Noise Study Report

Florida Department of Transportation (FDOT)

District Six

I-95/State Road (SR) 9 Project Development and Environment (PD&E) Study

From South of SR 860/Miami Gardens Drive to North of Broward County Line

Miami-Dade County, Florida

Financial Management Number: 414964-1

ETDM Number: 14419

February 2025

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

February 2025

NOISE STUDY REPORT

I-95/State Road (SR) 9 Project Development and Environment (PD&E) Study
From South of SR 860/Miami Gardens Drive to North of Broward County Line
Miami-Dade County, Florida

Financial Management Number: 414964-1-22-01
Federal Aid Project Number: N/A
Efficient Transportation Decision Making (ETDM): 14419

DISTRICT VI

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.

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT), District Six, is conducting a Project Development and Environment (PD&E) Study for the State Road (SR) 9/Interstate-95 (I-95) from south of SR 860/Miami Gardens Drive (Miami Gardens Drive) to north of the Broward County Line, in accordance with the National Environmental Policy Act (NEPA). The Study assesses corridor improvements that will provide additional express and/or general-use lanes on I-95 and implement interchange improvements at Miami Gardens Drive and County Road (CR) 854/Ives Dairy Road (Ives Dairy Road) within Miami-Dade and Broward Counties offering enhanced mobility options for motorists and transit users as it will provide additional capacity along the I-95 corridor throughout northern Miami-Dade County. The No Build Alternative and three viable Build Alternatives are being considered as part of this PD&E Study.

Prior to conducting a detailed noise analysis, a desk-top review of the project was performed to determine if noise levels will likely increase as a result of the proposed improvements, if noise sensitive receptor sites are located within the project area, or if noise impacts are likely to occur. The desk-top review indicated that the proposed improvements associated with the project were likely to result in design year (2050) traffic noise levels that would approach or exceed the Federal Highway Administration (FHWA) Noise Abatement Criteria (NAC) at noise sensitive sites within the project limits. Therefore, a detailed traffic noise study was performed in accordance with 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 13, 2010), the FDOT's PD&E Manual, Part 2, Chapter 18, *Highway Traffic Noise* (July1, 2023), and the FDOT's Traffic Noise Modeling and Analysis Practitioners Handbook (December 31, 2018). The results of this noise analysis are based on the design described in this report.

Traffic noise levels were predicted for noise sensitive locations along the project corridor for the existing conditions and the design year (2050) No-Build and preferred Build Alternatives. Build Alternative traffic noise levels are expected to range from approximately 48.7 to 77.8 dB(A) during the project's design year. Worst-case design year traffic noise levels with the Build Alternative are predicted to be no more than 16.4 dB(A) greater than existing traffic noise levels due to the removal of existing noise barriers along the corridor. Design year traffic noise levels with the planned improvements are predicted to approach or exceed the Federal Highway Administration (FHWA) Noise Abatement Criteria (NAC) at 274

residences, a park, and a daycare center playground. One (1) residence along I-95 in the Highland Lakes community is also predicted to experience a substantial noise level increase [i.e., at least 15 dB(A) over the existing noise level] due to the removal of an adjacent existing noise barrier.

In accordance with traffic noise study requirements set forth by both the FHWA and FDOT, noise barriers were considered for all noise sensitive receptor sites where design year Build Alternative traffic noise levels were predicted to equal or exceed the NAC. Noise barriers were evaluated at 13 locations to mitigate noise impacts. **Table 6-1** summarizes the results of the noise barrier analyses and recommendations for each of the four locations where noise barriers were recommended. The locations where barriers were evaluated or planned are depicted in the figures in **Appendix D**.

Noise barriers were recommended at the following locations:

- **I95-E1** – (See **Section 5.1**) East side of I-95 between the southern project terminus and Miami Gardens Drive. This noise barrier system would replace an existing 4 to 20-foot tall ground-mounted and shoulder/ structure-mounted noise barrier system in its entirety. The replacement 8 to 22-foot tall ground and structure-mounted noise barrier system would be located along northbound I-95. Expected to benefit all 40 of the impacted residences and 17 non-impacted residences in the Highland Manor community along this segment of I-95.
- **I95-E2** – (See **Section 5.2**) East side of I-95 between Miami Gardens Drive and the Snake Creek Canal. This noise barrier would replace an existing 8 to 19-foot tall FanWall ground-mounted noise barrier. The replacement 14 to 22-foot tall ground and structure-mounted noise barrier system would be located along the northbound I-95 on-ramps from Miami Gardens Drive and the northbound I-95 mainline. Expected to benefit 10 of the 11 impacted residences and 4 non-impacted residences in the Pickwick Lakes Estates community along this segment of I-95.
- **I95-E3** – (See **Section 5.4**) East side of I-95 north of the Snake Creek Canal. This noise barrier would replace an existing 14-foot tall ground-mounted noise barrier with a new 14 to 22-foot tall ground and structure-mounted noise barrier system along northbound I-95. Expected to benefit 37 of the 58 impacted residences and 13 non-impacted residences in the Riviera and Rolling Green condominiums along this segment of I-95.

- **I95-E4** – (See **Section 5.5**) East side of I-95 between Ives Dairy Road and the Broward County Line. This noise barrier would replace an existing 15 to 19-foot tall FanWall ground-mounted noise barrier. The replacement 8 to 22-foot tall ground and structure-mounted noise barrier system would be located along the northbound I-95 on-ramps from Ives Dairy Road and the northbound I-95 mainline. Expected to benefit all 12 of the impacted residences and 47 non-impacted residences in the Highland Lakes community along this segment of I-95.

Noise barriers were also evaluated at the following locations but are not recommended for further consideration at this time (unless otherwise noted below) since they did not meet FDOT's Noise Reduction Design Goal and/or FDOT's Noise Barrier Cost Reasonableness Criteria or were determined not to be feasible for construction:

- **I95-SCT** – (See **Section 5.3** and **Table 5-4**) Snake Creek Trail, east side of I-95 over the Snake Creek Canal. No existing noise barrier - Did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.
- **I95-W1** – (See **Section 5.7**) Aventura Harbor Apartments, west side of I-95 between NE 10th Avenue and NE 196th Street – Supplementing the existing 22-foot tall noise barrier with noise barriers greater in size did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.
- **MGD-LP** – (See **Section 5.8** and **Table 5-7**) Milton Littman Park, east side of I-95 at Miami Gardens Drive - Did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.
- **MGD-S1** – (See **Section 5.9** and **Table 5-8**) Highland Manor, south side of Miami Gardens Drive, east of I-95 – Estimated cost per benefited sites exceeds the FDOT's reasonable cost criteria of $42,000 per benefited receptor site.

- **IDR-S1** – (See **Section 5.10** and **Table 5-9**) Highland Lakes and Oak Forest, south side of Ives Dairy Road, east of I-95 – Insufficient available right-of-way (ROW) and utility conflicts are expected in narrow median between Ives Dairy Road and the adjacent frontage road. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.
- **IDR-N1** – (See **Section 5.11** and **Table 5-10**) Murray Homes, north side of Ives Dairy Road, west of I-95 – Insufficient available ROW and utility conflicts are expected in narrow median between Ives Dairy Road and the adjacent frontage road. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.
- **IDR-N2** – (See **Section 5.12** and **Table 5-11**) Little Dolphins Daycare, north side of Ives Dairy Road, west of I-95 – Did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.
- **IDR-N3** – (See **Section 5.13** and **Table 5-12**) Highland Lakes, north side of Ives Dairy Road between Highland Lakes Boulevard and the eastern project limits - Utility conflicts, insufficient available ROW. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.
- **Individual Single-Family Home** – (See **Section 5.14**) A single-family home represented by Representative Model Receptor HL-IDR-S-1 on **Sheet 7** in **Appendix D** is located at the southwestern corner of the Ives Dairy Road/Highland Lakes Boulevard intersection is expected to be impacted by traffic noise. Does not meet the FDOT's noise reduction feasibility criterion requiring that a noise barrier must provide a 5.0 dB(A) reduction for at least two impacted receptors to be considered feasible.

At this time, noise barriers are not recommended for further consideration or construction at these locations. However, where noted, noise barriers could be further evaluated during the project's Design Phase when additional design information becomes available. Based on the noise analyses performed to date, there are no apparent solutions available to mitigate the noise impacts at the locations identified above. The traffic noise impacts to these noise sensitive sites are considered to be an unavoidable consequence of the project.

A new community of over 100 single-family homes is planned on the former site of the Presidential Estates Golf Course between I-95 and Presidential Estates community. Although construction of this community has not yet begun, it is expected to begin soon. A review of the Miami-Dade County permits website did not find that any permits for this construction have been granted for this new development by Miami-Dade County as of December 02, 2024. The permit status for this property will be reviewed again prior to the project's DPK. If permits have been granted for construction of noise sensitive use on this property, the FDOT will evaluate potential traffic noise impacts from this project and will consider noise abatement for those sites predicted to be impacted. In accordance with FDOT policy, the FDOT is not responsible for providing noise abatement for sites with permits that were approved after the DPK.

The project will construct new elevated ramps in the north-east quadrant of the Miami Gardens Drive interchange that will be plainly visible above the recommended replacement noise barrier. It is recommended that measures, such as an opaque visual barrier, are considered that will reduce the sightlines between traffic on these ramps and homes in the Pickwick Lake Estates community north of Miami Gardens Drive.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1.0 PROJECT OVERVIEW

1.1 Project Description and Location

The Florida Department of Transportation (FDOT), District Six, is performing a Project Development and Environment (PD&E) Study for the State Road (SR) 9/I-95 (I-95) from south of SR 860/Miami Gardens Drive (Miami Gardens Drive) to north of the Broward County Line. This roadway project entails providing additional express and/or general-use lanes on I-95 and implementing interchange improvements at Miami Gardens Drive and County Road (CR) 854/Ives Dairy Road (Ives Dairy Road) within Miami-Dade and Broward County. The project study area is shown on the project location map (see **Figure 1-1**) and encompasses existing and proposed right-of-way.

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), the National Highway System (NHS) and is designated as an evacuation route along the east coast of Florida. The corridor traverses dense urban areas with predominantly commercial and residential uses, including downtown Miami.

Within the project limits, I-95 is classified as 'Urban Principal Arterial Interstate' and consists of six to eight general use lanes and two to four express lanes; the typical section varies throughout the project. The improvements proposed stem from the Refined Build Concept that was developed as part of the Interstate 95 Corridor Planning Study, conducted by the FDOT in May 2019. It assessed enhancements along the length of the I-95 corridor within Miami-Dade County from US 1/SR 5 (Mile Post 0.000) to the Broward County Line (Mile Post 17.199). As such, this project is part of a larger effort to improve the I-95 corridor within Miami-Dade County and, regionally, within Broward and Palm Beach Counties.

This particular section of the corridor is located north of the Golden Glades Interchange (GGI) in northern Miami-Dade County and traverses five U.S. Census Designated Places, including North Miami Beach, Ojus, Ives Estates, Pembroke

Park, and Hallandale Beach. It connects to Miami Gardens Drive, an important east-west facility within northern Miami-Dade County. Existing right-of-way along the project segment ranges from approximately 300 feet to over 1,000 feet in width.

Overall, the project will offer enhanced mobility options for motorists and transit users as it will provide additional capacity along the I-95 corridor throughout northern Miami-Dade County. Consistent with the existing managed lanes system on I-95, the additional express lanes are anticipated to operate using variable toll pricing based on congestion to optimize traffic flow.

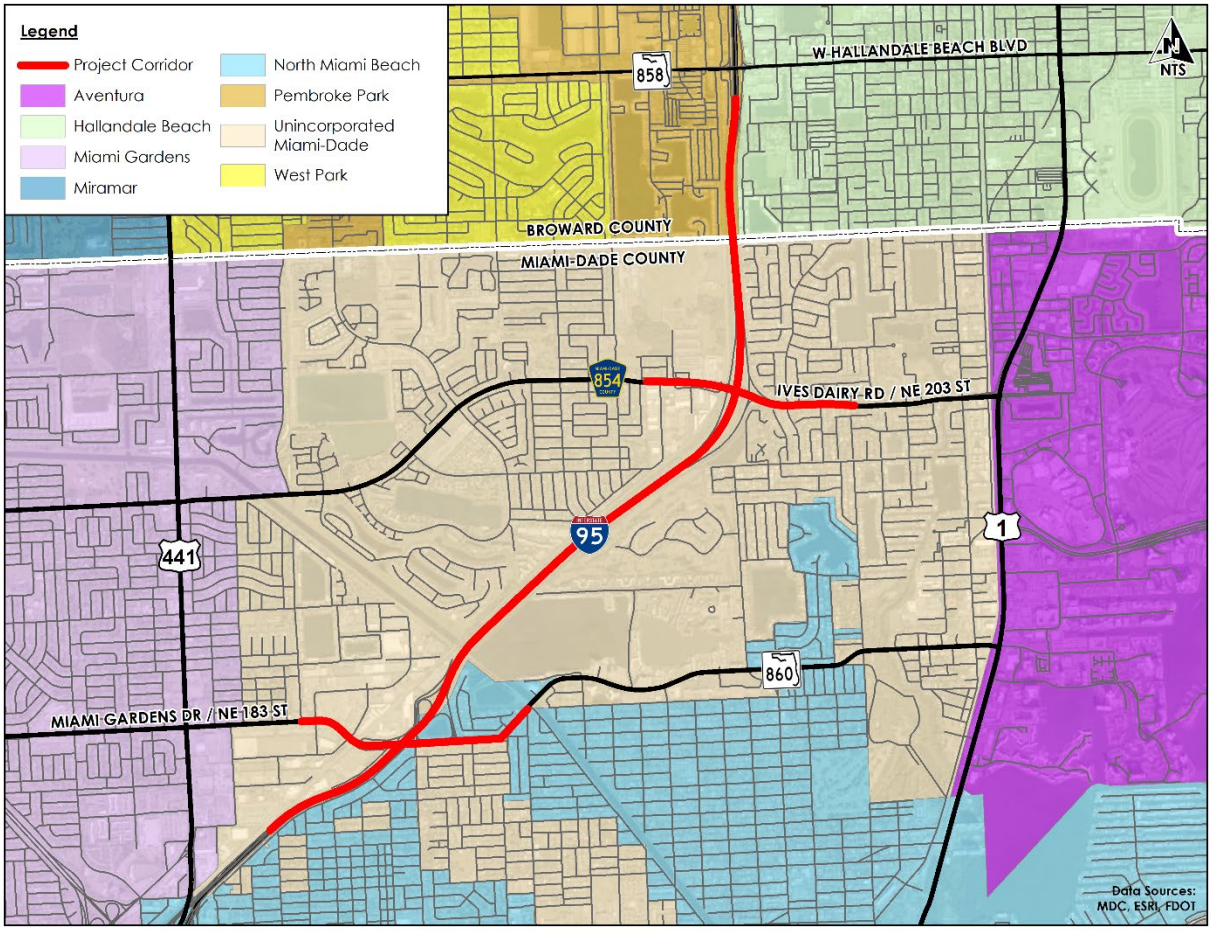


Figure 1 - 1: Project Location Map

1.2 Purpose and Need

The following supports the Purpose and Need for this study, which was screened through the FDOT's Efficient Transportation Decision Making (ETDM) Programming tool:

1. Address the deficient operational capacity and relieve existing/future congestion along the I-95 corridor.
2. Preserve the operational integrity and regional functionality of I-95 (and, therefore, the regional transportation network) by complementing similar corridor improvements throughout Miami-Dade, Broward, and Palm Beach Counties.
3. Enhance emergency evacuation and response times.

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

Capacity/Transportation Demand

I-95 in Miami-Dade County is one of the most heavily traveled sections of urban interstate in the nation. According to data extracted from the FDOT 2018 Florida Traffic Online database and the Southeast Regional Planning Model (SERPM), the existing and future traffic conditions for the I-95 project segment are as follows:

1. The 2018 Annual Average Daily Traffic (AADT) volume is projected to grow from 216,500-249,000 vehicles per day (vpd) to 228,300-297,800 vpd in 2045.
2. The 2018 Annual Average Daily Truck Traffic (AADTT) volume is projected to increase from 7,145-8,217 truck trips per day to 7,534-9,827 truck trips per day in 2045 (assuming the percentage of trucks on the road remains the same as the base year percentage (3.30%)).

Accordingly, growth projected for Miami-Dade County, as identified in the Miami-Dade Transportation Planning Organization (TPO) 2040 Long Range Transportation Plan (LRTP), is as follows:

1. Population of the county is forecasted to increase from 2.5 million in 2010 to 3.3 million in 2040.

2. Employment of the county is projected to grow from 1.4 million in 2010 to 2 million in 2040.

Based on the traffic operations analysis for the Interstate 95 *Corridor Planning Study* conducted by the FDOT in May 2019, sections of this I-95 project segment operate at Level of Service (LOS) F in the peak periods of travel. It is important to note that the existing managed lanes along much of the corridor are also operating near capacity, negatively impacting their ability to provide time savings to vehicles on I-95. As a result of the corridor being over capacity, travel demand is shifting vehicles onto less appropriate facilities. This, in turn, is reducing safety and increasing trip travel time.

The regional roadway system is also close to build-out and the ability to add more traffic lanes is limited. Without improvements, the project corridor will continue to experience high delays and operate at LOS F in 2045; driving conditions for residents and commuters will also deteriorate well below acceptable LOS standards. The project is anticipated to meet the mobility needs of the area by alleviating current and future congestion on the corridor and surrounding roadway network. The additional capacity will allow I-95 to continue to serve as an important arterial in facilitating the north-south movement of traffic in northern Miami-Dade County, thus improving access between communities of Miami-Dade, Broward, and Palm Beach Counties.

System Linkage

I-95 is the primary interstate route along the east coast of the United States extending from Maine to Florida and serving some of the most populated urban areas in the country. As part of Florida's SIS highway network, I-95 plays a significant role in facilitating commuter and freight traffic within the state. Within the project limits, I-95 connects to Miami Gardens Drive, which links I-95 to both I-75 (an additional SIS facility) to the west and US 1/SR 5 to the east. Further, I-75 and Florida's Turnpike (both SIS facilities) run parallel to the I-95 project corridor.

The proposed project improvements are part of a larger, regional effort to provide additional express lane capacity/continuous managed lanes along the I-95 corridor, both within Miami-Dade County and to the north in Broward and Palm Beach Counties. The intent is to collectively improve the overall reliability and

performance of the interstate system in moving high volumes of goods and people at efficient speeds. Reduced congestion will serve to maintain and improve viable access to the major transportation facilities and businesses of the area (including connectors to freight activity centers/local distribution facilities or between the regional freight corridors) and create an opportunity to provide efficient and reliable transit service within the corridor. As such, these improvements are critical to enhancing regional mobility. They are also key in preserving the operational integrity and regional functionality of the I-95 corridor as a whole.

Project Status

The project is identified as partially funded in the Miami-Dade Transportation Planning Organization's (TPO) 2045 Long Range Transportation Plan (LRTP) for PD&E and Design; and with funding allocated for the PD&E, Preliminary Engineering, and Railroad and Utilities phases in the TPO's FY 2024-2028 Transportation Improvement Program (TIP). The same three phases are identified as funded in the FDOT's FY 2023/2024 - FY 2026/2027 State Transportation Improvement Program (STIP).

The project is also included within the FDOT Fiscal Year (FY) 2023/2024 - FY 2027/2028 Strategic Intermodal System (SIS) First Five-Year Plan where it is funded for the PD&E phase in 2024. Additionally, the project is identified as funded for the design phase in the FDOT FY 2029 - FY 2045 SIS Long Range Cost Feasible Plan.

Emergency Evacuation

I-95 serves as part of the emergency evacuation route network designated by the Florida Division of Emergency Management. Also designated as a Miami-Dade County evacuation facility, I-95 is critical in facilitating traffic during emergency evacuation periods as it connects other major arterials and highways of the state evacuation route network (i.e., I-195, I-395 and Florida's Turnpike). While this project section of I-95 does not directly connect to other designated evacuation routes, it runs parallel to important corridors of the state evacuation route network, including I-75, Florida's Turnpike, and US 1/SR 5. The project is anticipated to:

- Improve emergency evacuation capabilities by enhancing accessibility to other major arterials designated on the state evacuation route network.
- Increase the capacity of traffic that can be evacuated during an emergency event.
- Allow for enhanced emergency access and incident response times.

2.0 EXISTING CONDITIONS

2.1 I-95 Mainline and Express Lanes

I-95 Mainline and Express Lanes – I-95 mainline contains one to two express lane in each direction within the project limits. The following are the express lanes ingress and egress points within the project limits:

Northbound Direction:

- Ingress just south of SR 860/Miami Gardens Drive
- Egress between SR 860/Miami Gardens Drive and CR 854/Ives Dairy Road

Southbound Direction:

- Egress just south of SR 860/Miami Gardens Drive
- Ingress between SR 860/Miami Gardens Drive and CR 854/Ives Dairy Road

The existing typical section on I-95 (**Figure 2-1**) within the project limits has one to two express lanes in each direction and the general-purpose lanes vary in each direction between three to four lanes. The buffer with the plastic delineators that separates the express lanes from the general-purpose lanes varies in width between two to three feet. The express lanes are 11 feet wide, and the general-purpose lanes vary in width between 11 to 12 feet wide.

There are two express lane ingress points, one in the northbound direction at Milepost (MP) 14.368, in the middle of the Miami Gardens Drive interchange, and the other in the southbound direction at MP 15.438, north of Snake Creek Canal. There are two express lane egress points, one in the southbound direction at MP 14.221, south of Miami Gardens Drive providing access to the SR 826/Palmetto Expressway, and the other in the northbound direction at MP 15.139, north of Snake Creek Canal providing access to Ives Dairy Road and southern Broward County.

Outside shoulders are 12 feet wide with 10 feet paved. Inside shoulders widths along the Express Lanes vary from seven and a half feet to 12 feet wide. The northbound and southbound directions are separated by a concrete barrier wall.

The existing median (which includes inside shoulders and barrier wall area) varies between 17 and 36 feet wide.

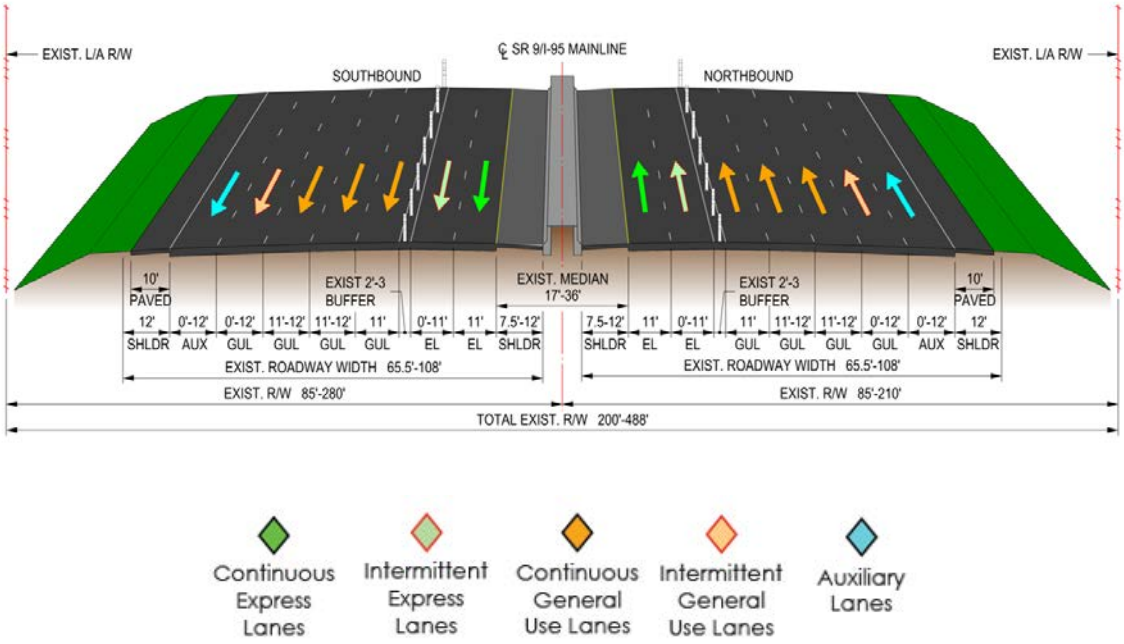


Figure 2 - 1: Existing Typical Section - SR 9/I-95 Mainline and Express Lanes

2.2 Interchanges

There are two interchanges within the segment of I-95 under consideration in this study:

- SR 860/Miami Gardens Drive – MP 14.321
- CR 854/Ives Dairy Road – MP 16.502

SR 860/Miami Gardens Drive – The interchange at Miami Gardens Drive is a 2-quadrant cloverleaf with two signalized ramp terminals (see **Figure 2-2**). The ramp terminal intersection at Miami Gardens Drive and NE 6th Avenue provides on and off ramp access for I-95 southbound traffic while the ramp terminal intersection approximately 900 feet to the east provides on and off ramp access to I-95 southbound. From the ramp terminal intersections along Miami Gardens Drive, signal spacing to the east is approximately 1,800 feet and to the west is 2,400 feet. The South Florida Rail Corridor (SFRC) is located just west of I-95.

Figure 2 - 2: Interchange at SR 860/Miami Gardens Drive

The existing typical section on Miami Gardens Drive (**Figure 2-3**) varies within the project limits. In the vicinity of the I-95 interchange on- and off-ramps, generally consists of two lanes in each direction, ranging from 10.5 feet wide to 14.5 feet wide, with left and right turn lanes. Curb and gutter are provided on the outside edges of the roadway and along both sides of the median. From the east end of the project (signalized intersection at NE 10th Avenue) to I-95 interchange, the existing grassed median varies up to 17 feet wide. NE 181st Street is a two-lane undivided local road that serves as a frontage road parallel to the south side of Miami Gardens Drive; the local neighborhood and road are separated from Miami Gardens Drive by an existing chain-link fence. The only existing sidewalk in the vicinity of the project is along the south side of NE 181st Street.

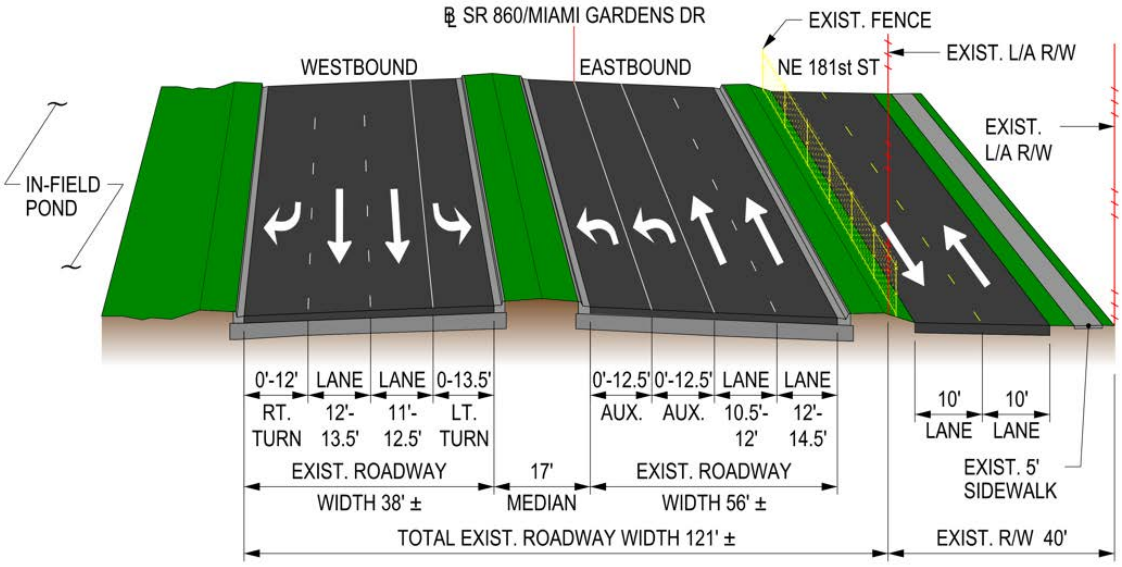


Figure 2 - 3: Existing Typical Section – SR 860/Miami Gardens Drive

The eastern on- and off-ramps forms a signalized T-intersection with Miami Gardens Drive; eastbound traffic going to I-95 northbound has a dual left turn lane condition. SR 915/NE 6th Avenue forms a signalized intersection with the western on- and off-ramps. Miami Gardens Drive generally consists of three lanes in each direction from the I-95 overpass bridge, west to the end project at the signalized intersection with NE 2nd Avenue. A bridge carries Miami Gardens Drive over the SFRC), which is located parallel and to the west of I-95.

There are a total of four signalized intersections along the study limits of Miami Gardens Drive:

- Miami Gardens Drive and NE 2nd Court
- I-95 and Miami Gardens Drive southbound ramp terminal
- I-95 and Miami Gardens Drive northbound ramp terminal
- Miami Gardens Drive and NE 10th Avenue

CR 854/Ives Dairy Road – The interchange at Ives Dairy Road has a diamond configuration with the southbound on and off ramps tightly located close to the mainline as depicted in **Figure 2-4**. Ives Dairy Road is under Miami-Dade County ROW jurisdiction. There are two signalized ramp terminal intersections which serve the on and off ramp traffic on both sides of the interchange. From the ramp

terminal intersections, signal spacing to the east is approximately 900 feet and to the west is 1,200 feet. Similar to the interchange at Miami Gardens Drive, the SFRC is located just west of the I-95 segment.

Figure 2 - 4: Interchange at CR 854/Ives Dairy Road

The existing typical section on Ives Dairy Road (**Figure 2-5**) varies within the project limits. In the vicinity of the I-95 interchange, it generally consists of two 12-foot lanes in the westbound direction and three 12-foot lanes in the eastbound direction, with left and right turn lanes. Curb and gutter are provided on the outside edges of the roadway and along both sides of the median. An existing grassed median exists on either side of the bridge carrying Ives Diary Road over I-95. On the bridge between the two signalized intersections at the on- and off-

ramps to and from I-95, the paved median includes dual left turn lanes in both directions. The median varies from five feet wide to 45 feet wide. The bridge also carries Ives Dairy Road over the SFRC. A continuous five to six-foot-wide existing sidewalk is located along the eastbound lanes through the interchange area.

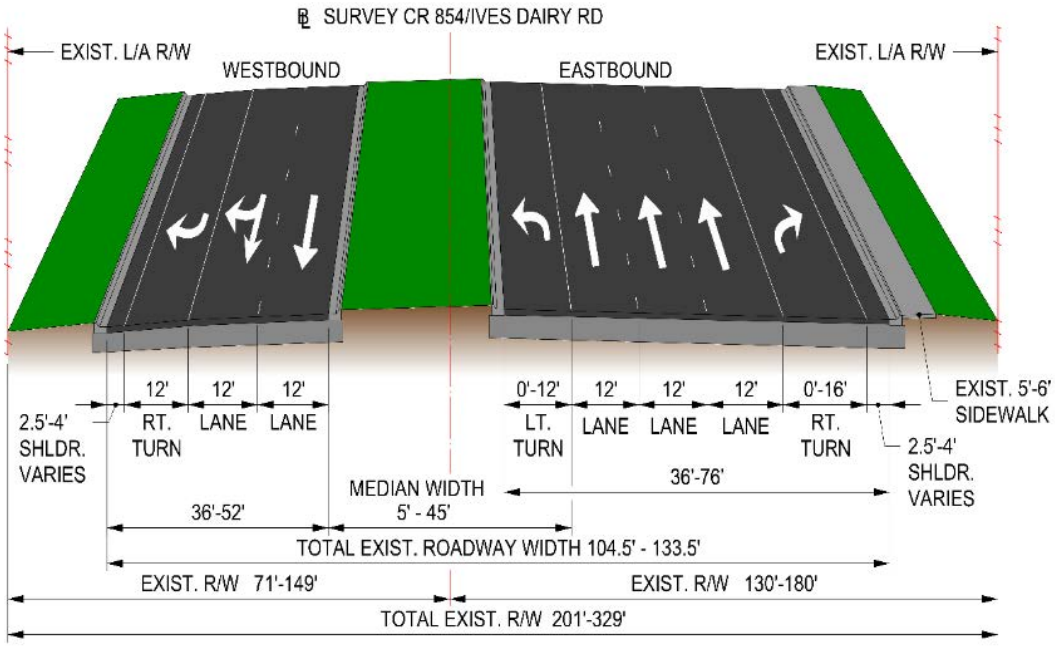


Figure 2 - 5: Existing Typical Section – CR 854/Ives Dairy Road

From the signalized intersection at Highland Lakes Boulevard on the east side of the interchange to the eastern end project, Ives Dairy Road is three lanes in each direction with a variable-width sidewalk located along the north side of the road. From the signalized intersection at NE 16th Avenue on the west side of the interchange, Ives Dairy Road is three lanes in each direction with left and right turn lanes and intermittent sidewalks on both sides of the road to the western end project at the signalized intersection with NE 15th Court.

There are also a total of five signalized intersections along the study limits of Ives Dairy Road:

- Ives Dairy Road and NE 15th Court
- Ives Dairy Road and NE 16th Avenue
- I-95 and Ives Dairy Road southbound ramp terminal
- I-95 and Ives Dairy Road northbound ramp terminal
- Ives Dairy Road and Highland Lakes Boulevard

2.3 Right of Way

The existing limited access ROW varies within the study limits as it accommodates entrance and exit ramps. Existing ROW along the project segment ranges from approximately 200 feet to over 1,000 feet in width.

2.4 Design Speed and Posted Speeds

The design speed for the roadways within the project limits are as follows:

Table 2 - 1: Design Speeds

Roadway	Speed (MPH)
SR 9/I-95	60
SR 860/Miami Gardens Drive	40
CR 854/Ives Dairy Road	45

The posted speed limits for the roadways within the project limits are as follows:

Table 2 - 2: Posted Speeds

Roadway	Speed (MPH)
SR 9/I-95	55
SR 860/Miami Gardens Drive	40
CR 854/Ives Dairy Road	40

2.5 Bicycle and Pedestrian Facilities

SR 9/I-95 Mainline and Express Lanes - There are no designated bicycle or pedestrian facilities along I-95, as they are not permitted on limited access highways.

SR 860/Miami Gardens Drive - There are no existing designated bicycle lanes present on Miami Gardens Drive within the project limits. There are some areas along the arterial that include a five to six-foot-wide sidewalk. The sidewalk adjacent to the westbound lane of the arterial connects to the existing Snake Creek Trail near the eastern project limit at the intersection of Miami Gardens Drive and NE 10th Avenue. The Snake Creek Trail continues along the Snake Creek Canal and travels underneath the existing I-95 mainline within the project limits. Designated pedestrian crossings exist at all the corridor intersections.

CR 854/Ives Dairy Road - There are no existing designated bicycle lanes present on Ives Dairy Road within the project limits. There are some areas along the arterial that include a five to six-foot-wide sidewalk on both sides of the I-95 mainline. Designated pedestrian crossings exist at all the corridor intersections.

2.6 Drainage

The project is within the jurisdictional boundary of the South Florida Water Management District (SFWMD) and Miami-Dade County Department of Regulatory and Economic Resources, Environmental Resources Management (DERM).

SFWMD and DERM have established several criteria for water quality, depending on the proposed type of stormwater treatment facility. The existing I-95 facilities provide water quality treatment and attenuation of roadway runoff via dry and wet detention/retention ponds. All proposed stormwater management facilities will provide the necessary water quality treatment volume and limit the post-development peak discharge rate into the Biscayne Canal (C-8), Snake Creek Canal (C-9), the Oleta River, and the Intracoastal Waterway (ICWW) to the pre-development peak discharge rate. Water quality treatment and discharge attenuation will be provided via existing and proposed dry and wet detention/retention ponds, French Drains, and EcoVault Structures. EcoVault Structures are required to supplement the provided water quality treatment due to the limited ROW within the project limits available for retention areas, and any areas of poor soil infiltration rates for any proposed French drains.

Based on the conceptual drainage design evaluation for the proposed improvements, the stormwater management facilities (including swales, detention/retention areas and ponds, French drains, and EcoVault Structures) will meet FDOT drainage criteria as well as SFWMD and DERM regulatory criteria for permitting. The improvements will have no negative drainage impacts to the surrounding areas and the proposed stormwater management facilities will have the capacity to adequately treat and attenuate roadway runoff within the project limits. Therefore, water quality impacts to downstream receiving waters are not anticipated to occur.

Please refer to the Preliminary Engineering Report (PER) for additional details of the existing and proposed drainage system for this study.

2.7 Existing Land Use

The project corridor is in a developed urban area within the City of North Miami, Ives Estates and Ojus in Miami-Dade County. A total of nine land use classifications were identified within the project study area consisting of primarily residential, industrial and commercial/retail/office with public/semi-public space and a Planned Unit Development. There is one healthcare facility, one fire station, and five religious facilities located within project study area. There are also several parks located within the project study area. **Table 2-3** lists the acreage and percentage of each land use type within the project study area. A map depicting the generalized Florida Land Use, Cover and Forms Classification System (FLUCFCS) boundaries of existing land uses within the project study area is included as **Figure 2-6.**

Table 2 - 3: Existing Land Use/Vegetative Cover within the Project Study Area

FLUCFCS Classification	FLUCFCS Description	Acres	Percent
120	Residential, Medium Density (Two-Five Dwelling Units Per Acre)	14.58	6.36%
130	Residential, High Density (Six Or More Dwelling Units Per Acre)	1.40	0.61%
140	Commercial and Services	0.12	0.05%
150	Industrial	9.36	4.08%
180	Recreational	2.91	1.27%
420	Upland Hardwood Forests	0.61	0.27%
510	Streams and Waterways	0.64	0.28%
530	Reservoirs	3.44	1.50%
810	Transportation	196.30	85.59%
Total Land Use/Vegetative Cover		229.35	100.00%

FDOT, FLUCFCS (Third edition), 1999.

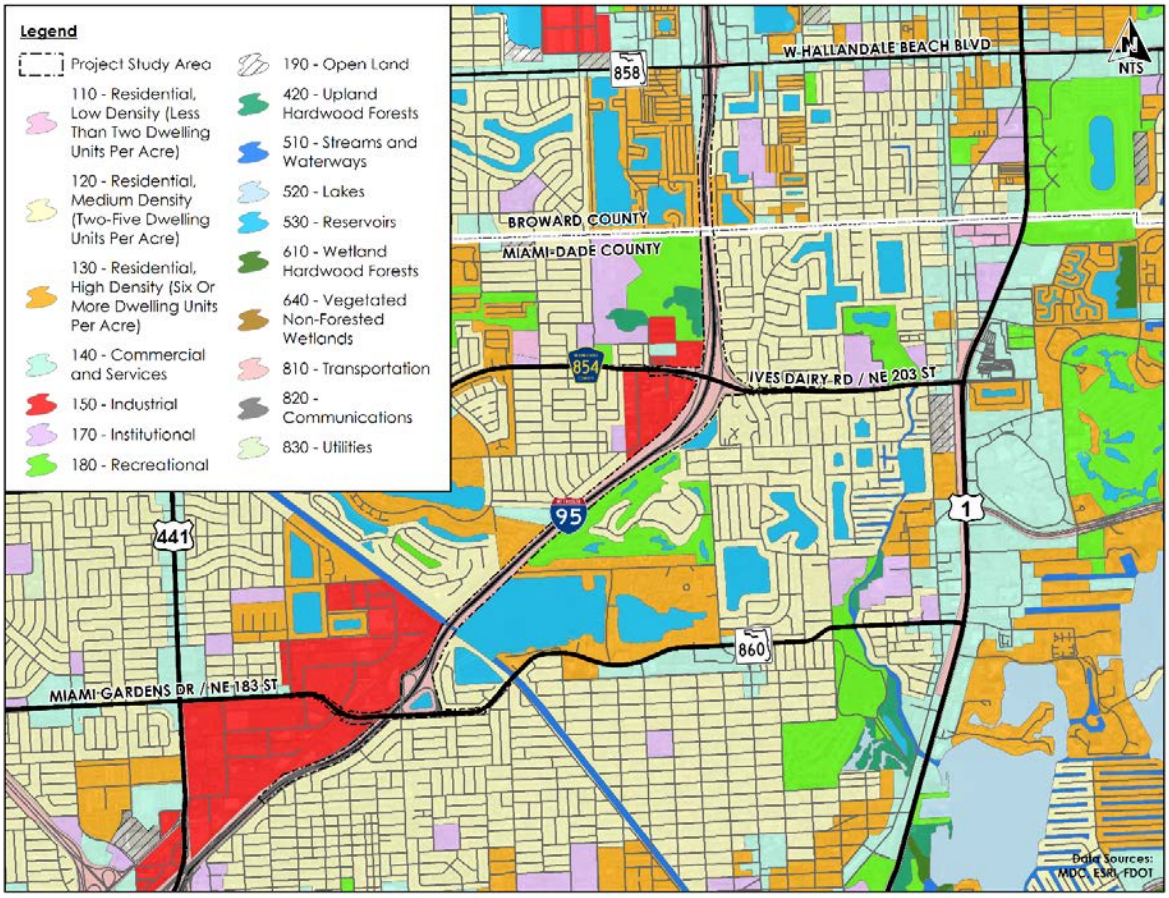


Figure 2 - 6: Existing Land Use

3.0 PROJECT ALTERNATIVES

3.1 No-Build Alternative

The No-Build Alternative maintains the existing corridor as it is today with no future major improvements other than routine maintenance. Planned and approved adjacent projects in the area (both to the south at the Golden Glades Interchange and to the north in Broward County) are considered, without any proposed changes within the limits of this project. No traffic capacity, operation, safety, mobility, or evacuation improvements would be implemented to the I-95 mainline, the Express Lanes, or the two major arterials within the study area. The effect of the No-Build Alternative includes the continuation of existing delays and congested traffic conditions. Also, since travel demand and truck traffic are projected to increase over the next 20 years, given the continued growth expected in this area of Miami-Dade County, under this alternative, congestion and delay will worsen; levels of service on the arterials will deteriorate; and no related environmental impacts, such as traffic noise levels, will be addressed. The No-Build Alternative will not require any acquisition of right-of-way and it will not impact any natural resources, parks or trail access. This Alternative is considered to be a viable Alternative to serve as a baseline comparison against the proposed Build Alternatives.

3.2 Build Alternatives

The objective of this PD&E Study is to evaluate alternatives that will address existing and projected operating deficiencies along this section of I-95. To keep up with the growing traffic demand within the study area, multiple alternatives have been considered, including a No-Build Alternative that maintains the existing roadway configuration and any other planned improvements along the corridor. The PD&E Study will identify reasonable corridor and interchange improvements to support the optimal operations of the express lanes system. Please reference the PER for additional information relating to the project alternatives.

3.3 Park and Ride Analysis

In June 2020, FDOT District 6 published the *I-95 Integrated Mobility Study*, which assessed possible new integrated mobility options to potentially reduce demand as a means of returning operations of the I-95 Express Lanes to an acceptable Level of Service. *The I-95 Integrated Mobility Study* identified a potential new Park and Ride location at the Ives Dairy Road interchange with I-95 in Miami-Dade County. As part of this PD&E Study, the project team analyzed the feasibility of the potential Park and Ride site. Based upon an initial analysis of potential impacts and regulatory requirements, construction of a Park and Ride facility at the Ives Dairy Road interchange with I-95 is not feasible**.**

3.4 Alternative 1

Alternative 1 is based off of the FDOT District Six I-95 Corridor Planning Study (FM 414964-6-22-01), which evaluated a series of concepts and ultimately refined the study from 45 initial alternatives to two corridor-wide concept alternatives referred as Build Concept 1 and Build Concept 2. Based on the results of the evaluation of Build Concepts 1 and 2 and input from FDOT District Six staff, a refined or final concept referred to as Refined Build Concept was developed, which was further evaluated as Alternative 1 for this PD&E Study.

SR 9/I-95 Mainline and Express Lanes - Alternative 1 proposes a typical section consisting of two continuous express lanes, four general purpose lanes, and one auxiliary lane in each direction from north of the Golden Glades Interchange to the Broward County line. **Figure 3-1** depicts a rendering of the proposed mainline typical section for Alternative 1. Design parameters include minimum 11-foot travel lane widths, 12-foot wide inside shoulders, and 4-foot buffers with express lane markers between the express lanes and general-purpose lanes. Twelve-foot travel lanes are provided in segments with more extensive reconstruction/ widening, whereas 11-foot travel lanes are only provided in areas where modifications are less extensive or to match the existing/programmed/planned geometry.

Within the project limits, for Alternative 1, there will continue to be two express lane ingress points. One will be located in the northbound direction between the

northbound off- and on-ramps of the Miami Gardens Drive interchange and the other will be located in the southbound direction north of Snake Creek Canal.

There will also continue to be two express lane egress points. One will be located in the southbound direction, south of Miami Gardens Drive providing access to the Golden Glades Interchange; and the other in the northbound direction, north of Snake Creek Canal, providing access to Ives Dairy Road and southern Broward County.

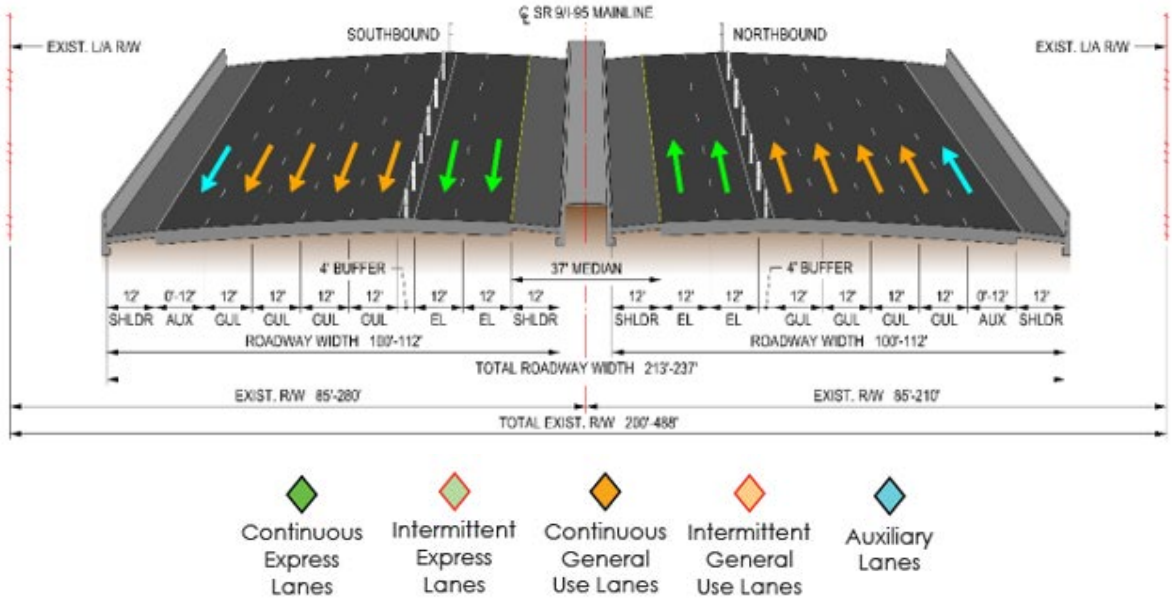


Figure 3 - 1: Proposed Typical Section - Alternative 1 - SR 9/I-95 Mainline and Express Lanes

SR 860/Miami Gardens Drive - The proposed improvements at Miami Gardens Drive (**Figure 3-2**) consist of consolidating the ramp terminal to one location for both northbound and southbound on- and off-ramps. This single ramp terminal intersection would be located at the existing ramp terminal intersection on the east side of the I-95 corridor with an expanded Turbo 'T' intersection. The existing signalization conditions will remain in place. The eastbound dual left turn lanes are proposed to remain at-grade similar to existing conditions. Bicycle lanes and sidewalks are provided, fulfilling the project's Purpose and Need to enhance multi-modal transportation options and access to transit within the project area. **Figure 3-3** depicts the proposed Miami Gardens Drive typical section for Alternative 1.

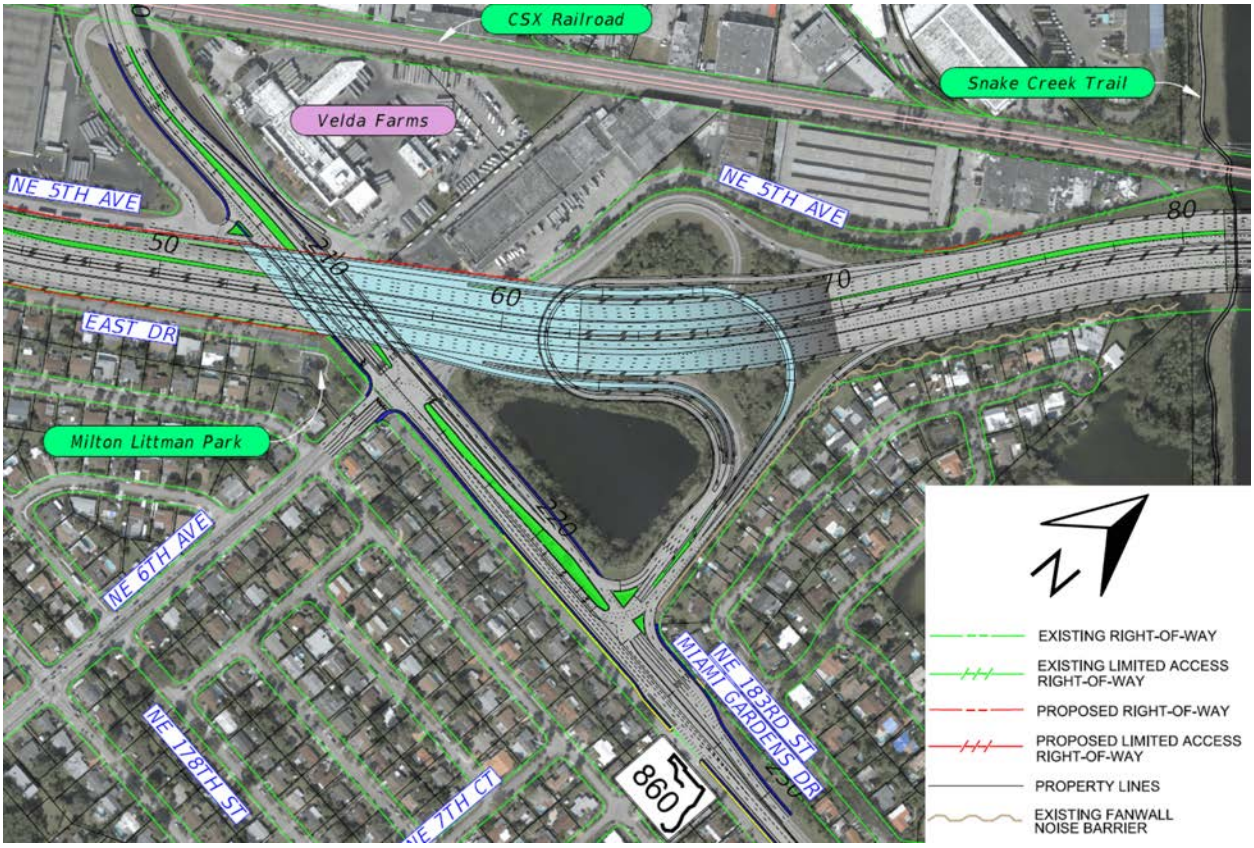


Figure 3 - 2: Proposed Configuration - Alternative 1 – SR 860/Miami Gardens Drive

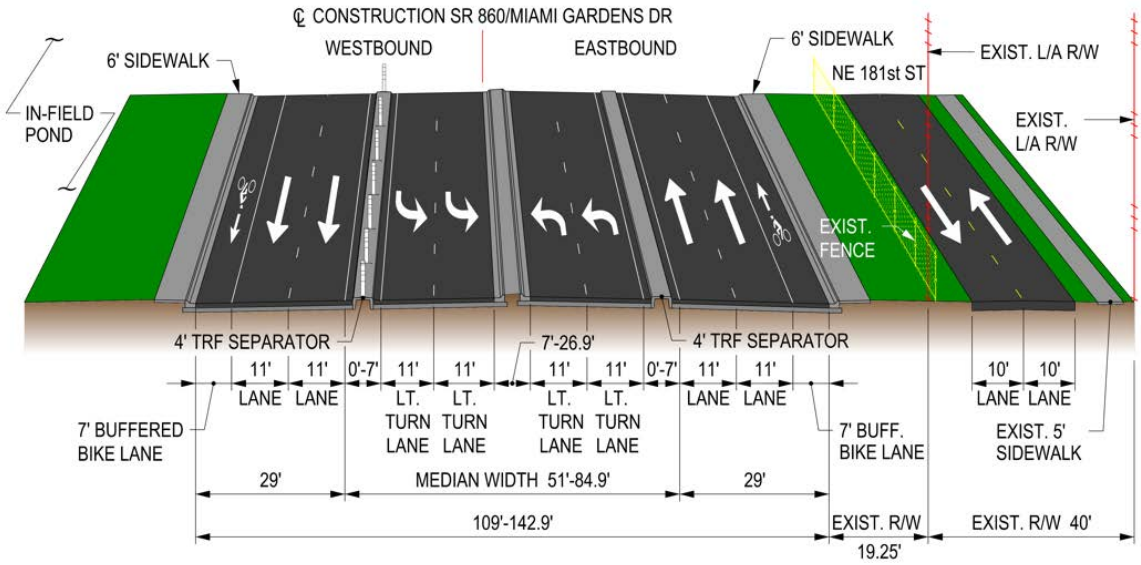


Figure 3 - 3: Proposed Typical Section - Alternative 1 – SR 860/Miami Gardens Drive

CR 854/Ives Dairy Road - Improvements at Ives Diary Road interchange consist of reconfiguring the interchange to a Diverging Diamond Interchange (DDI) as depicted in **Figure 3-4**. An additional eastbound through-lane is provided to help reduce the congestion of traffic in the area. This Alternative provides sidewalk on the south side of the road, ranging from five to six feet wide. There will be an addition of bicycle lanes along the arterial, fulfilling the project's Purpose and Need to enhance multi-modal transportation options and access to transit within the project area. **Figure 3-5** depicts the proposed Ives Dairy Road typical section for Alternative 1.

