

Contamination Screening Evaluation Report Update

Florida Department of Transportation

District 4

I-95 PD&E

Limits of Project: from south of Hallandale Beach Boulevard to north of Hollywood Boulevard

Broward County, Florida

Financial Management Number: 436903-1-22-02

ETDM Number: 14254

Date: April 2024

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.



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1.0 EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) District 4 is conducting an Interstate 95 (I-95) Project Development and Environment (PD&E) Study to evaluate interchange improvements at Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard. The project is in Broward County, Florida and is contained within the municipalities of Hallandale Beach, Pembroke Park, and Hollywood. The project is approximately three miles long and extends from south of Hallandale Beach Boulevard to north of Hollywood Boulevard (Mileposts 0.0-3.1).

This Level I Contamination Screening Evaluation Report (CSER) was prepared using the FDOT PD&E Manual, Part 2, Chapter 20, and standard contamination screening evaluation practices such as: reviewing regulatory agency records, site reconnaissance, and literature review.

A total of 38 potentially contaminated sites were identified and reviewed for potential impacts to the project. Of these, three were ranked "High", 22 were ranked "Medium", 11 were ranked "Low", and two were ranked "No" for potential contamination concerns. For sites assigned a risk rating of "Medium" or "High", a Level II Assessment is recommended if construction activities are proposed in the site vicinity. These sites have been determined to have known contaminants, which may impact the proposed project. A soil and groundwater sampling plan should be developed for each site, as applicable. Based on the findings of a future review and Level II Assessment, the design engineers may be required to avoid areas of concern or include special provisions with the plans to require that construction activities performed in areas of concern be conducted or supervised by a contamination assessment and remediation contractor specified by FDOT.

Additional information may become available or site-specific conditions may change from the time this report was prepared and should be considered prior to acquiring right of way (ROW) and/or proceeding with roadway construction.



2.0 PROJECT OVERVIEW

2.1 PROJECT DESCRIPTION AND LOCATION

The FDOT District Four is conducting a PD&E Study for I-95 from south of Hallandale Beach Boulevard (SR 858) to north of Hollywood Boulevard (SR 820), a distance of approximately three miles (see **Figure 2.1**). The PD&E Study is proposing improvements to the Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard interchanges. The project is located in Broward County, Florida and is contained within the municipalities of Hallandale Beach, Pembroke Park, and Hollywood. The project is approximately three miles long and extends from the Broward/Miami-Dade County Line to Johnson Street (Mileposts 0.0 – 3.1).

I-95 is the primary north-south interstate facility that links all major cities along the Atlantic Seaboard and is one of the most important transportation systems in southeast Florida. I-95 is one of the two major expressways, Florida's Turnpike being the other that connects major employment centers and residential areas within the South Florida tri-county area. I-95 is part of the state's Strategic Intermodal System (SIS) and the National Highway System. In addition, I-95 is designated as an evacuation route along the east coast of Florida.

I-95, within the project limits, currently consists of eight general use lanes (four in each direction) and four dynamically tolled express lanes (two in each direction). This segment of I-95 is functionally classified as a Divided Urban Principal Arterial Interstate and has a posted speed limit of 65 miles per hour.

The access management classification for this corridor is Class 1.2, Freeway in an existing urbanized area with limited access.

There are three existing full interchanges within the project limits located at Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard. All three roadways are classified as Divided Urban Principal Arterials. Hallandale Beach Boulevard consists of four lanes west of I-95 and six lanes east of I-95. Pembroke Road and Hollywood Boulevard each have six lanes west of I-95 and four lanes east of I-95.

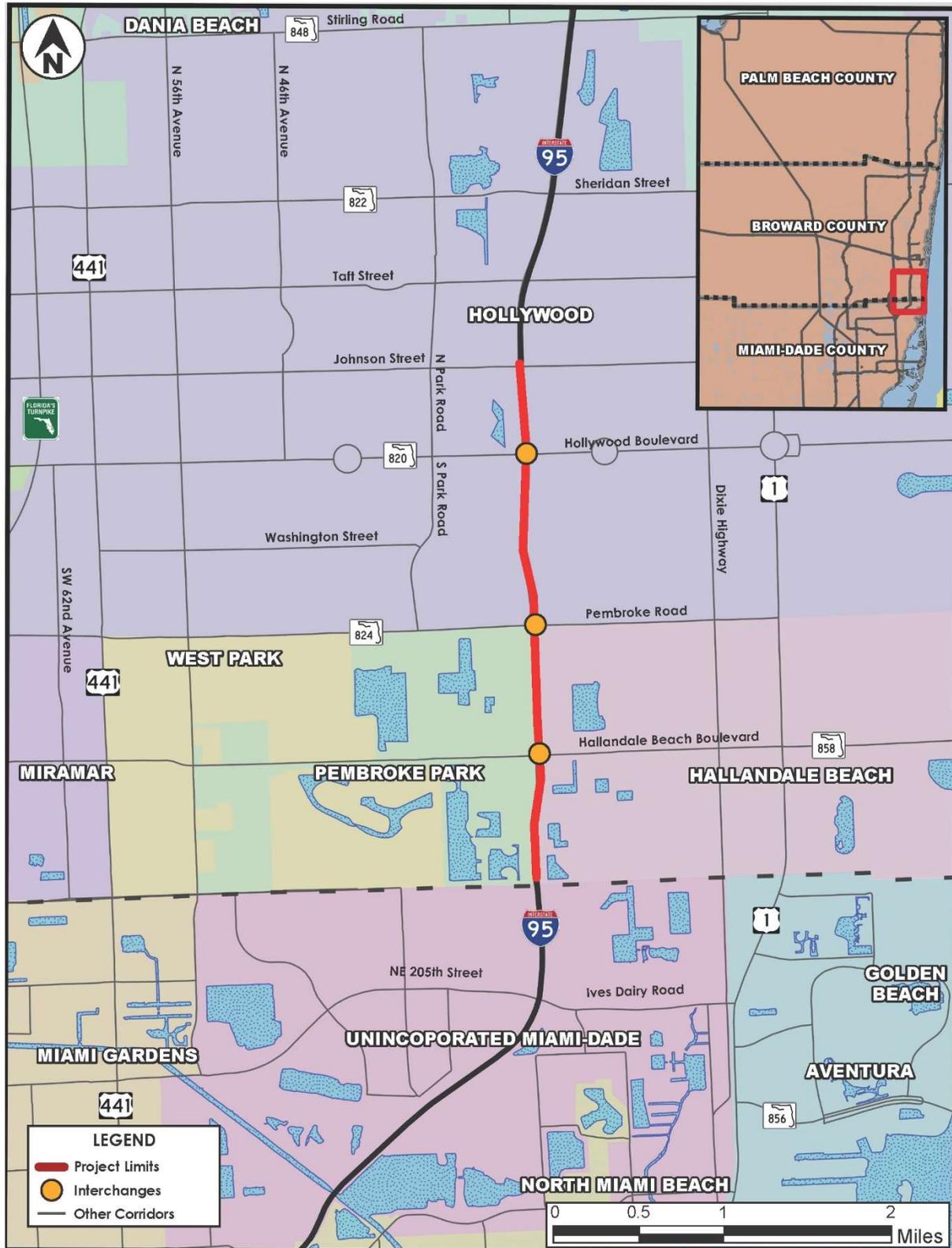


Figure 2.1 – Project Location Map



This PD&E Study is evaluating the potential modification of existing entrance and exit ramps serving the three interchanges within the project limits. Widening and turn lane modifications at the ramp terminals were evaluated to facilitate the ramp modifications and improve the access and operation of the interchanges.

2.2 PURPOSE AND NEED OF THE PROJECT

The overall goals and objectives of this PD&E Study are described below:

- Evaluate the implementation of potential interchange and intersection improvements that will improve capacity, operations, safety, mobility, and emergency evacuation.
- Identify the appropriate interstate/interchange access improvements that, combined with Transportation Systems Management and Operations (TSM&O) improvements, will service the users of the area, and achieve the Purpose and Need.
- Provide relief from existing and projected traffic congestion.
- Improve the safety of the I-95 mainline corridor by addressing speed differentials and lane weaving deficiencies between interchanges.
- Support the optimal operations of the existing roadway network.
- Maintain consistency with the current I-95 Express Lanes and local projects.
- Prioritize the proposed improvements based on the area needs (short-term vs. long-term), logical segmentation and funding.

The need for this project is to increase interchange and ramp terminals intersection capacity at Hallandale Beach Boulevard, Pembroke Road and Hollywood Boulevard. Other considerations for the purpose and need of this project include safety, system linkage, modal interrelationships, transportation demand, social demands, economic development, and emergency evacuation. The primary and secondary needs for the project are discussed in further detail below:

Capacity – The I-95 ramps at Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard are currently congested and affecting traffic operations along I-95 between the interchange ramps and at the arterial intersections near I-95.



Without future improvements, the driving conditions will continue to deteriorate well below acceptable Level of Service (LOS) standards. The following I-95 freeway segments will operate below LOS D within at least one peak-hour period before the year 2045:

- Ives Dairy Road northbound on-ramp to Hallandale Beach Boulevard northbound off-ramp
- Hallandale Beach Boulevard northbound on-ramp to Pembroke Road northbound off-ramp
- Pembroke Road northbound on-ramp to Hollywood Boulevard northbound off-ramp
- Hollywood Boulevard northbound on-ramp to Sheridan Street northbound off-ramp
- Sheridan Street southbound on-ramp to Hollywood Boulevard southbound off-ramp
- Pembroke Road southbound on-ramp to Hallandale Beach Boulevard southbound off-ramp
- Hallandale Beach Boulevard southbound on-ramp to Ives Dairy Road southbound off-ramp

Additionally, the following intersections will fall below LOS D during at least one peak-hour period before the year 2045:

- Hallandale Beach Boulevard northbound ramp terminal
- Hallandale Beach Boulevard southbound ramp terminal
- Hollywood Boulevard southbound ramp terminal
- Hollywood Boulevard/28th Avenue

The improvements proposed as part of this project will increase the capacity of the interchanges and the ramp terminal intersections.

Safety – The crash safety analysis indicates that the I-95 study area segments have experienced greater overall number of crashes for the years 2012 through 2014 than what would typically be anticipated on similar facilities. A review of the crash data indicates that traffic operational improvements could address some of the safety issues.



Additional I-95 entry and exit ramp capacity at these interchanges will improve the safety and overall flow of traffic within the project corridor and adjacent intersections.

System Linkage – I-95 is part of the State's SIS and the National Highway System. I-95 provides limited access connectivity to other major arterials such as I-595 and Florida's Turnpike. The project is not proposing to change system linkage. However, potential interchange modifications would improve movements within the existing network systems.

Modal Interrelationships – There are sidewalks in both directions and public transit routes along Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard. Additionally, there is a Tri-Rail Station in the northwest quadrant of the I-95/Hollywood Boulevard Interchange.

Capacity improvements within the study area will enhance the mobility of people and goods by alleviating current and future congestion at the interchanges and on the surrounding freight and transit networks. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses in the area.

Transportation Demand – The I-95 PD&E Study phase from south of Hallandale Beach Boulevard to north of Hollywood Boulevard is included in the Broward Metropolitan Planning Organization (MPO) 2045 Long Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), FDOT Work Program, FDOT State TIP, and FDOT SIS Five Year Plan.

Social Demands and Economic Development – Social and economic demands on the I-95 corridor will continue to increase as population and employment increase. The Broward County MPO LRTP predicted that the population would grow from 1.9 million in 2018 to 2.2 million by 2045, an increase of 16 percent. Jobs were predicted to increase from 0.9 to 1.2 million during the same period, an increase of 25 percent.

The project intersects the cities of Hallandale Beach, Pembroke Park, and Hollywood, the third largest city in Broward County.



Emergency Evacuation – The project is anticipated to improve emergency evacuation capabilities by enhancing connectivity and accessibility to major arterials designated on the state evacuation route. I-95, Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard serve as part of the emergency evacuation route network designated by the Florida Division of Emergency Management and by Broward County. Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard move traffic from the east to I-95. I-95 is critical in facilitating traffic during emergency evacuation periods as it connects to other major arterials and highways in the state evacuation route network (i.e., I-595 and the Florida's Turnpike).

2.3 EXISTING CONDITIONS

I-95, within the study limits, consists of eight 11- to 12-foot-wide general use lanes (four lanes in each direction), four 11-foot wide dynamically tolled express lanes (two in each direction), 12-foot-wide auxiliary lanes at selected locations, 12-foot-wide paved outside shoulders, 6 to 11-foot wide paved inside shoulders, a 2-foot wide median barrier wall, and outside roadway guardrails. The express lanes are buffer separated from the general use lanes with express lane markers and a 3-foot-wide buffer. **Figure 2.2** shows the roadway section north of Hallandale Beach Boulevard and **Figure 2.3** shows the roadway section north of Pembroke Road. **Figure 2.4** depicts the existing conditions schematic line diagram.

The existing limited access right of way varies slightly within the study limits. The right of way is generally consistent throughout the corridor except at the interchanges, where it varies to accommodate entrance and exit ramps. **Table 2.1** summarizes the available right of way along the corridor.

Table 2.1 – Summary of Existing Limited Access Right of Way

I-95 Roadway Section	Right of Way Width (feet)
Miami-Dade/Broward County Line – Hallandale Beach Boulevard	303
Hallandale Beach Boulevard – Pembroke Road	300
Pembroke Road – Hollywood Boulevard	315
Hollywood Boulevard – Johnson Street	343

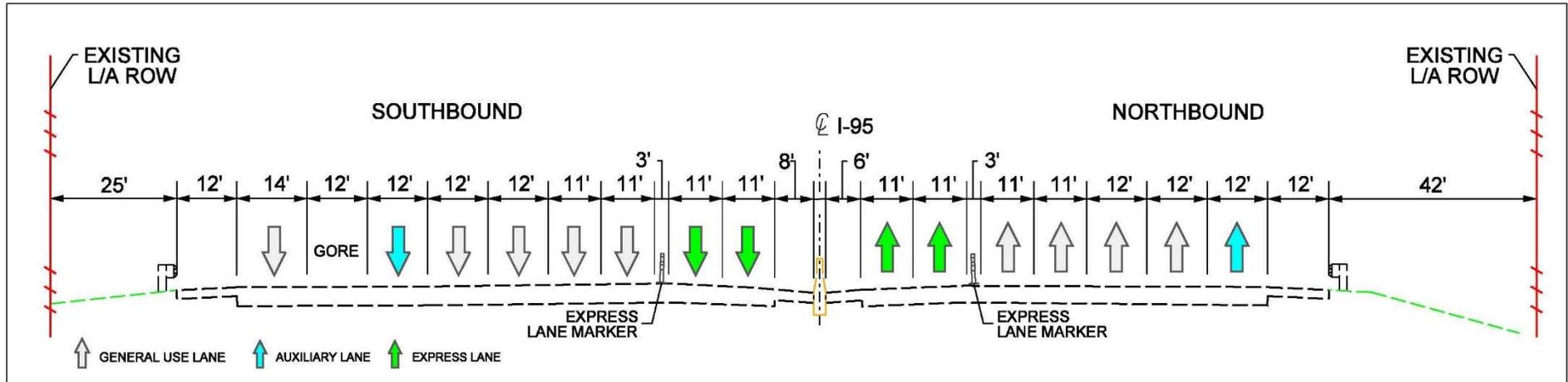


Figure 2.2 – Existing Roadway North of Hallandale Beach Boulevard

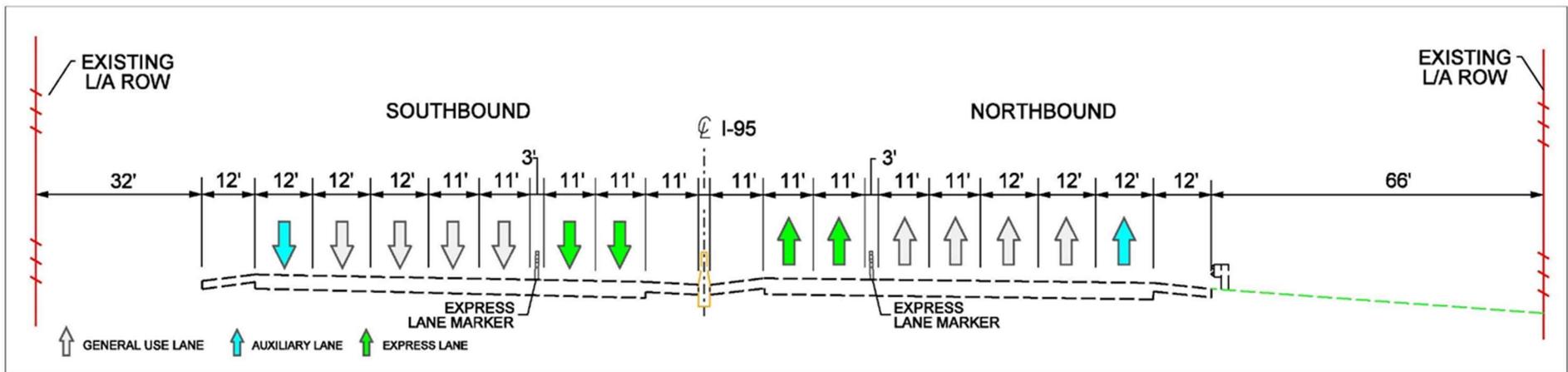
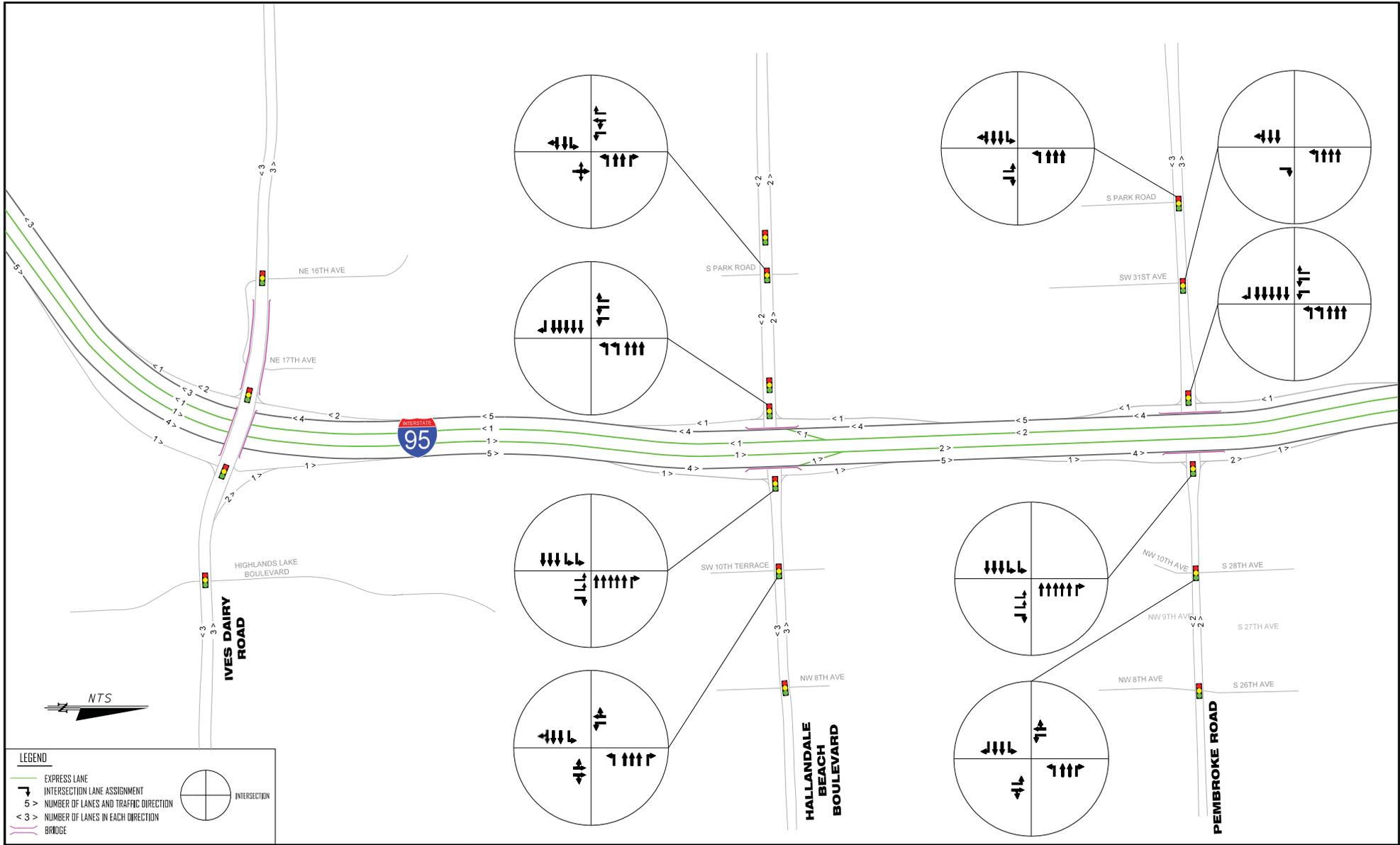


Figure 2.3 – Existing Roadway North of Pembroke Road





3.0 PROJECT ALTERNATIVES

Alternatives evaluated during the PD&E Study include the No-Build Alternative and two Build Alternatives. Alternatives were developed and evaluated based on the ability to meet the project's purpose and need.

3.1 NO-BUILD ALTERNATIVE

The No-Build Alternative includes the existing transportation network and any funded, planned, or programmed improvements open to traffic by the design year. The No-Build Alternative includes only those improvements that are elements of the MPO's Transportation Improvement Program, the 2045 Cost Feasible LRTP, the FDOT's Adopted Five Year Work Program, any local government comprehensive plans and/or any development mitigation improvement projects that are elements of approved development orders.

The No-Build Alternative includes currently planned and programmed improvements. One of the programmed improvements is the safety short-term interim improvements at the Hallandale Beach Boulevard, Pembroke Road and Hollywood Boulevard interchanges. The No-Build Alternative includes the ongoing District Four I-95 Express Phase 3C Construction Project between south of Hollywood Boulevard and north of I-595. This construction project will add additional express lane access points (northbound egress and southbound ingress) within the Hollywood Boulevard Interchange. The No-Build Alternative also includes the District Six I-95 Planning Study between US 1 (Downtown Miami) and the Miami-Dade/Broward County Line. This planning study is proposing to add mainline capacity and interchange improvements by the design year of this project.

This alternative is considered to be a viable alternative to serve as a comparison to the study's proposed build alternatives.

The No-Build Alternative roadway sections are the same as the existing sections plus any future planned improvements. I-95, within the study limits, consists of eight 11- to 12-foot-wide general use lanes (four lanes in each direction), four 11-foot wide dynamically tolled express lanes (two in each direction), 12-foot-wide auxiliary lanes at selected locations, 12-foot-wide paved outside shoulders, 6 to



11-foot wide paved inside shoulders, a 2-foot wide median barrier wall, and outside roadway guardrails. The express lanes are buffer separated from the general use lanes with express lane markers and a 3-foot-wide buffer. **Figure 3.1** shows the roadway section north of Hallandale Beach Boulevard and **Figure 3.2** shows the roadway section north of Pembroke Road. **Figure 3.3** depicts the No-Build Alternative schematic line diagram.

3.2 BUILD ALTERNATIVES

Two build alternatives were evaluated to improve traffic operations within the study area for the I-95 mainline and interchanges. Build alternatives were developed with the goal of reducing congestion and delay while also maximizing the efficiency of the transportation system.

Alternative 1 – This alternative proposes braided ramps between interchanges to improve substandard weaving movements along I-95. In this alternative, the on-ramps from each interchange will remain unchanged. However, the off-ramps to Pembroke Road and Hollywood Boulevard in the northbound direction and to Pembroke Road and Hallandale Beach Boulevard in the southbound direction will be located one interchange prior to the destination interchange. For example, travelers destined northbound to Pembroke Road would use an exit ramp located just south of the Hallandale Beach Boulevard corridor right after the Hallandale Beach Boulevard off-ramp. The new exit ramp will continue separated from the I-95 mainline braiding over the Hallandale Beach Boulevard on-ramp and continuing along the right of way line until reaching the cross-street ramp terminal. This new exit ramp bypasses and avoids conflicts with the Hallandale Beach Boulevard on-ramp. The same design continues northbound to Hollywood Boulevard and southbound to Pembroke Road and Hallandale Beach Boulevard. **Figure 3.4** shows the roadway section north of Hallandale Beach Boulevard and **Figure 3.5** shows the roadway section north of Pembroke Road. **Figure 3.6** shows the schematic geometric layout of Alternative 1.

