plan, developed in accordance with Chapter 163, Florida Statutes, and 9J-5, Florida Administrative Code. Each comprehensive plan establishes goals, objectives, and policies for future growth. The latest version of the comprehensive plan for each of the counties and cities along the project corridor are as follows:

- Broward County Comprehensive Plan amended on December 12, 2006
- Palm Beach County Comprehensive Plan revised on July 23, 2012
- City of Fort Lauderdale Comprehensive Plan adopted in 2008
- City of Oakland Park Comprehensive Plan amended in April 2010
- City of Pompano Beach Comprehensive Plan adopted in January 2010 and amended in 2012
- City of Deerfield Beach Comprehensive Plan adopted January 24, 2012
- City of Boca Raton Comprehensive Plan adopted October 26, 2010

Each plan contains nine required elements, along with optional elements specific to the county's/city's needs, including a Future Land Use Element (FLUE) and a Transportation Element. These elements provide a vision of the county's/city's future transportation network and land use, including those areas along the I-95 corridor within the study area.

The purpose of the FLUE in each of the comprehensive plans is to establish a vision of future land use patterns. As stated in the Palm Beach County Comprehensive Plan (and applicable to the other county and city plans):

[The FLUE] defines the components of the community and the interrelationship among them through integrating the complex relationships between land use and the other elements of the Plan that address the physical, social, and economic needs of [the county/city].

The FLUE institutes the framework for growth management and land planning ... authorized by Chapter 163, Florida Statutes, the "Local Government



Comprehensive Planning and Land Development Act.” This act requires the FLUE to be consistent with State and regional plans.

Per Chapter 163, Florida Statutes, the purpose of the Transportation Element is:

... to plan for a multimodal transportation system that places emphasis on public transportation systems, where feasible. The element shall provide for a safe, convenient multimodal transportation system, coordinated with the future land use map or map series and designed to support all elements of the comprehensive plan.

The I-95 express lanes project is in the LRTP and the TIP for each of the respective counties as well as the STIP. As mentioned previously, the FLUE for each of the counties' comprehensive plans is required to be consistent with state and regional plans, including the LRTPs, TIPs, and STIP. Therefore, since this project is included in the LRTPs, TIPs, and STIP, the impacts to land use from this project should have been considered within the FLUE of each of the respective comprehensive plans.

Consistent with the planned future growth in each of the comprehensive plans, and consistent with the LRTPs, TIPs, and STIP, the future land use along the study corridor could be expected to be very similar to the existing land use. The I-95 corridor would continue to act as a delineation of distinct land uses to the west and east of the project study area. Along the east side of the I-95 project study area, the majority of land uses would continue to be comprised of mainly Residential areas with lesser amounts of Retail, Office space, and Public and Semi-public land uses. The majority of the west side of the study area would continue to be comprised of mainly Industrial land uses with lesser amounts of Retail, Office space, and Residential land uses. **Figure 12** depicts the future land use along the project corridor.

As depicted on the City of Fort Lauderdale Future Land Use Map (completed as part of the city's comprehensive plan), the western side of the project corridor within the city limits consists of land uses designated as Commercial, Industrial, and Employment Center, as well as one parcel designated as Utilities (a water/wastewater treatment plant). The boundaries of the City of Fort Lauderdale do not extend to the eastern side of the project corridor.



As depicted on the City of Oakland Park Future Land Use Map (completed as part of the city's comprehensive plan), the eastern side of the project corridor within the city limits is dominated mainly by Low Density Residential areas bordered by Commercial areas. The western side of the project corridor within the city limits is comprised of a mix of Industrial, Parks/Recreational, Community Facilities, and areas of Residential.

As depicted on the City of Pompano Beach Future Land Use Map (completed as part of the city's comprehensive plan), the eastern side of the project corridor within the city limits is similarly dominated by Low and Medium Density Residential areas bordered by Commercial areas, interspersed with Community Facilities and Recreation and Open Space. The western side of the project corridor within the city limits is dominated almost entirely by Industrial land uses.

As depicted on the City of Deerfield Beach Future Land Use Map (completed as part of the city's comprehensive plan), the eastern side of the project corridor within the city limits is similarly dominated by Residential land uses with a few commercial land uses. The western side of the project corridor within the city limits is mainly dominated by Industrial land uses in the northern portion of the city, with a few residential land uses in the southern portion of the city.

As depicted on the City of Boca Raton Future Land Use Map (completed as part of the city's comprehensive plan), the eastern side of the project corridor within the city limits is dominated by Residential and Institutional (Florida Atlantic University) land uses, with small areas designated as Recreation and Open Space. The western side of the project corridor within the city limits consists of Residential areas in the southern portion of the city, Industrial areas through the central portion of the city, and a Conservation area (Blazing Star Preserve) at the northern edge of the city.

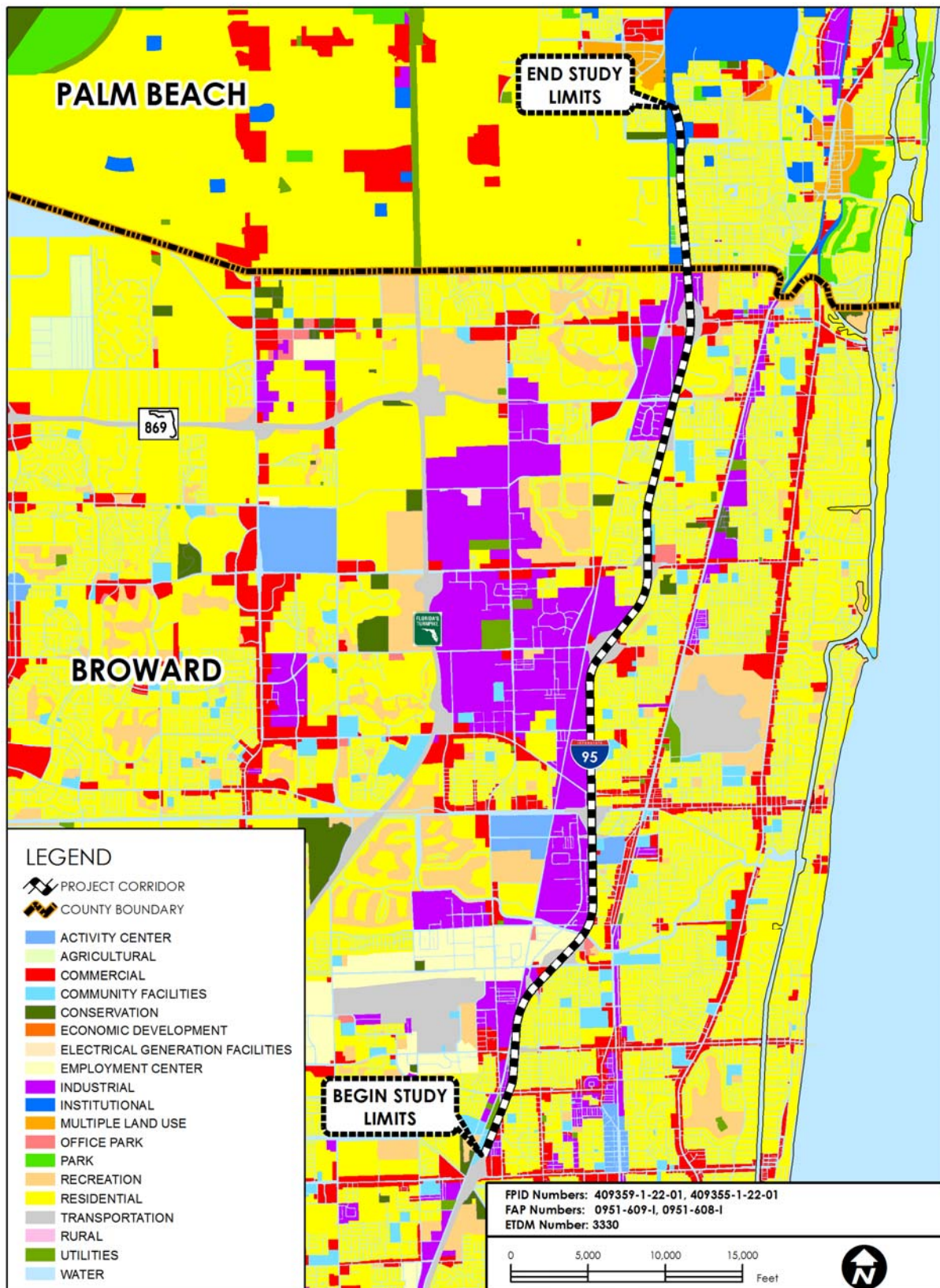


Figure 12 – Future Land Use Map



2. **Community Cohesion**

The proposed improvements for the build alternative take advantage of the existing I-95 facility and will occur within the existing FDOT right of way. Therefore, the neighborhoods adjoining this corridor will not be further divided. In addition, no social isolation will occur and no substantial adverse impacts to local or regional traffic patterns are anticipated since all improvements will occur within the existing FDOT right of way. No specific ethnic groups or minority populations will become socially or culturally isolated as a result of the improvements. Therefore, no impacts to community cohesion are anticipated.

3. **Relocation Potential**

All of the proposed roadway improvements associated with the build alternative will occur within the existing FDOT right of way; therefore, no relocations are anticipated.

4. **Community Services**

A *Sociocultural Effects Evaluation Report* was prepared for this project, which is available for review at the FDOT District Four office in Fort Lauderdale, Florida. Community service facilities provide a gathering place for adjacent neighborhood and community members, as well as serving the needs of the surrounding areas. For the purpose of this study, community facilities include:

- Cemeteries
- Colleges and universities
- Community centers
- Cultural centers
- Daycare facilities
- Fire stations
- Government buildings
- Hospitals
- Libraries
- Nursing home facilities
- Other healthcare facilities
- Other social services
- Religious institutions



- Schools
- Shopping centers
- Temporary housing facilities

The community service facilities discussed below are located within or in close proximity to the project study area. Recreational areas and parklands are described in ***Attachment 6.B.4.***

Cemeteries

There is one cemetery located in close proximity to the project corridor, SCI Funeral Services of Florida, Inc. (200 West Copans Road), as shown on ***Figure 13.***

Colleges and Universities

There are three universities and one college located in close proximity to the project corridor, as shown on ***Figure 14.***

- Keiser University (1500 NW 49th Street)
- City College (2000 West Commercial Boulevard)
- Barry University – Fort Lauderdale Campus (1835 South Perimeter Road)
- Florida Atlantic University (777 Glades Road)

Community Centers

There are 16 community center located in close proximity to the project corridor, as shown on ***Figure 15.***

- Juvenile Diabetes Foundation International (3411 Powerline Road)
- Elks BPO North Lauderdale Lodge (248 West Prospect Road)
- North Andrews Community Center (250 NE 65th Street)
- Multiple Sclerosis Foundation (6350 North Andrews Avenue)
- Rotary Club of Fort Lauderdale – Cypress Creek (400 Corporate Drive)
- Anti-Defamation League of B Nai B Rith (6600 North Andrews Avenue)
- Gulf Stream Baptist Association (600 SW 3rd Street)
- United Way of Broward County (100 SW 12th Avenue)
- National Organization for Women in Broward County (3201 NW 4th Terrace)
- Broward Association of the Deaf (362 West Sample Road)



- Alzheimer's Association (201 West Sample Road)
- All Nations (1015 West Newport Center Drive)
- Deerfield Country Club (50 Fairway Drive)
- Royal Oak LNDG (1950 SW 8th Street)
- Boca Sailing and Racquet Club (1900 West Camino Real)
- Sath Conferences Association (1489 West Palmetto Park Road)

Cultural Centers

There are two cultural centers, including a movie theater and a museum, in close proximity to the project corridor, as shown on **Figure 16**.

- Cypress Creek Cinema 16 (6515 North Andrews Avenue)
- South Florida Railway Museum (1300 West Hillsboro Boulevard)

Daycare Facilities

There are 11 daycare facilities in close proximity to the project corridor, as shown in **Figure 17**.

- Pride and Joy Learning Center (400 West Prospect Road)
- For Him Christian Academy (600 SW 3rd Street)
- Rhonda Beal (1511 NW 7th Way)
- Hopewell Preschool Academy (900 NW 15th Street)
- Sandy Clark (672 SW 21st Street)
- United Cerebral Palsy of Broward – Bright Horizons ASP (3901 NW 1st Terrace)
- Puffin Learning Academy (1287 East Newport Center Drive)
- J.M. Family Center (640 Jim Moran Boulevard)
- Rainbow of Love Preschool (1251 SW 15th Avenue)
- The Schmidt Family YMCA – Development Center at Mae Volen (1515 Palmetto Park Road)
- Boca Babysitting, Inc. (1430 NW 4th Street)

Fire Stations

There are four fire stations within close proximity to the project corridor, as shown on **Figure 18**.



- Oakland Park Fire Rescue Station 20 (4721 NW 9th Avenue)
- Pompano Beach Fire Rescue Station 61 (2121 NW 3rd Avenue)
- Deerfield Beach Fire Rescue Station 102 (1401 SW 11th Way)
- Boca Raton Fire Rescue Station 2 (1 SW 12th Avenue)

Government Buildings

There are four government buildings, including two post offices, a city hall, and a county courthouse, in close proximity to the project corridor, as shown on **Figure 19**.

- U.S. Post Office – Fort Lauderdale (4350 North Andrews Avenue)
- Pompano Beach City Hall (100 West Atlantic Boulevard)
- Broward County – North Regional Courthouse (1600 West Hillsboro Boulevard)
- U.S. Post Office (1275 West Palmetto Park Road)

Hospitals

There is one hospital, the North Broward Medical Center (201 East Sample Road), located in close proximity to the project corridor, as shown on **Figure 20**.

Libraries

There are two library branch locations in close proximity to the project corridor, as shown on **Figure 21**.

- Northwest Branch Library (1580 NW 3rd Avenue)
- Century Plaza Branch Library (1856-A West Hillsboro Boulevard)

Nursing Home Facilities

There are eight nursing home facilities located in close proximity to the project corridor, as shown on **Figure 22**.

- Paradise Manor (365 NW 43rd Court)
- Medflo Assisted Living Facility (4348 NW 5th Avenue)
- Amwill Assisting Living, Inc. (840 SW 8th Street)
- John Knox Village of Florida (840 Lakeside Circle)



- John Knox Village Health Center (830 Lakeside Circle)
- Pompano Retirement Village (501 SW 2nd Place)
- Avondale Manors Retirement Home (509-521 SW 2nd Terrace)
- Pompano Rehab and Nursing Center (51 West Sample Road)

Other Healthcare Facilities

There are two other healthcare facilities located in close proximity to the project corridor, as shown on **Figure 23**.

- Lifestyle Lift (6600 North Andrews Avenue)
- Rand Surgical Pavilion Corp (5 West Sample Road)

Other Social Services

There are 36 other social service facilities located in close proximity to the project corridor, as shown on **Figure 24**.

- Comprehensive Orthopedic Physical Therapy (3221 NW 10th Terrace)
- Pediatric Services of Americas (3223 NW 10th Terrace)
- Kids World Academy (870 NW 34th Street)
- American Cancer Society (3407 NW 9th Avenue)
- Advanced Technology Institute Career Training Center (3501 NW 9th Avenue)
- SJ Foundations of Broward (999 West Prospect Road)
- Peer Center, Inc. (4545 Powerline Road)
- Comfort Keepers (5715 North Andrews Way)
- Paralyzed Veterans Association (6200 North Andrews Avenue)
- Sundance Rehabilitation Corp. (600 Corporate Drive)
- American Family Counseling Centers (6250 North Andrews Avenue)
- Multiple Sclerosis Foundation (6350 North Andrews Avenue)
- Bookman Lewis PA (6750 North Andrews Avenue)
- International Union of Painters and Allied Trades District Council (78 1300SW 12th Avenue)
- Monarch House (721 SW 9th Street)
- Rose Manor Assisted Living Facility (840 SW 8th Street)
- Pompano Treatment Center (380 SW 12th Avenue)
- A Center for Counseling (150 SW 12th Avenue)
- Service Master Clean (933 NW 31st Avenue)



- J.V. Nelson Homehealth Aide Services (250 West Sample Road)
- Parkinson Outreach Program (50 East Sample Road)
- After School Programs, Inc. (4157 NW 1st Terrace)
- Remington House of Pompano Beach (4700 NW 3rd Avenue)
- Jodi B. Green, PA (1191 East Newport Center Drive)
- Food for the Poor (550 SW 12th Avenue)
- Food for the Poor (652 SW 12th Avenue)
- All Florida Fire and Mold (252 SW 12th Avenue)
- Jewish National Fund Broward and Palm Beach Counties Region (242 SW 12th Avenue)
- Barton Protective Services, Inc. (700 West Hillsboro Boulevard)
- Kasky & Kasky, PA (400 Fairway Drive)
- Atlantic Art (1685 SW 16th Street)
- Mae Volen Senior Center (1515 West Palmetto Park Road)
- Boca Counseling Center (1489 West Palmetto Park Road)
- Children's Pavilion Granny Nannies (1541 West Palmetto Park Road)
- Retarded Citizens of Palm Beach (1633 SW 4th Street)
- Friends of Israel Disabled Veterans (1900 Glades Road)

Religious Institutions

There are 17 religious institutions in close proximity to the project corridor, as shown on *Figure 25*.

- All Saints Catholic Church (3460 Powerline Road)
- Community of Christ (330 NW 44th Street)
- St. Henry Catholic Church (1500 South Andrews Avenue)
- L'Eglise de Dieu Des (1301 South Dixie Highway)
- Church of God of Pompano Beach (1000 SW 10th Street)
- Light International Assemblies of God (600 SW 3rd Street)
- Church of God in Christ (404 NW 8th Street)
- Antioch Missionary Baptist Church (502 SW 8th Street)
- Broward Haitian Mission (1001 NW 6th Street)
- Seventh-Day Adventist Church Slaem (733 SW 6th Street)
- Hopewell Missionary Baptist Church (894 NW 15th Street)
- Zion Mission, Inc. (3400 NW 21st Avenue)
- Parkway United Methodist Church
- Grace Baptist Church



- Church of Jesus Christ of Latter-Day Saints (1530 West Camino Real)
- Trinity Church of God (1251 SW 15th Avenue)
- Calvary Chapel – Fort Lauderdale (1551 West Camino Real)

Schools

There are 14 schools located in close proximity to the project corridor, including seven elementary schools, three middle schools, three high schools, and one other education facilities, as shown on **Figure 26**.

Elementary Schools:

- Lloyd Estates Elementary (750 NW 41st Street)
- North Andrew Gardens Elementary (345 NE 56th Street)
- Cypress Elementary (851 SW 3rd Avenue)
- Sanders Park Elementary (800 NW 16th Street)
- Palmview Elementary (2601 NW 1st Avenue)
- Tedder Elementary (4157 NW 1st Terrace)
- Addison Mizner Elementary (199 SW 12th Avenue)

Middle Schools:

- James S. Rickards Middle (6000 NW 9th Avenue)
- Crystal Lake Middle (3551 NW 3rd Avenue)
- Boca Raton Middle (1251 NW 8th Street)

High Schools:

- Northeast High (700 NW 56th Street)
- Blanche Ely High (1201 NW 6th Avenue)
- Deerfield Beach High (650 SW 3rd Avenue)

Other Educational Facilities:

- Bright Horizon Center (3901 NW 1st Terrace)



Shopping Centers

There are nine shopping centers located in close proximity to the project corridor, as shown on **Figure 27**.

- Pinecrest Shopping Plaza (900 NE 62nd Street)
- 62nd Street Plaza (901 East Cypress Creek Road)
- Dailand Park Shopping Center (6201 North Andrews Avenue)
- Sample Square Shopping Center (501-599 East Sample Road)
- Crystal Lakes Plaza (801 West Sample Road)
- Palms Trail Plaza (1101 South Military Trail)
- Palmetto Park Square (1401 Palmetto Park Road)
- Shops of Boca Center (5050 Town Center Circle)
- University Commons (1400 Glades Road)

Temporary Housing Facilities

There are ten temporary housing facilities located in close proximity to the project corridor, as shown in **Figure 28**.

- Red Roof Inn #10249 (4800 Powerline Road)
- El Palacio Hotel and Conference Center (4900 Powerline Road)
- Extended Stay America #869 (5851 North Andrews Avenue)
- Fort Lauderdale Marriott North (6650 North Andrews Avenue)
- Extended Stay American #9808 (1401 SW 15th Street)
- Forum (600 SW 3rd Street)
- Best Western (1050 West Newport Center Drive)
- Extended Stay America #328 (1200 FAU Research Park Boulevard)
- Comfort Suites (1040 West Newport Center Drive)
- La Quinta Inn and Suites #7707 (100 SW 12th Avenue)



Impacts

All of the proposed roadway improvements associated with the build alternative will occur within the existing FDOT right of way. Since the I-95 corridor is located along a highly urbanized area, which currently experiences impacts typical of a highly travelled expressway (e.g., traffic congestion, noise, visual), and all of the roadway improvements will occur within the existing FDOT right of way, no long-term adverse impacts to community service facilities are anticipated as a result of project implementation. Short-term impacts caused by construction activities, such as traffic congestion/delays, noise from construction equipment, and dust from roadway construction have all been addressed in the applicable sections of this report. Traffic routes during construction would be controlled by a Maintenance of Traffic plan, and access to community services would be maintained at all times during and following completion of construction.

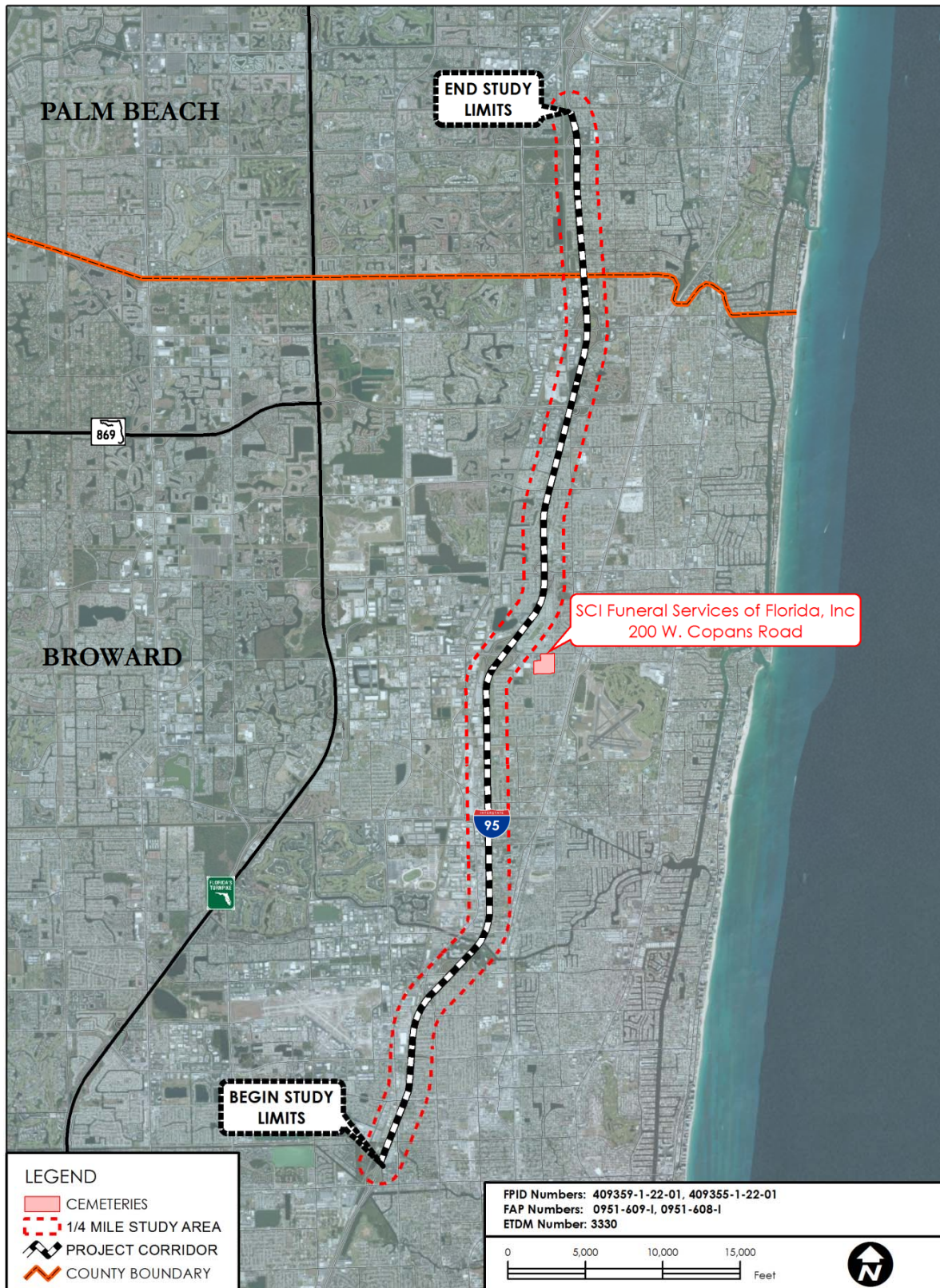


Figure 13 – Cemeteries

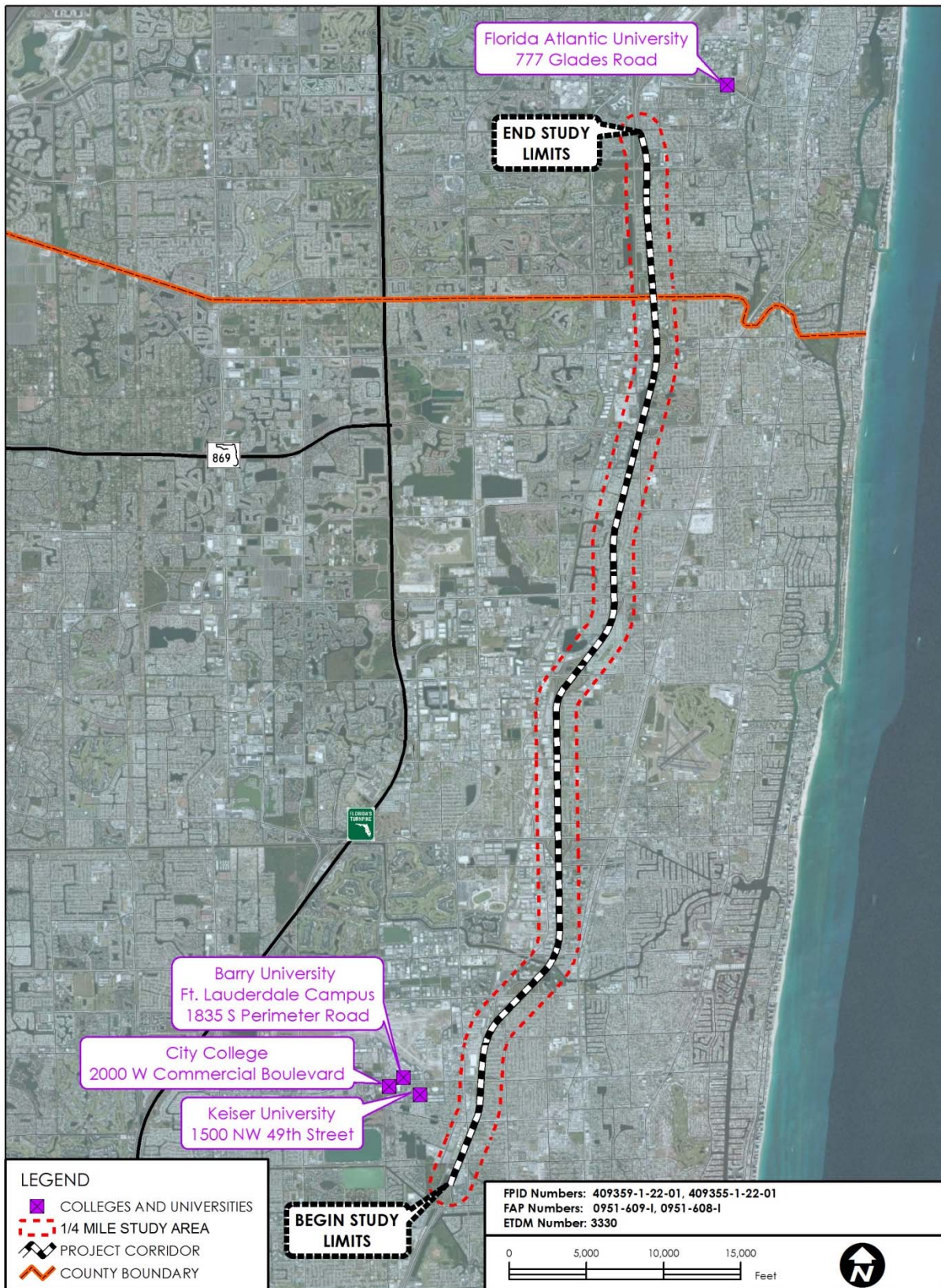


Figure 14 – Colleges and Universities

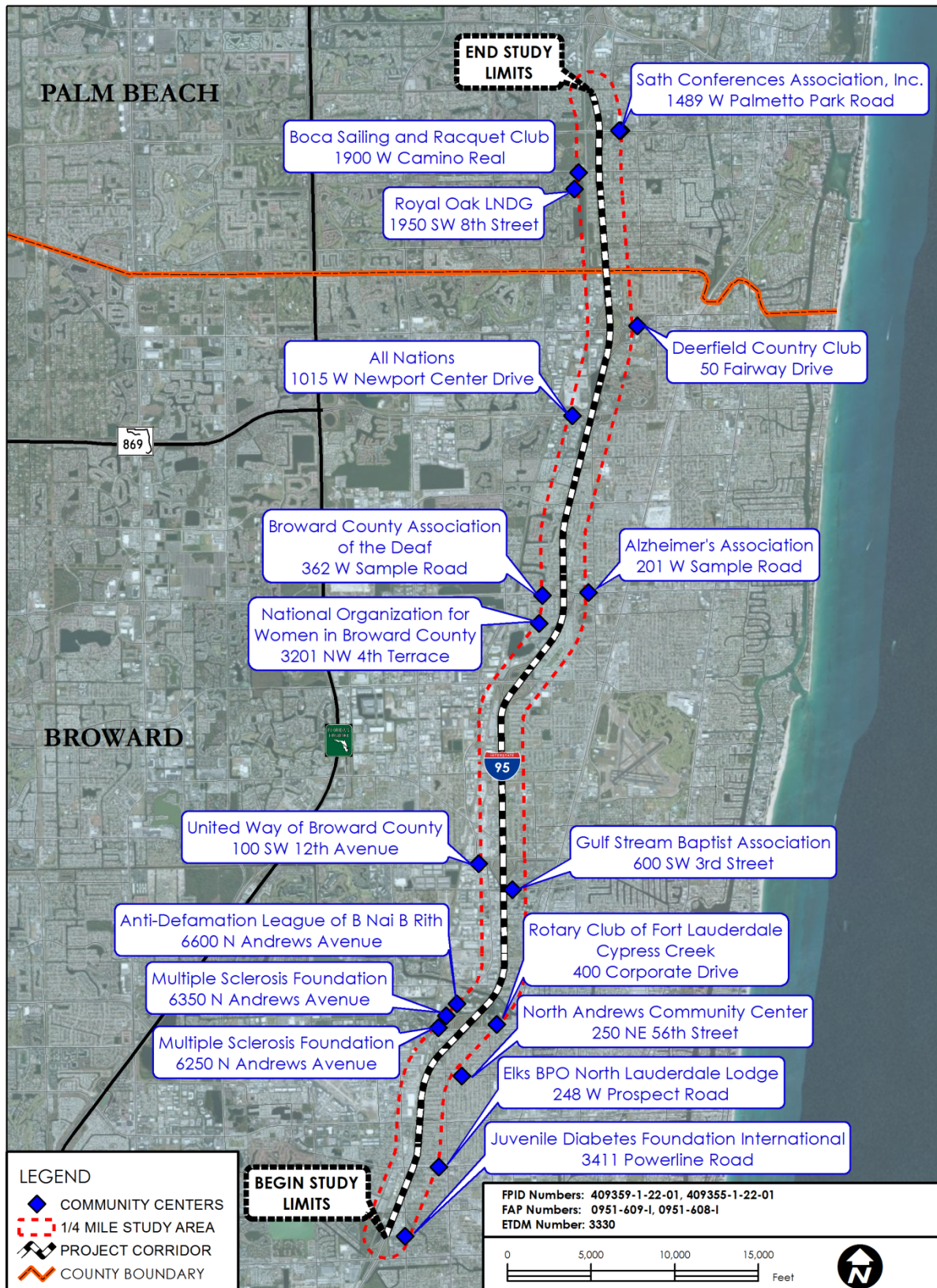


Figure 15 – Community Centers

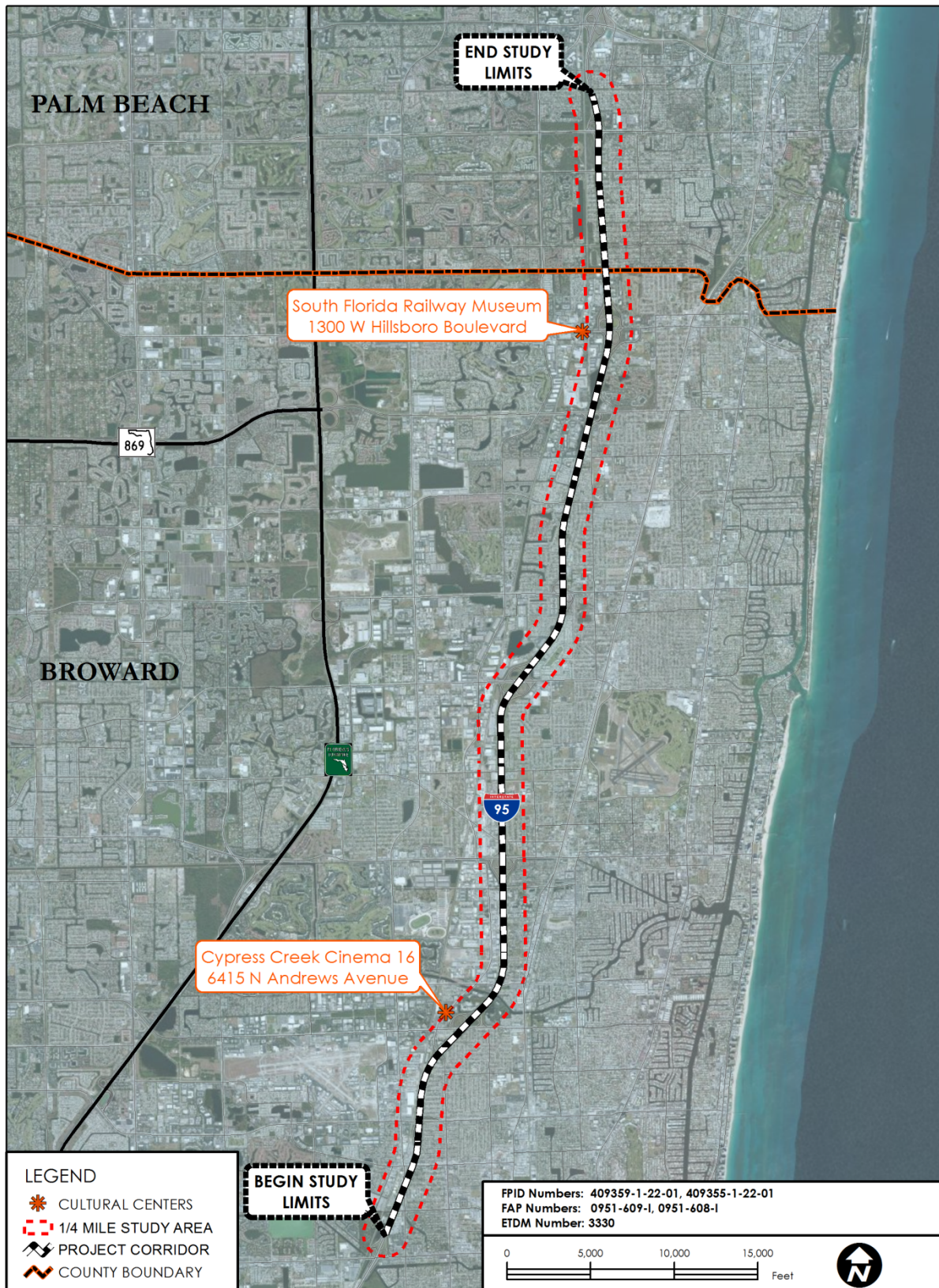


Figure 16 – Cultural Facilities

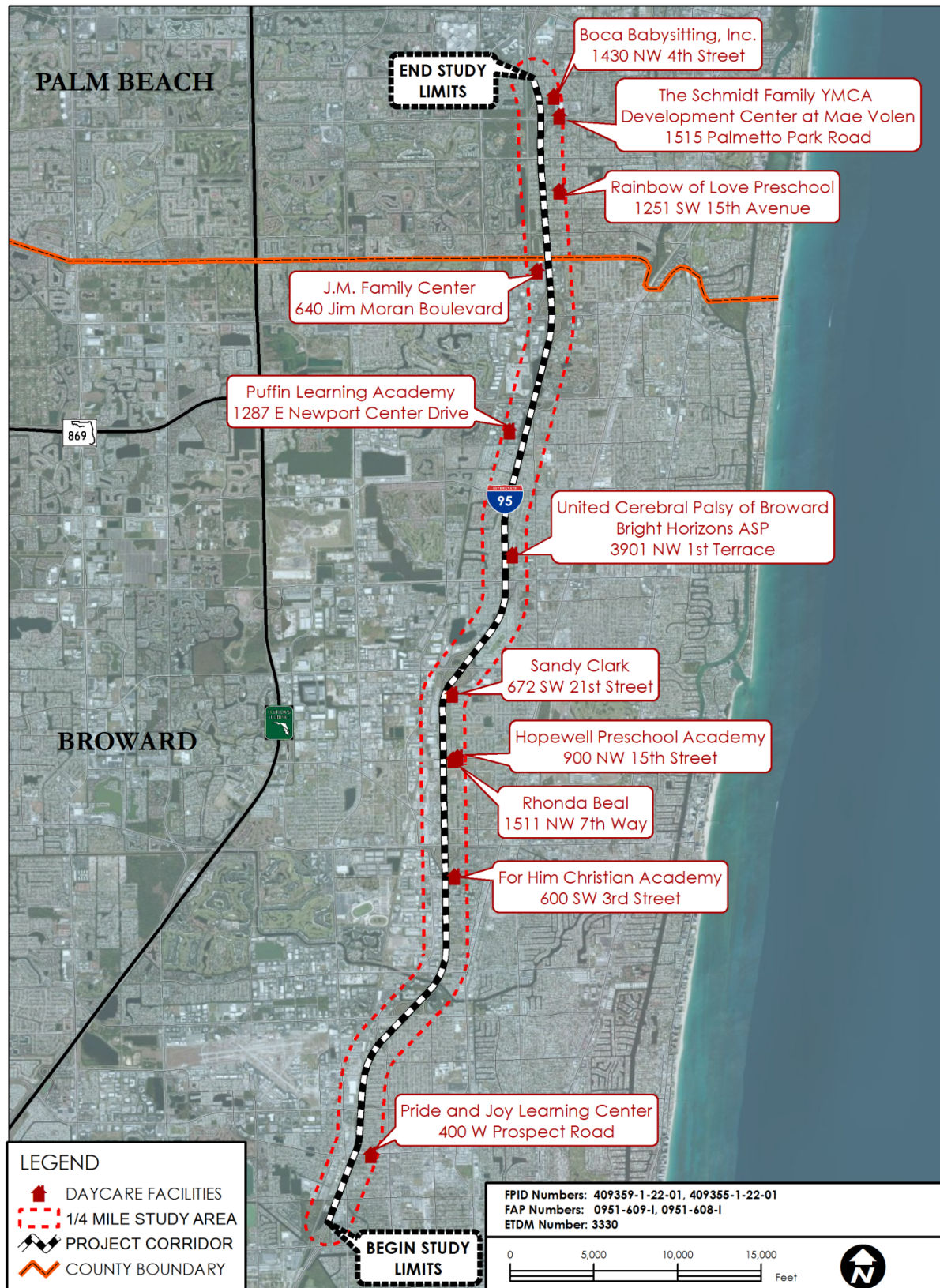


Figure 17 – Daycare Facilities

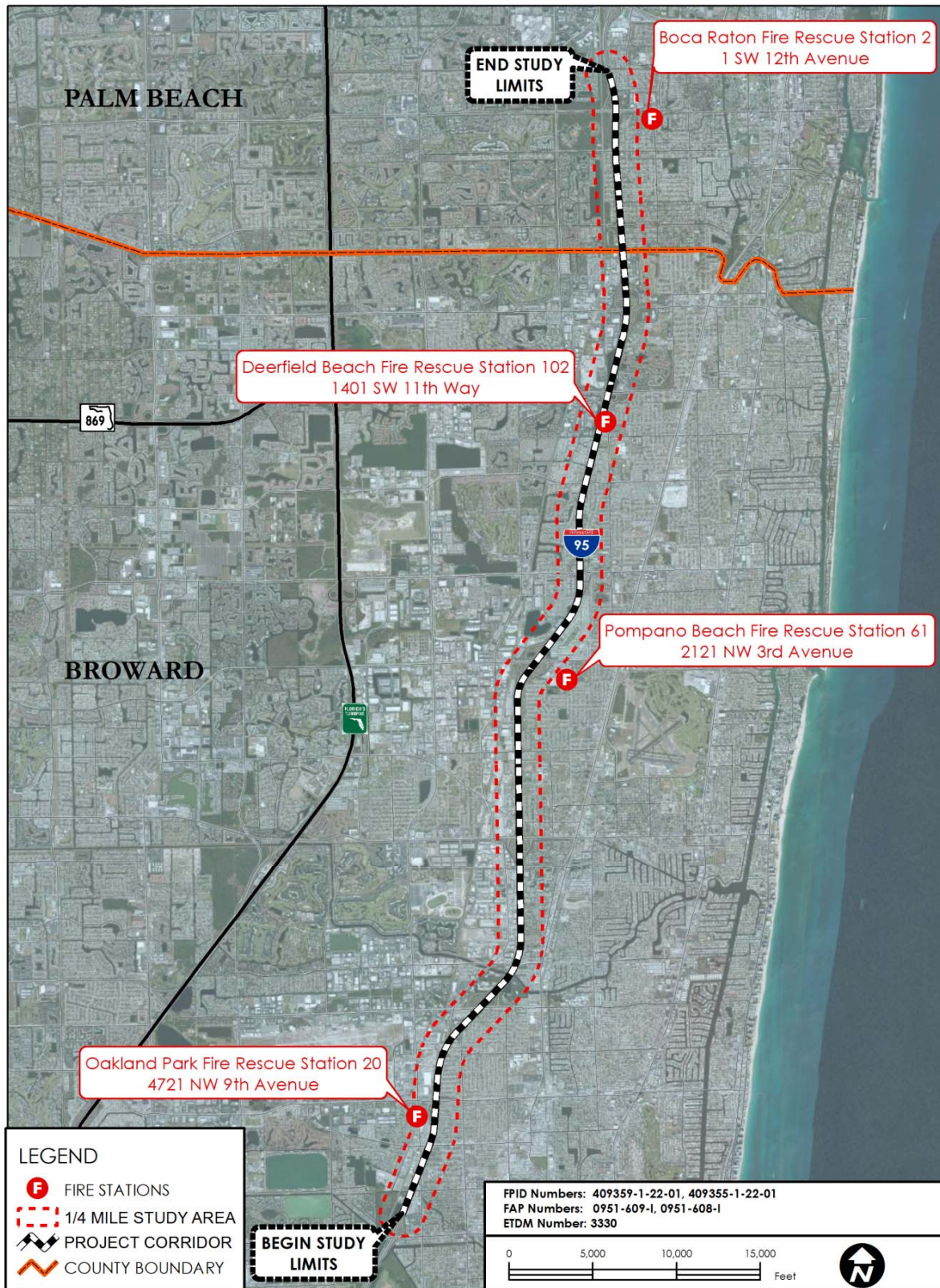


Figure 18 – Fire Stations

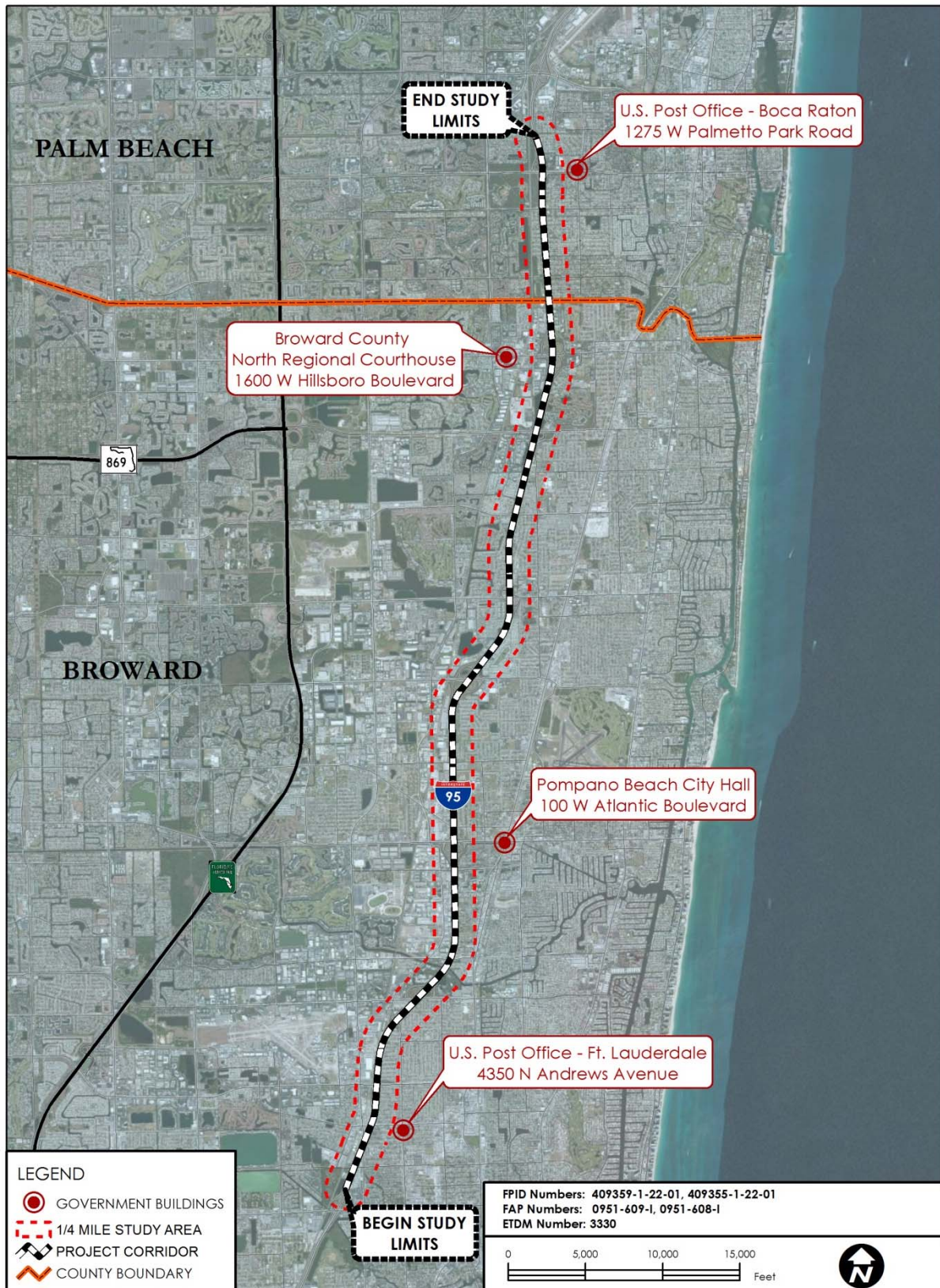


Figure 19 – Government Facilities

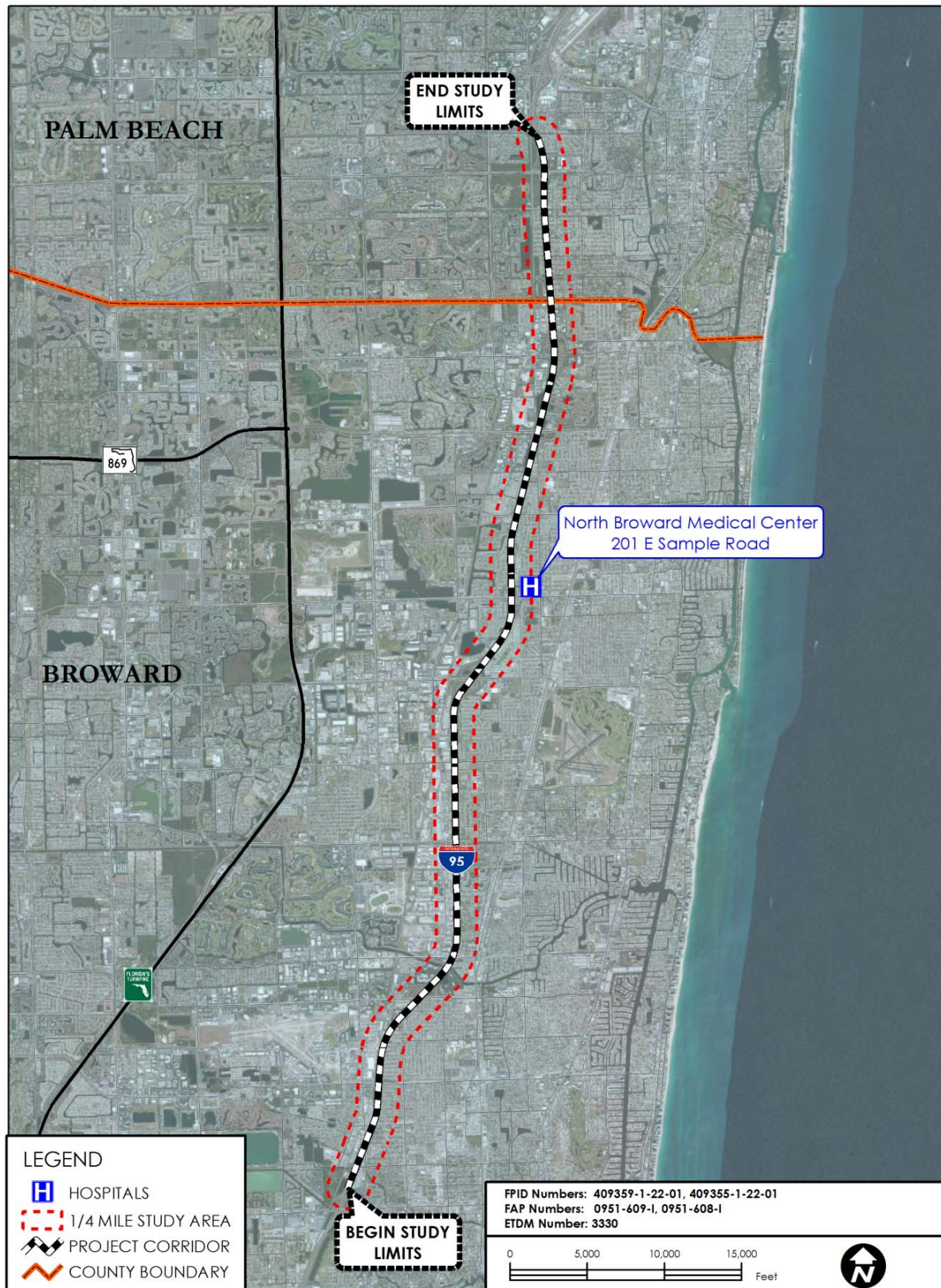


Figure 20 – Hospitals

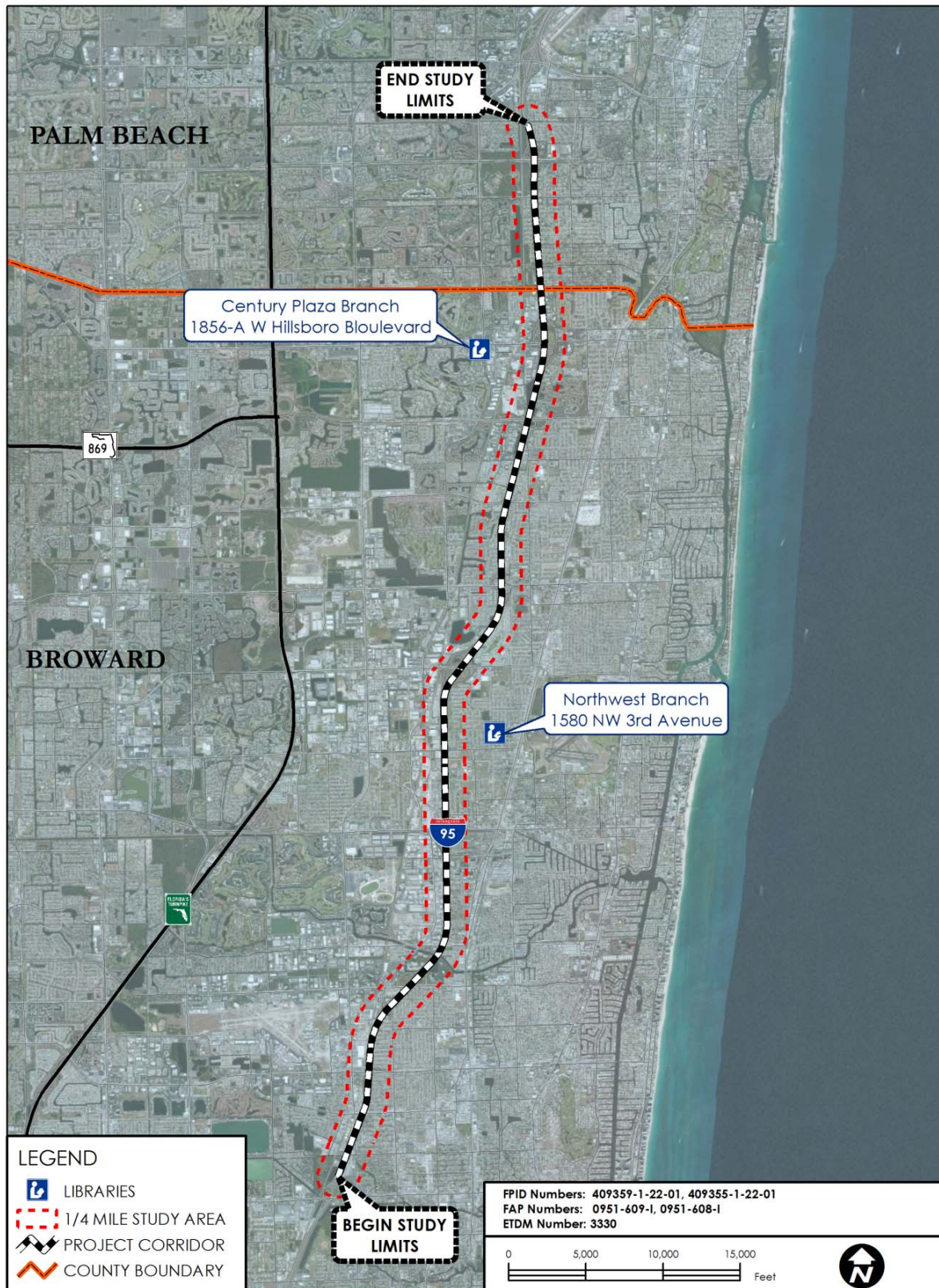


Figure 21 – Libraries

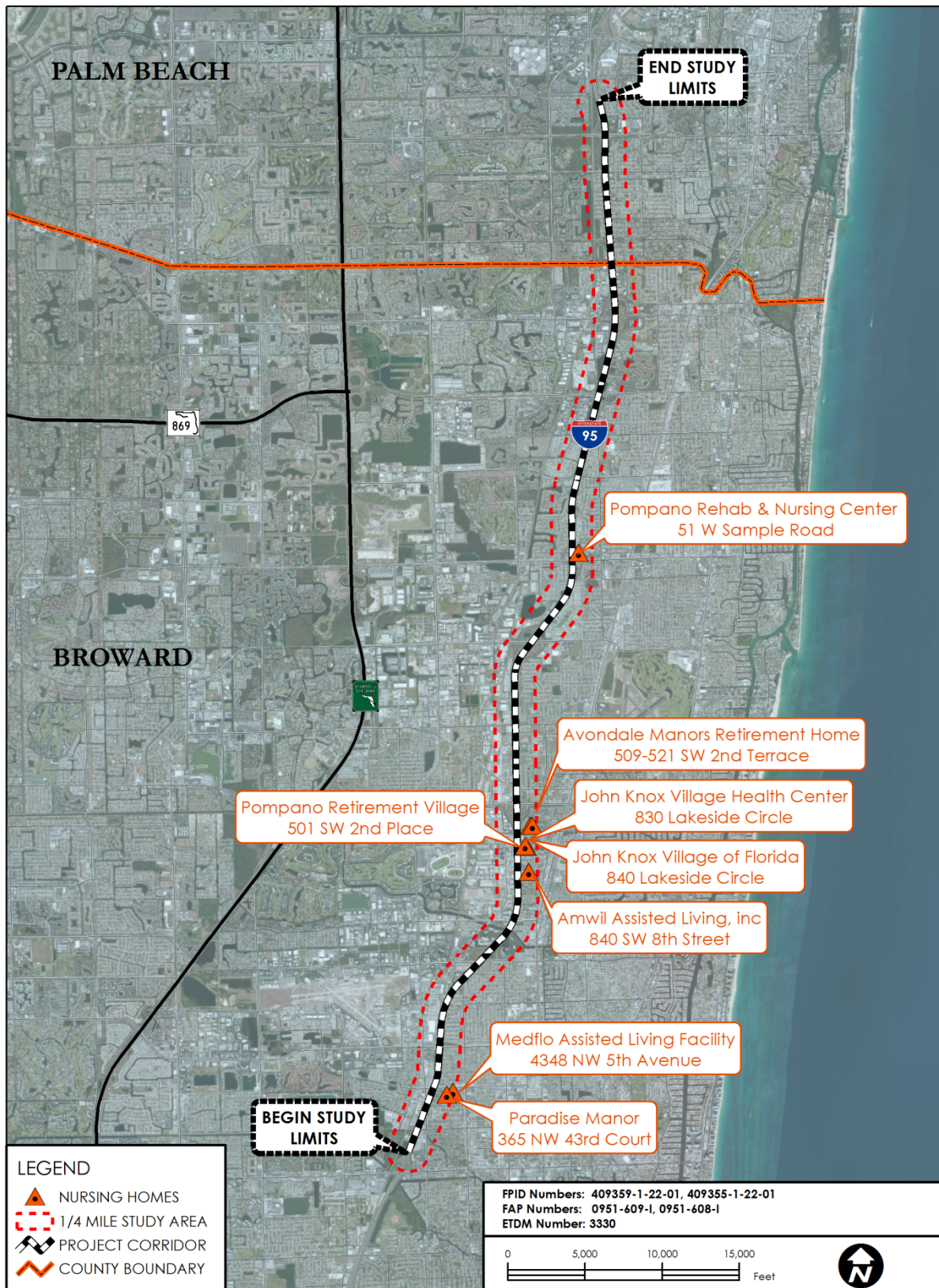


Figure 22 – Nursing Homes/Assisted Living Facilities

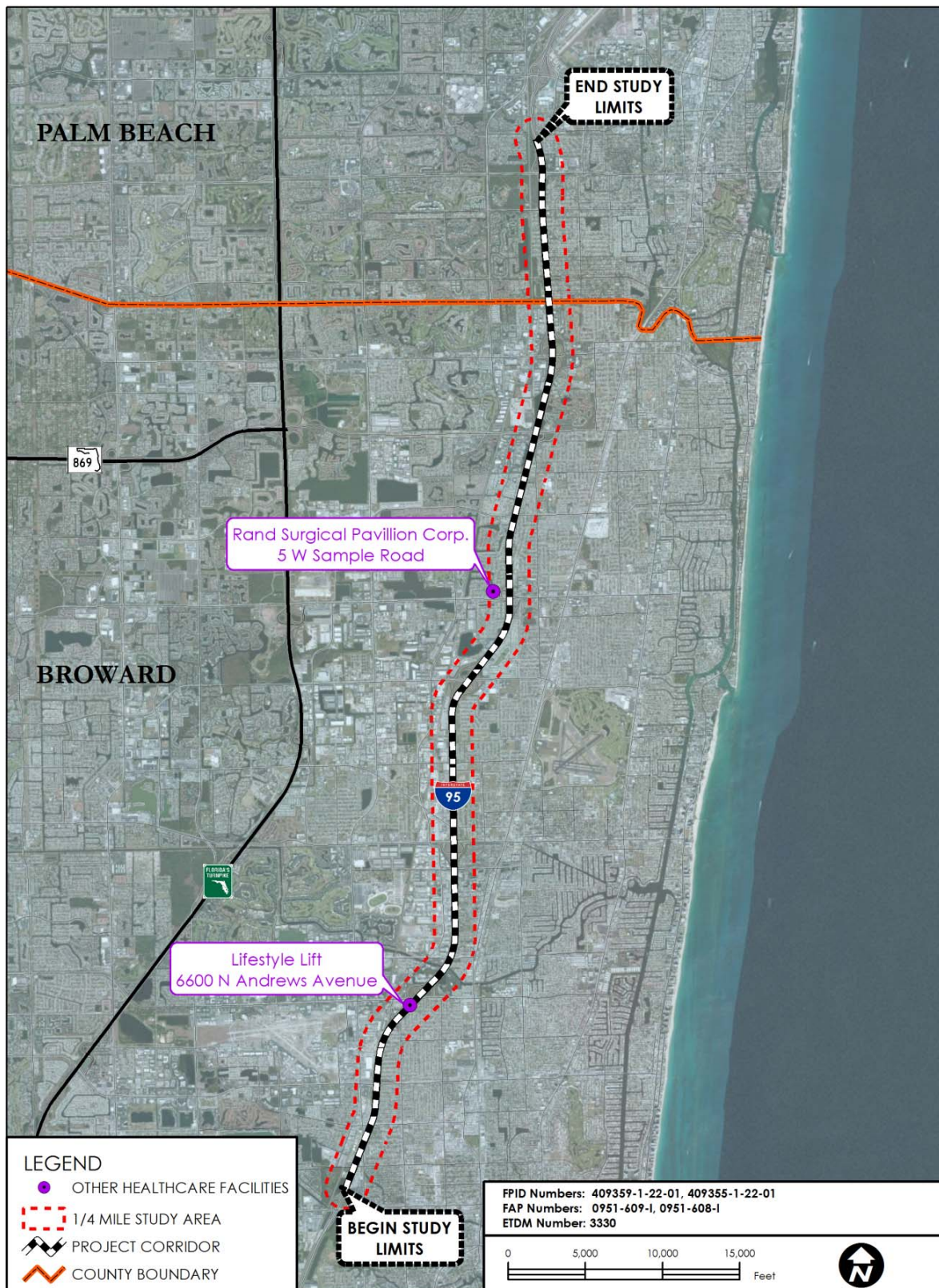


Figure 23 – Other Healthcare Facilities

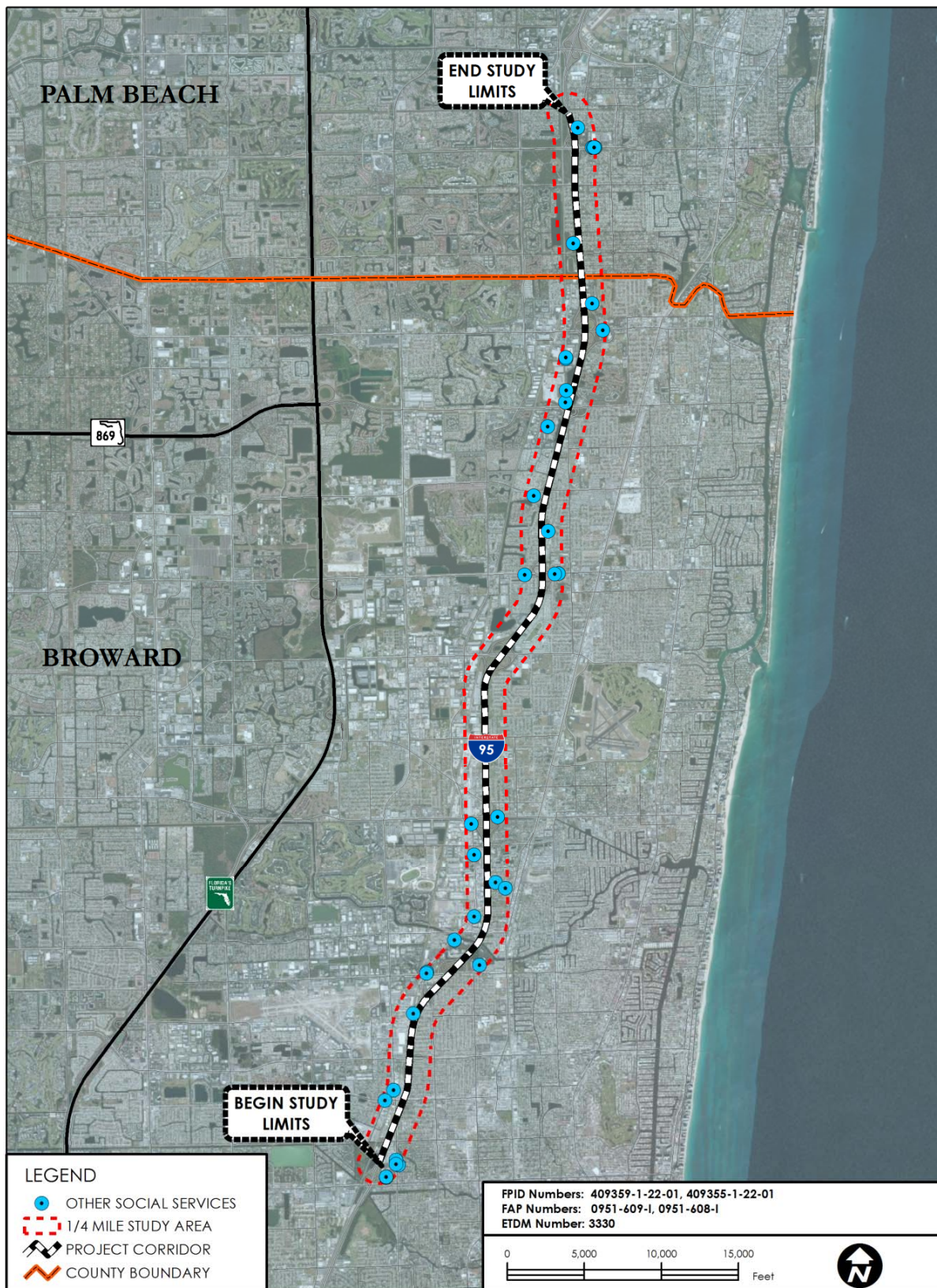


Figure 24 – Other Social Services

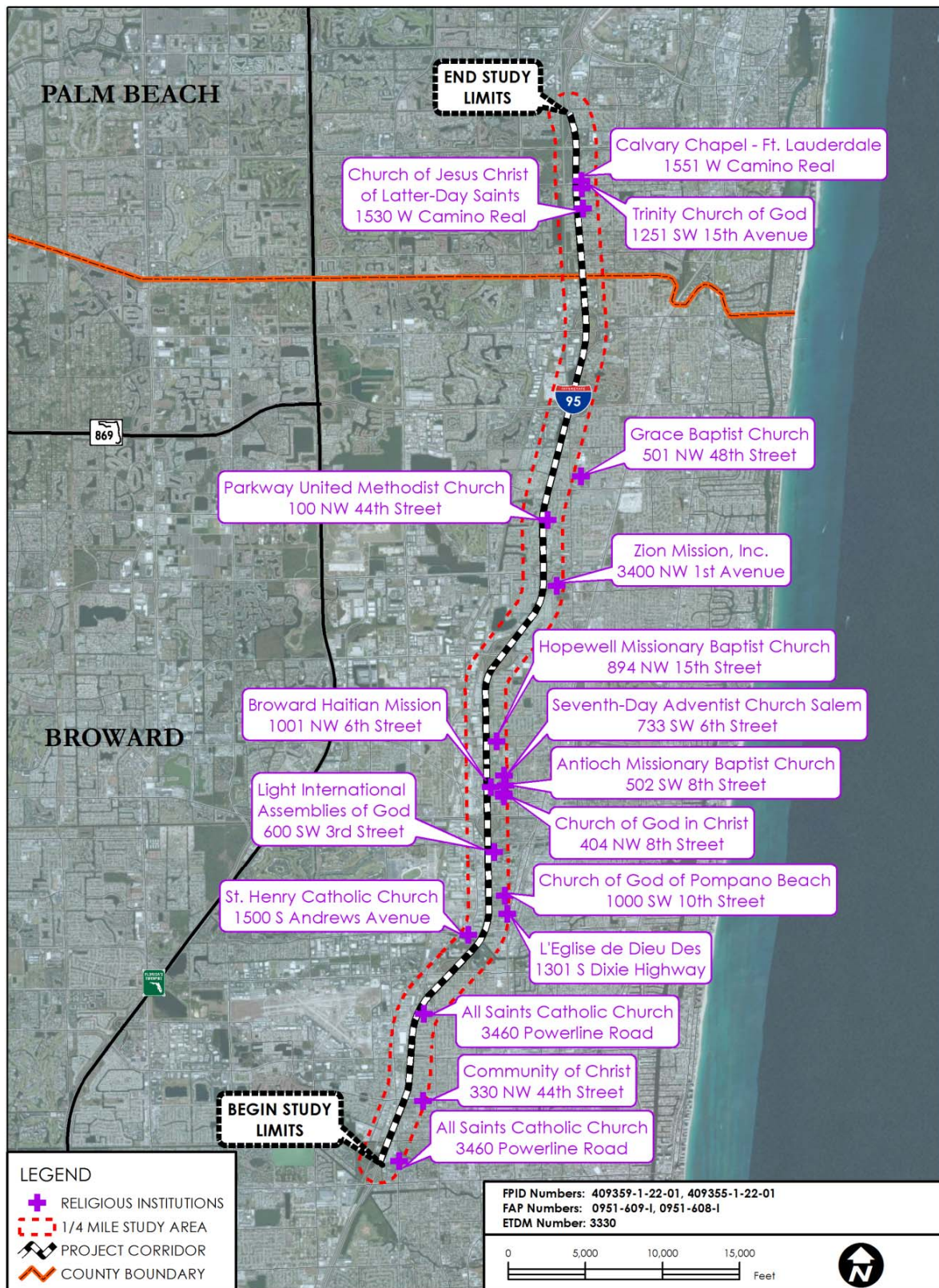


Figure 25 – Religious Facilities

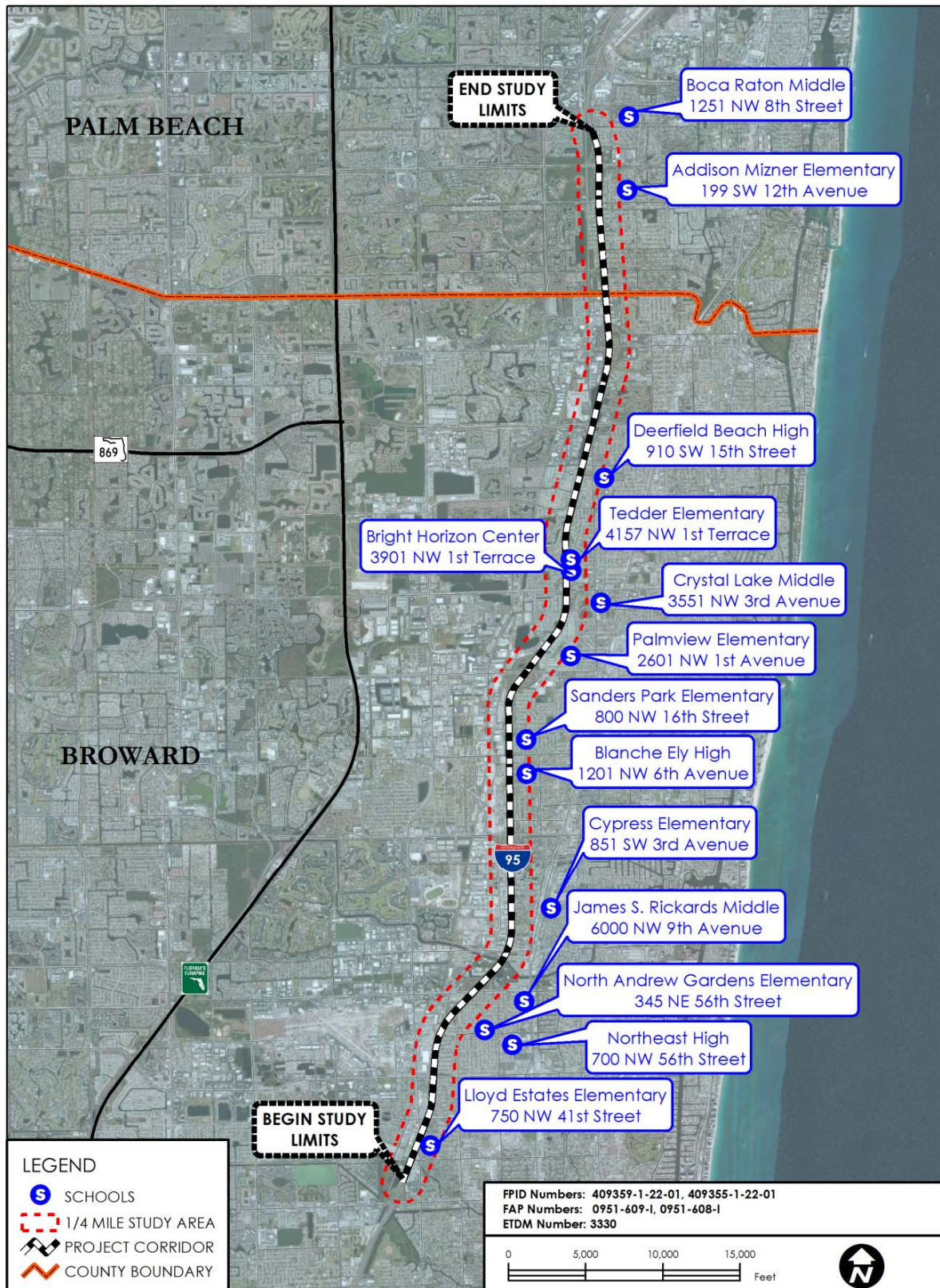


Figure 26 – Schools

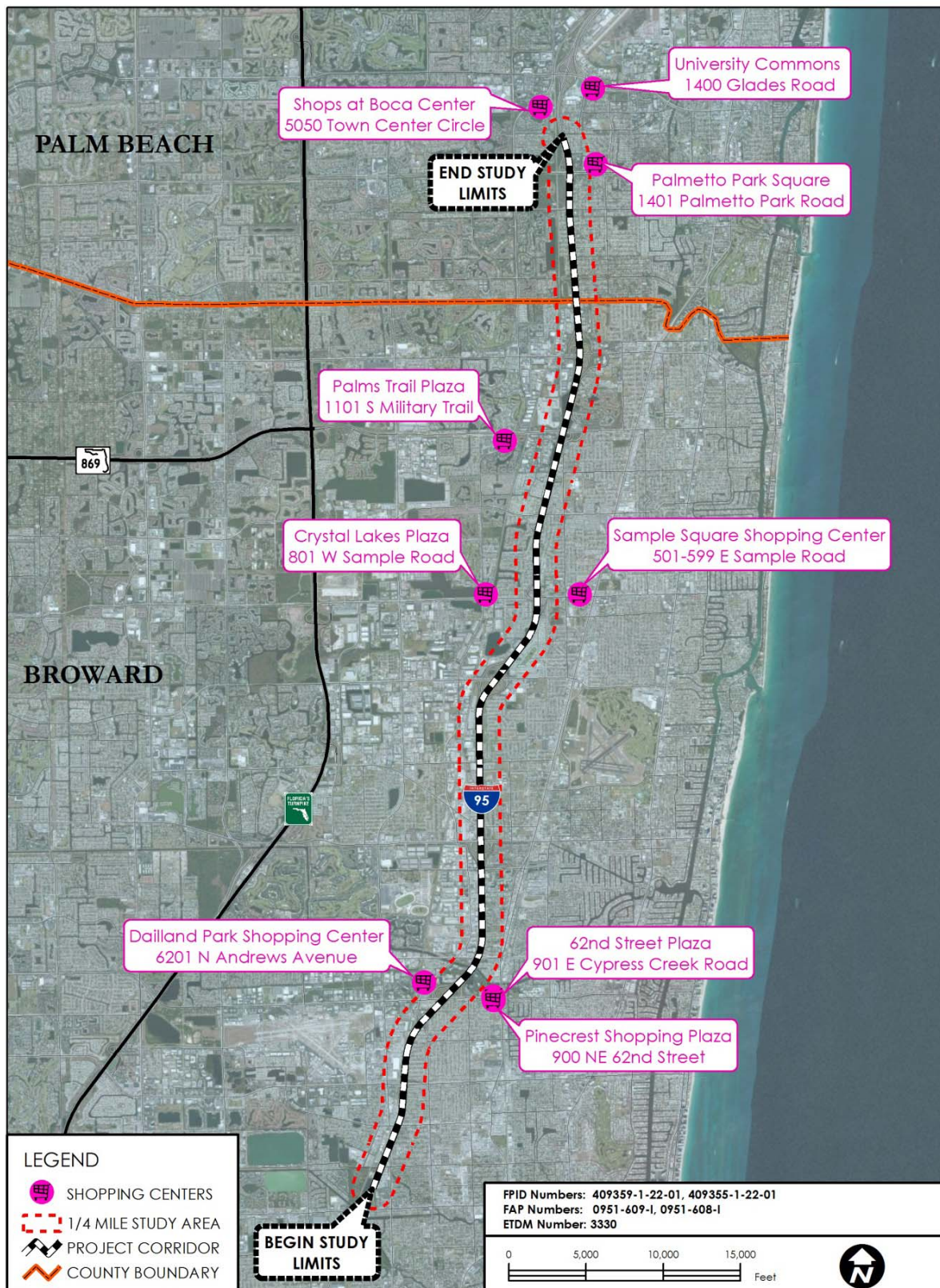


Figure 27 – Shopping Centers

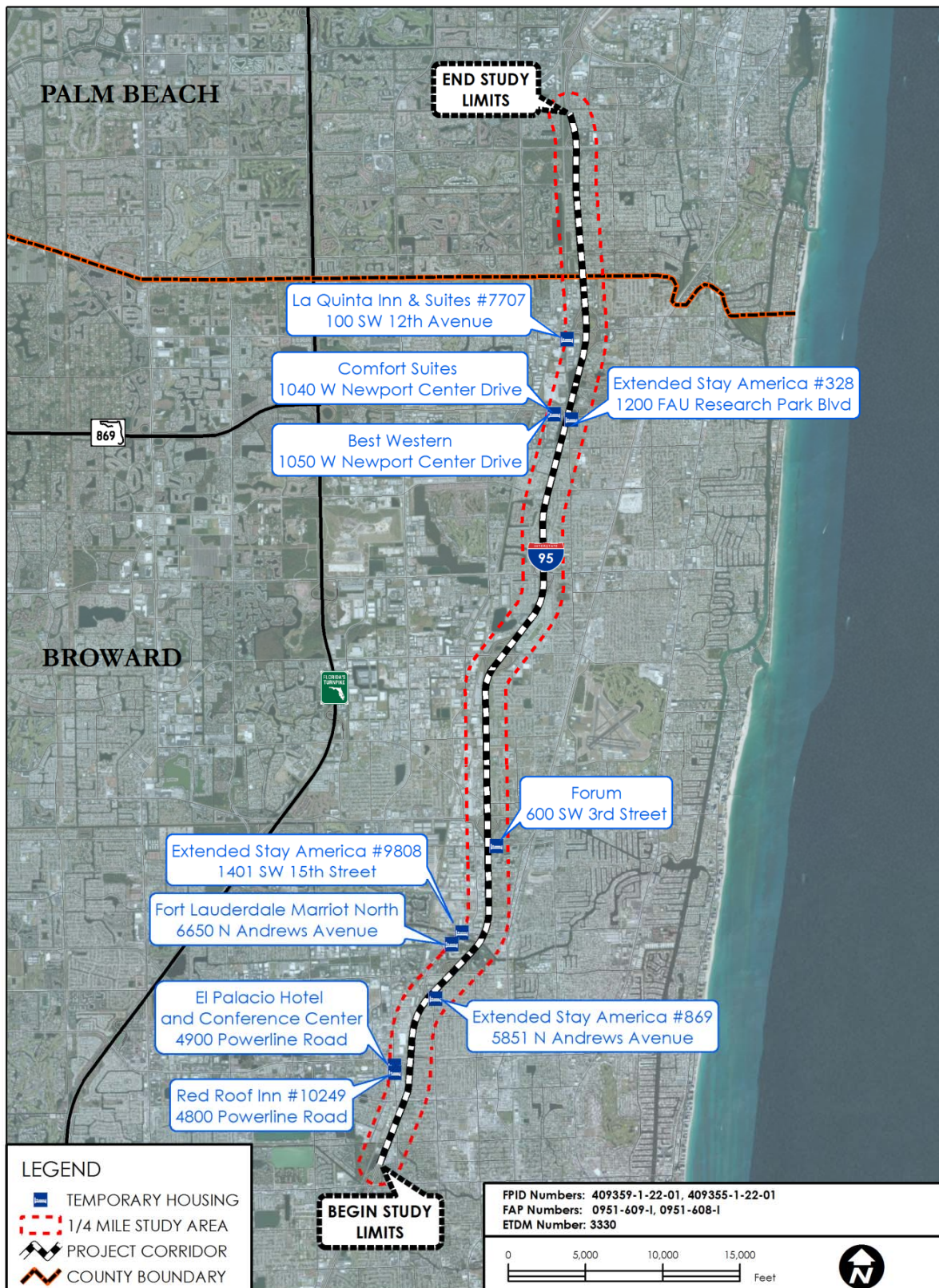


Figure 28 – Temporary Housing Facilities



5. Nondiscrimination Considerations

Civil Rights impacts to minorities and other groups as a result of the proposed improvements to I-95 have been fully considered. This project has been developed in accordance with the Civil Rights Act of 1964. To fully comply with Title VI of the Civil Rights Act of 1964, a Public Involvement Program was undertaken, as documented in the Public Involvement Program record for the project. Furthermore, coordination with the District Title VI coordinator has taken place to fully comply with Title VI and the Americans with Disabilities Act.

6. Controversy Potential

Through the public involvement process conducted for this project, the FDOT District Four has not identified any issues as potentially controversial.

7. Scenic Highways

In accordance with the FDOT *PD&E Manual*, Part 2, Chapter 29 – Scenic Highways (dated October 13, 1998), the project corridor was evaluated for involvement with designated scenic highways. No designated scenic highways are located within the project area; therefore, no impacts to designated scenic highways are anticipated as a result of the proposed project.

8. Farmlands

In accordance with the Farmland Protection Policy Act of 1984 and the FDOT *PD&E Manual*, Part 2, Chapter 28 – Farmlands (dated May 11, 2010), this project was reviewed for involvement with farmlands. Per coordination with the U.S. Department of Agriculture, Natural Resources Conservation Service, lands within current roadway right of way are not considered Prime and/or Unique Farmlands. Since all roadway improvements associated with the build alternative will occur within the existing FDOT right of way, no impacts to Prime and/or Unique Farmlands are anticipated as a result of the proposed project.



B. CULTURAL

1. Section 4(f)

In compliance with the Department of Transportation Act of 1966 [Title 49, U.S. Code, Section 1653(f)], as amended, and in accordance with the FDOT PD&E Manual, Part 2, Chapter 13 – Section 4(f) Evaluations (dated May 22, 1998), the I-95 study corridor was evaluated for potential Section 4(f) involvement. The provisions of Section 4(f) apply to any significant publicly-owned parks, recreation areas, or wildlife and waterfowl refuges; historic and archeological sites; and properties which represent public multiple-use land holdings. For additional information on Section 4(f) resources, please refer to the Section 4(f) Determination of Applicability prepared for this project, which is on file at the FDOT District Four office in Fort Lauderdale, Florida.

“Significant” as applied to Section 4(f) resources is determined based on the availability and function of the historic and/or archaeological site, recreational resource, park, and/or wildlife/waterfowl refuge area relative to the community objectives for those facilities and the role the site in question plays in fulfilling those objectives. The agencies that have jurisdiction over these sites make a significance determination based on the criteria described above and submit a “Statement of Significance” letter to the FDOT. Resources are presumed to be significant unless the official having jurisdiction over the site concludes that the entire site is not significant.

Nine park/recreational resources within the vicinity of the project study corridor were identified for potential Section 4(f) involvement with this project:

- Mills Pond Park (2201 NW 9th Avenue); owned by the City of Fort Lauderdale
- John D. Eastern Park (1000 NW 38th Street); owned by Broward County
- Oakland Bark Park (971 NW 38th Street); owned by the City of Oakland Park
- North Andrews Gardens Neighborhood Park (500 NW 56th Street); owned by the City of Oakland Park
- Fairview Park (801 SW 8th Street); owned by the City of Pompano Beach
- Avondale Park (225 SW 6th Avenue); owned by the City of Pompano Beach
- Mitchell/Moore Park and Community Center (901 NW 10th Street); owned by the City of Pompano Beach
- Weaver Community Park (800 NW 20th Street); owned by the City of Pompano Beach



- Blazing Star Preserve (1751 West Camino Real Road); owned by the City of Boca Raton

A *Section 4(f) Determination of Applicability* Report was prepared for these sites. The project would not acquire land from any of the Section 4(f) resources, and there would be no short-term or long term impacts to the resources by the proposed project. Access to all Section 4(f) resources would be maintained during construction because all of the Section 4(f) sites have local street access (no access from I-95). In addition, none of the sites were sensitive to proximity impacts, including noise. The FDOT and FHWA have determined that there will be no Section 4(f) involvement with the above referenced nine resources. Section 4(f) coordination documentation for these sites is included in **Appendix E**.