Figure 3 - 4: Proposed Configuration - Alternative 1 – CR 854/Ives Dairy Road

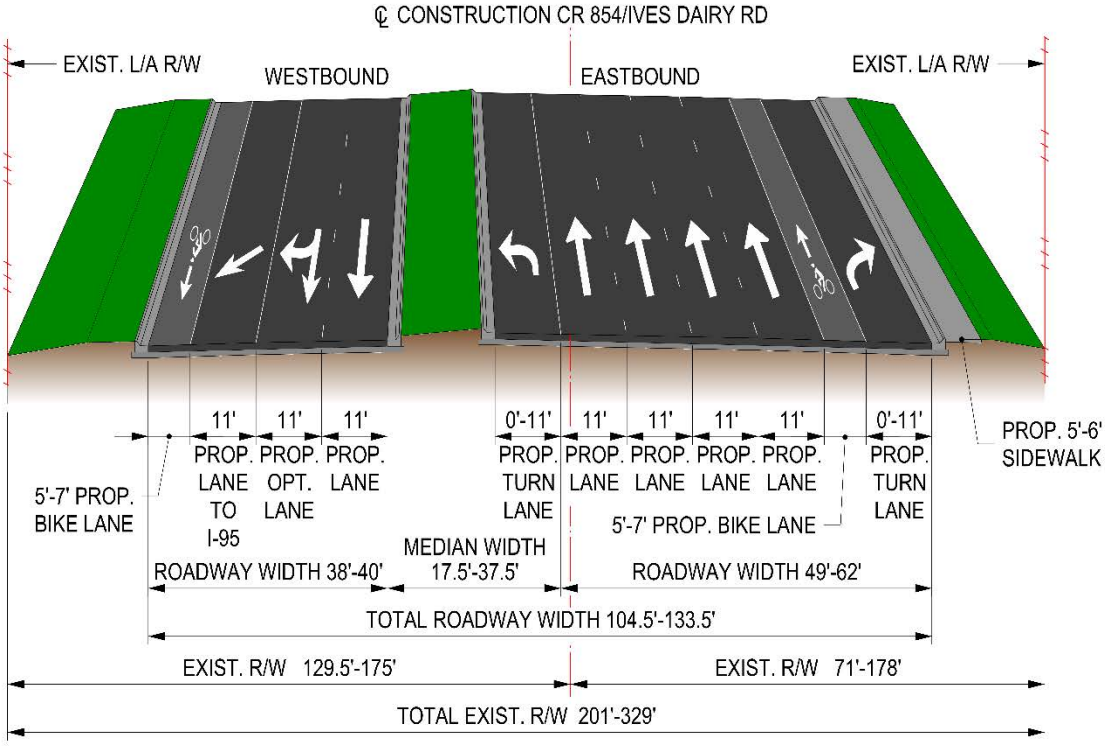


Figure 3 - 5: Proposed Typical Section - Alternative 1 – CR 854/Ives Dairy Road

3.5 Alternative 2

Alternative 2 is based off of the FDOT District Four I-95 (SR 9) Planning Study from south of the Golden Glades Interchange to north of the I-95/I-595 Interchange (FM 436903-1-22-02) in Broward County. This FDOT District Four Planning Study overlaps the project limits of this PD&E Study. From this Planning Study, two alternatives (Alternative 1 and Alternative 3) were recommended to be considered in this PD&E Study which were further evaluated as Alternative 2 for this PD&E Study.

SR 9/I-95 Mainline and Express Lanes - Similar to Alternative 1, Alternative 2 proposes a typical section consisting of two continuous express lanes throughout the entire project corridor and four general-purpose lanes along the majority of the mainline. **Figure 3-6** depicts a rendering of the proposed mainline typical section for Alternative 2. A significant difference between Alternative 1 and Alternative 2 is that a series of braided movements are proposed for the express lanes access points, and two auxiliary lanes are provided in each direction for

Alternative 2, rather than one auxiliary lane in each direction. In conjunction with the braided ramps, the second auxiliary lane eliminates the need to weave across the general-purpose lanes to access the express lanes.

The following is a description of the proposed northbound express lane access points within the project limits:

- Just north of the northbound off-ramp to Miami Gardens Drive, the northbound ingress is from the outside lane and braids over the general-purpose lanes and connects to the express lanes in the center of the facility.
- Just north of the Snake Creek Canal, the northbound egress shifts towards the median, braids over the express lanes and general-purpose lanes, and continues as a Collector-Distributor (CD) road system. The CD road system provides an exit to Ives Dairy Road and splits off a connection to the general-purpose lanes by braiding over the northbound off-ramp to Ives Dairy Road.
- As part of the DDI proposed at Ives Dairy Road, the northbound on-ramp splits one lane and braids over the general-purpose lanes and connects to the express lanes in the center of the facility. The braid system occurs within the vicinity of the Miami-Dade County/Broward County Line. (Express Lane access from Miami Gardens Drive is assumed to continue to be provided in Broward County as it is under existing conditions.)

The following is a description of the proposed southbound express lane access points within the project limits:

- Just north of Ives Dairy Road, the southbound ingress is from the outside lane and braids over the general-purpose lanes and connects to the express lanes in the center of the facility.
- North of Miami Gardens Drive, the southbound egress braids over the express lanes and general-purpose lanes providing access to the Golden Glades Interchange.

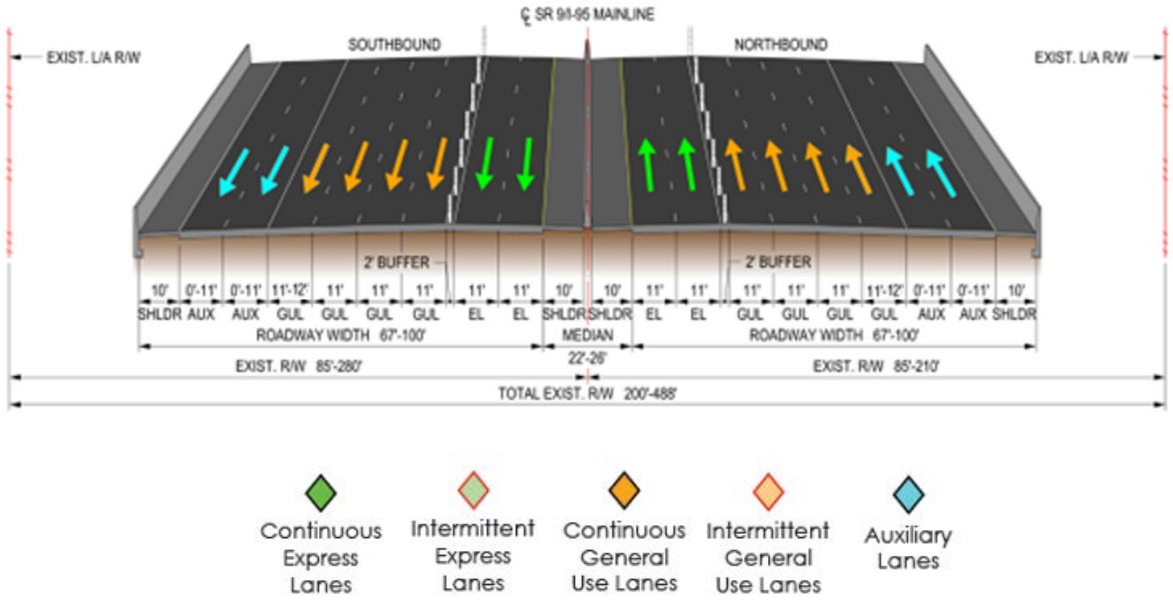


Figure 3 - 6: Proposed Typical Section - Alternative 2 – SR 9/I-95 Mainline and Express Lanes

SR 860/Miami Gardens Drive - The proposed improvements at Miami Gardens Drive consist of a grade-separated on-ramp as depicted in **Figure 3-7**. This configuration will allow for traffic to free flow onto the mainline, as opposed to Alternative 1, which provides at-grade traffic signal control. **Figure 3-8** depicts a rendering of the proposed Miami Gardens Drive typical section for Alternative 2.

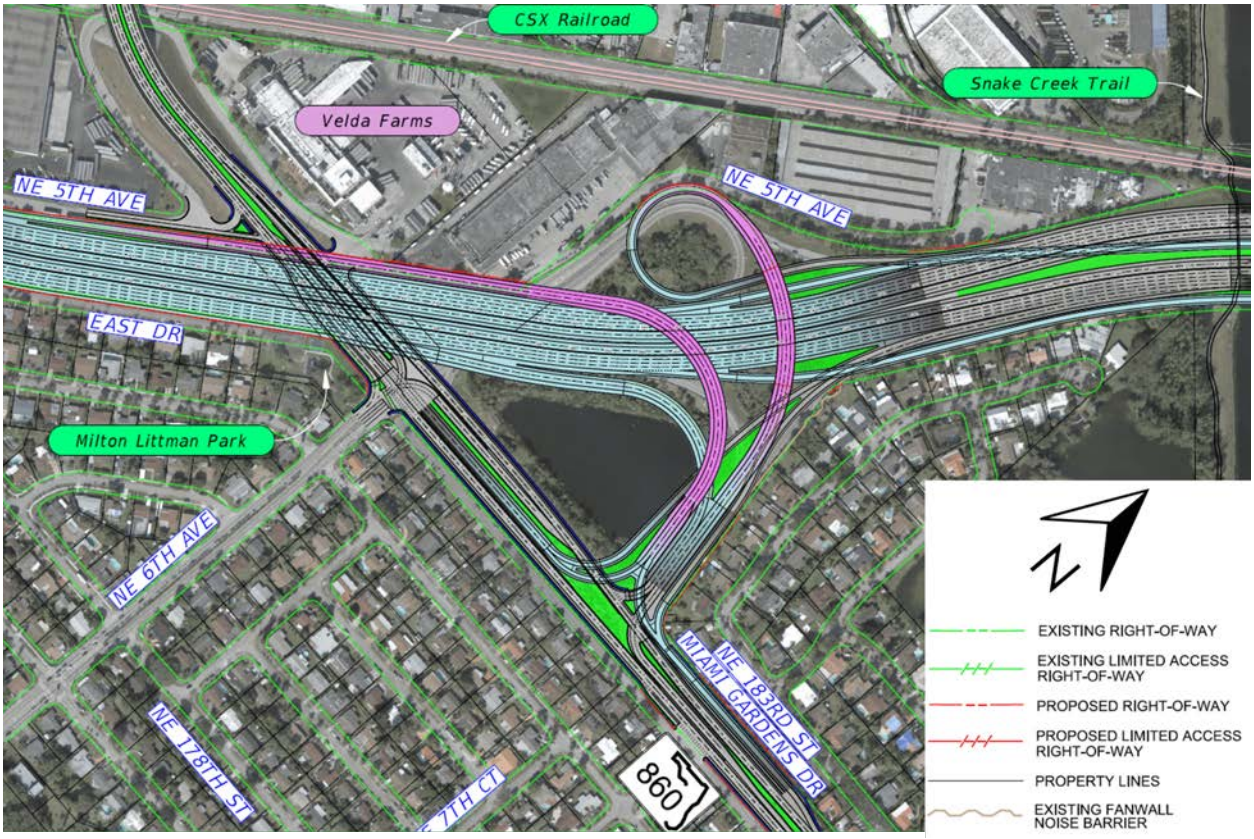


Figure 3 - 7: Proposed Configuration - Alternative 2 – SR 860/Miami Gardens Drive

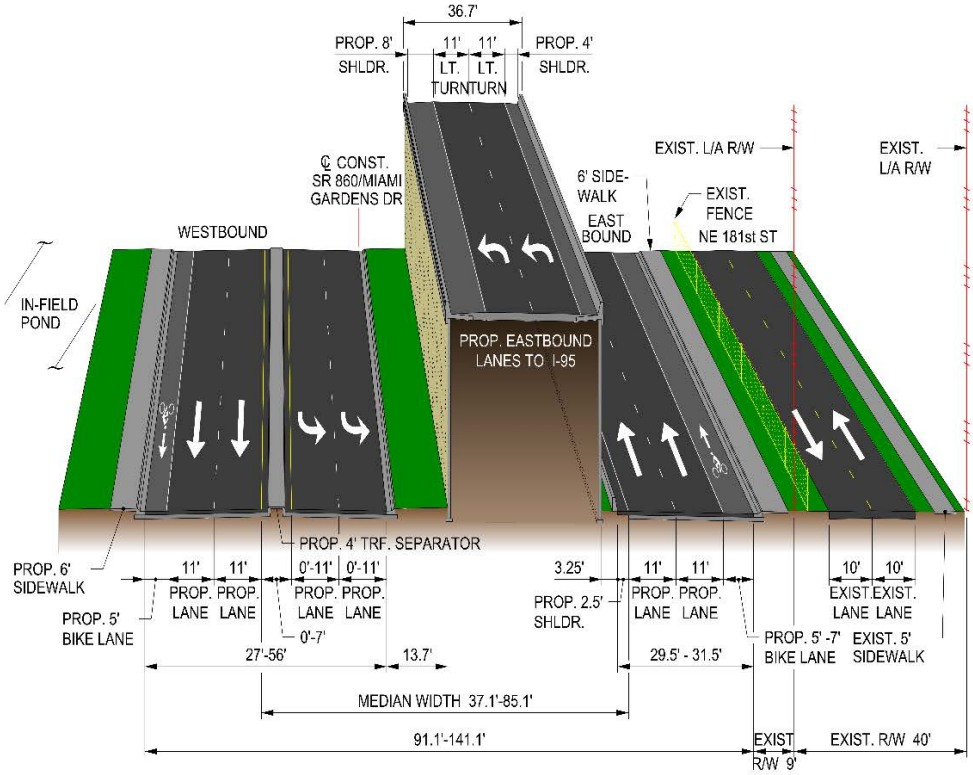


Figure 3 - 8: Proposed Typical Section - Alternative 2 – SR 860/Miami Gardens Drive

CR 854/Ives Dairy Road- Improvements at Ives Diary Road interchange consist of reconfiguring the diamond interchange to a Single Point Urban Interchange (SPUI) as depicted in **Figure 3-9**. Similar to Alternative 1, an additional eastbound lane and bicycle lanes are provided along the arterial. The proposed SPUI configuration allows for an additional sidewalk along the arterial, as opposed to Alternative 1. **Figure 3-10** depicts a rendering of the proposed Ives Dairy Road typical section for Alternative 2.

Figure 3 - 9: Proposed Configuration - Alternative 2 – CR 854/Ives Dairy Road

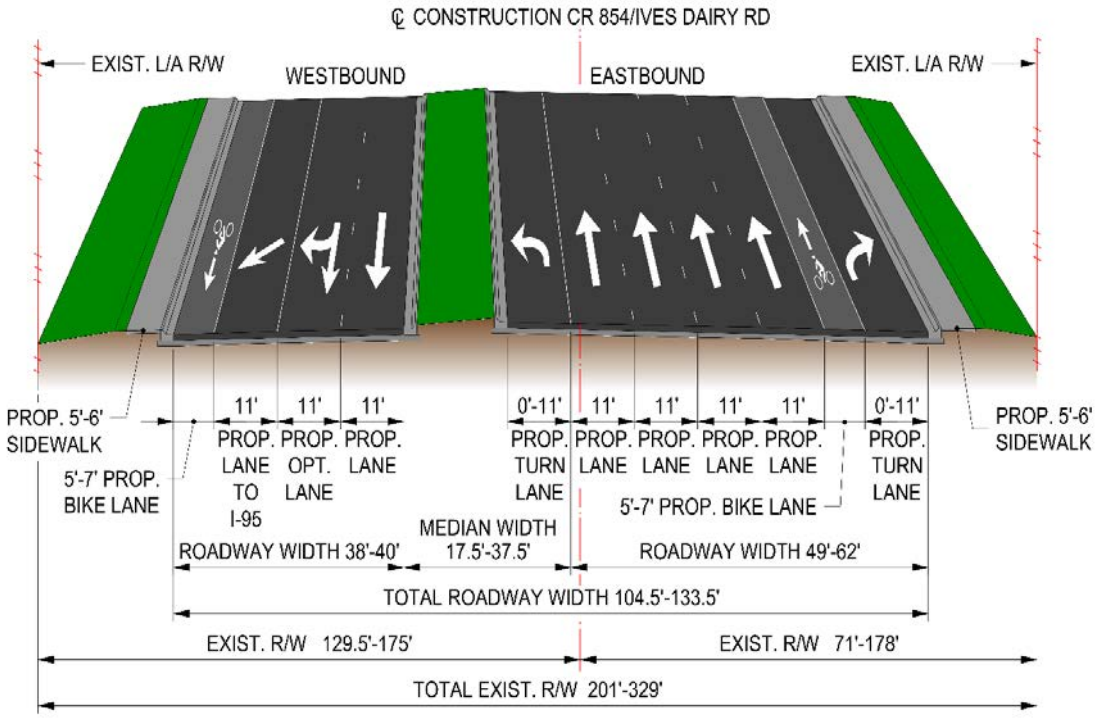


Figure 3 - 10: Proposed Typical Section - Alternative 2 – CR 854/Ives Dairy Road

3.6 Alternative 3

I-95/SR 9 Mainline and Express Lanes – Based on feedback from the Public Alternatives Workshop, Alternative 3 was developed based on a combination of Alternative 1 and Alternative 2, with refinements. Alternative 3 proposes a typical section consisting of two continuous express lanes and four general purpose lanes throughout the entire project corridor. **Figure 3-11** depicts a rendering of the proposed mainline typical section for the Alternative 3. Improvements with this alternative include: 12-foot wide travel lanes in reconstruction areas; at least one 12-foot wide travel lane provided along the mainline throughout the entire corridor; 11-foot wide lanes for the express lanes. Shoulders vary from 10- to 12-foot wide and a 2-foot wide buffer with express lane markers is provided between the express lanes and the general purpose lanes.

Same as in Alternative 2, the auxiliary lane eliminates the need to weave across the general-purpose lanes to access the express lanes. A series of braided movements are proposed for the express lanes access points.

The following is a description of the proposed northbound express lane access points within the project limits for Alternative 3:

- Just north of SR 860/Miami Gardens Drive, the northbound ingress for traffic coming from the southern limit of the project is from the outside lane, braids over the general-purpose lanes and connects to the express lanes in the center of the facility.
- Just south of CR 854/Ives Dairy Road, the northbound egress shifts towards the median, braids over the express lanes and general-purpose lanes, and continues as a Collector-Distributor (CD) road system. The CD road system provides an exit to CR 854/Ives Dairy Road and splits off a connection to the general-purpose lanes by braiding over the northbound off-ramp to CR 854/Ives Dairy Road.
- As part of the DDI proposed at CR 854/Ives Dairy Road, the northbound on-ramp splits one lane and braids over the general-purpose lanes and connects to the express lanes in the center of the facility. The braid system occurs within the vicinity of the Miami-Dade County/Broward County Line. express lane access from SR 860/Miami Gardens Drive will merge with the traffic from CR 854/Ives Dairy Road. (It is assumed the existing express lane ingress, just north of the project limits, will be replaced by this proposed ingress).

The following is a description of the proposed southbound express lane access points within the project limits for Alternative 3:

- Just south of CR 854/Ives Dairy Road, the southbound ingress is from the outside lane and braids over the general-purpose lanes and connects to the express lanes in the center of the facility.
- North of SR 860/Miami Gardens Drive, the southbound egress braids over the express lanes and general-purpose lanes providing access to SR 826/Palmetto Expressway.

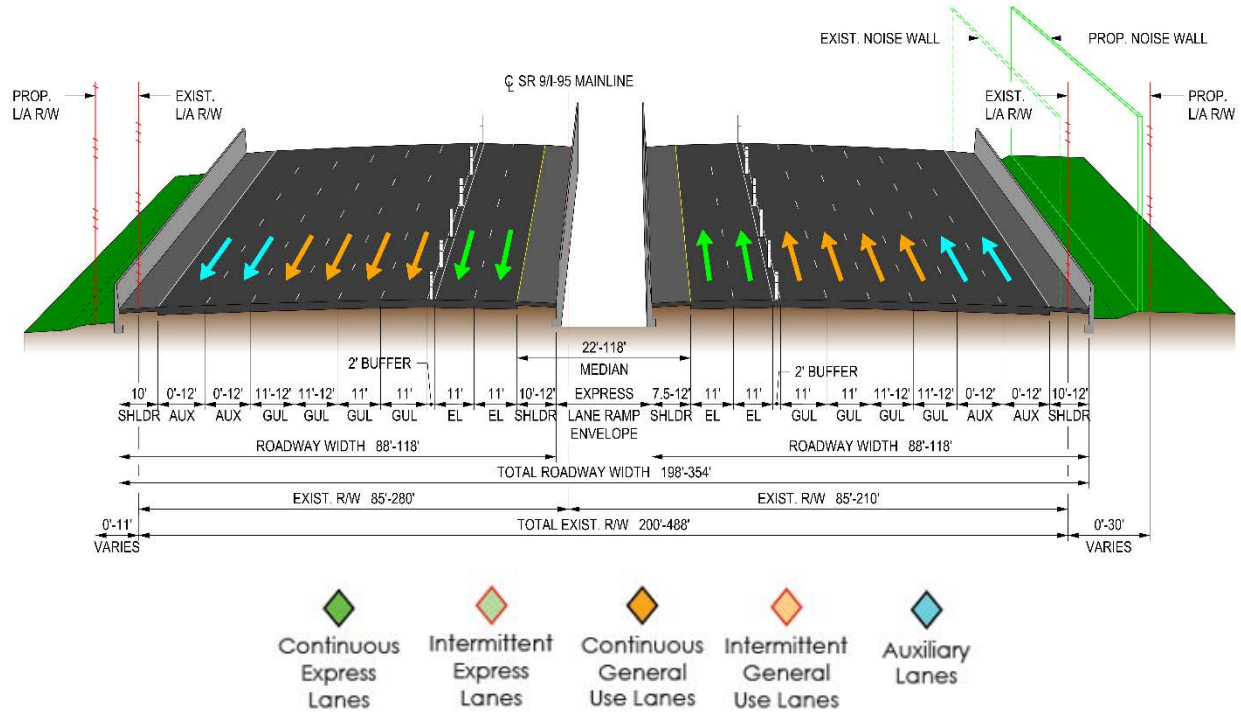


Figure 3 - 11: Proposed Typical Section - Alternative 3 – SR 9/I-95 Mainline and Express Lanes

SR 860/Miami Gardens Drive - Same as in Alternative 2, the proposed improvements at SR 860/Miami Gardens Drive consist of a grade-separated on-ramp as depicted in **Figure 3-12**. This configuration will allow for traffic to free flow onto the mainline. **Figure 3-13** depicts a rendering of the proposed SR 860/Miami Gardens Drive typical section for Alternative 3.

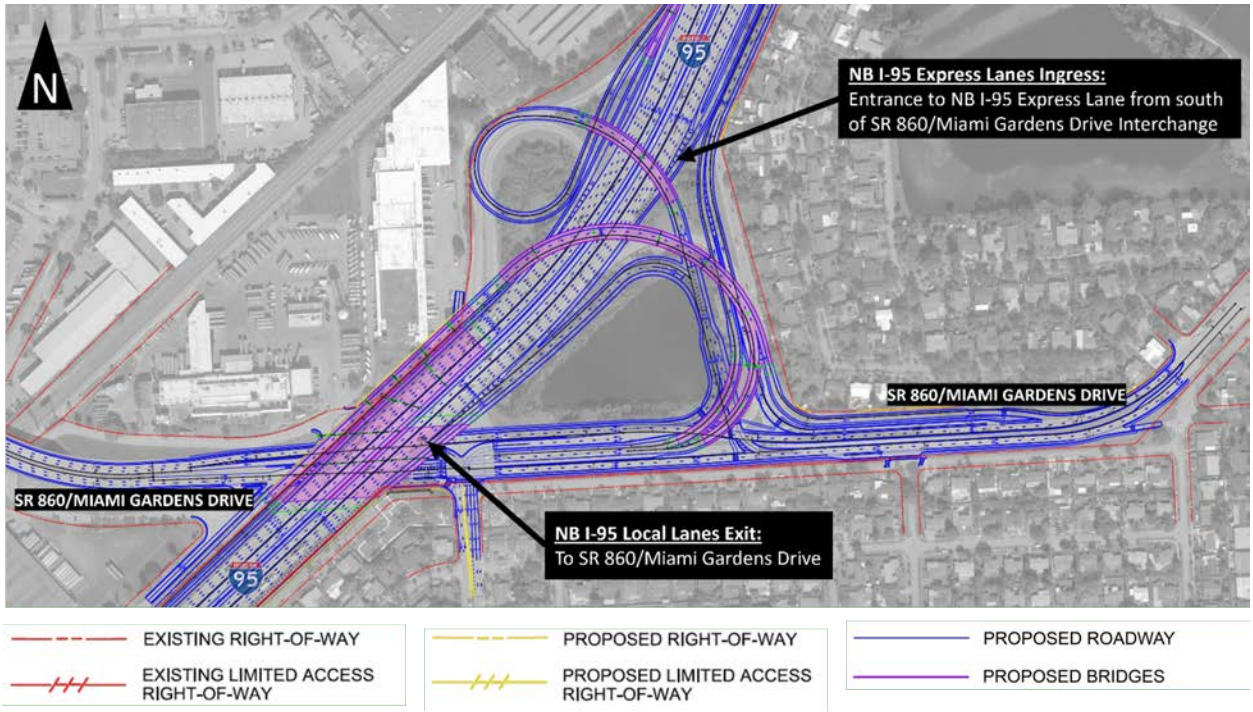


Figure 3 - 12: Proposed Configuration - Alternative 3 – SR 860/Miami Gardens Drive

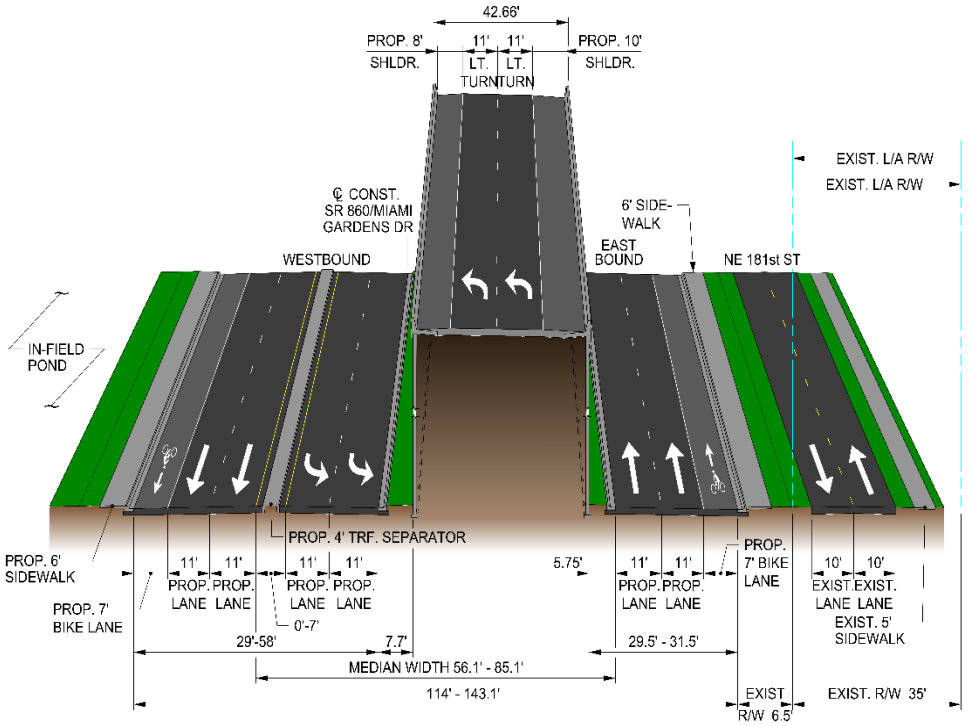


Figure 3 - 13: Proposed Typical Section - Alternative 3 – SR 860/Miami Gardens Drive

CR 854/Ives Dairy Road - Same as in Alternative 1, improvements at CR 854/Ives Diary Road interchange consist of reconfiguring the interchange to a DDI as depicted in **Figure 3-14**. An additional eastbound lane is provided to help reduce the congestion of traffic in the area. This Alternative provides sidewalk on the south side of the road, ranging from five to six feet wide. There will be an addition of bicycle lanes along the arterial, fulfilling the project's Purpose and Need to enhance multi-modal transportation options and access to transit within the project area. **Figure 3-15** depicts a rendering of the proposed CR 854/Ives Dairy Road typical section for this Alternative.

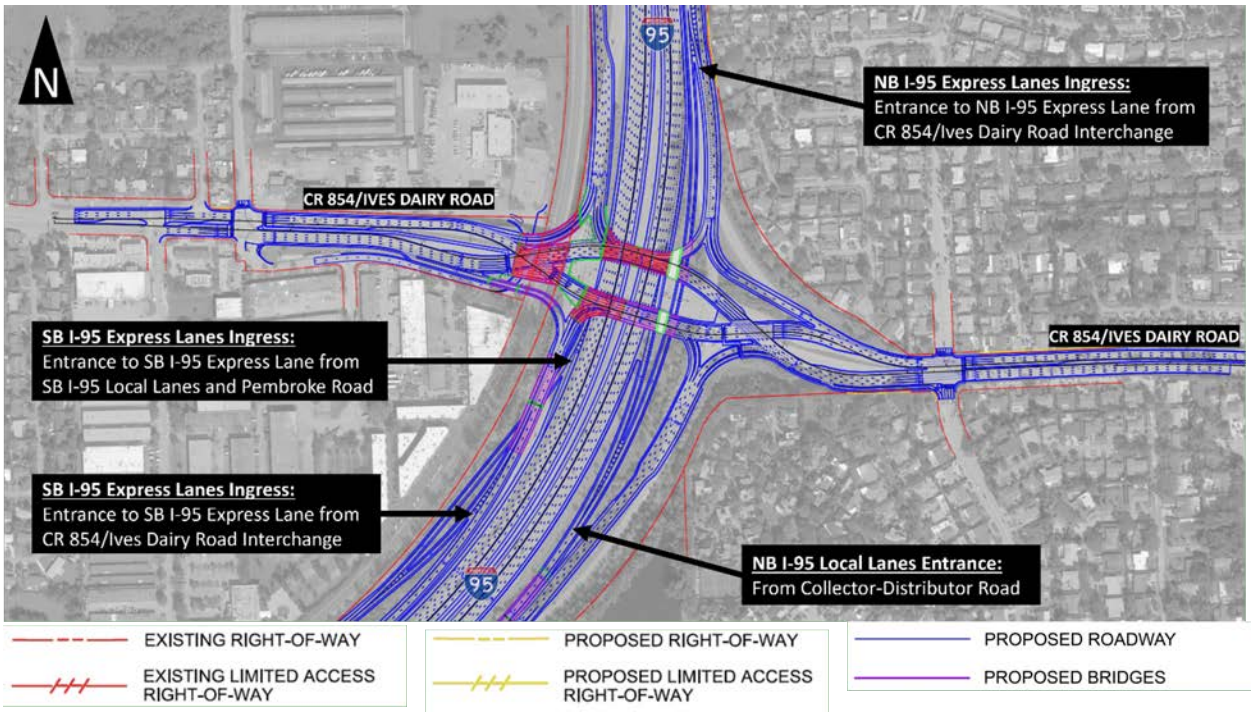


Figure 3 - 14: Proposed Configuration - Alternative 3 – CR 854/Ives Dairy Road

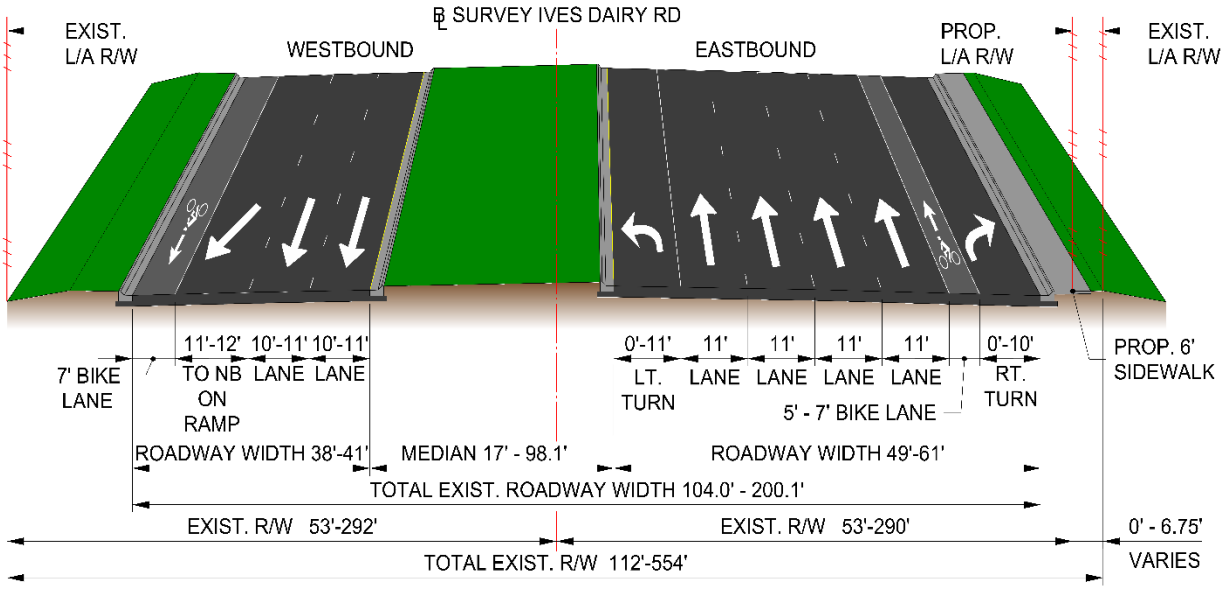


Figure 3 - 15: Proposed Typical Section - Alternative 3 – CR 854/Ives Dairy Road

The preferred Build Alternative (hereafter referred to as the Build Alternative) is Build Alternative 3.

4.0 TRAFFIC NOISE ANALYSIS

Prior to conducting a detailed noise analysis, a desk-top review of the project was performed to determine if noise levels will likely increase as a result of the proposed improvements, if noise sensitive receptor sites are located within the project area, or if noise impacts are likely to occur. The desk-top review indicated that the proposed improvements associated with the project were likely to result in design year (2050) traffic noise levels that would approach or exceed the Federal Highway Administration (FHWA) Noise Abatement Criteria (NAC) at noise sensitive sites within the project limits. Therefore, in accordance with Part 2, Chapter 18 – *Highway Traffic Noise* of the FDOT PD&E Manual, a more detailed noise analysis was performed. The methods and results of this traffic noise analysis are summarized within this section and involved the following procedures:

- Identification of noise sensitive receptor sites;
- Field measurement of noise levels and noise model validation;
- Prediction of existing and future noise levels;
- Assessment of traffic noise impacts; and,
- Evaluation of the feasibility and reasonableness of noise abatement.

The FHWA Traffic Noise Model (TNM) Version 2.5 (February 2004) was used to predict traffic noise levels and to analyze the effectiveness of noise barriers. This model estimates the acoustic intensity at a noise sensitive site (the receptor) from a series of roadway segments (the source). Model-predicted noise levels are influenced by several factors, such as vehicle speed and distribution of vehicle types. Noise levels are also affected by characteristics of the source-to-receptor site path, including the effects of intervening barriers, obstructions (houses, trees, etc.), ground surface type (hard or soft) and topography. Elevation data for the existing travel lanes and the limited-access ROW lines were obtained from existing roadway plans where available.

Noise levels presented in this report represent the hourly equivalent sound level [Leq(h)]. The Leq(h) is the steady-state sound level, which contains the same amount of acoustic energy as the actual time-varying sound level over a one-hour period. The Leq(h) is measured in A-weighted decibels [abbreviated as dB(A)], which closely approximate the range of frequencies a human ear can hear.

4.1 Noise Sensitive Receptor Sites

The FHWA has established NAC for seven land use activity categories. These criteria determine when an impact occurs and when consideration of noise abatement is required. Maximum noise level thresholds have been established for five of these activity categories. These maximum thresholds, or criteria levels, represent acceptable traffic noise level conditions. The NAC levels are presented in **Table 4-1**. Noise abatement measures must be considered when predicted noise levels approach or exceed the NAC levels or when a substantial noise increase occurs. The FDOT defines "approach" as within one dB(A) of the FHWA criteria. A substantial noise increase is defined as when the existing noise level is predicted to be exceeded by 15 dB(A) or more as a result of the transportation improvement project.

Table 4 - 1: Noise Abatement Criteria

Activity Category	Activity Leq(H)[1]		Evaluation Location	Description of Activity Category
	FHWA	FDOT		
A	57	56	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67	66	Exterior	Residential.
C[2]	67	66	Exterior	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[2]	72	71	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	–	–	–	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	–	–	–	Undeveloped lands that are not permitted.

(Based on Table 1 of 23 CFR Part 772)
[1] The Leq(h) Activity Criteria values are for impact determination only and are not a design standard for noise abatement measures.
[2] Includes undeveloped lands permitted for this activity category.
Note: FDOT defines that a substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 decibels or more as a result of the transportation improvement project. When this occurs, the requirement for abatement consideration will be followed.

The developed lands along the project corridor were evaluated to identify the noise sensitive receptor sites that may be impacted by traffic noise associated with the proposed improvements. Noise sensitive receptor sites represent any property where frequent exterior human use occurs and where a lowered noise level would be of benefit. This includes residential units (FHWA Noise Abatement

Activity Category B), other noise sensitive areas including parks, playgrounds, medical facilities, schools, and places of worship (Category C) and certain commercial properties (Category E). Noise sensitive sites also include interior use areas where no exterior activities occur for facilities such as auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, recording studios and schools (Category D). Category F sites such as industrial sites, retail facilities, utilities and warehouses are not considered noise sensitive.

4.1.1 I-95 – Southern Project Terminus to Miami Gardens Drive (SR 860)

Noise sensitive sites along the segment of the I-95 project corridor from the southern project terminus near NE 1st Avenue and Miami Gardens Drive are depicted on **Sheets 1 and 2** in **Appendix A**. Noise sensitive sites are found only on the east side of I-95 along this project segment. The noise sensitive sites with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of residences and include approximately 124 single-family homes in the Highland Manor community. Milton Littman Park is also found along this segment of I-95 (but is grouped with other noise sensitive sites along Miami Gardens Drive for the purposes of this noise analysis). This segment of the project also includes commercial/industrial properties that are not considered noise sensitive (i.e., Activity Category F).

One (1) existing noise barrier is located along this project segment (identified by FHWA noise barrier number), as follows:

- **11092** - Eastern limited-access ROW line and shoulder of the northbound lanes of I-95 from north of NW 171st Street to Miami Gardens Drive, 5,661 feet long, 4 to 20 feet tall.

4.1.2 I-95 – Miami Gardens Drive (SR 860) to Ives Dairy Road

Noise sensitive sites along the segment of the I-95 project corridor from Miami Gardens Drive to Ives Dairy Road are depicted on **Sheets 2 through 6** in **Appendix A**. Noise sensitive sites are found on both sides of I-95 along this project segment.

Most of the east side of this project segment is bordered by noise sensitive sites, including several single-family home communities and two condominium complexes. The residential noise sensitive sites with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of residences and include approximately 160 single-family homes in the Pickwick Lakes Estates, Presidential Estates, Coventry Estates, and The Chateaux communities and approximately 156 condominiums in the Riviera and Rolling Green condominium complexes. Non-residential noise sensitive uses associated with these communities include four community pools, a tennis court and a basketball court.

A new community of over 100 single-family homes is planned on the former site of the Presidential Estates Golf Course between I-95 and Presidential Estates community. A review of the Miami-Dade County permits website did not find that any construction permits have been granted for the construction of homes in this new development as of December 02, 2024. The permit status for this property will be reviewed again prior to the project's Date of Public Knowledge (DPK), which is the date the Categorical Exclusion Type 2 for this project is approved by FDOT. If permits have been granted for construction of noise sensitive use on this property prior to the DPK, the FDOT will evaluate potential traffic noise impacts from this project and will consider noise abatement for those sites predicted to be impacted. This evaluation may take place during the project's Design Phase if the permits are granted close to the DPK. For sites where permits were granted after the project's DPK; in accordance with FDOT policy, the FDOT is not responsible for providing noise abatement for sites with permits that were approved after the DPK.

The west side of the corridor is bordered by two noise sensitive single-family home communities and an apartment complex between the Snake Creek Canal and NE 199th Street. The noise sensitive sites with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of residences and include approximately 192 single-family homes in the Aventura Isles and Ives Estates communities and approximately 450 apartments in the 5-story tall Aventura Harbor complex. Non-residential noise sensitive uses associated with these communities include a walking trail and a tennis court.

Other non-residential noise sensitive sites located along this project segment include the Snake Creek Trail that traverses the project corridor from east to west along the Snake Creek Canal, the Ives Estates Tot Lot Park and the Word of Life Fellowship Church along NE 15th Court. This segment of the project also includes commercial/industrial properties that are not considered noise sensitive (i.e., Activity Category F).

Four (4) existing noise barriers are located along this project segment, as follows:

- **11091** - Eastern limited-access ROW line and along the shoulder of the northbound on-ramp from Miami Gardens Drive to the Snake Creek Canal, 1,917 feet long, 8 to 19 feet tall.
- **10181** - Eastern limited-access ROW line and shoulder of the northbound lanes of I-95 adjacent to the Riviera and Rolling Green condominiums, 960 feet long, 14 feet tall.
- **10204** – West side of the SFRC adjacent to the Aventura Harbor apartments, 1,420 feet long, 22 feet tall.
- **10205** – West side of the SFRC from NE 12th Avenue to NE 199th Street, 2,180 feet long, 22 feet tall.

4.1.3 I-95 – Ives Dairy Road to Northern Project Terminus

Noise sensitive sites along the segment of the I-95 project corridor from Ives Dairy Road to the northern project terminus near Hallandale Beach Boulevard (SR 858) are depicted on **Sheets 6 through 10** in **Appendix A**. Noise sensitive sites are found on both sides of I-95 along this project segment.

The entire east side of the corridor is bordered by noise sensitive residential neighborhoods, including several single-family home communities and two condominium complexes. The residential noise sensitive sites with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of residences and include approximately 268 single-family homes in the Highland Lakes, Lakesides Estates and Oak Acres communities and approximately 302 condominiums in the Ro-Len Gardens and Parkside Manor condominium complexes. Non-residential noise sensitive uses associated with these communities include two community pools, a shuffleboard court and a walking trail.

The west side of the corridor is bordered by Ives Estates Park south of the Miami-Dade County/Broward County line and three mobile-home communities north of the county line. Approximately 226 mobile-homes with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of homes in the Park Lake Estates, Lone Pine and Green Acres communities. A community pool is also found in Lone Pine. This segment of the project also includes commercial/industrial properties that are not considered noise sensitive (i.e., Activity Category F).

Five (5) existing noise barriers are located along this project segment, as follows:

- **11093** - Eastern limited-access ROW line and along the shoulder of the northbound on-ramp from Ives Dairy Road to the Miami-Dade/Broward County line, 4,000 feet long, 15 to 19 feet tall.
- **11667** - Eastern limited-access ROW line and shoulder of the northbound lanes of I-95 from the Miami-Dade/Broward County line to north of SW 8th Street. Adjacent to the Ro-Len Gardens condominiums, 1,232 feet long, 16 feet tall.
- **12153** - Eastern limited-access ROW line and shoulder of the northbound lanes of I-95 from SW 8th Street to SW 3rd Street. 1,473 feet long, 15 feet tall.
- **14198** - Eastern limited-access ROW line and shoulder of the northbound lanes of I-95 from SW 3rd Street to north of SW 2nd Street. 700 feet long, 22 feet tall.
- **14199** – West side of the SFRC extending north from the Miami-Dade/Broward County line, 3,452 feet long, 22 feet tall.

4.1.4 Miami Gardens Drive (SR 860)

Noise sensitive sites along Miami Gardens Drive are depicted on **Sheet 2** in **Appendix A**. Residential noise sensitive sites are found on both sides of Miami Gardens Drive east of I-95. No noise sensitive sites are found along Miami Gardens Drive west of I-95. The sites with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of residences and include approximately 97 single-family homes in the Highland Manor, Windward Heights and Windward Manor communities to the south and approximately 41 single-family homes in the Pickwick Lakes Estates community to the north. Milton Littman Park is also found along the south side of the corridor just east of I-95.

Only non-noise sensitive commercial/industrial properties that are not considered noise sensitive (i.e., Activity Category F) are found along Miami Gardens Drive to the west of I-95.

There are no existing noise barriers bordering Miami Gardens Drive; however, Pickwick Lakes Estates is bordered by an approximately 6-foot tall privacy wall.

4.1.5 Ives Dairy Road

Noise sensitive sites along Ives Dairy Road are depicted on **Sheets 6 and 11** in **Appendix A**. Residential noise sensitive sites are found along both sides of Ives Dairy Road east of I-95 and along the north side of the roadway between NE 15th Avenue and NE 16th Avenue to the west of I-95. The sites with the greatest potential to be impacted by traffic noise from the project are found in the nearest several rows of residences and include approximately 43 single-family homes in the Chateaux, Oak Hammock Estates, Highland Lakes and Oak Forest communities and the Oak Hammock Estates tennis courts to the south. Along the north side of the corridor, noise sensitive sites include 15 homes in the Murray Homes neighborhood and the Little Dolphins Daycare west of I-95 and 35 homes in the Highland Lakes community east of I-95.

Non-noise sensitive commercial/industrial properties that are not considered noise sensitive (i.e., Activity Category F) are found along Ives Dairy Road to the west of I-95.

There are no existing noise barriers bordering Ives Dairy Road; however, much of the Chateaux community is bordered by an approximately 5 to 8-foot tall privacy wall and much of the Oak Forest community on the south side of Ives Dairy Road and much of the Highland Lakes community to the north side is bordered by a 5 to 8-foot tall privacy wall.

4.2 Field Measurement of Noise Levels

Measurements of sample existing noise levels along the project corridor were performed using procedures defined in the FHWA report *Measurement of Highway-Related Noise* (FHWA-PD-96-046). Field measurements of existing noise levels were conducted between March 21st and March 23rd, 2022 at 13 locations

within the project study area. The locations of the field measurement sites are depicted in **Appendix A** and described in **Table 4-2**.

Three repetitions of ten-minute readings were measured at each site to ensure reasonable results. Where possible, readings were taken at the first and second rows of homes in residential communities. Unusual noises were documented to facilitate identification of any atypical noise sources along the alignment. Rion Model NL-21 Type-II integrating sound level meters were used to collect noise level data. Foam wind screens and adjustable tripods were also used. The sound level meters were calibrated to 94 dB at 1000 Hertz using a Rion Model NC-73 acoustical calibrator.

Traffic data was collected by the project team during each measurement period. Traffic speeds were measured using Bushnell Model 101911 radar speed measuring equipment. Traffic volumes, speed data and noise levels were collected during 39 ten-minute sampling periods. The ambient temperature during the measurement periods was approximately 77 to 84 degrees Fahrenheit, and the wind generally from the east/southeast; and the average wind speed generally remained less than approximately ten miles per hour (MPH) throughout the measurement periods.

The relative humidity was approximately 50 to 70 percent and the cloud cover varied between 10 to 90 percent throughout the measurement periods. All roadway surfaces remained clean and dry during the measurements. The data collected were then used as inputs to the TNM. The dates, times, traffic data and the measured and TNM-predicted noise levels are presented in **Table 4-2**.