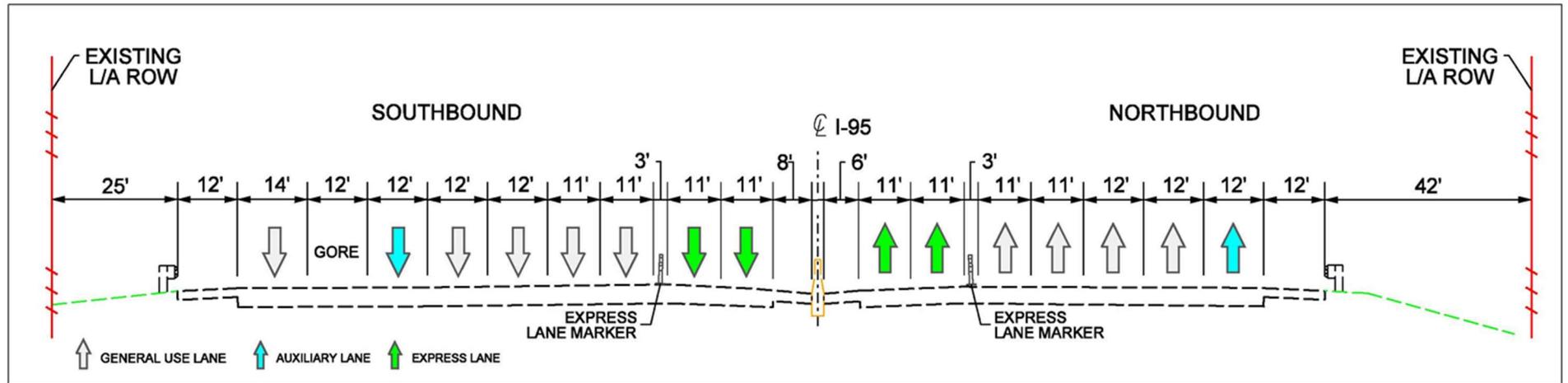


Figure 3.1 – No-Build Alternative North of Hallandale Beach Boulevard

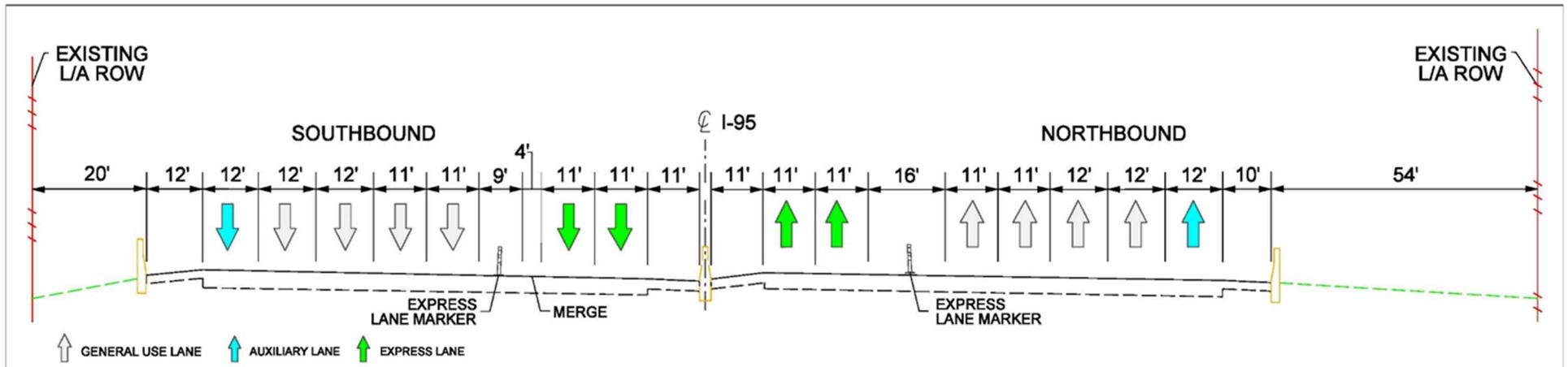
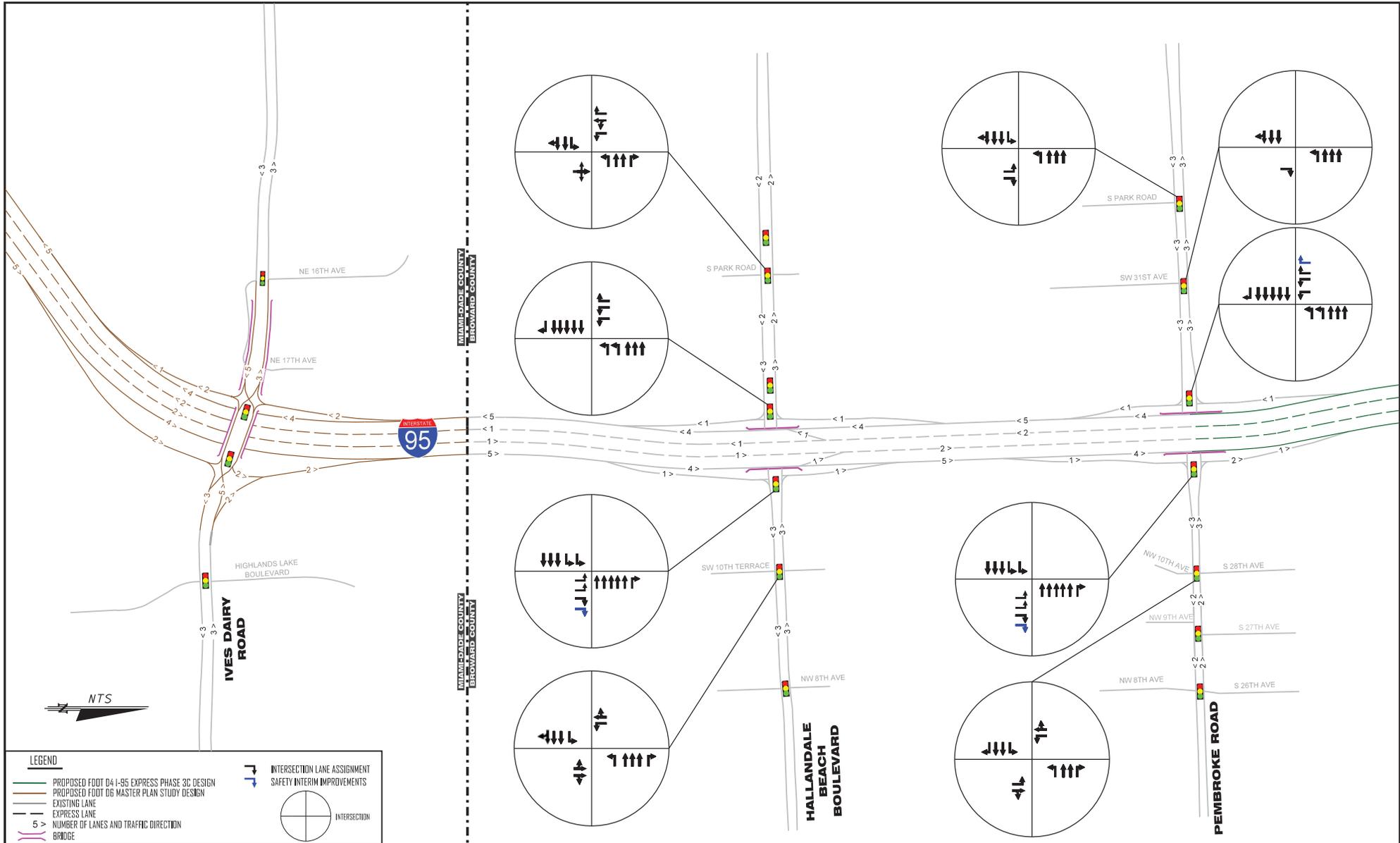


Figure 3.2 – No-Build Alternative North of Pembroke Road



LEGEND

- PROPOSED FDOT D4 I-95 EXPRESS PHASE 3C DESIGN
- PROPOSED FDOT D6 MASTER PLAN STUDY DESIGN
- EXISTING LANE
- EXPRESS LANE
- 5 > NUMBER OF LANES AND TRAFFIC DIRECTION
- BRIDGE

↔ INTERSECTION LANE ASSIGNMENT
↔ SAFETY INTERIM IMPROVEMENTS
 INTERSECTION



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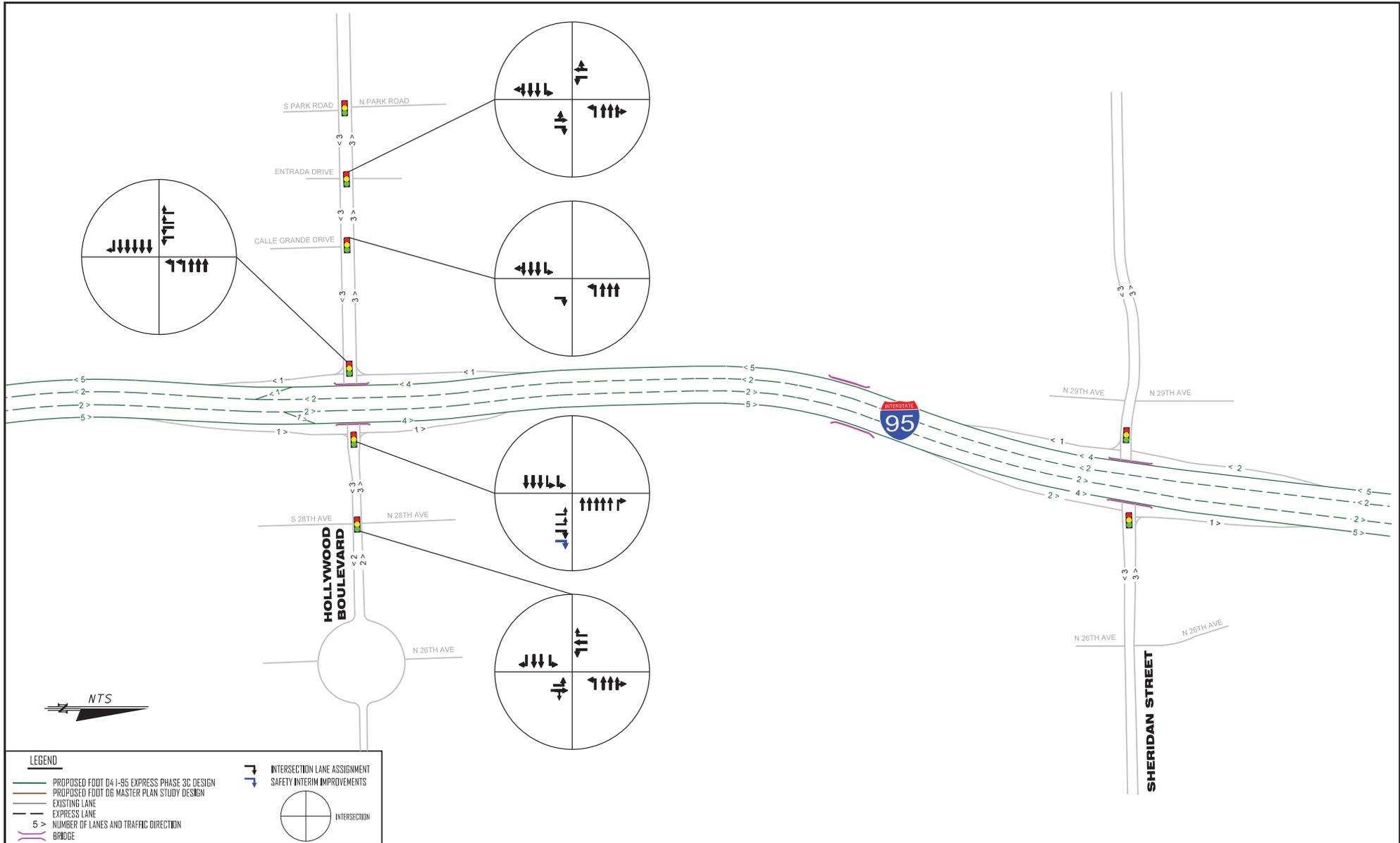
SEPTEMBER 2020



I-95 (SR 9) PROJECT DEVELOPMENT & ENVIRONMENT STUDY
 from South of Hallandale Beach Boulevard (SR 858) to North of Hollywood Boulevard (SR 820)
 FPOD No: 436903-I-22-02
 ETOM No: 14254

SR 9 (INTERSTATE 95)
LANE GEOMETRY AND CONFIGURATIONS
2045 NO-BUILD LINE DIAGRAM

FIGURE
3.3



LEGEND

- PROPOSED FDOT 04 I-95 EXPRESS PHASE 3C DESIGN
- PROPOSED FDOT 06 MASTER PLAN STUDY DESIGN
- EXISTING LANE
- EXPRESS LANE
- NUMBER OF LANES AND TRAFFIC DIRECTION
- BRIDGE

INTERSECTION LANE ASSIGNMENT
SAFETY INTERIM IMPROVEMENTS

INTERSECTION

FDOT FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR
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**SR 9 (INTERSTATE 95)
LANE GEOMETRY AND CONFIGURATIONS
2045 NO-BUILD LINE DIAGRAM**

**FIGURE
3.3**

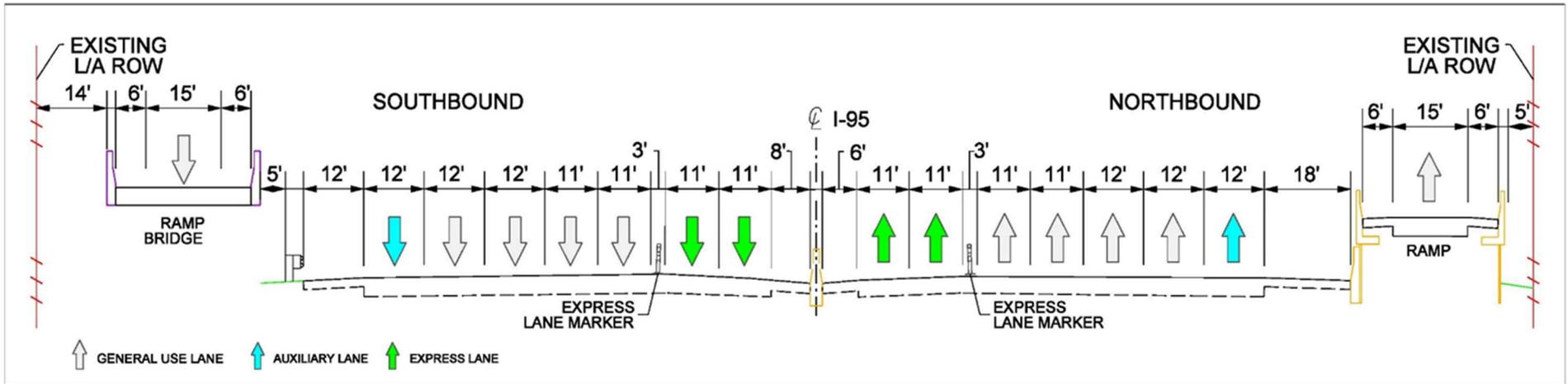


Figure 3.4 – Alternative 1 North of Hallandale Beach Boulevard

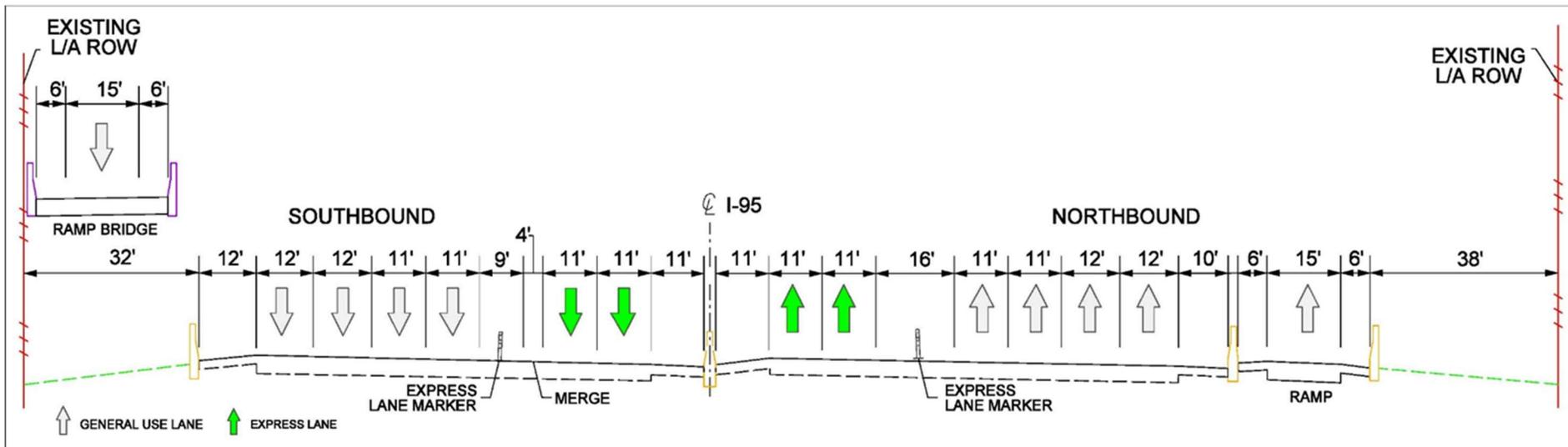
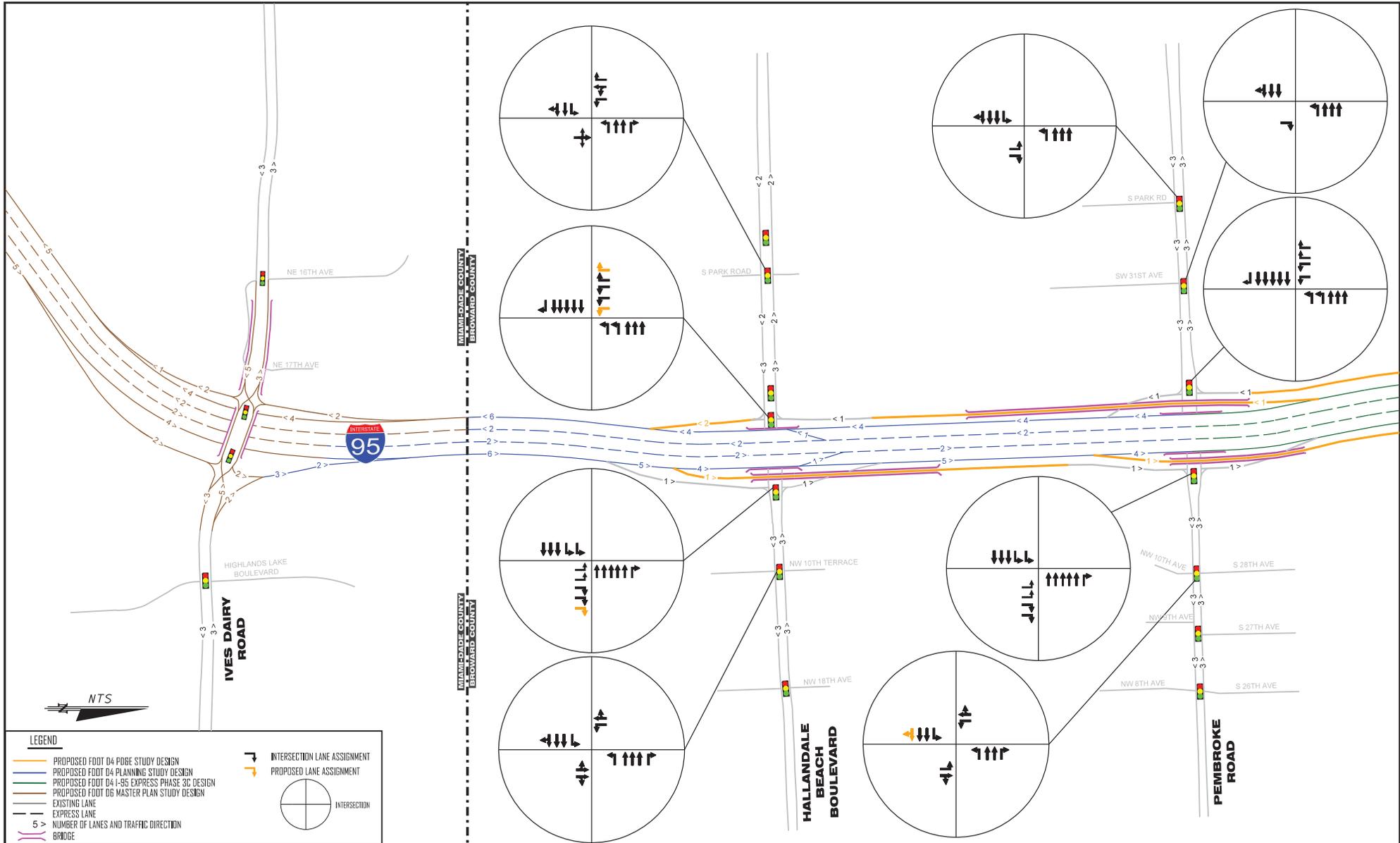


Figure 3.5 – Alternative 1 North of Pembroke Road



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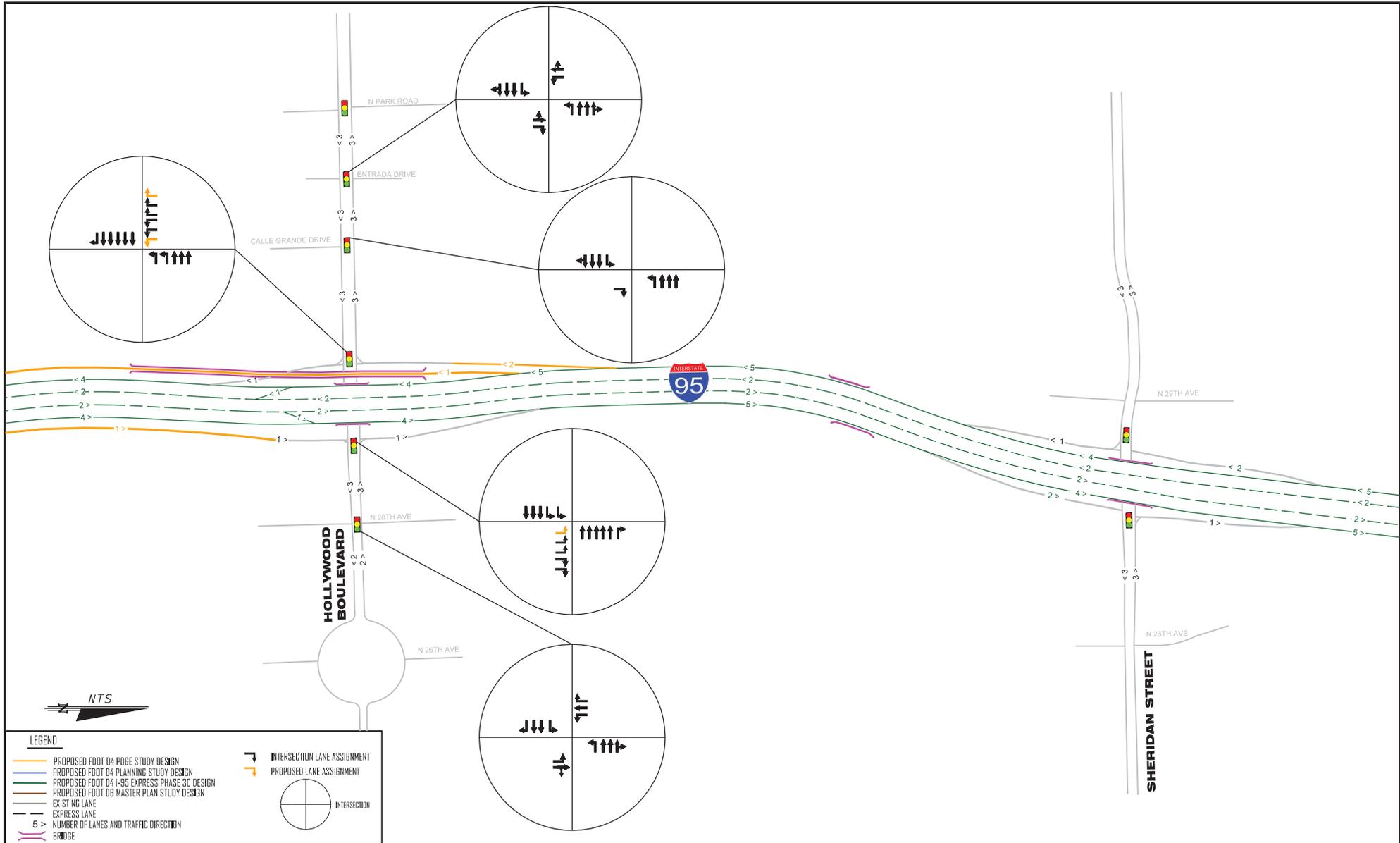
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I-95 (SR 9) PROJECT DEVELOPMENT & ENVIRONMENT STUDY
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SR 9 (INTERSTATE 95)
LANE GEOMETRY AND CONFIGURATIONS
ALTERNATIVE 1 LINE DIAGRAM

FIGURE
3.6



LEGEND

- PROPOSED FOOT D4 PD&E STUDY DESIGN
- PROPOSED FOOT D4 PLANNING STUDY DESIGN
- PROPOSED FOOT D4 I-95 EXPRESS PHASE 3C DESIGN
- PROPOSED FOOT D6 MASTER PLAN STUDY DESIGN
- EXISTING LANE
- - - EXPRESS LANE
- 5 > NUMBER OF LANES AND TRAFFIC DIRECTION
- | BRIDGE

- INTERSECTION
- PROPOSED LANE ASSIGNMENT
- INTERSECTION LANE ASSIGNMENT

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INTERSTATE 95
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SR 9 (INTERSTATE 95)
 LANE GEOMETRY AND CONFIGURATIONS
 ALTERNATIVE 1 LINE DIAGRAM

FIGURE 3.6



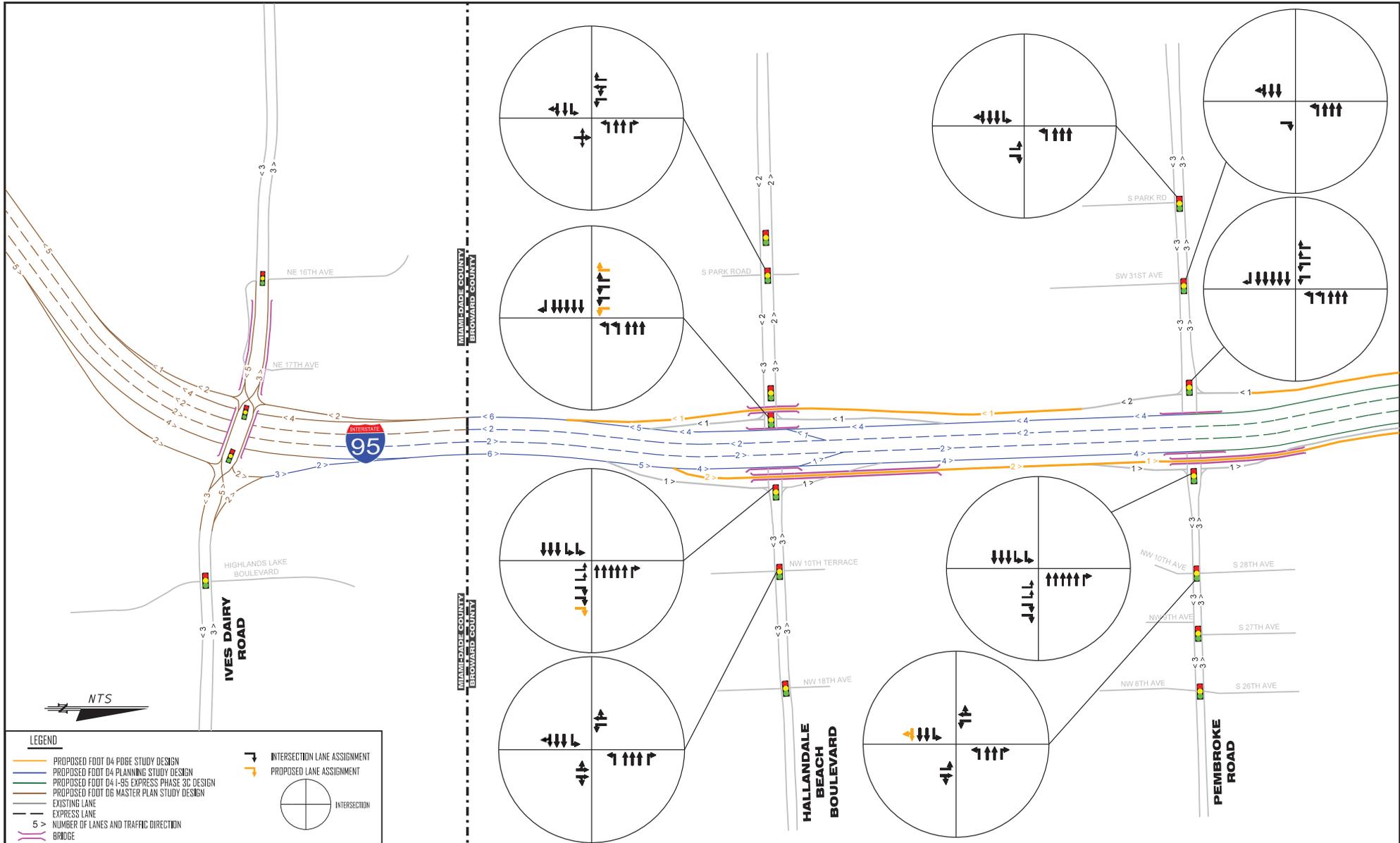
Alternative 2 – This alternative proposes a collector distributor roadway system within the I-95 mainline project area. The collector distributor roadway system will remove the Pembroke Road Interchange from directly interacting with the I-95 mainline. In the northbound direction, all exiting traffic to Pembroke Road and Hollywood Boulevard will utilize a new collector distributor off-ramp just south of Hallandale Beach Boulevard. The collector distributor roadway system will extend to just north of Hollywood Boulevard serving the exit traffic to Pembroke Road, entry traffic from Pembroke Road and entry traffic from Hollywood Boulevard. In the southbound direction, the new collector distributor roadway system will not be continuous, it will end and begin at Pembroke Road. The first section combines the off-ramps to Hollywood Boulevard and Pembroke Road and the second section moves the Pembroke Road on-ramp to enter I-95 south of the Hallandale Beach Boulevard on-ramp. **Figure 3.7** shows the roadway section north of Hallandale Beach Boulevard and **Figure 3.8** shows the roadway section north of Pembroke Road. **Figure 3.9** shows the schematic geometric layout of Alternative 2.