These sites are also discussed in **Section 2.18.3** of the report and the *Section 4(f) Determination of Applicability* Report prepared as part of this project.

In addition to the above sites, the following sites within the vicinity of the project study area may be protected under the historic/archaeological resources category for potential Section 4(f) involvement with this project:

- Pompano Canal (BD3226)
- Hillsboro Canal (BD3229/PB10311)
- Lateral Canal L-48 (PB12919)
- Lateral Canal L-47 (PB12920)
- Lateral Canal L-46 (PB12921)
- Circa 1930 Frame Vernacular House (BD2324)
- Circa 1932 Frame Vernacular (BD2325)
- One canoe (BD60) recovered from the cypress swamp adjacent to the Cypress Creek Canal suggests this area may be archaeologically sensitive

Due to their status as potential National Register of Historic Places (NRHP) eligible resources, these sites are discussed in further detail in **Attachment 6.B.2** and the Cultural Resource Assessment Survey (CRAS) prepared as part of this project.

Since all of the proposed roadway improvements associated with the build alternative will occur within the existing FDOT right of way, no impacts to Section 4(f) sites are anticipated.



2. Historic Sites/Districts

A CRAS was prepared for this project in accordance with the procedures contained in Title 36 Code of Federal Regulations (CFR) Part 800 and in accordance with the FDOT *PD&E Manual*, Part 2, Chapter 12 – Archeological and Historical Resources (dated January 12, 1999). This assessment was designed and implemented to comply with Section 106 of the *National Historic Preservation Act (NHPA) of 1966* (Public Law 89-655, as amended), as implemented by 36 CFR 800 (*Protection of Historic Properties*, effective January 2001); Chapter 267, *Florida Statutes (FS)*; Section 4(f) of the *Department of Transportation Act of 1966*, as amended (49 USC 303). For additional information regarding cultural and historical resources, please refer to the *Cultural Resource Assessment Survey* report completed for this project, which is on file at the FDOT District Four office in Fort Lauderdale, Florida.

The historic resources survey resulted in the identification of six previously recorded historic resources (8BD3226, 8BD3229 and 8PB10311, 8BD4087, 8PB12919, 8PB14495, and 8PB14496) within the Area of Potential Affect (APE). The identified historic resources include one railroad and five canals. A Florida Master Site File (FMSF) form was not updated for the L-48 Canal (8PB12919) as this resource was found to be unchanged since its previous recordation. FMSF forms were updated for the remaining historic resources, as the extent of the historic linear resources within the APE had not been previously documented.

Of the identified historic resources, two are considered eligible for listing in the National Register: the Florida East Coast (FEC) Railway (8BD4087) and the Hillsboro Canal (8BD3229 and 8PB10311). Portions of each resource outside of the APE have been determined eligible for listing in the National Register by the SHPO, and the portions within the APE also possess significance and integrity.

In addition to the CRAS, a Cultural Resource Reconnaissance Survey (CRRS) was performed to provide preliminary cultural resource information for areas outside of the established APE. The limits of this reconnaissance survey consisted of resources that are located directly adjacent to the I-95 right of way. This reconnaissance survey resulted in the identification of one previously recorded National Register-eligible historic resource: the Seaboard Air Line (CSX) Railroad (8BD4649 and 8PB12917).



Figure 29 depicts the locations of all historic resources sites.

Since all of the proposed roadway improvements associated with the build alternative will occur within the existing FDOT right of way, no impacts to historic/archeological resources are anticipated.

A request for review letter and a copy of the CRAS were transmitted to the FHWA on March 5, 2013. The FHWA approved the CRAS on April 4, 2013, and provided the following comments:

FHWA concurs with the CRAS recommendations re NRHP-eligibility but finds no basis in the report for a determination of no impacts to 8BD3229 and 8PB10311 and 8BD4087. Please cc: Lynn Kelley, FDOT D4; Mark Clasgens, FHWA; and Roy Jackson, FDOT CEMO.

The FHWA forwarded the request for review letter and a copy of the CRAS to the SHPO for review and concurrence on April 4, 2013. The SHPO concurred with the recommendations and findings in the letter on April 16, 2013. A copy of the CRAS concurrence letter, signed by the FHWA and the SHPO, is included in **Appendix F**.

An evaluation of effects letter was transmitted to the FHWA on August 13, 2013. The letter stated:

The FEC Railway and Hillsboro Canal have been determined eligible for listing in the NRHP. Based on the project information provided [...] which discusses the improvements that will bridge over the resources but within the [right of way], the FDOT finds that the project will have no adverse effect on the significant railroad or canal or the characteristics that determine their National Register eligibility.

The FHWA approved the recommendations and findings in the evaluation of effects letter on August 20, 2013, and forwarded the letter to the SHPO for review and concurrence. The SHPO concurred with the recommendations and findings in the evaluation of effects letter on August 23, 2013. A copy of the evaluation of effects concurrence letter, signed by the FHWA and the SHPO, is included in **Appendix F**.

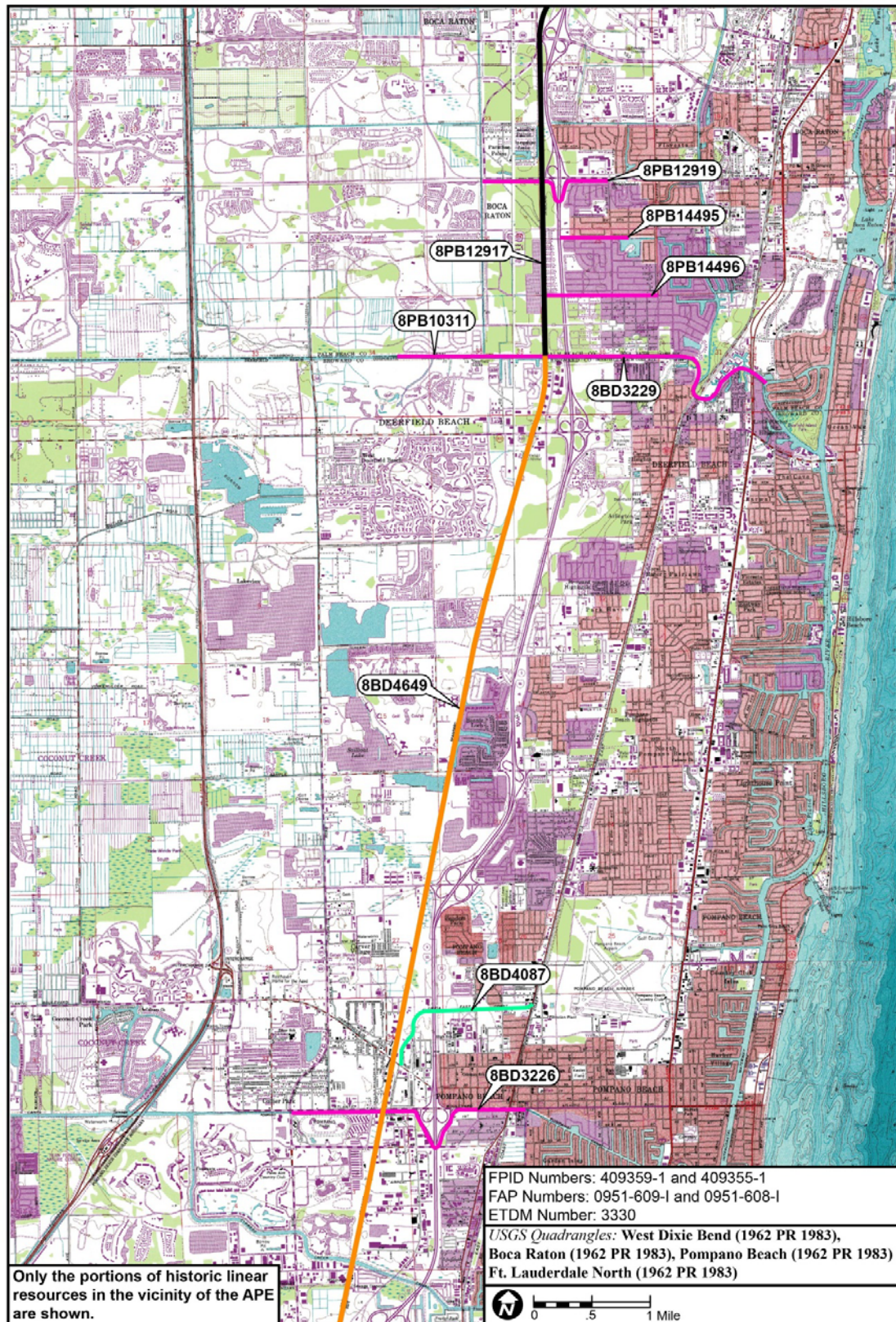


Figure 29 – Historic Resources Sites



3. Archaeological Sites

No newly or previously recorded archaeological sites have been identified within the archaeological APE. A reconnaissance survey confirmed that the APE has been altered by berming and ditching and the construction of the roadway. No subsurface testing was feasible, and the APE is considered to have a low probability for archaeological sites. Therefore, no impacts to archeological sites are anticipated as a result of the proposed project.

4. Recreation Areas

There are nine park/recreational areas along the I-95 corridor within the study limits. **Figure 30** at the end of this section depicts the locations of all park/recreational areas. The park/recreational areas are summarized here:

John D. Easterlin Park – John D. Easterlin Park is a 46.6-acre recreation area located west of I-95 and the CSX railroad tracks, south of NW 38th Street and north of Oakland Park Boulevard. This property houses a Broward County Administration building. This park is owned and managed by Broward County.

Oakland Bark Park – Oakland Bark Park is a 2.25-acre dog park located on the west side of I-95 at 971 NW 38th Street, Oakland Park, Florida. This park is owned and managed by the City of Oakland Park.

North Andrews Gardens Neighborhood Park – North Andrews Gardens Neighborhood Park is a 1.03-acre recreational park located east of I-95 in Oakland Park, Florida. It is bordered to the west by NW 4th Avenue and NW 3rd Avenue. The City of Oakland Park owns and manages North Andrews Neighborhood Park.

Fairview Park – Fairview Park is a 2.4-acre recreation area located east of I-95 in Pompano Beach, Florida. It is bordered on the north by SW 7th street, on the south by SW 8th Street, and on the east by SW 8th Avenue. The City of Pompano Beach owns and manages Fairview Park.

Avondale Park – Avondale Park is a 2.5-acre recreation area located on the east side of I-95 just west of SW 6th Avenue in Pompano Beach, Florida. The City of Pompano Beach owns and manages Avondale Park.



Mitchell/Moore Park and Recreation Center – Mitchell/Moore Park and Community Center is a 15.8-acre recreational area located east of I-95 at the western terminus of NW 10th street in Pompano Beach, Florida. The City of Pompano Beach owns and manages the Mitchell/Moore Park and Community Center.

Weaver Community Park – Weaver Community Park is a 12.4-acre recreation area located on the east side of I-95 just south of the Copans Road interchange in Pompano Beach, Florida. The City of Pompano Beach owns and manages Weaver Community Park.

Crystal Lake Sand Pine Scrub Area – The Crystal Lake Sand Pine Scrub Area is a 24.2-acre natural area located on the east side of I-95 at 3299 NE 3rd Avenue, Pompano Beach, Florida. This natural area is owned and managed by Broward County.

Blazing Star Preserve – Blazing Star Preserve is a 26-acre nature preserve located on the west side of I-95 in Boca Raton, between I-95 and the CSX railroad to the west. It is bounded by Palmetto Park Road to the north and West Camino Real to the south. The City of Boca Raton owns and operates Blazing Star Preserve.

Impacts

All of the proposed roadway improvements associated with the build alternative will occur within the existing FDOT right of way. Since the I-95 corridor is located along a highly urbanized area, which currently experiences impacts typical of a highly travelled expressway (e.g., traffic congestion, noise, visual), and all of the roadway improvements will occur within the existing FDOT right of way, no long-term adverse impacts to recreational areas are anticipated as a result of project implementation. Short-term impacts caused by construction activities, such as traffic congestion/delays, noise from construction equipment, and dust from roadway construction have all been addressed in the applicable sections of this report. Traffic routes during construction would be controlled by a Maintenance of Traffic plan, and access to recreational areas would be maintained at all times during and following completion of construction.

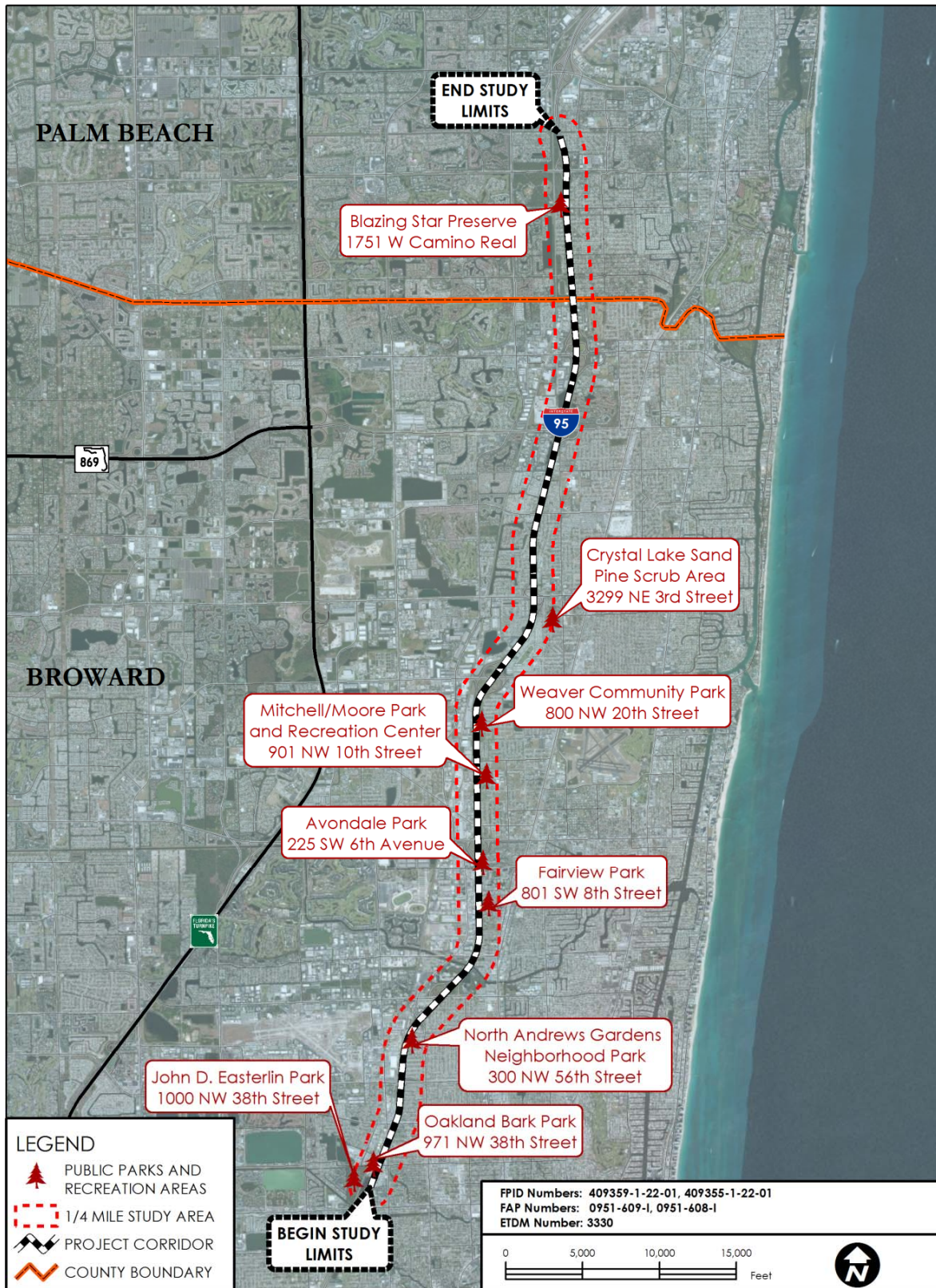


Figure 30 – Existing Parks/Recreational Areas



C. NATURAL

1. Wetlands

A Wetland Evaluation Report (WER) was prepared pursuant to Presidential Executive Order 11990, entitled "Protection of Wetlands," and the National Environmental Policy Act (NEPA), and in accordance with the FDOT *PD&E Manual*, Part 2, Chapter 18 – Wetlands (dated April 22, 2013). For additional information regarding wetlands, stormwater management/drainage features, and surface waters, please refer to the WER completed for this project, which is on file at the FDOT District Four office in Fort Lauderdale, Florida.

The project area was reviewed to identify, map, and assess wetlands and surface water communities that are located within or adjacent to the I-95 PD&E study corridor. In order to determine preliminary locations and boundaries of the existing wetland, stormwater management/drainage, and surface water communities within and adjacent to the project area, available site-specific data was collected and reviewed. Using this information, the approximate boundaries of existing wetland, stormwater management/drainage, and surface water communities were mapped in Geographic Information Systems (GIS) on aerial photography (see *Appendix G*).

Project biologists familiar with South Florida wetland community types conducted field investigations of the study area from June 2012 through August 2012. The purpose of the field investigations was to locate, delineate and/or field verify the boundaries of the existing wetland, stormwater management/drainage, and surface water communities identified during the in-house data review and well as areas not previously identified. The extent of jurisdictional wetlands, stormwater management/drainage features, and/or surface waters for the study corridor were determined using the methodologies outlined in the U.S. Army Corps of Engineers (USACE) Atlantic and Gulf Coast Regional Supplement to the Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Florida Wetlands Delineation Manual/Chapter 62-340 Florida Administrative Code, Delineation of the Landward Extent of Wetlands and Surface Waters (FDEP, 2008). During the field investigation, attention was given to identifying plant species composition for each wetland, stormwater management/drainage, and surface water community delineated as well as its adjacent upland habitats. Exotic plant infestations, shifts in historical communities, and any other disturbances were noted. Wildlife observations and



signs of wildlife utilization at each wetland, stormwater management/drainage, and surface water community and adjacent upland habitats were also noted.

Based on the field investigations conducted for this project (June 2012 through August 2012), the existing conditions of the wetlands, stormwater management/drainage features, and surface waters vary in terms of habitat value, quality, level of intrusion by exotic/invasive (undesirable) species, and degree of geographical isolation.

A total of two wetland areas consisting of one community type (as classified by FLUCFCS codes), 82 engineered stormwater management/drainage features dominated by hydrophytic vegetation consisting of six habitat types, and 21 surface waters consisting of two community types were identified along the project study corridor. **Table 4** shows the assessment area identification number, size (acres), FLUCFCS code/description, and USFWS code/description. The locations of these features are depicted on aerial maps in **Appendix G**.

Table 4 Wetlands, Stormwater Management/Drainage Features, and Surface Waters within the I-95 Study Corridor					
ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
Wetlands					
W-1	1.76	630	Wetland Forested Mixed	PFO3C	Palustrine, Forested, Broad-leaved Evergreen, Seasonally Flooded
W-2	0.16	630	Wetland Forested Mixed	PFO3C	Palustrine, Forested, Broad-leaved Evergreen, Seasonally Flooded
Stormwater Management/Drainage Features					
D-1	0.16	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-2	0.27	814/640	Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-3	0.02	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-4	0.11	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
D-5	0.33	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-6	0.10	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-7	0.64	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-8	0.13	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-9	0.05	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-10	0.26	814/621	Roads and Highways/Cypress	PFO2C	Palustrine, Forested, Needle-leaved Deciduous, Seasonally Flooded
D-11	0.10	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-12	0.19	814/621	Roads and Highways/Cypress	PFO2C	Palustrine, Forested, Needle-leaved Deciduous, Seasonally Flooded
D-13	4.60	814/631/ 641/643	Roads and Highways/Wetland scrub/Freshwater Marshes/Wet Prairies	PEM1A/ PAB3F/ PFO1C	Palustrine, Emergent, Persistent, Temporarily Flooded/Palustrine, Rooted Vascular, Semi-permanently Flooded/ Palustrine, Forested, Broad-leaved Deciduous, Seasonally Flooded
D-14	1.37	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1F	Palustrine, Emergent, Persistent, Semi-permanently Flooded
D-15	0.07	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-16	0.71	814/631/ 641/643	Roads and Highways/Wetland scrub/Freshwater Marshes/Wet Prairies	PEM1A/ PAB3F/ PSS1C	Palustrine, Emergent, Persistent, Temporarily Flooded/Palustrine, Rooted Vascular, Semi-permanently Flooded/ Palustrine, Scrub-Shrub, Broad-leaved Deciduous, Seasonally Flooded



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
D-17	0.98	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A/PFOC	Palustrine, Emergent, Persistent, Temporarily Flooded/Palustrine, Forested, Seasonally Flooded
D-18	0.10	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-19	<0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-20	0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-21	0.10	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-22	0.47	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-23	0.44	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-24	1.00	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-25	0.67	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-26	1.56	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-27	0.14	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-28	0.03	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-29	0.14	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-30	<0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-31	0.19	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-32	0.02	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-33	0.11	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
D-34	0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-35	0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-36	<0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-37	0.13	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-38	0.05	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-39	0.09	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-40	0.49	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-41	1.76	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1F	Palustrine, Emergent, Persistent, Semi-permanently Flooded
D-42	0.44	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-43	1.53	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-44	0.02	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-45	0.07	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-46	2.53	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-47	3.72	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-48	0.16	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-49	0.16	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-50	0.73	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
D-51	2.81	814/640/644	Roads and Highways/Vegetated Non-forested Wetlands/Emergent Aquatic Vegetation	PEM1A/PAB3F	Palustrine, Emergent, Persistent, Temporarily Flooded/Palustrine Aquatic Bed, Rooted Vascular, Semipermanently flooded
D-52	0.70	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-53	0.90	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-54	0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-55	1.12	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-56	0.92	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PAB4F	Palustrine, Aquatic Bed, Floating Vascular, Semi-permanently Flooded
D-57	0.15	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-58	0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-59	0.14	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-60	0.02	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-61	0.14	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-62	0.22	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-63	0.04	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-64	0.14	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-65	0.13	814/644	Roads and Highways/Emergent Aquatic Vegetation	PEM1F	Palustrine, Emergent, Persistent, Semi-permanently Flooded
D-66	0.04	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
D-67	0.06	814/644	Roads and Highways/Emergent Aquatic Vegetation	PEM1F	Palustrine, Emergent, Persistent, Semi-permanently Flooded
D-68	0.04	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-69	0.08	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-70	0.12	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-71	0.62	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded
D-72	0.41	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-73	<0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-74	<0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-75	0.13	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-76	0.29	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded
D-77	0.17	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-78	0.02	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-79	0.41	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1C	Palustrine, Emergent, Persistent, Seasonally Flooded
D-80	0.76	814/630	Roads and Highways/Wetland Forested Mixed	PFOC	Palustrine, Forested, Seasonally Flooded
D-81	0.01	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded
D-82	0.02	814/640	Roads and Highways/Vegetated Non-Forested Wetlands	PEM1A	Palustrine, Emergent, Persistent, Temporarily Flooded



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
Surface Waters					
SW-1	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-2	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-3	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-4	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-5	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-6	N/A	534	Reservoirs less than 10 Acres	PABHx	Palustrine, Aquatic Bed, Permanently Flooded, Excavated
SW-7	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-8	N/A	510	Streams and Waterways	R2UBHx	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded, Excavated
SW-9	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-10	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-11	N/A	534	Reservoirs less than 10 Acres	PABHx	Palustrine, Aquatic Bed, Permanently Flooded, Excavated
SW-12	N/A	510	Streams and Waterways	PUBFx	Palustrine, Uncosolidated Bottom, Semipermanently Flooded, Excavated



Table 4
Wetlands, Stormwater Management/Drainage Features, and Surface Waters
within the I-95 Study Corridor

ID No.	Size (Acres*)	FLUCFCS Code	FLUCFCS Description	USFWS Code	USFWS Description
SW-13	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-14	N/A	534	Reservoirs less than 10 Acres	PABHx	Palustrine, Aquatic Bed, Permanently Flooded, Excavated
SW-15	N/A	510	Streams and Waterways	R2ABHx	Riverine, Lower Perennial, Aquatic Bed, Permanently Flooded, Excavated
SW-16	N/A	534	Reservoirs less than 10 Acres	PABHx	Palustrine, Aquatic Bed, Permanently Flooded, Excavated
SW-17	N/A	534	Reservoirs less than 10 Acres	PABHx	Palustrine, Aquatic Bed, Permanently Flooded, Excavated
SW-18	N/A	510	Streams and Waterways	PUB/ EMFx x	Palustrine, Unconsolidated Bottom/Emergent, Semipermanently Flooded, Excavated
SW-19	N/A	510	Streams and Waterways	R2UBHx	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded, Excavated
SW-20	N/A	510	Streams and Waterways	PABHx	Palustrine, Aquatic Bed, Permanently Flooded, Excavated
SW-21	N/A	510	Streams and Waterways	PUBFx	Palustrine, Unconsolidated Bottom, Semipermanently Flooded, Excavated

* Rounded to the nearest hundredth.

FLUCFCS = Florida Land Use, Cover, and Forms Classification System

USFWS = U.S. Fish and Wildlife Service

N/A = Not Applicable



Direct and Indirect Impacts

The proposed build alternative for the I-95 project was evaluated for potential impacts to wetlands, stormwater management/drainage features, and surface waters. Based on the footprint of the proposed roadway improvements, the build alternative would result in 1.92 acres of direct impacts to wetlands, 32.15 acres of direct impacts to stormwater management/drainage features dominated by hydrophytic vegetation, and 17.36 acres of direct impacts to surface waters, as shown in **Table 5**.

For the two wetland areas with direct impacts (W-1 and W-2), indirect impacts are anticipated because a suitable upland buffer does not exist between the remaining portion of the wetland and the proposed roadway construction. Therefore, indirect impacts were calculated to an average distance of 50 feet beyond the direct impact. This 50-foot distance was determined using best scientific judgment in analyzing what type of indirect impacts will be expected during and following construction and how far into a wetland area those affects will be experienced per agency criteria. Items considered include construction activities, sedimentation resulting from increased turbidity associated with soil disturbance (water quality impacts), interruption to surface water flow, alterations to vegetative communities outside the final roadway footprint, and effects to wildlife in the vicinity of the corridor. Based on these criteria, 0.96 acres of indirect impacts are anticipated as a result of the build alternative, as shown in **Table 5**.

Table 5 Potential Impacts (Direct and Indirect)		
Assessment Area	Direct Impacts (Acres)	Indirect Impacts (Acres)
Wetlands		
W-1	1.76	0.55
W-2	0.16	0.41
Total	1.92	0.96
Stormwater Management/Drainage Features		
Stormwater Retention Swales ¹	12.59	N/A
Stormwater Retention Basins ²	14.44	N/A
Emergent Wetland Fringe ³	0.22	N/A



Table 5 Potential Impacts (Direct and Indirect)		
Assessment Area	Direct Impacts (Acres)	Indirect Impacts (Acres)
D-13A	2.14	N/A
D-13B	2.14	N/A
D-13C	0.62	N/A
Total	32.15	N/A
Surface Waters		
Surface Waters	17.36	N/A

N/A = Not applicable

¹ Stormwater Retention Swales include D-1 – D-8, D-18, D-21, D-29 – D-36, D-38 – D-41, D-54 – D-55, D-57 – D-59, D-61 – D-64, D-68 – D-71, D-73 – D-78, and D-81 – D-82.

² Stormwater Retention Basins include D-10 – D-12, D-14, D-16 – D-17, D-37, D-42 – D-43, D-45 – D-51, D-56, D-66, D-72, and D-79 – D-80.

³ Emergent Wetland Fringe includes D-9, D-15, D-19 – D-20, D-44, D-52, D-65, and D-67.

Wetland Functional Assessment

The Uniform Mitigation Assessment Method (UMAM) provides a standardized procedure for assessing the functions provided by wetlands and other surface waters; the amount that those functions are reduced by a proposed impact; and the amount of mitigation necessary to compensate for that loss in terms of current condition, hydrologic connection, uniqueness, location, fish and wildlife utilization, time lag, and mitigation risk. A UMAM assessment was conducted for each of the wetland communities which could be impacted by the proposed project. Please note that a UMAM assessment was not conducted for areas characterized as stormwater management/drainage features or surface waters. Stormwater management/drainage features will be replaced with stormwater management/drainage features in the new project design and therefore, would not require additional mitigation. For the surface waters to be impacted, the presence of native wetland vegetation is limited in these surface waters and mitigation for impacts to surface waters is typically not required.



The total UMAM functional loss as a result of construction of the proposed project was calculated to be approximately 1.16 UMAM credits (1.09 credits necessary to compensate for direct impacts and 0.07 credits necessary to compensate for indirect impacts). A summary of the results of the UMAM assessment on the proposed wetland impact areas is provided in **Table 6**. Copies of the UMAM data forms are provided in the WER prepared for this project.

Table 6													
UMAM Impact Assessment Results													
Assessment Area	FLUCFCS	UMAM SCORE				UMAM SCORE				Impact Delta	Impact Acreage	Functional Loss	Mitigation Credits
		(Current)				(with Impact)							
		Location and Landscape Support	Water Environment	Community Structure	RAW Score	Location and Landscape Support	Water Environment	Community Structure	Raw Score				
Direct Impacts													
W-1	630	5	7	5	0.57	0	0	0	0.00	-0.57	1.76	-1.00	1.00
W-2	630	5	7	5	0.57	0	0	0	0.00	-0.57	0.16	-0.09	0.09
Total											1.92	-1.09	1.09
Indirect (Secondary) Impacts													
W-1	630	5	7	5	0.57	4	6	5	0.50	-0.07	0.55	-0.04	0.04
W-2	630	5	7	5	0.57	4	6	5	0.50	-0.07	0.41	-0.03	0.03
Total											0.96	-0.07	0.07



Cumulative Impacts

From a regional watershed perspective, the proposed project is located within the Southern Florida Watershed [Hydrologic Unit Code (HUC) 030902] and within the Florida Southeast Coast Cataloging Unit (HUC 03090206). The limits and area covered by the Southern Florida Watershed Unit closely resemble those of the South Florida Water Management District's (SFWMD) C-100 mitigation basin, therefore the cumulative impact discussion satisfies the requirements of both the USACE and the SFWMD. **Figure 31** depicts the limits of the Southern Florida Watershed. There are approximately 852,651.10 acres of wetlands (marshes) within portions of Broward and Palm Beach counties located within the Florida Southeast Coast Cataloging Unit (SFWMD, 2011). The proposed direct wetland impacts consist of approximately 1.92 acres, which represents a small fraction of the total wetlands within the basin (0.0002%). The unimpacted wetland areas will still total 852,617.10 acres of similar wetland (marsh) habitats (>99.999% of the total wetlands) following construction. Therefore, the cumulative wetland impacts resulting from the proposed project are anticipated to be considered negligible within the Florida Southeast Coast Cataloging Unit as well as the greater Southern Florida Watershed. Additionally, the proposed project impacts will be offset via mitigation, thereby resulting in a zero net loss of wetland function (see **Conceptual Mitigation** section below for details of the proposed conceptual mitigation).

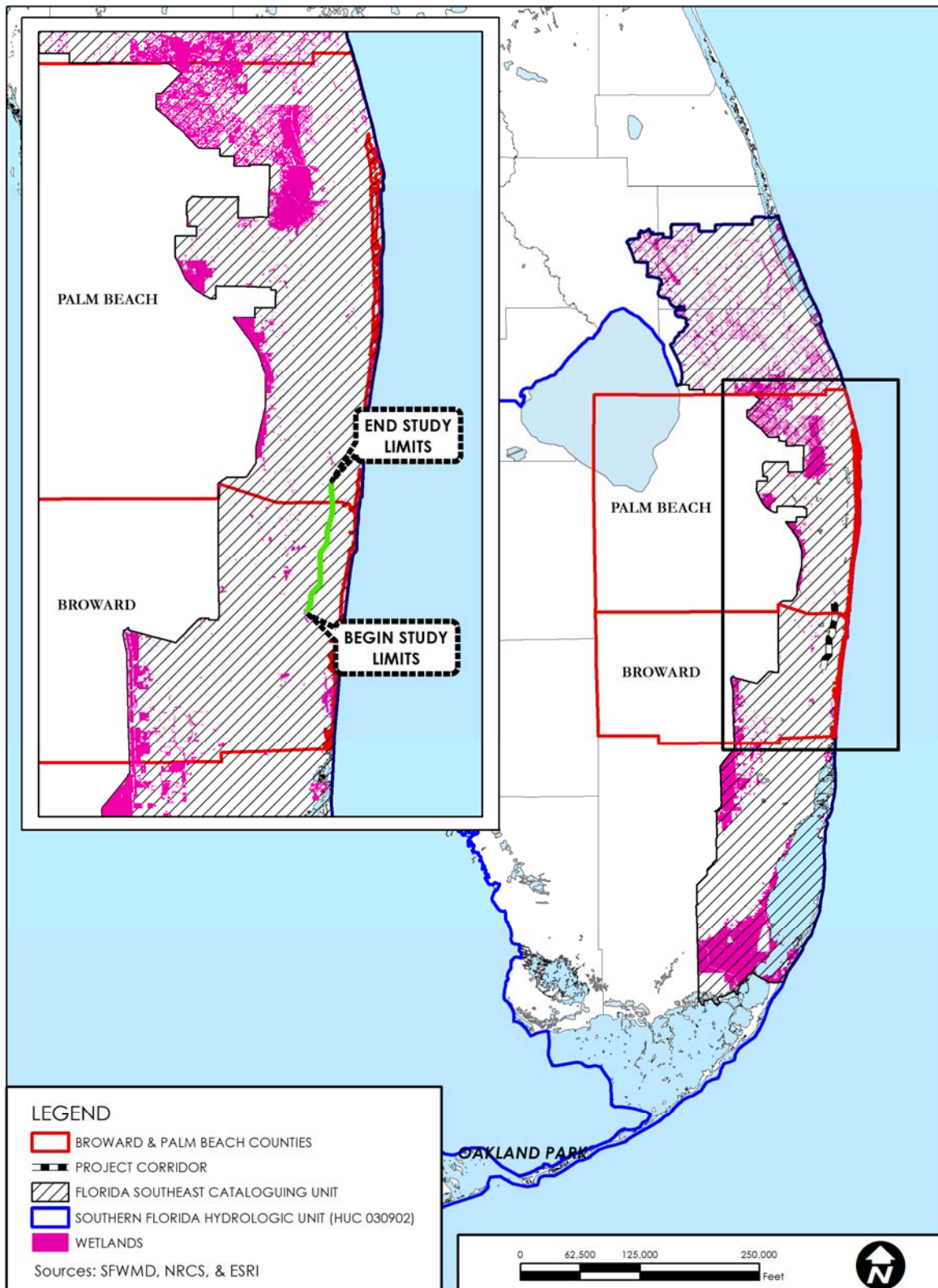


Figure 31 – Southern Florida Watershed and
Florida Southeast Coast Cataloging Unit Map



Elimination and Reduction of Impacts

No impacts to wetlands or surface waters are anticipated with the No-Build Alternative; however, due to the projected demand for roadway capacity within the study area, traffic congestion, delays, and other operational and access deficiencies would remain. Therefore, since the No-Build Alternative does not meet the project purpose and need, it was eliminated from further consideration.

As wetlands lie within and directly adjacent to the project corridor, the complete elimination of wetland and/or surface water impacts is not compatible with any roadway safety or capacity improvements, and there is a sufficient transportation demand to justify the proposed improvements along this corridor.

Build alternatives were developed with consideration of reducing or eliminating impacts to wetlands and surface waters within the limits of the proposed project. The I-95 corridor is considered the “spine” of the transportation system in southeast Florida. Master planning of major transportation facilities such as I-95 has been essential to facilitate the availability of capacity within the transportation network and to support the region’s high growth. The FDOT has been involved in both master planning and implementation of master plan recommendations for the past three decades. Over the past few decades, Miami-Dade, Broward and Palm Beach Counties have experienced a high demographic growth which has translated into traffic volumes exceeding the capacity of the corridor. These high volumes have brought congestion during the peak hours on I-95 to unacceptable levels of service.

The results of these planning-level studies identified, recommended, and prioritized the development of an integrated multimodal transportation system which is economically efficient, safe, and environmentally sound. These studies’ results led the FDOT to re-start this PD&E study in 2012 with the focus of evaluating capacity improvements along the corridor with the implementation of an express lanes system.

The recommended alternative was further refined by consideration of the proposed roadway profile and associated typical section in order to ensure that proposed impacts to wetlands and surface waters were reduced as much as possible while meeting the transportation needs of the project. In addition, further efforts to reduce impacts will be implemented as detailed construction plans are



developed during the permitting and final design phase of the project including the use of BMPs in accordance with the latest edition of FDOT's Standard Specifications for Road and Bridge Construction.

Conceptual Mitigation

Although the build alternative was refined to reduce impacts to wetlands to the greatest extent practicable, unavoidable impacts (direct and indirect) to freshwater wetlands are anticipated to occur. Based on the footprint of the proposed roadway improvements, the build alternative would result in 1.92 acres of direct impacts and 0.96 acres of indirect impacts to wetlands, 32.15 acres of direct impacts to stormwater management/drainage features dominated by hydrophytic vegetation, and 17.36 acres of direct impacts to surface waters.

Direct impacts to stormwater management/drainage features will be mitigated by the creation of the new stormwater management/drainage system, which is anticipated to result in no net loss of stormwater management/drainage features dominated by hydrophytic vegetation and no net loss of functional value in terms of water quality or habitat value. If it is determined during final design and permitting that the new stormwater management/drainage system does not fully compensate for the proposed impacts, these impacts would be mitigated along with the proposed wetland mitigation discussed below.

For the surface waters proposed to be impacted, the presence of native wetland vegetation is limited in these surface waters and mitigation for impacts to surface waters is typically not required.

The total UMAM functional loss to wetlands that would result from the construction of the build alternative was calculated to be 1.16 UMAM credits (1.09 credits necessary to compensate for direct impacts and 0.07 credits necessary to compensate for indirect impacts), as shown in **Table 7**.



Table 7 UMAM Analysis for Wetland Impacts				
Assessment Area	Impact Delta	Impact Acreage	Functional Loss	Mitigation Credits
Direct Impacts				
W-1	-0.57	1.76	-1.00	1.00
W-2	-0.57	0.16	-0.09	0.09
Total		1.92	-1.09	1.09
Indirect (Secondary) Impacts				
W-1	-0.07	0.55	-0.04	0.04
W-2	-0.07	0.41	-0.03	0.03
Total		0.96	-0.07	0.07

During final design and permitting, this UMAM assessment can be used to determine the appropriate mitigation for wetland impacts. The following options for wetland compensatory mitigation could be considered by the FDOT during the final design and permitting process:

- Request for open competitive bids for the purchase of mitigation credits by the two mitigation banks within the service area of the project impacts (Florida Power and Light Everglades Mitigation Bank and Loxahatchee Mitigation Bank). Both of these mitigation banks currently have sufficient credits available to the FDOT for this project (as of June 2013).
- Wetland enhancements at the SFWMD's DuPuis Wildlife Management Area
- Offsite wetland creation, restoration, or enhancement at an available FDOT surplus property

Refinements of these calculations are expected to occur during the final design and permitting phase of the project. The type and level of mitigation for wetland impacts will be based on the final impact acreages (direct/indirect), the nature of disturbance (temporary/permanent), and the overall quality of the systems.

Agency Coordination

Agency coordination to obtain wetland and surface water information for this project occurred through the ETDM Programming Screening (ETDM #3330), the Advance Notification process, and individual conservation with staff at the USACE and the SFWMD. The ETDM review occurred between May 21, 2004, and July 5, 2004, and the Programming Screen Summary Report was published on September 29, 2005. The Summary Degree of Effect for wetlands was listed as 'Moderate' for the Wetlands category. Through the PD&E process for this project, measures have been taken to eliminate and reduce (avoid and minimize) impacts to wetlands to the greatest extent practicable. As wetlands lie within and directly adjacent to the project corridor, the complete elimination of wetland and/or surface water impacts is not compatible with the project purpose and need. Therefore, mitigation is proposed for unavoidable impacts to wetlands. Additionally, all applicable environmental permits will be obtained in accordance with federal, state, and local laws and regulations. Therefore, due to the elimination, reduction, and mitigation measures proposed during the PD&E process, the degree of effect for wetlands for this project is expected to be 'Minimal.' A summary of the wetland-related comments received from the resource agencies charged with commenting on project specific effects to the natural habitats is provided in **Table 8**. The ETDM Programming Screen Summary Report has been included in **Appendix C**.

Table 8			
Summary of ETDM Programming Screen Wetland Resource Comments			
Agency	Issue	Degree of Effect	Comments
U.S. Army Corps of Engineers	Wetlands	Moderate	Based on previous experience in the project area, there are normally ditches/canals that parallel the interstate. These linear features will have to be identified for the Corps review process in addition to other wetlands within the corridor. The EST's database indicates that the site may contain wetlands. The USACE will require: 1) a map showing all wetland impacts within the project corridor including any impacts to ditches/canals; 2) a description of all wetlands within the corridor; 3) a functional assessment of the wetlands proposed to be impacted. The project should be designed to minimize/avoid impacts to these resources to the greatest extent practicable. If impacts to wetlands occur, a mitigation plan should be prepared that fully compensates for the loss of wetland resources.



Table 8
Summary of ETDM Programming Screen Wetland Resource Comments

Agency	Issue	Degree of Effect	Comments
U.S. Fish and Wildlife Service	Wetlands	Minimal to None	The USFWS notes that the proposed project is located in a highly urbanized area and is not likely to significantly affect fish and wildlife. The database associated with the EST indicated that wetlands were recorded in the project corridor. If wetlands are found to occur within the project area, we recommend that resources be avoided to the greatest extent practicable. If impacts to wetlands are unavoidable, we recommend that the FDOT provides mitigation that fully compensates for the loss of wetland resources.
National Marine Fisheries Service	Wetlands	Moderate	Based on our review of the GIS analysis results for wetlands, it appears that wetlands occur within close proximity to the project corridor. NMFS recommends that adverse impacts to wetlands should be avoided or minimized. If wetlands are directly or indirectly impacted by the proposed project, compensatory mitigation that fully offsets unavoidable impacts to wetland resources should be provided. If a Clean Water Act Section 404 permit from the USACE is required for the proposed work, NMFS may provide comments during the review of the permit application/public notice.

2. Aquatic Preserves

In accordance with Chapter 18-20, Florida Administrative Code, and the FDOT *PD&E Manual*, Part 2, Chapter 19 – Aquatic Preserves (dated January 11, 2011), the project corridor was evaluated for the potential presence of aquatic preserves. No aquatic preserves are located within the project area; therefore, no impacts to aquatic preserves are anticipated as a result of the proposed project.

3. Water Quality

Existing Stormwater Management/Drainage

The I-95 Project corridor lies within the SFWMD's C-13 East, C-14, Pompano Canal, and Hillsboro Canal Drainage Basins. It is located in eastern Broward and Palm Beach Counties, Florida. The SFWMD and the FDOT require that the pre-development offsite discharge rates and volumes not be exceeded by the proposed design for the SFWMD 25 year – 72 hour storm, as well as the greater of



either the 100 year – 1 hour, 100 year – 8 hour, or the 100 year – 24 hour FDOT design storms. The existing drainage for the I-95 Project corridor is divided into four drainage basins.

Basin 1 – This drainage basin encompasses I-95 from Oakland Park Boulevard to Commercial Boulevard. Runoff from I-95 sheet flows into interchange infield areas and roadside swales located along both sides of I-95. These roadside swales provide for water quality treatment and stormwater attenuation through the use of ditch block weirs. The excess stormwater runoff overflows these weirs and discharges directly into a wet pond, located in the northwest quadrant of the I-95 interchange with Oakland Park Boulevard, for ultimate disposal. This Basin is located within the SFWMD's C-13 East Basin.

Basin 2 – This drainage basin encompasses I-95 from Commercial Boulevard to West McNab Road. Runoff from I-95 sheet flows into interchange infield areas and roadside swales located along both sides of I-95. These roadside swales provide for water quality treatment and stormwater attenuation through the use of ditch block weirs. The excess stormwater runoff overflows these weirs and discharges directly into the C-14 Canal, located just south of West McNab Road, for ultimate disposal. This Basin is located within the SFWMD's C-14 Basin.

Basin 3 – This drainage basin encompasses I-95 from West McNab Road to Sample Road. Runoff from I-95 sheet flows into interchange infield areas and roadside swales located along both sides of I-95. These roadside swales provide for water quality treatment and stormwater attenuation through the use of ditch block weirs. The excess stormwater runoff overflows these weirs and discharges directly into the canal located adjacent to I-95, along the east side of I-95 from Atlantic Boulevard to south of Copans Road, and along the west side of I-95 from south of Copans Road to Sample Road, for ultimate disposal. This Basin is located within the SFWMD's Pompano Canal Basin.

Basin 4 – This drainage basin encompasses I-95 from Sample Road to just north of Palmetto Park Road. Runoff from I-95 sheet flows into interchange infield areas and roadside swales located along both sides of I-95. These roadside swales provide for water quality treatment and stormwater attenuation through the use of ditch block weirs. The excess stormwater runoff overflows these weirs and discharges directly into the Hillsboro Canal, located along the Broward/Palm Beach County line, for ultimate disposal. This Basin is located within the SFWMD's Hillsboro Canal Basin.



Proposed Stormwater Management/Drainage

The proposed drainage systems have been divided into four major basins and 97 sub-basins. The major basins were delineated based upon the eventual outfall into a surface water body, while the sub-basins were delineated based upon the locations of the existing weirs. Figures depicting the proposed stormwater management systems are included in **Appendix H**.

Basin 1: The limits for Basin 1 are from the Begin Project, located just north of Oakland Park Boulevard, to Commercial Boulevard. Stormwater runoff is routed via storm sewers and drainage swales into a wet pond located in the northwest quadrant of the I-95/Oakland Park Boulevard interchange. The proposed widening of I-95 will increase the amount of impervious area and thus, the amount of stormwater runoff. This increase in runoff will be compensated for by re-working the eastbound swales of I-95, thereby increasing the storage capacity of these swales.

Basin 2: The limits for Basin 2 are from Commercial Boulevard to West McNab Road. Stormwater runoff is routed via storm sewers, interchange infield areas, and drainage swales into the C-14 Canal. The proposed widening of I-95 will increase the amount of impervious area and thus, the amount of stormwater runoff. This increase in runoff will be compensated for by excavating four of the interchange infield areas within the I-95/West Cypress Creek Road Interchange an additional one-foot. This increase in available interchange infield storage volume will be able to provide for the additional required water quality detention requirements, as well as the required pre-post attenuation volumes.

Basin 3: The limits for Basin 3 are from West McNab Road to West Copans Road. Stormwater runoff is routed via storm sewers, interchange infield areas, and drainage swales into a tributary canal of the Pompano Canal located along the east side of I-95 just north of the interchange with West Atlantic Boulevard. The proposed widening of I-95 will increase the amount of impervious area and thus, the amount of stormwater runoff. This increase in runoff will be compensated for by excavating four of the interchange infield areas within the I-95/West Atlantic Boulevard Interchange and four of the interchange infield areas within the I-95/West Copans Road Interchange an additional one-foot. This increase in available interchange infield storage volume will be able to provide for the additional required water quality detention requirements, as well as the required pre-post attenuation volumes.



Basin 4: The limits for Basin 4 are from West Copans Road to the end project located just north of the I-95/Palmetto Park Road interchange. Stormwater runoff is routed via storm sewers, interchange infield areas, and drainage swales into a tributary canal of the Hillsboro Canal located along the west side of I-95. The proposed widening of I-95 will increase the amount of impervious area and thus, the amount of stormwater runoff. This increase in runoff will be compensated for by excavating two (2) of the interchange infield areas within the I-95/West Copans Road Interchange, four of the interchange infield areas within the I-95/West Sample Road Interchange, one of the interchange infield areas within the I-95/SW 10th Street Interchange, four of the interchange infield areas within the I-95/West Hillsboro Boulevard Interchange, and two of the interchange infield areas within the I-95/Palmetto Park Road Interchange an additional one-foot. This increase in available interchange infield storage volume will be able to provide for the additional required water quality detention requirements, as well as the required pre-post attenuation volumes.

Replacement drainage structures for this project are limited to hydraulically equivalent structures. The limitations to the hydraulic equivalency being proposed are basically due to restrictions imposed by the geometrics of design, existing development, cost feasibility, or practicability. An alternative encroachment location is not considered in this category since it defeats the project purpose or is economically unfeasible. Since flooding conditions in the project area are inherent in the topography or are a result of other outside contributing sources, and since there is no practical alternative to totally eradicate flood impacts or even reduce them in any significant amount, existing flooding will continue, but not be increased.

The proposed project is not anticipated to have negative impacts to the Biscayne Aquifer system, which is the sole source of potable water for most of southeastern Florida. A copy of the U.S. Environmental Protection Agency Sole Source Aquifer letter is included in **Appendix I**. All necessary precautions and BMPs pertaining to construction will be followed to prevent adverse impacts to the underlying sole source aquifer.

A Water Quality Impact Evaluation Checklist was prepared for this project and is included in **Appendix J**. Water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with the latest edition of the FDOT's *Standard Specifications for Road and Bridge*



Construction and through the use of BMPs, including temporary erosion control measures.

4. Outstanding Florida Waters

In accordance with Chapter 62-302, Florida Administrative Code, and the FDOT *PD&E Manual*, Part 2, Chapter 21 – Outstanding Florida Waters (dated January 11, 2011), the project corridor was evaluated for the potential presence of Outstanding Florida Waters. No Outstanding Florida Waters are located within the project area; therefore, no impacts to Outstanding Florida Waters are anticipated as a result of the proposed project.

5. Wild and Scenic Rivers

In accordance with the FDOT *PD&E Manual*, Part 2, Chapter 23 – Wild and Scenic Rivers (dated January 8, 2008), the project corridor was evaluated for the potential presence of wild and scenic rivers. No wild and scenic rivers are located within the project area; therefore, no impacts to wild and scenic rivers are anticipated as a result of the proposed project.

6. Floodplains

Pursuant to Presidential Executive Order 11988, entitled “Floodplain Management,” U.S. Department of Transportation Order 5650.2, and Chapter 23, CFR 650A, and in accordance with the FDOT *PD&E Manual*, Part 2, Chapter 24 – Floodplains (dated January 7, 2008), the project alternatives were analyzed for potential floodplain impacts. Floodplain impacts were incorporated into the WER prepared for this project, which is available on file at the FDOT District Four offices in Fort Lauderdale, Florida.

According to the revised 2012 Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Community Panels 12011C0206F, 12011C0208F, 12011C0050F, 12011C0109F, 12011C0117F, 12011C0119F, 12011C0108F, 12011C0120F, 1201950006C, 12011C0050F, the I-95 PD&E Study corridor passes through four distinct flood zones: AE, AH, X, and X-500. These areas are represented on *Figure 32*.



Zone AE are areas that have a one percent probability of flooding every year (also known as the “100-year floodplain”) and where base flood elevations above mean sea level have been established. The southern end of the project corridor in Broward County is the only area along the study corridor classified as Zone AE. Zone AH is a special flood hazard area inundated by a 100-year flood event, with flood depths of one to three feet and characterized by areas of ponding. The base flood elevations have been determined. Properties in Zone AE and AH are considered to be at high risk of flooding under the National Flood Insurance Program. The majority of the central portion of the project corridor in Broward County passes through Zone AH, and a small segment of the project corridor in southern Palm Beach County abuts a Zone AH area. Construction in Zone AE and Zone AH areas must meet local floodplain zoning ordinance requirements.

Areas classified as Zone X are outside the one percent annual chance floodplain, which are not prone to usual flooding. These areas are typically outside of the 100-year floodplain areas of 100-year sheet flow flooding where average depths are less than one foot, areas of 100-year stream flooding where the contributing drainage area is less than one square mile, or areas protected from the 100-year flood by levees. Zone X500 are areas inundated by 500-year flooding – an area inundated by 100-year flooding with average depths of less than one foot or with drainage areas less than one square mile or an area protected by levees from 100-year flooding. A large Zone X-500 area exists along the project corridor in northern Broward County, just south of the Broward/Palm Beach County line, as well as a segment towards the southern end of the project corridor in Broward County and scattered areas in Palm Beach County.

The FEMA, in implementing the National Flood Insurance Program, established a system of building guidelines. All local and state building ordinances are based upon these guidelines. This project will comply with all applicable federal, state, and local ordinances relating to floodplains. In accordance with the FDOT’s latest edition of *Standard Specifications for Road and Bridge Construction*, BMPs will be utilized during the construction phase of the project for erosion control and water quality considerations.

Replacement drainage structures for this project are limited to hydraulically equivalent structures. The limitations to the hydraulic equivalency being proposed are basically due to restrictions imposed by the geometrics of design, existing development, cost feasibility, or practicability. An alternative encroachment



location is not considered in this category since it defeats the project purpose or is economically unfeasible. Since flooding conditions in the project area are inherent in the topography or are a result of other outside contributing sources, and since there is no practical alternative to totally eradicate flood impacts or even reduce them in any significant amount, existing flooding will continue, but not be increased.

The proposed structures will be hydraulically equivalent to or greater than that of the existing structures and backwater surface elevations are not expected to increase. As a result, this project will not affect existing flood heights or floodplain limits. Therefore, it has been determined that this encroachment is not significant.

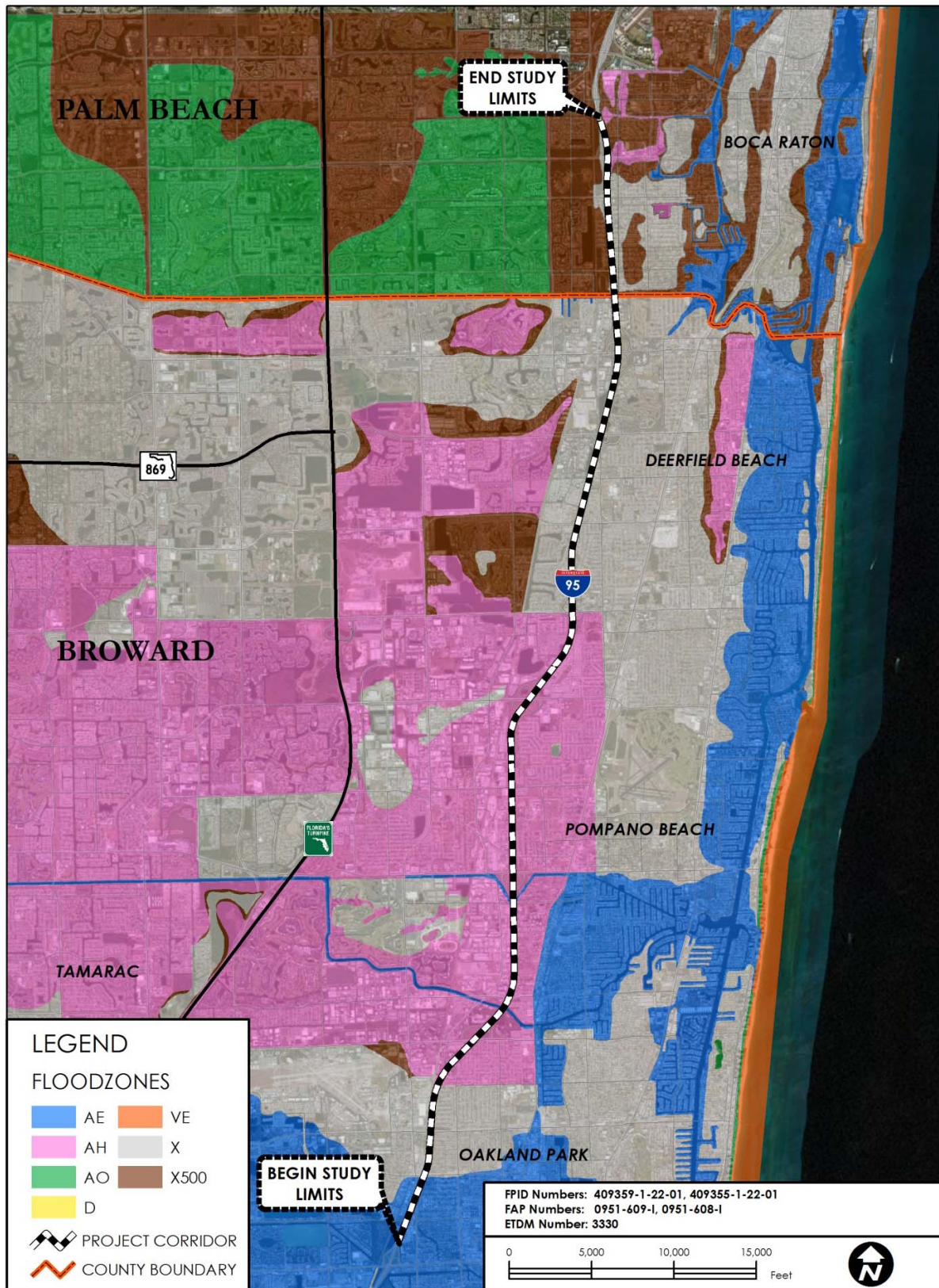


Figure 32 – Floodplains Map



7. **Coastal Zone Consistency**

In accordance with the FDOT *PD&E Manual*, Part 2, Chapter 25 – Coastal Zone Consistency (dated April 12, 2011), this project was reviewed by the Florida Department of Environmental Protection (FDEP) for consistency with the Florida Coastal Zone Management Plan and was determined to be consistent (see **Appendix K**).

8. **Coastal Barrier Resources**

In accordance with the FDOT *PD&E Manual*, Part 2, Chapter 26 – Coastal Barrier Resources (dated February 1, 2011), this project was reviewed for involvement with coastal barrier resources. No coastal barrier resources exist within the project limits; therefore, no impacts to coastal barrier resources are anticipated as a result of this project.

9. **Wildlife and Habitat**

This project has been evaluated for the potential presence of threatened and endangered species in accordance with Section 7(c) of the Endangered Species Act of 1973 as amended by Rules 39-25.002, 39-27.002, and 39-27.011 of the Wildlife Code of the State of Florida (Chapter 39, Florida Administrative Code). An *Endangered Species Biological Assessment* (ESBA) was prepared in accordance with the FDOT *PD&E Manual*, Part 2, Chapter 27 – Wildlife and Habitat Impacts (dated October 1, 1991). For additional information on wildlife and habitat, please refer to the ESBA prepared for this project, which is on file at the FDOT District Four office in Fort Lauderdale, Florida.

Upland and wetland community types within the project study area were evaluated in order to assess the I-95 PD&E study area for the potential occurrence of federal and state-listed protected species (flora and fauna). The composition of each natural community type was determined using published data and field reviews. The approximate boundaries of upland, wetland, and surface water communities were mapped in GIS on aerial photography. Each community type was then classified using the FLUCFCS (FDOT, 1999) and the USFWS Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et. al., 1979), where applicable.



Project biologists familiar with South Florida natural community types conducted field investigations of the project corridor. Wildlife surveys were conducted on May 23rd and November 13th, 2012. In addition to the formal wildlife surveys, project biologists documented all observed species identified during routine field assessments associated with the project conducted between June 2012 and August 2012. During these investigations, the preliminarily-defined community type boundaries and FLUCFCS/USFWS classification codes established through literature reviews and aerial photograph interpretation were verified and/or refined. During the field investigations, transects were employed within each biotic community observed along the project corridor. Each community type was evaluated by direct observation for its potential to provide habitat for wildlife species based on the availability of existing resources (e.g., food sources, nesting areas).

Upland Communities

A majority of the areas within and directly adjacent to the project corridor have been developed or otherwise altered due to commercial, industrial, and residential development and modification of the natural features. Nine upland community types (with multiple FLUCFCS codes) were identified adjacent to the I-95 project corridor (refer to the ESBA for detailed descriptions of these habitat types):

- Pine Flatwoods (FLUFCS 411)
- Sand Pine (FLUFCS 413)
- Xeric Oak (FLUFCS 421)
- Xeric Oak Disturbed (FLUFCS 4211)
- Brazilian Pepper (FLUCFCS 422)
- Upland Scrub, Pine and Hardwoods (FLUCFCS 436)
- Upland Scrub, Pine and Hardwoods – Highly Disturbed (FLUCFCS 4361)
- Mixed Hardwoods (FLUCFCS 438)
- Urban and Built-Up/Residential/Transportation, Communication, and Utilities/Roads and Highways (FLUCFCS 100, 800, and 814)

Wildlife species that would potentially utilize these habitats are discussed in subsequent sections of this project.

The footprint of the build alternative is contained entirely within the existing FDOT right-of-way, designated as Urban and Built-Up/Residential/Transportation, Communication, and Utilities/Roads and Highways (FLUCFCS 100, 800, and 814).



These areas are regularly maintained (i.e., vegetation is mowed, trimmed, and/or treated with herbicide) by the FDOT for safety. No impacts to the other upland habitats identified adjacent to the project corridor are anticipated as a result of the proposed project, including Pine Flatwoods (FLUFCS 411), Sand Pine (FLUFCS 413), Xeric Oak (FLUFCS 421), Xeric Oak Disturbed (FLUFCS 4211), Brazilian Pepper (FLUCFCS 422), Upland Scrub, Pine and Hardwoods (FLUCFCS 436), Upland Scrub, Pine and Hardwoods – Highly Disturbed (FLUCFCS 4361), and Mixed Hardwoods (FLUCFCS 438).

Wetlands and Surface Waters

The wetlands and surface waters located along the project corridor are summarized in **Attachment 6.C.1** of this report and discussed in detail in the WER prepared for this project.

Protected Species

In accordance with Section 7 of the Endangered Species Act of 1973, as amended, and Chapter 68 of the Florida Administrative Code, the project study area was evaluated for the potential occurrence of federal and state-listed protected plant and animal species. Literature reviews, agency database searches and coordination, and a habitat field review were conducted to identify protected species and critical habitat that might occur within the study area.

The I-95 project corridor was surveyed for plants and wildlife on May 23rd and November 13th, 2012, by project scientists familiar with protected species in the area. Two types of survey methodology were employed for this study: pedestrian transects (for plants and wildlife) and stationary observation points (for wildlife). After completion of the pedestrian transects, a total of three stationary observation stations were established to maximize the amount of wildlife to be observed during the study periods. Two project scientists spent thirty minutes at each site during both the morning and evening (dawn/dusk) sessions. These surveys were only conducted in one seasonal event due to time constraints associated with the project schedule, but data from adjacent projects was utilized to extrapolate the autumn avian migration patterns throughout the area. During the field assessments, wildlife observations were recorded in the morning hours (07:00 – 09:00) and again in the late afternoon/early evening hours (17:00 – 19:00). These times coincided with the most active foraging times for many species surveyed. In addition to the



stationary wildlife surveys, biologists documented all observed species identified during routine field assessments associated with the project. Project scientists sought to identify notable macro vertebrates/invertebrates including, but not limited to birds, mammals, reptiles, amphibians, and fish. Any observations of listed plant and wildlife species or indicators of their presence (i.e., vocalizations, tracks, scat, burrows, etc.) within and immediately adjacent to the project limits were documented and included in the ESBA.

Table 9 (at the end of this section) summarizes the findings of the plant and wildlife assessments conducted for each species having the potential to occur within the project corridor. Please reference the ESBA for additional details per each species assessed.

Based on the assessment of the protected species identified, wildlife agency correspondence, and the field investigations, no long-term unmitigated adverse impacts are anticipated to occur to protected wildlife or plant species or designated habitats within the project corridor. The FDOT and the FHWA have made a determination of "*may affect, not likely to adversely affect*" for the Florida mouse, Florida manatee, black skimmer, brown pelican, least tern, limpkin, little blue heron, roseate spoonbill, snowy egret, southeastern American kestrel, tricolored heron, white ibis, wood stork, American alligator, eastern indigo snake, Florida pine snake, gopher frog, and gopher tortoise, and a determination of "*no effect*" for the Sherman's fox squirrel, bald eagle, Florida burrowing owl, and Florida scrub-jay. The USFWS issued a concurrence letter for this project on April 24, 2013, concurring with the federally-listed species determinations made by the FDOT and the FHWA (see **Appendix L** for a copy of the concurrence letter issued by the USFWS).

Designated Habitats

Critical Habitats – Critical Habitat is a specific, federally-designated, geographic area that is essential for the conservation of a threatened or endangered species that may require special management and protection, but they are not considered a refuge or sanctuary for the species. Critical Habitat may include an area that is not currently occupied by the species, but that will be needed for its recovery. An area is designated as Critical Habitat after the USFWS or NMFS publishes a proposed federal regulation in the Federal Register and then receives public comments on the proposal. The final boundaries of the critical habitat areas



are also published in the Federal Register. There is no Critical Habitat located within the project corridor; therefore, no impacts are anticipated.

Strategic Habitat Conservation Areas (SHCAs) – Strategic Habitat Conservation Areas are defined as regions not in public ownership, which are recommended for protection in order to maintain biological diversity. These Strategic Habitat Conservation Area designations are intended to indicate that the existing land use should be maintained in order to conserve state-wide biodiversity. The SHCAs were originally mapped state-wide in association with the Florida Fish and Wildlife Conservation Commission's (FWC) *Closing the Gaps in Florida's Wildlife Habitat Conservation System* (Cox, et al., 1994) report. Since 1994, landscape-level habitat changes, transfer of land from private to public ownership, and changes in land use have all altered the applicability of the originally mapped SHCAs. Advances in technological capabilities, revised habitat data, and more extensive species occurrence data facilitated a reassessment of Florida's biodiversity protection status. Additionally, advances in population viability modeling techniques allow for more in-depth examination of wildlife habitat needs that were not available in the previous report. The results of the reanalysis have identified SHCAs for a new selection of focal species, including many species that were in the original report. According to the updated report, *Wildlife Habitat Conservation Needs in Florida: Updated Recommendations for SHCAs* (Endries, et al., 2009), and associated GIS data layers, there are no SHCAs within the project corridor; however, SHCAs for the Florida mouse and burrowing owl exist in small scattered areas in general proximity to the project corridor. No areas beyond the existing FDOT right of way are proposed to be impacted by the build alternative. Therefore, no impacts to SHCAs are anticipated as a result of the proposed project.

Agency Coordination

Agency coordination to obtain wildlife and habitat information for this project occurred through the ETDM Programming Screening (ETDM #3330), the Advance Notification process, and individual conservation with staff at the USACE and SFWMD. The ETDM review occurred between May 21, 2004, and July 5, 2004, and the Programming Screen Summary Report was published on September 29, 2005. The Summary Degree of Effect was listed as 'Minimal to None' for the Wildlife and Habitat category. A summary of the wildlife and habitat-related comments received from the resource agencies charged with commenting on project specific effects to wildlife and habitat is provided in **Table 10**. The ETDM Programming Screen Summary Report has been included in **Appendix C**.

**Table 10****Summary of ETDM Programming Screen Wetland Resource Comments**

Agency	Issue	Degree of Effect	Comments
USFWS	Wildlife and Habitat	Minimal to None	<p>Active nesting colonies of the endangered wood stork are located approximately 6.8 miles, 9.8 miles, 11.8 miles, and 14.7 miles northwest, and 10.7 miles west of the project corridor. Consequently, the project falls within the CFA of these nesting colonies. The USFWS believes that the loss of wetlands within a CFA may reduce foraging opportunities for wood storks.</p> <p>To minimize adverse effects to the wood stork, the USFWS's draft Standard Local Operating Procedures for Endangered Species request that the applicant replace wetlands lost due to the action. The compensation plan should include a temporal lag factor, if necessary, to ensure that wetlands provided as compensation adequately replace the wetland functions lost due to the project. Moreover, wetlands offered as compensation should be of the same hydroperiod, and located within the CFA of the affected wood stork colony. In some cases, the USFWS would accept wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a USFWS-approved mitigation bank located outside of the CFA would be acceptable to the USFWS, provided that the impacted wetlands occur within the permitted service area of the bank. No other federally-listed species were identified on your project site. The Service has not conducted a site inspection to verify species occurrence or validate the GIS results. However, we assume that listed species occur in suitable ecological communities and recommend site surveys to determine the presence or absence of listed species. The Service notes that the proposed project is located in a highly urbanized area and is not likely to significantly affect fish and wildlife.</p>

USFWS = U.S. Fish and Wildlife Service

CFA = Core Foraging Area



Table 9 Summary of Federal and State-Listed Species with the Potential to Occur within the Project Corridor							
Common Name	Scientific Name	Federal Status	State Status	Occurrence Potential	Obs.	FDOT/FHWA Determination	Notes
Mammals							
Florida mouse	<i>Podomys floridanus</i>	NL	SSC	Moderate	No	May affect, not likely to adversely affect	Biologists should look for occurrences of this species in association with the proposed gopher tortoise survey. Relocations could take place in association with relocation of gopher tortoises, if necessary.
Sherman's fox squirrel	<i>Sciurus niger shermani</i>	NL	SSC	Low	No	No effect	No impacts are anticipated.
Florida manatee	<i>Trichechus manatus latirostris</i>	E	FE	High	No	May affect, not likely to adversely affect	FWC's <i>Standard Manatee Conditions for In-Water Work</i> will be implemented during all in-water construction activities.
Birds							
Bald eagle*	<i>Haliaeetus leucocephalus</i>	NL	NL	Low	No	No effect	The closest bald eagle nest identified is seven miles from the project corridor; no adverse impacts are anticipated.
Black skimmer	<i>Rynchops niger</i>	NL	SSC	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Brown pelican	<i>Pelecanus occidentalis</i>	NL	SSC	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Florida burrowing owl	<i>Athene cunicularia floridana</i>	NL	SSC	High	No	No effect	Since no owls or burrows were observed along the project corridor, no long-term adverse impacts are anticipated as a result of the proposed project.
Florida scrub-jay	<i>Aphelocoma coerulescens</i>	T	FT	Low	No	No effect	No impacts will occur to the Yamato Scrub Natural Area from the proposed project and no scrub-jays were observed or are likely to occur along the project corridor.



Table 9 Summary of Federal and State-Listed Species with the Potential to Occur within the Project Corridor							
Common Name	Scientific Name	Federal Status	State Status	Occurrence Potential	Obs.	FDOT/FHWA Determination	Notes
Least tern	<i>Sternula antillarum</i>	NL	ST	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Limpkin	<i>Aramus guarana</i>	NL	SSC	Moderate	No	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Little blue heron	<i>Egretta caerulea</i>	NL	SSC	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Roseate spoonbill	<i>Platalea ajaja</i>	NL	SSC	Moderate	No	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Snowy egret	<i>Egretta thula</i>	NL	SSC	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Southeastern American kestrel	<i>Falco sparverius paulus</i>	NL	ST	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
Tricolored heron	<i>Egretta tricolor</i>	NL	SSC	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.
White ibis	<i>Eudocimus albus</i>	NL	SSC	High	Yes	May affect, not likely to adversely affect	Construction will not significantly reduce available foraging, roosting, or nesting habitat for this species.



Table 9 Summary of Federal and State-Listed Species with the Potential to Occur within the Project Corridor							
Common Name	Scientific Name	Federal Status	State Status	Occurrence Potential	Obs.	FDOT/FHWA Determination	Notes
Wood stork	<i>Mycteria americana</i>	E	FE	High	Yes	May affect, not likely to adversely affect	A wood stork foraging habitat assessment was conducted by utilizing the protocols set forth in the USACE South Florida Programmatic Concurrence for this species and is contained in the ESBA. Direct impacts to stormwater management/ drainage features will be mitigated by the creation of the new stormwater management/drainage system, which is anticipated to result in no net loss of stormwater management/drainage features dominated by hydrophytic vegetation and no net loss of functional value in terms of water quality or habitat value. If it is determined during final design and permitting that the new stormwater management/drainage system does not fully compensate for the proposed impacts, these impacts would be mitigated along with the proposed wetland mitigation. Any proposed wetland compensatory mitigation would have to be provided within the same basin as the wood stork impacts or at a USFWS-approved mitigation bank and would have to fully compensate for the biomass loss.
Reptiles							
American alligator	<i>Alligator mississippiensis</i>	T (S/A)	FT (S/A)	Moderate	No	May affect, not likely to adversely affect	The FDOT's contractor will be advised of state and local laws regarding the harassment of alligators prior to any construction activities.



Table 9 Summary of Federal and State-Listed Species with the Potential to Occur within the Project Corridor							
Common Name	Scientific Name	Federal Status	State Status	Occurrence Potential	Obs.	FDOT/FHWA Determination	Notes
Eastern indigo snake	<i>Drymarchon corais couperi</i>	T	FT	Moderate	No	May affect, not likely to adversely affect	The FDOT will incorporate the most current protection guidelines, entitled <i>Standard Protection Measures for the Eastern Indigo Snake</i> , into the final project design and will require that the construction contractor abide strictly to the guidelines during construction.
Florida pine snake	<i>Pituophis melanoleucus mugitus</i>	NL	SSC	Moderate	No	May affect, not likely to adversely affect	Biologists should look for occurrences of this species in association with the proposed gopher tortoise survey. Protection measures will consist of those employed for the Eastern indigo snake.
Amphibians							
Gopher frog	<i>Rana capito</i>	NL	SSC	Moderate	No	May affect, not likely to adversely affect	Biologists should look for occurrences of this species in association with the proposed gopher tortoise survey. Silt fencing should be erected along the Blazing Star Preserve to prevent individuals from entering the FDOT right of way during construction.



Table 9 Summary of Federal and State-Listed Species with the Potential to Occur within the Project Corridor							
Common Name	Scientific Name	Federal Status	State Status	Occurrence Potential	Obs.	FDOT/FHWA Determination	Notes
Gopher tortoise	<i>Gopherus polyphemus</i>	NL	ST	High	Yes	May affect, not likely to adversely affect	FDOT commits to coordinating with the FWC Gopher Tortoise Permit Coordinator to facilitate a 100% Gopher Tortoise Survey with live trapping of individual gopher tortoise to a recipient site approved by the FWC. The location of most gopher tortoise burrows observed during the original survey were on a steep slope associated with the I-95 roadway and bucket trapping will likely be difficult to conduct. Several neonate/juvenile gopher tortoises were also observed freely traversing under the fence separating the Blazing Star Preserve and the FDOT right of way. Therefore, silt fencing should be installed along this area in association with the survey and relocation efforts to prohibit any addition gopher tortoises from entering the area following the relocations.

* The bald eagle is not listed by the USFWS or FWC as a protected species, but this species is protected by the *Bald and Golden Eagle Protection Act* and the *Migratory Bird Treaty Act*.

E = Endangered
T = Threatened
T (S/A) = Threatened due to Similarity of Appearance
FE = Federally Endangered
FT = Federally Threatened

FT (S/A) = Federally Threatened due to Similarity of Appearance
ST = State Threatened
SSC = Species of Special Concern
NL = Not Listed
N/A = Not Applicable

Sources: U.S. Fish and Wildlife Service, Florida Fish and Wildlife Conservation Commission, and Florida Natural Areas Inventory



10. Essential Fish Habitat

An *Essential Fish Habitat (EFH) Assessment* was conducted in accordance with the FDOT PD&E Manual, Part 2, Chapter 11 (dated November 26, 2007). This assessment fulfills the requirements set forth in the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996, and associated implementing regulations. The MSFCMA, as amended, established procedures designed to identify, conserve, and enhance EFH for those species regulated under a federal fisheries management plan (FMP). Section 305(b)(2) of the MSFCMA requires Federal-action agencies to consult with the National Oceanic and Atmospheric Administration NMFS on all actions or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH. EFH is defined in the MSFCMA and the South Atlantic Fisheries Management Council's *Habitat Plan for the South Atlantic Region* (1998) as "...those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" [16 U.S.C. 1802(10)]. Additionally, Habitat Areas of Particular Concern (HAPC) are subsets of EFH that merit special considerations for habitat conservation which are listed in the EFH Guidelines [50 CFR 600.815(a)(8)]. HAPC are defined by: 1) the importance of the ecological function provided by the habitat; 2) the extent to which the habitat is sensitive to human-induced environmental degradation; 3) whether, and to what extent, development activities are, or will be, stressing the habitat type; and 4) the rarity of the habitat type.

Per the NOAA Habitat Conservation and Protection web-site there are no HAPC or EFH were identified within close proximity of the proposed project. Furthermore, a benthic resource site assessment was conducted at the I-95 low-span bridge over the Hillsboro (C-4) Canal to identify the presence of protected benthic resources (see **Figure 33**). No protected or regulated resources, such as mangroves, corals, seagrasses or oysters were identified within or along the banks of the Hillsboro Canal within the survey area. In addition, all BMPs typically associated with construction projects will be properly implemented and maintained throughout all construction activities, including temporary erosion control measures, minimizing the potential for short-term secondary downstream impacts during construction. Therefore, no EFH impacts are anticipated as a result of this project.

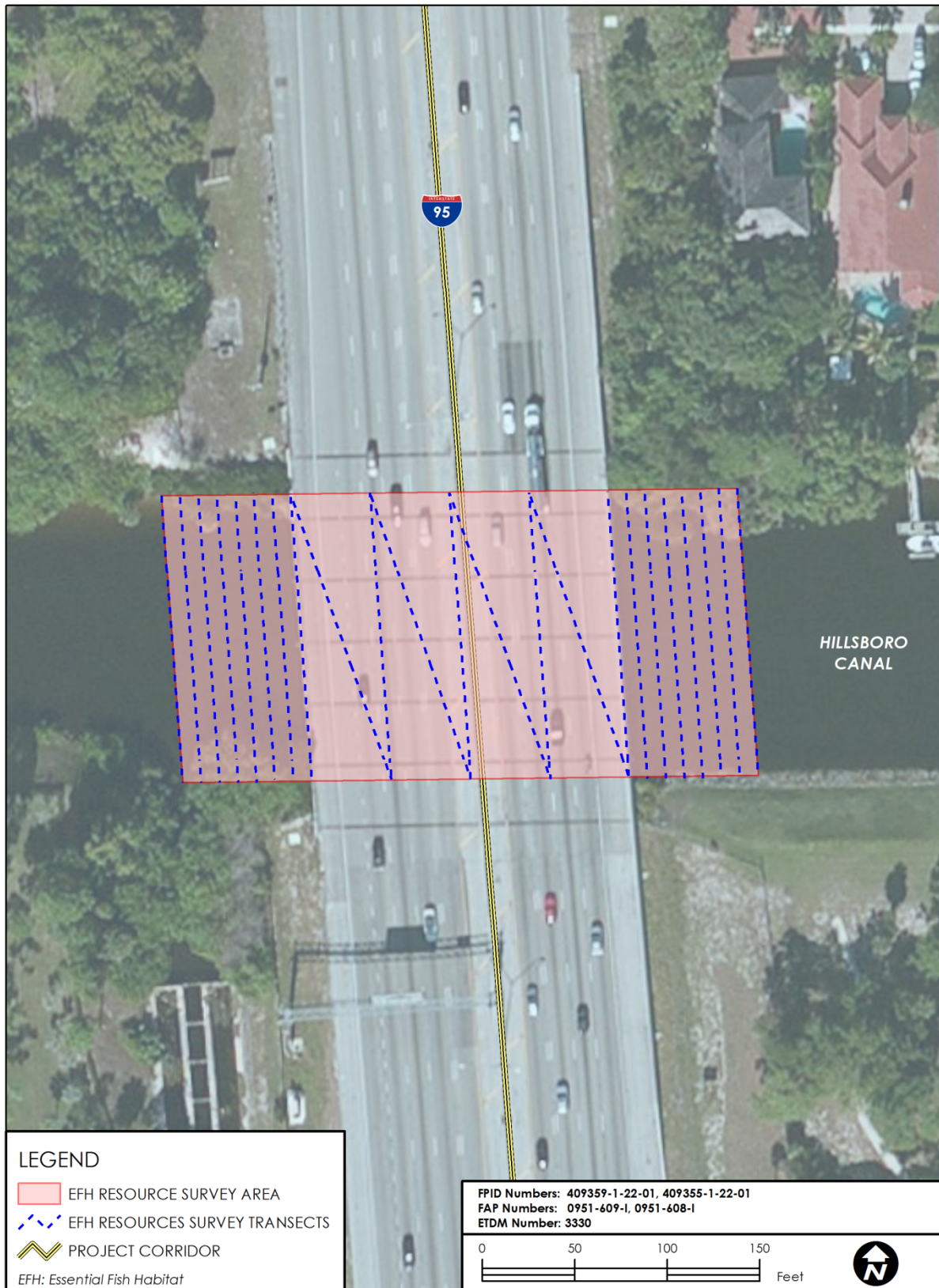


Figure 33 – EFH Resource Survey Area



D. PHYSICAL

1. Noise

A traffic noise study was conducted in accordance with the FDOT *PD&E Manual*, Part 2, Chapter 17 – Noise (dated May 24, 2011) and Title 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (dated July 13, 2010), and a *Noise Study Report* (NSR) was prepared, which is on file at the FDOT District Four office in Fort Lauderdale, Florida.

Approximately 1,784 residences, including single-family homes, mobile-homes, apartments and condominiums were identified as being sensitive to traffic noise associated with I-95 within the limits of this project. Also, 24 non-residential or special-use noise sensitive sites, including schools, churches, parks, apartment and hotel pools, restaurants and medical facilities were identified along the project corridor. Noise impacts to the 24 residences and two medical facilities located north of Palmetto Park Road (from north of Station 1226+00) have been evaluated as part of the FDOT's project to construct express lanes along I-95 from north of Palmetto Park Road to Linton Boulevard (FM# 412420-1).

Traffic noise levels were predicted for noise sensitive locations along the project corridor for the existing conditions and the Design Year (2040) No-Build and Build Alternative. With the Build Alternative, Design Year traffic noise levels at nearby residences are predicted to range from 44.1 to 76.7 dB(A). The Build Alternative noise levels at special land use sites are predicted to range from 40.3 dB(A) at an interior location at the Calvary Chapel Boca Raton to 71.4 dB(A) at outdoor areas in Avondale Park. With the Build Alternative, noise levels are predicted to exceed the NAC at 422 residences along the project corridor and at eight special land use sites. No other noise sensitive sites within the project study area are predicted to experience traffic noise levels equal to or exceeding the FDOT NAC. Also, no sites are expected to experience any substantial noise level increases as defined by the FDOT [i.e., greater than 15.0 dB(A) over existing levels] with the build alternatives.

FDOT policy requires that the feasibility and reasonableness of noise abatement be considered when the FHWA NAC is approached or exceeded. In accordance with traffic noise study requirements set forth by both the FHWA and FDOT, noise barriers were considered for all noise sensitive receptor sites where design-year traffic noise levels were predicted to equal or exceed the NAC.



A wide range of factors are used to evaluate the feasibility and reasonableness of noise abatement measures. Feasibility primarily concerns engineering considerations including the ability to construct a noise barrier using standard construction methods and techniques. Feasibility also concerns the ability to provide a noise level reduction of at least 5 dB(A) for two or more impacted receivers given certain access, drainage, utility, safety, or maintenance requirements. Reasonableness implies that common sense and good judgment were applied in a decision related to noise abatement. Reasonableness includes the consideration of the cost of providing noise abatement. To be deemed reasonable, a noise barrier or other noise abatement measure must not exceed the FDOT's reasonable cost criteria of \$42,000 per benefited receptor site and must attain the FDOT noise reduction design goal of 7 dB(A) at one or more impacted receptor sites. In addition, once the noise abatement measure has been determined to be reasonable and feasible, the viewpoint of the benefited property owners must be considered.

To facilitate the noise barrier analysis, contiguous noise sensitive areas were grouped together into one of 14 Common Noise Environments (CNE). A CNE represents a group of impacted receptor sites that would benefit from the same noise barrier or barrier system (i.e., overlapping/continuous barriers) and are exposed to similar noise sources and levels, traffic volumes, traffic mix, speeds and topographic features. Generally, CNEs occur between two secondary noise sources, such as interchanges, intersections and/or cross-roads. In addition, the primary method for determining the cost of noise abatement involves a review of the cost per benefited receptor site for the construction of a noise barrier benefiting a single location or CNE (e.g., a subdivision or contiguous impact area). Several of the locations where noise impacts are predicted to occur are near existing noise barriers. In these cases, alternatives such as increasing the length of an existing noise barrier or filling in gaps in noise barrier coverage were selected, since increasing the height of an existing noise barrier is not possible without completely replacing the noise barrier with a new taller noise barrier. (Please refer to the NSR for detailed tables and figures, summarizing the results of the noise barrier analyses and recommendations for each of the locations where noise barriers were evaluated, as well as figures of locations where noise barriers were evaluated or planned.)

Table 11 summarizes the results of the noise barrier analyses and recommendations for each of the 14 locations where noise barriers were evaluated. The locations where barriers were evaluated or planned are depicted in the figures in



Appendix M. Noise barriers meet all of the FDOT's noise barrier feasibility and reasonableness requirements listed above for the following eight CNEs and are recommended for further consideration and public input:

- CNE-E1 – Unnamed Neighborhood, Powerline Road to Commercial Boulevard;
- CNE-E2 – Laguna Pointe Apartments, McNab Road to SW 13th Court;
- CNE-E3 – Avondale Park, Oaks at Pompano Apartments, Unnamed Neighborhood, SW 3rd Street to Atlantic Boulevard;
- CNE-E6South – Unnamed Neighborhood, NW 15th Street to NW 17th Street;
- CNE-W1 – Olive Glen Apartments and Whispering Pines Apartments, NW 29th Court to NW 33rd Street;
- CNE-E8 – Parkway United Methodist Church, NE 42nd Street to NE 44th Street;
- CNE-E10 – Tivoli Park and Natura Neighborhoods, SW 10th Street to Hillsboro Boulevard; and,
- CNE-W2 – Mizner Forest, SW 18th Street to SW 13th Place.

