

**I-95 (SR 9) FROM SR 202 (JT Butler) TO ATLANTIC
BOULEVARD PROJECT DEVELOPMENT AND
ENVIRONMENT (PD&E) STUDY**

**DESIGN CHANGE RE-EVALUATION NO. 2
MAINLINE GENERAL USE (GU) LANES**

Draft Noise Study Report Addendum No. 1

**I-95 from J. Turner Butler Boulevard to Atlantic Boulevard
Jacksonville, Duval County, Florida**

**Financial Project ID Nos. 432259-2-21-01 (PD&E Study)
and 432259-2-52-01 (Re-evaluation)
Federal Aid Project No. 0955-308-I**

December 2021



**Prepared by RS&H, Inc. at the direction of
the Florida Department of Transportation, District 2**

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 December 14, 2016 and executed by FHWA and FDOT.

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1.0 Introduction

A Noise Study Report (NSR) was completed for the I-95 Express Lanes PD&E Study (Financial Project ID No.: 432259-2-22-01), which received Location and Design Concept Acceptance on November 21, 2018. This PD&E Study analyzed approximately 6.3 miles of I-95 beginning at the J. Turner Butler Boulevard (JTB) interchange and ending at Atlantic Boulevard in Jacksonville, Florida as shown in **Figure 1-1**. The purpose of this report is to present the findings of the highway traffic noise analysis to reflect the proposed design changes (see **Section 1.1**) made since the completion of the 2018 I-95 Express Lanes PD&E Study; and to re-evaluate the feasibility and reasonableness of noise barriers previously recommended for further consideration during the project's design phase (see **Section 1.2**). The information within this report is also intended to provide the technical support for the findings presented in the Design Change Re-evaluation No. 2 [Mainline General Use (GU) Lanes]. Relevant pages from the 2018 I-95 Express Lanes PD&E Noise Study Report referenced in this report are included in **Appendix A**.

The 2018 I-95 Express Lanes PD&E Study evaluated improvements to improve operational capacity, improve overall traffic operations to accommodate future growth and development, improve safety, and enhance emergency evacuation and response times. The existing I-95 typical section varies throughout the corridor but is primarily comprised of a center concrete barrier wall, concrete pavement carrying three general use lanes in each direction, eight-foot inside shoulders, and twelve-foot outside shoulders (see **Figure 1-2**). Approximately one-third of the project length includes existing noise barriers along the limited access right-of-way.

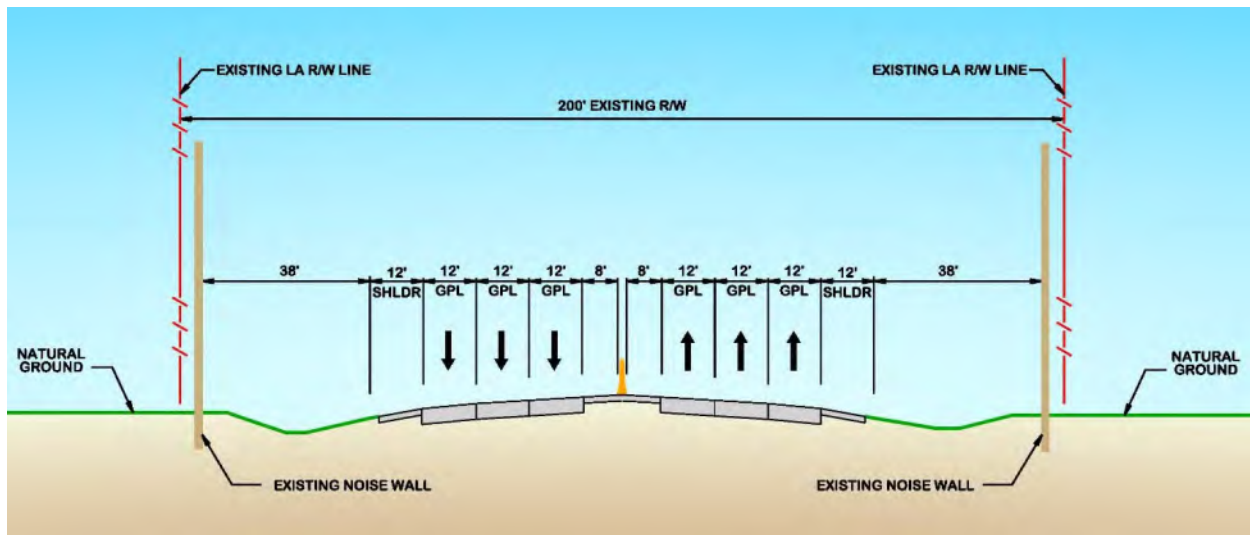
The 2018 I-95 Express Lanes PD&E Study identified a Preferred Build Alternative (i.e., PD&E Study Approved Alternative) that included two express lanes and three general use lanes in each direction along with select auxiliary lanes and ramp terminal improvements. The PD&E Study Approved Alternative also included removing and replacing the existing pavement, bridges, drainage system, signing, pedestrian overpass, and lighting. The PD&E Study Approved Alternative utilized the existing right-of-way to the greatest extent practicable, although additional right-of-way was warranted. Existing noise barriers physically impacted by the proposed improvements were to be replaced and extended as appropriate. Details of the PD&E Study Approved Alternative including Concept Plans are included in the PD&E Study Preliminary Engineering Report (PER) dated October 2018.



Figure 1-1: PD&E Study Area Map



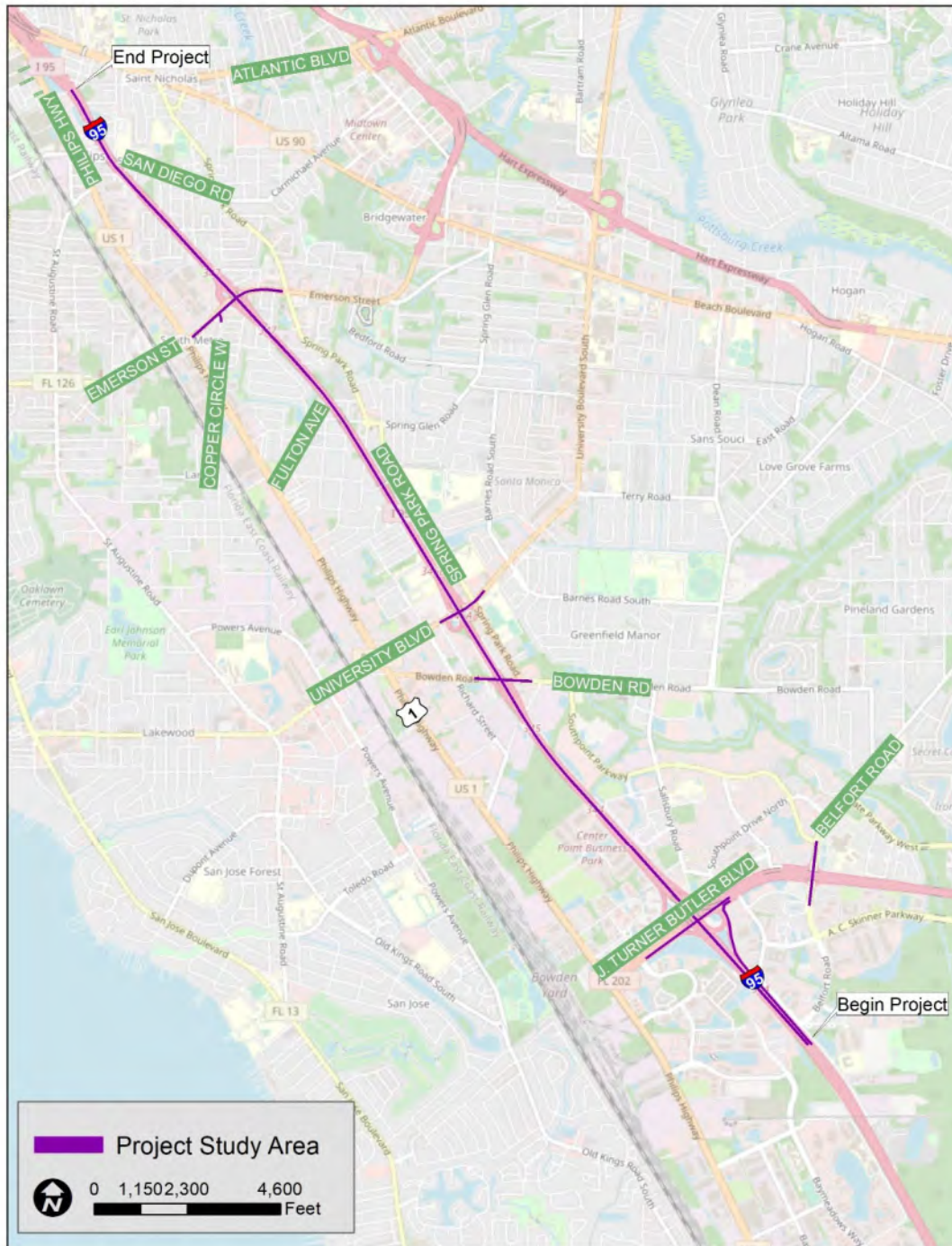
Figure 1-2: Existing Typical Section – I-95



1.1 Design Changes

The proposed design changes to the I-95 Express Lanes project include the conversion of express lanes into general use lanes, reconfiguration of the laneage, adjustment of the noise barrier configurations, and the conversion of a diamond interchange to a Diverging Diamond Interchange (DDI) at Belfort Road and its junction with JTB. In addition, to minimize impacts to the human and natural environments, there were modifications to the PD&E Study pond site locations and configurations. The pond changes are attributed to further development of the design. The general location of the current proposed project improvements are shown in **Figure 1-3** and in detail on the concept plan sheets for the Design Change Re-evaluation No. 2 (Mainline GU Lanes) Build Alternative, also referred to as the Design Change Build Alternative (Mainline GU Lanes), included in **Appendix B**.

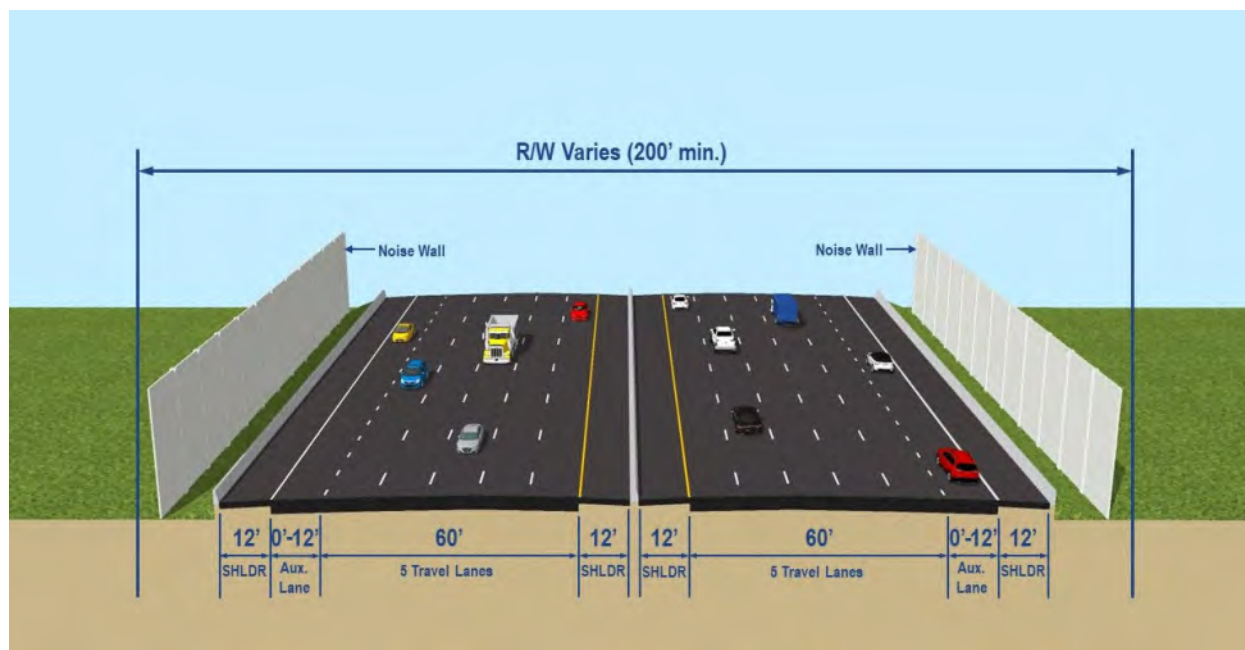
**Figure 1-3: Design Change Re-evaluation No. 2 (Mainline GU Lanes)
Study Area Map**



The design changes that potentially affect the number of noise impacts and the recommended noise barriers include the conversion of the proposed express lanes in both the northbound and southbound directions to general use lanes. The elimination of the express lanes removes the four-foot buffer and tubular markers required between the express and general use lanes. The revised typical section shown in **Figure 1-4** includes five general use lanes and one intermittent auxiliary lane in each direction. These changes resulted in:

- A reduction in required right-of-way;
- Removal of tolling sites;
- Removal of flyover ramp from westbound JTB to northbound I-95 Express Lanes;
- A reduction in removal and replacement noise barriers/walls (see **Section 3.3**); and
- Removal of the restriping and shoulder width design exception on Overland Bridge by tying into the existing pavement north of the San Diego Road overpass.

Figure 1-4: Revised Typical Section



The revised design begins 2,320 feet south of JTB and features the replacement of existing guardrail with concrete median barrier wall. A single lane of 3,354 feet in length is added in the northbound direction by widening into the grass median before transitioning into the full typical section.

In the southbound lanes, beginning approximately 800 feet north of JTB, an additional general use lane is added to the median side. Also, in this vicinity, the outside of the southbound pavement is widened by one lane to add a southbound exit lane to JTB.

Full reconstruction of I-95 for both the northbound and southbound lanes begins approximately 800 and 4,500 feet, respectively, north of JTB, and is carried for 3.9 miles until the proposed typical section ties into the existing pavement north of San Diego Road (just south of Atlantic Boulevard).

The 2018 I-95 Express Lanes PD&E Study, as originally proposed, required approximately 3,100 feet of restriping of the recently completed Overland Bridge project. The removal of the express lanes no longer requires this restriping for additional capacity. Therefore, the revised project will tie in just north of the San Diego Road overpass, thereby avoiding impacts to the Overland Bridge project.

Additional significant changes to the design since the 2018 I-95 Express Lanes PD&E Study include:

- A Diverging Diamond Interchange at Belfort Road;
- Redesign of the vertical profile of I-95 overpass of San Diego Road; and
- Revising the Copper Circle West spur intersecting Emerson Street from a two-lane connection to a one-lane connection.



The Belfort Road and JTB interchange is located approximately one-half mile east of the I-95 and JTB interchange. A DDI, shown in **Figure 1-5**, is proposed to replace the existing tight diamond interchange with two four-way signalized intersections. The proposed DDI will create fewer conflict points as well as provide increased sight distance for turning movements when compared to the intersections associated with a tight diamond interchange. The DDI design requires fewer signal phases, therefore reducing cycle lengths as well as increasing left turn lane capacity to enhance the flow of traffic.

Figure 1-5: Diverging Diamond Interchange at Belfort Road



After the 2018 I-95 Express Lanes PD&E study concluded, the Federal Highway Administration (FHWA) requested the I-95 overpass of San Diego Road be revised to meet 65 mph design standards. The overpass was designed in the PD&E phase to meet the existing posted speed of 55 mph. This increase in design speed required higher vertical curve K-values, resulting in an increase in profile height of up to 12 feet in this area. Other mainline profile refinements were implemented in the design phase due to further design development.

Copper Circle West is located west of I-95 along Emerson Street. In the 2018 I-95 Express Lanes PD&E Study, a two-way spur was proposed to create an intersection on Emerson Street. In addition, Copper Circle West was proposed to be closed and become a cul-de-sac. As shown in **Figure 1-6**, the spur has been redesigned to be a one-way connection to Emerson

Street instead of a full connection and the Copper Circle West cul-de-sac was eliminated so Copper Circle West would continue to be directly connected to Emerson Street.

Figure 1-6: Copper Circle West One-Way Spur



1.2 Summary of PD&E Results and Commitments

As summarized in the 2018 I-95 Express Lanes PD&E Study NSR (July 2018), design year (2045) traffic noise levels associated with the PD&E Study Approved Alternative (i.e., Preferred Build Alternative) will approach or exceed the Noise Abatement Criteria (NAC) at 546 residences and two special land uses within the project limits. The 2018 I-95 Express Lanes PD&E Study NSR presented the design year (2045) noise levels with and without the existing noise barriers since the proposed improvements require a portion of these to be relocated. In addition, the feasibility and reasonableness of noise barriers were considered for those noise sensitive sites predicted to be impacted by design year (2045) traffic noise.

Six separate Common Noise Environments (CNEs) (i.e., E1 through E4, W1, and W2) were used to assess noise barriers for the noise sensitive sites that approach or exceed the NAC:

- CNE E1 Represents the area East of I-95 between Bowden Road and University Boulevard and includes 17 noise impacted residences;
- CNE E2 Represents the area East of I-95 between University Boulevard and North of Fulton Avenue and includes 72 noise impacted residences and a place of worship playground (Faith United Methodist Church);
- CNE E3 Represents the area East of I-95 between North of Fulton Avenue and Emerson Street and includes 145 noise impacted residences;
- CNE E4 Represents the area East of I-95 between Emerson Street and Atlantic Boulevard and includes 185 noise impacted residences and one park (City of Jacksonville Park);
- CNE W1 Represents the area West of I-95 between University Boulevard and Emerson Street and includes 53 noise impacted residences; and
- CNE W2 Represents the area West of I-95 between Emerson Street and Atlantic Boulevard and includes 74 noise impacted residences.

Noise barriers at these six CNEs were determined to be feasible and reasonable and were recommended for further consideration during the design phase and for public input (see **Table 3.4.1 in Appendix A**). The cost per benefited site of these six noise barrier designs are within Florida Department of Transportation's (FDOT) noise barrier cost criteria of \$42,000 per benefited site and will meet FDOT's noise reduction reasonableness criteria of 7 dB(A) at one or more impacted sites. The six recommended noise barrier systems are expected to reduce traffic noise by at least 5 dB(A) at 547 residences including 484 of the 546 impacted residences and at both of the special land uses (i.e., the playground associated with the Faith Methodist Church and the City of Jacksonville Park). These two special land uses are incidentally benefited by the recommended conceptual noise barrier designs at these locations. The estimated cost of the recommended noise barriers is \$7,524,237.

In the 2018 I-95 Express Lanes PD&E NSR, FDOT committed, and remains committed, to the construction of feasible and reasonable noise abatement measures at the six locations where noise barriers have been recommended for consideration during the final design phase, contingent upon the following conditions:

- Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement;
- Cost analyses indicate that the cost of the barrier(s) will not exceed the cost reasonable criterion;
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved; and
- Community input regarding types, heights, and locations of barriers has been provided to the FDOT.



Although the project limits of the PD&E Study extended south of JTB, the traffic noise analysis presented in the 2018 I-95 Express Lanes PD&E NSR encompassed only the area along I-95 north of JTB. Additional noise analysis was not considered warranted since the traffic analysis for areas around JTB interchange and to the south was included as part of a separate Design Build project: I-95 Interchange at SR 202 (J.T. Butler Boulevard) Operational Improvements in Duval County [Financial Project ID No. 416501-4]. As part of the JTB Design Build project, a traffic noise study was performed. Noise barriers were recommended for two residential communities including Windsor Falls Apartments and Coventry Park Apartment Homes that are located within the limits of the I-95 Express Lanes Project. Both recommended noise barriers were constructed as part of the Design Build project. The noise barrier for Windsor Falls Apartments [Noise Barrier ID 416501-4 (I-95 A)] is located south of JTB and west of I-95. The Windsor Falls Apartment noise barrier has a height of 22-feet and extends 1,375 feet along the I-95 western right-of-way line (see **Figure 3-1 Sheets 1 and 2 in Appendix C**). The noise barrier for Coventry Park Apartment Homes [Noise Barrier ID 419501-4 (I-95 B)] is located north of JTB and east of I-95. The Coventry Park Apartment Homes barrier has a height of 22-feet and extends 940 feet along the I-95 eastern right-of-way line (see **Figure 3-1 Sheet 5 in Appendix C**). Additional information on these two noise barriers can be found in the Noise Study Report prepared for the Design Build project.



2.0 Methodology

This traffic noise study was conducted based on the methodology described in the FDOT's PD&E Manual, Part 2, Chapter 18, *Highway Traffic Noise* (July 1, 2020), the FDOT's *Traffic Noise Modeling and Analysis Practitioners Handbook* (December 31, 2018), and in accordance with Title 23 of the Code of Federal Regulations, Part 772 (23 CFR 772), *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 13, 2010). The methodology used is consistent with that used for the 2018 I-95 Express Lanes PD&E Noise Study.

The noise study involved the following procedures to determine if noise impacts have changed along the project corridor and to evaluate the feasibility and reasonableness of the recommended noise abatement measures at impacted noise sensitive sites, as warranted:

- A review of the current project design concept to determine if any major changes in the proposed project occurred since November 11, 2018, the date of the approved environmental document (**Section 1.1**);
- The review of the 2018 I-95 Express Lanes PD&E NSR, the July 2020 NSR for the I-95 Widening PD&E Study from Baymeadows Road to South of J. Turner Butler Boulevard/SR 202 (FPID No.: 446153-1), and the 2014 NSR for the I-95 at JTB Interchange (416501-4) to identify all potentially impacted noise sensitive sites and the decisions concerning noise abatement within the project limits (**Section 1.2**);
- A review of the existing land use to determine if additional noise sensitive sites have been built since the completion of the 2018 I-95 Express Lanes PD&E NSR and the 2020 NSR for the I-95 Widening PD&E Study;
- Prediction of future design year traffic noise levels and assessment of traffic noise impacts (**Section 3.1**); and
- The consideration of noise barriers as a noise abatement measure at impacted receptor sites (i.e., approach, equal, or exceed the NAC) (**Section 3.2**).

The FHWA's Traffic Noise Model (TNM) Version 2.5 (February 2004) was used to predict future traffic noise levels and to analyze the effectiveness of noise barriers, where warranted. This model estimates the acoustic intensity at noise sensitive receptor sites 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, structures (houses, trees, etc.), ground surface type (hard or soft), and topography.



Representative receptor sites were used as inputs to the TNM 2.5 to estimate noise levels associated with existing and future conditions within the project limits. 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 residences, traffic noise levels were predicted at the edge of the dwelling unit closest to the nearest primary roadway. For other noise sensitive sites, traffic noise levels were predicted where the exterior activity occurs. For the prediction of interior noise levels, receptor sites were placed approximately ten feet inside the building at the edge closest to the roadway. Building noise reduction factors and window conditions identified in Figure 18.3 in Part 2, Chapter 18 of the PD&E Manual (July 1, 2020) were used to estimate noise reduction due to the physical structure. Each of the representative receptor sites were given a unique designation, for example, HG-1. The alphanumeric character(s) represents the name and location of the noise sensitive receptor site (e.g., “HG” for Haven Gardens Subdivision). The numerical value represents the unique/sequential receptor site number for that location (e.g., for Haven Gardens Subdivision, Receptors Sites HG-1 through HG-17 were used to represent the noise sensitive sites within this residential community). The representative receptor sites evaluated in the 2018 I-95 Express Lanes PD&E NSR were re-assessed as part of the current study to facilitate comparison between studies.

The following sections describe the noise metrics, traffic data, and noise abatement criteria used in this study.

2.1 Noise Metrics

Noise levels documented in this report represent the hourly equivalent sound level [Leq(h)]. 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 1-hour period. Leq(h) is measured in A-weighted decibels [dB(A)], which closely approximate the human frequency response. Sound levels of typical noise sources and environments are provided in **Table 2.1-1** as a frame of reference.

2.2 Traffic Data

The traffic data used in the noise analysis is from the System Interchange Modification Report (SIMR) Re-evaluation for I-95 from International Golf Parkway to Atlantic Boulevard dated July 2020. The a.m. and p.m. peak hour traffic volumes within the project study area are presented in **Figure 7-4** of the SIMR Re-evaluation and are included in **Appendix D**. The traffic data used in the noise modeling to predict design year (2045) traffic noise levels for the Design Change Build Alternative (Mainline GU Lanes) for I-95 including ramps and arterial roadways are presented in **Table 2.2-1** and **Table 2.2-2**, respectively, in **Appendix D**. These traffic data tables include peak hour traffic volumes, Level of Service (LOS) C volumes,



speeds, and summarizes the traffic data by vehicle type (cars, medium trucks, heavy trucks, buses, and motorcycles). According to Part 2 Chapter 18 of the PD&E Manual, "Maximum peak-hourly traffic representing Level of Service (LOS) "C" or demand traffic 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.

Table 2.1-1: Sound Levels of Typical Noise Sources and Environments

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL dB(A)	COMMON INDOOR ACTIVITIES
Jet Fly-over at 1000 ft	---110---	Rock Band
Gas Lawn Mower at 3 ft	---100---	
Diesel Truck at 50 ft, at 50 mph	---90---	Food Blender at 1 m (3 ft)
Noise Urban Area (Daytime)	---80---	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower at 100 ft	---70---	Vacuum Cleaner at 10 ft
Commercial Area	---60---	Normal Speech at 3 ft
Heavy Traffic at 300 ft	---50---	Large Business Office
Quiet Urban Daytime	---40---	Dishwasher Next Room
Quiet Urban Nighttime	---30---	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	---20---	Library
Quiet Rural Nighttime	---10---	Bedroom at Night, Concert Hall (Background)
Lowest Threshold of Human Hearing	---0---	Lowest Threshold of Human Hearing
Source: California Dept. of Transportation Technical Noise Supplement, Oct. 1998, Page 18.		

2.3 Noise Abatement Criteria

The FHWA has established Noise Abatement Criteria (NAC) for land use activity categories, presented in **Table 2.3-1**. Maximum noise threshold levels, or criteria levels, have been established for five of the seven activity categories. These criteria determine when an impact occurs and when consideration of noise abatement is required. Noise abatement measures must be considered when predicted noise levels approach or exceed the NAC levels or when a substantial noise increase occurs. A substantial noise increase occurs when the existing



noise level is predicted to be exceeded by 15 dB(A) or more as a result of the transportation improvement project. The FDOT defines “approach” as within 1.0 dB(A) of the FHWA criteria.

Table 2.3-1: Noise Abatement Criteria [Hourly A-Weighted Sound Level-decibels (dB(A))]

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.



Noise sensitive receptor sites include properties where frequent exterior human use occurs and where a lowered noise level would be of benefit. This includes lands where serenity and quiet are of extraordinary significance such as The Tomb of the Unknown Soldier at Arlington National Cemetery (NAC Category A); residential land use (NAC Activity Category B); a variety of nonresidential land uses not specifically covered in Category A or B including parks and recreational areas, medical facilities, schools, and places of worship (Activity Category C); and commercial and developed properties including offices, hotels, and restaurants with exterior areas of use (Activity 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, schools, and television studios (Activity Category D). Categories F and G, which include commercial and developed properties without exterior areas of use, do not have noise abatement criteria levels. Category F includes land uses such as industrial and retail facilities that are not considered noise sensitive. Category G includes undeveloped lands.

2.4 Noise Abatement Measures

When traffic noise associated with a proposed project is predicted to approach or exceed the NAC at a noise sensitive site, noise abatement measures must be considered in accordance with 23 CFR Part 772. The most common and effective noise abatement measure for projects such as this is the construction of noise barriers. 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 (i.e., no intermittent openings), and have sufficient height to block the path between the noise source and the receptor site. The FHWA's Analysis and Abatement Guidance (January 2011) indicates the ends of the noise barriers should, in general, extend in each direction four times as far as the distance from the receptor site to the noise barrier.

For noise abatement measures to be recommended for further consideration in the design phase of the project, they must be determined to be both feasible and reasonable. A wide range of factors are used to evaluate the feasibility and reasonableness of noise abatement measures. Feasibility deals with engineering considerations, including the ability to construct a noise barrier using standard construction methods and techniques as well as with the ability to provide a reduction of at least 5 dB(A) to the impacted receptor sites. For example, given the topography of a location, can the minimum noise reduction [5 dB(A)] be achieved given certain access, drainage, utility, safety, and maintenance requirements? In addition, for a noise barrier to be considered acoustically feasible, at least two impacted receptor sites must achieve at least a 5 dB(A) reduction (i.e., benefited). A benefited receptor site is defined as a noise sensitive site that will obtain a minimum of 5 dB(A) of noise

reduction from a specific noise abatement measure regardless of whether or not they are identified as impacted.

Reasonableness implies that common sense and good judgment were applied in a decision related to noise abatement. Reasonableness includes the consideration of the cost of abatement, the amount of noise abatement benefit, and the consideration of the viewpoints of the impacted and benefited property owners and tenants. To be deemed reasonable, the estimated cost of the noise barrier, or other noise abatement measure, needs to be equal to or below FDOT's reasonable cost criteria (described below), must attain FDOT's noise reduction design goal of 7 dB(A) at one or more benefited receptor sites, and must be supported by a majority of the property owners and tenants benefited by the proposed abatement measure.

The cost reasonableness evaluation of noise barriers for impacted residential (Activity Category B) and non-residential areas (Activity Categories A, C, D, and E) is based on different methods and are evaluated separately. When determining the cost reasonableness of a conceptual noise barrier design for a residential area, an estimated cost of \$42,000 per benefited receptor is considered the upper limit, using the FDOT's current standard construction cost of \$30.00 per square foot. Only benefited receptor sites are included in the calculation of reasonable cost for a particular noise abatement measure.