Widening and turn lane modifications at the ramp terminals were evaluated to facilitate the ramp modifications and improve the access and operation of the interchanges. These improvements are the same in both alternatives.

3.3 PREFERRED ALTERNATIVE

A preferred alternative was selected in September 2021. Subsequent coordination with the local municipalities generated several requests to modify the preferred alternative in specific areas to meet their local needs. Therefore, FDOT addressed these requests and evaluated several modifications to the preferred alternative.

In 2023, FDOT completed the evaluation and finalized the refinements to the preferred alternative. The refined preferred alternative is proposing a combination of ramp modifications and collector distributor roads adjacent to the I-95 mainline lanes. Collector distributor roads are extra lanes between the interstate freeway lanes and local frontage/crossing roads. Their primary purpose is to move vehicle lane changing away from the high-speed traffic on the interstate lanes. Lane changes occur on the collector distributor roads as vehicles move from the interstate to the frontage roads or other connecting roadways and vice versa.



LEGEND

- PROPOSED FDOT D4 PD&E STUDY DESIGN
- PROPOSED FDOT D4 PLANNING STUDY DESIGN
- PROPOSED FDOT D4 I-95 EXPRESS PHASE 3C DESIGN
- PROPOSED FDOT D6 MASTER PLAN STUDY DESIGN
- EXISTING LANE
- EXPRESS LANE
- 5 > NUMBER OF LANES AND TRAFFIC DIRECTION
- BRIDGE

INTERSECTION
 INTERSECTION LANE ASSIGNMENT
 PROPOSED LANE ASSIGNMENT
 INTERSECTION

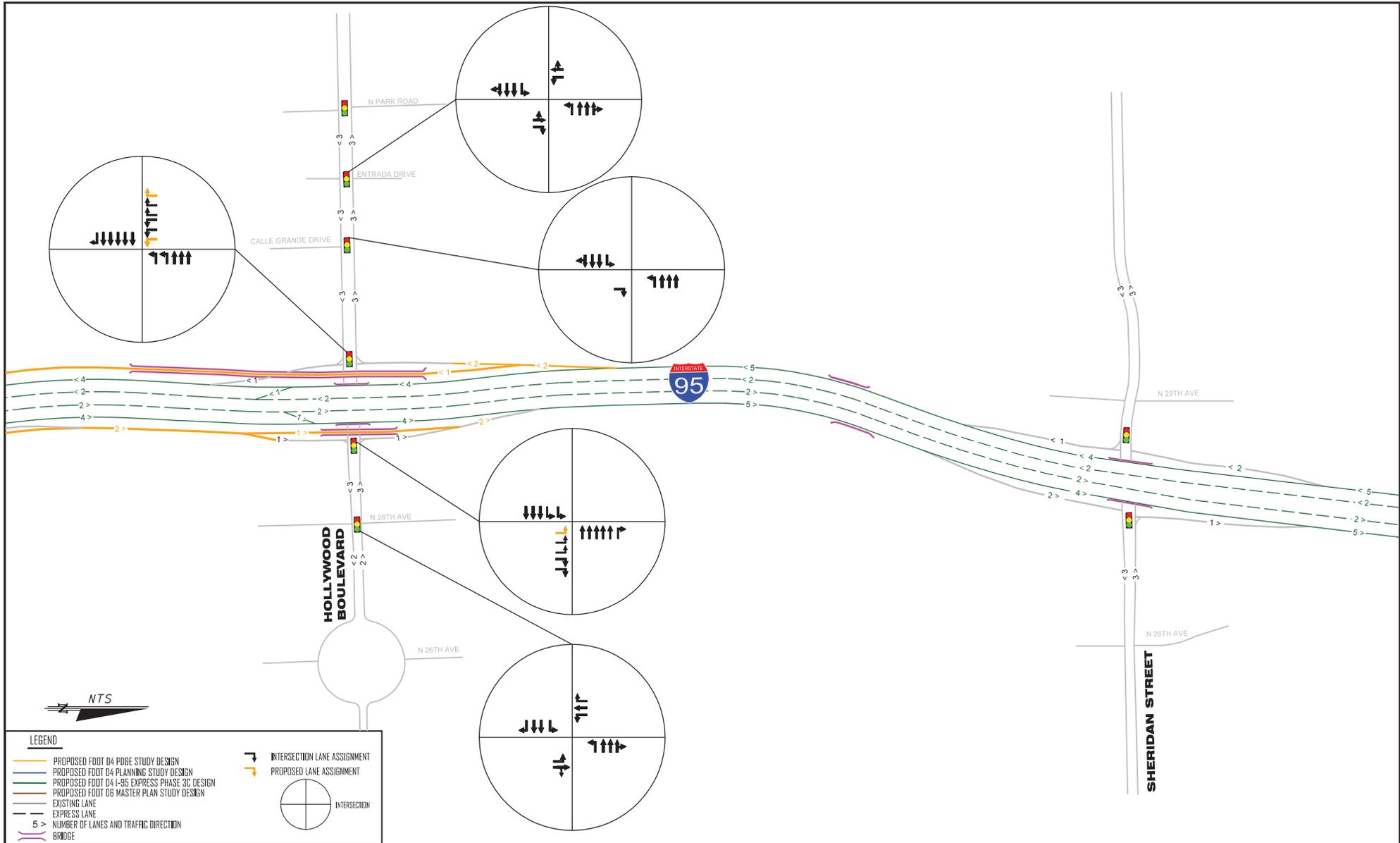
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OCTOBER 2020

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SR 9 (INTERSTATE 95)
LANE GEOMETRY AND CONFIGURATIONS
ALTERNATIVE 2 LINE DIAGRAM

FIGURE
3.9



LEGEND

- PROPOSED FDOT D4 PD&E STUDY DESIGN
- PROPOSED FDOT D4 PLANNING STUDY DESIGN
- PROPOSED FDOT D4 I-95 EXPRESS PHASE 3C DESIGN
- PROPOSED FDOT D6 MASTER PLAN STUDY DESIGN
- EXISTING LANE
- EXPRESS LANE
- 5 > NUMBER OF LANES AND TRAFFIC DIRECTION BRIDGE

- INTERSECTION
- PROPOSED LANE ASSIGNMENT
- INTERSECTION LANE ASSIGNMENT



FLORIDA DEPARTMENT OF TRANSPORTATION
DISTRICT FOUR
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**SR 9 (INTERSTATE 95)
LANE GEOMETRY AND CONFIGURATIONS
ALTERNATIVE 2 LINE DIAGRAM**

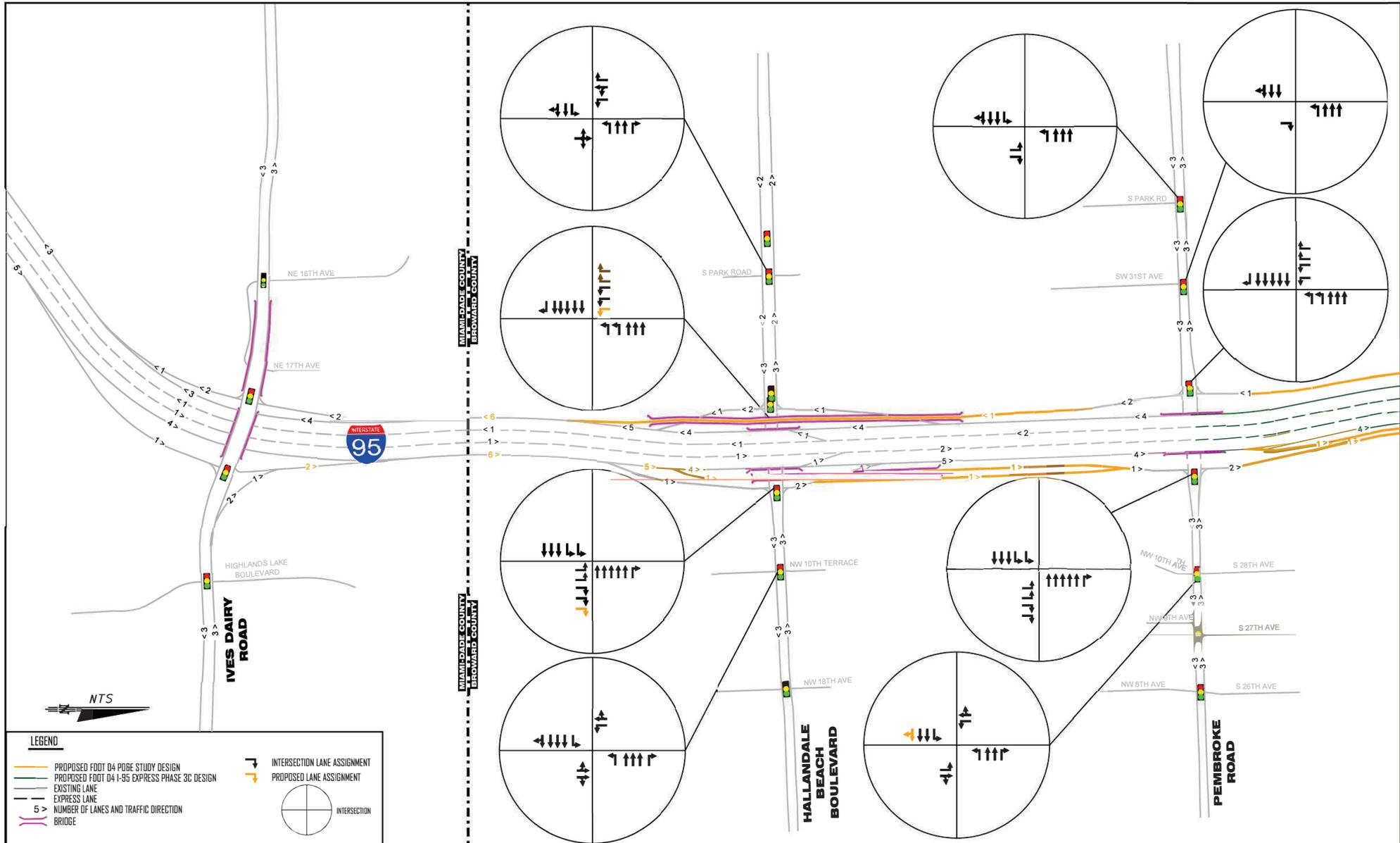
**FIGURE
3.9**

Figure 3.10 shows a schematic line diagram of the refined preferred alternative.

Northbound Direction – In the northbound direction, the preferred alternative is proposing two auxiliary lanes between Ives Dairy Road and Hallandale Beach Boulevard. The outside auxiliary lane becomes the exit ramp to Hallandale Beach Boulevard. The inside auxiliary lane becomes the exit ramp to Pembroke Road, which happens just south of the I-95/Hallandale Beach Boulevard bridge overpass. With this design, the existing exit ramp to Pembroke Road was relocated from south of Pembroke Road to south of Hallandale Beach Boulevard. The exit ramp to Pembroke Road crosses over the entry ramp from Hallandale Beach Boulevard and stays elevated until reaching Pembroke Road. The preferred alternative is proposing a new local ramp connection between Hallandale Beach Boulevard and Pembroke Road. This connection will allow local traffic to travel between the two crossing roadways in the northbound direction without entering the I-95 mainline lanes.

The preferred alternative is also proposing a collector distributor road between Pembroke Road and north of Hollywood Boulevard. The existing exit ramp to Hollywood Boulevard was relocated from south of Hollywood Boulevard to just north of the I-95/Pembroke Road bridge overpass. The entry ramp from Pembroke Road merges with the exit ramp to Hollywood Boulevard becoming a two-lane collector distributor road. The outside lane of the collector distributor road becomes the exit to Hollywood Boulevard and the inside lane becomes the Pembroke Road entry ramp to I-95. The Hollywood Boulevard entry ramp merges with the Pembroke Road entry ramp becoming a two-lane on-ramp to I-95.

Southbound Direction – In the southbound direction, the preferred alternative is also proposing a collector distributor road between north of Hollywood Boulevard and Pembroke Road. The collector distributor road begins with a two-lane exit ramp just south of Johnson Street serving Hollywood Boulevard and Pembroke Road. The two lanes continue south until reaching Hollywood Boulevard. Before reaching Hollywood Boulevard, a one-lane left-hand exit ramp opens to continue traveling south to Pembroke Road. The exit ramp to Pembroke Road continues south over Hollywood Boulevard and crosses over the entry ramp from Hollywood Boulevard until reaching Pembroke Road. The preferred alternative is proposing a new local ramp connection between Hollywood Boulevard and Pembroke Road. This connection will allow local traffic to travel between the two crossing roadways in the southbound direction without entering the I-95 mainline lanes.

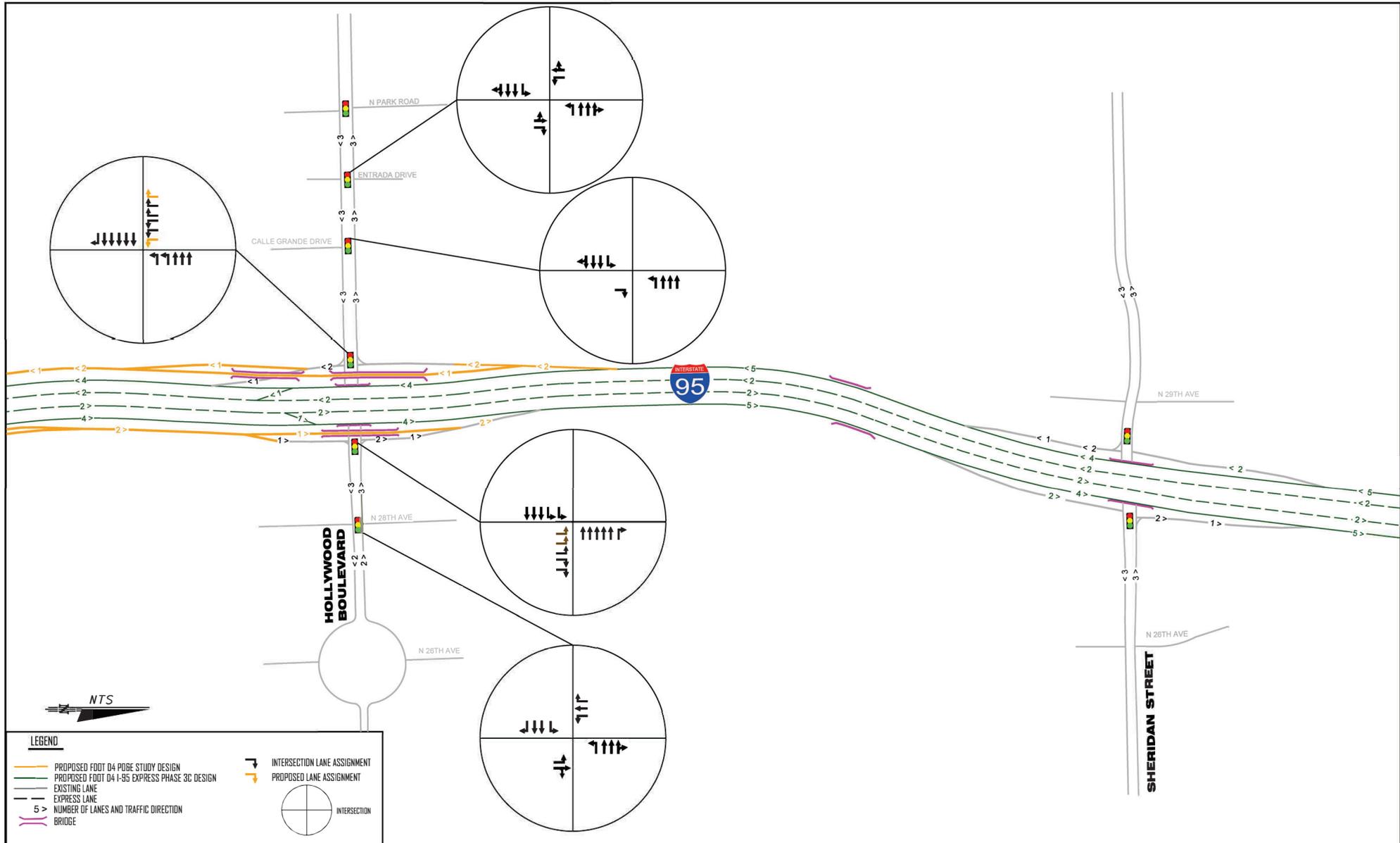


FLORIDA DEPARTMENT OF TRANSPORTATION
 DISTRICT FOUR
 3400 WEST COMMERCIAL BOULEVARD
 FORT LAUDERDALE, FL 33309

I-95 (SR 9) PROJECT DEVELOPMENT & ENVIRONMENT STUDY
 from South of Hallandale Beach Boulevard (SR 858) to North of Hollywood Boulevard (SR 820)
 FPID No.: 436903-I-22-02
 ETDM No.: 14254

**SR 9 (INTERSTATE 95)
 LANE GEOMETRY AND CONFIGURATIONS
 PREFERRED ALTERNATIVE LINE DIAGRAM**

**FIGURE
 3.10**





The preferred alternative is proposing to relocate the existing southbound entry ramp from Pembroke Road to south of Hallandale Beach Boulevard. This entry ramp from Pembroke Road crosses over the southbound exit ramp to Hallandale Beach Boulevard and stays elevated over Hallandale Beach Boulevard and over the entry ramp from Hallandale Beach Boulevard. The ramp comes down and enters I-95 southbound. This entry ramp from Pembroke Road together with the entry ramp from Hallandale Beach Boulevard become two southbound auxiliary lanes between Hallandale Beach Boulevard and Ives Dairy Road.

Intersection Improvements – Ramp terminal intersection modifications were identified at Hallandale Beach Boulevard, Pembroke Road, and Hollywood Boulevard to improve the access and operations to and from I-95. **Figure 3.10** depicts these improvements.

4.0 METHODOLOGY

4.1 SITE RECONNAISSANCE

Initial pedestrian/windshield surveys of the project study area were conducted on March 13, 2017, to identify potential sites or areas with indications of past or present contaminant storage, use, generation, or disposal. Follow up field reviews were conducted on November 29, 2018, August 14, 2020, November 18, 2020, November 20 and 21, 2023 to update and/or verify previous data collected. The potentially contaminated sites were visually examined to the extent of available access for evidence of contamination. Known and potentially contaminated sites within the project study area were visually inspected for stressed vegetation, vent and fill pipes, accumulated areas of debris, evidence of buried materials, areas of soil staining, etc. (see **Section 7.2**). Current occupancy and operations at each site were verified during the field reviews. Photographs of typical existing sites are included in **Appendix A**.

Interviews were conducted via telephone. No additional information was provided for any of the sites.

4.2 HISTORICAL AERIAL PHOTOGRAPH REVIEW

Historical aerial photographs were reviewed to identify historical land use/activities along the project corridor that may pose potential contamination



concerns. Aerial photographs were obtained from the University of Florida Digital Collection (UFDC), FDOT and Google Earth (1952 – 2023). A summary of historical aerial review is provided in **Section 7.1**. Sites identified as a concern are included in the discussion in **Section 7.2**.

4.3 REGULATORY FILE REVIEW

In accordance with Part 2, Chapter 20 of the FDOT PD&E Manual, the following buffer distances from the exiting roadway were used:

1. 500 feet from the right of way line for petroleum, drycleaners, and nonpetroleum sites. Corridor projects in heavily industrialized or urbanized areas with dewatering planned near the contaminated sites need to be addressed with the Florida Department of Environmental Protection (FDEP), Water Management District (WMD), or the local delegated program lead.
2. 1,000 feet from the right of way line for non-landfill solid waste sites (such as recycling facilities, transfer stations and debris placement areas).
3. Half a (1/2) mile from the ROW line for Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), National Priorities List (NPL) Superfund sites, or Landfill sites.

This report provides locations of sites with known or potential contamination based on a number of federal, state, and local databases, including:

- Federal NPL Site List
- Federal Delisted NPL Site List
- Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List
- Federal CERCLIS No further Remedial Action Planned (NFRAP) Site List
- Federal Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) Facilities List
- Federal RCRA non-CORRACTS TSD Facilities List
- Federal RCRA Generators List
- Federal Emergency Response Notification System (ERNS) List
- State- and Tribal-equivalent CERCLIS
- State and Tribal Landfill and/or Solid Waste Disposal Site Lists
- State and Tribal Leaking Storage Tanks Lists



- State and Tribal Registered Storage Tank Lists
- State and tribal Voluntary Cleanup Sites
- Local lists of Hazardous Waste / Contaminated Sites
- Environmental Restoration Integrated Cleanup (ERIC) Waste Cleanup Database
- Other Ascertainable Records

Individual contaminated sites were reviewed, and desktop information updated in November 2023, as applicable. The desktop review was conducted online using the Broward County Environmental Inquiry and Resource System (ENVIROS) database, Broward County GeoHub, Miami Division of Environmental Resource Management (DERM) Department of Regulatory and Economic Resources (RER) database, FDEP OCULUS and Information Portal, FDEP Contamination Locator Map, FDOT Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST), Florida Department of Health (FDOH) Well Surveillance Mapping Site, and United States (US) Environmental Protection Agency (EPA) Facility Index System (FINDS). File reviews were supplemented with telephone conversations with Agency representatives.

A detailed discussion of the potential contamination sites identified during this contamination screening evaluation is provided in **Section 7.2**.

4.4 AGENCY COORDINATION

As part of the ETDM process, comments were solicited from the South Florida Water Management District (SFWMD), Federal Highway Administration (FHWA), EPA, and other federal, state and local agencies requesting a review of each agency's database for information relating to the identification of properties or businesses that use, store, or distribute petroleum products, hazardous wastes, or other regulated materials, or potentially contain environmental contamination, that may be located within or adjacent to the existing or proposed FDOT ROW associated with the project corridor. To date, responses have been received from the SFWMD, FHA, and EPA. A summary of the agency comments are discussed in **Section 7.5** and in the ETDM Progress Summary Report.

The EPA held A community meeting on January 19, 2021, to discuss their proposed preferred cleanup alternative for Petroleum Products Corporation (Superfund) site cleanup located at 3130 SW 19th Street, Pembroke Park, Florida. Agencies



present during the meeting included the EPA Region 4, FDEP and FDOT District IV. A detailed discussion of this community meeting is included in **Section 7.2**.

4.5 POTENTIAL CONTAMINATION RISK RATING

Based on the compilation of data collection activities described above, and the distance and direction of a site from the project corridor, each site was assigned a risk rating based on the rating system specified in the FDOT PD&E Manual, Part 2, Chapter 20. This rating system expresses the degree of concern for potential contamination impacts to the project's cost and schedule. Each site was assigned a contamination rating of No, Low, Medium, or High based on the following criteria:

- **No:** A review of available information on the property and a review of the conceptual or design plans indicates there is no potential contamination impact to the project. It is possible that contaminants had been handled on the property. However, findings from the contamination screening evaluation or sampling and testing results indicate that contamination impacts are not expected.
- **Low:** A review of available information indicates that former or current activities on the property have an ongoing contamination issue, has a hazardous waste generator identification (ID) number, or handles hazardous materials in some capacity. However, based on the review of conceptual or design plans and/or findings from the contamination screening evaluation or sampling and testing results, it is not likely that there would be any contamination impacts to the project.
- **Medium:** After a review of conceptual or design plans and findings from a contamination screening evaluation or sampling and testing results, a potential contamination impact to the project has been identified. If there is insufficient information (such as regulatory records or site historical documents) to make a determination as to the potential for contamination impact, and there is reasonable suspicion that contamination may exist, the property should be rated at least as a "Medium". Properties used historically as gasoline stations and which have not been evaluated or assessed by regulatory agencies, sites with abandoned in place



underground petroleum storage tanks or currently operating gasoline stations should receive this rating.