These noise barriers are expected to benefit approximately 357 residences, 248 of which are predicted to be impacted by this project. Also, the exterior area of one church will benefit from a noise barrier along this project. The FDOT is committed to the construction of feasible noise abatement measures at the locations where noise barriers have been recommended for further consideration during the final design phase, contingent upon the following conditions:

- *Detailed noise analyses during the final design process support the need for abatement;*
- *Reasonable cost analyses indicate that the economic cost of the barrier(s) will not exceed the cost reasonable criterion;*
- *Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved;*
- *Community input regarding desires, types, heights and locations of barriers has been solicited by the FDOT; and*
- *Any other mitigating circumstances found in Section 17-4.6.1 of FDOT's PD&E Manual have been analyzed.*



It is likely that the noise abatement measures for these locations will be constructed if found feasible based on the contingencies listed above. If, during the Final Design phase, any of the contingency conditions listed above cause abatement to no longer be considered reasonable or feasible for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during project reevaluation and at a time before the construction advertisement is approved.

The estimated cost to provide noise abatement for the following residential neighborhoods exceeded FDOT's reasonable cost criteria of \$42,000 per benefited site:

- CNE-E6North – Unnamed Neighborhood, NW 18th Court to NW 21st Court (\$161,588 per benefited site);
- CNE-E9 – Unnamed Neighborhood, SW 15th Street to SW 10th Street (\$128,143 per benefited site); and,
- CNE-E11 - Unnamed neighborhood, SW 18th Street to Royal Palm Boulevard (\$52,500 per benefited site).

The estimated cost to provide noise abatement for the following non-residential sites exceeded FDOT's reasonable cost criteria for special land use sites:

- CNE-E5 - Mitchell Moore Park; and
- CNE-E6Park – Weaver Community Park.

It was not possible to provide a noise level reduction of at least 7.0 dB(A) for at least one site in the following CNEs:

- CNE-E4 – Unnamed Neighborhood, Atlantic Boulevard to Martin Luther King Boulevard [5.6 dB(A) maximum noise level reduction];
- CNE-E7 – Leisureville Apartments, Copans Road to NW 26th Street [6.8 dB(A) maximum noise level reduction]; and,
- CNE-W3 – Blazing Star Preserve, West Camino Real to Palmetto Park Road [4.2 dB(A) maximum noise level reduction].



Therefore, noise barriers are not recommended for further consideration or construction at these locations. Based on the noise analyses performed to date, there are no apparent solutions available to mitigate the noise impacts at 174 residences and five special land use sites. The traffic noise impacts to these noise sensitive sites are considered to be an unavoidable consequence of the project. At locations where existing shoulder-mounted noise barriers will be physically impacted by this project and it was determined to not be feasible and/or reasonable to replace them with new noise barriers, the existing noise barriers will be replaced in kind during project construction in order to maintain the FDOT's previous noise abatement commitments.



Table 11
Noise Barrier Evaluation Summary and Recommendations

General Location (Cross Streets)	Relative Location	Community/Site Name	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Recommended Noise Barrier Conceptual Design	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptors	Average (Maximum) Noise Reduction for Impacted Receptors [dB(A)]	Number of Impacted and Benefited Receptors	Number of Not Impacted But Benefited Receptors	Total Number of Benefited Receptors	Average (Maximum) Noise Reduction for all Benefited Receptors [dB(A)]	Estimated Cost	Estimated Cost/Site Benefited	Optimal Noise Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site	Noise Barrier Recommended for Further Consideration and Community Input
Oakland Park Boulevard to Commercial Boulevard	East of I-95	Unnamed	Residential (Activity Category B) Church Interior (Activity Category D)	CD2-E1	Structure	8	960	577+00	586+40	57 Res. and Church Interior	2.7 (8.4)	23	5	28 Res.	6.9 (8.4)	\$1,129,200	\$40,329	Yes	Yes
					Shoulder	14	1,160	586+40	597+80										
					Shoulder	8	1,715	585+00	602+00										
Cypress Creek to Atlantic Boulevard	East of I-95	Laguna Pointe Apartments	Residential (Activity Category B)	CD3-E2	Structure	8	900	699+30	708+30	65	4.5 (8.6)	22	0	22	6.4 (8.6)	\$434,400	\$19,745	Yes	Yes
					Shoulder	14	520	708+30	713+40										
	East of I-95	Avondale Park, Oaks at Pompano Apartments, Unnamed neighborhood	Residential (Activity Category B) Pool (Activity Category C) Park (Activity Category C)	CD2-E3	Ground	20	1,945	759+60	776+30	31 Res, pool and park	6.2 (8.8)	27 Res and park	8	35 Res and park	7.7 (8.8)	\$1,167,000	\$33,343	Yes	Yes



Table 11
Noise Barrier Evaluation Summary and Recommendations

General Location (Cross Streets)	Relative Location	Community/Site Name	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Recommended Noise Barrier Conceptual Design	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptors	Average (Maximum) Noise Reduction for Impacted Receptors [dB(A)]	Number of Impacted and Benefited Receptors	Number of Not Impacted But Benefited Receptors	Total Number of Benefited Receptors	Average (Maximum) Noise Reduction for all Benefited Receptors [dB(A)]	Estimated Cost	Estimated Cost/Site Benefited	Optimal Noise Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site	Noise Barrier Recommended for Further Consideration and Community Input
Atlantic Boulevard to Copans Road	East of I-95	Unnamed	Residential (Activity Category B)	CD2-E4	Shoulder	14	430	777+20	780+33	5	5.6 (5.6)	5	0	5	5.6 (5.6)	\$821,400	\$164,280	No	No
					Shoulder	14	850	785+51	794+00										
					Structure	8	290	778+00	780+90										
					Shoulder	14	510	780+90	786+00										
	East of I-95	Mitchell Moore Park	Park (Activity Category C)	CD3-E5	Shoulder	14	1,560	798+00	813+60	Park	7.0 (7.0)	Park	0	Park	7.0 (7.0)	\$2,239,800	See Appendix D of the NSR	No	Yes
					Structure	8	1,240	813+60	826+00										
					Ground	20	1,950	802+79	822+30										
	East of I-95	Unnamed	Residential (Activity Category B)	CD3-E6South	Structure	8	900	826+00	835+00	22	4.1 (7.2)	22	0	22	6.1 (7.2)	\$909,000	\$41,318	Yes	Yes
					Ground	20	1,155	831+00	842+55										
	East of I-95	Weaver Community Park	Park (Activity Category C)	CD1-E6Park	Ground	22	3,360	834+00	868+00	Park	6.5 (7.0)	Park	0	Park	6.5 (7.0)	\$1,707,600	See Appendix D of the NSR	No	Yes
	East of I-95	Unnamed	Residential (Activity Category B)	CD3-E6North	Shoulder	14	1,690	857+00	874+70	8	7.0 (7.0)	8	0	8	7.0 (7.0)	\$1,292,700	\$161,588	No	Yes
					Ground	20	780	860+00	868+00										
					Ground	22	610	868+00	874+60										
Copans Road to Sample Road	East of I-95	Leisureville Apartments	Residential (Activity Category B)	CD3-E7	Structure	8	1,220	888+00	900+20	56	4.4 (6.8)	14	0	14	6.8 (6.8)	\$743,400	\$53,100	No	No
					Ground	22	350	891+00	892+40										
	West of I-95	Olive Glen Apartments and Pool, Whispering Pines Apartments	Residential (Activity Category B)	CD3-W1	Shoulder	14	1,935	915+00	935+00	58 Res. and pool	7.7 (10.1)	58 Res. and pool	60 Res.	118 Res. and pool	6.8 (10.1)	\$1,341,900	\$11,372	Yes	Yes
			Pool (Activity Category C)		Shoulder	14	1,260	932+20	945+00										



Table 11
Noise Barrier Evaluation Summary and Recommendations

General Location (Cross Streets)	Relative Location	Community/Site Name	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Recommended Noise Barrier Conceptual Design	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptors	Average (Maximum) Noise Reduction for Impacted Receptors [dB(A)]	Number of Impacted and Benefited Receptors	Number of Not Impacted But Benefited Receptors	Total Number of Benefited Receptors	Average (Maximum) Noise Reduction for all Benefited Receptors [dB(A)]	Estimated Cost	Estimated Cost/Site Benefited	Optimal Noise Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site	Noise Barrier Recommended for Further Consideration and Community Input
Sample Road to SW 10 th Street	East of I-95	Parkway United Methodist Church	Church (Activity Category C)	CD1-E8	Ground	16	559	978+00	983+59	Play- ground	7.0 (7.0)	Play- grou nd	0	Play- grou nd	7.0 (7.0)	\$268,320	N/A	N/A	Yes
	East of I-95	Unnamed	Residential (Activity Category B)	CD1-E9	Ground	20	1,495	1044+00	1053+40	9	6.3 (7.5)	7	0	7	6.8 (8.1)	\$897,000	\$128,143	No	Yes
SW 10 th Street to Hillsboro Boulevard	East of I-95	Tivoli Park, Natura	Residential (Activity Category B)	CD3-E10	Ground	20	4,335	1060+50	1101+00	96	7.3 (9.8)	87	32 Res. and pool	119 Res. and pool	7.3 (9.8)	\$2,601,000	\$21,857	Yes	Yes
Hillsboro Boulevard to Palmetto Park Road	East of I-95	Unnamed	Residential (Activity Category B)	CD4-E11	Shoulder	14	1,725	1206+40	1223+30	6	5.2 (5.2)	6	15	21	6.2 (7.0)	\$1,102,500	\$52,500	No	Yes
					Shoulder	14	900	1215+60	1224+60										
	West of I-95	Mizner Forest	Residential (Activity Category B)	CD2-W2	Ground	14	1,285	1158+40	1171+09	9	7.2 (8.4)	9	4	13	6.7 (8.4)	\$539,700	\$41,515	Yes	Yes
	West of I-95	Blazing Star Preserve	Park (Activity Category C)	CD1-W3	Shoulder	14	500	1196+00	1201+00	Park	4.2 (4.2)	0	0	0	N/A	\$1,160,100	N/A	No	No
					Structure	8	100	1201+00	1202+00										
					Shoulder	14	2,205	1202+00	1224+00										

Note: SLU = Special Land Use Site



Construction Noise and Vibration

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations due to the heavy equipment typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residences, hotels, museums, parks, religious facilities and a cemetery that may be affected by noise and vibration associated with construction activities. Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*. According to Section 335.02 of the Florida Statutes, the FDOT is exempt from compliance with local ordinances. However, it is the FDOT's policy is to follow the requirements of local ordinances to the extent that is considered reasonable. Also, the contractor will be instructed to coordinate with the project engineer and the District Noise Specialist should unanticipated noise or vibration issues arise during project construction.

Agency Coordination

Agency coordination to obtain noise-related information for this project occurred through the ETDM Programming Screening (ETDM #3330) and the Advance Notification process. The ETDM review occurred between May 21, 2004, and July 5, 2004, and the Programming Screen Summary Report was published on September 29, 2005. No comments were received on noise-related issues. The ETDM Programming Screen Summary Report has been included in **Appendix C**.

To aid in promoting land use compatibility, a copy of the NSR, which provides information that can be used to protect future land development from becoming incompatible with anticipated traffic noise levels, will be provided to Broward and Palm Beach Counties. In addition, generalized future noise impact contours for properties in the immediate vicinity of the project have been developed for Noise Abatement Activity Categories B/C and E (i.e., residential/other sensitive land uses and sensitive commercial, respectively). These contours represent the approximate distance from the edge of the nearest proposed travel lane of I-95 to the limits of the area predicted to approach [i.e., within 1 dB(A)] or exceed the NAC in the Design Year 2040. These contours do not consider any shielding of noise provided



by structures between the receiver and the proposed travel lanes. Contours were generally developed for portions of the project that are located away from significant ground features such as existing noise barriers. Within the project corridor, the distance between the proposed edge of the outside travel lane and the contour at various locations are presented in **Table 12**. To minimize the potential for incompatible land use, noise sensitive land uses should be located beyond this distance.

Table 12 Design Year (2040) Noise Impact Contour Distances		
Location	Distance From Proposed Nearest Travel Lane to Noise Contour Line (Feet)	
	71 dB(A) – Activity Category E	66 dB(A) – Activity Category B/C
Between Andrews Avenue and Cypress Creek Road. Generally at-grade. Station 656+00. West Side.	180	370
Between McNab Road and SW 3 rd Street. Generally at-grade. Station 749+00. Both Sides.	305	520
Between Copans Road and Sample Road. Generally at-grade. Station 908+00. West Side.	265	480
Between Hillsboro Boulevard and Palmetto Park Road. Mainline lanes above-grade. Station 1210. West Side	90	285

2. Air Quality

The proposed project has the potential to alter traffic conditions and influence the air quality within the project study area. Potential air quality impacts in the area surrounding the project corridor were assessed for all viable project alternatives, including the No-Build Alternative, in accordance with applicable FHWA guidelines and guidelines contained in Part 2, Chapter 16 of the FDOT PD&E Manual (dated September 13, 2006).

The pollutants of primary concern with roadway traffic are ozone (O₃), oxides of nitrogen (NO_x), hydrocarbons (HC), small particulate matter (PM₁₀), and carbon monoxide (CO). Ozone, NO_x, HC and PM₁₀ are analyzed at the program level



unless specific review of an individual project is requested by appropriate reviewing agencies. Since CO is a localized pollutant that is emitted directly into the atmosphere by vehicles, it is analyzed for individual roadway projects where substantial changes to the traffic conditions are anticipated. The National Ambient Air Quality Standard (NAAQS) for CO is 35 parts per million (PPM) for one-hour periods and 9 PPM for eight-hour periods.

The project's No-Build and Build alternatives were assessed for potential air quality impacts at the project level using the FDOT's PC based CO Florida 2012 screening model. Output from the CO Florida 2012 model includes the estimated one-hour and eight-hour CO level, in PPM, at the default receptor locations and a report stating whether the project passes or fails the screening analysis. A project alternative that passes the CO Florida 2012 model is not expected to result in any violations of the NAAQS for CO and is not likely to have any impact on the air quality of the surrounding area.

The location within the project study area considered to have the greatest potential for traffic generated air quality impacts is the I-95 interchange at Atlantic Boulevard. This location was selected for the CO screening analysis.

The CO screening analysis for this project indicates that the worst-case one-hour CO level is 9.7 PPM for the Build Alternative during the opening year (2040) and 9.0 PPM during the design year (2040). The predicted worst-case eight-hour CO level is estimated to be 5.8 PPM for the Build Alternative during the opening year (2040) and 5.4 PPM during the design year (2040). The results of the CO screening analysis indicate the proposed project is not expected to cause any exceedances of the one-hour or eight-hour NAAQS for CO. Thus, the project passes the CO screening analysis, and air quality impacts resulting from the proposed project are not expected.

Agency Coordination

Agency coordination to obtain air quality related information occurred through the ETDM Planning and Program Screening and the Advanced Notification process. The ETDM review occurred between May 21, 2004, and July 5, 2004, and the ETDM Programming Screen Summary Report was published on September 29, 2005. No comments were received regarding air quality impacts and no Summary Degree of Effect was assigned for the Air Quality category. Based on the air quality analysis



conducted for this project, air quality impacts are not expected to occur as a result of this project.

Construction

Construction activities for the proposed action may potentially have short-term air quality impacts within the immediate vicinity of the project. Construction activities may generate temporary increases in air pollutant emissions in the form of dust from earthwork and unpaved roads and smoke from open burning. Such emissions and potential impacts will be minimized by adherence to all applicable state and local regulations and to the latest edition of the FDOT *Standard Specifications for Road and Bridge Construction*.

3. Construction

Construction activities for the proposed project will have short-term air, noise, vibration, water quality, traffic flow, and visual effects for those residents and travelers within the immediate vicinity of the project.

The air quality effects will be temporary and will primarily be in the form of emissions from diesel-powered construction equipment and dust from embankment and haul road areas. Air pollution associated with the creation of airborne particles will be effectively controlled through the use of watering or the application of other controlled materials in accordance with the FDOT's latest edition of *Standard Specifications for Road and Bridge Construction*.

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations because heavy equipment is typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residential, institutional, and commercial areas including condominiums, hotels, schools and medical facilities that may be affected by noise and vibration associated with construction activities. Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's *Standard Specifications for Road and Bridge Construction*. Adherence to local construction



noise and/or construction vibration ordinances by the contractor will also be required where applicable.

Water quality effects resulting from erosion and sedimentation will be controlled in accordance with the FDOT's latest edition of *Standard Specifications for Road and Bridge Construction* and through the use of BMPs.

Maintenance of traffic and sequence of construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used to provide notice of access to local businesses and other pertinent information to the traveling public. All provisions of the FDOT's latest edition of *Standard Specifications for Road and Bridge Construction* will be followed.

4. Contamination

A contamination screening evaluation was performed to evaluate the potential presence of contaminated sites within the I-95 study corridor. A Contamination Screening Evaluation Report (CSER) was prepared pursuant to the FHWA's *Technical Advisory T 6640.8A* and in accordance with the FDOT *PD&E Manual*, Part 2, Chapter 22 – Contamination Impacts (dated January 17, 2008). For additional information on contamination, please refer to the CSER prepared for this project, which is on file at the FDOT District Four office in Fort Lauderdale, Florida.

A review of all available data occurred, including agency file reviews at the Broward County Pollution Prevention, Remediation, and Air Quality Division (BCPPRAQD), Palm Beach County Department of Environmental Resources Management, and the FDEP, and a review of Environmental Data Resources, Inc. agency database search (within ¼-mile radius of the project corridor), city directories, Sanborn Fire Insurance Company maps, and aerial photography from 1963 through 2000. In addition, a field reconnaissance was conducted on accessible right of way adjacent to the project on June 28 and 29, 2012, to further evaluate the potential for environmental contamination. The field reconnaissance also served to confirm current business address listings and site conditions.

After a review of all available data, such as agency file reviews at Broward and Palm Beach counties and FDEP, the EDR database report, aerial photography, and the site reconnaissance, 61 sites of potential environmental concern were identified for the I-95 project corridor; of these, 21 sites are rated as High risk, 25 sites are rated



as Medium risk, and 15 sites are rated as Low risk. Remaining sites identified in the above-referenced sources are not considered to pose potential contamination concerns either because of the current regulatory status of the site, the site's location/distance from the project corridor, and/or the direction with reference to the I-95 project corridor (down-gradient/cross-gradient). The 61 potential contamination concerns are summarized in **Table 13** and mapped on **Sheets 1** through **25** of **Appendix N**. Relevant documents, notes, and copies of agency files for all of the sites determined to be High Risk are also included in the CSER.

The District Four Planning and Environmental Management Office will utilize the information contained in this report to determine the need for additional investigation during the design phase of the Project. The Level II Contamination Assessment investigation may be conducted prior to any right of way acquisition and/or prior to the design phase, should any become necessary. Based on the findings of updated future review and Level II investigation, the design engineers may be instructed to avoid the areas of concern or to include special provisions with the plans to require that the construction activities performed in the areas of concern be performed by a contamination assessment and remediation contractor specified by the FDOT.

It must be recognized that the possibility exists that some hazardous substances, petroleum products, or environmental contamination not identified during this assessment may exist on or in the immediate vicinity of the project. This is because regulatory agency records are not always complete; not all leaks, spills, and discharges are reported; not all USTs and ASTs are registered. It is unknown if any registered substances were illegally dumped or were deposited during past construction activities.



Table 13 Potential Contamination Concerns						
Site #	Risk Rating	Site Name	FDEP Facility ID	Address	City/State/Zip Code	County
1	MEDIUM	Broward County Parks & Recreation No. 13	8732768	950 NW 38 th Street	Oakland Park, FL 33309	Broward
2	MEDIUM	Broward County School Board – Twin Lakes Bus Facility	8622523	3895 NW 10 th Avenue	Oakland Park, FL 33309	Broward
3	MEDIUM	Broward County School Board - Maintenance Department	8622521	3810 NW 10 th Avenue	Oakland Park, FL 33309	Broward
4	LOW	Ft. Lauderdale City Utilities Complex	8622597	949 NW 38 th Street	Oakland Park, FL 33309	Broward
5	MEDIUM	Ft. Lauderdale City Five Ash Water Treatment Plant	8943040	4321 NW 9 th Avenue	Fort Lauderdale, FL 33309	Broward
6	HIGH	FDOT Right of Way Parcel 103A	9701012	899 West Prospect Road	Oakland Park, FL 33309	Broward
7	HIGH	Lyons Property	9700578	481 West Prospect Road	Fort Lauderdale, FL 33309	Broward
8	HIGH	Sunoco Twin Oil Company	8627788	4891 Powerline Road	Oakland Park, FL 33309	Broward
9	HIGH	First Coast Energy No. 1818	8501625	890 NW 50 th Street	Fort Lauderdale, FL 33309	Broward
10	HIGH	Adventure Petroleum (AKA Powerline British Petroleum Amaco)	8501632	4999 Powerline Road	Fort Lauderdale, FL 33309	Broward
11	HIGH	7-Eleven Food Store No. 34825	8501585	901 West Commercial Blvd.	Fort Lauderdale, FL 33309	Broward
12	LOW	BJ's Wholesale Clubs #181	9809646	5100 NW 9 th Avenue	Fort Lauderdale, FL 33309	Broward



Table 13 Potential Contamination Concerns						
Site #	Risk Rating	Site Name	FDEP Facility ID	Address	City/State/Zip Code	County
13	MEDIUM	Thompson Office Equipment	8838264	5301 NW 9 th Avenue	Fort Lauderdale, FL 33310	Broward
14	HIGH	FDOT Operations Center	8622445	5548 NW 9 th Avenue	Fort Lauderdale, FL 33309	Broward
15	HIGH	Hollingsworth Solderless Terminal	No FDEP ID	700 NW 57 th Place	Fort Lauderdale, FL 33309	Broward
			USEPA ID: FLD004119681			
16	LOW	Broward Trade Centre	9402000	200 West Cypress Creek Road	Fort Lauderdale, FL 33309	Broward
17	LOW	Westin Hotel Cypress Creek	9202030	400 Corporate Drive	Fort Lauderdale, FL 33334	Broward
18	MEDIUM	ABC Cutting Contractors	8838455	2001 North Andrews Avenue	Pompano Beach, FL 33069	Broward
19	MEDIUM	Dixie Auto Parts & Salvage	9063875	1621 South Dixie Highway	Pompano Beach, FL 33060	Broward
20	HIGH	Radiant Oil Company of Florida	9101898	1000 NW 13 th Avenue	Pompano Beach, FL 33069	Broward
21	MEDIUM	General Roofing Industries	8838267	951 South Andrews Avenue	Pompano Beach, FL 33069	Broward
22	MEDIUM	Associated Grocers of Florida	8622346	1141 SW 12 th Avenue	Pompano Beach, FL 33069	Broward
23	MEDIUM	Carpenter Contractors of America	8840237	941 SW 12 th Avenue	Pompano Beach, FL 33069	Broward
24	HIGH	Sultan & Sons	8627971	650 SW 9 th Terrace	Pompano Beach, FL 33069	Broward
25	MEDIUM	Everglades Paving Company	9201422	697 SW 9 th Terrace	Pompano Beach, FL 33069	Broward



Table 13 Potential Contamination Concerns						
Site #	Risk Rating	Site Name	FDEP Facility ID	Address	City/State/Zip Code	County
26	MEDIUM	The Store Room (formerly Lambda Novatronics)	No FDEP ID	500 South Andrews Avenue	Pompano Beach, FL 33069	Broward
			USEPA ID: FLD00414603			
27	LOW	Humana Hospital Cypress (AKA Reach The Children)	9045938	600 SW 3 rd Street	Pompano Beach, FL 33060	Broward
28	MEDIUM	Florida Power and Light Pompano Service Center	8622464	330 SW 12 th Avenue	Pompano Beach, FL 33069	Broward
29	HIGH	Atlantic Lumber	8734833	1291 West Atlantic Blvd.	Pompano Beach, FL 33069	Broward
30	MEDIUM	Broward Disposal Corporation	8501638	201 NW 12 th Avenue	Pompano Beach, FL 33069	Broward
31	HIGH	Hardy Brothers Station	8502084	1126 Hammondville Road	Pompano Beach, FL 33069	Broward
32	HIGH	Ray Anthony International	8837800	280 NW 12 th Avenue	Pompano Beach, FL 33069	Broward
33	HIGH	Lind-Rich	8502237	1199 Hammondville Road	Pompano Beach, FL 33069	Broward
34	HIGH	TM Window & Door	FDEP Site Investigation Section Number 529-1	601 NW 12 th Avenue	Pompano Beach, FL 33069	Broward
35	MEDIUM	Trademark Metals Recycling	9801547	811 NW 13 th Avenue	Pompano Beach, FL 33069	Broward



Table 13 Potential Contamination Concerns						
Site #	Risk Rating	Site Name	FDEP Facility ID	Address	City/State/Zip Code	County
36	MEDIUM	Scrap Metal Recycling	8942834	840 NW 12th Terrace	Pompano Beach, FL 33070	Broward
37	HIGH	Pompano Electric - 0020	8942834	1200 NW 15 th Avenue	Pompano Beach, FL 33069	Broward
38	MEDIUM	Florida Power and Light #7831	8622477	900 SE 15 th Street	Pompano Beach, FL 33060	Broward
39	MEDIUM	Martin Brower	9808541	1661 NW 12 th Avenue	Pompano Beach, FL 33069	Broward
40	MEDIUM	Gold Coast Beverage Distributors	8841281	1751 NW 12 th Avenue	Pompano Beach, FL 33069	Broward
41	MEDIUM	Copans Road Dump	Landfill ID 53353	350 West Copans Road	Pompano Beach, FL 33060	Broward
42	MEDIUM	Cemex - North Pompano Ready Mix	8622333	1150 NW 24 th Street	Pompano Beach, FL 33064	Broward
43	HIGH	British Petroleum Copans No. 614	8502690	290 West Copans Road	Pompano Beach, FL 33064	Broward
44	MEDIUM	Chevron-Copans Road	8501760	1231 West Copans Road	Pompano Beach, FL 33064	Broward
45	HIGH	Chevron-Assura Shaun Corporation	8501787	390 West Sample Road	Pompano Beach, FL 33064	Broward
46	HIGH	Sample Road Operating, LLC	9804918	250 East Sample Road	Pompano Beach, FL 33064	Broward
47	LOW	North Broward Hospital District	8731639	201 East Sample Road	Pompano Beach, FL 33064	Broward
48	LOW	Broward County School Board - Tedder Elementary School	9047396	4157 NE 1st Terrace	Pompano Beach, FL 33064	Broward



Table 13 Potential Contamination Concerns						
Site #	Risk Rating	Site Name	FDEP Facility ID	Address	City/State/Zip Code	County
49	LOW	Broward County School Board - Bright Horizons	9047323	3901 NE 1st Terrace	Pompano Beach, FL 33064	Broward
50	MEDIUM	DDI Transport Spill Site	9802066	I-95- North of Sample Road	Pompano Beach, FL	Broward
51	LOW	City of Deerfield Beach Mitigation Operation Center	9808466	1345 SW 11 th Way	Deerfield Beach, FL 33441	Broward
52	LOW	Quest Laboratories, Inc.	9812216	1300 E Newport Center Dr	Deerfield Beach, FL 33442	Broward
53	LOW	University of Miami Sylvester Comprehensive Cancer Care Center	9811006	1192 E Newport Center Dr	Deerfield Beach, FL 33442	Broward
54	LOW	MAPEI Corporation	9700509	1144 E Newport Center Dr	Deerfield Beach, FL 33442	Broward
55	LOW	Best Western of Newport Drive	9807870	1050 E Newport Center Dr	Deerfield Beach, FL 33442	Broward
56	LOW	7-Eleven Store No. 34839	9700573	900 SW 10 th Street	Deerfield Beach, FL 33441	Broward
57	HIGH	Publix Supermarket	8945000	777 SW 12 th Avenue	Deerfield Beach, FL 33442	Broward
58	HIGH	7-Eleven Food Store No. 34801	8502350	1200 West Hillsboro Blvd.	Deerfield Beach, FL 33442	Broward
59	MEDIUM	Sunshine No. 300035	8731682	1277 West Hillsboro Blvd.	Deerfield Beach, FL 33442	Broward
60	MEDIUM	FDOT Tri-Rail Spill	9202776	South Florida Rail Corridor and Camino Real Road	Boca Raton, FL 33486	Palm Beach
61	LOW	Cingular Wireless Fuel Spill	9806102	1551 West Camino Real	Boca Raton, FL 33486	Palm Beach



Wellfield Protection Areas

The Wellfield Protection Programs in both Broward County and Palm Beach County protect the aquifer by restricting land uses within the vicinity of the public wellfield protection areas. No part of the project corridor crosses the wellfield protection areas in the Palm Beach County. However, the following sections of the project corridor within Broward County cross wellfield protection areas:

- The section of the project corridor between SW 4th Street and NW 2nd Street borders zone 3 of the City of Deerfield Beach wellfield protection area.
- The section of the project corridor between NE 50th Street to SW 11th Court intersects zones 2 and 3 of the City of Deerfield Beach wellfield protection area.
- The section of the project corridor between West Copans Road to NE 29th Street borders zone 3 of the City of Pompano Beach wellfield protection area.

The local groundwater flow may be influenced by the groundwater recovery schedules of the above referenced wellfields located in northern Broward County. All phases of work will comply with the requirements of the applicable codes of each of the respective counties. Therefore, the proposed project is not expected to affect potable water quality.

Brownfields

Brownfields are sites that are generally abandoned, idled, or underused industrial and commercial properties where expansion or redevelopment is complicated by actual or perceived environmental contamination. A brownfield area is a contiguous area of one or more brownfield sites, some of which may not be contaminated. These are designated as such by a local government by adoption of resolution. Economic incentives, tax credits, a streamlined process, and low interest loans are some of the resources available through the Brownfields Program to redevelopers who clean up and develop a designated brownfield site.

A portion of the project corridor is located within the Pompano Beach Northwest Brownfield Area, designated by Broward County. It is bordered to the south by Atlantic Boulevard and to the north by Copans Road (Broward County Brownfield Areas Map, April 2012). The site-specific contamination concern(s) within this



designated brownfield area have been identified and are discussed in the CSER. Considering the fact that a portion of the project corridor is an area designated as a brownfield area, the potential for soil and/or groundwater contamination from local or regional sources does exist.

Asbestos Surveys

In August 2011, GLE Associates performed a survey for the asbestos-containing materials (ACM) to identify accessible ACM in various bridges along and across the project corridor (I-95) in Broward County and Palm Beach County, Florida (**Table 14**). The survey was conducted pursuant to National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements. This survey was performed by Mr. Mike Love and Mr. Jeff Knight, EPA/AHERA (Environmental Protection Agency/Asbestos Hazard Emergency Response Act) accredited asbestos inspectors.

Table 14 Summary of Asbestos Presence					
#	MP	Direction	Bridge#	Bridge Name	ACM Detected
1	25.28	Northbound	860195	I-95 over Hillsboro Canal	No
2	25.28	Southbound	860125	I-95 over Hillsboro Canal	No
3	24.618	Northbound	860194	I-95 over Hillsboro Boulevard	No
4	24.617	Southbound	860124	I-95 over Hillsboro Boulevard	No
5	22.016	East/West	869002	Pedestrian Overpass over I-95	No
6	20.407	Northbound	860220	I-95 over Copans Road	No
7	20.405	Southbound	860120	I-95 over Copans Road	No
8	19.335	Northbound	860219	I-95 over Northwest 15th Street	No
9	19.35	Southbound	860119	I-95 over Northwest 15th Street	No
10	19.236	Northbound	860218	I-95 over FEC Railroad	No
11	19.223	Southbound	860118	I-95 over FEC Railroad	No
12	18.544	Northbound	860236	I-95 over Hammondville Road	YES
13	18.544	Southbound	860235	I-95 over Hammondville Road	YES
14	18.355	Northbound	860232	I-95 over Atlantic Boulevard	YES
15	18.355	Southbound	860231	I-95 over Atlantic Boulevard	YES



Table 14 Summary of Asbestos Presence					
#	MP	Direction	Bridge#	Bridge Name	ACM Detected
16	16.903	Northbound	860242	I-95 over McNab Road	No
17	16.892	Southbound	860241	I-95 over McNab Road	No
18	14.014	Northbound	860197	I-95 over NW 38th Street	No
19	13.999	Southbound	860127	I-95 over NW 38th Street	No
20	13.442	Northbound	860217	I-95 over Oakland Park Boulevard	No
21	1.795	East/West	860122	Northeast 48th St over I-95	No
22	1.54	Southbound	930198	I-95 over Palmetto Park Road	No
23	1.54	Northbound	930199	I-95 over Palmetto Park Road	No
24	1.087	Northbound	930198	I-95 over West Camino Real	No
25	1.087	Southbound	930197	I-95 over West Camino Real	No
26	0.7	East/West	930197	Southwest 18th St over SB and NB I-95	No
27	0.168	Westbound	860131	Commercial Boulevard Ramp to SB I-95 over Commercial Boulevard	No

Of the 27 bridges where samples were collected for investigating the presence of ACM, four bridges were found to contain less than 10% regulated ACM (RACM) by PLM analysis:

- Bridge # 860236: I-95 (northbound) over Hammondville Road
- Bridge # 860235: I-95 (southbound) over Hammondville Road
- Bridge# 860232: I-95 (northbound) over Atlantic Boulevard
- Bridge# 860231: I-95 (southbound) over Atlantic Boulevard

Individual reports for the 27 bridges are available for review at FDOT IV offices in Fort Lauderdale, Florida for further details.

Bridge # 860236:

Asbestos containing materials were identified (Class 5 Finish) on the End Bent, Back Wall, Beam Span, and Columns. It was recommended by GLE Associates that this material be properly removed and disposed of by a State of Florida licensed asbestos abatement contractor prior to commencing with any activities that might disturb this material.



Bridge # 860235:

Asbestos containing materials were identified (Class 5 Finish) on the End Bent, Back Wall, Beam Span, and Columns. It was recommended by GLE Associates that this material be properly removed and disposed of by a State of Florida licensed asbestos abatement contractor prior to commencing with any activities that might disturb this material.

Bridge # 860232:

Asbestos containing materials were identified (Class 5 Finish) on the End Bent, Back Wall, Intermediate Bent Caps, and Columns. It was recommended by GLE Associates that this material be properly removed and disposed of by a State of Florida licensed asbestos abatement contractor prior to commencing with any activities that might disturb this material.

Bridge # 860231:

Asbestos containing materials were identified (Class 5 Finish) on the End Bent, Back Wall, Beam Span and Columns. It was recommended by GLE Associates that this material be properly removed and disposed of by a State of Florida licensed asbestos abatement contractor prior to carrying out any activities that might disturb this material.

Toxicity Characteristic Leaching Procedure (TCLP) Sampling and Paint Screening Surveys

GLE Associates performed limited toxicity characteristic leaching procedure (TCLP) sampling and paint screening surveys on the following bridges in Broward County, Florida:

- Bridge # 860128: Southbound Interstate 95 (I-95/SR-9) over Northwest 9th Avenue (SR-845/Powerline Road) (MP 14.27)
- Bridge # 860198: Northbound Interstate 95 (I-95/SR-9) over Northwest 9th Avenue (SR-845/Powerline Road) (MP 14.243)

The surveys were conducted in August 2011, by Mr. Jeffrey Knight and Mr. Michael Love, under the supervision of John Simmons, of GLE Associates. Individual reports for the four bridges are available for review at FDOT IV offices in Fort Lauderdale, Florida for further details.



The bridges are constructed of pre-stressed concrete and metal beam structures with two supporting slope abutments. Sub-structure was provided by three pre-stressed concrete intermediate bent frames. The bridges overlie/intersect eastbound and westbound Northwest 9th Avenue (SR-845/Powerline Road). A total of one representative paint sample was collected from each of the two bridges as shown in *Table 15*.

Table 15 Summary of Sampling Locations			
#	Bridge#	Sample ID	Sample Location
1	860128	860128	Green Paint on Beam Span
2	860198	860198	Green Paint on Beam Span

The paint samples were shipped under strict chain-of-custody to EHS Laboratories in Richmond, Virginia, a laboratory accredited by the Florida Department of Health, the National Environmental Laboratory Accreditation Program (NELAP), and the American Industrial Hygiene Association Laboratory Accreditation Program (AIHA LAP).

The paint samples were analyzed for total metals by EPA method SW846 3050B/6010C for cadmium, chromium, lead, and zinc, with concentrations reported as milligrams per kilogram (mg/Kg) to determine applicability of OSHA regulations in 29 CFR 1926 (*Table 16*).

Table 16 Summary of Paint Chip Analytical Results (Total Metals)					
Bridge#	Sample ID	Metals Concentrations (mg/Kg)			
		Cadmium	Chromium	Lead	Zinc
860128	860128	<20	40	110	83,000
860198	860198	91	88	510	410,000

As shown in the above table, chromium, lead and zinc were detected above the in both the samples. Cadmium was detected in one (860198).



The paint samples were also analyzed by TCLP metals by EPA method SW846 1311/3010B/6010C cadmium, chromium, and lead. The TCLP concentrations were reported as milligrams per liter (mg/L), and compared with the EPA established hazardous waste limits (40 CFR 261.24 Toxicity Characteristic) (see **Table 17**).

Table 17				
Summary of Paint Chip Analytical Results (TCLP Metals)				
Bridge#	Sample ID	Metals Concentrations (mg/L)		
		Cadmium	Chromium	Lead
EPA Limit*		1.0	5.0	5.0
860128	860128	<0.050	<0.050	0.067
860198	860198	<0.050	0.063	0.22

- EPA Limits are based on Maximum Concentration of Contaminants for the Toxicity Characteristic- Table 1 of 40 CFR-261.24

As shown in the above table, cadmium was not detected above the reporting limit in either of the two samples. Chromium was detected above the laboratory reporting limit in one of the samples (860198), but below the EPA limit. Lead was detected above the laboratory reporting limit in both the samples, but below the EPA limit. Based on the laboratory analytical results of the TCLP testing, the waste stream associated with the above two samples is considered “non-hazardous” relative to cadmium, chromium, or lead.

Agency Coordination

Agency coordination to obtain contamination-related information occurred through the Efficient Transportation Decision Making ETDM Planning and Program Screening and the Advanced Notification process. The Florida Department of Environmental Protection (FDEP) reviewed the project and listed a Degree of Effect of ‘Moderate’ for contaminated sites. The Summary Degree of Effect for contaminated sites was also listed as ‘Moderate’ in the ETDM Programming Screen Summary Report. The ETDM Programming Screen Summary Report is provided in **Appendix C**.



5. Aesthetic Effects

The I-95 corridor within the project limits consists of a highly urbanized highway roadway corridor, with few aesthetic features present for motorists traveling the corridor. Some of the park/recreational areas (discussed in **Attachment 6.B.4**) and the historic sites (discussed in **Attachment 6.B.2**) could be considered aesthetic features to the extent that they can be viewed by passing motorists along the roadway corridor; however, views of these features are highly limited by the existing roadway infrastructure. Broward County also has a proposed greenway network, which crosses I-95 along the project corridor, which could be considered a visual resource in the future. Since all of the proposed roadway improvements associated with the build alternative will occur within the existing FDOT right of way and the roadway will continue to be at the same grade, no adverse impacts to aesthetics are anticipated as a result of the proposed project.

6. Bicycles and Pedestrians

I-95 is a limited access facility, therefore, there are no designated pedestrian or bicycle accommodations along the corridor. Pedestrians and bicycles are not permitted on limited access corridors.

7. Utilities and Railroads

Several utilities are located with the study corridor. **Table 18** lists the existing utilities for the 26 companies identified in the project area. Each company was contacted in order to solicit their feedback on the location of their facilities and invite each of them to a Utility Coordination Meeting which was held on August 9, 2012.

Of the 26 companies, 19 responded to the request and five attended the coordination meeting. Of the 19 responsive companies, four stated that they do not have facilities in the project vicinity (AT&T Transmission, City of Wilton Manors, Florida Gas Transmission Company, and Florida Public Utilities Company).

Corridor base maps showing approximate locations of the existing utilities are provided in the *Preliminary Engineering Report* prepared for this project. A review of the provided utility information revealed a buried fiberoptic line along the west edge of pavement for the entire project length in Broward County, supporting the ITS SunGuideSM system.



The City of Fort Lauderdale Charles W. Fiveash Regional Water Treatment Plant is located adjacent to the west side of I-95 at this location. This facility both supplies water and treats wastewater.

Approximately 101 utility crossings have been noted within the study limits, most commonly found in and around interchanges and overpasses.

Table 18	
Existing Utility Companies	
Utility	Owner
Communications	AT&T Transmission
	AT&T Distribution AFL
	AT&T Distribution
	Comcast Cable
	Comcast – WPB
	Communications LLC
	FDOT
	FPL Fiber Net
	Verizon/MCI
	XO Communications
Electric	FPL Distribution – Broward
	FPL Distribution – Palm Beach
	FPL Transmission
Gas	Florida Gas Transmission Company
	Florida Public Utilities Company
	Peoples Gas/TECO
Municipal	Broward County OES – Traffic Engineering
	Broward County OES – Water Supply
	City of Boca Raton – Water
	City of Boca Raton – Traffic
	City of Deerfield Beach
	City of Fort Lauderdale
	City of Oakland Park
	City of Pompano Beach
	City of Wilton Manors
	Palm Beach County Traffic Division



8. Navigation

Through coordination with the U.S. Coast Guard (Evelyn Smart, email communication, 12/6/12), it has been determined that the Hillsboro Canal is considered navigable waters of the United States because it exhibits ebb and flood tide. According to communication with the U.S. Coast Guard (USCG) (Evelyn Smart, email communication, 12/6/12):

Back in earlier days before the construction of I-95 there was little to no navigation using the waterway at that location so the Coast Guard applied the "Advance Approval" permit exemption (see 33 CFR 115.70 on page 530). Since the construction of I-95, the characteristic of the Hillsboro Canal changed due to the construction of homes that are equipped with docks and the Pine Tree Mobile Home Park that has a 50 slip marina. Advance Approval no longer applies to the waterway at this location. A bridge permit will be required to replace or modify the I-95 Bridge.

Email coordination with Evelyn Smart of the USCG (dated December 6, 2012) is included in **Appendix O**. Please reference the Preliminary Engineering Report (PER) for this study for additional information relating to the proposed I-95 bridge improvements over the Hillsboro Canal.

In addition, coordination was conducted with FDEP's Division of State Lands to determine if the submerged lands portion of the Hillsboro Canal beneath and directly adjacent to I-95 is owned by the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (TIITF). Per a letter dated January 3, 2013 from the FDEP, the proprietary requirements normally applied to state owned lands does not apply to the submerged lands at this site, which includes the footprint of the proposed build alternative. Therefore, a sovereign submerged lands easement will not be required for work at this location. In addition, the FDEP verbally advised that according to their records, no other easements exist within the submerged limits of the portion of the Hillsboro Canal affected by the recommended alternative. Please reference **Appendix O** for a copy of the January 3, 2013, letter from the FDEP.



E. PERMITS REQUIRED

Both the USACE and SFWMD regulate impacts to wetlands within the project area. In June of 2012, an informal discussion of the wetlands associated with the I-95 project was conducted with Mr. Rob Hopper of the SFWMD and Mr. Garrett Lips of the USACE. It was noted by the SFWMD that all previously permitted stormwater swales associated with the stormwater management system would not require compensatory wetland mitigation, but littoral zones and natural wetland areas would be assessed during the permitting process and compensatory mitigation will be required. The USACE stated that all stormwater swales demonstrating wetland characteristics and/wood stork foraging habitat will need to be replaced in-kind or the need for compensatory wetland mitigation will be required. Both agencies stated that a site visit to determine jurisdictional wetlands during the permitting process will be required. Representatives from the FDOT and the SFWMD and USACE will be discussing this project at the January interagency meeting; a field visit is anticipated to be scheduled shortly thereafter. While the SFWMD may determine during the permitting process for this project that some of the potentially jurisdictional wetland areas identified in this study may be classified as "other surface waters," due to the USACE claiming all of these areas as jurisdictional wetlands, it is anticipated at this stage of the project (PD&E) that the FDOT will be required to mitigate for impacts to all of these potentially jurisdictional areas. The complexity of the permitting process will depend greatly on the size of the project and/or the extent of impacts to jurisdictional wetland areas.

Other agencies, including the U.S. Environmental Protection Agency, NMFS, USFWS, FDEP, and FWC typically review and comment on permit applications. A list of the permits that are anticipated to be required for this project is provided in **Table 19**, below. The project corridor, I-95, is part of the State Highway System and therefore is exempt from all city and county environmental permitting per Chapter 335.02(4) Florida Statute, which states:

335.02 Authority to designate transportation facilities and rights-of-way and establish lanes; procedure for redesignation and relocation; application of local regulations.—

(4) Notwithstanding any general law or special act, regulations of any county, municipality, or special district, including any instrumentality thereof, shall not apply to existing or future



transportation facilities, or appurtenances thereto, on the State Highway System.

In relation to stormwater management and construction in or over secondary canal systems, since the project lies within the limits of the Broward County Water Control Districts 2, 3 and 4 and crosses secondary canals controlled by the Lake Worth Water Control District in Palm Beach County, the FDOT would need to coordinate with the local drainage districts and apply for the necessary drainage approvals/permits from each district, as needed.

Table 19	
Anticipated Environmental Permits	
Permit Type	Issuing Agency
Environmental Resource Permit	SFWMD
Right of Way Occupancy Permit	SFWMD
Water Use Permit (for Construction Dewatering)	SFWMD
Section 404 Dredge and Fill Permit	USACE
Bridge Permit	USCG
National Pollutant Discharge Elimination Permit (NPDES)	FDEP
Local Drainage District Approvals/Permits	Local Drainage Districts

SFWMD = South Florida Water Management District

USACE = U.S. Army Corps of Engineers

USCG = U.S. Coast Guard

FDEP = Florida Department of Environmental Protection

The SFWMD requires an Environmental Resource Permit when construction of any project results in the modification or creation of a surface water management system or results in impacts to wetlands or waters of the state. It is anticipated that an Individual Environmental Resource Permit will be required for this project. It is also anticipated that a Right of Way Occupancy Permit for work within the SFWMD's right of way of its canals will be required from the SFWMD. In addition, if it is determined that dewatering is required for construction of the proposed build alternative, a Water Use Permit for construction dewatering will be required from the SFWMD.



With the USACE, an Individual Section 404 Dredge and Fill Permit will be required. An individual permit will require compliance with the 404(b)(1) guidelines, including verification that all impacts have first been eliminated to the greatest extent practicable, that unavoidable impacts have been reduced to the greatest extent practicable, and lastly that unavoidable impacts have been mitigated in the form of wetlands creation, restoration, and/or enhancement.

A USCG Bridge Permit will also be required. Preliminary coordination conducted with the USCG indicated that a USCG Bridge Permit will be required, per (33 CFR Chapter 1, Subchapter J) for the reconstruction of or modification of any existing bridge or causeway, across United States navigable waters. Federal law prohibits construction of any bridge over navigable waters without first receiving authorization from the U.S. Coast Guard. According to the USCG (Mr. Brodie Rich and Ms. Evelyn Smart, Seventh District Bridge Branch), the portion of the Hillsboro Canal beneath I-95 is considered to be navigable waters of the United States because it exhibits ebb and flood tide. The USCG recommended that the FDOT make every attempt to maintain the existing vertical and horizontal clearance at the I-95 crossing. If the existing clearances are reduced, the USCG would conduct an extensive review to determine if the newly established clearances are sufficient for navigational purposes at this location.

Under the FDEP's delegated authority to administer the NPDES program, construction sites that will result in greater than one acre of disturbance must file for and obtain either coverage under an appropriate generic permit or an individual permit for point source discharges of stormwater to waters of the U.S. A major component of the NPDES permit is the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP identifies potential sources of pollution that may reasonably be expected to affect the quality of stormwater discharges from the site and discusses good engineering practices (i.e., best management practices) that will be used to reduce the pollutants due to construction activities.



ATTACHMENT 7 – COMMITMENTS AND RECOMMENDATIONS

During construction, the FDOT will comply with all provisions of the most recent version of the FDOT *Standard Specifications for Road and Bridge Construction*. In addition, the FDOT is committed to the following measures for the I-95 project:

Traffic and Transportation: The FDOT is committed to the following measures in order to eliminate and/or reduce impacts to traffic and transportation:

1. The sequence of construction will be planned in such a way as to minimize traffic delays. The project will involve the development and use of a Maintenance of Traffic Plan. This plan will include traffic management and signage, access to local businesses and residences, detour routes, public notification of alternate routes, emergency services coordination and project scheduling. The local news media will be notified in advance of road closings and other construction-related activities, which could excessively inconvenience the community so that business owners, residents, and/or tourists in the area can plan travel routes in advance. A sign providing the name, address, and telephone of an FDOT contact person will be displayed on-site to assist the public in obtaining answers to questions or complaints about project construction.
2. The FDOT will perform detailed safety evaluations at the identified high crash locations after the PD&E Study or during design to quantitatively determine the impact of the proposed improvements and evaluate and address safety improvements if required. The detailed analysis will include preparation of collision diagrams, additional field reviews, expected value analysis and review of police reports (if necessary) to identify the crash patterns and potential countermeasures at each of the identified locations.
3. The FDOT will prepare an Incident Management Plan for the deployment of the next phase of express lanes. This plan will build upon and be coordinated with the existing Incident Management Plan in place for 95 Express Phases I and II and with our agency partners. The plan will be submitted to FHWA for review and approval.
4. The FDOT is in the process of completing a study for the development of a Regional Concept of Transportation Operations. The FDOT will continue to work with our agency partners to prepare a Concept of Operations Plan. This plan will be submitted to FHWA for review and approval.



5. The FDOT is committed to holding additional workshops, if necessary, to discuss tolling and potential changes in ingress/egress points to the express lanes system.
6. Access to businesses, residences, institutions and through traffic will be maintained to the maximum extent possible during project implementation.
7. Preliminary bridge structure load ratings were completed during the PD&E study resulting in seven potential structural load capacity design variations. The final bridge structure load ratings evaluation and design variation packages (if necessary) will be completed during the design phase of the project.

Relocations: No relocations are anticipated; however, should relocations be necessary, the FDOT is committed to:

8. If required, the FDOT will carry out a Right of Way and Relocation Program in accordance with the Florida Statute 339-09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

Public Services and Utilities: The FDOT is committed to the following measures in order to eliminate and/or reduce impacts to public services and utilities:

9. The FDOT will coordinate with all service providers, including emergency services and utility providers during final design to confirm that access is maintained and alternate routes are developed.
10. During construction, the FDOT will maintain uninterrupted utility service to the extent practical.

Land Use: The FDOT is committed to the following measures in order to maintain consistency with land use:

11. Prior to the advancement of future project phases, the FDOT will coordinate with the county and affected municipalities to confirm the project is consistent with each local government's comprehensive plan.
12. The FDOT will coordinate with the area municipalities regarding any potential impacts to the interchanges or potential pond sites within their city as this project progresses through the design and construction phases.



Landscaping: The FDOT is committed to the following measures in regards to landscaping along the project corridor:

13. During final design, consideration will be given to the preservation or relocation of existing landscaping and/or and inclusion of new landscaping. This will be done in collaboration with the Broward and Palm Beach Metropolitan Planning Organizations and local jurisdiction.

Permits: The FDOT is committed to obtaining the following environmental permits for the project, if still deemed to be appropriate based on the level of impacts determined by the final design of the project:

14. Environmental Resource Permit (SFWMD), Right of Way Occupancy Permit (SFWMD), Water Use Permit for Construction Dewatering (SFWMD), Section 404 Dredge and Fill Permit (USACE), Bridge Permit (USCG), National Pollutant Discharge Elimination Permit (FDEP), and Local Drainage District Approvals/Permits.

Wetlands and Protected Species: The FDOT is committed to the following measures in order to eliminate and/or reduce impacts to wetlands and protected species including the following:

15. Direct impacts to stormwater management/drainage features will be mitigated by the creation of a new stormwater management/drainage system, which is anticipated to result in no net loss of stormwater management/drainage features dominated by hydrophytic vegetation and no net loss of functional value in terms of water quality or habitat value. If it is determined during final design and permitting that the new stormwater management/drainage system does not fully compensate for the proposed impacts, these impacts would be mitigated along with the proposed wetland mitigation. Any proposed wetland compensatory mitigation would have to be provided within the same basin as the wood stork impacts or at a USFWS-approved mitigation bank and would have to fully compensate for the biomass loss.



16. The FDOT commits to coordinating with the FWC Gopher Tortoise Permit Coordinator to facilitate a 100% Gopher Tortoise Survey with live trapping of individual gopher tortoise to a recipient site approved by the FWC. Biologists conducting this survey will also watch for observations of any other listed species at the time of the survey.
17. The FDOT will install silt fencing along the edge of the construction limits adjacent to the Blazing Star Preserve to prohibit any gopher tortoises or other protected species from entering the area following relocation activities.
18. The FDOT will incorporate the most current eastern indigo snake protection guidelines, entitled Standard Protection Measures for the Eastern Indigo Snake, into the final project design and will require that the construction contractor abide strictly to the guidelines during construction.
19. The FDOT will incorporate the most current manatee protection guidelines, entitled Standard Manatee Conditions for In-Water Work, into the final project design and will require that the construction contractor abide strictly to the guidelines during construction.
20. The FDOT's contractor will be advised of state and local laws regarding the harassment of alligators prior to any construction activities.

Contamination: The FDOT is committed to the following measures in order to eliminate and/or reduce impacts to contaminated sites:

21. The FDOT District Four Planning and Environmental Management Office will utilize the information contained in the CSER to determine the need for additional investigation. The Level 2 Contamination Assessment investigation will be conducted during the design phase and prior to any right of way acquisition, should any become necessary.
22. The FDOT will adhere to the procedures set forth in the FDOT Standard Specifications for Road and Bridge Construction, specifying the contractor's responsibilities in regard to encountering petroleum-contaminated soil and/or groundwater.



Water Quality: The FDOT is committed to the following measure in order to eliminate and/or reduce impacts to water quality:

23. Water quality impacts resulting from erosion and sedimentation during construction activities will be controlled in accordance with the latest edition of the FDOT Standard Specifications for Road and Bridge Construction and through the use of BMPs, including temporary erosion control measures.

Noise: The FDOT is committed to the following measures in order to eliminate and/or reduce impacts from noise and vibration:

24. The FDOT is committed to the construction of feasible noise abatement measures at the locations where noise barriers have been recommended for further consideration during the final design phase, contingent upon the following conditions:

- a. Detailed noise analyses during the final design process support the need for abatement.
- b. Reasonable cost analyses indicate that the economic cost of the barriers will not exceed the cost reasonable criterion.
- c. Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.
- d. Community input regarding desires, types, heights and locations of barriers has been solicited by the FDOT.
- e. Any other mitigating circumstances found in *Section 17-4.6.1* of the FDOT PD&E Manual have been analyzed.

25. A reassessment of the project corridor for additional sites particularly sensitive to construction noise and/or vibration will be performed during design to ensure that impacts to such sites are minimized. Coordination between the FDOT and the operators of any construction noise/vibration sensitive locations identified during design will occur, and if applicable, Technical Special Provisions (TSP) developed for the project's contract package in order to ensure that impacts to such businesses are minimized.

26. The FDOT will re-evaluate the feasibility and reasonableness of noise abatement measures during final design if warranted by changes to the project's design.



27. Construction noise and vibration impacts will be minimized by adherence to the controls listed in the latest edition of the FDOT Standard Specifications for Road and Bridge Construction.

Air Quality: The FDOT is committed to the following measure in order to eliminate and/or reduce impacts to air quality:

28. Construction activities for the proposed action may potentially have short-term air quality impacts within the immediate vicinity of the project. Construction activities may generate temporary increases in air pollutant emissions in the form of dust from earthwork and unpaved roads and smoke from open burning. Such emissions and potential impacts will be minimized by adherence to all applicable State and local regulations and to the latest edition of the FDOT Standard Specifications for Road and Bridge Construction.

Cultural Resources: The FDOT is committed to the following measure in order to eliminate and/or reduce impacts to cultural resources:

29. The FDOT will not store or stage equipment or materials within the Hillsboro Canal and the FEC Railway right of way boundaries and these resources will not be temporarily occupied during construction.

Navigation: The FDOT is committed to the following measure in order to maintain navigability within the Hillsboro Canal:

30. A USCG Bridge Permit will be obtained for any unavoidable impacts to the portion of the Hillsboro Canal beneath I-95.

Reevaluation: In the event of a reevaluation, the FDOT is committed to the following:

31. If the project is advanced through a Design-Build or Design-Build-Finance, the FDOT will continue to coordinate with FHWA.



Appendix A

Planning Consistency Checklist and Pages from the Transportation Improvement Program, State Transportation Improvement Program, and Long-Range Transportation Plan

Planning Requirements for Environmental Document Approvals with Segmented Implementation

Document Information:	
Date: 6/21/2013	Document Type: CE II
Document Status: Final	
Project Name:	SR 9/I-95 Project Development & Environment (PD&E) Study
Project Limits:	From North of Oakland Park Boulevard (SR 818) to South of Glades Road (SR 808)
Are the limits consistent with the plans?	Yes
Identify MPO(s) (if applicable):	Broward County MPO and Palm Beach MPO
	Original PD&E FAP# 0951-609-I and 0951-608-I


Segment Information: Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction					
Segment Limits: From Oakland Park Boulevard to Atlantic Boulevard					
Segment FM #: 409359-2					
Currently Adopted CFP-LRTP	COMMENTS				
Yes	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions)				
PHASE	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	
PE (Final Design)	Yes	Yes	\$1,700,000	2015	
R/W	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0	N/A	LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

Segment Information: Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction					
Segment Limits: From Atlantic Boulevard to Sample Road					
Segment FM #: 409359-3					
Currently Adopted CFP-LRTP	COMMENTS				
Yes	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions)				
PHASE	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	COMMENTS
PE (Final Design)	Yes	Yes	\$1,500,000	2015	
R/W	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0		LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

Segment Information: Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction					
Segment Limits: From Sample Road to the Broward/Palm Beach County Line					
Segment FM #: 409359-4					
Currently Adopted CFP-LRTP	COMMENTS				
Yes	Identified in Broward County MPO, 2035 CFP LRTP , Project ID 64 - I-95 Managed Lanes from I-595 to Palm Beach County line, Construction funding in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions)				
PHASE	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	COMMENTS
PE (Final Design)	Yes	Yes	\$1,100,000	2015	
R/W	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0		LRTP: Construction funding for I-95 Managed Lanes from I-595 to the Palm Beach County line is in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

Segment Information: Convert HOV to Express Lane and add one additional Express Lane in the median, in each direction					
Segment Limits: From Broward/Palm Beach County Line to Glades Road					
Segment FM #: 409355-2					
Currently Adopted CFP-LRTP	COMMENTS				
Yes	Identified in Palm Beach County MPO, 2035 CFP LRTP , Project IDs 42-48, I-95 Managed Lanes from the Broward/Palm Beach County line to Indiantown Road, Construction funding in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions)				
PHASE	Currently Approved TIP	Currently Approved STIP	TIP/STIP \$	TIP/STIP FY	COMMENTS
PE (Final Design)	Yes	Yes	\$900,000	2015	
R/W	N/A	N/A	N/A	N/A	No right of way acquisition is required.
Construction	No	No	\$0		LRTP: Construction funding for I-95 Managed Lanes from the Broward/Palm Beach County line to Indiantown Road is in Fiscal Years 2021-2025 with \$1,078.7 (Year of Expenditure Dollars in Millions). FDOT intends to fund construction as soon as possible. Currently some construction funds are scheduled in approved 2nd five-year SIS plan. Construction funding and delivery methods will be evaluated by FDOT to determine final construction funding plan.

FDOT Preparer's Name: Henry Oaikhena, P.E.

Preparer's Signature: 

Date: 8/19/2013 Phone #: (954) 777-4445

Email: henry.oaikhena@dot.state.fl.us

*Attach: LRTP, TIP, STIP pages

Project Name: SR 9/I-95 Project Development and Environment Study

FHWA Reviewer: _____

Financial Project Number: __ 409359-1 and 409355-1

Date: _____

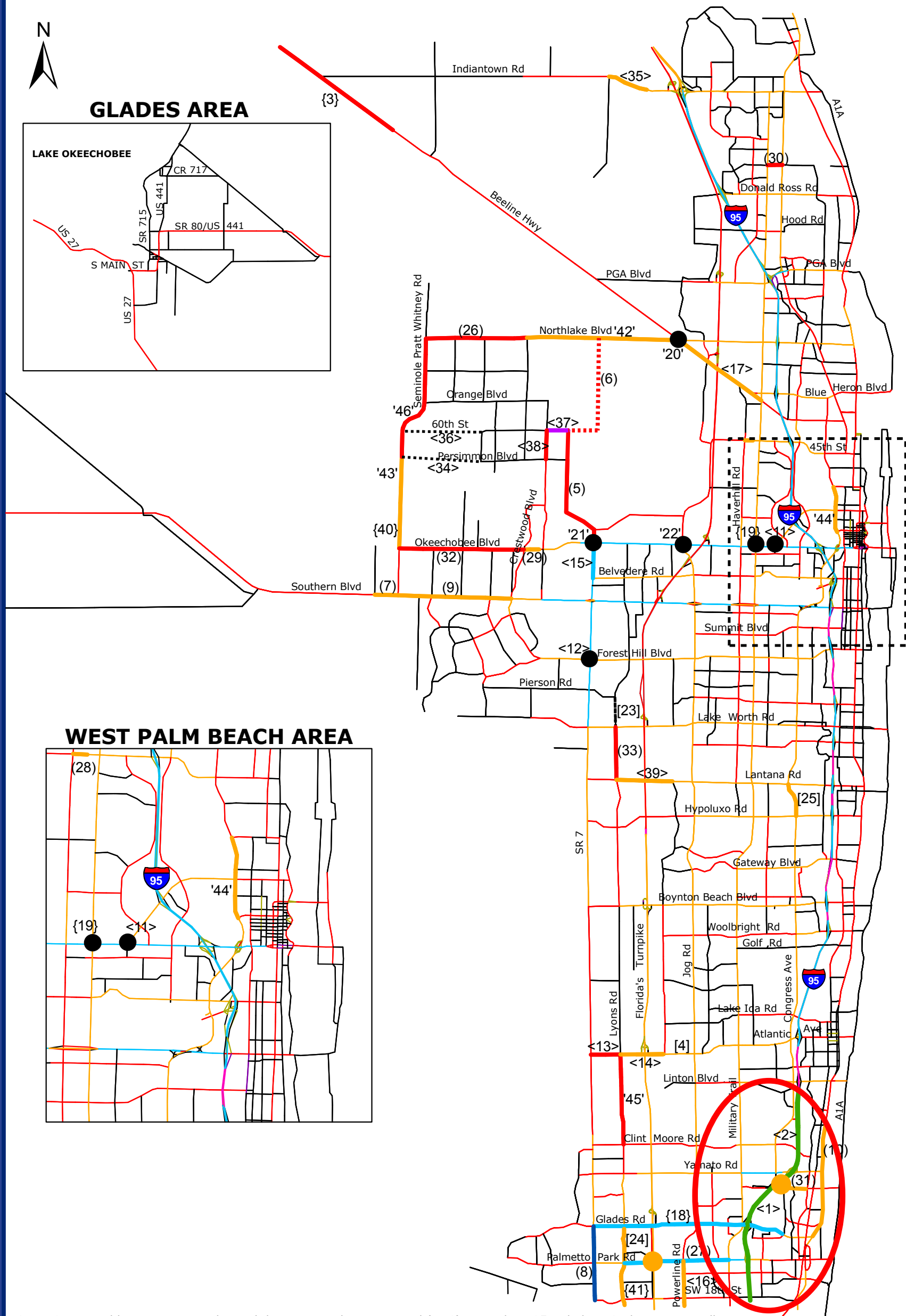
Planning Requirements Summary (FHWA Planners complete):	YES	NO	Comments
Planner: _____ Date: _____			
1. Is project fully reflected in current cost-feasible LRTP?			
2. Is project in current TIP?			
3. Is project in current STIP and consistent with the TIP?			
4. Is the project described in the TIP and STIP consistent with the cost-feasible LRTP with regards to project description, limits, implementation and funding? If NO, describe outcome of conversation with District to produce consistency.			
5. Are the cost-feasible LRTP, TIP, and STIP consistent with the project implementation as demonstrated in the project schedule? If NO, describe outcome of conversation with District to produce consistency.			
6. Is the environmental document consistent with the project implementation as demonstrated in the project schedule? If NO, describe outcome of conversation with District to produce consistency.			

Exhibit 71-2035 Cost Feasible Roadway Projects (continued)

Project ID	Project Name	From	To	Miles	Project Description	Project	Score	Total Cost (2009 dollars)	Cumulative Project Cost (2009 dollars)	FYs 2014-2015 (YOE dollars in millions)	FYs 2016-2020 (YOE dollars in millions)	FYs 2021-2025 (YOE dollars in millions)	FYs 2026-2030 (YOE dollars in millions)	FYs 2031-2035 (YOE dollars in millions)	Total for 21 Years (YOE dollars in millions)
FIHS/SIS Projects															
54 ²	I-75 Express Lanes	HEFT	I-595	12.4	Ultimate Plan ³ , including two managed lanes		17	\$18,000,000	\$18,000,000	\$0.0	\$0.0	\$29.0	\$0.0	\$0.0	\$29
												PE			
64	I-95 Managed Lanes	I-595	Palm Beach County Line	15	4 Managed Lanes		15	\$670,000,000	\$688,000,000	\$0.0	\$0.0	\$1,078.7	\$0.0	\$0.0	\$1,079
												C			
52	I-595	Reimbursement	-	NA	Ultimate Plan ³	SIS Projects	12	\$29,493,367	\$717,493,367	\$11.2	\$27.9	\$0.0	\$0.0	\$0.0	\$39
										C	C				
69	I-595	I-75	West of I-95	11.7	P3/CEI		12	\$168,608	\$717,661,975	\$0.21	\$0	\$0	\$0	\$0	\$0.21
										C					
70	I-595	East of I-75	West of I-95	11.7	P3/GEO TECH		12	\$168,608	\$717,830,583	\$0.21	\$0	\$0	\$0	\$0	\$0.21
										C					
71	I-595	I-75/Sawgrass	SR 5/US 1	NA	P3		12	\$1,558,784	\$719,389,367	\$1.57	\$0.37	\$0	\$0	\$0	\$2
										C	C				
72	I-595/SR 862	East of I-75	West of I-95	11.7	Ultimate Plan		12	\$514,537,375	\$1,233,926,742	\$83.8	\$610.9	\$0.0	\$0.0	\$0.0	\$695
										C	C				
73	I-595	I-75	SR 7	9.5	Ultimate Plan		12	\$1,382,000,000	\$2,615,926,742	\$0.0	\$0.0	\$2,225.0	\$0.0	\$0.0	\$2,225
												C			
53 ⁴	I-595 Causeway	SR 7 / US 441	I-95	2.2	Ultimate Plan ³		12	\$21,000,000	\$2,636,926,742	\$0.0	\$0.0	\$33.8	\$0.0	\$0.0	\$34
												PE			
Total - SIS/FIHS Projects								\$2,636,926,742		\$97	\$639	\$3,367	\$0	\$0	\$4,103



2035 Cost Feasible Plan - Highway Component



NOTE: Cost Feasible improvements beyond the existing-plus-committed (E+C) network. I-95 includes HOV lanes too small to view.

LEGEND

Existing+Committed Lanes

- 1 Lane
- 2 Lanes
- 3 Lanes
- 4 Lanes
- 5 Lanes
- 6 Lanes
- 8 Lanes

Cost Feasible Improvements

- New 2 Lane
- New 4 Lane
- Widen to 3 Lanes
- Widen to 4 Lanes
- Widen to 6 Lanes
- Widen to 8 Lanes
- Widen to 10 Lanes
- Widen to 10 Lanes and I-95 Managed Lanes System
- Add 2 Transit/Special Use Lanes
- New Interchange
- Urban Interchange

Improvement Year

- [2015]
- (2020)
- <2025>
- {2030}
- '2035'



2035 LRTP UPDATE EXISTING PLUS COMMITTED NETWORK 2013 DEVELOPMENT											
	<i>Review to bring network up to 2008 and 2013</i>										
	<i>Listed but there will be no improvement by 2013 yet may or may not be mapped</i>				<i>Structures listed for reference</i>		Lanes/Year				
MAP_ID	Roadway Local Name	SR/US/CR #	From	To	Structures (excludes culverts)	2005	2008	2013	2035	Agent	Comment
28	Forest Hill Blvd		Southern Blvd (SR-80)	Wellington Trace	C-51 bridge	4d	4d	6d	6d	PBC	
29	Greenview Shores Blvd		South Shore Blvd	Wellington Trace	none	2	2 (UC)	4d	4d	Well	
30	Haverhill Rd		Beeline Hwy	45th St	none	2	2			PBC	Status
31			Community Dr	Okeechobee Blvd	none	4d	4d	6d	6d	PBC	
32			Purdy Ln	10th Ave n		2	4d	4d	4d	PBC	
33			Lake Worth Rd	S of L-14 canal	L-14 canal bridge	2	2	4d	4d	PBC	Status
34			S of L-14 canal	Lantana Rd		2	2	4d	4d	PBC	Status
35	Hood Rd		W of Central Blvd	Alt. A1A	FEC RR xing	2	4d	4d		PBC	
36	Hypoluxo Rd		E of Lyons Rd	W of Hagen Ranch Rd	Turnike Overpass Bridge	---	--- (UC)	4d	4d	PBC	Interchange ??
37			Jog Rd	Military Trl	E-3 canal	4d	4d (UC)	6d	6d	PBC	
38	Indian Creek Pkwy		W of Mapelwood	W of Central Blvd	none	2	4d	4d	??	PBC	verify
39			Central Blvd	Military Tr	FEC RR xing	4d	4d	4d	??	PBC	
40	Indiantown Rd		1 mi W of Turnpike	W of Turnpike Ent		4d	6d(UC)	6D	6D	PBC	
41			Jupiter Farms Rd	W of Turnpike Ent	Lox. River bridge, canal Culvert	4d	4d	4d	6d	PBC	
42	Interstate 95	SR-9	Broward Co Line	Glades Rd	18th ST OP, Palmetto OP	6-2	6-2	8-2	8-2	State	Review all of I-95
43	see I-95 GIS cover for lanes and		Glades Rd	Yamato Rd	Spanish River OP	6-2	6-2	8-2	8-2	State	
44	review I-95 future demands from FDOT		Yamato Rd	Linton Blvd	Clint Moore OP, Congress OP	6-2	8-2	8-2	8-2	State	
45			N of SR-80	N of Congress Ave	C-15 canal bridge						
46					PBIA ramps, Belvedere OP,	6	6 (UC)	8-2	8-2	State	
47			Palm Beach Lakes Blvd	Blue Heron Blvd	Australian OP, Okeechobee OP						
48			PGA Blvd	Donald Ross Rd	45th St OP, MLK Jr OP	6	6 (UC)	8-2	8-2	State	
			Donald Ross Rd	Indiantown Rd	Military bridge, Central OP	6	6 (UC)	8-2	8-2	State	
49	Interstate 95 interchanges		Spanish River Blvd (under consideration)			-----	-----	??	??	State	
50	Jog Rd		Donald Ross Rd	Hood Rd	none	-----	-----	2	2	PBC	Status
51	(part of 52 mapped)		N of 45th ST	S of 45th St	none	2	2	4d		PBC	
52			45th St	Roebuck Rd	M canal	---	---	4d	4d	PBC	2009 TIP
53			Clint Moore Rd	Yamato Rd		4d	6d	6d	6d	PBC	
54			Yamato Rd	Glades Rd		4d	4d	4d	6d	PBC	
55	Kyoto Gardens Dr		SR-811 (Alt A1A)	Military Trl	FEC RR xing	---	---			PBG??	
56	Lawrence Rd		Boynton Beach Blvd	Gateway Blvd	none	2	4d	4d	4d	PBC	piece no complete
57			Missing Piece at Boynton Canal		none	2	2	4d	4d		Status
58	Lyons Rd		Lantana Rd	N of Hypoluxo	none	2	4d	4d	4d	PBC	
59			N of Atlantic	S of Boynton Beach Blvd	L-30 canal	---	---	2	2		
60			Yamato Rd	Glades Rd	none	4d	4d (UC)	6d	6d		

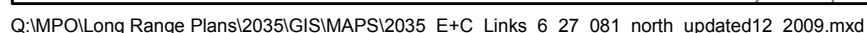


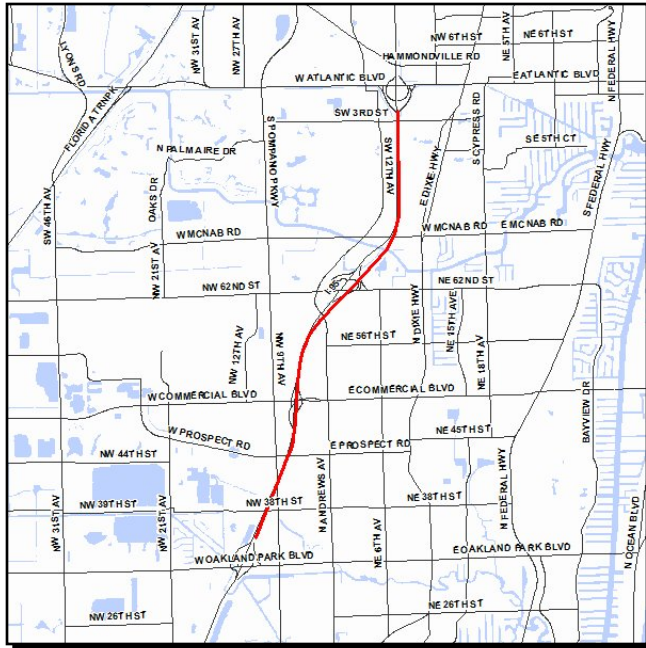
TABLE VI-10: COST AND REVENUE SUMMARY COMPARISON

Item	Description	2035 Needs Plan (\$2009)	2035 Cost Feasible Plan Alternative (\$2009)			
			"Base"	2	3	Final
L-95 w/ Spanish River/FAU Int., Glades Rd to Yamato Rd [8L+2L]	-SIS/FIHS CF Plan (1)	\$157.4	\$157.4	\$157.4	\$157.4	\$157.4
L-95, Yamato Rd to Linton Blvd [8L+2L]	-SIS/FIHS CF Plan (1)	\$34.6	\$34.6	\$34.6	\$34.6	\$34.6
L-95, Broward CL to Indiantown Rd [Managed Lanes] (2)	-Mainline/Interchanges	\$toll	\$toll	\$toll	\$toll	\$toll
Florida's Turnpike, Broward CL to Lake Worth Rd [4-6L]	-Mainline	\$toll	-	-	-	-
Florida's Turnpike, Okeechobee Rd to PGA Blvd [4-6L]	-Mainline	\$toll	-	-	-	-
Florida's Turnpike, New Interchanges (3)	-Interchanges	\$toll	\$toll	\$toll	\$toll	\$toll
SR 710, Martin/PB CL to Pratt Whitney Rd	-SIS/FIHS CF Plan (1)	\$85.6	\$85.6	\$85.6	\$85.6	\$85.6
SR 710, PGA Blvd to I-95	-SIS/FIHS	\$95.0	-	-	-	-
Seminole Pratt Whitney Rd, Canal St N to Beeline Hwy Toll Road	-Mainline (13)	n/a	-	-	\$toll	-
Okeechobee Blvd, SR 7 to I-95 Toll Road	-Mainline/Interchanges	\$toll	-	-	-	-
SIS/FIHS/Toll Facility Subtotal (excluding \$toll)		\$372.7	\$277.7	\$277.7	\$277.7	\$277.7
Urban Interchanges (4)	-Misc.	\$360.0	-	-	-	\$225.0
Priority Roadway Projects	-Fed/State	\$611.7	\$571.5	\$431.5	\$431.5	\$363.6
	-County/Local	\$502.0	\$502.0	\$516.0	\$510.0	\$406.7
Low Priority Roadway Projects	-Fed/State	\$115.6	-	-	-	\$10.0
	-County/Local (13)	\$319.2	-	\$160.0	\$42.0	-
Constrained Facility Projects	-Fed/State	\$323.2	-	\$37.5	\$37.5	\$37.5
	-County/Local	\$279.1	-	-	-	-
Port of Palm Beach Access Improvements	-Fed/State	-	-	-	-	\$7.8
Other Roadway Subtotal		\$2,510.8	\$1,073.5	\$1,145.0	\$1,021.0	\$1,050.6
Palm Tran Transit - Existing plus Committed System (14)	-Capital	-	\$484.5	\$484.5	\$484.5	\$484.5
	-Operating	-	\$2,371.1	\$2,371.1	\$2,371.1	\$2,371.1
Palm Tran Transit - New Grid System	-Capital	\$730.1	-	-	-	-
	-Operating	\$3,881.0	-	-	-	-
New Bus Rapid Transit (5)	-Operating/Capital	\$221.4	\$31.2	\$31.2	\$31.2	-
Local Community Bus Service (6)	-Local	\$Local	\$Local	\$Local	\$Local	\$Local
Local Water Taxi Service (7)	-Local	\$Local	\$Local	\$Local	\$Local	\$Local
Tri-Rail (15)	-Capital	\$54.6	\$54.6	\$54.6	\$54.6	\$54.6
	-Operating	\$35.2	\$35.2	\$35.2	\$35.2	\$35.2
Tri-Rail Ext from WPB along FEC to Indiantown Rd	-Capital (8)	\$440.0	\$440.0	\$440.0	-	-
w/ 10 new stations	-Operating	\$Not Avail	\$Not Avail	\$Not Avail	-	-
Transit Subtotal		\$5,362.3	\$3,416.6	\$3,416.6	\$2,976.6	\$2,945.4
Misc. Intersection Improvements	-Fed/State	n/a	n/a	n/a	n/a	n/a
	-County	\$25.0	\$20.0	\$20.0	\$20.0	\$20.0
ITS	-Fed/State	n/a	n/a	n/a	n/a	n/a
	-County	\$15.0	\$10.0	\$10.0	\$10.0	\$10.0
Safety	-Fed/State (9)	n/a	n/a	n/a	n/a	n/a
	-County	\$20.0	\$15.0	\$15.0	\$15.0	\$15.0
Non-Capacity Maintenance	-Fed/State (9)	n/a	n/a	n/a	n/a	n/a
	-County (10)	\$104.3	\$104.3	\$104.3	\$104.3	\$104.3
Pedestrian/Sidewalks/Bicycle Facilities (11)	-w/ road improvement	Included	Included	Included	Included	Included
	-County (12)	\$20.0	\$20.0	\$20.0	\$20.0	\$20.0
Misc. Subtotal		\$184.3	\$169.3	\$169.3	\$169.3	\$169.3
TOTAL COST		\$8,430.0	\$4,937.1	\$5,008.6	\$4,444.6	\$4,443.0

Item	Description		2035 Cost Feasible Plan			
			"Base"	2	3	Final
FDOT Other Arterial/ROW & TMA Capacity	-Fed/State		\$878.5	\$878.5	\$878.5	\$878.5
FDOT SIS/FIHS Capacity	-SIS/FIHS CF Plan (1)		\$277.7	\$277.7	\$277.7	\$277.7
FDOT Non-Capacity	-Fed/State (9)		n/a	n/a	n/a	n/a
Federal/FDOT New Starts & SFRTA - Tri-Rail Jupiter Extension	-Fed/State (8)		\$416.0	\$416.0	-	-
Palm Beach County Capacity - Tri-Rail Jupiter Extension	-County (8)		\$24.0	\$24.0	\$0.0	\$0.0
Palm Beach County Capacity - Misc. Intersections, ITS, & Safety	-County		\$50.0	\$50.0	\$50.0	\$50.0
Palm Beach County Capacity - Highway	-County (16)		\$156.7	\$156.7	\$180.7	\$180.7
Palm Beach County Non-Capacity Maintenance	-County (10)		\$104.3	\$104.3	\$104.3	\$104.3
Palm Beach County Pathway Program	-County (12)		\$20.0	\$20.0	\$20.0	\$20.0
Palm Tran Transit - Capital Revenue	-Misc.		\$484.5	\$484.5	\$484.5	\$484.5
Palm Tran Transit - Operating Revenue	-Misc.		\$2,371.1	\$2,371.1	\$2,371.1	\$2,371.1
SFRTA/Tri-Rail Contribution from Ad Valorem Tax - Capital Revenue	-County (15)		\$54.6	\$54.6	\$54.6	\$54.6
SFRTA/Tri-Rail Contribution from Ad Valorem Tax - Operating Revenue	-County (15)		\$35.2	\$35.2	\$35.2	\$35.2
Local Community Bus/Water Taxi Revenue (6) (7)	-Local		\$local	\$local	\$local	\$local
TOTAL REVENUE			\$4,872.6	\$4,872.6	\$4,456.6	\$4,456.6

AVAILABLE REVENUE			-\$64.5	-\$136.0	\$12.0	\$13.6
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- (1) The following projects are included with the "SIS/FIHS Long Range Highway Capacity Plan (FY 2014-FY 2035), dated January 21, 2009 (shown above in \$2009):
- I-95 w/ FAU Interchange, Glades Rd to Yamato Rd = \$253,458,000 (\$Fiscal Year 2021-2025)
 - I-95, Yamato Rd to Linton Blvd = \$55,770,000 (\$Fiscal Year 2021-2025)
 - SR 710, Martin/Palm Beach County Line to Pratt Whitney Rd = \$161,780,000 (\$Fiscal Year 2026-2030)
- (2) Includes new interchanges at Central Blvd and at SR 710 (Needs only). Managed lanes from Broward CL to Linton Blvd in CF.
- (3) Includes new interchanges at Palmetto Park Rd (Needs and CF) and at Hypoluxo Rd (Needs only). Toll feasibility has been coordinated with the Turnpike for the cost feasibility of interchange at Palmetto Park Rd (\$119M).
- (4) The following urban interchanges are included at a cost of \$40M each (except no. 12):
- SR 710 & Seminole Pratt Whitney Rd (Needs only)
 - SR 710 & PGA Blvd (Needs only)
 - SR 710 & Northlake Blvd (Needs & Final CF)
 - SR 809 & Okeechobee Blvd (Needs & Final CF)
 - SR 809 & Yamato Rd (Needs Only)
 - SR 809 & Palmetto Park Rd (Needs Only)
 - SR 7 & Forest Hill Blvd (Needs & Final CF)
 - SR 7 & Lake Worth Rd (Needs only)
 - Powerline Rd & Glades Rd (Needs only)
 - Okeechobee Blvd & SR 7 (Final CF only)
 - Okeechobee Blvd & Jog Rd (Final CF only)
 - Okeechobee Blvd & Palm Beach Lakes Blvd (Final CF only;\$25M)
- (5) Includes new BRT services on Northlake Blvd, Okeechobee Blvd, Military Trail and Southern Blvd (Needs Plan only) and on Glades Rd (Needs and CF Plans).
- (6) Local community bus system services are assumed for the areas of Jupiter, Biotech, Palm Beach Gardens, Riviera Beach, Royal Palm Beach, West Palm Beach, Wellington, Greenacres, Lake Worth, Boynton Beach, Delray Beach, West Boca Raton, Boca Raton, and Belle Glade for the Needs Plan (CF Plan will depend on individual area's cost feasibility).
- (7) Local community water taxi will be funded with fares or provided for by the municipalities (CF Plan will depend on individual area's cost feasibility).
- (8) Total cost for Tri-Rail extension estimated at \$440 Million (capital cost). Proposed Local Match \$140M (\$46M SFRTA, \$24M PB MPO/County, \$70M FDOT New Starts) and Federal New Starts \$300M. Palm Beach MPO/County's \$24M contribution reflected as \$1.5M per year for the period 2009-25. Note that current commitments to the project include \$6M Federal Grant through SFRTA to FDOT for Ph I FEC Study plus \$20M FDOT for Ph II FEC Study.
- (9) FDOT will prepare an Appendix to the Plan detailing its Non-Capacity funds (e.g. Safety, Resurfacing, Bridge, Product Support, Operations & Maintenance, Administration, and Other).
- (10) Palm Beach County is allocating \$7.9M per year to Non-Capacity Maintenance (equivalent to \$173.8M YOY or \$104.3M \$2009 for period 2014-35) and includes \$7M per year towards replacements of the following:
- George Bush Blvd Bascule Bridge, E. Camino Real Rd Bascule Bridge, CR 707 Bascule Bridge, and numerous bridges and culverts.
- (11) All roadway projects will include bicycle and pedestrian accommodations.
- (12) In addition, Palm Beach County is allocating \$1.5M per year to its Pathway Program (equivalent to \$33.0M for 2014-35 in Year-of-Expenditure dollars).
- (13) Includes Seminole Pratt Whitney, Canal St N to Beeline Hwy as 4L (Needs Plan), 0L (Base CF), 2L (CF Alt2), 2L w/toll (CF Alt3) and 0L (CF Final). For CF Alt3, a \$2 toll generates approx. \$118M for 2017-35. CF Alt3 improvement separated according to County/Local contribution of \$42 M and Toll Revenue contribution (e.g., Total cost \$160M \$2009).
- (14) Current system with committed improvements [route expansion in western communities/Glades area and frequency (10 min Peak/20 min Off-Peak headways) changes to Routes 2 (Congress Ave) and 3 (Military Tr)].
- (15) Palm Beach County is contributing \$2.67M per year for capital and \$4.135 per year for operating costs towards SFRTA/Tri-Rail Services using ad valorem tax (equivalent to \$149.7M YOY or \$89.8M \$2009 for 2014-35).
- (16) Palm Beach County collects gasoline taxes, interest, and impact fee revenue. Revenue is dedicated to mass transit, debt service (Ocean Ave Bascule Bridge and Roebuck Rd 4L), non-capacity other, non-capacity Maintenance and Pathway Program. Highway Capacity revenue reflects remaining funds minus Tri-Rail Jupiter Extension (CF Base and CF Alt2) and Misc. Intersections, ITS and Safety.