Noise barriers for non-residential areas are assessed using FDOT's "A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations" (July 22, 2009). The cost reasonableness of this method is based on the number of people (i.e., person-hours per day) benefited by a noise barrier under consideration. Using this methodology, to be considered cost reasonable, the cost of the noise barrier must have an Abatement Cost Factor less than \$995,935 per person-hour per square foot. The derivation of the Abatement Cost Factor is based on the FDOT's reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site.

If the noise abatement measure has been determined to be reasonable and feasible, the viewpoint of the impacted and benefited property owners must be considered. During project development, the viewpoint of potentially benefited receptors (property owners/tenants) regarding noise abatement is gathered during workshops, public outreach, or at the Public Hearing, if required by the project. During the design phase of the project, a more detailed process is implemented to include noise abatement workshops and/or public surveys, to determine the wishes of the benefited receptor sites. Each benefited receptor, including both the owner and resident, is given the opportunity to provide input through a noise barrier survey regarding their desires to have the recommended noise abatement measure implemented. It is the desire of FDOT to obtain a response for or against the noise barrier



from a numerical majority (greater than 50%) of the benefited receptors (owners and residents) that respond to the noise barrier survey. If not supported by a majority of the survey respondents, a noise barrier or abatement measure will not be deemed reasonable.

Consistent with the 2018 I-95 Express Lanes PD&E Noise Study, both ground mounted and shoulder mounted noise barriers were evaluated to determine their effectiveness in providing noise abatement to the impacted noise sensitive sites. Ground mounted noise barriers, which are also referred to as concrete post-and-panel noise barriers, are usually constructed in the vicinity of the right-of-way line. Shoulder mounted noise barriers are constructed along the outside edge of the roadway shoulder. Typically, shoulder mounted noise barriers are used on elevated roadway sections because ground mounted noise barriers are often less effective in these areas. Ground mounted noise barriers are typically evaluated in heights ranging from 14 to 22 feet. Due to safety and constructability issues, the height of shoulder mounted noise barriers is limited to 14 feet, except on structures such as bridges, retaining walls, and MSE walls, where they are limited to 8 feet.

To facilitate the noise barrier analysis, contiguous noise sensitive areas were grouped together into CNEs. A CNE represents a group of impacted receptor sites of the same Activity Category that are exposed to similar noise sources and levels, traffic volumes, traffic mix, and speeds, as well as similar topographic features. This grouping of receptor sites would benefit from the same noise barrier or noise barrier system (i.e., overlapping/continuous noise barriers). Generally, CNEs occur between two secondary noise sources, such as interchanges, intersections, and/or cross-roads, or where defined by ground features such as canals or rivers. In addition, the primary method for determining the cost of noise abatement involves a review of the cost per benefited receptor site for the construction of a noise barrier benefiting a single location or CNE (e.g., a subdivision or contiguous impact area).

3.0 Traffic Noise Analysis

As described in the 2018 I-95 Express Lanes PD&E NSR, the project area includes noise sensitive land uses that will be potentially impacted by traffic noise associated with the proposed project. The noise sensitive land uses include single and multi-family residences, places of worship, schools, medical facilities, restaurants with outdoor seating, office buildings with outdoor use, and recreational areas. Existing land uses categorized by FHWA's Noise Activity Categories within the project area are depicted in **Figure 3-1** in **Appendix C (Noise Analysis Map)**. The location of the representative noise sensitive receptor sites used in assessment of traffic noise impacts are also depicted in **Figure 3-1**. A description of the noise sensitive sites including their approximate location and number of sites represented are included in **Table 3-1** in **Appendix E**. **Figure 3-1** also depicts the location of the proposed stormwater pond sites (e.g., see **Pond Site 14D** on **Sheet 8 of 13**) and the 28 residences anticipated to be relocated as a purple dot symbol. **Table 3-1** also identifies the 28 representative receptor sites to be relocated (e.g., CE1 Relocation).

3.1 Predicted Traffic Noise Levels and Impact Analysis

Consistent with the 2018 I-95 Express Lanes PD&E Noise Study, the FHWA's TNM 2.5 was used to predict future design year (2045) traffic noise levels. To assess noise impacts, predicted design year (2045) noise levels at representative noise sensitive sites were compared to the NAC. The predicted noise levels with the Design Change Build Alternative (Mainline GU Lanes) are presented in **Table 3-1** in **Appendix E**. Since the proposed project will require portions of the existing noise barriers located along the project corridor to be removed for the construction of the recommended improvements, the predicted noise levels are without the existing noise barriers. The impacted noise sensitive sites are shown as red dots on **Figure 3-1** in **Appendix C**. To facilitate comparisons and changes in impacts, the predicted noise levels for the 2018 PD&E Approved Alternative are also presented in **Table 3-1**.

The types and number of traffic noise impacts for the Design Change Build Alternative (Mainline GU Lanes) and the 2018 PD&E Approved Alternative are summarized in **Table 3.1-1**. To facilitate comparison, impacts are summarized by the PD&E Study noise analysis study limits and the additional area evaluated as part of the Design Change Re-evaluation No. 2 (Mainline GU Lanes). The noise analysis study limits for the 2018 I-95 Express Lanes PD&E Study extended along I-95 north of Bowden Road to Atlantic Boulevard. The noise analysis study limits for the Design Change Re-evaluation No. 2 (Mainline GU Lanes) also included the areas along I-95 south of Bowden Road to south of JTB and along JTB from

Table 3.1-1: Summary of Traffic Noise Impacts

Location	Noise Sensitive Area(s) / (Noise Abatement Criteria Activity Category)	PD&E Noise Study (2018)		Design Change Re-evaluation No. 2 (Mainline General Use Lanes)			Net Change in Traffic Noise Impacts from 2018 PD&E Study		Common Noise Environment Designation
		Number of Impacted Site		Number of Residential Relocations	Number of Impacted Site		Number of Impacted Sites		
		Residential (NAC B)	Non-Residential - Special Land Uses (NAC C, D, & E)		Residential (NAC B)	Non-Residential - Special Land Uses (NAC C, D, & E)	Residential (NAC B)	Non-Residential - Special Land Uses (NAC C, D, & E)	
PD&E Study Noise Analysis Limits - North of Bowden Road to Atlantic Boulevard									
East of I-95 Between Bowden Road and University Boulevard	Haven Gardens / Residential (Activity Category B)	17	0	0	17	0	0	0	E1
East of I-95 Between University Boulevard and Emerson Street	Southland, Connors, Englewood, Turners Subdivisions, & Santa Monica / Residential Use Areas (Activity Category B); Faith United Methodist Church / Playground - Recreational (Activity Category C)	72	1	7	63	1	-9	0	E2
	Southland, Englewood, Spring Park Manor, & Rodney Subdivisions / Residential (Activity Category B)	53	0	1	59	0	6	0	E3
East of I-95 Between Emerson Street University and Atlantic Boulevard	Rodney, Spring Park Manor, Rogeros, Belair, Spring Park Terrace, San Diego Terrace, Phillips, Fuller, & Meridale Subdivision / Residential (Activity Category B); City of Jacksonville Park (Activity Category C)	185	1	9	188	1	3	0	E4
West of I-95 Between University Boulevard and Emerson Street	Spring Park Manor, Southland, & Englewood / Residential (Activity Category B)	145	0	1	149	0	4	0	W1
West of I-95 Between Emerson Street and Atlantic Boulevard	Belair, Spring Park Terrace, San Diego & San Diego Plaza Subdivisions / Residential (Activity Category B)	74	0	10	64	0	-10	0	W2
Total Number of Sites Approaching and Exceeding Noise Abatement Criteria (Within PD&E Noise Study Limits)		546	2	28	540	2	-6	0	---
South and East Extension of Noise Study Limits (I-95 from South of JTB to North of Bowden Road and JTB from Bonneval Road to East of Belfort Road)									
West of I-95 Between Bowden Road and University Boulevard (Activity Category B)		---	---	0	3	0	3	0	SW1 (Bowden Farms Subdivision)
West of I-95 Between South of JTB and Bowden Road (Activity Category E)		---	---	0	0	2	0	2	SW2 & SW3 (Center Point Business Park)
East of I-95 Between JTB and Bowden Road (Activity Category E)		---	---	0	0	1	0	1	SE1 (The Summit at Southpoint)
JTB East of I-95 to East of Belfort Road (Activity Category C)		---	---	0	0	1	0	1	SE2 (St. Vincent's Medical Center)
East of I-95 and South of JTB [Source: I-95 Widening PD&E Study Noise Study Report (July 2020)] (Activity Categories B and E)		---	---	0	30	1	30	1	CNEs E2 (Canopy at Belfort Park Apartments) & E3 (Concourse Business Park)
West of I-95 and South of JTB [Source: I-95 Widening PD&E Study Noise Study Report (July 2020)] (Activity Category E)		---	---	0	0	2	0	2	CNEs W3 & W4 (JP Morgan Chase North and South Buildings)
Total Number of Sites Approaching and Exceeding Noise Abatement Criteria		546	2	28	573	9	27	7	---

K:\Noise_Studies\I-95_JTBtoAtlantic_D2\Reevaluation\NSRA_2ndDraft\Tables\Table_3.1-1_NoiseImpactSummary_Reval_1-30-2020.xlsx[Sheet1]

Bonneval Road to east of Belfort Road. As described in **Section 1.2**, these project segments were not included in the noise analysis limits of the PD&E Study. Additional noise analysis was not considered warranted during the PD&E Study since the traffic analysis for areas around JTB interchange and to the south was included as part of a separate Design Build project: I-95 Interchange at SR 202 (J.T. Butler Boulevard) Operational Improvements in Duval County [Financial Project ID No. 416501-4].

For the PD&E noise analysis limits (i.e., north of Bowden Road to Atlantic Boulevard) the Design Change Build Alternative (Mainline GU Lanes) is anticipated to impact 540 residences and two special land use sites without including the 28 residential relocations. If the residential relocations are included, the total number of impacted residences would be 568 versus the 546 impacted residences associated with the 2018 PD&E Approved Alternative. The predicted noise levels with the Design Change Build Alternative (Mainline GU Lanes) decreased at some locations from the 2018 PD&E Approved Alternative due to changes and reduction in width of the proposed typical section of I-95 (e.g., Receptor Site SE1). At other locations, predicted traffic noise levels increased due to the proposed stormwater ponds (e.g., Receptor Site SP42). With the proposed stormwater pond sites, the traffic noise levels are higher since the amount of ground attenuation occurring between I-95 and the receptor sites is less compared to the default ground type of lawn. The increase in traffic noise levels at other sites are associated with the change/increase in the I-95 roadway vertical profile over San Diego Road. The increase in the I-95 profile also reduces the amount of ground attenuation occurring between I-95 and the adjacent receptor sites (e.g., Receptor Sites SD18 and SD22).

For the areas along I-95 south of Bowden Road to JTB and along JTB from Bonneval Road to east of Belfort Road, the Design Change Build Alternative (Mainline GU Lanes) is anticipated to impact three residences in Bowden Farms Subdivision (i.e., CNE SW1) and four special land use sites. The four special land use sites impacted include the outdoor use areas associated with Center Point Business Park (i.e., CNEs SW2 and SW3), The Summit at Southpoint (CNE SE1), and St. Vincent's Medical Center (CNE SE2).

For the areas along I-95 south of JTB, the Design Change Build Alternative (Mainline GU Lanes) is anticipated to impact 30 residences associated with the Canopy at Belfort Park Apartments (CNE E2) and three special land use sites including outdoor use areas associated with Concourse Business Park (CNE E3) and two JP Morgan Chase buildings (CNEs W3 and W4) (see **Figure 3-1 Sheet 3 of 3** in **Appendix F**). The noise analysis for this segment of I-95 was completed as part of two separate PD&E studies: I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 (Financial Project ID No.: 446153-1) and the I-95 PD&E Study from I-295 (SR 9A) to SR 202 (JTB) (Financial Project ID No.: 435577-1). Noise



study reports from these two PD&E studies summarize the results and recommendations of the noise analysis for the I-95 segment south of JTB. Since these PD&E studies incorporated the improvements associated with the Design Change Build Alternative (Mainline GU Lanes), additional noise analysis was not considered warranted. Relevant pages from the I-95 Widening PD&E Noise Study Report (July 2020) are included in **Appendix F**.

It should be noted that some developed areas were not evaluated since they do not represent noise sensitive areas or were located beyond the expected area of traffic noise impacts. For example, the Douglas Anderson School of Arts and Specialty Hospital Jacksonville do not have any exterior areas of use that would be potentially impacted by the project. In addition, the buildings associated with the school and medical facilities and their interiors are beyond the area anticipated to be impacted by design year noise levels (2045).

3.2 Noise Abatement Analysis

With the Design Change Build Alternative (Mainline GU Lanes), design year (2045) traffic noise levels will approach, meet, or exceed the NAC at 573 residences (NAC B) and at nine non-residential/special land use sites (NACs C and E) (see **Table 3.1-1**). Therefore, consideration of noise barriers at each of these impacted residential and special land use sites is warranted. The FDOT noise policy requires that the reasonableness and feasibility of noise abatement be considered when the FHWA NAC is approached, met, or exceeded at a noise sensitive site. The most common and effective noise abatement measure is the construction of noise barriers. The 2018 I-95 Express Lanes PD&E NSR identified noise barriers as the only viable abatement measure that could be implemented as part of the project. Other abatement measures that were considered, but were determined not to be feasible or reasonable, include traffic management, alignment modification, and property acquisition.

The following summarizes the consideration of noise barriers at each of the impacted noise sensitive receptor sites. The re-evaluation of the noise barrier systems recommended during the 2018 I-95 Express Lanes PD&E Study are summarized in **Sections 3.2.1 through 3.2.1-6**. The noise barrier analysis performed for areas not evaluated during the 2018 I-95 Express Lanes PD&E Study are summarized in **Sections 3.2.2 through 3.2.5**. The noise barrier analysis tables referenced in these sections are located at the end of **Section 3.2.6**. The location of the CNEs evaluated for noise barriers are depicted on **Figure 3-1**. Predicted noise levels for the other noise sensitive sites within the project limits were below the NAC and do not require the consideration of noise abatement measures.



3.2.1 Re-evaluation of Recommended Noise Barriers

The 2018 I-95 Express Lanes PD&E Study recommended six noise barrier systems for further consideration during the design phase and for public input (see **Section 1.2** and **Table 3.4.1** in **Appendix A**). The recommended noise barrier systems are located between Bowden Road and Atlantic Boulevard and would provide benefit to the impacted noise sensitive sites within six CNEs (see **Table 3.4.1** in **Appendix A**). Four of the CNEs are located along the east side of I-95 (E1 through E4) and two CNEs are located along the west side of I-95 (W1 and W2). The six recommended noise barrier systems were expected to reduce traffic noise by at least 5 dB(A) at 547 residences including 484 of the 546 impacted residences and at both of the special land uses (i.e., the playground associated with the Faith Methodist Church and the City of Jacksonville Park).

The six noise barrier systems recommended as part of the 2018 I-95 Express Lanes PD&E Study were re-evaluated as part of this Design Change Re-evaluation No. 2 (Mainline GU Lanes) noise study. The revised recommended conceptual noise barrier designs for these six noise barrier systems and for those recommended in the 2018 I-95 Express Lanes PD&E Study are summarized in **Table 3.2-1**. With the reduction in the I-95 typical section width associated with the Design Change Build Alternative (Mainline GU Lanes), less of the 19,780 feet of existing noise barriers would be physically impacted and need to be replaced. The amount of replacement noise barriers required with the Design Change Build Alternative (Mainline GU Lanes) is ~6,130 feet compared to ~10,600 feet required with the 2018 PD&E Approved Alternative (i.e., 4,470 feet less). Also, to maximize the amount of noise reduction and where practical, the height of the replacement ground mounted noise barriers was increased up to 22 feet versus matching the height of the existing noise barrier heights that are less than 22 feet. The identification numbers of the existing noise barriers and limits are shown in **Figure 3-1**. The noise barrier systems represent a combination of existing noise barriers, replacement noise barriers, extensions of existing noise barriers, and supplemental noise barriers. The limits of existing noise barriers to remain are represented as solid blue lines in **Figure 3-1**. The limits of the existing noise barriers to be replaced are shown as solid orange lines. Extensions of existing noise barriers are shown as solid purple lines and supplemental noise barriers are shown as solid green lines.

Noise barriers were determined to be feasible and cost reasonable for CNEs E1 through E4, W1, and W2 as part of the Design Change Re-evaluation No. 2 (Mainline GU Lanes) noise study and are recommended for further consideration during the design phase and for public input. The six recommended noise barrier systems are expected to reduce traffic noise by at least 5 dB(A) at 526 residences including 471 of the 540 impacted residences and at both of the impacted special land use sites (i.e., the playground associated with the Faith Methodist Church and the City of Jacksonville Park). The six recommended conceptual noise barrier



designs meet FDOT's noise abatement cost criteria (i.e., equal to or less than \$42,000 per benefited receptor site) and noise reduction reasonableness criteria of 7 dB(A) at one or more receptor sites (see **Table 3.2-1**). The six recommended noise barrier systems also satisfy the reasonableness and feasibility factors considered in the evaluation of noise abatement measures including safety and constructability considered prior to the design phase of the project. The final decisions on noise barrier dimensions are made during the project's design phase. During the design phase, an engineering constructability review is conducted to confirm that the noise barrier is feasible and support for noise barriers from the benefited noise sensitive sites is determined. The differences between the conceptual noise barrier designs of six recommended noise barrier systems for CNEs E1 through E4, W1, and W2 and those recommended during the PD&E Study are summarized below by CNE/Noise Barrier System and in **Table 3.2-1**. Also, the outdoor advertising signs that may potentially be blocked from the motorist's view from each of the recommended noise barrier systems are identified. As described in **Section 4.0**, coordination with FDOT's Outdoor Advertising section of the Office of Right-of-Way will be required for the conforming outdoor advertising signs during the final design phase of the project for those signs that are potentially blocked from the motorist's view by the recommended noise barrier systems.

3.2.1.1 Common Noise Environment/Noise Barrier System E1

Common Noise Environment/Noise Barrier System E1 encompasses the impacted single family residences within the Haven Gardens community located east of I-95 between Bowden Road and University Boulevard (see **Figure 3-1, Sheet 7**). Design year (2045) noise levels for the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 17 residences within this community; therefore, noise barriers were re-evaluated at this location.

The revised optimal conceptual noise barrier design recommended at this location is different from the one recommended during the 2018 I-95 Express Lanes PD&E Study (see **Table 3.2-1**). Due to a reduction in right-of-way requirements, 500 feet of the existing 700-foot long 20-foot tall ground mounted noise barrier (ID: 72280-3424 I-95 A) will no longer be physically impacted by the proposed improvements or need to be replaced with a 14-foot tall shoulder mounted noise barrier. The revised optimal conceptual design recommended at this location includes two 8-foot tall shoulder mounted noise barriers extending south (i.e., 650 feet) and north (i.e., 400 feet) of the existing ground mounted noise barrier. The revised optimal noise barrier would benefit the 17 impacted residences and would provide an average noise reduction of 6.3 dB(A) with a maximum noise reduction of 7.6 dB(A). The estimated construction cost of the two shoulder mounted noise barriers is \$252,000. The average cost per benefited receptor site with total cost of the revised optimal conceptual design including the existing noise barrier (i.e., \$672,000) is \$39,529 per benefited residence. Therefore, the



revised optimal conceptual noise barrier design for CNE E1 meets the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site and is recommended for further consideration and public input during the project's design phase. The views of five outdoor advertising signs at three locations are potentially blocked by noise barrier system CNE E1. Of the five outdoor advertising signs, there is one double sided conforming sign (BW904/BW905), one single sided conforming sign (BW078), and one double sided non-conforming sign (BM975/CL495).

3.2.1.2 Common Noise Environment/Noise Barrier System E2

Common Noise Environment/Noise Barrier System E2 encompasses the impacted noise sensitive sites along the east side of I-95 from north of University Drive to north of Spring Glen Road (see **Figure 3-1, Sheets 8 and 9**). Design year (2045) noise levels for the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 63 residences and one special land use site (i.e., Faith United Methodist Church playground); therefore, noise barriers were re-evaluated at this location. The number of impacted residences within CNE E2 does not include the seven single family residences proposed to be relocated to accommodate two of the proposed pond sites (i.e., 14D and 15B).

The revised optimal conceptual noise barrier design recommended at this location is different from the one recommended during the 2018 I-95 Express Lanes PD&E Study (see **Table 3.2-1**). Due to a reduction in right-of-way requirements, 190 feet of the existing 3,100-foot long 19-foot tall ground mounted noise barrier (ID: 72280-3424 I-95 B) will no longer be physically impacted by the proposed improvements or need to be replaced. The revised optimal conceptual design recommended at this location includes 3,030 feet of an existing 19-foot tall ground mounted noise barrier (ID: 72280-3424 I-95 B), replacement of 100 feet of existing noise barriers, 350 foot extension of the ground mounted noise barrier to the south, and a supplemental 8-foot tall shoulder mounted noise barrier extending north (i.e., 1,400 feet) of the existing ground mounted noise barrier. The revised optimal noise barrier would benefit the 56 residences, including 55 of the 63 impacted residences and would provide an average noise reduction of 6.7 dB(A) with a maximum noise reduction of 12.0 dB(A). The estimated construction cost of the new noise barrier segments is \$624,000. The average cost per benefited receptor site with total cost of the revised optimal conceptual design including the existing noise barrier (i.e., \$2,351,100) is \$41,984 per benefited residence. Therefore, the revised optimal conceptual noise barrier design for CNE E2 meets the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site and is recommended for further consideration and public input during the project's design phase. The view of one double sided conforming outdoor advertising sign (CH754/CH755) is potentially blocked by noise barrier system CNE E2.



3.2.1.3 Common Noise Environment/Noise Barrier System E3

Common Noise Environment/Noise Barrier System E3 encompasses the impacted noise sensitive sites along the east side of I-95 from north of Spring Glen Road to Emerson Street (see **Figure 3-1, Sheet 10**). Design year (2045) noise levels for the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 59 residences within this segment of the project; therefore, noise barriers were re-evaluated at this location. The number of impacted residences within CNE E3 does not include a single family residence proposed to be relocated to accommodate one of the proposed pond sites (i.e., 18E-2).

The revised optimal conceptual noise barrier design recommended at this location is different from the one recommended during the 2018 I-95 Express Lanes PD&E Study (see **Table 3.2-1**). The amount of existing 19-foot tall ground mounted noise barrier required to be replaced did not change from 1,250 feet representing 450 feet of existing noise barrier (72280-3424 I-95 G) and 800 feet of existing noise barrier (72280-3224 I-95 H). However, the height of the replacement noise barrier was increased from 19 feet to 22 feet to maximize the amount of noise reduction at the impacted sites. The revised optimal conceptual design recommended at this location includes 490 feet of an existing 19-foot tall ground mounted noise barrier (ID: 72280-3424 I-95 G), replacement of 1,250 feet of existing noise barriers, 330, 310, and 250 foot extensions of the ground mounted noise barriers, and two supplemental 8-foot tall shoulder mounted noise barriers along I-95 northbound outside shoulder extending south (i.e., 750 feet) and north (i.e., 1,700 feet) of the existing ground mounted noise barriers. The revised optimal noise barrier would benefit the 55 residences, including 50 of the 59 impacted residences and would provide an average noise reduction of 7.3 dB(A) with a maximum noise reduction of 11.2 dB(A). The estimated construction cost of the new noise barrier segments is \$2,000,400. The average cost per benefited receptor site with total cost of the revised optimal conceptual design including the existing noise barrier (i.e., \$2,279,700) is \$41,449 per benefited residence. Therefore, the revised optimal conceptual noise barrier design for CNE E3 meets the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site and is recommended for further consideration and public input during the project's design phase. The views of five outdoor advertising signs at three locations are potentially blocked by noise barrier system CNE E3. Of the five outdoor advertising signs, there is one double sided conforming sign (BJ061/BJ062), one single sided non-conforming sign (No Tag Number), and one double sided non-conforming sign (BP887/BI989).

3.2.1.4 Common Noise Environment/Noise Barrier System E4

Common Noise Environment/Noise Barrier System E4 encompasses the impacted noise sensitive sites along the east side of I-95 from Emerson Street to Atlantic Boulevard (see **Figure 3-1, Sheets 11, 12, and 13**). Design year (2045) noise levels for the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 188 residences and one special land use site (i.e., City of Jacksonville Park); therefore, noise barriers were re-evaluated at this location. The number of impacted residences within CNE E4 does not include the eight single family residences proposed to be relocated to accommodate three of the proposed pond sites (i.e., 18G, 22D/E, and 22F) and the proposed improvements to Glen Mawr Road in the vicinity of Station 1013+00.

The revised optimal conceptual noise barrier design recommended at this location is different from the one recommended during the 2018 I-95 Express Lanes PD&E Study (see **Table 3.2-1**). Due to a reduction in right-of-way requirements, 1,440 feet of the existing 3,580-foot long 20-foot tall ground mounted noise barrier (ID: 213217-2 I-95 I) will no longer be physically impacted by the proposed improvements or need to be replaced. The revised optimal conceptual design recommended at this location includes 4,100 feet of two existing 20-foot tall ground mounted noise barriers (IDs: 213217-2 I-95 I and 213217-2 I-95 A), replacement of 2,140 feet of existing noise barriers, 100-foot extension of the ground mounted noise barrier to close the gap between two existing noise barriers, and a supplemental 8-foot tall shoulder mounted noise barrier (i.e., 1,950 feet) to close the gap between two existing ground mounted noise barriers. The revised optimal noise barrier would benefit the 183 residences, including 159 of the 188 impacted residences and would provide an average noise reduction of 7.7 dB(A) with a maximum noise reduction of 16.2 dB(A). The estimated construction cost of the new noise barrier segments is \$2,019,600. The average cost per benefited receptor site with total cost of the revised optimal conceptual design including the existing noise barrier (i.e., \$4,479,600) is \$24,479 per benefited residence. Therefore, the revised optimal conceptual noise barrier design for CNE E4 meets the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site and is recommended for further consideration and public input during the project's design phase. The view of one non-conforming outdoor advertising sign (BP981) is potentially blocked by noise barrier system CNE E4.

3.2.1.5 Common Noise Environment/Noise Barrier System W1

Common Noise Environment/Noise Barrier System W1 encompasses the impacted noise sensitive sites along the west side of I-95 from University Boulevard to Emerson Street (see **Figure 3-1, Sheets 8, 9, and 10**). Design year (2045) noise levels for the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 149 residences; therefore, noise barriers were re-evaluated at this location. The

number of impacted residences within CNE W1 does not include a single family residence proposed to be relocated to accommodate the proposed replacement of the pedestrian overpass in the vicinity of Station 935+00.

The revised optimal conceptual noise barrier design recommended at this location is different from the one recommended during the 2018 I-95 Express Lanes PD&E Study (see **Table 3.2-1**). Due to a reduction in right-of-way requirements, 930 feet of the existing 5,700-foot long ground mounted noise barriers will no longer be physically impacted by the proposed improvements or need to be replaced. The revised optimal conceptual design recommended at this location includes 3,670 feet of existing 19.5 to 20-foot tall ground mounted noise barriers (IDs: 72280-3424 I-95 C and 72280-3424 I-95 F), replacement of 2,030 feet of existing noise barriers, 340 and 240 foot extensions of the ground mounted noise barriers, and two supplemental 8-foot tall shoulder mounted noise barriers along I-95 southbound outside shoulder extending south (i.e., 1,800 feet) and north (i.e., 1,060) of the existing ground mounted noise barriers. The revised optimal noise barrier would benefit the 155 residences, including 132 of the 149 impacted residences and would provide an average noise reduction of 7.4 dB(A) with a maximum noise reduction of 12.9 dB(A). The estimated construction cost of the new noise barrier segments is \$2,404,500. The average cost per benefited receptor site with total cost of the revised optimal conceptual design including the existing noise barrier (i.e., \$4,576,950) is \$29,529 per benefited residence. Therefore, the revised optimal conceptual noise barrier design for CNE W1 meets the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site and is recommended for further consideration and public input during the project's design phase. The view of one non-conforming outdoor advertising sign (BM800) is potentially blocked by noise barrier system CNE W1.

3.2.1.6 Common Noise Environment/Noise Barrier System W2

Common Noise Environment/Noise Barrier System W2 encompasses the impacted noise sensitive sites along the west side of I-95 from Emerson Street to Atlantic Boulevard (see **Figure 3-1, Sheets 11 and 12**). Design year (2045) noise levels for the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 64 residences; therefore, noise barriers were re-evaluated at this location. The number of impacted residences within CNE W2 does not include the ten single family residences proposed to be relocated to accommodate two of the proposed pond sites (i.e., 20A and 23B).

The revised optimal conceptual noise barrier design recommended at this location is different from the one recommended during the 2018 I-95 Express Lanes PD&E Study (see **Table 3.2-1**). Due to a reduction in right-of-way requirements, 1,660 feet of the existing 2,270-foot long ground mounted noise barriers will no longer be physically impacted by the proposed



improvements or need to be replaced. The revised optimal conceptual design recommended at this location includes 1,660 feet of existing 18 to 20-foot tall ground mounted noise barriers (IDs: 72280-3424 I-95 J and 213217-2 I-95 B), replacement of 610 feet of existing noise barriers, 390 and 110 foot extensions of the ground mounted noise barriers, and a supplemental 8-foot tall shoulder mounted noise barrier along I-95 southbound outside shoulder extending north (i.e., 1,400 feet) of the existing ground mounted noise barrier. The revised optimal noise barrier would benefit 60 residences, including 58 of the 64 impacted residences and would provide an average noise reduction of 7.4 dB(A) with a maximum noise reduction of 12.2 dB(A). The estimated construction cost of the new noise barrier segments is \$1,062,600. The average cost per benefited receptor site with total cost of the revised optimal conceptual design including the existing noise barrier (i.e., \$1,990,200) is \$33,060 per benefited residence. Therefore, the revised optimal conceptual noise barrier design for CNE W2 meets the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site and is recommended for further consideration and public input during the project's design phase. The views of seven outdoor advertising signs at four locations are potentially blocked by noise barrier system CNE W2. Of the seven outdoor advertising signs, there is one single sided non-conforming sign (No Tag Number), and three double sided non-conforming signs (BM733/BM734, BN797/BN798, and CK441/BM976).