- **High:** After a review of all available information and conceptual or design plans, there is appropriate analytical data that shows contamination will substantially impact construction activities, have implications to ROW acquisition or have other potential transfer of contamination related liability to the FDOT.

5.0 LAND USE

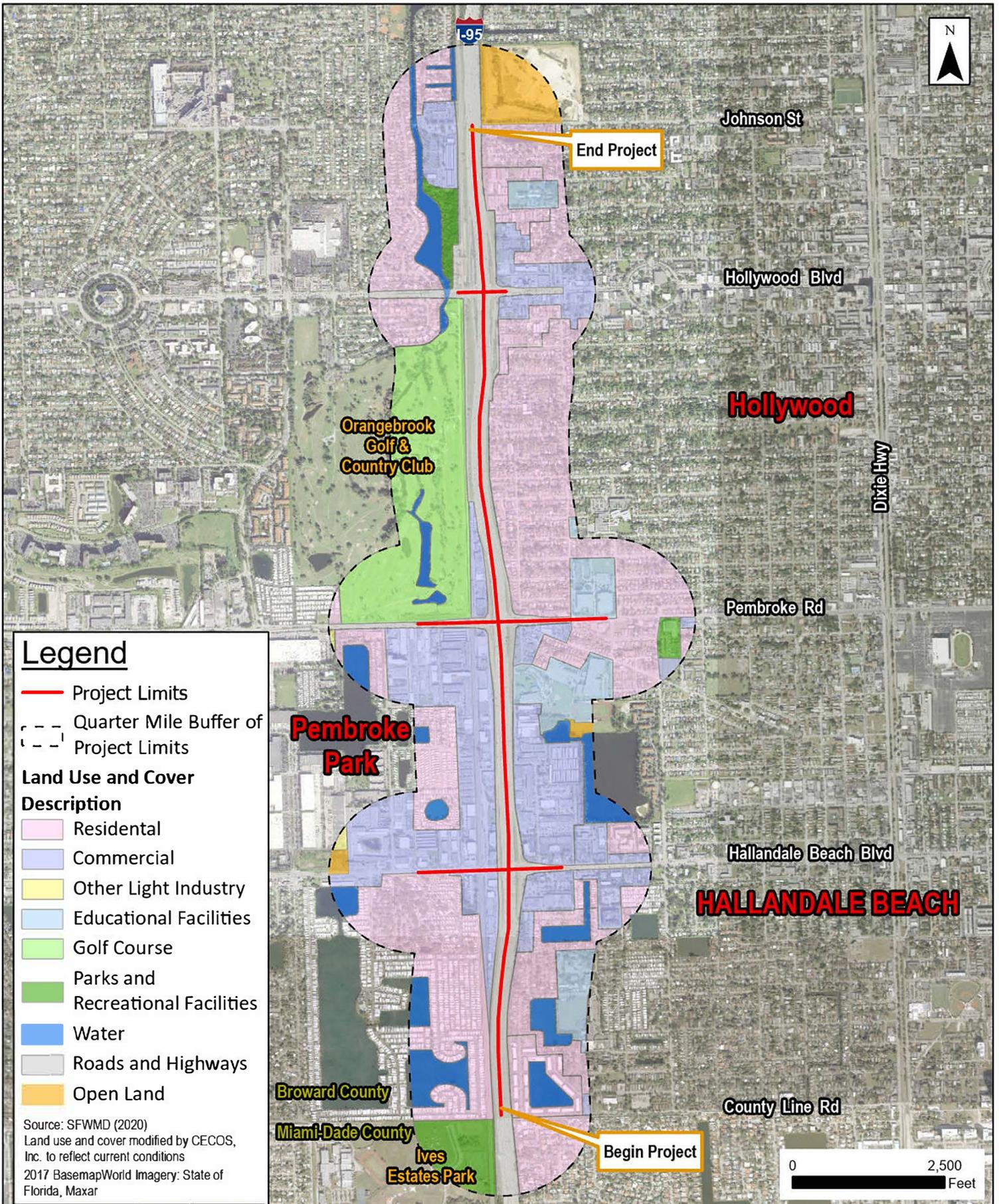
Existing land use within and adjacent to the project corridor was mapped using the Land Use layer from the SFWMD Geographic Information System (GIS) Data Catalog. Land use within the ROW is transportation (road and highway) with supporting features such as drainage swales and ponds. The primary land uses adjacent to the project corridor comprise developed properties, such as commercial, light industrial, residential, institutional facilities, and recreation/open space (e.g., golf courses). Vacant lands within the project corridor were reviewed for potential contamination concerns. **Figure 5.1** illustrates the existing land use and cover within a quarter mile of the project corridor.

6.0 HYDROLOGIC FEATURES

6.1 SOILS

Based on the Soil Survey of Broward County, Florida (Natural Resources Conservation Service (NRCS) 1984), mapped soil types within a quarter mile of proposed improvements are classified in **Table 6.1** and shown in **Figure 6.1**.

According to the *Hydric Soils of Florida Handbook* (Hurt, 2007), five (5) of the eleven (11) soil types identified listed above in **Table 6.1** are classified as hydric; the remaining six (6) types are classified as non-hydric. Hydric soils are typically characterized as poorly to very poorly drained muck or sandy soils. The majority of areas within and adjacent to the project corridor have been disturbed by residential and infrastructure development, and these areas may not currently exhibit historic soil conditions.



Legend

- Project Limits
- Quarter Mile Buffer of Project Limits
- Land Use and Cover Description**
- Residential
- Commercial
- Other Light Industry
- Educational Facilities
- Golf Course
- Parks and Recreational Facilities
- Water
- Roads and Highways
- Open Land

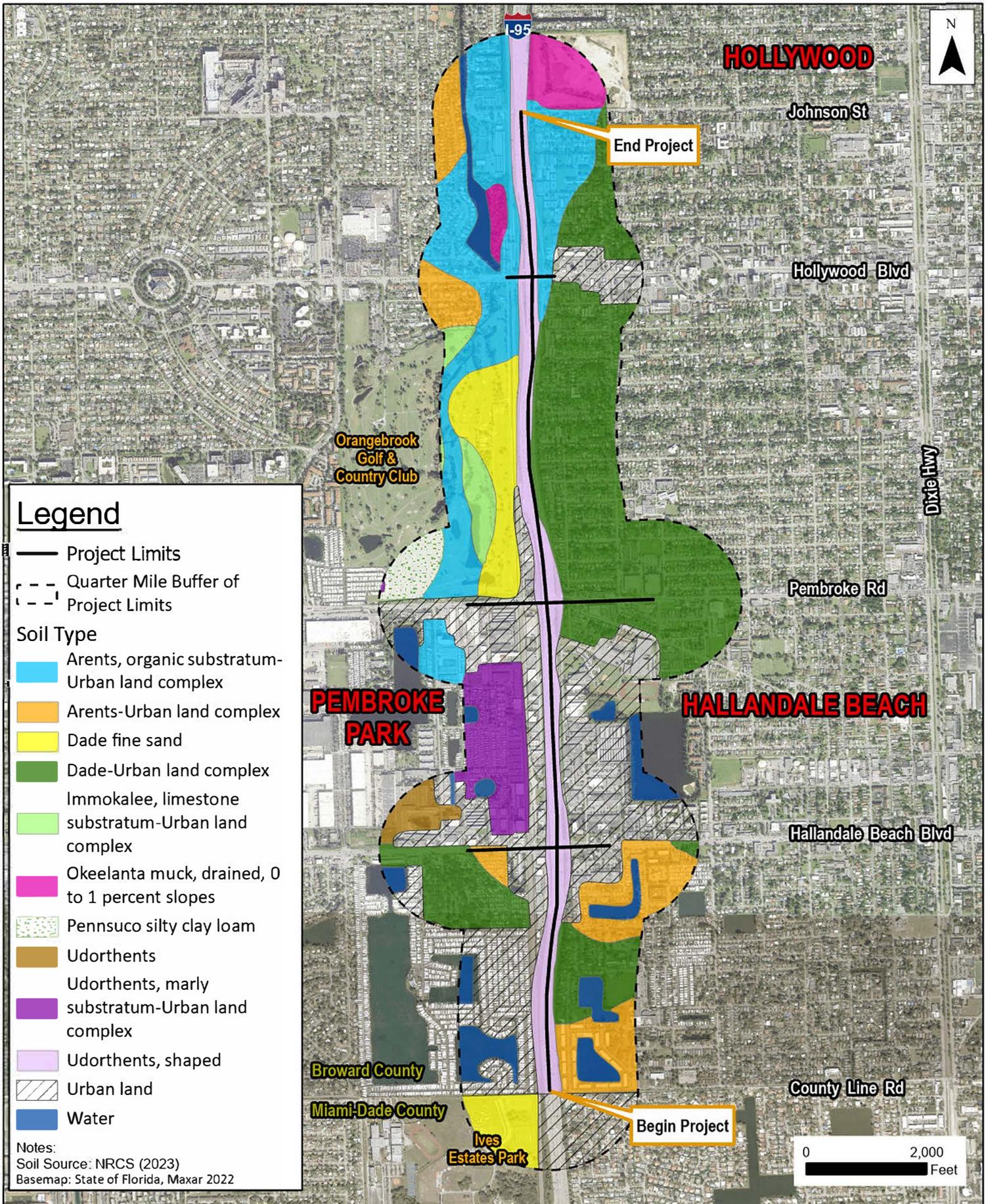
Source: SFWMD (2020)
 Land use and cover modified by CECOS, Inc. to reflect current conditions
 2017 BasemapWorld Imagery: State of Florida, Maxar

SR 9/I-95 from South of SR 858/Hallandale Beach Blvd. to North of SR 820/Hollywood Blvd. PD&E Study
 Broward County

Land Use and Cover Map

Figure 5.1





**Table 6.1 - Mapped Soils within a Quarter Mile of the Project Corridor**

Soil Name	Hydric Rating	Percent Cover (%)
Arents, organic substratum-Urban land complex	No	13.15
Arents-Urban land complex	No	8.41
Dade fine sand	Yes	5.46
Dade-Urban land complex	Yes	24.91
Immokalee, Limestone Substratum-Urban Land Complex	Yes	1.60
Okeelanta muck, drained, frequently ponded, 0 to 1 percent slopes	Yes	2.15
Pennsuco Silty Clay Loam	Yes	1.42
Udorthents	No	1.37
Udorthents, marly substratum-Urban land complex	No	3.84
Udorthents, shaped	No	7.77
Urban land complex	No	24.72
Water	N/A	5.20

6.2 HYDROLOGY

The Biscayne Aquifer underlies the project area as well as the entire Broward County. The Biscayne Aquifer is a Sole Source Aquifer for drinking water in Broward County. The Biscayne aquifer is a surficial, unconfined aquifer, which extends from the ground surface to a depth of 240 feet along the eastern coastline (U.S. Geological Survey (USGS) Atlas 2000). The water table fluctuates from two (2) to four (4) feet above mean sea level. This aquifer is recharged through infiltration of precipitation and surface water. A sequence of low permeability, largely clay deposits about 1,000 feet thick separates the Biscayne aquifer from the underlying Floridian aquifer system. The groundwater and surface water form an integrated hydrologic system. The SFWMD utilizes a system of canals, levees, control structures, pumping stations, and water conservation areas to manage freshwater resources. Regional groundwater generally flows in the southeast direction, however, influences from local geology and topography can change the direction of groundwater flow. The specific groundwater flow beneath the subject property can only be determined by field methods such as the installation of monitoring wells and the measuring of hydrostatic pressure.



USGS (2013) Topographic Maps are shown in **Figure 6.2**. Based on the topographic map, the surface elevation is approximately 5 – 10 feet above sea level. Regional and roadway drainage basin maps are shown in **Figures 6.3a and 6.3b**.

6.2.1 Broward County Wellfield Protection Zones

The Broward County Wellfield Protection Program protects the aquifer by restricting land uses within the vicinity of the public wellfield. A section of the project corridor east of I-95's intersection with Pembroke Road, is located within the Broward County Wellfield Protection Zones in the City of Hallandale Beach. No other part of the study area is located within the wellfield protection zone (see **Figure 6.4**). All phases of work will comply with the requirements of Chapter 27 Article XIII, Broward County Wellfield Ordinance. Best Management Practices pertaining to construction will be followed to prevent adverse impacts to water quality.

6.2.2 USGS Wells

USGS groundwater wells are located throughout Broward County. The four (4) wells in closest proximity to the project are illustrated in the USGS Groundwater Wells map in **Appendix B**. USGS wells G -2956 and G-4002 are located adjacent to the project corridor.

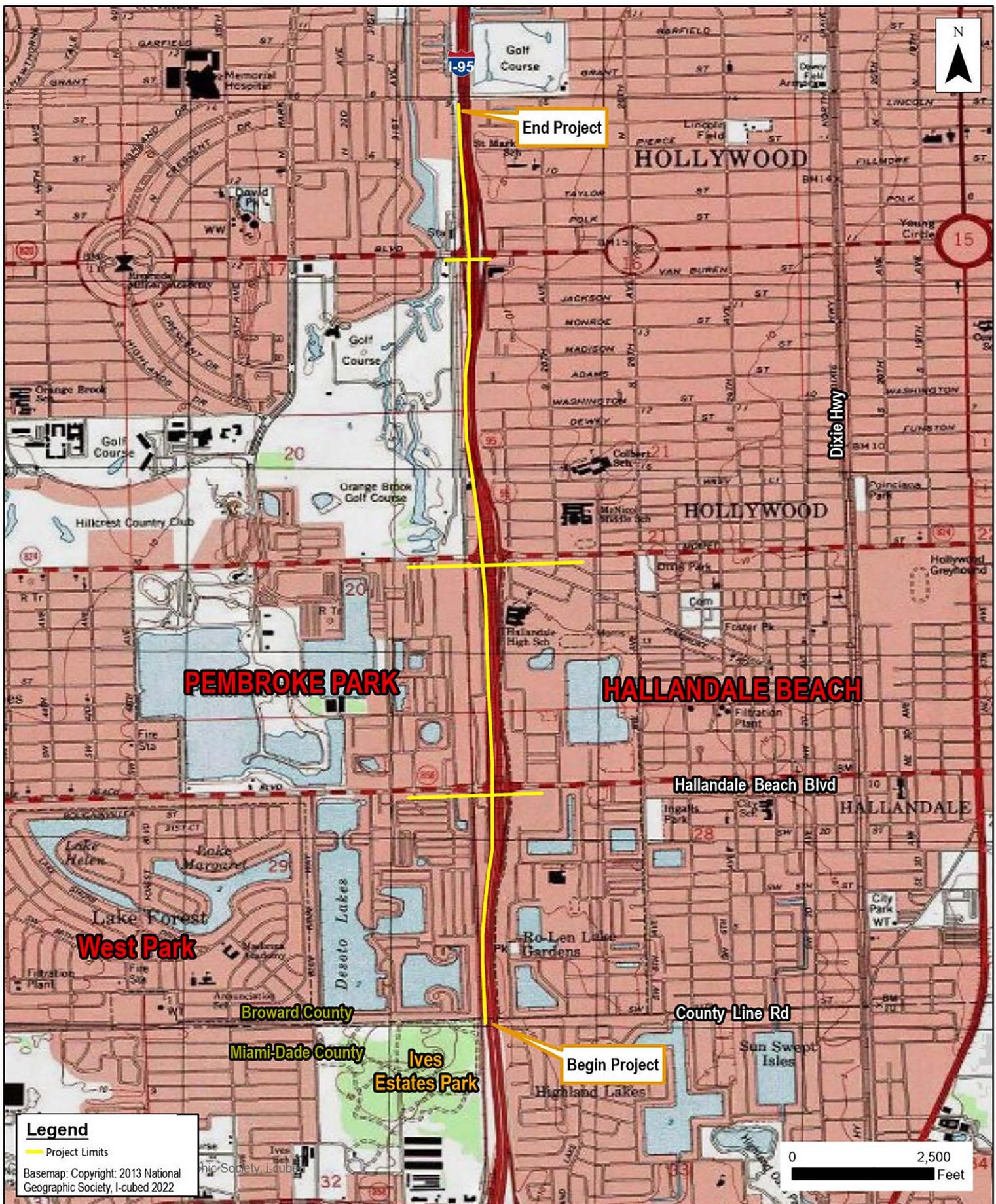
7.0 PROJECT IMPACTS

7.1 AERIAL PHOTOGRAPH REVIEW

A detailed review of the historical aerials obtained from 1952 to 2023 is provided below. Historical aerials were reviewed for significant changes and a summary provided at a frequency of once per five years, when available. Aerials are shown in **Appendix C**.

1951

A four (4) lane roadway appears in the approximate location of present day I-95. An existing railway, located within the project corridor and oriented north to south is also visible. Orangebrook Golf and Country Club is visible adjacent to and west of the four-lane roadway and north of Pembroke Road. Sunset Golf Course is observed North of Johnson Street and east of the four-lane roadway.



Legend

— Project Limits

Basemap: Copyright: 2013 National Geographic Society, I-cubed 2022

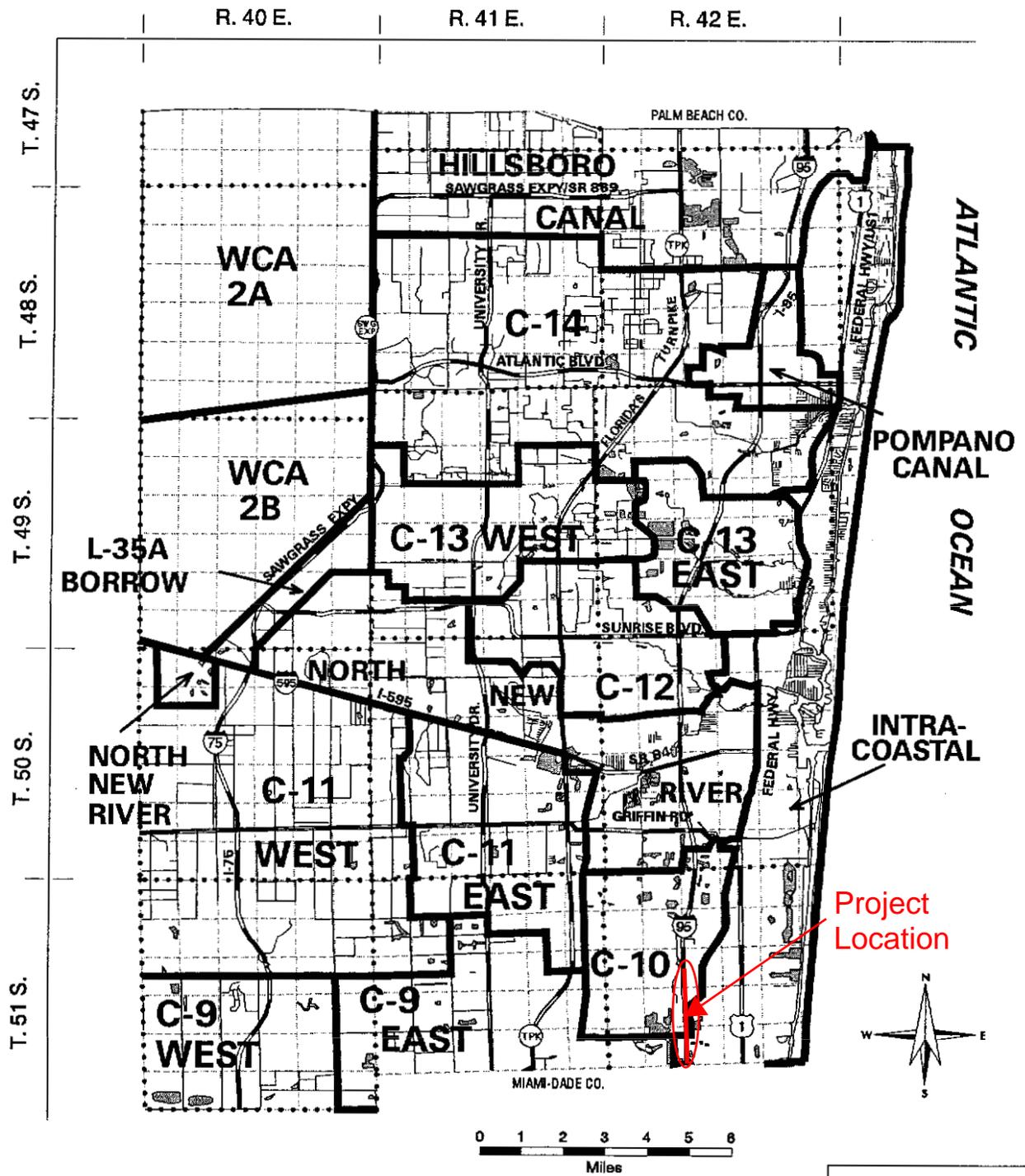


SR 91/I-95 from South of SR 858/Hallandale Beach Blvd. to North of SR 820/Hollywood Blvd. PD&E Study
Broward County

Topographic Map

Figure 6.2

REGIONAL DRAINAGE BASINS

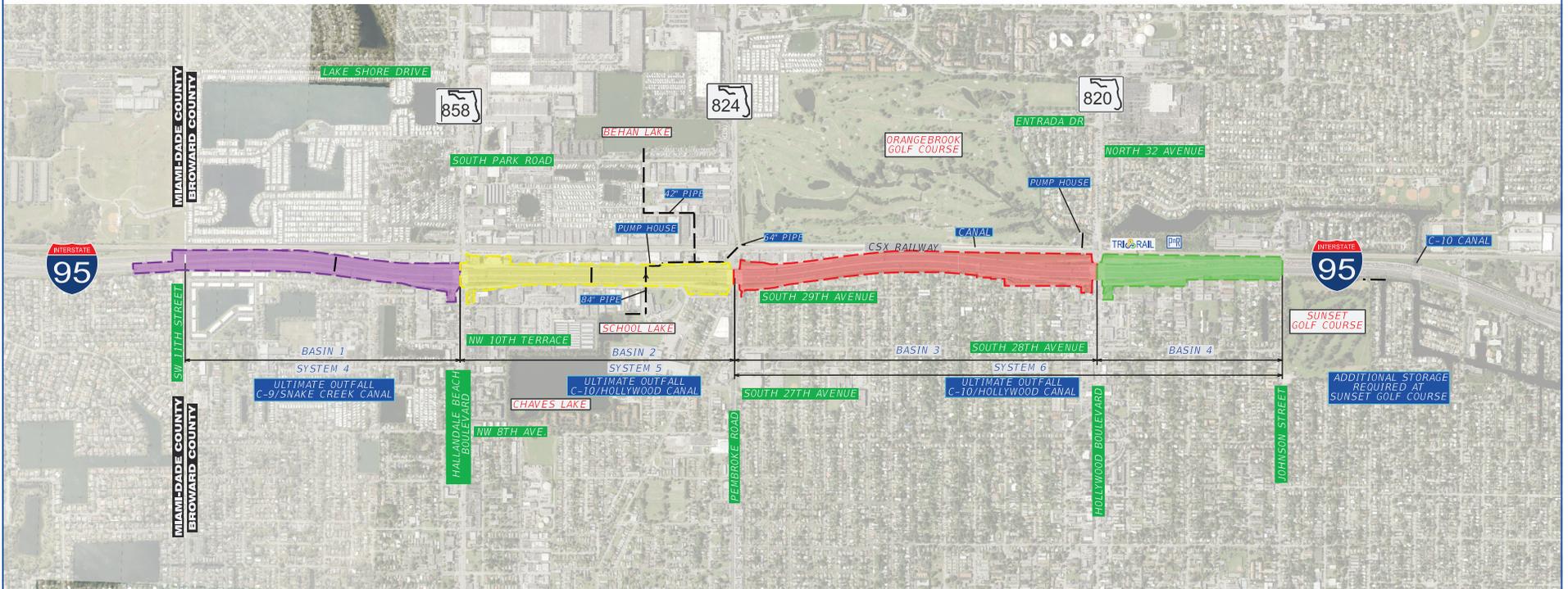
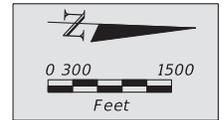


**DRAINAGE BASINS for
EASTERN BROWARD COUNTY, FL.**

Figure B-1

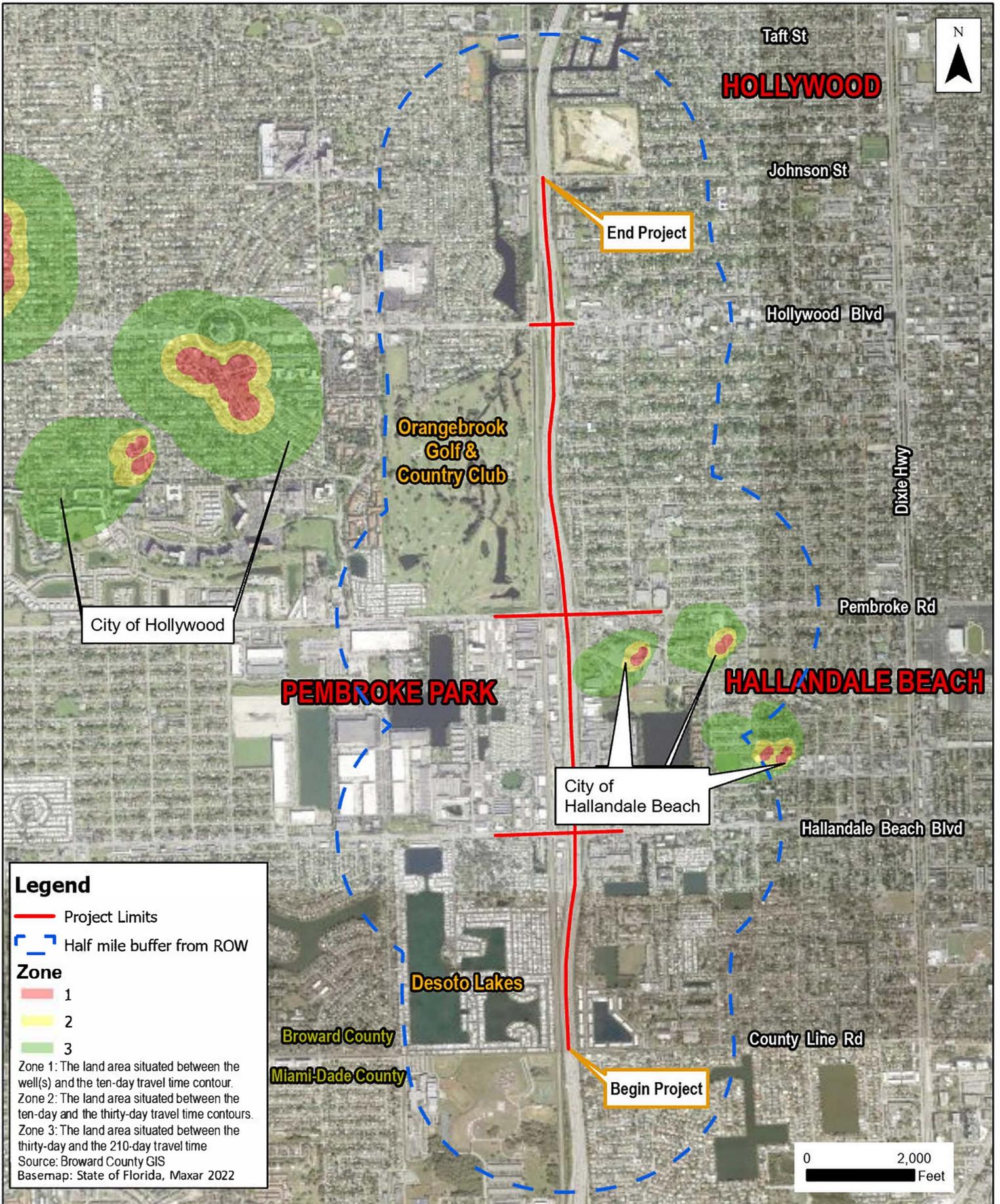
PORTION OF BROWARD CO.
REPRESENTED ON MAP.