Length: 4.381 mi

Phase	Fund Source	2012/13	2013/14	2014/15	2015/16	2016/17	Total
PE (32)	ACNH	0	1,700,000	0	0	0	1,700,000
PE (31)	ACNH	0	158,000	0	0	0	158,000
Total		0	1,858,000	0	0	0	1,858,000

LRTP: 09R64

Phase	Fund Source	2012/13	2013/14	2014/15	2015/16	2016/17	Total
I-95/SR-9 FROM COMMERCIAL BLVD TO S. OF ATLANTIC BLVD - FM# 4093592 (TIP# 1053)					Length: 4.381 mi	*SIS*	
Type of Work: ADD LANES & RECONSTRUCT					Lead Agency: FDOT		
					LRTP#: 09R64		
COMMERCIAL BLVD TO S OF ATLANTIC BLVD ADD 2L (10LD)							
PE (32)	ACNH	0	1,700,000	0	0	0	1,700,000
PE (31)	ACNH	0	158,000	0	0	0	158,000
Total		0	1,858,000	0	0	0	1,858,000
<i>Prior Years Cost</i>		<i>Future Years Cost</i>		188,493,752	<i>Total Project Cost</i>		190,351,752

I-95/SR-9 FROM S. OF ATLANTIC BLVD TO S. OF SAMPLE ROAD - FM# 4093593 (TIP# 1054)					Length: 3.063 mi	*SIS*	
Type of Work: ADD LANES & RECONSTRUCT					Lead Agency: FDOT		
					LRTP#: 09R64		
S OF ATLANTIC BLVD TO S OF SAMPLE RD ADD 2L (10LD)							
PE (31)	DIH	0	110,000	0	0	0	110,000
PE (32)	ACNH	0	1,500,000	0	0	0	1,500,000
Total		0	1,610,000	0	0	0	1,610,000
<i>Prior Years Cost</i>		<i>Future Years Cost</i>		175,551,776	<i>Total Project Cost</i>		177,161,776

Phase	Fund Source	2012/13	2013/14	2014/15	2015/16	2016/17	Total
I-95/SR-9 FROM S. OF SAMPLE ROAD TO PALM BCH CO/LINE - FM# 4093594 (TIP# 1055)					Length: 4.121 mi	*SIS*	
Type of Work: ADD LANES & RECONSTRUCT					Lead Agency: FDOT		
					LRTP#: 09R64		
SOUTH OF SAMPLE ROAD TO PALM BEACH/BROWARD C/L							
PE (32)	ACNH	0	1,100,000	0	0	0	1,100,000
PE (31)	ACNH	0	120,000	0	0	0	120,000
Total		0	1,220,000	0	0	0	1,220,000
<i>Prior Years Cost</i>			<i>Future Years Cost</i>	132,158,361	<i>Total Project Cost</i>		133,378,361
I-95/SR-9 - FM# 4259951 (TIP# 1811)					Length: 2.425 mi	*SIS*	
Type of Work: BRIDGE-REPAIR/REHABILITATION					Lead Agency: FDOT		
Project Type: State Managed					LRTP#: 09-Pg223		
@ I-595/ SR 862 BRIDGE DECK OVERLAY MULTIPLE BRIDGES							
CSTS (61)	DIH	227,250	0	0	0	0	227,250
CST (52)	BRRP	4,076,454	0	0	0	0	4,076,454
CSTS (62)	BRRP	830,540	0	0	0	0	830,540
Total		5,134,244	0	0	0	0	5,134,244
<i>Prior Years Cost</i>		199,152	<i>Future Years Cost</i>		<i>Total Project Cost</i>		5,333,396

Phase	Fund Source	2012/13	2013/14	2014/15	2015/16	2016/17	Total
I-95/SR-9 FROM FROM THE L30 CANAL TO TO N. OF GATEWAY BLVD - FM# 4275161 (TIP#)						Length: 2.015 mi	
Type of Work: RESURFACING		Lanes (Existing/Improve/Addl): 5/ 5/ 0			Lead Agency: FDOT		
CSTS (62)	ACIM	543,743	0	0	0	0	543,743
CSTS (61)	ACIM	75,750	0	0	0	0	75,750
CST (52)	ACIM	7,663,177	0	0	0	0	7,663,177
Total		8,282,670	0	0	0	0	8,282,670
Prior Years Cost		733,571	Future Years Cost		Total Project Cost		9,016,241
I-95/SR-9/AUX LANES FROM FROM BROWARD CO LINE TO TO S. OF GLADES ROAD - FM# 4093552 (TIP#)						Length: 2.014 mi	
Type of Work: ADD LANES & RECONSTRUCT		Lanes (Existing/Improve/Addl): 8/ 8/ 2			Lead Agency: FDOT LRTP#: C-42		
PE (31)	DIH	0	75,000	0	0	0	75,000
PE (32)	ACNH	0	900,000	0	0	0	900,000
Total		0	975,000	0	0	0	975,000
Prior Years Cost			Future Years Cost		101,700,906	Total Project Cost	102,675,906
I-95/SR-9/AUX LANES FROM FROM S. OF GLADES RD TO TO N. OF YAMATO - FM# 4124202 (TIP#)						Length: 3.870 mi	
Type of Work: INTERCHANGE RAMP (NEW)		Lanes (Existing/Improve/Addl): 8/ 8/ 2			Lead Agency: FDOT LRTP#: C-43,L-2		
CSTS (61)	DIH	0	0	0	1,469,547	0	1,469,547
CST (52)	SU	0	0	0	3,506,409	0	3,506,409
CST (52)	DDR	0	0	0	12,528,058	0	12,528,058
CST (52)	DS	0	0	0	2,085,715	0	2,085,715
CSTS (62)	DDR	0	0	0	2,011,303	0	2,011,303
Total		0	0	0	21,601,032	0	21,601,032
Prior Years Cost		2,557,670	Future Years Cost		Total Project Cost		24,158,702
I-95/SR-9/NOISE WALL FROM N. OF LAKE IDA ROAD TO TO S. OF SW 23RD AVE - FM# 4241311 (TIP#)						Length: 0.500 mi	
Type of Work: CONSTRUCT SPECIAL STRUCTURE					Lead Agency: FDOT		
CSTS (62)	DIS	357,015	0	0	0	0	357,015
CSTS (61)	DIH	594,617	0	0	0	0	594,617
CST (52)	DIS	1,901,601	0	0	0	0	1,901,601
Total		2,853,233	0	0	0	0	2,853,233
Prior Years Cost		52,217	Future Years Cost		Total Project Cost		2,905,450

FLORIDA DEPARTMENT OF TRANSPORTATION
OFFICE OF WORK PROGRAM
STIP REPORT

DATE RUN: 11/06/2012
TIME RUN: 14.53.52
MBRSTIP-1

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HIGHWAYS

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ITEM NUMBER:409359 1 PROJECT DESCRIPTION:I-95/SR-9 FROM OAKLAND PARK BLVD TO PALM BCH C/L *SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:PD&E/EMO STUDY
ROADWAY ID:86070000 PROJECT LENGTH: 11.565MI LANES EXIST/IMPROVED/ADDED: 8/ 8/ 2

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
FEDERAL PROJECT NUMBER: 0951 609 I							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
DDR	897,787	0	0	0	0	0	897,787
NHAC	4,189,629	24,121	0	0	0	0	4,213,750
PHASE: Grants and Miscellaneous / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	4,926	0	0	0	0	0	4,926
TOTAL 0951 609 I	5,092,342	24,121	0	0	0	0	5,116,463
TOTAL 409359 1	5,092,342	24,121	0	0	0	0	5,116,463

ITEM NUMBER:409359 2 PROJECT DESCRIPTION:I-95/SR-9 FROM N OF OAKLANDPARK BL TO S. OF ATLANTIC BLVD *SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:ADD LANES & RECONSTRUCT
ROADWAY ID:86070000 PROJECT LENGTH: 4.381MI LANES EXIST/IMPROVED/ADDED: 5/ 5/ 0

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	1,858,000	0	0	0	1,858,000
PHASE: Railroad and Utilities / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	100,000	100,000
PHASE: Grants and Miscellaneous / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	0	0	0	1,774,000	1,774,000
TOTAL <N/A>	0	0	1,858,000	0	0	1,874,000	3,732,000
TOTAL 409359 2	0	0	1,858,000	0	0	1,874,000	3,732,000

FLORIDA DEPARTMENT OF TRANSPORTATION
OFFICE OF WORK PROGRAM
STIP REPORT

DATE RUN: 11/06/2012
TIME RUN: 14.53.52
MBRSTIP-1

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HIGHWAYS

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ITEM NUMBER:409359 3 PROJECT DESCRIPTION:I-95/SR-9 FROM S. OF ATLANTIC BLVD TO S. OF SAMPLE ROAD *SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:ADD LANES & RECONSTRUCT
ROADWAY ID:86070000 PROJECT LENGTH: 3.063MI LANES EXIST/IMPROVED/ADDED: 4/ 4/ 1

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
----	-----	-----	-----	-----	-----	-----	-----

FEDERAL PROJECT NUMBER: <N/A>

PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	1,500,000	0	0	0	1,500,000
DIH	0	0	110,000	0	0	0	110,000
TOTAL <N/A>	0	0	1,610,000	0	0	0	1,610,000
TOTAL 409359 3	0	0	1,610,000	0	0	0	1,610,000

ITEM NUMBER:409359 4 PROJECT DESCRIPTION:I-95/SR-9 FROM S. OF SAMPLE ROAD TO PALM BCH CO/LINE *SIS*
DISTRICT:04 COUNTY:BROWARD TYPE OF WORK:ADD LANES & RECONSTRUCT
ROADWAY ID:86070000 PROJECT LENGTH: 4.121MI LANES EXIST/IMPROVED/ADDED: 8/ 8/ 2

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
----	-----	-----	-----	-----	-----	-----	-----

FEDERAL PROJECT NUMBER: <N/A>

PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	1,220,000	0	0	0	1,220,000
TOTAL <N/A>	0	0	1,220,000	0	0	0	1,220,000
TOTAL 409359 4	0	0	1,220,000	0	0	0	1,220,000

FLORIDA DEPARTMENT OF TRANSPORTATION
OFFICE OF WORK PROGRAM
STIP REPORT

DATE RUN: 11/06/2012
TIME RUN: 14.53.52
MBRSTIP-1

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HIGHWAYS

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FEDERAL PROJECT NUMBER: 0951 554 I

PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
NH	624,943	0	0	0	0	0	624,943
TOTAL 0951 554 I	624,943	0	0	0	0	0	624,943

FEDERAL PROJECT NUMBER: 0951 585 I

PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
NH	2,897,925	0	0	0	0	0	2,897,925
NHAC	399,341	0	0	0	0	0	399,341
TOTAL 0951 585 I	3,297,266	0	0	0	0	0	3,297,266

FEDERAL PROJECT NUMBER: 0951 620 I

PHASE: Construction / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	258,005	91,930	0	0	0	0	349,935
ACSA	1,795	0	0	0	0	0	1,795
DDR	442,266	0	0	0	0	0	442,266
DS	37,848	0	0	0	0	0	37,848
EB	1,005,457	0	0	0	0	0	1,005,457
HSP	221,581	0	0	0	0	0	221,581
NHAC	42,141,636	0	0	0	0	0	42,141,636
SBPF	11,157,303	0	0	0	0	0	11,157,303
TOTAL 0951 620 I	55,265,891	91,930	0	0	0	0	55,357,821
TOTAL 406870 2	60,187,454	91,930	0	0	0	0	60,279,384

ITEM NUMBER:409355 1 PROJECT DESCRIPTION:I-95/SR-9/AUX LANES FROM PALM BCH/BROWARD C/L TO S. OF GLADES RD. *SIS*
DISTRICT:04 COUNTY:PALM BEACH TYPE OF WORK:PD&E/EMO STUDY
ROADWAY ID:93220000 PROJECT LENGTH: 2.014MI LANES EXIST/IMPROVED/ADDED: 8/ 8/ 2

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS

FEDERAL PROJECT NUMBER: 0951 608 I							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
DDR	176,600	0	0	0	0	0	176,600
NHAC	958,535	672	0	0	0	0	959,207
TOTAL 0951 608 I	1,135,135	672	0	0	0	0	1,135,807
TOTAL 409355 1	1,135,135	672	0	0	0	0	1,135,807

FLORIDA DEPARTMENT OF TRANSPORTATION
OFFICE OF WORK PROGRAM
STIP REPORT
=====

DATE RUN: 11/06/2012
TIME RUN: 14.53.52
MBRSTIP-1

HIGHWAYS
=====

ITEM NUMBER:409355 2 PROJECT DESCRIPTION:I-95/SR-9 FROM BROWARD CO LINE TO S. OF GLADES ROAD *SIS*
DISTRICT:04 COUNTY:PALM BEACH TYPE OF WORK:ADD LANES & RECONSTRUCT
ROADWAY ID:93220000 PROJECT LENGTH: 2.014MI LANES EXIST/IMPROVED/ADDED: 8/ 8/ 2

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
----	-----	-----	-----	-----	-----	-----	-----
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
ACNH	0	0	900,000	0	0	0	900,000
DIH	0	0	75,000	0	0	0	75,000
TOTAL <N/A>	0	0	975,000	0	0	0	975,000
TOTAL 409355 2	0	0	975,000	0	0	0	975,000

ITEM NUMBER:409355 3 PROJECT DESCRIPTION:I-95/SR-9 FROM NORTH OF YAMATO ROAD TO LINTON BLVD *SIS*
DISTRICT:04 COUNTY:PALM BEACH TYPE OF WORK:ADD LANES & RECONSTRUCT
ROADWAY ID:93220000 PROJECT LENGTH: 2.580MI LANES EXIST/IMPROVED/ADDED: 5/ 4/ 1

FUND CODE	LESS THAN 2013	2013	2014	2015	2016	GREATER THAN 2016	ALL YEARS
----	-----	-----	-----	-----	-----	-----	-----
FEDERAL PROJECT NUMBER: <N/A>							
PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
DIH	29,403	462	0	0	0	0	29,865
PHASE: Construction / RESPONSIBLE AGENCY: Managed by FDOT							
DDR	0	0	0	0	4,982,877	0	4,982,877
DIH	0	0	0	0	569,500	0	569,500
DS	0	0	0	0	23,646,164	0	23,646,164
TOTAL <N/A>	29,403	462	0	0	29,198,541	0	29,228,406

FEDERAL PROJECT NUMBER: 0951 626 I

PHASE: Preliminary Engineering / RESPONSIBLE AGENCY: Managed by FDOT							
EB	299,353	0	0	0	0	0	299,353
NHAC	648,780	0	0	0	0	0	648,780
TOTAL 0951 626 I	948,133	0	0	0	0	0	948,133
TOTAL 409355 3	977,536	462	0	0	29,198,541	0	30,176,539



Appendix B

Public Hearing Transcript (April 30, 2013)



INTERSTATE 95 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENT STUDY
PUBLIC HEARING TRANSCRIPT CERTIFICATION
June 26, 2013



PUBLIC HEARING TRANSCRIPT CERTIFICATION

I hereby certify that on April, 30, 2013, beginning at 6:00 p.m., I presided over a Public Hearing for the following project:

State Road (SR) 9/I-95

Project Development and Environment (PD&E) Study


From north of Oakland Park Boulevard (SR 816) to south of Glades Road (SR 808)

Broward and Palm Beach Counties, Florida

Financial Project Identification Numbers: 409359-1-22-01 and 409355-1-22-01

Efficient Transportation Decision Making (ETDM) Number: 3330

I further certify that the subject Public Hearing was conducted relative to the economic and social effects of the location and design concept for the subject project and its impact on the environment, that a transcript was made and the document attached herein is a full, true, and complete transcript of what was said at the Hearing, and that the Florida Department of Transportation has considered the social, economic, and environmental effects of the proposed improvement and is of the opinion that it is properly located and should be constructed.



Richard A. Young, P.E.
Public Hearing Moderator



Date

STATE ROAD (SR) 9/I-95 PROJECT DEVELOPMENT
AND ENVIRONMENT (PD&E) STUDY

FROM NORTH OF OAKLAND PARK BOULEVARD (SR 816)
TO SOUTH OF GLADES ROAD (SR 808)
BROWARD AND PALM BEACH COUNTIES, FLORIDA

FINANCIAL PROJECT IDENTIFICATION NO'S.:
409359-1-22-01 AND 409355-1-22-01
EFFICIENT TRANSPORTATION DECISION MAKING (ETDM)
NO.: 3330

PUBLIC HEARING

ORIGINAL

Double Tree Inn/Hilton
100 Fairway Drive
Deerfield Beach, Florida 33441

April 30, 2013
6:00 p.m. - 8:00 p.m.

APPEARANCES:

Henry A. Oaikhena, P.E.

Richard A. Young, P.E.

Ryan Solis-Rios, P.E.

1 THEREUPON:

2 (Public Hearing commences.)

3 MR. YOUNG: Good evening, ladies and
4 gentlemen. If you would take a seat. We are about
5 to begin the formal part of our public hearing.

6 Good evening, again. Welcome. Thanks for
7 attending our public hearing. My name is Richard
8 Young. I am the District Project Development
9 Engineer for District Four of the State of Florida,
10 Department of Transportation.

11 And, this hearing is relative to the potential
12 improvements to the I-95 corridor in Broward and
13 Palm Beach Counties.

14 Here with me tonight are: Mr. Henry Oaikhena
15 Project Manager; Mr. Ryan Solis, our Project
16 Manager with The Corradino Group Engineers and we
17 have many other representative of the FDOT and
18 consultant team here tonight.

19 At this time, we would like to recognize any
20 federal, state, county or city officials who may be
21 present tonight and would like to be recognized.

22 Do we have any officials that would like to be
23 recognized?

24 (No response.)

25 MR. YOUNG: So, seeing none then if we can dim

1 the lights we'll start our PowerPoint presentation.

2 Thank you.

3 (Thereupon, a PowerPoint presentation was shown.)

4 POWERPOINT PRESENTATION: The Florida
5 Department of Transportation would like to welcome
6 you to the Public Hearing for the State Road 9,
7 Interstate 95 Project Development and Environment
8 Study. This public hearing is being held relative
9 to Financial Project Identification Numbers
10 409359-1-22-01 and 409355-1-22-01, Federal Aid
11 Project Numbers 0951-608-I and 0951-609-I and
12 Efficient Transportation Decision Making Number
13 3330. The proposed corridor improvement involves
14 providing additional interstate capacity to I-95
15 with the implementation of an express lanes system,
16 from North of Oakland Park Boulevard to South of
17 Glades Road in Broward and Palm Beach Counties.

18 This public hearing is being held in
19 accordance with Chapter 23 of the United States
20 Code 128; Title 40 of the Code of Federal
21 Regulations, parts 1500 through 1508; Title 23 of
22 the Federal Regulations part 771; the Federal-Aid
23 Highway Act of 1968 as amended; Florida Statutes
24 Section 339.155; Florida Statutes Section 335.199;
25 Executive Order 11988, Floodplain Management; and

1 Executive Order 11990, Protection of Wetlands.

2 This public hearing was advertised consistent
3 with Federal and State requirements and is being
4 conducted consistent with the Americans with
5 Disabilities Act of 1990.

6 The Florida Department of Transportation is
7 required to comply with various nondiscrimination
8 laws and regulations, including Title VI of the
9 Civil Rights Act of 1964. This hearing is being
10 held to give all interested persons the right to
11 understand the project and comment on their
12 concerns to the Department.

13 Public Participation at this hearing is
14 solicited without regard to race, color, national
15 origin, age, sex, religion, disability or family
16 status.

17 Persons wishing to express their concerns
18 about Title VI may do so by contacting the
19 individuals listed on this slide and on a board
20 displayed at this hearing.

21 The purpose of this Public Hearing is to share
22 information with the general public about the
23 alternatives under consideration, the proposed
24 improvements, and their potential environmental
25 impacts.

1 This public hearing also serves as an official
2 forum providing an opportunity to the public to
3 express their opinions and concerns regarding the
4 location, conceptual design and potential social,
5 economic and environmental effects of the proposed
6 improvement on the community.

7 There is a court reporter present and
8 tonight's proceedings are being recorded. An
9 official transcript of the hearing will be
10 produced. Following this presentation the floor
11 will be open for public comments. All written and
12 oral material presented by the public will become
13 part of the public record for the project.

14 The Project Development and Environment Study
15 or PD&E is the second step of the Project
16 Development process that the Florida Department of
17 Transportation follows to evaluate social,
18 cultural, economic and environmental impacts
19 associated with a planned transportation
20 improvement project.

21 The PD&E process was established by the FDOT
22 as the state's procedure for complying with the
23 National Environmental Policy Act or NEPA of 1969
24 and is required to secure Federal approval and
25 funding.

1 This phase involves the preparation of all
2 preliminary engineering and environmental
3 documentation required for federal approval.

4 In September 2003, the FDOT finalized a Master
5 Plan Study for the I-95/I-595 corridors and the
6 South Florida Rail Corridor, which evaluated the
7 existing deficiencies and recommended possible
8 future improvements along these corridors.

9 In 2009, the FDOT began an I-95 Corridor
10 Planning Study between Stirling Road in Broward
11 County and Indiantown Road in Palm Beach County to
12 evaluate the feasibility of adding express lanes in
13 the median of I-95. This study was completed in
14 January 2012. The corridor study recommended the
15 further evaluation of an express lanes system (95
16 Express) that will service Miami-Dade, Broward and
17 Palm Beach Counties.

18 95 Express is an innovative alternative to
19 traditional highway construction that offers a
20 variety of options to increase trip time
21 reliability. The first express lanes system in
22 South Florida, 95 Express Phase 1, was constructed
23 in 2009 along I-95 between State Road 836 and the
24 Golden Glades Interchange in Miami-Dade County.

25 95 Express Phase 2 is currently under

1 construction extending the express lanes from the
2 Golden Glades Interchange to Broward Boulevard in
3 Broward County. Two other studies, similar to this
4 one, are evaluating a continuation of the express
5 lanes from Stirling Road to north of Oakland Park
6 Boulevard in Broward County (south of this project)
7 and from South of Glades Road to Linton Boulevard
8 in Palm Beach County (north of this project).

9 There are a number of on-going and future
10 studies that will evaluate the expansion of express
11 lanes to other facilities in Miami-Dade, Broward,
12 and Palm Beach counties. The vision is to create
13 an Express Lane Network within Southeast Florida
14 for the efficient movement of people, goods and
15 services.

16 The project corridor length is approximately
17 13.5 miles and is located in Broward and Palm Beach
18 Counties.

19 The project area traverses the cities of
20 Oakland Park, Fort Lauderdale, Pompano Beach,
21 Deerfield Beach and Boca Raton. This section of
22 I-95 has interchange connections with eight major
23 roadway facilities.

24 I-95 is designated as a Strategic Intermodal
25 System facility. The Strategic Intermodal System

1 is a statewide network of Florida's transportation
2 facilities that are regionally significant to the
3 state. I-95 also serves as part of the emergency
4 evacuation route network designated by the Florida
5 Division of Emergency Management. It is also a
6 critical corridor for freight and transit.

7 I-95, within the study limits, is an eight-
8 lane divided limited access facility. The existing
9 roadway typical section varies slightly and
10 consists primarily of two 12-foot wide High
11 Occupancy Vehicle lanes (one in each direction),
12 six 12-foot wide general purpose lanes (three in
13 each direction) and 12-foot wide inside and outside
14 shoulders. A two-foot wide buffer area separates
15 the general purpose lanes from the HOV lanes. The
16 northbound and southbound travel lanes are
17 separated by a center concrete barrier wall.
18 Twelve-foot wide auxiliary lanes exist at selected
19 locations. An auxiliary lane is defined as a
20 travel lane adjacent to the primary lanes along the
21 highway between interchanges. The purpose of an
22 auxiliary lane is to facilitate highway traffic
23 flow between the on and off-ramps. Noise walls
24 exist at selected locations. The limited access
25 right of way is typically 300 feet wide.

1 The project objectives of this study are to
2 design a transportation system that will offer new
3 commuting choices and more reliable travel times
4 during congested periods, that can be constructed
5 within the existing right of way, resulting in a
6 feasible and cost effective project. Advance the
7 region's emerging express lanes network to provide
8 immediate congestion relief with minimal impacts to
9 the existing facility. Evaluate future mainline
10 improvements in terms of safety, capacity,
11 operations and interstate access that can be
12 constructed and open to traffic in a short term.
13 Improve the overall mobility of the I-95 daily
14 users, especially the longer trips. Include the
15 opportunity to enhance and expand regional express
16 bus service that complements Tri-Rail Service. And
17 enhance emergency access and incident response
18 times along the corridor.

19 The existing Annual Average Daily Traffic on
20 this segment of I-95 is approximately 219,000
21 vehicles per day. By the year of 2020, the Annual
22 Average Daily Traffic is projected to be
23 approximately 230,500 vehicles per day, a 5%
24 increase. By the year of 2030, the Annual Average
25 Daily Traffic is projected to be approximately

1 265,000 vehicles per day, a 15% increase. And by
2 the design year of 2040, the Annual Average Daily
3 Traffic is projected to be approximately 281,000
4 vehicles per day, a 6% increase.

5 These increases in traffic will exceed the
6 capacity of I-95 causing heavier levels of
7 congestion if no improvements are made.

8 A public kickoff meeting and an Alternatives
9 Public Workshop have been held in each county since
10 this study began. Public input has factored into
11 the project decision making process. A project
12 web site was developed for the project and includes
13 all the information presented during these
14 meetings. The web site, www.I95study.com is
15 another method used to allow the public to
16 communicate with the project team and provide
17 comments. Today's public hearing will also provide
18 the public with another opportunity to comment on
19 the proposed improvements under consideration.

20 One of the alternatives considered in the PD&E
21 Study is the No-Build Alternative. The No-Build
22 Alternative proposes to keep the existing corridor
23 configuration into the future without improvements.
24 No traffic capacity, operation, or safety
25 improvements would be implemented throughout the

1 corridor. The effect associated with this
2 alternative includes the acceptance of existing
3 highly congested traffic conditions. Also, travel
4 demand will increase significantly over the next 20
5 years, given the continued growth expected in the
6 area. This alternative was considered to be a
7 viable alternative throughout the PD&E process as a
8 baseline condition and served as a comparison to
9 the study proposed alternatives.

10 The Transportation System Management or TSM
11 Alternative was also evaluated. The TSM
12 alternative included the evaluation of low cost,
13 short term improvements along the corridor that are
14 typically developed to alleviate specific traffic
15 congestion and safety problems, or to get the
16 maximum utilization out of the existing facility by
17 improving operational efficiency at selected
18 locations.

19 The PD&E Study determined that the No-Build
20 and TSM Alternatives fail to fulfill the needs of
21 this project for the area.

22 Therefore, to address the project needs, the
23 FDOT evaluated a build alternative that will
24 convert the existing HOV lane to a tolled express
25 lane and add one tolled express lane for a total of

1 two express lanes in each direction in the center
2 of the corridor. The PD&E Study build alternative
3 focused on mainline improvements only. Interchange
4 improvements will be evaluated as part of an
5 upcoming Interchange Master Plan Study.

6 The build alternative will include the
7 following corridor improvements:

8 • Convert the existing HOV lane to a tolled
9 express lane.

10 • Add one tolled express lane for a total of
11 two express lanes in each direction in the center
12 of the corridor.

13 • Provide access points at selected locations
14 along the corridor to enter and exit the express
15 lanes system.

16 • Separate the express lanes from the general
17 purpose lanes with tubular markers and a four-foot
18 wide buffer.

19 • Replace the bridges over the Hillsboro
20 Canal.

21 • Maintain the existing number of general
22 purpose lanes.

23 • Create an opportunity to accommodate a Bus
24 Rapid Transit system that will allow express bus
25 service between counties, with connections to the

1 Park-and-Ride lots along the corridor.

2 The total width of the existing typical
3 section will be widened approximately fourteen feet
4 on each side. The Build Alternative typical
5 section will consist of the following roadway
6 elements:

- 7 • Four 12-foot wide express lanes (two in
8 each direction)
- 9 • Six 12-foot wide general purpose lanes
10 (three in each direction)
- 11 • A four-foot wide buffer with tubular
12 markers separating the general purpose lanes from
13 the express lanes
- 14 • 12-foot wide inside shoulder
- 15 • 12-foot wide outside shoulder
- 16 • 12-foot wide auxiliary lanes at selected
17 locations.

18 The No-Build Alternative would not require
19 expenditure of public funds for design or
20 construction. The Build Alternative is expected to
21 cost approximately \$240 million dollars.

22 A comparative evaluation among the
23 alternatives was performed considering the
24 engineering, socio-economic impacts, environmental
25 impacts and cost of each alternative. Based on the

1 results of this evaluation, along with the input
2 received from the public, the Build Alternative was
3 ranked number one and chosen as the proposed
4 alternative.

5 The proposed alternative roadway typical
6 section will need to be slightly reduced in width
7 at these five locations in order to avoid
8 reconstructing these cross streets. The existing
9 footprint under these structures cannot accommodate
10 the proposed roadway typical section width. The
11 proposed alternative was designed to avoid
12 impacting these structures. These width reductions
13 are minor and will not affect the integrity of the
14 corridor.

15 The potential express lanes access points were
16 determined and recommended during the I-95 Corridor
17 Planning Study. The limits of the study were
18 between Stirling Road in Broward County and
19 Indiantown Road in Palm Beach County. The study
20 evaluated the feasibility of express lanes access
21 points that will maximize the potential users of
22 the express lanes by serving the highest commuter
23 travel demand and longer trips, complement the
24 multimodal transportation network and have minimal
25 impact to the existing highway structures and

1 interchanges. The main objectives of the potential
2 locations are to serve major home to work trip
3 pairs and provide connections to multimodal
4 facilities. These access points will continue to
5 be refined during the design phase taking into
6 account public input, roadway design criteria,
7 right of way availability and results from the
8 traffic operational analysis.

9 The proposed alternative proposes eight
10 potential access points at selected locations along
11 the corridor to enter and exit the express lanes
12 system. Four in the northbound direction and four
13 in the southbound direction. Access points along
14 I-95 will be constructed at the following
15 locations:

16 Northbound access point #1 is an exit located
17 north of Oakland Park Boulevard. This exit will
18 serve all the I-95 interchanges between Cypress
19 Creek Road and Sample Road. It will also serve the
20 Cypress Creek Road Park-and-Ride lot and Tri-Rail
21 Station. In other words, motorists who want to
22 exit I-95 at these locations would exit the express
23 lanes system at this access point.

24 Northbound access point #2 is an entrance
25 located north of Cypress Creek Road. This entrance

1 will serve all the I-95 interchanges between
2 Hallandale Beach Boulevard and Cypress Creek Road.
3 It will also serve the Cypress Creek Road Park-and-
4 Ride lot, Tri-Rail Station and the Commercial
5 Boulevard Park-and Ride lot. In other words,
6 motorists entering I-95 from these locations can
7 enter the express lanes system at this access
8 point.

9 Northbound access point #3 is an exit located
10 north of Sample Road. This exit will serve all the
11 I-95 interchanges between SW 10th Street and Yamato
12 Road. It will also serve the new proposed
13 interchange at Spanish River Boulevard and Florida
14 Atlantic University.

15 Northbound access point #4 is an entrance
16 located north of the County Line (the Hillsboro
17 Canal). This entrance will serve all the I-95
18 interchanges between Atlantic Boulevard and
19 Hillsboro Boulevard. It will also serve the
20 Deerfield Beach Park-and-Ride lot and Tri-Rail
21 Station.

22 Southbound access point #5 is an exit located
23 north of the County Line. This exit will serve all
24 the I-95 interchanges between Hillsboro Boulevard
25 and Atlantic Boulevard. It will also serve the

1 Deerfield Beach Park-and-Ride lot and Tri-Rail
2 Station.

3 Southbound access point #6 is an entrance
4 located north of Sample Road. This entrance will
5 serve all the I-95 interchanges between Yamato Road
6 and SW 10th Street. It will also serve the new
7 proposed interchange at Spanish River Boulevard,
8 Florida Atlantic University, the Deerfield Beach
9 Park-and-Ride lot and Tri-Rail Station.

10 Southbound access point #7 is an exit located
11 north of Cypress Creek Road. This exit will serve
12 all the I-95 interchanges between Cypress Creek
13 Road and Hallandale Beach Boulevard. It will also
14 serve the Cypress Creek Road Park-and-Ride lot,
15 Tri-Rail Station and the Commercial Boulevard Park-
16 and Ride lot.

17 Southbound access point #8 is an entrance
18 located north of Oakland Park Boulevard. This
19 entrance will serve all the I-95 interchanges
20 between Sample Road and Commercial Boulevard. It
21 will also serve the Cypress Creek Road Park-and-
22 Ride lot, Tri-Rail Station and the Commercial
23 Boulevard Park-and Ride lot.

24 Tolling will be in accordance with the Florida
25 Administrative Code Rule 14-100.003 for Express

1 Lanes. Tolls will vary based on the level of
2 congestion as you enter the express lanes. Toll
3 rates will be based on the traffic conditions of
4 the express lanes only, and not on the conditions
5 of the general purpose lanes. Roadway monitors
6 placed along the project limits of the highway
7 provide continuous monitoring of traffic data,
8 providing information about how many vehicles are
9 in the express lanes; how fast they are going; and
10 how close together they are. This information is
11 used to determine whether tolls go up or down to
12 provide the best conditions possible. If the
13 express lanes are underutilized, then the toll
14 rates go down. If the express lanes do not allow
15 free flow conditions, then the toll rates will go
16 up.

17 Initially, registered carpools will ride for
18 free.

19 The Proposed Alternative 2040 traffic
20 projections are anticipated to increase an average
21 of 6% during the peak periods when compared to the
22 No-Build Alternative. Therefore, these projections
23 demonstrate that the Proposed Alternative will
24 provide additional capacity to accommodate future
25 traffic growth into the design year 2040. The

1 express lanes are anticipated to operate at an
2 acceptable level of service throughout the entire
3 corridor. The express lanes will provide superior,
4 consistent and dependable travel times,
5 particularly during peak travel periods. Express
6 lanes will serve more vehicles than the existing
7 HOV lanes.

8 Through the use of dynamic pricing, the FDOT
9 will be able to manage the amount of traffic in the
10 express lanes and maintain free-flowing speeds even
11 when the general purpose lanes are congested.

12 Motorists who choose to use the express lanes will
13 benefit from reliable travel times. Long trip
14 motorists that commute daily between counties will
15 benefit from using the express lanes by improving
16 their travel time during peak travel periods.

17 Drivers in the general purpose lanes will also
18 experience a significant peak period increase in
19 average travel speed.

20 The express lanes system will create an
21 opportunity to accommodate a Bus Rapid Transit
22 system that could offer faster and more reliable
23 service for transit users. This bus service will
24 enhance the multimodal transportation network of
25 the area by providing connections to the multimodal

1 facilities in the vicinity of the corridor. A
2 portion of the tolls collected may be used to fund
3 expanded transit service that serves a regional
4 travel shed that complements Tri-Rail.

5 The existing corridor drainage system will be
6 enhanced to accommodate the storm water runoff from
7 the roadway improvements. This will be
8 accomplished by increasing the capacity of the
9 roadway swales and re-configuring and optimizing
10 the size and locations of all the ponds within the
11 existing right of way. Storm water runoff will be
12 conveyed and contained within the existing right of
13 way. Storm water management systems proposed by
14 this study will meet the existing water quality
15 standards as set forth in Chapter 62-302 of the
16 Florida Administrative Code. Discharge attenuation
17 requirements will be met as required by the South
18 Florida Water Management District.

19 Potential impacts to floodplains were analyzed
20 in accordance with Executive Order 11988,
21 Floodplain Management. Proposed structures will be
22 hydraulically equivalent to or greater than the
23 existing structures. The project will not affect
24 existing flood heights or floodplain limits.
25 Therefore, floodplain encroachment was determined

1 to be not significant.

2 A total of 42 bridge structures exist within
3 the study limits. As part of the proposed
4 alternative, 28 bridges will be widened and two
5 will be replaced, over the Hillsboro Canal. The
6 Hillsboro Canal bridge structures currently have
7 substandard bridge slabs. Also, widening these
8 bridge structures to accommodate the proposed
9 alternative would decrease the vertical clearance
10 over the navigable canal. Therefore, a bridge
11 replacement is being recommended to resolve the
12 vertical clearance and safety issues associated
13 with these bridges. The new bridges will improve
14 the vertical clearance by approximately 5'2".

15 No right of way acquisition is anticipated for
16 this project. No relocation of businesses and
17 residences is anticipated for this project.

18 However, as this project progresses to the
19 final design phase, a more detailed analysis will
20 be completed which may result in the need of right
21 of way acquisition. Any right of way acquisition
22 will be as per the Federal Uniform Relocation
23 Assistance and Real Property Acquisition Act of
24 1970 and the FDOT Real Estate Acquisition Process.
25 The FDOT District Four Right of Way Department will

1 coordinate this process if needed.

2 The project improvements will have positive
3 socio-economic impacts on the study area as it
4 improves mobility, relieves congestion and provides
5 regional economic benefits. Impacts to land use
6 and community services are not anticipated.

7 A cultural resource assessment survey was
8 conducted in compliance with Section 106 of the
9 National Historic Preservation Act of 1966.

10 One previously recorded archaeological site, a
11 canoe, was recorded and removed in 1971 and is no
12 longer considered to be in the area of potential
13 effect. The project area is considered to have a
14 low probability for archaeological sites. The
15 historic resources survey resulted in the
16 identification of seven previously recorded
17 historic resources, including two railways and five
18 canals. Of the identified historic resources,
19 three are considered eligible for listing in the
20 National Register: the Florida East Coast Railway,
21 Seaboard Air Line (CSX) Railway and the Hillsboro
22 Canal. No adverse effects are anticipated to
23 Historic Resources and Archaeological Sites as part
24 of this project.

25 Section 4(f) was enacted in 1966 as part of

1 the Department of Transportation Act. It states
2 that for federally funded projects "it is the
3 policy of the United States Government that special
4 effort be made to preserve the natural beauty of
5 the countryside, public park and recreation lands,
6 wildlife and waterfowl refuges, and historic
7 sites". Nine parks are located in proximity to the
8 project corridor. The project will not require
9 right of way acquisition. Therefore, the project
10 will not affect park activities, amenities or
11 access. The Federal Highway Administration has
12 determined that there will be no Section 4(f)
13 involvement with these parks resulting from this
14 project.

15 The project was evaluated in accordance with
16 Executive Order 11990, Protection of Wetlands. The
17 Proposed Alternative will result in approximately
18 1.92 acres of wetland impacts, 32.15 acres of storm
19 water drainage features and 17.36 acres of surface
20 waters. Storm water Drainage Features will be
21 replaced with new features. Wetlands will be
22 mitigated at a mitigation bank, off-site and/or
23 enhancement/restoration within the FDOT right of
24 way. There are no impacts to Essential Fish
25 Habitat, Aquatic Preserves, Outstanding Florida

1 Waters or Coastal Barrier Resources as part of this
2 project.

3 Where impacts could not be avoided, they were
4 minimized to the greatest extent practical.
5 Unavoidable impacts to wetlands and other surface
6 waters will be mitigated during the environmental
7 permitting process.

8 An analysis of threatened and endangered
9 species revealed that the project may affect, but
10 is not likely to adversely affect, threatened or
11 endangered species including the eastern indigo
12 snake, West Indian manatee and wood stork. The
13 FDOT will take the necessary actions to avoid or
14 minimize impacts to threatened and endangered
15 species and will continue to coordinate with the
16 appropriate agencies during the future design and
17 permitting phases.

18 No impacts to Critical Habitats or Strategic
19 Habitat Conservation Areas are anticipated as part
20 of this project. Concurrence from the US Fish and
21 Wildlife Service is pending.

22 The project corridor was evaluated for
23 potential contamination concerns. 21 High Risk
24 Sites, 25 Medium Risk Sites and 15 Low Risk Sites
25 were identified. A Level II Contamination

1 Assessment will be conducted for the High and
2 Medium Risk Sites during the final design phase to
3 make the final determination of effect.

4 A Noise Study was conducted for the project in
5 accordance with the FDOT requirements.

6 Approximately 1,784 residences were identified as
7 being noise sensitive within the project limits.

8 24 nonresidential sites were identified as being
9 noise sensitive within the project limits. These
10 include Schools, Churches, Parks, Pools,
11 Restaurants and Medical Facilities.

12 Traffic noise impacts are predicted to occur
13 at 422 residences and 8 non-residential sites.
14 Noise walls were evaluated at 14 locations, 7 new
15 noise walls are recommended for further
16 consideration; the remaining 7 noise walls are not
17 recommended for the following reasons:

18 • Construction costs for these noise walls
19 were determined to exceed the FDOT's reasonable
20 cost criteria of \$42,000 per benefited site; or

21 • It was not possible to reduce the noise
22 levels by at least 7 decibels in accordance with
23 the FDOT's noise level reduction criteria.

24 The project area is in attainment under the
25 criteria provided in the Clean Air Act of 1967;

1 conformity requirements do not apply. No air
2 quality impacts are expected to occur as a result
3 of the proposed improvements. Temporary increases
4 in air pollutant emissions due to construction
5 activities will be minimized by adherence to the
6 FDOT Standard Specifications for Road and Bridge
7 Construction.

8 For your benefit, here we summarized the
9 proposed improvements as part of this project:

- 10 • Convert the existing HOV lane to a tolled
11 express lane.
- 12 • Add one tolled express lane for a total of
13 two express lanes in each direction.
- 14 • Provide access points at selected locations
15 along the corridor to enter and exit the express
16 lanes system.
- 17 • Separate the express lanes from the general
18 purpose lanes with tubular markers.
- 19 • Replace the bridges over the Hillsboro
20 Canal.
- 21 • Maintain the existing number of general
22 purpose lanes.
- 23 • No right of way acquisition is anticipated
24 for the project.
- 25 • Existing noise walls will remain.

1 • 7 new noise walls are recommended for
2 further consideration.

3 The PD&E study is anticipated to be completed
4 in the summer of 2013. Over the next several
5 months, the FDOT will continue to finalize the
6 analysis and will seek approval from the Federal
7 Highway Administration on the improvements
8 presented here at tonight's public hearing.

9 Following approval, FDOT will continue with
10 the design phase and the construction phase as
11 funding becomes available. The project is
12 consistent and included in all the local and county
13 plans. The design and construction phases are
14 funded in the FDOT Work Program under four
15 Financial Project Identification Numbers. Design
16 is expected to start in year 2015 and construction
17 between the years 2022 and 2024 depending on the
18 project limit. The department is in the process of
19 advancing the design phase to begin construction as
20 early as the summer of 2015.

21 No final decisions will be made until after we
22 hear your comments. You may provide your comments
23 in five ways. You may complete a speaker card and
24 make an oral statement at the microphone, provide
25 an oral statement to the court reporter, complete a

1 comment form and drop it in the comment box
2 provided, e-mail your comments to the FDOT project
3 manager or by visiting the project web site, or by
4 mailing written comments to the FDOT project
5 manager. The comment period ends on May 10, 2013.

6 Send comments no later than May 10, 2013 to:

7 Mr. Henry A. Oaikhena, PE

8 Project Manager

9 Florida Department of Transportation

10 Consultant Management

11 3400 West Commercial Boulevard

12 Fort Lauderdale, Florida 33309

13 Tel: 954-777-4445, or

14 Tel: 866-336-8435, Extension 4445

15 henry.oaikhena@dot.state.fl.us

16 This information is also available in the
17 newsletter.

18 For more detailed information and descriptions
19 of the proposed improvements, you may review the
20 maps, drawings, and other information on display
21 immediately following the hearing. FDOT personnel
22 will continue to be available to discuss the
23 project and answer your questions.

24 Draft project documents are available for
25 public review until May 10, 2013 at the following

1 three locations: Florida Department of
2 Transportation District Four Consultant Management
3 Office, Boca Raton City Hall and the E. Pat Larkins
4 Community Center.

5 Draft documents and public hearing exhibits
6 are available on the web site at www.i95study.com

7 This concludes our presentation. Thank you
8 for attending tonight's public hearing.

9 (Thereupon, the PowerPoint presentation was
10 concluded.)

11 MR. YOUNG: Anyone desiring to make a
12 statement or present written views and/or exhibits
13 relative to the location, conceptual design, socio-
14 economic effects or impact on the environment as a
15 result of this project will now have an opportunity
16 to do so.

17 This is an opportunity for you to formally
18 present your comments, opinions, and ideas about
19 the project for the permanent record.

20 If you are holding speaker's cards, please
21 pass your cards to the aisle and our staff will
22 collect them. If you have not received a speaker
23 card and wish to speak, please raise your hand and
24 our staff will provide you with one. We ask that
25 you limit your comments to three minutes and if you

1 have additional comments, you may continue after
2 other people had the opportunity to comment.

3 We will have staff available after the comment
4 period to address any questions one-on-one.

5 At this time, are there any elected public
6 officials who would like to make a comment?

7 I have a card from Commissioner Ben Preston of
8 Deerfield Beach. Do you wish to make a comment?

9 MR. PRESTON: No, that's okay.

10 MR. YOUNG: Okay; thank you.

11 MR. PRESTON: Thank you.

12 MR. YOUNG: So, I now I will call on people
13 who have turned in cards. And, when you come
14 forward, please state your name and address.

15 If you represent an organization,
16 municipality, or other public entity, we would
17 appreciate that information as well.

18 Please use the microphone so that our reporter
19 will be sure to get a complete record of your
20 comments and just speak naturally. The volume will
21 be adjusted so that the rest of us can hear you.

22 The first card I have is Mr. John Randall.

23 MR. RANDALL: I appreciate the project. I
24 don't think there is anything with the project.

25 My problem is you maintain -- you maintain the

1 wall on the inside venue. But, what about the
2 homeowner on the outside of the wall? The wall you
3 have is black. The trees are overgrowing the right
4 of way and all of this. And I wonder if you could
5 assist the homeowners in that aspect?

6 MR. YOUNG: We can look into that. I am not
7 sure what our Maintenance Department has for
8 maintaining the back of the wall. But, I can check
9 into that.

10 Normally, we build the wall pretty close to
11 the right of line. We just donate that property to
12 the property owner.

13 But, as far as the wall itself, I'll check.

14 MR. RANDALL: Well, I didn't see anyone
15 trimming the trees on the inside. But, on the
16 outside the Seagrapes are hanging over the back;
17 the leaves, they fall down and blow all over our
18 properties and the walls -- There's holes in the
19 wall. I guess you had plates on there at one time.
20 They're not there anymore.

21 MR. YOUNG: Okay. Those are, usually, holes
22 for fire hoses. But, I'll pass that on. We have a
23 record here of comments.

24 MR. RANDALL: All right. Thank you very much,
25 sir.

1 MR. YOUNG: Thank you. Next, Mr. Robert E.
2 Frank.

3 MR. FRANK: How are you going? I want to say
4 thank you for the wall. It does help us very much
5 with the sound.

6 I live right up against the wall of I-95. I'm
7 in Boca Raton, a place called Boca Square.

8 Let me put it this way. Every year I had to
9 pressure clean by roof due to the high volume of
10 traffic going by. It gets black. And as John
11 Randall said, who is one of my neighbors, what I'm
12 here for is you do take care of the inside of I-95;
13 but, then again, outside of 95 is neglected.

14 I didn't know -- I'm taking it now that it's
15 our responsibility to cut the trees and the limbs
16 that are on our side of the wall. I understood
17 that it was a 5' easement; that you guys can,
18 actually, do anything you wanted to.

19 MR. YOUNG: That's correct. It is an
20 easement; but, we don't, generally, use it. You
21 know, it's there for your back yard.

22 MR. FRANK: Okay. So, should -- Like I'm
23 going to be getting my house painted. Is it my
24 responsibility to paint the wall of I-95?

25 MR. YOUNG: No, it's not. I'll pass this on.

1 You have problems with that wall?

2 MR. FRANK: They didn't cut the trees. I did
3 see -- Like, maybe, eight months ago, you had
4 bucket trucks going down and they were cutting the
5 Seagrape trees and I, actually, got up on top of my
6 roof and tried talking to the gentleman and the
7 problem was that his bucket truck would not reach
8 the branches over on that -- on the other side of
9 the wall and that's why they couldn't do it. And
10 due to the gangs that we have in Boca, two
11 especially, all of -- they have spray painted -- We
12 have -- Boca -- The City of Boca has covered it;
13 but now, there's different blotches on the wall and
14 I don't think the wall has been painted for -- I
15 pressure cleaned it. But, not painted or
16 maintained on our side, at all. So, if you
17 could do something I'd appreciate it.

18 Thank you.

19 MR. YOUNG: Okay. We'll get a response for
20 you.

21 Claudio P. or Poe?

22 MR. POE: How are you doing? Claudio Poe, 165
23 Southwest 50th Street, Boca Raton.

24 I'm on the northeast side of -- I'm sorry;
25 northwest side of 18th Street and I-95 corridor.

1 We are the one section of I-95 residences on that
2 northwest that has no wall at all. There's a --
3 14' foot wall and thank you. I appreciate that.
4 However, I would like to raise a concern that
5 there's a row of Fichus trees against our existing
6 wall that's a homeowner's association 6' wall and I
7 want to make sure that when that wall is erected
8 that they take care of removing those trees
9 because, otherwise, they'll be, basically, lost in
10 the 6' wall and the wall that you guys will be
11 erecting and they will be, you know, very --
12 virtually impossible to maintain. We've got it
13 trimmed just this past November. It took me a
14 great effort through the Florida Department of
15 Transportation. They send two different trucks
16 there. And, you know, from a homeowner's
17 standpoint it's a maintenance issue, the trees.
18 But, you know, it's also a safety issue. The trees
19 were up to 70' tall before we had them trimming
20 down. And, you know, I just want to make sure that
21 it gets taken into consideration. I figure that if
22 there is a wall, trees and another wall, my concern
23 is that it will be as close as possible. If the
24 trees are there you couldn't make it as close as
25 possible and make a potential for homeless people

1 to be, you know, residing in the walls; you know,
2 undesirable activities, things like that. So, I
3 just want to make that this is taken into
4 consideration.

5 MR. YOUNG: Okay; thank you. We can work with
6 your neighborhood in the design phase to get a
7 solution to what you're talking about.

8 MR. POE: Thank you, sir. I appreciate it.

9 MR. YOUNG: The next card I have is Lynn
10 Glaze.

11 MS. GLAZE: Good evening and thank you for --

12 THE COURT REPORTER: Could you put the mike a
13 little it closer?

14 MR. YOUNG: Could you get a little to the
15 mike, please?

16 MS. GLAZE: I'm sorry. Frankly, I'm really --
17 I'm not happy that their building anything -- Call
18 it what it might. But, as it is the walls really
19 don't work. I live two and a half blocks away from
20 wall and I hear a lot of noise all of the time --
21 I'm also on Hillsboro and I am deeply concerned
22 about the Hillsboro Canal. When I did a small
23 project that I have a -- sea wall, I had to obtain
24 five different permits including South Florida
25 Water Management District, Army Corps of Engineers,

1 City of Boca Raton, County of Palm Beach and
2 Environmental Protection. And all that you showed
3 up there was that you have to comply with -- I
4 don't hear any -- He spoke very fast. But, I
5 didn't hear that you complied with any sort
6 regulations that I had to comply with. And I would
7 like further -- I would like further -- that you
8 will get this. Because this is a really important
9 waterway. Building these bridges is a lot of work,
10 a lot of mess, a lot of dust and a lot of noise.
11 And, basically, I'd like to do what I had to do
12 just to go --

13 MR. YOUNG: We do have to get permits from all
14 of the agencies.

15 MS. GLAZE: It sounded like you did. But, --

16 MR. YOUNG: We do.

17 MS. GLAZE: -- I'd like that addressed and
18 I'll be watching at that. And I'm very much a
19 steward of the canal. And I just want to protect
20 as much as I can.

21 Also, if this is to improve traffic flow, at
22 the moment, I see mostly -- to Miami. The most
23 traffic there is, is on Friday afternoon. And
24 again, the reason why -- nesting project was
25 started. That's what I do.

1 MR. YOUNG: Okay; thank you. Paul Mack? Is
2 Mr. Mack here?

3 MR. MACK: Right here. Thank you. I
4 represent the Misner -- Homeowner's Association. I
5 see the plans that you have, a 15' wall that's
6 proposed for our neighborhood. We're on the north
7 side of 18th Street, the northwest side.

8 You have a proposed 15' wall. Is that
9 correct?

10 MR. YOUNG: I don't have all of the details at
11 hand.

12 UNKNOWN AUDIENCE MEMBER: Fourteen.

13 MR. MACK: 14' wall. And --

14 MR. YOUNG: --

15 MR. MACK: I mean I recognize that when we
16 bought our houses we knew how close were to 95.
17 But, is the proposed 14' wall strictly a cost? I
18 see that there's a cost benefit that has to be met,
19 otherwise you can't do it.

20 MR. YOUNG: That is the highest wall you can
21 build that is effective and meets the cost
22 reasonable factor.

23 MR. MACK: Okay. Well, I appreciate that. I
24 just want to go on record that our homeowners are,
25 obviously, very concerned that the increase in

1 noise will affect our community.

2 Right now, we have no wall, at all.

3 MR. YOUNG: Right.

4 MR. MACK: Thank you.

5 MR. YOUNG: I don't have any more speakers

6 cards.

7 Oh, there is?

8 It looks like Keith Schwartz.

9 MR. SCHWARTZ: Schwartz.

10 MR. YOUNG: It's a little hard to read.

11 MR. SCHWARTZ: Yeah. I want to know where the

12 boundary is. Are you going to take 300' from there

13 or what? There's a wall that's -- The wall is the

14 state line, right?

15 MR. YOUNG: Generally, yes.

16 MR. SCHWARTZ: Yeah. Okay. How about people

17 that -- How about if they come in and they plow the

18 houses down say at --

19 THE COURT REPORTER: I'm sorry. I can't hear

20 him.

21 MR. YOUNG: Well, we only own a certain amount

22 of right of way and we build the walls within our

23 own right of way. What happens to the home on the

24 other side, we really don't have any control over

25 that.

1 MR. SCHWARTZ: -- marked value.

2 MR. YOUNG: Only if we need the homes for the
3 project, which we don't.

4 MR. SCHWARTZ: I'm not going to be -- My is
5 about 100' away. So, -- They going to come through
6 and plow my down and I've been there for 48 years.
7 I don't want to --

8 MR. YOUNG: Yes, sir. At this time we do not
9 need to buy any additional right of way. We're
10 only widening the pavement by 14' and it will be
11 within our existing right of way. But, if that
12 changes for some unknown reason we would definitely
13 follow the relocation and acquisition process.

14 MR. SCHWARTZ: Okay; thank you, sir.

15 MR. YOUNG: Thank you.

16 Is there anyone else who would like to make a
17 statement?

18 Yes, sir; come on up, state your name, please,
19 and fill out a card afterwards.

20 MR. BLANCHETTE: Yes. My name is Paul
21 Blanchette. I live at 709 Hibiscus Drive in
22 Deerfield Beach. I'm right between Military Trail
23 and 95 and I live at the --

24 When are you going to do new bridges? Do you
25 intend a large wall on the west side or this side,

1 on the west side of 95? Because it's very noisy.

2 MR. YOUNG: Okay. I don't think we have a
3 wall planned for the west side.

4 MR. BLANCHETTE: Because the wind blows always
5 on the east, to the east, from the east and we do
6 have all sort of negative activity.

7 MR. YOUNG: Well, we studied all of the areas
8 along I-95 and that was not one of the areas that
9 warranted a wall. But, we can take another look at
10 it.

11 MR. BLANCHETTE: Because of their corridors we
12 have all the noise coming from the east. There's a
13 wall right now on the west side. But, we don't
14 have one on the east side.

15 MR. YOUNG: Okay. We can look into that.

16 MR. BLANCHETTE: Thank you.

17 MR. YOUNG: Is there anyone else who wants to
18 make a comment?

19 Yes, sir. Please state your name and address?

20 MR. LYNN: It's John Lynn, 1520 Southwest 21st
21 Lane. I also live on that Hillsboro Canal corridor
22 and your staff gave me a lot of information
23 tonight. But, I would like you to consider to
24 extend that very wall on the south side of the
25 Hillsboro Canal.

1 Currently, it has an existing wall on the
2 north side. I feel there's a lot of noise that
3 travels down the canal from that south side.

4 You indicated that because that's a business
5 district, you've -- a lot of businesses, signs and
6 so forth. It becomes a problem for you guys.

7 The first building from that wall is,
8 actually, just a parking garage. So, at least, a
9 minor short version to help offset some of that
10 noise going down that corridor would be greatly
11 appreciated, if you would look into that.

12 MR. YOUNG: Okay; thank you.

13 MR. LYNN: Thank you.

14 MR. YOUNG: Greg Ashley?

15 MR. ASHLEY: My name is Captain Greg Ashley
16 from Boca Raton Fire Rescue. One of my concerns
17 that we would have at the fire rescue agency is
18 entering and existing the corridor for emergencies
19 such as medical or car accidents.

20 Has any plan been implemented to address that?

21 MR. YOUNG: Yes. We have a Traffic Incident
22 Management Team, which we are using on the southern
23 I-95 Express and they'll have the same type of
24 organization set up for this area, too.

25 MR. ASHLEY: As far as the entrance points,

1 would we be able to utilize the same -- I believe
2 it was four southbound --

3 MR. YOUNG: Emergency vehicle can use the
4 entrance points; but, also, these tubular markers
5 are easy for you guys to run over if you need to.

6 MR. ASHLEY: Okay. That was another question
7 I had. Great. Thank you.

8 MR. YOUNG: Does anyone else want to make a
9 comment or statement?

10 Please come on up.

11 Please state your name and address now and
12 fill out a card after you speak?

13 MS. ST.GERMAINE: Patricia St.Germaine. I'm
14 from Boca Square, where some of the other people
15 have spoken, also. And I'd like to say on the
16 presentation that we're getting, besides the fact
17 that information is given so quickly, it was very
18 hard to absorb it all.

19 But, it seems, like me, the real question,
20 again, is the environmental impact. It was not
21 even addressed. There are no studies to show how
22 much more carbon is going to go into the sky; tons
23 more. We already have an enormous carbon
24 footprint. This is worst idea I've heard in my
25 whole life. I can't believe that this is what we

1 come up with, this is what DOT comes up with. Why
2 haven't we seen any protections for high speed
3 trains coming or magnetic, which we once considered
4 ten or twenty years ago. This is just crazy. It
5 has -- There are always going to be more people
6 moving here and this is really a very temporary
7 fix. It's taking care of what, the next forty
8 years. Well, people are going to be moving down
9 here after that. And you just can't widen the
10 road, throwing more carbon into the air. You have
11 to start thinking out of the box. And I just think
12 this is really one terrible idea.

13 I mean if you would have stopped all of the
14 growth, population growth in Florida, with just
15 that number, you could have said, okay, no one else
16 can move in, then you're good to go. But, that's
17 not what's going to happen.

18 So, like I said, I am very disappointed,
19 disgusted and upset. This is crazy, backwards
20 thinking.

21 MR. YOUNG: Thank you. Anyone else?

22 Okay. If no one else desires to speak, I wish
23 to remind you that written statements, and/or
24 exhibits, may be presented in lieu of or as support
25 to oral statements made here tonight.

1 Written statements may be sent to the
2 attention of Mr. Henry Oaikhena, P.E., at the
3 Florida Department of Transportation, District Four
4 Office at 3400 West Commercial Boulevard, Fort
5 Lauderdale, Florida 33309-3421. If written
6 statements are received within 10 days after the
7 day of this hearing, they will be included as part
8 of this hearing.

9 The verbatim transcript of tonight's oral
10 proceedings, together with all the material
11 displayed at this hearing, will be made a part of
12 the project decision-making process and will be
13 available for public review at the District's
14 office in Fort Lauderdale and also on the web site.

15 Thank you for attending this public hearing
16 and for providing your input into this project.

17 At 7:21 p.m., this hearing is officially
18 adjourned.

19 Thank you and good night. Thanks for coming.
20 (Thereupon, the public hearing was concluded.)

CERTIFICATE OF COURT REPORTER

THE STATE OF FLORIDA:

:ss.

COUNTY OF PALM BEACH:

I, TANYA SETTEL, a Court Reporter in and for the State of Florida at Large, do hereby certify that I was authorized to and did report the proceedings in the above-styled cause, at the time and place set forth; that the foregoing pages, numbered from 1 through 46, inclusive, constitute a true and complete record of my notes.

I further certify that I am not an attorney or counsel of any of the parties, nor related to any of the parties, nor financially interested in the action.

Dated this 14th day of May, 2013



Tanya Settel

Court Reporter

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Appendix C

Efficient Transportation Decision Making Programming Screen Summary Report

ETDM Summary Report

Project #3330 - I-95 add lanes and reconstruct - Commercial to Glades

Finalized Programming Screen - Published on 09/29/2005

Printed on: 7/27/2012

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Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project commitments resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

#3330 I-95 add lanes and reconstruct - Commercial to Glades

District	District 4	Phase	Programming Screen
County	Broward	From	S. of SR 870/Commercial Blvd
Planning Organization	FDOT District 4	To	S. of Glades Road
Plan ID	4093591	Financial Management No.	
Federal Involvement	No federal involvement has been identified.		
Contact Information	Name: Richard Young Phone: 954-777-4323 E-mail: richard.young@dot.state.fl.us		
Snapshot Data From: Programming Screen Summary Report Published on 09/29/2005			

Overview

		Evaluation of Direct Effects																			
		Natural									Cultural		Community								
Legend <div>N/A</div> N/A / No Involvement <div>1</div> Enhanced <div>2</div> Minimal to None (before 12/5/2005) <div>3</div> Moderate <div>4</div> Substantial <div>5</div> Dispute Resolution (Programming)	Air Quality	Coastal and Marine	Contaminated Sites	Farmlands	Floodplains	Infrastructure	Navigation	Special Designations	Water Quality and Quantity	Wetlands	Wildlife and Habitat	Historic and Archaeological Sites	Recreation Areas	Section 4(f) Potential	Aesthetics	Economic	Land Use	Mobility	Relocation	Social	Secondary and Cumulative Effects
ETAT Review Period: 05/21/2004 - 07/05/2004. Published: 09/29/2005																					
Alternative #1			3	2					2	3	2	3	2	2	2	2	2	1	2	2	
From S. of SR 870/Commercial Blvd to S. of Glades Road																					

Purpose of and Need for

Purpose and Need Statement

System Linkage or Connectivity

This project consists of widening I-95 from eight lanes to ten lanes between the project limits, South of Commercial Blvd. in Broward County to South of Glades Road in Palm Beach County. The project is approximately 14.792 miles, extending from milepost 14.887 to milepost 25.362 in Broward and from MP 0.000 to MP 2.724 in Palm Beach. The functional classification of I-95 is urban principal arterial-interstate.

I-95 has interchange connections with major roads including Commercial Blvd., Cypress Creek Rd., Atlantic Blvd., Copans Rd., Sample Rd., SW 10th Street, Hillsboro Blvd and Palmetto Park Road. I-95 has direct access to the Sawgrass Expressway/SR 869 and I-595.

Federal, State & Local Authority

This PD & E project is included in the Five-Year Work Program. This project is included in the I-95 Master Plan, which was approved by the Broward County Metropolitan Planning Organization (MPO) in 2001. It is included in the MPO's 2025 Long Range Transportation Plan. FHWA approved the I-95 Master Plan in 1992.

Social Demands/Economic Development

Southeast Florida serves as the U.S. gateway to Latin America and the Caribbean, and is a prominent trade, tourism, and financial center. The container operations of the three South Florida Ports combined place it third in the nation behind Los Angeles and New York. I-95 is the major north-south transportation spine of the Atlantic Commerce Corridor and is depended upon to move people and goods within and beyond the region. Southeast Florida comprises over 5.2 million people, and is recognized as one of the most traffic-congested regions in the country. Population is expected to grow 33 percent to 6.8 million people by 2020, and to 7.6 million people by 2030. Growth in both freight and tourist visitors is expected to increase just as substantially.

I-95 is a major connector between Northern Broward County/Southern Palm Beach Counties and serves the Boca Raton Airport, Florida Atlantic University, Fort Lauderdale-Hollywood International Airport, Palm Beach International Airport, major shopping malls and business centers.

I-95 is located in the southeast Florida area, with a 5.3 percent population increase experienced in Broward County between 2000 and 2002.

Modal Interrelationships

There are currently no planned or programmed Congestion Management System (CMS) improvements.

Trucks comprise 7.9% of vehicles traveling along this corridor.

Palm Beach International Airport is located to the north of this project and the Fort Lauderdale International Airport is located to the south.

The South Florida Rail Corridor, which handles both passenger and freight traffic, borders I-95 on the west.

The Port Everglades Seaport is to the south and Port of Palm Beach is to the north.

Tri-Rail runs along I-95 and handles Mass Transit from Miami-Dade County to northern Palm beach County.

The I-95 High Occupancy Vehicle lanes are included within the project limits.

Capacity

I-95 currently is an eight-lane Interstate with a daily capacity of at 163,900 vehicles per day (vpd). Level of Service (LOS) E. The existing Annual Average Annual Daily Traffic (AADT) is 256,000 vpd, which is Level of Service F, or 56 percent over-capacity. The 2025 AADT for the proposed ten-lane expressway is 360,000, with a forecasted LOS of F.

Safety

We are not aware of any significant safety issues for this corridor. Revealed in the 2 year accident analysis, 1,015 vehicles were involved in rear end collisions which are attributed to heavy traffic congestion.

Hurricane Evacuation

The I-95 corridor is a hurricane evacuation route.

Project Description

Add two lanes (8 + 2) from from South of Commercial Blvd. to South of Glades Road in Palm Beach County.

Prices were derived from the Executive Summary 2025 FIHS Cost Feasible Plan(CFP)updated August 2003, 2003 present day cost.

Price includes project FM #'s 409359-1, 409359-2, 409359-3 and 409359-4.

Summary of Public Comments not available at this time

Additional Consistency Information

- Consistent with Air Quality Conformity.
- Consistent with Local Government Comp Plan.
- Consistent with MPO Goals and Objectives.

Lead Agency

Federal Highway Administration

Exempted Agencies

No exemptions have been assigned for this project.

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

Communities Within 500 Feet

- 1800 Boca Raton

Purpose and Need Reviews

Agency	Acknowledgment	Review Date
FL Department of Environmental Protection	Understood	06/25/2004

FL Department of State	Understood	06/16/2004
Federal Highway Administration	Accepted	05/17/2005
Comments: Opportunities exist for exploring intermodal connections between I-95 airport rail and seaport facilities as a part of this project that may help relieve some congestion from short trips between the various modal facilities.		
National Marine Fisheries Service	Understood	07/03/2004
US Army Corps of Engineers	Understood	05/27/2004
US Fish and Wildlife Service	Understood	05/25/2004
The following organizations were notified but did not submit a review of the Purpose and Need:		
- Not Available. Contact the ETDM Help Desk for assistance.		

Alternative #1

Alternative Description

From:	S. of SR 870/Commercial Blvd	To:	S. of Glades Road
Type:	Widening	Status:	ETAT Review Complete
Total Length:	14.792 mi.	Cost:	\$206,736,000.00
Modes:	Roadway	SIS:	Y

Segment Description(s)

Location and Length							
Segment No.	Name	Beginning Location	Ending Location	Length (mi.)	Roadway Id	BMP	EMP
	Interstate 95	Palm Beach/Broward CL	S. of Glades Road	2.724	93220000		
	Interstate 95	SR 870/Commercial Blvd	Palm Beach/Broward CL	10.475	86070000		

Jurisdiction and Class			
Segment No.	Jurisdiction	Urban Service Area	Functional Class
	FDOT	In	URBAN: Principal Arterial - Interstate
	FDOT	In	URBAN: Principal Arterial - Interstate

Base Conditions				
Segment No.	Year	AADT	Lanes	Config
	2000	152947	8	Lanes Freeway
	2001	256000	8	Lanes Freeway

Interim Plan				
Segment No.	Year	AADT	Lanes	Config

Needs Plan				
Segment No.	Year	AADT	Lanes	Config
	2025			
	2025			

Cost Feasible Plan				
Segment No.	Year	AADT	Lanes	Config
	2025	277400	10	Lanes Freeway
	2025	360000	10	Lanes Freeway

Funding Sources				
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No funding sources found.

Project Effects Overview

Issue	Degree of Effect	Organization	Date Reviewed
Natural			
Air Quality	No reviews recorded.		
Coastal and Marine	No reviews recorded.		
Contaminated Sites	3 Moderate	FL Department of Environmental Protection	06/25/2004
Farmlands	2 Minimal to None	Natural Resources Conservation Service	06/23/2004
Floodplains	No reviews recorded.		
Infrastructure	No reviews recorded.		
Navigation	No reviews recorded.		
Special Designations	No reviews recorded.		
Water Quality and Quantity	No reviews recorded.		
Wetlands	3 Moderate	National Marine Fisheries Service	07/03/2004
Wetlands	3 Moderate	US Army Corps of Engineers	05/27/2004
Wetlands	2 Minimal to None	US Fish and Wildlife Service	05/25/2004
Wildlife and Habitat	2 Minimal to None	US Fish and Wildlife Service	05/25/2004
Cultural			

Historic and Archaeological Sites	3	Moderate	Federal Highway Administration	05/17/2005
Historic and Archaeological Sites	3	Moderate	FL Department of State	06/16/2004
Recreation Areas	2	Minimal to None	Federal Highway Administration	05/17/2005
Section 4(f) Potential	2	Minimal to None	Federal Highway Administration	05/17/2005

Community

Aesthetics	2	Minimal to None	FDOT District 4	07/05/2004
Economic	2	Minimal to None	FDOT District 4	07/05/2004
Land Use	2	Minimal to None	FDOT District 4	07/05/2004
Land Use	2	Minimal to None	FL Department of Community Affairs	06/24/2004
Mobility	1	Enhanced	FDOT District 4	07/05/2004
Relocation	2	Minimal to None	FDOT District 4	07/05/2004
Social	2	Minimal to None	FDOT District 4	07/05/2004

Secondary and Cumulative

Secondary and Cumulative Effects No reviews recorded.

ETAT Reviews and Coordinator Summary: Natural Issues

Coordinator Summary: Air Quality Issue

No Summary Degree of Effect Found.

ETAT Reviews: Air Quality Issue: None found

The following organization(s) were expected to but did not submit a review of the Air Quality issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Coastal and Marine Issue

No Summary Degree of Effect Found.

ETAT Reviews: Coastal and Marine Issue: None found

The following organization(s) were expected to but did not submit a review of the Coastal and Marine issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Contaminated Sites Issue

3 Moderate assigned 12/16/2004 by FDOT District 1

Comments: FDEP review indicates potential effects to Contaminated Sites are moderate.

During the project development phase, a Contamination Screening Evaluation will be performed along the project rights-of-way. Projects that involve "dewatering" will be discouraged, due to potential spread of contamination.

ETAT Reviews: Contaminated Sites Issue: 1 found

3 Moderate assigned 06/25/2004 by Lindy McDowell, FL Department of Environmental Protection

Coordination Document: The "Coordination Document" option was not available at the time of the review.

Identified Resources and Level of Importance: None found.

Comments on Effects to Resources: It appears that there are three known contamination sites within one tenth of a mile of the proposed land widening. A Contamination Screening Evaluation similar to Phase I and Phase II Audits may need to be performed along the project rights-of-way considering the proximity to the contaminated sites. The Contamination Screening Evaluations should outline specific procedures that would be followed by the applicant in the event that drums, wastes, tanks or potentially contaminated soils are encountered during construction. Depending on the findings of the Contamination Screening Evaluations and the proximity to known contaminated sites, projects involving "dewatering" should be discouraged, since there is a potential to spread contamination to previously uncontaminated areas and affect contamination receptors, site workers and the public. In the event contamination is detected during construction, the Department needs to be notified and the FDOT may need to address the problem through additional assessment and remediation activities.

FDOT District 1 Feedback to FL Department of Environmental Protection's Review (07/28/2004): During the project development phase, a Contamination Screening Evaluation will be performed along the project rights-of-way. Projects that involve "dewatering" will be discouraged, due to potential spread of contamination.

The following organization(s) were expected to but did not submit a review of the Contaminated Sites issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Farmlands Issue

2 Minimal to None assigned 12/16/2004 by FDOT District 1

Comments: ETAT review by NRCS indicate potential effects to Farmlands are minimal to none.

ETAT Reviews: Farmlands Issue: 1 found

2 *Minimal to None* assigned 06/23/2004 by Warren Henderson, Natural Resources Conservation Service

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: None found.

Comments on Effects to Resources: There is no unique farmland in the project area.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Farmlands issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Floodplains Issue

No Summary Degree of Effect Found.

ETAT Reviews: Floodplains Issue: None found

The following organization(s) were expected to but did not submit a review of the Floodplains issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Infrastructure Issue

No Summary Degree of Effect Found.

ETAT Reviews: Infrastructure Issue: None found

The following organization(s) were expected to but did not submit a review of the Infrastructure issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Navigation Issue

No Summary Degree of Effect Found.

ETAT Reviews: Navigation Issue: None found

The following organization(s) were expected to but did not submit a review of the Navigation issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Special Designations Issue

No Summary Degree of Effect Found.

ETAT Reviews: Special Designations Issue: None found

The following organization(s) were expected to but did not submit a review of the Special Designations issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Water Quality and Quantity Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 1

Comments: The proposed storm water facility design will include, at a minimum, the water quantity requirements for water quality impacts as required by SFWMD in Rule 40E-4.

ETAT Reviews: Water Quality and Quantity Issue: None found

The following organization(s) were expected to but did not submit a review of the Water Quality and Quantity issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Wetlands Issue

3 *Moderate* assigned 12/16/2004 by FDOT District 4

Comments: ETAT reviews indicate an inconsistency in terms of the potential degree of effect. Based on the review provided by the NMFS, USACOE and USFWS, the summary degree of effect to Wetlands was determined to be moderate.

During a telephone conversation on August 10, 2004 between Richard Young, Ann Broadwell and Patrick Webster of FDOT and Ken Huntington of ACOE it was agreed that the moderate degree of effect assigned to wetland impacts would be addressed by preparing a Wetland Evaluation Report addressing avoidance and minimization, and mitigation for unavoidable impacts, during the PD&E study.

During a telephone conversation on August 04, 2004 between Richard Young, Ann Broadwell and Patrick Webster of FDOT and Audra Livergood of NMFS it was agreed that an Essential Fish Habitat Report would not be required but that a Wetland Evaluation Report addressing avoidance and minimization and mitigation for unavoidable impacts would be prepared during the PD&E study based on the moderate level of effect assigned by the ACOE.

ETAT Reviews: Wetlands Issue: 3 found

3 *Moderate* assigned 07/03/2004 by Audra Livergood, National Marine Fisheries Service

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: The National Marine Fisheries Service (NOAA Fisheries) is primarily concerned about adverse impacts to wetland communities.

Comments on Effects to Resources: Based on our review of the GIS Analysis Results for wetlands, it appears that wetlands occur within close proximity to the project corridor. NOAA Fisheries recommends that adverse impacts to wetlands should be avoided or minimized. If wetlands are directly or indirectly impacted by the proposed project, compensatory mitigation that fully offsets unavoidable impacts to wetland resources should be provided.

Additional Comments (optional): If a Clean Water Act Section 404 permit from the Army Corps of Engineers is required for the proposed work, NOAA Fisheries may provide comments during our review of the permit application/public notice.

Coordinator Feedback: None

3 *Moderate* assigned 05/27/2004 by Kenneth Huntington, US Army Corps of Engineers

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Based on previous experience in the project area, there are normally ditches/canals that parallel the interstate. These linear features will have to be identified for the Corps review process in addition to other wetlands within the corridor.

Comments on Effects to Resources: The Environmental Screening Tool's database indicates that the site may contain wetlands. The Corps will require: 1) a map showing all wetland impacts within the project corridor including any impacts to ditches/canals; 2) a description of all wetlands within the corridor; 3) a functional assessment of the wetlands proposed to be impacted. The project should be designed to minimize/avoid impacts to these resources to the greatest extent practicable. If impacts to wetlands occur, a mitigation plan should be prepared that fully compensates for the loss of wetland resources.

FDOT District 4 Feedback to US Army Corps of Engineers's Review (08/17/2004):

2 *Minimal to None* assigned 05/25/2004 by John Wrublik, US Fish and Wildlife Service

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: wetlands

Comments on Effects to Resources: The Service notes that the proposed project is located in a highly urbanized area and is not likely to significantly affect fish and wildlife. The database associated with environmental screening tool indicated that wetlands were recorded in the project corridor. If wetlands are found to occur within the project area, we recommend that resources be avoided to the greatest extent practicable. If impacts to wetlands are unavoidable, we recommend that the FDOT provides mitigation that fully compensates for the loss of wetland resources.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Wetlands issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Wildlife and Habitat Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 1

Comments: USFWS review indicates potential effects to Wildlife and Habitat are minimal to none.

During a telephone conversation on August 4, 2004 between Richard Young, Ann Broadwell and Patrick Webster of FDOT and John Wrublik of the USFWS it was agreed that although the degree of effect assigned to wildlife and habitat was minimal to none, because the project is located within the Core Foraging Area of the protected Wood Stork an Endangered Species Technical Memorandum will be prepared to address potential impacts to that species and its foraging areas. In the event that additional listed species and their critical habitat are identified during the course of the study an Endangered Species Biological Assessment (ESBA) will be prepared.

ETAT Reviews: Wildlife and Habitat Issue: 1 found

2 *Minimal to None* assigned 05/25/2004 by John Wrublik, US Fish and Wildlife Service

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: federally listed species, fish and wildlife resources

Comments on Effects to Resources: The Service has reviewed our Geographic Information Systems (GIS) database for recorded locations of federally listed threatened and endangered species on or adjacent to the project study area. The GIS database is a compilation of data received from several sources. Active nesting colonies of the endangered wood stork (*Mycteria americana*) are located approximately 6.8 miles, 9.8 miles, 11.8 miles, and 14.7 miles northwest, and 10.7 miles west of the project corridor. Consequently, the project falls within the Core Foraging Areas ((CFA) i.e., within 18.6 miles) of these nesting colonies. The Service believes that the loss of wetlands within a CFA may reduce foraging opportunities for wood storks. To minimize adverse effects to the wood stork, the Service's draft Standard Local Operating Procedures for Endangered Species (SLOPES) request that the applicant replace wetlands lost due to the action. The compensation plan should include a temporal lag factor, if necessary, to ensure that wetlands provided as compensation adequately replace the wetland functions lost due to the project. Moreover, wetlands offered as compensation should be of the same hydroperiod, and located within the CFA of the affected wood stork colony. In some cases, the Service would accept wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside of the CFA would be acceptable to the Service, provided that the impacted wetlands occur within the permitted service area of the bank.

No other federally listed species were identified on your project site. The Service has not conducted a site inspection to verify species occurrence or validate the GIS results. However, we assume that listed species occur in suitable ecological communities and recommend site surveys to determine the presence or absence of listed species. Ecological communities suitable for listed species can be found in the species accounts in the South Florida Multi-Species Recovery Plan (1999). This document is available on the internet at http://verobeach.fws.gov/Programs/Recovery/esvb_recovery.html.

The Service notes that the proposed project is located in a highly urbanized area and is not likely to significantly affect fish and wildlife. The database associated with environmental screening tool indicated that wetlands were recorded in the project corridor. If wetlands are found to occur within the project area, we recommend that resources be avoided to the greatest extent practicable. If impacts to wetlands are unavoidable, we recommend that the FDOT provides mitigation that fully compensates for the loss of wetland resources.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Wildlife and Habitat issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

ETAT Reviews and Coordinator Summary: Cultural Issues

Coordinator Summary: Historic and Archaeological Sites Issue

3 Moderate assigned 12/16/2004 by FDOT District 1

Comments: ETAT review by SHPO and FHWA indicate potential effects to Historical and Archaeological Sites are moderate.

During the Project Development phase of this project, the FDOT will focus on the avoidance and minimization of impacts to the cited resources. A Cultural Resources Assessment Survey will be completed as part of the Project Development phase, which will capture any archaeological sites and historic properties in the project area.

ETAT Reviews: Historic and Archaeological Sites Issue: 2 found

3 Moderate assigned 05/17/2005 by Nahir Detizio, Federal Highway Administration

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Cultural resources located in close proximity to the proposed project

Comments on Effects to Resources: Results from additional surveys performed should be sent to our office for our review. We can then coordinate with the State Historic Preservation Officer, and request concurrence in terms of eligibility for listing on the National Register of Historic Places, and the effects the proposed project may have on those resources.

Coordinator Feedback: None

3 Moderate assigned 06/16/2004 by Brian Yates, FL Department of State

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Florida Site File Archaeological or Historic Sites
Archaeological or historic sites recorded in the Florida State Historic Preservation Office Master Site File
[Click here for more information about this data source.](#)

Buffer distance: 100 ft. (340.42 acres).

Site Type Acres Percent
Aboriginal boat 1.2 0.4

Analysis run 2004-05-12

Buffer distance: 200 ft. (679.69 acres).

Site Type Acres Percent
Aboriginal boat 2.5 0.4

Analysis run 2004-05-12

Buffer distance: 500 ft. (1704.92 acres).

Site Type Acres Percent
Aboriginal boat 9.3 0.5

Analysis run 2004-05-12

Buffer distance: 5280 ft. (19775.92 acres).

Site Type Acres Percent
Aboriginal boat 36.6 0.2
Campsite (prehistoric) 1.8 0
Other 1.9 0

Analysis run 2004-05-12

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Florida Site File Cemeteries
Historic cemeteries recorded in the Florida State Historic Preservation Office Master Site File
[Click here for more information about this data source.](#)

Buffer distance: 100 ft. (340.42 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 200 ft. (679.69 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 500 ft. (1704.92 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 5280 ft. (19775.92 acres).

No features found

Analysis run 2004-05-12

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Florida Site File Historic Bridges

Historic Bridges recorded in the Florida State Historic Preservation Office Master Site File

[Click here for more information about this data source.](#)

Buffer distance: 100 ft. (340.42 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 200 ft. (679.69 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 500 ft. (1704.92 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 5280 ft. (19775.92 acres).

Bridge Name Site ID

HILLSBORO CANAL BRIDGE PB08214

HILLSBORO CANAL BRIDGE BD03042

Analysis run 2004-05-12

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Florida Site File Historic Standing Structures

Historic Standing Structures recorded in the Florida State Historic Preservation Office Master Site File

[Click here for more information about this data source.](#)

Buffer distance: 100 ft. (340.42 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 200 ft. (679.69 acres).

Structure Name Site ID

517 NW 10TH AVE BD02324

COHEN, W C & NETTIE HOUSE BD02325

Analysis run 2004-05-12

Buffer distance: 500 ft. (1704.92 acres).

Structure Name Site ID
BIRK, ALLIE M HOUSE BD02265
200 NW 10TH AVE BD02266
208 NW 10TH AVE BD02270
ERVIN, MAUD B HOUSE BD02274
WRIGHT, CARY BELLE HOUSE BD02304
128 NW 10TH AVE BD02272
CARTER, ANNA J HOUSE BD02322
517 NW 10TH AVE BD02324
COHEN, W C & NETTIE HOUSE BD02325

Analysis run 2004-05-12

Buffer distance: 5280 ft. (19775.92 acres).