4.2.1 Site FR-1

This measurement site is located along the east side of I-95 near the intersection of East Drive and NW 178th Street behind an existing approximately 15-foot-tall noise barrier (See **Sheet 1** in **Appendix A**). This site is representative of noise sensitive single-family homes located east of I-95 between the southern project terminus and Miami Gardens Drive. Traffic noise levels at this site were measured approximately 95 and 190 feet from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby first and second row residences. Local traffic on the nearby roadways was very low and traveling at

Table 4 - 2: Field Measurement Data

Field Receptor	Location	Sample Run	Time/ Date	Measured 10- Minute Traffic Volume (Auto/MT/HT/B/Mcy)	Distance From Roadway (Feet)	Measured Traffic Noise Level [dB(A)]	Modeled Traffic Noise Level [dB(A)]	Difference (Measured - Modeled) [dB(A)]
FR-1	Single-family homes behind an existing approximately 15-foot tall noise barrier along the east side of I-95 at the intersection of East Drive and NW 178th Street	A	10:46AM 03-21-22	NB: 727/59/71/4/0 SB: 894/79/50/2/5	95	67.1	64.8	2.3
					190	64.4	62.0	2.4
		B	11:03AM 03-21-22	NB: 731/62/57/4/2 SB: 953/63/49/0/5	95	67.0	64.7	2.3
					190	64.1	61.8	2.3
		C	11:31AM 03-21-22	NB: 834/71/53/0/3 SB: 932/84/45/2/3	95	66.9	64.3	2.6
					190	64.3	61.4	2.9
FR-2	Single-family homes along the south side of Miami Gardens Drive at NE 8th Avenue	A	8:40AM 03-23-22	EB: 303/12/3/4/0 WB: 294/4/4/1/1 NE 8th Ave: 6/0/0/0/0	85	65.4	64.9	0.5
					--	--	--	--
		B	8:55AM 03-23-22	EB: 283/6/6/0/0 WB: 240/2/5/1/1 NE 8th Ave: 13/0/0/0/0	85	65.8	64.9	0.9
					170	62.2	59.3	2.9
		C	9:09AM 03-23-22	EB: 233/7/3/1/1 WB: 226/0/5/1/1 NE 8th Ave: 8/0/0/0/0	85	64.2	64.5	-0.3
					170	60.7	58.7	2.0
FR-3	Single-family homes behind an existing approximately 18-foot tall noise barrier along the east side of I-95 near 18620 NE 7th Court.	A	12:24PM 03-21-22	NB: 880/72/57/2/2 SB: 825/57/56/0/3	170	65.7	66.6	-0.9
					295	62.1	63.8	-1.7
		B	12:54PM 03-21-22	NB: 933/92/53/0/0 SB: 801/69/49/1/0	170	65.7	66.4	-0.7
					295	62.1	63.6	-1.5
		C	1:09PM 03-21-22	NB: 838/84/49/2/2 SB: 743/87/55/1/0	170	65.0	66.7	-1.7
					295	61.4	63.9	-2.5
FR-4	Aventura Isles – single-family homes along the west side of I-95 at the south end of NE 8th Court	A	3:31PM 03-21-22	NB: 1,063/90/31/3/2 SB: 858/79/48/2/2	360	65.9	63.8	2.1
					465	62.7	60.6	2.1
		B	3:59PM 03-21-22	NB: 990/74/25/1/1 SB: 850/73/35/2/1	360	64.5	62.9	1.6
					465	62.7	59.8	2.9
		C	4:13PM 03-21-22	NB: 1,090/77/21/9/4 SB: 876/77/31/3/0	360	64.8	63.1	1.7
					465	62.4	59.9	2.5
FR-5	Riviera/Rolling Green Condominiums behind an existing approximately 14-foot tall noise barrier along the east side of I-95 at the west end of NE 191st Street	A	2:05PM 03-21-22	NB: 917/81/47/2/0 SB: 690/66/54/3/1	165	68.4	65.5	2.9
					200	65.5	63.8	1.7
		B	2:19PM 03-21-22	NB: 867/86/41/2/3 SB: 816/84/57/1/1	165	67.9	65.8	2.1
					200	64.8	64.1	0.7
		C	2:34PM 03-21-22	NB:970/83/44/2/2 SB: 808/94/55/3/0	165	68.6	66.0	2.6
					200	66.6	64.3	2.3
FR-6	Single-family homes and Ives Estates Tot Lot behind an existing approximately 22-foot tall noise barrier along the west side of I-95 at the intersection of North Drive and NW 12th Avenue	A	4:49PM 03-21-22	NB: 1,025/85/35/4/2 SB: 898/86/19/2/2 North Drive: 17/0/0/0/0	245	61.2	61.5	-0.3
					320	61.2	61.0	0.2
		B	5:04PM 03-21-22	NB: 1,232/69/27/0/3 SB: 865/64/36/2/1 North Drive: 11/0/0/0/0	245	59.8	60.8	-1.0
					320	63.3	60.3	3.0
		C	5:31PM 03-21-22	NB: 1,025/85/35/4/2 SB: 898/86/19/2/2 North Drive: 24/0/0/0/0	245	61.7	62.3	-0.6
					320	64.2	61.8	2.4

Field Receptor	Location	Sample Run	Time/ Date	Measured 10- Minute Traffic Volume (Auto/MT/HT/B/Mcy)	Distance From Roadway (Feet)	Measured Traffic Noise Level [dB(A)]	Modeled Traffic Noise Level [dB(A)]	Difference (Measured - Modeled) [dB(A)]
FR-7	Presidential Estates – single-family homes along the east side of I-95 at the west end of NE 194th Street	A	9:40AM 03-22-22	NB: 948/16/47/0/1 SB: 867/17/36/0/2	500	60.0	61.3	-1.3
		B	9:52AM 03-22-22	NB: 814/34/38/3/2 SB: 881/25/36/1/4	500	59.9	61.2	-1.3
		C	10:04AM 03-22-22	NB: 818/21/35/1/0 SB: 924/26/37/1/0	500	60.2	60.7	-0.5
FR-8	Presidential Estates – single-family homes along the east side of I-95 at the north end of Ambassador Court	A	10:35AM 03-22-22	NB: 856/34/45/0/0 SB: 883/29/38/0/2	600	57.0	58.5	-1.5
		B	11:03AM 03-22-22	NB: 908/35/40/1/0 SB: 874/30/45/0/0	600	57.4	58.7	-1.3
		C	11:15AM 03-22-22	NB: 832/40/52/1/2 SB: 897/26/45/0/2	600	58.3	59.1	-0.8
FR-9	Coventry Estates – single-family homes along the east side of I-95 at the intersection of NE 17th Ave and NE 199th Street	A	11:51AM 03-22-22	NB: 731/12/35/0/0 SB: 888/39/57/0/2 NB Off-Ramp: 91/12/3/0/0	270	60.4	62.7	2.3
					360	58.2	59.0	-0.8
		B	12:06PM 03-22-22	NB: 707/31/29/1/0 SB: 776/34/32/0/0 NB Off-Ramp:116/6/2/2/1	270	60.6	62.2	-1.6
					360	56.8	58.6	-1.8
		C	12:34PM 03-22-22	NB: 799/3/54/0/1 SB: 661/22/42/1/0 NB Off-Ramp:132/12/2/0/0	270	60.2	62.7	-2.5
					360	56.3	59.1	-2.8
FR-10	The Chateaux – Single-family homes and tennis courts along the east side of I-95 at the intersection of W Oakhaven Circle and N Oakhaven Circle	A	11:41AM 03-23-22	NB: 839/36/49/0/0 SB: 879/28/37/4/4 NB Off-Ramp: 130/4/4/0/0	310	54.6	56.7	-2.1
					365	54.7	56.3	-1.6
		B	12:09PM 03-23-22	NB: 822/24/28/0/0 SB: 925/24/44/0/2 NB Off-Ramp: 132/5/2/1/1	310	56.2	56.2	0.0
					365	55.0	55.9	-0.9
		C	12:22PM 03-23-22	NB: 705/27/40/0/0 SB: 945/21/35/0/3 NB Off-Ramp: 134/8/0/1/0	310	54.1	56.0	-1.9
					365	53.5	55.7	-2.2
FR-11	Highland Lakes – Single-family homes behind an existing approximately 19-foot tall noise barrier along the east side of I-95 at the west end of NE 212th Terrace	A	3:03PM 03-22-22	NB: 1,211/17/20/2/1 SB: 1,000/22/31/3/0	85	63.7	62.8	0.9
					175	60.8	58.9	1.9
		B	3:17PM 03-22-22	NB: 1,259/25/21/1/0 SB: 940/18/39/2/0	85	63.1	62.5	0.6
					175	60.1	58.5	1.6
		C	3:31PM 03-22-22	NB: 1,430/13/19/3/0 SB: 1,406/23/33/2/0	85	63.3	63.2	0.1
					175	60.4	59.2	1.2
FR-12	Ives Estates Park ballfield along the west side of I-95 north of Ives Dairy Road	A	6:42PM 03-22-22	NB: 1,193/15/9/0/2 SB: 1,134/9/15/2/0	285	68.9	68.5	0.4
		B	6:56PM 03-22-22	NB: 1,100/11/9/1/3 SB: 1,121/14/14/0/1	285	68.8	68.9	-0.1
		C	7:08PM 03-22-22	NB: 1,313/6/9/0/4 SB: 856/11/11/0/3	285	69.6	69.5	0.1
FR-13	Oak Hammock Estates – Single-family homes and tennis courts along the south side of Ives Dairy Road east of I-95	A	10:25AM 03-23-22	EB: 388/37/5/1/0 WB: 399/23/4/3/0	125	58.4	59.8	-1.4
					200	56.1	58.0	1.0
		B	10:38AM 03-23-22	EB: 469/32/6/1/1 WB: 387/28/8/2/1	125	61.6	60.6	-1.4
					200	59.8	58.8	-1.9
		C	10:51AM 03-23-22	EB: 425/26/5/0/0 WB: 380/23/8/1/1	125	58.3	59.7	1.0
					200	56.0	57.9	-1.9

Notes: MT = Medium Trucks, HT = Heavy Trucks, B = Bus, Mcy = Motorcycles, northbound = Northbound, southbound = Southbound, eastbound = Eastbound, westbound = Westbound

slow speeds. Existing noise level readings were taken between 10:46 and 11:41 AM on March 21, 2022, and were found to range from 66.9 to 67.1 dB(A) at the near location and 64.1 to 64.4 dB(A) at the far location. No unusual sounds were noted.

4.2.2 Site FR-2

This measurement site is located along the south side of Miami Gardens Drive at NE 8th Avenue (See **Sheet 2** in **Appendix A**). This site is representative of noise sensitive single-family homes located along Miami Gardens Drive east of I-95. Traffic noise levels at this site were measured approximately 85 and 170 feet from the near edge of the outside eastbound Miami Gardens Drive travel lane in order to be representative of nearby first and second row residences. Local traffic on the nearby roadways was very low and traveling at slow speeds. Existing noise level readings were taken between 8:40 and 9:19 AM on March 22, 2022, and were found to range from 64.2 to 65.8 dB(A) at the near location and 60.7 to 62.2 dB(A) at the far location. No unusual sounds were noted.

4.2.3 Site FR-3

This measurement site is located in the Pickwick Lakes Estates community along the east side of I-95 near the northern terminus of NE 7th Court south of the Snake Creek Canal. This site is located behind an existing approximately 18-foot-tall noise barrier (See **Sheet 3** in **Appendix A**). This site is representative of the first and second row single-family homes located east of I-95 between Miami Gardens Drive and the canal. Traffic noise levels at this site were measured approximately 170 and 295 feet from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby first and second row residences. Existing noise level readings were taken between 12:24 and 1:19 PM on March 21, 2022, and were found to range from 65.0 to 65.7 dB(A) at the near location and 61.4 to 62.1 dB(A) at the far location. Very brief periods of dogs barking, aircraft overflights and a train horn were noted.

4.2.4 Site FR-4

This measurement site is located along the west side of I-95 at the southern terminus of NE 8th Court north of the Snake Creek Canal (See **Sheet 3** in **Appendix A**). The SFRC is located between I-95 and this site. This site is representative of noise

sensitive single-family homes located west of I-95 in the Aventura Isles community. Traffic noise levels at this site were measured approximately 360 and 465 feet from the near edge of the outside southbound I-95 travel lane in order to be representative of nearby first and second row residences in this community. Existing noise level readings were taken between 3:31 and 4:23 PM on March 21, 2022, and were found to range from 64.5 to 65.9 dB(A) at the near location and 62.4 to 62.7 dB(A) at the far location. One (1) brief Tri-Rail pass-by was noted during the first monitoring period at this site. The train horn was not activated during this pass-by. The measured 10-minute noise level during this monitoring period was just over 1 dB(A) louder at the near meter site than during the other monitoring periods.

4.2.5 Site FR-5

This measurement site is located along the east side of I-95 at NE 191st Street, behind an existing approximately 14-foot-tall noise barrier (See **Sheet 3** in **Appendix A**). This site is representative of noise sensitive multi-family homes located east of I-95 in the Riviera and Rolling Green condominium communities. Traffic noise levels at this site were measured approximately 165 and 200 feet from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby residences. Existing noise level readings were taken between 2:05 and 2:44 PM on March 21, 2022, and were found to range from 67.9 to 68.6 dB(A) at the near location and 64.8 to 66.6 dB(A) at the far location. Some noise from distant pressure washing equipment was noted for a very brief period of time during the last monitoring period.

4.2.6 Site FR-6

This measurement site is located along the west side of I-95 near the Ives Estates Tot Lot Park at the intersection of North Drive and NE 12th Avenue, behind an existing approximately 22-foot-tall noise barrier (See **Sheet 4** in **Appendix A**). The SFRC is located between I-95 and this site. This site is representative of noise sensitive single-family homes located in the Ives Estates neighborhood west of I-95 between the Snake Creek Canal and Ives Dairy Road. Traffic noise levels at this site were measured approximately 245 and 320 feet from the near edge of the outside southbound I-95 travel lane in order to be representative of nearby first and second row residences and at the park. Existing noise level readings were

taken between 4:49 and 5:41 PM on March 21, 2022, and were found to range from 59.8 to 61.7 dB(A) at the near location and 61.2 to 64.2 dB(A) at the far location. Moderate levels of local low-speed automobile traffic on North Drive were noted and affected noise levels at the more distant monitoring location. Train noise levels were monitored separately at this site during the morning peak period on March 23, 2023. The 10-minute noise level with the trains was compared to the noise levels without trains during the same monitoring period. Although the maximum measured noise level with the trains was up to nearly 10 dB(A) greater than the overall maximum level without trains, the train pass-bys were intermittent and very brief. Thus, the change in noise level over the 10-minute measuring periods was no more than 0.5 dB(A) when accounting for the trains.

4.2.7 Site FR-7

This measurement site is located along the east side of I-95 at the western terminus of NE 194th Street in the Presidential Estates community (See **Sheet 4** in **Appendix A**). This site is representative of noise sensitive single-family homes located in the southern portion of this community. Traffic noise levels at this site were measured approximately at a distance of 500 feet from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby first row of residences. Existing noise level readings were taken between 9:40 and 10:14 AM on March 22, 2022, and were found to range from 59.9 to 60.2 dB(A). One barely audible, brief Tri-Rail pass-by was noted during the last monitoring period at this site. Short periods of aircraft noise were also noted.

4.2.8 Site FR-8

This measurement site is located along the east side of I-95 at the northern terminus of Ambassador Court in the Presidential Estates community (See **Sheet 4** in **Appendix A**). This site is representative of noise sensitive single-family homes located in the northern portion of this community. Traffic noise levels at this site were measured approximately at a distance of 600 from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby first row of residences. Existing noise level readings were taken between 10:35 and 11:25 AM on March 22, 2022, and were found to range from 57.0 to 58.3 dB(A).

Very brief periods of aircraft noise were noted during the last two monitoring periods.

4.2.9 Site FR-9

This measurement site is located along the east side of I-95 at the intersection of NE 17th Avenue and NE 199th Street in the Coventry Estates community (See **Sheet 5** in **Appendix A**). This site is representative of noise sensitive single-family homes in this community. Traffic noise levels at this site were measured approximately 270 and 360 feet from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby first and second row residences. Existing noise level readings were taken between 11:51 AM and 12:44 PM on March 22, 2022, and were found to range from 60.2 to 60.6 dB(A) at the near location and 56.3 to 58.2 dB(A) at the far location. Very brief periods of aircraft noise were noted during the first two monitoring periods.

4.2.10 Site FR-10

This measurement site is located in the Coventry Estates community along the east side of I-95 at the intersection of W Oakhaven Circle and North Oakhaven Circle (See **Sheet 6** in **Appendix A**). This site is representative of nearby single-family homes and community tennis courts located east of I-95, just south of Ives Dairy Road. All of the homes north of the tennis courts are located behind an approximately 8-foot-tall concrete privacy wall. Traffic noise levels at this site were measured adjacent to the homes north of the tennis courts at a distance of approximately 310 feet and at the tennis courts approximately 365 feet from the near edge of the northbound I-95 off-ramp to Ives Dairy Road in order to be representative of the nearby noise sensitive sites. Existing noise level readings were taken between 11:41 AM and 12:32 PM on March 23, 2022. Traffic noise levels at the tennis courts were found to range from 54.1 to 56.2 dB(A). Traffic noise levels at the homes to the north that are located behind the 8-foot-tall privacy wall were found to range from 53.5 to 55.0 dB(A). Very brief periods of aircraft noise were noted during the first two monitoring periods.

4.2.11 Site FR-11

This measurement site is located in the Highland Lakes community along the east side of I-95 at NE 212th Terrace north of Ives Dairy Road. This site is located behind an existing approximately 19-foot-tall noise barrier (See **Sheet 8** in **Appendix A**). This site is representative of the first and second row single-family homes located east of I-95 between Ives Dairy Road and the Miami-Dade/Broward County Line. Traffic noise levels at this site were measured approximately 85 and 175 feet from the near edge of the outside northbound I-95 travel lane in order to be representative of nearby first and second row residences. Existing noise level readings were taken between 3:03 and 3:41 PM on March 22, 2022, and were found to range from 63.1 to 63.7 dB(A) at the near location and 60.1 to 60.8 dB(A) at the far location. No unusual sounds were noted.

4.2.12 Site FR-12

This measurement site is located in sports fields in Ives Estates Park along the west side of I-95, north of Ives Dairy Road (See **Sheet 8** in **Appendix A**). The SFRC is located between I-95 and this site. This site is representative of the nearby special land use (SLU) areas of the park. Traffic noise levels at this site were measured approximately 285 feet from the near edge of the outside southbound I-95 travel lane in order to be representative of the noise sensitive park areas. Existing noise level readings were taken between 6:42 and 7:18 PM on March 22, 2022, and were found to range from 68.8 to 69.6 dB(A) at this site. One (1) brief Tri-Rail pass-by was noted during the first monitoring period at this site. The 10-minute noise levels during the monitoring period with train traffic are similar to the levels measured during other periods owing to the infrequent and brief occurrences of train pass-bys.

4.2.13 Site FR-13

This measurement site is located at the tennis courts in the Oak Hammock Estates community found along the south side of Ives Dairy Road between I-95 and Highland Lakes Boulevard (See **Sheet 6** in **Appendix A**). This site is representative of noise sensitive single-family homes located along Ives Dairy Road east of I-95. Traffic noise levels at this site were measured approximately 125 and 200 feet from the near edge of the outside eastbound Ives Dairy Road travel lane in order to be

representative of nearby first and second row residences. Existing noise level readings were taken between 10:25 and 11:01 AM on March 23, 2022, and were found to range from 58.3 to 61.6 dB(A) at the near location and 56.0 to 59.8 dB(A) at the far location. Brief periods of vehicles honking horns were noted during all of the monitoring periods at this site.

4.2.14 Field Measurement Summary

Existing noise levels were measured at thirteen sites along the project corridor during 39 ten-minute long sampling periods. Measured traffic noise levels were found to range from 53.5 to 69.6 dB(A). Although some brief periods of noise from sources other than roadway traffic on I-95 or the arterial roadways were noted, traffic noise from these roadways remained the predominant source of noise at all of the nearby noise sensitive sites.

4.3 Traffic Noise Model Validation

Site conditions and traffic data gathered during the field measurements were used to develop inputs to the FHWA's TNM 2.5 for models representative of the conditions encountered during the field monitoring efforts. Additional geometric information necessary for these models was developed from Graphical Information System (GIS) data, aerial photography and/or MicroStation files of the existing conditions within the project study area. The TNM results were then compared to the noise level data collected for each field measurement sample. The results of this analysis are shown in **Table 4-2**. The model inputs for the field conditions are deemed to be within an acceptable level of accuracy if the predicted noise levels are within ±3.0 dB(A) of the measured noise levels. These model inputs are then used as a basis for additional model runs used to predict existing and future noise levels at representative nearby noise sensitive locations. As shown in **Table 4-2**, the difference for each of the field measurements falls within the ±3.0 dB(A) verification limit in accordance with Chapter 18 of the FDOT PD&E Manual. Thus, further use of TNM on this project is supported.

4.4 Noise Model Development

After verification of the prediction methodology, computer models were developed for the existing year (2021) conditions, and the design year (2050) No-

Build Alternative and preferred Build Alternative. The TNM models for the alternatives were developed using geometric information from the project master plans.

The traffic volumes used in this noise analysis were derived from the project's draft System Interchange Modification Report (SIMR) dated November 2023 and from data contained in the FDOT's 2023 Multimodal Quality/Level of Service Handbook tables). Peak-hour traffic volumes for the Existing Conditions (2021) and Design Year (2050) No-Build and Build Alternatives were used. Tables that summarize the demand peak hour volumes, Level of Service (LOS) C capacities, and speeds for the project roadways may be found in **Appendix B**. According to Chapter 18 of the PD&E Manual, "Maximum peak-hourly traffic representing Level of Service (LOS) "C", or demand LOS of "A", "B", or "C" will be used (unless analysis shows that other conditions create a "worst-case" level)". In cases where traffic volumes on project roadways were predicted to operate at worse than LOS C, the LOS C project data were used. In overcapacity situations, this represents the highest traffic volume traveling at the highest average speed, which typically generates the highest noise levels at a given site during a normal day.

Representative receptor sites were used in the TNM model inputs to estimate noise levels associated with existing and future conditions within the project study area. These sites were chosen based on noise sensitivity, roadway proximity, anticipated impacts from the proposed project, and homogeneity (i.e., the site is representative of other nearby sites). For single-family homes, traffic noise levels were predicted at the edge of the dwelling unit closest to the nearest primary roadway. For other noise sensitive sites that may be impacted, traffic noise levels were predicted where the exterior activity occurs. For the prediction of interior noise levels, receptor sites were placed ten feet inside the building at the edge closest to roadway. Building noise reduction factors identified in Figure 18-3 of Chapter 18 of the PD&E Manual and window conditions were used to estimate the noise reduction due to the physical structure. All receptor sites were modeled five feet above the local ground elevation. Four-hundred sixty-four (464) model receptors representative of approximately 2,108 residential noise sensitive sites and the 36 noise sensitive locations at 22 SLUs described in **Section 4.1** of this report were input into the TNM model. These locations are described in the tables found in **Appendix C** and shown in **Appendix D**.

4.5 Predicted Traffic Noise Levels

The TNM results for the worst-case traffic conditions for the existing (2021) conditions and the Design Year (2050) No Build and Build Alternatives are summarized in the following sections. Predicted noise levels for individual model receptors are summarized in **Table 4-3** and presented in more detail in **Appendix C**.

4.5.1 I-95 – Southern Project Terminus to Miami Gardens Drive (SR 860)

Highland Manor

Existing traffic noise levels at the residences in the Highland Manor community located along the east side of I-95 between the southern project terminus and Miami Gardens Drive (please see **Sheets 1 and 2** in **Appendix D**) are predicted by TNM to range from 52.4 to 64.8 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 52.8 to 65.2 dB(A) and to be no more than 0.4 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 56.5 to 74.5 dB(A) with the preferred Build Alternative. These predicted levels are up to 13.9 dB(A) greater than the existing levels and 13.7 dB(A) greater than those of the No-Build Alternative since the Build Alternative will require removal of the existing ground-mounted FanWall and shoulder-mounted noise barriers.

4.5.2 I-95 – Miami Gardens Drive (SR 860) to Ives Dairy Road

Pickwick Lake Estates

Existing traffic noise levels at the residences in the Pickwick Lakes Estates community located along the east side of I-95 between Miami Gardens Drive and the Snake Creek Canal (please see **Sheet 2** in **Appendix D**) are predicted by TNM to range from 53.0 to 63.4 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 53.6 to 63.8 dB(A) and to be no more than 0.6 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 53.9 to 73.7 dB(A) with the preferred Build Alternative.

Table 4 – 3: Noise Analysis Summary

Location	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Number of Noise Sensitive Sites	Predicted Traffic Noise Levels [LAeq1h, dB(A)]			Number of Impacted Noise Sensitive Sites	Comments
				Existing (2021)	Design Year (2050) No-Build	Design Year (2050) Build		
I-95 - Southern Project Terminus to Miami Gardens Drive (SR 860)								
East Side								
Highland Manor (I-95)	Single-Family Residential (B)	66	124	52.4 – 64.8	52.8 – 65.2	56.5 – 74.5	40	Existing 4 to 20-foot tall FanWall and shoulder-mounted noise barrier system will be removed in its entirety.
I-95 - Miami Gardens Drive (SR 860) to Ives Dairy Road								
East Side								
Pickwick Lake Estates (I-95)	Single-Family Residential (B)	66	43	53.0 – 63.4	53.6 – 63.8	53.9 – 73.7	11	Existing 8 to 19-foot tall FanWall ground-mounted noise barrier will be removed in its entirety.
Snake Creek Trail	Walking Trail (C)	66	2 SLU (8 locations)	56.0 – 71.9	56.4 – 72.3	55.7 – 68.3	1 SLU (6 locations)	6 locations, all in SLU east of I-95.
Riviera Condominiums	Multi-Family Residential (B)	66	60	49.0 – 66.8	49.4 – 67.1	51.8 – 69.3	4	Existing 14-foot tall ground-mounted noise barrier will be removed in its entirety.
	Community Pool (C)	66	1 SLU	57.7	58.1	58.9	0 SLU	
Rolling Green Condominiums	Multi-Family Residential (B)	66	96	55.3 – 73.5	55.8 – 73.9	54.8 – 75.9	54	Existing 14-foot tall ground-mounted noise barrier will be removed in its entirety.
	Community Pool (C)	66	2 SLU	58.7 – 60.6	59.2 – 61.1	58.0 – 62.7	0 SLU	
Presidential Estates	Single-Family Residential (B)	66	54	52.8 – 66.3	53.2 – 66.7	53.0 – 63.2	0	Vacant golf-course located between I-95 and these homes.
	Community Pool (C)	66	1 SLU	61.0	61.6	55.4	0 SLU	
Coventry Estates	Single-Family Residential (B)	66	28	52.3 – 67.6	52.9 – 68.3	50.6 – 60.0	0	No impacts due to distance from I-95 Mainline.
The Chateaux (I-95)	Single-Family Residential (B)	66	35	55.3 – 62.8	56.0 – 63.7	54.1 – 62.6	0	No impacts due to distance from I-95 Mainline.
	Basketball and Tennis Courts (C)	66	2 SLU	56.0 – 59.2	56.9 – 59.9	55.5 – 58.6	0 SLU	
West Side								
Aventura Isles	Single-Family Residential (B)	66	120	48.3 – 64.1	48.7 – 64.4	48.8 – 63.2	0	Located west of the SFRC.
	Walking Trail (C)	66	1 SLU (2 locations)	61.7 – 62.7	62.1 – 63.1	62.3 – 63.5	0 SLU	Located west of the SFRC.
Aventura Harbor Apartments	Multi-Family Residential (B)	66	450	48.5 – 72.7	48.8 – 73.0	48.7 – 72.3	75	Located west of the SFRC. Existing 22-foot tall ground-mounted noise barrier to remain.
	Tennis Courts (C)	66	1 SLU	48.4	48.8	50.4	0 SLU	

Location	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Number of Noise Sensitive Sites	Predicted Traffic Noise Levels [LAeq1h, dB(A)]			Number of Impacted Noise Sensitive Sites	Comments
				Existing (2021)	Design Year (2050) No-Build	Design Year (2050) Build		
Ives Estates Tot Lot	Playground (C)	66	1 SLU	58.6	58.9	60.2	0 SLU	Located west of the SFRC. Existing 22-foot tall ground-mounted noise barrier to remain. Impacts only at 4th and 5th floor balconies.
Ives Estates	Single-Family Residential (B)	66	72	50.3 – 57.4	50.6 – 57.7	51.2 – 58.2	0	
Words of Life Fellowship	Place of Worship Interior (D)	51	1 SLU	36.5	37.2	35.6	0 SLU	Church Interior. Located west of the SFRC.
I-95 - Ives Dairy Road to Northern Project Terminus								
East Side								
Highland Lakes (I-95)	Single-Family Residential (B)	66	155	52.1 – 61.9	52.7 – 62.3	52.9 – 77.8	12	Located west of the SFRC. Existing 15 to 19-foot tall FanWall ground-mounted noise barrier will be removed in its entirety.
Ro-Len Gardens	Multi-Family Residential (B)	66	222	51.2 - 68.4	51.4 – 68.6	51.7 – 69.3	50	Existing 16-foot tall ground-mounted noise barrier to remain. Impacts only at 2nd floor balconies.
	Community Pool, Walking Trail and Shuffleboard Courts (C)	66	3 SLU	50.8 – 61.3	50.9 – 61.5	51.6 – 61.3	0 SLU	
Lakeside Estates	Single-Family Residential (B)	66	28	56.1 – 64.1	56.2 – 64.2	56.5 – 65.0	0	Existing 15-foot tall ground-mounted noise barrier to remain.
Oak Acres	Single-Family Residential (B)	66	85	54.5 – 64.1	54.6 – 64.2	54.7 – 64.4	0	
Parkside Manor Condominiums	Multi-Family Residential (B)	66	80	60.3 – 65.7	60.3 – 65.7	60.6 – 65.6	0	Existing 22-foot tall ground-mounted noise barrier to remain.
	Community Pool (C)	66	1 SLU	60.2	60.2	60.6	0 SLU	
West Side								
Ives Estates Park	Playground (C)	66	6 SLU	57.4 – 69.1	57.8 – 69.6	56.1 – 65.2	0 SLU	Located west of the SFRC.
Park Lake Estates	Single-Family Residential (B)	66	98	52.3 – 59.5	52.5 – 59.9	53.6 – 59.8	0	Existing 22-foot tall ground-mounted noise barrier to remain.
Lone Pine	Single-Family Residential (B)	66	81	51.7 – 57.7	51.9 – 57.9	54.4 – 57.0	0	Existing 22-foot tall ground-mounted noise barrier to remain.
	Community Pool (C)	66	1 SLU	55.9	56.0	54.0	0 SLU	
Green Acres RV Park	Single-Family Residential (B)	66	47	53.2 – 57.2	53.3 – 57.2	53.4 – 56.0	0	Existing 22-foot tall ground-mounted noise barrier to remain.
Miami Gardens Drive (SR 860)								
South Side								
Milton Littman Park	Basketball Court and Pavilion (C)	66	1 SLU (2 Locations)	68.7 – 68.8	69.3 – 69.4	67.9 – 68.6	1 SLU (2 Locations)	Located at the Miami Gardens Drive/NE 6th Avenue Intersection

Location	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Number of Noise Sensitive Sites	Predicted Traffic Noise Levels [LAeq1h, dB(A)]			Number of Impacted Noise Sensitive Sites	Comments
				Existing (2021)	Design Year (2050) No-Build	Design Year (2050) Build		
Highland Manor (MGD)	Single-Family Residential (B)	66	46	54.4 – 69.6	54.9 – 70.3	55.5 – 69.5	2	Frontage road between Miami Gardens Drive and homes.
Windward Heights	Single-Family Residential (B)	66	30	51.2 – 64.2	51.5 – 64.5	51.8 – 64.5	0	
Windward Manor	Single-Family Residential (B)	66	21	48.5 – 61.6	48.9 – 61.9	49.3 – 61.6	0	
North Side								
Pickwick Lake Estates	Single-Family Residential (B)	66	41	48.3 – 61.5	48.8 – 62.1	49.1 – 61.4	0	
Ives Dairy Road								
South Side								
The Chateaux (IDR)	Residential (B)	66	7	56.8 – 63.6	57.1 – 64.1	57.4 – 63.6	0	
Oak Hammock Estates	Residential (B)	66	8	55.7 – 62.8	55.9 – 63.1	55.6 – 64.2	0	
	Tennis Courts (C)	66	1 SLU	63.8	64.2	65.3	0 SLU	
Highland Lakes (South Side of IDR)	Residential (B)	66	18	54.1 – 71.9	54.8 – 72.6	54.2 – 72.4	9	Frontage road between Ives Dairy Road and homes
Oak Forest	Residential (B)	66	10	55.5 – 67.0	56.3 – 67.8	56.3 – 67.6	1	Frontage road between Ives Dairy Road and homes
North Side								
Murray Homes	Residential (B)	66	15	62.2 – 68.8	62.9 – 69.5	62.5 – 69.7	7	Frontage road between Ives Dairy Road and homes
Little Dolphins Daycare	Playground (C)	66	1 SLU	72.0	72.6	72.7	1 SLU	Outdoor playground on southwest corner of the building.
Highland Lakes (North Side of IDR)	Residential (B)	66	34	53.4 – 71.7	54.1 – 72.2	53.4 – 71.7	9	Partial concrete privacy wall along the north side of Ives Dairy Road east of Highland Lakes Boulevard.

Notes: SLU = Special Land Use site

These predicted levels are up to 11.4 dB(A) greater than the existing levels and 11.0 dB(A) greater than those of the No-Build Alternative since the Build Alternative will require removal of the existing ground-mounted FanWall noise barrier.

Snake Creek Trail

Existing traffic noise levels along the Snake Creek Trail located near I-95 (please see **Sheet 4** in **Appendix D**) are predicted by TNM to range from 56.0 to 71.9 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 56.4 to 72.3 dB(A) and to be no more than 0.4 dB(A) greater than existing levels along the trail. Design year worst-case traffic noise levels at these locations are predicted to range from 55.7 to 68.3 dB(A) with the preferred Build Alternative. These predicted levels are up to 2.0 dB(A) greater than the existing levels and 1.6 dB(A) greater than those of the No-Build Alternative.

Riviera and Rolling Green Condominiums

Existing traffic noise levels at the residences in the Riviera and Rolling Green condominium complexes located along the east side of I-95 north of the Snake Creek Canal (please see **Sheets 4 and 5** in **Appendix D**) are predicted by TNM to range from 49.0 to 73.5 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 49.4 to 73.9 dB(A) and to be no more than 0.5 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 51.8 to 75.9 dB(A) with the preferred Build Alternative. These predicted levels are up to 10.3 dB(A) greater than the existing levels and 9.9 dB(A) greater than those of the No-Build Alternative since the Build Alternative will require removal of the existing 14-foot tall ground-mounted noise barrier located adjacent to these condominiums.

Existing traffic noise levels for the community pools at these condominium complexes are predicted to range from 57.7 to 60.6 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 58.1 to 61.1 dB(A) and to be no more than 0.5 dB(A) greater than existing levels. Design year worst-case traffic noise levels at the pools

are predicted to range from 58.9 to 62.7 dB(A) with the preferred Build Alternative. These predicted levels are up to 2.1 dB(A) greater than the existing levels and 1.6 dB(A) greater than those of the No-Build Alternative since the Build Alternative will require removal of the existing 14-foot tall ground-mounted noise barrier located adjacent to these condominiums.

Presidential Estates

Existing traffic noise levels at the residences in the Presidential Estates community located along the east side of I-95 between the Snake Creek Canal and Ives Dairy Road (please see **Sheets 5 and 6** in **Appendix D**) are predicted by TNM to range from 52.8 to 66.3 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 53.2 to 66.7 dB(A) and to be no more than 0.6 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 53.0 to 63.2 dB(A) with the preferred Build Alternative. These predicted levels are no more than 0.2 dB(A) greater than the existing levels and at least 0.2 dB(A) lower than those of the No-Build Alternative.

The existing traffic noise level at the Presidential Estates community pool is predicted to be 61.0 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 61.6 dB(A), no more than 0.6 dB(A) greater than the existing level. The design year worst-case traffic noise level at the pool is predicted to be 55.4 dB(A) with the preferred Build Alternative, 5.6 dB(A) lower than the existing level and 6.2 dB(A) lower than the No-Build Alternative.

Coventry and The Chateaux

Existing traffic noise levels at the residences in the Coventry Estates and Chateaux communities located along the east side of I-95 south of Ives Dairy Road (please see **Sheets 6 and 7** in **Appendix D**) are predicted by TNM to range from 52.3 to 67.6 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 52.9 to 68.3 dB(A) and to be no more than 0.9 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 50.6 to 62.6 dB(A) with the preferred Build Alternative. These predicted levels are

no more than 0.2 dB(A) greater than the existing levels and are at least 0.5 dB(A) lower than those of the No-Build Alternative.

The existing traffic noise level at the tennis courts and basketball courts in the Chateaux community are predicted to range from 56.0 to 59.2 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 56.9 to 59.9 dB(A) and to be no more than 0.9 dB(A) greater than existing levels. Design year worst-case traffic noise levels at the courts are predicted to range from 55.5 to 58.6 dB(A) with the preferred Build Alternative. These predicted levels are at least 0.5 dB(A) lower than the existing levels and 1.3 dB(A) lower than those of the No-Build Alternative.

Aventura Isles

Existing traffic noise levels at the residences in the Aventura Isles community located along the west side of I-95 north of the Snake Creek Canal (please see **Sheet 4** in **Appendix D**) are predicted by TNM to range from 48.3 to 64.1 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 48.7 to 64.4 dB(A) and to be no more than 0.4 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 48.8 to 63.2 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.6 dB(A) greater than the existing levels and 1.2 dB(A) greater than those of the No-Build Alternative.

The existing traffic noise levels along the community's walking trail are predicted to range from 61.7 to 62.7 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 62.1 to 63.1 dB(A) and to be no more than 0.4 dB(A) greater than existing levels. Design year worst-case traffic noise levels along the walking trail are predicted to range from 62.3 to 63.5 dB(A) with the preferred Build Alternative. These predicted levels are up to 0.8 dB(A) greater than the existing levels and 0.4 dB(A) greater than those of the No-Build Alternative.

Aventura Harbor

Existing traffic noise levels at the Aventura Harbor apartments located along the west side of I-95 between the Snake Creek Canal and Ives Dairy Road (please see **Sheets 4 and 5** in **Appendix D**) are predicted by TNM to range from 48.5 to 72.7 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 48.8 to 73.0 dB(A) and to be no more than 0.5 dB(A) greater than existing levels at these apartments. Design year worst-case traffic noise levels at these apartments are predicted to range from 48.7 to 72.3 dB(A) with the preferred Build Alternative. These predicted levels are up to 3.2 dB(A) greater than the existing levels and 2.9 dB(A) greater than those of the No-Build Alternative.

The existing traffic noise level at the apartment complex's tennis courts is predicted to be 48.4 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 48.8 dB(A), no more than 0.4 dB(A) greater than the existing level. The design year worst-case traffic noise level at the tennis courts is predicted to be 50.4 dB(A) with the preferred Build Alternative, 2.0 dB(A) greater than the existing level and 1.6 dB(A) greater than the No-Build Alternative level.

Ives Estates and Ives Estates Tot Lot Park

Existing traffic noise levels at the residences in the Ives Estates community located along the west side of I-95 south of Ives Dairy Road (please see **Sheets 5 and 6** in **Appendix D**) are predicted by TNM to range from 50.3 to 57.4 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 50.6 to 57.7 dB(A) and to be no more than 0.5 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 51.2 to 58.2 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.5 dB(A) greater than the existing levels and 1.1 dB(A) greater than those of the No-Build Alternative.

The existing traffic noise level at the Ives Estates Tot Lot Park is predicted to be 58.6 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 58.9 dB(A), no more than 0.3 dB(A) greater

than the existing level. The design year worst-case traffic noise level at the park is predicted to be 60.2 dB(A) with the preferred Build Alternative, 1.6 dB(A) greater than the existing level and 1.3 dB(A) greater than the No-Build Alternative level.

Words of Life Fellowship Church

The existing traffic noise level inside the Words of Life Fellowship Church located along the west side of I-95 south of Ives Dairy Road (please see **Sheet 6** in **Appendix D**) is predicted to be 36.5 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 37.2 dB(A), no more than 0.7 dB(A) greater than the existing level. The design year worst-case traffic noise level inside the church is predicted to be 35.6 dB(A) with the preferred Build Alternative, 0.9 dB(A) lower than the existing level and 1.6 dB(A) lower than the No-Build Alternative level.

4.5.3 I-95 – Ives Dairy Road to Northern Project Terminus

Highland Lakes

Existing traffic noise levels at the residences in the Highland Lakes community that are located along the east side of I-95 between Ives Dairy Road and the Miami-Dade/Broward County line (please see **Sheets 7 through 9** in **Appendix D**) are predicted by TNM to range from 52.1 to 61.9 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 52.7 to 62.3 dB(A) and to be no more than 0.7 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 52.9 to 77.8 dB(A) with the preferred Build Alternative. These predicted levels are up to 16.1 dB(A) greater than the existing levels and 15.8 dB(A) greater than those of the No-Build Alternative since the Build Alternative will require removal of the existing 15 to 19-foot tall ground-mounted FanWall noise barrier located adjacent to this community.

Ro-Len Gardens

Existing traffic noise levels at the Ro-Len Gardens condominiums located along the east side of I-95 north of the Miami-Dade/Broward County line (please see **Sheet 10** in **Appendix D**) are predicted by TNM to range from 51.2 to 68.4 dB(A)

during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 51.4 to 68.6 dB(A) and to be no more than 0.3 dB(A) greater than existing levels at these apartments. Design year worst-case traffic noise levels at these residences are predicted to range from 51.7 to 69.3 dB(A) with the preferred Build Alternative. These predicted levels are up to 2.9 dB(A) greater than the existing levels and 2.6 dB(A) greater than those of the No-Build Alternative. Although the existing 16-foot tall noise barrier adjacent to this community is expected to remain with the Build Alternative, the existing 15 to 19-foot tall ground-mounted FanWall noise barrier located just to the south of this community will be removed to accommodate the planned improvements.

The existing traffic noise levels at the condominium complex's pool, walking trail and shuffleboard courts are predicted to range from 50.8 to 61.3 dB(A) during peak periods. The design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 50.9 to 61.5 dB(A), no more than 0.2 dB(A) greater than the existing level. The design year worst-case traffic noise levels at these locations are predicted to range from 51.6 to 61.3 dB(A) with the preferred Build Alternative, up to 0.8 dB(A) greater than the existing level and 0.7 dB(A) greater than the No-Build Alternative.

The existing 16-foot tall ground-mounted noise barrier located adjacent to this community is expected to remain.

Lakeside Estates and Oak Acres

Existing traffic noise levels at the residences in the Lakeside Estates and Oak Acres communities located along the east side of I-95 between the Miami-Dade/Broward County line and the northern project terminus (please see **Sheets 10 and 11** in **Appendix D**) are predicted by TNM to range from 54.5 to 64.1 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 54.6 to 64.2 dB(A) and to be no more than 0.2 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 54.7 to 65.0 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.2 dB(A) greater than the existing levels and 1.0 dB(A) greater than those of the No-Build Alternative.

The existing 15-foot tall ground-mounted noise barrier located adjacent to this community is expected to remain.

Parkside Manor

Existing traffic noise levels at the Parkside Manor condominiums located along the east side of I-95 near the northern project terminus (please see **Sheet 11** in **Appendix D**) are predicted by TNM to range from 60.3 to 65.7 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 60.3 to 65.7 dB(A) and to be no more than 0.1 dB(A) greater than existing levels at these apartments. Design year worst-case traffic noise levels at these residences are predicted to range from 60.6 to 65.6 dB(A) with the preferred Build Alternative. These predicted levels are up to 0.4 dB(A) greater than the existing levels and 0.3 dB(A) greater than those of the No-Build Alternative.

The existing traffic noise level at the condominium complex's pool is predicted to be 60.2 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 60.2 dB(A), the same as the existing level. The design year worst-case traffic noise level at this pool is predicted to be 60.6 dB(A) with the preferred Build Alternative, 0.4 dB(A) greater than both the existing level and that of the No-Build Alternative.

The existing 22-foot tall ground-mounted noise barrier located adjacent to this community is expected to remain.

Ives Estates Park

Existing traffic noise levels at Ives Estates Park located along the west side of I-95 between Ives Dairy Road and the Miami Dade/Broward County line (please see **Sheets 9 and 10** in **Appendix D**) are predicted by TNM to range from 57.4 to 69.1 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 57.8 to 69.6 dB(A) and to be no more than 0.5 dB(A) greater than existing levels at the park. Design year worst-case traffic noise levels at the park are predicted to range from 56.1 to 65.2 dB(A) with the preferred Build Alternative. These predicted levels are up to 0.5 dB(A)

greater than the existing levels and 0.1 dB(A) greater than those of the No-Build Alternative.

Park Lake Estates, Lone Pine and Green Acres

Existing traffic noise levels at the residences in the Park Lake Estates, Lone Pine and Green Acres mobile-home/RV communities located along the west side of I-95 between the Miami-Dade/Broward County line and the northern project terminus (please see **Sheets 10 and 11** in **Appendix D**) are predicted by TNM to range from 51.7 to 59.5 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 51.9 to 59.9 dB(A) and to be no more than 0.4 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 53.4 to 59.8 dB(A) with the preferred Build Alternative. These predicted levels are no more than 2.7 dB(A) greater than the existing levels and 2.5 dB(A) greater than those of the No-Build Alternative.

The existing traffic noise level at the Lone Pine community's pool is predicted to be 55.9 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 56.0 dB(A), no more than 0.1 dB(A) greater than the existing level. The design year worst-case traffic noise level at this pool is predicted to be 54.0 dB(A) with the preferred Build Alternative, 1.9 dB(A) lower than the existing level and 2.0 dB(A) lower than the No-Build Alternative level.

The existing 22-foot tall ground-mounted noise barrier located adjacent to this community is to remain.

4.5.4 Miami Gardens Drive (SR 860)

Milton Littman Park

Existing traffic noise levels at Milton Littman Park located just east of I-95 along Miami Gardens Drive (please see **Sheet 2** in **Appendix D**) are predicted by TNM to range from 68.7 to 68.8 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 69.3 to 69.4 dB(A) and to be no more than 0.6 dB(A) greater than existing levels at the

park. Design year worst-case traffic noise levels at the park are predicted to range from 68.0 to 68.7 dB(A) with the preferred Build Alternative. These predicted levels are at least 0.1 dB(A) lower than the existing levels and 0.7 dB(A) lower than those of the No-Build Alternative.

Highland Manor

Existing traffic noise levels at the residences in the Highland Manor community that are located along the south side of Miami Gardens Drive between I-95 and NE 8th Avenue (please see **Sheet 2** in **Appendix D**) are predicted by TNM to range from 54.4 to 69.6 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 54.9 to 70.3 dB(A) and to be no more than 0.8 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 55.5 to 69.5 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.7 dB(A) greater than the existing levels and 1.3 dB(A) greater than those of the No-Build Alternative.

Windward Heights

Existing traffic noise levels at the residences in the Windward Heights community located along the south side of Miami Gardens Drive between NE 8th Avenue and NE 9th Court (please see **Sheet 3** in **Appendix D**) are predicted by TNM to range from 51.2 to 64.2 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 51.5 to 64.5 dB(A) and to be no more than 0.4 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 51.8 to 64.5 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.2 dB(A) greater than the existing levels and 1.0 dB(A) greater than those of the No-Build Alternative.

Windward Manor

Existing traffic noise levels at the residences in the Windward Manor community located along the south side of Miami Gardens Drive between NE 9th Court and the eastern project terminus (please see **Sheet 3** in **Appendix D**) are predicted by TNM to range from 48.5 to 61.6 dB(A) during peak periods. Design year worst-case

traffic noise levels with the No-Build Alternative are predicted to range from 48.9 to 61.9 dB(A) and to be no more than 0.4 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 49.3 to 61.6 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.1 dB(A) greater than the existing levels and 0.8 dB(A) greater than those of the No-Build Alternative.

Pickwick Lake Estates

Existing traffic noise levels at the residences in the Pickwick Lake Estates community that are located along the north side of Miami Gardens Drive between I-95 and the eastern project terminus (please see **Sheets 2 and 3** in **Appendix D**) are predicted by TNM to range from 48.3 to 61.5 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 48.8 to 62.1 dB(A) and to be no more than 0.7 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 49.1 to 61.4 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.9 dB(A) greater than the existing levels and 1.4 dB(A) greater than those of the No-Build Alternative.

4.5.5 Ives Dairy Road

The Chateaux and Oak Hammock Estates

Existing traffic noise levels at the residences in the Chateaux and Oak Hammock Estates communities that are located along the south side of Ives Dairy Road between I-95 and Highland Lakes Boulevard (please see **Sheet 7** in **Appendix D**) are predicted by TNM to range from 55.7 to 63.6 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 55.9 to 64.1dB(A) and to be no more than 0.7 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 55.6 to 64.2 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.4 dB(A) greater than the existing levels and 1.1 dB(A) greater than those of the No-Build Alternative.

The existing traffic noise level at the tennis courts in Oak Hammock Estates is predicted to be 63.8 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 64.2 dB(A), no more than 0.4 dB(A) greater than the existing level. The design year worst-case traffic noise level at this pool is predicted to be 65.3 dB(A) with the preferred Build Alternative, 1.5 dB(A) greater than the existing level and 1.1 dB(A) greater than the No-Build Alternative level.

Highland Lakes (South Side) and Oak Forest

Existing traffic noise levels at the residences in the Highland Lakes and Oak Forest communities that are located along the south side of Ives Dairy Road between Highland Lakes Boulevard and the eastern project terminus (please see **Sheet 7** in **Appendix D**) are predicted by TNM to range from 54.1 to 71.9 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 54.8 to 72.6 dB(A) and to be no more than 0.8 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 54.2 to 72.4 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.2 dB(A) greater than the existing levels and 0.7 dB(A) greater than those of the No-Build Alternative.

Murray Homes

Existing traffic noise levels at the residences in the Murray Homes community located along the north side of Ives Dairy Road between NE 15th Avenue and NE 16th Avenue (please see **Sheet 12** in **Appendix D**) are predicted by TNM to range from 62.2 to 68.8 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 62.9 to 69.5 dB(A) and to be no more than 0.7 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 62.5 to 69.7 dB(A) with the preferred Build Alternative. These predicted levels are up to 1.0 dB(A) greater than the existing levels and 0.3 dB(A) greater than those of the No-Build Alternative.

Little Dolphins Daycare

The existing traffic noise level at the Little Dolphins Daycare playground along the north side of Ives Dairy Road between NE 15th Court and NE 16th Avenue (please see **Sheet 12** in **Appendix D**) is predicted by TNM to be 72.0 dB(A) during peak periods. The design year worst-case traffic noise level with the No-Build Alternative is predicted to be 72.6 dB(A), no more than 0.6 dB(A) greater than existing level. The design year worst-case traffic noise level at the daycare playground is predicted to be 72.7 dB(A) with the preferred Build Alternative, 0.7 dB(A) greater than the existing levels and 0.1 dB(A) greater than the No-Build Alternative.

Highland Lakes (North Side)

Existing traffic noise levels at the residences in the Highland Lakes community that are located along the north side of Ives Dairy Road between Highland Lakes Boulevard and the eastern project terminus (please see **Sheet 7** in **Appendix D**) are predicted by TNM to range from 53.4 to 71.7 dB(A) during peak periods. Design year worst-case traffic noise levels with the No-Build Alternative are predicted to range from 54.1 to 72.2 dB(A) and to be no more than 0.8 dB(A) greater than existing levels at these residences. Design year worst-case traffic noise levels at these residences are predicted to range from 53.4 to 71.7 dB(A) with the preferred Build Alternative. These predicted levels are up to 5.8 dB(A) greater than the existing levels and 5.2 dB(A) greater than those of the No-Build Alternative.

4.6 Rail Noise

The SFRC is located along the west side of I-95, between the interstate and the nearby communities and parks. Rail traffic on the SFRC includes Amtrak passenger trains, Tri-Rail commuter trains and CSX freight trains. Tri-Rail operations during peak periods typically include shorter, fast-moving trains with approximately four train pass-bys per hour. Amtrak daily operations along this segment of the SFRC include approximately four fast-moving but longer trains. Freight operations are relatively infrequent much longer trains.

Two 22-foot tall noise barriers were constructed during 2001 adjacent to the Aventura Harbor apartments and homes in the Ives Estates communities to

mitigate predicted traffic noise impacts from an FDOT project (FPID 251663-1) along I-95. These noise barriers will not be physically impacted by this project given their location between the SFRC and these communities.

Rail noise levels were monitored in the Aventura Isles community, Ives Estates Tot Lot and Ives Estates Park west of I-95 during the regular monitoring periods for the field sites at these locations. Only one Amtrak train and three Tri-Rail trains were observed during the monitoring periods. No freight trains were recorded. The trains did not sound their horns during any of the pass-by events. The maximum increase in noise during a typical train pass-by was up to approximately 10 dB(A), but only for very brief period. However, due to the infrequent and brief nature the observed train pass-bys, the difference in the 10-minute noise level with and without the trains was no more than approximately 0.5 to 1.0 dB(A). Thus, the effect of rail noise at noise sensitive sites west of I-95 was found to be only readily discernable for very brief periods. Rail noise was only evident east of I-95 during one of the field monitoring periods at FR-7, and only as a slight increase in background noise level for a brief moment.

4.7 Noise Impact Analysis

Approximately 2,108 residences with the potential to be impacted by the planned improvements were identified along I-95, Miami Gardens Drive and Ives Dairy Road within the project study area. These residences include single-family homes, apartments, condominiums and mobile homes. Also, 36 noise sensitive locations at 22 SLUs were identified in the project study area, including parks, walking trails, pools, playgrounds, tennis courts, sports fields, basketball courts and a church interior. Under the existing conditions, the primary source of noise at most of the nearby noise sensitive sites is traffic on I-95, Miami Gardens Drive and Ives Dairy Road. Many of the sites west of I-95 are also subject to brief periods of train noise during the passage of Tri-Rail and freight trains.

During the design year, the primary source of noise in the area is expected to remain traffic on the nearby roadways listed above. The planned improvements will add elevated ramps and collector-distributor roadway along I-95 for access to Miami Gardens Drive, Ives Dairy Road and the I-95 Express Lanes for much of the extent of the project. Several of the elevated ramps are located along the outside of the I-95 mainline lanes and thus partially block mainline noise at nearby

noise sensitive sites, particularly near the interchanges. Predicted design year traffic noise levels for the Build Alternative were compared to the NAC and to noise levels predicted for the existing conditions to assess potential noise impacts associated with the proposed project. Overall, approximately 274 residences and 9 locations at 3 SLUs are predicted to approach, meet or exceed the NAC for their Activity Category. One (1) residence along I-95 in the Highland Lakes community is also predicted to experience a substantial noise level increase [i.e., at least 15 dB(A) over the existing noise level] due to the removal of an adjacent existing noise barrier. A more detailed description of the impacted sites is presented in the following sections.

4.7.1 I-95 – Southern Project Terminus to Miami Gardens Drive (SR 860)

Build Alternative traffic noise levels are predicted to approach or exceed the FHWA NAC - 67 dB(A) at 40 residences along the east side of I-95 between the southern project terminus and Miami Gardens Drive (please see **Table 4-3**). Much of the traffic noise impact along this project segment is due to the removal of the existing ground-mounted FanWall and shoulder-mounted noise barriers necessary to accommodate the planned improvements.

4.7.2 I-95 – Miami Gardens Drive (SR 860) to Ives Dairy Road

Build Alternative traffic noise levels are predicted to approach or exceed the FHWA NAC - 67 dB(A) at 144 residences along I-95 between Miami Gardens Drive and Ives Dairy Road (please see **Table 4-3**). Impacted residences in the Pickwick Lake Estates, Riviera and Rolling Green condominiums are currently located behind FanWall and shoulder-mounted noise barriers that will be removed to accommodate the planned improvements. Impacted residences in the Aventura Harbor apartments are located behind an existing 22-foot tall ground-mounted noise barrier located west of the SFRC. Traffic noise impacts are also predicted to occur at six locations east of I-95 along the Snake Creek Trail. Due to the distance between I-95 and homes in Adventura Isles and Presidential Estates, and due to new nearby elevated ramps that partially block noise from the I-95 mainline, noise impacts are not predicted to occur in these communities.

4.7.3 I-95 – Ives Dairy Road to Northern Project Terminus

Build Alternative traffic noise levels are predicted to approach or exceed the FHWA NAC - 67 dB(A) at 62 residences along the east side of I-95 between Ives Dairy Road and the Northern Project Terminus (please see **Table 4-3**). One (1) residence in the Highland Lakes community is also predicted to experience a substantial noise level increase [i.e., at least 15 dB(A) over the existing noise level] due to the removal of an adjacent existing noise barrier. The impacts at the residences along I-95 in the Highland Lakes community are due to the removal of the existing ground-mounted FanWall noise barrier necessary to accommodate the planned improvements. The impacted residences in the Ro-Lens Gardens condominium complex are located behind an existing 16-foot tall noise barrier that is to remain and impacts at this condominium complex occur on the second floor balconies only.