REVISIONS				ROHAN A HAMEED, P.E. P.E. LICENSE NUMBER 56734 HDR Engineering, Inc. 15450 New Barn Road Suite 304 Miami Lakes, FL 33014-2169 CERTIFICATE OF AUTHORIZATION 4213	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			DRAINAGE SYSTEMS	SHEET NO. 01
DATE	DESCRIPTION	DATE	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
					SR-9	BROWARD	436903-1-22-02		

SUSERS SDATES \$TIMES \$MODELNAMES \$FILES





1958

A four-lane road appears in the approximate location of present day I-95. Ojus Landfill, located 200 feet west of the four-lane road, is visible. Dredging activities are shown at the present-day Desoto Lakes, approximately 350 feet west of the four-lane road. Land use is primarily undeveloped at the southern portion of the project corridor. Residential/commercial development is visible along the northern half of the project corridor.

1961

Commercial development is visible along the corridor, on the west and east sides of the aforementioned four lane (in the approximate location of present day I-95). There is significant residential development along Hollywood Boulevard and Hallandale Beach Boulevard. The Desoto Lakes are developed and surrounded by a mobile home park. Borrow pits are visible west of the project corridor and south of Pembroke Road. Commercial/industrial warehouses are developed, and Sunset Golf Course appears fully developed.

1969

I-95 is fully developed with multiple lanes and overpasses (first shown on USGS topographic maps as early as 1962). Excavation of a borrow pit lake is visible east of I-95, between Hallandale Beach Boulevard and Pembroke Road. Dredging activities are observed at the present day, Harbour Cove Brownfield Site. Bulk storage tanks and several pits are visible west of I-95 and south of Pembroke Road at the current Petroleum Products Corporation Superfund site.

1971

Significant commercial development is visible adjacent west and east of I-95. Ojus landfill is observed with vegetative overgrowth.

1978

A school is observed on the southeast corner of I-95 and Pembroke Road. The current Superfund site (Petroleum Products Corporation) appears developed with warehouses.

1981

Two gasoline stations appear along Hallandale Beach Boulevard.



1985

Land use appears generally unchanged. The present-day Harbour Cove Brownfield site, located 100 feet north of Hallandale Beach Boulevard, appears backfilled.

1991

Additional earthwork around the borrow pits/lakes west of I-95 and south of Pembroke Road.

1992

Commercial development is observed at the northwest intersection of I-95 and Hallandale Beach Boulevard.

1998

Land use along the project corridor is generally unchanged. There appears to be backfilling activities at a borrow lake, north of Hallandale Beach Boulevard.

2003

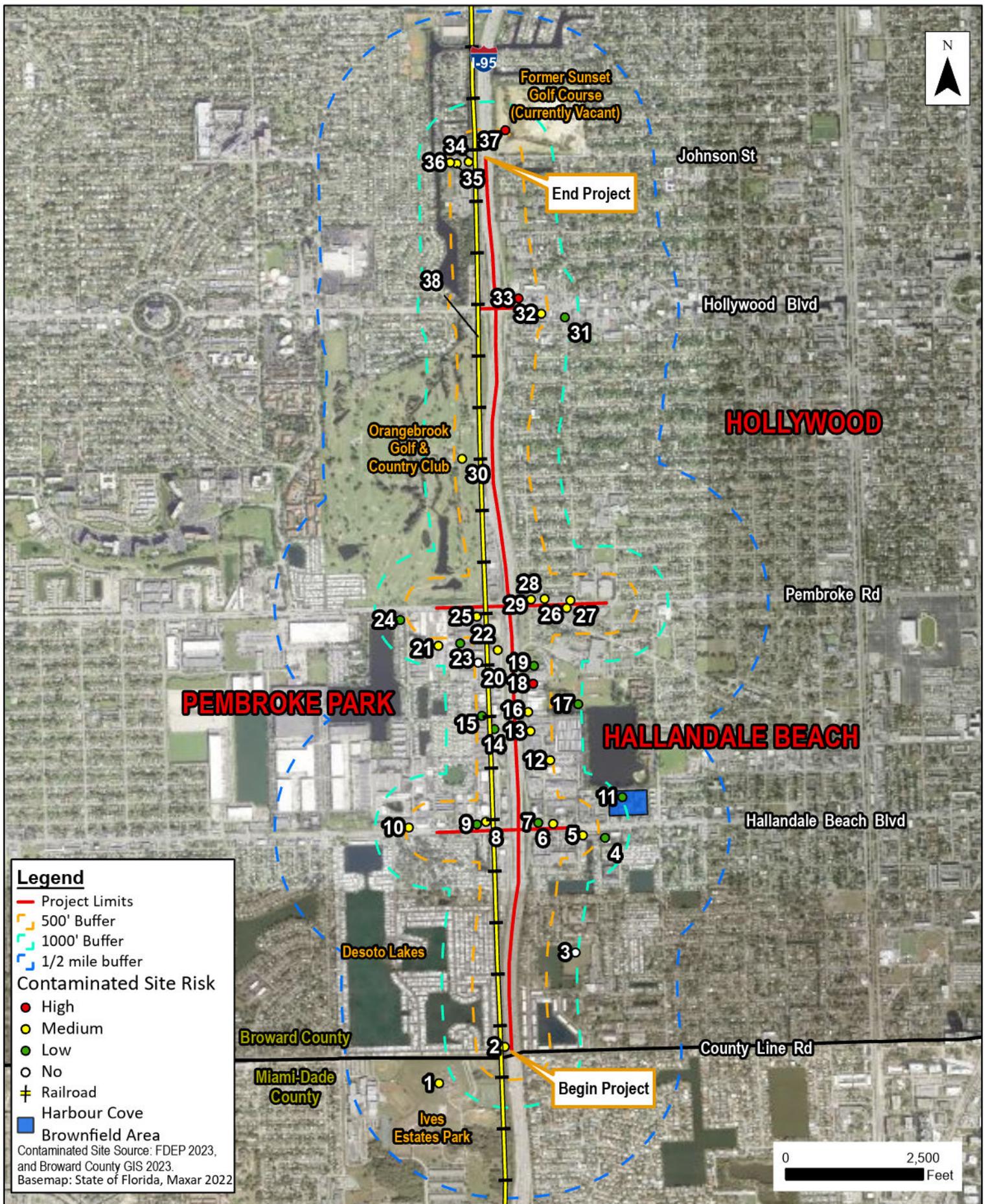
The backfilled area north of Hallandale Beach Boulevard. Ives Estates Park is developed at the former Ojus Landfill.

2006-2024

The project corridor and surrounding area appear similar to current conditions. The project corridor is fully developed with residential properties, golf courses, commercial properties, gasoline stations and auto repair shops. Construction of Harbour Cove Apartments located at the Harbour Cove Brownfield site is visible.

7.2 REGULATORY DATABASE REVIEW

This section describes the potential contamination associated with each of the identified sites in the vicinity of the proposed project. Thirty-eight (38) potentially contaminated sites were identified along the corridor and evaluated for potential impacts to the project. Known contaminated sites were confirmed by record search. Potentially contaminated sites were identified by field review and then researched to determine if file information was available. **Figure 7.1 (Overall Map), and Figures 7.1a, 7.1b and 7.1c** illustrate the general locations and parcel boundaries of the known and potentially contaminated sites. **Table 7.1** presents a brief summary of the details recovered from the record search and field review.



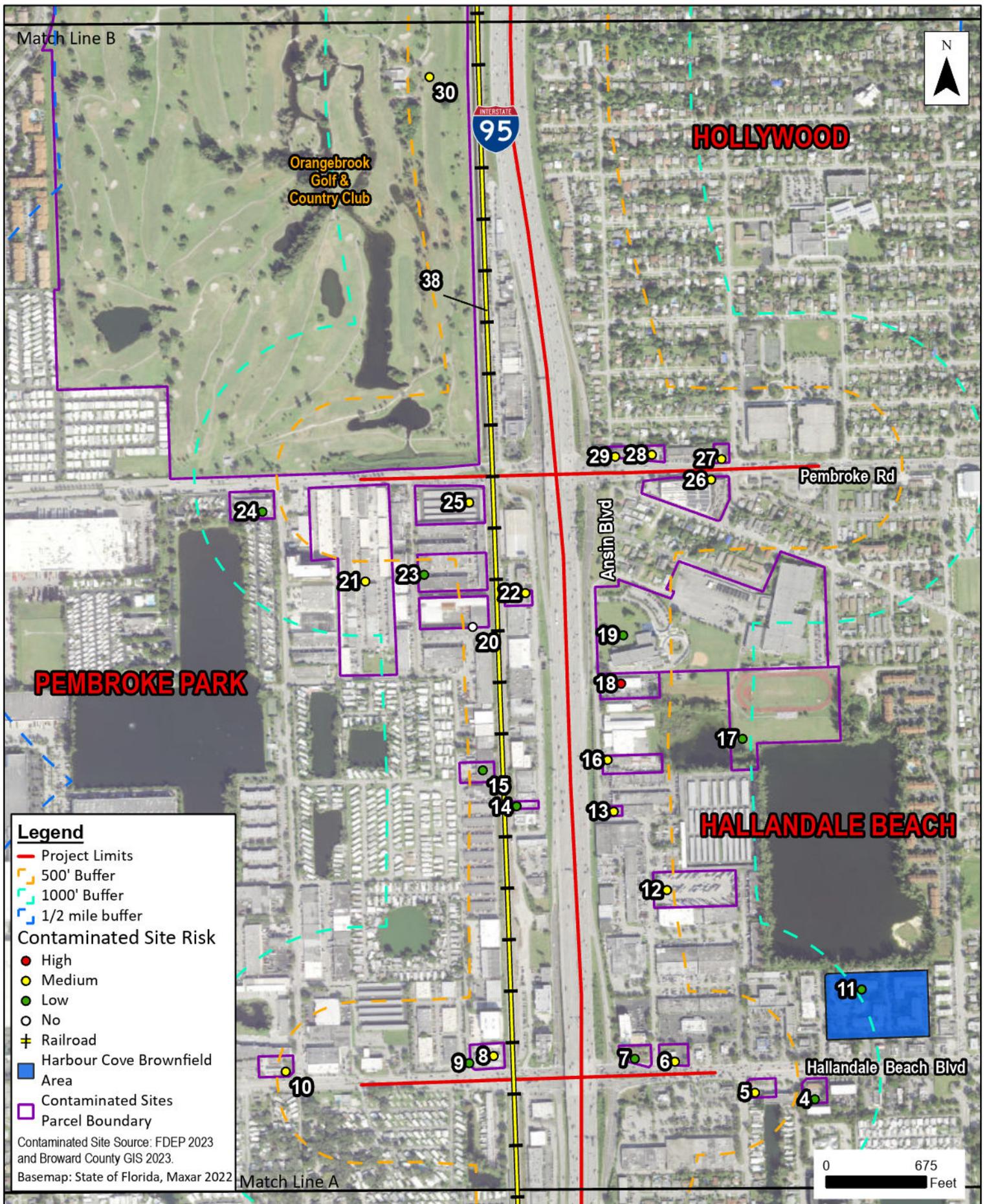


SR 9/1-95 from South of SR 858/Hallandale Beach Blvd. to North of SR 820/Hollywood Blvd. PD&E Study
Broward County

Potentially Contaminated Site Map (South)

Figure 7.1a





SR 9/1-95 from South of SR 858/Hallandale Beach Blvd. to North of SR 820/Hollywood Blvd. PD&E Study
 Broward County

Potentially Contaminated Site Map (Central)

Figure 7.1b

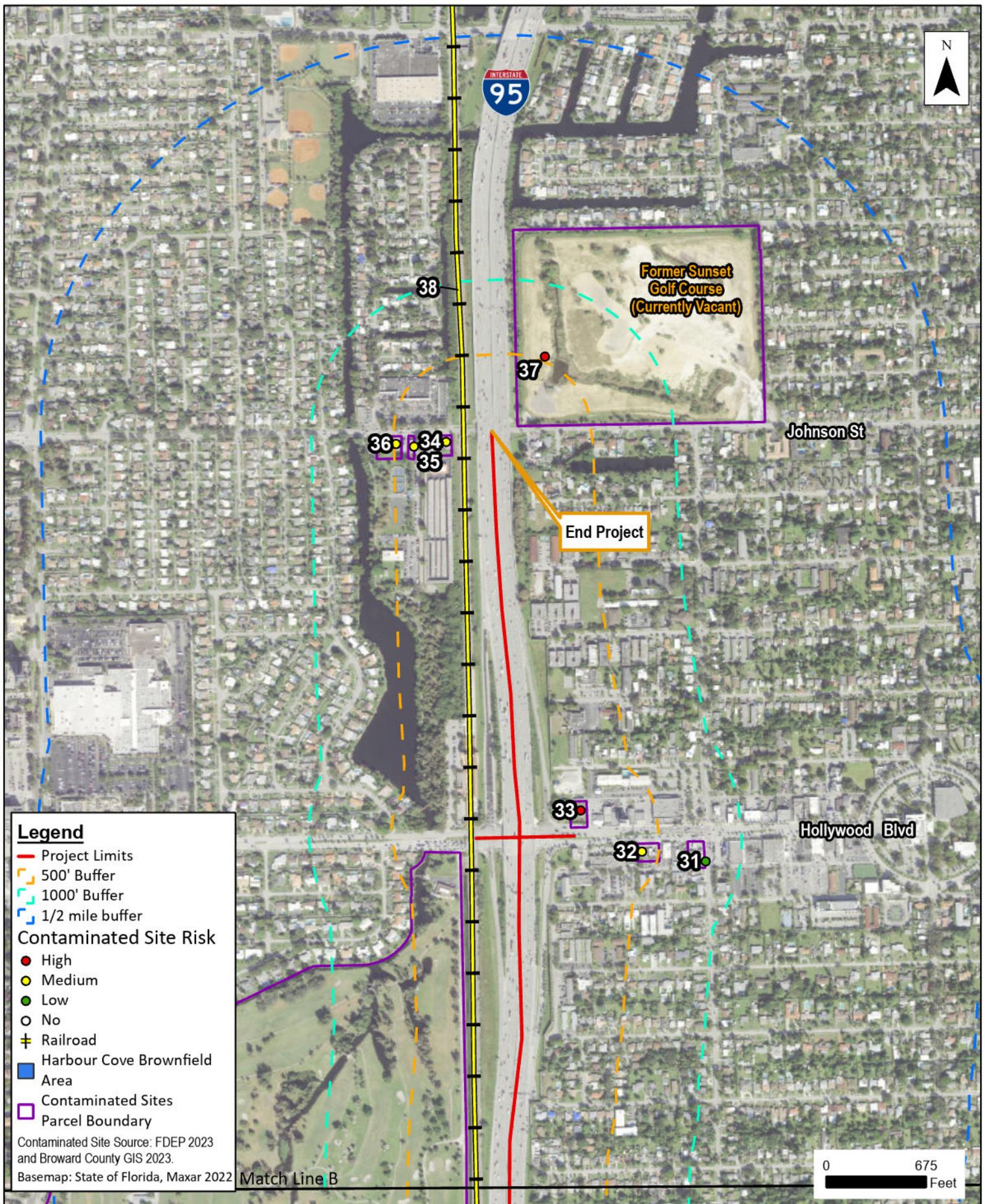


Table 7.1 - Potentially Contaminated Sites

Site ID	Facility Name	Address	County Permit or ID Number	FDEP Facility ID	Contamination Concern	Distance from Project	Status	Risk Rating
1	City of North Miami Beach OJUS Landfill	20735 NE 16th Avenue Miami, FL 33139	SW-1179/File-12839	57134 ERIC_15135	Methane, ammonia	150' southwest of project beginning	Ongoing biennial groundwater monitoring for ammonia and annual groundwater monitoring for methane	M
2	Penn Tank Lines Inc. Roadside Spill	Southbound I-95 0.75 miles South of Exit 18 Hallandale Beach, FL 33020	None Recovered	9816414	Petroleum	Within project corridor	NFAP submitted	M
3	City of Hallandale Beach DDMS #1	Field Behind 1000 SW 3rd Street Hallandale Beach, FL 33009	None Identified	99011	None Recorded	700' East of I-95	NFA issued	N
4	Hallandale Beach U-Gas	999 W Hallandale Beach Boulevard Hallandale Beach, FL 33009	ST-04111-20 04111	8502072	Petroleum Hydrocarbons	525' East - along Hallandale Beach Boulevard	NAM ongoing	L
5	HB 1000-18 LLC	1021 W Hallandale Beach Boulevard Hallandale Beach, FL 33009	04094	8501728	Petroleum Hydrocarbons	200' East - along Hallandale Beach Boulevard	Quarterly monitoring ongoing	M
6	Exxon	1080 W Hallandale Beach Boulevard Hallandale Beach, FL 33009	ST-04662-20 04662	8502695	Petroleum Hydrocarbons	Adjacent	SRCO Issued- proposed for acquisition	M
7	Burger King	1090 W Hallandale Beach Boulevard Hallandale Beach, FL 33009	09827 09693	8501967 8502027	Petroleum	Adjacent	NFA issued- proposed for acquisition	L
8	Racetrac #491	3031 W Hallandale Beach Boulevard Pembroke Park, FL 33009	ST-02341-20 02341	9602003 9101088	Petroleum Hydrocarbons	Adjacent	SRCO Issued	M
9	Energy Dispatch LLC Tanker Truck Spill	East and West Sides of SW 31st Avenue & Hallandale Boulevard Pembroke Park, FL 33009	09884	9803721	Petroleum Hydrocarbons	Adjacent	SRCO Issued	L
10	MOIL Gas Station	3151 W Hallandale Beach Boulevard Pembroke Park, FL 33009	02181 ST-02181-20	9800048	Petroleum	400' West - along Hallandale Beach Boulevard	TCAR showed levels above SCTLs	M
11	Harbour Cove Associates (Brownfield)	100 NW 9th Terrace Hallandale Beach, FL 33020	BF060401001	ERIC_6725	Petroleum	700' East of I-95	SRCO Issued	L
12	Vintage Ansin Truck Parking	310 Ansin Boulevard Hallandale Beach, FL 33009	None	53352	None recorded	400' East of I-95	Offsite notice issued for contamination	M
13	Pharmco Rx	400 Ansin Boulevard Hallandale Beach, FL 33009	None	9802375	None Recorded	100' East of I-95	No contamination identified	M

Table 7.1 - Potentially Contaminated Sites

Site ID	Facility Name	Address	County Permit or ID Number	FDEP Facility ID	Contamination Concern	Distance from Project	Status	Risk Rating
14	Messingschlager Properties	2514 SW 30th Avenue Hallandale Beach, FL 33009	None	9401806	Petroleum	75' West of I-95	SRCO Issued	L
15	95 Warehouse LTD	2401 SW 31st Avenue Pembroke Park, FL 33009	06862	8942651	Petroleum Hydrocarbons	350' West of I-95	SRCO Issued	L
16	Gallo Marble Enterprises	500 Ansin Boulevard Hallandale Beach, FL 33009	None	8627989	Ammonia	100' East of I-95	DRC issued; in compliance	M
17	James Lanier Education Center – grass field	700 NW 7 Street Hallandale Beach, FL 33009	None	99353	Ammonia	875' East of I-95	Offsite notice issued for contamination	L
18	Park Shore Pharmacy	600 Ansin Boulevard Hallandale Beach, FL 33009	NF-2701 09924	9700906	Ammonia	70' East of I-95	Offsite notice issued for contamination	H
19	James Lanier Education Center	1050 NW 7th Court Hallandale Beach, FL 33009	07879	9100221	Petroleum	50' East of I-95	SRCO issued	L
20	BW Recycling	2035 SW 31st Avenue Pembroke Park, FL 33009	None	None	None Recorded	350' West of I-95	No contamination identified	N
21	Petroleum Products Corporation (Superfund Site)	3130 SW 19th Street Pembroke Park, FL 33009	54384655 ERIC_3796 54391722 09535	8732818	Petroleum Hydrocarbons	Adjacent	Remediation to begin	M
22	Orkin Extermination Co	1820 SW 30th Avenue Hallandale Beach, FL 33009	HM-01149-19 01149	8502427	None Recorded	60' West of I-95	No contamination identified	M
23	Waste Connections - Pembroke Park Transfer Station	1899 SW 31st Avenue Pembroke Park, FL 33009	FL0000871996 00014	55464 105719	None Recorded	300' West of I-95, 500' South of Pembroke Road	No contamination identified	L
24	Flowers Baking Company (Out of Business)	3262 Pembroke Road Pembroke Park, FL 33009	None	8622371	Petroleum	530' West - along Pembroke Road	Remediation recommended	L
25	A&B Recycling	1708 SW 31st Avenue Pembroke Park, FL 33009	03206 HM-03206-20	None	None Recorded	Adjacent	No contamination identified	M
26	Sun Yi Cafe	1051 W Pembroke Road Pembroke Park, FL 33010	04369	8732177	None Recorded	Adjacent	No contamination identified	M
27	Shell FCE #3828	2801 Pembroke Road Pembroke Park, FL 33020	03950 ST-03950-20	8502153	Petroleum	Adjacent	SRCO issued	M
28	Family Tire Distributors	2817 Pembroke Road Hollywood, FL 33020	15361 HM-15361-20	None	None Recorded	Adjacent	No contamination identified	M
29	Kosher Motors	2829 Pembroke Road Hollywood, FL 33020	15905 01535	9500022	Petroleum	Adjacent	SRCO issued	M

Table 7.1 - Potentially Contaminated Sites

Site ID	Facility Name	Address	County Permit or ID Number	FDEP Facility ID	Contamination Concern	Distance from Project	Status	Risk Rating
30	Orangebrook Golf Course and Country Club	4000 Entrada Street Hollywood, FL 33021	01360 HM-01360-20	8944879	Arsenic	Adjacent	No contamination identified, but arsenic presence likely	M
31	Shell-First Coast Energy #3829	2800 Hollywood Boulevard Hollywood, FL 33020	13297 HM-13297-20	8502526	Petroleum Hydrocarbons	750' East - along Hollywood Boulevard	SRCO issued	L
32	Dabern Auto Center	2828 Hollywood Boulevard Hollywood, FL 33020	54397828 0969	8502583	Petroleum Hydrocarbons	350' East - along Hollywood Boulevard	NAM ongoing	M
33	Goodyear Tires	2911 Hollywood Boulevard Hollywood, FL 33020	54401456 09656	8502126	Petroleum	Adjacent	CAR showed levels above SCTLs and GCTLs	H
34	Chevron	3000 Johnson Street Hallandale Beach, FL 33020	None	8502723	Petroleum	150' West - along Johnson Street	SRCO issued	M
35	Clean Paws Pet Salon and Resort	3030 Johnson Street Hallandale Beach, FL 33020	ERIC_4112 AIR_0112286 FLD059858167 FLR000031617 01888	9501066	Solvents PCE/TCE	375' West - along Johnson Street	Biennial groundwater sampling ongoing	M
36	Marathon	3034 Johnson Street Hallandale Beach, FL 33021	None	8502207	Petroleum	450' West - along Johnson Street	Additional testing recommended	M
37	Former Sunset Golf Club	2727 Johnson Street Hollywood, FL 33020	NF-2088 19544 FLR10TJ71	None	Arsenic	Adjacent	NFAC issued	H
38	CSX Railroad	Along west side of I-95	None	None	Arsenic, creosote	Varies 60'-215'	No contamination identified	M



Relevant documentation of contaminated sites assigned a risk rating of Medium or High are included in **Appendix D**.

At this time, dewatering is anticipated for bridge/structure construction and possibly for drainage and utility installation. The preferred alternative will require a construction dewatering permit from the SFWMD, and Broward County as most of the project corridor has contaminated sites within 500 feet of potential dewatering areas. Distances from the project were measured from ROW and/or the project limits on the cross streets.

A brief description of the identified sites is provided below.

Site 1

Ives Estates Park (formerly City of North Miami Beach OJUS Landfill)

20735 NE 16th Avenue

Miami, Florida

DERM Facility ID: 57134 / SW-1179 / File-12839; FDEP Facility ID: ERIC_15135

This site is a documented contaminated site under DERM and FDEP. It is located southwest of I-95 and County Line Road intersection, within 150 feet west of the project corridor. Based on the regulatory file review, the City of Miami Beach operated the Ojus Landfill from the late 1930s until 1978, receiving solid waste such as vegetative debris, bulk goods and household garbage. Several citations were issued for this facility for operating without a permit on July 30, 1975, for trash disposal, trench excavation below the water table, trash dumping into water-filled trenches and failure to address violations until officially closed in accordance with State and County regulations in February 1978. A follow up inspection conducted by DERM on June 17, 1986, reported uncovered trash and miscellaneous trash disposed in an open ditch. Onsite groundwater contamination with ammonia was documented in 1984 by DERM and USGS. An ammonia groundwater plume is present beneath the northern portion of the site and methane gas is monitored along the perimeter.