Structure Name Site ID
PARRISH, LUCINDA T HOMES HOUSE BD02211
320 NW 16TH AVE BD02213
304 NW 16TH AVE BD02214
TURNER HOUSE BD02215
301 NW 16TH AVE BD02216
209 NW 16TH AVE BD02217
EVENS, MARY HOUSE BD02218
116 NW 16TH AVE BD02225
109 NW 16TH AVE BD02226
101 NW 16TH AVE BD02227
113 NW 16TH AVE BD02228
150 NW 17TH AVE BD02229
1536 NW 2ND ST BD02230
HAMILTON'S PHARMACY BD02237
122 N FLAGLER AVE BD02239
BAMBI, BONNIE DOG GROOMING BD02240
BEVILL BLDG BD02241
149 NW 16TH AVE BD02245
130 NW 16TH AVE BD02246
136 NW 16TH AVE BD02247
MCHENRY HOUSE #1 BD02248
MCHENRY HOUSE #2 BD02249
POMPANO MERCANTILE CO BD02258
BIRK, ALLIE M HOUSE BD02265
200 NW 10TH AVE BD02266
208 NW 10TH AVE BD02270
ERVIN, MAUD B HOUSE BD02274
700 NW 17TH TERR BD02297
1519 NW 2ND ST BD02298
RUSSELL, ELIJAH HOUSE BD02300
401 NW 4TH CT BD02301
408 NW 4TH CT BD02302
409 NW 4TH CT BD02303
DAVIS, H & FRANCES HOUSE BD02328
1620 HAMMONDVILLE RD BD02329
WARREN BROTHERS FERTILIZER BD02353
MUNFORD, LILLIE MAE HOUSE BD02414
WILCOX, JIMMIE & CECILIA HOUSE BD02415
ANDREWS, MARGARET & CARL HOUSE BD02417
WILLIAMS, MABEL HOUSE BD02569
POMPANO BEACH RACE TRACK, OLD BD02206
CYPRESS NOOK TAKE OUT RESTAURANT BD02220
POMPANO BEACH FIREHOUSE BD02242
POMPANO BEACH HISTORICAL SOCIETY MUSEUM BD02252
CITY PUMP HOUSE BD02255
POMPANO BEACH HISTORICAL SOCIETY MUSEUM BD02257
JONES QUARTERS BD02263
HAITIAN CATHOLIC CHURCH BD02269
FARMERS MANUFACTURING CO INC BD02271
WRIGHT, CARY BELLE HOUSE BD02304
JONES, MAELIZA HOUSE BD02412
CLARK, MARY HOUSE BD02413
WILSON, WILLIE MAE HOUSE BD02418

BLANC, GREGORY & CHRISTY HOUSE BD02184
KRAHOLIK, JOHN J & PATRICE W HOUSE BD02187
CAVOLINA, CHARLES & LEONORA T HOUSE BD02189
ALLISON, VIRGINIA ANN HOUSE BD02190
KATRA, ALLEN J & JULIE R HOUSE BD02195
SMITH, RUTH E HOUSE BD02196
400 NE 4TH ST BD02199
SMOAK, ADDIE G HOUSE BD02200
GOSSARD, FRANCES HOUSE BD02202
MCCLELLAN, DR GEORGE S OFFICE BD02203
MARINO, SAMUEL ARTHUR HOUSE BD02204
JONES HOUSE BD02205
DORMAN, J L & PEARL M HOUSE BD02208
HARMON, J COY & JOSEPHINE HOUSE BD02210
401 NW 16TH AVE BD02212
MEEKER, RUSLEY C HOUSE BD02221
25 SE 4TH TERR BD02222
15 SE 4TH TERR BD02223
ROLLE, TINA PEARL HOUSE BD02224
601 NW 6TH ST BD02232
WALTON HOTEL BD02233
BANK OF POMPANO BD02234
BAILEY HOTEL BD02235
KILGORE SEED BD02236
CAMPBELL, CAPTAIN HOUSE BD02243
UMM WORKSHOP BD02253
CURLEW WELL PUMP HOUSE BD02254
MICKLER HOUSE BD02256
212 NW 5TH AVE BD02260
1009 NW 3RD AVE BD02261
SWAIN, WILLIE HOUSE BD02262
25 NW 9TH AVE BD02264
200 NW 6TH AVE BD02267
ROLLE, CORNELIUS & ERNESTINE BD02268
128 NW 10TH AVE BD02272
ST MARIE, SALLY HOUSE BD02273
237 NW 11TH ST BD02275
521 NW 3RD AVE BD02276
WALLACE, EDNA HOUSE BD02277
612 NW 3RD AVE BD02278
805 NW 4TH AVE BD02279
HASKINS, LILA HOUSE BD02280
507 NW 6TH AVE BD02281
116 NW 6TH ST BD02282
509 NW 6TH AVE BD02283
120 NW 9TH ST BD02284
233 NW 10TH ST BD02285
225 NW 10TH ST BD02286
138 NW 10TH ST BD02287
117 NW 11TH ST BD02288
129 NW 11TH ST BD02289
SMITH HOUSE BD02290
141 NW 11TH ST BD02291
212 NW 11TH ST BD02292
GOODWIN HOUSE BD02293
227 NW 11TH ST BD02294
213 NW 11TH ST BD02295
307 NW 11TH ST BD02296
LANE, THOMAS HOUSE BD02299
EMORY, ANNIE HOUSE BD02305
317 NW 5TH ST BD02306
ADAMS, FRANKIE HOUSE BD02307
350 NW 4TH ST BD02308
THORTNON, GEORGE HOUSE BD02309
SANDS, CHARLES HOUSE BD02310
MARCH HOUSE BD02311
FOLSOLM, J & EVELYN HOUSE BD02312
JOHNSON, ALBERT HOUSE BD02313
633 NW 8TH AVE BD02314
GRANT HOUSE BD02315
BRYANT, LOUISE HOUSE BD02316
528 NW 8TH AVE BD02317
421 NW 8TH AVE BD02318
412 NW 8TH AVE BD02319

RAWLS, MABEL HOUSE BD02320
GASSETT, CHARLIE & BEATRICE ,JR HOUSE BD02321
CARTER, ANNA J HOUSE BD02322
ATKINS HOUSE BD02323
517 NW 10TH AVE BD02324
COHEN, W C & NETTIE HOUSE BD02325
JONES, R V HOUSE BD02330
BANKS, HADDIE HOUSE BD02332
MASONIC LODGE 263 BD02336
HOGAN HOUSE BD02342
407 NE 1ST ST BD02343
POMPAÑO LUMBER CO, OLD BD02352
500 NE 1ST AVE BD02354
HARDIN, CLIFFORD HOUSE BD02361
1009 N DIXIE HWY BD02362
CHRISTIAN PALLBEARERS SOCIETY #3 BD02367
MCCLELLAN, DR GEORGE HOUSE BD00111
FIRST UNITED METHODIST CHURCH BD00136
FDOT PROPERTY BD03028
BAILEY PROJECT BD03029
QUALITY APPLIANCES PROPERTY BD03030
TROYER PROPERTY BD03036
TROYER PROPERTY BD03037
SELDON PROPERTY BD03038
LEUNGS TRADING, INC. PROPERTY BD03175
POMPAÑO BEACH FARMERS MARKET BD02883
E MATTHEW LAIRD HOUSE PB00110
PINEBLOOM PB00111
ALAMANDA PB00112
LAVENDER HOUSE PB00113
AZEOLA PB00115
ROSEMARY PB00117
JOHN D WESSEL HOUSE PB00124
JAMES S HACKETT HOUSE PB00125
AIKEN, FRED C, HOUSE PB00126
JOHN P DEMARCHI HOUSE PB00127
GEORGE W DESHON HOUSE PB00128
C R SHAMEL HOUSE PB00129
DONALD C CAMPBELL HOUSE PB00130
AZALEA PB00131
AURELIA PB00132
NATHANIEL WEYL HOUSE PB00133
OLEANDER PB00134
PALOMA PB00135
HARRY A HOLMES HOUSE PB00116
ILEX PB00119
MANZANITA PB00120
C H MOHAUPT HOUSE PB00121
ARNOLD MACSPADDEN HOUSE PB00122
JAMES W MOZLEY PB00123
RONALD H MILLER HOUSE PB00137
SCL RAILROAD DEPOT BD00128
DEERFIELD SCHOOL BD03281
504 NW 15TH AVE. BD03227
95 NW 13TH AVE. BD03228
BRANNON'S ROOMING HOUSE BD00132
EWALO HOME BD00133
OLD KNEELAND HOME BD00113
ST PAUL'S METHODIST CHURCH BD00134

Analysis run 2004-05-12

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Greenways Project: Cultural and Historic Features
[Click here for more information about this data source.](#)

Buffer distance: 100 ft. (340.42 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 200 ft. (679.69 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 500 ft. (1704.92 acres).

No features found

Analysis run 2004-05-12

Buffer distance: 5280 ft. (19775.92 acres).

No features found

Analysis run 2004-05-12

Comments on Effects to Resources: Numerous resources exist within the 1-mile buffer distance. However, those resources within the 500-ft. buffer distance are most likely to be potentially affected by the proposed project. These resources include: BD00060 (Fort Lauderdale Canoe); and BD02265, BD02266, BD02270, BD02274, BD02304, BD02272, BD02322, BD02324, and BD02325 (all historic structures). Several of which were evaluated as eligible for listing in the National Register of Historic Places.

Additional Comments (optional): Some portions of the project area have been surveyed for historic resources. However, so areas have not. These areas should be identified and subject to a systematic cultural resources assessment survey prior to project construction. The results of the survey should be forwarded to our office for review and comment prior to any ground disturbing activities.

FDOT District 1 Feedback to FL Department of State's Review (07/28/2004): A Cultural Resources Assessment Survey will be completed as part of the Project Development phase, which will capture any historic properties in the project area.

The following organization(s) were expected to but did not submit a review of the Historic and Archaeological Sites issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Recreation Areas Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 4

Comments: FHWA review indicates potential effects to recreation areas is minimal to none.

During the Project Development phase of the project, the FDOT will focus on avoidance and minimization on recreation areas. A Section 4 (f) Determination of Applicability may be completed as part of the Project Development Phase if there are any effects to recreational trails.

ETAT Reviews: Recreation Areas Issue: 1 found

2 *Minimal to None* assigned 05/17/2005 by Nahir Detizio, Federal Highway Administration

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Recreational Trails intercepting or adjacent to the project.

Comments on Effects to Resources: Temporary and permanent effects should be evaluated as impacts may be subject to a Section 4(f) determination of applicability.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Recreation Areas issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Section 4(f) Potential Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 4

Comments: FHWA review indicates potential effects to recreation areas is minimal to none.

During the Project Development phase of the project, the FDOT will focus on avoidance and minimization on recreation areas. A Section 4(f) Determination of Applicability may be completed as part of the Project Development Phase if there are any effects to recreational trails.

ETAT Reviews: Section 4(f) Potential Issue: 1 found

2 *Minimal to None* assigned 05/17/2005 by Nahir Detizio, Federal Highway Administration

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Recreational Trails intercepting or adjacent to the project.

Comments on Effects to Resources: Temporary and permanent project impacts should be evaluated. A Section 4(f) determination of applicability might be required.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Section 4(f) Potential issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

ETAT Reviews and Coordinator Summary: Community Issues

Coordinator Summary: Aesthetics Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 1

Comments: FDOT review indicates the degree of effect to Aesthetics is minimal to none.

ETAT Reviews: Aesthetics Issue: 1 found

2 *Minimal to None* assigned 07/05/2004 by Jorge Padron, FDOT District 4

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: None found.

Comments on Effects to Resources: This project will not have an impact on the aesthetic resources in this area.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Aesthetics issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Economic Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 1

Comments: FDOT review indicates the degree of effect to Economics is minimal to none.

ETAT Reviews: Economic Issue: 1 found

2 *Minimal to None* assigned 07/05/2004 by Jorge Padron, FDOT District 4

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Bus Transit Routes within 100 ft.: Bay Winds -Western Downtown Boca.

A variety of land uses are found adjacent to this project.

500 ft: Development REGIONAL Impact: Grocer Center

1 mile: Bus Transit Routes: PGG Mall to Town.

Air Transportation facilities and Airport Runways.

Amtrak Station.

Comments on Effects to Resources: I-95 is a major connector between Northern Broward County/Southern Palm Beach Counties and serves Boca Raton Airport, Florida Atlantic University, Fort Lauderdale-Hollywood International Airport, Palm Beach International Airport, major shopping malls and business centers. It seems that there will be no economic impacts to the resources identified by the GIS database with the Environmental Screening Tool.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Economic issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Land Use Issue

2 *Minimal to None* assigned 12/16/2004 by FDOT District 1

Comments: ETAT review indicates the degree of effect to land use is minimal to none.

ETAT Reviews: Land Use Issue: 2 found

2 *Minimal to None* assigned 07/05/2004 by Jorge Padron, FDOT District 4

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: Existing Land Use within 100 ft. of the project limits is 91.1% Roads and Highways, 5.1% fixed single family units, Multiple Dwelling Units (1% two stories or less), (0.8% three stories or less), and 0.2 Educational Facilities.

Comments on Effects to Resources: The project is compatible with the land use plans and local growth management policies and should no have any significant Land Use issues for this corridor.

Coordinator Feedback: None

2 *Minimal to None* assigned 06/24/2004 by Ken Metcalf, FL Department of Community Affairs

Coordination Document: *The "Coordination Document" option was not available at the time of the review.*

Identified Resources and Level of Importance: None found.

Comments on Effects to Resources: None found.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Land Use issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Mobility Issue

1 *Enhanced* assigned 12/16/2004 by FDOT District 1

Comments: FDOT review indicates the degree of effect to Mobility is enhanced.

ETAT Reviews: Mobility Issue: 1 found

1 Enhanced assigned 07/05/2004 by Jorge Padron, FDOT District 4

Coordination Document: The "Coordination Document" option was not available at the time of the review.

Identified Resources and Level of Importance: None found.

Comments on Effects to Resources: Due to the area's substantial growth in population and employment the widening of I-95 will improve the mobility of people and goods since I-95 is the major north-south transportation arterial within and beyond the region and also serves as a hurricane evacuation route.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Mobility issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Relocation Issue

2 Minimal to None assigned 12/16/2004 by FDOT District 1

Comments: FDOT review indicates the degree of effect to relocation is minimal to none.

ETAT Reviews: Relocation Issue: 1 found

2 Minimal to None assigned 07/05/2004 by Jorge Padron, FDOT District 4

Coordination Document: The "Coordination Document" option was not available at the time of the review.

Identified Resources and Level of Importance: None found.

Comments on Effects to Resources: The widening of I-95 will have no relocation impacts to business, communities, or residents in proximity to the project.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Relocation issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Coordinator Summary: Social Issue

2 Minimal to None assigned 12/16/2004 by FDOT District 1

Comments: FDOT review indicates the degree of effect to social is minimal to none. However, during the project development phase a more detailed Sociocultural effects evaluation and public involvement program will be conducted to identify community issues and concerns.

ETAT Reviews: Social Issue: 1 found

2 Minimal to None assigned 07/05/2004 by Jorge Padron, FDOT District 4

Coordination Document: The "Coordination Document" option was not available at the time of the review.

Identified Resources and Level of Importance: The following resources were identified within:

100ft: Rand Surgical Pavilion Corporation, Pompano Rehab & Nursing Center.

Petroleum Tanks located at Broward County School Board-Teeder ES and SDK Properties. Proposed Recreational Trails: Boca Raton Trails 2003.

Social Service facilities: Pompano Rehabilitation and Nursing Center.

Florida Site File Archeological or Historic Sites: 1.2 acres/ 0.4% Aboriginal boat.

200 ft: Petroleum Tanks located at several locations.

Bright Horizons, Tedder Elementary School, Tedder School.

Florida Site File Historic Standing Structures located within the project: 517 N.W. 10 Avenue, Cohen, WC & Nettie House.

500 ft: Petroleum Tanks located at several locations.

Prospect Road Railroad Station, Westside Park.

New Vistas Assisted Housing.

Solid Waste Facilities: Ft. Lauderdale Fiveash WPT Sludge Disposal.

Henderson Mental Health Center/The Summit.

The project may have some visual impacts on Greenways project: Multi-use Trails modified by public and private landowner's comments.

1 mile: North Broward Hospital, Humana Hospital Cypress, North ridge General Hospital. Several health, retirement, rehabilitation, and nursing facilities.

Fort Lauderdale Executive Airport, Pompano Beach Airpark, SET Helistop.

Historic Bridges: Hillsboro Canal Bridge.

Comments on Effects to Resources: According to the 2000 Census data by block groups (from 100ft. to 1 mile of the project) no negative social, community impacts or Title VI issues should be anticipated but as the project steps forward. A more intensely Sociocultural effects evaluation and public involvement should be done to identify community issues and concerns during the Project Development Phase.

Coordinator Feedback: None

The following organization(s) were expected to but did not submit a review of the Social issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

ETAT Reviews and Coordinator Summary: Secondary and Cumulative Issues

Coordinator Summary: Secondary and Cumulative Effects Issue

No Summary Degree of Effect Found.

ETAT Reviews: Secondary and Cumulative Effects Issue: None found

The following organization(s) were expected to but did not submit a review of the Secondary and Cumulative Effects issue for this alternative: Not Available. Contact the ETDM Help Desk for assistance.

Eliminated Alternatives

No eliminated alternatives present.

Project Scope

General Project Commitments

No General Project Commitments Found

Required Permits

Permit Name	Type	Review Date
Environmental Protection Agency Sole Source Aquifer Review	Federal	07/06/05
Environmental Resource Permit	Water	07/06/05
FDEP NPDES General Permit	Other	07/06/05
Section 404 Water Quality Certification	USACE	07/06/05

Required Technical Studies

Technical Study Name	Type	Review Date
Wetlands Evaluation Report	ENVIRONMENTAL	05/27/04
Cultural Resource Assessment	ENVIRONMENTAL	06/16/04
Contamination Screening Evaluation Report	ENVIRONMENTAL	06/25/04
Contamination Screening Evaluation Report	ENVIRONMENTAL	10/04/04
Wetlands Evaluation Report	ENVIRONMENTAL	10/04/04
Cultural Resource Assessment	ENVIRONMENTAL	10/04/04

Conditions: During a telephone conversation on August 4, 2004 between Richard Young, Ann Broadwell and Patrick Webster of FDOT and John Wrublik of the USFWS it was agreed that although the degree of effect assigned to wildlife and habitat was minimal to none, because the project is located within the Core Foraging Area of the protected Wood Stork an Endangered Species Technical Memorandum will be prepared to address potential impacts to that species and its foraging areas.

Endangered Species Technical Memorandum	Other	10/04/04
Design Traffic Technical Memorandum	ENGINEERING	07/06/05
Drainage/Pond Siting Report	ENGINEERING	07/06/05
Conceptual Design Roadway Plan Set	ENGINEERING	07/06/05
Typical Section Package	ENGINEERING	07/06/05
Value Engineering Information Report	ENGINEERING	07/06/05
Advance Notification/ICAR Package	ENVIRONMENTAL	07/06/05
Public Involvement Plan	ENVIRONMENTAL	07/06/05
Noise Study Report	ENVIRONMENTAL	07/06/05
Air Quality Report	ENVIRONMENTAL	07/06/05
Public Hearing Transcript	ENVIRONMENTAL	07/06/05
Project Development Summary Report	Other	07/06/05
Permits Application Package	Other	07/06/05
WQIE	Other	07/06/05

Class of Action

Class of Action Determination

Class of Action: Categorical Exclusion with **Lead Agency** Federal Highway Administration

Other Actions: None

Class of Action Signatures

ACCEPTED by Richard Young, FDOT ETDM Coordinator for FDOT District 4 on 08/17/2004

ACCEPTED by Nahir Detizio, Lead Agency ETAT Member for Federal Highway Administration on 11/05/2004

Dispute Resolution Activity Log

No Dispute Actions Found.

Project-Level Hardcopy Maps

No Project-Level Hardcopy Maps Available.

Appendices

Degree of Effect Legend

Legend			
Color Code	Meaning	ETAT	Public Involvement
N/A	Not Applicable / No Involvement	There is no presence of the issue in relationship to the project, or the issue is irrelevant in relationship to the proposed transportation action.	
0	None (after 12/5/2005)	The issue is present, but the project will have no impact on the issue; project has no adverse effect on ETAT resources; permit issuance or consultation involves routine interaction with the agency. The <i>None</i> degree of effect is new as of 12/5/2005.	No community opposition to the planned project. No adverse effect on the community.
1	Enhanced	Project has positive effect on the ETAT resource or can reverse a previous adverse effect leading to environmental improvement.	Affected community supports the proposed project. Project has positive effect.
2	Minimal	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
2	Minimal to None (assigned prior to 12/5/2005)	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.
3	Moderate	Agency resources are affected by the proposed project, but avoidance and minimization options are available and can be addressed during development with a moderated amount of agency involvement and moderate cost impact.	Project has adverse effect on elements of the affected community. Public Involvement is needed to seek alternatives more acceptable to the community. Moderate community interaction will be required during project development.
4	Substantial	The project has substantial adverse effects but ETAT understands the project need and will be able to seek avoidance and minimization or mitigation options during project development. Substantial interaction will be required during project development and permitting.	Project has substantial adverse effects on the community and faces substantial community opposition. Intensive community interaction with focused Public Involvement will be required during project development to address community concerns.
5	Potential Dispute (Planning Screen)	Project may not conform to agency statutory requirements and may not be permitted. Project modification or evaluation of alternatives is required before advancing to the LRTP Programming Screen.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.
5	Dispute Resolution (Programming Screen)	Project does not conform to agency statutory requirements and will not be permitted. Dispute resolution is required before the project proceeds to programming.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.
	No ETAT Consensus	ETAT members from different agencies assigned a different degree of effect to this project, and the ETDM coordinator has not assigned a summary degree of effect.	
	No ETAT Reviews	No ETAT members have reviewed the corresponding issue for this project, and the ETDM coordinator has not assigned a summary degree of effect.	

GIS Analyses

Since there are so many GIS Analyses available for Project #3330 - I-95 add lanes and reconstruct - Commercial to Glades , they have not been included in this ETDM Summary Report. GIS Analyses, however, are always available for this project on the Public ETDM Website. Please click on the link below (or copy this link into your Web Browser) in order to view detailed GIS tabular information for this project:

<http://etdmpub.fl-a-etat.org/est/index.jsp?tpID=3330&startPageName=GIS%20Analysis%20Results>

Special Note: Please be sure that when the GIS Analysis Results page loads, the **Programming Screen Summary Report Published on 09/29/2005 Milestone** is selected. GIS Analyses snapshots have been taken for Project #3330 at various points throughout the project's life-cycle, so it is important that you view the correct snapshot.

Project Attachments

Note: Attachments are not included in this Summary Report, but can be accessed by clicking on the links below:

Date	Type	Size	Link / Description
	Ancillary Project Documentation	951 KB	http://etdmpub.fl-a-etat.org/est/servlet/blobViewer?blobID=69
	Photo	1.29 MB	http://etdmpub.fl-a-etat.org/est/servlet/blobViewer?blobID=148



Appendix D

Design Exceptions and Variations Memorandum



Technical Memorandum

Date: July 1, 2013

To: Henry Oaikhena, PE
Paola Riveros, PE
FDOT Project Manager

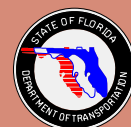
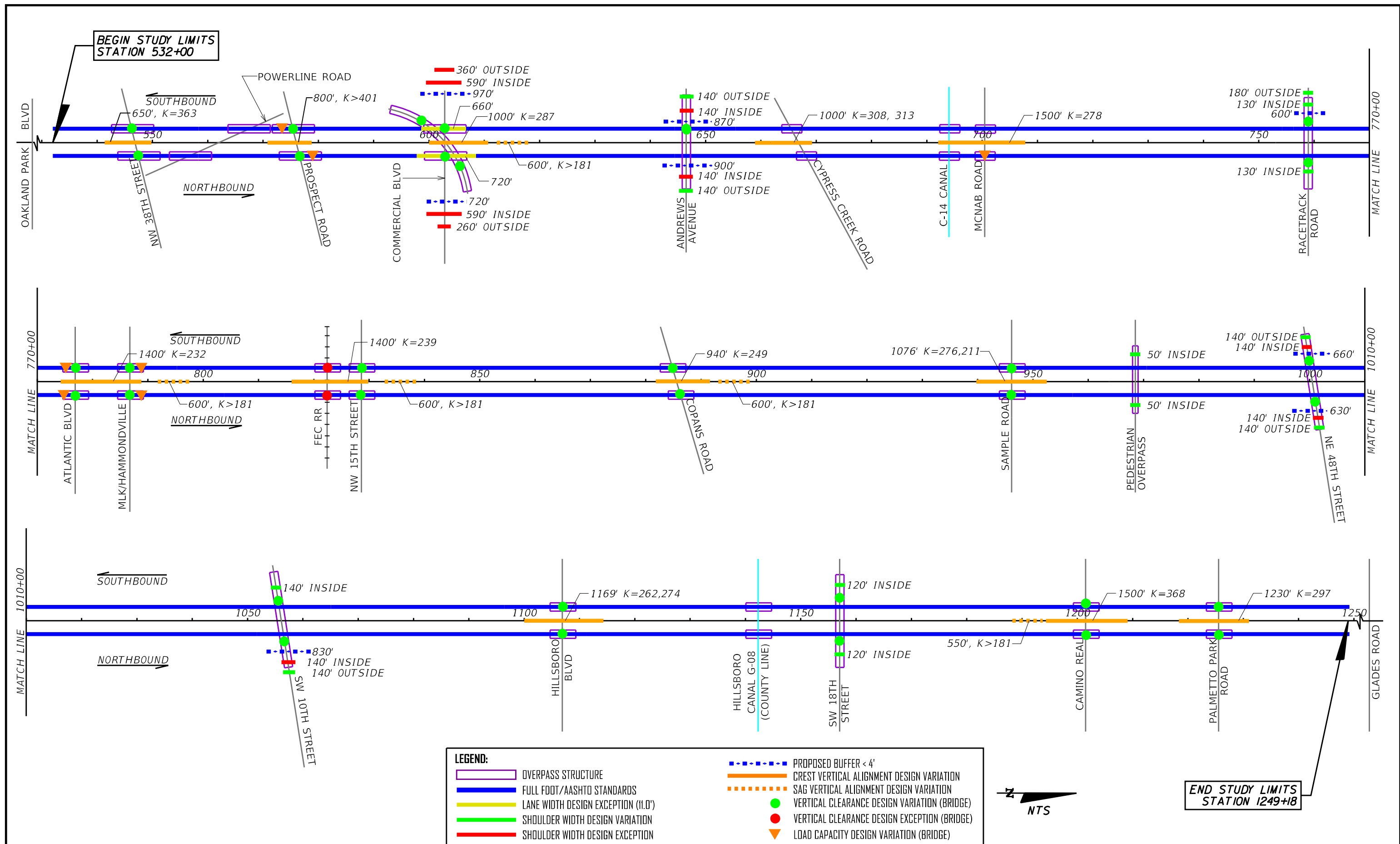
From: Ryan Solis-Rios, PE, PTOE
Consultant Project Engineer

Project: I-95 PD&E Study
FPID: 409359-1-22-01 and 409355-1-22-01
Broward and Palm Beach Counties, Florida

I. OVERVIEW

As requested, this memorandum documents a summary of the design exceptions and design variations, within the project limits, that were submitted in the Preliminary Engineering Report.

The recommended alternative proposes to widen the existing corridor typical section approximately 14 feet on each side within the existing right of way. Based on the preliminary design developed for this PD&E study, it was determined that design exceptions and variations will be required in order to implement the recommended alternative typical section. **Figure 1.1** and **Tables 1.1 – 1.4** summarize the design exceptions and variations within the project limits including each design element, criteria, proposed design and location.



FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES

March 2013



I-95 (SR 9) PD&E STUDY
 FPID: 409359-I-22-01 (BROWARD COUNTY)
 FPID: 409355-I-22-01 (PALM BEACH COUNTY)
 ETDM: 3330

**RECOMMENDED ALTERNATIVE
DESIGN EXCEPTIONS AND DESIGN VARIATIONS SUMMARY**

FIGURE I.1

PAGE 2



II. DESIGN EXCEPTIONS

A design exception is required when a proposed design element does not meet FDOT and AASHTO new construction criteria. A design exception will be required for the following elements:

- Vertical Clearance
- Shoulder Width
- Lane Width

Vertical Clearance – According to Volume I, Chapter 2, Section 2.10, Table 2.10.1 of the PPM, the required minimum vertical clearance for bridges over a railroad is 23'-6". According to Chapter 8 of the 2004 AASHTO, A Policy on Geometric Design of Highways and Streets, Page 522, it is required to provide a minimum vertical of 23 feet for bridges over a railroad.

A total of two bridges will require a vertical clearance design exception (see **Table 1.1** and **Figure 1.1**).

The vertical clearance design exceptions are required in order to maintain the existing bridges and avoid the reconstruction of the I-95 corridor. Replacing and/or jacking up the bridges to meet the vertical clearance requirements would require a change in the I-95 profile grade line upstream and downstream from the subject bridges. Both bridges currently have a substandard vertical clearance. The Build Alternative proposes to maintain the existing vertical clearance of these bridges.

Shoulder Width – According to Volume I, Chapter 2, Table 2.3.1 of the PPM, the required minimum inside and outside shoulder width is 12 feet for freeways with six or more lanes without shoulder gutter. According to Chapter 8 of the 2004 AASHTO, A Policy on Geometric Design of Highways and Streets, Page 505 and 814, it is required to provide a minimum inside and outside shoulder width of 10 feet for freeways with six or more lanes. Where auxiliary lanes are provided along the freeway segment, the adjacent shoulder minimum width is 6 feet.

A total of four locations throughout the corridor will require shoulder width design exceptions (see **Table 1.1** and **Figure 1.1**). The shoulder width design exceptions (a total of 9) are required in order to avoid reconstructing the Commercial Boulevard



Interchange, Andrews Avenue Overpass, NE 48th Street Overpass and SW 10th Street Interchange. The existing footprint under these structures over I-95 cannot accommodate the proposed roadway typical section.

Lane Width – According to *Volume I, Chapter 2, Table 2.1.1 of the PPM*, the required lane width is 12 feet for through or travel lanes on an urban freeway. According to *Chapter 8 of the 2004 AASHTO, A Policy on Geometric Design of Highways and Streets, Pages 504 and 814*, it is required to provide a minimum travel lane width of 12 feet for freeways.

A total of two locations will require a lane width design exception (see **Table 5.27** and **Figure 5.18**). The design exceptions are required in order to avoid reconstructing the Commercial Boulevard Interchange. The existing footprint under the westbound Commercial Boulevard to southbound I-95 flyover structure over I-95 cannot accommodate the proposed roadway typical section.

Table 1.1 Design Exceptions Summary				
Design Element	Existing-to-Remain	Proposed	AASHTO Criteria	Comments
Design Exception				
Vertical Clearance	2		Over Railroad: 23 feet	<u>Bridge Structures:</u> FEC Railroad NB: 22'-0" FEC Railroad SB: 22'-6"
Shoulder Width	2	7	12 feet	<u>Inside Shoulders</u> Commercial Boulevard NB: 6' Commercial Boulevard SB: 2.5' Andrews Avenue NB: 8' Andrews Avenue SB: 8' NE 48th Street NB: 8' NE 48th Street SB: 8' SW 10th Street NB: 8' <u>Outside Shoulders</u> Commercial Boulevard NB: 8' Commercial Boulevard SB: 4.5'
Lane Width		2	12 feet	Express Lanes only over Commercial Boulevard NB: 11' Express Lanes only over Commercial Boulevard SB: 11'

Note: Northbound lanes and southbound lanes counted separately.
FDOT standards are more conservative when compared to AASHTO standards.
NB – Northbound
SB – Southbound



III. DESIGN VARIATIONS

A design variation is required when a proposed design element does not meet the FDOT criteria, but does meet the AASHTO new construction criteria. A design variation will be required for the following elements:

- Border Width
- Vertical Alignment
- Vertical Clearance
- Shoulder Width
- Structural Load Capacity

Border Width – According to Volume I, Chapter 2, Table 2.5.3 of the PPM, the required border width is 94 feet for freeways and interchange ramps. AASHTO does not provide border width criteria for freeways.

There are multiple locations that will require a border width design variation (see **Table 1.2, Table 1.3 and Table 1.4**), therefore, this PD&E study prepared a corridor-wide design variation. Border width is measured from the edge of the outside traffic lane to the right of way line. The design variation is required in order to avoid negatively impacting the existing communities adjacent to the corridor, the corridor interchanges, and to avoid right of way acquisition. Border width is intended to accommodate roadside design components such as signing, lighting, drainage features, guardrail, fencing and clear zone. Border width also provides space for construction, corridor maintenance, permitted public utilities and noise walls.

The proposed restricted border width will not affect the ability to provide adequate signing, noise walls, drainage and lighting, and will provide ample space for construction and maintenance access. Barrier wall and guardrail systems will be utilized for the areas of reduced border width to provide adequate protection where proper clear zone widths cannot be obtained. Therefore, this design variation will not adversely affect the safety and operation characteristics of this facility.



Table 1.2 Summary of Existing Border Width - Mainline				
Roadway Section	Border Width (feet)		Border Width Required	
	Northbound	Southbound		
Oakland Park Boulevard - NW 39 th Street/ NW 38 th Street	77-81	27-114	94	DV
NW 39 th Street/ NW 38 th Street - Powerline Road	82	98	94	DV*
Powerline Road - Prospect Road	82	99	94	DV*
Prospect Road - Commercial Boulevard	34-82	28-102	94	DV
Commercial Boulevard - Andrews Avenue	20-114	58-112	94	DV
Andrews Avenue - Cypress Creek Road	48-86	62-186	94	DV
Cypress Creek Road - McNab Road	125-186	108-111	94	✓
McNab Road - SW 3 rd Street	76-128	61-170	94	DV
SW 3 rd Street - NW 15 th Street	31-76	69-112	94	DV
NW 15 th Street - Copans Road	40-99	50-80	94	DV
Copans Road - Sample Road	59-119	37-81	94	DV
Sample Road - NW 48 th Street	73-92	33-96	94	DV
NW 48 th Street - SW 10 th Street	71-73	27-41	94	DV
SW 10 th Street - Hillsboro Boulevard	56-86	40-42	94	DV
Hillsboro Boulevard - Palmetto Park Road	72-108	31-132	94	DV
Palmetto Park Road- Glades Road	67-136	54-60	94	DV

Source: Project Survey

DV = Design Variation

✓ = Meets required criteria

* = Northbound Only



Table 1.3 Summary of Existing Border Width - Interchanges						
Interchange	Border Width (feet)				Border Width Required	
	NW ¹	NE ¹	SW ¹	SE ¹		
Commercial Boulevard	69-73	29-117	77-105	33-94	94	DV
Cypress Creek Road	89-214	98-231	18-91	40-93	94	DV*
Atlantic Boulevard	30-129	33-81	30-51	39-84	94	DV
Copans Road	48-50	48-118	50-89	79-112	94	DV
Sample Road	40-58	80-88	57-99	37-118	94	DV
SW 10 th Street	30-72	-	21-103	17-159	94	DV
Hillsboro Boulevard	27-49	45-103	41-51	44-78	94	DV
Palmetto Park Road	46-169	45-81	75-91	57-72	94	DV

Source: Project Survey,

Note: ¹Interchange Quadrant

DV = Design Variation

* = Excludes NE quadrant

Vertical Alignment – According to *Volume I, Chapter 2, Table 2.8.5, Page 2-48 and Table 2.8.6, Page 2-49 of the PPM*, the required K-value for crest vertical curves is 401 for interstates with a design speed of 65 MPH, the minimum crest vertical curve length is 1,000 feet for open highway and 1,800 feet within interchanges on an interstate facility. Also, the required K-value for sag vertical curves is 181 and the minimum sag vertical curve length is 800 for an interstate facility. Each vertical curve must satisfy the K-value and minimum lengths. According to *Chapter 3 of the 2004 AASHTO, A Policy on Geometric Design of Highways and Streets, Page 272 and 277* it is required to provide a minimum K-value for crest vertical curves of 193 and a minimum K-value for sag vertical curves of 157 for interstates with a design speed of 65 MPH. AASHTO does not provide vertical curve length criteria for freeways.

Some of the vertical curves throughout the corridor will not meet the vertical alignment minimum requirements in accordance with the PPM (see **Table 1.4** and **Figure 1.1**).



- 22 crest curves (11 northbound and 11 southbound) will not meet the minimum FDOT K-value.
- 18 crest curves (9 northbound and 9 southbound) will not meet the minimum FDOT crest curve length.
- 10 sag curves (5 northbound and 5 southbound) will not meet the minimum FDOT sag curve length.

The design variations are required in order to maintain the existing corridor vertical profile and avoid the reconstruction of the I-95 corridor. Reconstructing the corridor to meet the vertical alignment requirements would require raising the existing bridge structures and a change in the I-95 profile grade line upstream and downstream from the subject bridges. All listed deficiencies currently exist along the corridor. The Build Alternative proposes to maintain the existing vertical alignment of the corridor except for the three locations. These three locations are planned to be reconstructed as part of the corridor improvements.

Vertical Clearance – According to Volume I, Chapter 2, Section 2.10, Table 2.10.1 of the PPM, the required minimum vertical clearance for bridges over roadways is 16'-6". According to Chapters 8 and 10 of the 2004 AASHTO, A Policy on Geometric Design of Highways and Streets, Pages 506, 507, 763 and 764, it is required to provide a minimum vertical clearance of 16 feet for bridges over roadways. In highly developed urban areas, a minimum clearance of 14 feet is acceptable if there is an alternate route with a minimum vertical clearance of 16 feet.

Data collected from survey field work and as-built bridge plans indicated that a total of 20 bridges will not meet the FDOT and AASHTO minimum vertical clearance criteria and 8 bridges will not meet the FDOT minimum vertical clearance criteria (see **Table 1.4** and **Figure 1.1**). Based on the proposed alternative, these bridges will be maintained with the existing vertical clearances. Vertical clearance design variations are required in order to preserve the existing bridges and avoid the reconstruction of the I-95 corridor. Replacing and/or jacking up the bridges to meet the vertical clearance requirements will require a change in the I-95 profile grade line upstream and downstream from the subject bridges. All of these bridges currently have a substandard vertical clearance. The proposed alternative proposes to widen most of these bridges while maintaining the existing vertical clearance by utilizing a shallower beam girder design.



An evaluation of potential alternate routes determined that the 20 bridges not meeting the FDOT and AASHTO minimum vertical clearance criteria have potential alternate routes between 0.35 and 2 miles away from the subject bridge. Therefore, a design exception for these bridges is not needed.

Shoulder Width – According to Volume I, Chapter 2, Table 2.3.1 of the PPM, the required minimum inside and outside shoulder width is 12 feet for freeways with six or more lanes without shoulder gutter. According to Chapter 8 of the 2004 AASHTO, A Policy on Geometric Design of Highways and Streets, Page 505 and 814, it is required to provide a minimum inside and outside shoulder width of 10 feet for freeways with six or more lanes. Where auxiliary lanes are provided along the freeway segment, the adjacent shoulder minimum width is 6 feet.

A total of 13 locations (seven inside and six outside) will require a shoulder width design variation (see **Table 1.4** and **Figure 1.1**). All seven inside shoulder locations currently have a substandard shoulder width and are located where center bridge piers exist. The existing footprint under these structures over I-95, in most cases, cannot accommodate the proposed typical section. Shoulder width design variations are required in order to avoid reconstructing these bridges and/or to avoid deflecting the mainline corridor for short distances at these selected locations. Multiple short deflections along an interstate facility will impact the flow of traffic creating turbulence that will increase the possibility of sideswipe crashes. The Build Alternative proposes to keep these shoulder width variations in order to avoid reconstructing the bridges and to avoid short distance deflections along the corridor.

Structural Load Capacity – According to the FDOT Structures Design Guidelines, Volume I, Chapter 7 of the Structures Manual, the required Inventory Rating (IR) factor shall be greater than or equal to 1.0 before approving a bridge widening project. This evaluation requires a reanalysis of the bridges to verify the accuracy of the reported load rating values. If the required $IR \geq 1.0$ is not met by the methods described in the structures manual, a load capacity variation will be required to approve the bridge widening. Although AASHTO has the Manual for Bridge Evaluation MBE publication, FDOT uses the Bridge Load Rating Manual which has made modifications to the MBE criteria. According to the FDOT Bridge Load Rating



Manual, Chapter 2, Figure 2.2.1-1, the load rating factor should be greater than or equal to 1.0 for the structures along the corridor.

A total of seven bridges will require a structural load capacity design variation (see **Table 1.4** and **Figure 1.1**). The structural load capacity design variations are required in order to maintain the existing bridges.

Table 1.4 Design Variations Summary				
Design Element	Existing-to-Remain	Proposed	FDOT Criteria	Comments
Design Variation				
Border Width	1		94 feet	Multiple Locations, Corridor-Wide Design Variation
Vertical Alignment	22		K = 401	I-95 at NW 38th Street: 363 I-95 at Commercial Boulevard: 287 I-95 at Cypress Creek Road: 308 and 313 I-95 at McNab Road: 278 I-95 at Atlantic Boulevard: 246 I-95 at NW 15th Street: 239 I-95 at Copans Road: 249 I-95 at Sample Road: 276 and 211 I-95 at Hillsboro Boulevard: 262 and 274 I-95 at Camino Real: 368 I-95 at Palmetto Park Road: 297
	18		<u>Crest Curve Length</u> L Open Highway = 1,000' L Within Interchange = 1,800'	<u>Open Highway</u> I-95 at NW 38th Street: 650' I-95 at Prospect Road: 800' <u>Within Interchange</u> I-95 at Commercial Boulevard: 1,000' I-95 at Cypress Creek Road: 1,000' I-95 at Copans Road: 940' I-95 at Sample Road: 1,263' I-95 at Atlantic Boulevard: 1,200' I-95 at Hillsboro Boulevard: 1,400' I-95 at Palmetto Park Road: 1,230'
	10		<u>Sag Curve Length</u> L = 800'	I-95 at Commercial Boulevard: 600' I-95 at Atlantic Boulevard: 600' I-95 at NW 15th Street: 600' I-95 at Copans Road: 600' I-95 at Camino Real: 607'
Vertical Clearance	12	1	Over Roadway: 16'-6"	<u>Locations:</u> Commercial Boulevard Flyover: 16'-5" Andrews Avenue SB: 16'-0" Racetrack Road: 16'-1" MLK/Hammondville Road NB: 16'-4" MLK/Hammondville Road SB: 16'-4" NE 48th Street: 16'-2" SW 10th Street: 16'-2" SW 18th Street: 16'-4"
	20		Over Roadway: 14 feet with alternate routes with 16 feet	<u>Bridge Structures:</u> NW 38th Street NB: 15'-11" NW 38th Street SB: 15'-11" Prospect Road NB: 15'-11" Prospect Road SB: 15'-11" Commercial Boulevard NB: 15'-7" Commercial Boulevard SB: 15'-7" Atlantic Boulevard NB: 15'-2" Atlantic Boulevard SB: 15'-2" NW 15th Street NB: 15'-11" NW 15th Street SB: 15'-11" Copans Road NB: 15'-6" Copans Road SB: 15'-6" Sample Road NB: 15'-0" Sample Road SB: 15'-0" Hillsboro Boulevard NB: 14'-9" Hillsboro Boulevard SB: 14'-8" Camino Real NB: 15'-0" Camino Real SB: 15'-0" Palmetto Park Road NB: 15'-2" Palmetto Park Road SB: 15'-2"
Shoulder Width	7	6	12 feet	These are located along the I-95 median where bridge piers exist: Racetrack Road NB: 10.5' Racetrack Road SB: 10' Pedestrian Overpass NB: 10' Pedestrian Overpass SB: 10' SW 10th Street SB: 10.5' SW 18th Street NB: 10' SW 18th Street SB: 10' <u>Outside Shoulder:</u> Racetrack Road SB: 10' Andrews Avenue NB: 8' Andrews Avenue SB: 8' NE 48th Street NB: 8' NE 48th Street SB: 8' SW 10th Street NB: 8'
Structural Load Capacity		7	IR ≥ 1 OR ≥ 1	Prospect Road NB: 0.84 Prospect Road SB: 0.84 McNab Road NB: 0.92 Atlantic Boulevard NB: 0.70 Atlantic Boulevard SB: 0.70 Hammondville Road NB: 0.83 Hammondville Road SB: 0.83

Notes: Northbound lanes and southbound lanes counted separately.
 FDOT standards are more conservative when compared to AASHTO standards.
 NB - Northbound
 SB - Southbound



FDOT PPM and AASHTO REFERENCES

Table 2.10.1 Vertical Clearances for Bridges

FACILITY TYPE	CLEARANCE ^{1, 4, 6} (FEET)			
	Roadway or Railroad Over Roadway ²	Roadway Over Railroad ^{3, 4, 5}	Pedestrian Over Roadway ²	Pedestrian Over Railroad ³
Freeways, Arterials Collectors & Others	16'-6"	23'-6"	17'-6"	23'-6"
<p>1. Clearance Measurement: The least vertical distance between the bridge structure and the surface of the roadway (traffic lanes and shoulders) or the top of the highest rail.</p> <p>2. Includes Future Underpass Resurfacing: 6" over pavements.</p> <p>3. Includes Rail Resurfacing (Track Raised): 12" for conventional railroads. Others-see footnotes No. 4 and 5, and Section 6.3.5 of this volume.</p> <p>4. Over High Speed Rail Systems: See Department guidelines and specifications for Intermediate Class Rail Operations entitled Standard Specifications for the Design and Construction of Railways.</p> <p>5. Over Electrified Railroad: The minimum vertical clearance shall be 24 feet 3 inches. This provision is based on FDOT Policy for 25 KV service: South Florida Rail Corridor Clearance (Topic No. 000-725-003).</p> <p>6. Clearance Over Waterways: See Department Drainage Manual, Topic No. 625-040-002, Chapter 4 and Section 2.10.1 of this volume.</p>				

an elevated structure is usually on a relatively steep upgrade. Also, trucks need a considerable distance to accelerate to highway speed.

Gore areas at exits from an elevated structure have a higher than normal crash potential. The design should provide as much space in the gore area as practical, not only for recovery but also to permit the installation of an impact-attenuating device.

Frontage Roads

New frontage roads adjacent to viaduct freeways are not generally needed because the local street network is usually not disturbed. The existing parallel and cross streets are usually adequate to provide local circulation and access; however, frontage roads may be needed for use with embankment freeways to provide adequate local circulation and access. Frontage roads are discussed in Chapter 4, which presents their general features and develops their design values.

Clearance to Building Line

The minimum lateral clearance between a freeway viaduct and adjacent buildings may be a significant cross-sectional element. Major factors where buildings are close to the roadway are (1) working space for maintenance and repairs of structure or buildings, (2) space to prevent salt and water spray damage, (3) protective space against possible fire damage, and (4) space for ladders and other fire-fighting equipment to reach upper floors of buildings from the street below. Building offsets should be sufficient to ensure adequate sight distance to signs where the alignment is curvilinear. A clearance of 4.5 to 6.0 m [15 to 20 ft] is recommended to accommodate these space needs. Without such clearance, the use of some fire-fighting equipment, such as mechanically raised ladders, would be hampered. Some of these units might be operable from the elevated freeway.

Roadways directly under the structure are usually needed to accommodate surface traffic, but the cross section elements are not considered as controls where existing right-of-way determines the structure section.

Typical Cross Section

The total widths of elevated freeway sections, as well as the total right-of-way widths in which they are developed, can vary considerably. For elevated freeways on embankments, the total width needed is about the same as the total width needed for depressed freeways. Elevated freeways on structures may be cantilevered over parallel roadways or sidewalks.

The difference in elevation between the local street and the elevated freeway, except in the case of the multi-level viaduct shown in Exhibit 8-9B, should be approximately 6.0 m [20 ft]. The vertical clearance between the local street and the freeway bridge varies with the legal requirements of the various states, but usually ranges from 4.3 to 5.0 m [14 to 16.5 ft]. **Where a railroad is overpassed, a vertical clearance of approximately 7.0 m [23 ft] is needed;** thus, the

Table 2.3.1 Shoulder Widths and Slopes - Freeways

HIGHWAY TYPE		WIDTH (FEET)								SLOPES	
		WITHOUT SHOULDER GUTTER				WITH SHOULDER GUTTER					
		FULL WIDTH		PAVED WIDTH		FULL WIDTH		PAVED WIDTH		NORMAL ₁	
		Outside	Median or Left	Outside	Median or Left	Outside	Median or Left	Outside	Median or Left	Outside	Median or Left
FREWAYS (Lanes One Way)	4-Lane or More	12	12	10	10	15.5	15.5	8	8	0.06	0.06
	3-Lane	12	12	10	10	15.5	15.5	8	8		0.05
	2-Lane	12	8	10	4	15.5	13.5	8	6		
	HOV Lane	N/A ₄	14	N/A ₄	10	N/A ₄	N/A ₄	N/A ₄	N/A ₄	N/A ₄	0.05 ₂
	1-lane Barrier-Separated HOV Lane ₅	6	4 ₅	6	4 ₅	N/A ₄	N/A ₄	N/A ₄	N/A ₄	Same as Lane	Same as Lane ₅
	2-lane Barrier-Separated HOV Lane ₅	10	6 ₅	10	6 ₅	N/A ₄	N/A ₄	N/A ₄	N/A ₄	Same as Lane	Same as Lane ₅
	1-Lane Ramp	6	6	4	2	11.5	11.5	4 ₃	4	0.06	0.05
	2-Lane Ramp Non-Interstate	10	8	8	4	15.5	13.5	8	6		
	2-Lane Ramp Interstate	12	8	10	4	15.5	13.5	8	6		
	C-D Road 1-Lane	6	6	4	2	11.5	11.5	4	4		
	C-D Road 2-Lane	12	8	10	4	15.5	13.5	8	6		
	C-D Road 3-Lane	12	12	10	10	15.5	15.5	8	8		
	C-D Road > 3-Lane	12	12	10	10	15.5	15.5	8	8		0.06
	Auxiliary Lane Climbing & Weaving	12	N/A ₄	10	N/A ₄	15.5	N/A ₄	8	N/A ₄		N/A ₄
	Auxiliary Lane Mainline Terminal: 1-Lane Ramp	12	N/A ₄	10	N/A ₄	15.5	N/A ₄	8	N/A ₄		N/A ₄
2-Lane Ramp	12	N/A ₄	10	N/A ₄	15.5	N/A ₄	8	N/A ₄	N/A ₄		
Frontage Road	See COLLECTORS Table 2.3.4. For local roads and streets see the FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways.										

1. Shoulders shall extend 4 ft. beyond the back of shoulder gutter and at a 0.06 slope back toward the gutter.

2. 0.06 when 4 lanes or more combined.

3. Shoulder pavement less than 6 ft. in width that adjoins shoulder gutter shall be the same type, depth and slope as the ramp pavement.

4. This does not mean that a shoulder is unnecessary; rather, shoulder is not typically present at this location (i.e., it is not required when adjacent to the through lane).

5. If median side of HOV lane is not barrier-separated, use median shoulder requirements for a standard HOV lane. Refer to AASHTO's *Guide for High-Occupancy Vehicle Facilities* for additional information.

- Shoulders shall extend 4 ft. beyond the back of shoulder gutter and at a 0.06 slope back toward the gutter.
- 0.06 when 4 lanes or more combined.
- Shoulder pavement less than 6 ft. in width that adjoins shoulder gutter shall be the same type, depth and slope as the ramp pavement.
- This does not mean that a shoulder is unnecessary; rather, shoulder is not typically present at this location (i.e., it is not required when adjacent to the through lane).
- If median side of HOV lane is not barrier-separated, use median shoulder requirements for a standard HOV lane. Refer to AASHTO's **Guide for High-Occupancy Vehicle Facilities** for additional information.

Paved shoulders should be continuous on both the right and left sides of all freeway facilities. The usable paved width of the right shoulder should be at least 3.0 m [10 ft]; where the DDHV for truck traffic exceeds 250 veh/h, the right shoulder width should be 3.6 m [12 ft]. On four-lane freeways, the median (or left) shoulder is normally 1.2 to 2.4 m [4 to 8 ft] wide, at least 1.2 m [4 ft] of which should be paved and the remainder stabilized. On freeways of six or more lanes, the usable paved width of the median shoulder should also be 3.0 m [10 ft] and preferably 3.6 m [12 ft] where the DDHV for truck traffic exceeds 250 veh/h. Ramp shoulder widths are usually constructed adjacent to acceleration and deceleration lanes with transitions to the freeway shoulder width at the taper ends. Shoulder cross slope should range between 2 and 6 percent and can be at least 1 percent greater than the pavement cross slope on tangent sections to facilitate drainage. To provide visual contrast, the color or texture of the shoulders should be different from that of the traveled way. On viaducts, differentiation between traveled way and shoulders is sometimes accomplished by striping and pavement marking, or by corrugated depressions.

Curbs

In the interest of safety, caution should be exercised in the use of curbs on freeways; where curbs are provided in special cases, they should not be closer to the traveled way than the outer edge of shoulder and should be easily traversable. An example of a special case in which shoulder curbs are used on freeways is at locations where curbs are provided to control drainage and reduce erosion. For more information, refer to the discussion on curb types and their placement in Chapter 4.

Superelevation

The full superelevation rates used on freeways that are depressed, built at ground-level, or elevated on embankments are not generally applicable to elevated freeways on viaducts. Appearance and adjacent development somewhat limit the difference in elevation between the edges of multilane pavements. Superelevation rates of 6 to 8 percent are generally the maximum that should be used on viaducts. The lower value may be used where freezing and thawing conditions are likely, because bridge decks generally freeze more rapidly than other roadway sections. Combinations of design speed and curvature that result in superelevation rates greater than these values should be avoided. Where freeways are intermittently elevated on viaducts, the lower superelevation rates should be used throughout to promote consistently safe operation. Maximum superelevation rates of 8 to 12 percent are applicable for freeways if snow and ice conditions are not a factor. In lower speed situations, a maximum superelevation rate of 6 percent may be applicable.

Grades

Maximum grades for freeways are presented in Exhibit 8-1 as a function of design speed and terrain type. Grades on urban freeways should be comparable to those on rural freeways of the same design speed. Steeper grades may be tolerated in urban areas, but the closer spacing of

accommodate traffic pattern variations at interchanges, and for simplification of operations (as reducing lane changing). The principles of lane balance should be applied in the use of auxiliary lanes. In this manner, the appropriate balance between traffic load and capacity is provided, and lane balance and operational flexibility are realized.

Design details of multilane ramp terminals with auxiliary lanes are covered below in the section on "Auxiliary Lanes."

Auxiliary Lanes

An auxiliary lane is defined as the portion of the roadway adjoining the traveled way for speed change, turning, storage for turning, weaving, truck climbing, and other purposes supplementary to through-traffic movement. The width of an auxiliary lane should be equal to the through lanes. An auxiliary lane may be provided to comply with the concept of lane balance, to comply with capacity needs, or to accommodate speed changes, weaving, and maneuvering of entering and leaving traffic. Where auxiliary lanes are provided along freeway main lanes, the adjacent shoulder should desirably be 2.4 to 3.6 m [8 to 12 ft] in width, with a minimum 1.8 m [6 ft] wide shoulder considered.

Operational efficiency may be improved by using a continuous auxiliary lane between the entrance and exit terminals where (1) interchanges are closely spaced, (2) the distance between the end of the taper on the entrance terminal and the beginning of the taper on the exit terminal is short, and/or (3) local frontage roads do not exist. An auxiliary lane may be introduced as a single exclusive lane or in conjunction with a two-lane entrance. The termination of the auxiliary lane may be accomplished by several methods. The auxiliary lane may be dropped in a two-lane exit, as illustrated in Exhibit 10-51A. This treatment complies with the principles of lane balance. Some agencies prefer to drop the auxiliary lane in a single-lane exit, as illustrated in Exhibit 10-51B. This treatment is in accordance with the exceptions listed under Principle 2 of lane balance as presented in the earlier section on "Coordination of Lane Balance and Basic Number of Lanes." Another method is to carry the full-width auxiliary lane to the physical nose before it is tapered into the through roadway. This design provides a recovery lane for drivers who inadvertently remain in the discontinued lane (see Exhibit 10-51C). When these methods of terminating the auxiliary lane (Exhibits 10-51B and Exhibit 10-51C) are used, the exit gore should be visible throughout the length of the auxiliary lane.

If local experience with single-exit design indicates problems with turbulence in the traffic flow caused by vehicles attempting to recover and proceed on the through lanes, the recovery lane should be extended 150 to 300 m [500 to 1,000 ft] before being tapered into the through lanes (see Exhibit 10-51D). Within large interchanges, this distance should be increased to 450 m [1,500 ft]. When an auxiliary lane is carried through one or more interchanges, it may be dropped as indicated above, or it may be merged into the through roadway approximately 750 m [2,500 ft] beyond the influence of the last interchange (see Exhibit 10-51E).

When interchanges are widely spaced, it might not be practical or necessary to extend the auxiliary lane from one interchange to the next. In such cases, the auxiliary lane originating at a

2.1 Lanes

Florida Department of Transportation (FDOT) criteria for lane widths and pavement slopes are given by highway type and area, through lanes, auxiliary lanes and other special lanes.

2.1.1 Through or Travel Lanes

Standard practice is to provide lane widths as wide as practical, up to 12 feet. See **Table 2.1.1**.

Table 2.1.1 Lane Widths

LANE WIDTHS (FEET)						
FACILITY		THROUGH OR TRAVEL	AUXILIARY			
TYPE	AREA		SPEED CHANGE	TURNING (LT/RT/MED)	PASSING	CLIMBING
FREEWAY	Rural	12	12	----	----	12
	Urban	12	12	----	----	12
ARTERIAL	Rural	12	12	12	12	12
	Urban	12 ₁	12 ₁	12 _{1,4}	12 ₁	12
COLLECTOR	Rural	12 ₆	11 ₂	11 _{2,4}	11 _{2,5}	12
	Urban	11 ₃	11 ₃	11 _{3,4}	11 ₃	12

1. 11 ft. permitted on non-FIHS/SIS roads if one of these conditions exist:

- a. R/W and existing conditions are stringent controls
- b. Facility operates on interrupted flow conditions
- c. Design speed 40 mph or less
- d. Intersection capacity not adversely affected
- e. Truck volume 10% or less

2. 12 ft. lanes for all 2-lane rural.

3. 12 ft. lanes in industrial areas when R/W is available.

4. With severe R/W controls, 10 ft. turning lanes may be used where design speeds are 40 mph or less and the intersection is controlled by traffic signals. Median turn lanes shall not exceed 15 ft.

5. 12 ft. when truck volume more than 10%.

6. 11 ft. for low volume AADT.

Design Traffic Volumes

Both urban and rural freeways should normally be designed to accommodate traffic projections for a 20-year period, particularly in the case of new construction. However, some elements of freeway reconstruction may be based on a lesser design period. For further guidance on the selection of appropriate periods for forecasting design traffic volumes, refer to Chapter 2. Specific capacity needs should be determined from directional design hourly volumes (DDHV) for the appropriate design period. In large metropolitan areas, the selection of appropriate design traffic volumes and design periods may be influenced by system planning. Segments of freeways may be constructed or reconstructed to be commensurate with either intermediate traffic demands or traffic based on the completed systems, whichever may be most appropriate.

Levels of Service

Procedures for traffic operational analyses for freeways, including appropriate adjustments for operational and highway factors, are found in the *Highway Capacity Manual* (HCM) (1), which also presents a thorough discussion of the level-of-service concept. Designers should strive to provide the highest level of service practical and consistent with anticipated conditions. The levels of service concept is discussed in Chapter 2 and the levels of service are summarized in Exhibit 2-31. For acceptable degrees of congestion, freeways and their auxiliary facilities (i.e., ramps, mainline weaving sections, and collector-distributor (C-D) roads in urban and developing areas) should generally be designed for level-of-service C. In heavily developed sections of metropolitan areas, achievement of level-of-service C may not be practical and the use of level-of-service D may be appropriate. In rural areas, level-of-service B is desirable for through and auxiliary lanes, although level-of-service C may be acceptable on auxiliary facilities carrying unusually high volumes.

Pavement and Shoulders

Freeways should have a minimum of two through-traffic lanes for each direction of travel. **Through-traffic lanes should be 3.6 m [12 ft] wide.** Pavements should have a high-type surface with adequate skid resistance and provide a high degree of structural adequacy. Cross slopes should range between 1.5 and 2 percent on tangent sections, with the higher value recommended for areas with moderate rainfall. For areas of heavy rainfall, a cross slope of 2.5 percent may be needed to provide adequate pavement drainage. Appropriate cross-slope rates are discussed in Chapter 4. For elevated freeways on viaducts, two-lane pavements usually are sloped to drain the full width of the roadway. On wider facilities, particularly in areas with heavy rainfall, the crown may be located on the lane line at one-third or one-half the total width from one edge, thus providing two directions for surface drainage. In areas that experience snow, the median and cross slopes of the traveled way should be designed to prevent snow stored in the median from melting and draining across the roadway. This may result in icing conditions during freezing temperatures.

accommodate traffic pattern variations at interchanges, and for simplification of operations (as reducing lane changing). The principles of lane balance should be applied in the use of auxiliary lanes. In this manner, the appropriate balance between traffic load and capacity is provided, and lane balance and operational flexibility are realized.

Design details of multilane ramp terminals with auxiliary lanes are covered below in the section on "Auxiliary Lanes."

Auxiliary Lanes

An auxiliary lane is defined as the portion of the roadway adjoining the traveled way for speed change, turning, storage for turning, weaving, truck climbing, and other purposes supplementary to through-traffic movement. The width of an auxiliary lane should be equal to the through lanes. An auxiliary lane may be provided to comply with the concept of lane balance, to comply with capacity needs, or to accommodate speed changes, weaving, and maneuvering of entering and leaving traffic. Where auxiliary lanes are provided along freeway main lanes, the adjacent shoulder should desirably be 2.4 to 3.6 m [8 to 12 ft] in width, with a minimum 1.8 m [6 ft] wide shoulder considered.

Operational efficiency may be improved by using a continuous auxiliary lane between the entrance and exit terminals where (1) interchanges are closely spaced, (2) the distance between the end of the taper on the entrance terminal and the beginning of the taper on the exit terminal is short, and/or (3) local frontage roads do not exist. An auxiliary lane may be introduced as a single exclusive lane or in conjunction with a two-lane entrance. The termination of the auxiliary lane may be accomplished by several methods. The auxiliary lane may be dropped in a two-lane exit, as illustrated in Exhibit 10-51A. This treatment complies with the principles of lane balance. Some agencies prefer to drop the auxiliary lane in a single-lane exit, as illustrated in Exhibit 10-51B. This treatment is in accordance with the exceptions listed under Principle 2 of lane balance as presented in the earlier section on "Coordination of Lane Balance and Basic Number of Lanes." Another method is to carry the full-width auxiliary lane to the physical nose before it is tapered into the through roadway. This design provides a recovery lane for drivers who inadvertently remain in the discontinued lane (see Exhibit 10-51C). When these methods of terminating the auxiliary lane (Exhibits 10-51B and Exhibit 10-51C) are used, the exit gore should be visible throughout the length of the auxiliary lane.

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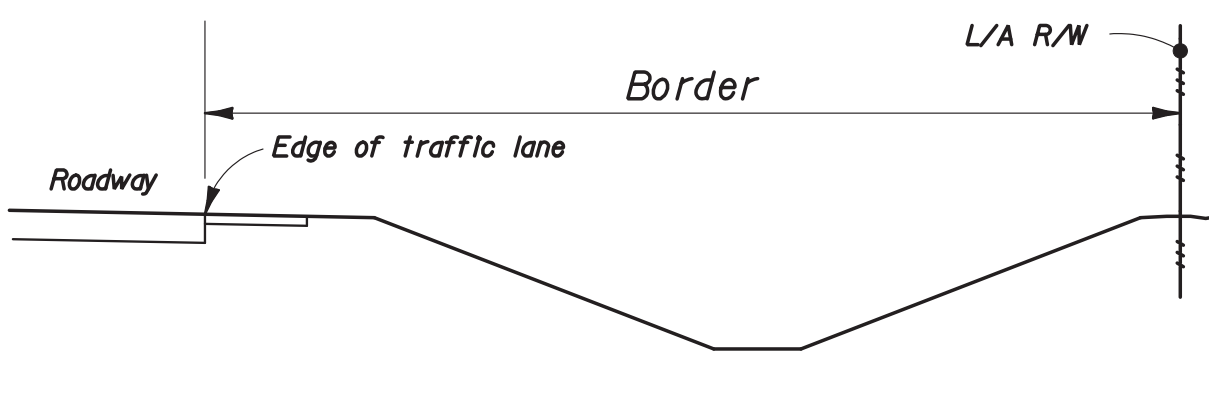
When interchanges are widely spaced, it might not be practical or necessary to extend the auxiliary lane from one interchange to the next. In such cases, the auxiliary lane originating at a

2.5.1 Limited Access Facilities

On limited access facilities, the border is measured from the edge of the outside traffic lane to the right of way line. This width may be reduced in the area of a crossroad terminal, as long as the design meets the requirements for clear zone, horizontal clearance, drainage, maintenance access, etc.

Limited access facilities shall be contained by fencing, or in special cases, walls or barriers. These treatments shall be continuous and appropriate for each location. Treatment height and type may vary under special conditions. The treatment is typically placed at or near the limited access right of way line, but location may be adjusted based on site-specific conditions (i.e., ponds, trees, bridges, etc.). Placement information and additional data is included in the ***Design Standards, Indexes 800, 801, and 802.***

Table 2.5.3 Limited Access Facilities

	
BORDER	
TYPE FACILITY	WIDTH (FEET)
FREEWAYS (INCLUDING INTERCHANGE RAMPS)	94

2.8.2 Vertical Curves

Minimum lengths for crest and sag vertical curves are provided in **Tables 2.8.5 – 2.8.6**. K values for crest vertical curves are based on an eye height of 3.5' and an object height of 6".

**Table 2.8.5 Minimum Lengths of Crest Vertical Curves
Based on Stopping Sight Distance**

K VALUES FOR CREST CURVES						
Design Speed (mph)	Interstate			All Other Facilities		
15	----			5		
20	----			10		
25	----			19		
30	----			31		
35	----			47		
40	----			70		
45	----			98		
50	----			136		
55	245			185		
60	313			245		
65	401			313		
70	506			401		
<div>Length, $L = KA$</div> <div>Where: L = Minimum Length (feet)</div> <div>K = Constant</div> <div>A = Algebraic Difference In Grades (percent)</div>						
K values for crest vertical curves are based on an eye height of 3.5' and an object height of 6".						
Interstates:		Lengths of crest vertical curves on Interstate mainlines are not to be less than 1000 ft. for open highways and 1800 ft. within interchanges.				
Service Interchanges:		K values for ramp crest vertical curves at interstate terminals are not to be less than the Interstate K values. K values for other ramp crest vertical curves are not to be less than the K values for All Other Facilities.				
System Interchanges:		K values for all crest vertical curves on systems interchanges are not to be less than the K values of the higher system.				
Arterials and Collectors:		The minimum lengths of crest vertical curves for highways with design speeds of 50 mph or greater are as follows:				
Design Speed (mph)		50	55	60	65	70
Minimum Length (ft.)		300	350	400	450	500
Low Speed Facilities:		The lengths of crest vertical curves are not to be less than 3 times the design speed (mph) expressed in feet.				

**Table 2.8.6 Minimum Lengths of Sag Vertical Curves
Based on Stopping Sight Distance and Headlight Sight Distance**

K VALUES FOR SAG CURVES		
Design Speed (mph)	Interstate	All Other Facilities
15	----	10
20	----	17
25	----	26
30	----	37
35	----	49
40	----	64
45	----	79
50	----	96
55	136	115
60	157	136
65	181	157
70	206	181
<p>Length, $L = KA$ Where: L = Minimum Length (feet) K = Constant A = Algebraic Difference In Grades (percent)</p>		
Interstates:	Lengths of sag vertical curves on Interstate mainlines are not to be less than 800 ft.	
Service Interchanges:	K values for ramp sag vertical curves at interstate terminals are not to be less than the interstate K values. K values for other ramp sag vertical curves are not to be less than the K values for All Other Facilities.	
System Interchanges:	K values for all sag vertical curves on systems interchanges are not to be less than the K values of the higher system.	
Arterials and Collectors:	The minimum lengths of sag vertical curves for highways with design speeds of 50 mph or greater are as follows:	
	Design Speed (mph)	50 55 60 65 70
	Minimum Length (ft.)	200 250 300 350 400
Low Speed Facilities:	The lengths of sag vertical curves are not to be less than 3 times the design speed (mph) expressed in feet.	

Metric				US Customary			
Design speed (km/h)	Stopping sight distance (m)	Rate of vertical curvature, K^a		Design speed (mph)	Stopping sight distance (ft)	Rate of vertical curvature, K^a	
		Calculated	Design			Calculated	Design
20	20	0.6	1	15	80	3.0	3
30	35	1.9	2	20	115	6.1	7
40	50	3.8	4	25	155	11.1	12
50	65	6.4	7	30	200	18.5	19
60	85	11.0	11	35	250	29.0	29
70	105	16.8	17	40	305	43.1	44
80	130	25.7	26	45	360	60.1	61
90	160	38.9	39	50	425	83.7	84
100	185	52.0	52	55	495	113.5	114
110	220	73.6	74	60	570	150.6	151
120	250	95.0	95	65	645	192.8	193
130	285	123.4	124	70	730	246.9	247
				75	820	311.6	312
				80	910	383.7	384

^a Rate of vertical curvature, K , is the length of curve per percent algebraic difference in intersecting grades (A). $K = L/A$

Exhibit 3-72. Design Controls for Stopping Sight Distance and for Crest Vertical Curves

Metric			US Customary		
Design speed (km/h)	Passing sight distance (m)	Rate of vertical curvature, K^* design	Design speed (mph)	Passing sight distance (ft)	Rate of vertical curvature, K^* design
30	200	46	20	710	180
40	270	84	25	900	289
50	345	138	30	1090	424
60	410	195	35	1280	585
70	485	272	40	1470	772
80	540	338	45	1625	943
90	615	438	50	1835	1203
100	670	520	55	1985	1407
110	730	617	60	2135	1628
120	775	695	65	2285	1865
130	815	769	70	2480	2197
			75	2580	2377
			80	2680	2565

Note: ^{*}Rate of vertical curvature, K , is the length of curve per percent algebraic difference in intersecting grades (A). $K = L/A$

Exhibit 3-73. Design Controls for Crest Vertical Curves Based on Passing Sight Distance

Generally, it is impractical to design crest vertical curves to provide for passing sight distance because of high cost where crest cuts are involved and the difficulty of fitting the resulting long vertical curves to the terrain, particularly for high-speed roads. Passing sight

Metric				US Customary			
Design speed (km/h)	Stopping sight distance (m)	Rate of vertical curvature, K^a		Design speed (mph)	Stopping sight distance (ft)	Rate of vertical curvature, K^a	
		Calculated	Design			Calculated	Design
20	20	2.1	3	15	80	9.4	10
30	35	5.1	6	20	115	16.5	17
40	50	8.5	9	25	155	25.5	26
50	65	12.2	13	30	200	36.4	37
60	85	17.3	18	35	250	49.0	49
70	105	22.6	23	40	305	63.4	64
80	130	29.4	30	45	360	78.1	79
90	160	37.6	38	50	425	95.7	96
100	185	44.6	45	55	495	114.9	115
110	220	54.4	55	60	570	135.7	136
120	250	62.8	63	65	645	156.5	157
130	285	72.7	73	70	730	180.3	181
				75	820	205.6	206
				80	910	231.0	231

^a Rate of vertical curvature, K , is the length of curve (m) per percent algebraic difference intersecting grades (A). $K = L/A$

Exhibit 3-75. Design Controls for Sag Vertical Curves

Sight Distance at Undercrossings

Sight distance on the highway through a grade separation should be at least as long as the minimum stopping sight distance and preferably longer. Design of the vertical alignment is the same as at any other point on the highway except in some cases of sag vertical curves underpassing a structure as illustrated in Exhibit 3-76. While not a frequent problem, the structure fascia may cut the line of sight and limit the sight distance to less than otherwise is attainable. It is generally practical to provide the minimum length of sag vertical curve discussed above at grade separation structures, and even where the recommended grades are exceeded, the sight distance should not need to be reduced below the minimum recommended values for stopping sight distance.

For some conditions, the designer may wish to check the available sight distance at an undercrossing, such as at a two-lane undercrossing without ramps where it would be desirable to provide passing sight distance. Such checks are best made graphically on the profile, but may be performed through computations.

Table 2.10.1 Vertical Clearances for Bridges

FACILITY TYPE	CLEARANCE ^{1, 4, 6} (FEET)			
	Roadway or Railroad Over Roadway ₂	Roadway Over Railroad _{3, 4, 5}	Pedestrian Over Roadway ₂	Pedestrian Over Railroad ₃
Freeways, Arterials Collectors & Others	16'-6"	23'-6"	17'-6"	23'-6"
<ol style="list-style-type: none"> 1. Clearance Measurement: The least vertical distance between the bridge structure and the surface of the roadway (traffic lanes and shoulders) or the top of the highest rail. 2. Includes Future Underpass Resurfacing: 6" over pavements. 3. Includes Rail Resurfacing (Track Raised): 12" for conventional railroads. Others-see footnotes No. 4 and 5, and Section 6.3.5 of this volume. 4. Over High Speed Rail Systems: See Department guidelines and specifications for Intermediate Class Rail Operations entitled Standard Specifications for the Design and Construction of Railways. 5. Over Electrified Railroad: The minimum vertical clearance shall be 24 feet 3 inches. This provision is based on FDOT Policy for 25 KV service: South Florida Rail Corridor Clearance (Topic No. 000-725-003). 6. Clearance Over Waterways: See Section 2.10.1 of this volume. 				

interchange facilities and the need for frequent changes in speed make it desirable to use flat grades wherever practical. On sustained upgrades, the need for climbing lanes should be investigated, as discussed in Chapter 3.

Type of Terrain	Metric						US Customary							
	Design Speeds (km/h)						Design Speeds (mph)							
	80	90	100	110	120	130	50	55	60	65	70	75	80	
	Grades (%) ^a						Grades (%) ^a							
Level	4	4	3	3	3	3	4	4	3	3	3	3	3	
Rolling	5	5	4	4	4	4	5	5	4	4	4	4	4	
Mountainous	6	6	6	5	—	—	6	6	6	5	5	—	—	

^a Grades 1% steeper than the value shown may be provided in mountainous terrain or in urban areas with crucial right-of-way controls.

Exhibit 8-1. Maximum Grades for Rural and Urban Freeways

Structures

The design of bridges, culverts, walls, tunnels, and other structures should be in accordance with the principles of the current *Standard Specifications for Highway Bridges* (2) or with the *AASHTO LRFD Bridge Design Specifications* (3). Structures carrying freeway traffic should provide an MS 18 [HS 20–44] design loading.

The clear width on bridges carrying freeway traffic should be as wide as the approach roadway, as discussed in Chapter 10. On bridges longer than 60 m [200 ft], some economy in substructure costs may be gained by building a single structure rather than twin parallel structures. In such cases, the approach shoulder widths are provided and a median barrier is extended across the bridge.

Structures carrying ramps should provide a clear width equal to the ramp width and paved shoulders. Clear widths for structures carrying auxiliary lanes are discussed in Chapter 10.

The structure width and lateral clearance of highways and streets overpassing or underpassing the freeway are dependent on the functional classification of the highway or street as discussed in Chapters 5, 6, and 7.

Vertical Clearance

The vertical clearance to structures passing over freeways should be at least 4.9 m [16 ft] over the entire roadway width, including auxiliary lanes and the usable width of shoulders (with an allowance for future resurfacing). In highly developed urban areas, where attainment of the 4.9-m [16-ft] clearance would be unreasonably costly, a minimum clearance of 4.3 m [14 ft] may be used if there is an alternate freeway facility with the minimum 4.9-m [16-ft] clearance.

Because of their lesser resistance to impacts, the vertical clearance to sign trusses and pedestrian overpasses should be 5.1 m [17 ft]. On urban routes with less than the 4.9-m [16-ft] clearance, the vertical clearance to sign trusses should be 0.3 m [1 ft] greater than the minimum clearance for other structures. Similarly, the vertical clearance from the deck to the cross bracing of through-truss structures should also be a minimum of 5.1 m [17 ft], with an allowance for future resurfacing.

Horizontal Clearance to Obstructions

Urban freeways at ground level and rural freeways should have clear zone widths consistent with their operating speed and side slopes, as discussed in the section on "Horizontal Clearance to Obstructions," the section in Chapter 4. Detailed discussions of clear zone are also included in the *AASHTO Roadside Design Guide* (4). Nontraversable obstacles within the clear zones should be shielded by an appropriate barrier as long as the barrier represents a lower potential for severe crashes. Fixed objects that cannot be relocated beyond the clear zone should be of a "breakaway" design or shielded by barriers or attenuators. Bridge piers and abutments should be located as near to the clear-zone edge as practical. Where the width of the median is less than twice the width of the clear zone, shielding of median piers may be appropriate depending on median width and traffic volumes.

In rural cut sections, drainage is carried in side ditches. The foreslope and backslope should provide an acceptable recovery area in case drivers lose control and leave the traveled way. Where the right-of-way on a depressed freeway is insufficient to provide for a swale, the drainage is usually carried in a gutter section along the outside edge of the shoulder. Details of gutter sections are covered in the section on curbs in Chapter 4.

Depressed freeways in urban areas have more restrictive rights-of-way and retaining walls or bridge piers may need to be placed within the clear zone. Such walls and piers should not be located on the shoulder and preferably should be at least 0.6 m [2 ft] beyond the outer edge of shoulder. Retaining walls and pier crash walls should incorporate an integral concrete barrier shape, or they should be offset from the shoulder to permit shielding with a barrier, as discussed in the section on "Lateral Clearances" in Chapter 10. Where walls are located beyond the clear zone or are not needed, back slopes should be traversable and fixed objects within the clear zone should be of a "breakaway" design or shielded.

Elevated freeways on embankments generally warrant roadside barriers where slopes are steeper than 1V:3H or where the area beyond the toe of slope remaining within the clear zone is not traversable. The tops of retaining walls used in conjunction with embankment sections should be located no closer to the roadway than the outer edge of shoulder, and the walls should incorporate the concrete barrier shape or be appropriately shielded.

As discussed in earlier chapters, the shoulder on high-speed highways should be flush with the traveled way. Continuous curbs on high-speed highways should be limited to special situations, such as drainage systems on the outside of shoulders. Such curbs should be carried through the underpass. Where walkways are provided, the full shoulder section should be maintained through the underpass and the span increased by the width of the walk. Where a curb is needed along solid abutments or walls, a concrete barrier may be used. See Chapter 4 for a discussion on other types of barriers, their warrants, and issues concerning their placement.

Where conditions preclude the clear roadside design concept, all abutments, piers, and columns should be shielded with suitable protective devices unless they are so situated that they cannot be hit by out-of-control vehicles. Protective devices are usually not needed along continuously walled sections.

Guardrail installed along the face of an exposed pier or abutment should have a clearance appropriate to the dynamic lateral deflection of the particular rail type. The rail cannot cushion and deflect an errant vehicle unless there is sufficient lateral space clear of the bridge support. Exhibit 10-6C shows the limits of the dynamic lateral deflection distance between the face of bridge support and the back of the rail system. Guardrail attached flush with the exposed faces of piers, abutments, and bridge railings should be stiffened preceding the obstruction to avoid snagging an errant vehicle. This may be accomplished by reducing the post spacing, increasing the post embedment, increasing the rail section modulus, and/or transitioning to a different, stiffer barrier (i.e., metal to concrete). The rail should be fastened securely enough to develop its full strength longitudinally. For further details, see the *AASHTO Roadside Design Guide* (3).

Where structural design and cost features make it necessary to reduce the horizontal clearance through an underpass, the change in lateral width should be accomplished through gradual adjustments in the cross section of the approach roadway rather than abruptly at the structure. Such transitions in width should have a gradual rate of 50:1 or more (longitudinal:lateral).

Vertical Clearance

Vertical clearance is typically determined for an entire route and may be governed by the established policies of the highway system. Although State laws vary somewhat, most States permit the vehicle height, including load, to be between 4.1 m [13.5 ft] and 4.4 m [14.5 ft]. The vertical clearance of all structures above the traveled way and shoulders should be at least 0.3 m [1 ft] greater than the legal vehicle height, and allowance should be made for future resurfacing.

Additional vertical clearance is desirable to compensate for several resurfacings, for snow or ice accumulation, and for an occasional slightly overheight load. The recommended minimum vertical clearance is 4.4 m [14.5 ft], and the desirable vertical clearance is 5.0 m [16.5 ft].

Some roadways are parts of systems or routes for which a minimum vertical clearance of 4.9 m [16 ft], plus an allowance for future resurfacing, has been established. Freeway and arterial

systems are generally provided with such clearance, but for other routes a lower minimum vertical clearance is acceptable.

To permit the movement of exceptionally high loads through an urban area, it is desirable to have at least one route with structures designed so that the movement can be easily accommodated. This design could entail the use of deck-type bridges, street lights mounted higher than normal, underground utilities, mast-arm-supported traffic signals, which can be swung to one side, etc.

Where a depressed facility is a parkway with traffic restricted to passenger vehicles, the vertical clearance at structures should be 4.6 m [15 ft], and in no case should it be less than 3.8 m [12.5 ft]. The minimum clearance should be obtained within all portions of the roadway.

Overpass Roadways

The roadway dimensional design of an overpass or other bridge should be the same as that of the basic roadway. The bridge is a small part of the continuous roadway and should be designed without change in cross-section dimensions, unless the cost becomes prohibitive.

This section covers the general dimensional features for single structures typically used at a grade separation, a stream crossing, or a single-structure interchange. Overpasses usually are deck structures. Their major dimensional features are the parapet rail system, lateral clearances, and the median treatment, where applicable. Typical overpass structures are shown in Exhibit 10-7. For further discussion see also the sections under "Curbs" and "Traffic Barriers" in Chapter 4.

Bridge Railings

The typical bridge railing has some form of concrete base or parapet on which metal or concrete rail or rails are mounted on structurally adequate posts. The bridge railing should be designed to accommodate the design vehicle(s) on the structure under the design impact conditions. That is, the design vehicle should be safely redirected, without penetration or vaulting over the railing. Likewise, the railing should not pocket or snag the design vehicle, causing abrupt deceleration or spinout, and it should not cause the design vehicle to roll over.

Most bridge railings in service are of a rigid, non-yielding design. Several railings incorporate energy-absorbing features in their design to reduce vehicle impact severity. Where noise is a factor, solid rails may be considered for their added value in noise attenuation.

At certain locations, there may be a need to provide a pedestrian walkway or bicycle path on the freeway overpass. In these situations, a barrier-type bridge rail of adequate height should be installed between the pedestrian walkway and the roadway. Also, a pedestrian rail or screen should be provided on the outer edge of the walkway.

Table 2.3.1 Shoulder Widths and Slopes - Freeways

HIGHWAY TYPE		WIDTH (FEET)								SLOPES		
		WITHOUT SHOULDER GUTTER				WITH SHOULDER GUTTER						
		FULL WIDTH		PAVED WIDTH		FULL WIDTH		PAVED WIDTH		NORMAL ₁		
		Outside	Median or Left	Outside	Median or Left	Outside	Median or Left	Outside	Median or Left	Outside	Median or Left	
FREWAYS (Lanes One Way)	4-Lane or More	12	12	10	10	15.5	15.5	8	8	0.06	0.06	
	3-Lane	12	12	10	10	15.5	15.5	8	8		0.05	
	2-Lane	12	8	10	4	15.5	13.5	8	6			
	HOV Lane	N/A ₄	14	N/A ₄	10	N/A ₄	N/A ₄	N/A ₄	N/A ₄	N/A ₄	0.05 ₂	
	1-lane Barrier-Separated HOV Lane ₅	6	4 ₅	6	4 ₅	N/A ₄	N/A ₄	N/A ₄	N/A ₄	Same as Lane	Same as Lane ₅	
	2-lane Barrier-Separated HOV Lane ₅	10	6 ₅	10	6 ₅	N/A ₄	N/A ₄	N/A ₄	N/A ₄	Same as Lane	Same as Lane ₅	
	1-Lane Ramp	6	6	4	2	11.5	11.5	4 ₃	4	0.06	0.05	
	2-Lane Ramp Non-Interstate	10	8	8	4	15.5	13.5	8	6			
	2-Lane Ramp Interstate	12	8	10	4	15.5	13.5	8	6			
	C-D Road 1-Lane	6	6	4	2	11.5	11.5	4	4			
	C-D Road 2-Lane	12	8	10	4	15.5	13.5	8	6			
	C-D Road 3-Lane	12	12	10	10	15.5	15.5	8	8			
	C-D Road > 3-Lane	12	12	10	10	15.5	15.5	8	8		0.06	
	Auxiliary Lane Climbing & Weaving	12	N/A ₄	10	N/A ₄	15.5	N/A ₄	8	N/A ₄			N/A ₄
	Auxiliary Lane Mainline Terminal: 1-Lane Ramp 2-Lane Ramp	12 12	N/A ₄ N/A ₄	10 10	N/A ₄ N/A ₄	15.5 15.5	N/A ₄ N/A ₄	8 8	N/A ₄ N/A ₄			N/A ₄ N/A ₄
Frontage Road	See COLLECTORS Table 2.3.4. For local roads and streets see the FDOT Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways.											
<div>1. Shoulders shall extend 4 ft. beyond the back of shoulder gutter and at a 0.06 slope back toward the gutter.</div> <div>2. 0.06 when 4 lanes or more combined.</div> <div>3. Shoulder pavement less than 6 ft. in width that adjoins shoulder gutter shall be the same type, depth and slope as the ramp pavement.</div> <div>4. This does not mean that a shoulder is unnecessary; rather, shoulder is not typically present at this location (i.e., it is not required when adjacent to the through lane).</div> <div>5. If median side of HOV lane is not barrier-separated, use median shoulder requirements for a standard HOV lane. Refer to AASHTO's Guide for High-Occupancy Vehicle Facilities for additional information.</div>												

Paved shoulders should be continuous on both the right and left sides of all freeway facilities. The usable paved width of the right shoulder should be at least 3.0 m [10 ft]; where the DDHV for truck traffic exceeds 250 veh/h, the right shoulder width should be 3.6 m [12 ft]. On four-lane freeways, the median (or left) shoulder is normally 1.2 to 2.4 m [4 to 8 ft] wide, at least 1.2 m [4 ft] of which should be paved and the remainder stabilized. On freeways of six or more lanes, the usable paved width of the median shoulder should also be 3.0 m [10 ft] and preferably 3.6 m [12 ft] where the DDHV for truck traffic exceeds 250 veh/h. Ramp shoulder widths are usually constructed adjacent to acceleration and deceleration lanes with transitions to the freeway shoulder width at the taper ends. Shoulder cross slope should range between 2 and 6 percent and can be at least 1 percent greater than the pavement cross slope on tangent sections to facilitate drainage. To provide visual contrast, the color or texture of the shoulders should be different from that of the traveled way. On viaducts, differentiation between traveled way and shoulders is sometimes accomplished by striping and pavement marking, or by corrugated depressions.

Curbs

In the interest of safety, caution should be exercised in the use of curbs on freeways; where curbs are provided in special cases, they should not be closer to the traveled way than the outer edge of shoulder and should be easily traversable. An example of a special case in which shoulder curbs are used on freeways is at locations where curbs are provided to control drainage and reduce erosion. For more information, refer to the discussion on curb types and their placement in Chapter 4.

Superelevation

The full superelevation rates used on freeways that are depressed, built at ground-level, or elevated on embankments are not generally applicable to elevated freeways on viaducts. Appearance and adjacent development somewhat limit the difference in elevation between the edges of multilane pavements. Superelevation rates of 6 to 8 percent are generally the maximum that should be used on viaducts. The lower value may be used where freezing and thawing conditions are likely, because bridge decks generally freeze more rapidly than other roadway sections. Combinations of design speed and curvature that result in superelevation rates greater than these values should be avoided. Where freeways are intermittently elevated on viaducts, the lower superelevation rates should be used throughout to promote consistently safe operation. Maximum superelevation rates of 8 to 12 percent are applicable for freeways if snow and ice conditions are not a factor. In lower speed situations, a maximum superelevation rate of 6 percent may be applicable.

Grades

Maximum grades for freeways are presented in Exhibit 8-1 as a function of design speed and terrain type. Grades on urban freeways should be comparable to those on rural freeways of the same design speed. Steeper grades may be tolerated in urban areas, but the closer spacing of

accommodate traffic pattern variations at interchanges, and for simplification of operations (as reducing lane changing). The principles of lane balance should be applied in the use of auxiliary lanes. In this manner, the appropriate balance between traffic load and capacity is provided, and lane balance and operational flexibility are realized.