4.7.4 Miami Gardens Drive (SR 860)

Build Alternative traffic noise levels are predicted to approach or exceed the FHWA NAC - 67 dB(A) at two residences and two locations in Milton Littman Park along the south side of Miami Gardens Drive (please see **Table 4-3**). All of these sites are located just east of I-95 in an area where the existing shoulder-mounted noise barriers along the northbound lanes of I-95 are to be removed in order to accommodate the planned improvements.

4.7.5 Ives Dairy Road

Build Alternative traffic noise levels are predicted to approach or exceed the FHWA NAC - 67 dB(A) at 26 residences and a daycare center playground along Ives Dairy Road within the limits of the project (please see **Table 4-3**).

5.0 NOISE BARRIER ANALYSIS

As described above in **Section 4.7**, predicted design year traffic noise levels with the Build Alternative will approach or exceed the NAC at 274 residences, six locations along the Snake Creek Trail east of I-95, a basketball court and pavilion at Milton Littman Park and a playground at Little Dolphins Daycare.

The FDOT requires that the reasonableness and feasibility of noise abatement be considered when the NAC is approached or exceeded. Noise abatement was considered for impacted sites in the 13 areas identified in **Table 5-1** by Common Noise Environment (CNE). A CNE represents a group of impacted receptor sites that would benefit from the same noise barrier or barrier system (i.e., overlapping/continuous barriers) and are exposed to similar noise sources and levels, traffic volumes, traffic mix, speeds and topographic features. These CNEs often occur between two secondary noise sources, such as interchanges, intersections and/or cross- roads, individual communities or where defined by ground features such as canals. Noise abatement was considered for the impacted residences, basketball court, walking trail and playground listed above.

The most common and effective noise abatement measure for projects such as this is construction of a noise barrier as close as possible to the impacted sites or along the edge of the near lane of traffic. Noise barriers reduce noise by blocking the sound path between a roadway and a noise sensitive area. To be effective, noise barriers must be long, continuous, and have sufficient height to block the path between the noise source and the receptor site.

Traffic management, alteration of horizontal and vertical alignments, acquisition of real property to create a buffer zone, and noise insulation of Activity Category D land use are also considered to be acceptable noise abatement measures. According to the FHWA, traffic management measures include (but are not limited to) traffic control devices, signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive lane designations. Interstate-95 is a busy corridor serving commuters and commercial enterprises throughout Florida, any of these would severely degrade the operational characteristics of this facility and would also be expected to be ineffective. ROW impacts are being minimized on this project. Alignment alterations would likely impact the dense residential and commercial

developments along this corridor and unnecessarily increase project cost. Acquiring ROW from impacted noise sensitive sites or to serve as a buffer zone would also unnecessarily increase project costs. Noise insulation of Activity Category D properties is not necessary with this project as no Category D sites were determined to be impacted by the planned improvements.

Table 5 - 1: Locations Evaluated for Noise Barriers

Common Noise Environment Identification Number	Location	Type of Noise Sensitive Site (Noise Abatement Activity Category)	Number of Impacted Receptors	Noise Barrier Analysis Section
I95-E1	**Highland Manor** East side of I-95 between the Southern Project Terminus and Miami Gardens Drive	Residential (Activity Category B)	40	5.1
I95-E2	**Pickwick Lakes Estates** East side of I-95 between Miami Gardens Drive and the Snake Creek Canal	Residential (Activity Category B)	11	5.2
I95-SCT	**Snake Creek Trail** Six locations along the walking trail east of I-95	Trail (Activity Category C)	1 SLU (6 locations)	5.3
I95-E3	**Riviera and Rolling Green Condominiums** East side of I95 north of the Snake Creek Canal	Residential (Activity Category B)	58	5.4
I95-E4	**Highland Lakes** East side of I-95 between Ives Dairy Road and the Broward County Line	Residential (Activity Category B)	12	5.5
I95-E5	**Ro-Len Gardens** East side of I-95 between the Broward County Line and the Northern Project Terminus	Residential (Activity Category B)	50	5.6
I95-W1	**Aventura Harbor Apartments** West side of I95 north of the Snake Creek Canal	Residential (Activity Category B)	75	5.7
MGD-LP	**Littman Park Basketball Court and Pavilion** South side of Miami Gardens Drive between I-95 and NE 6th Avenue	Park (Activity Category C)	1 SLU (2 locations)	5.8
MGD-S1	**Highland Manor** South side of Miami Gardens Drive east of NE 6th Avenue	Residential (Activity Category B)	2	5.9
IDR-S1	**Highland Lakes and Oak Forest** South side of Ives Dairy Road between Highland Lakes Boulevard and NE 21st Avenue	Residential (Activity Category B)	9	5.10
IDR-N1	**Murray Homes** North side of Ives Dairy Road between NE 15th Avenue and NE 15th Court	Residential (Activity Category B)	7	5.11
IDR-N2	**Little Dolphins Daycare** North side of Ives Dairy Road between NE 15th Court and NE 16tj Avenue	Daycare Center Playground (Activity Category C)	1 SLU	5.12
IDR-N3	**Highland Lakes** North side of Ives Dairy Road between Highland Lakes Boulevard and Eastern Project Terminus	Residential (Activity Category B)	9	5.13

A wide range of factors are used to evaluate the feasibility and reasonableness of noise abatement measures. Feasibility primarily concerns the ability to reduce noise levels by at least five dB(A) at the impacted receptor sites using standard construction methods and techniques. Engineering considerations typically assessed during the feasibility analysis include access, drainage, utilities, safety and maintenance. Informational plans depicting the existing utilities along project roadways (dated December 18, 2024) were reviewed to screen potential conflicts between underground/overhead utilities, drainage and the noise barrier design concepts. The results of this review are provided below for each of the evaluated noise barriers. A detailed analysis of conflicts will occur during design.

A combination of ground-mounted, shoulder-mounted and structure-mounted noise barriers were evaluated at most locations to determine their effectiveness in providing noise abatement to the impacted noise sensitive receptor sites. Ground mounted noise barriers are typically found along the ROW line, outside of the roadway clear recovery zone, and are limited by FDOT to a maximum height of 22 feet. If a ground-mounted noise barrier is located within the clear recovery zone, it will require a Design Variation for a special design and/or crash-protection such as a guardrail. Shoulder-mounted noise barriers are constructed using an FDOT crash-approved design along the roadway shoulder or edge-of-pavement. Shoulder-mounted noise barriers are limited to a maximum height of eight feet on structures and 14 feet on fill unless specifically approved for taller heights in writing by the State Structures Design Engineer and will thus also require a Design Variation.

Reasonableness implies that common sense and good judgment were applied in a decision related to noise abatement. A reasonableness analysis includes consideration of the cost of abatement, the amount of noise abatement benefit, and the consideration of the viewpoints of the impacted and benefited property owners and residents. The FDOT's current Statewide average noise barrier unit cost is $30 per square-foot. To be deemed reasonable, a noise barrier must, at a minimum, meet two important FDOT criteria:

- The estimated construction cost cannot exceed the FDOT's reasonable cost criteria of $42,000 per benefited receptor site; and,
- According to the FDOT's noise reduction reasonableness criteria, the noise barrier must reduce noise levels by at least seven dB(A) at one or more impacted receptor sites.

As part of the reasonableness cost analysis, various conceptual noise barrier designs were evaluated for each impacted area to determine the most effective location, length and height that will achieve the desired noise level reduction at reasonable cost. In addition, the primary method for determining the cost of noise abatement involves a review of the cost per benefited receptor site for the construction of a noise barrier benefiting a single location or common noise environment (e.g., a subdivision or contiguous impact area).

The locations of the noise barriers that were considered are shown in **Appendix D**. The following discussion provides the details of the feasibility and reasonableness analysis for noise barriers considered for each of the impacted sites.

5.1 CNE I95-E1 – Highland Manor

Forty (40) residences in the Highland Manor community located along the east side of I-95 between the southern project terminus and Miami Gardens Drive are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheets 1 and 2** in **Appendix D**. Noise sensitive areas at these homes include exterior areas such as yards and patios that are primarily affected by traffic noise from I-95. These homes are located adjacent to an existing noise barrier constructed between 1986 and 1988. This noise barrier (FHWA ID # 11092) consists of two distinct segments: a 20-foot-tall ground-mounted “Fan-Wall” noise barrier located between approximately NW 171st Street and NE 3rd Avenue; and an approximately 4 to 15-foot-tall shoulder/structure-mounted noise barrier located along the outside of the northbound lanes between NE 3rd Avenue and NE 183rd Street. All of this noise barrier is located along the roadway shoulder within the clear recovery zone, and much of it is also located on a Mechanically Stabilized Eart (MSE) wall. A lightly traveled local street, East Drive, is located between the noise barrier and the nearby homes. To accommodate the planned improvements, this existing noise barrier will be removed in its entirety.

With the Build Alternative, the design year traffic noise levels in this community are predicted to range from 56.5 to 74.5 dB(A). These levels represent an average increase of approximately 6.1 dB(A) over existing levels and a 13.9 dB(A) maximum increase due to the removal of the existing noise barrier.

I-95 is generally at-grade along this project segment but does increase above grade to cross over Miami Gardens Drive. The primary planned improvement near these residences is the addition of general-use, auxiliary and express lanes. These improvements will move traffic in the northbound lanes up to 30 feet closer to the residences in Highland Manor.

The most effective means of providing noise abatement for the impacted sites would be construction of a replacement noise barrier at heights similar to the existing noise barrier and generally extending between the same limits adjacent to the northbound lanes. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE includes a 4,055-foot long, 8 to 22-foot tall replacement noise barrier system (referred to as I95-E1 CD-4 in **Table 5-2**). This noise barrier would be located along the outside of the northbound lanes between the southern project terminus (near Sta. 2008+00) and Sta. 33+80 on the off-ramp to Miami Gardens Drive (Ramp E). This noise barrier design concept is shown on **Sheets 1 and 2** in **Appendix D**. The 22-foot-tall noise barrier segment would extend northward from the existing noise barrier south of this project that is expected to remain in place. This new 22-foot-tall noise barrier would overlap with a 14-foot-tall structure-mounted noise barrier at approximately Sta. 2032+20 to 2032+40. The northernmost 345 feet of this structure-mounted noise barrier would be an 8-foot tall noise barrier located on the outside edge of the bridge over Miami Gardens Drive. The 22-foot tall segments of this replacement noise barrier system would exceed the height of the existing FanWall noise barrier by two feet. The structure-mounted segments would generally match the height of much of the current shoulder-mounted noise barrier but would exceed the current height by as much as ten feet just south of Miami Gardens Drive.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 53.2 to 63.4 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 9.3 dB(A) and a maximum of 13.7 dB(A) compared to the predicted noise levels without any noise abatement. Design year noise levels with this replacement noise barrier would average approximately 0.7 dB(A) greater than the existing noise levels.

Table 5 - 2: Noise Barrier Analysis for Common Noise Environment – I95-E1 (Highland Manor)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-E1 **Highland Manor** East Side of I-95 between the Southern Project Terminus to Miami Gardens Drive	I95-E1 CD1	Shoulder/ Structure-Mounted	8	4,020	2008+00 (NB I95)	33+80 (Ramp E)	40	5.1 (7.2)	23	0	23	6.2 (7.2)	$964,800	N/A Replacement Noise Barrier	**Not Recommended** – Does not achieve 7.0 dB(A) at any of the benefited sites. Benefits 23 of 40 impacted sites.
	I95-E1 CD2	Shoulder/ Structure-Mounted	14	3,675	2008+00 (NB I95)	2044+70 (NB I95)	40	8.2 (11.2)	40	17	57	7.9 (11.2)	$1,626,300	N/A Replacement Noise Barrier	**Not Recommended** - Replacement noise barrier system located along the roadway shoulder. Benefits all of the impacted sites. Ground-mounted noise barrier segment would be 6 feet shorter than much of the existing FanWall noise barrier. Structure-mounted segment would be up to 10 feet taller than existing structure-mounted noise barrier. Could be reconsidered if the recommended noise barrier design concept is found to be infeasible during the Design Phase.
		Structure-Mounted	8	345	2044+70 (NB I95)	33+80 (Ramp E)									
	I95-E1 CD3	Ground-Mounted	18	2,440	2008+00 (NB I95)	2032+40 (NB I95)	40	8.4 (12.5)	32	17	49	8.5 (12.5)	$1,933,800	N/A Replacement Noise Barrier	**Not Recommended** – Similar to the recommended noise barrier design concept. Benefits 32 of the 40 impacted sites. Located slightly further from edge-of-pavement and at lower base elevation than I95-E1 CD2. Ground-mounted noise barrier segment would be 2 feet shorter than the existing FanWall noise barrier and would require a Design Variation and/or crash-protection such as a guardrail due to its location in the clear zone. Structure-mounted segment would be up to 10 feet taller than existing structure-mounted noise barrier and would also require a Design-Variation for the 14-foot-tall noise barrier segments located on MSE or retaining walls. Cost reasonableness is not considered with this replacement noise barrier system.
		Structure-Mounted	14	1,270	2032+20 (NB I95)	2044+70 (NB I95)									
		Structure-Mounted	8	345	2044+70 (NB I95)	33+80 (Ramp E)									
	I95-E1 CD4	Ground-Mounted	22	2,440	2008+00 (NB I95)	2032+40 (NB I95)	40	9.3 (13.7)	40	17	57	8.8 (13.7)	$2,226,600	N/A Replacement Noise Barrier	**Recommended** - Replacement shoulder and structure-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits all of the impacted sites. Ground-mounted noise barrier would be 2 feet taller than the existing FanWall noise barrier segment and will require a Design Variation and/or crash-protection such as a guardrail due to its location in the clear zone. Structure-mounted segment would be up to 10 feet taller than existing structure-mounted noise barrier and would also require a Design-Variation for the 14-foot-tall noise barrier segments located on MSE or retaining walls. Cost reasonableness is not considered with this replacement noise barrier system.
		Structure-Mounted	14	1,270	2032+20 (NB I95)	2044+70 (NB I95)									
		Structure-Mounted	8	345	2044+70 (NB I95)	33+80 (Ramp E)									

Note: Not Applicable – Replacement Noise Barrier
Cells shaded in green denote the recommended noise barrier design concept.

All 40 of the impacted homes were predicted to experience a noise level reduction of at least 5.0 dB(A) compared to the conditions with no noise barrier and all would be benefited by this replacement noise barrier design concept according to FDOT feasibility criteria. Seventeen (17) non-impacted homes were also predicted to be benefited incidentally. The estimated overall cost of this noise barrier design concept is $2,226,600. Since this noise barrier concept will replace an existing noise barrier being removed to accommodate the project, the cost per benefited site of this noise barrier is not applicable. The noise barrier will attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites, thereby meeting this FDOT reasonableness criteria.

According to the December 2024 utilities drawings, utilities present along this segment of I-95 include the following:

- City of North Miami Beach water mains run along the west side of East Drive at Sta. 2009+00 and between approximately Sta. 2016+60 and 2040+40; crossing the corridor near Sta. 2040+40.
- Buried FDOT ITS and AT&T fiber optic lines running along the southern limited-access ROW line and the edge of pavement south of Sta. 2009+00 to 2026+25; crossing the corridor near Sta. 2016+75 and Sta. 2017+55.
- Several overhead fiber optic lines cross the corridor near Sta. 2042+90.
- An FP&L underground electrical line is located west of East Drive near Sta. 2016+40. FP&L overhead electrical lines are located west of East Drive near Sta. 2019+25 and Sta. 2034+00; crossing the corridor near Sta. 2042+90.

None of these identified utilities are expected to cause substantial conflicts that would preclude construction of this noise barrier. This conceptual noise barrier design also does not have any known substantial conflicts with drainage facilities. Potential conflicts between the recommended noise barrier and underground utilities, overhead utilities or drainage will be considered in more detail during the project's Design Phase once more specific and detailed project information becomes available. This conceptual noise barrier design also does not have any apparent sight distance issues.

According to a field review of the existing conditions along this segment of I-95, there are no existing, conforming and legally permitted outdoor advertising signs

along northbound I-95 that would have the potential to be blocked by this noise barrier.

Based on the information available at this project phase, this noise barrier design concept generally satisfies the reasonableness and feasibility factors considered in the evaluation of noise abatement measures. Therefore, replacement of the existing noise barrier with a new 8 to 22-foot tall, 4,055-foot long noise barrier system along the shoulder of the northbound lanes (identified as I95-E1 CD4 in **Table 5-2**) is recommended for further consideration and public input. Construction of this noise barrier will require a Design Variation for a special design and/or crash-protection such as a guardrail. A Design Variation will also be required for the 14-foot tall segments located on structure. A similar noise barrier was recommended at this location with the FDOT's recent design project to improve I-95 between the Golden Glades Interchange (GGI) and Miami Gardens Drive (FPID: 428358-5-52-01) as part of the overall GGI improvement project. A Design Variation was approved by FDOT's Structures Design Office for the GGI project on June 09, 2020 (please see **Appendix E**) that allowed for noise barriers with a maximum height of 14 feet on MSE wall and a 22-feet on the shoulder.

Other replacement noise barrier design concepts shown in **Table 5-2** would also meet FDOT's noise barrier feasibility and reasonableness criteria. Design concept I95-E1 CD2 is a 14-foot tall shoulder/structure-mounted noise barrier from the southern project terminus up to the structure over Miami Gardens Drive, at which point it becomes an 8-foot tall structure-mounted noise barrier. Although this design concept would be 6 feet shorter than the existing noise barrier along much of its length, it will benefit the same number of impacted sites compared to the up to 8-foot taller recommended design concept. The noise level reduction would be only slightly reduced from the recommended design at an estimated cost that is $600,300 lower. As with the recommended replacement noise barrier design concept, it will also require a Design Variation for the 14-foot tall noise barrier segments located on MSE or retaining wall. Since the goal with the replacement noise barriers was to match the existing noise barrier design and performance as closely as possible, this design concept was not selected as the recommended noise barrier design concept since its height would be as much as 6 feet shorter than the existing FanWall noise barrier, but it can be reconsidered during the Design Phase if it is determined that construction of the recommended design concept is not feasible.

5.2 CNE I95-E2 – Pickwick Lakes Estates

Eleven (11) residences in the Pickwick Lakes Estates community located along the east side of I-95 between Miami Gardens Drive and the Snake Creek Canal are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheets 2 through 4** in **Appendix D**. Noise sensitive areas at these homes include exterior areas such as yards and patios that are primarily affected by traffic noise from I-95. These homes are located adjacent to an existing noise barrier constructed between 1986 and 1988. This noise barrier (FHWA ID # 11091) consists of an 8 to 19-foot-tall ground-mounted "Fan-Wall" noise barrier located along the northbound on-ramp from Miami Gardens Drive and along the northbound I-95 mainline. To accommodate the planned improvements, this existing noise barrier will be removed in its entirety.

With the Build Alternative, the design year traffic noise levels in this community are predicted to range from 53.9 to 73.7 dB(A). These levels represent an average increase of approximately 2.8 dB(A) over existing levels and an 11.4 dB(A) maximum increase due to the removal of the existing noise barrier.

Currently, the I-95 mainline is elevated over Miami Gardens Drive interchange; however, most of the ramps near this community are located at-grade. The planned improvements at this interchange are extensive and include the addition of general-use, auxiliary and express lanes, new access ramps and revisions to the existing ramps. The I-95 mainline and several of the ramps at the Miami Gardens Drive interchange will be elevated well above grade near Miami Gardens Drive. North of the interchange, the elevation of northbound on-ramp and mainline lanes will drop to near the surrounding ground level until increasing again to cross the Snake Creek Canal. These improvements will move traffic on the northbound on-ramp (Ramp A) up to 100 feet closer to the residences in Pickwick Lakes Estates. However, the new westbound Miami Gardens Drive on-ramp onto southbound I-95 (Ramp D) will be elevated on MSE wall that will partially block traffic noise at the homes nearest Miami Gardens Drive.

The most effective means of providing noise abatement for the impacted sites and replacing the existing noise barrier would be construction of a noise barrier at heights similar to the existing noise barrier and generally extending between

the same limits adjacent to the I-95 on-ramps. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE includes a 1,415-foot long, 22-foot tall ground-mounted replacement noise barrier system (referred to as I95-E2 CD-4 in **Table 5-3**). The south end of this noise barrier will overlap with the end of the MSE wall for Ramp D near Sta. 45+20 and extend northward along the limited-access ROW line and the northbound on-ramp (Ramp A) to Sta. 67+20. This noise barrier design concept is shown on **Sheets 2 through 4** in **Appendix D**. This noise barrier will be between 3 and 14 feet taller than the existing FanWall noise barrier.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 53.3 to 63.1 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 10.8 dB(A) and a maximum of 14.7 dB(A) compared to the predicted noise levels without any noise abatement. Design year noise levels with this replacement noise barrier would average approximately 1.2 dB(A) lower than the levels with the existing conditions.

Ten (10) of the 11 impacted homes were predicted to experience a noise level reduction of at least 5.0 dB(A) compared to the conditions with no noise barrier and would thereby be benefited by this noise barrier design concept according to FDOT feasibility criteria. Four (4) non-impacted homes were also predicted to be benefited incidentally. The estimated overall cost of this noise barrier design concept is $933,900. Since this noise barrier concept will replace an existing noise barrier being removed to accommodate the project, the cost per benefited site of this noise barrier is not applicable. The noise barrier will attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites, thereby meeting this FDOT reasonableness criteria.

According to the December 2024 utilities drawings, utilities present along this segment of I-95 include the following:

- A Comcast overhead fiber optic line runs behind the homes along the northbound on-ramp from Miami Gardens Drive to near Ramp A Sta. 63+55.

Table 5 - 3: Noise Barrier Analysis for Common Noise Environment – I95-E2 (Pickwick Lakes Estates)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-E2 **Pickwick Lakes Estates** East Side of I-95 between Miami Gardens Drive and the Snake Creek Canal	I95-E2 CD1	Ground-Mounted	14	1,415	45+20 (Ramp D)	67+20 (Ramp A)	11	8.3 (12.2)	10	0	10	10.7 (12.2)	$594,300	N/A Replacement Noise Barrier	**Not Recommended** –14-foot tall replacement ground-mounted noise barrier along the limited-access ROW line. Benefits 10 of the 11 impacted sites. Up to 5 feet shorter than the existing FanWall noise barrier. Constrained ROW north of Ramp A Sta. 56+00 may affect feasibility.
	I95-E2 CD2	Shoulder/ Structure-Mounted	14	1,355	88+70 (Ramp B)	68+20 (Ramp A)	11	8.0 (11.2)	10	0	10	10.3 (11.2)	$569,100	N/A Replacement Noise Barrier	**Not Recommended** –14-foot tall replacement noise barrier along the roadway shoulder. Benefits 10 of the 11 impacted sites. Up to 5 feet shorter than the existing FanWall noise barrier. Would require a Design-Variation for the 14-foot tall segments located on wall structure. Could be reconsidered if I95-E2 CD4 is determined to be infeasible during the Design Phase.
	I95-E2 CD3	Ground-Mounted	18	1,415	45+20 (Ramp D)	67+20 (Ramp A)	11	9.6 (13.7)	10	0	10	12.1 (13.7)	$764,100	N/A Replacement Noise Barrier	**Not Recommended** – Similar to the recommended noise barrier design concept. Benefits 10 of the 11 impacted sites. Constrained ROW north of Ramp A Sta. 56+00 may affect feasibility. Matches or exceeds the height of south end of the existing FanWall noise barrier segment.
	I95-E2 CD4	Ground-Mounted	22	1,415	45+20 (Ramp D)	67+20 (Ramp A)	11	10.8 (14.7)	10	4	14	11.4 (14.7)	$933,900	N/A Replacement Noise Barrier	**Recommended** – Replaces all of the existing noise barrier system with a new ground-mounted noise barrier along the ROW line. Benefits 10 of the 11 impacted sites and 4 non-impacted sites. Constrained ROW north of Ramp A Sta. 56+00 may affect feasibility. Taller than all of the existing FanWall noise barrier. Cost reasonableness is not considered with this replacement noise barrier system.
	I95-E2 CD5	Ground-Mounted	22	1,415	45+20 (Ramp D)	67+20 (Ramp A)	11	11.4 (15.9)	11	4	15	10.4 (15.9)	$1,361,700	N/A Replacement Noise Barrier	**Not Recommended** – Replacement ground and shoulder/structure-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits all of the impacted sites, at a cost that is estimated to be $427,800 greater than the recommended noise barrier design concept. Matches or exceeds the height of south end of the existing FanWall noise barrier segment. 14-foot tall segment would be up to 5 feet shorter than the north end of the FanWall. Would require a Design-Variation for the 14-foot tall segments located on wall structure. Cost reasonableness is not considered with this replacement noise barrier system.
		Shoulder-Mounted	14	120	67+00 (Ramp A)	68+20 (Ramp A)									
		Structure-Mounted	8	190	68+20 (Ramp A)	70+10 (Ramp A)									
		Shoulder-Mounted	14	790	70+10 (Ramp A)	78+00 (Ramp A)									

Note: N/A = Not Applicable. Cells shaded in green denote the recommended noise barrier design concept.

- Multiple buried fiber optic lines cross the corridor between approximately Ramp A Sta. 67+20 and 67+50.
- Multiple Miami-Dade Water and Sewer Department (WASD) force mains cross the corridor between approximately Ramp A Sta. 66+80 and 67+30.
- A buried FP&L utility line crosses the corridor near Ramp A Sta. 67+85.

None of these identified utilities are expected to cause substantial conflicts that would preclude construction of this noise barrier. This conceptual noise barrier design also does not have any known substantial conflicts with drainage facilities. Potential conflicts between the recommended noise barrier and underground utilities, overhead utilities or drainage will be considered in more detail during the project's Design Phase once more specific and detailed project information becomes available. This conceptual noise barrier design also does not have any apparent sight distance issues.

According to a field review of the existing conditions along this segment of I-95, there are no existing, conforming and legally permitted outdoor advertising signs along northbound I-95 that would have the potential to be blocked by this noise barrier.

Based on the information available at this project phase, this noise barrier design concept generally satisfies the reasonableness and feasibility factors considered in the evaluation of noise abatement measures. Therefore, replacement of the existing noise barrier with a new 22-foot tall, 1,415-foot long noise barrier system along the northbound on-ramp from Miami Gardens Drive and the northbound mainline lanes identified as I95-E2 CD4 in **Table 5-3**) is recommended for further consideration and public input.

Other noise barrier design concepts shown in **Table 5-3** would also meet FDOT's noise barrier feasibility and reasonableness criteria. Design concept I95-E2 CD5 would include an additional 8 to 14-foot tall structure and shoulder-mounted noise barrier that would begin adjacent to the north end of the recommended 22-foot tall ground-mounted noise barrier and extend northward 1,100 feet along the northbound on-ramp. The average noise level reduction with this design concept is predicted to decrease by 1.0 dB(A), but it would benefit the remaining impacted site that was not benefited with the recommended noise barrier design concept. The estimated cost of noise barrier design concept I95-E2 CD5 would

increase by $427,800 over the cost of the recommended noise barrier. Noise barrier design concept I95-E2 CD5 can be reconsidered during the Design Phase.

5.3 CNE I95-SCT – Snake Creek Trail

An approximately 405 foot-long segment of the Snake Creek Trail along the Snake Creek Canal east of I-95 is expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. This site is shown on **Sheet 4** in **Appendix D**. With the Build Alternative, the design year traffic noise levels along this segment of the trail are predicted to range from 66.0 to 68.3 dB(A). These levels represent an average increase of approximately 0.3 dB(A) from the existing levels.

Currently, the I-95 mainline near this trail is slightly elevated over the Snake Creek Canal. The nearby planned improvements are extensive and include the addition of general-use, auxiliary and express lanes, revisions to the existing ramps and new elevated general-use and express-lane ramps. The elevation of the northbound lanes will also be higher overall at the crossing over the canal. The planned improvements will also move northbound on-ramp (Ramp A) traffic over the trail by approximately 90 feet to the east.

The most effective means of providing noise abatement for the impacted section of the Snake Creek Trail would be construction of a noise barrier along the shoulder of the on-ramp and across the bridge over the Snake Creek Canal. It was assumed that the 22-foot tall ground-mounted noise barrier recommended for the Pickwick Lakes Estates community just south of the canal represented the abated build condition for this Snake Creek Trail noise barrier analysis. Since the trail is located along the canal, the most feasible and reasonable noise abatement alternative for this CNE would include a 1,000-foot long, 8 to 14-foot tall shoulder and structure-mounted noise barrier (referred to as I95-SCT CD-1 in **Table 5-4**) as shown on **Sheet 4** in **Appendix D**.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 61.7 to 65.7 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 2.4 dB(A) and a maximum of 6.6 dB(A) compared to the predicted noise levels without this noise barrier. None of the impacted areas of the trail were predicted to meet the FDOT's noise

Table 5 - 4: Noise Barrier Analysis for Common Noise Environment – I95-SCT (Snake Creek Trail)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-SCT Snake Creek Trail	I95-SCT CD1	Shoulder-Mounted	14	120	67+00 (Ramp A)	68+20 (Ramp A)	1 SLU (6 locations)	2.4 (6.6)	0 SLU (0 locations)	0 SLU (0 locations)	0 SLU (0 locations)	6.6 (6.6)	$385,800	N/A	**Not Recommended** – Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.
		Structure-Mounted	8	190	68+20 (Ramp A)	70+10 (Ramp A)									
		Shoulder-Mounted	14	690	70+10 (Ramp A)	77+00 (Ramp A)									

Note: N/A = Not Applicable

Table 5 - 5: Noise Barrier Analysis for Common Noise Environment – I95-E3 (Riviera and Rolling Green)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-E3 **Riviera and Rolling Green Condominiums** East Side of I-95 north of the Snake Creek Canal	I95-E3 CD1	Structure/Shoulder-Mounted	14	1,480	2085+40 (NB I-95)	2100+20 (NB I-95)	58	1.9 (5.6)	4	2	6	5.2 (5.6)	$621,600	N/A Replacement Noise Barrier	**Not Recommended** – Replacement structure/shoulder-mounted noise barrier along the roadway shoulder. Only benefits 4 of 58 impacted sites. Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.
	I95-E3 CD2	Shoulder-Mounted	14	640	2084+80 (NB I-95)	2091+20 (NB I-95)	58	3.2 (7.6)	13	2	15	5.6 (7.6)	$816,000	N/A Replacement Noise Barrier	**Not Recommended** – Similar to the recommended noise barrier design concept. Only benefits 13 of 58 the impacted sites. Would match or exceed height of existing 14-foot tall noise barrier.
		Ground-Mounted	16	1,140	2091+00 (NB I-95)	2102+40 (NB I-95)									
	I95-E3 CD3	Shoulder-Mounted	14	580	2085+40 (NB I-95)	2091+20 (NB I-95)	58	4.2 (8.8)	21	7	28	6.1 (8.8)	$913,200	N/A Replacement Noise Barrier	**Not Recommended** – Similar to the recommended noise barrier design concept. Only benefits 21 of 58 the impacted sites. Would match or exceed height of existing 14-foot tall noise barrier.
		Ground-Mounted	18	1,240	2091+00 (NB I-95)	2103+40 (NB I-95)									
	I95-E3 CD4	Shoulder-Mounted	14	580	2085+40 (NB I-95)	2091+20 (NB I-95)	58	5.3 (10.6)	29	13	42	6.7 (10.6)	$1,035,600	N/A Replacement Noise Barrier	**Not Recommended** – Similar to the recommended noise barrier design concept. Only benefits 29 of 58 the impacted sites. Would match or exceed height of existing 14-foot tall noise barrier.
		Ground-Mounted	20	1,320	2091+00 (NB I-95)	2104+20 (NB I-95)									
	I95-E3 CD5	Shoulder-Mounted	14	580	2085+40 (NB I-95)	2091+20 (NB I-95)	58	6.0 (12.0)	37	13	50	7.0 (12.0)	$1,101,600	N/A Replacement Noise Barrier	**Recommended** – Replacement structure and ground-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits 37 of the 58 impacted sites. Will require a Design Variation for the segments located on structure. Would match or exceed height of existing 14-foot tall noise barrier. Cost reasonableness is not considered with this replacement noise barrier system.
		Ground-Mounted	22	1,300	2091+00 (NB I-95)	2104+00 (NB I-95)									

Note: N/A = Not Applicable. Cells shaded in green denote the recommended noise barrier design concept.

reduction design requirement of 7 dB(A) at one or more sites. It was determined that it would not be possible to meet this requirement by increasing the height of this noise barrier since the heights that were analyzed were maximized for the location along the roadway shoulder and on structure; nor would it be possible to meet this requirement by extending the length of the noise barrier. Based on the results of this analysis, a noise barrier is not recommended for further consideration and public input for the impacted section of the Snake Creek Trail since it was not possible to meet FDOT's noise reduction design criteria.

5.4 CNE I95-E3 – Riviera and Rolling Green Condominiums

Fifty-eight (58) residences in the Riviera and Rolling Green condominiums located along the east side of I-95 north of the Snake Creek Canal are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheets 4 and 5** in **Appendix D**. Noise sensitive areas at these condominiums include exterior areas such as patios, balconies and community pools that are primarily affected by traffic noise from I-95. These condominiums are currently located adjacent to an existing noise barrier constructed during 2001. This noise barrier (FHWA ID #10181) consists of a 14-foot-tall ground-mounted noise barrier located along the northbound I-95 mainline. To accommodate the planned improvements, this existing noise barrier will be removed in its entirety.

With the Build Alternative, the design year traffic noise levels in this community are predicted to range from 51.8 to 75.9 dB(A). These levels represent an average increase of approximately 2.0 dB(A) over existing levels and a 10.3 dB(A) maximum increase due to the removal of the existing noise barrier.

The I-95 mainline lanes are at-grade along this project segment. The planned improvements include the addition of at-grade general-use, auxiliary and express lanes, and an elevated northbound express lane off-ramp to Ives Dairy Road. These improvements will move traffic in the northbound lanes up to 95 feet closer to the nearby condominiums.

The most effective means of providing noise abatement for the impacted sites would be construction of a replacement noise barrier extending between similar limits along the northbound mainline lanes. Several noise barrier design concepts

were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE includes an 1,880-foot long, 14 to 22-foot tall ground and shoulder-mounted replacement noise barrier system (referred to as I95-E3 CD-5 in **Table 5-5**). This noise barrier would be located along the northbound mainline lanes between Sta. 2085+40 and Sta. 2104+00. This noise barrier design concept is shown on **Sheets 4 and 5** in **Appendix D**. Based on the information available at this time, the shoulder-mounted 14-foot tall noise barrier would overlap with the 22-foot tall ground-mounted noise barrier at Sta. 2091+00 to 2091+20; however, the location of this transition will be evaluated in more detail during the project's Design Phase to ensure that the 22-foot tall ground-mounted noise barrier is extended as far south as feasible. The height of the shoulder-mounted noise barrier segments would be the same height as the existing noise barrier. The ground-mounted noise barrier segments, which would directly replace most of the existing noise barrier, would be 8 feet taller.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 51.8 to 74.3 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 6.0 dB(A) and a maximum of 12.0 dB(A) compared to the predicted noise levels without any noise abatement. Design year noise levels with this replacement noise barrier would average approximately 2.1 dB(A) lower than the levels with the existing conditions.

Thirty-seven (37) of the 58 impacted residences were predicted to experience a noise level reduction of at least 5.0 dB(A) compared to the conditions with no noise barrier and would thereby be benefited by this noise barrier design concept according to FDOT feasibility criteria. It was not possible to benefit the remaining 21 impacted sites due to their location on the upper floors of the condominium buildings. Thirteen (13) non-impacted condominiums and the nearest community pool at Rolling Green were also predicted to be benefited incidentally. The estimated overall cost of this noise barrier design concept is $1,101,600. Since this noise barrier concept will replace an existing noise barrier being removed to accommodate the project, the cost per benefited site of this noise barrier is not applicable. The noise barrier will attain the FDOT's noise reduction design

requirement of 7 dB(A) at one or more sites, thereby meeting this FDOT reasonableness criteria.

According to the December 2024 utilities drawings, utilities present along this segment of I-95 include the following:

- An FP&L overhead utility line crosses the corridor near Sta. 2092+30.
- Buried FP&L underground utility lines run between the existing northbound mainline lanes and the limited-access ROW line from near Sta. 2077+20 to Sta. 2092+60, where they cross the corridor.
- A buried AT&T fiber optic line crosses the corridor near Sta. 2092+20.
- A Miami-Dade WASD water main crosses the corridor near Sta. 2092+35.

None of these identified utilities are expected to cause substantial conflicts that would preclude construction of this noise barrier. This conceptual noise barrier design also does not have any known substantial conflicts with drainage facilities. Potential conflicts between the recommended noise barrier and underground utilities, overhead utilities or drainage will be considered in more detail during the project's Design Phase once more specific and detailed project information becomes available. This conceptual noise barrier design also does not have any apparent sight distance issues.

According to a field review of the existing conditions along this segment of I-95, there are no existing, conforming and legally permitted outdoor advertising signs along northbound I-95 that would have the potential to be blocked by this noise barrier.

Based on the information available at this project phase, this noise barrier design concept generally satisfies the reasonableness and feasibility factors considered in the evaluation of noise abatement measures. Therefore, replacement of the existing noise barrier with a new 14 to 22-foot tall, 1,880-foot long noise barrier system along the northbound mainline lanes identified as I95-E3 CD5 in **Table 5-5**) is recommended for further consideration and public input.

5.5 CNE I95-E4 – Highland Lakes

Twelve (12) residences in the Highland Lakes community located along the east side of I-95 between Ives Dairy Road and the Miami Dade/Broward County line are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheets 7 through 9** in **Appendix D**. Noise sensitive areas at these homes include exterior areas such as yards and patios that are primarily affected by traffic noise from I-95. These homes are currently located adjacent to an existing noise barrier constructed between 1986 and 1988. This noise barrier (FHWA ID #11093) consists of a 15 to 19-foot-tall ground-mounted "Fan-Wall" noise barrier located along the northbound on-ramp from Ives Dairy Road and along the northbound I-95 mainline. To accommodate the planned improvements, this existing noise barrier will be removed in its entirety.

With the Build Alternative, the design year traffic noise levels in this community are predicted to range from 52.9 to 77.8 dB(A). These levels represent an average increase of approximately 4.4 dB(A) over existing levels and a 13.3 dB(A) maximum increase due to the removal of the existing noise barrier.

Ives Dairy Road is currently elevated over I-95 to the south; however, the northbound on-ramps nearest this community are at-grade. The planned improvements at this interchange are extensive and include reconfiguration of Ives Dairy Road to a DDI configuration. The improvements also include the addition of general-use, auxiliary and express lanes, new express lane access ramps and revisions to the existing ramps. Ives Dairy Road and the northbound on-ramps (Ramps H and I) will be elevated above grade near the interchange. The planned improvements will move traffic up to 60 feet closer to the residences. Also, the westbound on-ramp onto northbound I-95 (Ramp H) will be elevated on MSE wall that will partially block traffic noise from I-95 and Ives Dairy Road.

The most effective means of providing noise abatement for the impacted sites would be construction of a replacement noise barrier at heights similar to the existing noise barrier and generally extending between the same limits adjacent to the northbound on-ramp and mainline lanes. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE includes a 4,405-foot long, 8 to 22-foot tall ground and shoulder/structure-mounted replacement noise barrier system (referred to as I95-E4 CD-6 in **Table 5-6**). This noise barrier would be located along the northbound on-ramp and mainline lanes between westbound Ives Dairy Road Sta. 643+00 and Sta. 2197+00 (NB I-95). This noise barrier design concept is shown on **Sheets 7 through 9** in **Appendix D**. A 14-foot tall shoulder-mounted noise barrier would begin along westbound Ives Dairy Road near the terminus of the existing noise barrier and continue northward for 480 feet to Ramp I Sta. 90+60. From here, an 8-foot tall structure-mounted would extend northward 775 feet before transitioning to a 14-foot tall shoulder/structure-mounted noise barrier at Ramp H Sta. 75+00. This 1,435-foot long, 14-foot tall shoulder and structure-mounted noise barrier would generally remain well above grade and would extend northward to Sta. 811+20. The 22-foot tall ground-mounted noise barrier would begin at Sta. 811+00 to overlap with the 14-foot tall noise barrier and would end at Sta. 2197+00. The ground-mounted noise barrier will be up to 7 feet taller than the existing FanWall noise barrier. The structure and shoulder-mounted noise barrier segments will be up to 7 feet shorter than the existing noise barrier but would generally be located on the elevated on-ramp well above the surrounding ground.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 50.2 to 61.0 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 13.2 dB(A) and a maximum of 16.8 dB(A) compared to the predicted noise levels without any noise abatement. Design year noise levels with this replacement noise barrier would average approximately 0.8 dB(A) lower than the levels with the existing conditions.

All 12 of the impacted homes were predicted to experience a noise level reduction of at least 5.0 dB(A) compared to the conditions with no noise barrier and all would thereby be benefited by this noise barrier design concept according to FDOT feasibility criteria. Forty-seven (47) non-impacted homes were also predicted to be benefited incidentally. The estimated overall cost of this noise barrier design concept is $2,122,200. Since this noise barrier concept will replace an existing noise barrier being removed to accommodate the project, the cost per benefited site of this noise barrier is not applicable. The noise barrier will attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites, thereby meeting this FDOT reasonableness criteria.

Table 5 - 6: Noise Barrier Analysis for Common Noise Environment – I95-E4 (Highland Lakes)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-E4 **Highland Lakes** East Side of I-95 between Ives Dairy Road and the Miami-Dade/Broward County line	I95-E4 CD1	Structure-Mounted	8	4,375	434+30 (WB IDR))	2197+00 (NB I-95)	12	6.7 (8.6)	7	0	7	7.1 (8.6)	$1,050,000	N/A Replacement Noise Barrier	**Not Recommended** – Replacement structure-mounted noise barrier along the roadway shoulder. Benefits 7 of 12 impacted sites.
	I95-E4 CD2	Structure-Mounted	8	1,245	434+30 (WB IDR))	75+00 (Ramp H)	12	9.5 (13.3)	12	37	49	7.6 (13.3)	$1,613,400	N/A Replacement Noise Barrier	**Not Recommended** – Similar to the recommended noise barrier design concept. Benefits all of the impacted sites. Up to 7 feet shorter than the existing noise barrier but would generally be located on the elevated on-ramp well above the surrounding ground. Would require a Design Variation.
		Structure - Mounted	14	3,130	75+00 (Ramp H)	2197+00 (NB I-95)									
	I95-E4 CD3	Structure-Mounted	8	965	90+00 (Ramp I)	75+00 (Ramp H)	12	12.0 (15.1)	12	42	54	8.7 (15.1)	$2,113,800	N/A Replacement Noise Barrier	**Not Recommended** – Adds a 16-foot tall ground-mounted noise barrier. Benefits all of the impacted sites. Ground-mounted noise barrier would be up to 3 feet shorter than the existing noise barrier. The structure and shoulder-mounted noise barrier segments will be up to 7 feet shorter than the existing noise barrier but would generally be located on the elevated on-ramp well above the surrounding ground. Would require a Design Variation.
		Structure/ Shoulder-Mounted	14	3,070	75+00 (Ramp H)	2197+00 (NB I-95)									
		Ground-Mounted	16	1,235	434+30 (WB IDR)	76+15 (Ramp H)									
	I95-E4 CD4	Structure-Mounted	8	965	90+00 (Ramp I)	75+60 (Ramp H)	12	12.7 (17.2)	12	46	58	8.7 (17.2)	$2,336,100	N/A Replacement Noise Barrier	**Not Recommended** – Increases the height of the ground-mounted noise barrier to 22 feet. Benefits all of the impacted sites. Ground-mounted noise barrier would be up to 3 feet taller than the existing noise barrier. The structure and shoulder-mounted noise barrier segments will be up to 7 feet shorter than the existing noise barrier but would generally be located on the elevated on-ramp well above the surrounding ground. Would require a Design Variation. Doesn't benefit any additional impacted sites.
		Structure/ Shoulder-Mounted	14	3,070	75+60 (Ramp H)	2197+00 (NB I-95)									
		Ground-Mounted	22	1,235	434+30 (WB IDR)	76+15 (Ramp H)									
	I95-E4 CD5	Ground-Mounted	22	4,270	434+30 (WB IDR)	2197+00 (NB I-95)	12	14.6 (16.9)	12	33	45	10.7 (16.9)	$2,818,200	N/A Replacement Noise Barrier	**Not Recommended** – Replaces all of the existing noise barrier system with a new 22-foot tall ground-mounted noise barrier along the ROW line. Benefits all of the impacted sites. Up to 3 feet taller than the existing noise barrier. Could be reconsidered if the recommended noise barrier design concept is determined to be infeasible during the Design Phase.
	I95-E4 CD6	Shoulder-Mounted	14	480	643+00 (WB IDR)	90+60 (Ramp I)	12	13.2 (16.8)	12	47	59	9.1 (16.8)	$2,122,200	N/A Replacement Noise Barrier	**Recommended** – Replacement ground and structure-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits all of the impacted sites. Ground-mounted noise barrier would be up to 3 feet taller than the existing noise barrier. The structure and shoulder-mounted noise barrier segments will be up to 7 feet shorter than the existing noise barrier but would generally be located on the elevated on-ramp well above the surrounding ground. Will require a Design Variation for the 14-foot tall noise barrier segments located on structures. Cost reasonableness is not considered with this replacement noise barrier system. Alternatives could be considered.
		Structure-Mounted	8	775	90+60 (Ramp I)	75+00 (Ramp H)									
		Shoulder/ Structure-Mounted	14	1,435	75+00 (Ramp H	811+20 (Ramp M)									
		Ground-Mounted	22	1,715	811+00 (Ramp M)	2197+00 (NB I-95)									

Note: Cells shaded in green denote the recommended noise barrier design concept.

According to the December 2024 utilities drawings, utilities present along this segment of I-95 include the following:

- A buried AT&T telephone line runs along the westbound lanes of Ives Dairy Road between approximately WB IDR Sta. 642+10 and 643+00.
- Multiple buried fiber optic lines cross Ives Dairy Road near WB IDR Sta. 642+10.
- A buried Lumen fiber optic line runs along the limited access ROW line from east of Highland Lakes Boulevard to near WB IDR Sta. 639+00 where it crosses the corridor westward.
- A buried Comcast TV line runs along the limited access ROW line on the northbound on-ramp from near WB IDR Sta. 640+00 to Ramp H Sta. 77+00.
- A buried FDOT ITS line crosses the northbound on-ramp near Sta. 75+70 and then continues north between the limited-access ROW line and the shoulder of the existing on-ramp to near Ramp M Sta. 812+70.
- A Miami-Dade WASD sewer line runs along the limited access ROW line between approximately Ramp M Sta. 801+70 and 805+40.
- A Miami-Dade WASD water main runs along the limited access ROW line between approximately Ramp M Sta. 801+60 and 807+15.
- Two (2) FP&L overhead utility lines cross the corridor at the county line near Sta. 2196+45.
- A Comcast overhead fiber optic cable crosses the corridor at the county line near Sta. 2196+60.

None of these identified utilities are expected to cause substantial conflicts that would preclude construction of this noise barrier. This conceptual noise barrier design also does not have any known substantial conflicts with drainage facilities. Potential conflicts between the recommended noise barrier and underground utilities, overhead utilities or drainage will be considered in more detail during the project's Design Phase once more specific and detailed project information becomes available. This conceptual noise barrier design also does not have any apparent sight distance issues.

According to a field review of the existing conditions along this segment of I-95, there are no existing, conforming and legally permitted outdoor advertising signs along northbound I-95 that would have the potential to be blocked by this noise barrier.

Based on the information available at this project phase, this noise barrier design concept generally satisfies the reasonableness and feasibility factors considered in the evaluation of noise abatement measures. Therefore, replacement of the existing noise barrier with a new 8 to 22-foot tall, 4,405-foot long noise barrier system along the northbound mainline lanes (identified as I95-E4 CD6 in **Table 5-6**) is recommended for further consideration and public input. Construction of this noise barrier will require a Design Variation for the 14-foot tall noise barrier segments located on wall structures once the limits and type of structures are determined during Design.

Other noise barrier design concepts shown in **Table 5-6** would also meet FDOT's noise barrier feasibility and reasonableness criteria. Design concept I95-E4 CD5 is a 22-foot tall ground-mounted noise barrier that would extend at-grade along the ROW line between Ives Dairy Road and the Miami-Dade/Broward County line. However, the northbound on-ramp is elevated well above grade at Ives Dairy Road before dropping down and increasing again to approximately 15 feet above grade near Ramp M Sta. 804+00. Therefore, this 22-foot tall ground-mounted design concept does not benefit as many sites as the recommended noise barrier concept that includes an 8 to 14-foot tall structure-mounted noise barrier along these elevated segments instead. Since the goal with the replacement noise barriers was to match the existing noise barrier design and performance as closely as possible, this design concept was not selected as the recommended noise barrier design concept, but it can be reconsidered during the Design Phase if it is determined that construction of the recommended design concept is not feasible.

5.6 CNE I95-E5 – Ro-Len Gardens Condominiums

Fifty (50) residences in the Rol-Len Gardens condominiums located along the east side of I-95 just north of the Miami Dade/Broward County line are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheet 10** in **Appendix D**. Noise sensitive areas at these condominiums include exterior areas such as patios, balconies, a pool, shuffleboard courts and a walking trail that are primarily affected by traffic noise from I-95. These condominiums are located adjacent to an existing noise barrier system constructed between 1992 and 1995 that includes a 16-foot tall noise barrier adjacent to the Ro-Lens Gardens

condominiums (FHWA ID #11667) that ties into a 15-foot tall noise barrier to the north (FHWA ID #12153). These noise barriers are expected to remain in place.

With the Build Alternative, the design year traffic noise levels at the Ro-Lens Gardens condominiums are predicted to range from 51.6 to 69.3 dB(A). These levels represent an average increase of approximately 0.9 dB(A) over existing levels and a 2.9 dB(A) maximum increase due to the planned improvements and the removal of the existing noise barrier to the south.

This segment of I-95 is generally at-grade between the interchanges and the planned improvements include the addition of general-use, auxiliary and express lanes and new express lane access ramps. These improvements will move traffic up to 65 feet closer to the condominiums.

Only the second-floor balconies are predicted to be impacted and traffic noise levels with the planned improvements are only predicted to increase by a maximum of 1.9 dB(A) at the impacted sites. The maximum increase in the Build Alternative noise level of 3.4 dB(A) occurs is at a non-impacted residence at the south end of the condominium complex that would be adjacent to where the existing FanWall noise barrier to the south will be replaced.

Replacing the existing 16-foot tall ground-mounted noise barrier adjacent to the Ro-Lens Gardens condominiums with a new 22-foot tall would only reduce traffic noise levels by less than approximately 3.0 dB(A), a level just barely perceptible to most people. Since the northbound mainline lanes will be at-grade near these condominiums, reducing traffic noise levels with a supplemental shoulder-mounted noise barrier would also be ineffective. A project to improve I-95 from south of Hallandale Beach Boulevard (SR 858) to north of Hollywood Boulevard (SR 820) - FPID: 436903-1-22-02) is currently being evaluated by FDOT District Four that may affect noise impacts and abatement along this segment of I-95. Therefore, abating the traffic noise impacts at these condominiums is not considered reasonable at this time. However, traffic noise impacts will be reconsidered with the upcoming I-95project described above.

5.7 CNE I95-W1 – Aventura Harbor Apartments

Fifty-eight (58) fourth and fifth-floor apartments in the Aventura Harbor apartment complex located along the west side of I-95 between NE 10th Avenue and NE 196th Street are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheets 4 and 5** in **Appendix D**. Noise sensitive areas at these condominiums include exterior areas such as patios, balconies and tennis courts. These apartments are currently located adjacent to an existing 1,420-foot long, 22-foot tall noise barrier located west of the SFRC that was constructed during 2001 (FHWA ID #10204). This noise barrier will remain in place.

With the Build Alternative, the design year traffic noise levels at these apartments are predicted to range from 48.0 to 72.2 dB(A). These levels represent an average decrease of approximately 0.3 dB(A) over existing levels and a 1.1 dB(A) maximum increase with the planned improvements. Only the fourth and fifth-floor balconies are predicted to be impacted by traffic noise and noise levels at these residences are predicted to decrease by an average of 1.0 dB(A) overall with the Build Alternative. Also, traffic noise levels at apartments on the lower three floors are generally predicted to remain lower than 62 dB(A).

This segment of I-95 is generally at-grade between the interchanges. The planned improvements along this segment include the addition of general-use, auxiliary and express lanes and new express lane access ramps. The planned improvements will move traffic up to 15 feet closer to the condominiums. However, the existing 22-foot tall ground mounted noise barrier is located west of the SFRC and will not be affected by this project.