The April 2016 5th Semi-Annual Groundwater Monitoring Report confirmed ammonia at several locations throughout the site above FDEP Groundwater Cleanup Target Level (GCTL) of 2.8 micrograms per liter (mg/L) for the following samples: OW-1 at 6.6 mg/L, OW-2 at 5.9 mg/L, OW-3 at 5.7 mg/L, OJ (60') at 8.3 mg/L, OJ-20(40') at 7.2 mg/L, OJ-21(35') at 3.4 mg/L, OJ-21(55') at 3.8 mg/L, OJ-



22 (35') at 4.7 mg/L and OJ-22(55') at 9.1mg/L. No additional information was available for review (for example, groundwater flow direction). The site is currently occupied by Ives Estates Park. Nothing of concern was identified during field reviews.

Based on the documented presence of ammonia in groundwater, distance to project corridor, and potential for dewatering activities, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 2

Penn Tanks Lines Inc. - Roadside Spill
Southbound I-95, 0.75 Miles south of Exit 18
Hallandale Beach, Florida
FDEP Facility ID: 06/9816414

This site is a documented contaminated site under FDEP. This discharge site is located along southbound I-95, 0.75 miles south of Exit 18 (Hallandale Beach Boulevard), within the project corridor. A Discharge Reporting Form (DRF) was submitted March 2018 in response to a petroleum product release due to a multi-vehicle accident. A Penn Tank Lines, Inc. fuel tanker rolled over, damaging one compartment, and releasing approximately 2,000-gallons of gasoline along the paved shoulder and soil in the retention area between I-95 and the South Florida Regional Transit Authority (SFRTA) railroad tracks. Approximately, 400 gallons of free product, fire-fighting foam containing Per- and Polyfluorinated Substances (PFAS), and water were collected for disposal during emergency response cleanup. An August 2018 Interim Source Removal (ISR) Report documented subsequent source removal activities, to include the excavation of 465.87 tons of soil and 12,190 gallons of free product and surface water collected for recovery. The March 2019 Site Assessment Report (SAR) and subsequent October 2019 and April 2020 SAR addendums reported soil concentrations below FDEP Soil Cleanup Target Levels (SCTLs) at the former discharge site. However, groundwater samples collected during the April 2020 sampling event reported Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) concentrations above FDEP GCTLs. Benzene was reported in MW-E at 1.20 mg/L above the GCTL of 1.0 mg/L. Ethylbenzene was reported in MW-E2 at 106 mg/L above the GCTL of 30 mg/L. Toluene was reported in MW-E1 at 85.9 mg/L and MW-E2 at 40.2 mg/L, above the GCTLs of 40 mg/L. Total xylenes was reported in MW-E at 30 mg/L and MW-E2 at 739 mg/L, above the GCTL of 20 mg/L. The groundwater plume has been delineated during



the “dry season”, but further sampling was recommended during the “wet season” to verify prior to remediation. The October 2020 “wet season” sampling event confirmed BTEX exceedances and lack of plume delineation on the east of monitoring well MW-E2 (towards I-95). The October 2020 SAR addendum (SARA) reported groundwater flow towards the south-southeast direction. Agency review included recommendations for semi-annual groundwater sampling to determine contaminant plume stability. An April 2021 SARA was submitted to address recommendations made on the October 2020 sampling. The report concluded there is a reduction in plume size during the dry season 2021, however, total xylenes are not completely delineated to the east. Agency review concurred with the findings of this report. In September and November 2021, additional testing was completed and still showed total xylenes above GCTLs present in the east. In September 2022 and May 2023, all parameters tested below GCTLs. Due to this, Broward County recommended a No Further Action (NFA) in May 2023 after additional testing. In June 2023, Broward County stated that due to PAHs being detected, a NFA cannot be approved without conditions. A NFAP was submitted in September 2023. Nothing of concern was identified during field reviews.

Due to the current presence of contamination in groundwater adjacent to the project corridor and potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 3

Gulfstream Academy at Hallandale Beach (formerly City of Hallandale Beach Disaster Debris Management Site (DDMS) #1))
Field behind 1000 SW 3rd Street
Hallandale Beach, Florida
FDEP Facility ID: 99011

This site is a documented contaminated site under FDEP. This site is located approximately 700 feet east of the I-95 project corridor. No evidence of disposal of debris material or dumping was observed during review of historical aerials. The FDEP Waste Assurance and Compliance System (WACS) assigned the facility a NFA status. The site was identified during site reconnaissance as a field for Gulfstream Academy of Hallandale Beach. No additional information was readily available for review. Nothing of concern was identified during field reviews.



Due to lack of documented contamination and distance from project, this facility is assigned a **No** risk rating.

Site 4

Hallandale Beach U-Gas (formerly BP Amoco)
999 Hallandale Beach Boulevard
Hallandale Beach, FL
FDEP Facility ID: 8502072; County Facility ID: 04111

This site is a documented contaminated site under FDEP. This site is located on the south side of Hallandale Beach Boulevard and east of I-95, with the tank area approximately 525 feet south of the existing Hallandale Beach Boulevard ROW. The site currently has three (3) active 10,000-gallon unleaded gasoline Underground Storage Tanks (USTs) that were installed in 1984. One 10,000-gallon UST has been closed in place. A DRF was submitted in October 1987 and November 1990. A June 2018 SAR identified soil contamination above FDEP SCTLs and groundwater contamination above FDEP GCTLs, recommending remedial action followed by Natural Attenuation Monitoring (NAM). The March 2020 NAM Report identified groundwater flow direction to the southeast along the northern portion of the site, away from the project corridor. The groundwater impacts appear to be delineated within the property limits according to the March 2020 NAM report. A June 2021 NAM Report identified exceedances in monitoring wells MW-8, MW-15, MW-16, MW-C, and MW-E. Quarterly groundwater monitoring has been ongoing as of October 2023 and the last quarterly report in May 2023 still showed exceedances over GCTLs. Nothing of concern was identified during field reviews.

Based on the current presence of contamination in soil and groundwater and distance from the project, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 5

HB 1000-18 LLC (formerly Shell, Fina, Citgo, 7-11)
1021 Hallandale Beach Boulevard
Hallandale Beach, Florida
FDEP Facility ID: 8501728; County Facility ID: 04094



This site is a documented contaminated site under FDEP. This site is located 200 feet east of Hallandale Beach Boulevard and is presently a strip mall. The site was a former gasoline station from 1979 through circa 2011. Two DRFs were submitted in February 1987 and February 2000. The February 1987 Discharge Notification Form (DNF) was filed in response to evidence of petroleum impacts detected during groundwater analysis. An Early Detection Incentive (EDI) application was submitted and approved in July 1987. A Remedial Action Plan (RAP) proposing a pump and treat system was approved in April 1990. Remediation was discontinued due to the site's low score.

During the February 2000 removal and replacement of three USTs, the contents of one UST was released into the excavated area. A Supplemental Site Assessment and Limited Tank Closure Assessment Report (TCAR) was submitted in December 2010, identifying contamination in soil and groundwater. A February 2011 Limited Groundwater Assessment Report noted temporary petroleum impacts to groundwater above the FDEP GCTLs, and recommended NAM. The March 2018 NAM Report identified groundwater flow direction to the northeast and identified cumene (isopropyl benzene) in groundwater above FDEP GCTLs. The March 2018 NAM Report recommended further NAM monitoring, however, upon further review, the FDEP issued a purchase order to transition the site to remedial action. A Level I RAP was submitted in October 2018 recommending biosparging with bioaugmentation system technology to address the groundwater impacts at the site. The RAP was approved in June 2019 and a purchase order for the construction and operation of the RAP was issued. A Field Inspection Summary Form dated December 2020 documents the beginning stages of the remedial system installation. A Task 2-Remedial Action Startup Report dated July 30, 2021, documented baseline groundwater sampling results from September 2020. Cumene was reported above the GCTLs in monitoring wells MW-20, MW-24, and MW-27. Quarterly monitoring has been ongoing as of September 2023. Nothing of concern was identified during field reviews.

Based on the lack of closure for the February 1987 and 2000 discharges and potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.



Site 6

Exxon (formerly Shell, Hallandale Beach Club, Five Brothers)
1080 Hallandale Beach Boulevard
Hallandale Beach, Florida
FDEP Facility ID: 8502695; County Facility ID: 04662

This site is a documented contaminated site under FDEP. This site is located adjacent to both I-95 and Hallandale Beach Boulevard, with the tank area less than 50 feet north of the existing Hallandale Beach Boulevard ROW. Two historical DRFs have been filed for this facility in May 1986 and December 2004. The 1986 DRF was filed in response to a fuel dispenser leak. The facility was approved for state-funded cleanup under the EDI Program in April 1988. A RAP proposing installation of a pump and treat system and soil vapor extraction system with an air stripper was approved by FDEP in 1991. A Site Rehabilitation Completion Report (SRCR) was proposed in June 1997 and approved by FDEP in November 1997. The second DRF was filed December 2004 in response to a release of 610-gallons of diesel fuel during a product delivery. A Preliminary Contamination Assessment Report (PCAR) and NFA were submitted in December 2005. A Site Rehabilitation Completion Order (SRCO) was issued by the FDEP in August 2006. Routine inspections have been occurring since 2006. A FDEP Storage Tank Facility Annual Compliance Site Inspection dated October 2023 lists this facility in compliance. Nothing of concern was identified during field reviews.

The property is proposed for ROW acquisition. Based on this as well as documentation of historical contamination and the potential for dewatering activities, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 7

Burger King (formerly Texaco #021-313-FISK's)
1090 Hallandale Beach Blvd
Hallandale Beach, Florida
FDEP Facility ID: 8502027; County Facility ID: 09693

This site is a documented contaminated site under FDEP. This facility is located adjacent to the east of I-95 and adjacent to the north side of Hallandale Beach Boulevard. The site was acquired by FDOT circa 1994 for a prior I-95 expansion project, with plans to demolish the gasoline station and construct a stormwater



detention pond. The site formerly operated one 8,000-gallon, three (3) 4,000-gallon and one 3,000-gallon gasoline USTs removed circa 1987. A DRF was filed November 1988 in response to evidence of petroleum contamination discovered during manual testing of the monitoring wells. Subsequently, an EDI application was submitted and the site was approved for state-funded cleanup. Remediation efforts included the submission of a Contamination Assessment Report (CAR), soil excavation, limited groundwater pumping and implementation of a Monitoring Only Plan (MOP). The CAR was completed in efforts to identify the horizontal and vertical extent of petroleum hydrocarbons in soil and groundwater. The CAR concluded the petroleum plume had migrated offsite to the east and south but, had not impacted those properties based on groundwater monitoring results. Additionally, the vertical extent of the petroleum plume was determined to be less than 28 feet with groundwater flow to the northeast. Approximately 2,370 tons of soil was subsequently removed from the site and a groundwater treatment pump was installed with additional monitoring wells to monitor the effluent. An NFA status was granted to the facility in June 1996. No additional information was available for review. A swale was constructed at this site circa 1997. The site has remained a swale. Nothing of concern was identified during field reviews.

The property is proposed for ROW acquisition to be a swale. Based on the NFA status issued for the November 1988 discharge, current regulatory status, and current use of the property as a swale, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 8

Racetrac #491 (formerly Chevron)
3031 Hallandale Beach Boulevard
Pembroke Park, Florida
FDEP Facility ID: 9602003; County Facility ID: 02341

This site is a documented contaminated site under FDEP. This facility is located west of I-95, north of Hallandale Beach Boulevard adjacent to the project corridor, with the tank area approximately 100 feet north of Hallandale Beach Boulevard. This facility has a history of discharges. It operated as a Chevron service station from 1969 to circa 1971. Historic soil and groundwater impacts were discovered during an environmental audit conducted in 1989. Source removal activities included excavation of soil on the south side of the site. A SRCO was issued for the 1989 discharge discovery in June of 1994. The site is currently



occupied by a Racetrac service station. A DRF was submitted in May 2008 after petroleum was observed in a spill bucket. The spill buckets were removed and replaced in December 2008 and contaminated soil was excavated. The 2009 SAR indicated that GCTLs were exceeded, and a RAP was recommended. Following submission of the RAP in 2010, additional data was collected, and the Broward County Environmental Protection and Growth Management Division (BCEPGMD) agreed to implement NAM in place of the RAP. After four quarters of NAM, a NAM Report/No Further Action Proposal (NFAP) was submitted for review. The NFAP was approved, and an SRCO was issued for the May 2008 discharge by FDEP in January 2014. Two (2) 12,000-gallon unleaded gasoline USTs and one 12,000-gallon vehicular diesel UST are maintained onsite. A FDEP Storage Tank Facility Annual Compliance Site Inspection Report dated July 2021 reported the facility as in-compliance. No additional information was available on file to the date of this report. Nothing of concern was identified during field reviews.

Based on the facility being an active gas station, historical documentation of contamination, and potential for dewatering activities, this facility has been assigned a **Medium** risk rating for the preferred alternative.

Site 9

Energy Dispatch LLC Tanker Truck Spill
East & West Sides of SW 31st Avenue & Hallandale Boulevard
Pembroke Park, Florida
FDEP Facility ID: 9803721; County Facility ID: 09884

This site is a documented contaminated site under FDEP. This discharge site is located on SW 31st Avenue, adjacent to the north side of Hallandale Beach Boulevard. An Energy Dispatch LLC fuel tanker was involved in a vehicular accident, releasing approximately 675 gallons of unleaded gasoline. Subsequent source removal activities were performed through excavation of 549.39 tons of impacted soil. A July 2003 SAR/ NFAP reported the petroleum derived compounds sampled during source removal activities below the FDEP SCTL/GCTLs. A SRCO was issued by FDEP in November 2003. Nothing of concern was identified during field reviews.

Based on the current regulatory status and closure of the historical discharge, this facility has been assigned a **Low** risk rating for the preferred alternative.



Site 10

MOIL Gas Station (formerly Amoco-Subco and Superstop Hallandale)
3151 W Hallandale Beach Boulevard
Pembroke Park, Florida
FDEP Facility ID: 9800048; County Facility ID: 02181

This site is a documented contaminated site under FDEP. The site is approximately 400 feet west of the terminus along Hallandale Beach Boulevard, north side, and approximately 1500 feet west of I-95. This facility has historically operated and currently operates as a retail gasoline station and maintains two (2) unleaded gasoline UST and one vehicular diesel UST. In January 2019, a Discharge Report Form reported a gas release near dispenser #1 and in a nearby storm drain. Based on this form, the Broward County EPGMD Environmental Engineering Permitting Division (EPPD) issued a notice requiring a site assessment be performed onsite. The spill was cleaned up in January 2019 and the storm drain was pumped out. In May 2023, a Tank Closure Report (TCR) was completed, and soil testing results showed all samples below SCTLs. No additional information is available at this time. Nothing of concern was identified during field reviews.

Based on the reported discharge and the potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 11

Harbour Cove Associates (Brownfield Site)
100 Northwest 9th Terrace
Hallandale Beach, FL
FDEP Facility IDs: BF060401001 / ERIC_6725

This site is a documented contaminated site under FDEP. This site is approximately 700 feet east of the terminus along Hallandale Beach Boulevard, on the north side, and approximately 1,300 feet east of I-95 ROW. The location is an EPA Brownfield site with completed rehabilitation and redevelopment as a multi-family residential apartment complex. Historically, the property was once used as a 4-acre, 400-foot deep borrow pit at a lake fill site. From 1967 through 1985, the site was occupied by an auto parts manufacturer. In February 2004, free petroleum product was identified in excavation test pits. Site assessment and monitoring activities were completed, soil and groundwater contamination were delineated, and Alternative Cleanup Target Levels (CTLs) were established for the



site. Fifty-one (51) tons of soil was excavated from the site. The property implemented institutional and engineering controls to restrict groundwater use at the property and address the remaining soil contamination. A SRCO with the above-mentioned conditions was issued in May 2009. The property was in compliance as of February 2021. No additional information is available at this time. Nothing of concern was identified during field reviews.

Based on the distance from the corridor's terminus on Hallandale Beach Boulevard (beyond 500 feet), the site has been assigned a **Low** risk rating for the preferred alternative.

Site 12

Vintage Ansin Truck Parking (formerly Recycling Center of Florida)
310 Ansin Boulevard
Hallandale Beach, Florida
FDEP Facility ID: 53352

This site is a documented contaminated site under FDEP. This site is located north of Hallandale Beach Boulevard, approximately 400 feet east of I-95. A 1988 groundwater sample result did not detect contaminants above FDEP GCTLs. However, in 2006, the FDEP issued an offsite notice for soil or groundwater contamination found on the property, due to migration from the former Hallandale Switch Facility (Site 18). No additional information was readily available for review. The site is currently closed and appears as a truck yard. Nothing of concern was identified during field reviews.

Based on the lack of information on potential contamination and potential dewatering within 500 feet of this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 13

Pharmco Rx (formerly Wedgewood Holdings, Inc.)
400 Ansin Boulevard,
Hallandale Beach, FL
FDEP Facility ID: 9802375

This site is a documented contaminated site under FDEP. This site is located approximately 100 feet east of I-95, on the east side of Ansin Boulevard. A TCAR



dated January 2000 documents the removal of a 4,000-gallon gasoline UST. Based on soil and groundwater samples collected during tank removal, no soil or groundwater contamination was present. No additional information was available during the desktop review. This facility is currently closed. Nothing of concern was identified during field reviews.

Based on the lack of information about contamination in the files and potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 14

Messingschlager Properties (formerly Richard Danvers Auto Shop)
2514 SW 30th Avenue
Hallandale Beach, Florida
FDEP Facility ID: 9401806

This site is a documented contaminated site under FDEP. This site is located approximately 75 feet west of I-95. The site was formerly occupied by Richard Danvers Auto Shop and maintained a 500-gallon UST. A DRF was submitted September 1994 in response to gasoline impacted groundwater during monitoring well installation, sampling and analysis following the removal of 500-gallon gasoline UST. In February 1996, the site became eligible for state-funded cleanup under the Abandoned Tank Restoration Program (ATRP). Subsequently, a SAR and NAM Plan was submitted and approved in 2002. After three quarters of NAM, a SRCO was granted for the 1994 discharge. Nothing of concern was identified during field reviews.

Based on the June 2005 SRCO and current regulatory status, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 15

95 Warehouse LTD
2401 SW 31st Avenue
Hallandale Beach, Florida
FDEP Facility ID: 894265; County Facility ID: 06862

This site is a documented contaminated site under FDEP. This site is located approximately 350 feet west of I-95. A DRF was submitted in December 1988 with



eligibility for state-funded cleanup under the EDI Program. A CAR dated March 2001 was submitted with recommendations for development of a RAP. The RAP proposed implementation of an air sparging and soil vapor extraction system. The system was operated for three years followed by post Remedial Action Quarterly Monitoring. The facility was granted an SRCO November 2010. Nothing of concern was identified during field reviews.

Based on the closure of the historical discharge, current regulatory status and distance to project, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 16

Gallo Marble Enterprises
500 Ansin Boulevard
Hallandale Beach, Florida
FDEP Facility ID: 8627989

This site is a documented contaminated site under FDEP. This site is located approximately 100 feet east of I-95. A DRF was submitted December 1991 due to soil contamination discovered during the removal of a 2,000-gallon gasoline UST. A SRCO was issued for the 1991 petroleum discharge. In 2004, Phase I and Phase II Environmental Site Assessments (ESAs) conducted for this facility detected ammonia in groundwater, above the FDEP GCTLs. The ESA Reports were submitted to the Broward County Environmental Protection Department (BCEPD). The BCEPD requested additional assessment in June 2005. A September 2005 Groundwater Sampling Report was submitted to the BCEPD, documenting ammonia concentrations in groundwater above FDEP GCTLs. Previous assessments did not detect a point source for ammonia. The site is suspected of being impacted by ammonia plume migrating from the former Hallandale Switch Facility (Site 18). A Declaration of Restrictive Covenant (DRC) restricting groundwater use at the site was recorded in February 2012. A DRC Inspection conducted in September 2020 lists the facility as in compliance with the DRC, and documented no groundwater use at this site. This site is currently occupied by Countertops of Broward. Nothing of concern was identified during field reviews.

Based on the current presence of contamination and potential dewatering activities, this site has been assigned a **Medium** risk rating for the preferred alternative.



Site 17

James Lanier Education Center – grass field (formerly Hallandale Beach Dump)
700 NW 7th Street
Hallandale Beach, Florida
FDEP Facility ID: 99353

This site is a documented contaminated site under FDEP. Although this site is adjacent to I-95, the documented contamination is located on the southeast corner of the James Lanier Education Center, approximately 875-feet east of I-95 and is presently an apparently un-used grass field. The facility is listed in the Broward County Abandoned Dump Inventory. No readily available records were available for review. A Freedom of Information Act (FOIA) request was submitted to the BCEGPMD Environmental Engineering and Permitting Division to obtain additional information in December 2020. Available reports were given for CECOS' review.

According to a report dated June 1992 by the Broward County Office of Natural Resource Protection (DNRP), this facility was approximately five (5) acres in size with trash burning activities. Complaints were reported by neighboring properties due to fumes caused by burning and occasional fires that would start at the dump. Recommendations were made in the report to cover the trash with six inches of material and to continue using it as a trash dump. The FDEP Solid Waste Inventory lists the facility's status as NFA. In 2006, the FDEP issued an offsite notice for soil or groundwater ammonia contamination found on the property, due to migration from the former Hallandale Switch Facility (Site 18). Nothing of concern was identified during field reviews.

Based on the distance from the project corridor, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 18

Park Shore Pharmacy (formerly known as Hallandale Switch Facility)
600 Ansin Boulevard
Hallandale Beach, Florida
FDEP Facility ID: 9700906; County Facility ID: 09924

This site is a documented contaminated site under FDEP. The site is located approximately 70 feet east of I-95. A TCAR dated June 1997 was submitted to



document the removal of a 1,000-gallon UST of unknown prior usage, discovered during a Phase I ESA. No contamination was documented during the removal of the UST and the site was issued a NFA for the UST closure. The site historically operated as Hallandale Switch Facility- a transfer station. A desktop review conducted on Broward County Contaminated Locations Database revealed ammonia contamination onsite. A DRC was recorded with the BCEPGMD in July 2010 restricting groundwater use onsite. A DRC Inspection conducted in July 2019 lists the facility as in compliance with the DRC and documented no groundwater use at this site. Additionally, the FDOH was contacted on December 16th and December 29th, 2020, and again on January 5, 2021, to obtain additional information regarding results of potable well surveys performed at the former Hallandale Switch Facility and nearby properties with ammonia contamination. No response has been received.

Based on regulatory review, the FDEP issued offsite notices to surrounding properties in 2006 (Sites 17, 21, and 22) after potable well surveys were conducted in the vicinity, informing of ammonia contamination in groundwater migrating from the site. However, no additional files were readily available for review online as of this report. Nothing of concern was identified during field reviews.

Based on the lack of additional information on the reported contamination, close proximity to I-95, potential for dewatering, and the migration of the contaminating plume offsite and distance to the project corridor, the site has been assigned a **High** risk rating for the preferred alternative.

Site 19

James Lanier Education Center (formerly South Area Alternative Education Center)

1050 NW 7th Court

Hallandale Beach, Florida

FDEP Facility ID: 9100221; County Facility ID: 07879

This site is a documented contaminated site under FDEP and is currently an education center with no tanks on site. This site is located approximately 50 feet east of I-95. A DRF was submitted in May 2007 due to the discovery of petroleum impacts to soil and groundwater during the removal of a 2,500-gallon heating oil tank. Remediation efforts were completed through the excavation of 14.77 tons of contaminated soil. Subsequently, a SAR/NFAP was submitted and approved in



2008. A SRCO was issued for the discharge July 2008. Nothing of concern was identified during field reviews.

Based on the SRCO issued for the 2007 discharge and current regulatory status, the site has been assigned a **Low** risk rating for the preferred alternative.

Site 20

BW Recycling
2035 SW 31st Avenue,
Pembroke Park, Florida
Facility ID: N/A

This site is not documented as a contaminated site under FDEP. This site is located approximately 800 feet south of Pembroke Road, approximately 350 feet west of I-95 and just west of the CSX railroad tracks. The site is a recycling center and is not in the FDEP Cleanup Program. No permits or registered storage tank information were recorded for this facility. A pedestrian/windshield survey was conducted and did not observe any visual environmental concerns or recycling activities outside the facility during November 2023 field reviews. Nothing of concern was identified during field reviews.

Based on the absence of reported contamination and field survey noting no visual concern, the site has been assigned a **No** risk rating for the preferred alternative.

Site 21

Petroleum Products Corporation (PPC) (Superfund Site)
3130 SW 19th Street,
Pembroke Park, FL
FDEP Facility ID: 8732818

This site is a documented contaminated site under FDEP. This Superfund site is located adjacent to the south side of Pembroke Road and approximately 900 feet west of I-95. This facility operated from approximately 1958 to 1971 as a processor and broker of waste oil and other petroleum derived products. Twenty-two (22) bulk storage Above-Ground Storage Tanks (ASTs) were maintained at the site. A sulfuric acid-clay refining process was used to reprocess waste oil. This process generated sludge waste and spent clay, contaminated with petroleum



products and metals, which were disposed in unlined pits. Additionally, waste containing PCBs and chlorinated solvents were received by the facility. Between 1970 and 1971, the pits were backfilled and most of the site was sold, and contamination was reportedly spread to adjacent areas.

PPC operations were restricted to the southeast corner of the site in 1971, and reportedly functioned as a storage/distribution facility until complete deactivation in 1985. In 1985, approximately 262 drums of sludge and 7,000-gallons of oil were removed from the site. The site was investigated in 1989 and subsequently, a bioslurping unit was installed and operated from 1990 until 2012. The bioslurping unit recovered approximately 43,000 gallons of petroleum product. Recovery efforts continued through sludge removal. A 2019 Feasibility Study (FS) identified soil and groundwater analytical data comprised of Volatile Organic Compounds (VOCs), Semi-VOCs, PCBs, and metals above FDEP SCTLs and GCTLs. On July 15, 2019, the site was added to the EPA Emphasis List of Superfund Sites Targeted for Immediate, Intense Action. In December 2020, a proposed plan was developed by the EPA for the site remediation. A Record of Decision (ROD) was completed in April 2021 recommending soil excavation and groundwater recovery and treatment. Design plans for the remediation have been underway and are still underway as of September 2023.