Design details of multilane ramp terminals with auxiliary lanes are covered below in the section on "Auxiliary Lanes."

Auxiliary Lanes

An auxiliary lane is defined as the portion of the roadway adjoining the traveled way for speed change, turning, storage for turning, weaving, truck climbing, and other purposes supplementary to through-traffic movement. The width of an auxiliary lane should be equal to the through lanes. An auxiliary lane may be provided to comply with the concept of lane balance, to comply with capacity needs, or to accommodate speed changes, weaving, and maneuvering of entering and leaving traffic. Where auxiliary lanes are provided along freeway main lanes, the adjacent shoulder should desirably be 2.4 to 3.6 m [8 to 12 ft] in width, with a minimum 1.8 m [6 ft] wide shoulder considered.

Operational efficiency may be improved by using a continuous auxiliary lane between the entrance and exit terminals where (1) interchanges are closely spaced, (2) the distance between the end of the taper on the entrance terminal and the beginning of the taper on the exit terminal is short, and/or (3) local frontage roads do not exist. An auxiliary lane may be introduced as a single exclusive lane or in conjunction with a two-lane entrance. The termination of the auxiliary lane may be accomplished by several methods. The auxiliary lane may be dropped in a two-lane exit, as illustrated in Exhibit 10-51A. This treatment complies with the principles of lane balance. Some agencies prefer to drop the auxiliary lane in a single-lane exit, as illustrated in Exhibit 10-51B. This treatment is in accordance with the exceptions listed under Principle 2 of lane balance as presented in the earlier section on "Coordination of Lane Balance and Basic Number of Lanes." Another method is to carry the full-width auxiliary lane to the physical nose before it is tapered into the through roadway. This design provides a recovery lane for drivers who inadvertently remain in the discontinued lane (see Exhibit 10-51C). When these methods of terminating the auxiliary lane (Exhibits 10-51B and Exhibit 10-51C) are used, the exit gore should be visible throughout the length of the auxiliary lane.

If local experience with single-exit design indicates problems with turbulence in the traffic flow caused by vehicles attempting to recover and proceed on the through lanes, the recovery lane should be extended 150 to 300 m [500 to 1,000 ft] before being tapered into the through lanes (see Exhibit 10-51D). Within large interchanges, this distance should be increased to 450 m [1,500 ft]. When an auxiliary lane is carried through one or more interchanges, it may be dropped as indicated above, or it may be merged into the through roadway approximately 750 m [2,500 ft] beyond the influence of the last interchange (see Exhibit 10-51E).

When interchanges are widely spaced, it might not be practical or necessary to extend the auxiliary lane from one interchange to the next. In such cases, the auxiliary lane originating at a



Appendix E

Section 4(f) Coordination Documentation



Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 West Commercial Boulevard
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

MEMORANDUM

Date: March 26, 2013

To: Federal Highway Administration Representatives (listed below)*

From: Christie Pritchard, Pritchard Environmental LLC *CFP*

Subject: Meeting Minutes - Section 4(f) Determination of Applicability (DOA) Coordination Meeting between Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA)/Concurrence of no Section 4(f) Involvement

Project: I-95 Project Development & Environment (PD&E) Study from North of Oakland Park Boulevard to south of Glades Road
FM Nos.: 409359-1-22-01 and 409355-1-22-01
FAP Nos.: 0951-609-I and 0951-608-I
ETDM No.: 3330

Copies To: All Attendees

On February 26, 2013, Christie Pritchard (PD&E Consultant Team subconsultant) presented a summary of the Section 4(f) DOA for the above referenced project (in the format of a Powerpoint Presentation via webinar) to Federal Highway Administration (FHWA) representatives: *Linda Anderson, Cathy Kendall, Buddy Cunill, and Joe Sullivan; Florida Department of Transportation (FDOT) District Four representatives: Ann Broadwell, Vincent Fusconi, P.E., Richard Young, P.E., Henry Oaikhena, P.E., Paola Riveros P.E., (FDOT In-house consultant); FDOT Central Environmental Management Office representatives: Roy Jackson, Thu Clark, and Larry Squires; and PD&E Consultant Team representatives: Ryan Solis-Rios, P.E. (The Corradino Group); Silvia Beltre, P.E., and Nicole Carter (C3TS Inc.).

The following nine Section 4(f) resources were identified within the project corridor as referenced below:

- Mills Pond Park
- John D. Easterlin Park
- Oakland Bark Park
- North Andrews Gardens Neighborhood Park
- Fairview Park
- Avondale Park
- Mitchell/Moore Park and Community Center
- Weaver Park
- Blazing Star Preserve

Section 4(f) DOA Coordination Meeting Minutes
March 26, 2013


For additional detail, please see the attached PowerPoint presentation. After providing an overview of the project including an explanation of the scope of work, and a description of the Section 4(f) resources listed above, Christie stated that the project would not acquire land from any of the Section 4(f) resources, and there would be no short-term or long term impacts to the resources by the proposed project. In addition, access to all Section 4(f) resources would be maintained during construction because all of the Section 4(f) sites have local street access (no access from I-95).

It was stated that none of the sites were sensitive to proximity impacts, including noise. FHWA requested that additional noise information for each site be included in the PowerPoint slides for their reference, and the enclosed presentation includes the additional noise information from the PD&E Draft Noise Study Report submitted to FDOT on 02/26/2013.

FHWA concurred that there will be no Section 4(f) involvement with the above referenced nine resources. These minutes and enclosed PowerPoint slides constitute the Section 4(f) DOA documentation for this project.

The FHWA finds the attached Section 4(f) DOA Coordination Meeting minutes and PowerPoint Presentation Slides complete and sufficient and ☒ approves / ☐ does not approve the above recommendations and findings.

FHWA Comments:

/s/ 
David C. Hawk
Acting Division Administrator
Florida and Puerto Rico Divisions
Federal Highway Administration

3-3-13
Date



SR 9 / I-95 PROJECT DEVELOPMENT & ENVIRONMENT STUDY



**FROM NORTH OF OAKLAND PARK BOULEVARD
TO SOUTH OF GLADES ROAD**

Financial Project ID No.: 409359-I-22-01 and 409355-I-22-01

Federal Aid Project No.: 095I-608 and 095I-609

ETDM No.: 3330

Broward and Palm Beach Counties



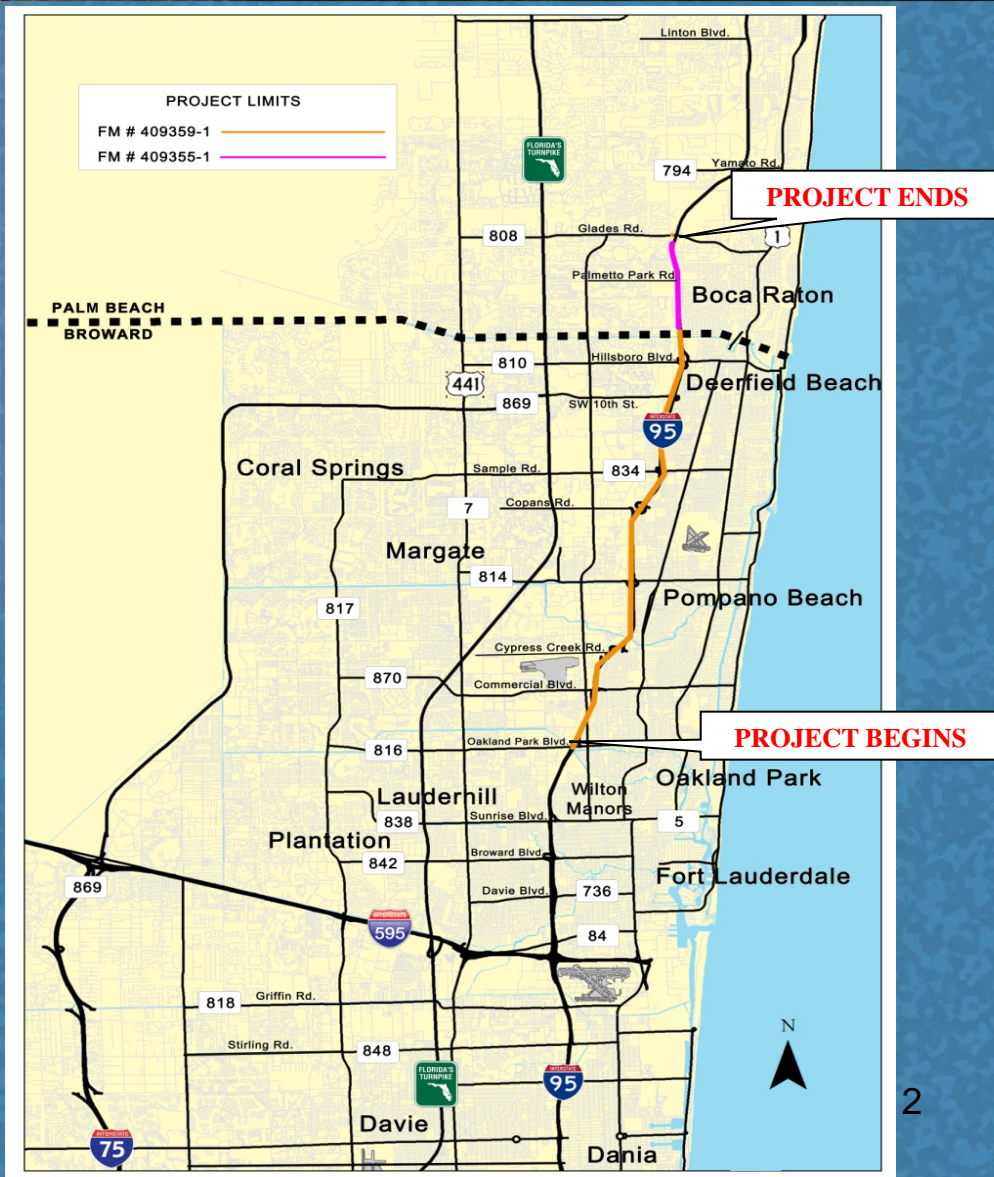
**Section 4(f) Determination of
Applicability (DOA)
Coordination
Webinar with FDOT/FHWA
February 26, 2013**



PROJECT LOCATION MAP



- Approximately 13.5 miles
- Two Counties
- Five Municipalities
- Eight Interchanges





NEED FOR THE PROJECT



- **Add capacity to support the region's high growth, improve mobility and safety.**
- **The corridor currently exceeds the FDOT Level of Service (LOS) minimum standards.**
- **Primary interstate facility along the Atlantic Seaboard.**
- **Major north-south transportation spine of the Atlantic. Commerce Corridor with access to all three South Florida Ports.**
- **Major connector between Palm Beach, Broward, and Miami-Dade Counties.**
- **Multiple interchange connections with major corridors.**
- **Designated as a major evacuation route.**



PD&E STUDY OBJECTIVES



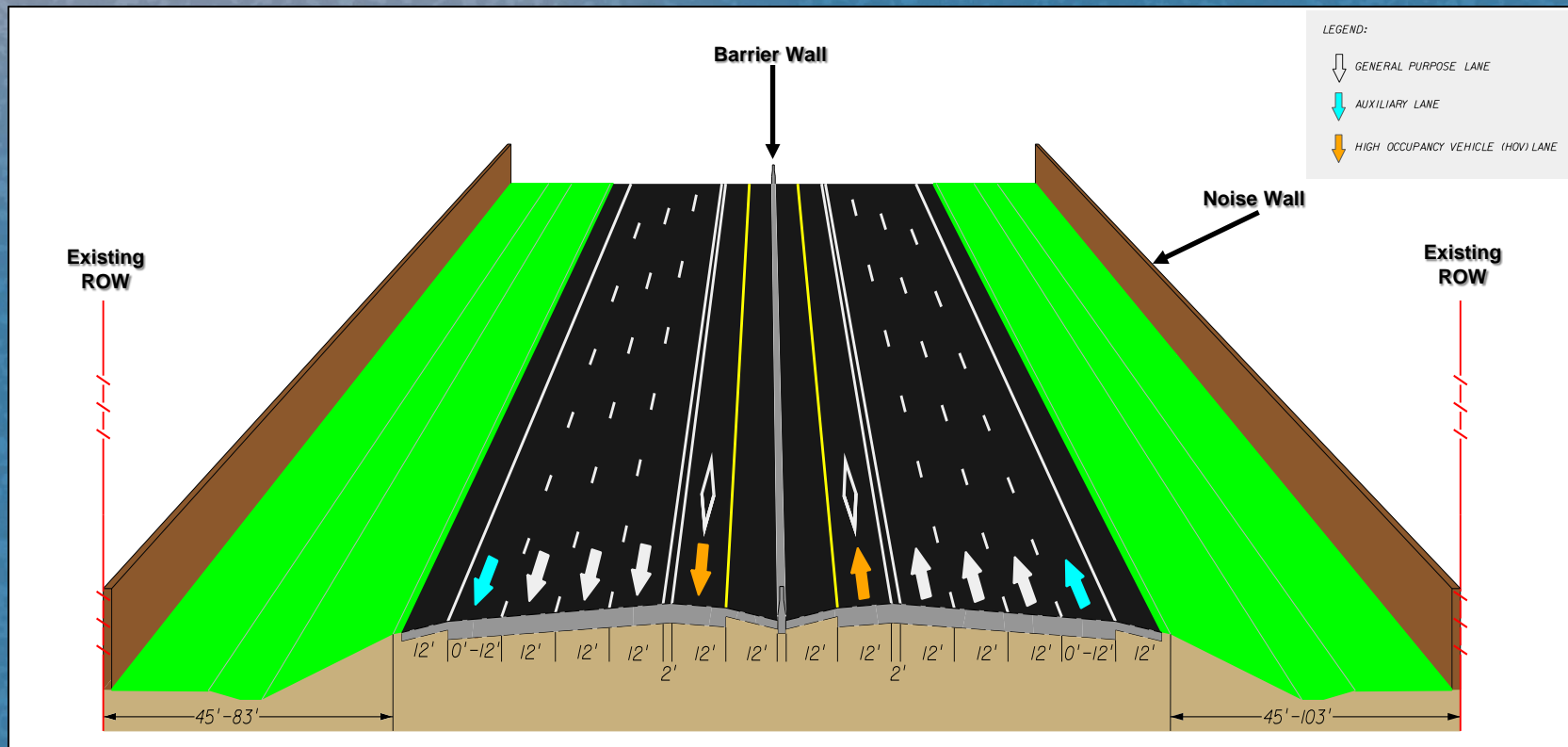
- Evaluate the possible addition of tolled express lanes in the median (High Occupancy Toll) to relieve existing and future congestion.
- Maintain the existing number of general purpose lanes.
- Create an opportunity for a Bus Rapid Transit (BRT).
- A BRT is an express bus service that will operate within the express lanes system.
- Update Travel Demand Forecasting Model (2020, 2030 & 2040).
- Evaluate the existing and future operations of the corridor .



EXISTING TYPICAL SECTION



- I-95, within the study limits, consists of a total of eight lanes:
 - Six general purpose lanes
 - Two High Occupancy Vehicle (HOV) lanes
 - Auxiliary lanes at selected locations



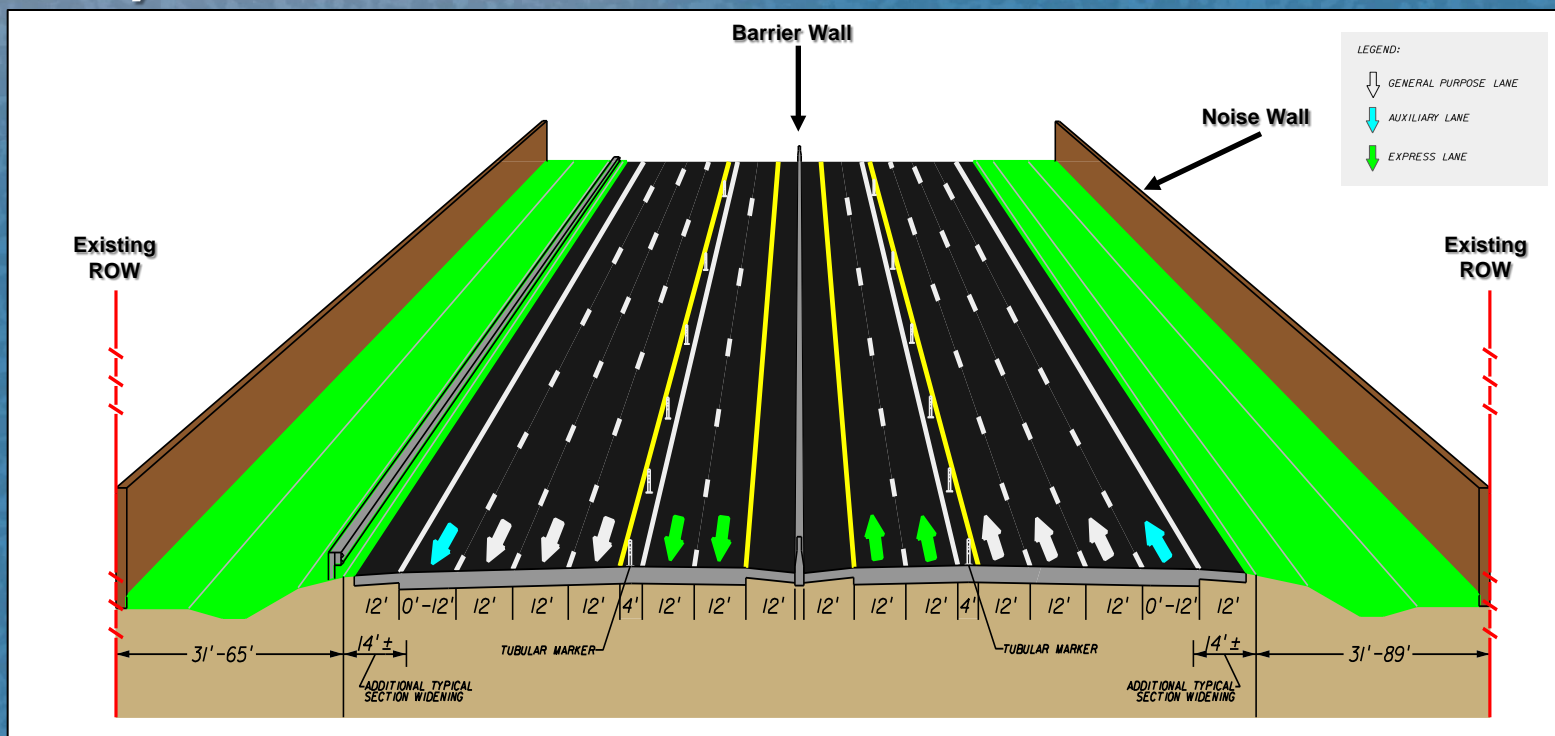


APPROACH TO PROJECT



Proposed Typical Section

- Replace the existing HOV lane with a tolled express lane (HOT).
- Add an additional tolled express lane (HOT) for a total of two express lanes in each direction.
- Add access points at selected locations to enter and exit the express lanes system.





SECTION 4(F) RESOURCES



Nine resources within corridor:

- **Mills Pond Park**
- **John D. Easterlin Park**
- **Oakland Bark Park**
- **North Andrews Gardens Neighborhood Park**
- **Fairview Park**
- **Avondale Park**
- **Mitchell/Moore Park & Recreation Center**
- **Weaver Park**
- **Blazing Star Preserve**



Mills Pond Park



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



Mills Pond Park Facilities Map

Figure
5.1



Mills Pond Park



- Owned by both City of Ft. Lauderdale & Broward County.
- Managed by City of Ft. Lauderdale.
- Largest designated Urban Park in Ft. Lauderdale; 152.5 acres.
- Activities/facilities: assembly hall; softball & multi-purpose fields for soccer, football, kickball; bleachers, dugouts, picnic tables/pavilions, concessions, water-skiing area (along C-13 Canal); nature trails.



Mills Pond Park



- 193,000 people use park per year; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



Mills Pond Park



- **Existing (and No-Build) Noise Levels (range):
68.7 dB(A) – 69.4 dB(A).**
- **Proposed Build Noise Levels (range):
70 dB(A) – 70.8 dB(A).**
- **Noise barriers evaluated and not recommended because costs exceed FDOT Noise Barrier Special Land Use - Reasonable Cost Criteria.**



John Easterlin Park



FPID 409359-1-22-01 (Broward County)

FPID 409355-1-22-01 (Palm Beach County)



John D. Easterlin Park Facilities Map

Figure
6.1



John Easterlin Park



- Owned and managed by Broward County.
- Designed as a Wilderness area, 46.6 acres.
- Activities/facilities: Park office, campground, RV and tent camping, nature trail, playground, picnic shelter/tables, volleyball court, restrooms, grills.



John Easterlin Park



- 28,105 people use park, per year; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



John Easterlin Park



- Existing (and No-Build) Noise Levels (range):
65.2 dB(A) – 65.8 dB(A).
- Proposed Build Noise Levels (range):
65.8 dB(A) – 66.2 dB(A).
- Noise barriers evaluated and not recommended because costs exceed FDOT Noise Barrier Special Land Use - Reasonable Cost Criteria.



Oakland Bark Park



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



Oakland Bark Park Facilities Map

Figure
7.1



Oakland Bark Park



- **Owned and Managed by City of Oakland Park.**
- **Designated as Community Park, 2.5 acres.**
- **Activities/Facilities: Parking area, small and large dog off-leash areas, exercise structures; water fountains/dog wash stations, picnic pavilions with picnic tables, benches, restrooms.**



Oakland Bark Park



- 50 to 100 people use park daily; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



Oakland Bark Park



- Existing (and No-Build) Noise Levels (range):
63.1 dB(A) – 64.5 dB(A).
- Proposed Build Noise Levels (range):
63.3 dB(A) - 65.7 dB(A).



North Andrews Gardens Neighborhood Park



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



**North Andrews Gardens Neighborhood
Park Facilities Map**

Figure
8.1



North Andrews Gardens Neighborhood Park



- **Owned and managed by City of Oakland Park.**
- **Designated as neighborhood park, 1.03 acres .**
- **Activities/Facilities: Parking lot, playground with swings/slides, concrete walking path, picnic tables, benches, bike rack, water fountain, wood fence along boundary.**



North Andrews Gardens Neighborhood Park



- 10 to 20 people use park daily; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



North Andrews Gardens Neighborhood Park



- **Existing (and No-Build) Noise Levels (range):
63.1 dB(A) – 64.5 dB(A).**
- **Proposed Build Noise Levels (range):
63.3 dB(A) – 65.7 dB(A).**



Fairview Park



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



Fairview Park Facilities Map

Figure 9.1



Fairview Park



- Owned and managed by City of Pompano Beach.
- Designed as a community park; 2.4 acres.
- Activities/facilities: lighted parking area, basketball courts, playground, grills, picnic tables, water fountain, restrooms, concrete path.



Fairview Park



- No data available on usage; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.
- .



Fairview Park



- Existing (and No-Build) Noise Level near Park: 61.7 dB(A).
- Proposed Build Noise Level near Park: 63.3 dB(A).



Avondale Park



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



Avondale Park Facilities Map

Figure
10.1



Avondale Park



- **Owned and managed by City of Pompano Beach.**
- **Designated as a neighborhood park, 2.5 acres.**
- **Activities/Facilities: parking area, restrooms, water fountain, covered pavilions, picnic tables, grills, playground, basketball court, drainage canal/overlooks/fishing piers, concrete walking path.**



Avondale Park



- No usage data available; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



Avondale Park



- **Existing (and No-Build) Noise Level: 69.8 dB(A).**
- **Proposed Build Noise Level: 71.4 dB(A).**
- **Noise barriers recommended subject to public input.**



Mitchell/Moore Park and Community Center



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



Mitchell/Moore Park
and Community Center

Figure
11.1



Mitchell/Moore Park and Community Center



- Owned and managed by City of Pompano Beach.
- Designated as a community park, 15.8 acres.
- **Activities/facilities:** Parking area, baseball fields, dugouts, football/soccer fields, bleachers, press box, concessions, recreation building, playground, volleyball court, basketball courts, picnic pavilion, picnic tables, tennis courts, benches.



Mitchell/Moore Park and Community Center



- 69,611 people used the park in Fiscal Yr. 2011-12; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



Mitchell/Moore Park and Community Center



- Existing (and No-Build) Noise Level: 65.4 dB(A).
- Proposed Build Noise Level: 65.6 dB(A).
- Noise barriers evaluated and not recommended because costs exceed FDOT Noise Barrier Special Land Use – Reasonable Cost Criteria.



Weaver Community Park



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



**Weaver Community Park
Facilities Map**

Figure 12.1



Weaver Community Park



- **Owned and managed by City of Pompano Beach.**
- **Designated as a Community Park, 12.4 acres.**
- **Activities/facilities: north and south parking areas, shuffleboard courts, picnic pavilion picnic tables, grills, bike racks, fitness trail, horseshoe pit, benches, basketball court.**



Weaver Community Park



- No data on usage; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



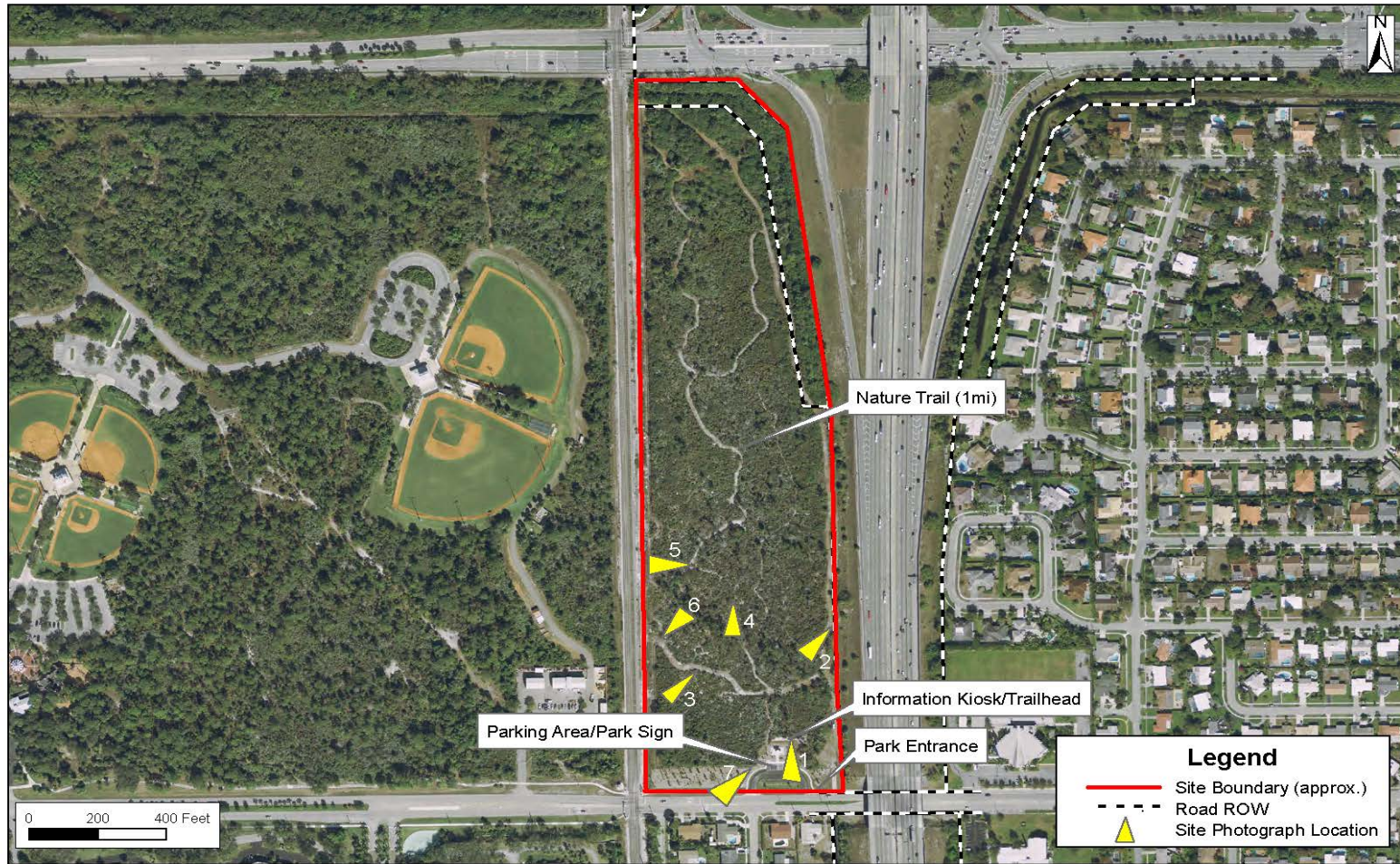
Weaver Community Park



- Existing (and No-Build) Noise Levels (range): 70.5 dB(A) – 71.4 dB(A).
- Proposed Build Noise Level: 68.6 dB(A).
- Noise walls evaluated and not recommended because abatement costs exceed FDOT Noise Barrier Special Land Use – Reasonable Cost Criteria.



Blazing Star Preserve



FPID 409359-1-22-01 (Broward County)
FPID 409355-1-22-01 (Palm Beach County)



Blazing Star Preserve Facilities Map

Figure 13.1



Blazing Star Preserve



- Owned and managed by City of Boca Raton.
- Designated as a nature preserve; 26 acres.
- Activities/Facilities: Parking lot, information kiosk, benches, bike rack, unpaved hiking trail.



Blazing Star Preserve



- No data on usage; no expansion plans.
- No right of way acquisition of the site.
- Access maintained during construction.
- No long-term or short-term impacts expected to this resource – not sensitive to proximity impacts.



Blazing Star Preserve



- Existing (and No-Build) Noise Level: 65.0 dB(A).
- Proposed Build Noise Level: 68.6 dB(A).
- Noise barriers evaluated and not recommended because costs exceed FDOT Noise Barrier Special Land Use – Reasonable Cost Criteria.



THANK YOU!!



**QUESTIONS, COMMENTS
AND/OR INPUT**



Appendix F

Historic Resources Coordination Documentation



Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

March 5, 2013

Ms. Linda Anderson
U.S. Department of Transportation
Federal Highway Administration
Florida Division Office
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

PLANNING & ENVIRONMENTAL
MANAGEMENT

APR 23 2013

DISTRICT FOUR
RECEIVED

RECEIVED
BUREAU OF
HISTORIC PRESERVATION
2013 APR - 8 P 2:53

Subject: **Request for Review**
Cultural Resource Assessment Survey (CRAS)
SR 9/I-95 from north of SR 816/Oakland Park Boulevard to south of SR 808/Glades Road
Financial Management Numbers: 409359-1-22-01 & 409355-1-22-01
ETDM Number: 3330
Broward and Palm Beach Counties, Florida

Dear Ms. Anderson:

FDOT, District 4 is currently conducting a Project Development & Environment (PD&E) study for the proposed widening of SR-9/I-95 in Broward and Palm Beach Counties, Florida. The limits of the project are from north of SR 816/Oakland Park Boulevard to south of SR 808/Glades Road. The primary purpose of the project is to design a transportation system that will offer new commuting choices and more reliable travel during congested periods with the implementation of an express lane system. Express lanes will provide additional capacity and reduce congestion along the I-95 corridor. In addition, the project will provide continuity with the proposed express lane system immediately to the south as well as the existing system in Miami-Dade County. All improvements will be constructed within current FDOT right of way (ROW).

This CRAS was undertaken in order to locate and evaluate archaeological and historic resources within the Area of Potential Effect (APE) and to assess eligibility for inclusion in the National Register of Historic Places (NRHP) according to criteria set forth in 36 CFR 60.4.

No newly or previously recorded archaeological sites were identified within the project APE. A reconnaissance survey confirmed that the APE has been altered by berming and ditching and the construction of the roadway. No subsurface testing was feasible, and the APE is considered to have a low probability for archaeological sites.


The historic resources survey resulted in the identification of six previously recorded historic resources within the APE. The resources include one railroad and five canals. Of these, two are considered

SR-9 (I-95)
FM 409359.1 & 409355.1
Cultural Resources Assessment Survey

eligible for listing in the NRHP: the Florida East Coast (FEC) Railway the Hillsborough Canal. A reconnaissance survey was also undertaken in order to identify any significant historic resources outside of the APE. The reconnaissance survey resulted in the identification of one previously recorded NRHP-eligible resource, the Seaboard Air Line (CSX) Railroad. Because all improvements are being constructed within the existing FDOT ROW, no impacts to historic resources is anticipated.

Please complete the signature block below and forward the additional report copy to SHPO. If you have questions regarding the subject project, please contact me at 954-777-4325, or Lynn Kelley at 954-777-4334.

Sincerely,

A handwritten signature in black ink, appearing to read "Ann Broadwell". The signature is fluid and cursive, with the first name "Ann" being more prominent than the last name "Broadwell".

Ann Broadwell
Environmental Administrator
FDOT - District 4

Enclosures

Cc: Henry Oaikhena– District Four
Paola Riveros – District Four
Roy Jackson - CEMO
Project File

The FHWA finds the attached Cultural Resources Assessment Report complete and sufficient and ✓ approves / ~~does not approve the above recommendations and findings.~~
the report's

The FHWA requests the SHPO's opinion on the sufficiency of the attached report and the SHPO's opinion on the recommendations and findings contained in this cover letter and in the comment block below.

FHWA Comments:

FHWA CONCURS WITH THE CRAS RECOMMENDATIONS RE NRHP-ELIGIBILITY BUT FINDS NO BASIS IN THE REPORT FOR A DETERMINATION OF NO IMPACTS TO BBD 3229 AND 8PB10311 AND 8BD4087. PLEASE CC: LYNN KELLEY, FDOT D4; MARK CLASGONS, FHWA; AND BOY JACKSON, FDOT CEMO.

/s/ David C. Hawk
David C. Hawk
Acting Division Administrator
Florida and Puerto Rico Divisions
Federal Highway Administration

4-4-13

Date

The Florida State Historic Preservation Officer finds the attached Cultural Resources Assessment Report complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2013-1389.

/s/ Robert Bendus
Robert Bendus
Director, and State Historic Preservation Officer
Florida Division of Historical Resources

4/16/13

Date



Florida Department of Transportation

RICK SCOTT
GOVERNOR

3400 W. Commercial Blvd.
Fort Lauderdale, FL 33309

ANANTH PRASAD, P.E.
SECRETARY

August 13, 2013

Mr. David Hawk
Division Administrator (Acting)
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Attention: Ms. Linda Anderson, Environmental Specialist

Subject: **Request for Review**
Evaluation of Effects to the Hillsboro Canal and FEC Railway
SR 9/I-95 from north of SR 816/Oakland Park Boulevard
to south of SR 808/Glades Road
Financial Management Numbers: 409359-1-22-01 and 409355-1-22-01
ETDM Number: 3330
Broward and Palm Beach Counties

Dear Mr. Hawk:

The Florida Department of Transportation (FDOT) District 4 is currently conducting a Project Development and Environment (PD&E) Study for the proposed widening of SR 9/I-95 in Broward and Palm Beach Counties, Florida. The limits of the project are from north of SR 816/Oakland Park Boulevard to south of SR 808/Glades Road. The primary purpose of the project is to design a transportation system that will offer new commuting choices and more reliable travel during congested periods with the implementation of an express lanes system. Express lanes will provide additional capacity and reduce congestion along the I-95 corridor. In addition the project will provide continuity with the proposed express lanes system immediately to the south as well as the existing system in Miami-Dade County. All improvements will be constructed within the FDOT right of way (ROW).

A Cultural Resource Assessment Survey (CRAS) was undertaken in order to locate and evaluate archaeological and historical resources within the Area of Potential Effect (APE) and to assess eligibility for inclusion in the National Register of Historic Places (NRHP) according to criteria set forth in 36 CFR 60.4. As a result of this CRAS, the FEC Railway (8BD4087) and Hillsboro Canal (8BD3229/8PB10311) were identified in the APE, and these resources have been previously determined eligible for inclusion in the NRHP by the State Historic Preservation Officer (SHPO). Based on your recent comments, we are providing additional information regarding the evaluation of effects to the Hillsboro Canal and the FEC Railway.

Request for Review
Evaluation of Effects
Hillsboro Canal & FEC Railway

In its entirety, the Hillsboro Canal extends from Lake Okeechobee to the Hillsboro River. For the purpose of this survey, only the portion located within the project APE, crossing I-95 at the Broward/Palm Beach County Line in Broward and Palm Beach Counties, Florida, was surveyed and documented. This segment of the Hillsboro Canal is eligible for listing in the NRHP. As one of the six primary canals of the Everglades Drainage District, the canal is a significant example of an early water management system. The canal is significant under Criterion C in the category of Engineering. The canal is also eligible for listing in the NRHP under Criterion A in the category of Community Planning and Development for its role in the development of the surrounding area.

Within the APE, a spur of the FEC Railway extends through the APE in Pompano Beach, Florida. The portion of the resource within the APE, approximately 225 feet, is crossed by the elevated I-95 structure, south of NW 15th Street. The spur track extends outside of the APE to the east where it connects to the FEC main line and to the west where it terminates at the Pompano Beach Farmer's Market. This spur segment of the FEC Railway retains historical importance due to its associations with development and transportation of the east coast of Florida. It is eligible for listing in the NRHP under Criterion A in the categories of Transportation and Community Planning and Development. The intact portion of rail within the current APE is part of many that comprise the overall FEC system.

The following paragraphs include detailed descriptions of improvements taking place in proximity to the two significant historic resources. The I-95 widening construction efforts will be performed from and within the FDOT ROW.

At the Hillsboro Canal crossing, new bridges will be constructed replacing the existing ones due to maintenance issues and substandard vertical clearances. The replacement of these I-95 bridges over the canal will not impact the canal or the canal banks. The new bridges will be higher and will only require a re-grade of the I-95 embankment in order to be able to raise the roadway profile parallel to the I-95 corridor.

At the FEC Railway crossing, the existing bridges will be widened to the outside with a new set of bridge piers and columns in line with the existing ones. The existing vertical clearance will be maintained. Therefore, any temporary occupancy of the Hillsboro Canal or FEC Railway resources is not anticipated as part of this project.

At I-95 over Hillsboro Canal, the existing I-95 bridge which is composed of a six (6) span flat slab superstructure supported on pile bents is being replaced with a three (3) span beam and slab superstructure supported on pile bents. The proposed structure will not affect the canal cross section and going from a six span structure to a three span structure will provide less restriction than the existing structure. The bridge replacement is within the existing ROW and is located within the same footprint as the existing structure, simply providing the additional width to accommodate the new roadway cross-section. The overall bridge length will remain the same with the beginning and ending of the bridge at the same location. By not changing the beginning and ending of the bridge,

Request for Review
Evaluation of Effects
Hillsboro Canal & FEC Railway

the canal bank can remain unchanged. The proposed structure has also been coordinated with the US Coast Guard to assure we are meeting their criteria for a navigable waterway. The construction of the new bridge will be done in phases to maintain the current number of traffic lanes throughout the construction process.

At I-95 over FEC Railway, the existing bridge over the FEC Railway spur will remain with widening as the proposed solution to meet the new roadway configuration. The existing bridge superstructure is composed of AASHTO Type II beams and the widening will use modified beams to not impact the existing vertical clearance. The existing substructure is composed of pile bents. The widening will use the same type of substructure as the existing so that there will be no effect to the horizontal clearances of the railway. The proposed widening is within the existing right of way. The construction process will require phasing to maintain the current traffic lanes and close coordination will be required with FEC so that their operations are not affected. The proposed widening has previously been discussed with FEC with no objections.

The FEC Railway and Hillsboro Canal have been determined eligible for listing in the NRHP. Based on the project information provided above which discusses the improvements that will bridge over the resources but within the ROW, the FDOT finds that the project will have no adverse effect on the significant railroad or canal or the characteristics that determine their National Register eligibility. *Exhibits 1, 2 and 3* show the PD&E Study concept plans within the two resources.

Please complete the signature block below and forward all associated information to SHPO. If you have any questions or comments regarding this submittal, please do not hesitate to contact me at 954-777-4325 or Lynn Kelley at (954) 777-4334.

Sincerely,

Ann Broadwell
District Environmental Administrator



Enclosures

cc: Ray Holzweiss – District Four
Roy Jackson, CEMO
Project File

Request for Review
Evaluation of Effects
Hillsboro Canal & FEC Railway

EVALUATION OF EFFECTS
The FHWA finds the attached ~~Cultural Resources Assessment Report~~ ^{U.S.} complete and sufficient and ☒ approves / ☐ does not approve the above recommendations and findings.

The FHWA requests the SHPO's opinion on the sufficiency of the attached report and the SHPO's opinion on the recommendations and findings contained in this cover letter and in the comment block below.

FHWA Comments:

PLEASE ADDRESS COMMENTS/OPINION TO FHWA, LINDA ANDERSON, E: linda.anderson@dot.gov. P: 850-553-2226. PLEASE CC: ANN BROADWELL, FOOT 4; MARIC CLASGENS, FHWA; ROY JACKSON, FOOT CEMO.

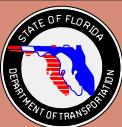
/s/ David C. Hawk
David C. Hawk
Acting Division Administrator
Florida and Puerto Rico Divisions
Federal Highway Administration

8/20/13
Date

The Florida State Historic Preservation Officer finds the attached Cultural Resource Assessment Report complete and sufficient and concurs with the recommendations and findings provided in this cover letter for SHPO/DHR Project File Number 2013-3560.

Robert F. Bendus
Robert F. Bendus
State Historic Preservation Officer
Florida Division of Historical Resources

8/27/13
Date



FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES

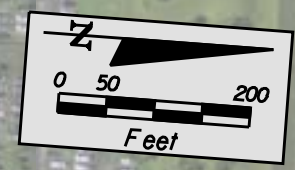
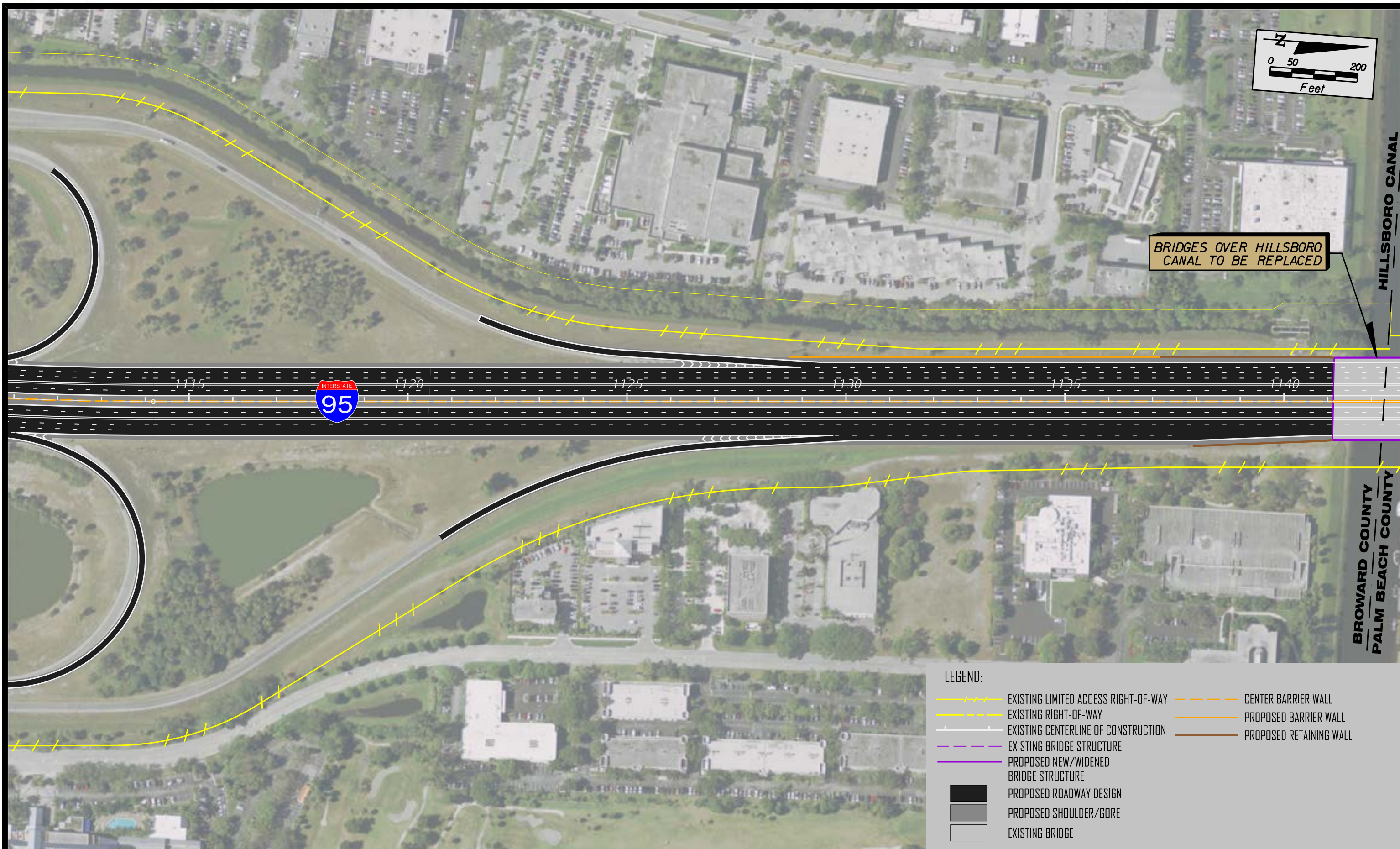


I-95 (SR 9) PD&E STUDY
FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)
ETDM: 3330

RECOMMENDED ALTERNATIVE
CONCEPT PLANS

EXHIBIT

1

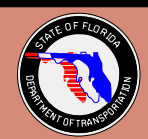


BRIDGES OVER HILLSBORO
CANAL TO BE REPLACED

HILLSBORO CANAL

BROWARD COUNTY
PALM BEACH COUNTY

- LEGEND:
- | | | | |
|--|---------------------------------------|--|-------------------------|
| | EXISTING LIMITED ACCESS RIGHT-OF-WAY | | CENTER BARRIER WALL |
| | EXISTING RIGHT-OF-WAY | | PROPOSED BARRIER WALL |
| | EXISTING CENTERLINE OF CONSTRUCTION | | PROPOSED RETAINING WALL |
| | EXISTING BRIDGE STRUCTURE | | |
| | PROPOSED NEW/WIDENED BRIDGE STRUCTURE | | |
| | PROPOSED ROADWAY DESIGN | | |
| | PROPOSED SHOULDER/GORE | | |
| | EXISTING BRIDGE | | |



FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES

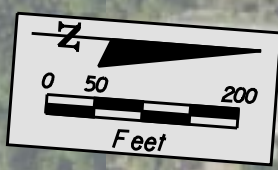


I-95 (SR 9) PD&E STUDY
FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)
ETDM: 3330

RECOMMENDED ALTERNATIVE
CONCEPT PLANS

EXHIBIT

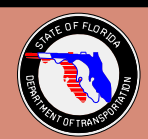
2



POTENTIAL ACCESS POINT #4
NORTHBOUND ENTRANCE

LEGEND:

	EXISTING LIMITED ACCESS RIGHT-OF-WAY		CENTER BARRIER WALL
	EXISTING RIGHT-OF-WAY		PROPOSED BARRIER WALL
	EXISTING CENTERLINE OF CONSTRUCTION		PROPOSED RETAINING WALL
	EXISTING BRIDGE STRUCTURE		
	PROPOSED NEW/WIDENED BRIDGE STRUCTURE		
	PROPOSED ROADWAY DESIGN		
	PROPOSED SHOULDER/GORE		
	EXISTING BRIDGE		



FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES



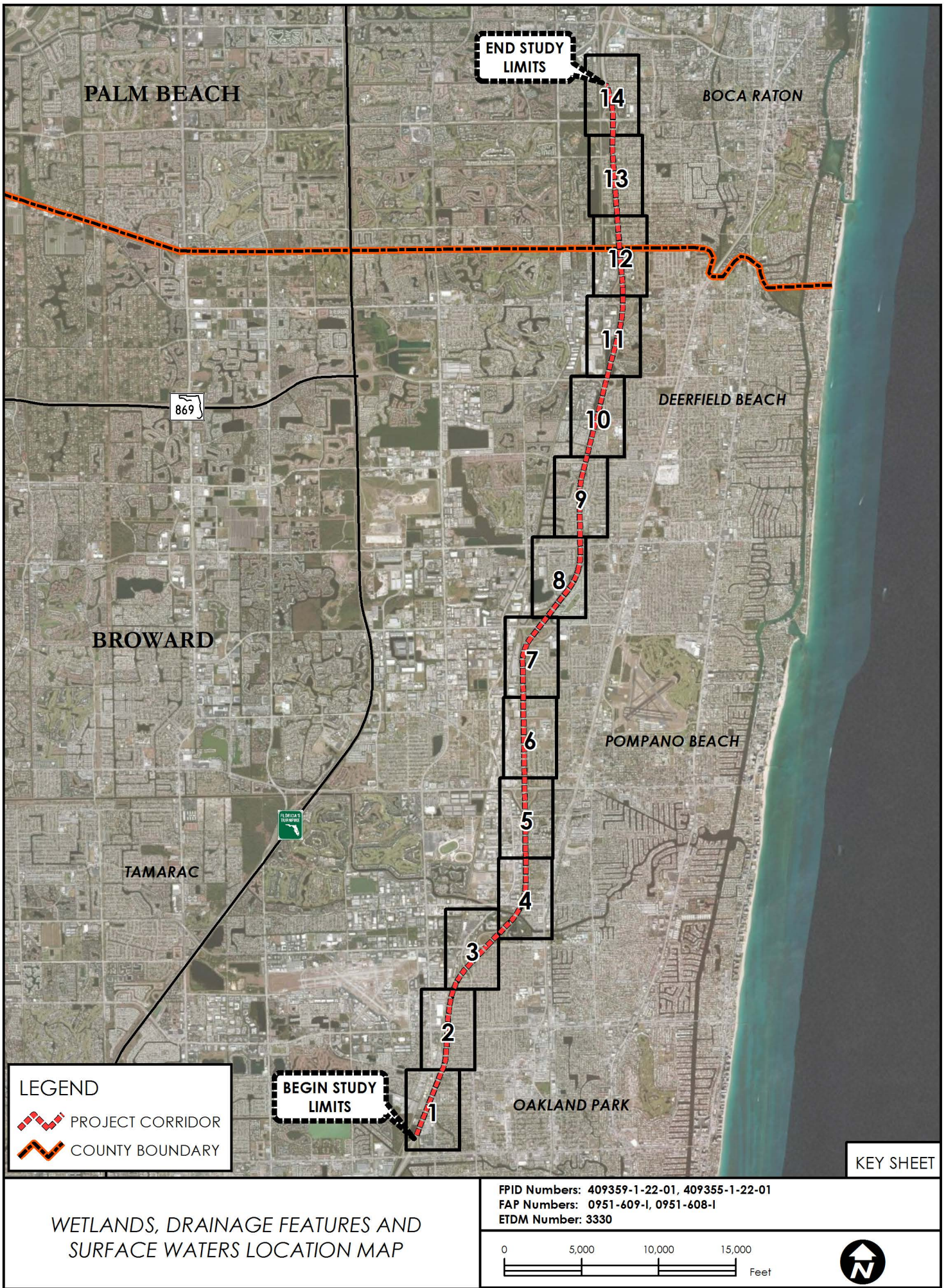
I-95 (SR 9) PD&E STUDY
 FPID: 409359-I-22-01 (BROWARD COUNTY)
 FPID: 409355-I-22-01 (PALM BEACH COUNTY)
 ETDM: 3330

RECOMMENDED ALTERNATIVE
CONCEPT PLANS



Appendix G

Wetlands, Stormwater Management/ Drainage Features, and Surface Waters Maps

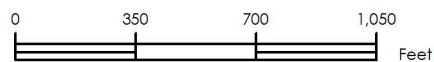




SHEET 1

WETLANDS, DRAINAGE FEATURES AND SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330





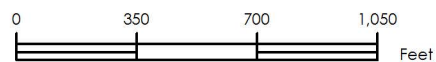
LEGEND

- PROJECT CORRIDOR
- WETLANDS
- DRAINAGE FEATURES
- SURFACE WATERS

SHEET 2

WETLANDS, DRAINAGE FEATURES AND SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330

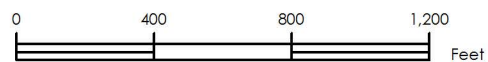




SHEET 3

WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

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FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330



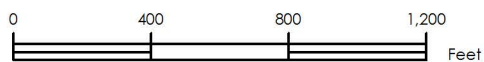


LEGEND

- PROJECT CORRIDOR
- WETLANDS
- DRAINAGE FEATURES
- SURFACE WATERS

WETLANDS, DRAINAGE FEATURES AND SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330



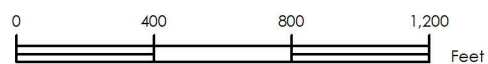


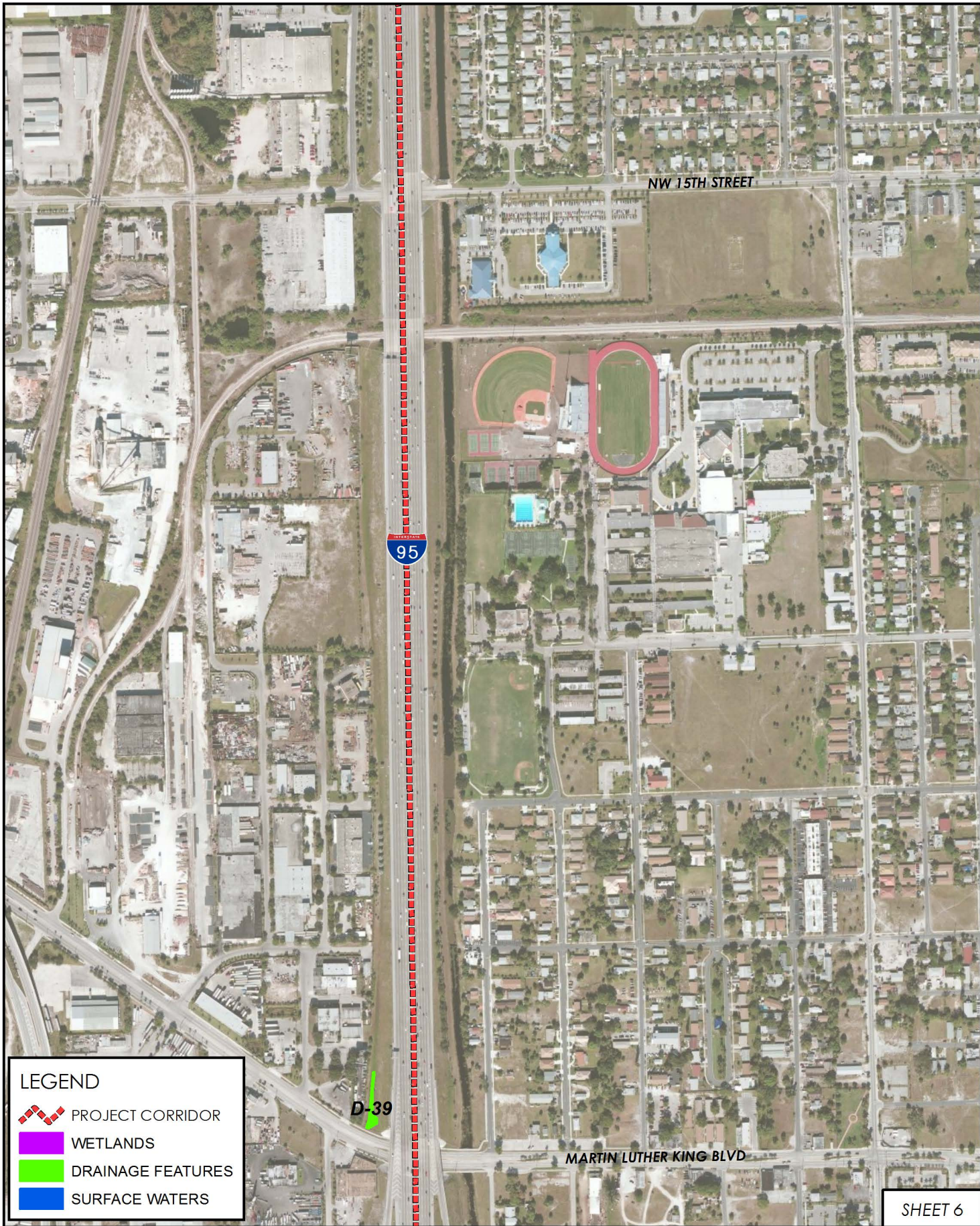
WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01

FAP Numbers: 0951-609-I, 0951-608-I

ETDM Number: 3330



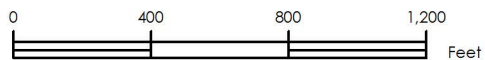


LEGEND

-  PROJECT CORRIDOR
-  WETLANDS
-  DRAINAGE FEATURES
-  SURFACE WATERS

WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330



SHEET 6





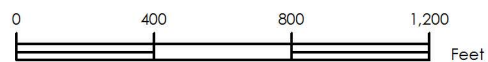
SHEET 7

WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

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FAP Numbers: 0951-609-I, 0951-608-I

ETDM Number: 3330





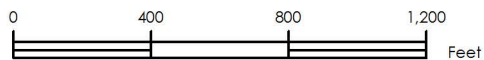
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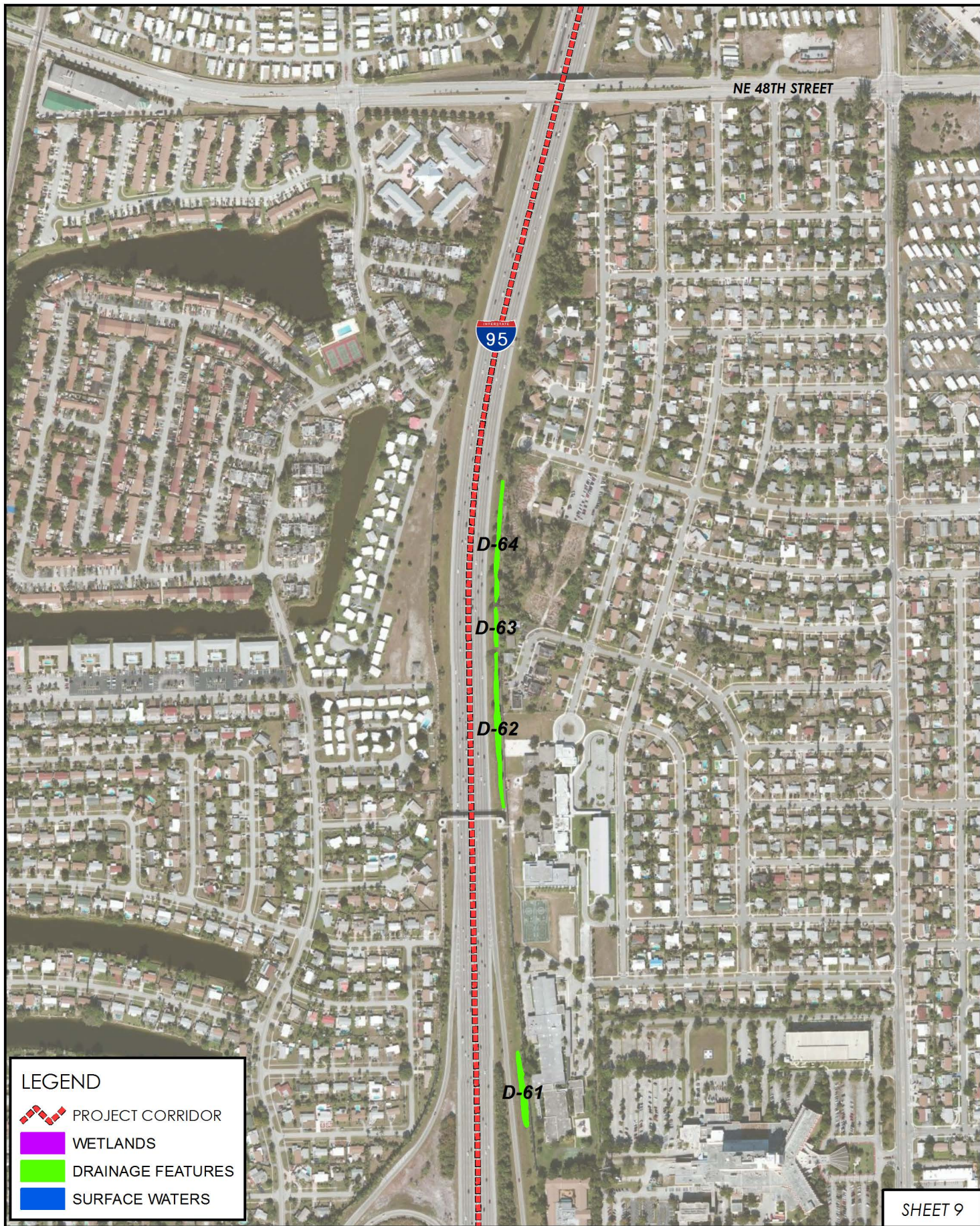
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-  WETLANDS
-  DRAINAGE FEATURES
-  SURFACE WATERS

SHEET 8

WETLANDS, DRAINAGE FEATURES AND SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330





LEGEND

-  PROJECT CORRIDOR
-  WETLANDS
-  DRAINAGE FEATURES
-  SURFACE WATERS

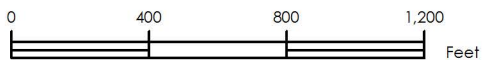
SHEET 9

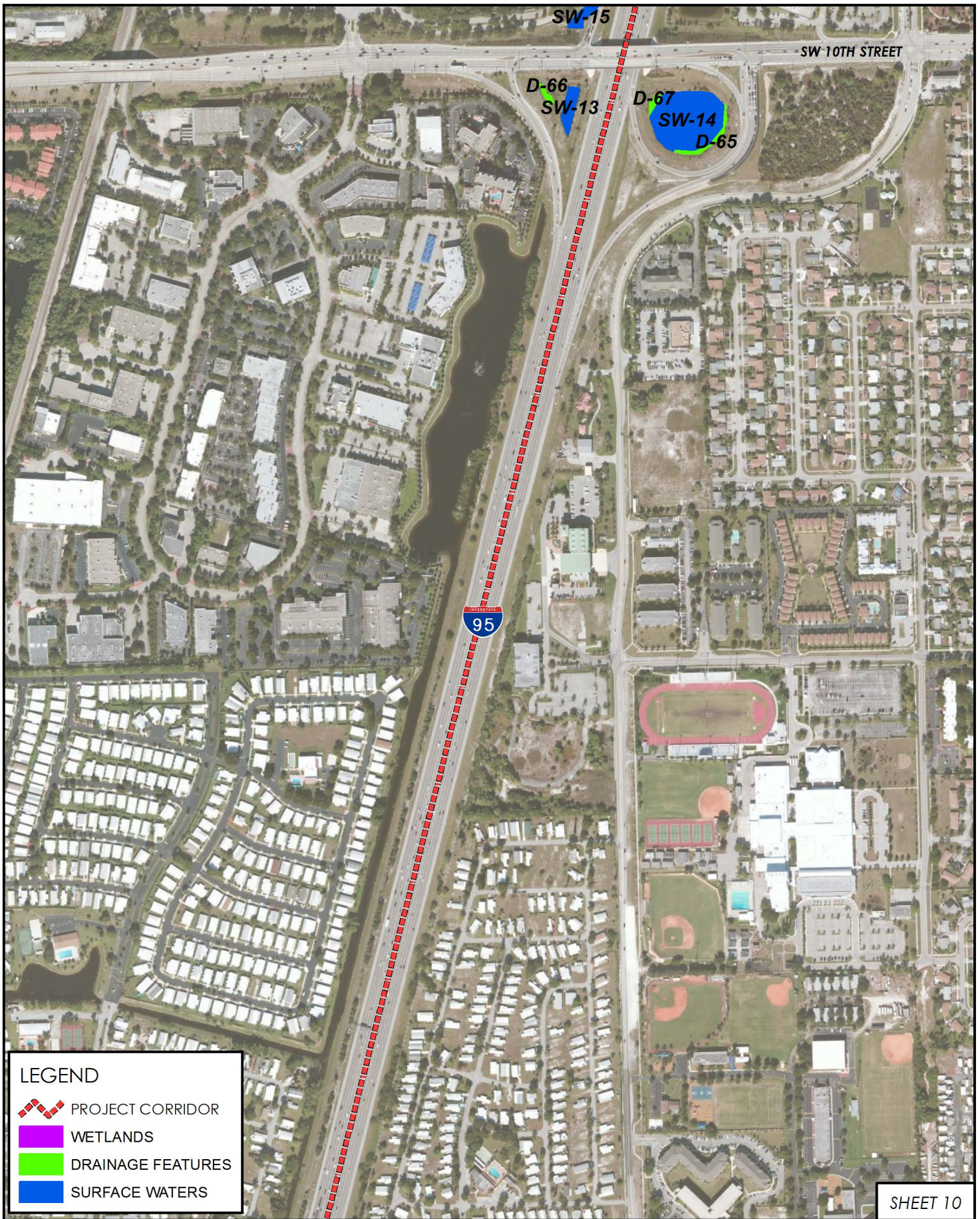
WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01

FAP Numbers: 0951-609-I, 0951-608-I

ETDM Number: 3330





WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-1, 0951-608-1
ETDM Number: 3330





WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330

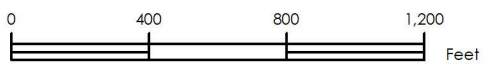




SHEET 12

WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330



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SW-20

LEGEND

-  PROJECT CORRIDOR
-  WETLANDS
-  DRAINAGE FEATURES
-  SURFACE WATERS

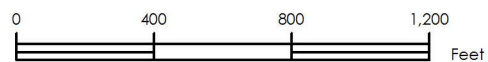
SHEET 13

WETLANDS, DRAINAGE FEATURES AND SURFACE WATERS LOCATION MAP

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FAP Numbers: 0951-609-I, 0951-608-I

ETDM Number: 3330



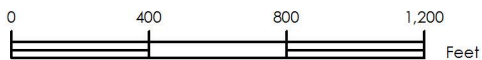


LEGEND

- PROJECT CORRIDOR
- WETLANDS
- DRAINAGE FEATURES
- SURFACE WATERS

WETLANDS, DRAINAGE FEATURES AND
SURFACE WATERS LOCATION MAP

FPID Numbers: 409359-1-22-01, 409355-1-22-01
FAP Numbers: 0951-609-I, 0951-608-I
ETDM Number: 3330



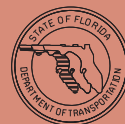
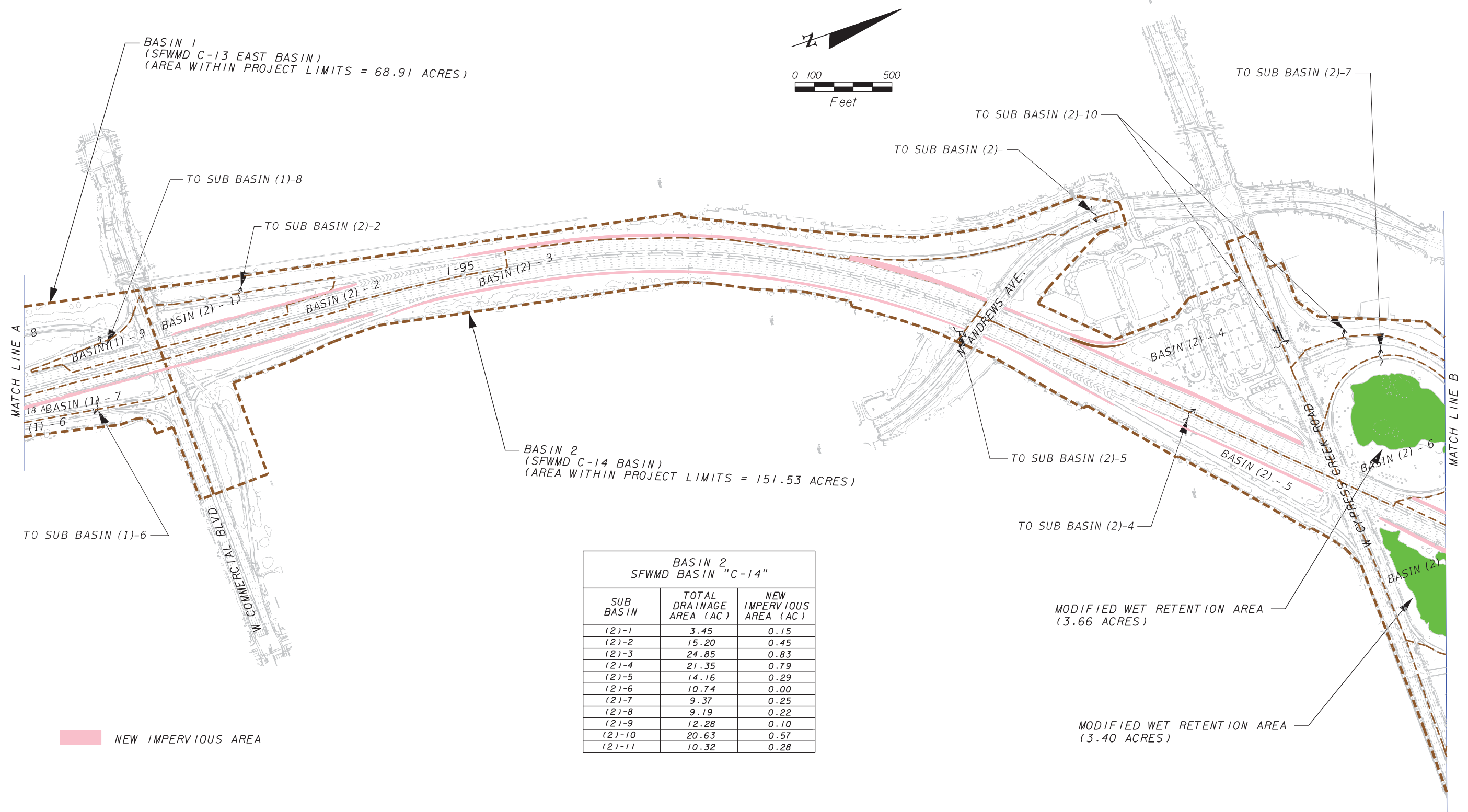
SHEET 14

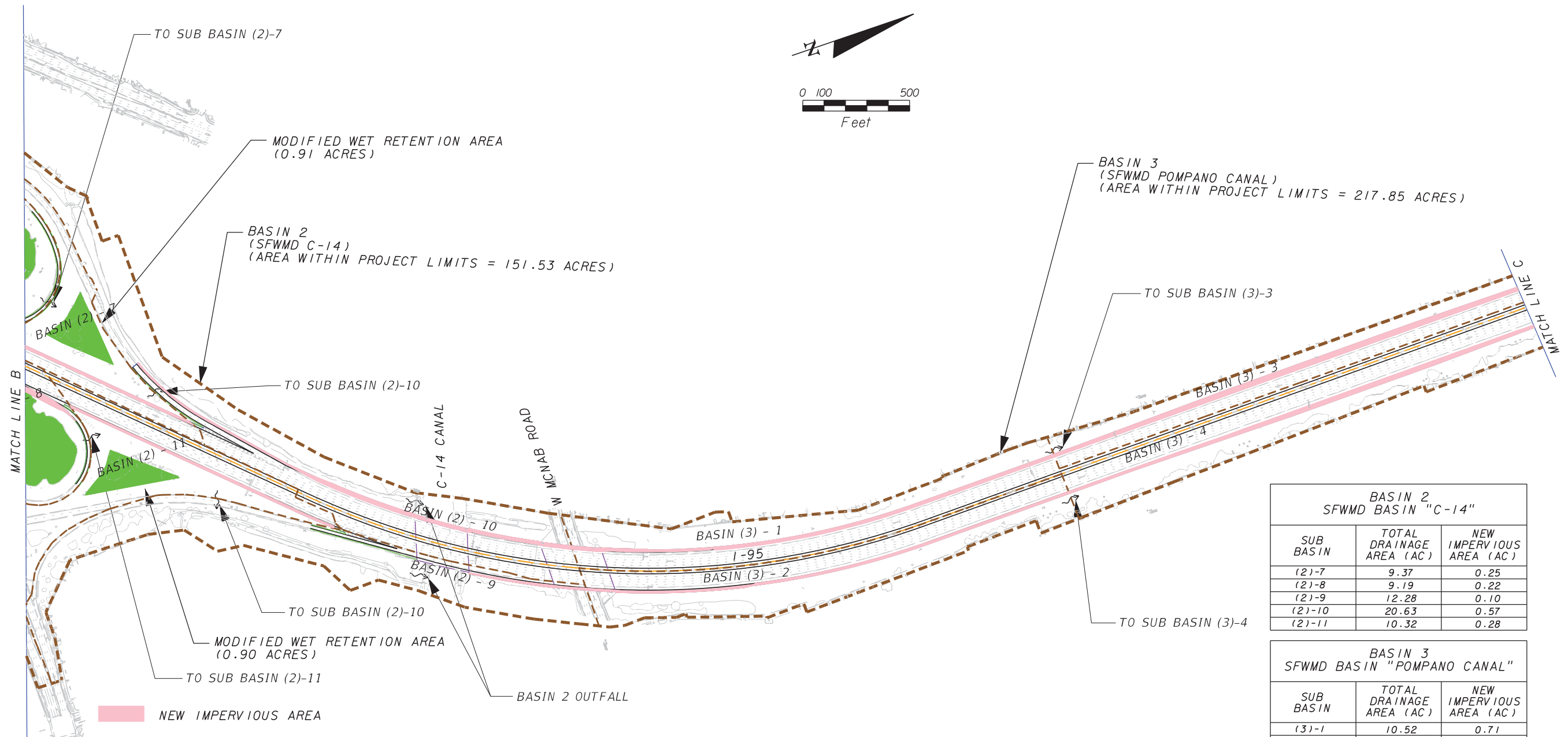




Appendix H

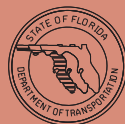
Proposed Stormwater Management System Maps





BASIN 2 SFWM BASIN "C-14"		
SUB BASIN	TOTAL DRAINAGE AREA (AC)	NEW IMPERVIOUS AREA (AC)
(2)-7	9.37	0.25
(2)-8	9.19	0.22
(2)-9	12.28	0.10
(2)-10	20.63	0.57
(2)-11	10.32	0.28

BASIN 3 SFWM BASIN "POMPANO CANAL"		
SUB BASIN	TOTAL DRAINAGE AREA (AC)	NEW IMPERVIOUS AREA (AC)
(3)-1	10.52	0.71
(3)-2	11.51	0.49
(3)-3	15.08	1.17
(3)-4	23.40	1.07



FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES

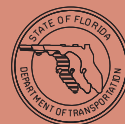
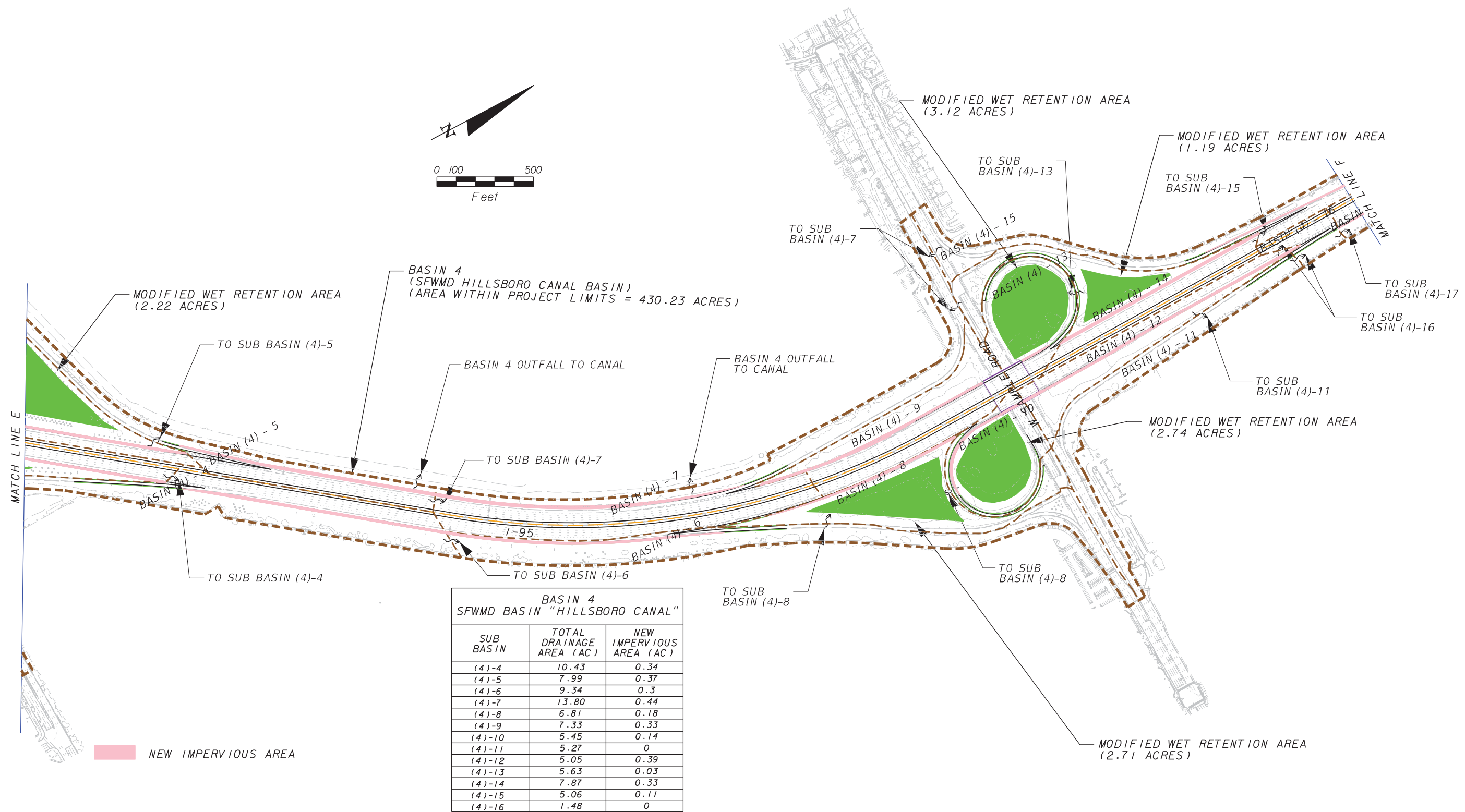
January 2013

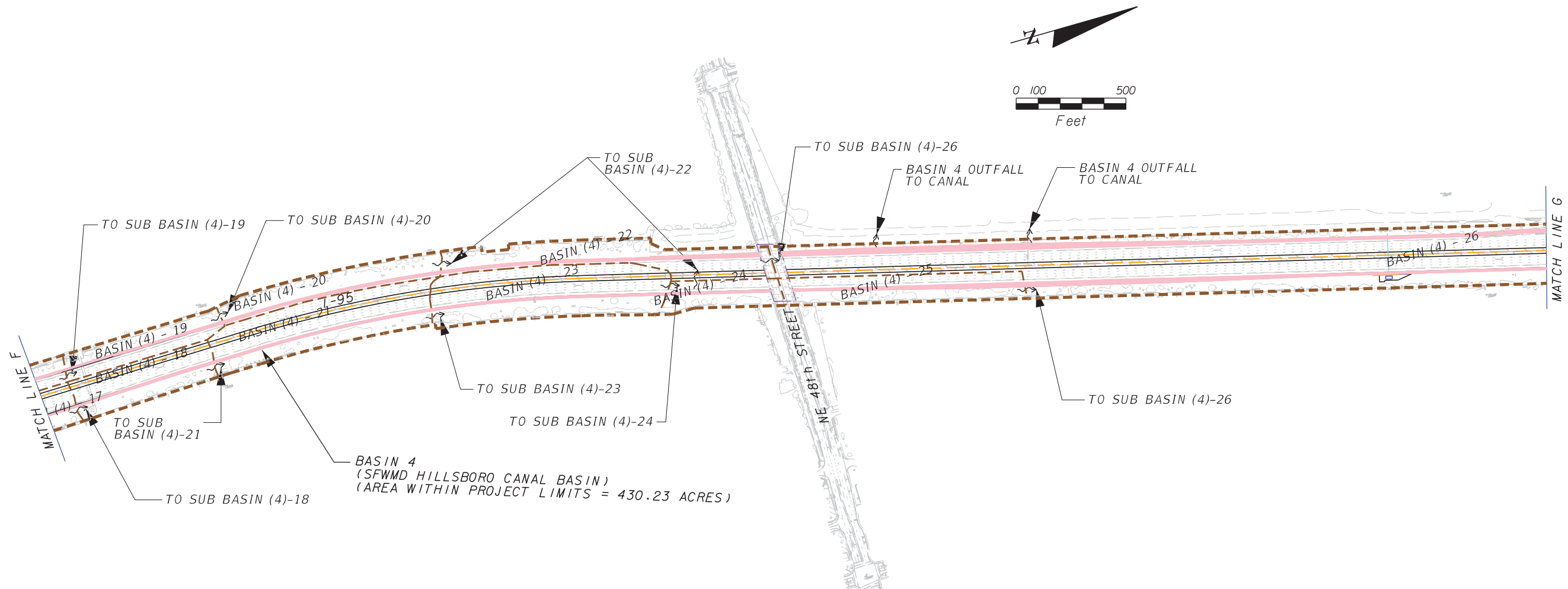
I-95 (SR 9) PD&E STUDY

FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)

SR 9 (INTERSTATE 95) POST-DEVELOPMENT DRAINAGE MAP (3)

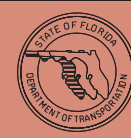
SHEET
NO.





NEW IMPERVIOUS AREA

BASIN 4 SFWM BASIN "HILLSBORO CANAL"		
SUB BASIN	TOTAL DRAINAGE AREA (AC)	NEW IMPERVIOUS AREA (AC)
(4)-17	1.22	0.03
(4)-18	2.79	0.16
(4)-19	2.09	0.15
(4)-20	2.61	0.3
(4)-21	5.04	0.25
(4)-22	4.14	0.47
(4)-23	5.72	0.25
(4)-24	1.57	0.11
(4)-25	3.16	0.38
(4)-26	28.49	2.83



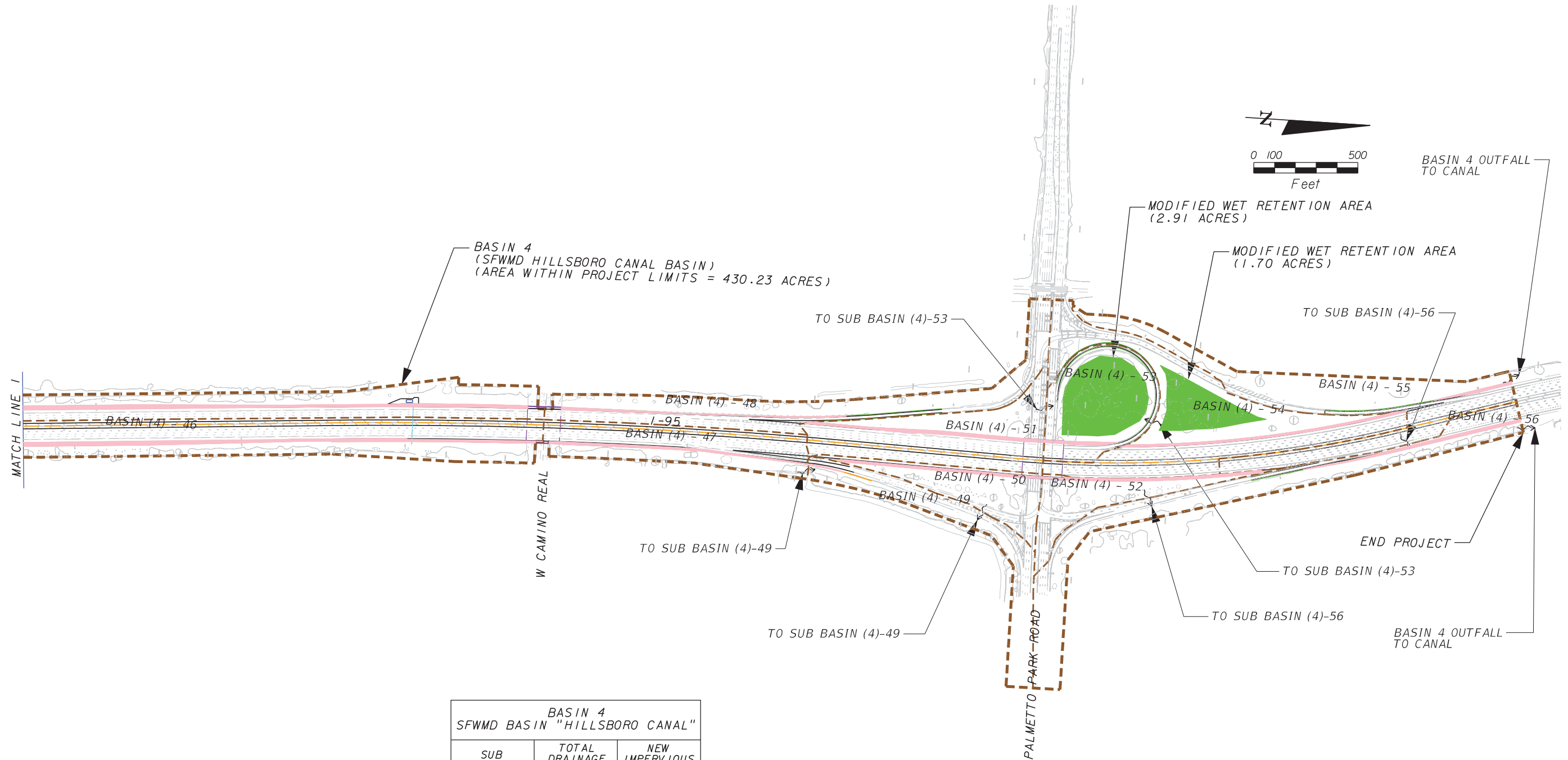
FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES

January 2013

I-95 (SR 9) PD&E STUDY
FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)

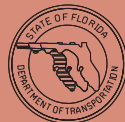
SR 9 (INTERSTATE 95)
POST-DEVELOPMENT DRAINAGE MAP (7)

SHEET NO.