According to FHWA guidelines, in cases where traffic noise impacts are predicted to occur behind an existing noise barrier as a result of planned improvements, the reasonableness and feasibility of the existing noise barrier should be reassessed to determine if the noise barrier will satisfy FDOT's current noise policy requirements. This is accomplished by comparing the predicted noise levels with the existing noise barrier to the levels predicted without the noise barrier. If the existing noise barrier still meets the FDOT's current policy requirements, then no further analysis is necessary. This is the case even if noise levels are predicted to exceed the NAC behind the existing noise barrier since the goal of noise abatement is to achieve

a substantial reduction in noise levels, not to reduce noise levels below the NAC. In cases where an existing noise barrier does not comply with FDOT's current requirements, the feasibility and reasonableness of extending, supplementing, retrofitting or replacing the existing noise barrier should be considered in order to satisfy those requirements.

The existing 22-foot tall noise barrier is predicted to reduce noise levels by up to 12.5 dB(A) with the planned improvements. This noise barrier reduces traffic noise levels by at least 5 dB(A) at 110 sites that would be impacted without it and an additional 158 non-impacted sites. Eighty-one (81) sites that would be impacted by the planned improvements if this noise barrier were not present, are not predicted to benefit from the existing noise barrier. All of these sites are located on the upper two floors (4th and 5th). This noise barrier would cost $937,200 overall and $3,497 per benefited site if it were to be proposed anew with this project.

Th existing 22-foot-tall noise barrier was constructed at the maximum height allowed at this location. Extending this noise barrier with new 22-foot tall noise barriers southward to the Snake Creek Canal and northward to connect with the 22-foot tall noise barrier for Ives Estates was not predicted to benefit any of the impacted condominiums. Supplementing the existing noise barrier with a new 22-foot tall ground-mounted noise barrier along the southbound I-95 mainline only provided a maximum noise level reduction of 5.7 dB(A). Since this noise barrier is not predicted to provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites, this noise barrier is not considered reasonable at this time.

5.8 CNE MGD-LP – Milton Littman Park

A basketball court and pavilion in Miami-Dade County's Milton Littman Park located along the south side of Miami Gardens Drive between I-95 and NE 6th Avenue are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheet 2** in **Appendix D**. With the Build Alternative, the design year traffic noise level at the basketball court is predicted to be 68.0 dB(A) and 68.7 dB(A) at the pavilion. These levels represent an average decrease of approximately 0.4 dB(A) from the existing levels.

Currently, Miami Gardens Drive along the north side of the park and NE 6th Avenue along the south side are at-grade throughout. I-95 is elevated over Miami Gardens Drive along the western boundary of the park. Miami Gardens Drive and NE 6th Avenue will remain at-grade and both on-ramps to I-95 from eastbound Miami Gardens Drive will begin at-grade near the park and increase in elevation to cross Miami Gardens Drive to the north. Additional planned improvements at this interchange are extensive and include the addition of general-use, auxiliary and express lanes on I-95, new access ramps and revisions to the existing ramps. These improvements will move traffic in the eastbound lanes approximately 30 feet closer to the park.

The most effective means of providing noise abatement for the impacted sites would be construction of a noise barrier along the back of the sidewalk along Miami Gardens Drive and NE 6th Avenue. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites. Since this site is located behind the sidewalk along the roadway shoulder, the most feasible and reasonable noise abatement alternative for this CNE includes a 14-foot tall shoulder-mounted noise barrier (referred to as MGD-LP CD-2 in **Table 5-7**). This 290-foot long noise barrier would be located along the park's northern and eastern boundary, extending from just east of I-95 at Sta. 123+80 to the park's southern boundary along NE 6th Avenue as shown on **Sheet 2** in **Appendix D**.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 65.8 to 65.9 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 2.5 dB(A) and a maximum of 2.9 dB(A) compared to the predicted noise levels without any noise abatement. Neither of the impacted areas of the park were predicted to experience noise level reductions meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites. Based on the results of this analysis, a noise barrier is not recommended for further consideration and public input for these impacted residences since it was not possible to meet FDOT's noise reduction design criteria.

5.9 CNE MGD-S1 – Highland Manor (Miami Gardens Drive)

Two (2) residences in the Highland Manor community located south of Miami Gardens Drive along NE 6th Avenue are expected to experience design year

Table 5 - 7: Noise Barrier Analysis for Common Noise Environment – MGD-LP (Milton Littman Park)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-E2 **Milton Littman Park Basketball Courts and Pavilion** South Side of Miami Gardens Drive between I-95 and NE 6th Avenue	MGD-LP CD1	Ground-Mounted	8	290	123+80 (EB MGD)	Park Property Line on NE 6th Ave.	2 SLU	1.8 (2.2)	0 SLU	0 SLU	0 SLU	N/A	$69,600	N/A	**Not Recommended** – Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.
	MGD-LP CD2	Ground-Mounted	14	290	123+80 (EB MGD)	Park Property Line on NE 6th Ave.	2 SLU	2.5 (2.9)	0 SLU	0 SLU	0 SLU	N/A	$121,800	N/A	**Not Recommended** – Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.

Note: N/A = Not Applicable

Table 5 - 8: Noise Barrier Analysis for Common Noise Environment – MGD-S1 (Highland Manor – Miami Gardens Drive)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
I95-E2 **Highland Manor** South Side of Miami Gardens Drive at NE 6th Avenue Intersection	MGD-S1 CD1	Shoulder-Mounted	8	525	NE 6th Ave./ NE 180th St.	303+40 (EB MGD)	2	4.1 (4.5)	0	0	0	4.1 (4.5)	$126,000	N/A	**Not Recommended** – Does not meet the FDOT's noise reduction feasibility factor for at least two impacted sites.
	MGD-S1 CD2	Shoulder-Mounted	14	305	NE 6th Ave./ NE 180th St.	301+75 (EB MGD)	2	6.4 (7.2)	2	0	2	6.4 (7.2)	$128,100	$64,050	**Not Recommended** – Estimated cost exceeds FDOT's noise barrier cost reasonableness factor.

Note: N/A = Not Applicable

traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on Sheet 2 in Appendix D. Noise sensitive areas at these homes include exterior areas such as yards and patios that are primarily affected by traffic noise from I-95, but also from Miami Gardens Drive and NE 6th Avenue. With the Build Alternative, design year traffic noise levels at these residences are predicted to range from 66.6 to 69.5 dB(A), representing an average increase of approximately 0.5 dB(A) over existing levels and a maximum increase of 1.0 dB(A).

Miami Gardens Drive and NE 6th Avenue are currently at-grade throughout, and I-95 is elevated over Miami Gardens Drive to the west. Miami Gardens Drive will remain at-grade; however, both on-ramps to I-95 from eastbound Miami Gardens Drive will begin at-grade near these homes and increase in elevation to cross Miami Gardens Drive to the north. Additional planned improvements at this interchange are extensive and include the addition of general-use, auxiliary and express lanes on I-95, new elevated access ramps and revisions to the existing ramps. These improvements will move traffic in the eastbound lanes of Miami Gardens Drive approximately 15 feet closer to these homes. The eastern edge-of-pavement of NE 6th Avenue will remain at its current location.

The most effective means of providing noise abatement for the impacted residences would be construction of a noise barrier behind the sidewalk along the south side of Miami Gardens Drive and the east side of NE 6th Avenue (where no project-related improvements are planned). Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites. Since this site is located behind the sidewalk along the roadway shoulder, the most feasible and reasonable noise abatement alternative for this CNE includes a 14-foot tall ground-mounted noise barrier (referred to as MGD-S1 CD-2 in **Table 5-8**). This 305-foot long noise barrier would extend along the east side of NE 6th Avenue from NE 180th Street to Sta. 301+75 along the south side of Miami Gardens Drive as shown on **Sheet 2** in **Appendix D**.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 61.1 to 62.3 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 6.4 dB(A) and a maximum of 7.2 dB(A) compared to the predicted noise levels without any noise abatement.

Both of the impacted residences were predicted to experience a noise level reduction of at least 5.0 dB(A) with this noise barrier and both would thereby be benefited by this noise barrier design concept according to FDOT feasibility criteria. The estimated overall cost of this noise barrier design concept is $128,100. The estimated cost for each benefited site is $64,050, which exceeds the FDOT's reasonable cost criteria of $42,000 per benefited receptor site. Based on the results of this analysis, a noise barrier is not recommended for further consideration and public input for these impacted residences since it was not possible to provide reasonable noise abatement performance at a cost within the FDOT's noise barrier cost criteria.

5.10 CNE IDR-S1 – Highland Lakes (South Side) and Oak Forest

Nine (9) residences in the Highland Lakes and Oak Forest communities located along the south side of Ives Dairy Road between Highland Lakes Boulevard and the eastern project terminus are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheet 7** in **Appendix D**. Noise sensitive areas at these homes include exterior areas such as yards and patios that are primarily affected by traffic noise from Ives Dairy Road.

With the Build Alternative, the design year traffic noise levels in these communities are predicted to range from 54.7 to 72.5 dB(A). These levels represent an average increase of approximately 0.7 dB(A) over existing levels and a maximum of 0.8 dB(A).

Although it is elevated over I-95 to the west of Highland Lakes Boulevard, Ives Dairy Road near these homes is at-grade. The planned improvements at this interchange are extensive and include reconfiguration of Ives Dairy Road to a DDI configuration and an additional travel lane in the eastbound direction. The width of the existing approximately 6-foot wide median between eastbound Ives Dairy Road and the frontage road east of Highland Lakes Boulevard is expected to be reduced to accommodate the planned widening of the eastbound lanes. The planned improvements will move eastbound traffic less than approximately 5 feet closer to the residences.

The most effective means of providing noise abatement for the impacted sites would be construction of a noise barrier along the narrow median strip between the eastbound lanes and the frontage road. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE is a 660-foot long, 14-foot tall shoulder-mounted noise barrier (referred to as IDR-S1 CD-2 in **Table 5-9**). This noise barrier would be located along the eastbound lanes between Sta. 544+70 and Sta. 551+30. This noise barrier design concept is shown on **Sheet 7** in **Appendix D**.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 51.8 to 69.4 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 6.2 dB(A) and a maximum of 11.3 dB(A) compared to the predicted noise levels without any noise abatement.

Seven of the nine impacted homes were predicted to experience a noise level reduction of at least 5.0 dB(A) with this noise barrier and would thereby be benefited by this noise barrier design concept according to FDOT feasibility criteria. The estimated overall cost of this noise barrier design concept is $277,200 and the estimated cost per benefited site is $39,600, which is within the FDOT's reasonable cost criteria. The noise barrier will attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites, thereby meeting this FDOT reasonableness criteria.

With the Build Alternative, the location of the edge-of-pavement of the eastbound lanes will be similar to the existing conditions. According to the December 2024 utilities drawings, utilities present along this segment of Ives Dairy Road include:

- A buried AT&T telephone line runs along the northbound lanes of Highland Lakes Boulevard and crosses Ives Dairy Road near EB IDR Sta. 544+65.
- A buried fiber optic line crosses Ives Dairy Road near EB IDR Sta. 544+65.
- A buried Lumen fiber optic line runs along the eastbound lanes of Ives Dairy Road from west of Highland Lakes Boulevard to east of EB IDR Sta. 547+20.

Table 5 - 9: Noise Barrier Analysis for Common Noise Environment – IDR-S1 (Highland Lakes-South Side and Oak Forest)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
IDR-S1 **Highland Lakes (South Side) and Oak Forest** South Side of Ives Dairy Road between Highland Lakes Boulevard and the Eastern Project Terminus	IDR-S1 CD1	Ground-Mounted	8	660	544+70 (EB IDR)	551+30 (EB IDR)	9	4.4 (7.3)	7	0	7	6.3 (7.3)	$158,400	$22,629	**Not Recommended** – Not feasible due to potential utilities conflicts and limited available ROW along the frontage road. Could be reconsidered during the Design Phase when more detailed design information is available.
	IDR-S1 CD2	Ground-Mounted	14	660	544+70 (EB IDR)	551+30 (EB IDR)	9	6.2 (11.3)	7	0	7	9.2 (11.3)	$277,200	$39,600	**Not Recommended** – Not feasible due to potential utilities conflicts and limited available ROW along the frontage road. Could be reconsidered during the Design Phase when more detailed design information is available.

Note: N/A = Not Applicable

Table 5 - 10: Noise Barrier Analysis for Common Noise Environment – IDR-N1 (Murray Homes)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
IDR-N1 **Murray Homes** North Side of Ives Dairy Road between NE 15th Avenue and NE 16th Avenue	IDR-N1 CD1	Ground-Mounted	16	480	608+55 (WB IDR)	613+55 (WB IDR)	7	5.0 (6.9)	5	0	5	6.6 (6.9)	$230,400	$46,080	**Not Recommended** – Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites. Estimated cost exceeds FDOT's noise barrier cost reasonableness factor. Not feasible due to potential utilities conflicts and limited available ROW along the frontage road.
	IDR-N1 CD2	Ground-Mounted	18	480	608+55 (WB IDR)	613+55 (WB IDR)	7	5.1 (7.1)	5	0	5	6.8 (7.1)	$259,200	$51,840	**Not Recommended** – Estimated cost exceeds FDOT's noise barrier cost reasonableness factor. Not feasible due to potential utilities conflicts and limited available ROW along the frontage road.
	IDR-N1 CD3	Ground-Mounted	20	480	608+55 (WB IDR)	613+55 (WB IDR)	7	5.2 (7.2)	5	0	5	6.9 (7.2)	$288,000	$57,600	**Not Recommended** – Estimated cost exceeds FDOT's noise barrier cost reasonableness factor. Not feasible due to potential utilities conflicts and limited available ROW along the frontage road.
	IDR-N1 CD4	Ground-Mounted	22	480	608+55 (WB IDR)	613+55 (WB IDR)	7	5.2 (7.4)	5	3	8	6.3 (7.4)	$316,800	$39,600	**Not Recommended** – Not feasible due to potential utilities conflicts and limited available ROW along the frontage road. Could be reconsidered during the Design Phase when more detailed design information is available.

Note: N/A = Not Applicable

- A Miami-Dade WASD sewer line runs along the eastbound lanes of Ives Dairy Road from west of Highland Lakes Boulevard to near EB IDR Sta. 550+95, where it crosses Ives Dairy Road.
- A Miami-Dade WASD water main crosses Ives Dairy Road from the ROW line to within the center of the eastbound lanes of Ives Dairy Road near EB IDR Sta. 544+20 to near EB IDR Sta. 551+55, where it crosses into the median of Ives Dairy Road.
- Another Miami-Dade WASD water main runs along NE 21st Avenue and crosses Ives Dairy Road near EB IDR Sta. 551+55.

Based on the engineering data available at this time, there is insufficient space available in this narrow median to construct a noise barrier given these utilities. Encroaching on the frontage road to provide additional space to construct this noise barrier is also not considered feasible due to limited available ROW along the frontage road. Based on these factors, providing a noise barrier for the impacted homes is not considered feasible and therefore not recommended for further consideration and public input. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.

5.11 CNE IDR-N1 – Murray Homes

Seven (7) residences in the Murray Homes neighborhood located along the north side of Ives Dairy Road between NE 15th Avenue and NE 16th Avenue are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheet 12** in **Appendix D**. Noise sensitive areas at these homes include exterior areas such as front yards that are primarily affected by traffic noise from Ives Dairy Road.

With the Build Alternative, the design year traffic noise levels at these residences are predicted to range from 62.5 to 69.7 dB(A). These levels represent an average increase of approximately 0.6 dB(A) over existing levels and a maximum of 1.0 dB(A).

Ives Dairy Road is at-grade near these homes. With the Build Alternative, the existing approximately 15 to 20-foot wide median between westbound Ives Dairy

Road and the frontage road (NE 205th Terrace) is expected to remain similar to the existing condition since the planned improvements along this segment of Ives Dairy Road are minimal and don't include additional travel lanes or an alignment shift. As such, no change to the distance between the near edge-of-pavement and the nearby homes is expected.

Since the homes in this neighborhood have driveways attached to the frontage road, the most effective means of providing noise abatement for the impacted sites would be construction of a noise barrier along the median between the westbound lanes and the frontage road. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites. The most feasible and reasonable noise abatement alternative for this CNE is a 480-foot long, 22-foot tall ground-mounted noise barrier (referred to as IDR-N1 CD-4 in **Table 5-10**). This noise barrier would be located along the westbound lanes between Sta. 608+55 and Sta. 613+55 and would include two 10-foot wide gaps to accommodate crosswalks between the frontage road and the bus shelter and to cross Ives Dairy Road. This noise barrier design concept is shown on **Sheet 12** in **Appendix D**.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 58.0 to 66.5 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 5.2 dB(A) and a maximum of 7.4 dB(A) compared to the predicted noise levels without any noise abatement.

Five of the seven impacted homes were predicted to experience a noise level reduction of at least 5.0 dB(A) with this noise barrier and would therefore be benefited by this noise barrier design concept according to FDOT feasibility criteria. Three (3) non-impacted second-row homes were also predicted to be benefited incidentally. The estimated overall cost of this noise barrier design concept is $316,800 at an estimated cost of $39,600, which is within the FDOT's reasonable cost criteria. The noise barrier will attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.

With the Build Alternative, the location of the edge-of-pavement of the westbound lanes will be similar to the existing conditions. According to the December 2024 utilities drawings, utilities present along this segment of Ives Dairy Road include:

- Multiple buried fiber optic lines run along the westbound lanes of Ives Dairy Road from west of NE 15th Avenue to east of NE 15th Court.
- A Comcast overhead TV line crosses the corridor near WB IDR Sta. 609+20.
- An FP&L overhead utility line also crosses Ives Dairy Road near WB IDR Sta. 609+20 and also continues westward along Ives Dairy Road from this point to the western project limit.
- A Miami-Dade WASD water main crosses Ives Dairy Road near WB IDR Sta. 609+20 and continues both east and west along the westbound lanes of Ives Dairy Road. Miami Dade WASD water mains also cross the corridor near WB IDR Sta. 612+30 and Sta. 612+60, running eastward along the frontage road to east of NE 15th Court.
- A Miami-Dade WASD force main crosses the corridor near WB IDR Sta. 612+20 and continues within the frontage road to NE 15th Court.

The two crosswalks and the bus shelter would each require 10-foot wide gaps in the noise barrier. Given the extensive utilities and pedestrian facilities along this median, there is insufficient space available to provide a noise barrier for the impacted homes. A reduction in sight distance for traffic turning onto Ives Dairy Road from NE 15th Avenue would occur with this noise barrier design concept and would need to be addressed either through modifications to the intersection or through moving the western terminus of the noise barrier eastward, which would reduce its effectiveness. Based on these factors, providing a noise barrier for the impacted homes is not considered feasible and therefore not recommended for further consideration and public input. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available right-of-way at this location.

5.12 CNE IDR-N2 – Little Dolphins Daycare

The playground at Little Dolphins Daycare located along the north side of Ives Dairy Road between NE 15th Court and NE 16th Avenue is expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. This site is shown on **Sheet 12** in **Appendix D**. With the Build Alternative, the design year traffic noise level at the playground is predicted to be 72.7 dB(A), representing an increase of approximately 0.7 dB(A) over the existing levels.

Ives Dairy Road is at-grade near these homes. The planned improvements along Ives Dairy Road at this location are minimal and don't include additional travel lanes or an alignment shift. As such, no change to the distance between the near edge-of-pavement and the playground is expected to occur.

The most effective means of providing noise abatement for the impacted sites would be construction of a noise barrier along the back of the sidewalk between NE 15th Court and NE 16th Avenue. Several noise barrier design concepts were considered to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE includes a 14-foot tall ground-mounted noise barrier (referred to as IDR-N1 CD-2 in **Table 5-11**). This noise barrier would be located along the back of the sidewalk between Sta. 614+45 and 615+25. This noise barrier design concept is shown on **Sheet 12** in **Appendix D**. Build Alternative noise levels with this noise barrier design concept are predicted to be 69.1 dB(A). This design concept is predicted to reduce noise levels at the playground by 3.6 dB(A). The noise barrier is not predicted to provide a noise reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites. Therefore, providing a noise barrier for this playground is not considered feasible and reasonable and therefore it is not recommended for further consideration and public input.

5.13 CNE IDR-N3 – Highland Lakes (North Side)

Seven (7) residences in the Highland Lakes community located along the north side of Ives Dairy Road between Highland Lakes Boulevard and the eastern project terminus are expected to experience design year traffic noise levels approaching or exceeding the FHWA NAC [67 dB(A)] with the Build Alternative. These sites are shown on **Sheet 7** in **Appendix D**. Noise sensitive areas at these homes include exterior areas such as yards and patios that are primarily affected by traffic noise from Ives Dairy Road.

With the Build Alternative, the design year traffic noise levels at these homes are predicted to range from 53.4 to 71.3 dB(A). These levels represent an average increase of approximately 0.8 dB(A) over existing levels and a maximum of 1.0 dB(A).

Table 5 - 11: Noise Barrier Analysis for Common Noise Environment – IDR-N2 (Little Dolphins Daycare)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
IDR-N2 **Little Dolphins Daycare Playground** North Side of Ives Dairy Road between NE 15th Avenue and NE 16th Avenue	IDR-N2 CD1	Ground-Mounted	8	80	614+45 (WB IDR)	615+25 (WB IDR)	1 SLU	3.3 (3.3)	0 SLU	0 SLU	0 SLU	N/A	$19,200	N/A	**Not Recommended** – Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.
	IDR-N2 CD2	Ground-Mounted	14	80	614+45 (WB IDR)	615+25 (WB IDR)	1 SLU	3.6 (3.6)	0 SLU	0 SLU	0 SLU	N/A	$33,600	N/A	**Not Recommended** – Does not attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.

Note: N/A = Not Applicable

Table 5 - 12: Noise Barrier Analysis for Common Noise Environment – IDR-N3 (Highland Lakes North Side)

Common Noise Environment	Conceptual Noise Barrier Design Number	Noise Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Average (Maximum) Noise Reduction for Impacted Receptor Sites [dB(A)]	Number of Impacted/ Benefited Receptor Sites	Number of Not Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Cost ($30 per square foot)	Average Cost/Site Benefited	Comments
IDR-N3 **Highland Lakes (North Side)** North Side of Ives Dairy Road between Highland Lakes Boulevard and the Eastern Project Terminus	IDR-N3 CD1	Ground-Mounted	8	1,440	644+10 (WB IDR)	658+50 (WB IDR)	7	5.3 (8.2)	4	0	4	7.1 (8.2)	$345,600	$86,400	**Not Recommended** – Estimated cost exceeds FDOT's noise barrier cost reasonableness factor. Not feasible due to potential utilities conflicts and limited available ROW along the westbound lanes of Ives Dairy Road.
	IDR-N3 CD2	Ground-Mounted	10	1,440	644+10 (WB IDR)	658+50 (WB IDR)	7	7.8 (10.5)	7	0	7	7.8 (10.5)	$432,000	$61,714	**Not Recommended** – Estimated cost exceeds FDOT's noise barrier cost reasonableness factor. Not feasible due to potential utilities conflicts and limited available ROW along the westbound lanes of Ives Dairy Road.
	IDR-N3 CD3	Ground-Mounted	12	1,440	644+10 (WB IDR)	658+50 (WB IDR)	7	9.2 (11.9)	7	2	9	8.5 (11.9)	$518,400	$57,600	**Not Recommended** – Estimated cost exceeds FDOT's noise barrier cost reasonableness factor. Not feasible due to potential utilities conflicts and limited available ROW along the westbound lanes of Ives Dairy Road.
	IDR-N3 CD4	Ground-Mounted	14	1,440	644+10 (WB IDR)	658+50 (WB IDR)	7	10.3 (13.1)	7	9	16	8.0 (13.1)	$604,800	$37,800	**Not Recommended** – Not feasible due to potential utilities conflicts and limited available ROW along the westbound lanes of Ives Dairy Road.

Note: N/A = Not Applicable

Although Ives Dairy Road is elevated over I-95 to the west of Highland Lakes Boulevard, near these homes it is at-grade. The planned improvements at this interchange are extensive and include reconfiguration of Ives Dairy Road to a DDI configuration and an additional travel lane in the eastbound direction. The planned improvements are expected to move traffic less than 5 feet closer to the residences in order to accommodate the new eastbound lane.

The most effective means of providing noise abatement for the impacted sites would be construction of a noise barrier behind the sidewalk along the westbound lanes. Several noise barrier design concepts were considered in order to minimize traffic noise impacts at the nearby noise sensitive sites.

The most feasible and reasonable noise abatement alternative for this CNE is a 1,440-foot long, 14-foot tall shoulder-mounted noise barrier (referred to as IDR-N3 CD-4 in **Table 5-12**) located along the westbound lanes between Sta. 644+10 and Sta. 658+50. This noise barrier design concept is shown on **Sheet 7** in **Appendix D**.

Build Alternative noise levels with this noise barrier design concept are predicted to range from 50.0 to 59.5 dB(A). This design concept is predicted to reduce noise levels at the impacted sites by an average of 8.0 dB(A) and a maximum of 13.1 dB(A) compared to the predicted noise levels without any noise abatement.

All of the impacted homes were predicted to experience a noise level reduction of at least 5.0 dB(A) with this noise barrier and would thereby be benefited by this noise barrier design concept according to FDOT feasibility criteria. Nine (9) non-impacted homes were also predicted to be benefited incidentally. The estimated overall cost of this noise barrier design concept is $604,800 at an estimated cost of $37,800, which is within the FDOT's reasonable cost criteria. The noise barrier will attain the FDOT's noise reduction design requirement of 7 dB(A) at one or more sites.

The location of the edge-of-pavement of the eastbound lanes will be less than approximately 5 feet closer to the nearby homes compared to the existing conditions. An existing discontinuous 5 to 6-foot tall privacy wall is located along the north ROW line in the backyards of most of the houses along this segment of Ives Dairy Road (three of the homes do not have privacy walls in their backyards).

According to the December 2024 utilities drawings, utilities present along this segment of Ives Dairy Road include:

- A buried AT&T telephone line runs along the westbound lanes of Ives Dairy Road from west of Highland Lakes Boulevard to near WB IDR Sta. 647+80, this line also crosses Ives Dairy Road near WB IDR Sta. 644+20.
- Two buried fiber optic lines run along the westbound lanes of Ives Dairy Road from west of Highland Lakes Boulevard to near WB IDR Sta. 647+80.
- An additional buried fiber optic line crosses Ives Dairy Road near WB IDR Sta. 644+20.
- Miami-Dade WASD water mains cross Ives Dairy Road near WB IDR Sta. 646+25 and Sta. 655+45.
- A Miami-Dade WASD sewer line extends northward from Ives Dairy Road along NE 20th Court near WB IDR Sta. 646+30.
- Another Miami-Dade WASD sewer line crosses the corridor near WB IDR Sta. 650+50 and runs along the westbound lanes to WB IDR Sta. 655+40 before turning northward.
- A TECO gas main is located along the westbound lanes of Ives Dairy Road from Highland Lakes Boulevard to WB IDR Sta. 646+30, where it extends northward along NE 20th Court.
- A Comcast overhead TV line extends from the north near WB IDR Sta. 647+80 and then runs along the westbound lanes to beyond the eastern project terminus.
- An FP&L overhead utility line runs just outside of the roadway ROW between WB IDR Sta. 647+80 and NE 22nd Avenue near the eastern project terminus.
- Overhead lighting, roadway signs and a bus shelter are also found along the westbound lanes.

Based on the engineering data available at this time, there is insufficient space available between the westbound lanes and the north ROW line to construct a noise barrier given these utilities. Therefore, providing a noise barrier for the impacted homes is not considered feasible and therefore not recommended for further consideration and public input. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available right-of-way at this location.

5.14 Other Impacted Sites

A single-family residence located at the southwestern corner of the Ives Dairy Road/Highland Lakes Boulevard intersection (Representative Model Receptor HL-IDR-S-1on **Sheet 7** in **Appendix D**) is expected to experience a design year noise level with the Build Alternative [71.3 dB(A)] that exceeds the NAC for residences [67.0 dB(A)]. No other homes on the south side of Ives Dairy Road west of Highland Lakes Boulevard are predicted to be impacted. This predicted level is 1.2 dB(A) greater than the existing traffic noise level. Therefore, the traffic noise level at this residence is not expected to substantially increase above the existing conditions. The near edge of pavement of the eastbound right-turn lane onto southbound Highland Lakes Boulevard will be 20 feet closer with the Build Alternative. Since this site is an isolated impacted home, it does not meet the FDOT's noise reduction feasibility criterion requiring that a noise barrier must provide a 5.0 dB(A) reduction for at least two impacted receptors to be considered feasible. Therefore, a noise barrier is not recommended for this location.

6.0 SUMMARY AND RECOMMENDATIONS

A traffic noise study was performed in accordance with 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 13, 2010), the FDOT's PD&E Manual, Part 2, Chapter 18, *Highway Traffic Noise* (July1, 2023), and FDOT's Traffic Noise Modeling and Analysis Practitioners Handbook (December 31, 2018). The results of this noise analysis are based on the design described in this report.

In summary, traffic noise levels were predicted for noise sensitive locations along the project corridor for the existing conditions and the design year (2050) No-Build and preferred Build Alternatives. Build Alternative traffic noise levels at the residences are expected to range from approximately 48.7 to 77.8 dB(A) during the project's design year. Build Alternative traffic noise levels at the non-residential/special-use sites are expected to range from approximately 35.6 dB(A) inside the Words of Life Fellowship church to 72.7 dB(A) at the Little Dolphins Daycare playground. The worst-case Build Alternative noise levels are predicted to be no more than 16.4 dB(A) greater than existing levels.

The SFRC is located along the west side of I-95, between the interstate and the nearby communities and parks. Rail traffic on the SFRC includes Amtrak passenger trains, Tri-Rail commuter trains and CSX freight trains. Tri-Rail operations during peak periods typically include shorter, fast-moving trains with approximately four train pass-bys per hour. Amtrak daily operations along this segment of the SFRC include approximately four fast-moving but longer trains. Freight operations are relatively infrequent much longer trains.

Two 22-foot tall noise barriers were constructed during 2001 adjacent to the Aventura Harbor apartments and homes in the Ives Estates communities to mitigate predicted traffic noise impacts from an FODT project along I-95. These noise barriers will not be physically impacted by this project given their location between the SFRC and these communities.

Rail noise levels were monitored in the Aventura Isles community, Ives Estates Tot Lot and Ives Estates Park west of I-95 during the regular monitoring periods for the field sites at these locations. Due to the infrequent and brief nature the observed train pass-bys, the difference in the measured 10-minute noise level with and

without the trains was no more than approximately 0.5 to 1.0 dB(A). Thus, the effect of rail noise at nearby noise sensitive sites was found to be only readily discernable for very brief periods.

Design year traffic noise levels with the planned improvements are predicted to approach or exceed the FHWA NAC for residential use [67 dB(A)] at 274 residences. One (1) of these residences, located along I-95 in the Highland Lakes community, is also predicted to experience a substantial noise level increase [i.e., at least 15 dB(A) over the existing noise level] due to the removal of an adjacent existing noise barrier. The design year traffic noise level with the planned improvements is also predicted to exceed the NAC at a basketball court and pavilion at Milton Littman Park and the playground at the Little Dolphins Daycare [All Activity Class C sites, NAC = 67.0 dB(A)]. Therefore, based on the FHWA and FDOT methodologies used to evaluate traffic noise levels in this study, modifications proposed with this project were determined to generate noise impacts at noise sensitive sites within the project study area and consideration of noise abatement is required to mitigate these impacts. An analysis of noise abatement measures that were considered is presented in **Section 5**.

In accordance with traffic noise study requirements set forth by both the FHWA and FDOT, noise barriers were considered for all noise sensitive receptor sites where design year Build Alternative traffic noise levels were predicted to equal or exceed the NAC. Noise barriers were evaluated at 13 locations to mitigate noise impacts. **Table 6-1** summarizes the results of the noise barrier analyses and recommendations for each of the four locations where noise barriers are recommended for further consideration and public input. The locations where barriers were evaluated or planned are depicted in the figures in **Appendix D**.

6.1 Recommended Noise Barriers

I95-E1 – (See **Section 5.1**) East side of I-95 between the southern project terminus and Miami Gardens Drive. This noise barrier system would replace an existing 4 to 20-foot tall ground-mounted and shoulder/ structure-mounted noise barrier system in its entirety. The replacement 8 to 22-foot tall ground and structure-mounted noise barrier system would be located along northbound I-95. Expected to benefit all 40 of the impacted residences and 17 non-impacted residences in the Highland Manor community along this segment of I-95.

Table 6 - 1: Recommended Noise Barriers

General Location (Cross Streets or Address)	Noise Barrier Conceptual Design	Noise Barrier Type	Height (feet)	Length (feet)	Limits (Begin/ End Station Number)	Number of Benefited Receptors (Impacted/ Not Impacted/ Total)	Average (Maximum) Noise Reduction for all Benefited Receptor Sites [dB(A)]	Estimated Overall Cost ($30 per square foot)	Estimated Cost/Site Benefited	Meets FDOT's Reasonable Cost Criteria of $42,000/ Site Benefited	Meets FDOT's Noise Reduction Design Goal	Noise Barrier Recommended for Further Consideration and Community Input	Comments
I95-E1 **Highland Manor** East Side of I-95 between the Southern Project Terminus to Miami Gardens Drive (See Section 5.1)	I95-E1 CD4	Ground and Structure-Mounted	8 - 22	4,055	2008+00 (NB I95) to 33+80 (Ramp E)	40/17/57	8.8 (13.7)	$2,226,600	N/A	N/A	Yes	Yes	Replacement shoulder and structure-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits all of the impacted sites. Shoulder-mounted noise barrier would be 2 feet taller than the existing FanWall noise barrier segment and will require a Design Variation and/or crash-protection such as a guardrail due to its location in the clear zone. Structure-mounted segment would be up to 10 feet taller than existing structure-mounted noise barrier and would also require a Design-Variation for the 14-foot-tall noise barrier segments located on MSE or retaining walls. Cost reasonableness is not considered with this replacement noise barrier system.
I95-E2 **Pickwick Lakes Estates** East Side of I-95 between Miami Gardens Drive and the Snake Creek Canal (See Section 5.2)	I95-E2 CD3	Ground and Structure-Mounted	14 - 22	2,020	45+20 (Ramp D) to 67+20 (Ramp A)	10/4/14	11.4 (14.7)	$933,900	N/A	N/A	Yes	Yes	Replaces all of the existing noise barrier system with a new ground-mounted noise barrier along the ROW line. Benefits 10 of the 11 impacted sites and 4 non-impacted sites. Constrained ROW north of Ramp A Sta. 56+00 may affect feasibility. Taller than all of the existing FanWall noise barriers. Cost reasonableness is not considered with this replacement noise barrier system.
I95-E3 **Riviera and Rolling Green Condominiums** East Side of I-95 north of the Snake Creek Canal (See Section 5.4)	I95-E3 CD5	Ground and Shoulder-Mounted	14 - 22	1,840	2085+40 (NB I95) to 2104+00 (NB -95)	37/13/50	7.0 (12.0)	$1,101,600	N/A	N/A	Yes	Yes	Replacement structure and ground-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits 37 of the 58 impacted sites. Will require a Design Variation for the segments located on structure. Would match or exceed height of existing 14-foot tall noise barrier. Cost reasonableness is not considered with this replacement noise barrier system.
I95-E4 **Highland Lakes** East Side of I-95 between Ives Dairy Road and the Miami-Dade/Broward County line (See Section 5.5)	I95-E4 CD6	Shoulder, Structure and Ground-Mounted	8 - 22	4,435	643+00 (WB IDR) to 2197+00 (NB I95)	12/47/59	9.1 (16.8)	$2,122,200	N/A	N/A	Yes	Yes	Replacement ground and structure-mounted noise barrier system adjacent to or along the roadway shoulder. Benefits all of the impacted sites. Ground-mounted noise barrier would be up to 3 feet taller than the existing noise barrier. The structure and shoulder-mounted noise barrier segments will be up to 7 feet shorter than the existing noise barrier but would generally be located on the elevated on-ramp well above the surrounding ground. Will require a Design Variation for the 14-foot tall noise barrier segments located on structures. Cost reasonableness is not considered with this replacement noise barrier system. Alternatives could be considered.

I95-E2 – (See **Section 5.2**) East side of I-95 between Miami Gardens Drive and the Snake Creek Canal. This noise barrier would replace an existing 8 to 19-foot tall FanWall ground-mounted noise barrier. The replacement 14 to 22-foot tall ground and structure-mounted noise barrier system would be located along the northbound I-95 on-ramps from Miami Gardens Drive and the northbound I-95 mainline. Expected to benefit 10 of the 11 impacted residences and 4 non-impacted residences in the Pickwick Lakes Estates community along this segment of I-95.

I95-E3 – (See **Section 5.4**) East side of I-95 north of the Snake Creek Canal. This noise barrier would replace an existing 14-foot tall ground-mounted noise barrier with a new 14 to 22-foot tall ground and structure-mounted noise barrier system along northbound I-95. Expected to benefit 37 of the 58 impacted residences and 13 non-impacted residences in the Riviera and Rolling Green condominiums along this segment of I-95.

I95-E4 – (See **Section 5.5**) East side of I-95 between Ives Dairy Road and the Broward County Line. This noise barrier would replace an existing 15 to 19-foot tall FanWall ground-mounted noise barrier. The replacement 8 to 22-foot tall ground and structure-mounted noise barrier system would be located along the northbound I-95 on-ramps from Ives Dairy Road and the northbound I-95 mainline. Expected to benefit all 12 of the impacted residences and 47 non-impacted residences in the Highland Lakes community along this segment of I-95.

The FDOT is committed to the construction of feasible and reasonable noise abatement measures at the noise-impacted locations identified in **Table 6-1** contingent upon the following conditions:

- Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
- Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barriers will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barriers is provided to the District Six Office; and,

- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

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

6.2 Noise Barriers Found Not Feasible or Reasonable

The noise level reduction provided by the noise barrier design concepts for the following CNEs since they did not meet FDOT's Noise Reduction Design Goal and/or FDOT's Noise Barrier Cost Reasonableness Criteria or the noise barrier was determined to not be feasible for construction:

I95-SCT – (See **Section 5.3** and **Table 5-4**) Snake Creek Trail, east side of I-95 over the Snake Creek Canal. No existing noise barrier - Did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.

I95-W1 – (See **Section 5.7**) Aventura Harbor Apartments, west side of I-95 between NE 10th Avenue and NE 196th Street – Supplementing the existing 22-foot tall noise barrier with noise barriers greater in size did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.

MGD-LP – (See **Section 5.8** and **Table 5-7**) Milton Littman Park, east side of I-95 at Miami Gardens Drive - Did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.

MGD-S1 – (See **Section 5.9** and **Table 5-8**) Highland Manor, south side of Miami Gardens Drive, east of I-95 – Estimated cost per benefited sites exceeds the FDOT's reasonable cost criteria of $42,000 per benefited receptor site.

IDR-S1 – (See **Section 5.10** and **Table 5-9**) Highland Lakes and Oak Forest, south side of Ives Dairy Road, east of I-95 – Insufficient available right-of-way (ROW) and utility conflicts are expected in narrow median between Ives Dairy Road and the adjacent frontage road. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.

IDR-N1 – (See **Section 5.11** and **Table 5-10**) Murray Homes, north side of Ives Dairy Road, west of I-95 – Insufficient available ROW and utility conflicts are expected in narrow median between Ives Dairy Road and the adjacent frontage road. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.

IDR-N2 – (See **Section 5.12** and **Table 5-11**) Little Dolphins Daycare, north side of Ives Dairy Road, west of I-95 – Did not provide a noise level reduction meeting the FDOT's noise reduction design requirement of 7 dB(A) at one or more benefited sites.

IDR-N3 – (See **Section 5.13** and **Table 5-12**) Highland Lakes, north side of Ives Dairy Road between Highland Lakes Boulevard and the eastern project limits - Utility conflicts, insufficient available ROW. However, this noise barrier could be further evaluated during the project's Design Phase when additional design information would be available to better define the available ROW at this location.

Individual Single-Family Home – (See **Section 5.14**) A single-family home represented by Representative Model Receptor HL-IDR-S-1 on **Sheet 7** in **Appendix D** is located at the southwestern corner of the Ives Dairy Road/Highland Lakes Boulevard intersection is expected to be impacted by traffic noise. Does not meet the FDOT's noise reduction feasibility criterion requiring that a noise barrier must provide a 5.0 dB(A) reduction for at least two impacted receptors to be considered feasible.

At this time, noise barriers are not recommended for further consideration or construction at these locations. However, where noted, noise barriers could be further evaluated during the project's Design Phase when additional design information becomes available. Based on the noise analyses performed to date, there are no apparent solutions available to mitigate the noise impacts at the locations identified above. The traffic noise impacts to these noise sensitive sites are considered to be an unavoidable consequence of the project. Any significant changes to this design would require a reevaluation of this noise analysis and the recommended noise abatement measures.

6.3 Other Considerations

A new community of over 100 single-family homes is planned on the former site of the Presidential Estates Golf Course between I-95 and Presidential Estates community. Although construction of this community has not yet begun, it is expected to begin soon. A review of the Miami-Dade County permits website did not find that any permits for this construction have been granted for this new development by Miami-Dade County as of December 02, 2024. The permit status for this property will be reviewed again prior to the project's DPK. If permits have been granted for construction of noise sensitive use on this property, the FDOT will evaluate potential traffic noise impacts from this project and will consider noise abatement for those sites predicted to be impacted. In accordance with FDOT policy, the FDOT is not responsible for providing noise abatement for sites with permits that were approved after the DPK.

The project will construct new elevated ramps in the northeast quadrant of the Miami Gardens Drive interchange that will be plainly visible above the recommended replacement noise barrier. It is recommended that measures, such as an opaque visual barrier, are considered to reduce sightlines between traffic on these ramps and homes in the Pickwick Lake Estates community north of Miami Gardens Drive.

7.0 CONSTRUCTION NOISE AND VIBRATION

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations due to the heavy equipment typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The residences located east of I-95, particularly those on the northbound on-ramps onto I-95 and those along the arterial roadways near I-95, are located very close to the areas where extensive construction will occur and should be considered particularly sensitive to construction noise and vibration. Milton Littman Park and the Snake Creek Walking Trail should also be considered particularly sensitive to noise and vibration from construction of the project.

Construction noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's Standard Specifications for Road and Bridge Construction. According to Section 335.02 of the Florida Statutes, the FDOT is exempt from compliance with local ordinances. However, it is the FDOT's policy is to follow the requirements of local ordinances to the extent that is considered reasonable. should unanticipated noise or vibration issues arise during the construction process, the Project Manager, in concert with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

8.0 COORDINATION WITH ELECTED OFFICIALS

Agency coordination to obtain noise-related information for this project occurred through the ETDM Programming Screening (ETDM #14419) and the Advance Notification process. The ETDM review occurred between September 13, 2019 and October 28, 2019, and the Programming Screen Summary Report was published on December 30, 2019 and republished on July 24, 2020. One minor comment was received on noise-related issues with a Degree of Effect of "Minimal".

Coordination between the FDOT and citizens, private groups (residential/ business), officials, agencies, stakeholders, and media was conducted throughout the PD&E phase of this project. Various instances of this coordination allowed project stakeholders to provide feedback and comments on different aspects such as traffic, noise, environment, safety, among others.

Notable events include the initial Kick-Off Meetings on July 29, 2021, the Alternatives Public Workshop on June 7, 2022, and the Public Information Meeting on December 5, 2024. These meetings, along with briefings with Miami-Dade County and the City of North Miami Beach, aim to gather public and official input on the project. The Project Advisory Group (PAG) met on September 2, 2021, and June 1, 2022, and will meet once more in preparation for the Public Hearing, scheduled for 2025, to present the Preferred Build Alternative for the project.

To aid in promoting land use compatibility, a copy of this NSR, which provides information that can be used to protect future land development from becoming incompatible with anticipated traffic noise levels, will be provided to Miami-Dade County and the City of North Miami Beach.

In addition, generalized future noise impact contours for properties in the immediate vicinity of the project have been developed for Noise Abatement Activity Categories B/C and E (i.e., residential/other sensitive land uses and sensitive commercial, respectively). These contours represent the approximate distance from the edge of the nearest proposed travel lane of a roadway to the limits of the area predicted to approach [i.e., within 1 dB(A)] or exceed the NAC in the Design Year 2050. These contours do not consider any shielding of noise provided by structures between the receiver and the proposed travel lanes.

Contours were generally developed for portions of the project that are located away from significant ground features such as existing noise barriers. Within the project corridor, the distance between the proposed edge of the outside travel lane and the contour at various locations are presented in **Table 8-1**. To minimize the potential for incompatible land use, noise sensitive land uses should be located beyond this distance.

Table 8 - 1: Design Year (2050) Noise Impact Contour Distances

Location	Distance from Proposed Nearest Travel Lane to Noise Contour Line (Feet)	
	51/71 dB(A) – Activity Category D/E	66 dB(A) – Activity Category B/C
I-95 – South of Miami Gardens Drive West of I-95 Sta. 4020+00	185	370
I-95 – North of the Snake Creek Canal East of I-95 Sta. 2106+00	140	290
I-95 – South of Ives Dairy Road East of I-95 Sta. 2128+00	N/A	105
I-95 – North of Ives Dairy Road West of I-95 Sta. 4177+00	85	210

9.0 REFERENCES

Florida Department of Transportation, "*Project Development and Environment Manual, Part 2, Chapter 18-Highway Traffic Noise*", July 1, 2023.

23 CFR Part 772, "*Procedures for Abatement of Highway Traffic Noise and Construction Noise*", Federal Register, Vol. 75, No. 133, Tuesday, July 13, 2010.

Federal Highway Administration Report FHWA-HEP-10-025, "*Highway Traffic Noise: Analysis and Abatement Guidance*", June 2010 (revised December 2010).

Florida Statute 335.17, "*State highway construction; means of noise abatement*". 1989.

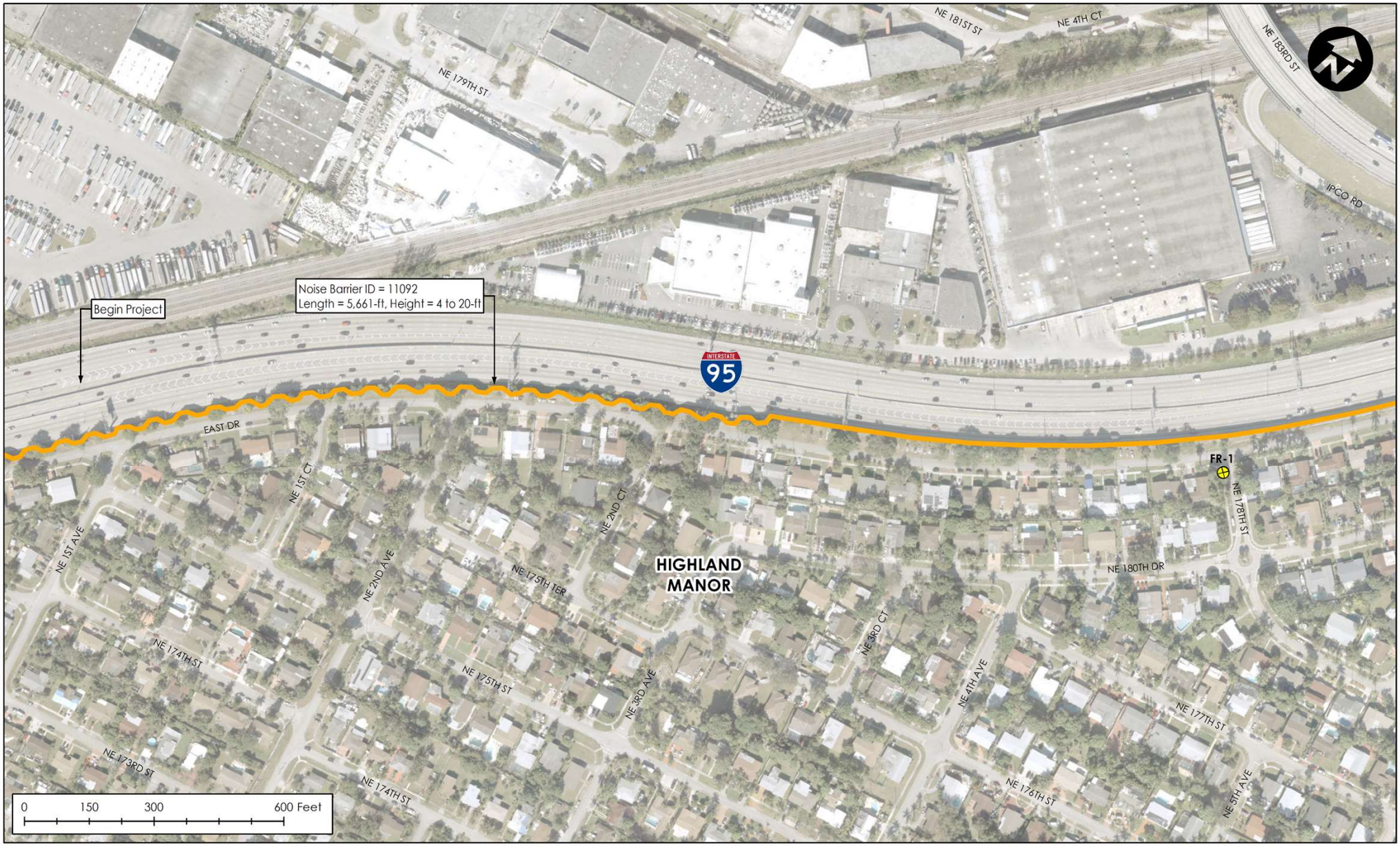
Federal Highway Administration Report Number FHWA-PD-96-046, "*Measurement of Highway-Related Noise*". Cynthia S.Y. Lee and Gregg Fleming; May 1996.

Florida Department of Transportation, "*Standard Specifications for Road and Bridge Construction*". 2024.

Federal Highway Administration Report FHWA-HEP-06-015, "*FHWA Highway Construction Noise Handbook: Final Report*". August 2006.