On May 8, 2018, a teleconference was conducted with EPA, FDEP, FDOT representatives and contractors to provide an overview of the PD&E process, proposed roadway improvements and the potential effects on the PPC site. EPA identified approximate soil contamination boundaries and discussed proposed cleanup methods.

On January 19, 2021, a community meeting was held by the EPA to address the proposed plan for the site. The plan proposes relocation of tenants prior to building demolition, excavation of offsite contaminated soil at the Bamboo Trailer Park (located adjacent and south of PPC), shallow excavation under buildings, installation of a groundwater recovery and treatment system and the implementation of institutional controls to restrict groundwater usage until restoration of the Biscayne aquifer is achieved. The proposed plan was available for public comment until February 12, 2021. A Record of Decision (ROD) was issued in July 2021 stating that remediation is to begin. No other documentation was available.



The community meeting noted the facility location within 100 feet from the cone of influence for the City of Hallandale Wellfield. Sludge has been detected as deep as 24 feet below ground surface. The petroleum, PCB and chlorinated solvents impacts have extended offsite in groundwater as north as Pembroke Road and south/southeast towards the Bamboo Trailer Park. Sludge and free product binds to soils and as a result, leaches to the groundwater, causing the quality of the Biscayne aquifer to be affected. Currently, no nearby wellfields have been affected by the site. Nothing of concern was identified during field reviews.

Based on the presence of contamination in soil and groundwater and potential for dewatering activities, the site has been assigned a **Medium** risk rating for the preferred alternative.

Site 22

Orkin Extermination Company
1820 SW 30th Avenue
Hallandale Beach, Florida
FDEP Facility ID: 8502427; County Facility ID: 01149

This site is a documented contaminated site under FDEP. This site is located 60 feet west of I-95 and is occupied by pest control services. Two 4,000-gallon gasoline USTs were removed from the site in May 1987. The facility maintains a Broward County Hazardous Material License for pesticides and fluorescent light bulbs. According to the Broward County ENVIROS database, the facility is on septic. No notices of noncompliance or violations have been issued for this site. No additional information was readily available for review. Nothing of concern was identified during field reviews.

This site is proposed for acquisition. Based on the absence of documented contamination or a tank removal report, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 23

Waste Connections – Pembroke Park Transfer Station (formerly Choice Recycling Services of Broward, Pembroke Park Recycling and Transfer)
1899 SW 31st Avenue
Pembroke Park, Florida



FDEP Facility ID: 55464 / 105719; County Facility ID: 00014

This site is a documented contaminated site under FDEP. This site is located approximately 500 feet south of Pembroke Road and approximately 300 feet west of I-95. The site is an operational waste transfer station. A 2009 FDEP Annual Report for a Construction and Demolition Debris Facility identified materials processed to include concrete, wood, land clearing debris, paper, metals and textiles. The 2019 Annual Report submitted for the facility indicates that no waste materials were recycled or processed at the facility in 2019. Inspections have been in compliance as of August 2023. Nothing of concern was identified during field reviews.

Based on the absence of documented contamination, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 24

Flowers Baking Company (out of business)
3262 Pembroke Road
Pembroke Park, Florida
FDEP Facility ID: 8622371

This site is a documented contaminated site under FDEP. The site is located on the south side of Pembroke Road, approximately 530 feet west of the project terminus along Pembroke Road and approximately 1500 feet west of I-95. It is a known contaminated site. A July 2015 Template SAR reported a DRF was filed for this site in February 1988, due to a release from a 2,000-gallon UST; which has since been removed. The TSAR also reported 2014 groundwater samples detected benzene above FDEP GCTLs and soil sample results above FDEP SCTLs. The groundwater flow was reported to be to the north, east and south (toward the Pembroke Road project corridor). An air sparging and soil vapor extraction remediation system was installed at the site in 2018 and operated from July 2018 until May 2019. Post Active Remediation Monitoring (PARM) was conducted with quarterly groundwater sampling following the remediation. After four quarterly events, groundwater concentrations were still reported above GCTLs at the site. March 2020 PARM Year 1, Quarter 4 results detected naphthalene in MW-03 at 229 micrograms per Liter ($\mu\text{g/L}$, above the GTCL of 14 $\mu\text{g/L}$ and above the Natural Attenuation Default Source Concentrations (NADC) of 140 $\mu\text{g/L}$, as specified in Table V of Chapter 62-777, FAC. The March 2020 PARM Year 1, Quarter 4 review



letter indicates that additional evaluation of the site is necessary to determine the source of post-remediation rebound of concentrations. A RAP modification was approved on November 18, 2020, and monitoring wells were abandoned in February 2022. A Limited Scope Remedial Action Plan Modification (LSRAPM) was completed in June 2023 which recommends additional soil and groundwater remediation. Nothing of concern was identified during field reviews.

Due to the recommendation of further groundwater and soil remediation, potential for dewatering, and distance from the project, this site has been assigned a **Low** risk rating for the preferred alternative.

Site 25

A&B Recycling
1708 SW 31st Avenue
Pembroke Park, Florida
County Facility ID: 03206

This site is not documented as a contaminated site under FDEP. This site is located adjacent to the south side of Pembroke Road and approximately 300 feet west of I-95. This facility maintains a Hazardous Materials License for operations as a scrap metal yard with battery recycling. Mismanaged and cluttered materials were observed during the field review in November 2023 including metal, car parts, etc. in piles on and off site.

Based on the absence of documented contamination, the visual concerns identified, and potential for dewatering, the site has been assigned a **Medium** risk rating for the preferred alternative.

Site 26

Sun Yi Cafe (formerly Texaco station, Italian Hoagie)
1051 W Pembroke Road*
Pembroke Park, Florida
FDEP Facility ID: 8732177; County Facility ID: 04369

This site is a documented contaminated site under FDEP. The site is located adjacent to the south side of Pembroke Road, approximately 250 feet east of I-95. This facility was formerly leased by Texaco as a gasoline station. The site had two (2) 7,500-gal gasoline USTs. A letter from Texaco dated May 1986 noted



that it is unknown whether the tanks were removed after operations ceased in January 1974. Nothing of concern was identified during field reviews.

*Note that discrepancies in address were identified in the file. Other address mentioned is 1090 W Pembroke Road which is located in the center of Pembroke Road at the terminus of the project limits, approximately 1,000 feet from I-95

Based on the unknown status of the tanks and potential dewatering, this site has been assigned a **Medium** risk for the preferred alternative.

Site 27

Shell FEC #3828 (formerly First Coast Energy #3828)
2801 Pembroke Road
Pembroke Park, Florida
FDEP Facility ID: 8502153

This site is a documented contaminated site under FDEP. This site is located adjacent to the north side of Pembroke Road, with the tank area approximately 35 feet north of Pembroke Road and approximately 750 feet east of I-95. A DRF was submitted in July 1998 after petroleum was observed in an excavation during UST replacements. The 1999 SAR indicated that GCTLs were exceeded, and a NAM was recommended. The fourth quarter of NAM (November 2016) recommended NFA and requested a SRCO be issued. A SRCO was issued by FDEP in March 2017. An FDEP Storage Tank Facility Annual Compliance Site Inspection Report letter dated February 2024 stated the system was in compliance. Nothing of concern was identified during field reviews.

Based on the issued SRCO, current operations as a gas station, and potential dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 28

Family Tire Distributors
2817 Pembroke Road
Hollywood, Florida
County Facility ID: 15361

This site is not documented as a contaminated site under FDEP. The site is located adjacent to the north side of Pembroke Road and is approximately 250 feet east



of I-95. The facility currently maintains a Hazardous Material License for auto repair services and has three bays to conduct auto repairs, handling petroleum products, batteries, and fluorescent light bulbs. No additional documentation was available regarding the history of the site. During the pedestrian/windshield survey, the site appeared to be cluttered with visual evidence of staining on the pavement in front of three auto bays. Nothing of concern was identified during field reviews.

The property is proposed for partial ROW acquisition. Based on this, the absence of documented contamination, current operations as a gas station, and potential for dewatering, the site has been assigned a **Medium** risk rating for the preferred alternative.

Site 29

Kosher Motors (formerly Stevens Auto Service Center)

2829 Pembroke Road

Hollywood, Florida

FDEP Facility ID: 9500022; County Facility ID: 01535

This site is a documented contaminated site under FDEP. This site is located adjacent to the north side of Pembroke Road and approximately 100 feet east of I-95. The location was formerly called Stevens Auto Service Center with documented discharges reported. Historically, the site operated as a gasoline service station with underground gasoline and waste oil tanks, which were removed in 1984. Contamination was documented at the site in 1984 during UST removal activities and a discharge was also reported at the site for the waste oil tank in 1994. The site was assessed in 2008 and contaminated soil was removed under state-funded programs in 2011. Following the source removal, the site was transitioned to NAM for three years and two quarters and received a SRCO in January 2015. The facility currently maintains a Hazardous Material License for auto repair services, handling petroleum products, batteries, and fluorescent light bulbs. Nothing of concern was identified during field reviews.

The property is proposed for ROW acquisition. Based on this, the issuance of an SRCO, and potential dewatering, the site has been assigned a **Medium** risk rating for preferred alternative.



Site 30

Orangebrook Golf Course and Country Club
4000 Entrada Street
Hollywood, Florida
FDEP Facility ID: 8944879; County Facility ID: 01360

This site is a documented contaminated site under FDEP. This site is located adjacent to the west side of I-95 between Pembroke Road and Hollywood Boulevard and is presently a public golf course. Based on the historical aerial review, the site has operated as a golf course as early as the 1950s. The facility had two (2) registered 1,000-gallon USTs, removed in September 1989, and currently uses one 500-gallon vehicular diesel UST. No tank closure report was available for review. The facility maintains a Hazardous Material License for the handling of petroleum products, solvents, batteries, rags, antifreeze, and fluorescent bulbs. Arsenical herbicides and pesticides were commonly used in the 1950s for agricultural use. These same pesticides were often applied for turf maintenance on golf courses throughout Florida. This potential application to turf grass may present a potential risk to soils and groundwater. Nothing of concern was identified during field reviews.

Based on the lack of documented contamination but the potential for arsenic contamination present, and potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 31

Shell-First Coast Energy #3829 (formerly Equiva)
2800 Hollywood Boulevard
Hollywood, Florida
FDEP Facility ID: 8502526

This site is a documented contaminated site under FDEP. The site is approximately 750 feet east of the eastern terminus along Hollywood Boulevard.. The facility currently operates as a gasoline station. A DRF was submitted in April 1986 in response to a tank leak release of approximately 8,000 gallons and was accepted into the EDI program. A groundwater remedial system was installed and operated in 1986 and a soil remedial system was installed in 1992. A DRF was submitted in September 1993 in response to unleaded gas in a monitoring well (MW-6) and accepted into the PLRIP, a remedial system was operated from 1999 to 2000. A



DRF was filed in July 2008 in response to groundwater contamination in wells which was not eligible for FDEP funding. An October 2008 Limited Contamination Assessment Report (LCAR) detailed groundwater sample results above FDEP GCTLs and soil sample results above FDEP SCTLs. Confirmatory soil sampling was completed in 2016 and soil samples were reported below SCTLs. A NAM was initiated in 2016 and was completed in February 2020, following two consecutive quarters of groundwater samples reported below GCTLs. The 2019 NAM results confirmed groundwater contamination below FDEP GCTLs and the NFA proposal was approved in February 2020. All monitoring wells and remediation system components were properly abandoned in May 2020 and the report was approved in July 2020. A SRCO was issued for the since in August 2020. A FDEP Compliance Inspection Form dated January 2020 indicates that the facility is in compliance. Nothing of concern was identified during field reviews.

Based on the issued SRCO, the site has been assigned a **Low** risk rating for the preferred alternative.

Site 32

Dabern Auto Center (formerly Davo Auto Center)
2828 Hollywood Blvd
Hollywood, Florida
FDEP Facility ID: 8502583

This site is a documented contaminated site under FDEP. The site is approximately 350 feet east of the terminus along Hollywood Boulevard. The facility was constructed circa 1956 and one 4,000-gallon, one 6,000-gallon and one 10,000 gasoline UST were in place from 1975 to 1990. Additionally, one 10,000-gallon leaded gasoline, one 10,000-gallon unleaded gasoline, and one 10,000-gallon diesel USTs were in place from 1981 to 1990. All tanks have since been removed. Petroleum hydrocarbons were detected during monitoring in close proximity to the USTs. The facility was admitted for state-funded cleanup under the ATRP. Assessment activities have been ongoing, with delays due to available funding. A Template SAR dated January 2018 documented the groundwater contaminant plume extending to the northern boundary of the site, with recommendations for remediation. A RAP was submitted for the site in May 2019 and approved in August 2019. A subsequent Pilot Study was performed to test the efficiency of an air sparging and soil vapor extractions system. An FDEP Field Inspection Report dated April 2020 indicated the site has U-Haul and vehicle storage with no fuel



dispensing operation. The reports noted vehicles in the back of the lot that would need to be removed prior to installation of the remedial system. In September 2020, an Agency Term Contractor (ATC) was selected to conduct remediation activities. In July 2019, a RAP was approved by Broward County. Interim remedial action testing was completed in January 2022 which identified petroleum constituents over GCTLs. A NAM was approved by Broward County in February 2022 and NAM has been occurring since, as of September 2023. The NAM results still show petroleum constituents over GCTLs. During the field review in November 2023, containers without secondary containment were observed next to the building. Nothing else of concern was observed.

Based on the presence of contamination in groundwater and potential for dewatering, the site has been assigned a **Medium** risk rating for the preferred alternative.

Site 33

Goodyear Tires (formerly Chevron)
2911 Hollywood Boulevard
Hollywood, Florida
FDEP Facility ID: 8502126; County Facility ID: 09656

This site is a documented contaminated site under FDEP. This site is located approximately 150 feet east of I-95 adjacent to the north side of Hollywood Boulevard and is presently a vacant lot owned by FDOT. A DRF was submitted in July 1988 and an SRCO issued in September 1992. During tank removal, a DRF was submitted February 1995. The 1995 CAR indicated that groundwater sample results exceeded GCTLs for benzene and soil samples exceeded FDEP SCTLs for lead. The site was assigned a score of 30 during a scoring review in November 2012 under the EDI program. Based on a review of historic aerials, the gasoline station was demolished between 1995 and 1999. During the pedestrian/windshield survey in November 2023, the site is vacant with fencing around the site boundary. No further information was available for review beyond 2012. Nothing of concern was identified during field reviews.

A swale is proposed for construction at this site. Swale construction may include excavation and dewatering activities. Based on the open 1995 discharge, the absence of recent documentation, and proposed construction, this site has been assigned a **High** risk rating for the preferred alternative.



Site 34

Chevron (formerly Sunshine #30)
3000 Johnson Street
Hallandale Beach, Florida
FDEP Facility ID: 8502723

This site is a documented contaminated site under FDEP. The site is adjacent to the south side of Johnson Street and approximately 150 feet west of I-95. The location is an active retail gasoline station and currently operates two (2) 10,000-gallon unleaded gasoline USTs. The site has three (3) documented unleaded gasoline discharges, dated 1990, 1993, and 2000. Records show an SRCO dated 2010 for the 2000 discharge. No record of closures for the other two discharges was observed in the file. As of 2010, routine inspections are ongoing. The latest inspection was completed in February 2024 stating that the site had a minor non-compliance violation due to spill containment, dispenser liners, and piping sumps not being accessible. Nothing of concern was identified during field reviews.

Based on the current regulatory status, current operations as a gas station, and potential for dewatering, the site has been assigned a **Medium** risk rating for the preferred alternative.

Site 35

Clean Paws Pet Salon and Resort (formerly Marvin's Cleaners)
3030 Johnson Street,
Hallandale Beach, FL
FDEP Facility ID: 9501066; ERIC_4112

This site is a documented contaminated site under FDEP. This site is adjacent to the south side of Johnson Street and approximately 375 feet west of I-95. The location operated as a drycleaning facility from 1967 until 2003. Site assessment activities were completed in 1998 which reported soil and groundwater contamination of solvents/PCE at the site. Remedial activities were performed at the site to reduce contaminant concentrations from 2001 through 2009 when groundwater samples were reported below GCTLs. Remediation efforts were made through actions including septic tank cleaning, drain field excavation and the installation of an air sparging and soil vapor extraction (SVE) system. The SVE system consists of six horizontal vapor extraction wells, a moisture separator with automatic pump-out, liquid carbon treatment, a 500-gallon holding tank, a



regenerative vacuum blower, and a vapor-phase carbon vessel. The SVE system has been in operation for eight years and is ongoing. Concentrations increased at the site following remediation. A 2021 Biennial Groundwater Sampling Report confirmed groundwater concentrations above FDEP GCTLs. According to the report, the results indicate a small source area remaining on site. Groundwater flow was reported to the east toward the I-95 project corridor. Nothing of concern was identified during field reviews.

Based on the presence of contamination and potential for dewatering, the site has been assigned a **Medium** risk rating for the preferred alternative.

Site 36

Marathon (formerly Amoco)
3034 Johnson Street
Hallandale Beach, Florida
FDEP Facility ID: 8502207

This site is a documented contaminated site under FDEP. The site is adjacent to the south side of Johnson Street and approximately 450 feet west of I-95. The location is an active retail gasoline station with two (2) 10,000-gallon ethanol USTs, and one out of service 10,000-gallon gasoline UST. In 1989, contaminated soils were encountered during tank replacement activities. Subsequently, 1,191 tons of excessively contaminated soils were removed and disposed offsite. In 1990, the site received eligibility for state-funded cleanup under the EDI program, with an assigned score of 75. In 1991, a RAP proposing groundwater pump and treat was prepared and approved by Broward County. However, due to the changes in the petroleum cleanup program, the RAP was not implemented. In 2001, the site was proposed for NAM for one year. In subsequent years, a SAR was completed to delineate the horizontal and vertical extent of petroleum contamination at the site. A RAP addendum was proposed in 2009 and 2010, to perform in-situ air sparging with soil vapor extraction. Remediation activities were completed in 2015. Post remediation monitoring activities were performed through 2019. A May 2020 NAM Report confirmed groundwater petroleum concentrations above GCTLs at the site. A June 2021 NAM Report stated BTEX / MTBE constituents were below GCTLs in monitoring wells MW-3 and MW-4. An October 2021 NAM Report showed benzene above GCTLs in MW-4. In May and June 2021, a TCAR was performed to remove a used oil tank. Stained soil was observed during the excavation, but results showed all detected compounds were either below the



detected limits and/or within the SCTLs; however, the pesticide Dieldrin was detected above GCTLs. As of 2023, the groundwater analytical results indicated that all analyzed parameters were either below the detected limits or within the Groundwater Cleanup Target Levels (GCTLs) with the exception of Benzene, Ethyl-Benzene, Total Xylenes, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Isopropylbenzene, Aldrin, and Dieldrin of which the levels of Benzene, Total Xylenes, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Isopropylbenzene, and Dieldrin were above the NADSCs. Nothing of concern was identified during field reviews.

Based on the recommendation for additional testing and the potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

Site 37

Former Sunset Golf Club (currently vacant land)
2727 Johnson Street
Hollywood, Florida
FDEP Facility ID: FLR10TJ71; County Facility ID19554

This site is a documented contaminated site under FDEP. This site is located adjacent to the ROW on the north side of Johnson Street and adjacent on the east side of I-95. A review of historical aerials determined this site was developed circa 1952. Golf course operations were terminated in 2014. Arsenic impacts to soil and groundwater, above the FDEP CTLs, were discovered in a Phase II ESA, conducted in 2006. SARs completed in July 2018 and revised in July of 2019, documented groundwater flow at the site in the northwest direction (toward the I-95 project corridor) and summarized the excavation and disposal of approximately 149.48 tons of soil. A RAP submitted in June 2019, proposed the dredging and disposal of an additional 489 tons of soil and soil blending to lower concentrations of arsenic in the soil. A revised RAP dated May 2020 stated that the City of Hollywood proposed the construction of a stormwater detention area at the center of the site, excavation of contaminated soils from the proposed detention area, and placement of two feet of clean fill throughout the property. Additionally, three quarters of NAM was conducted onsite to evaluate plume stability. In October 2020, the site was issued a No Further Action with Controls (NFAC) status after the BCEPGMD received a copy of the DRC restricting groundwater use at the site. In October 2020, the City of Hollywood purchased the land. Currently, the land is being cleared. During the pedestrian survey, the



site was vacant and fenced, with vegetative overgrowth and land clearing occurring. Nothing of concern was identified during field reviews.

FDOT is proposing a wet stormwater pond on this site. Based on this, potential for dewatering, and the presence of contamination, this site has been assigned a **High** risk rating for the preferred alternative.

Site 38

CSX Railroad
Facility ID: N/A

I CSX railroad is located along the west side of I-95. While the railroad is not documented as contaminated, railroads were previously treated with arsenic and railroad ties were usually treated with chemicals such as creosote. Additionally, a railroad siding is present between Pembroke Road and Hallandale Beach Boulevard where cars offload supplies. This is important to note as the types of supplies are unknown and could contain chemicals. Nothing of concern was identified during field reviews.

Based on the likely potential of contamination present and the potential for dewatering, this site has been assigned a **Medium** risk rating for the preferred alternative.

7.3 ETDM ETAT REVIEW

The project was reviewed through the FDOT's ETDM process where members of the ETDM ETAT provide input and comments; the ETDM Screening Summary Report (No. 14254) is included herein by reference.

7.4 PERMITS AND SPECIFICATIONS

Dewatering is anticipated to occur, as such a construction dewatering permit will be required from SFWMD. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). The dewatering plan will need to consider the radius of influence of any dewatering activity on nearby contamination plumes to avoid potential contamination plume exacerbation. The status of the sites will be updated accordingly at each future design phase. All permits will be obtained in accordance with Federal, State, and local laws and



regulations and in coordination with the District Contamination Impact Coordinator (DCIC).

If dewatering activities are proposed within 500 feet of a contaminated site, a FDOT CAR Contractor will provide assistance during the preparation of the dewatering permit application and assist in the permit process. Roadway plans will have a general note listing any area of dewatering concerns with applicable stationing. See *Part 2, Chapter 20 Contamination, paragraph 22.2.5.2 Dewatering During Construction* for further details. Additionally, see *Part 1, Chapter 12, Environmental Permits* and *Part 2, Chapter 11, Water Quality Impact Evaluation* for guidance on NPDES permitting.

8.0 CONCLUSIONS AND RECOMMENDATIONS

This CSER identified 38 sites for evaluation associated with the preferred alternative. These sites consisted mainly of former/current gas stations, dry cleaners, landfills, and one CERCLA site within one-half mile. Risk rankings were assigned to each potentially contaminated site after reviewing data obtained from regulatory databases, historical land uses, on-site field visits, proposed construction activity, and proposed ROW acquisition. **Table 8.1** provides a summary of risk ratings for the preferred alternative. The sites are rated the same for all the build alternatives.

Table 8.1 – Summary of Risk Ratings for the Preferred Alternative

Alternative	Contamination Risk			
	No	Low	Medium	High
Preferred Alternative	2	11	22	3

Medium and High risk sites may require a Contamination Level II Assessment consisting of soil and groundwater testing should excavation/earthwork, drainage installation, structure installation, dewatering, and/or ROW acquisition be proposed adjacent to them.

See **Table 7.1** for a list of all 38 sites with their name, contamination disposition/status, and risk ranking. To evaluate potential impacts to planned construction activities, Medium and High risk sites are recommended for soil and



groundwater sampling should ROW acquisition or construction activities be proposed that impacts those sites.



APPENDIX A
Site Photographs



Site #1 – View of Ives Estates Park (former City of Miami OJUS Landfill) from the entrance



Site #2 – Looking southwest toward former Penn Tank Lines, Inc. roadside spill site



Site #3 – Looking South towards Gulfstream Academy of Hallandale (former City of Hallandale Beach DDMS #1)



Site #4 – View southeast towards U-Gas



Site #5 - Looking east toward monitoring well manhole (Adjacent to former HB 1000-18 LLC)



Site #6 – View northwest towards Exxon



Site #7 - View of drainage swale (noted as Swale-3 in the NRE Report) adjacent east of Exit 18 and north of Hallandale Beach Boulevard (former Texaco #021-313-FISK's)



Site #8 – View of Racetrac #491 and the former Energy Dispatch Tanker LLC Tanker Truck Spill Site on SW 31st Ave adjacent west (Site #9-Low)



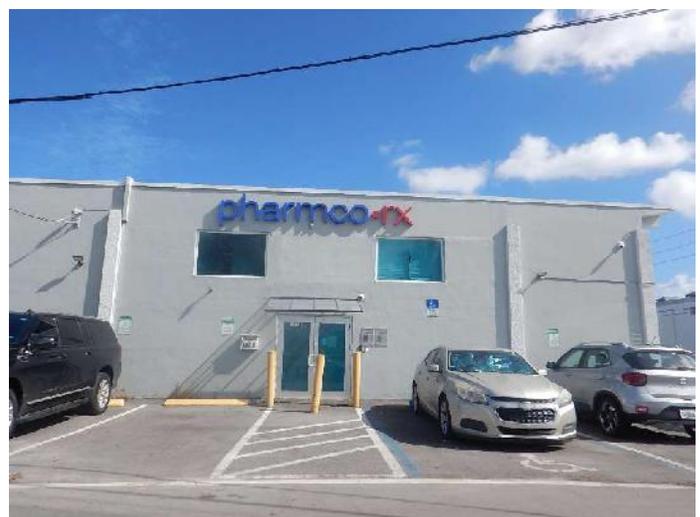
Site#10 - View of Moil (former Gas Station Services Corp.)



Site #11 - Facing east towards Harbour Cove Apartments (Brownfield Site)



Site#12 - Vantage Truck Parking (former Ansin Boulevard Dump)



Site #13 - View of Pharmco-rx (former Wedgewood Holdings, inc.)