It should be noted that the revised optimal conceptual noise barrier design for CNE W2 minimizes the potential to block the view of two non-conforming signs (i.e., BM773/BM734 and the one with no tag number) located at the south end of the recommended noise barrier. The 390 foot extension of the ground mounted noise barrier is proposed to be located on the north and west sides of the proposed pond site 20A versus along the existing right-of-way line (see Figure 3-1 Sheets 11 of 13).

3.2.2 Bowden Farms Subdivision - CNE SW1

Common Noise Environment SW1 encompasses the residences within the Bowden Farms Subdivision located on the west side of I-95 between Bowden Road and University Boulevard (see **Figure 3-1 Sheet 7 in Appendix C**). Within this residential community, the predicted design year (2045) noise levels with the proposed improvements ranged from 70.7 dB(A) to 71.8 dB(A) (**Table 3-1 in Appendix E**). With the Design Change Build Alternative (Mainline GU Lanes), three residences are predicted to be impacted by design year (2045) traffic noise. Since the design year noise levels at these sites approached, met, or exceeded the NAC of 67 dB(A), noise barriers were considered as a noise abatement measure at these residences. One of the three single family residences represented by Receptor Site BF3 represents an isolated residence, therefore, noise barriers were not considered acoustically feasible at this location. For a noise barrier to be considered an acoustically feasible abatement measure, it must benefit at least two impacted receptor sites. For the above reason, noise barriers were not recommended for this impacted residence.

The results of the noise barrier analysis for the other two impacted residences (i.e., BF1 and BF2) are summarized in **Table 3.2.2-1**. Only one conceptual noise barrier design (i.e., BF-CD1) was evaluated at this location. BF-CD1 represents an 8-foot-tall shoulder mounted noise barrier starting at Station 880+00 and continues to Station 888+00 for a length of 800 feet. An 8-foot tall shoulder mounted noise barrier was considered the only viable option at this location. The two impacted residences are located in the vicinity of Bowden Road overpass and along a segment of I-95 with MSE walls proposed. The maximum height of shoulder mounted noise barriers is limited to 8 feet on bridges, retaining walls, and MSE walls. The elevation of the I-95 lanes over Bowden Road limits the effectiveness and use of a ground mounted noise barrier along the right-of-way line in this area.

The conceptual noise barrier designs evaluated at this location (i.e., BF-CD1) did not meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited site and did not meet the reasonable cost criteria of equal to or less than \$42,000 per benefited receptor site. In addition, neither receptor sites receive greater than 5 dB(A) of noise reduction from this conceptual barrier design. Therefore, noise barriers are not considered reasonable at this location since they do not meet FDOT's required cost criteria or reduction design goal. Therefore, noise barriers are not recommended for further consideration at this location.

3.2.3 Center Point Business Park North - CNE SW2

Common Noise Environment SW2 represents the exterior area of use associated with an office building within the northern portion of the Center Point Business Park located on the west side of I-95 between JTB and Bowden Road (see **Figure 3-1 Sheet 5 in Appendix C**). The exterior area of use includes a picnic table located south of the Autobahn building. The predicted design year noise level with the proposed improvements at this site is 75.4 dB(A) (**Table 3-1 in Appendix E**). Design year noise levels associated with the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 71 dB(A) for sensitive commercial exterior areas (i.e., NAC E) at this site (i.e., Receptor Site CPB3); therefore, a noise barrier was considered as a noise abatement measure at this location.

Four ground mounted conceptual noise barrier designs of varying dimensions were evaluated along the western right-of-way line of I-95 to reduce traffic noise levels at this location. The results of the noise barrier analysis are summarized in **Table 3.2.3-1**. All four conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited site. Of the four conceptual barrier designs evaluated, CP3-CD2 represents one of the lowest cost conceptual barrier designs. Barrier design CP3-CD2 represents an 18-foot-tall ground mounted noise barrier that extends approximately 400 feet, from Station 837+00 to Station 841+00. This barrier would benefit 100 percent of the impacted area,



providing a maximum noise reduction of 7.0 dB(A). The estimated construction cost of this conceptual barrier design is \$216,000.

The FDOT's special land use methodology was used to determine if the cost of conceptual design CP3-CD2 would be reasonable, based on the level of activity expected at this facility. The required daily usage rate (i.e., person-hours per day) for CP3-CD2 is 304 persons per day, each spending a minimum of one hour at outdoor use areas to meet the cost criteria (see **Table 3.2.3-2**). Due to the limited number (i.e., one) and size of the picnic table, it is not reasonable to assume that this area would experience this level of use on a typical day. Based on the noise barrier analysis performed, noise barriers are not considered reasonable at this location since they do not meet FDOT's required cost criteria. Therefore, noise barriers are not recommended for further consideration at this location.

3.2.4 Center Point Business Park South - CNE SW3

Common Noise Environment SW3 represents the exterior area of use associated with an office building within the southern portion of the Center Point Business Park located on the west side of I-95 between JTB and Bowden Road (see **Figure 3-1 Sheet 5 in Appendix C**). The exterior area of use includes two picnic tables located north of the Jackson Lighting building. The predicted design year noise level with the proposed improvements at this site is 75.4 dB(A) (**Table 3-1 in Appendix E**). Design year noise levels associated with the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 71 dB(A) for sensitive commercial exterior areas (i.e., NAC E) at this site (i.e., Receptor Site CPB1); therefore, a noise barrier was considered as a noise abatement measure at this location.

Four ground mounted conceptual noise barrier designs of varying dimensions were evaluated along the western right-of-way line of I-95 to reduce traffic noise levels at this location. The results of the noise barrier analysis are summarized in **Table 3.2.4-1**. All four conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited site. Of the four conceptual barrier designs evaluated, CP1-CD2 represents one of the lowest cost conceptual barrier designs. Barrier design CP1-CD2 represents an 18-foot-tall ground mounted noise barrier that extends approximately 300 feet, from Station 824+00 to Station 827+00. This barrier would benefit 100 percent of the impacted area, providing a maximum noise reduction of 7.1 dB(A). The estimated construction cost of this conceptual barrier design is \$162,000.

The FDOT's special land use methodology was used to determine if the cost of conceptual design CP1-CD2 would be reasonable, based on the level of activity expected at this facility. The required daily usage rate (i.e., person-hours per day) for CP1-CD2 is 228 persons per day, each spending a minimum of one hour at outdoor use areas to meet the cost criteria (see



3.2.5 The Summit at Southpoint - CNE SE1

Common Noise Environment SE1 represents two exterior areas of use associated with four office buildings within The Summit at Southpoint development located between JTB and Bowden Road (see **Figure 3-1 Sheet 6 in Appendix C**). The exterior areas of use include a small pavilion and picnic tables between the two central buildings and a park bench located south of the southern building. The predicted design year noise levels with the proposed improvements at this site range from 68.4 dB(A) to 72.4 dB(A) (**Table 3-1 in Appendix E**). Design year noise levels associated with the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 71 dB(A) for sensitive commercial exterior areas (i.e., NAC E) at two Receptor Sites SS1 and SS2; therefore, a noise barrier was considered as a noise abatement measure at this location.

Four ground mounted conceptual noise barrier designs of varying dimensions were evaluated along the eastern right-of-way line of I-95 to reduce traffic noise levels at this location. The results of the noise barrier analysis are summarized in **Table 3.2.5-1**. Three of the four conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited site. Of the four conceptual barrier designs evaluated, SS-CD2 is the lowest cost conceptual barrier design. Barrier design SS-CD2 represents an 18-foot-tall ground mounted noise barrier that extends approximately 600 feet, from Station 850+50 to Station 856+50. This barrier would benefit 100 percent of the impacted area, providing a maximum noise reduction of 7.6 dB(A). The estimated construction cost of this conceptual barrier design is \$324,000.

The FDOT's special land use methodology was used to determine if the cost of conceptual design SS-CD2 would be reasonable, based on the level of activity expected at this facility. The required daily usage rate (i.e., person-hours per day) for SS-CD2 is 455 persons per day, each spending a minimum of one hour at outdoor use areas to meet the cost criteria (see **Table 3.2.5-2**). Due to the limited number and size of the picnic tables between the two central office buildings, it is not reasonable to assume that this area would experience this level of use on a typical day. Based on the noise barrier analysis performed, noise barriers are not considered reasonable at this location since they do not meet FDOT's required cost criteria. Therefore, noise barriers are not recommended for further consideration at this location.

3.2.6 St. Vincent's Medical Center Recreational Trail - CNE SE2

Common Noise Environment SE2 represents a recreational/fitness trail associated with the St. Vincent's Medical Center located north of JTB and east of Belfort Road. The trail represents a 6-foot wide sidewalk located on the south and east sides of St. Vincent's Medical Center (see **Figure 3-1 Sheet 4 in Appendix C**). The predicted design year noise levels with the proposed improvements along this trail range from 66.2 dB(A) to 69.3 dB(A) (**Table 3-1**



in **Appendix E**). Design year noise levels associated with the Design Change Build Alternative (Mainline GU Lanes) are predicted to approach, meet, or exceed the NAC of 66 dB(A) for recreational areas (i.e., NAC C) at the representative Receptor Sites FT1 through FT4; therefore, a noise barrier was considered as a noise abatement measure at this location.

Five ground mounted conceptual noise barrier designs of varying dimensions were evaluated along the western right-of-way line of I-95 to reduce traffic noise levels at this location. The results of the noise barrier analysis are summarized in **Table 3.2.6-1**. Four of the five conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited site. Of the five conceptual barrier designs evaluated, SV-CD3 represents the optimal cost conceptual barrier design. Barrier design SV-CD3 represents a combination 8-foot tall shoulder mounted barrier extending 200 feet along the outside shoulder of westbound JTB and a 12-foot-tall ground mounted noise barrier that extends approximately 870 feet, from Station 146+00 to Station 24+50 (Belfort Road). This barrier system would benefit 100 percent of the impacted area, providing a maximum noise reduction of 10.2 dB(A). The estimated construction cost of this conceptual barrier design is \$361,200.

The FDOT's special land use methodology was used to determine if the cost of conceptual design SV-CD3 would be reasonable, based on the level of activity expected at this facility. The required daily usage rate (i.e., person-hours per day) for SV-CD3 is 508 persons per day, each spending a minimum of one hour at outdoor use areas to meet the cost criteria (see **Table 3.2.6-2**). Since this trail is associated with a hospital facility and not part of a regional trail system, it is reasonable to assume that this area would not experience this level of use on a typical day. Based on the noise barrier analysis performed, noise barriers are not considered reasonable at this location since they do not meet FDOT's required cost criteria. Therefore, noise barriers are not recommended for further consideration at this location.

Table 3.2-1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study and Design Change Re-evaluation No. 2 (Mainline GU Lanes) (Sheet 1 of 3)

General Location (Cross Streets)	Noise Sensitive Site Name / Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Common Noise Environment Number / Noise Barrier System	2018 I-95 Express Lanes PD&E Study - Noise Barrier Recommendations						Design Change Build Alternative (Mainline GU Lanes) - Noise Barrier Recommendations						Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?	
				Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number											Comments
East of I-95 Between Bowden Road and University Boulevard	Haven Gardens / Residential (Activity Category B)	Yes	E1	Supplemental	Shoulder Mounted	8	400	881+00	885+00	Supplemental	Shoulder Mounted	8	650	880+50	887+00	Limits Extended South due to Design Changes: I-95 Northbound Outside Shoulder on MSE Wall North of Bowden Road	17	17	17	7.6	6.3	\$252,000	\$672,000	\$39,529	Yes	Yes
				Replacement Existing (72280- 3424 I-95 A)	Shoulder Mounted	14	520	885+00	890+20	Existing (72280-3424 I-95 A)	Ground Mounted	20	700	885+00	892+00	Existing Noise Barrier (520 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Existing (72280-3424 I-95 A)	Ground Mounted	20	280	889+20	892+00																	
				---	---	---	---	---	---	Supplemental	Shoulder Mounted	8	400	891+00	895+00	New Supplemental Barrier due to Design Changes: I-95 Northbound Outside Shoulder on MSE Wall										
East of I-95 Between University Boulevard and Emerson Street	Southland, Connors, Englewood, Turners Subdivisions, & Santa Monica / Residential Use Areas (Activity Category B); Faith United Methodist Church / Playground - Recreational (Activity Category C)	Yes	E2	Extension	Ground Mounted	19	350	915+00	918+40	Extension	Ground Mounted	22	350	915+00	918+40	Extension of Existing Ground Mounted Noise Barrier to the South to Provide Abatement to the Entire Neighborhood	63	55	56	12.0	6.7	\$624,000	\$2,351,100	\$41,984	Yes	Yes
				Existing (72280-3424 I-95 B)	Ground Mounted	19	135	918+40	919+50	Existing (72280-3424 I-95 B)	Ground Mounted	19	135	918+40	919+50	---										
				Replacement (Segment 1) Existing (72280-3424 I-95 B)	Ground Mounted	19	100	919+50	920+50	Replacement Existing (72280- 3424 I-95 B)	Ground Mounted	19	100	919+50	920+50	---										
				Existing (72280-3424 I-95 B)	Ground Mounted	19	1,605	920+50	936+30	Existing (72280-3424 I-95 B)	Ground Mounted	19	2,895	920+50	949+20	Existing Noise Barrier (190 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Replacement (Segment 2) Existing (72280-3424 I-95 B)	Ground Mounted	19	190	936+30	938+20																	
				Existing (72280-3424 I-95 B)	Ground Mounted	19	1,100	938+20	949+20																	
				Supplemental	Shoulder Mounted	8	2,100	947+70	968+70	Supplemental	Shoulder Mounted	8	1,400	947+00	960+50	South Limits Modified Slightly due to Design Changes: I-95 Northbound Outside Shoulder on bridges and MSE Walls; Elevated Section of I-95 North and South of Spring Glen Road										
	Southland, Englewood, Spring Park Manor, & Rodney Subdivisions / Residential (Activity Category B)	Yes	E3	---	---	---	---	---	---	Supplemental	Shoulder Mounted	8	750	960+50	968+00	North Limits Modified Slightly due to Design Changes: I-95 Northbound Outside Shoulder on MSE Wall; Elevated Section of I-95 North of Spring Glen Road	59	50	55	11.2	7.3	\$2,000,400	\$2,279,700	\$41,449	Yes	Yes
				Extension	Ground Mounted	19	330	967+00	970+10	Extension	Ground Mounted	22	330	967+00	970+10	Height Increased to 22 feet to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood										
				Existing (72280-3424 I-95 G)	Ground Mounted	19	490	970+10	975+00	Existing (72280-3424 I-95 G)	Ground Mounted	19	490	970+10	975+00	---										
				Replacement (Existing 72280- 3424 I-95 G)	Ground Mounted	19	450	975+00	979+50	Replacement (Existing 72280- 3424 I-95 G)	Ground Mounted	22	450	975+00	979+50	Height Increased to 22 feet to Maximize Benefits										
				Extension	Ground Mounted	19	310	979+50	982+60	Extension	Ground Mounted	22	310	979+50	982+60	Height Increased to 22 feet to Maximize Benefits										
				Replacement (Existing 72280- 3224 I-95 H)	Ground Mounted	19	800	982+60	990+50	Replacement (Existing 72280- 3224 I-95 H)	Ground Mounted	22	800	982+60	990+50	Height Increased to 22 feet to Maximize Benefits										
				Extension	Ground Mounted	19	150	990+50	992+00	Extension	Ground Mounted	22	250	990+50	993+00	Extended 100 feet to the North and Increased Height 22' to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to North to Provide Abatement to the Entire Neighborhood										
				Supplemental	Shoulder Mounted	8	1,840	986+60	1005+00	Supplemental	Shoulder Mounted	8	1,700	987+00	1004+00	South and North Limits Modified Slightly due to Design Changes; Elevated Section of I-95 North and South of Emerson Road; I-95 Northbound Outside Shoulder on Bridge and MSE Walls										

Table 3.2-1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study and Design Change Re-evaluation No. 2 (Mainline GU Lanes) (Sheet 2 of 3)

General Location (Cross Streets)	Noise Sensitive Site Name / Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Common Noise Environment Number / Noise Barrier System	2018 I-95 Express Lanes PD&E Study - Noise Barrier Recommendations						Design Change Build Alternative (Mainline GU Lanes) - Noise Barrier Recommendations						Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?	
				Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number											Comments
West of I-95 Between University Boulevard and Emerson Street	Spring Park Manor, Southland, & Englewood / Residential (Activity Category B)	Yes	W1	Extension	Ground Mounted	20.5	340	915+00	918+40	Extension	Ground Mounted	22	340	915+00	918+40	Height Increased to 22 feet to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood	149	132	155	12.9	7.4	\$2,404,500	\$4,576,950	\$29,529	Yes	Yes
				Existing (72280-3424 I-95 C)	Ground Mounted	20.5	1,790	918+40	936+30	Existing (72280-3424 I-95 C)	Ground Mounted	20.5	1,790	918+40	936+30	---										
					Ground Mounted	19	950	936+30	945+80		Ground Mounted	19	950	936+30	945+80	---										
				Replacement Existing (72280- 3424 I-95 C)	Ground Mounted	19	320	945+80	949+00		Ground Mounted	19	320	945+00	949+00	Existing Noise Barrier (320 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	1,800	948+00	966+00	Supplemental	Shoulder Mounted	8	1,800	948+00	966+00	Elevated Section of I-95 North and South of Spring Glen Road										
				Replacement Existing (72280- 3424 I-95 F)	Ground Mounted	19	2,640	965+50	991+80	Existing (72280-3424 I-95 F)	Ground Mounted	19	425	965+45	969+65	Existing Noise Barrier (425 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
										Replacement Existing (72280- 3424 I-95 F)	Ground Mounted	19	50	969+65	970+15	---										
										Existing (72280-3424 I-95 F)	Ground Mounted	19	185	970+15	972+00	Existing Noise Barrier (185 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
										Replacement Existing (72280- 3424 I-95 F)	Ground Mounted	22	1,980	972+00	991+80	Height Increased to 22 feet to Maximize Benefits										
				Extension	Ground Mounted	19	240	991+80	994+20	Extension	Ground Mounted	22	240	991+80	994+20	Height Increased to 22 feet to Maximize Benefits										
				Supplemental	Shoulder Mounted	8	760	987+40	995+00	Supplemental	Shoulder Mounted	8	1,060	987+40	998+00	Northern Limit Increased by 300 feet due to Design Changes and to Maximize Benefits										
East of I-95 Between Emerson Street and Atlantic Boulevard	Rodney, Spring Park Manor, Rogeros, Belair, Spring Park Terrace, San Diego Terrace, Phillips, Fuller, & Meridale Subdivision / Residential (Activity Category B)	Yes	E4	Extension	Ground Mounted	20	120	995+70	996+90	Extension	Ground Mounted	22	120	995+70	996+90	Height Increase to 22 feet to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood	188	159	183	16.2	7.7	\$2,019,600	\$4,479,600	\$24,479	Yes	Yes
				Replacement Existing (213217-2 I-95 I)	Ground Mounted (Includes 100 foot Gap)	20	3,580	996+90	1032+70	Replacement Existing (213217-2 I-95 I)	Ground Mounted	22	2,140	996+90	1018+34	Amount of Replacement Noise Barrier Reduced by 1,440 feet from 3,580 feet to 2,140 feet; Height Increased to 22 feet to Maximize Benefits										
				Existing (213217-2 I-95 I & I- 95 A)	Ground Mounted	20	530	1032+70	1038+00	Existing (213217-2 I-95 I & I- 95 A)	Ground Mounted	20	1,170	1018+34	1030+04	Existing Noise Barrier (1,170 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
										Extension	Ground Mounted	20	100	1030+04	1031+04	New Noise Barrier Segment to Close Gap in Existing Noise Barriers										
										Existing (213217-2 I-95 A)	Ground Mounted	20	700	1031+04	1038+00	Existing Noise Barrier (170 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	950	1037+00	1046+50	Supplemental	Shoulder Mounted	8	1,950	1029+50	1049+00	Extended South and North due to Design Changes (Proposed Increases in I-95 Roadway Profiles); Elevated Section of I-95 over San Diego Road										
				Existing (213217-2 I-95 B)	Ground Mounted	20	2,230	1045+50	1067+80	Existing (213217-2 I-95 B)	Ground Mounted	20	2,230	1045+50	1067+80	Existing Overland Noise Barrier North of San Diego Road Not to be Modified										

Table 3.2-1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study and Design Change Re-evaluation No. 2 (Mainline GU Lanes) (Sheet 3 of 3)

General Location (Cross Streets)	Noise Sensitive Site Name / Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Common Noise Environment Number / Noise Barrier System	2018 I-95 Express Lanes PD&E Study - Noise Barrier Recommendations						Design Change Build Alternative (Mainline GU Lanes) - Noise Barrier Recommendations						Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?	
				Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number											Comments
West of I-95 Between Emerson Street and Atlantic Boulevard	Belair, Spring Park Terrace, San Diego & San Diego Plaza Subdivisions / Residential (Activity Category B)	Yes	W2	Extension	Ground Mounted	20	400	1007+00	1011+00	Extension	Ground Mounted	22	390	1009+40	1012+85	---	64	58	60	12.2	7.4	\$1,062,000	\$1,983,600	\$33,060	Yes	Yes
				Replacement Existing (72280-3424 I-95 J & I-95 B)	Ground Mounted (Includes 110 foot Gap)	18	2,000	1011+00	1031+00	Replacement	Ground Mounted	22	610	1012+85	1017+00	Amount of Replacement Noise Barrier Reduced by 1,660 feet from 2,270 feet to 610 feet										
						20	380	1031+00	1034+80	Existing (72280-3424 I-95 J)	Ground Mounted	18	1,240	1017+00	1029+44	Existing Noise Barrier (1,240 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
										Extension	Ground Mounted	20	110	1029+44	1030+53	New Noise Barrier Segment to Close Gap in Existing Noise Barriers										
						Existing (213217-2 I-95 B)	Ground Mounted	20	420	1030+53	1034+80	Existing Noise Barrier (420 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement														
				Supplemental	Shoulder Mounted	8	1,400	1034+00	1048+00	Supplemental	Shoulder Mounted	8	1,400	1034+00	1048+00	I-95 Southbound Outside Shoulder on MSE Wall										
Other Locations Evaluated for Noise Barriers (Locations were not Evaluated during I-95 Express Lanes PD&E Study for Traffic Impacts or Noise Barriers)																										
West of I-95 Between Bowden Road and University Boulevard	Bowden Farms Subdivision / Residential (Activity Category B)	No	SW1	---	---	---	---	---	---	New Noise Barrier Analysis	Shoulder Mounted	8	800	880+00	888+00	Represents the optimal conceptual noise barrier design but not recommended for further consideration during the project's design phase; The conceptual design does not meet the 7.0 dB(A) Noise Reduction Design Goal	2	0	0	---	---	\$192,000	---	---	No	No
East of I-95 Between J. Turner Butler Boulevard and Bowden Road	The Summit at Southpoint / Outdoor Use Area (Activity Category E)	No	SE1	---	---	---	---	---	---	New Noise Barrier Analysis	Ground Mounted	18	600	850+50	856+50	Represents the optimal conceptual noise barrier design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	7.6	6.3	\$324,000	---	---	No	No
West of I-95 Between J. Turner Butler Boulevard and Bowden Road	Center Point Business Park - South of Autobahn Building / Outdoor Use Area (Activity Category E)	No	SW2	---	---	---	---	---	---	New Noise Barrier Analysis	Ground Mounted	18	400	837+00	841+00	Represents the optimal conceptual noise barrier design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	7.0	7.0	\$216,000	---	---	No	No
	Center Point Business Park - North of Jackson Lighting Building / Outdoor Use Area (Activity Category E)	No	SW3	---	---	---	---	---	---	New Noise Barrier Analysis	Ground Mounted	18	300	824+00	827+00	Represents the optimal conceptual noise barrier design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	7.1	7.1	\$162,000	---	---	No	No
North of J. Turner Butler Boulevard and East of Belfort Road	St. Vincent's Medical Center / Recreational Trail (Activity Category C)	No	SE2	---	---	---	---	---	---	New Noise Barrier Analysis	Shoulder Mounted	8	200	141+00 (JTB)	143+00 (JTB)	Represents the optimal conceptual noise barrier design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	10.2	7.4	\$361,200	---	---	No	No
				---	---	---	---	---	---		Ground Mounted	12	870	146+00 (JTB)	24+50 (Belfort Road)											
I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 (Financial Project ID Number: 446153-1) - Noise Barrier Recommended for further Consideration in the Project's Design Phase																										
East of I-95 Between Baymeadows Road and Belfort Road	Canopy at Belfort Park Apartments (Activity Category B)	No	CNE E2	---	---	---	---	---	---	Recommended Noise Barrier (PD&E Noise Study Report - September 2020)	Ground Mounted	22	1,190	1036+40	1048+20	Represents the optimal conceptual noise barrier design and is recommended for further consideration and public input during the project's design phase; Meets both FDOT's 7.0 dB(A) Noise Reduction Goal and Reasonable Cost Criteria	30	30	44	9.4	6.9	---	\$785,400	\$17,850	Yes	Yes

Note: Existing noise walls that are physically impacted by the project improvements and proposed to be replaced are highlighted in yellow; Proposed extension of existing noise barriers and supplemental noise barriers are highlighted in green.