NEW IMPERVIOUS AREA

BASIN 4 SFWM BASIN "HILLSBORO CANAL"		
SUB BASIN	TOTAL DRAINAGE AREA (AC)	NEW IMPERVIOUS AREA (AC)
(4)-46	12.93	1.02
(4)-47	5.32	0.25
(4)-48	7.43	0.17
(4)-49	4.32	0.01
(4)-50	3.46	0.24
(4)-51	6.64	0.34
(4)-52	3.11	0.29
(4)-53	5.63	0.1
(4)-54	10.88	0.29
(4)-55	8.57	0.08
(4)-56	7.71	0.24



FLORIDA DEPARTMENT OF TRANSPORTATION
BROWARD AND PALM BEACH COUNTIES

October 2012

I-95 (SR 9) PD&E STUDY

FPID: 409359-I-22-01 (BROWARD COUNTY)
FPID: 409355-I-22-01 (PALM BEACH COUNTY)

SR 9 (INTERSTATE 95)
POST-DEVELOPMENT DRAINAGE MAP (10)

SHEET
NO.



Appendix I

U.S. Environmental Protection Agency Sole Source Aquifer Letter



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

June 20, 2013

Ms. Ashley Matthews
Environmental Scientist
URS Corporation
7650 Corporate Center Drive, Suite 400
Miami, Florida 33126

Subject: Sole Source Aquifer Review for the FDOT SR 9/I-95 Project Development and Environment (PD&E) Study from North of Oakland Park Boulevard (SR 816) to South of Glades Road (SR 808) – 13.5 mile proposed express lane improvements for Broward & Palm Beach Counties, Florida - FM No. 409359-1/409355-1; ETDM No. 3303

Dear Ms. Matthews:

The U.S. Environmental Protection Agency (EPA), Region 4, received your April 1, 2013 request to assess the above referenced project and we reviewed it pursuant to Section 1424(e) of the Safe Drinking Water Act. The assessment is to determine if the project lies within the boundaries (recharge and streamflow source zones) of an EPA designated Sole Source Aquifer (SSA); and to determine if the project poses potential, adverse health or environmental impacts. A sole source aquifer is the sole or principal water source for a designated area. If the aquifer is contaminated, there would be a significant hazard to public health and an economic burden for those using the aquifer to tap into and deliver drinking water from another water source.

The project has been determined to lie **inside** the designated boundaries of the Biscayne Aquifer. Regulatory groups within the EPA responsible for administering other programs may, at their own discretion and under separate cover, provide additional comments

Based on the information provided, the project is not expected to cause a significant impact to the aquifer system. However, it is requested that all debris from any demolition of the existing structures are properly contained and removed from the site prior to construction of the new building. If applicable, contractors should follow all county flood plain management's plans and public notification processes. During construction, it is EPA's understanding and expectation that those responsible for the project will strictly adhere to all Federal, State and local government permits, ordinances, planning designs, construction codes, operation & maintenance requirements, and engineering. All best management practices for erosion and sedimentation control should be followed. State and County environmental offices should be contacted to address proper drainage and storm water designs. Additionally, the project manager should contact State and local environmental officials to obtain a copy of any local Wellhead Protection Plans. <http://www.dep.state.fl.us/swapp/Default.htm>

If proper protection measures are followed, this project is not expected to cause significant adverse impacts to the aquifer. All findings of "no significant impact" are based on EPA's understanding and expectation that those responsible for the project will strictly adhere to all federal, state and local government permits, ordinances, best management practices, planning designs, construction and maintenance requirements, monitoring requirements and engineering recommendations to protect the integrity of the surrounding ground water recharge zones. It is requested that you contact the EPA Region 4 office should there be any major project changes.

Thank you for your concern with the environmental impacts of this project. If you have any questions, please contact me at 404-562-9474.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry P. Cole". The signature is fluid and cursive, with the first name "Larry" and last name "Cole" being the most prominent parts.

Larry P. Cole
Environmental Engineer
Ground Water and UIC Section

Phase	Fund Source	2012/13	2013/14	2014/15	2015/16	2016/17	Total
I-95/SR-9 FROM S. OF SAMPLE ROAD TO PALM BCH CO/LINE - FM# 4093594 (TIP# 1055)					Length: 4.121 mi	*SIS*	
Type of Work: ADD LANES & RECONSTRUCT					Lead Agency: FDOT		
					LRTP#: 09R64		
SOUTH OF SAMPLE ROAD TO PALM BEACH/BROWARD C/L							
PE (32)	ACNH	0	1,100,000	0	0	0	1,100,000
PE (31)	ACNH	0	120,000	0	0	0	120,000
Total		0	1,220,000	0	0	0	1,220,000
<i>Prior Years Cost</i>			<i>Future Years Cost</i>	132,158,361	<i>Total Project Cost</i>		133,378,361
I-95/SR-9 - FM# 4259951 (TIP# 1811)					Length: 2.425 mi	*SIS*	
Type of Work: BRIDGE-REPAIR/REHABILITATION					Lead Agency: FDOT		
Project Type: State Managed					LRTP#: 09-Pg223		
@ I-595/ SR 862 BRIDGE DECK OVERLAY MULTIPLE BRIDGES							
CSTS (61)	DIH	227,250	0	0	0	0	227,250
CST (52)	BRRP	4,076,454	0	0	0	0	4,076,454
CSTS (62)	BRRP	830,540	0	0	0	0	830,540
Total		5,134,244	0	0	0	0	5,134,244
<i>Prior Years Cost</i>		199,152	<i>Future Years Cost</i>		<i>Total Project Cost</i>		5,333,396



Appendix J

Water Quality Impact Evaluation Checklist

Exhibit A

WQIE CHECK LIST

Project Name: I-95 (SR 9) Project Development and Environment Study

County: Broward County and Palm Beach County

FIN (Financial Number): 409359-1 and 409355-1

Federal Aid Project No: 0951-609-I and 0951-608-I

Short project description: The Florida Department of Transportation District Four is conducting a Project Development and Environment Study for Interstate 95 (I-95/SR 9) from north of Oakland Park Boulevard (SR 816) to south of Glades Road (SR 808) in Broward and Palm Beach Counties. The total project length is approximately 13.5 miles.

PART 1: DETERMINATION OF WQIE SCOPE

☐ Does project increase impervious surface area? Yes No

☐ Does project alter the drainage system? Yes No

If the answer to both questions is no, complete the WQIE by checking Box A in Part 4.

☐ Do environmental regulatory requirements apply? Yes No

PART 2: PROJECT CHARACTERISTICS

20-year design ADT: 281,000 Expected speed limit: 65 mi/hr

Drainage area: 863.52 acres 5 (new) % Impervious N/A % Pervious

Land Use: 0 % Residential 0 % Commercial 0 % Industrial

0 % Agricultural <1 % Wetlands 100 % Other Natural + (Roadway)

Potential large sources of pollution (identify): No large sources of pollution were identified within the project limits. Please see the Contamination Screen Evaluation Report for details.

Groundwater receptor (name of aquifer or N/A): Biscayne Aquifer

☐ Designated well head protection area? Yes No Name: _____

☐ Sole source aquifer Yes No Name: Biscayne Aquifer

Groundwater recharge mechanism:

Ground infiltration

(Notify District Drainage Engineer if karst conditions expected)

WQIE CHECK LIST (Contd.)

Surface water receptor (name or N/A): _____

☐ Classification I II **III** IV V

Special designation (check all that apply):

☐ ONRW OFW Aquatic Preserve Wild & Scenic River
☐ Special Water SWIM Area Local Comp Plan MS4 Area
☐ Other (specify): _____

Conceptual storm water conveyances & system (check all that apply):

☐ **Swales** **Curb and Gutter** Scuppers **Pipe** French Drains
☐ **Retention/Detention Ponds** Other _____

PART 3: ENVIRONMENTAL REGULATORY REQUIREMENTS

Regulatory Agency (Check all that apply)	Reference citation for regulatory criteria (attach copy of pertinent pages)	Most stringent criteria (Check all that apply)
USEPA <input checked="" type="checkbox"/>	N/A	<input type="checkbox"/>
FDEP <input checked="" type="checkbox"/>	Section 402 of the Clean Water Act (NPDES Program)	<input checked="" type="checkbox"/>
WMD <input checked="" type="checkbox"/> (Specify) SFWMD	Chapter 40E-40, FAC and ERP Basis of Review	<input checked="" type="checkbox"/>
OTHER <input checked="" type="checkbox"/> (Specify) USACE	Section 404 of the Clean Water Act	<input checked="" type="checkbox"/>

Proceed to Part 4 and check Box C.

WQIE CHECK LIST (Contd.)

PART 4: WQIE DOCUMENTATION

- ☐ Water quality is not an issue.
- ☐ No regulatory requirements apply to water quality issues
(Document by checking the "none" box for water quality in Section 6.C.3 of the *Environmental Determination Form* or Section 5.C.3 of the SEIR.
- ☒ Regulatory requirements apply to water quality issues. Water quality issues will be mitigated through compliance with the quantity design requirements placed by the South Florida Water Management District _____, an authorized regulatory agency.
(Document by checking the "none" box for water quality in Section 6.C.3 of the Environmental Determination Form or Section 5.C.3 of the SEIR.

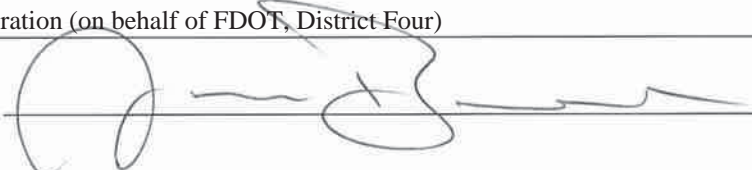
Evaluator Name (print):

Julio Boucle, PE

Office:

URS Corporation (on behalf of FDOT, District Four)

Signature:



Date:

1/14/13



Appendix K

Florida Coastal Zone Management Plan Consistency Letter



Florida Department of Environmental Protection

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

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

March 7, 2007

Mr. Gustavo Schmidt, P.E.
District Planning and Environmental Engineer
Florida Department of Transportation
3400 West Commercial Boulevard
Ft. Lauderdale, FL 33309-3421



RE: Department of Transportation - Advance Notification - SR 9/I-95 from South of SR 870/Commercial Boulevard to South of SR 808/Glades Road, FPID Nos. 409355-1-22-01 and 409359-1-22-01 - Broward and Palm Beach Counties, Florida.
SAI # FL200701113007C (Reference ETDM No. 3330)

Dear Mr. Schmidt:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the referenced advance notification.

The Florida Department of Environmental Protection (DEP) has reviewed the proposal and reiterates its previous ETDM comments regarding contaminated sites. Any land clearing or construction debris must be characterized for proper disposal. Potentially hazardous materials must be properly managed in accordance with Chapter 62-730, *Florida Administrative Code (F.A.C.)*. In addition, any solid wastes or other non-hazardous debris must be managed in accordance with Chapter 62-701, *F.A.C.* Staging areas, with controlled access, should be planned in order to safely store raw material paints, adhesives, fuels, solvents, lubricating oils, etc. that will be used during construction. All containers need to be properly labeled. The project managers should consider developing written construction Contingency Plans in the event of a natural disaster, hurricane, spill, fire or environmental release of hazardous materials stored/handled for the project construction.

The South Florida Water Management District (SFWMD) has indicated that the project will require an Environmental Resource Permit (ERP). Modifications to existing Right Of Way Occupancy Permits will be required for existing bridge crossings over the following SFWMD canals: Hillsboro, Old Pompano, and C-14. A Water Use Permit will also be

Mr. Gustavo Schmidt
March 7, 2007
Page 2 of 2

SFWMD canals: Hillsboro, Old Pompano, and C-14. A Water Use Permit will also be required for any proposed ground or surface water withdrawals for landscape irrigation and may be required for certain dewatering activities, if proposed. Regarding the ERP review, the applicant should demonstrate that all feasible project modifications have been made to reduce and eliminate wetland impacts. This analysis should also demonstrate that on-site mitigation opportunities would not provide long-term ecological viability. Proposed off-site mitigation will be reviewed only after reduction and elimination criteria have been addressed. Once reduction and elimination criteria have been met and quantitative and qualitative assessments of the existing on-site wetlands have been performed, staff will determine the amount of mitigation required to offset functional losses associated with any impacts. Regarding the Right Of Way Occupancy Permit modifications, please be advised that no dams, fills, or other impediments to canal conveyance will be allowed during construction. In addition, the applicant should anticipate cleanout (dredging) of the channel at each location.

Based on the information contained in the advance notification and the enclosed state agency comments, the state has no objections to allocation of federal funds for the subject project and, therefore, the funding award is consistent with the Florida Coastal Management Program (FCMP). The applicant must, however, address the concerns identified by our reviewing agencies prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Mr. Chris Stahl at (850) 245-2169.

Sincerely,



Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/cjs
Enclosures

cc: Tim Gray, DEP, Southeast District
Jim Golden, SFWMD



Appendix L

U.S. Fish and Wildlife Service Concurrence Letter



United States Department of the Interior

FISH AND WILDLIFE SERVICE
South Florida Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960



April 24, 2013

PLANNING & ENVIRONMENTAL
MANAGEMENT

APR 29 2013

DISTRICT FOUR
RECEIVED

David Bogardus
Florida Department of Transportation
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

Service CPA Activity Code: 2013-CPA-0170
Service Consultation Code: 2013-I-0146
Date Received: April 18, 2013
Project: Interstate 95 from North of Oakland Park
Boulevard to South of Glades Road
Counties: Broward and Palm Beach

Dear Mr. Bogardus:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter dated April 17, 2013, and Endangered Species Biological Assessment (ESBA) submitted by the Florida Department of Transportation (FDOT), on behalf of the Federal Highway Administration, for the project referenced above. This letter is submitted in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (87 Stat. 884; 16 U.S.C. 1531 *et seq.*), and the Marine Mammal Protection Act (MMPA) of 1972, as amended (16 U.S.C. 1461 *et seq.*).

PROJECT DESCRIPTION

The FDOT is proposing improvements to a 13.5-mile segment of Interstate 95 from north of Oakland Park Boulevard (State Road 816) to south of Glades Road (State Road 808). The existing eight-lane northbound and southbound roadways will be enlarged to ten lanes with the addition of two toll express lanes. The project also includes creation of access points at selected locations along the corridor and improvements to existing interchanges. The purpose of the project is to relieve traffic congestion in the project area. The project will fill 1.92 acres of wetlands and 32.15 acres of stormwater ditches and swales. The FDOT will compensate for impacts to wetlands by providing credits from a Service-approved wetland mitigation bank. The project site is located in Broward County and Palm Beach County, Florida.

THREATENED AND ENDANGERED SPECIES

West Indian manatee

The project occurs within the geographic range of the endangered West Indian manatee (*Trichechus manatus*). The Service notes the project will not affect seagrasses. To provide protection for manatees during construction of the project, the FDOT has agreed to follow the



Standard Manatee Protection Construction Conditions for In-Water Work (FWC 2011). The FDOT has determined the project “may affect, but is not likely to adversely affect” the manatee. Based on the information provided, the Service concurs with this determination.

Eastern indigo snake

The project occurs within the geographic range of the threatened eastern indigo snake (*Drymarchon corais couperi*). To minimize adverse effects to this species during construction, the FDOT has agreed to follow the Service’s *Standard Protection Measures for the Eastern Indigo Snake* (Service 2004a) during construction of the project. The FDOT has determined the project “may affect, but is not likely to adversely affect” the eastern indigo snake. Based on the adherence to the indigo snake protection measures, the Service concurs with this determination.

Wood stork

The project site is located within the core foraging area (CFA) (within 18.6 miles) of an active breeding colony of the endangered wood stork (*Mycteria americana*). The Service believes the loss of wetlands within a CFA may reduce foraging opportunities for wood storks. To minimize adverse effects to the wood stork, the Service’s Draft Supplemental Habitat Management Guidelines for the Wood Stork in the South Florida Ecological Services Consultation Area (Service 2004b) recommend the applicant replace wetlands lost due to the action. The compensation plan should include a temporal lag factor, if necessary, to ensure wetlands provided as compensation adequately replace the wetland functions lost due to the project. Moreover, wetlands offered as compensation should be of the same hydroperiod, and located within the CFA of the affected wood stork colony.

The Service does not consider the preservation of wetlands, by itself, as adequate compensation for impacts to wood stork foraging habitat, because the habitat lost is not replaced. Accordingly, any wetland mitigation plan that includes the preservation of wetlands should include a restoration, enhancement, or creation component. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a “Service Approved” mitigation bank located outside the CFA would be acceptable to the Service, provided the impacted wetlands occur within the permitted service area of the bank.

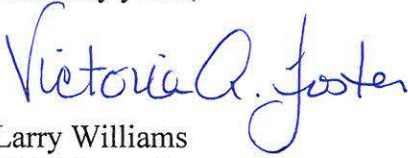
For projects that impact 5 or more acres of wood stork foraging habitat, the Service requires a functional assessment be conducted using our “Wood Stork Foraging Analysis Methodology” (Methodology) on the foraging habitat to be impacted and the foraging habitat provided as mitigation. The Methodology can found on our website at:
http://www.fws.gov/verobeach/BirdsPDFs/20120712_WOST%20Forage%20Assessment%20Methodology_Appendix.pdf.

The FDOT has determined the project “may affect, but is not likely to adversely affect” the wood stork. The project will impact 1.92 acres of wetlands and 32.15 acres of stormwater ditches and swales that may provide foraging habitat for the wood stork. The project includes the construction of at least 32.15 acres of new stormwater ditches and swales to offset the swales and ditches lost due to the project. To compensate for impacts to wetlands, the FDOT has also proposed to provide wetland mitigation (based on application of the Service’s Methodology) that completely offsets the wetlands and the wood stork foraging habitat lost due to the project. A wetland mitigation plan, acceptable to the Service, will be finalized and approved during final design and permitting of the project. Based on the scope of the impacts to wood stork foraging habitat, the Service concurs with the FDOT’s determination for the wood stork.

This letter fulfills the requirements of section 7 of the Act and further action is not required. If modifications are made to the project, if additional information involving potential effects to listed species becomes available, or if a new species is listed, reinitiation of consultation may be necessary.

Thank you for your cooperation in the effort to protect federally listed species and fish and wildlife resources. If you have any questions regarding this project, please contact John Wrublik at 772-469-4282.

Sincerely yours,


for Larry Williams

Field Supervisor

South Florida Ecological Services Office

cc: electronic only

FWC, Tallahassee, Florida (FWC-CPS)

NOAA Fisheries, West Palm Beach, Florida (Brandon Howard)

Corps, Palm Beach Gardens, Florida (Garett Lips)

LITERATURE CITED

- Florida Fish and Wildlife Conservation Commission (FWC). 2011. Standard Manatee Conditions for In-water Work. Tallahassee, Florida.
http://myfwc.com/media/415448/Manatee_StdCondIn_waterWork.pdf
- U.S. Fish and Wildlife Service. 2004a. Standard protection measures for the eastern indigo snake. Fish and Wildlife Service, South Florida Ecological Services Office; Vero Beach, Florida.
- U.S. Fish and Wildlife Service. 2004b. Draft Supplemental Habitat Management Guidelines for the Wood Stork in the South Florida Ecological Services Consultation Area. Fish and Wildlife Service, South Florida Ecological Services Office; Vero Beach, Florida.



Appendix M

Noise Receptor and Noise Barrier Location Maps



LEGEND
—— PROPOSED ALTERNATIVE

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.
1 of 23



LEGEND

MODELED NOISE RECEPTOR

FIELD MEASUREMENT SITE

PROPOSED ALTERNATIVE

EXISTING NOISE BARRIER

EXISTING NOISE BARRIER TO BE REPLACED IN KIND

RECOMMENDED NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.
2 of 23

0 100 200 400
Feet



LEGEND

- MODELED NOISE RECEPTOR
- FIELD MEASUREMENT SITE
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER
- RECOMMENDED NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

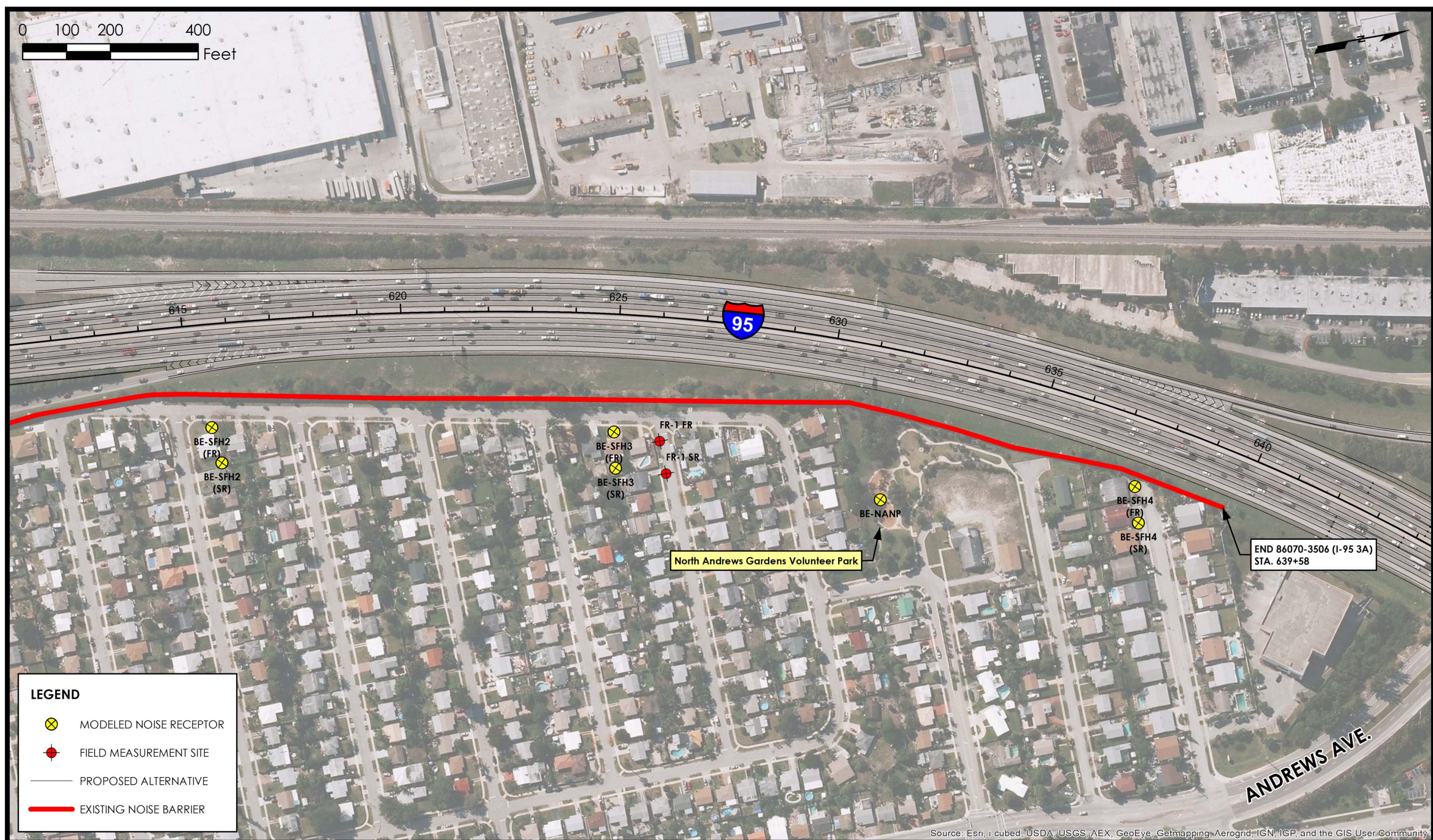


State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.

3 of 23



LEGEND

- MODELED NOISE RECEPTOR
- FIELD MEASUREMENT SITE
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

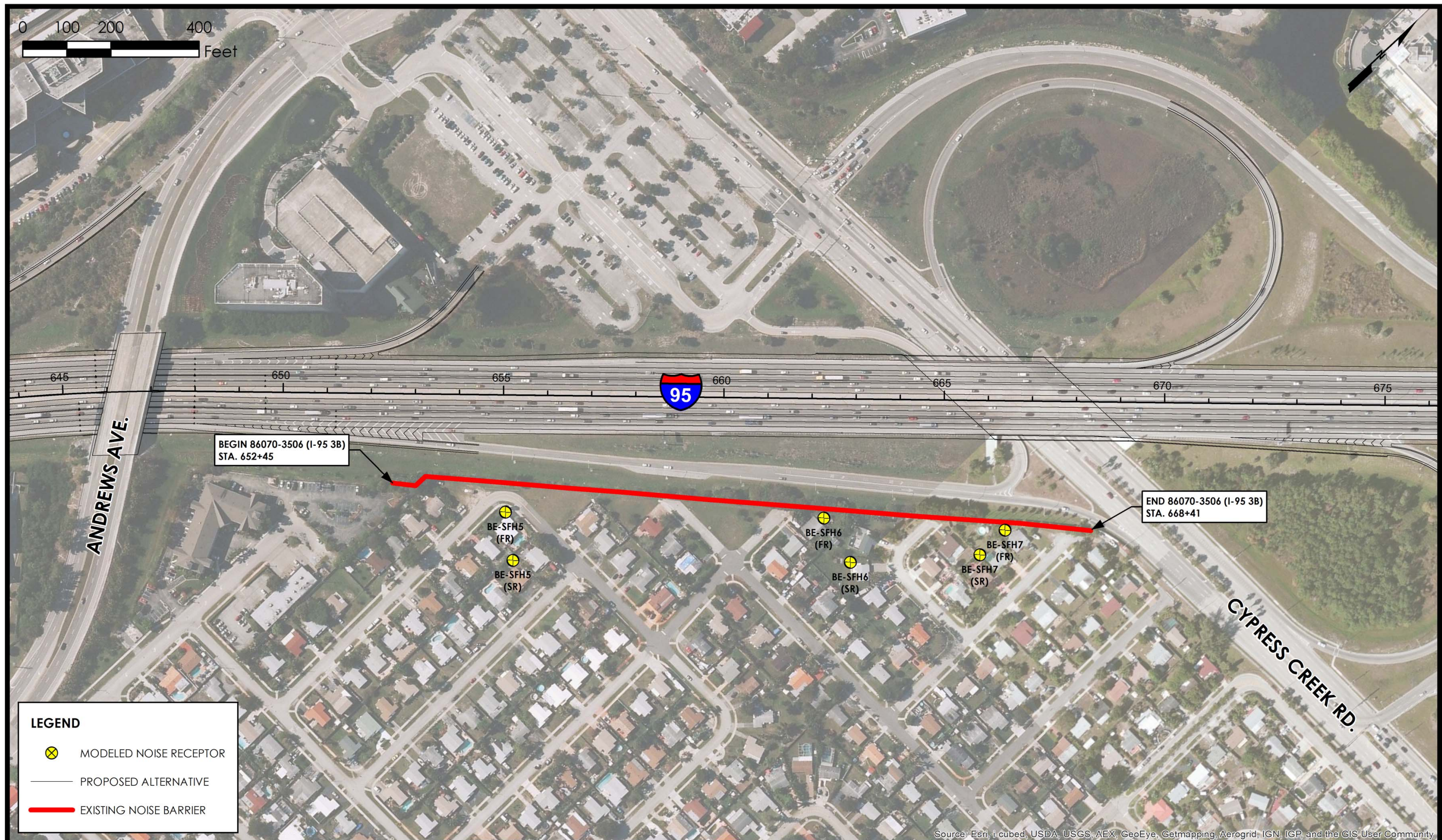


State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.
4 of 23

0 100 200 400
Feet



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.

5 of 23

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Feet



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



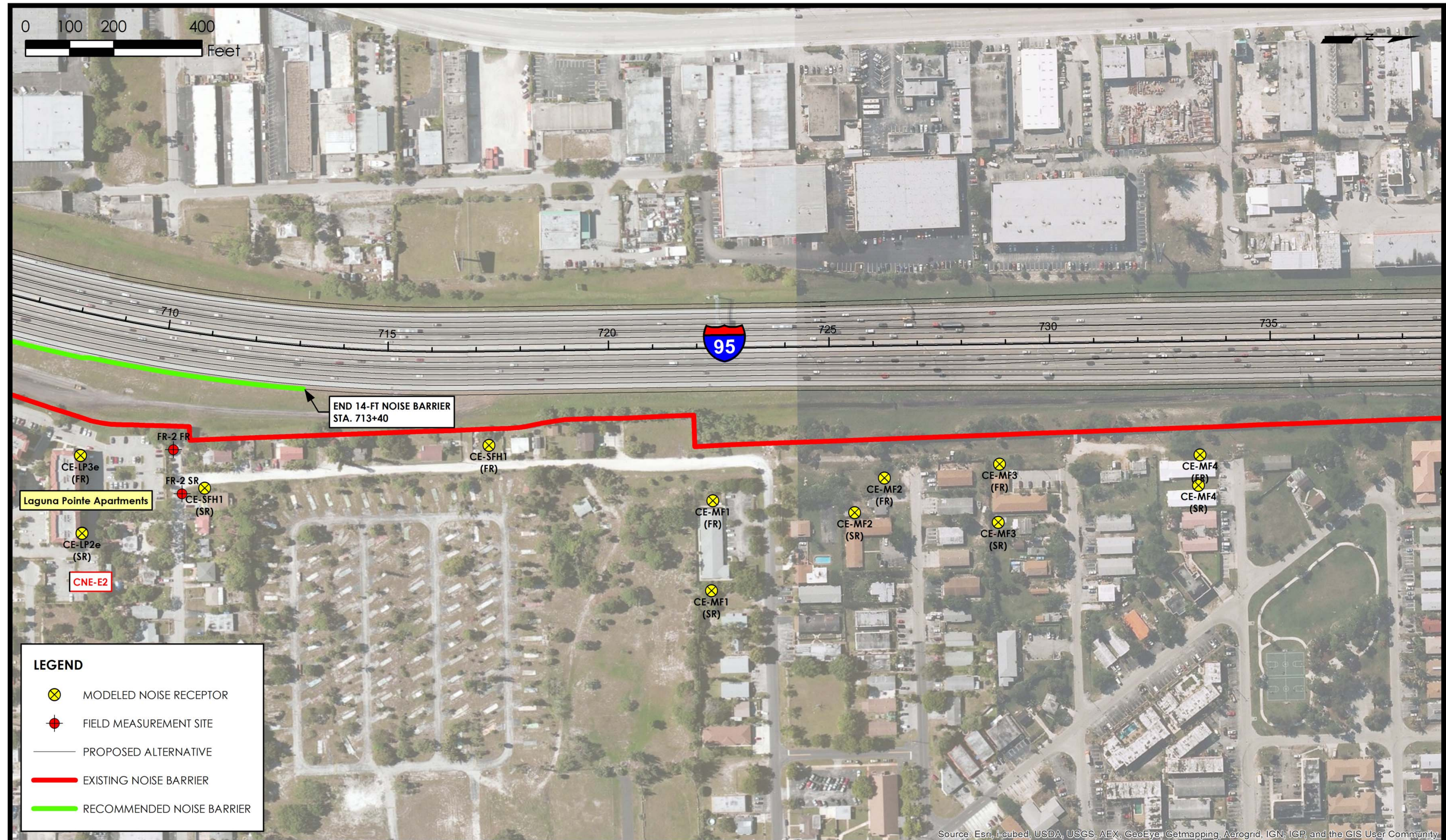
State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.

6 of 23

0 100 200 400
Feet



LEGEND

- MODELED NOISE RECEPTOR
- FIELD MEASUREMENT SITE
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER
- RECOMMENDED NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

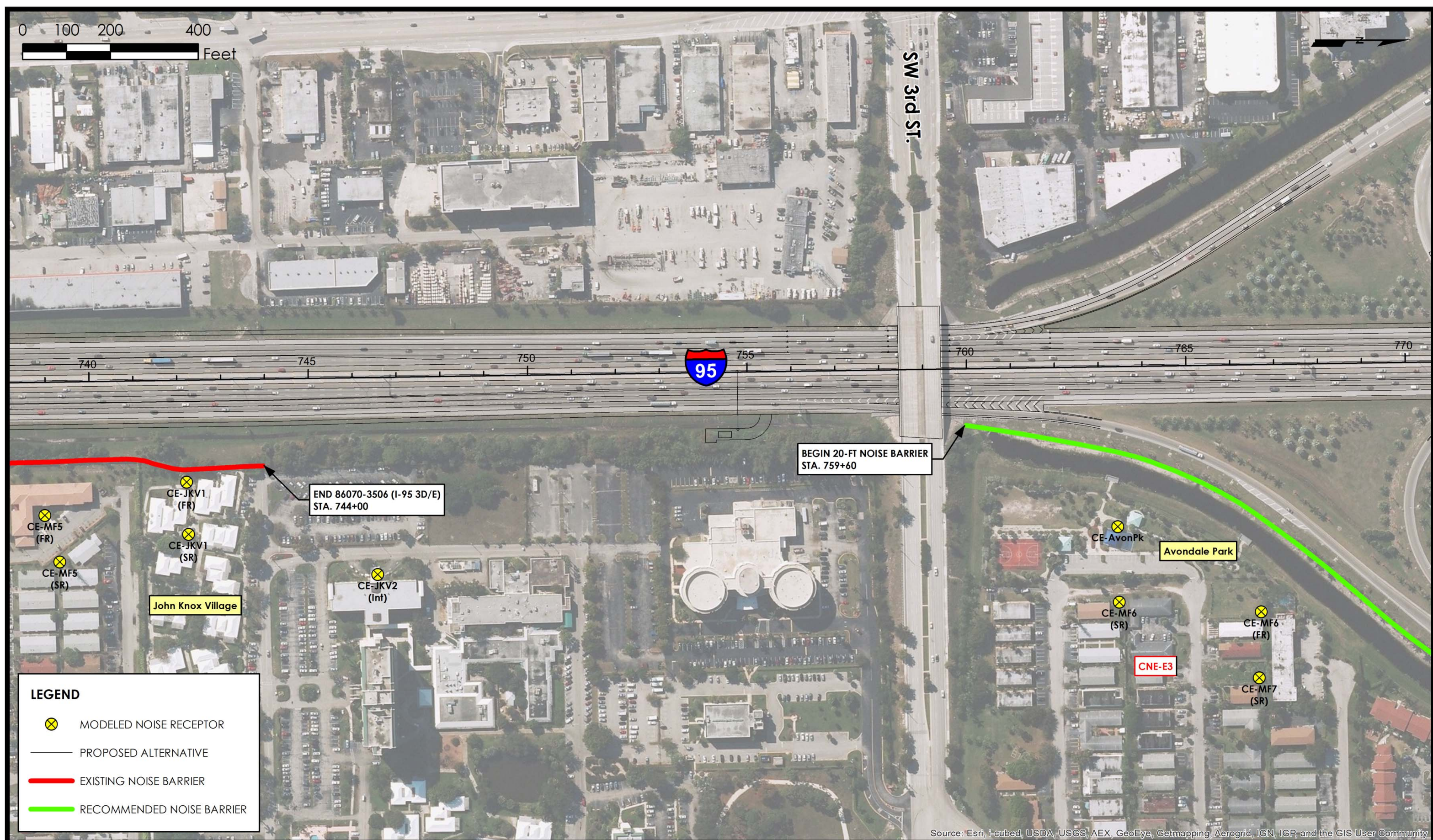


State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.

7 of 23



LEGEND

- MODELED NOISE RECEPTOR
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER
- RECOMMENDED NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.
8 of 23

0 100 200 400
Feet



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
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NOISE STUDY REPORT

SHEET NO.

9 of 23



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
Glades Road (SR 808) in Broward and Palm Beach Counties

NOISE STUDY REPORT

SHEET NO.

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0 100 200 400
Feet



Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

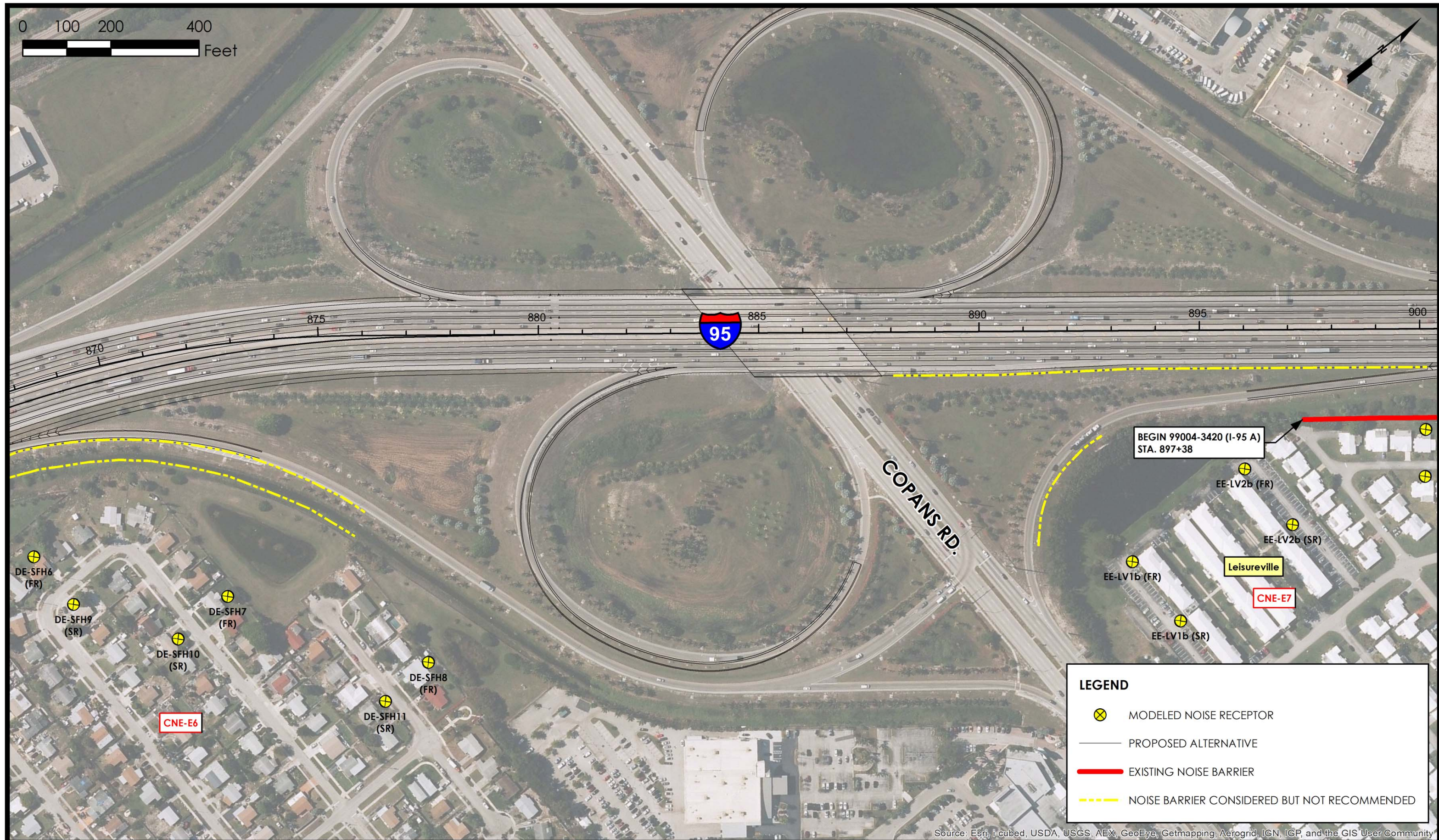
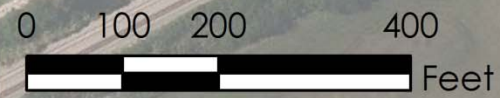


State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
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NOISE STUDY REPORT

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State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
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NOISE STUDY REPORT

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LEGEND

- MODELED NOISE RECEPTOR
- FIELD MEASUREMENT SITE
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER
- RECOMMENDED NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



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NOISE STUDY REPORT

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Florida Department of Transportation, District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

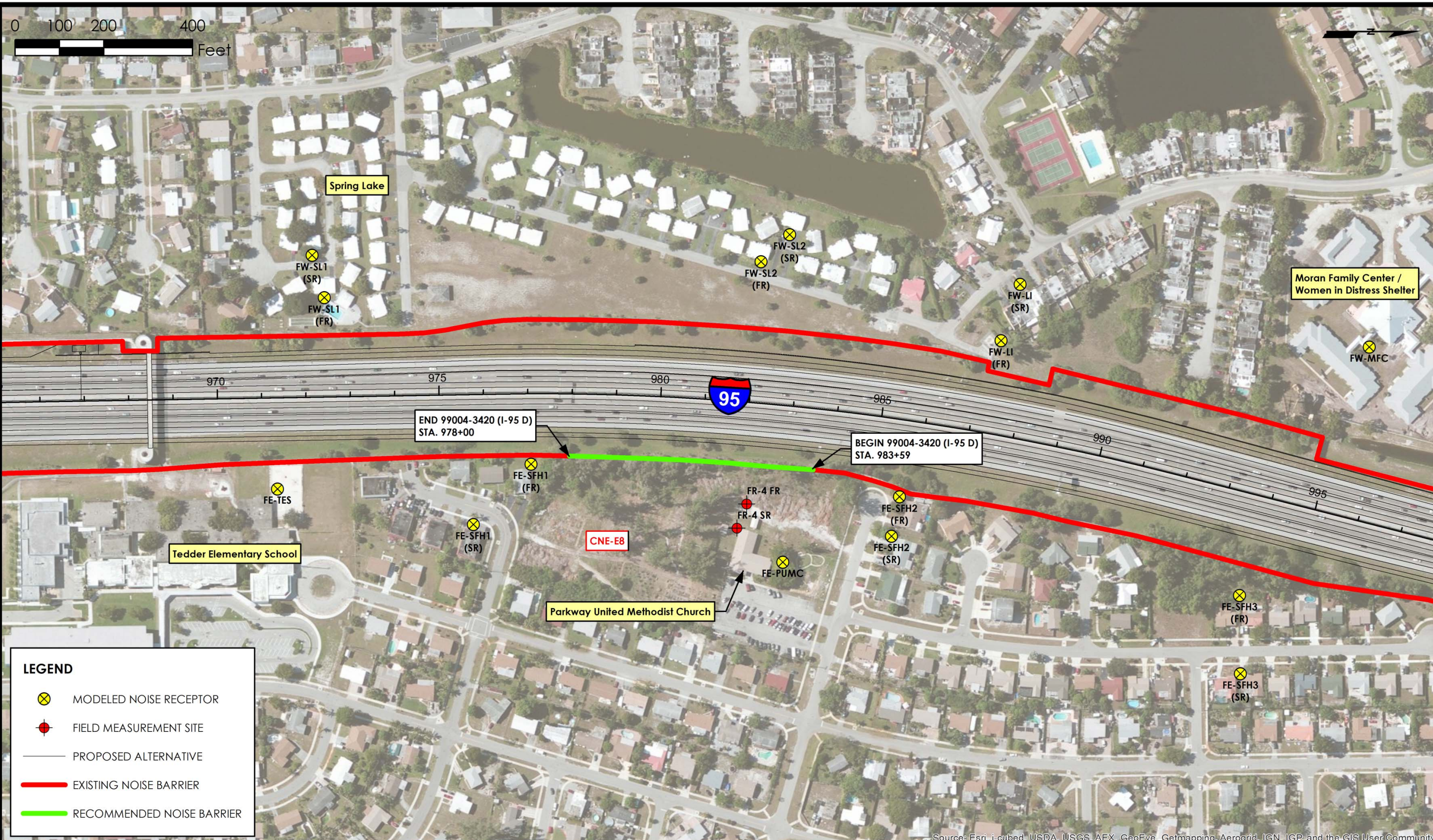


State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
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NOISE STUDY REPORT

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LEGEND

- MODELED NOISE RECEPTOR
- FIELD MEASUREMENT SITE
- PROPOSED ALTERNATIVE
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Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



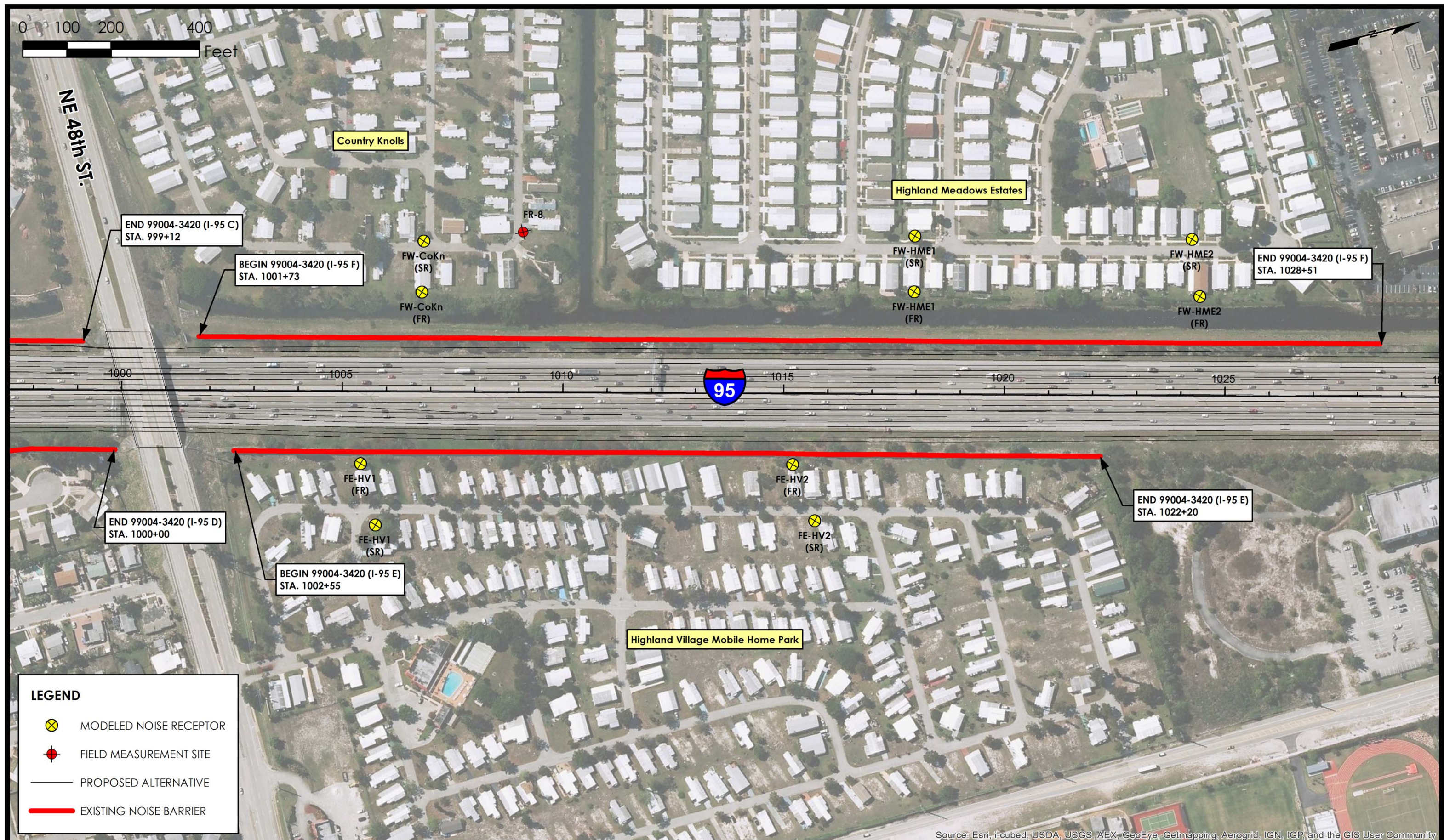
Florida Department of Transportation, District IV
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Fort Lauderdale, Florida 33309



State Road 9/Interstate 95
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NOISE STUDY REPORT

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Florida Department of Transportation, District IV
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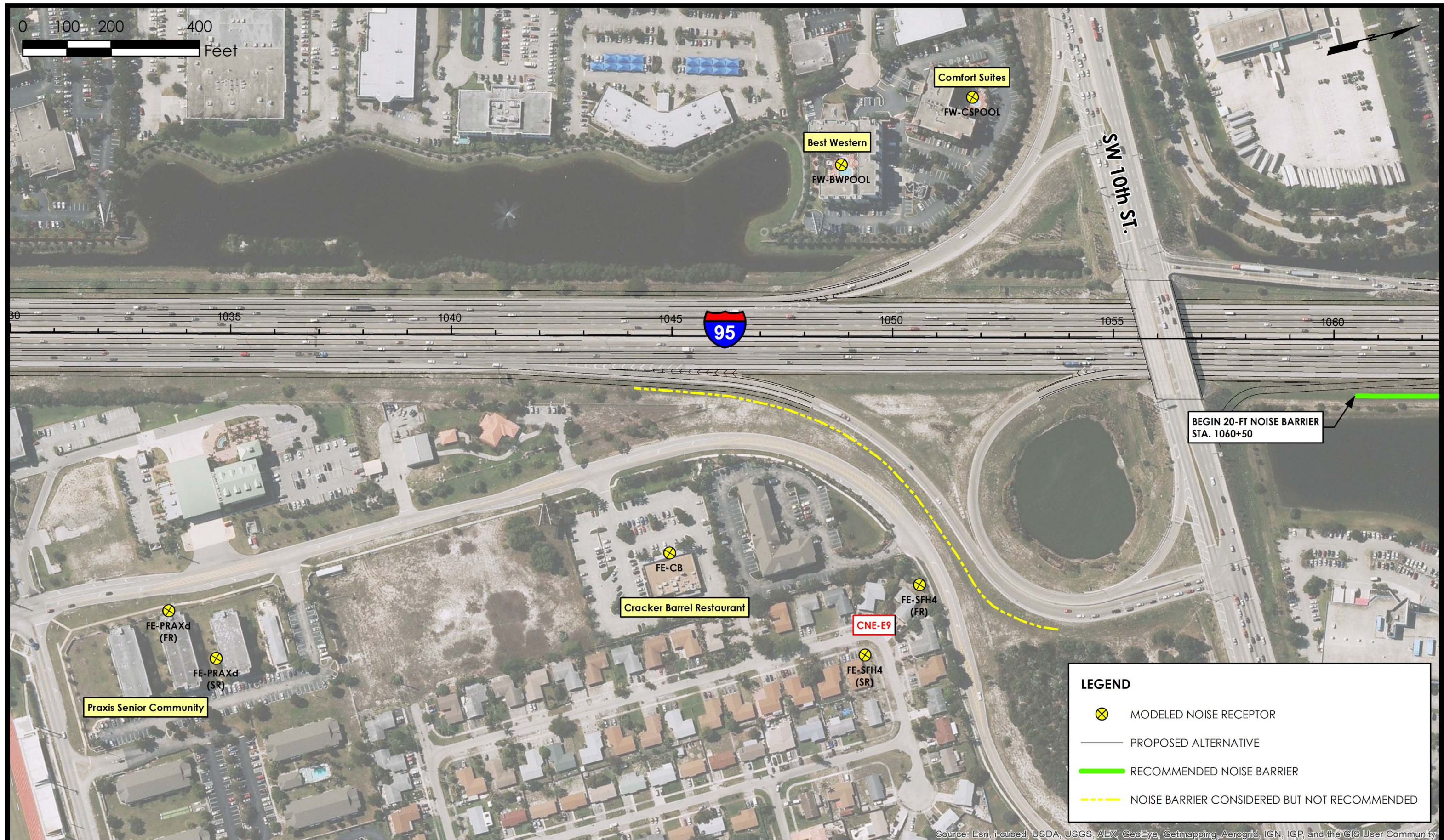


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NOISE STUDY REPORT

SHEET NO.

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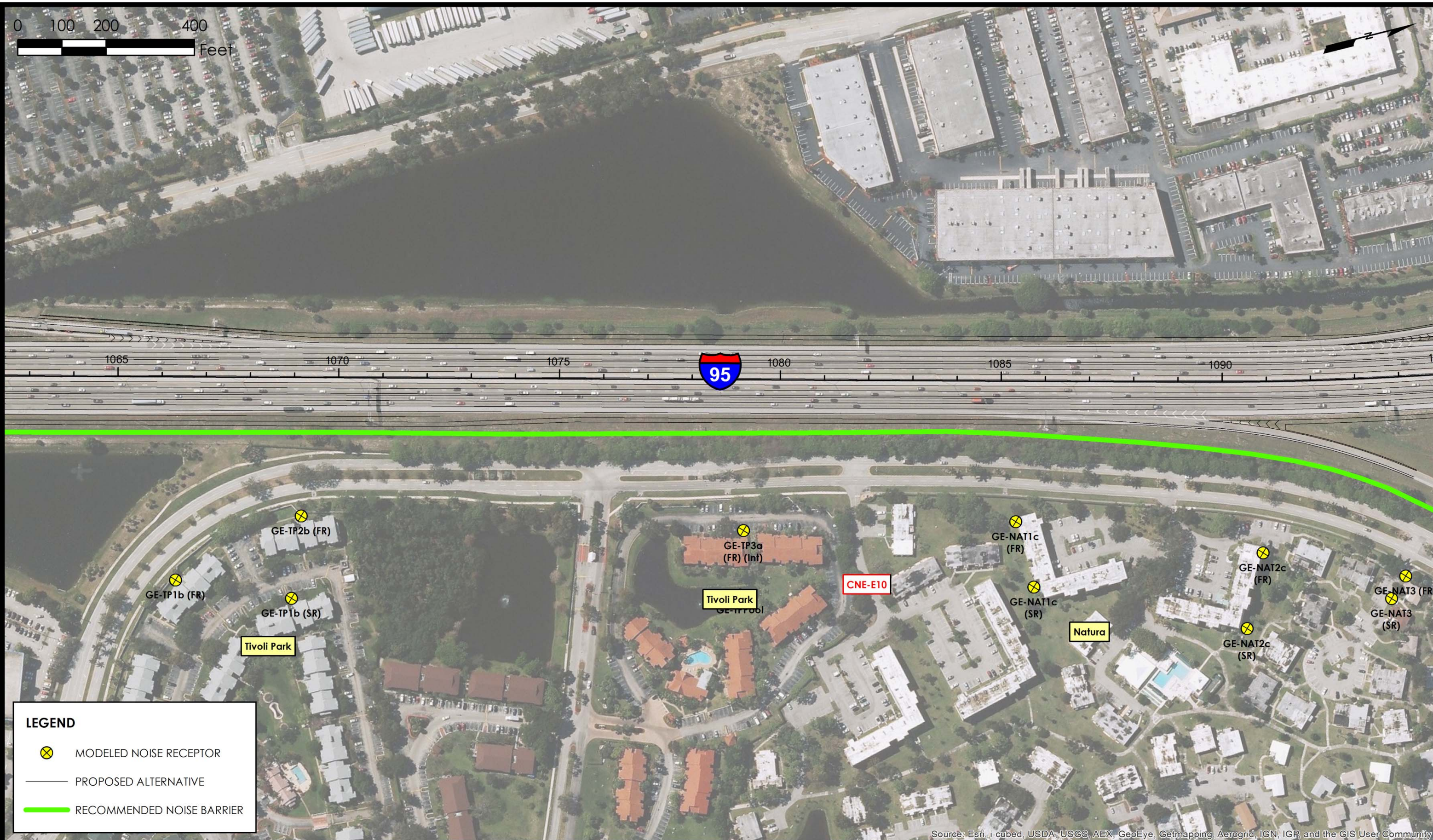
State Road 9/Interstate 95
Project Development and Environment Study
From North of Oakland Park Boulevard (SR 816) to South of
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NOISE STUDY REPORT

SHEET NO.

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0 100 200 400 Feet



Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



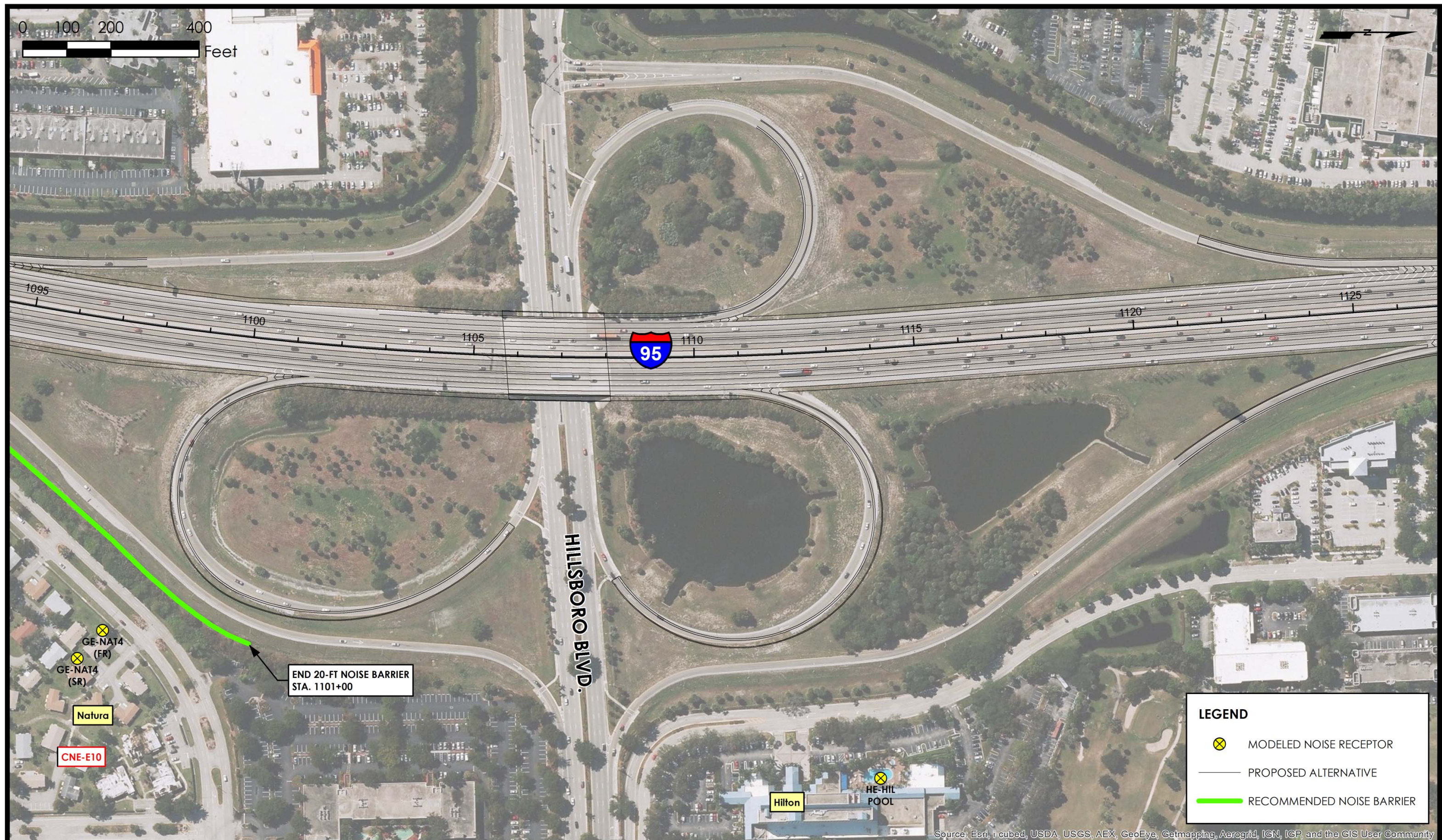
Florida Department of Transportation, District IV
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State Road 9/Interstate 95
Project Development and Environment Study
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NOISE STUDY REPORT

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Florida Department of Transportation, District IV
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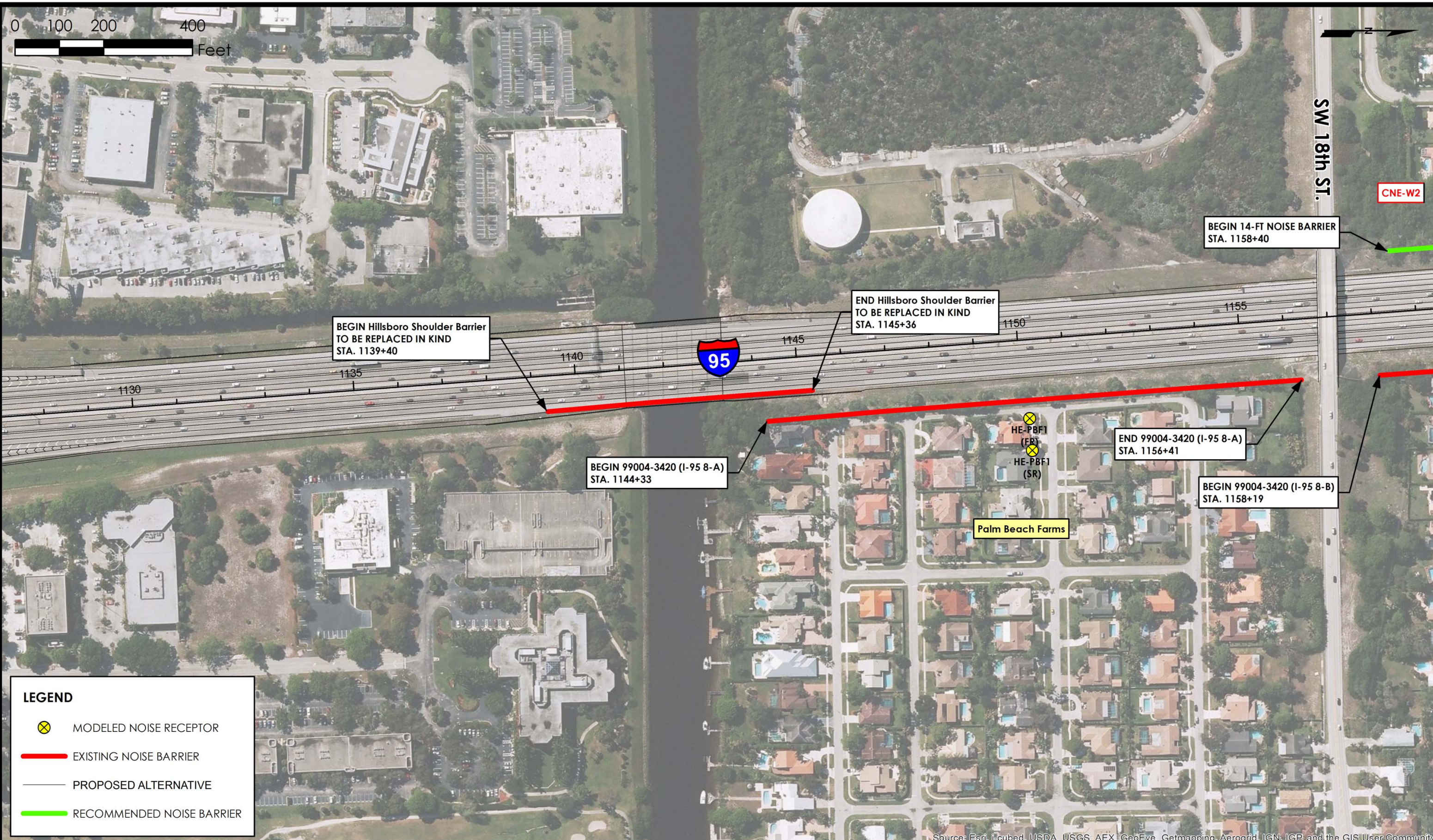


State Road 9/Interstate 95
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From North of Oakland Park Boulevard (SR 816) to South of
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NOISE STUDY REPORT

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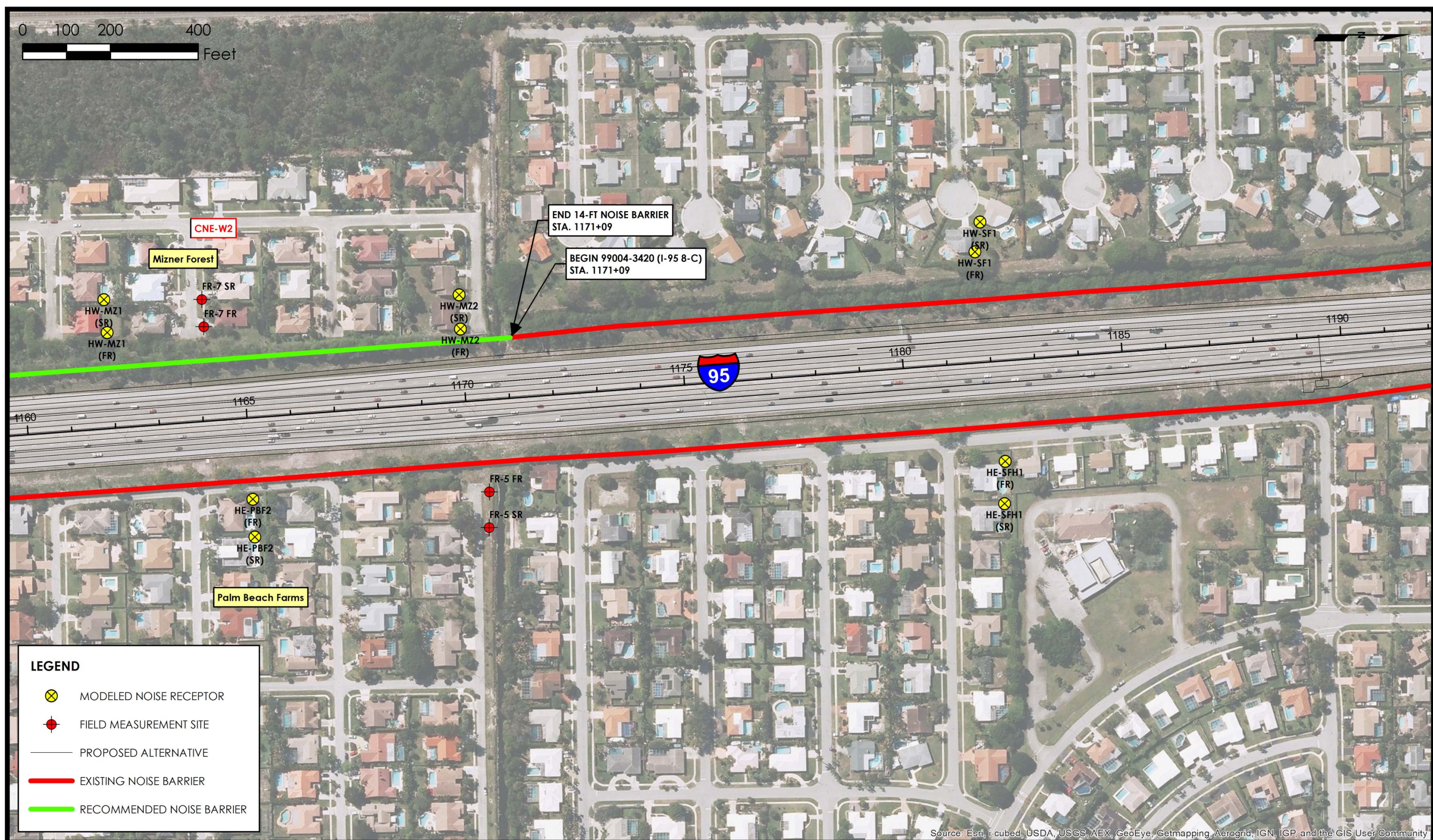
Florida Department of Transportation, District IV
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NOISE STUDY REPORT

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LEGEND

- MODELED NOISE RECEPTOR
- FIELD MEASUREMENT SITE
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER
- RECOMMENDED NOISE BARRIER

Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, AeroGrid, IGN, IGP, and the GIS User Community



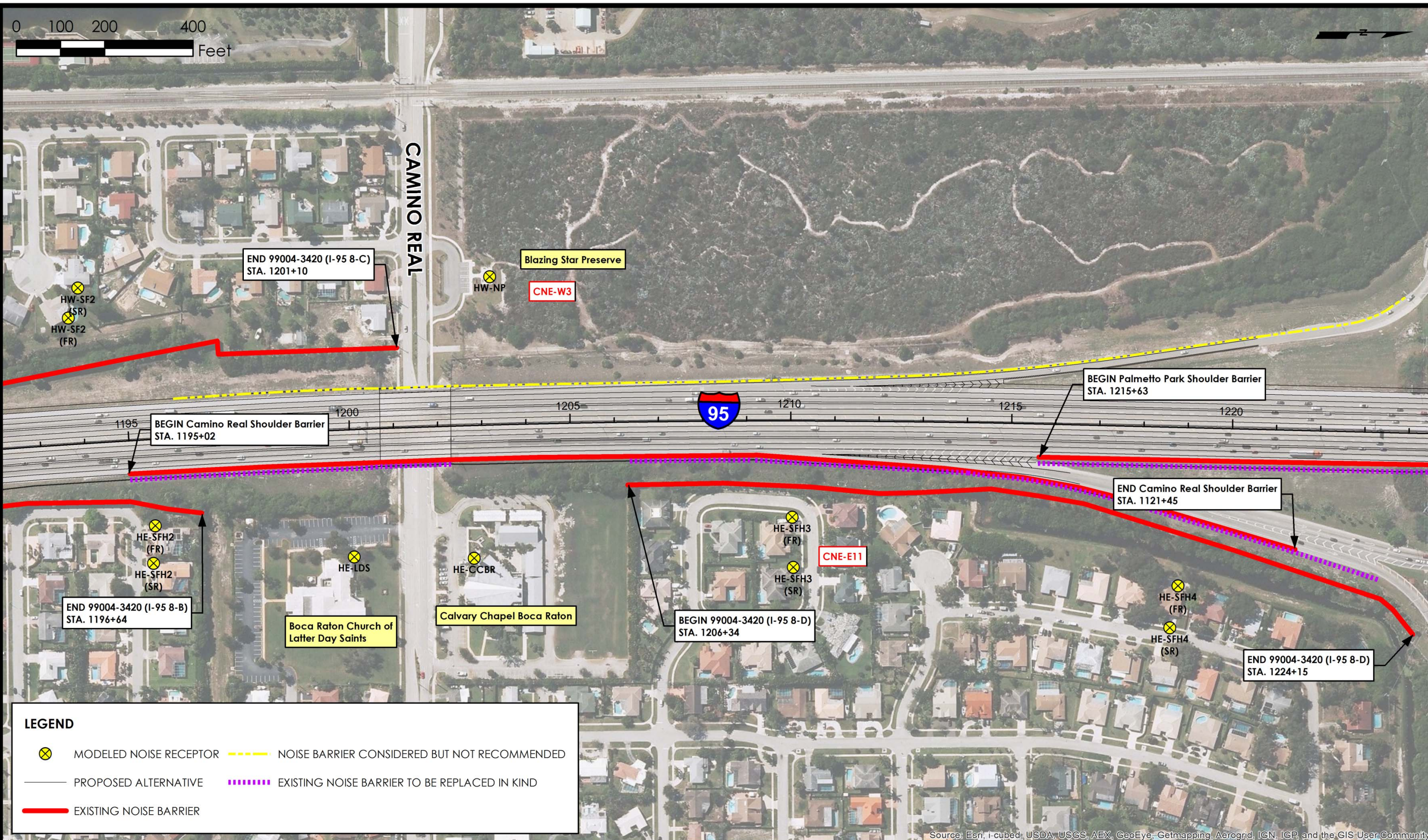
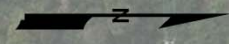
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State Road 9/Interstate 95
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NOISE STUDY REPORT

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LEGEND

- MODELED NOISE RECEPTOR
- NOISE BARRIER CONSIDERED BUT NOT RECOMMENDED
- PROPOSED ALTERNATIVE
- EXISTING NOISE BARRIER TO BE REPLACED IN KIND
- EXISTING NOISE BARRIER



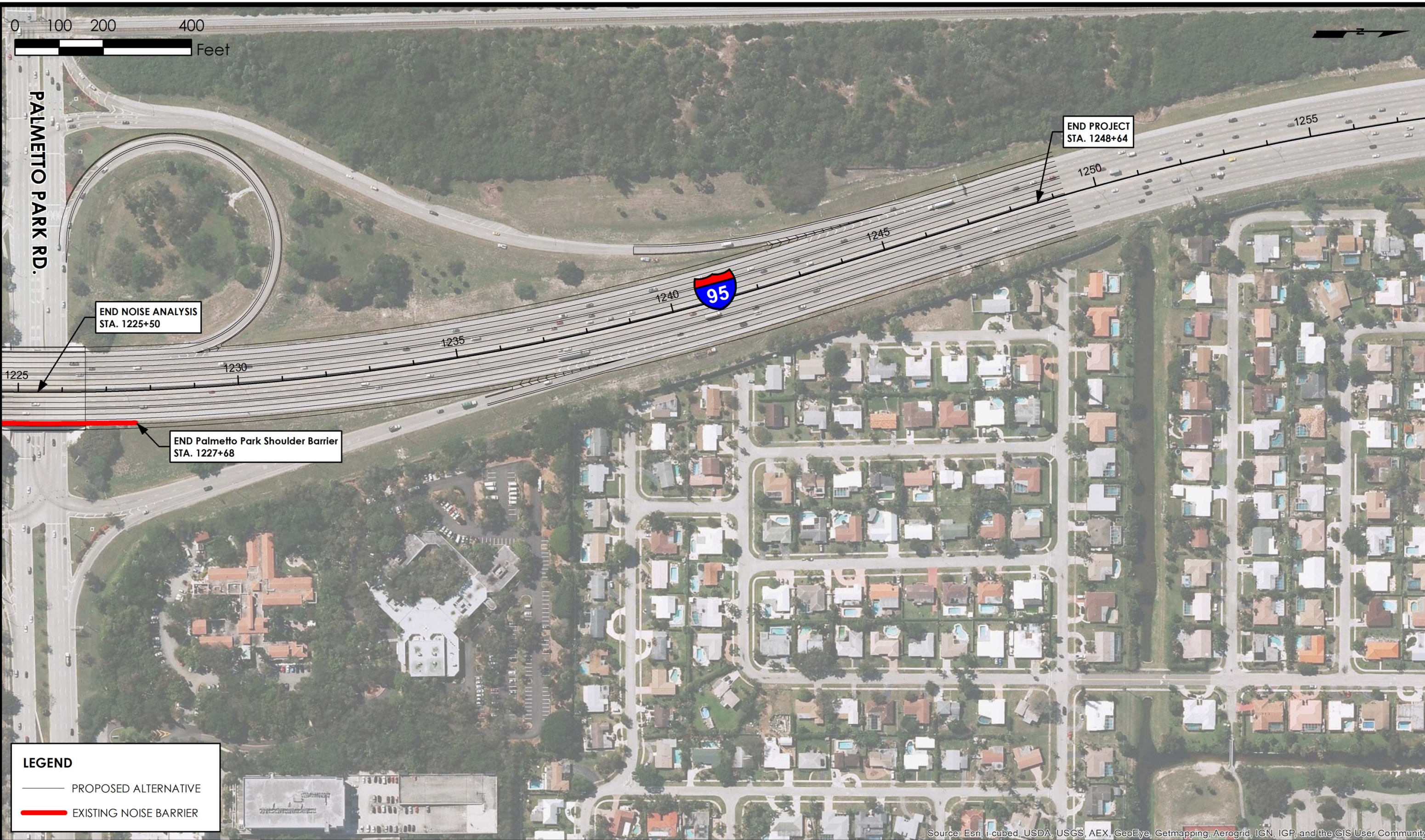
Florida Department of Transportation, District IV
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State Road 9/Interstate 95
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NOISE STUDY REPORT

SHEET NO.
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Source: Esri, i-cubed, USDA, USGS, AEX, GeoEye, Getmapping, AeroGrid, IGN, IGP, and the GIS User Community



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State Road 9/Interstate 95
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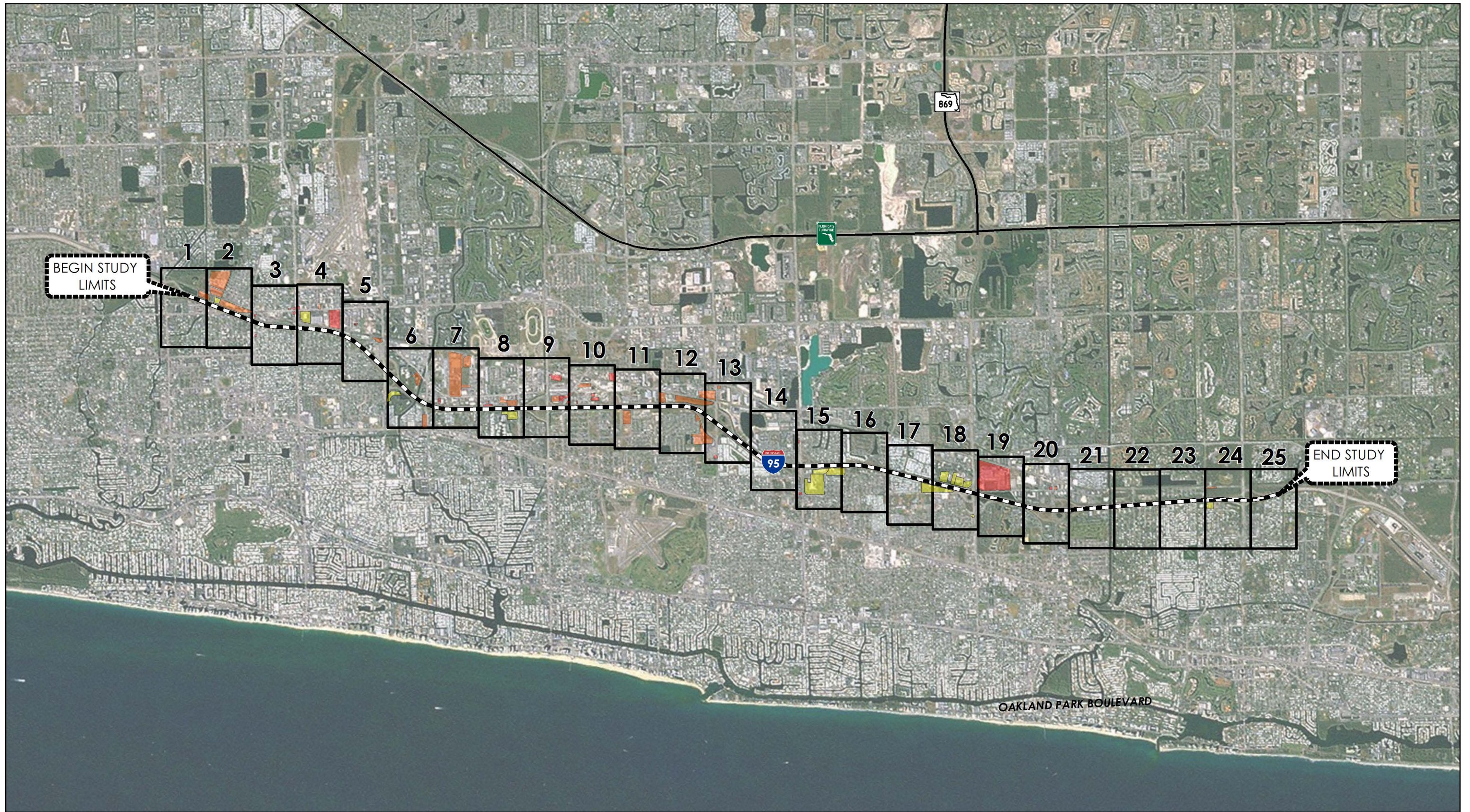
NOISE STUDY REPORT

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Appendix N

Potential Contamination Concerns Maps

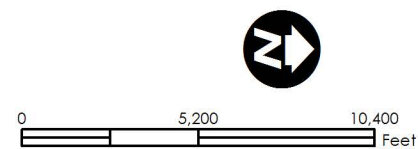


STATE ROAD 9 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
 From North of Oakland Park Boulevard to South of Glades Road
 FPID Numbers: 409359-1-22-01 and 409355-1-22-01
 FAP Numbers: 0951-609-I and 0951-608-I
 ETDM Number: 3330

POTENTIAL IMPACT RATING

- HIGH
- MEDIUM
- LOW

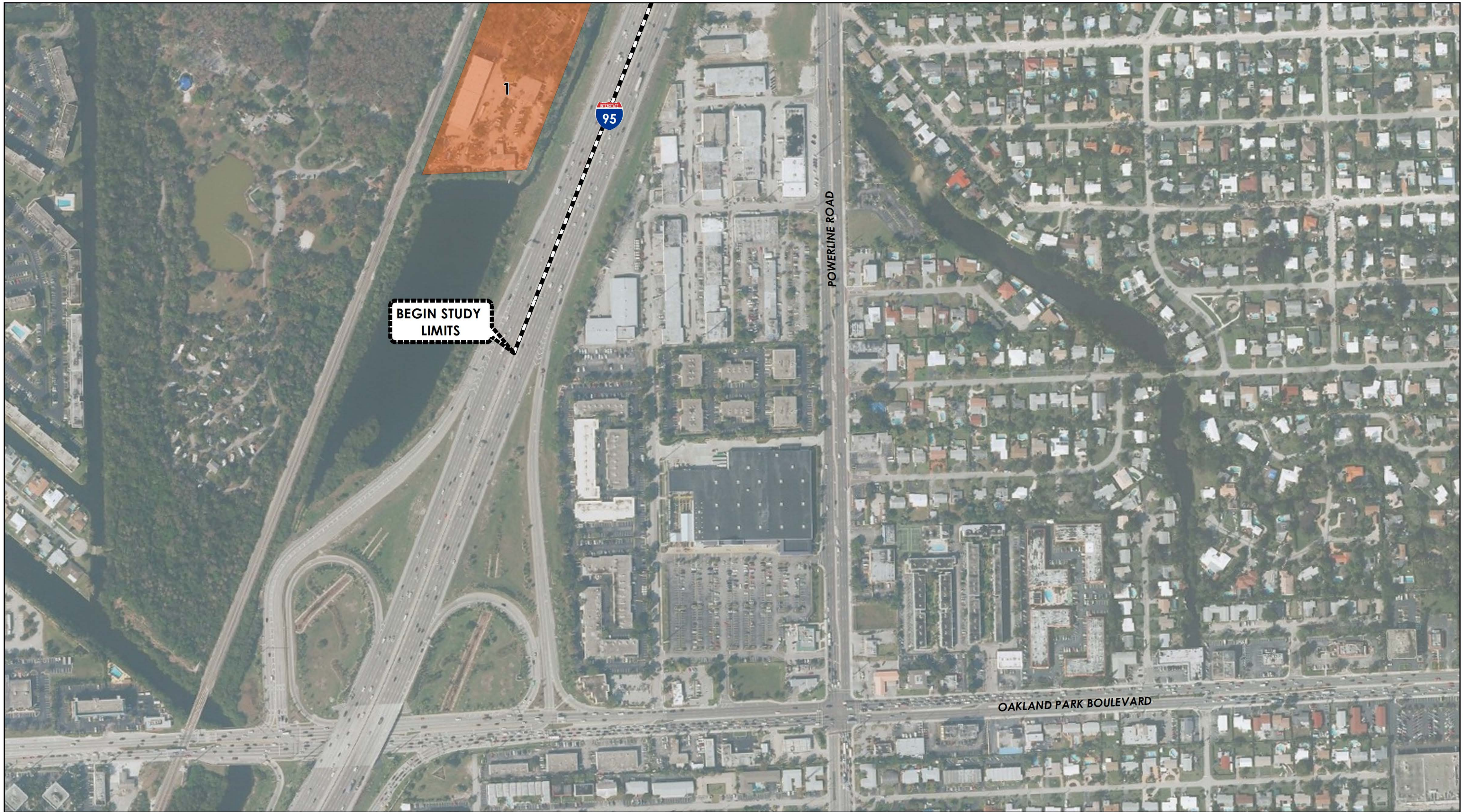
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POTENTIAL CONTAMINATION
 CONCERNS LOCATION MAP

SHEET

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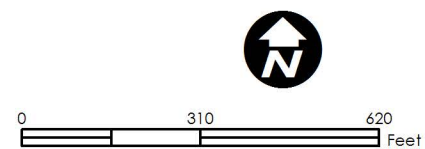


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POTENTIAL IMPACT RATING

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- MEDIUM
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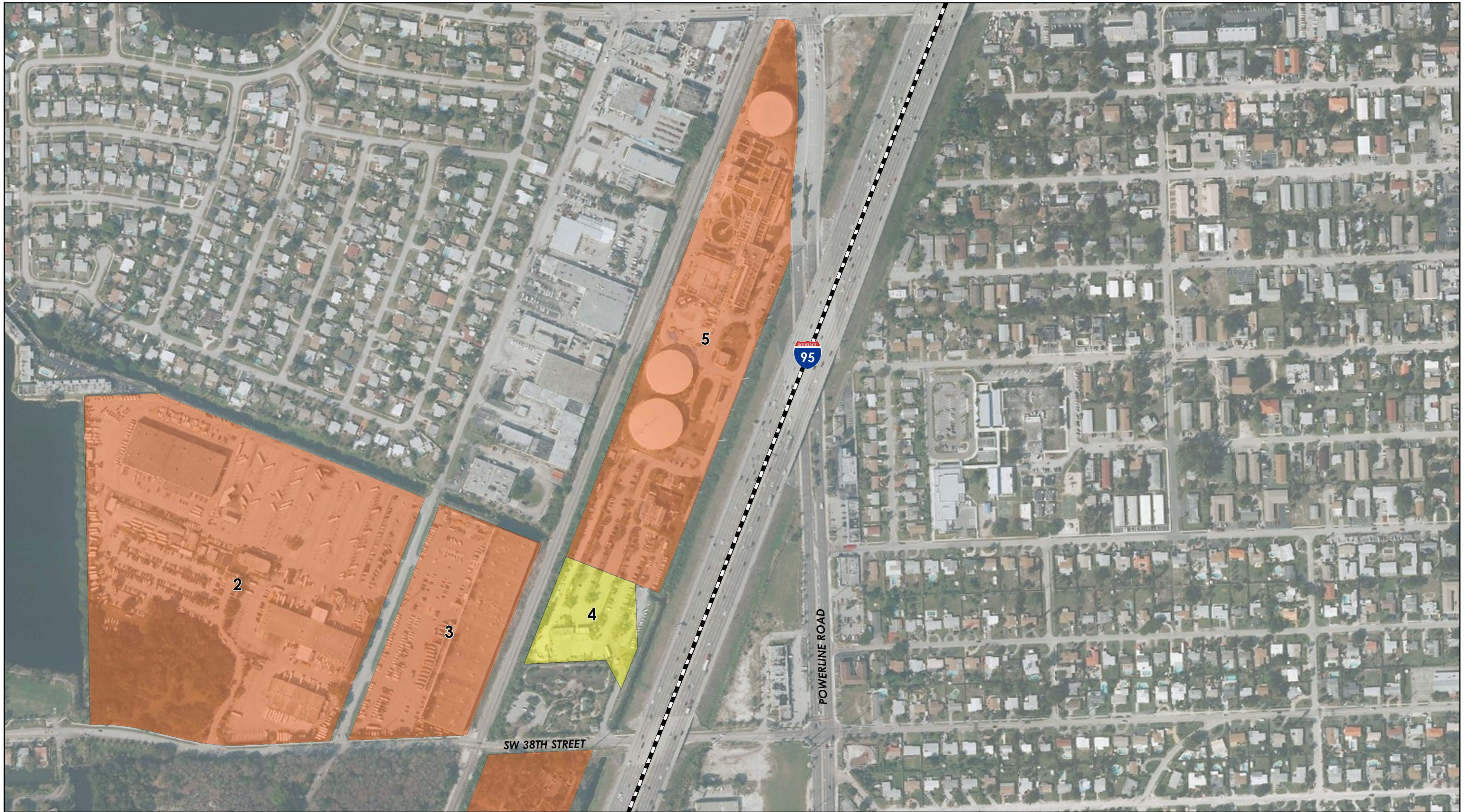
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*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