APPENDIX A

Existing Noise Barriers and Field Monitoring Locations



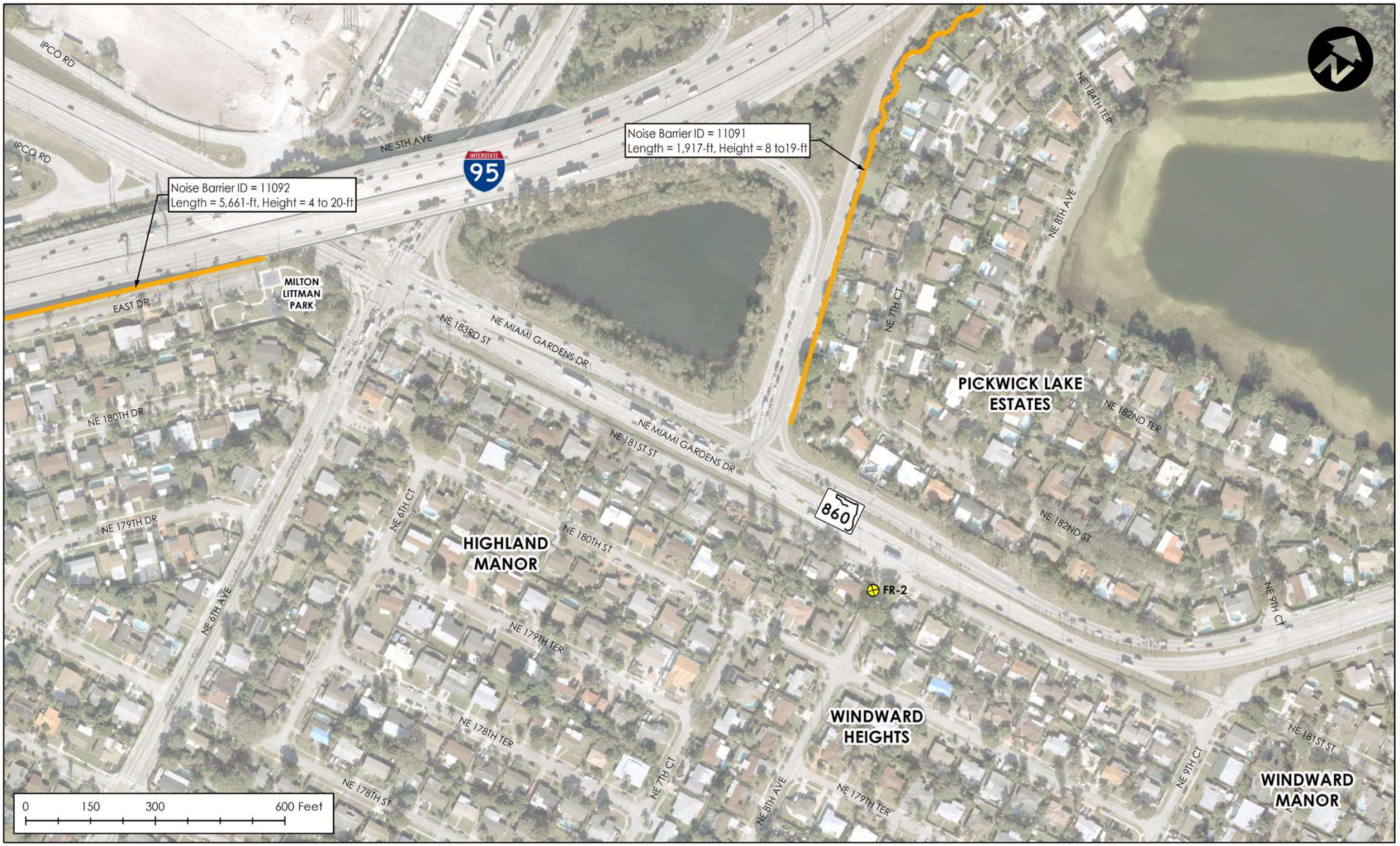
LEGEND

- Field Receptor Site
- Existing Ground-Mounted FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 1



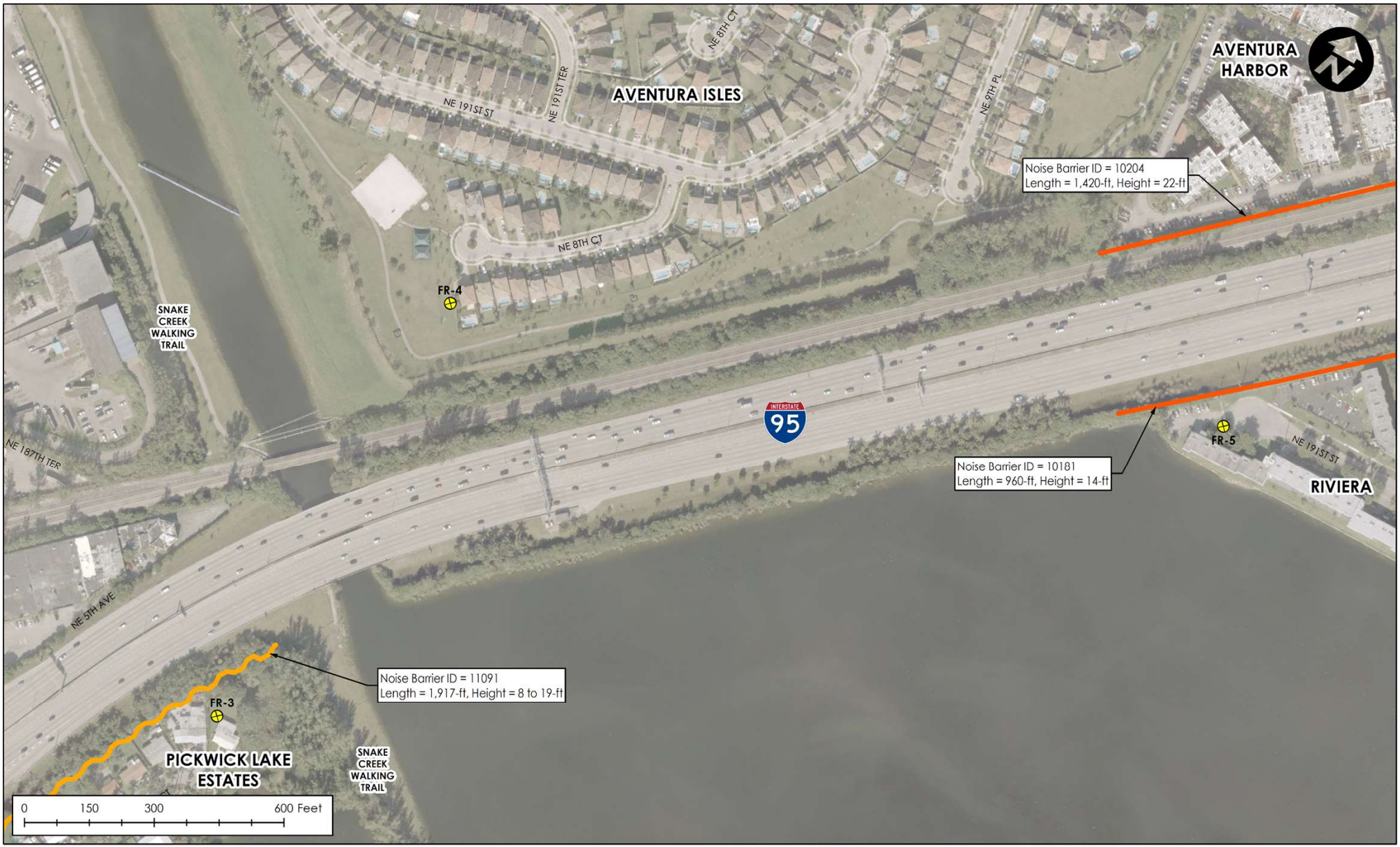
LEGEND

- Field Receptor Site
- Existing Ground-Mounted FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 2



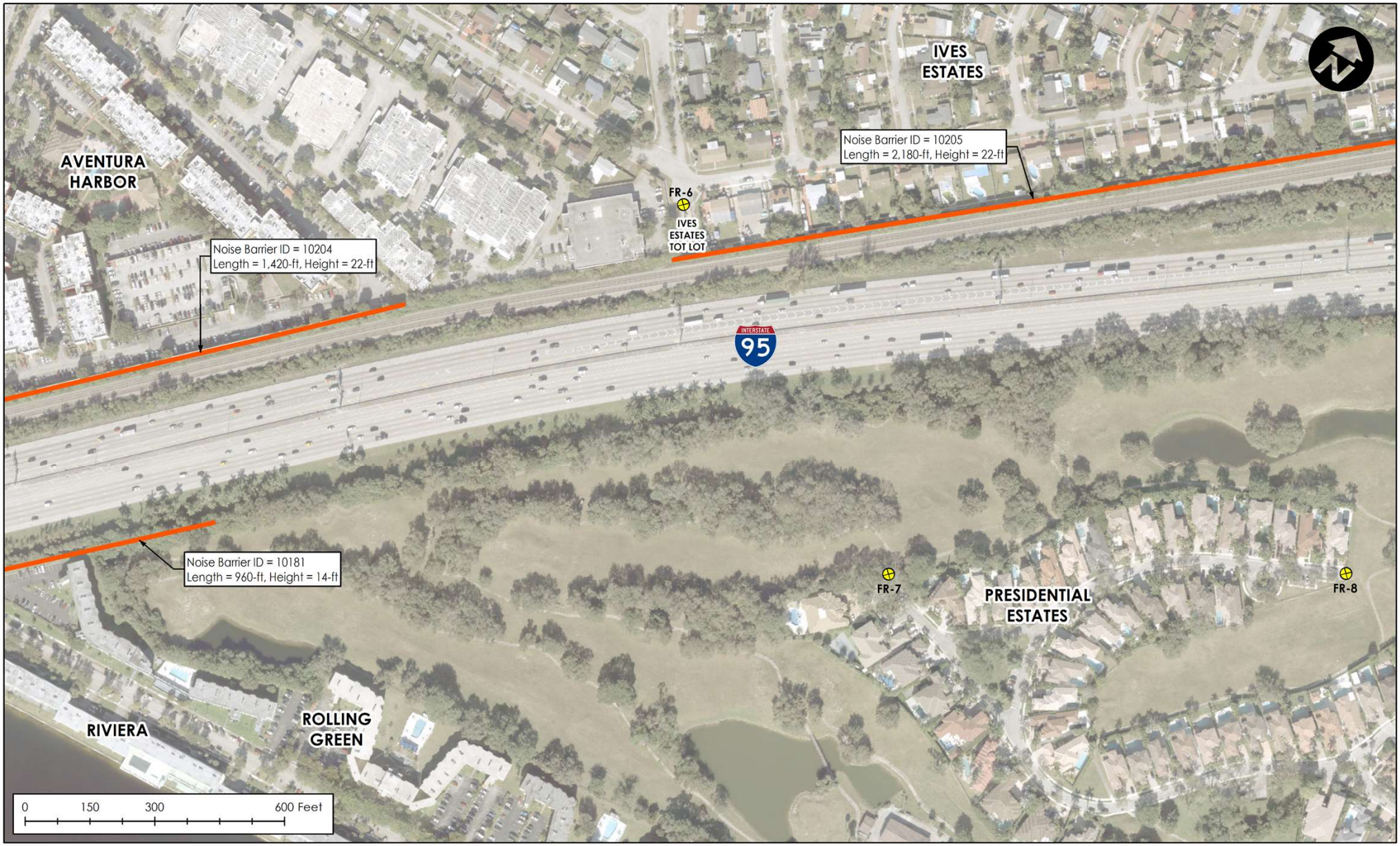
LEGEND

- Field Receptor Site
- Existing Ground-Mounted FanWall Noise Barrier
- Existing Ground-Mounted Non-FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 3



LEGEND

- Field Receptor Site
- Existing Ground-Mounted Non-FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 4

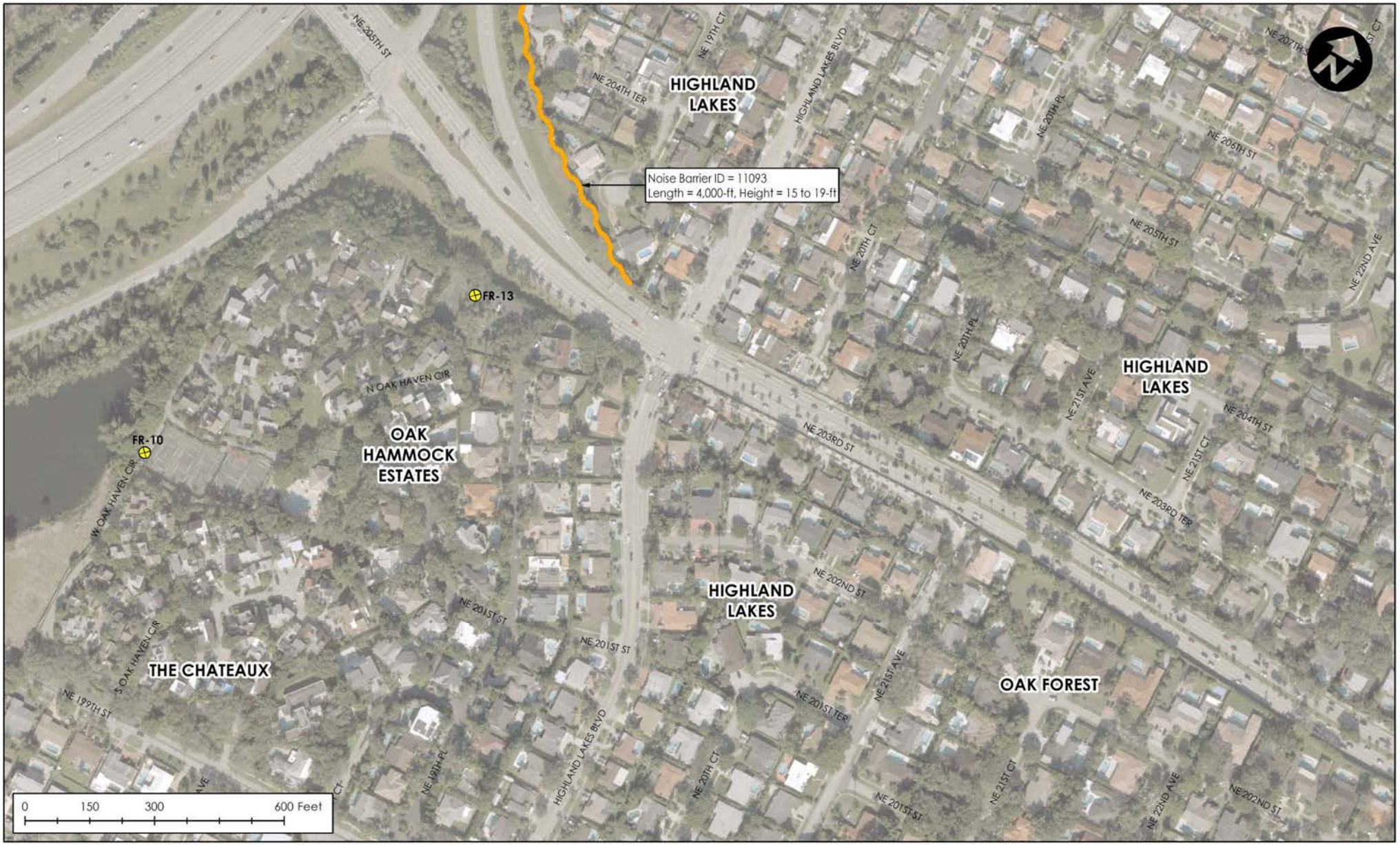
LEGEND

- Field Receptor Site
- Existing Ground-Mounted Non-FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT
DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 5



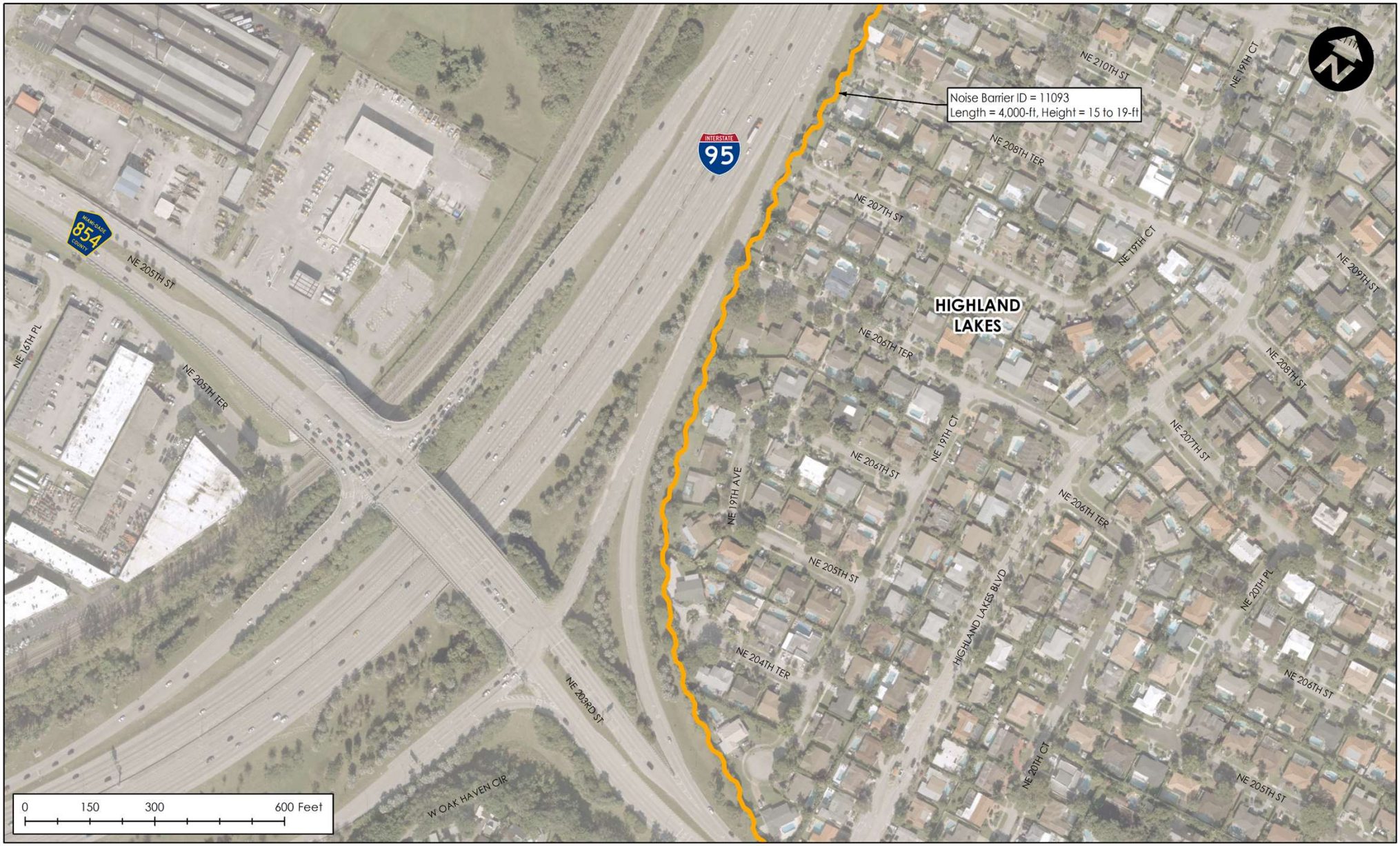
LEGEND

- Field Receptor Site
- Existing Ground-Mounted FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT
DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 6



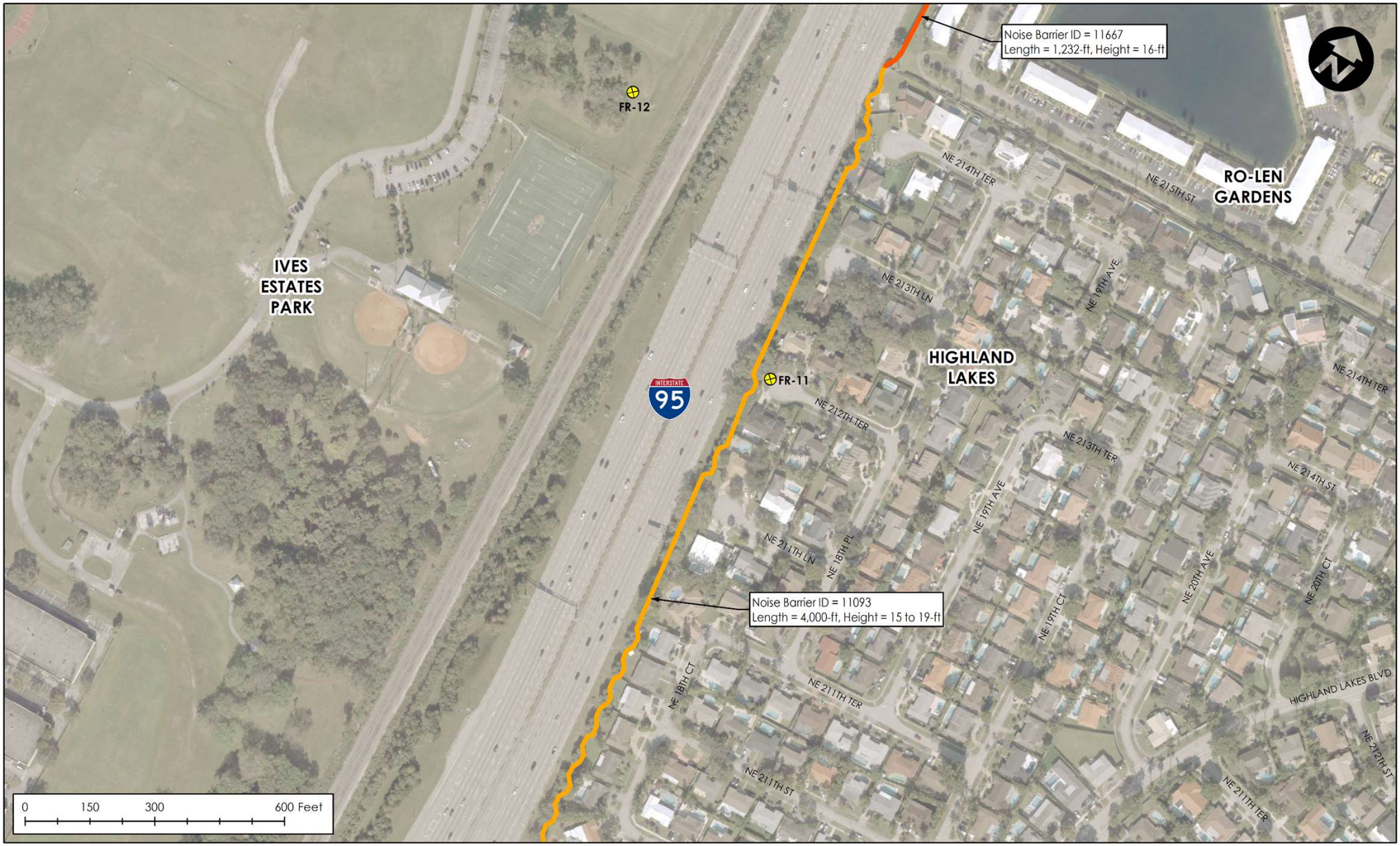
LEGEND

Existing Ground-Mounted FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 7



LEGEND

- Field Receptor Site
- Existing Non-FanWall Noise Barrier
- Existing Ground-Mounted FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 8

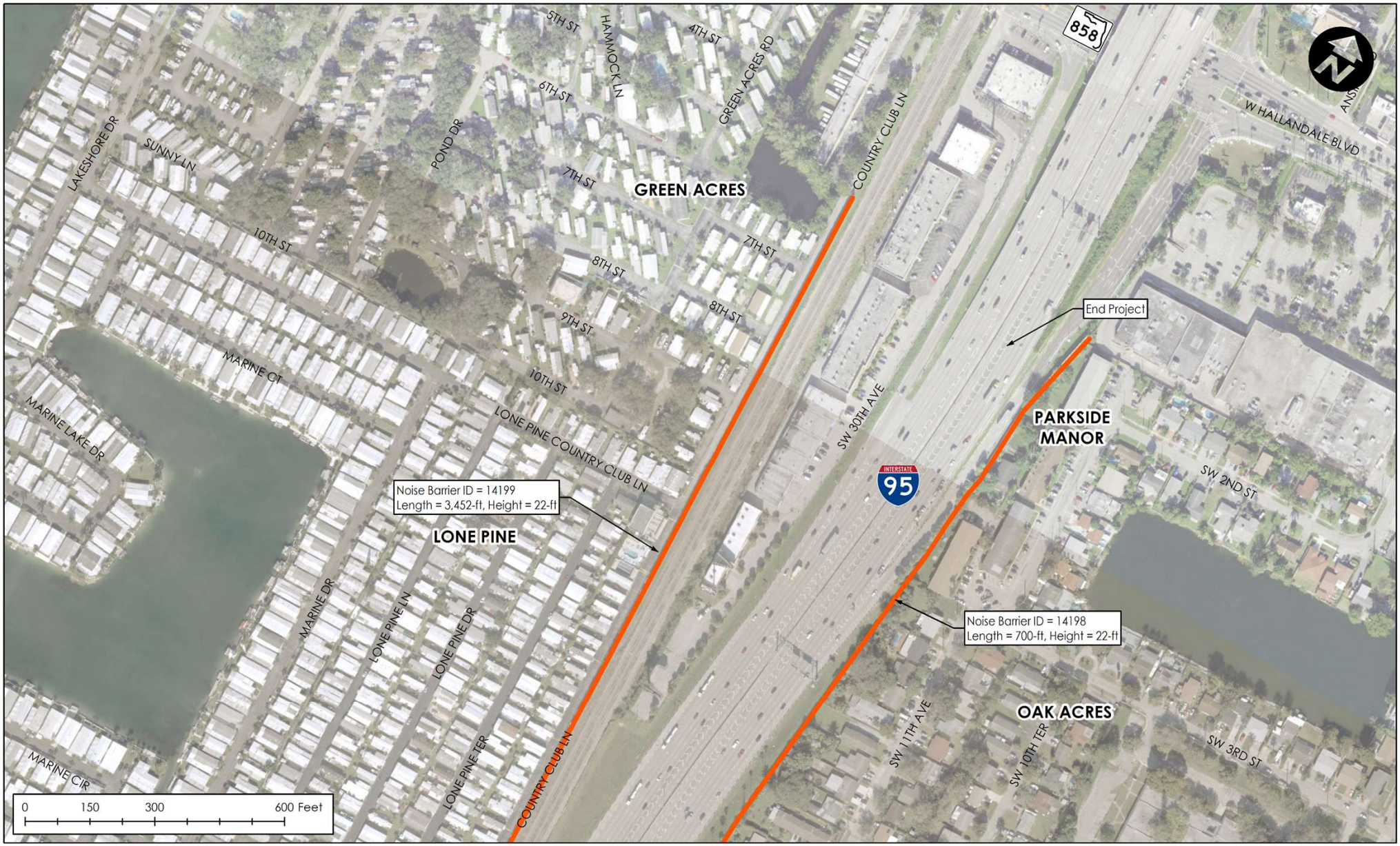
LEGEND

- Existing Non-FanWall Noise Barrier
- Existing Ground-Mounted FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT
DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 9



LEGEND

Existing Non-FanWall Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 10

LEGEND

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT
DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	EXISTING NOISE BARRIERS AND FIELD MONITORING LOCATIONS
DWG. NO.:	SHEET 11

APPENDIX B

Noise Analysis Traffic Data

T-Factor Traffic Data

T-Factors

Factor	I-95 Mainline	I-95 Express Lanes Southbound	I-95 Express Lanes Northbound	Miami Gardens Drive	Ives Dairy Road
T24 % of 24 Hour Volume	4.33%	2.79%	1.48%	4.30%	9.16%
Tpeak % of Design Hour Volume	2.17%	1.40%	0.74%	2.15%	4.58%
Medium Trucks (MT) % of Design Hour Volume	1.15%	1.33%	0.70%	1.64%	2.44%
Heavy Trucks (HT) % of Design Hour Volume	1.01%	0.06%	0.03%	0.51%	2.14%
Buses (B) % of Design Hour Volume	0.10%	0.19%	0.22%	0.18%	1.04%
Motorcycles (M) % of Design Hour Volume	0.51%	0.07%	0.10%	0.32%	0.34%

Existing Conditions (2021)
and
Design Year (2050) No Build Alternative
Traffic Data

Traffic Data Used in TNM Model[†]														
Roadway Segment	Existing (2021)							No Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
I-95															
I-95 Mainline (Express Lanes are Separate) Northbound South Traffic Limit to NW 2nd Avenue/NW 167th Street On-Ramp	3	3,050	4,600	3,050 PHD	3,020	4,600	3,020 PHD	5	5,270	6,600	5,270 PHD	4,990	6,600	4,990 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound NW 2nd Avenue/NW 167th Street On-Ramp to First Aux Lane Drop	5	5,190	6,600	5,190 PHD	5,070	6,600	5,070 PHD	6	6,030	8,060	6,030 PHD	5,850	8,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound First Aux Lane Drop to Second Aux Lane Drop	4	5,190	5,600	5,190 PHD	5,070	5,600	5,070 PHD	5	6,030	7,060	6,030 PHD	5,850	7,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Second Aux Lane Drop to Express Lanes Diverge Begin	3	5,190	4,600	4,600 LOS C	5,070	4,600	4,600 LOS C	4	6,030	6,060	6,030 PHD	5,850	6,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Express Lanes Diverge Begin to Express Lanes Diverge End	5	5,190	7,060	5,190 PHD	5,070	7,060	5,070 PHD	5	6,030	7,060	6,030 PHD	5,850	7,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Express Lanes Diverge End to Miami Gardens Drive (SR 860) Off-Ramp	3	4,770	4,600	4,600 LOS C	4,800	4,600	4,600 LOS C	3	5,500	4,600	4,600 LOS C	5,510	4,600	4,600 LOS C	55
I-95 Mainline (Express Lanes are Separate) Northbound Miami Gardens Drive (SR 860) Off-Ramp to Miami Gardens Drive (SR 860) On-Ramp	3	4,140	4,600	4,140 PHD	4,250	4,600	4,250 PHD	3	4,690	4,600	4,600 LOS C	4,810	4,600	4,600 LOS C	55
I-95 Mainline (Express Lanes are Separate) Northbound Miami Gardens Drive (SR 860) On-Ramp to Express Lanes Merge	4	5,140	5,830	5,140 PHD	5,470	5,830	5,470 PHD	4	5,830	5,830	5,830 LOS C	6,200	5,830	5,830 LOS C	55
I-95 Mainline (Express Lanes are Separate) Northbound Express Lanes Merge to Ives Dairy Road Off-Ramp	5	5,700	7,060	5,700 PHD	6,240	7,060	6,240 PHD	5	6,570	7,060	6,570 PHD	7,220	7,060	7,060 LOS C	55
I-95 Mainline (Express Lanes are Separate) Northbound Ives Dairy Off-Ramp to Ives Dairy Road On-Ramp	4	4,540	6,060	4,540 PHD	5,120	6,060	5,120 PHD	4	5,240	6,060	5,240 PHD	5,920	6,060	5,920 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Ives Dairy Road On-Ramp to Second Aux Lane Add	5	6,720	7,360	6,720 PHD	6,930	7,360	6,930 PHD	5	7,740	7,360	7,360 LOS C	8,000	7,360	7,360 LOS C	55
I-95 Mainline (Express Lanes are Separate) Northbound Second Aux Lane Add to Hallandale Beach Blvd (SR 858) Off-Ramp	5	6,720	7,360	6,720 PHD	6,930	7,360	6,930 PHD	6	7,740	8,060	7,740 PHD	6,870	8,060	6,870 PHD	65
I-95 Mainline (Express Lanes are Separate) Northbound Hallandale Beach Blvd (SR 858) Off-Ramp to Northern Project Terminus	4	6,010	6,060	6,010 PHD	5,970	6,060	5,970 PHD	5	6,910	7,060	6,910 PHD	6,870	7,060	6,870 PHD	65
I-95 Mainline (Express Lanes are Separate) Southbound Northern Project Terminus to Hallandale Beach Blvd (SR 858) On-Ramp	4	5,320	6,060	5,320 PHD	5,280	6,060	5,280 PHD	4	5,100	6,060	5,100 PHD	5,090	6,060	5,090 PHD	65
I-95 Mainline (Express Lanes are Separate) Southbound Hallandale Beach Blvd (SR 858) On-Ramp to Aux Lane Add	5	6,060	7,060	6,060 PHD	5,280	7,060	5,280 PHD	6	7,080	8,060	7,080 PHD	6,120	8,060	6,120 PHD	65
I-95 Mainline (Express Lanes are Separate) Southbound Aux Lane Add to Ives Dairy Road Off-Ramp	5	6,060	7,060	6,060 PHD	6,120	7,060	6,120 PHD	6	7,080	8,060	7,080 PHD	7,080	8,060	7,080 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Ives Dairy Road Off-Ramp to Aux Lane Drop	4	4,460	5,600	4,460 PHD	4,080	5,600	4,080 PHD	4	5,240	5,600	5,240 PHD	4,730	5,600	4,730 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Aux Lane Drop to Ives Dairy Road On-Ramp	3	4,460	4,600	4,460 PHD	4,080	4,600	4,080 PHD	3	5,240	4,600	4,600 LOS C	4,730	4,600	4,600 LOS C	55
I-95 Mainline (Express Lanes are Separate) Southbound Ives Dairy Road On-Ramp to Express Lanes Diverge	3	5,420	4,600	4,600 LOS C	5,120	4,600	4,600 LOS C	3	6,480	4,600	4,600 LOS C	6,020	4,600	4,600 LOS C	55

Traffic Data Used in TNM Model[†]														
Roadway Segment	Existing (2021)						No Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
I-95 Mainline (Express Lanes are Separate) Southbound Express Lanes Diverge to Miami Gardens Drive (SR 860) Off-Ramp	3	4,700	4,600	4,600 LOS C	4,540	4,600	4,540 PHD	3	5,510	4,600	4,600 LOS C	5,240	4,600	4,600 LOS C	55
I-95 Mainline (Express Lanes are Separate) Southbound Miami Gardens Drive (SR 860) Off-Ramp to Miami Gardens Drive (SR 860) On-Ramp	3	3,950	4,600	3,950 PHD	3,790	4,600	3,790 PHD	3	4,650	4,600	4,600 LOS C	4,380	4,600	4,380 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Miami Gardens Drive (SR 860) On-Ramp to Express Lanes Merge	3	4,640	4,600	4,600 LOS C	4,690	4,600	4,600 LOS C	3	5,530	4,600	4,600 LOS C	5,480	4,600	4,600 LOS C	55
I-95 Mainline (Express Lanes are Separate) Southbound Express Lanes Merge to SR 826/HEFT Off-Ramp	4	5,110	5,600	5,110 PHD	5,290	5,600	5,290 PHD	4	6,110	5,600	5,600 LOS C	6,220	5,600	5,600 LOS C	55
I-95 Mainline (Express Lanes are Separate) Southbound SR 826/HEFT Off-Ramp to Southern Project Terminus	3	2,920	4,600	2,920 PHD	3,110	4,600	3,110 PHD	3	3,600	4,600	3,600 PHD	3,720	4,600	3,720 PHD	55
I-95 Express Lanes															
I-95 Express Lanes Northbound Southern Project Terminus to Express Lanes Merge S. of MGD	1	1,170	1,660	1,170 PHD	1,450	1,660	1,450 PHD	1	1,410	1,660	1,410 PHD	1,830	1,660	1,660 LOS C	55
I-95 Express Lanes Northbound Express Lanes Merge S. of MGD to Express Lanes Diverge N. of MGD	2	1,590	3,320	1,590 PHD	1,720	3,320	1,720 PHD	2	1,940	3,320	1,940 PHD	2,170	3,320	2,170 PHD	55
I-95 Express Lanes Northbound Express Lanes Diverge N. of MGD to Northern Project Terminus	1	1,030	1,660	1,030 PHD	950	1,660	950 PHD	1	1,200	1,660	1,200 PHD	1,150	1,660	1,150 PHD	55
I-95 Express Lanes Southbound Northern Project Terminus to Express Lanes Merge S. of IDR	1	1,310	1,660	1,310 PHD	1,270	1,660	1,270 PHD	1	1,510	1,660	1,510 PHD	1,460	1,660	1,460 PHD	55
I-95 Express Lanes Southbound Express Lanes Merge S. of IDR to Express Lanes Diverge S. of MGD	2	2,030	3,320	2,030 PHD	1,850	3,320	1,850 PHD	2	2,480	3,320	2,480 PHD	2,240	3,320	2,240 PHD	55
I-95 Express Lanes Southbound Express Lanes Diverge S. of MGD to Southern Project Terminus	1	1,560	1,660	1,560 PHD	1,250	1,660	1,250 PHD	1	1,900	1,660	1,660 LOS C	1,500	1,660	1,500 PHD	55
SR 860/Miami Gardens Drive (Arterial - Class C3C west of I-95 and C3R east of I-95)															
SR 860/Miami Gardens Drive Eastbound Western Project Terminus to SB I-95 OnRamp Diverge	3	2,375	2,480	2,375 PHD	1,820	2,480	1,820 PHD	3	2,885	2,480	2,480 LOS C	2,165	2,480	2,165 PHD	40
SR 860/Miami Gardens Drive Eastbound SB I-95 OnRamp Diverge to NE 6th Ave/I-95 Ramps	3	2,345	2,480	2,345 PHD	1,750	2,480	1,750 PHD	3	2,755	2,480	2,480 LOS C	2,040	2,480	2,040 PHD	40
SR 860/Miami Gardens Drive Eastbound NE 6th Ave/I-95 Ramps to NB I-95 to EB MGD Ramp Merge	2	1,250	1,790	1,250 PHD	970	1,790	970 PHD	2	1,515	1,790	1,515 PHD	1,185	1,790	1,185 PHD	40
SR 860/Miami Gardens Drive Eastbound NB I-95 to EB MGD Ramp Merge to NE 10th Ave	2	1,815	1,790	1,790 LOS C	1,410	1,790	1,410 PHD	2	2,215	1,790	1,790 LOS C	1,730	1,790	1,730 PHD	30
SR 860/Miami Gardens Drive Eastbound NE 10th Ave to EPT	2	1,900	1,790	1,790 LOS C	1,495	1,790	1,495 PHD	2	2,285	1,790	1,790 LOS C	1,805	1,790	1,790 LOS C	30
SR 860/Miami Gardens Drive Westbound EPT to NE 10th Avenue	2	1,595	1,880	1,595 PHD	1,545	1,880	1,545 PHD	2	1,850	1,880	1,850 PHD	1,810	1,880	1,810 PHD	30
SR 860/Miami Gardens Drive Westbound NE 10th Avenue to NB I-95 On-Ramp Diverge	2	1,625	1,880	1,625 PHD	1,670	1,880	1,670 PHD	2	1,955	1,880	1,880 LOS C	2,000	1,880	1,880 LOS C	30
SR 860/Miami Gardens Drive Westbound NB I-95 On-Ramp Diverge to NB On/Off Ramps	2	1,245	1,880	1,245 PHD	1,315	1,880	1,315 PHD	2	1,465	1,880	1,465 PHD	1,530	1,880	1,530 PHD	40
SR 860/Miami Gardens Drive Westbound NB On/Off Ramps to NE 6th Avenue/SB I-95 On-Ramp	2	715	1,880	715 PHD	700	1,880	700 PHD	2	915	1,880	915 PHD	895	1,880	895 PHD	40

Traffic Data Used in TNM Model[†]														
Roadway Segment	Existing (2021)						No Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
SR 860/Miami Gardens Drive Westbound NE 6th Avenue/SB I-95 On-Ramp to WPT	3	1,210	2,480	1,210 PHD	1,535	2,480	1,535 PHD	3	1,465	2,480	1,465 PHD	1,855	2,480	1,855 PHD	40
Ives Dairy Road (Arterial - Class C3C west of I-95 and C3R east of I-95)															
Ives Dairy Road Eastbound WPT to NE 16th Avenue	3	2,160	2,480	2,160 PHD	1,410	2,480	1,410 PHD	3	2,580	2,480	2,480 LOS C	1,690	2,480	1,690 PHD	40
Ives Dairy Road Eastbound NE 16th Avenue to I-95 OnRamp Diverges (Both)	3	2,335	2,610	2,335 PHD	1,580	2,610	1,580 PHD	3	2,765	2,610	2,610 LOS C	1,875	2,610	1,875 PHD	40
Ives Dairy Road Eastbound I-95 OnRamp Diverges (Both) to SB I-95 OffRamp Signal	3	1,280	2,610	1,280 PHD	800	2,610	800 PHD	3	1,465	2,610	1,465 PHD	895	2,610	895 PHD	40
Ives Dairy Road Eastbound SB I-95 OffRamp Signal to NB I-95 Ramps Signal	3	2,490	2,480	2,480 LOS C	2,270	2,480	2,270 PHD	3	2,855	2,480	2,480 LOS C	2,585	2,480	2,480 LOS C	40
Ives Dairy Road Eastbound NB I-95 Ramps Signal to NB I-95 OffRamp Merge	3	2,490	2,610	2,490 PHD	2,270	2,610	2,270 PHD	3	2,855	2,610	2,610 LOS C	2,585	2,610	2,585 PHD	40
Ives Dairy Road Eastbound NB I-95 OffRamp Merge to Highland Lakes Boulevard	4	3,320	2,890	2,890 LOS C	2,970	2,890	2,890 LOS C	4	3,820	2,890	2,890 LOS C	3,405	2,890	2,890 LOS C	40
Ives Dairy Road Eastbound Highland Lakes Boulevard to EPT	3	2,135	2,760	2,135 PHD	1,890	2,760	1,890 PHD	3	2,540	2,760	2,540 PHD	2,235	2,760	2,235 PHD	40
Ives Dairy Road Westbound EPT to Highland Lakes Boulevard	3	1,905	2,760	1,905 PHD	2,075	2,760	2,075 PHD	3	2,265	2,760	2,265 PHD	2,440	2,760	2,440 PHD	40
Ives Dairy Road Westbound Highland Lakes Boulevard to SB I-95 OnRamp Diverge	2	1,120	1,880	1,120 PHD	1,520	1,880	1,520 PHD	2	1,340	1,880	1,340 PHD	1,770	1,880	1,770 PHD	40
Ives Dairy Road Westbound SB I-95 OnRamp Diverge to NB I-95 OffRamp Signal	2	720	1,880	720 PHD	895	1,880	895 PHD	2	800	1,880	800 PHD	1,000	1,880	1,000 PHD	40
Ives Dairy Road Westbound NB I-95 OffRamp Signal to SB I-95 OffRamp Signal	2	1,050	1,600	1,050 PHD	1,315	1,600	1,315 PHD	2	1,165	1,600	1,165 PHD	1,480	1,600	1,480 PHD	40
Ives Dairy Road Westbound SB I-95 OffRamp Signal to NE 16th Avenue	3	1,440	2,480	1,440 PHD	1,885	2,480	1,885 PHD	3	1,615	2,480	1,615 PHD	2,140	2,480	2,140 PHD	40
Ives Dairy Road Westbound NE 16th Avenue to WPT	3	1,040	2,480	1,040 PHD	1,870	2,480	1,870 PHD	3	1,165	2,480	1,165 PHD	2,135	2,480	2,135 PHD	40
NE 6th Avenue (Class C3R Arterial)															
NE 6th Avenue Southbound South of Miami Gardens Drive	2	1,450	1,700	1,450 PHD	1,110	1,700	1,110 PHD	2	1,765	1,700	1,700 LOS C	1,355	1,700	1,355 PHD	40
NE 6th Avenue Northbound South of Miami Gardens Drive	2	805	1,880	805 PHD	1,380	1,880	1,380 PHD	2	975	1,880	975 PHD	1,670	1,880	1,670 PHD	40
Highland Lakes Boulevard (Class C3R Arterial)															
Highland Lakes Boulevard Southbound South of Ives Dairy Road	2	1,070	1,700	1,070 PHD	1,035	1,700	1,035 PHD	2	1,265	1,700	1,265 PHD	1,225	1,700	1,225 PHD	30
Highland Lakes Boulevard Northbound South of Ives Dairy Road	1	805	1,020	805 PHD	815	1,020	815 PHD	1	960	1,020	960 PHD	970	1,020	970 PHD	30
Highland Lakes Boulevard Southbound North of Ives Dairy Road	1	290	1,070	290 PHD	275	1,070	275 PHD	1	355	1,070	355 PHD	330	1,070	330 PHD	30
Highland Lakes Boulevard Northbound North of Ives Dairy Road	2	310	1,700	310 PHD	235	1,700	235 PHD	2	360	1,700	360 PHD	295	1,700	295 PHD	30

Traffic Data Used in TNM Model[†]														
Roadway Segment	Existing (2021)							No Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
Ramps															
NW 167th Street to Northbound I-95 On-Ramp All to NB On-Ramp	1	2,140	N/A	2,140 Ramp	2,050	N/A	2,050 Ramp	1	760	N/A	760 Ramp	860	N/A	860 Ramp	Ramp
Northbound I-95 Off-Ramp to Miami Gardens Drive (All) NB to All Off-Ramp	1	630	N/A	630 Ramp	550	N/A	550 Ramp	1	810	N/A	810 Ramp	700	N/A	700 Ramp	Ramp
Northbound I-95 Off-Ramp to Westbound Miami Gardens Drive NB to WB Off-Ramp	1	100	N/A	100 Ramp	75	N/A	75 Ramp	1	145	N/A	145 Ramp	120	N/A	120 Ramp	Ramp
Northbound I-95 Off-Ramp to Eastbound Miami Gardens Drive NB to EB Off-Ramp	2	530	N/A	530 Ramp	475	N/A	475 Ramp	2	665	N/A	665 Ramp	580	N/A	580 Ramp	Ramp
Eastbound Miami Gardens Drive On-Ramp to Northbound I-95 EB to NB On-Ramp	2	620	N/A	620 Ramp	865	N/A	865 Ramp	2	650	N/A	650 Ramp	920	N/A	920 Ramp	Ramp
Westbound Miami Gardens Drive On-Ramp to Northbound I-95 WB to NB On-Ramp	1	380	N/A	380 Ramp	355	N/A	355 Ramp	1	490	N/A	490 Ramp	470	N/A	470 Ramp	Ramp
Miami Gardens Drive On-Ramp to Northbound I-95 (All) All to NB On-Ramp	1	1,000	N/A	1,000 Ramp	1,220	N/A	1,220 Ramp	1	1,140	N/A	1,140 Ramp	1,390	N/A	1,390 Ramp	Ramp
Southbound I-95 Off-Ramp to Miami Gardens Drive (All) SB to All Off-Ramp	1	750	N/A	750 Ramp	750	N/A	750 Ramp	1	860	N/A	860 Ramp	860	N/A	860 Ramp	Ramp
Southbound I-95 Off-Ramp to Westbound Miami Gardens Drive SB to WB Off-Ramp	1	215	N/A	215 Ramp	175	N/A	175 Ramp	1	265	N/A	265 Ramp	230	N/A	230 Ramp	Ramp
Southbound I-95 Off-Ramp to Eastbound Miami Gardens Drive SB to EB Off-Ramp	1	205	N/A	205 Ramp	235	N/A	235 Ramp	1	240	N/A	240 Ramp	270	N/A	270 Ramp	Ramp
Eastbound Miami Gardens Drive On-Ramp to Southbound I-95 EB to SB On-Ramp	1	30	N/A	30 Ramp	70	N/A	70 Ramp	1	130	N/A	130 Ramp	155	N/A	155 Ramp	Ramp
Westbound Miami Gardens Drive On-Ramp to Southbound I-95 WB to SB On-Ramp	1	660	N/A	660 Ramp	830	N/A	830 Ramp	1	695	N/A	695 Ramp	755	N/A	755 Ramp	Ramp
Miami Gardens Drive On-Ramp to Southbound I-95 All to SB On-Ramp	1	690	N/A	690 Ramp	900	N/A	900 Ramp	1	880	N/A	880 Ramp	1,100	N/A	1,100 Ramp	Ramp
Northbound I-95 Off-Ramp to Ives Dairy Road (All) NB to All Off-Ramp	1	1,160	N/A	1,160 Ramp	1,120	N/A	1,120 Ramp	1	1,330	N/A	1,330 Ramp	1,300	N/A	1,300 Ramp	Ramp
Northbound I-95 Off-Ramp to Westbound Ives Dairy Road NB to WB Off-Ramp	3	330	N/A	330 Ramp	420	N/A	420 Ramp	3	365	N/A	365 Ramp	480	N/A	480 Ramp	Ramp
Northbound I-95 Off-Ramp to Eastbound Ives Dairy Road NB to EB Off-Ramp	1	830	N/A	830 Ramp	700	N/A	700 Ramp	1	965	N/A	965 Ramp	820	N/A	820 Ramp	Ramp
Eastbound Ives Dairy Road On-Ramp to Northbound I-95 EB to NB On-Ramp	2	495	N/A	495 Ramp	365	N/A	365 Ramp	2	600	N/A	600 Ramp	460	N/A	460 Ramp	Ramp
Westbound Ives Dairy Road On-Ramp to Northbound I-95 WB to NB On-Ramp	2	1,685	N/A	1,685 Ramp	1,445	N/A	1,445 Ramp	2	1,900	N/A	1,900 Ramp	1,620	N/A	1,620 Ramp	Ramp
Ives Dairy Road On-Ramp to Northbound I-95 (Part A) All to NB On-Ramp	2	2,180	N/A	2,180 Ramp	1,810	N/A	1,810 Ramp	2	2,500	N/A	2,500 Ramp	2,080	N/A	2,080 Ramp	Ramp
Ives Dairy Road On-Ramp to Northbound I-95 (Part B) All to NB On-Ramp	1	2,180	N/A	2,180 Ramp	1,810	N/A	1,810 Ramp	1	2,500	N/A	2,500 Ramp	2,080	N/A	2,080 Ramp	Ramp

Traffic Data Used in TNM Model†														
Roadway Segment	Existing (2021)						No Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
Southbound I-95 Off-Ramp to Westbound Ives Dairy Road SB to WB Off-Ramp	1	390	N/A	390 Ramp	570	N/A	570 Ramp	1	450	N/A	450 Ramp	660	N/A	660 Ramp	Ramp
Southbound I-95 Off-Ramp to Eastbound Ives Dairy Road SB to EB Off-Ramp	1	1,520	N/A	1,520 Ramp	1,470	N/A	1,470 Ramp	1	1,390	N/A	1,390 Ramp	1,690	N/A	1,690 Ramp	Ramp
Eastbound Ives Dairy Road On-Ramp to Southbound I-95 EB to SB On-Ramp	1	560	N/A	560 Ramp	415	N/A	415 Ramp	1	700	N/A	700 Ramp	520	N/A	520 Ramp	Ramp
Westbound Ives Dairy Road On-Ramp to Southbound I-95 WB to SB On-Ramp	2	400	N/A	400 Ramp	625	N/A	625 Ramp	2	540	N/A	540 Ramp	770	N/A	770 Ramp	Ramp
Ives Dairy Road On-Ramp to Southbound I-95 (All) All to SB On-Ramp	1	960	N/A	960 Ramp	1,040	N/A	1,040 Ramp	1	1,240	N/A	1,240 Ramp	1,290	N/A	1,290 Ramp	Ramp
Northbound I-95 to Hallandale Beach Boulevard (SR 858) Off-Ramp (All) NB to All Off-Ramp	1	710	N/A	710 Ramp	960	N/A	960 Ramp	2	830	N/A	830 Ramp	1,130	N/A	1,130 Ramp	Ramp
Hallandale Beach Boulevard (SR 858) to Southbound I-95 On-Ramp (All) All to SB On-Ramp	1	740	N/A	740 Ramp	840	N/A	840 Ramp	2	1,980	N/A	1,980 Ramp	1,990	N/A	1,990 Ramp	Accel
Northbound I-95 Mainline to Northbound Express Lanes NB Mainline to NB Express Lanes Slip-Ramp	1	420	N/A	420 Ramp	270	N/A	270 Ramp	1	530	N/A	530 Ramp	340	N/A	340 Ramp	55
Northbound I-95 Express Lanes to Northbound I-95 Mainline NB Express Lanes to NB Mainline Slip-Ramp	1	560	N/A	560 Ramp	770	N/A	770 Ramp	1	740	N/A	740 Ramp	1,020	N/A	1,020 Ramp	55
Southbound I-95 Mainline to Southbound Express Lanes SB Mainline to SB Express Lanes Slip-Ramp	1	720	N/A	720 Ramp	580	N/A	580 Ramp	1	970	N/A	970 Ramp	780	N/A	780 Ramp	55
Southbound I-95 Express Lanes to Southbound I-95 Mainline SB Express Lanes to SB Mainline Slip-Ramp	1	470	N/A	470 Ramp	600	N/A	600 Ramp	1	580	N/A	580 Ramp	740	N/A	740 Ramp	55

Notes:
† = Peak-Hour Demand traffic data taken from the project's draft Interchange Modification Report November 2023.
* = LOS C values based on FDOT's Generalized Level of Service C Tables dated January, 2023
TNM By-Lane Data is either PM Peak-Hour Volume or Level of Service C Capacity, whichever is less.
LOS C = Level-of-Service C
N/A = Not applicable

Design Year (2050) Build Alternative
Traffic Data

Traffic Data Used in TNM Model†

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
I-95 Mainline								
I-95 Mainline (Express Lanes are Separate) Northbound South Traffic Limit to NW 2nd Avenue/NW 167th Street On-Ramp	5	5,270	6,600	5,270 PHD	4,990	6,600	4,990 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound NW 2nd Avenue/NW 167th Street On-Ramp to First Aux Lane Drop	6	6,030	8,060	6,030 PHD	5,850	8,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound First Aux Lane Drop to Second Aux Lane Drop	5	6,030	7,060	6,030 PHD	5,850	7,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Second Aux Lane Drop to Aux Lane Add for Miami Gardens Drive (SR 860) Off-Ramp	4	6,030	6,060	6,030 PHD	5,850	6,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Aux Lane Add for Miami Gardens Drive (SR 860) Off-Ramp to Miami Gardens Drive (SR 860) Off-Ramp	5	6,030	7,060	6,030 PHD	5,850	7,060	5,850 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Miami Gardens Drive (SR 860) Off-Ramp to Express Lanes Diverge	4	5,220	6,060	5,220 PHD	5,150	6,060	5,150 PHD	55
I-95 Express Lanes Northbound Southern Project Terminus to Express Lanes Merge S. of MGD	1	1,450	1,660	1,450	4,810	1,830	4,810 PHD	55
I-95 Express Lanes Northbound Express Lanes Merge S. of MGD to Express Lanes Diverge N. of MGD	2	1,720	3,320	1,720	6,200	2,170	6,200 PHD	55
I-95 Express Lanes Southbound Northern Project Terminus to Express Lanes Merge S. of IDR	1	1,270	1,660	1,270	6,040	1,460	6,040 PHD	55
I-95 Express Lanes Southbound Express Lanes Merge S. of IDR to Express Lanes Diverge S. of MGD	2	1,850	3,320	1,850	4,920	2,240	4,920 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Express Lanes Merge to Ives Dairy Road On-Ramp	4	5,050	6,060	5,050 PHD	5,760	6,060	5,760 PHD	55
I-95 Mainline (Express Lanes are Separate) Northbound Ives Dairy Road On-Ramp to Hallandale Beach Boulevard Off-Ramp	6	7,130	8,450	7,130 PHD	7,590	8,450	7,590 PHD	65