Table 3.2.2-1: Noise Barrier Analyses for Bowden Farms Subdivision (Single Family Residential Community)

Conceptual Ground Mounted Noise Barrier Design Number	Noise Barrier Type (Location)	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 Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Cost (\$30 per square foot)	Average Cost/Site Benefited	Comments
Noise Study Area SW1 (Residential Land Use) - West of I-95 between J. Turner Butler Boulevard and Bowden Road / Common Noise Environment SW1 - See Figure 3-1 Sheet 7														
BF-CD1	Shoulder Mounted (I-95 Southbound Outside Shoulder)	8	800	880+00	888+00	2	4.8 (4.9)	0	0	0	---	\$192,000	---	Conceptual barrier design does not meet FDOT's minimum noise reduction design goal of 7 dB(A) and is not recommended for further consideration or public input during the project's design phase

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Table 3.2.3-1: Noise Barrier Analyses for Center Point Business Park (South of Autobahn Building)

Noise Barrier Descriptions						Total Estimated Cost	Maximum Noise Reduction dB(A)	Average Noise Reduction dB(A)	Percent of Impacted Area Benefited	Does Barrier Design Meet 7 dB(A) Reduction Goal At Any Site?	Does Barrier Design Provide 5 dB(A) Reduction For Entire Exterior Area of Use Impacted?	Usage Required to be Cost Reasonable (Person Hours per Day)	Actual Usage Likely to Exceed Required Usage to be Cost Reasonable	Does Barrier Design Meet FDOT's Noise Reduction and Cost Reasonableness Criteria?	Conceptual Noise Barrier Design Recommended for further Consideration and Public Input?
Noise Barrier Conceptual Design	Noise Barrie Type (Location)	Height (Feet)	Length (feet)	Begin Station	End Station										
West of I-95 between J. Turner Butler Boulevard and Bowden Road / Common Noise Environment SW2 (Outdoor Use Area - Picnic Table) - See Figure 3-1 Sheet 5)															
CP3-CD1	Ground Mounted (I-95 Western Right-of-Way Line)	16	450	837+50	842+00	\$216,000	7.0	7.0	100%	YES	YES	304	NO	NO	NO
CP3-CD2	Ground Mounted (I-95 Western Right-of-Way Line)	18	400	837+00	841+00	\$216,000	7.0	7.0	100%	YES	YES	304	NO	NO	NO
CP3-CD3	Ground Mounted (I-95 Western Right-of-Way Line)	20	400	837+50	841+50	\$240,000	7.3	7.3	100%	YES	YES	337	NO	NO	NO
CP3-CD4	Ground Mounted (I-95 Western Right-of-Way Line)	22	400	837+50	841+50	\$264,000	7.0	7.0	100%	YES	YES	371	NO	NO	NO

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Table 3.2.3-2: Conceptual Noise Barrier Design - Usage Analysis for Center Point Business Park (South of Autobahn Building)

Item	Criteria	Actual Usage	Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Input Data)				Units
			Conceptual Noise Barrier Design Number				
			CP3-CD1	CP3-CD2	CP3-CD3	CP3-CD4	
1	Enter Length of Proposed Noise Barrier	---	450	400	400	400	feet
2	Enter Height of Proposed Noise Barrier	---	16	18	20	22	feet
3	Total Square Feet of Proposed Noise Barrier (Multiply item 1 by Item 2)	---	7,200	7,200	8,000	8,800	feet ²
4	Enter the average amount of time that a person stays at the site per visit	Unavailable	---	---	---	---	hours
5	Enter the average number of people that use this site per day that will receive at least 5 dB(A) benefit from abatement at the site	Unavailable	---	---	---	---	persons
6	Total Person Hours per Day Benefited by Noise Barrier (Multiply Item 4 by Item 5 - N/A) - Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Divide Item 3 by 7)	---	304	304	337	371	person-hours
7	Average Square Foot of Noise Barrier per Person Hour (Divide Item 3 by Item 6)	---	23.71	23.71	23.71	23.71	feet ² /person-hours
8	Cost per Person Hour per Square Foot of Noise Barrier (Multiply Item 7 by \$42,000)	N/A	\$995,935	\$995,935	\$995,935	\$995,935	\$/person-hours/ft ²
9	Does item 8 exceed the "abatement cost factor" of: \$995,935/person-hour/ft ² ?	N/A	No	No	No	No	Yes/No
10	If item 9 is no, abatement is cost reasonable.	N/A	N/A	N/A	N/A	N/A	---
11	If item 9 is yes, abatement is not cost reasonable.	N/A	N/A	N/A	N/A	N/A	---

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Source: FDOT Report - A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (2009)

Table 3.2.4-1: Noise Barrier Analyses for Center Point Business Park (North of Jackson Lighting Building)

Noise Barrier Descriptions						Total Estimated Cost	Maximum Noise Reduction dB(A)	Average Noise Reduction dB(A)	Percent of Impacted Area Benefited	Does Barrier Design Meet 7 dB(A) Reduction Goal At Any Site?	Does Barrier Design Provide 5 dB(A) Reduction For Entire Exterior Area of Use Impacted?	Usage Required to be Cost Reasonable (Person Hours per Day)	Actual Usage Likely to Exceed Required Usage to be Cost Reasonable	Does Barrier Design Meet FDOT's Noise Reduction and Cost Reasonableness Criteria?	Conceptual Noise Barrier Design Recommended for further Consideration and Public Input?
Noise Barrier Conceptual Design	Noise Barrie Type (Location)	Height (Feet)	Length (feet)	Begin Station	End Station										
West of I-95 between J. Turner Butler Boulevard and Bowden Road / Common Noise Environment SW3 (Outdoor Use Area - Two Picnic Tables) - See Figure 3-1 Sheet 5)															
CP1-CD1	Ground Mounted (I-95 Western Right-of-Way Line)	16	350	824+00	827+50	\$168,000	7.0	7.0	100%	YES	YES	236	NO	NO	NO
CP1-CD2	Ground Mounted (I-95 Western Right-of-Way Line)	18	300	824+00	827+00	\$162,000	7.1	7.1	100%	YES	YES	228	NO	NO	NO
CP1-CD3	Ground Mounted (I-95 Western Right-of-Way Line)	20	300	824+00	827+00	\$180,000	7.3	7.3	100%	YES	YES	258	NO	NO	NO
CP1-CD4	Ground Mounted (I-95 Western Right-of-Way Line)	22	300	824+00	827+00	\$198,000	7.5	7.5	100%	YES	YES	278	NO	NO	NO

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Table 3.2.4-2: Conceptual Noise Barrier Design - Usage Analysis for Center Point Business Park (North of Jackson Lighting Building)

Item	Criteria	Actual Usage	Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Input Data)				Units
			Conceptual Noise Barrier Design Number				
			CP3-CD1	CP3-CD2	CP3-CD3	CP3-CD4	
1	Enter Length of Proposed Noise Barrier	---	350	300	300	300	feet
2	Enter Height of Proposed Noise Barrier	---	16	18	20	22	feet
3	Total Square Feet of Proposed Noise Barrier (Multiply item 1 by Item 2)	---	5,600	5,400	6,000	6,600	feet ²
4	Enter the average amount of time that a person stays at the site per visit	Unavailable	---	---	---	---	hours
5	Enter the average number of people that use this site per day that will receive at least 5 dB(A) benefit from abatement at the site	Unavailable	---	---	---	---	persons
6	Total Person Hours per Day Benefited by Noise Barrier (Multiply Item 4 by Item 5 - N/A) - Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Divide Item 3 by 7)	---	236	228	253	278	person-hours
7	Average Square Foot of Noise Barrier per Person Hour (Divide Item 3 by Item 6)	---	23.71	23.71	23.71	23.71	feet ² /person-hours
8	Cost per Person Hour per Square Foot of Noise Barrier (Multiply Item 7 by \$42,000)	N/A	\$995,935	\$995,935	\$995,935	\$995,935	\$/person-hours/ft ²
9	Does item 8 exceed the "abatement cost factor" of: \$995,935/person-hour/ft ² ?	N/A	No	No	No	No	Yes/No
10	If item 9 is no, abatement is cost reasonable.	N/A	N/A	N/A	N/A	N/A	---
11	If item 9 is yes, abatement is not cost reasonable.	N/A	N/A	N/A	N/A	N/A	---

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Source: FDOT Report - A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (2009)

Table 3.2.5-1: Noise Barrier Analyses for The Summit at Southpoint (Office Buildings)

Noise Barrier Descriptions						Total Estimated Cost	Maximum Noise Reduction dB(A)	Average Noise Reduction dB(A)	Percent of Impacted Area Benefited	Does Barrier Design Meet 7 dB(A) Reduction Goal At Any Site?	Does Barrier Design Provide 5 dB(A) Reduction For Entire Exterior Area of Use Impacted?	Usage Required to be Cost Reasonable (Person Hours per Day)	Actual Usage Likely to Exceed Required Usage to be Cost Reasonable	Does Barrier Design Meet FDOT's Noise Reduction and Cost Reasonableness Criteria?	Conceptual Noise Barrier Design Recommended for further Consideration and Public Input?
Noise Barrier Conceptual Design	Noise Barrie Type (Location)	Height (Feet)	Length (feet)	Begin Station	End Station										
East of I-95 between J. Turner Butler Boulevard and Bowden Road / Common Noise Environment ES1 (Outdoor Use Area - Picnic & Benches Tables) - See Figure 3-1 Sheet 6)															
SS-CD1	Ground Mounted (I-95 Eastern Right-of-Way Line)	16	1,300	846+00	859+00	\$624,000	6.6	6.4	100%	YES	YES	877	NO	NO	NO
SS-CD2	Ground Mounted (I-95 Eastern Right-of-Way Line)	18	600	850+50	856+50	\$324,000	7.6	6.3	100%	YES	YES	455	NO	NO	NO
SS-CD3	Ground Mounted (I-95 Eastern Right-of-Way Line)	20	550	851+00	856+50	\$330,000	7.6	6.5	100%	YES	YES	464	NO	NO	NO
SS-CD4	Ground Mounted (I-95 Eastern Right-of-Way Line)	22	500	851+00	856+00	\$330,000	8.3	6.7	100%	YES	YES	464	NO	NO	NO

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Table 3.2.5-2: Conceptual Noise Barrier Design - Usage Analysis for The Summit at Southpoint (Office Buildings)

Item	Criteria	Actual Usage	Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Input Data)				Units
			Conceptual Noise Barrier Design Number				
			SS-CD1	SS-CD2	SS-CD3	SS-CD4	
1	Enter Length of Proposed Noise Barrier	---	1,300	600	550	500	feet
2	Enter Height of Proposed Noise Barrier	---	16	18	20	22	feet
3	Total Square Feet of Proposed Noise Barrier (Multiply item 1 by Item 2)	---	20,800	10,800	11,000	11,000	feet ²
4	Enter the average amount of time that a person stays at the site per visit	Unavailable	---	---	---	---	hours
5	Enter the average number of people that use this site per day that will receive at least 5 dB(A) benefit from abatement at the site	Unavailable	---	---	---	---	persons
6	Total Person Hours per Day Benefited by Noise Barrier (Multiply Item 4 by Item 5 - N/A) - Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Divide Item 3 by 7)	---	877	455	464	464	person-hours
7	Average Square Foot of Noise Barrier per Person Hour (Divide Item 3 by Item 6)	---	23.71	23.71	23.71	23.71	feet ² /person-hours
8	Cost per Person Hour per Square Foot of Noise Barrier (Multiply Item 7 by \$42,000)	N/A	\$995,935	\$995,935	\$995,935	\$995,935	\$/person-hours/ft ²
9	Does item 8 exceed the "abatement cost factor" of: \$995,935/person-hour/ft ² ?	N/A	No	No	No	No	Yes/No
10	If item 9 is no, abatement is cost reasonable.	N/A	N/A	N/A	N/A	N/A	---
11	If item 9 is yes, abatement is not cost reasonable.	N/A	N/A	N/A	N/A	N/A	---

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Source: FDOT Report - A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (2009)

Table 3.2.6-1: Noise Barrier Analyses for St. Vincent's Medical Center (Recreational Trail)

Noise Barrier Descriptions						Total Estimated Cost	Maximum Noise Reduction dB(A)	Average Noise Reduction dB(A)	Percent of Impacted Area Benefited	Does Barrier Design Meet 7 dB(A) Reduction Goal At Any Site?	Does Barrier Design Provide 5 dB(A) Reduction For Entire Exterior Area of Use Impacted?	Usage Required to be Cost Reasonable (Person Hours per Day)	Actual Usage Likely to Exceed Required Usage to be Cost Reasonable	Does Barrier Design Meet FDOT's Noise Reduction and Cost Reasonableness Criteria?	Conceptual Noise Barrier Design Recommended for further Consideration and Public Input?
Noise Barrier Conceptual Design	Noise Barrie Type (Location)	Height (Feet)	Length (feet)	Begin Station	End Station										
North of J. Turner Butler Boulevard and East of Befort Road / Common Noise Environment ES2 (Outdoor Use Area - Recreational Trail) - See Figure 3-1 Sheet 4)															
SV-CD1	Shoulder Mounted (JTB Westbound Outside Shoulder)	8	900	136+00	145+00	\$216,000	2.6	1.6	0%	NO	NO	304	NO	NO	NO
SV-CD2	Ground Mounted (JTB Northern Right-of-Way Line)	12	870	146+00	24+50 (Belfort Road)	\$313,200	9.1	7.4	75%	YES	NO	440	NO	NO	NO
SV-CD3	Shoulder Mounted (JTB Westbound Outside Shoulder)	8	200	141+00	143+00	\$361,200	10.2	7.4	100%	YES	YES	508	NO	NO	NO
	Ground Mounted (JTB Northern Right-of-Way Line)	12	870	146+00	24+50 (Belfort Road)										
SV-CD4	Ground Mounted (JTB Northern Right-of-Way Line)	14	870	146+00	24+50 (Belfort Road)	\$365,400	9.9	8.4	75%	YES	NO	514	NO	NO	NO
SV-CD5	Ground Mounted (JTB Northern Right-of-Way Line)	16	870	146+00	24+50 (Belfort Road)	\$417,600	10.2	8.0	100%	YES	YES	587	NO	NO	NO

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Table 3.2.6-2: Conceptual Noise Barrier Design - Usage Analysis for St. Vincent's Medical Center (Recreational Trail)

Item	Criteria	Actual Usage	Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Input Data)						Units
			Conceptual Noise Barrier Design Number						
			SV-CD1	SV-CD2	SV-CD3 (Shoulder / Ground Mounted)		SV-CD4	SV-CD5	
1	Enter Length of Proposed Noise Barrier	---	900	870	200	870	870	870	feet
2	Enter Height of Proposed Noise Barrier	---	8	12	8	12	14	16	feet
3	Total Square Feet of Proposed Noise Barrier (Multiply item 1 by Item 2)	---	7,200	10,440	12,040		12,180	13,920	feet ²
4	Enter the average amount of time that a person stays at the site per visit	Unavailable	---	---	---		---	---	hours
5	Enter the average number of people that use this site per day that will receive at least 5 dB(A) benefit from abatement at the site	Unavailable	---	---	---		---	---	persons
6	Total Person Hours per Day Benefited by Noise Barrier (Multiply Item 4 by Item 5 - N/A) - Minimum Usage Required to Meet FDOT's Cost Reasonableness Criteria (Divide Item 3 by 7)	---	304	440	508		514	587	person-hours
7	Average Square Foot of Noise Barrier per Person Hour (Divide Item 3 by Item 6)	---	23.71	23.71	23.71		23.71	23.71	feet ² /person-hours
8	Cost per Person Hour per Square Foot of Noise Barrier (Multiply Item 7 by \$42,000)	N/A	\$995,935	\$995,935	\$995,935		\$995,935	\$995,935	\$/person-hours/ft ²
9	Does item 8 exceed the "abatement cost factor" of: \$995,935/person-hour/ft ² ?	N/A	No	No	No		No	No	Yes/No
10	If item 9 is no, abatement is cost reasonable.	N/A	N/A	N/A	N/A		N/A	N/A	---
11	If item 9 is yes, abatement is not cost reasonable.	N/A	N/A	N/A	N/A		N/A	N/A	---

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Source: FDOT Report - A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (2009)

4.0 Outdoor Advertising

Florida Law requires consideration of the potential to construct a noise barrier that might block the motorist's view of an existing, conforming, and legally permitted outdoor advertising sign. As described in **Section 3.2**, there are outdoor advertising signs located in the vicinity of six of the seven noise barrier systems recommended for further consideration in the design phase and public input (CNEs E1 through E4, W1, and W2). The location of the existing outdoor advertising signs within the project study limits are shown in **Figure 3-1**. **Table 4-1** summarizes the information for each of these signs including the Tag and Permit Numbers, owner, location (latitude and longitude), the sign status (i.e., conforming or non-conforming), and whether the view of the sign by a motorist is potentially blocked by a recommended noise barrier. The sign information presented in **Table 4-1** is from FDOT's Outdoor Advertising database (June 2019). Of the outdoor advertising signs within the project limits, three double sided (BW904/BW905, CH754/CH755, and BJ061/BJ062) and one single sided (BW078) conforming outdoor advertising signs may potentially be blocked from the motorist's view by three of the recommended noise barrier systems (CNEs E1, E2, and E3).

In accordance with the Right-of-Way Manual Topic No. 575-000-000, the information found in **Table 4-1** will be provided to the District Outdoor Advertising section of the Office of Right-of-Way in order to identify the outdoor advertising signs affected by any of the recommended noise barriers. Outdoor advertising signs that are legally permitted, conforming, and erected may increase the height of the sign if visibility is blocked due to the construction of a noise barrier, consistent with Section 479.25, Florida Statutes. This statute requires the FDOT to notify a local government, or local jurisdiction, before erecting a noise barrier that will block a lawfully permitted sign. The local government, or local jurisdiction, is then required to notify the FDOT if increasing the height of an outdoor advertising sign will violate any local ordinance or land development regulation of the local government. When the notice has been received from the local government or local jurisdiction, and prior to the erection of the noise barrier, the FDOT shall inform all property owners identified as impacted by highway noise, and who may benefit from the proposed noise attenuation barrier, as part of a written survey, that:

1. Erection of a specific noise barrier may block the visibility of an existing outdoor advertising sign;
 2. The local government or local jurisdiction may restrict or prohibit increasing the height of the existing outdoor advertising sign to make it visible over the noise barrier;
- and



Table 4-1: Outdoor Advertising Signs within the I-95 Express Lanes Design Change Re-evaluation Project Limits

Tag Number	Permit Number	Owner Name	Latitude	Longitude	Station / Location	Status	View Potentially Blocked by a Recommended Noise Barrier? (Noise Barrier System/Common Noise Environment)
CG757	2883	SLG INVESTMENTS	30.250743	-81.595461	812+00 / East	CONFORMING	NO
CG758	2884	SLG INVESTMENTS	30.250743	-81.595461	812+00 / East	CONFORMING	NO
BP871	1549	NEXT OUTDOOR L C	30.252751	-81.597848	825+00 / East	CONFORMING	NO
BP921	1784	CLEAR CHANNEL OUTDOOR - JAX	30.262759	-81.607479	869+30 / East	CONFORMING	NO
BP922	1770	CLEAR CHANNEL OUTDOOR - JAX	30.262759	-81.607479	869+30 / East	CONFORMING	NO
BM975	1670	CLEAR CHANNEL OUTDOOR - JAX	30.265049	-81.608972	880+50 / East	NON-CONFORMING	YES (E1)
CL495	1669	CLEAR CHANNEL OUTDOOR - JAX	30.265049	-81.608972	880+50 / East	NON-CONFORMING	YES (E1)
BN735	4716	OUTFRONT MEDIA LLC	30.265374	-81.609300	882+00 / West	CONFORMING	NO
BN736	4717	OUTFRONT MEDIA LLC	30.265374	-81.609300	882+00 / West	CONFORMING	NO
BW078	50756	CLEAR CHANNEL OUTDOOR - JAX	30.265027	-81.608746	882+60 / East	NON-CONFORMING	YES (E1)
BW904	4739	CLEAR CHANNEL OUTDOOR - JAX	30.268432	-81.611690	895+50 / East	CONFORMING	YES (E1)
BW905	4738	CLEAR CHANNEL OUTDOOR - JAX	30.268432	-81.611690	895+50 / East	CONFORMING	YES (E1)
CH754	56013	CLEAR CHANNEL OUTDOOR - JAX	30.271913	-81.613761	911+00 / East	CONFORMING	POTENTIALLY FOR I-95 SOUTHBOUND (E2)
CH755	56014	CLEAR CHANNEL OUTDOOR - JAX	30.271913	-81.613761	911+00 / East	CONFORMING	POTENTIALLY FOR I-95 SOUTHBOUND (E2)
BP887	144	CLEAR CHANNEL OUTDOOR - JAX	30.285583	-81.624118	969+70 / East	NON-CONFORMING	YES (E3)
BI989	4709	CLEAR CHANNEL OUTDOOR - JAX	30.285583	-81.624118	969+70 / East	NON-CONFORMING	YES (E3)
No Tag Number	---	---	---	---	981+30 / East	NON-CONFORMING	YES (E3)
BJ061	145	B & B OUTDOOR ADV	30.288240	-81.626741	982+90 / East	CONFORMING	YES (E3)
BJ062	1685	B & B OUTDOOR ADV	30.288240	-81.626741	982+90 / East	CONFORMING	YES (E3)
BM800	152	B & B OUTDOOR ADV	30.290493	-81.629677	994+10 / West	NON-CONFORMING	YES (W1)
No Tag Number	---	---	---	---	1007+50 / West	NON-CONFORMING	YES (W2)
BM733	150	OUTFRONT MEDIA LLC	30.293030	-81.632517	1008+90 / West	NON-CONFORMING	YES (W2)
BM734	151	OUTFRONT MEDIA LLC	30.293030	-81.632517	1008+90 / West	NON-CONFORMING	YES (W2)
BN797	2373	OUTFRONT MEDIA LLC	30.297346	-81.637154	1030+00 / West	NON-CONFORMING	YES (W2)
BN798	2372	OUTFRONT MEDIA LLC	30.297346	-81.637154	1030+00 / West	NON-CONFORMING	YES (W2)
CK441	1543	CLEAR CHANNEL OUTDOOR - JAX	30.297348	-81.637149	1035+50 / West	NON-CONFORMING	YES (W2)
BM976	1541	CLEAR CHANNEL OUTDOOR - JAX	30.297348	-81.637149	1035+50 / West	NON-CONFORMING	YES (W2)
BP981	147	CLEAR CHANNEL OUTDOOR - JAX	30.300095	-81.639747	1042+25 / East	NON-CONFORMING	YES (E4)
BP686	8657	OUTFRONT MEDIA LLC	30.303434	-81.644284	1061+80 / West	CONFORMING	NO
BP687	8658	OUTFRONT MEDIA LLC	30.303434	-81.644284	1061+80 / West	CONFORMING	NO

X:\P\Noise_Studies\I-95_JT8toAtlantic_D2\Revaluation\ODA_Signs\Table_4-1_ODA_10-24-2020.xlsx\ODA_Details_9-8-2020

Source: FDOT’s Outdoor Advertising Database (June 2019).

3. If a majority of the impacted property owners vote for the construction of the noise barrier, the local government or local jurisdiction will be required to:
 - a. Allow an increase in the height of the sign in violation of a local ordinance or land development regulation;
 - b. Allow the sign to be relocated or reconstructed at another location if the sign owner agrees; or
 - c. Pay the fair market value of the sign and its associated interest in the real property.

The statute also requires the FDOT to hold a Public Hearing within the boundaries of the affected local government or local jurisdiction in order to receive input on any proposed noise barriers potentially conflicting with the local ordinances or land development regulations, and to suggest, or consider, alternatives, or modifications, to the proposed noise barriers in order to alleviate, or minimize, the conflict with the local ordinances or land development regulations, or minimize any costs associated with relocation, reconstructing, or paying for the affected outdoor advertising sign. Alternatives or modifications to proposed noise barriers that will not provide the minimum 5 dB(A) reduction will not be considered.

The written survey materials shall inform the affected property owners of the location, date, and time of the Public Hearing. A general notice of the Public Hearing shall also be published in a newspaper in accordance with the notice provision of Section 335.02(1), Florida Statutes and contain the same information provided in the written survey materials.

The FDOT shall not construct a noise barrier that screens or blocks the visibility of a lawfully permitted outdoor advertising sign until after the Public Hearing is held and the numerical majority of the impacted property owners have approved the construction of the noise barrier. If the construction of the noise barrier is approved, the FDOT shall notify the local governments or local jurisdictions. The local governments or local jurisdictions shall then exercise one of the options listed above.

The FDOT has corresponded with the City of Jacksonville on February 16, 2021 in regards to the obstruction of conforming outdoor advertising signs. This correspondence is located in the SWEPT project file.



5.0 Conclusion

A traffic noise study was conducted to update the noise analysis completed for the 2018 I-95 Express Lanes PD&E Study. The main purpose of the current noise study is to document the changes in traffic noise impacts and the preliminary noise abatement commitments associated with the proposed Design Change Build Alternative (Mainline GU Lanes). The noise study was performed in accordance with FDOT's PD&E Manual, Part 2, Chapter 18, *Highway Traffic Noise* (July 1, 2020), FDOT's *Traffic Noise Modeling and Analysis Practitioners Handbook* (December 31, 2018), and Title 23 of the Code of Federal Regulations, Part 772 (23 CFR 772), *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 13, 2010). The methodology used is consistent with that used for the 2018 I-95 Express Lanes PD&E Noise Study.

Consistent with the 2018 I-95 Express Lanes PD&E Noise Study, the FHWA's TNM 2.5 was used to predict future design year (2045) traffic noise levels for the Design Change Re-evaluation No. 2 (Mainline GU Lanes) noise study. The design year (2045) traffic noise levels with the Design Change Build Alternative (Mainline GU Lanes) incorporated into the project's preliminary design concept, will approach, meet, or exceed the NAC at 573 residences (NAC B) and at nine non-residential/special land use sites (NACs C and E) as summarized in **Table 3.1-1**. The number of noise sensitive sites impacted with the Design Change Build Alternative (Mainline GU Lanes) is slightly higher compared to the 2018 I-95 Express Lanes PD&E Noise Study. The number of residences impacted increase by 27 from 546 to 573 without including the 28 residential relocations. If the residential relocations are included, the total number of impacted residences would be 601 versus the 546 impacted residences associated with the 2018 PD&E Approved Alternative. The number of special land uses/non-residential land uses impacted increase by seven from two to nine.

The increases in impacts to noise sensitive sites with Design Change Build Alternative (Mainline GU Lanes) are mainly associated with the extension of the noise study analysis limits to include the areas along I-95 from south of JTB to Bowden Road and along JTB from Bonneval Road to east of Belfort Road. The proposed stormwater ponds and the increase in the I-95 roadway vertical profile over San Diego Road contributed to higher predicted traffic noise levels and additional noise impacted sites associated with the Design Change Build Alternative (Mainline GU Lanes). With the proposed stormwater pond sites and higher I-95 roadway elevations, the traffic noise levels are higher since the amount of ground attenuation occurring between I-95 and the receptor sites is less compared to the default TNM 2.5 ground type of lawn used in the 2018 I-95 Express Lanes PD&E Noise Study. It should be noted that the predicted noise levels at some locations decreased due to changes and reduction in width



of the proposed typical section of I-95 associated with the Design Change Build Alternative (Mainline GU Lanes) that shifted some of the traffic away from adjacent noise sensitive sites.

In accordance with FHWA and FDOT policies, the feasibility and reasonableness of noise barriers were considered for the 573 residences and nine non-residential/special land use sites impacted with the Design Change Build Alternative (Mainline GU Lanes). Of these impacted sites, 540 residences and two special land use sites are located within the noise study limits of the 2018 I-95 Express Lanes PD&E Study (i.e., along I-95 between Bowden Road and Atlantic Boulevard) and within six CNEs where noise barriers were recommended for further consideration in the project design phase. Four of the CNEs are located along the east side of I-95 (E1 through E4) and two CNEs are located along the west side of I-95 (W1 and W2). To facilitate comparisons, the six noise barrier systems recommended for further consideration in the 2018 I-95 Express Lanes PD&E Noise Study were reevaluated as part of this Design Change Re-evaluation No. 2 (Mainline GU Lanes). Noise barriers were also evaluated for the seven impacted special land use sites (CNEs SW2, SW3, SE1, SE2, E4, W3, and W4) and 33 residences within two residential areas (CNEs SW1 and E2/Canopy at Belfort Park Apartments) located within the extended noise analysis limits associated with the Design Change Re-evaluation No. 2 (Mainline GU Lanes). These other impacted sites are located south along I-95 from north of Bowden Road to the south of JTB and along JTB from Bonneval Road to east of Belfort Road. The noise sensitive sites in these two areas were outside the noise study limits of the 2018 I-95 Express Lanes PD&E Study and were not assessed for traffic noise impacts or considered for noise barriers.

The revised conceptual designs of the six recommended noise barrier systems based on the Design Change Build Alternative (Mainline GU Lanes) and for those recommended in the 2018 I-95 Express Lanes PD&E Study are summarized in **Table 3.2-1**. The noise barrier analysis performed for the impacted sites within the extended noise analysis limits are also summarized in **Table 3.2-1**. The six noise barrier systems recommended in the 2018 I-95 Express Lanes PD&E Study for CNEs E1 through E4, W1, and W2 were modified based on the design changes associated with the Design Change Build Alternative (Mainline GU Lanes). With the reduction in the I-95 typical section width associated with the Design Change Build Alternative (Mainline GU Lanes), less of the 19,780 feet of existing noise barriers would be physically impacted and need to be replaced. The amount of replacement noise barriers required with the Design Change Build Alternative (Mainline GU Lanes) is ~6,130 feet compared to ~10,600 feet required with the 2018 PD&E Approved Alternative (i.e., 4,470 feet less). Also, to maximize the amount of noise reduction and where practical, the height of the replacement ground mounted noise barriers was increased up to 22 feet versus matching the height of the existing noise barrier heights that are less than 22 feet.



Noise barriers were determined to be feasible and cost reasonable for CNEs E1 through E4, W1, and W2 and are recommended for further consideration during the design phase and for public input. The six recommended conceptual noise barrier designs meet FDOT's noise abatement cost criteria (i.e., equal to or less than \$42,000 per benefited receptor site) and noise reduction reasonableness criteria of 7 dB(A) at one or more receptor sites. The six recommended noise barrier systems are expected to reduce traffic noise by at least 5 dB(A) at 526 residences including 471 of the 540 impacted residences and at both of the impacted special land use sites (i.e., the playground associated with the Faith Methodist Church and the City of Jacksonville Park) within these six CNEs. In comparison, the six 2018 I-95 Express Lanes PD&E Study recommended noise barrier systems were expected to reduce traffic noise by at least 5 dB(A) at 547 residences including 484 of the 546 impacted residences and at both of the impacted special land use sites.

Noise barriers were not determined to be feasible and reasonable for the seven impacted special land use sites: Center Point Business Park (CNEs SW2 and SW3), The Summit at Southpoint (CNE SE1), St. Vincent's Medical Center (CNE SE2), Concourse Business Park (CNE E3), and JP Morgan Chase South (CNE W3) and North Buildings (CNE W4). Noise barriers at these special land use sites are unable to meet the minimum required daily usage rate (i.e., person-hours per day) needed for the conceptual noise barrier designs to be considered cost reasonable or meet the minimum noise reduction design goal of 7 dB(A). Therefore, noise barriers are not recommended for further consideration at these seven special land use sites (i.e., CNEs SW2, SW3, SE1, SE2, E3, W3, and W4).

Noise barriers were not found to be a feasible or reasonable abatement measure for the three impacted residences within Bowden Farms Subdivision (CNE SW1). The optimal conceptual noise barrier design did not meet the minimum noise reduction design goal of 7 dB(A) for at least one impacted residence. In addition, one of the three impacted single family residences represent an isolated residence. For a noise barrier to be considered an acoustically feasible abatement measure, it must benefit at least two impacted receptor sites. For the above reason, noise barriers were not recommended for the impacted residences in this community.

Noise barriers were determined to be feasible and cost reasonable for the 30 multi-family residences impacted within the Canopy at Belfort Park Apartments (CNE E2) as part of two other PD&E Studies: I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 (Financial Project ID No.: 446153-1) and the I-95 PD&E Study from I-295 (SR 9A) to SR 202 (JTB) (Financial Project ID No.: 435577-1). Noise Study Reports from these two PD&E studies summarize the results and recommendations of the noise analysis for the I-95 segment south of JTB. The previous noise studies found noise barriers to be a feasible and reasonable abatement measure at this location. The recommended conceptual noise



barrier design at this location met FDOT's noise abatement cost criteria (i.e., equal to or less than \$42,000 per benefited receptor site) and noise reduction reasonableness criteria of 7 dB(A) at one or more impacted sites (see **Table 4-1 in Appendix F**). Therefore, noise barriers were recommended to be further evaluated during the design phase and public input at this location (i.e., E2/Canopy at Belfort Park Apartments). Since these two other PD&E Studies incorporated the improvements associated with the Design Change Build Alternative (Mainline GU Lanes) and FDOT committed to the construction of feasible and reasonable noise abatement measures at this location (i.e., CNE E2/Canopy at Belfort Park Apartments) during the final design phase, additional noise impact assessment and noise barrier analysis were not considered warranted until the project's design phase.

Based on the noise analyses performed to date, there appears to be no apparent solutions available to mitigate the noise impacts at the 72 residences along I-95 between Bowden Road and Atlantic Boulevard and the outdoor use areas associated with seven impacted special land use sites (CNEs SW2, SW3, SE1, SE2, E4, W3, and W4). The traffic noise impacts to these noise sensitive sites are an unavoidable consequence of the project. In comparison, the 2018 I-95 Express Lanes PD&E NSR indicated that 62 impacted residences were an unavoidable consequence of the project.

Statement of Likelihood

FDOT remains committed to evaluate the construction of feasible noise abatement measures during the final design phase, contingent upon the following conditions:

- Final recommendations on the construction of abatement measures is determined during the project's 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 barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District 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.