Site #14 – Looking west at warehouses at Messingschlager Properties



Site #16 – Looking east towards Gallo Marble Enterprises (former)



Site #17 – Facing east towards vacant parcel of former Hallandale Beach Dump



Site #18 – View of Imperial Marine Equipment (former), facing northeast



Site #19 – View of James Lanier Education Center



Site #20 – View southwest of BW Recycling Facility



Site #21– Looking north at warehouses at the former Petroleum Products Corporation (Superfund Site)



Site #22 – Looking west toward Orkin Extermination Co



Site #23 – View of Waste Connections



Site #24 – Community Center out of business (former Flowers Bakery); view facing south



Site #25 – View of A&B Recycling from the east side of SW 31st Avenue



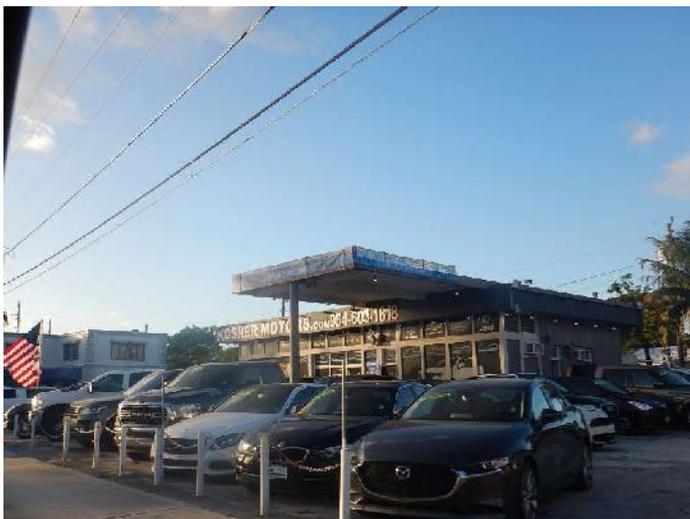
Site #26 – Looking northeast toward Sun yi Café (Adjacent to former Italian Hoagie)



Site #27 – View west towards Shell FCE #3828



Site #28 - View of Family Tire Distributors



Site #29 – View of Kosher Motors



Site #30 – View of Orangebrook Golf Course from the SE corner of the site



Site #31 – View of Shell-First Coast Energy #3829



Site #32 – View southeast facing Dabern Auto Center (former Davo Auto Center). Containers lacking secondary containment and proper storage observed on west adjacent lot



Site #33 – Goodyear Auto Service; view facing northwest (Former Mobil Gas Station)



Site #34 – View facing northeast toward Chevron (Former Sunshine #30)



Site #35 – Looking south toward Clean Paws Pet Salon and Resort (Former Marvin's Cleaners)



Site #36 – Looking SE towards Marathon gasoline station (former Sunshine #165)



Site #37 – View north toward former Sunset Golf Club



APPENDIX B
USGS Active Groundwater Wells



Legend

- Project Limits
- - - Project Limits Half Mile Buffer
- USGS Active Groundwater Well Location

USGS Active Groundwater Level Data Source: USGS (2021)
 2017 Basemap Source: Esri, DigitalGlobe, GeoEye, Earthstar



SR-9/1-95 from S of SR-858/Hallandale Beach Blvd. to N of SR-820/Hollywood Blvd. PD&E Study
 Broward County

USGS Active Groundwater Wells Map

Appendix B

Date Prepared: 05/20/2021



APPENDIX C
Aerials

I-95 1951



I-95 1958



I-95 1958



I-95 1969

4 4 5

3-24-68

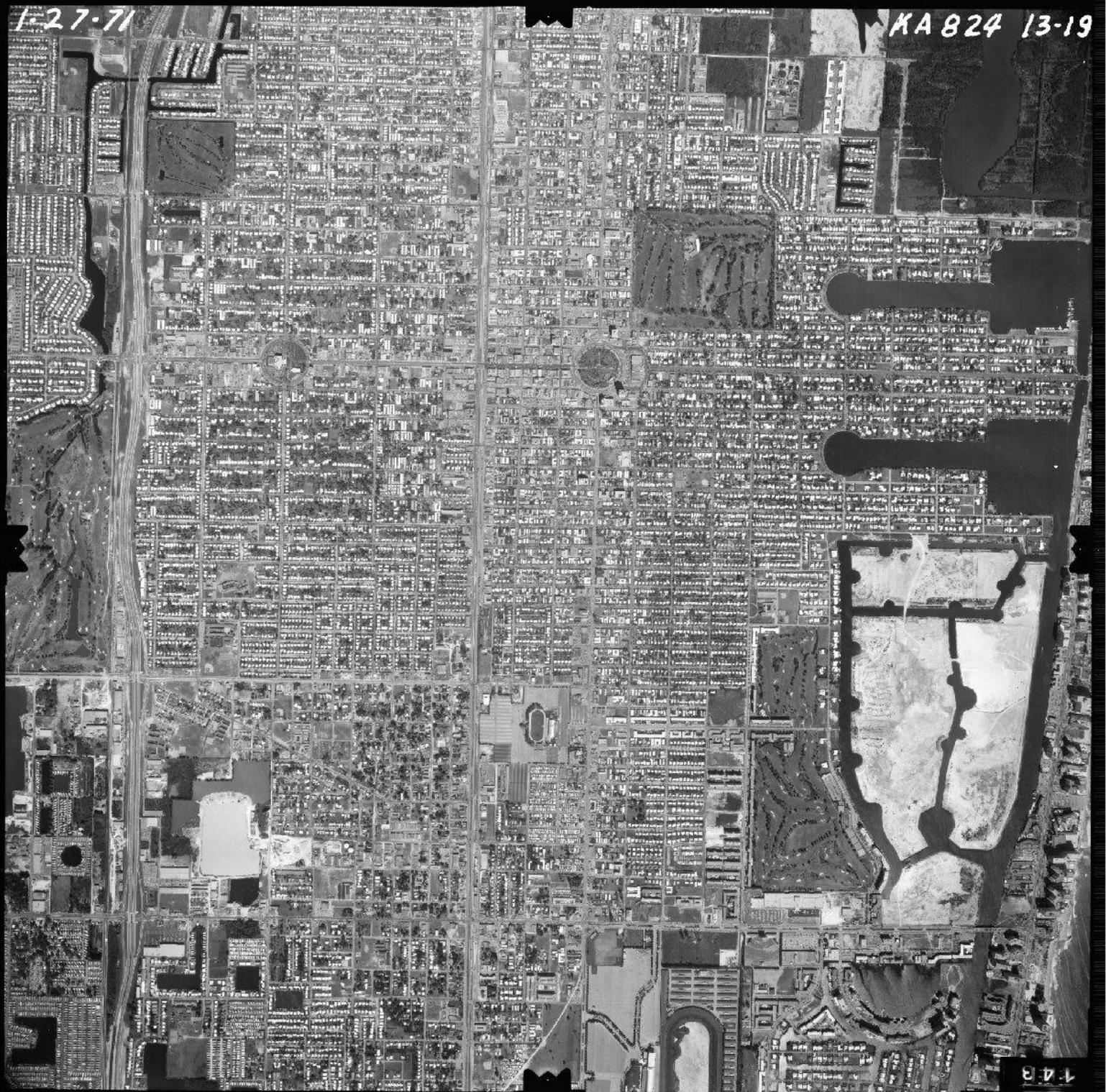
MAPCO-444 12-17



I-95 1971

I-27-71

KA 824 13-19



148

I-95 1971

1-27-71

KA 824 13-18



1-4-2

I-95 1978

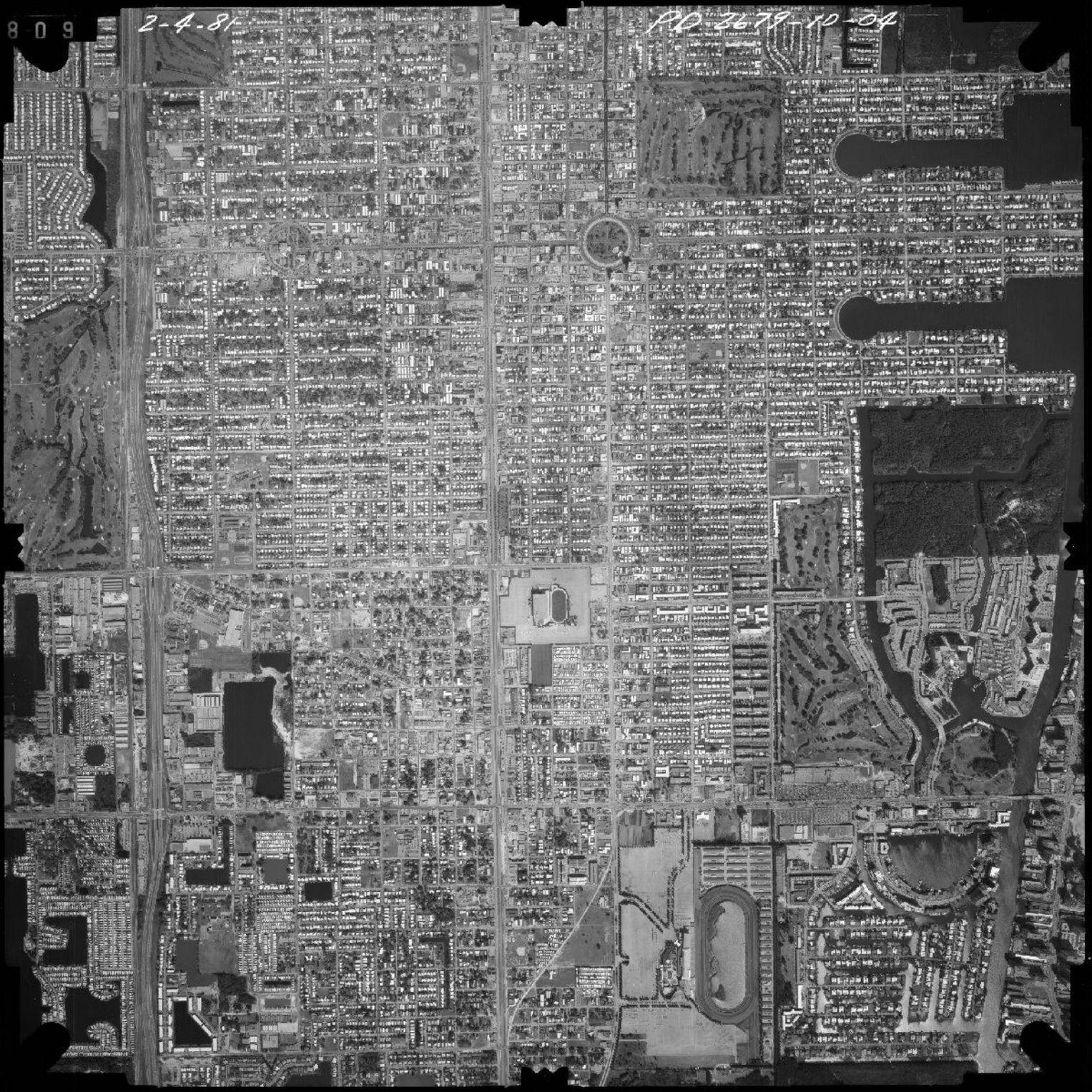


I-95 1981

809

2-4-81

PD 3679-10-04



I-95 1981

8-1-0

2-4-81

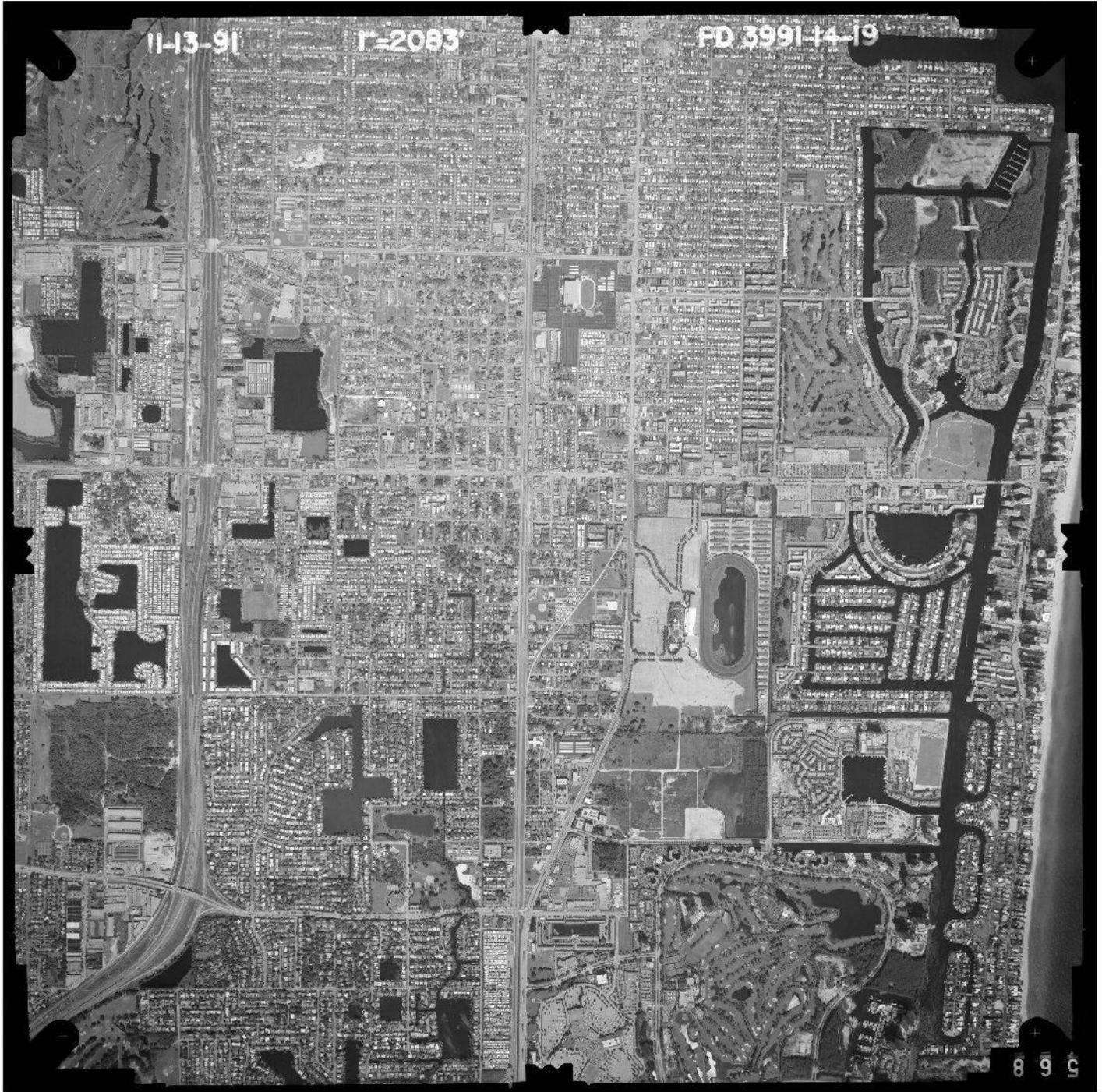
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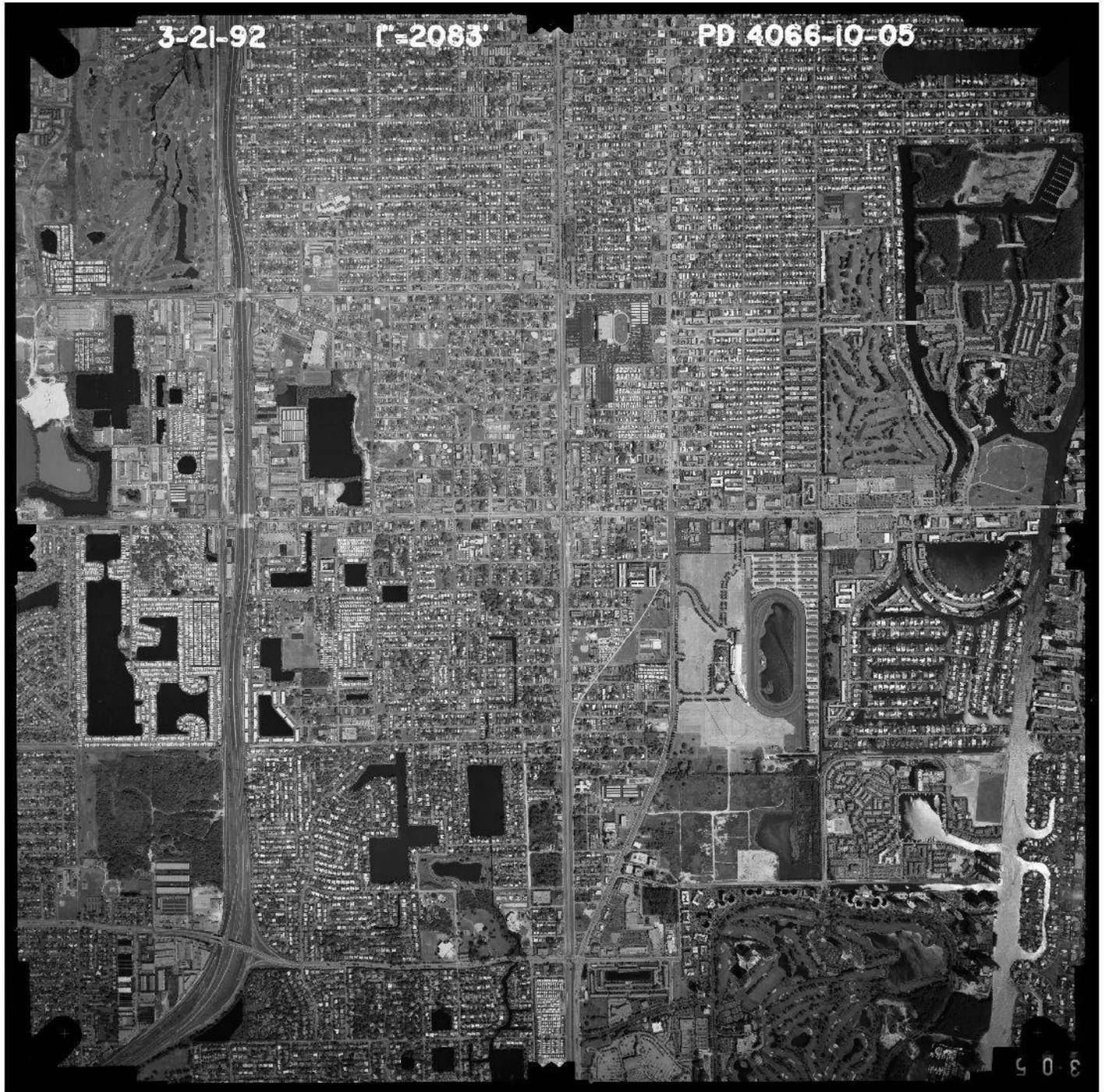
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I-95 1991



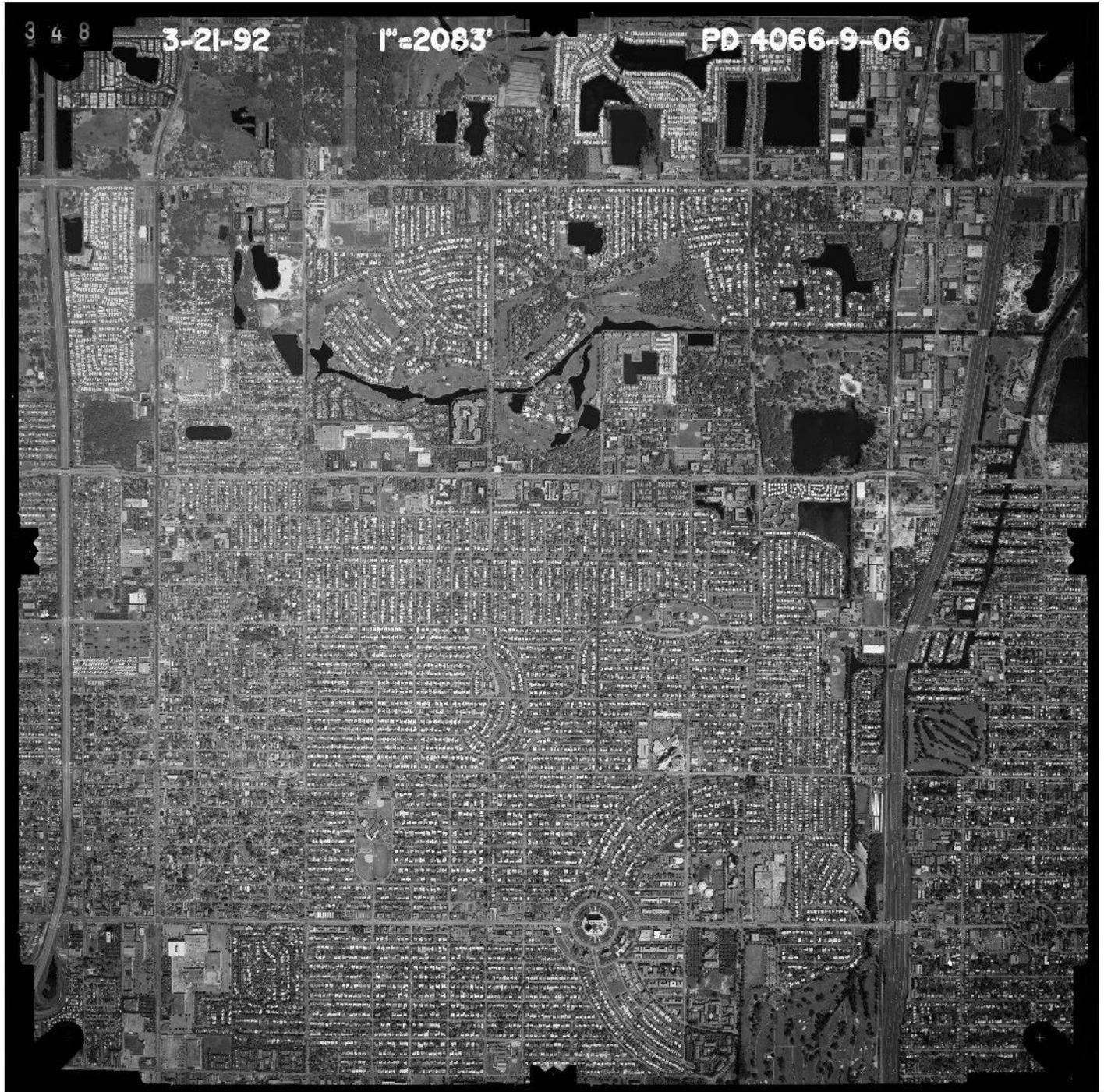
I-95 1992



I-95 1992



I-95 1992



I-95 I998



I-95 2003



I-95 2003

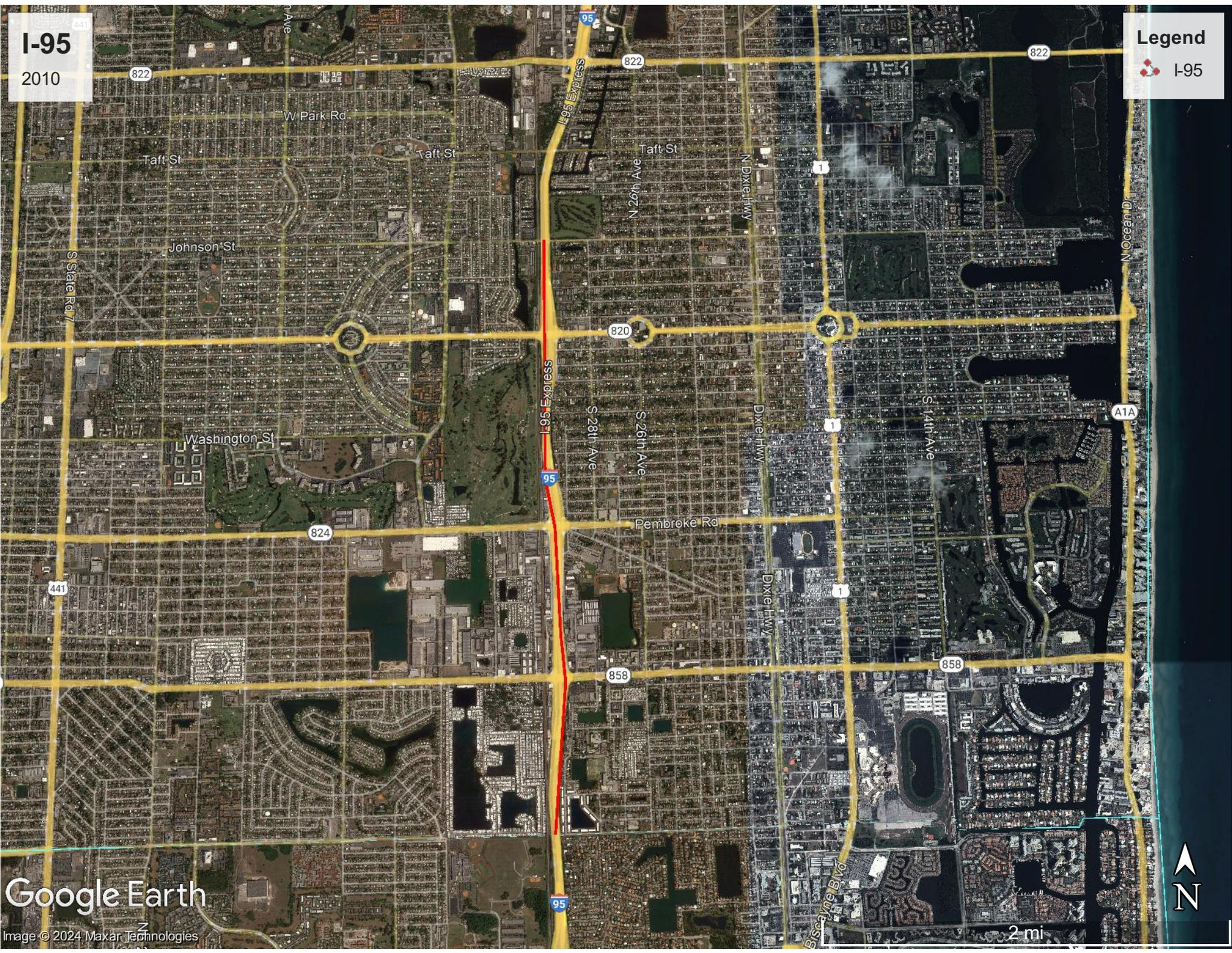


I-95

2010

Legend

I-95



Google Earth

Image © 2024 Maxar Technologies

2 mi