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
I-95 Mainline (Express Lanes are Separate) Northbound Hallandale Beach Boulevard Off-Ramp to North Project Terminus	5	6,300	7,450	6,300 PHD	6,460	7,450	6,460 PHD	65
I-95 Mainline (Express Lanes are Separate) Southbound Northern Project Terminus to Hallandale Beach Blvd (SR 858) On-Ramp	4	4,670	6,060	4,670 PHD	4,480	6,060	4,480 PHD	65
I-95 Mainline (Express Lanes are Separate) Southbound Hallandale Beach Blvd (SR 858) On-Ramp to Ives Dairy Road Off-Ramp	5	5,570	7,060	5,570 PHD	5,510	7,060	5,510 PHD	65
I-95 Mainline (Express Lanes are Separate) Southbound Ives Dairy Road Off-Ramp to SB CD System Merge	4	4,275	6,060	4,275 PHD	3,890	6,060	3,890 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound SB CD System Merge to Express Lanes Diverge	5	5,240	7,060	5,240 PHD	4,730	7,060	4,730 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Express Lanes Diverge to Ives Dairy Road On-Ramp	4	4,420	6,060	4,420 PHD	4,080	6,060	4,080 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Ives Dairy Road On-Ramp to Miami Gardens Drive (SR 860) Off-Ramp	5	5,510	7,060	5,510 PHD	5,240	7,060	5,240 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Miami Gardens Drive (SR 860) Off-Ramp to Express Lanes Merge	4	4,650	6,060	4,650 PHD	4,380	6,060	4,380 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Express Lanes Merge to Miami Gardens Drive (SR 860) On-Ramp	4	5,230	6,060	5,230 PHD	5,120	6,060	5,120 PHD	55
I-95 Mainline (Express Lanes are Separate) Southbound Miami Gardens Drive (SR 860) On-Ramp to SR 826/HEFT Off-Ramp	4	6,110	6,060	6,060 LOS C	6,220	6,060	6,060 LOS C	55
I-95 Mainline (Express Lanes are Separate) Southbound SR 826/HEFT Off-Ramp to Southern Traffic Limit	3	3,600	4,600	3,600 PHD	3,720	4,600	3,720 PHD	55
I-95 Express Lanes								
I-95 Express Lanes Northbound Southern Project Terminus to IDR Off-Ramp	2	1,410	3,320	1,410 PHD	1,830	3,320	1,830 PHD	55

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
I-95 Express Lanes Northbound IDR Off-Ramp to MGD On-Ramp	2	670	3,320	670 PHD	810	3,320	810 PHD	55
I-95 Express Lanes Northbound MGD On-Ramp to IDR On-Ramp	2	1,200	3,320	1,200 PHD	1,150	3,320	1,150 PHD	55
I-95 Express Lanes Northbound GU Merge S. of IDR to Northern Project Terminus	2	1,810	3,320	1,810 PHD	1,560	3,320	1,560 PHD	55
I-95 Express Lanes Southbound Northern Project Terminus to GU/IDR On-Ramp Merge AND Diverge to GU North of MGD	2	1,510	3,320	1,510 PHD	1,460	3,320	1,460 PHD	55
I-95 Express Lanes Southbound GU/IDR On-Ramp Merge AND Diverge to GU North of MGD to Southern Project Terminus	2	1,900	3,320	1,900 PHD	1,500	3,320	1,500 PHD	55
SR 860/Miami Gardens Drive (Arterial - Class C3C west of I-95 and C3R east of I-95)								
SR 860/Miami Gardens Drive Eastbound Western Limit to NE 6th Avenue Right-Turn Lanes/Left-Turn Lanes for I-95 On-Ramps	3	2,885	2,480	2,480 LOS C	2,195	2,480	2,195 PHD	40
SR 860/Miami Gardens Drive Eastbound NE 6th Avenue Right-Turn Lanes/Left-Turn Lanes for I-95 On-Ramps to NE 6th Avenue Intersection	2	1,030	1,595	1,030 PHD	595	1,595	595 PHD	40
SR 860/Miami Gardens Drive Eastbound NE 6th Avenue Intersection to I-95 Off-Ramps Merge	2	1,275	1,700	1,275 PHD	915	1,700	915 PHD	40
SR 860/Miami Gardens Drive Eastbound I-95 Off-Ramps Merge to NE 10th Avenue	2	2,215	1,870	1,870 LOS C	1,730	1,870	1,730 PHD	30
SR 860/Miami Gardens Drive Eastbound NE 10th Avenue to Eastern Limit	2	2,285	1,785	1,785 LOS C	1,805	1,785	1,785 LOS C	30
SR 860/Miami Gardens Drive Westbound Eastern Limit to NE 10th Avenue	2	1,850	1,785	1,785 LOS C	1,810	1,785	1,785 LOS C	30
SR 860/Miami Gardens Drive Westbound NE 10th Court to I-95 On-Ramps Diverge	2	1,955	1,700	1,700 LOS C	2,000	1,700	1,700 LOS C	30

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
SR 860/Miami Gardens Drive Westbound I-95 On-Ramps Diverge to I-95 Off-Ramps Merge	2	770	1,700	770 PHD	775	1,700	775 PHD	30
SR 860/Miami Gardens Drive Westbound I-95 Off-Ramps Merge to I-95 On-Ramp Merge to Western Limit	2	975	1,700	975 PHD	975	1,700	975 PHD	40
Ives Dairy Road (Arterial - Class C3C west of I-95 and C3R east of I-95)								
Ives Dairy Road Eastbound Western Limit to NE 16th Avenue	3	2,580	2,480	2,480 LOS C	1,690	2,480	1,690 PHD	40
Ives Dairy Road Eastbound NE 16th Avenue to I-95 OnRamp Lanes Diverge	4	2,765	3,170	2,765 PHD	1,875	3,170	1,875 PHD	35
Ives Dairy Road Eastbound I-95 OnRamp Lanes Diverge to SB I-95 Off-Ramp Merge	4	1,465	3,170	1,465 PHD	895	3,170	895 PHD	35
Ives Dairy Road Eastbound SB I-95 Off-Ramp Merge to NB I-95 Off-Ramp Merge	4	2,855	3,170	2,855 PHD	2,585	3,170	2,585 PHD	35
Ives Dairy Road Eastbound NB I-95 Off-Ramp Merge to Highland Lakes Boulevard	4	2,710	3,490	2,710 PHD	2,330	3,490	2,330 PHD	35
Ives Dairy Road Eastbound Highland Lakes Boulevard to Eastern Limit	4	2,535	3,170	2,535 PHD	2,235	3,170	2,235 PHD	40
Ives Dairy Road Westbound Eastern Limit to Highland Lakes Boulevard/I95 On-Ramps	3	2,265	2,750	2,265 PHD	2,440	2,750	2,440 PHD	40
Ives Dairy Road Westbound Highland Lakes Boulevard/I-95 On-Ramps to NB and SB On-Ramps Diverge	3	3,240	2,620	2,620 LOS C	3,390	2,620	2,620 LOS C	35
Ives Dairy Road Westbound NB and SB On-Ramp Diverge to NB I-95 Off-Ramp Merge	3	800	2,360	800 PHD	1,000	2,360	1,000 PHD	35
Ives Dairy Road Westbound NB I-95 Off-Ramp Merge to SB I-95 Off-Ramp Merge	3	1,165	2,360	1,165 PHD	1,480	2,360	1,480 PHD	35

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
Ives Dairy Road Westbound SB I-95 Off-Ramp Merge to NE 16th Avenue	3	1,615	2,480	1,615 PHD	2,140	2,480	2,140 PHD	35
Ives Dairy Road Westbound NE 16th Avenue to Western Limit	3	1,165	2,480	1,165 PHD	2,135	2,480	2,135 PHD	40
NE 6th Avenue (Class C3R Arterial)								
NE 6th Avenue Southbound South of Miami Gardens Drive	2	1,765	1,700	1,700 LOS C	1,355	1,700	1,355 PHD	40
NE 6th Avenue Northbound South of Miami Gardens Drive	2	975	1,880	975 PHD	1,670	1,880	1,670 PHD	40
Highland Lakes Boulevard (Class C3R Arterial)								
Highland Lakes Boulevard Southbound South of Ives Dairy Road	2	1,265	1,700	1,265 PHD	1,225	1,700	1,225 PHD	30
Highland Lakes Boulevard Northbound South of Ives Dairy Road	2	960	1,020	960 PHD	970	1,020	970 PHD	30
Highland Lakes Boulevard Southbound North of Ives Dairy Road	1	355	1,070	355 PHD	330	1,070	330 PHD	30
Highland Lakes Boulevard Northbound North of Ives Dairy Road	2	360	1,700	360 PHD	295	1,700	295 PHD	30
Ramps								
NW 167th Street to Northbound I-95 On-Ramp All to NB On-Ramp	1	760	N/A	760 Ramp	860	N/A	860 Ramp	Ramp
Ramp E - Northbound I-95 Off-Ramp to Miami Gardens Drive (All) NB to All Off-Ramp	2	810	N/A	810 Ramp	700	N/A	700 Ramp	Ramp
Ramp F (WB) - Both I-95 Off-Ramps to Westbound Miami Gardens Drive All to WB Off-Ramp	1	765	N/A	765 Ramp	710	N/A	710 Ramp	Ramp

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
Ramp F (EB) - Both I-95 Off-Ramps to Eastbound Miami Gardens Drive All to EB Off-Ramp	1	905	N/A	905 Ramp	850	N/A	850 Ramp	Ramp
Ramp A (Pt A) - Eastbound Miami Gardens Drive On-Ramp to Northbound I-95 EB to NB On-Ramp	1	650	N/A	650 Ramp	920	N/A	920 Ramp	Ramp
Ramp B - Westbound Miami Gardens Drive On-Ramp to Northbound I-95 WB to NB On-Ramp	1	490	N/A	490 Ramp	470	N/A	470 Ramp	Ramp
Ramp A (Pt B) Miami Gardens Drive On-Ramp to Northbound I-95 (All) All to NB On-Ramp	2	1,140	N/A	1,140 Ramp	1,390	N/A	1,390 Ramp	Ramp
Ramp F (Pt A) - Southbound I-95 Off-Ramp to Miami Gardens Drive (All) SB to All Off-Ramp	1	860	N/A	860 Ramp	860	N/A	860 Ramp	25
Ramp C (EB) - Eastbound Miami Gardens Drive On-Ramp to Southbound I-95 EB to SB On-Ramp	1	185	N/A	185 Ramp	345	N/A	345 Ramp	25
Ramp D - Westbound Miami Gardens Drive On-Ramp to Southbound I-95 WB to SB On-Ramp	1	695	N/A	695 Ramp	755	N/A	755 Ramp	25
Ramp C - Miami Gardens Drive On-Ramp to Southbound I-95 All to SB On-Ramp	1	880	N/A	880 Ramp	1,100	N/A	1,100 Ramp	55
EL Ramp A - Northbound I-95 at Miami Gardens Drive to I-95 Express NB I-95 to NB Exp Ramp	1	530	N/A	530 Ramp	340	N/A	340 Ramp	45
EL Ramp F (Pt A) - NB I-95 Express to Ives Dairy Road NB Exp to NB I-95/Ives Dairy Road Ramp	1	740	N/A	740 Ramp	1,020	N/A	1,020 Ramp	45
EL Ramp B - Northbound I-95 Off-Ramp North of Miami Gardens Drive to Northbound I-95 Express (Part A) NB I-95 to NB Express On-Ramp Ramp	1	190	N/A	190 Ramp	160	N/A	160 Ramp	40
EL Ramp L - Northbound Express Off-Ramp to Eastbound Ives Dairy Road NB Express Off-Ramp to Ives Dairy Road Off-Ramp Ramp	1	150	N/A	150 Ramp	180	N/A	180 Ramp	40

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
Ramp G (Pt A) - Northbound I-95 Off-Ramp to Ives Dairy Road NB I-95 to Ives Dairy Road (All) Off-Ramp	2	1,180	N/A	1,180 Ramp	1,120	N/A	1,120 Ramp	Ramp
EL Ramp F (Pt B) - NB Collector-Distributor Road after Ives Dairy Road Off-Ramp and Before NB I-95 Off-Ramp NB to NB ML and Exp On-Ramp	2	780	N/A	780 Ramp	1,000	N/A	1,000 Ramp	45
EL Ramp C (Pt A) - NB Express Lanes On-Ramp South of Ives Dairy Road NB to NB Exp On-Ramp	1	190	N/A	190 Ramp	160	N/A	160 Ramp	45
EL Ramp F (Pt C) - NB I-95 Mainline On-Ramp South of Ives Dairy Road NB Exp to NB I-95 Ramp	1	590	N/A	590 Ramp	840	N/A	840 Ramp	45
Ramp L (EB) - Northbound I-95 Off-Ramp to Eastbound Ives Dairy Road NB to EB Off-Ramp	3	965	N/A	965 Ramp	820	N/A	820 Ramp	Ramp
Ramp L (WB) - Northbound I-95 Off-Ramp to Westbound Ives Dairy Road NB to WB Off-Ramp	2	365	N/A	365 Ramp	480	N/A	480 Ramp	Ramp
Ramp H - Eastbound Ives Dairy Road On-Ramp to Northbound I-95 EB to NB On-Ramp	1	600	N/A	600 Ramp	460	N/A	460 Ramp	25
Ramp I - Westbound Ives Dairy Road On-Ramp to Northbound I-95 WB to NB On-Ramp	2	1,900	N/A	1,900 Ramp	1,620	N/A	1,620 Ramp	25
Ramp M - Ives Dairy Road On-Ramp to Northbound I-95 (23) All to NB I-95 On-Ramp	2	2,080	N/A	2,080 Ramp	1,830	N/A	1,830 Ramp	Ramp
Ives Dairy Road On-Ramp to Northbound I-95 Express All to NB Express Ramp	1	420	N/A	420 Ramp	250	N/A	250 Ramp	55
Ramp J - Southbound I-95 Off-Ramp to Ives Dairy Road Before CD-System Merge SB I-95 to All Off-Ramp	2	1,295	N/A	1,295 Ramp	1,620	N/A	1,620 Ramp	Ramp
Ramp J - Southbound I-95 Off-Ramp to Ives Dairy Road After CD-System Merge SB I-95 to All Off-Ramp	2	1,840	N/A	1,840 Ramp	2,350	N/A	2,350 Ramp	Ramp

Traffic Data Used in TNM Model[†]

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
Ramp J (WB) - Southbound I-95 Off-Ramp to Westbound Ives Dairy Road SB to WB Off-Ramp	2	450	N/A	450 Ramp	660	N/A	660 Ramp	Ramp
Ramp J (EB) - Southbound I-95 Off-Ramp to Eastbound Ives Dairy Road SB to EB Off-Ramp	1	1,390	N/A	1,390 Ramp	1,690	N/A	1,690 Ramp	Ramp
EL Ramp E (Pt A) - Southbound I-95 Off-Ramp north of IDR to SB Express Lanes SBEx On-Ramp Ramp	1	820	N/A	820 Ramp	650	N/A	650 Ramp	45
Ramp K (EB) - Eastbound Ives Dairy Road On-Ramp to Southbound I-95 EB to SB All On-Ramp	1	700	N/A	700 Ramp	520	N/A	520 Ramp	Ramp
Ramp K (WB) - Westbound Ives Dairy Road On-Ramp to Southbound I-95 WB to SB All On-Ramp	2	540	N/A	540 Ramp	770	N/A	770 Ramp	Ramp
Ramp K - Ives Dairy Road On-Ramp to Southbound I-95 (Combined) All to SB I-95 after SB Express Diverge On-Ramp	2	1,090	N/A	1,090 Ramp	1,160	N/A	1,160 Ramp	45
EL Ramp D - Ives Dairy Road On-Ramp to Southbound Express Lanes All to SB Express On-Ramp	1	150	N/A	150 Ramp	130	N/A	130 Ramp	45
EL Ramp E (Pt B) - SB Ramp south of IDR to Southbound Express Lanes SB to Express Lanes Off-Ramp	1	970	N/A	970 Ramp	780	N/A	780 Ramp	45
EL Ramp G - Southbound Express Lanes off-ramp to SB I-95 Mainline SB Express to SB I-95 Ramp	1	580	N/A	580 Ramp	740	N/A	740 Ramp	40
EL Ramp C (Pt B) - Northbound Express Lanes On-Ramp North of IDR NB to NB Express Lanes On-Ramp	1	610	N/A	610 Ramp	410	N/A	410 Ramp	45
Northbound I-95 Off-Ramp to Hallandale Beach Boulevard (SR 858) NB to All Ramp	1	830	N/A	830 Ramp	1,130	N/A	1,130 Ramp	55
Hallandale Beach Boulevard (SR 858) to Southbound I-95 On-Ramp All to SB On-Ramp	1	900	N/A	900 Ramp	1,030	N/A	1,030 Ramp	Ramp

Traffic Data Used in TNM Model†

Roadway Segment	Build (2050)							Speed MPH)
	Number of Lanes	AM Peak			PM Peak			
		Peak-Hour	LOS C	TNM Data	Peak-Hour	LOS C	TNM Data	
SB Collector-Distributor System - Northern Project Terminus to IDR Off-Ramp SB CD CD System	1	1,510	N/A	1,510 Ramp	1,570	N/A	1,570 Ramp	55
EL Ramp E - SB Collector-Distributor System - IDR Off-Ramp to SB I-95 Mainline Merge SB CD CD System	1	965	N/A	965 Ramp	840	N/A	840 Ramp	55
SB Collector-Distributor System SB CD to IDR Off-Ramp	1	545	N/A	545 Ramp	730	N/A	730 Ramp	55
Turn Lanes								
EB Miami Gardens Drive to SB NE 6th Ave RTL EB to SB Right-Turn Lane	2	1,205	N/A	1,205 Turn Lane	845	N/A	845 Turn Lane	40
EB Miami Gardens Drive to I-95 On-Ramps LTL Before NE 6th Avenue EB to All Left-Turn Lane	2	650	N/A	650 Turn Lane	755	N/A	755 Turn Lane	40
EB Miami Gardens Drive to I-95 On-Ramps LTL After NE 6th Avenue EB to All Left-Turn Lane	2	835	N/A	835 Turn Lane	1,265	N/A	1,265 Turn Lane	40
WB Miami Gardens Drive to SB NE 6th Ave LTL WB to SB Left-Turn Lane	2	560	N/A	560 Turn Lane	510	N/A	510 Turn Lane	40
EB Ives Dairy Road to SB Highland Lakes Boulevard RTL EB to SB Right-Turn Lane	1	1,110	N/A	1,110 Turn Lane	1,075	N/A	1,075 Turn Lane	40

Notes:
† = Peak-Hour Demand traffic data taken from the project's draft Interchange Modification Report November 2023.
* = LOS C values based on FDOT's Generalized Level of Service C Tables dated January, 2023
TNM By-Lane Data is either PM Peak-Hour Volume or Level of Service C Capacity, whichever is less.
LOS C = Level-of-Service C
N/A = Not applicable

APPENDIX C

Modeled Noise Receptor Locations and Noise Analysis Results

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
I-95 - Southern Project Terminus to Miami Gardens Drive (SR 860)										
East Side										
HM-95-1	Highland Manor (I-95)	SFH	Residential (B)	66	2009+00	4	95/95/90	60.1	60.5	**72.1**
HM-95-2		SFH	Residential (B)	66	2013+60	5	95/95/75	60.6	60.8	**74.5**
HM-95-3		SFH	Residential (B)	66	2019+20	5	105/105/85	60.6	60.8	**73.3**
HM-95-4		SFH	Residential (B)	66	2025+00	9	105/105/75	61.3	61.5	**70.1**
HM-95-5		SFH	Residential (B)	66	2030+80	8	110/110/80	61.0	61.2	**67.9**
HM-95-6		SFH	Residential (B)	66	2035+80	4	100/100/70	61.4	61.6	**68.5**
HM-95-7		SFH	Residential (B)	66	2039+40	5	90/90/65	61.5	61.8	**66.9**
HM-95-8		SFH	Residential (B)	66	2042+20	2	95/95/70	62.6	62.8	65.0
HM-95-9		SFH	Residential (B)	66	2015+60	9	190/190/170	55.0	55.3	64.6
HM-95-10		SFH	Residential (B)	66	2025+00	8	205/205/175	53.0	53.4	61.3
HM-95-11		SFH	Residential (B)	66	2031+20	8	210/210/180	53.5	53.8	61.6
HM-95-12		SFH	Residential (B)	66	2035+80	4	185/185/160	55.3	55.6	62.5
HM-95-13		SFH	Residential (B)	66	2039+00	3	190/190/165	57.9	58.2	63.7
HM-95-14		SFH	Residential (B)	66	2040+60	2	200/200/175	59.5	59.8	63.8
HM-95-15		SFH	Residential (B)	66	2042+80	2	205/205/175	62.4	62.7	64.0
HM-95-16		SFH	Residential (B)	66	2044+60	2	205/205/180	64.8	65.2	65.1
HM-95-17		SFH	Residential (B)	66	2009+60	9	355/355/350	53.7	54.1	59.1
HM-95-18		SFH	Residential (B)	66	2019+00	6	325/325/310	54.7	55.0	58.7
HM-95-19		SFH	Residential (B)	66	2023+60	6	350/350/320	52.6	52.9	56.6
HM-95-20		SFH	Residential (B)	66	2026+60	5	355/355/325	52.4	52.8	56.5
HM-95-21		SFH	Residential (B)	66	2031+60	5	340/340/310	55.3	55.5	58.9
HM-95-22		SFH	Residential (B)	66	2036+00	4	340/340/315	55.6	55.8	60.1
HM-95-23		SFH	Residential (B)	66	2039+20	3	345/345/320	56.5	56.8	61.4
HM-95-24		SFH	Residential (B)	66	2041+00	3	340/340/315	57.3	57.6	61.9
HM-95-25		SFH	Residential (B)	66	2042+80	3	340/340/315	58.8	59.1	61.8

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
I-95 - Miami Gardens Drive (SR 860) to Ives Dairy Road										
East Side										
PLE-95-1	Pickwick Lake Estates (I-95)	SFH	Residential (B)	66	40+00 (Ramp D)	1	70/70/30	59.4	60.0	53.9
PLE-95-2		SFH	Residential (B)	66	43+50 (Ramp D)	4	65/65/60	59.0	59.5	54.2
PLE-95-3		SFH	Residential (B)	66	88+60 (Ramp B)	4	70/70/110	60.5	61.0	62.6
PLE-95-4		SFH	Residential (B)	66	58+00 (Ramp A)	4	105/105/55	62.2	62.7	**68.4**
PLE-95-5		SFH	Residential (B)	66	61+40 (Ramp A)	5	155/155/55	60.4	60.9	**70.1**
PLE-95-6		SFH	Residential (B)	66	64+60 (Ramp A)	1	120/120/25	62.3	62.7	**73.7**
PLE-95-7		SFH	Residential (B)	66	65+20 (Ramp A)	1	200/200/100	63.4	63.8	**66.9**
PLE-95-8		SFH	Residential (B)	66	43+80 (Ramp D)	4	210/210/205	55.1	55.6	56.5
PLE-95-9		SFH	Residential (B)	66	89+20 (Ramp B)	4	240/240/270	56.1	56.5	58.0
PLE-95-10		SFH	Residential (B)	66	59+00 (Ramp A)	2	275/275/205	56.7	57.2	58.8
PLE-95-11		SFH	Residential (B)	66	61+80 (Ramp A)	3	300/300/195	58.3	58.7	61.6
PLE-95-12		SFH	Residential (B)	66	86+80 (Ramp B)	7	340/340/350	53.0	53.6	55.9
PLE-95-13		SFH	Residential (B)	66	59+20 (Ramp A)	3	360/360/295	53.7	54.2	56.1
SCT-1	Snake Creek Trail (West of I-95)	Fitness Trail	Trail (C)	66	77+20 (Ramp F)	SLU	720/720/650	56.0	56.4	55.7
SCT-2		Fitness Trail	Trail (C)	66	77+20 (Ramp F)		295/295/225	63.3	63.6	60.7
SCT-3	Snake Creek Trail (East of I-95)	Fitness Trail	Trail (C)	66	68+00 (Ramp A)	SLU	130/130/40	71.9	72.3	**68.3**
SCT-4		Fitness Trail	Trail (C)	66	67+00 (Ramp A)		225/225/135	68.5	68.9	**67.8**
SCT-5		Fitness Trail	Trail (C)	66	67+00 (Ramp A)		310/310/220	66.5	66.9	**67.1**
SCT-6		Fitness Trail	Trail (C)	66	67+00 (Ramp A)		400/400/ 310	65.2	65.6	**67.2**
SCT-7		Fitness Trail	Trail (C)	66	67+00 (Ramp A)		460/460/370	64.5	64.9	**66.4**
SCT-8		Fitness Trail	Trail (C)	66	67+00 (Ramp A)		495/495/405	64.1	64.5	**66.0**
RIV1 (a,b,c)	Riviera Condominiums	MFH	Residential (B)	66	2091+40	2,2,2	200/200/110	64.0, 65.3, 66.8	64.5, 65.7, 67.1	65.8, **68.3, 69.3**
RIV2 (a,b,c)		MFH	Residential (B)	66	2092+80	5,5,5	285/285/190	61.6, 62.0, 63.3	62.1, 62.4, 63.6	62.9, 63.7, 64.4
RIV3 (a,b,c)		MFH	Residential (B)	66	2093+60	4,4,4	340/340/250	49.0, 49.1, 50.8	49.4, 49.5, 51.2	51.8, 51.8, 53.1
RIV4 (a,b,c)		MFH	Residential (B)	66	2094+60	3,3,3	410/410/325	58.2, 57.8, 58.6	58.6, 58.2, 59.0	59.8, 59.6, 59.9
RIV5 (a,b,c)		MFH	Residential (B)	66	2095+00	3,3,3	475/475/385	58.8, 58.5, 58.9	59.3, 59.0, 59.3	60.1, 59.7, 60.1
RIV6 (a,b,c)		MFH	Residential (B)	66	2095+40	3,3,3	545/545/460	58.0, 57.7, 57.8	58.5, 58.1, 58.2	59.3, 58.7, 59.0
RIV-Pool		Community Pool	Residential Pool (C)	66	2095+60	SLU	600/600/515	57.7	58.1	58.9

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
RG-1(a,b,c,d)	Rolling Green Condominiums	MFH	Residential (B)	66	2096+40	2,2,2,2	135/135/55	60.8, 68.4, 73.3, 73.5	61.2, 68.8, 73.7, 73.9	**71.1, 75.9, 75.7, 75.4**
RG-2(a,b,c,d)		MFH	Residential (B)	66	2096+40	2,2,2,2	205/205/125	60.5, 63.9, 69.7, 70.4	60.9, 64.3, 70.1, 70.8	**67.3, 71.4, 72, 72**
RG-3(a,b,c,d)		MFH	Residential (B)	66	2096+40	2,2,2,2	290/290/210	60.2, 62.9, 66.8, 68.8	60.6, 63.3, 67.1, 69.2	64.9, **69.1, 69.8, 70.2**
RG-4 (a,b,c,d)		MFH	Residential (B)	66	2096+80	3,3,3,3	340/340/260	60.6, 63.2, 66.6, 68.2	61.0, 63.6, 66.9, 68.6	64.3, **68.5, 69.5, 69.9**
RG-Pool1		Community Pool	Residential Pool (C)	66	2097+60	SLU	405/405/325	60.6	61.1	62.7
RG-5(a,b,c,d)		MFH	Residential (B)	66	2098+60	3,3,3,3	460/460/385	61.5, 63.8, 64.9, 66.7	62.0, 64.2, 65.3, 67.0	62.7, **66.2, 67.5, 68.0**
RG-6(a,b,c,d)		MFH	Residential (B)	66	2099+60	3,3,3,3	510/510/435	61.3, 63.8, 64.8, 66.4	61.8, 64.2, 65.2, 66.7	61.7, 65.5, **66.6, 67.2**
RG-7(a,b,c,d)		MFH	Residential (B)	66	2101+60	4,4,4,4	540/540/465	60.7, 64.4, 65.5, 66.9	61.2, 64.8, 65.9, 67.2	60.1, 65.0, **66.4, 67.0**
RG-Pool2		Community Pool	Residential Pool (C)	66	2103+00	SLU	645/645/575	58.7	59.2	58.0
RG-8(a,b,c,d)		MFH	Residential (B)	66	2104+20	1,1,1,1	750/750/680	57.0, 61.8, 63.2, 63.9	57.5, 62.3, 63.6, 64.3	56.5, 61.8, 63.5, 64.3
RG-9(a,b,c,d)		MFH	Residential (B)	66	2106+60	4,4,4,4	870/870/800	55.3, 60.3, 61.9, 62.7	55.8, 60.8, 62.3, 63.1	54.8, 60.2, 61.9, 62.9
PE-1	Presidential Estates	SFH	Residential (B)	66	607+40 (ELRamp B)	1	550/550/455	60.7	61.3	58.0
PE-2		SFH	Residential (B)	66	610+60 (ELRamp B)	2	540/540/430	62.4	62.9	58.5
PE-3		SFH	Residential (B)	66	613+40 (ELRamp B)	5	445/445/380	64.2	64.7	60.6
PE-4		SFH	Residential (B)	66	443+20 (ELRamp F)	3	405/405/360	66.2	66.6	63.2
PE-5		SFH	Residential (B)	66	446+20 (ELRamp F)	4	425/425/395	66.3	66.7	63.2
PE-6		SFH	Residential (B)	66	447+80 (ELRamp F)	1	465/465/425	65.8	66.3	62.2
PE-7		SFH	Residential (B)	66	610+20 (ELRamp B)	2	700/700/590	55.1	55.6	53.5
PE-8		SFH	Residential (B)	66	610+80 (ELRamp B)	3	805/805/695	52.8	53.2	53.0
PE-9		SFH	Residential (B)	66	612+40 (ELRamp B)	3	705/705/625	57.1	57.4	57.2
PE-10		SFH	Residential (B)	66	441+20 (ELRamp F)	1	610/610/550	55.2	55.6	54.3
PE-11		SFH	Residential (B)	66	444+00 (ELRamp F)	2	580/580/540	54.1	54.5	54.0
PE-12		SFH	Residential (B)	66	447+80 (ELRamp F)	6	865/865/830	56.7	57.2	53.2
PE-13		SFH	Residential (B)	66	449+80 (ELRamp F)	4	795/795/755	59.5	60.0	56.1
PE-14		SFH	Residential (B)	66	451+40	4	750/750/705	60.5	61.1	56.5
PE-15		SFH	Residential (B)	66	453+60	4	815/815/760	60.5	61.0	55.3
PE-16		SFH	Residential (B)	66	45+40 (Ramp L)	6	940/940/875	58.7	59.3	53.8
PE-17		SFH	Residential (B)	66	47+20 (Ramp L)	3	975/975/900	57.6	58.2	53.2
PE-Pool		Community Pool	Residential Pool (C)	66	45+20 (Ramp L)	SLU	770/770/700	61.0	61.6	55.4

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
CE-1	Coventry Estates	SFH	Residential (B)	66	50+80 (Ramp L)	2	775/775/715	55.9	56.5	52.5
CE-2		SFH	Residential (B)	66	51+80 (Ramp L)	3	570/570/510	61.6	62.2	54.3
CE-3		SFH	Residential (B)	66	52+40 (Ramp L)	2	375/375/310	64.2	64.8	55.2
CE-4		SFH	Residential (B)	66	52+80 (Ramp L)	1	240/240/175	67.6	68.3	58.7
CE-5		SFH	Residential (B)	66	51+60 (Ramp L)	2	840/840/775	52.9	53.5	51.4
CE-6		SFH	Residential (B)	66	52+80 (Ramp L)	2	695/695/630	54.5	55.0	53.0
CE-7		SFH	Residential (B)	66	53+80 (Ramp L)	4	670/670/610	52.3	52.9	50.6
CE-8		SFH	Residential (B)	66	53+80 (Ramp L)	2	505/505/440	56.3	57.0	53.8
CE-9		SFH	Residential (B)	66	54+20 (Ramp L)	2	395/395/340	62.5	63.2	59.6
CE-10		SFH	Residential (B)	66	55+40 (Ramp L)	3	560/560/510	54.5	55.1	52.9
CE-11		SFH	Residential (B)	66	55+60 (Ramp L)	3	485/485/455	61.6	62.2	60.0
CE-12		SFH	Residential (B)	66	56+40 (Ramp L)	1	770/770/760	57.5	57.9	56.2
CE-13		SFH	Residential (B)	66	56+80 (Ramp L)	1	650/650/645	58.1	58.5	56.2
CHA-95-1	The Chateaux (I-95)	SFH	Residential (B)	66	60+40 (Ramp L)	3	645/645/690	59.7	60.1	58.2
CHA-95-2		SFH	Residential (B)	66	62+60 (Ramp L)	2	500/500/550	59.7	60.4	59.0
CHA-95-TC		Tennis Courts	Sports Field (C)	66	63+80 (Ramp L)	SLU	375/375/415	59.2	59.9	58.6
CHA-95-3		SFH	Residential (B)	66	64+80 (Ramp L)	2	255/255/285	61.2	61.9	61.4
CHA-95-4		SFH	Residential (B)	66	67+00 (Ramp L)	3	140/140/140	62.8	63.7	62.6
CHA-95-5		SFH	Residential (B)	66	68+60 (Ramp L)	1	160/160/155	62.4	63.3	61.1
CHA-95-6		SFH	Residential (B)	66	61+40 (Ramp L)	2	720/720/765	56.2	56.7	55.4
CHA-95-7		SFH	Residential (B)	66	62+80 (Ramp L)	3	575/575/620	55.3	56.0	54.1
CHA-95-8		SFH	Residential (B)	66	66+20 (Ramp L)	7	350/340/345	58.0	58.9	57.3
CHA-95-9		SFH	Residential (B)	66	67+80 (Ramp L)	5	280/280/280	57.8	58.7	57.5
CHA-95-10		SFH	Residential (B)	66	63+00 (Ramp L)	4	685/685/735	56.9	57.5	55.2
CHA-95-BB		Basketball Court	Sports Field (C)	66	64+40 (Ramp L)	SLU	520/520/550	58.0	58.8	58.1
CHA-95-11		SFH	Residential (B)	66	66+60 (Ramp L)	3	465/465/470	56.0	56.9	55.5
West Side										
AI-WT1	Aventura Isles	Walking Trail	Walking Trail (C)	66	4075+00	SLU	255/255/235	61.7	62.1	62.3
AI-1		SFH	Residential (B)	66	4076+20	2	320/320/300	64.1	64.4	62.8
AI-2		SFH	Residential (B)	66	4079+00	10	320/320/300	63.1	63.5	63.2

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
AI-3		SFH	Residential (B)	66	4082+40	5	375/375/355	60.4	60.8	61.3
AI-4		SFH	Residential (B)	66	4086+00	2	345/345/330	60.8	61.1	61.2
AI-5		SFH	Residential (B)	66	4089+20	2	340/340/330	60.9	61.2	61.3
AI-6		SFH	Residential (B)	66	4076+60	1	565/565/545	55.5	55.9	56.7
AI-7		SFH	Residential (B)	66	4077+80	5	500/500/480	54.0	54.4	53.7
AI-8		SFH	Residential (B)	66	4085+00	7	430/430/415	59.4	59.8	60.1
AI-9		SFH	Residential (B)	66	4086+80	4	505/505/490	55.8	56.2	56.7
AI-10		SFH	Residential (B)	66	4088+00	5	495/495/475	56.5	56.8	56.0
AI-11		SFH	Residential (B)	66	4090+00	4	470/470/455	56.2	56.6	56.0
AI-12		SFH	Residential (B)	66	4074+40	6	870/870/850	53.1	53.4	54.1
AI-13		SFH	Residential (B)	66	4076+00	5	755/755/730	53.5	53.9	55.1
AI-14		SFH	Residential (B)	66	4077+80	6	640/640/620	50.7	51.1	50.8
AI-15		SFH	Residential (B)	66	4079+60	5	530/530/510	52.9	53.2	52.7
AI-16		SFH	Residential (B)	66	4082+00	10	590/590/580	53.0	53.2	53.1
AI-17		SFH	Residential (B)	66	4084+00	4	555/555/540	52.0	52.3	51.9
AI-18		SFH	Residential (B)	66	4085+60	7	630/630/615	51.3	51.6	51.6
AI-19		SFH	Residential (B)	66	4088+00	4	635/635/620	50.8	51.2	51.2
AI-20		SFH	Residential (B)	66	4089+60	6	670/670/655	52.7	53.0	52.4
AI-21		SFH	Residential (B)	66	4090+60	3	560/560/550	54.5	54.9	54.0
AI-22		SFH	Residential (B)	66	4092+60	3	565/565/555	53.6	54.0	53.5
AI-23		SFH	Residential (B)	66	4092+20	3	710/710/700	52.5	52.9	52.3
AI-24		SFH	Residential (B)	66	4087+60	11	850/850/835	48.3	48.7	48.8
AI-WT2		Walking Trail	Walking Trail (C)	66	4085+80	SLU	265/265/255	62.7	63.1	63.5
AH-1(a,b,c,d,e)	Aventura Harbor Apartments	MFH	Residential (B)	66	4093+40	8,8,8,8,8	210/210/200	58.4, 61.2, 64.9, 72.3, 72.7	58.7, 61.6, 65.3, 72.6, 73.0	58.3, 60.8, 64.7, **71.4, 72.3**
AH-2(a,b,c,d,e)		MFH	Residential (B)	66	4095+60	7,7,7,7,7	245/245/230	55.3, 56.9, 60.4, 68.1, 70.4	55.6, 57.3, 60.7, 68.5, 70.7	55.6, 57.5, 61.1, **67.6, 70.0**
AH-3(a,b,c,d,e)		MFH	Residential (B)	66	4096+80	6,6,6,6,6	245/245/230	55.9, 57.6, 61.1, 69.3, 71.0	56.2, 57.9, 61.5, 69.7, 71.4	56.3, 58.3, 62.0, **68.8, 70.8**
AH-4(a,b,c,d,e)		MFH	Residential (B)	66	4098+40	3,3,3,3,3	240/240/225	53.8, 55.3, 59.0, 68.1, 69.8	54.2, 55.6, 59.3, 68.5, 70.1	54.8, 57.0, 60.5, **68.2, 69.7**
AH-5(a,b,c,d,e)		MFH	Residential (B)	66	4102+80	3,3,3,3,3	225/225/215	56.2, 57.9, 61.6, 70.0, 71.6	56.5, 58.2, 61.9, 70.5, 72.0	59.2, 59.1, 62.1, **69.6, 70.9**
AH-6(a,b,c,d,e)		MFH	Residential (B)	66	4103+80	4,4,4,4,4	260/260/250	54.4, 59.4, 61.3, 65.7, 68.1	54.7, 59.7, 61.6, 66.1, 68.4	55.4, 59.9, 61.1, 65.0, **67.3**
AH-7(a,b,c,d,e)		MFH	Residential (B)	66	4093+60	8,8,8,8,8	315/315/305	55.3, 60.2, 61.9, 62.3, 62.6	55.6, 60.5, 62.2, 62.7, 63.0	54.8, 59.3, 60.6, 61.1, 61.7

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
AH-8(a,b,c,d,e)		MFH	Residential (B)	66	4095+60	13,13,13,13,13	395/395/385	48.5, 49.2, 51.0, 53.6, 59.5	48.8, 49.6, 51.4, 54.0, 59.9	48.7, 50.1, 51.9, 54.8, 58.5
AH-9(a,b,c,d,e)		MFH	Residential (B)	66	4096+80	16,16,16,16,16	345/345/330	50.6, 51.8, 53.7, 58.4, 63.3	50.9, 52.2, 54.0, 58.7, 63.7	51.7, 53.4, 55.4, 61.6, 63.8
AH-10(a,b,c,d,e)		MFH	Residential (B)	66	4098+40	2,2,2,2,2	340/340/325	50.7, 52.0, 54.5, 59.8, 65.7	51.0, 52.4, 54.8, 60.1, 66.1	52.3, 53.6, 56.0, 62.6, 65.7
AH-11(a,b,c,d,e)		MFH	Residential (B)	66	4101+80	17,17,17,17,17	340/340/330	53.8, 55.0, 56.9, 61.1, 67.2	54.1, 55.4, 57.2, 61.4, 67.6	55.1, 56.1, 57.7, 62.4, **66.6**
AH-12(a,b,c,d,e)		MFH	Residential (B)	66	4102+80	3,3,3,3,3	375/375/365	52.3, 55.2, 57.3, 60.4, 62.7	52.5, 55.5, 57.6, 60.7, 63.1	53.1, 55.9, 57.4, 60.5, 62.6
AH-TC		Tennis Courts	Tennis Courts (C)	66	4099+60	SLU	455/455/440	48.4	48.8	50.4
IE-PG	Ives Estates Tot Lot	Playground	Playground (C)	66	4111+60	SLU	180/180/170	58.6	58.9	60.2
IE-1		SFH	Residential (B)	66	4112+40	1	200/200/185	57.4	57.7	58.2
IE-2		SFH	Residential (B)	66	4115+60	5	225/225/195	57.3	57.6	57.8
IE-3		SFH	Residential (B)	66	4118+20	5	230/230/190	57.2	57.5	57.7
IE-4		SFH	Residential (B)	66	4122+00	5	270/270/210	57.2	57.5	57.6
IE-5		SFH	Residential (B)	66	4125+40	4	290/290/225	57.0	57.4	57.7
IE-6		SFH	Residential (B)	66	4128+80	5	310/310/245	56.8	57.2	57.5
IE-7		SFH	Residential (B)	66	4131+00	1	275/275/205	56.1	56.6	56.4
IE-8		SFH	Residential (B)	66	4109+00	3	435/435/425	53.7	54.0	54.6
IE-9		SFH	Residential (B)	66	4110+20	1	340/340/330	55.3	55.6	56.1
IE-10		SFH	Residential (B)	66	4114+20	4	345/345/325	56.5	56.7	57.3
IE-11		SFH	Residential (B)	66	4419+40	4	380/380/340	54.4	54.6	55.3
IE-12		SFH	Residential (B)	66	4124+00	2	405/405/350	54.3	54.5	55.0
IE-13		SFH	Residential (B)	66	4127+00	2	445/445/375	54.2	54.4	55.1
IE-14		SFH	Residential (B)	66	4129+20	2	455/455/385	55.7	56.0	55.9
IE-15		SFH	Residential (B)	66	4129+60	1	455/455/445	53.8	54.1	55.1
IE-16		SFH	Residential (B)	66	4109+60	2	555/555/545	52.4	52.8	53.9
IE-17		SFH	Residential (B)	66	4110+60	1	455/455/445	55.1	55.4	56.1
IE-18		SFH	Residential (B)	66	4114+60	10	520/520/500	54.0	54.3	55.4
IE-19		SFH	Residential (B)	66	4120+80	8	530/530/480	50.3	50.6	51.2
IE-20		SFH	Residential (B)	66	4125+60	6	590/590/525	54.0	54.4	54.9
WLFC (Int)	Words of Life Fellowship Church	Church Interior	Place of Worship Interior (D)	51	924+80 (ELRamp E)	SLU	400/400/220	56.5	57.2	35.6

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
I-95 - Ives Dairy Road to Northern Project Terminus										
East Side										
HL-I95-1	Highland Lakes (I-95)	SFH	Residential (B)	66	91+00 (Ramp I)	2	105/105/105	56.6	57.1	63.5
HL-I95-2		SFH	Residential (B)	66	73+20 (Ramp H)	2	125/125/185	57.9	58.5	58.7
HL-I95-3		SFH	Residential (B)	66	75+20 (Ramp H)	3	110/110/80	59.4	60.0	62.4
HL-I95-4		SFH	Residential (B)	66	77+40 (Ramp H)	2	100/100/65	59.1	59.7	63.9
HL-I95-5		SFH	Residential (B)	66	804+60 (Ramp M)	4	80/80/40	61.1	61.7	62.1
HL-I95-6		SFH	Residential (B)	66	808+80 (Ramp M)	5	105/105/50	61.5	62.1	62.9
HL-I95-7		SFH	Residential (B)	66	813+60 (Ramp M)	5	100/100/40	61.4	61.9	**69.6**
HL-I95-8		SFH	Residential (B)	66	819+40 (Ramp M)	3	80/80/35	61.9	62.3	**74.7**
HL-I95-9		SFH	Residential (B)	66	823+60 (Ramp M)	3	85/85/45	61.9	62.2	**73.9**
HL-I95-10		SFH	Residential (B)	66	827+00 (Ramp M)	1	65/65/30	61.7	62.0	**77.8**
HL-I95-11		SFH	Residential (B)	66	90+40 (Ramp I)	2	190/190/180	55.6	56.2	59.3
HL-I95-12		SFH	Residential (B)	66	94+80 (Ramp I)	3	265/265/325	57.0	57.6	55.5
HL-I95-13		SFH	Residential (B)	66	75+20 (Ramp H)	4	325/325/290	53.2	53.9	54.2
HL-I95-14		SFH	Residential (B)	66	77+80 (Ramp H)	3	195/195/160	56.7	57.3	59.4
HL-I95-15		SFH	Residential (B)	66	805+00 (Ramp M)	10	230/230/190	54.3	54.9	57.6
HL-I95-16		SFH	Residential (B)	66	809+20 (Ramp M)	6	315/315/255	52.7	53.2	54.8
HL-I95-17		SFH	Residential (B)	66	814+20 (Ramp M)	8	280/280/225	54.1	54.6	59.7
HL-I95-18		SFH	Residential (B)	66	819+40 (Ramp M)	9	275/275/225	55.8	56.2	62.2
HL-I95-19		SFH	Residential (B)	66	824+60 (Ramp M)	7	245/245/205	55.1	55.5	62.0
HL-I95-20		SFH	Residential (B)	66	827+40 (Ramp M)	2	240/240/245	56.3	56.8	60.1
HL-I95-21		SFH	Residential (B)	66	431+00 (IDR)	4	280/280/275	56.0	56.4	59.5
HL-I95-22		SFH	Residential (B)	66	73+40 (Ramp H)	4	380/380/415	55.8	56.3	54.6
HL-I95-23		SFH	Residential (B)	66	75+40 (Ramp H)	4	480/480/445	52.4	53.0	52.9
HL-I95-24		SFH	Residential (B)	66	77+40 (Ramp H)	6	380/380/345	52.3	53.0	54.2
HL-I95-25		SFH	Residential (B)	66	805+00 (Ramp M)	15	450/450/405	52.1	52.7	54.6
HL-I95-26		SFH	Residential (B)	66	809+20 (Ramp M)	6	460/460/405	52.2	52.7	53.1
HL-I95-27		SFH	Residential (B)	66	813+20 (Ramp M)	10	475/475/415	59.1	59.5	60.7

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
HL-I95-28		SFH	Residential (B)	66	819+40 (Ramp M)	14	475/475/425	54.2	54.4	57.7
HL-I95-29		SFH	Residential (B)	66	824+40 (Ramp M)	7	420/420/385	54.8	55.1	54.8
HL-I95-30		SFH	Residential (B)	66	826+80 (Ramp M)	1	395/395/355	53.9	54.4	56.0
RLG-1(a,b)	Ro-Len Gardens	MFH	Residential (B)	66	2198+60	10,10	80/80/40	63.0, 68.0	63.3, 68.3	65.9, **69.3**
RLG-2(a,b)		MFH	Residential (B)	66	2200+80	10,10	95/95/50	63.1, 68.4	63.3, 68.6	64.6, **68.9**
RLG-3(a,b)		MFH	Residential (B)	66	2203+20	10,10	100/100/60	62.9, 68.3	63.2, 68.5	64.2, **68.9**
RLG-4(a,b)		MFH	Residential (B)	66	2205+60	10,10	110/110/65	62.7, 67.6	62.9, 67.8	64.0, **68.3**
RLG-5(a,b)		MFH	Residential (B)	66	2207+60	10,10	110/110/70	62.2, 67.2	62.4, 67.4	63.6, **68.0**
RLG-6		MFH	Residential (B)	66	2208+80	2	105/105/65	60.8	61.0	62.2
RLG-7(a,b)		MFH	Residential (B)	66	2198+60	10,10	240/240/200	56.1, 59.7	56.3, 59.9	58.5, 62.3
RLG-8(a,b)		MFH	Residential (B)	66	2200+80	10,10	250/250/205	55.3, 58.8	55.4, 59.0	55.7, 58.8
RLG-9(a,b)		MFH	Residential (B)	66	2203+20	10,10	255/255/215	55.9, 59.1	56.1, 59.2	56.2, 59.4
RLG-10(a,b)		MFH	Residential (B)	66	2205+60	10,10	265/265/225	60.5, 60.2	60.6, 60.3	60.0, 60.4
RLG-Pool		Community Pool	Residential Pool (C)	66	2206+60	SLU	370/370/330	50.8	50.9	51.6
RLG-11(a,b)		SFH	Residential (B)	66	2208+00	10,10	290/290/250	55.7, 59.3	55.8, 59.4	56.3, 59.9
RLG-SB		Shuffleboard	Sports Field (C)	66	2209+60	SLU	315/315/275	61.3	61.5	61.3
RLG-WT		Walking Trail	Walking Trail (C)	66	2209+80	SLU	260/260/220	58.9	59.1	59.4
RLG-12(a,b)		MFH	Residential (B)	66	2198+60	10,10	415/415/375	51.2, 54.5	51.4, 54.6	51.7, 55.0
LE-1	Lakeside Estates	SFH	Residential (B)	66	2211+60	3	125/125/85	63.6	63.8	64.8
LE-2		SFH	Residential (B)	66	2213+80	5	110/110/75	63.8	64.0	65.0
LE-3		SFH	Residential (B)	66	2216+60	3	110/110/80	64.1	64.2	65.0
LE-4		SFH	Residential (B)	66	2211+60	2	260/260/220	57.2	57.3	57.5
LE-5		SFH	Residential (B)	66	+2213+80	5	255/255/220	57.3	57.4	57.5
LE-6		SFH	Residential (B)	66	2216+40	2	280/280/250	57.5	57.6	57.9
LE-7		SFH	Residential (B)	66	2209+40	6	470/470/430	57.6	57.7	57.6
LE-8		SFH	Residential (B)	66	2217+20	2	460/460/425	56.1	56.2	56.5
OA-1	Oak Acres	SFH	Residential (B)	66	2218+20	2	155/155/120	64.0	64.1	64.4
OA-2		SFH	Residential (B)	66	2218+20	2	230/230/195	60.4	60.5	60.7
OA-3		SFH	Residential (B)	66	2219+60	6	195/195/140	64.1	64.2	64.4

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
OA-4		SFH	Residential (B)	66	2220+80	4	160/160/115	64.1	64.1	64.3
OA-5		SFH	Residential (B)	66	2222+80	8	125/125/90	63.7	63.7	63.9
OA-6		SFH	Residential (B)	66	2220+00	10	330/330/280	57.7	57.8	57.9
OA-7		SFH	Residential (B)	66	2222+80	10	270/270/235	57.3	57.4	57.4
OA-8		SFH	Residential (B)	66	2226+20	8	290/290/275	56.6	56.7	56.7
OA-9		SFH	Residential (B)	66	2228+40	8	260/260/250	57.1	57.1	56.7
OA-10		SFH	Residential (B)	66	2230+60	2	240/240/230	59.8	59.8	58.3
OA-11		SFH	Residential (B)	66	2221+40	15	445/445/405	54.5	54.6	54.7
OA-12		SFH	Residential (B)	66	2229+40	4	390/390/380	57.0	57.0	57.4
OA-13		SFH	Residential (B)	66	2230+60	6	330/330/320	57.6	57.6	56.3
PM-1(a,b)	Parkside Manor Condominiums	MFH	Residential (B)	66	2225+40	10,10	55/55/40	61.7, 65.4	61.8, 65.5	62.1, 65.6
PM-2(a,b)		MFH	Residential (B)	66	2226+60	10,10	130/130/120	60.3, 64.6	60.3, 64.6	60.6, 64.1
PM-Pool		Community Pool	Residential Pool (C)	66	2227+00	SLU	80/80/70	60.2	60.2	60.6
PM-3(a,b)		MFH	Residential (B)	66	2228+20	10,10	95/95/105	62.1, 65.7	62.2, 65.7	61.7, 65.1
PM-4(a,b)		MFH	Residential (B)	66	2230+00	10,10	80/80/75	62.0, 64.9	62.0, 64.9	60.7, 63.3
West Side										
PG-E	Ives Estates Park	Playground	Playground (C)	66	119+20	SLU	795/795/655	58.1	58.6	56.7
PG-W		Playground	Playground (C)	66	119+20	SLU	835/835/695	57.4	57.8	56.1
BballOut-E		Baseball Outfield	Sports Field (C)	66	116+60	SLU	270/270/175	69.1	69.6	65.2
BballOut-W		Baseball Infield	Sports Field (C)	66	116+60	SLU	465/465/360	65.4	65.9	62.1
FBall-E		Football Field	Sports Field (C)	66	113+00	SLU	280/280/185	66.9	67.3	62.6
FBall-W		Football Field	Sports Field (C)	66	113+00	SLU	430/430/335	62.7	63.1	59.6
Soccer-E		Soccer Field	Sports Field (C)	66	107+20	SLU	265/235/210	62.0	62.4	62.5
Soccer-W		Soccer Field	Sports Field (C)	66	107+20	SLU	390/390/335	60.6	60.9	60.4
PL-1	Park Lake Estates	SFH	Residential (B)	66	4196+60	2	180/180/135	56.2	56.4	55.5
PL-2		SFH	Residential (B)	66	4201+00	14	150/150/112	56.6	56.7	56.4
PL-3		SFH	Residential (B)	66	4206+60	15	280/280/250	56.9	57.1	56.9
PL-4		SFH	Residential (B)	66	4209+60	2	140/140/120	56.8	57.0	56.5