Consistent with the 2018 I-95 Express Lanes PD&E Study, FDOT is still committed to further consideration of noise abatement measures for the following locations during the final design phase:

- CNE E1 (Represents the Area East of I-95 between Bowden Road and University Boulevard);



- CNE E2 (Represents the Area East of I-95 between University Boulevard and North of Fulton Avenue);
- CNE E3 (Represents the Area East of I-95 between North of Fulton Avenue and Emerson Street);
- CNE E4 (Represents the Area East of I-95 between Emerson Street and Atlantic Boulevard);
- CNE W1 (Represents the Area West of I-95 between University Boulevard and Emerson Street); and
- CNE W2 (Represents the Area West of I-95 between Emerson Street and Atlantic Boulevard).

FDOT is also committed to further consideration of the recommended noise barrier for the Canopy at Belfort Park Apartments during the final design phase of either the I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 (Financial Project ID No.: 446153-1) or the I-95 PD&E Study from I-295 (SR 9A) to SR 202 (JTB) (Financial Project ID No.: 435577-1).

The preliminary conceptual noise barrier recommended for further consideration in the design phase and public input for CNEs E1 through E4, W1, and W2 and Canopy at Belfort Park Apartments are described in **Table 5-1** and depicted on **Figure 5-1** located at the end of **Section 5.0**. The estimated cost of the recommended noise barriers is \$8,362,500. It is likely that the noise abatement measures for the identified locations will be constructed if found feasible based on the contingencies listed above. If, during the project's design phase, any of the contingency conditions listed above cause abatement to no longer be considered reasonable or feasible for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement.

There are outdoor advertising signs within the project corridor that may potentially be blocked from the motorist's view from six of the seven recommended noise barrier systems (CNEs E1 through E4, W1, and W2). The views of five outdoor advertising signs at three locations are potentially blocked by noise barrier system CNE E1. Of the five outdoor advertising signs, there is one double sided conforming sign (BW904/BW905), one single sided conforming sign (BW078), and one double sided non-conforming sign (BM975/CL495). The view of one double sided conforming outdoor advertising sign (CH754/CH755) is potentially blocked by noise barrier system CNE E2. The views of five outdoor advertising signs at three locations are potentially blocked by noise barrier system CNE E3. Of the five outdoor advertising signs, there is one double sided conforming sign (BJ061/BJ062), one single sided non-conforming sign (No Tag Number), and one double sided non-conforming sign (BP887/BI989). The view of one non-conforming outdoor advertising sign (BP981) is potentially blocked by noise barrier system CNE E4. The view of one non-conforming outdoor



advertising sign (BM800) is potentially blocked by noise barrier system CNE W1. The views of seven outdoor advertising signs at four locations are potentially blocked by noise barrier system CNE W2. Of the seven outdoor advertising signs, there is one single sided non-conforming sign (No Tag Number), and three double sided non-conforming signs (BM733/BM734, BN797/BN798, and CK441/BM976). There are no outdoor advertising signs located in the vicinity of the noise barriers recommended for further consideration in the design phase for the Canopy at Belfort Park Apartments (CNE E2).

Coordination with FDOT's Outdoor Advertising section of the Office of Right-of-way will be required for the conforming outdoor advertising signs during the final design phase of the project. Within the project limits, three double sided (BW904/BW905, CH754/CH755, and BJ061/BJ062) and one single sided (BW078) conforming outdoor advertising signs may potentially be blocked from the motorist's view by three of the recommended noise barrier systems (CNEs E1, E2, and E3). Owners of the signs will be notified in accordance with Right-of-Way Manual Topic No. 575-000-000 regarding the potential to construct a noise barrier that might block the motorist's view of an existing, conforming, and legally permitted outdoor advertising sign. Section 479.25, Florida Statutes also requires the FDOT to hold a Public Hearing within the boundaries of the affected local government or local jurisdiction in order to receive input on any proposed noise barriers potentially conflicting with the local ordinances or land development regulations, and to suggest, or consider, alternatives, or modifications, to the proposed noise barriers in order to alleviate, or minimize, the conflict with the local ordinances or land development regulations, or minimize any costs associated with relocation, reconstructing, or paying for the affected outdoor advertising sign.



Table 5-1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study Design Change Re-evaluation No. 2 (Mainline GU Lanes) Build Alternative (Sheet 1 of 3)

General Location (Cross Streets)	Noise Sensitive Site Name / Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Common Noise Environment Number / Noise Barrier System	Noise Barrier Recommendations							Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?
				Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Comments										
East of I-95 Between Bowden Road and University Boulevard	Haven Gardens / Residential (Activity Category B)	Yes	E1	Supplemental	Shoulder Mounted	8	650	880+50	887+00	Limits Extended South due to Design Changes: I-95 Northbound Outside Shoulder on MSE Wall North of Bowden Road	17	17	17	7.6	6.3	\$252,000	\$672,000	\$39,529	Yes	Yes
				Existing (72280-3424 I-95 A)	Ground Mounted	20	700	885+00	892+00	Existing Noise Barrier (520 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	400	891+00	895+00	New Supplemental Barrier due to Design Changes: I-95 Northbound Outside Shoulder on MSE Wall										
East of I-95 Between University Boulevard and Emerson Street	Southland, Connors, Englewood, Turners Subdivisions, & Santa Monica / Residential Use Areas (Activity Category B); Faith United Methodist Church / Playground - Recreational (Activity Category C)	Yes	E2	Extension	Ground Mounted	22	350	915+00	918+40	Extension of Existing Ground Mounted Noise Barrier to the South to Provide Abatement to the Entire Neighborhood	63	55	56	12.0	6.7	\$624,000	\$2,351,100	\$41,984	Yes	Yes
				Existing (72280-3424 I-95 B)	Ground Mounted	19	135	918+40	919+50	---										
				Replacement Existing (72280-3424 I-95 B)	Ground Mounted	19	100	919+50	920+50	---										
				Existing (72280-3424 I-95 B)	Ground Mounted	19	2,895	920+50	949+20	Existing Noise Barrier (190 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	1,400	947+00	960+50	South Limits Modified Slightly due to Design Changes: I-95 Northbound Outside Shoulder on bridges and MSE Walls; Elevated Section of I-95 North and South of Spring Glen Road										
	Southland, Englewood, Spring Park Manor, & Rodney Subdivisions / Residential (Activity Category B)	Yes	E3	Supplemental	Shoulder Mounted	8	750	960+50	968+00	North Limits Modified Slightly due to Design Changes: I-95 Northbound Outside Shoulder on MSE Wall; Elevated Section of I-95 North of Spring Glen Road	59	50	55	11.2	7.3	\$2,000,400	\$2,279,700	\$41,449	Yes	Yes
				Extension	Ground Mounted	22	330	967+00	970+10	Height Increased to 22 feet to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood										
				Existing (72280-3424 I-95 G)	Ground Mounted	19	490	970+10	975+00	---										
				Replacement (Existing 72280-3424 I-95 G)	Ground Mounted	22	450	975+00	979+50	Height Increased to 22 feet to Maximize Benefits										
				Extension	Ground Mounted	22	310	979+50	982+60	Height Increased to 22 feet to Maximize Benefits										
				Replacement (Existing 72280-3224 I-95 H)	Ground Mounted	22	800	982+60	990+50	Height Increased to 22 feet to Maximize Benefits										
				Extension	Ground Mounted	22	250	990+50	993+00	Extended 100 feet to the North and Increased Height 22' to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to North to Provide Abatement to the Entire Neighborhood										
				Supplemental	Shoulder Mounted	8	1,700	987+00	1004+00	South and North Limits Modified Slightly due to Design Changes: Elevated Section of I-95 North and South of Emerson Road; I-95 Northbound Outside Shoulder on Bridge and MSE Walls										

Table 5-1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study Design Change Re-evaluation No. 2 (Mainline GU Lanes) Build Alternative (Sheet 2 of 3)

General Location (Cross Streets)	Noise Sensitive Site Name / Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Common Noise Environment Number / Noise Barrier System	Noise Barrier Recommendations							Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?
				Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Comments										
West of I-95 Between University Boulevard and Emerson Street	Spring Park Manor, Southland, & Englewood / Residential (Activity Category B)	Yes	W1	Extension	Ground Mounted	22	340	915+00	918+40	Height Increased to 22 feet to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood	149	132	155	12.9	7.4	\$2,404,500	\$4,576,950	\$29,529	Yes	Yes
				Existing (72280-3424 I-95 C)	Ground Mounted	20.5	1,790	918+40	936+30	---										
					Ground Mounted	19	950	936+30	945+80	---										
					Ground Mounted	19	320	945+00	949+00	Existing Noise Barrier (320 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	1,800	948+00	966+00	Elevated Section of I-95 North and South of Spring Glen Road										
				Existing (72280-3424 I-95 F)	Ground Mounted	19	425	965+45	969+65	Existing Noise Barrier (425 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Replacement Existing (72280-3424 I-95 F)	Ground Mounted	19	50	969+65	970+15	---										
				Existing (72280-3424 I-95 F)	Ground Mounted	19	185	970+15	972+00	Existing Noise Barrier (185 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Replacement Existing (72280-3424 I-95 F)	Ground Mounted	22	1,980	972+00	991+80	Height Increased to 22 feet to Maximize Benefits										
				Extension	Ground Mounted	22	240	991+80	994+20	Height Increased to 22 feet to Maximize Benefits										
East of I-95 Between Emerson Street and Atlantic Boulevard	Rodney, Spring Park Manor, Rogeros, Belair, Spring Park Terrace, San Diego Terrace, Phillips, Fuller, & Meridale Subdivision / Residential (Activity Category B)	Yes	E4	Extension	Ground Mounted	22	120	995+70	996+90	Height Increase to 22 feet to Maximize Benefits; Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood	188	159	183	16.2	7.7	\$2,019,600	\$4,479,600	\$24,479	Yes	Yes
				Replacement Existing (213217-2 I-95 I)	Ground Mounted	22	2,140	996+90	1018+34	Amount of Replacement Noise Barrier Reduced by 1,440 feet from 3,580 feet to 2,140 feet; Height Increased to 22 feet to Maximize Benefits										
				Existing (213217-2 I-95 I & I-95 A)	Ground Mounted	20	1,170	1018+34	1030+04	Existing Noise Barrier (1,170 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Extension	Ground Mounted	20	100	1030+04	1031+04	New Noise Barrier Segment to Close Gap in Existing Noise Barriers										
				Existing (213217-2 I-95 A)	Ground Mounted	20	700	1031+04	1038+00	Existing Noise Barrier (170 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	1,950	1029+50	1049+00	Extended South and North due to Design Changes (Proposed Increases in I-95 Roadway Profiles); Elevated Section of I-95 over San Diego Road										
				Existing (213217-2 I-95 B)	Ground Mounted	20	2,230	1045+50	1067+80	Existing Overland Noise Barrier North of San Diego Road Not to be Modified										

Table 5-1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study Design Change Re-evaluation No. 2 (Mainline GU Lanes) Build Alternative (Sheet 3 of 3)

General Location (Cross Streets)	Noise Sensitive Site Name / Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Common Noise Environment Number / Noise Barrier System	Noise Barrier Recommendations							Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?
				Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Comments										
West of I-95 Between Emerson Street and Atlantic Boulevard	Belair, Spring Park Terrace, San Diego & San Diego Plaza Subdivisions / Residential (Activity Category B)	Yes	W2	Extension	Ground Mounted	22	390	1009+40	1012+85	---	64	58	60	12.2	7.4	\$1,062,000	\$1,983,600	\$33,060	Yes	Yes
				Replacement	Ground Mounted	22	610	1012+85	1017+00	Amount of Replacement Noise Barrier Reduced by 1,660 feet from 2,270 feet to 610 feet										
				Existing (72280-3424 I-95 J)	Ground Mounted	18	1,240	1017+00	1029+44	Existing Noise Barrier (1,240 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Extension	Ground Mounted	20	110	1029+44	1030+53	New Noise Barrier Segment to Close Gap in Existing Noise Barriers										
				Existing (213217-2 I-95 B)	Ground Mounted	20	420	1030+53	1034+80	Existing Noise Barrier (420 feet) No Longer Physically Impacted by Proposed Improvements or Require Replacement										
				Supplemental	Shoulder Mounted	8	1,400	1034+00	1048+00	I-95 Southbound Outside Shoulder on MSE Wall										
Other Locations Evaluated for Noise Barriers (Locations were not Evaluated during I-95 Express Lanes PD&E Study for Traffic Impacts or Noise Barriers)																				
West of I-95 Between Bowden Road and University Boulevard	Bowden Farms Subdivision / Residential (Activity Category B)	No	SW1	New Noise Barrier Analysis	Shoulder Mounted	8	800	880+00	888+00	Represents the optimal conceptual design but not recommended for further consideration during the project's design phase; The conceptual design does not meet the 7.0 dB(A) Noise Reduction Design Goal	2	0	0	---	---	\$192,000	---	---	No	No
East of I-95 Between J. Turner Butler Boulevard and Bowden Road	The Summit at Southpoint / Outdoor Use Area (Activity Category E)	No	SE1	New Noise Barrier Analysis	Ground Mounted	18	600	850+50	856+50	Represents the optimal conceptual design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	7.6	6.3	\$324,000	---	---	No	No
West of I-95 Between J. Turner Butler Boulevard and Bowden Road	Center Point Business Park - South of Autobahn Building / Outdoor Use Area (Activity Category E)	No	SW2	New Noise Barrier Analysis	Ground Mounted	18	400	837+00	841+00	Represents the optimal conceptual design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	7.0	7.0	\$216,000	---	---	No	No
	Center Point Business Park - North of Jackson Lighting Building / Outdoor Use Area (Activity Category E)	No	SW3	New Noise Barrier Analysis	Ground Mounted	18	300	824+00	827+00	Represents the optimal conceptual design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	7.1	7.1	\$162,000	---	---	No	No
North of J. Turner Butler Boulevard and East of Belfort Road	St. Vincent's Medical Center / Recreational Trail (Activity Category C)	No	SE2	New Noise Barrier Analysis	Shoulder Mounted	8	200	141+00 (JTB)	143+00 (JTB)	Represents the optimal conceptual design but not recommended for further consideration during the project's design phase; The conceptual design meets the 7.0 dB(A) Noise Reduction Design Goal but not the Reasonableness Cost Criteria for Special Land Uses	Special Land Use	---	---	10.2	7.4	\$361,200	---	---	No	No
					Ground Mounted	12	870	146+00 (JTB)	24+50 (Belfort Road)											
I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 (Financial Project ID Number: 446153-1) - Noise Barrier Recommended for further Consideration in the Project's Design Phase																				
East of I-95 Between Baymeadows Road and Belfort Road	Canopy at Belfort Park Apartments (Activity Category B)	No	CNE E2	Recommended Noise Barrier (PD&E Noise Study Report - September 2020)	Ground Mounted	22	1,190	1036+40	1048+20	Represents the optimal conceptual barrier design and is recommended for further consideration and public input during the project's design phase; Meets both FDOT's 7.0 dB(A) Noise Reduction Goal and Reasonable Cost Criteria	30	30	44	9.4	6.9	---	\$785,400	\$17,850	Yes	Yes

X:\P\Noise_Studies\I-95_JTBtoAtlantic_D2\Revaluation\NSRA_4thDraft\Tables\Table_5-1_Recom_Barriers_I-95_Reva_12-2-2021.xlsx\Table3.2-1_NSR_10-25-2020

Note: Existing noise walls that are physically impacted by the project improvements and proposed to be replaced are highlighted in yellow; Proposed extension of existing noise barriers and supplemental noise barriers are highlighted in green.

Note: The Traffic Noise Analysis & Evaluation of Noise Barriers along I-95 South of J. Turner Butler Boulevard (JTB) were Completed as part of the I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 - Financial Project ID (FPID) Number: 446153-1 and Presented in the I-95 PD&E Noise Study Study from I-295 (SR 9A) to SR 202 (JTB) (FPID Number: 435577-1)

See Appendix A for Relevant Pages from the I-95 Widening PD&E Study Noise Study Report (July 2020)

Recommended noise barriers from FPID Nos. 446153-1 / 435577-1 will be further evaluated in the design phase as a separate project from FPID Number: 432259-2

Noise Study Area 6 -
West of I-95 between Baymeadows Way W
and J. Turner Butler Boulevard

FPID Number: 446153-1 (See Note)
JP Morgan Chase South Building, CNE W3
(Outdoor Use Area- Pavilion)
Evaluated, Not Recommended
Ground Mounted Noise Barrier
(Conceptual Designs JP1-CD1
through JP1-CD5)

FPID Number: 446153-1 (See Note)
JP Morgan Chase North Building, CNE W4
(Outdoor Use Area)
Evaluated, Not Recommended
Ground Mounted Noise Barrier
(Conceptual Designs JP3-CD1
through JP3-CD5)

Existing 22' Tall Ground
Mounted Noise Barrier
ID: 416501-4 (I-95 A)

Begin Project
FPID Number: 432259-2-22-01

Center Point Business Park South, CNE SW3
(Outdoor Use Area)
Evaluated, Not Recommended
Ground Mounted Noise Barrier
(Conceptual Designs CP1-CD1
through CP1-CD4)

Center Point Business Park North, CNE SW2
(Outdoor Use Area)
Evaluated, Not Recommended
Ground Mounted Noise Barrier
(Conceptual Designs CP3-CD1
through CP3-CD4)

FPID Number: 446153-1 (See Note)
Canopy at Belfort Park Apartments, CNE E2
Recommended
22' Tall Ground Mounted Noise Barrier
(Conceptual Design CBP-CD6)

FPID Number: 446153-1 (See Note)
Concourse Business Park, CNE E3
(Outdoor Use Area)
Evaluated, Not Recommended
Ground Mounted Noise Barrier
(Conceptual Designs CB-CD1
through CB-CD4)

Existing 22' Tall Ground
Mounted Noise Barrier
ID: 419501-4 (I-95 B)

The Summit at Southpoint, CNE SE1
(Outdoor Use Area)
Evaluated, Not Recommended
Ground Mounted Noise Barrier
(Conceptual Designs SS-CD1
through SS-CD4)

St. Vincent's Medical Center, CNE SE2
(Recreational Trail)
Evaluated, Not Recommended
Ground and Shoulder Mounted Noise Barriers
(Conceptual Designs SV-CD1
through SV-CD5)

I-95 (SR-9) from SR 202 (J. Turner Blvd)
to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01

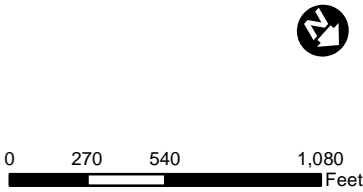


Recommended Alternative

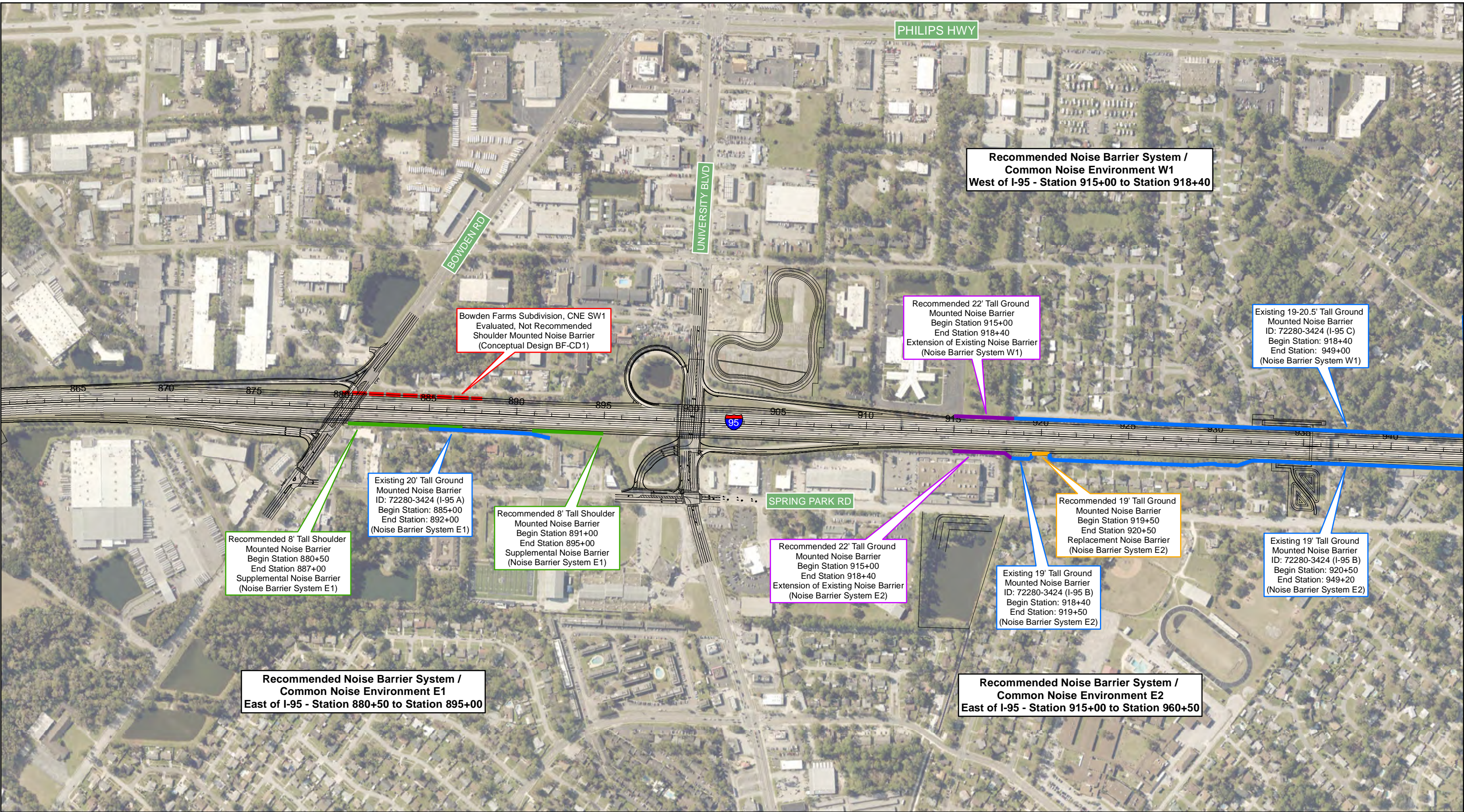
Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier

- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended



**FIGURE 5-1
RECOMMENDED NOISE
BARRIER MAP
SHEET 1 OF 4**



I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01



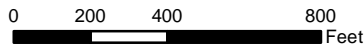
Recommended Alternative

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier

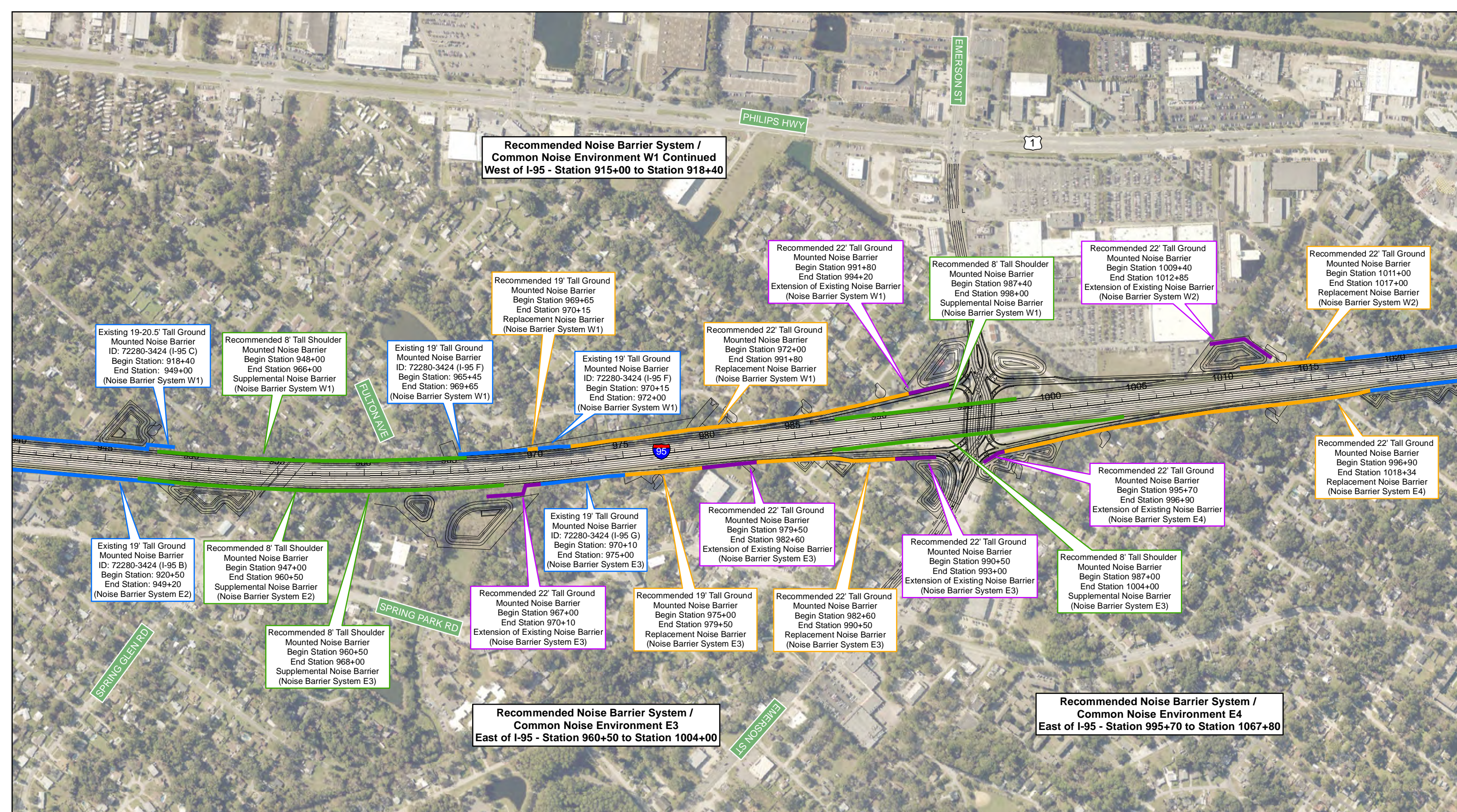
Replacement of Existing Noise Barrier

- Supplemental Noise Barrier
- Not Recommended



August 2021

FIGURE 5-1
RECOMMENDED NOISE
BARRIER MAP
SHEET 2 OF 4



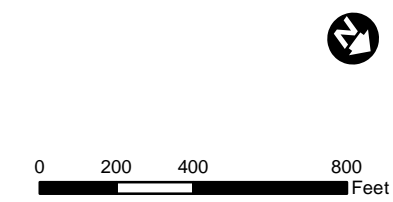
I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01



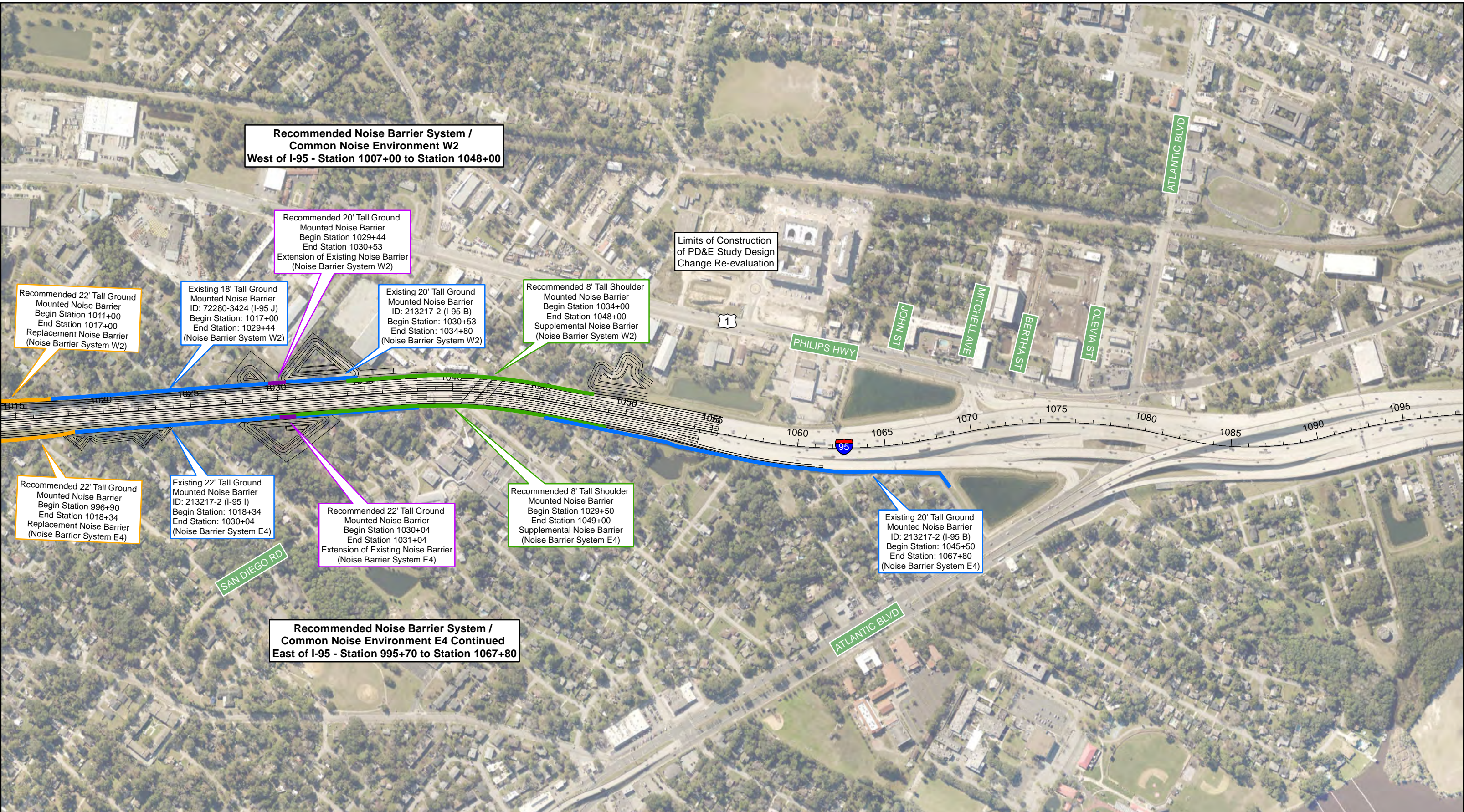
Recommended Alternative

Noise Barriers
Existing Noise Barrier to Remain
Extension of Existing Noise Barrier

Replacement of Existing Noise Barrier
Supplemental Noise Barrier
Not Recommended



**FIGURE 5-1
RECOMMENDED NOISE
BARRIER MAP
SHEET 3 OF 4**



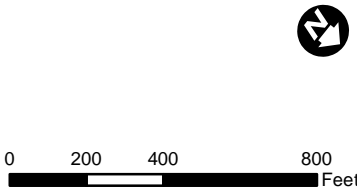
I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01



Recommended Alternative

- Noise Barriers**
- Existing Noise Barrier to Remain
 - Extension of Existing Noise Barrier

- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended



**FIGURE 5-1
RECOMMENDED NOISE
BARRIER MAP
SHEET 4 OF 4**

6.0 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 because heavy equipment is typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residential, institutional, and commercial land uses. 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. Vibration sensitive facilities within the project construction limits could include medical or laboratory facilities, eye clinics, sound recording studios and television stations, residences, museums, and historic buildings. A reassessment of the project area for sites particularly sensitive to construction noise and/or vibration will be performed during design to ensure that impacts to such sites are minimized.