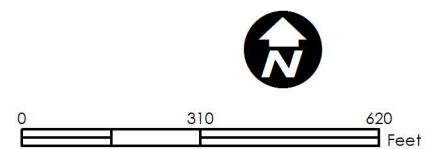
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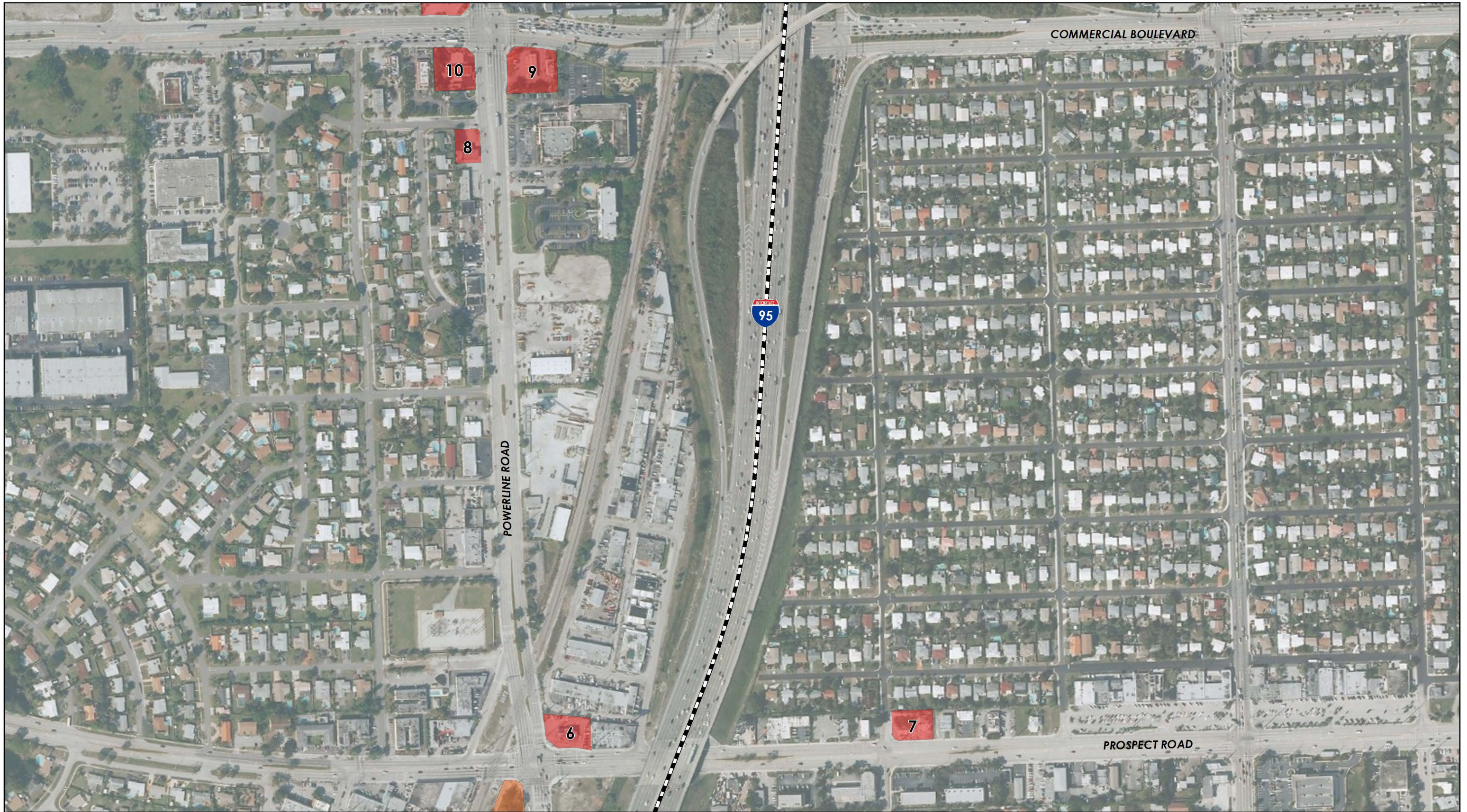
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

SHEET

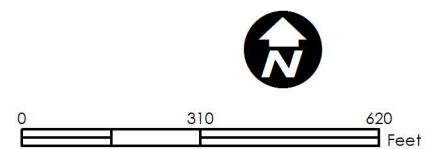
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STATE ROAD 9 (I-95)
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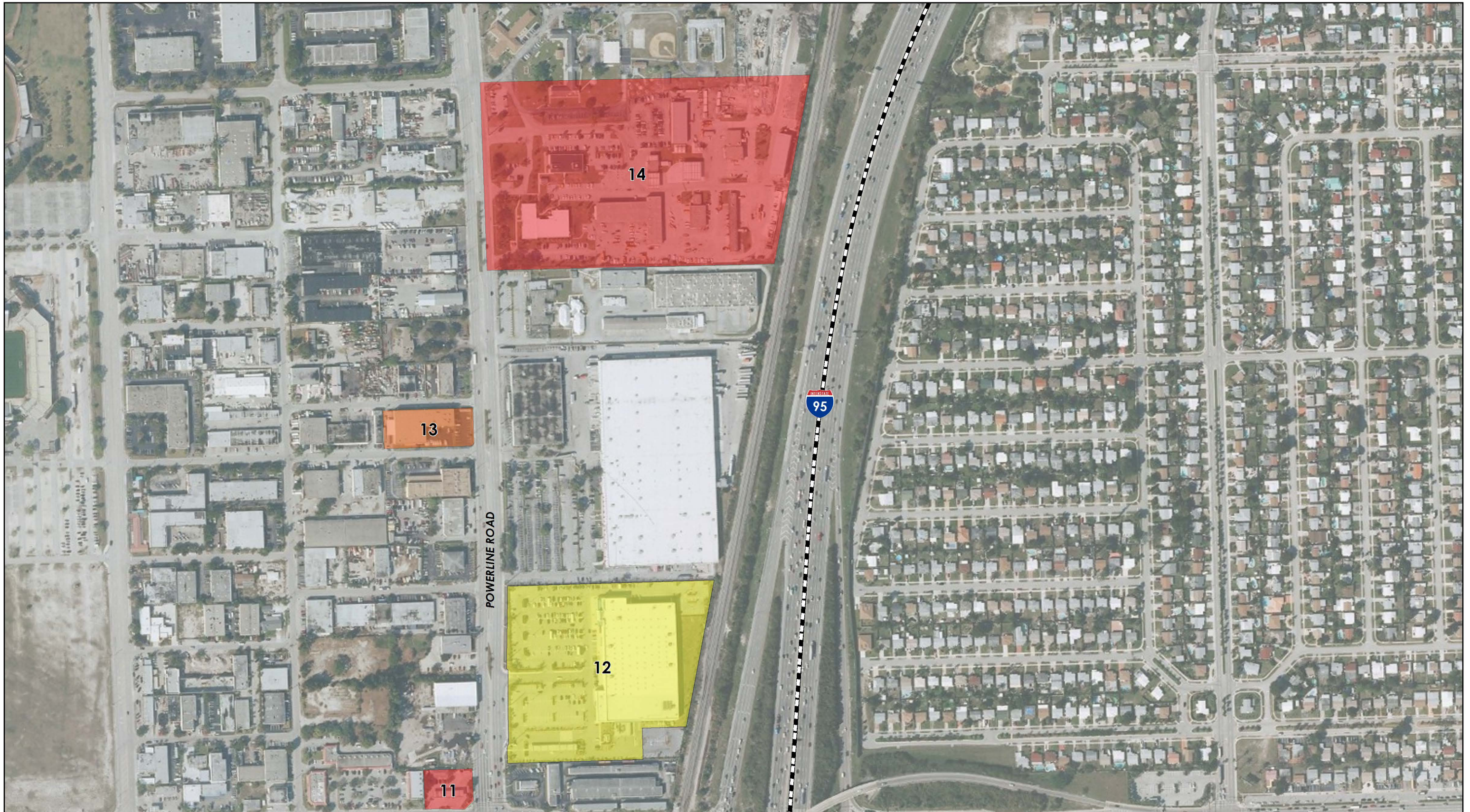
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

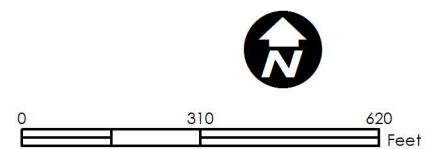
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PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
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ETDM Number: 3330

POTENTIAL IMPACT RATING

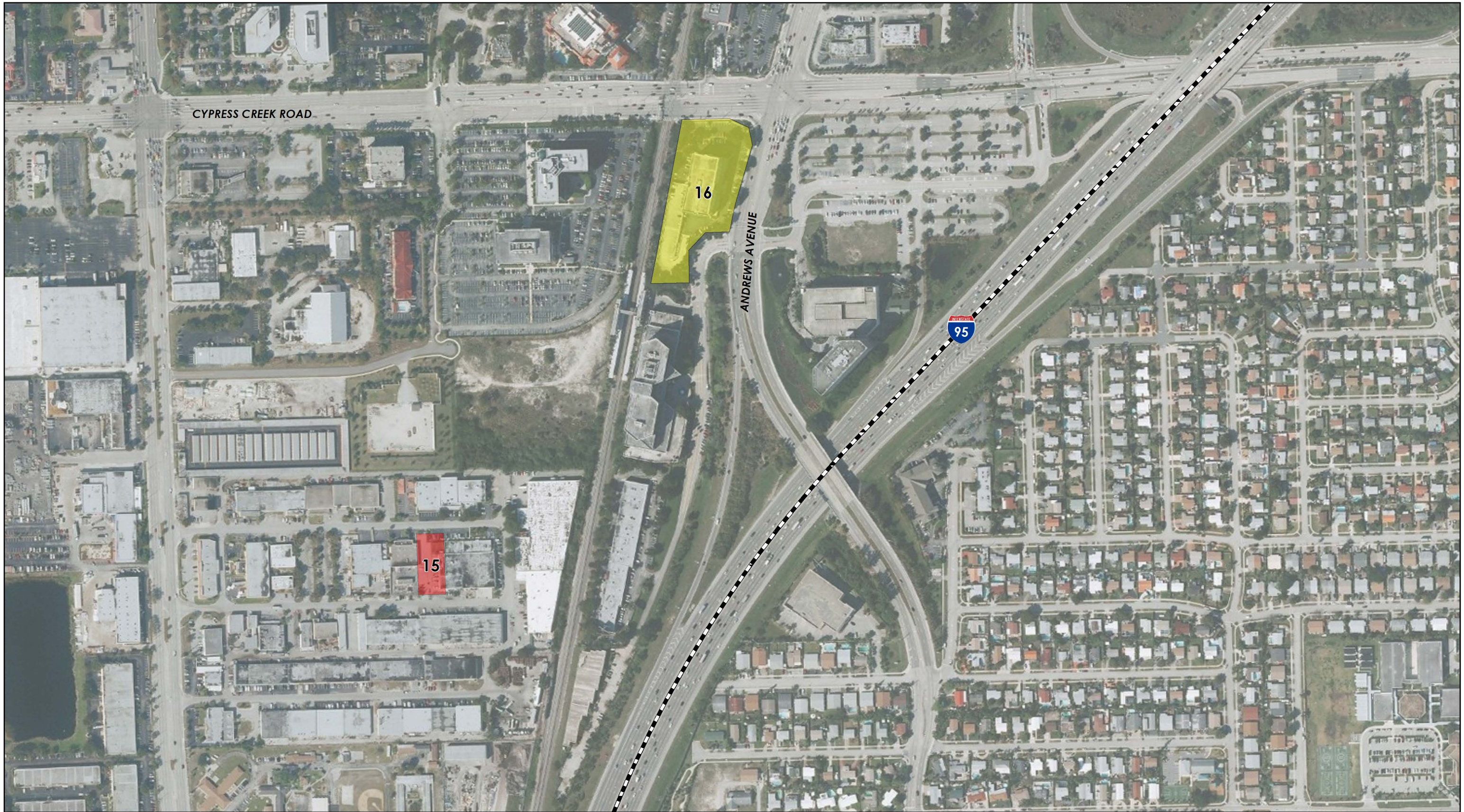
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

SHEET

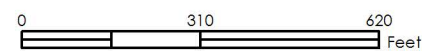
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POTENTIAL IMPACT RATING

- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

SHEET

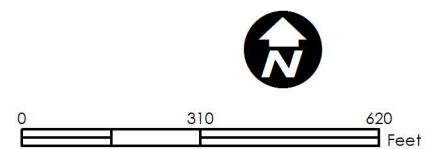
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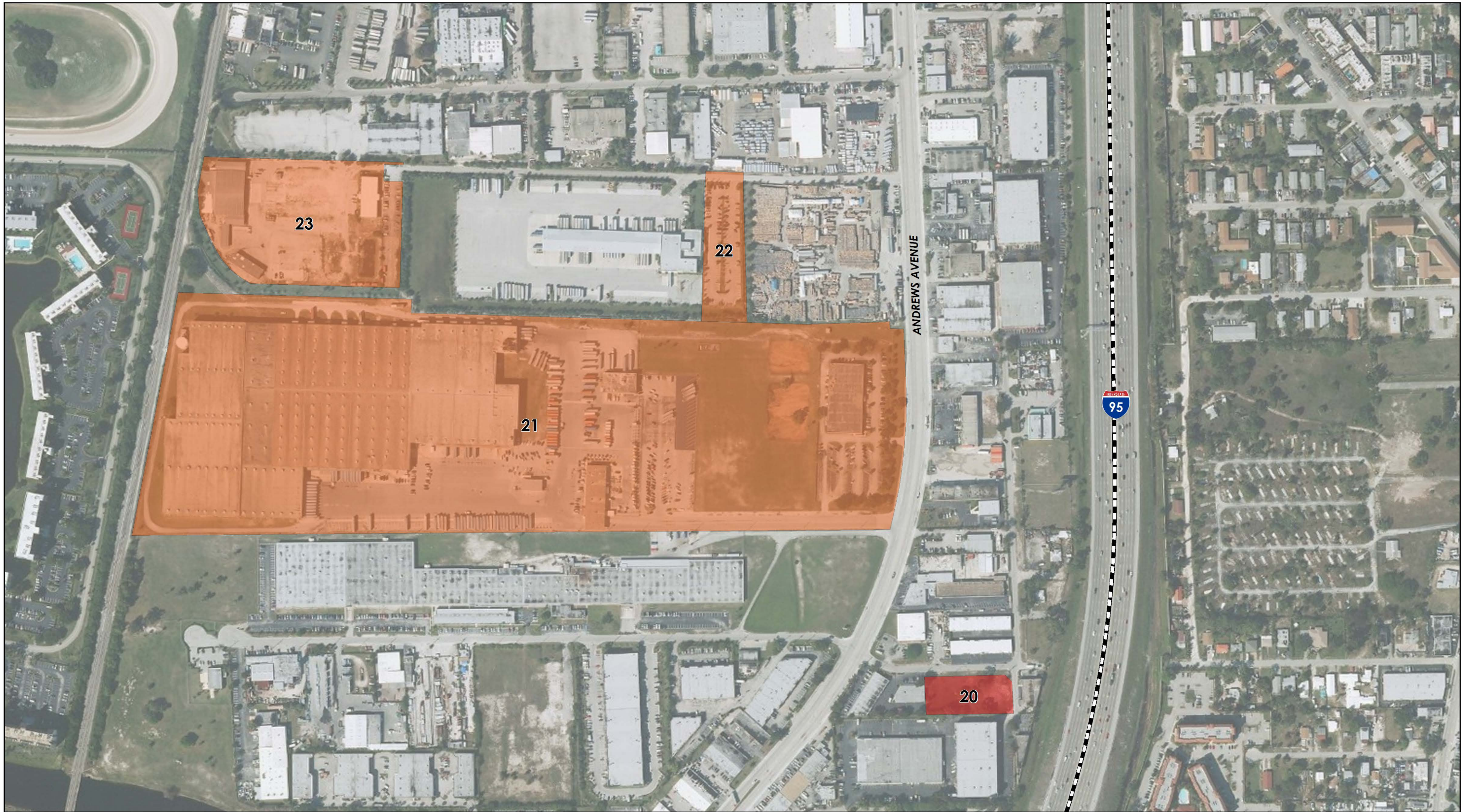
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

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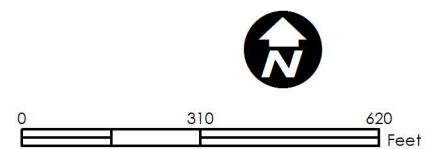
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**POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP**

SHEET

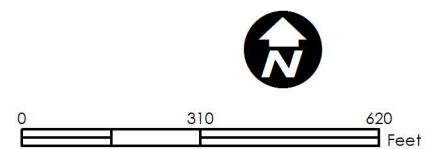
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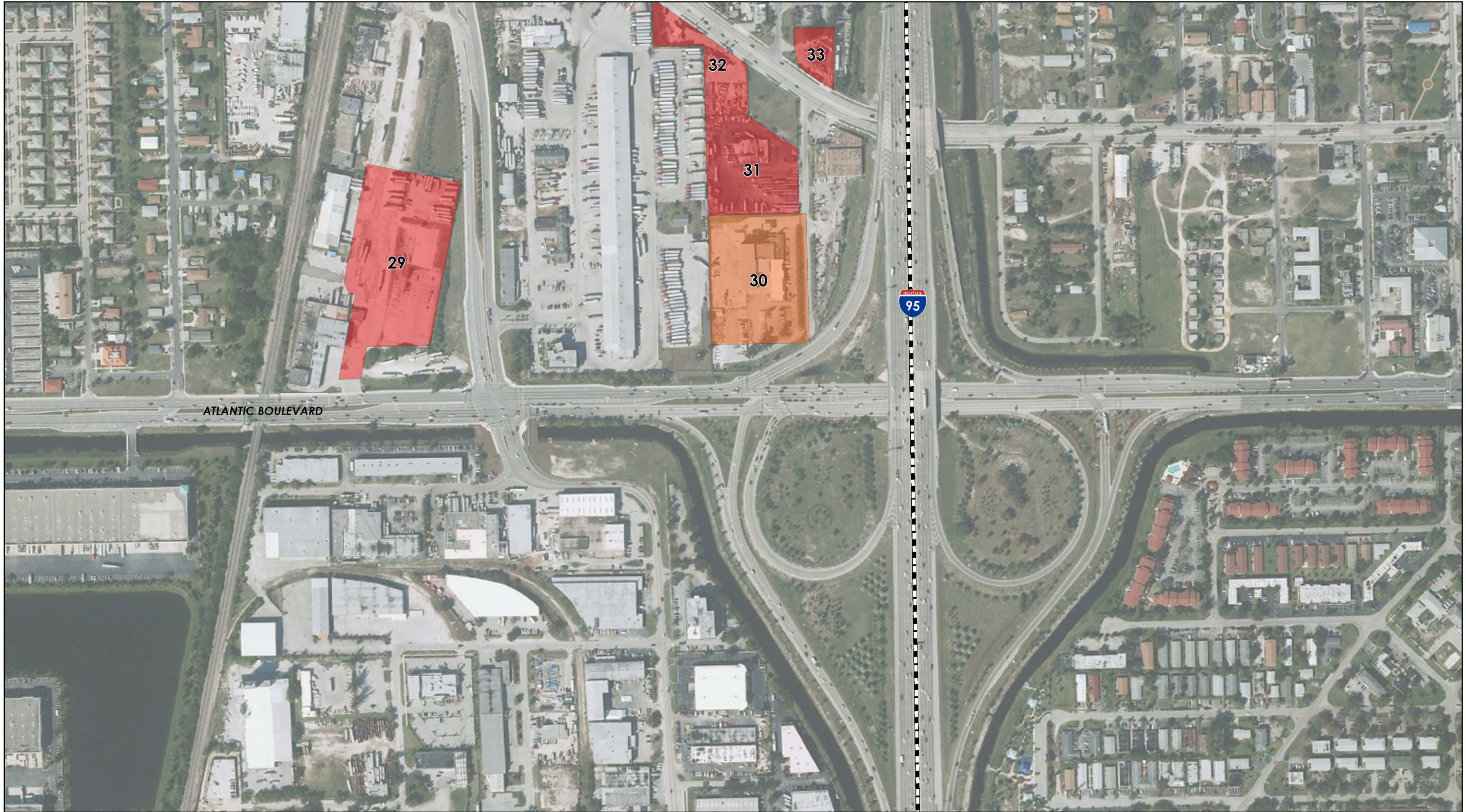
- HIGH
- MEDIUM
- LOW
-  PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

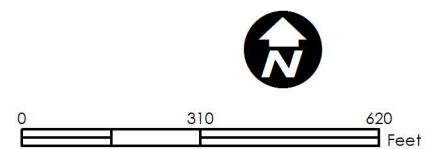
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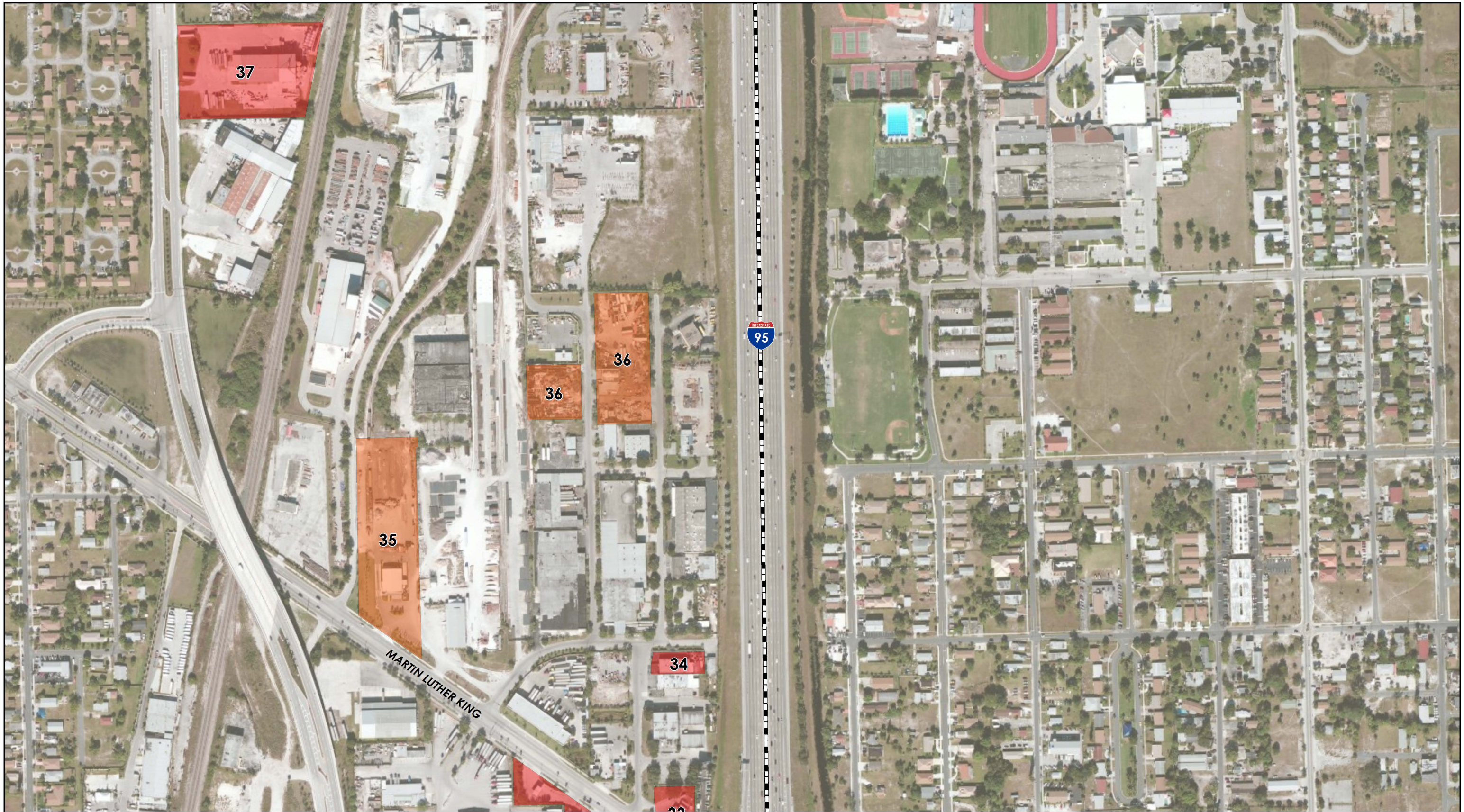
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

SHEET

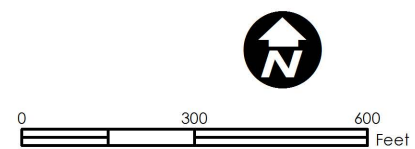
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STATE ROAD 9 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
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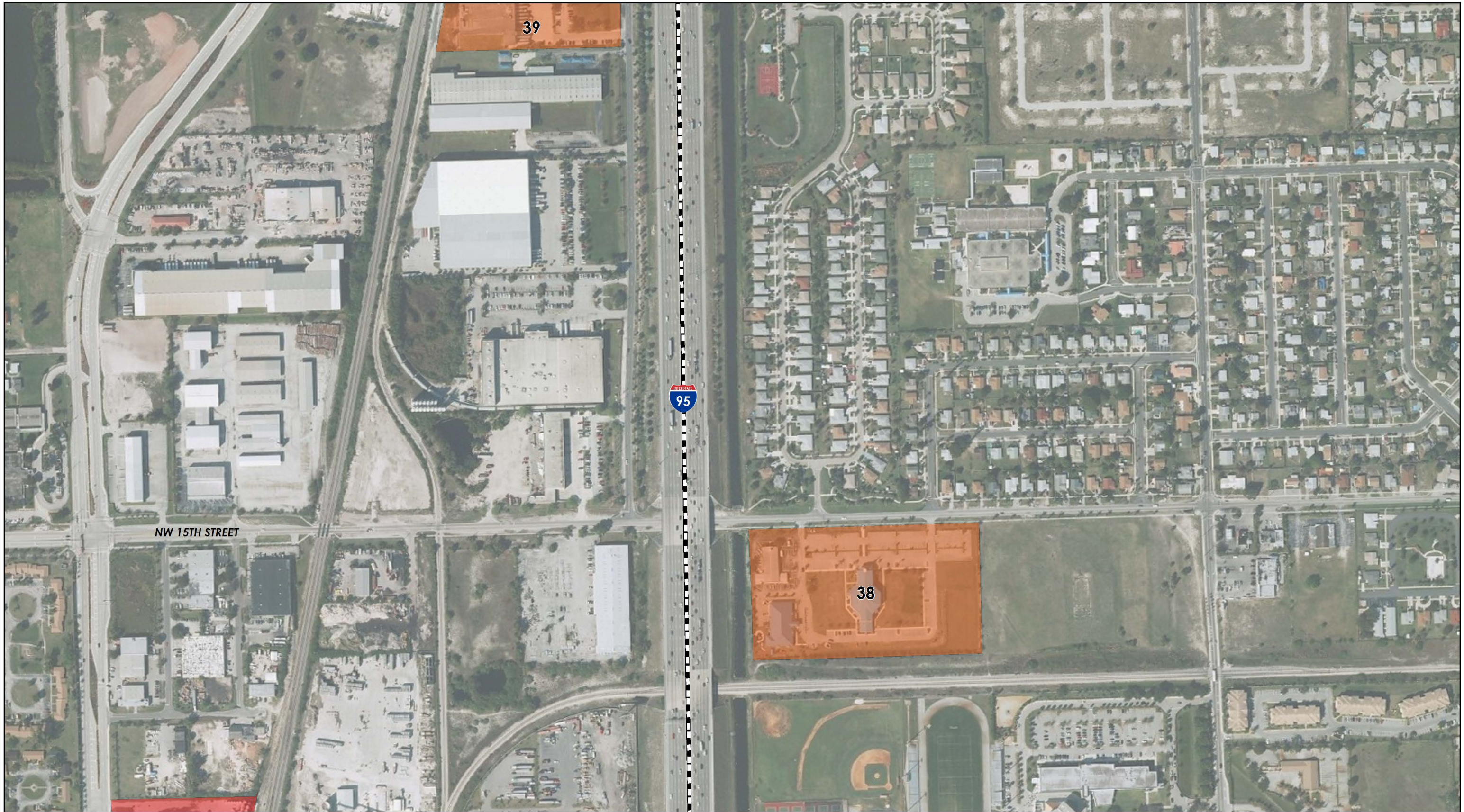
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR







*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

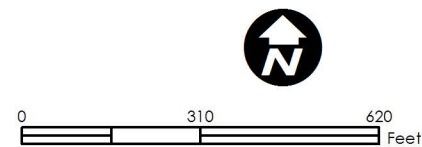
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10



STATE ROAD 9 (I-95)
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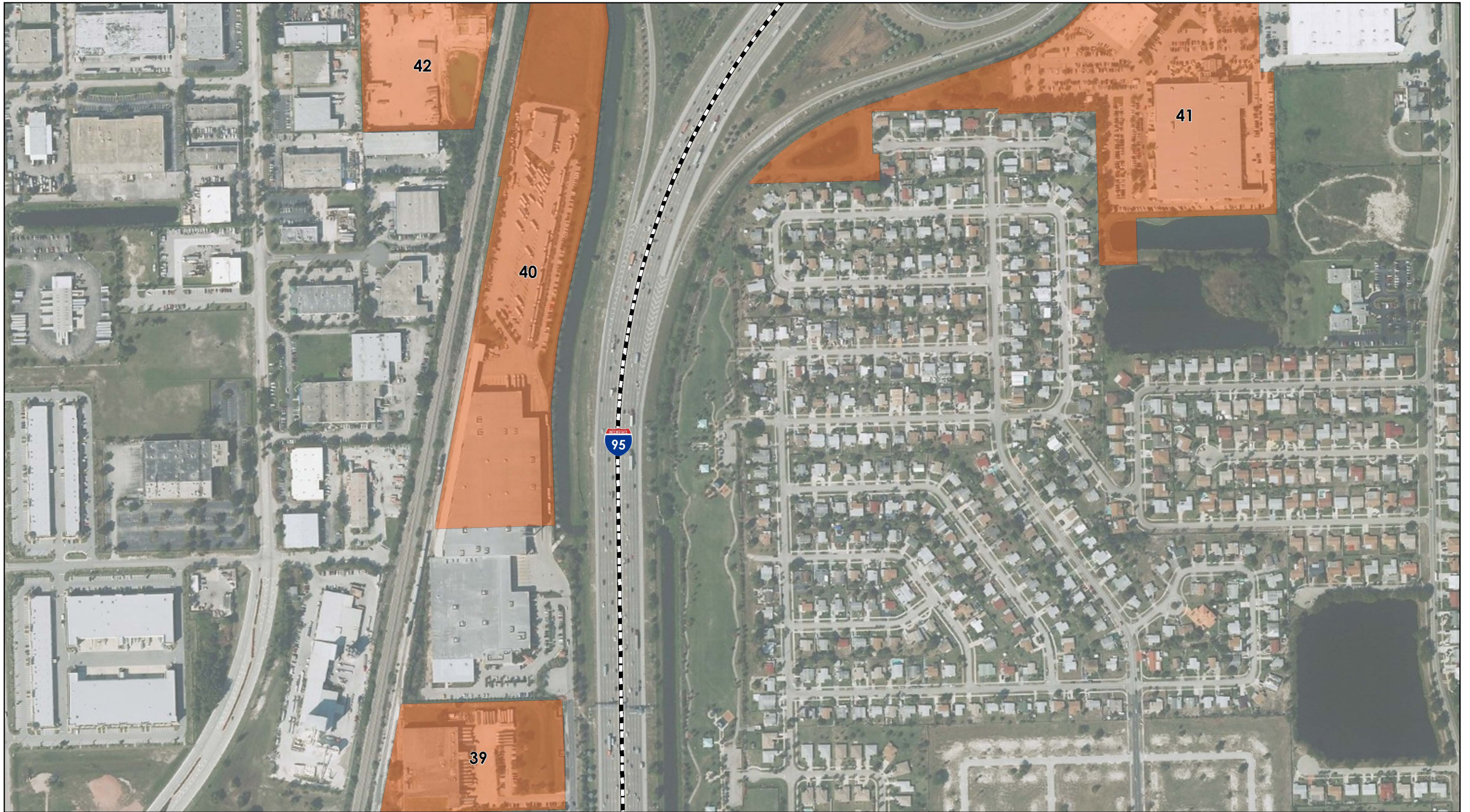
POTENTIAL IMPACT RATING
 HIGH
 MEDIUM
 LOW
 PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

11

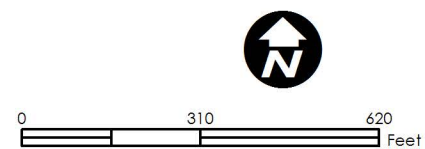


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PROJECT CORRIDOR







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CONCERNS LOCATION MAP*

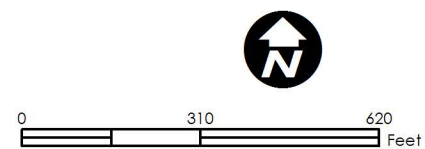
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STATE ROAD 9 (I-95)
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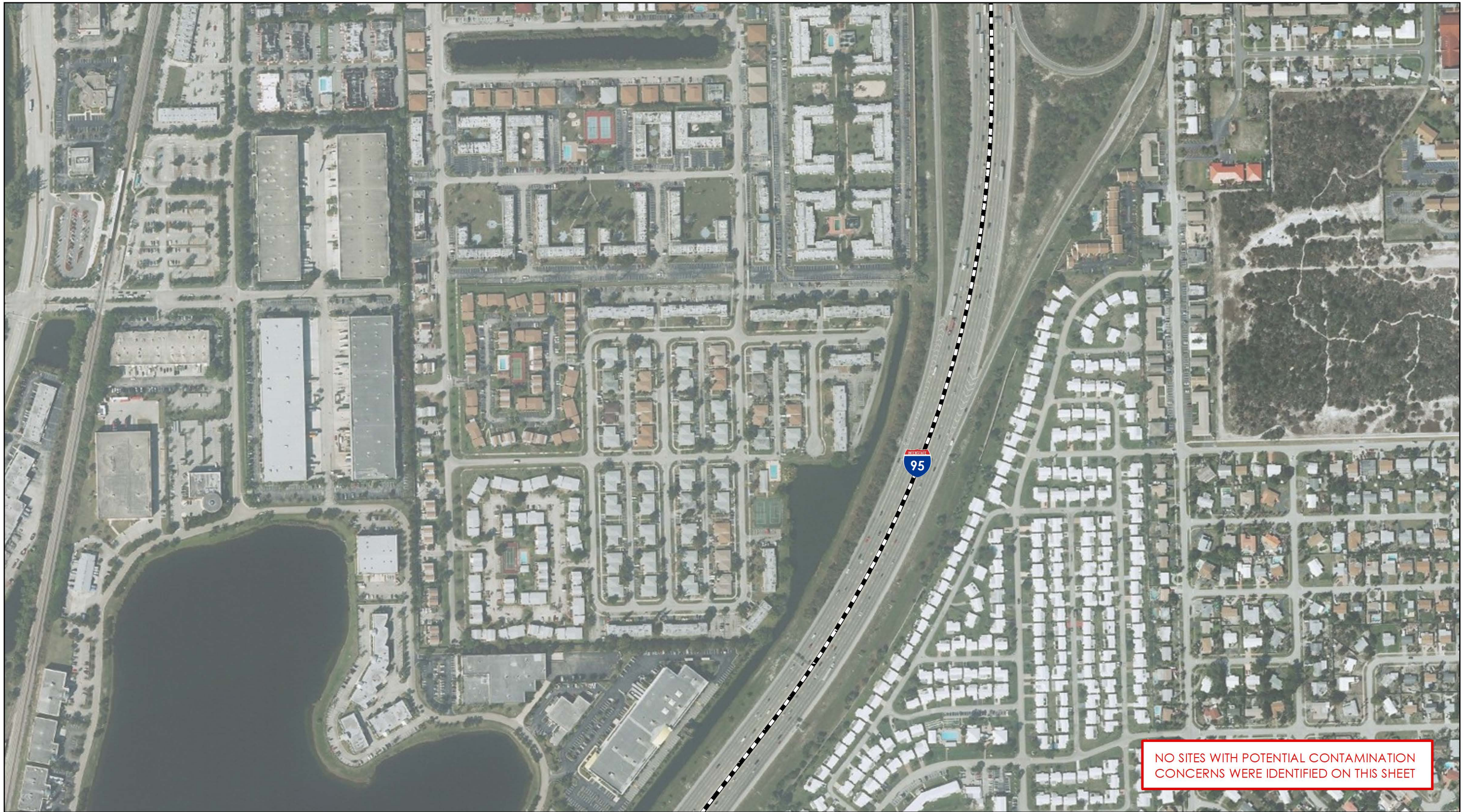
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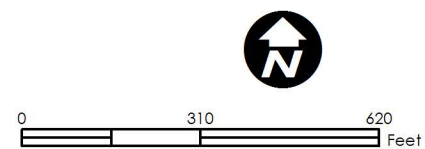
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STATE ROAD 9 (I-95)
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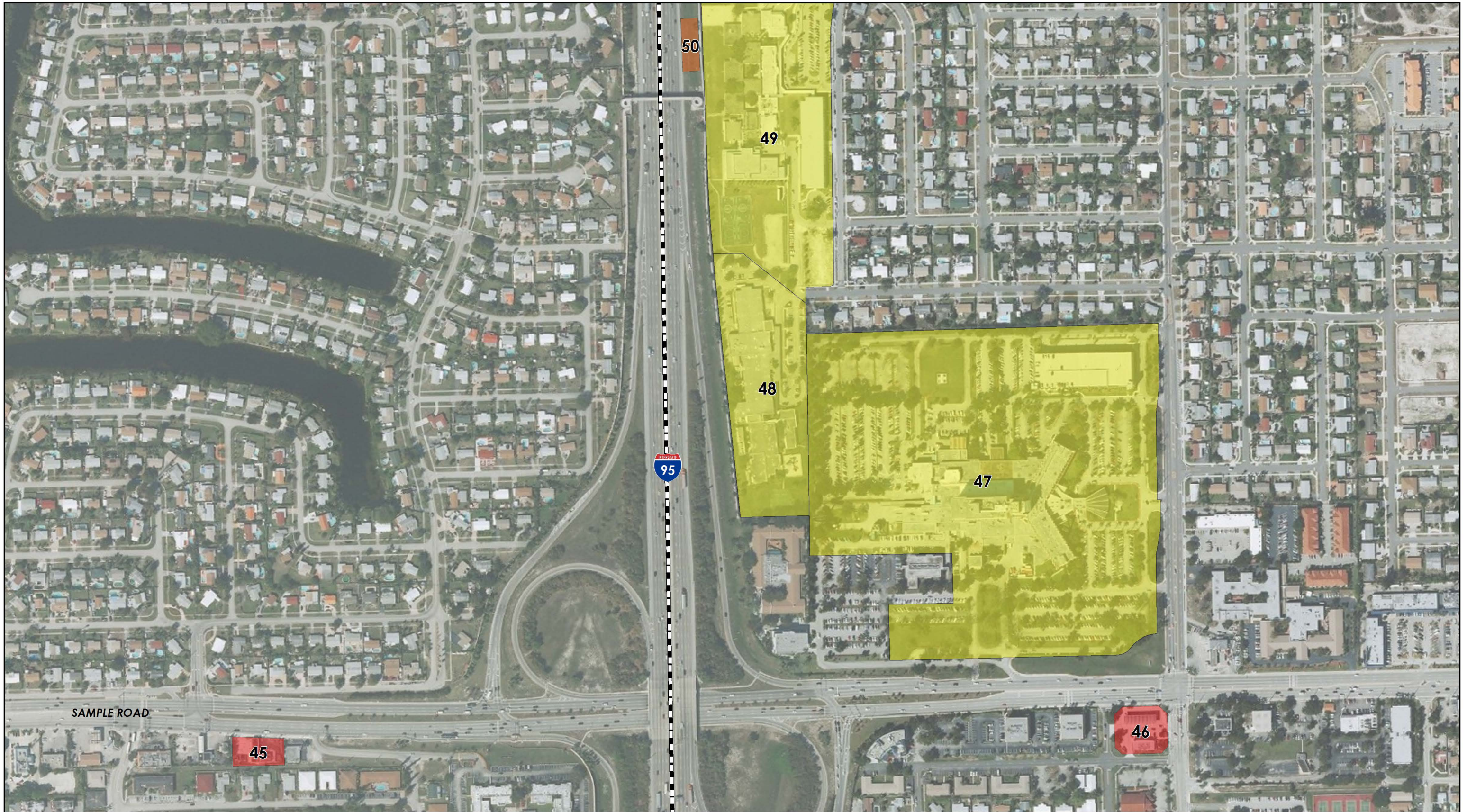
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 HIGH
 MEDIUM
 LOW
 PROJECT CORRIDOR



**POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP**

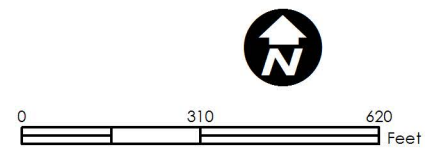
SHEET

14



STATE ROAD 9 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
From North of Oakland Park Boulevard to South of Glades Road
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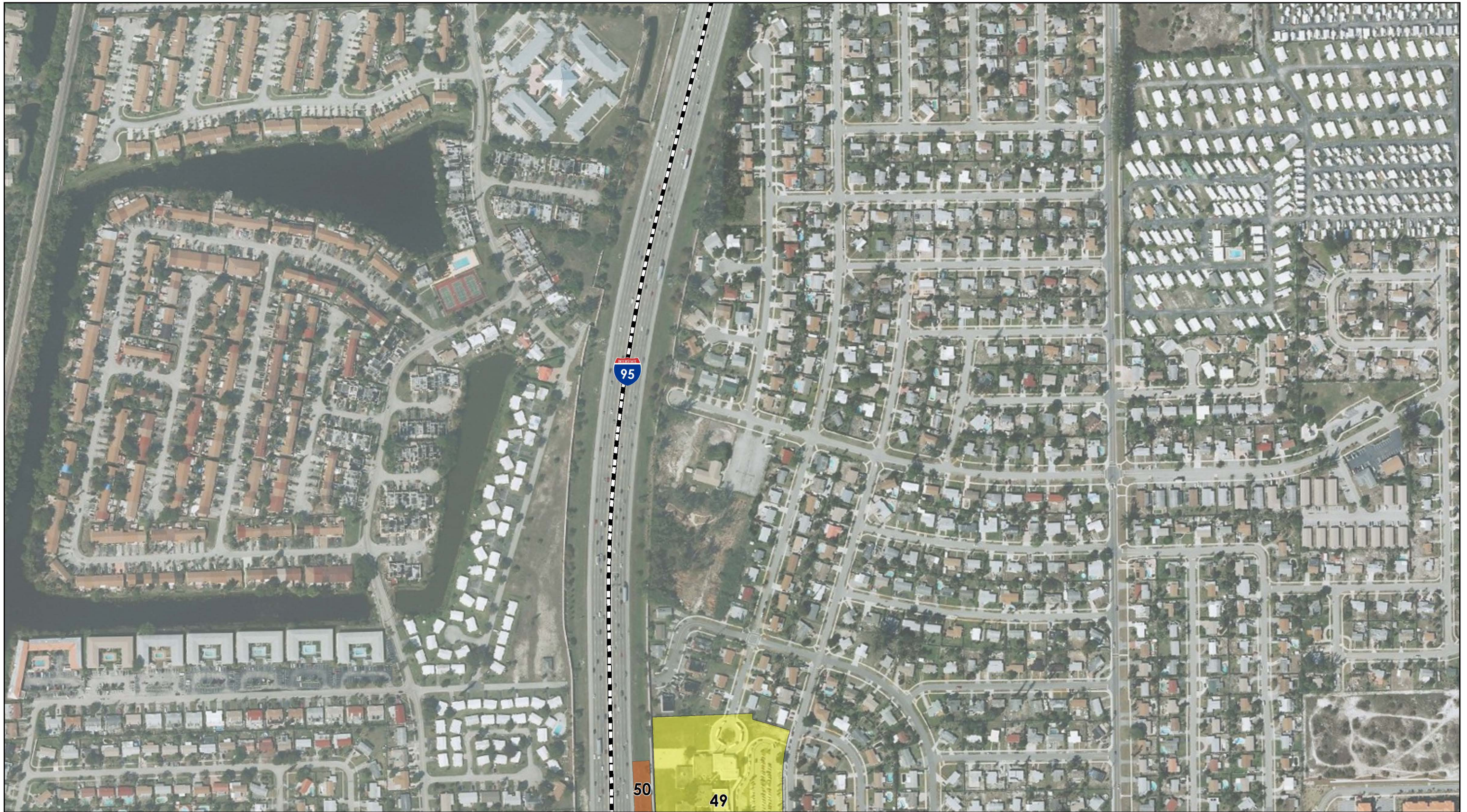
POTENTIAL IMPACT RATING
 HIGH
 MEDIUM
 LOW
 PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

15



STATE ROAD 9 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
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POTENTIAL IMPACT RATING

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 PROJECT CORRIDOR

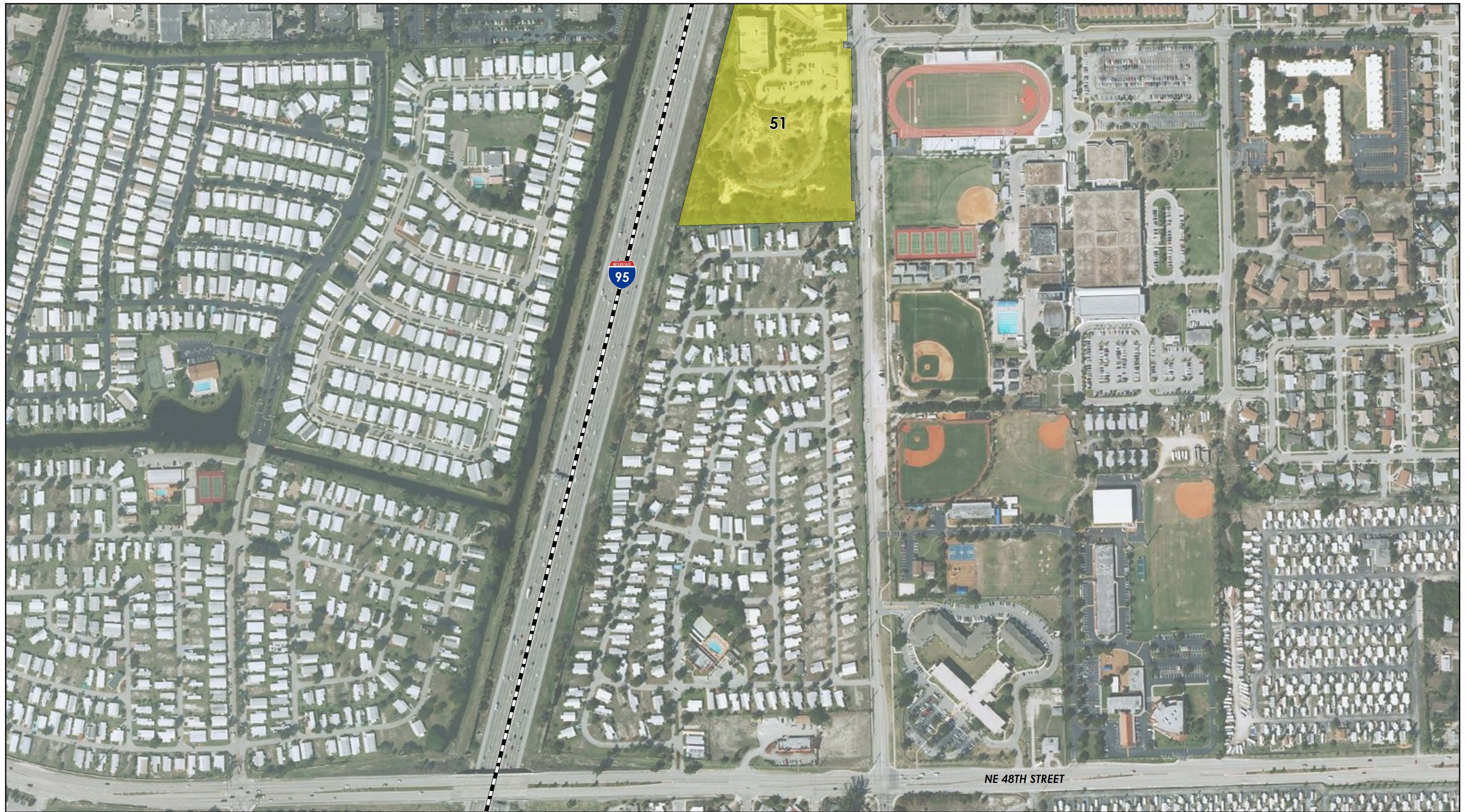


0 310 620 Feet

POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

SHEET

16



STATE ROAD 9 (I-95)
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 PROJECT CORRIDOR

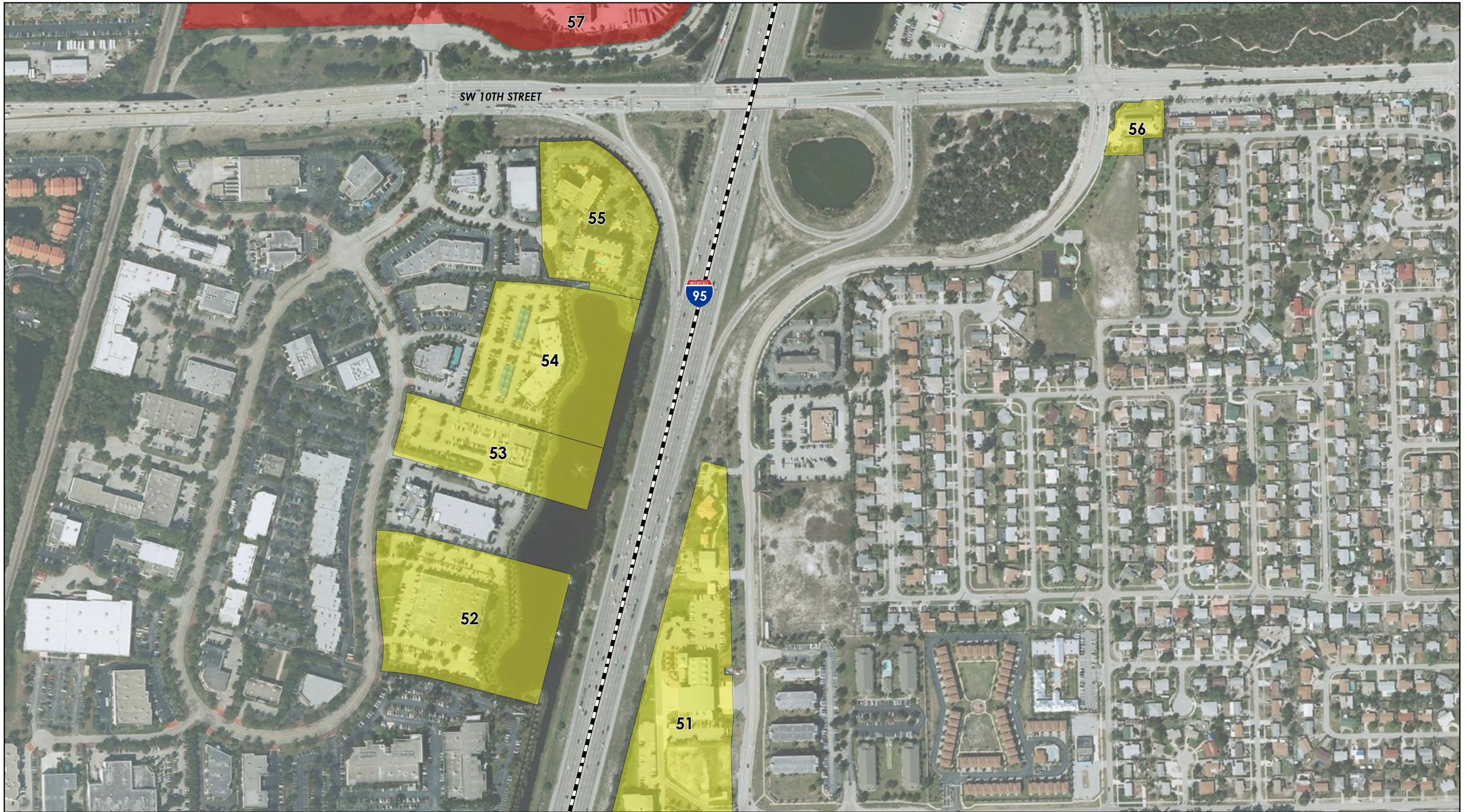


0 310 620 Feet

*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

17



STATE ROAD 9 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
From North of Oakland Park Boulevard to South of Glades Road
FPID Numbers: 409359-1-22-01 and 409355-1-22-01
FAP Numbers: 0951-609-I and 0951-608-I
ETDM Number: 3330

POTENTIAL IMPACT RATING

- HIGH
- MEDIUM
- LOW

 PROJECT CORRIDOR

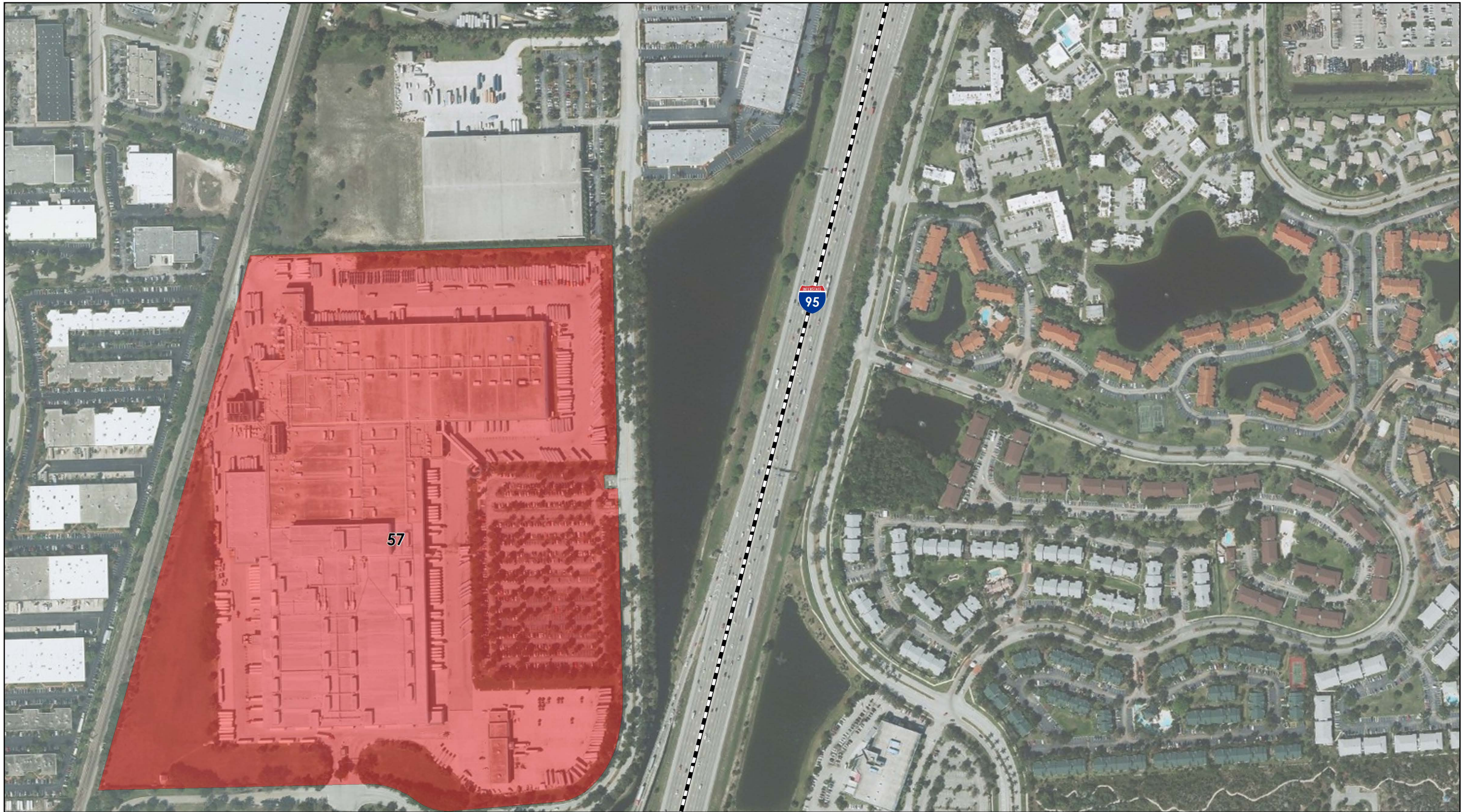


0 310 620 Feet

POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP

SHEET

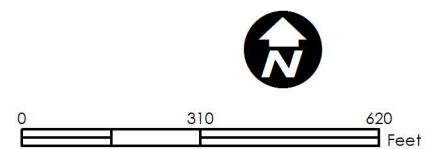
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STATE ROAD 9 (I-95)
PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
From North of Oakland Park Boulevard to South of Glades Road
FPID Numbers: 409359-1-22-01 and 409355-1-22-01
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POTENTIAL IMPACT RATING

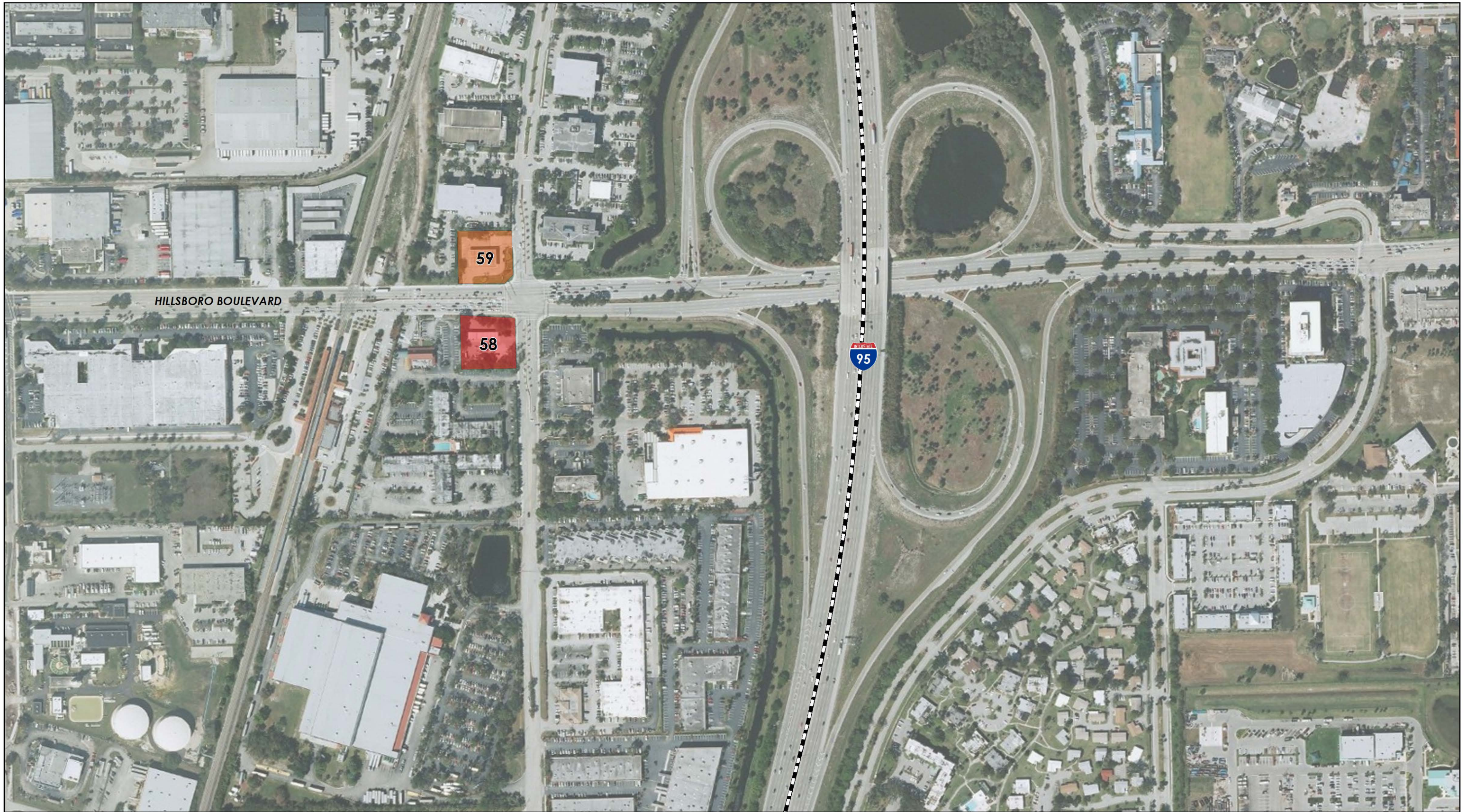
- HIGH
- MEDIUM
- LOW
- PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

19

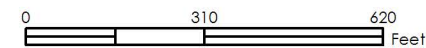


STATE ROAD 9 (I-95)
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From North of Oakland Park Boulevard to South of Glades Road
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POTENTIAL IMPACT RATING

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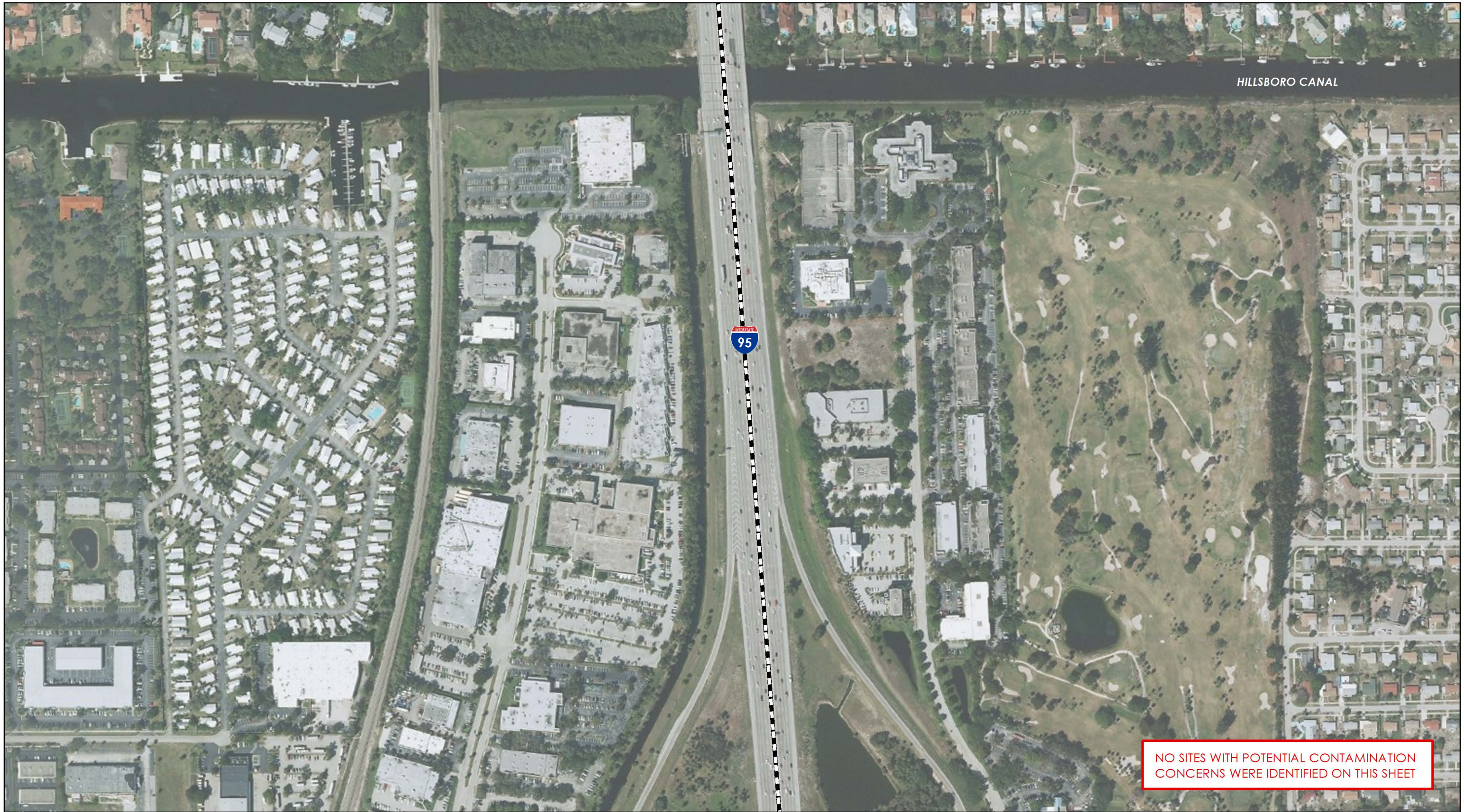
 PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

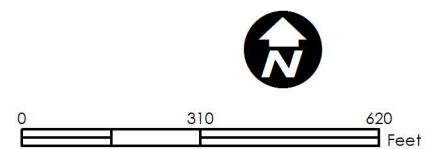
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PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDY
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POTENTIAL IMPACT RATING

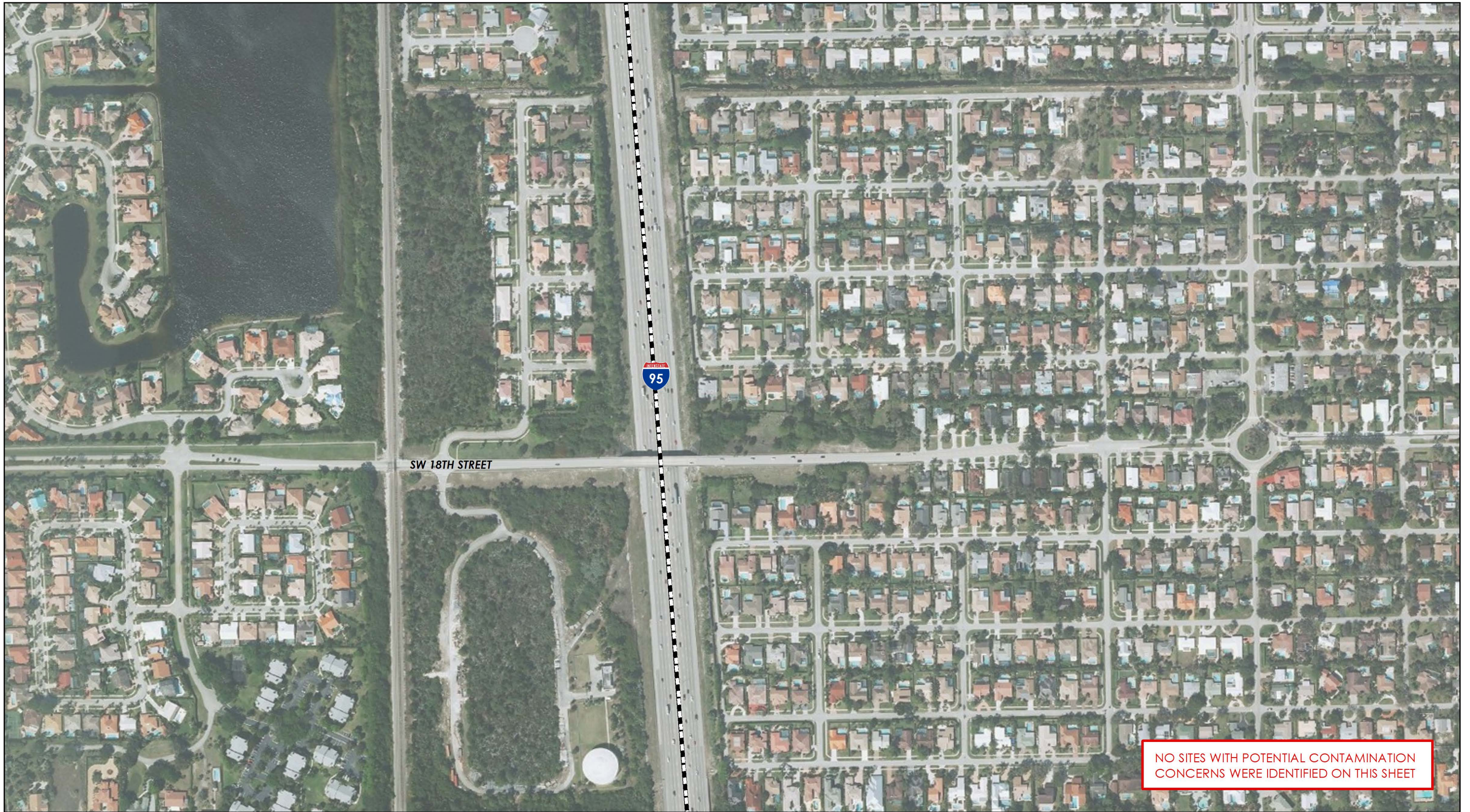
- HIGH
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- LOW
- PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

21

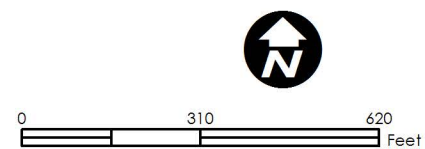


STATE ROAD 9 (I-95)
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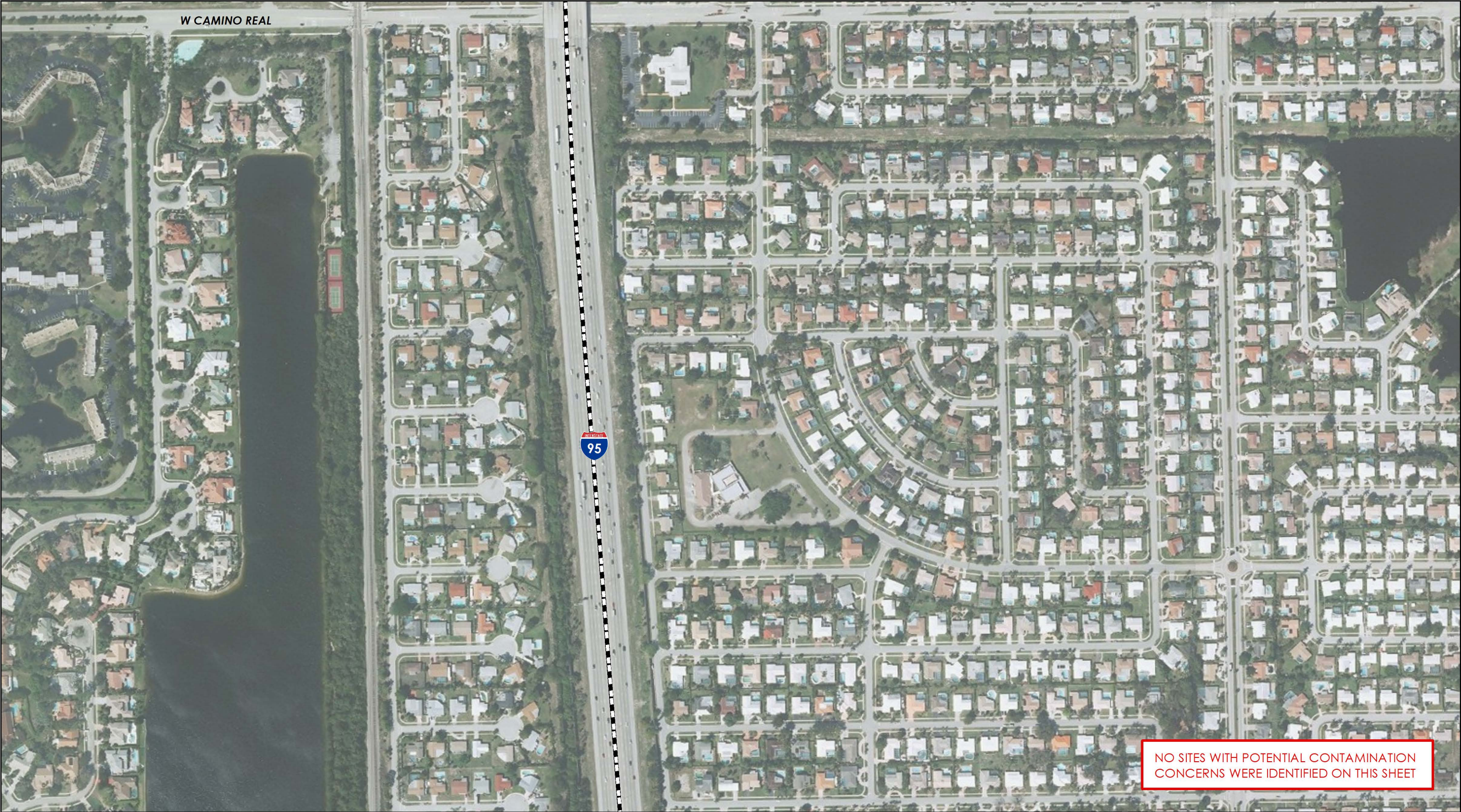
 PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

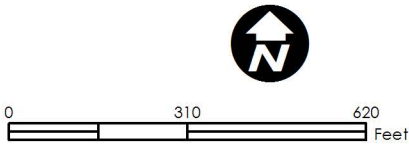
SHEET

22



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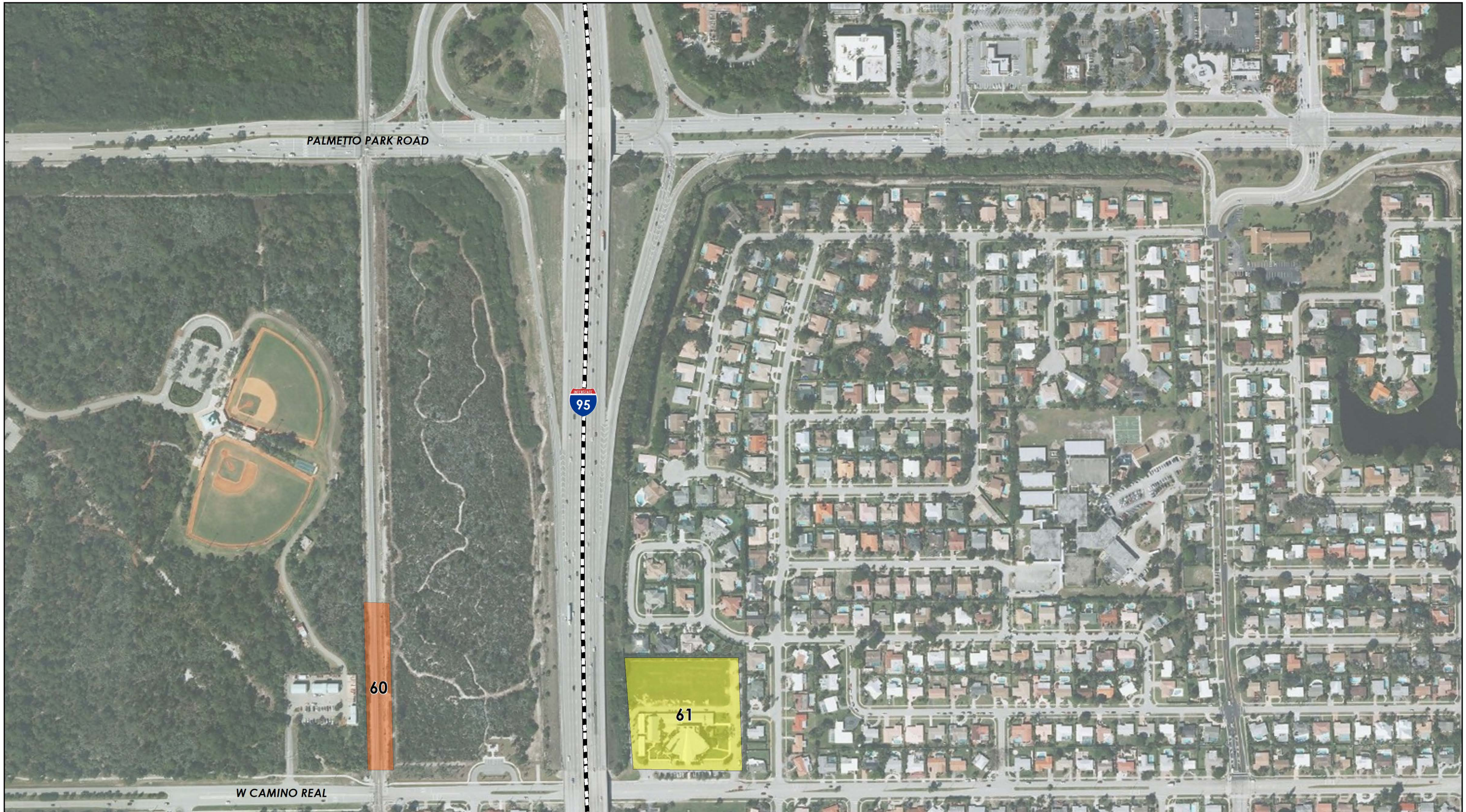
POTENTIAL IMPACT RATING
 HIGH
 MEDIUM
 LOW
 PROJECT CORRIDOR



*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

SHEET

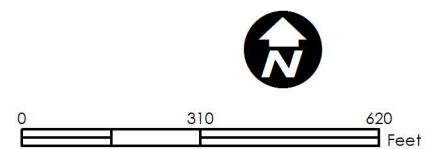
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POTENTIAL IMPACT RATING

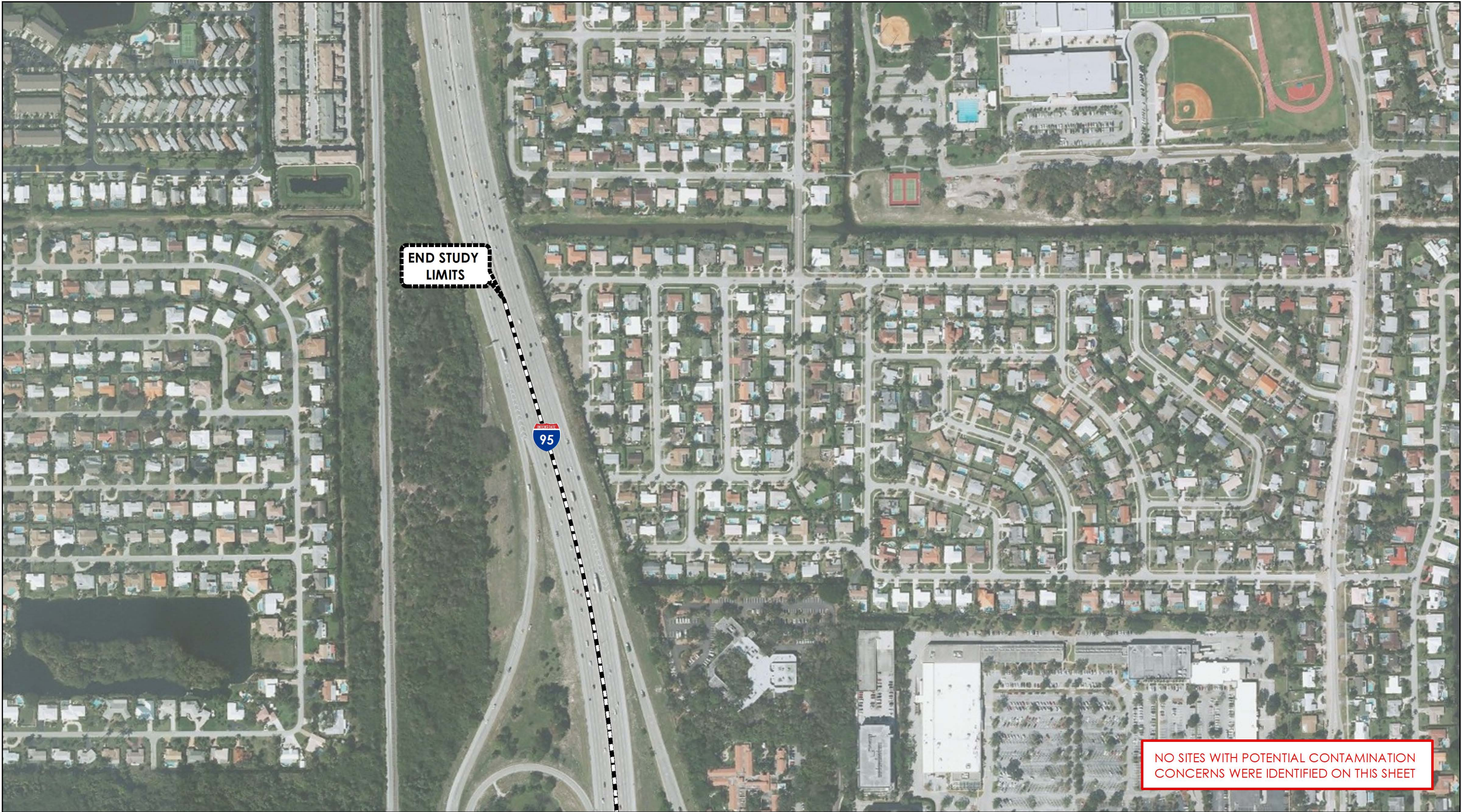
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*POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP*

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24



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- LOW

 PROJECT CORRIDOR



0 310 620 Feet

**POTENTIAL CONTAMINATION
CONCERNS LOCATION MAP**

SHEET

25



Appendix O

Hillsboro Canal Coordination Documents

From: Evelyn.Smart@uscg.mil [[:Evelyn.Smart@uscg.mil](mailto:Evelyn.Smart@uscg.mil)]

Sent: Thursday, December 06, 2012 10:06 AM

To: Richterkessing, Jesse

Cc: Dragon, Barry

Subject: RE: I-95 over Hillsboro Canal

Jesse, I have attached the Code of Federal Regulations regarding "Navigable Waters of the United States". Hillsboro Canal (this is the correct spelling for the canal) is navigable waters of the United States because it exhibits ebb and flood tide. Back in earlier days before the construction of I-95 there was little to no navigation using the waterway at that location so the Coast Guard applied the "Advance Approval" permit exemption (see attachment 2 - 33 CFR 115.70 on page 530). Since the construction of I-95, the characteristic of the Hillsboro Canal changed due to the construction of homes that are equipped with docks and the Pine Tree Mobile Home Park that has a 50 slip marina. Advance Approval no longer applies to the waterway at this location. A bridge permit will be required to replace or modify the I-95 Bridge. I have attached our Bridge Permit Application Guide for your use. If you have any questions, feel free to contact me.

EVELYN SMART

Environmental Protection Specialist

U.S. Coast Guard Seventh District

Bridge Administration Branch

Tel: (305) 415-6989



**FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION**

MARJORY STONEMAN DOUGLAS BUILDING
3900 COMMONWEALTH BOULEVARD
TALLAHASSEE, FLORIDA 32399-3000

RICK SCOTT
GOVERNOR

JENNIFER CARROLL
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

January 3, 2013

Mr. Isaiah Mosley
URS
7650 Corporate Center Drive, Suite 400
Miami, Florida 33126-1220, Florida 32751

Re: Hillsboro Canal at I-95; Broward/Palm Beach County

Dear Mr. Mosley:

Thank you for your recent inquiry requesting a determination of whether the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida owns the submerged lands of the Hillsboro Canal at the location of the I-95 bridge. The waterbody is located in Section 36, Township 47 South, Range 42 East.

The Board of Trustees, on behalf of the people of the State of Florida holds title to all waterbodies that are navigable in their ordinary natural condition. Our records indicate the subject canal was dredged at this site, and we are unable to determine the location of the ordinary high water line prior to alterations. Therefore, we recommend that the proprietary requirements normally applied to state owned lands not apply to the submerged lands at this site.

The conclusions stated herein are based on a review of records currently available within the Department of Environmental Protection as supplemented, in some cases, by information furnished by the requesting party and do not constitute a legal opinion of title.

If this office can be of any further assistance regarding this determination, please address your questions to Melanie Knapp, Government Operations Consultant II, mail station No. 108 at the above letterhead address, or by telephone at (850) 245-2788.

Sincerely,

Rod A. Maddox, PLSM
Division of State Lands
Bureau of Survey and Mapping
Title and Land Records Section

RAM/mjk
F:\TITLE\MELANIE\1213-3\Hillsboro Canal.docx



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