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
PL-5		SFH	Residential (B)	66	4196+60	1	150/150/125	59.5	59.9	59.6
PL-6		SFH	Residential (B)	66	4201+20	14	280/280/235	58.3	58.4	59.8
PL-7		SFH	Residential (B)	66	4206+60	15	270/270/250	59.5	59.7	59.7
PL-8		SFH	Residential (B)	66	4209+40	2	230/230/210	54.3	54.5	53.6
PL-9		SFH	Residential (B)	66	4196+80	3	365/365/320	53.5	53.7	55.3
PL-10		SFH	Residential (B)	66	4199+40	11	450/450/420	52.7	53.0	54.1
PL-11		SFH	Residential (B)	66	4206+80	6	395/395/380	52.3	52.5	53.8
PL-12		SFH	Residential (B)	66	4209+40	13	385/385/360	53.0	53.2	55.2
LP-1	Lone Pine	SFH	Residential (B)	66	4210+60	2	150/150/125	56.7	56.8	55.9
LP-2		SFH	Residential (B)	66	4217+80	22	235/235/200	57.1	57.2	54.4
LP-Pool		Community Pool	Residential Pool (C)	66	4220+60	SLU	300/300/260	55.9	56.0	54.0
LP-3		SFH	Residential (B)	66	4210+80	4	245/245/220	57.7	57.9	57.0
LP-4		SFH	Residential (B)	66	4217+60	24	305/305/270	51.7	51.9	54.4
LP-5		SFH	Residential (B)	66	4221+60	1	365/365/325	54.5	54.6	56.2
LP-6		SFH	Residential (B)	66	4217+80	28	390/390/355	52.4	52.5	54.7
GA-1	Green Acres RV Park	SFH	Residential (B)	66	4223+40	6	320/320/290	56.4	56.5	53.5
GA-2		SFH	Residential (B)	66	4227+20	10	350/350/325	55.9	56.0	53.5
GA-3		SFH	Residential (B)	66	4227+40	20	450/450/425	53.2	53.3	53.4
GA-4		SFH	Residential (B)	66	4233+00	11	575/575/570	57.2	57.2	56.0
Miami Gardens Drive (SR 860)										
South Side										
MLP-Bball	Milton Littman Park	Basketball Court	Sports Field (C)	66	124+00 (EB MGD)	SLU	105/105/75	68.7	69.3	**68.0**
MLP-Pav		Pavilion	Park (C)	66	124+80 (EB MGD)	SLU	115/115/90	68.8	69.4	**68.7**
HM-MGD-1	Highland Manor (MGD)	SFH	Residential (B)	66	301+00 (EB MGD)	1	90/90/75	69.6	70.3	**69.5**
HM-MGD-2		SFH	Residential (B)	66	304+40 (EB MGD)	7	90/90/80	66.5	67.2	64.5
HM-MGD-3		SFH	Residential (B)	66	308+80 (EB MGD)	7	80/80/80	65.8	66.6	63.6
HM-MGD-4		SFH	Residential (B)	66	312+40 (EB MGD)	1	80/80/80	64.4	64.7	64.1
HM-MGD-5		SFH	Residential (B)	66	301+00 (EB MGD)	1	200/200/185	65.6	66.4	**66.6**
HM-MGD-6		SFH	Residential (B)	66	304+40 (EB MGD)	7	180/180/170	57.4	58.0	59.0

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
HM-MGD-7		SFH	Residential (B)	66	308+80 (EB MGD)	7	195/195/195	55.0	55.5	56.0
HM-MGD-8		SFH	Residential (B)	66	312+20 (EB MGD)	1	190/190/185	54.4	54.9	55.5
HM-MGD-9		SFH	Residential (B)	66	306+60 (EB MGD)	14	325/325/320	54.9	55.3	56.6
WH-1	Windward Heights	SFH	Residential (B)	66	314+00 (EB MGD)	1	80/80/80	64.2	64.5	64.5
WH-2		SFH	Residential (B)	66	317+80 (EB MGD)	8	80/80/80	62.9	63.1	64.1
WH-3		SFH	Residential (B)	66	320+20 (EB MGD)	1	165/165/160	58.5	58.8	59.6
WH-4		SFH	Residential (B)	66	314+20 (EB MGD)	1	180/180/180	56.0	56.4	56.6
WH-5		SFH	Residential (B)	66	317+80 (EB MGD)	8	200/200/195	51.9	52.3	52.9
WH-6		SFH	Residential (B)	66	320+00 (EB MGD)	1	250/250/245	51.2	51.5	51.8
WH-7		SFH	Residential (B)	66	317+80 (EB MGD)	10	340/340/340	52.4	52.6	53.2
WM-1	Windward Manor	SFH	Residential (B)	66	321+00 (EB MGD)	2	250/250/240	54.7	55.0	55.8
WM-2		SFH	Residential (B)	66	320+40 (EB MGD)	1	140/140/130	59.9	60.2	60.3
WM-3		SFH	Residential (B)	66	320+60 (EB MGD)	1	305/305/300	48.5	48.9	49.3
WM-4		SFH	Residential (B)	66	322+00 (EB MGD)	1	200/200/195	57.6	58.0	58.1
WM-5		SFH	Residential (B)	66	322+60 (EB MGD)	2	305/305/300	53.5	53.8	54.3
WM-6		SFH	Residential (B)	66	323+00 (EB MGD)	1	95/95/90	61.6	61.9	61.6
WM-7		SFH	Residential (B)	66	324+80 (EB MGD)	2	85/85/85	61.5	61.7	61.4
WM-8		SFH	Residential (B)	66	326+20 (EB MGD)	2	90/90/90	60.5	60.7	60.5
WM-9		SFH	Residential (B)	66	328+20 (EB MGD)	2	130/130/130	58.1	58.3	58.3
WM-10		SFH	Residential (B)	66	324+00 (EB MGD)	1	195/195/195	55.6	56.0	56.0
WM-11		SFH	Residential (B)	66	325+80 (EB MGD)	2	165/165/165	56.4	56.6	56.9
WM-12		SFH	Residential (B)	66	327+00 (EB MGD)	4	245/245/245	51.8	52.1	52.2
North Side										
PLE-MGD-1	Pickwick Lake Estates (MGD)	SFH	Residential (B)	66	40+60 (Ramp D)	1	75/75/10	61.5	62.1	53.2
PLE-MGD-2		SFH	Residential (B)	66	37+60 (Ramp D)	4	60/60/50	60.8	61.5	55.8
PLE-MGD-3		SFH	Residential (B)	66	34+00 (Ramp D)	4	80/80/40	59.5	60.0	61.4
PLE-MGD-4		SFH	Residential (B)	66	427+20 (WB MGD)	2	30/30/35	60.7	61.0	61.2
PLE-MGD-5		SFH	Residential (B)	66	429+00 (WB MGD)	1	40/40/45	60.4	60.7	60.5
PLE-MGD-6		SFH	Residential (B)	66	430+40 (WB MGD)	1	35/35/35	59.8	60.1	59.9

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
PLE-MGD-7		SFH	Residential (B)	66	432+00 (WB MGD)	2	35/35/35	59.0	59.3	58.8
PLE-MGD-8		SFH	Residential (B)	66	434+20 (WB MGD)	1	55/55/55	59.7	60.1	59.8
PLE-MGD-9		SFH	Residential (B)	66	39+60 (Ramp D)	1	215/215/195	55.4	55.8	56.0
PLE-MGD-10		SFH	Residential (B)	66	36+80 (Ramp D)	3	210/210/190	54.2	54.6	55.2
PLE-MGD-11		SFH	Residential (B)	66	34+00 (Ramp D)	3	225/225/185	53.3	53.7	54.1
PLE-MGD-12		SFH	Residential (B)	66	425+80 (WB MGD)	2	205/205/210	52.9	53.2	53.7
PLE-MGD-13		SFH	Residential (B)	66	429+00 (WB MGD)	1	185/185/190	54.8	55.1	55.5
PLE-MGD-14		SFH	Residential (B)	66	431+00 (WB MGD)	2	110/110/110	54.1	54.4	54.0
PLE-MGD-15		SFH	Residential (B)	66	39+40 (Ramp D)	2	290/290/280	52.8	53.3	54.2
PLE-MGD-16		SFH	Residential (B)	66	34+40 (Ramp D)	6	370/370/325	48.3	48.8	49.1
PLE-MGD-17		SFH	Residential (B)	66	429+00 (WB MGD)	2	270/270/270	52.0	52.1	52.8
PLE-MGD-18		SFH	Residential (B)	66	431+00 (WB MGD)	2	350/350/350	50.3	50.6	51.0
PLE-MGD-19		SFH	Residential (B)	66	432+00 (WB MGD)	1	185/185/185	51.6	51.9	51.5
Ives Dairy Road										
South Side										
OHV-IDR-12	The Chateaux (IDR)	SFH	Residential (B)	66	538+60 (IDR EB)	2	195/195/160	63.6	64.1	63.6
OHV-IDR-13		SFH	Residential (B)	66	539+60 (IDR EB)	3	290/290/240	57.6	58.0	58.8
OHV-IDR-14		SFH	Residential (B)	66	540+20 (IDR EB)	2	310/310/260	56.8	57.1	57.4
OHE-TC	Oak Hammock Estates	Tennis Courts	Tennis Courts (C)	66	539+60 (IDR EB)	SLU	135/135/90	63.8	64.2	65.3
OHE-1		SFH	Residential (B)	66	540+60 (IDR EB)	1	225/225/180	59.9	60.3	60.4
OHE-2		SFH	Residential (B)	66	541+40 (IDR EB)	1	80/80/45	62.8	63.1	64.2
OHE-3		SFH	Residential (B)	66	542+60 (IDR EB)	1	180/180/160	61.7	62.3	62.4
OHE-4		SFH	Residential (B)	66	541+40 (IDR EB)	2	355/355/325	55.7	55.9	55.6
OHE-5		SFH	Residential (B)	66	543+00 (IDR EB)	3	275/275/255	59.2	59.9	59.9
HL-IDR-S-1	Highland Lakes (South Side of IDR)	SFH	Residential (B)	66	542+80 (IDR EB)	1	60/60/45	70.1	70.6	**71.3**
HL-IDR-S-2		SFH	Residential (B)	66	544+80 (IDR EB)	1	45/45/40	71.9	72.6	**72.4**
HL-IDR-S-3		SFH	Residential (B)	66	546+60 (IDR EB)	3	60/60/55	69.9	70.6	**70.6**
HL-IDR-S-4		SFH	Residential (B)	66	549+40 (IDR EB)	4	60/60/55	69.5	70.2	**70.2**
HL-IDR-S-5		SFH	Residential (B)	66	545+20 (IDR EB)	1	135/135/130	56.3	56.8	56.6

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
HL-IDR-S-6		SFH	Residential (B)	66	546+40 (IDR EB)	4	205/205/200	55.1	55.6	55.2
HL-IDR-S-7		SFH	Residential (B)	66	549+20 (IDR EB)	4	165/165/160	54.1	54.8	54.2
OF-1	Oak Forest	SFH	Residential (B)	66	553+00 (IDR EB)	1	35/35/30	67.0	67.8	**67.6**
OF-2		SFH	Residential (B)	66	555+00 (IDR EB)	2	80/80/80	62.6	63.4	63.3
OF-3		SFH	Residential (B)	66	558+40 (IDR EB)	3	70/70/70	61.8	62.6	62.5
OF-4		SFH	Residential (B)	66	553+40 (IDR EB)	3	155/155/155	59.4	60.2	60.1
OF-5		SFH	Residential (B)	66	557+00 (IDR EB)	1	280/280/280	55.5	56.3	56.3
MH-1	Murray Homes	SFH	Residential (B)	66	608+70 (IDR WB)	1	80/80/80	67.5	68.1	**67.9**
MH-2		SFH	Residential (B)	66	610+00 (IDR WB)	3	85/85/85	67.4	67.9	**67.9**
MH-3		SFH	Residential (B)	66	612+20 (IDR WB)	2	85/85/85	67.5	68.2	**68.5**
MH-4		SFH	Residential (B)	66	613+40 (IDR WB)	1	65/65/65	68.8	69.5	**69.7**
MH-5		SFH	Residential (B)	66	609+00 (IDR WB)	2	185/185/185	62.2	62.9	62.5
MH-6		SFH	Residential (B)	66	611+00 (IDR WB)	3	180/180/180	62.5	63.2	63.0
MH-7		SFH	Residential (B)	66	612+80 (IDR WB)	3	165/165/165	63.6	64.2	64.2
LDDC-PG	Little Dolphins Daycare	Playground	Playground (C)	66	614+50 (IDR WB)	1	35/35/35	72.0	72.6	**72.7**
North Side										
HL-IDR-N-1	Highland Lakes (North Side of IDR)	SFH	Residential (B)	66	641+40 (IDR WB)	1	60/60/60	64.5	65.1	**70.3**
HL-IDR-N-2		SFH	Residential (B)	66	642+20 (IDR WB)	1	35/35/40	71.7	72.2	**71.7**
HL-IDR-N-3		SFH	Residential (B)	66	644+60 (IDR WB)	1	50/50/45	62.5	63.1	63.3
HL-IDR-N-4		SFH	Residential (B)	66	648+20 (IDR WB)	3	30/30/25	65.4	66.2	**66.4**
HL-IDR-N-5		SFH	Residential (B)	66	651+80 (IDR WB)	2	35/35/30	70.5	71.3	**71.3**
HL-IDR-N6		SFH	Residential (B)	66	653+00 (IDR WB)	4	40/40/40	66.9	67.6	**67.7**
HL-IDR-N7		SFH	Residential (B)	66	654+40 (IDR WB)	3	45/45/45	67.9	68.6	**68.8**
HL-IDR-N8		SFH	Residential (B)	66	657+80 (IDR WB)	1	40/40/40	64.4	65.1	65.2
HL-IDR-N-9		SFH	Residential (B)	66	641+80 (IDR WB)	3	150/150/150	59.2	59.6	61.6
HL-IDR-N-10		SFH	Residential (B)	66	644+60 (IDR WB)	4	150/150/145	56.2	56.8	56.3
HL-IDR-N-11		SFH	Residential (B)	66	647+80 (IDR WB)	3	125/125/120	57.9	58.7	58.4
HL-IDR-N12		SFH	Residential (B)	66	650+60 (IDR WB)	4	220/220/220	53.4	54.1	53.4
HL-IDR-N13		SFH	Residential (B)	66	653+60 (IDR WB)	2	220/220/220	53.6	54.4	53.8

Modeled Noise Receptor Locations and Noise Analysis Results

Representative Model Receptor	Location	Type	Description (Noise Abatement Activity Category)	FDOT Noise Abatement Approach Criteria [dB(A)]	Location (Station)	Number Of Noise Sensitive Sites	Distance To Nearest Traffic Lane* [Existing/No-Build/Build] (Feet)	Predicted Traffic Noise Levels [LAeq1h, dB(A)]		
								Existing (2021)	Design Year (2050)	
									No-Build	Build
HL-IDR-N14		SFH	Residential (B)	66	656+80 (IDR WB)	2	215/215/215	56.9	57.7	57.5
HL-IDR-N15		SFH	Residential (B)	66	658+00 (IDR WB)	1	220/220/220	56.9	57.7	57.6

Notes: * = To existing edge-of-pavement of the nearest travel lane.
Bold/red numbers indicate Build Alternative noise levels equal or exceeding FDOT Noise Abatement Criteria
SFH = Single-Family Home, MFH = Multi-Family Home (i.e., apartments, condominiums), SLU = Special Land Use site

APPENDIX D

Modeled Receptor Map and Noise Barrier Recommendations

LEGEND

- Proposed Alternative
- Traffic Barrier
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 22-ft Ground-Mounted Noise Barrier
- 14-ft Shoulder-Mounted Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	NOISE BARRIER RECOMMENDATIONS
DWG. NO.:	SHEET 1

Please see Appendix C for Representative Model Receptor details.

End Opaque Visual Barrier I95-E2OVB
Structure-Mounted

Begin Noise Barrier I95-E1(c)
Structure-Mounted
Length = 345-ft, Height = 8-ft
STA 2044+70

End Noise Barrier I95-E1(b)
STA 2044+70

End Noise Barrier I95-E1(c)
STA 33+80 (Ramp)

Noise Barrier MGD-LP
Not Recommended

Noise Barrier MGD-S1
Not Recommended

Begin Noise Barrier I95-E2
Ground-Mounted
Length = 1,415-ft, Height = 22-ft
STA 45+20 (Ramp D)

Begin Opaque Visual Barrier I95-E2OVB
Structure-Mounted

MGD-LP
MGD-S1
I95-E1
I95-E2

HIGHLAND MANOR
PICKWICK LAKE ESTATES

IPCO RD
EAST DR
NE 183RD ST
NE MIAMI GARDENS DR
NE 180TH DR
NE 179TH DR
NE 178TH TER
NE 181ST ST
NE 180TH ST
NE 179TH TER
NE 6TH CT
NE 6TH AVE
NE 7TH CT
NE 8TH AVE
NE 184TH TER
NE 182ND TER
NE 182ND ST
I95 RAMP

HM-95-8
HM-95-7
HM-95-15
HM-95-16
HM-95-14
HM-95-13
HM-95-25
HM-95-24
HM-95-23
MLP-Bball
MLP-Pav
HM-MGD-1
HM-MGD-5
HM-MGD-2
HM-MGD-6
HM-MGD-3
HM-MGD-9
HM-MGD-7
HM-MGD-4
HM-MGD-8
WH-1
WH-4
WH-2
WM-6
PL-95-6
PL-95-7
PL-95-5
PL-95-11
PL-95-4
PL-95-10
PL-95-13
PL-95-3
PL-95-9
PL-95-12
PL-95-2
PL-95-8
PL-95-1
PL-MGD-15
PL-MGD-9
PL-MGD-1
PL-MGD-10
PL-MGD-2
PL-MGD-16
PL-MGD-18
PL-MGD-11
PL-MGD-17
PL-MGD-12
PL-MGD-13
PL-MGD-14
PL-MGD-3
PL-MGD-6
PL-MGD-5
PL-MGD-4
SCT-5
SCT-6
SCT-8

0 100 200 400 Feet

LEGEND

- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 8-ft Structure-Mounted Noise Barrier
- 8-ft Opaque Visual Barrier
- 14-ft Shoulder-Mounted Noise Barrier
- 22-ft Ground-Mounted Noise Barrier
- Not Recommended Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 2

End Noise Barrier I95-E1(c)
STA 33+80 (Ramp)

Noise Barrier MGD-LP
Not Recommended

Noise Barrier MGD-S1
Not Recommended

Begin Noise Barrier I95-E2
Ground-Mounted
Length = 1,415-ft, Height = 22-ft
STA 45+20 (Ramp D)

Begin Opaque Visual Barrier I95-E2OVB
Structure-Mounted

I95-E2

MGD-S1

PICKWICK LAKE ESTATES

HIGHLAND MANOR

WINDWARD HEIGHTS

WINDWARD MANOR

Please see Appendix C for Representative Model Receptor details.

0 100 200 400 Feet

LEGEND

- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 8-ft Opaque Visual Barrier
- Not Recommended Noise Barrier
- 8-ft Structure-Mounted Noise Barrier
- 22-ft Ground-Mounted Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 3

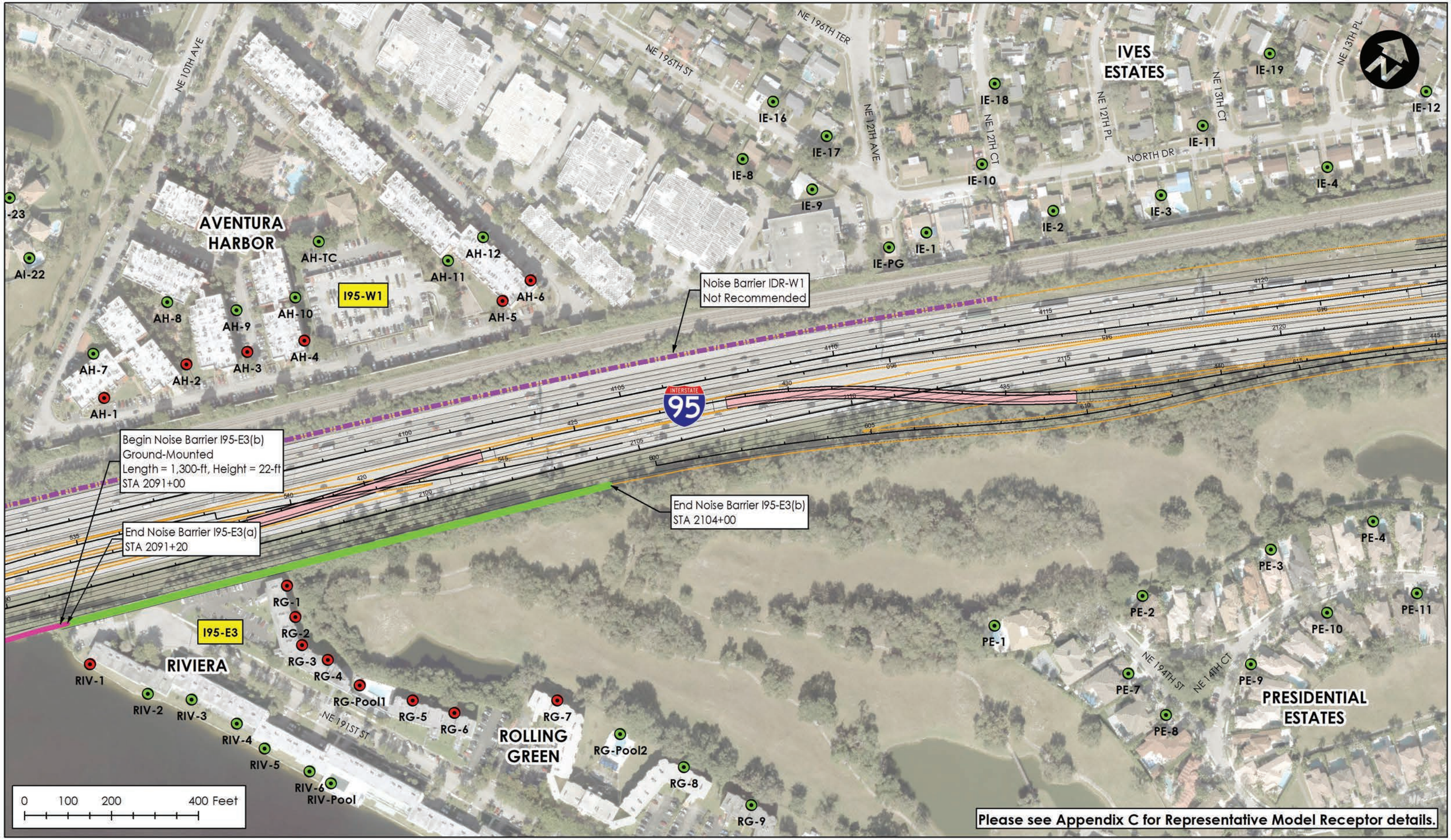
LEGEND

- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 14-ft Structure-Mounted Noise Barrier
- 22-ft Ground-Mounted Noise Barrier
- Not Recommended Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 4



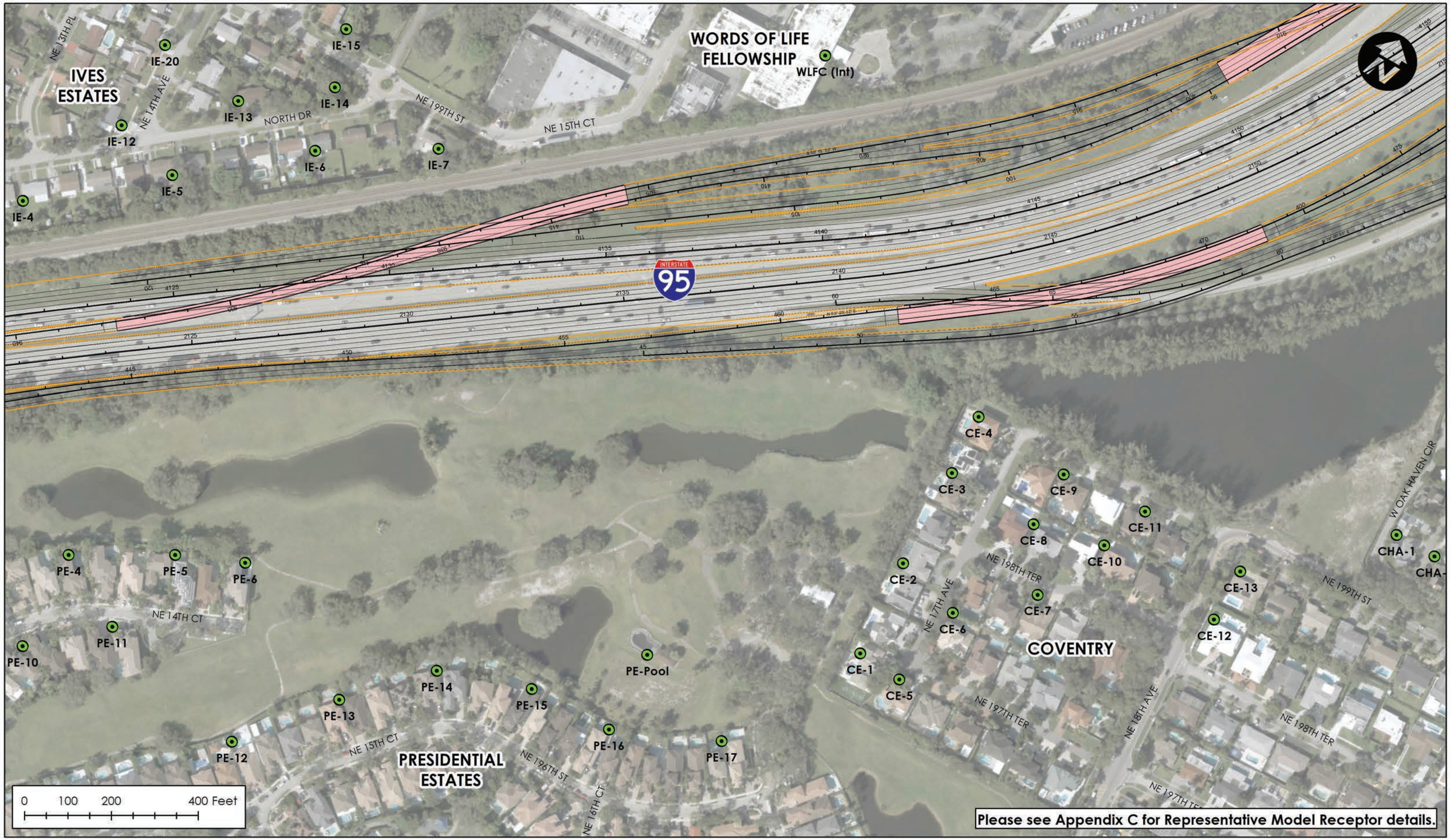
LEGEND

- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 14-ft Structure-Mounted Noise Barrier
- 22-ft Ground-Mounted Noise Barrier
- Not Recommended Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	NOISE BARRIER RECOMMENDATIONS
DWG. NO.:	SHEET 5



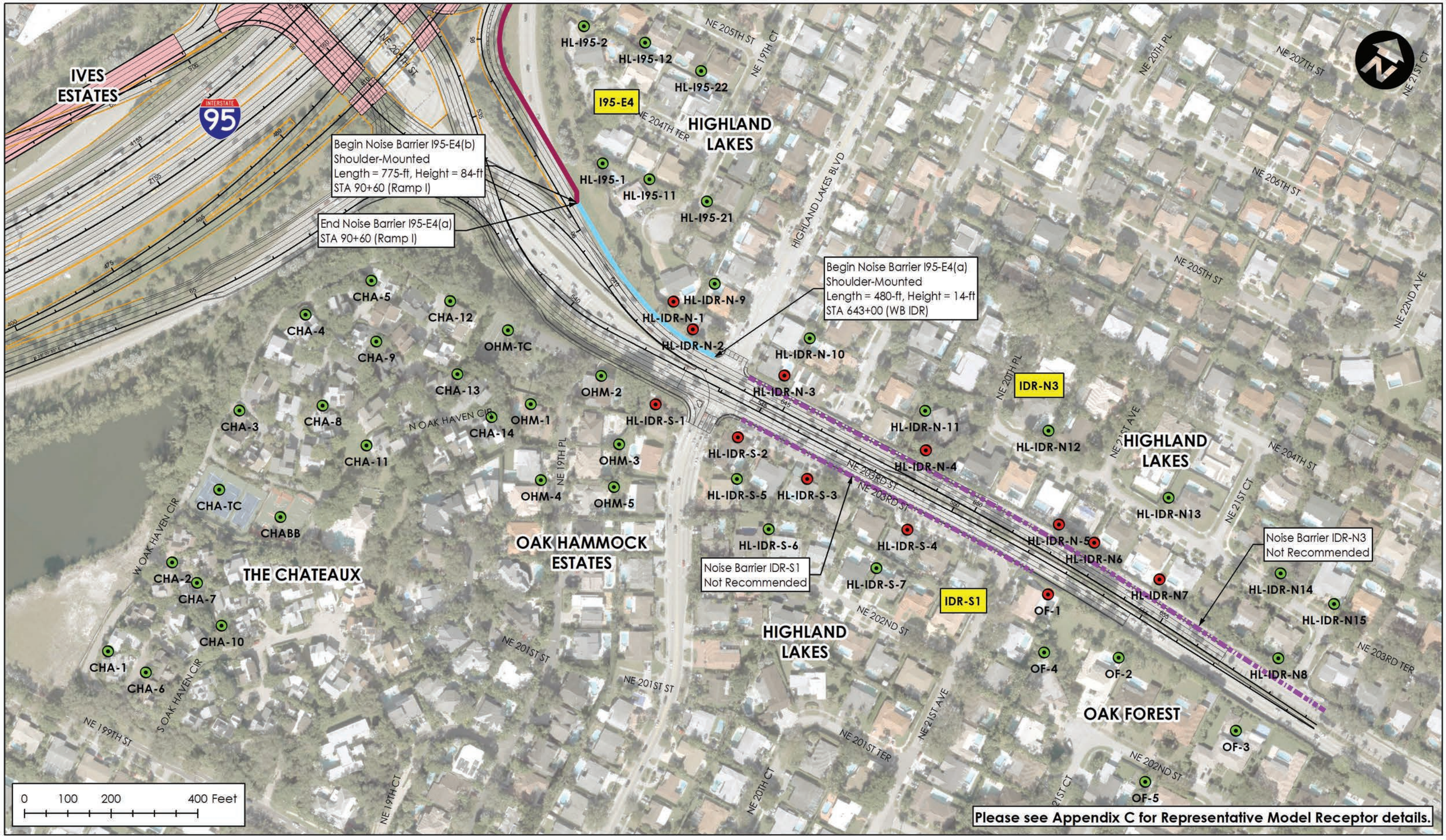
LEGEND

- Proposed Alternative
- Traffic Barrier
- Bridge
- Representative Model Receptor (Non-Impacted)

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT
DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 6



LEGEND

- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 8-ft Shoulder-Mounted Noise Barrier
- 14-ft Shoulder-Mounted Noise Barrier
- Not Recommended Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 7

Please see Appendix C for Representative Model Receptor details.

Begin Noise Barrier I95-E4(d)
Shoulder-Mounted
Length = 1,715-ft, Height = 22-ft
STA 811+00 (Ramp M)

End Noise Barrier I95-E4(c)
STA 811+20 (Ramp M)

IVES ESTATES PARK

MURRAY HOMES

MH-1
MH-2
MH-3
MH-4
MH-5
MH-6
MH-7

LDDC-PG

Noise Barrier IDR-N1
Not Recommended

Noise Barrier IDR-N2
Not Recommended

Begin Noise Barrier I95-E4(c)
Structure-Mounted
Length = 1,435-ft, Height = 14-ft
STA 75+00 (Ramp I)

End Noise Barrier I95-E4(b)
STA 75+00 (Ramp I)

HL-I95-6
HL-I95-16
HL-I95-26
HL-I95-5
HL-I95-15
HL-I95-25
HL-I95-4
HL-I95-14
HL-I95-24
HL-I95-3
HL-I95-13
HL-I95-23
HL-I95-2
HL-I95-12
HL-I95-22

HIGHLAND LAKES

I95-E4

NE 15TH AVE
NE 206TH ST
NE 16TH AVE
NE 15TH CT
NE 205TH TER
NE 15TH CT
NE 205TH ST
NE 16TH PL
NE 205TH TER
NE 18TH CT
NE 211TH ST
NE 208TH TER
NE 207TH ST
NE 206TH ST
NE 19TH CT
NE 19TH AVE
NE 206TH TER
NE 205TH ST
HIGHLAND LAKES BLVD

0 100 200 400 Feet

LEGEND

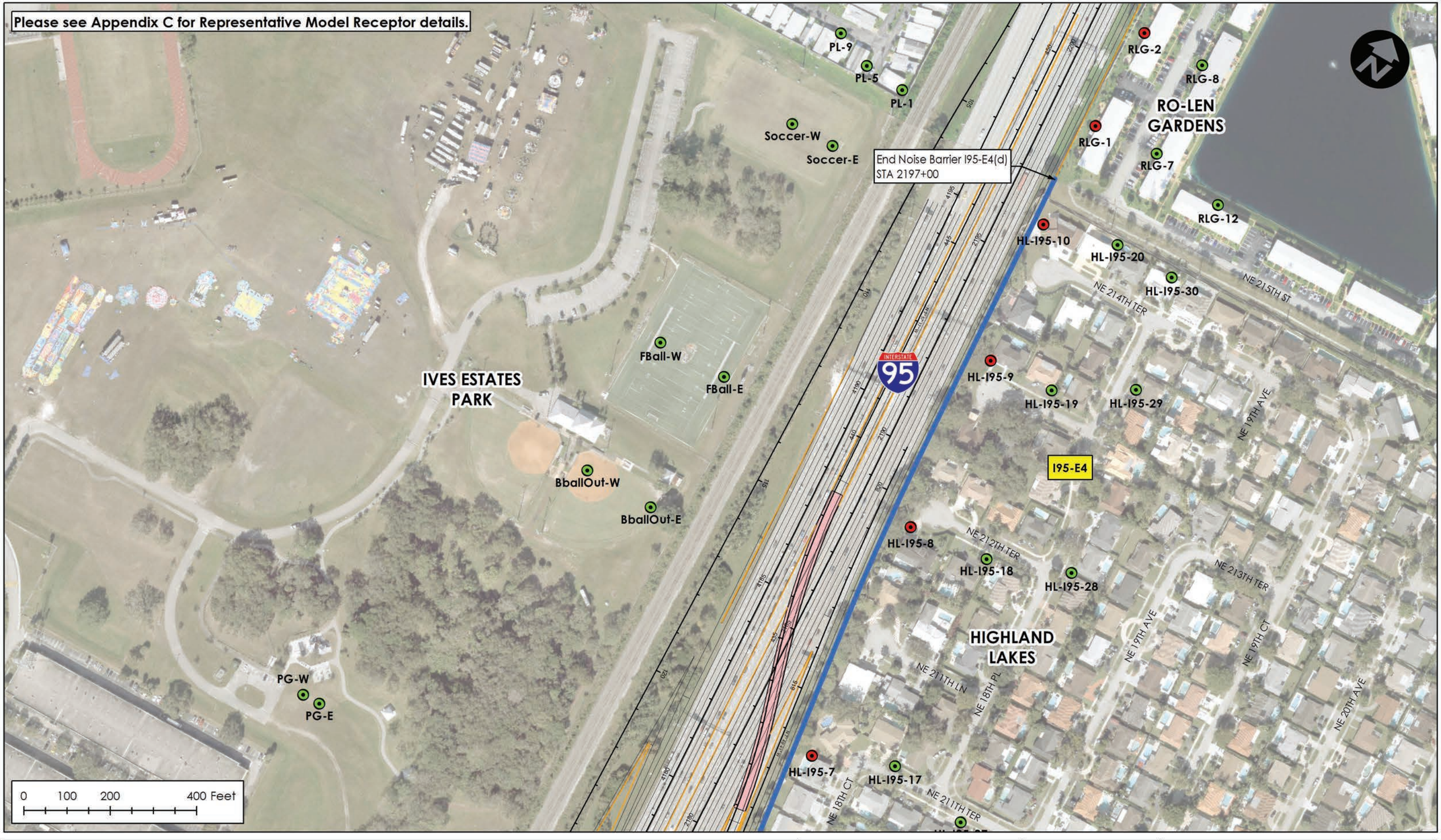
- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 8-ft Shoulder-Mounted Noise Barrier
- 14-ft Structure-Mounted Noise Barrier
- 22-ft Shoulder-Mounted Noise Barrier
- Not Recommended Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 8

Please see Appendix C for Representative Model Receptor details.



LEGEND

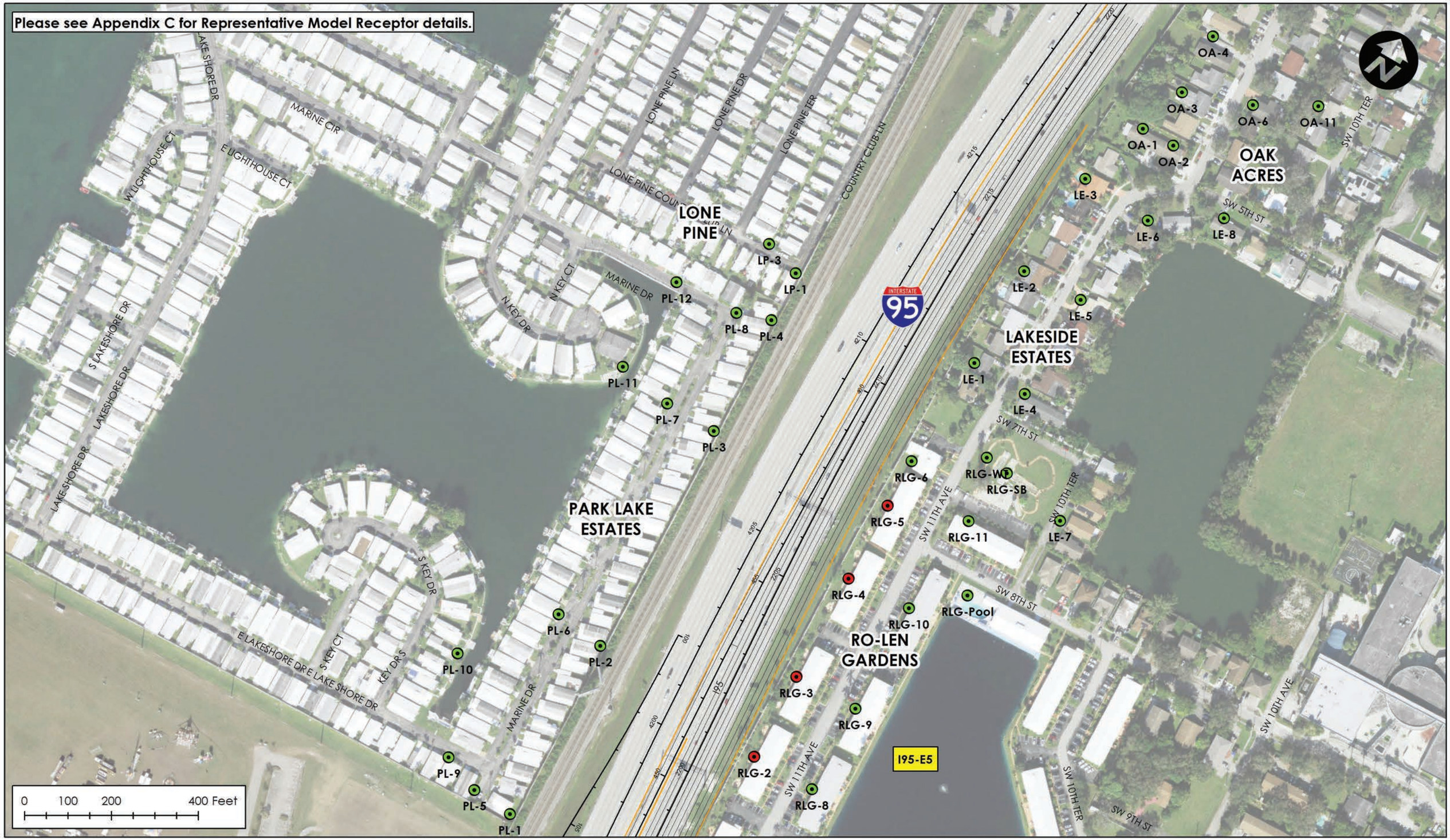
- Proposed Alternative
- Traffic Barrier
- Bridge
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)
- 22-ft Shoulder-Mounted Noise Barrier

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT DISTRICT VI

PROJECT NO.: 60661171
DRAWING NAME: NOISE BARRIER RECOMMENDATIONS
DWG. NO.: SHEET 9

Please see Appendix C for Representative Model Receptor details.



LEGEND

- Proposed Alternative
- Traffic Barrier
- Common Noise Environment
- Representative Model Receptor (Impacted)
- Representative Model Receptor (Non-Impacted)

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

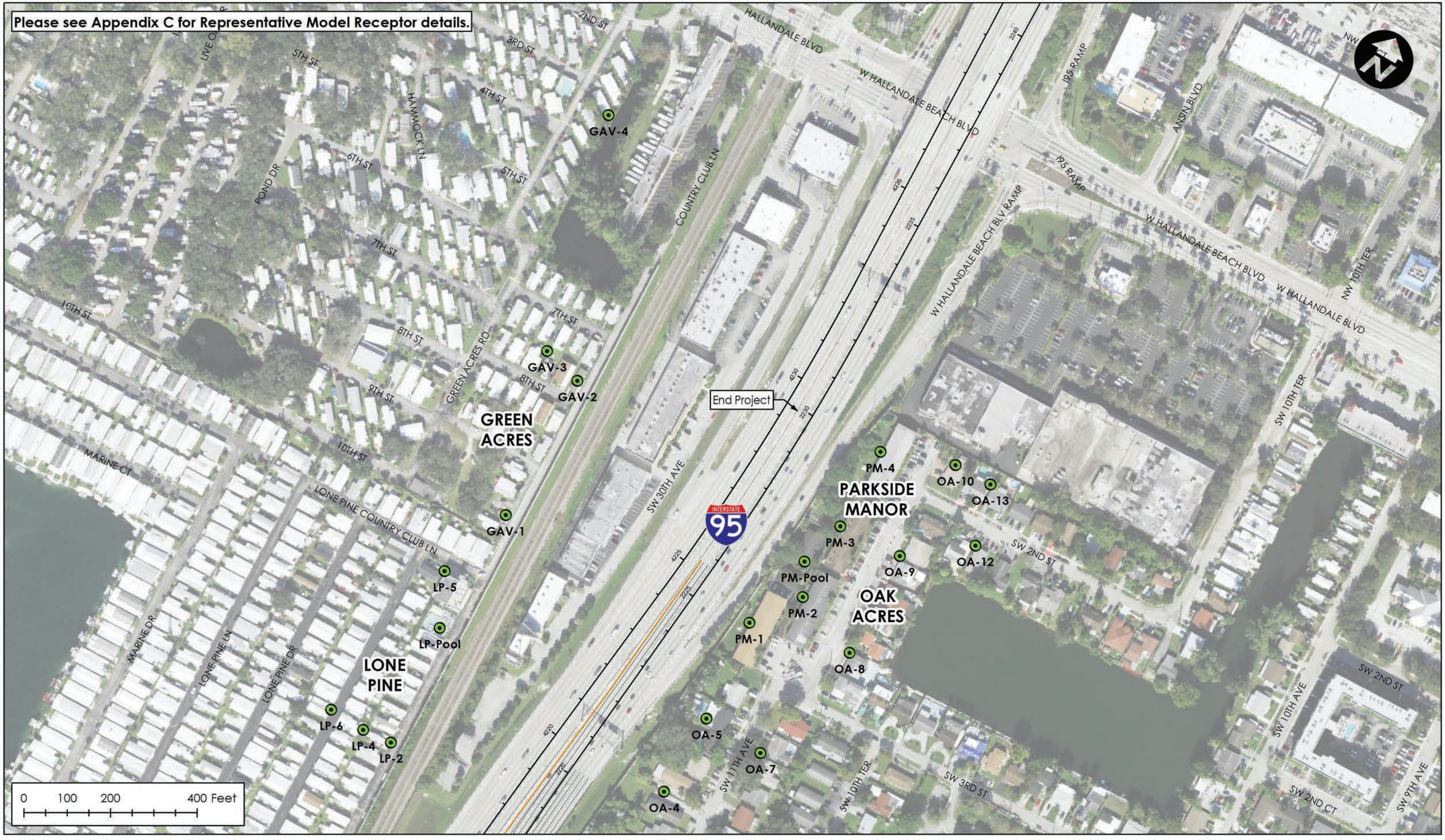
FDOT DISTRICT VI

PROJECT NO.: 60661171

DRAWING NAME: NOISE BARRIER RECOMMENDATIONS

DWG. NO.: SHEET 10

Please see Appendix C for Representative Model Receptor details.



LEGEND

Proposed Alternative

Traffic Barrier

Representative Model Receptor (Non-Impacted)

I-95
FROM S OF MIAMI GARDENS DRIVE TO N OF BROWARD COUNTY LINE
FPID: 414964-1-22-01 / ETDM: 14419

FDOT
DISTRICT VI

PROJECT NO.:	60661171
DRAWING NAME:	NOISE BARRIER RECOMMENDATIONS
DWG. NO.:	SHEET 11

APPENDIX E

Approved Noise Barrier Variations for FDOT's Golden Glades Interchange Design Project

Submittal/Approval Letter

To: Karina Fuentes, PE
District Design Engineer

Date: June 5, 2020

Financial Project ID: 437053-3-52-01, 437053-4-52-01, 428358-5-52-01 — New Construction (☒) RRR (☐)

Federal Aid Number: 0951-697-I, 4751-146-P, 4751-164-P

Project Name: SR 9A / I-95 Southbound from SR 916 / Opa-Locka Boulevard to Biscayne Canal
SR 9A / I-95 Northbound from NW 143 Street to GGI and Turnpike Connector
SR 9A / I-95 from North of Biscayne Canal to SR 860 / Miami Gardens Drive

State Road Number: 9A — Co./Sec./Sub.: 87/270/000

Begin Project MP:		End Project MP:
	10.920	12.087
	11.300	12.772
	12.492	14.685

Full Federal Oversight: Yes(☒) No(☐)

Request for: Design Exception (☐), Design Variation (☒)
Community Aesthetic Feature: Conceptual (☐), Final (☐)
(For Design Exception or Variations Requiring Central Office Approval)
Re-submittal: Yes(☐) No(☒) Original Ref# __ - __ - __

Requested for the following element(s):

(☐) Design Speed	(☐) Lane Widths	(☐) Shoulder Widths	(☐) Bridge Widths
(☐) Structural Capacity	(☐) Vertical Clearance	(☐) Grades	(☐) Cross Slope
(☐) Superelevation	(☐) Horizontal Alignment	(☐) Vertical Alignment	(☐) Stopping Sight Distance
(☐) Lateral Offset	(☒) Other 2017 PPM Section 32.3, "Noise Abatement Criteria"		

As part of the improvements and widening proposed along the GGI Program projects, existing noise walls are being replaced throughout. Based on the Noise Study Report (which was developed with the purpose of evaluating noise impacts and abatement related to the construction and operation of the GGI project) and with the intent of matching the existing wall heights where feasible and reasonable, the proposed noise wall heights in the segments mentioned herein must be 14 feet.

The existing noise walls are being replaced with noise walls on MSE or sheet pile walls due to the proposed SR 9A / I-95 widening within three (3) of the GGI Program projects. Various locations will require that the noise walls be replaced with 14-foot structure mounted noise walls. The Noise Study Report determined that the appropriate height for these noise walls is 14 feet which exceeds the maximum noise wall height mounted on retaining wall structures. The use of 14-foot noise walls on MSE walls was coordinated with FDOT District 6, who developed details and the design for this alternative. This design was subsequently submitted to FDOT State Structures Office, which determined that the use of the proposed wall heights was acceptable along the GGI Program projects. Also, the design and details of 14-foot noise walls on sheet pile walls was developed and reviewed by FDOT District 6, which determined that the use of the proposed design was acceptable for the specified segment of project number 428358-5.

The proposed design does not generate any detrimental impacts to the safety or operational characteristics of the corridor, and it allows for compliance with the recommended conditions determined by the Noise Study Report. Therefore, a design variation is being requested to provide 14-foot noise walls mounted on wall structures at eight (8) locations within three (3) of the GGI Program projects.

Recommended by:

Joan De La Rosa, PE
Responsible Professional Engineer — Date 6/5/2020

Approvals:

Karina Fuentes, PE
District Design Engineer — Date 6/10/2020

Dr. Haling Zhang, PE
District Structures Design Engineer — Date 6/9/2020

N/A
State Roadway Design Engineer — Date

Robert Robertson, PE
State Structures Design Engineer — Date

N/A
State Chief Engineer — Date

N/A
FHWA Division Administrator — Date

Submittal/Approval Letter

To: Karina Fuentes, PE
District Design Engineer

Date: June 5, 2020

Financial Project ID: 437053-4-52-01 & 428358-5-52-01 New Construction (☒) RRR (☐)
Federal Aid Number: 4751-146-P & 4751-164-P
Project Name: SR 9A / I-95 Northbound from NW 143 Street to GGI and Turnpike Connector
SR 9A / I-95 from North of Biscayne Canal to SR 860 / Miami Gardens Drive
State Road Number: 9A Co./Sec./Sub.: 87/270/000
Begin Project MP: 11.300 End Project MP: 12.772
12.492 14.685
Full Federal Oversight: Yes(☒) No(☐)
Request for: Design Exception (☐), Design Variation (☒)
Community Aesthetic Feature: Conceptual (☐), Final (☐)
(For Design Exception or Variations Requiring Central Office Approval)
Re-submittal: Yes(☐) No(☐) Original Ref# __ - __ - __

Requested for the following element(s):

(☐) Design Speed	(☐) Lane Widths	(☐) Shoulder Widths	(☐) Bridge Widths
(☐) Structural Capacity	(☐) Vertical Clearance	(☐) Grades	(☐) Cross Slope
(☐) Superelevation	(☐) Horizontal Alignment	(☐) Vertical Alignment	(☐) Stopping Sight Distance
(☐) Lateral Offset	(☒) Other 2017 PPM Section 32.3, "Noise Abatement Criteria"		

As part of the improvements and widening proposed along the GGI Program projects, existing noise walls are being replaced throughout. Based on the Noise Study Report (which was developed with the purpose of evaluating noise impacts and abatement related to the construction and operation of the GGI project) and with the intent of matching the existing wall heights where feasible and reasonable, the proposed noise wall heights in the segments mentioned herein must meet or exceed 14 feet.

The existing noise walls at two (2) locations are being replaced with noise walls on variable height median barrier wall or auger cast piles within two (2) of the GGI Program projects. A description of site conditions requiring the proposed height and a comparison to the standard height of both insertion loss and cost per benefited receptor is provided in the Noise Study Report. The Noise Study Report determined that the appropriate height for these noise walls which exceeds the maximum ground mounted noise wall height.

A 14-foot noise wall mounted on variable height median barrier wall is necessary at Location 1 according to the Noise Study Report. A special design was developed for this combination as well as design details since it is not covered by FDOT standard plans. The design and details were then reviewed by FDOT District 6 Structures Office and deemed acceptable for the specified segment of the GGI Program project FPID 437053-4. FDOT District 6 Structures Office also developed details and a structural design for a 22-foot noise wall on auger cast piles, necessary at Location 2, which is specific to the GGI Program project FPID 428358-5. The proposed noise wall height is feasible and reasonable for noise abatement. The designs mentioned herein will be handled by the engineer of record (EOR) for each respective project. As per PPM guidelines, these designs must be project specific due to the variety of proposed/existing conditions that deem non-specific designs to be impractical.

The proposed design does not generate any detrimental impacts to the safety or operational characteristics of the corridor, and it allows for compliance with the recommended conditions determined by the Noise Study Report. Therefore, a design variation is being requested to provide a 14-foot noise wall mounted on variable height median barrier wall and a 22-foot noise wall mounted on auger cast piles within two (2) of the GGI Program projects.

Recommended by:

Date 6/5/2020
Jose De La Rosa, PE
Responsible Professional Engineer

Approvals:

Date 6/10/2020
Karina Fuentes, PE
District Design Engineer

Date 6/9/2020
Dr. Hailing Zhang, PE
District Structures Design Engineer

N/A Date
State Roadway Design Engineer

N/A Date
State Structures Design Engineer

N/A Date
State Chief Engineer

N/A Date
FHWA Division Administrator