7.0 References

- 23 CFR Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise", Federal Register, Vol. 75, No. 133, Tuesday, July 13, 2010; pages 39834-39839.
- Federal Highway Administration Report FHWA-HEP-10-025, "Highway Traffic Noise: Analysis and Abatement Guidance", June 2010 (revised December 2010); 76 pages.
- Federal Highway Administration Report FHWA-PD-96-009, "FHWA Traffic Noise Model, Version 1.0 User's Guide", January 1998; 192 pages + supplements.
- Federal Highway Administration Report FHWA-HEP-18-065, "Noise Measurement Handbook - Final Report", June 2018; 205 pages.
- A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations, Roger L. Wayson and John M. MacDonald, University of Central Florida; Updated July 22, 2009; 64 pp.
- Florida Department of Transportation. "Design Manual, Topic No. 625-000-002", Part 2, Section 264, Noise Walls and Perimeter Walls, 2018.
- Florida Department of Transportation. "Highway Traffic Noise", Part 2, Chapter 18. Project Development and Environment Manual, Florida Department of Transportation, Tallahassee, July 1, 2020.
- Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", August 2019.
- Florida Department of Transportation "Traffic Noise Modeling and Analysis Practitioners Handbook", December 31, 2018.



APPENDIX A

Referenced Pages from I-95 Express Lanes PD&E Noise Study Report (July 2018)



**I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E)
STUDY**

Noise Study Report

**I-95 from J. Turner Butler Boulevard to Atlantic Boulevard
Jacksonville, Duval County, Florida**

**Financial Project ID No. 432259-2-22-01
Federal Aid Project No. 0955-308-I**

July 2018



**Prepared by RS&H, Inc. at the direction of
the Florida Department of Transportation, District 2**

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 December 14, 2016 and executed by FHWA and FDOT.

Table 3.4.1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study

General Location (Cross Streets)	Community/Site Name	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Is Further Noise Abatement Required?	Common Noise Environment Number (Figure Reference Location)	Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (\$0\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (\$0\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?	Comments
Between Bowden Road and University Boulevard; East of I-95	Haven Gardens	Residential (Activity Category B)	Yes	Yes, due to Design Year Traffic Noise Impacts and that a Portion of the Existing Noise Barrier is to be Relocated	E1 (See Figure 3.3.1, Sheet 5 of 11)	Supplemental	Shoulder Mounted	8	400	881+00	885+00	17	17	17	9.0	6.8	\$314,400	\$482,400	\$28,376	Yes	Yes	I-95 Northbound: Outside Shoulder - North of Bowden Road (Elevated Section of I-95 on MSE wall).
						Replacement	Shoulder Mounted	14	520	885+00	890+20											On MSE wall so a 14-foot tall Shoulder Mounted Noise Barrier will Require a Design Variation.
						Existing (72280-3424 I-95 A)	Ground Mounted	20	280	889+20	892+00											---
Between University Boulevard and Emerson Street - East of I-95	Southland, Connors, Englewood, Turners Subdivisions, & Faith United Methodist Church Residential Use Areas	Residential (Activity Category B)	Yes	Yes, due to Design Year Traffic Noise Impacts and that Portions of the Existing Noise Barrier is to be Relocated	E2 (See Figure 3.3.1, Sheets 6 & 7 of 11)	Extension	Ground Mounted	19.5	350	915+00	918+40	72	62	65	12.2	7.2	\$772,970	\$2,539,800	\$39,074	Yes	Yes	Extension of Existing Ground Mounted Noise Barrier to the South to Provide Abatement to the Entire Neighborhood.
						Existing (72280-3424 I-95 B)	Ground Mounted	19.5	135	918+40	919+50											---
						Replacement (Segment 1)	Ground Mounted	19.5	100	919+50	920+50											Existing Noise Barrier Juts in and around a Utility; Tie Replacement Noise Barrier into Existing Noise Barrier on Either Side.
						Existing (72280-3424 I-95 B)	Ground Mounted	19.5	1,605	920+50	936+30											---
						Replacement (Segment 2)	Ground Mounted	19.5	190	936+30	938+20											---
						Existing (72280-3424 I-95 B)	Ground Mounted	19.5	1,100	938+20	949+20											---
	Faith United Methodist Church	Playground - Recreational (Activity Category C)	No			Supplemental	Shoulder Mounted	8	2,100	947+70	968+70											Elevated section of I-95 North and South of Spring Glen Road; The Playground is Incidentally Benefited by Recommended Conceptual Noise Barrier Design
	Southland, Englewood, Spring Park Manor, & Rodney Subdivisions	Residential (Activity Category B)	Yes	Yes, due to Design Year Traffic Noise Impacts and that Portions of the Existing Noise Barrier is to be Relocated	E3 (See Figure 3.3.1, Sheet 8 of 11)	Extension	Ground Mounted	19	310	967+00	970+10	53	43	45	16.5	8.1	\$1,593,000	\$1,872,300	\$41,607	Yes	Yes	Extension of Existing Ground Mounted Noise Barrier to the South to Provide Abatement to the Entire Neighborhood; Near Faith United Methodist Church and Stream; Along Existing R/W line.
						Existing (72280-3424 I-95 G)	Ground Mounted	19	490	970+10	975+00											---
						Replacement	Ground Mounted	19	450	975+00	979+50											---
						Extension	Ground Mounted	19	310	979+50	982+60											Closes the Gap between the Existing Noise Barrier to Provide Abatement to the Entire Neighborhood.
						Replacement	Ground Mounted	19	800	982+60	990+50											---
						Extension	Ground Mounted	19	150	990+50	992+00											Extension of Existing Ground Mounted Noise Barrier to North to Provide Abatement to the Entire Neighborhood.
Between University Boulevard and Emerson Street - West of I-95	Spring Park Manor, Southland, & Englewood	Residential (Activity Category B)	Yes	Yes, due to Design Year Traffic Noise Impacts and that Portions of the Existing Noise Barrier is to be Relocated	W1 (See Figure 3.3.1, Sheets 6 - 8 of 11)	Supplemental	Shoulder Mounted	8	2,100	947+70	968+70	145	128	156	15.3	7.8	\$843,927	\$4,289,850	\$27,499	Yes	Yes	Elevated section of I-95 North and South of Spring Glen Road; The Playground is Incidentally Benefited by Recommended Conceptual Noise Barrier Design
						Extension	Ground Mounted	20.5	340	915+00	918+40											Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood; Near Specialty Memorial Hospital.
						Existing (72280-3424 I-95 C)	Ground Mounted	20.5	1,790	918+40	936+30											---
							Ground Mounted	19	950	936+30	945+80											---
						Replacement	Ground Mounted	19	320	945+80	949+00											---
						Supplemental	Shoulder Mounted	8	1,800	948+00	966+00											Elevated Section of I-95 North and South of Spring Glen Road.
						Replacement	Ground Mounted	19	2,640	965+50	991+80											---
						Extension	Ground Mounted	19	240	991+80	994+20											---
						Supplemental	Shoulder Mounted	8	760	987+40	995+00											Elevated Section of I-95 South of Emerson Road; Shoulder Mounted Noise Barrier starts at Begin MSE wall and ends before Emerson Street Bridge Approach.

Table 3.4.1: Preliminary Noise Barrier Recommendations for I-95 from SR 202 (J. Turner Boulevard) to Atlantic Boulevard PD&E Study

General Location (Cross Streets)	Community/Site Name	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Area Benefited by Existing Noise Barrier?	Is Further Noise Abatement Required?	Common Noise Environment Number (Figure Reference Location)	Noise Barrier Description (FDOT ID Number)	Barrier Type	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptors (Without Existing Noise Barriers)	Number of Impacted/ Benefited Receptor Sites	Total Number of Benefited Receptor Sites	Maximum Noise Reduction for Impacted Receptor Sites dB(A)	Average Noise Reduction for all Benefited Receptor dB(A)	Estimated Additional Construction Cost (30\$ per Square Foot)	Overall Estimated Noise Barrier System Cost with Existing Noise Barriers (30\$ per Square Foot)	Barrier System Cost per Benefited Receptor Site	Optimal Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Community Input?	Comments
Between Emerson Street University and Atlantic Boulevard - East of I-95	Rodney, Spring Park Manor, Rogers, Belair, Spring Park Terrace, San Diego Terrace, Phillips, Fuller, & Meridale Subdivision	Residential (Activity Category B)	Yes	Yes, due to Design Year Traffic Noise Impacts and that a Portion of the Existing Noise Barrier is to be Relocated	E4 (See Figure 3.3.1, Sheets 9 - 11 of 11)	Extension	Ground Mounted	20	120	995+70	996+90	185	167	194	16.9	8.2	\$2,379,620	\$4,035,620	\$20,802	Yes	Yes	Extension of Existing Ground Mounted Noise Barrier to South to Provide Abatement to the Entire Neighborhood.
						Replacement	Ground Mounted	20	3,580	996+90	1032+70											---
						Existing	Ground Mounted	20	530	1032+70	1038+00											Existing Overland Noise Barrier South of San Diego Road (Not to be Modified).
						Supplemental	Shoulder Mounted	8	950	1037+00	1046+50											Elevated Section of I-95 over San Diego Road.
						Existing (213217-2 I-95 B)	Ground Mounted	20	2,230	1045+50	1067+80											Existing Overland Noise Barrier North of San Diego Road (Not to be Modified).
	The Park is Incidentally Benefited by Recommended Conceptual Noise Barrier Design.																					
Between Emerson Street and Atlantic Boulevard - West of I-95	Belair, Spring Park Terrace, San Diego & San Diego Plaza Subdivisions	Residential (Activity Category B)	Yes	Yes, due to Design Year Traffic Noise Impacts and that a Portion of the Existing Noise Barrier is to be Relocated	W2 (See Figure 3.3.1, Sheets 9 & 10 of 11)	Extension	Ground Mounted	20	400	1007+00	1011+00	74	67	70	12.8	7.7	\$1,620,320	\$1,620,320	\$23,147	Yes	Yes	The limits of the Extension are Dependent upon Proposed Pond Site and Residential Relocations.
						Replacement	Ground Mounted	17.5	2,000	1011+00	1031+00											---
								19.5	380	1031+00	1034+80											Limits of Proposed Replacement Noise Barrier are Dependent upon the Proposed Pond Site and Residential Relocations.
						Supplemental	Shoulder Mounted	8	600	1034+00	1040+00											Limits of Supplemental Noise Barrier is Dependent upon the Proposed Stormwater Pond Site and Residential Relocations.
								8	800	1040+00	1048+00											Elevated Section of I-95 over San Diego Road.

X:\PNoise_Studies\95_2176\Main\02Noise_Study_Report\NSR_06\Draft_06\Tables\Tables 3.4.1_Barrier_Analysis_199&2176_12-21-2017_Rev.docx(Summary for FDOT)

5.0 Conclusion

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), FDOT PD&E Manual, Part 2, Chapter 18, Noise (June 14, 2017), and FDOT's Traffic Noise Modeling and Analysis Practitioners Handbook (January 1, 2016). Design year traffic noise levels (2045) for the Build Alternative will approach or exceed the NAC at 546 residences and two special land uses within the project limits; therefore, the feasibility and reasonableness of noise barriers were considered for those noise sensitive sites predicted to be impacted by design year (2045) traffic noise.

Six separate CNEs (i.e., E1 through E4, W1, and W2) were used to assess noise barriers for the noise sensitive sites that approach or exceed the NAC:

- CNE E1 represents the area east of I-95 between Bowden Road and University Boulevard and includes 17 noise impacted residences;
- CNE E2 represents the area east of I-95 between University Boulevard and North of Fulton Avenue and includes 72 noise impacted residences and a place of worship playground (Faith United Methodist Church);
- CNE E3 represents the area east of I-95 between North of Fulton Avenue and Emerson Street and includes 145 noise impacted residences;
- CNE E4 represents the area east of I-95 between Emerson Street and Atlantic Boulevard and includes 185 noise impacted residences and a park (City of Jacksonville Park);
- CNE W1 represents the area west of I-95 between University Boulevard and Emerson Street and 53 noise impacted residences; and
- CNE W2 represents the area west of I-95 between Emerson Street and Atlantic Boulevard and includes 74 noise impacted residences impacted.

Noise barriers at these six CNEs were determined to be feasible and cost reasonable and are recommended for further consideration during the design phase and for public input (see **Table 3.4.1**). The cost per benefited site of these six noise barrier designs are within FDOT's noise barrier cost criteria of \$42,000 per benefited site and they will meet FDOT's noise reduction reasonableness criteria of 7 dB(A) at one or more impacted sites. The six recommended noise barrier systems are expected to reduce traffic noise by at least 5 dB(A) at 547 residences including 484 of the 546 impacted residences and at both of the special land uses (i.e., the playground associated with the Faith Methodist Church and the City of Jacksonville Park). As indicated in **Table 3.4.1**, these two special land uses are incidentally benefited by the recommended conceptual noise barrier designs at these locations. The estimated cost of the recommended noise barriers is \$7,524,237. Based on the noise analyses

performed to date, there appears to be no feasible solutions available to mitigate the noise impacts at the 62 impacted residences in the vicinity of the existing and proposed noise barriers. The traffic noise impacts to these noise sensitive sites are an unavoidable consequence of the project.

Statement of Likelihood

FDOT is committed to evaluate the construction of feasible noise abatement measures during the final design phase, contingent upon the following conditions:

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

FDOT is committed to further consideration of noise abatement measures for the following locations during the final design phase:

- CNE E1 (Represents the Area East of I-95 between Bowden Road and University Boulevard);
- CNE E2 (Represents the Area East of I-95 between University Boulevard and North of Fulton Avenue);
- CNE E3 (Represents the Area East of I-95 between North of Fulton Avenue and Emerson Street);
- CNE E4 (Represents the Area East of I-95 between Emerson Street and Atlantic Boulevard);
- CNE W1 (Represents the Area West of I-95 between University Boulevard and Emerson Street); and
- CNE W2 (Represents the Area West of I-95 between Emerson Street and Atlantic Boulevard).

It is likely that the noise abatement measures for the identified locations will be constructed if found feasible based on the contingencies listed above. If, during the Final Design phase,

any of the contingency conditions listed above cause abatement to no longer be considered reasonable or feasible for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during project reevaluation and at a time before the construction advertisement is approved.

Three double sided “conforming” outdoor advertising signs (BW904/BW905, CH755/CH754, and BJ062/BJ061) within the project corridor may potentially be blocked from the motorist’s view by three of the recommended noise barrier systems (CNEs E1, E2, and E3). Coordination with FDOT’s Outdoor Advertising section of the Office of Right-of-way will be required during the final design phase of the project. Owners of the signs will be notified in accordance with Right-of-Way Manual Topic No. 575-000-000 regarding the potential to construct a noise barrier that might block the motorist’s view of an existing, conforming, and legally permitted outdoor advertising sign.

APPENDIX B

Design Change Re-evaluation No. 2 (Mainline GU Lanes) Build Alternative Concept Plan Sheets

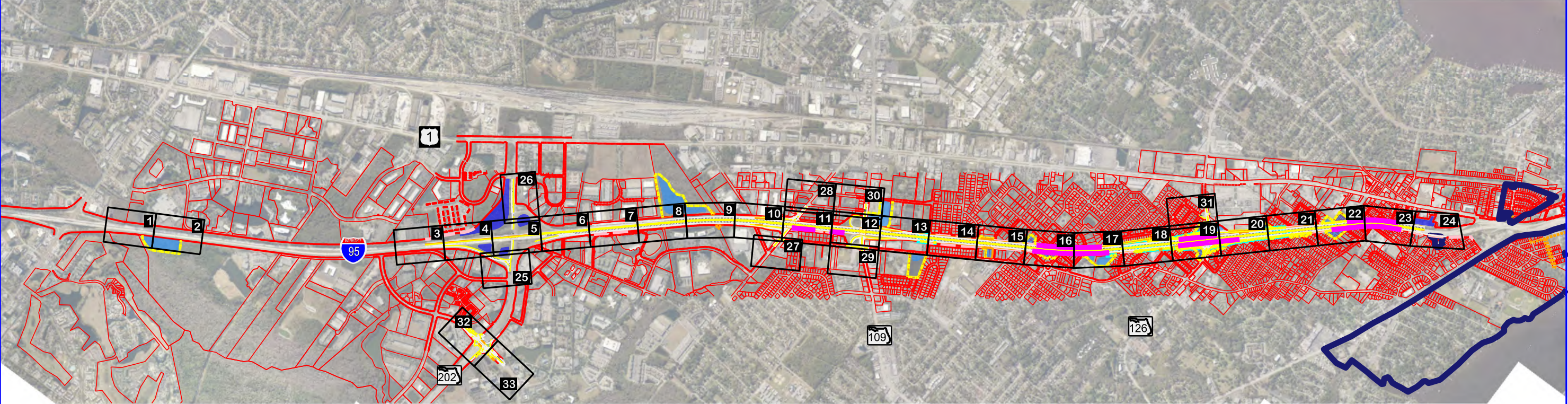


Noise Study Report Addendum No. 1

I-95 Express Lanes PD&E Study

Design Change Re-evaluation No. 2 (Mainline GU Lanes)

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)



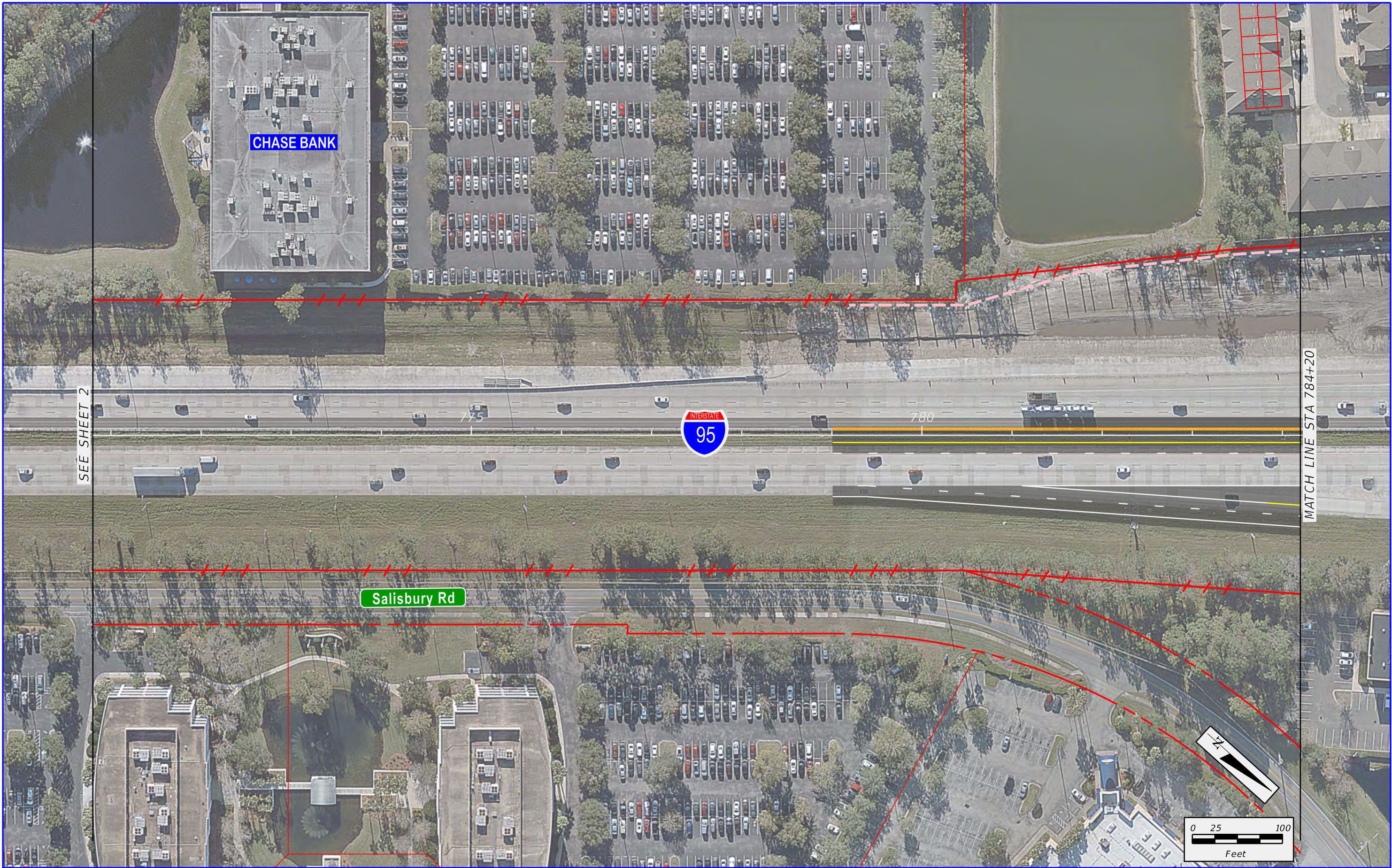
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I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)

SHEET
NO.

i



SEE SHEET 2

MATCH LINE STA 784+20

Salisbury Rd

CHASE BANK



775

780



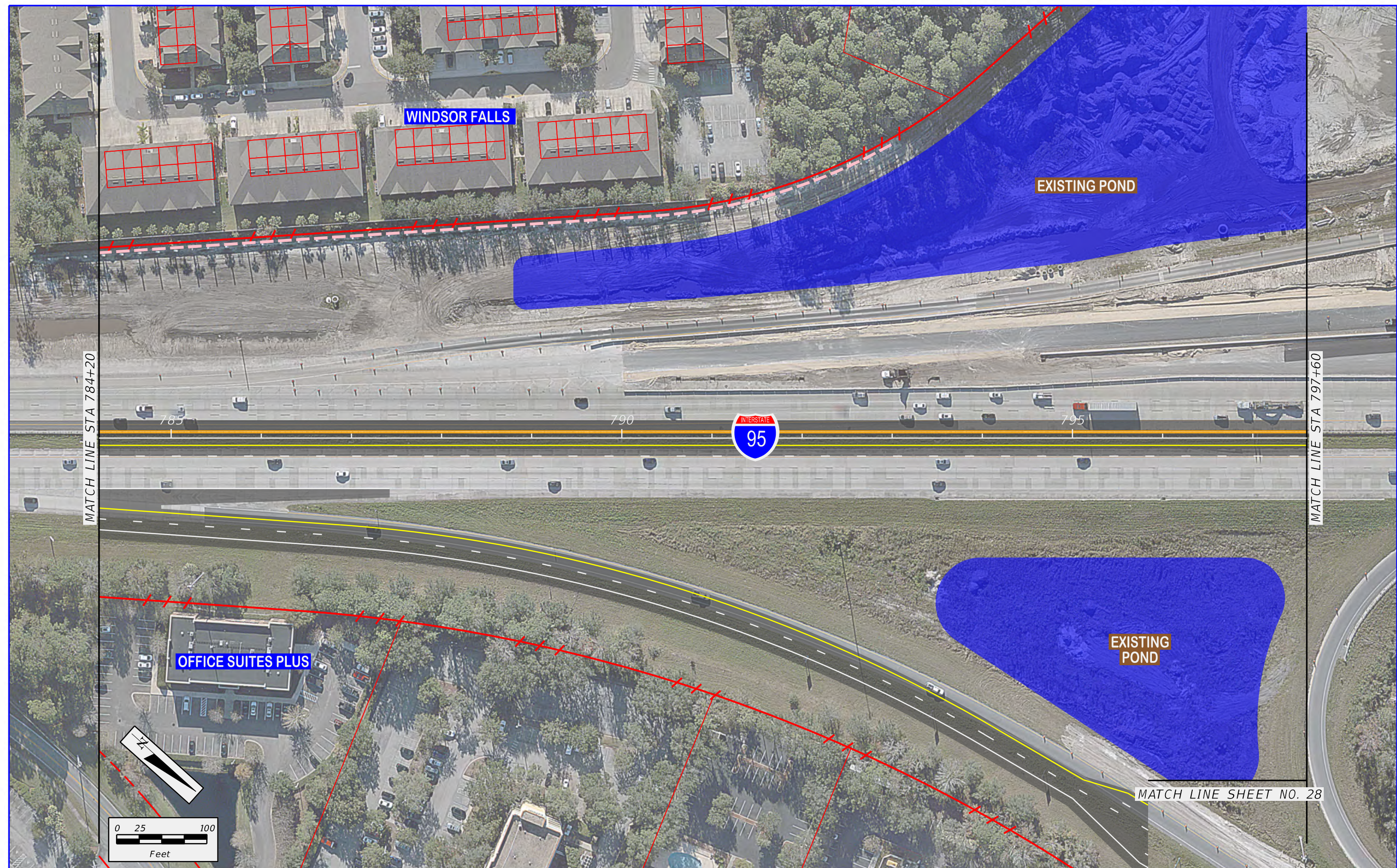
I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)

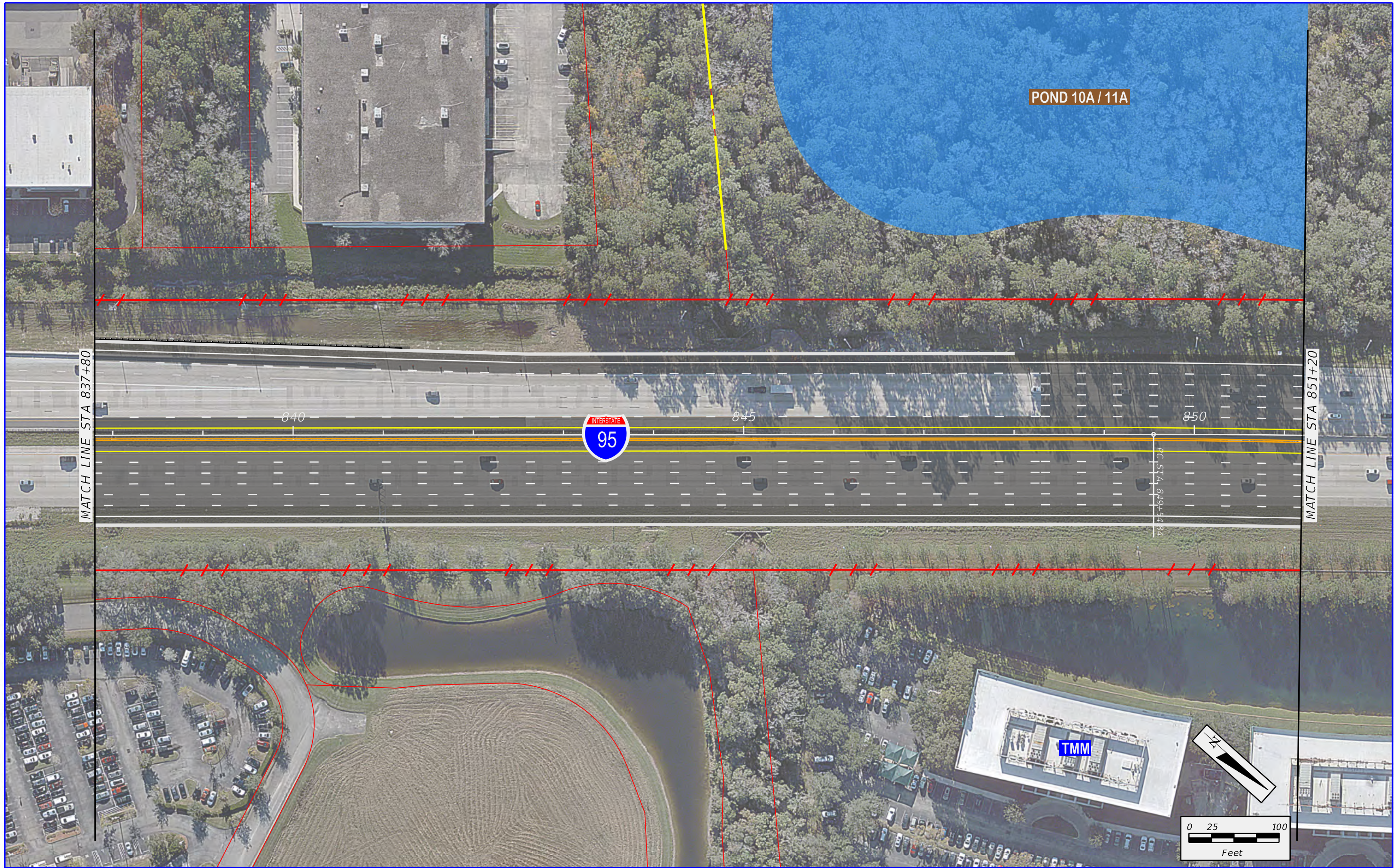
- | | | | |
|-----------|-----------------------------|---|-------------------------------------|
| --- | EXISTING RIGHT-OF-WAY | ■ | EXISTING POND |
| - - - | EXISTING LIMITED ACCESS R/W | — | BARRIER WALL |
| - · - · - | EXISTING NOISE WALLS | — | SHOULDER GUTTER/
CURB AND GUTTER |
| - - - | PROPOSED RIGHT-OF-WAY | — | PROPOSED LIMITED ACCESS R/W |

- | | |
|---|---|
| — | PROPOSED BRIDGE |
| — | PROPOSED GENERAL USE LANES |
| — | PROPOSED SHOULDER MOUNTED
NOISE WALL |
| — | PROPOSED GROUND MOUNTED
NOISE WALL |

DESIGN CHANGE ALTERNATIVE
(MAINLINE GU LANES)

SHEET
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3

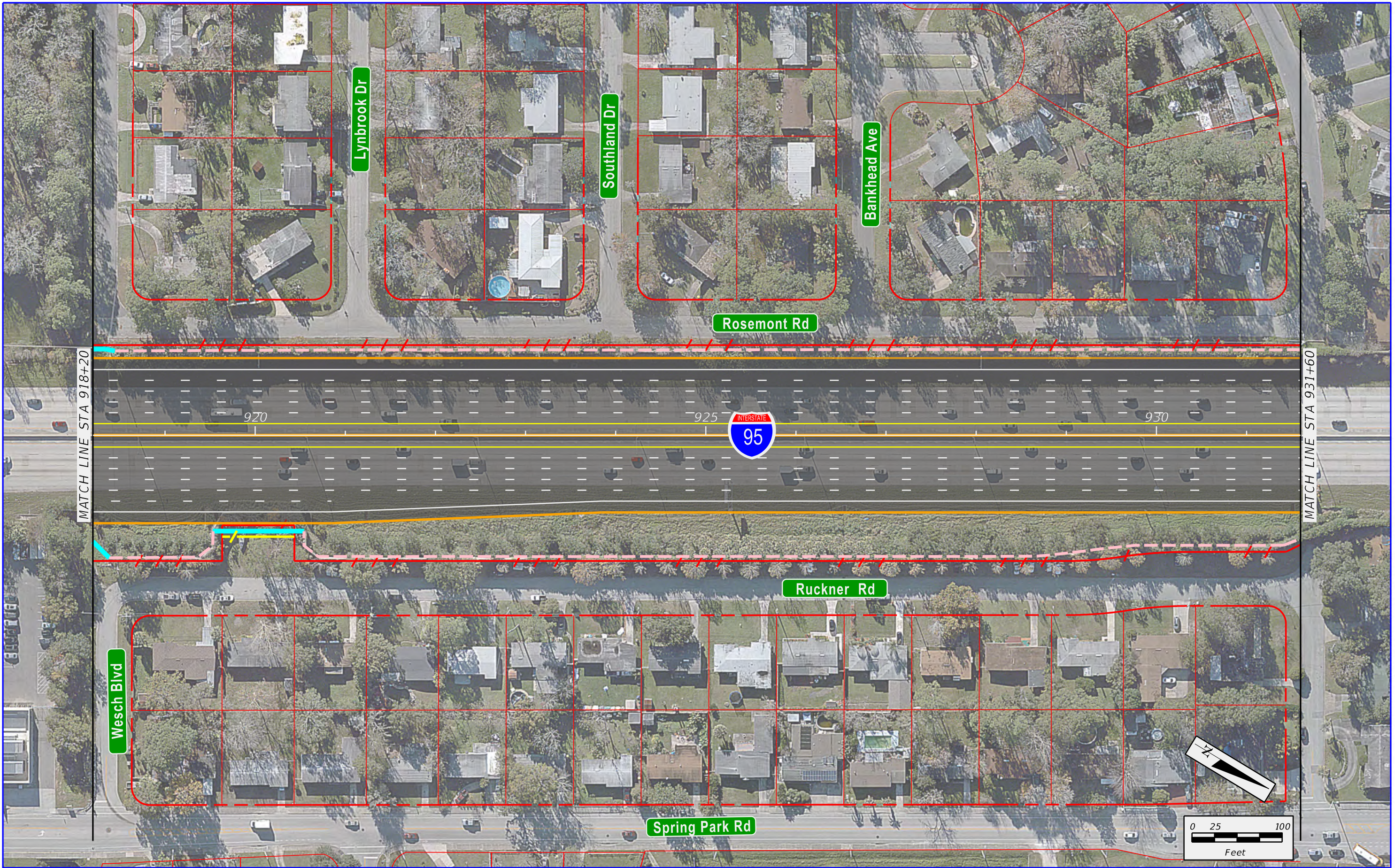




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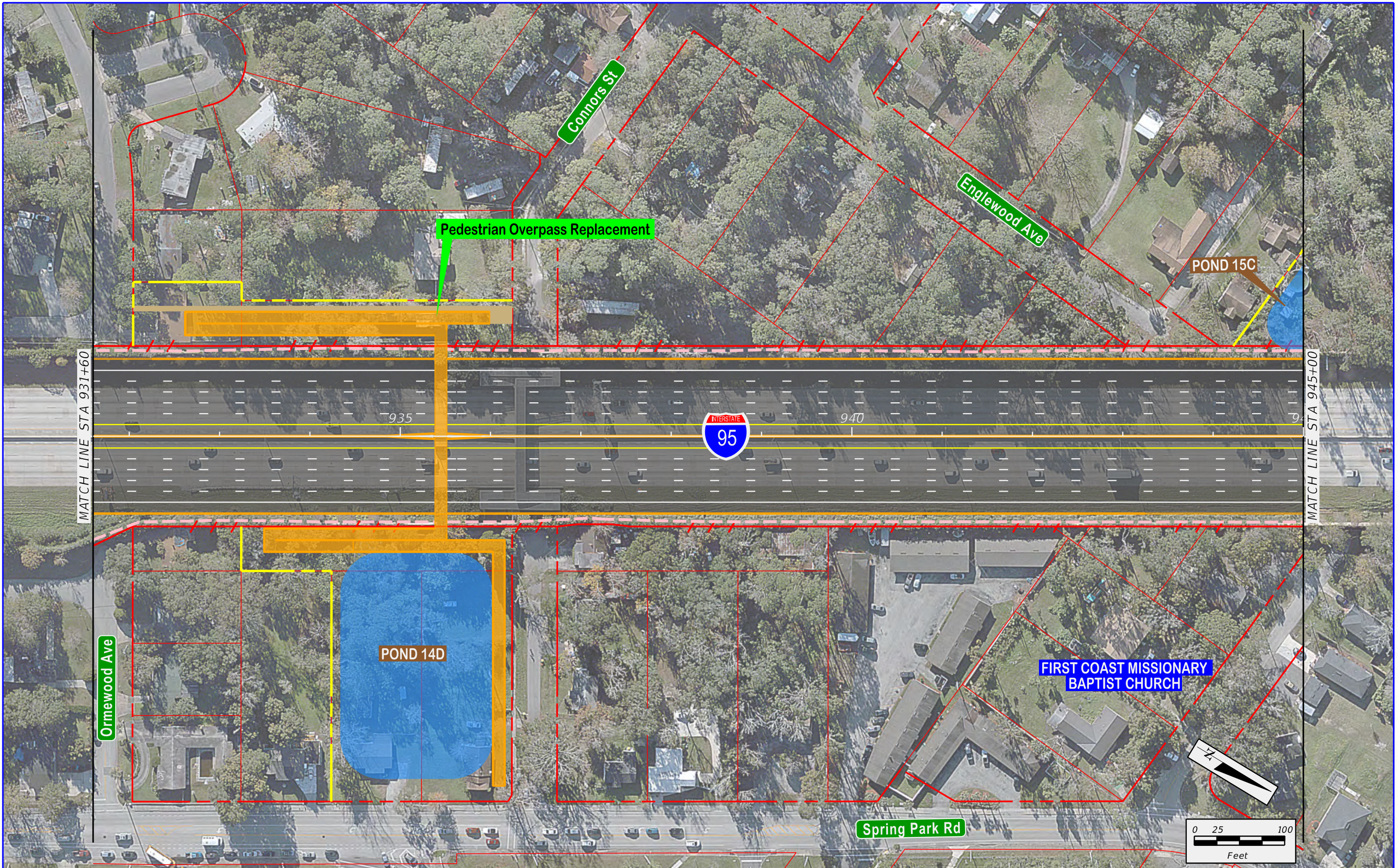
	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	---	EXISTING RIGHT-OF-WAY		EXISTING POND		PROPOSED BRIDGE
		- - - -	EXISTING LIMITED ACCESS R/W		BARRIER WALL		PROPOSED GENERAL USE LANES
		- . - . -	EXISTING NOISE WALLS		SHOULDER GUTTER/ CURB AND GUTTER		PROPOSED SHOULDER MOUNTED NOISE WALL
		- - - -	PROPOSED RIGHT-OF-WAY		PROPOSED LIMITED ACCESS R/W		PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
	8



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	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	EXISTING RIGHT-OF-WAY	EXISTING POND	PROPOSED BRIDGE	DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
		EXISTING LIMITED ACCESS R/W	BARRIER WALL	PROPOSED GENERAL USE LANES		14
		EXISTING NOISE WALLS	SHOULDER GUTTER/ CURB AND GUTTER	PROPOSED SHOULDER MOUNTED NOISE WALL		
		PROPOSED RIGHT-OF-WAY	PROPOSED LIMITED ACCESS R/W	PROPOSED GROUND MOUNTED NOISE WALL		



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I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)

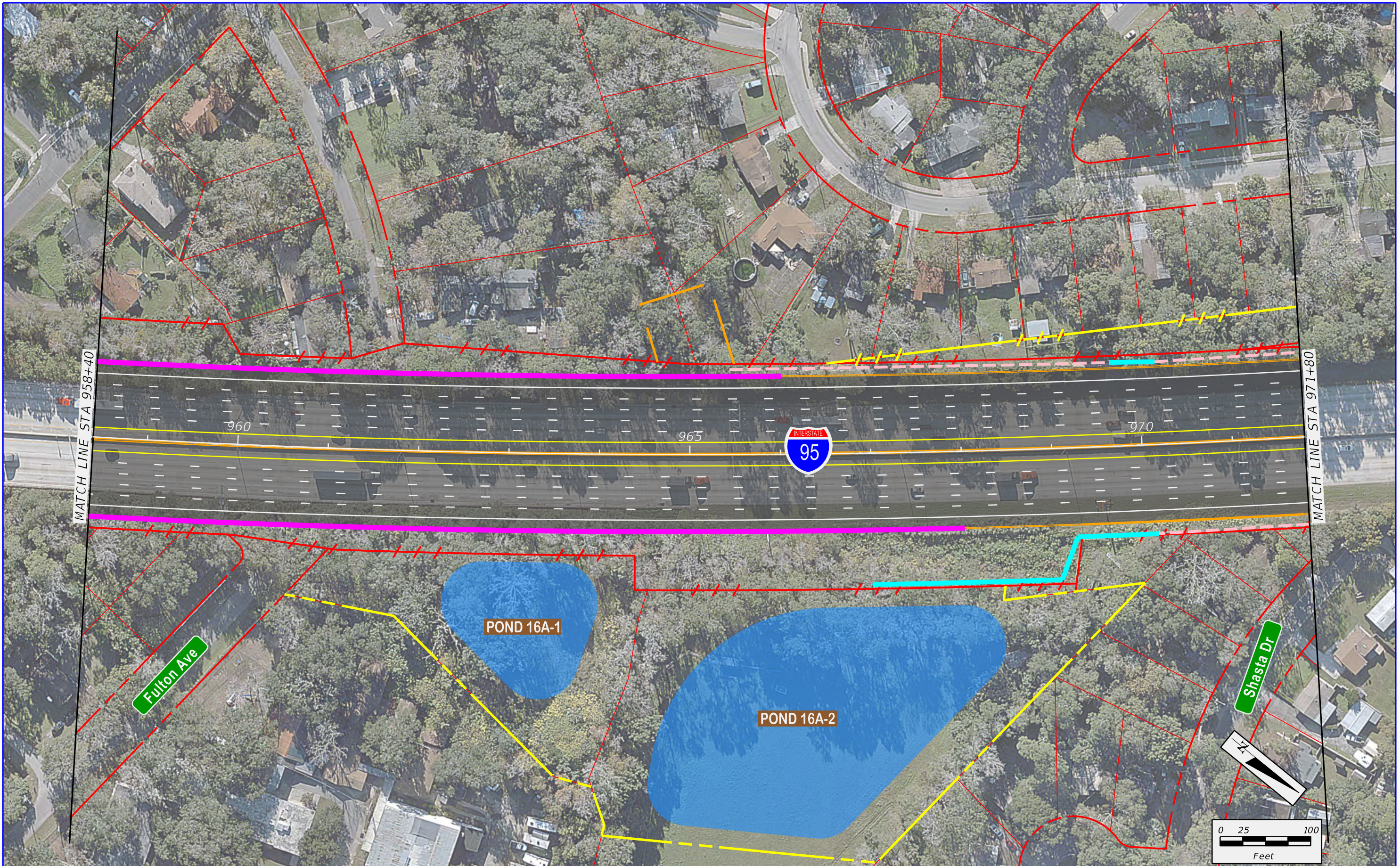
---	EXISTING RIGHT-OF-WAY	---	EXISTING POND
- - -	EXISTING LIMITED ACCESS R/W	---	BARRIER WALL
- - -	EXISTING NOISE WALLS	---	SHOULDER GUTTER/ CURB AND GUTTER
---	PROPOSED RIGHT-OF-WAY	---	PROPOSED LIMITED ACCESS R/W

---	PROPOSED BRIDGE
---	PROPOSED GENERAL USE LANES
---	PROPOSED SHOULDER MOUNTED NOISE WALL
---	PROPOSED GROUND MOUNTED NOISE WALL

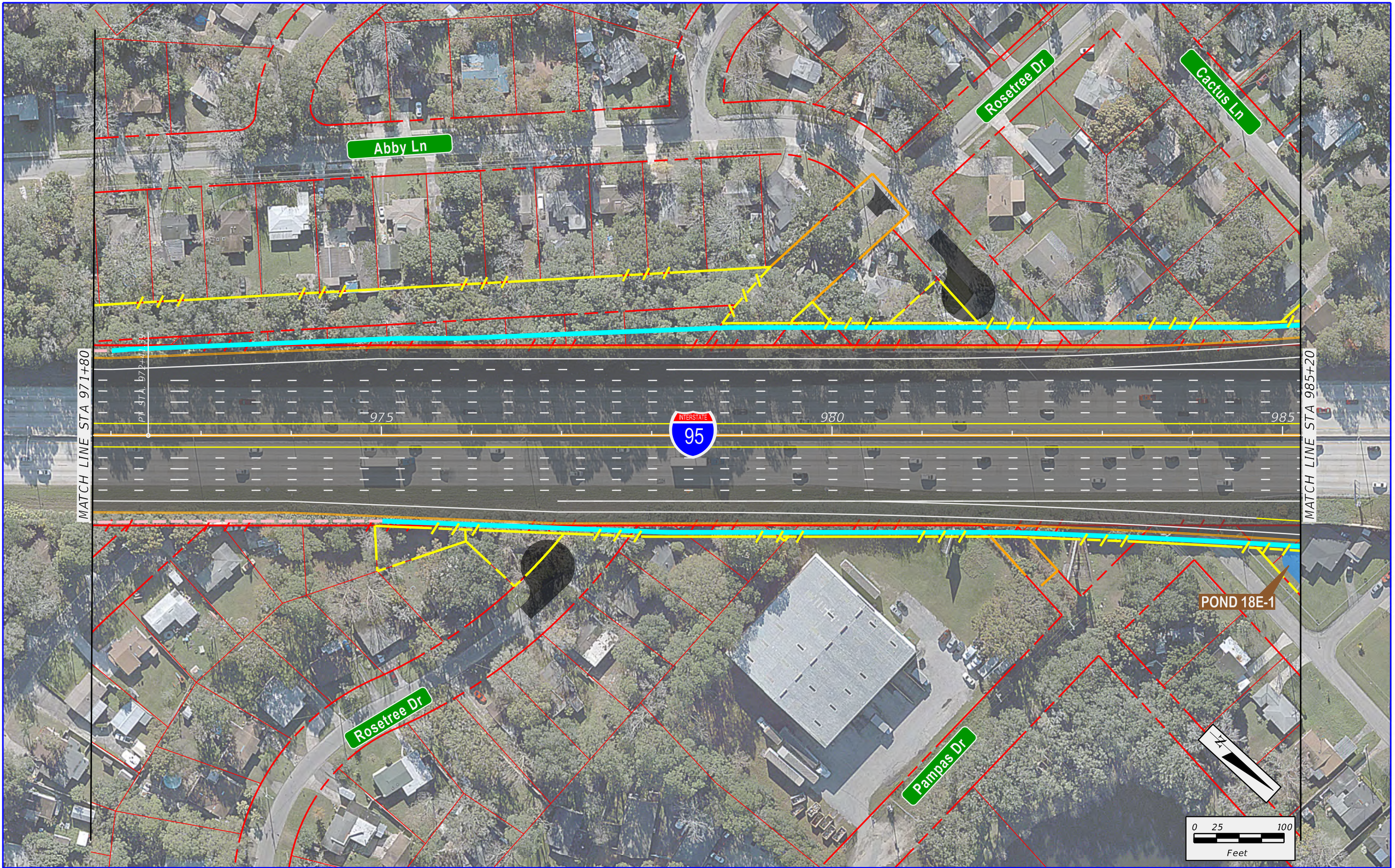
DESIGN CHANGE ALTERNATIVE
(MAINLINE GU LANES)

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15

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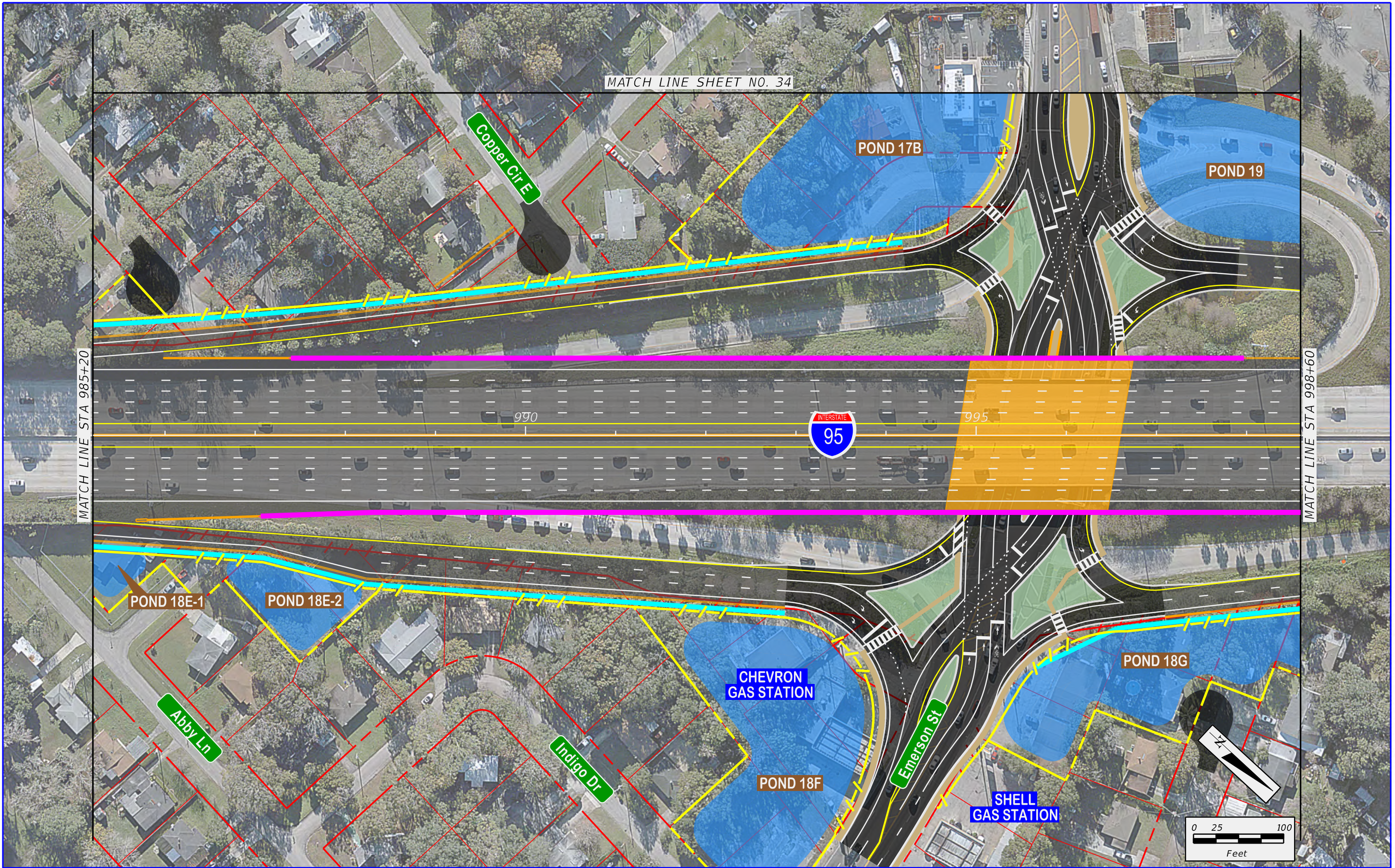



	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	---	EXISTING RIGHT-OF-WAY		EXISTING POND		PROPOSED BRIDGE	DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO. 17
		- - - -	EXISTING LIMITED ACCESS R/W		BARRIER WALL		PROPOSED GENERAL USE LANES		
		- . - . -	EXISTING NOISE WALLS		SHOULDER GUTTER/ CURB AND GUTTER		PROPOSED SHOULDER MOUNTED NOISE WALL		
		- - - -	PROPOSED RIGHT-OF-WAY		PROPOSED LIMITED ACCESS R/W		PROPOSED GROUND MOUNTED NOISE WALL		










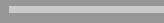

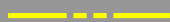


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	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	---	EXISTING RIGHT-OF-WAY		EXISTING POND		PROPOSED BRIDGE	DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
		- - -	EXISTING LIMITED ACCESS R/W		BARRIER WALL		PROPOSED GENERAL USE LANES		18
		- - -	EXISTING NOISE WALLS		SHOULDER GUTTER/ CURB AND GUTTER		PROPOSED SHOULDER MOUNTED NOISE WALL		
		- - -	PROPOSED RIGHT-OF-WAY		PROPOSED LIMITED ACCESS R/W		PROPOSED GROUND MOUNTED NOISE WALL		





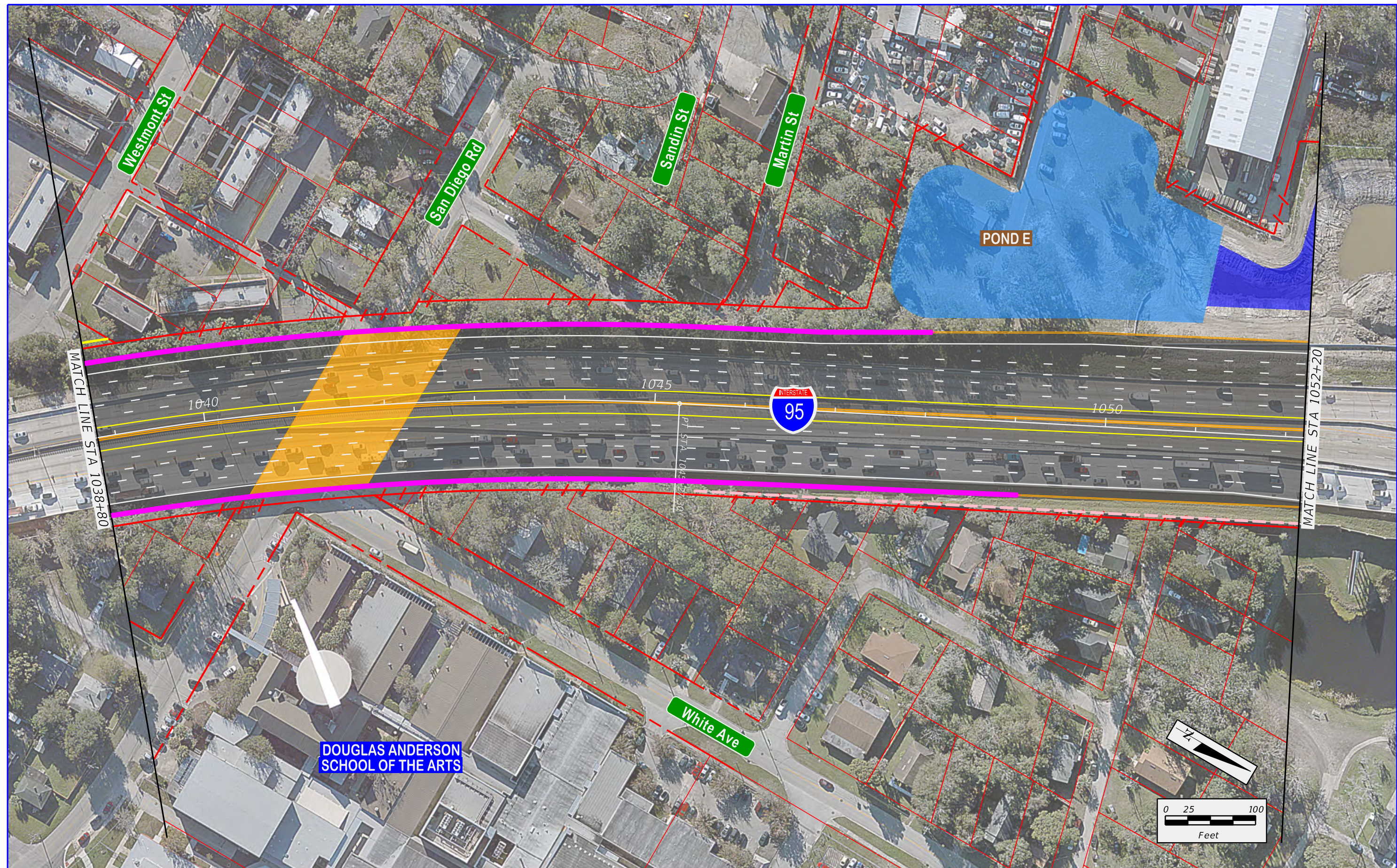
I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)

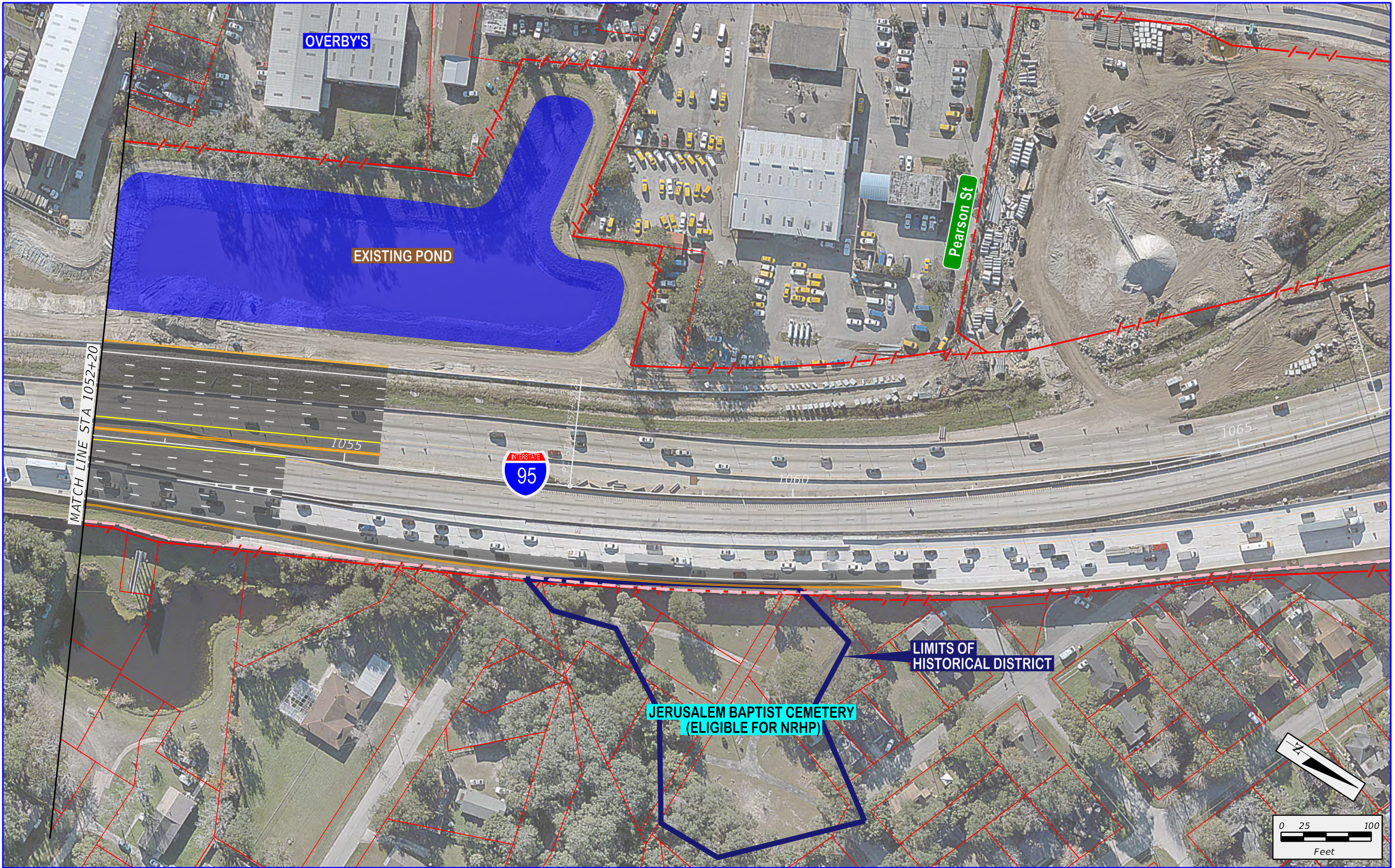
	EXISTING RIGHT-OF-WAY		EXISTING POND		PROPOSED BRIDGE
	EXISTING LIMITED ACCESS R/W		BARRIER WALL		PROPOSED GENERAL USE LANES
	EXISTING NOISE WALLS		SHOULDER GUTTER/ CURB AND GUTTER		PROPOSED SHOULDER MOUNTED NOISE WALL
	PROPOSED RIGHT-OF-WAY		PROPOSED LIMITED ACCESS R/W		PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE
(MAINLINE GU LANES)

SHEET
NO.

19





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	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	---	EXISTING RIGHT-OF-WAY	■	EXISTING POND	---	PROPOSED BRIDGE
		- - -	EXISTING LIMITED ACCESS R/W	---	BARRIER WALL	---	PROPOSED GENERAL USE LANES
		- - -	EXISTING NOISE WALLS	---	SHOULDER GUTTER/ CURB AND GUTTER	---	PROPOSED SHOULDER MOUNTED NOISE WALL
		---	PROPOSED RIGHT-OF-WAY	---	PROPOSED LIMITED ACCESS R/W	---	PROPOSED GROUND MOUNTED NOISE WALL

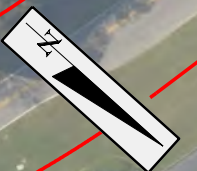
DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
	24

MATCH LINE SHEET NO. 5

EXISTING POND

WYNDHAM GARDEN




JTB







0 25 100

Feet



 EXISTING RIGHT-OF-WAY
 EXISTING LIMITED ACCESS R/W
 EXISTING NOISE WALLS
 PROPOSED RIGHT-OF-WAY

	PROPOSED BRIDGE
	PROPOSED GENERAL USE LANES
	PROPOSED SHOULDER MOUNTED NOISE WALL
	PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)

SHEET
NO.

25



EXISTING POND

JTB



EXISTING POND





A scale bar with markings at 0, 25, and 100 feet. The bar is divided into four equal segments, each representing 25 feet. The word "Feet" is written below the bar.




Free





MATCH LINE SHEET NO. 5



**I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)**

 EXISTING RIGHT-OF-WAY
 EXISTING LIMITED ACCESS R/W
 EXISTING NOISE WALLS
 PROPOSED RIGHT-OF-WAY

 EXISTING POND
 BARRIER WALL
 SHOULDER GUTTER/
CURB AND GUTTER
 PROPOSED LIMITED ACCESS R/W

	PROPOSED BRIDGE
	PROPOSED GENERAL USE LANES
	PROPOSED SHOULDER MOUNTED NOISE WALL
	PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)

SHEET
NO.

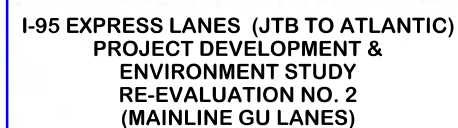
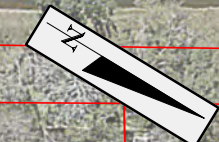
26



MATCH LINE SHEET NO. 11





GOODWILL


**BONO'S PIT
BAR-B-Q**

Bowden Rd



-  EXISTING RIGHT-OF-WAY
 EXISTING LIMITED ACCESS R/W
 EXISTING NOISE WALLS
 PROPOSED RIGHT-OF-WAY

-  EXISTING POND
 BARRIER WALL
 SHOULDER GUTTER/
CURB AND GUTTER
 PROPOSED LIMITED ACCESS R/W

- 
- Legend for bridge components:
- PROPOSED BRIDGE (represented by a yellow bar with black dashed lines)
 - PROPOSED GENERAL USE LANES (represented by a black bar with white dashed lines)
 - PROPOSED SHOULDER MOUNTED NOISE WALL (represented by a solid yellow bar)
 - PROPOSED GROUND MOUNTED NOISE WALL (represented by a solid red bar)

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)

SHEET
NO.

27

USERS


\$USERS \$DATES \$TIMES \$FILES



	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	EXISTING RIGHT-OF-WAY	EXISTING POND	PROPOSED BRIDGE	DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
		EXISTING LIMITED ACCESS R/W	BARRIER WALL	PROPOSED GENERAL USE LANES		28
		EXISTING NOISE WALLS	SHOULDER GUTTER/ CURB AND GUTTER	PROPOSED SHOULDER MOUNTED NOISE WALL		
		PROPOSED RIGHT-OF-WAY	PROPOSED LIMITED ACCESS R/W	PROPOSED GROUND MOUNTED NOISE WALL		



\$USERS \$DATES \$TIMES \$FILES

	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	---	EXISTING RIGHT-OF-WAY		EXISTING POND		PROPOSED BRIDGE
		- - -	EXISTING LIMITED ACCESS R/W		BARRIER WALL		PROPOSED GENERAL USE LANES
		- - -	EXISTING NOISE WALLS		SHOULDER GUTTER/ CURB AND GUTTER		PROPOSED SHOULDER MOUNTED NOISE WALL
		- - -	PROPOSED RIGHT-OF-WAY		PROPOSED LIMITED ACCESS R/W		PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE
(MAINLINE GU LANES)

SHEET
NO.
29

MATCH LINE SHEET NO. 28

Richard St

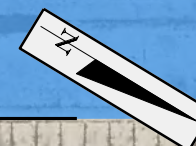
University Blvd

Cagle Rd








POND 13A


MATCH LINE SHEET NO. 12







**I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)**

 EXISTING RIGHT-OF-WAY
 EXISTING LIMITED ACCESS R/W
 EXISTING NOISE WALLS
 PROPOSED RIGHT-OF-WAY

 EXISTING POND
 BARRIER WALL
 SHOULDER GUTTER/
CURB AND GUTTER
 PROPOSED LIMITED ACCESS R/W

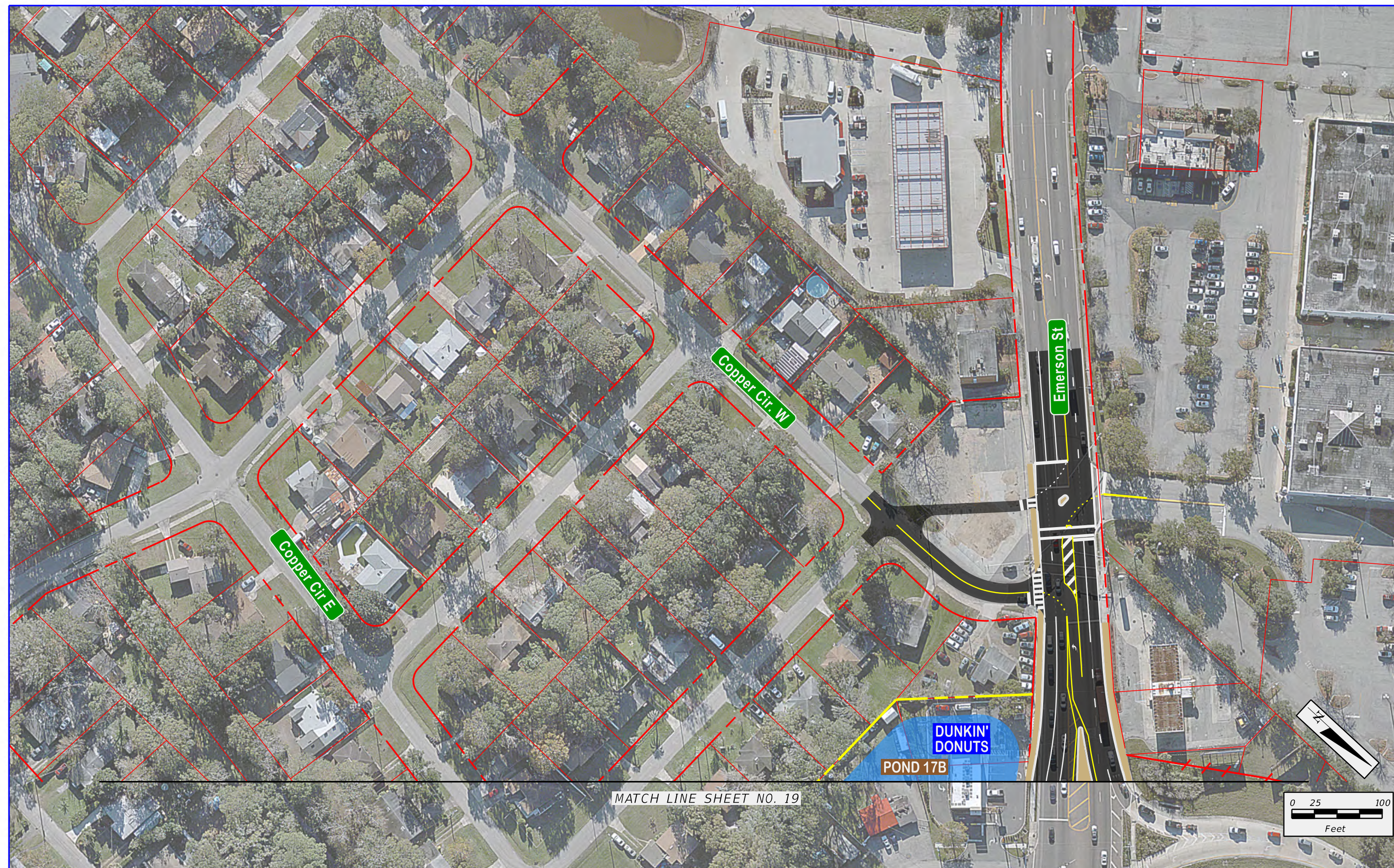


	PROPOSED BRIDGE
	PROPOSED GENERAL USE LANES
	PROPOSED SHOULDER MOUNTED NOISE WALL
	PROPOSED GROUND MOUNTED NOISE WALL



DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)





**SHEET
NO.**






30



**I-95 EXPRESS LANES (JTB TO ATLANTIC)
PROJECT DEVELOPMENT &
ENVIRONMENT STUDY
RE-EVALUATION NO. 2
(MAINLINE GU LANES)**

-  EXISTING RIGHT-OF-WAY
 EXISTING LIMITED ACCESS R/W
 EXISTING NOISE WALLS
 PROPOSED RIGHT-OF-WAY

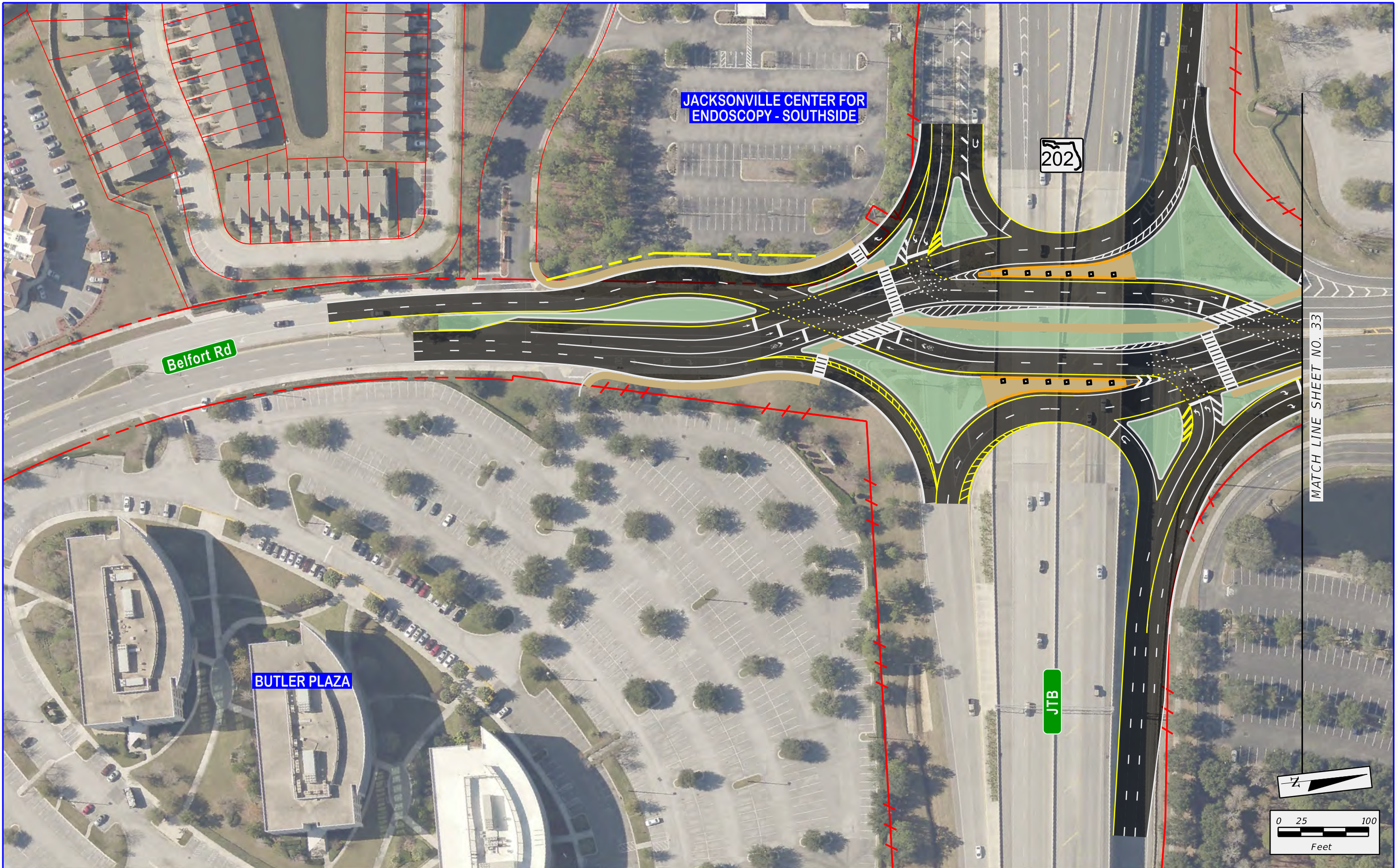
-  EXISTING POND
 BARRIER WALL
 SHOULDER GUTTER/
CURB AND GUTTER
 PROPOSED LIMITED ACCESS R/W

- 
-  PROPOSED BRIDGE
 -  PROPOSED GENERAL USE LANES
 -  PROPOSED SHOULDER MOUNTED NOISE WALL
 -  PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)

SHEET
NO.

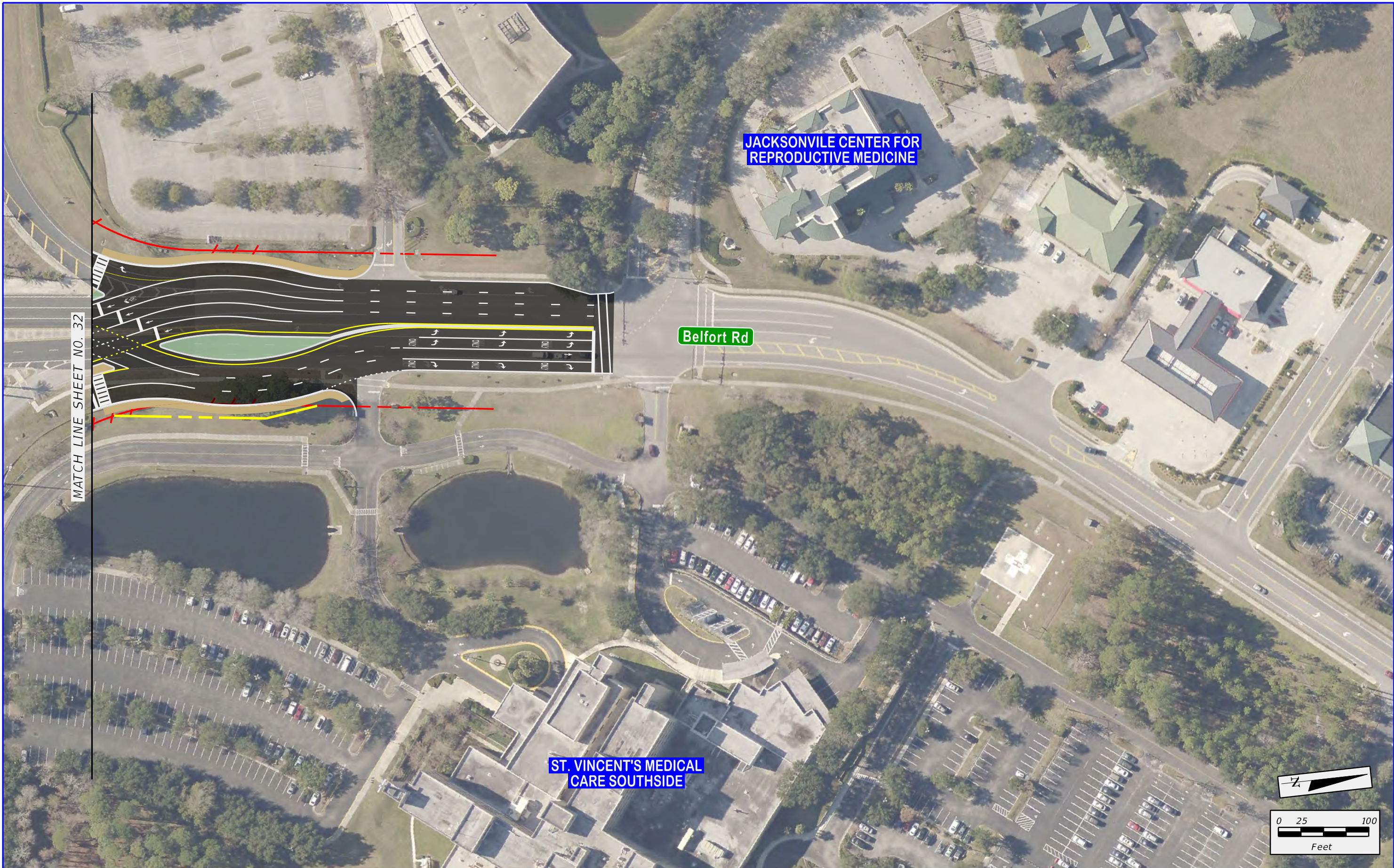
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	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	---	EXISTING RIGHT-OF-WAY	■	EXISTING POND	---	PROPOSED BRIDGE
		- - -	EXISTING LIMITED ACCESS R/W	---	BARRIER WALL	---	PROPOSED GENERAL USE LANES
		- - -	EXISTING NOISE WALLS	---	SHOULDER GUTTER/ CURB AND GUTTER	---	PROPOSED SHOULDER MOUNTED NOISE WALL
		---	PROPOSED RIGHT-OF-WAY	---	PROPOSED LIMITED ACCESS R/W	---	PROPOSED GROUND MOUNTED NOISE WALL

DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
	32



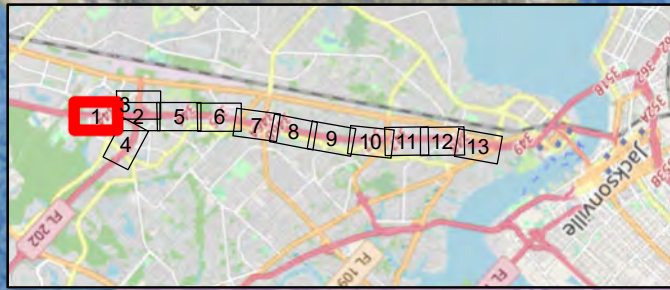
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	I-95 EXPRESS LANES (JTB TO ATLANTIC) PROJECT DEVELOPMENT & ENVIRONMENT STUDY RE-EVALUATION NO. 2 (MAINLINE GU LANES)	EXISTING RIGHT-OF-WAY	EXISTING POND	PROPOSED BRIDGE	DESIGN CHANGE ALTERNATIVE (MAINLINE GU LANES)	SHEET NO.
		EXISTING LIMITED ACCESS R/W	BARRIER WALL	PROPOSED GENERAL USE LANES		33
		EXISTING NOISE WALLS	SHOULDER GUTTER/ CURB AND GUTTER	PROPOSED SHOULDER MOUNTED NOISE WALL		
		PROPOSED RIGHT-OF-WAY	PROPOSED LIMITED ACCESS R/W	PROPOSED GROUND MOUNTED NOISE WALL		

APPENDIX C

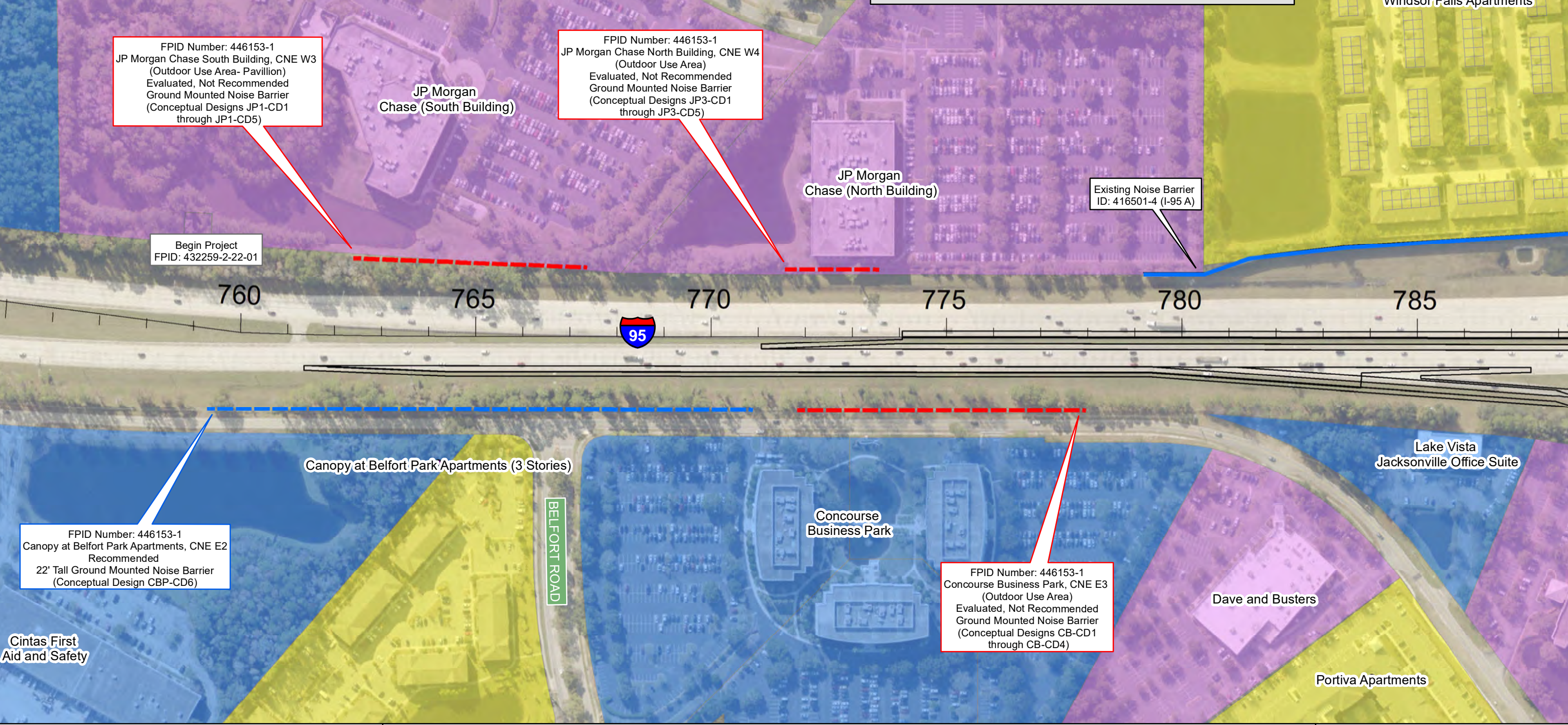
Figure 3-1 Noise Analysis Map





Note: The Traffic Noise Analysis & Evaluation of Noise Barriers along I-95 South of J. Turner Butler Boulevard (JTB) were Completed as part of the I-95 Widening PD&E Study from Baymeadows Road to South of JTB/SR 202 - Financial Project ID (FPID): 446153-1 and Presented in the I-95 PD&E Noise Study Study from I-295 (SR 9A) to SR 202 (JTB) (FPID Number: 435577-1)

See Appendix A for Relevant Pages from the I-95 Widening PD&E Study Noise Study Report (July 2020)



I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida
FPID: 432259-2-52-01

Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

Recommended Alternative

Proposed Right-of-Way

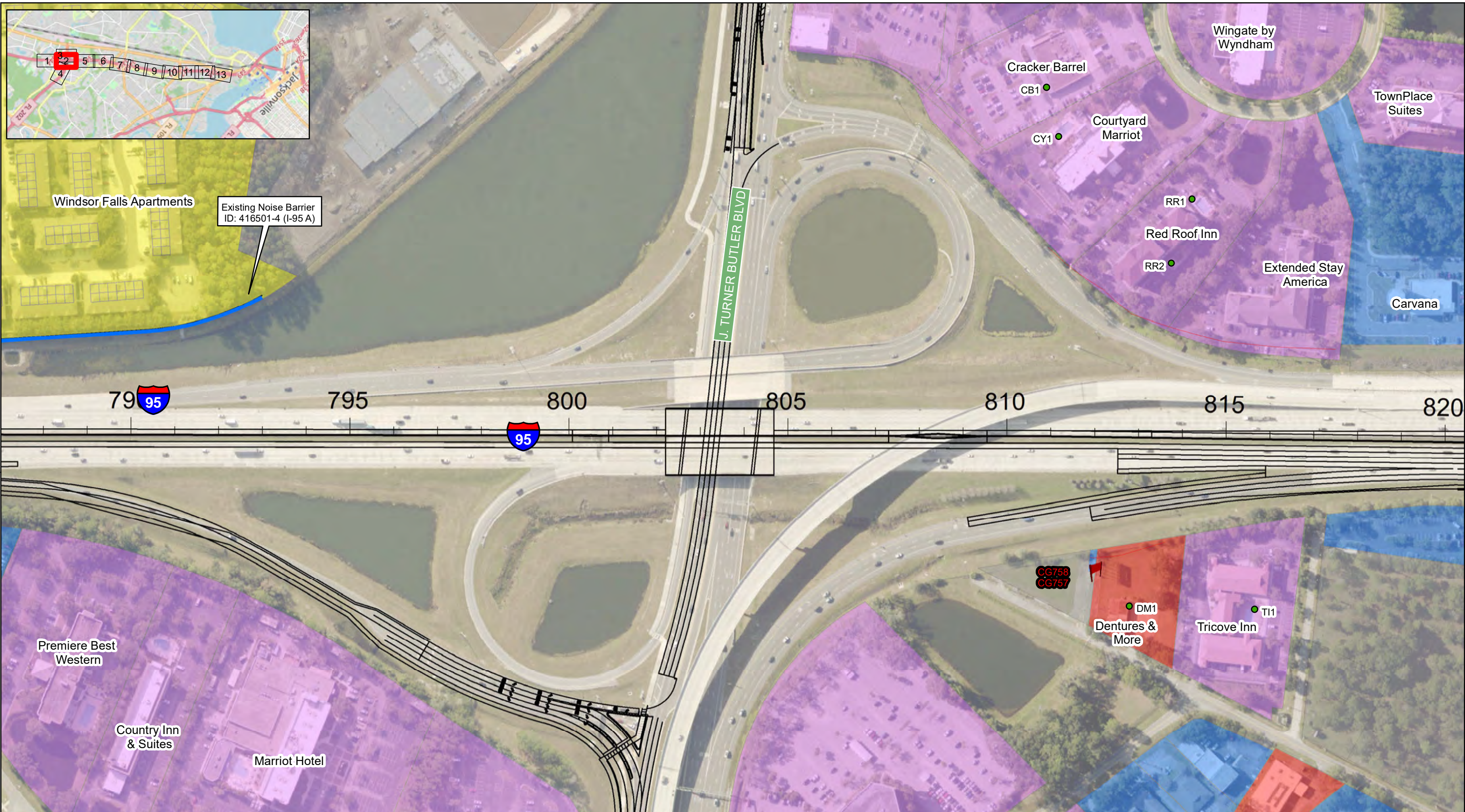
Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant

November 2021

**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 1 OF 13**



I-95 (SR-9) from SR 202 (J. Turner Blvd)
to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01



Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

Recommended Alternative

Proposed Right-of-Way

Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant


0 75 150 300 Feet


November 2021

**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 2 OF 13**







I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01









 Outdoor Advertising Sign


Receptor Sites


-  Predicted Noise Levels \geq Noise Abatement Criteria
-  Predicted Noise Levels $<$ Noise Abatement Criteria
-  Currently Undeveloped
-  To be Relocated

Noise Barriers







-  Existing Noise Barrier to Remain
-  Extension of Existing Noise Barrier
-  Replacement of Existing Noise Barrier
-  Supplemental Noise Barrier
-  Not Recommended


 Recommended Alternative

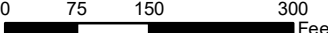
 Proposed Right-of-Way

 Pond Sites (Re-evaluation No. 1)

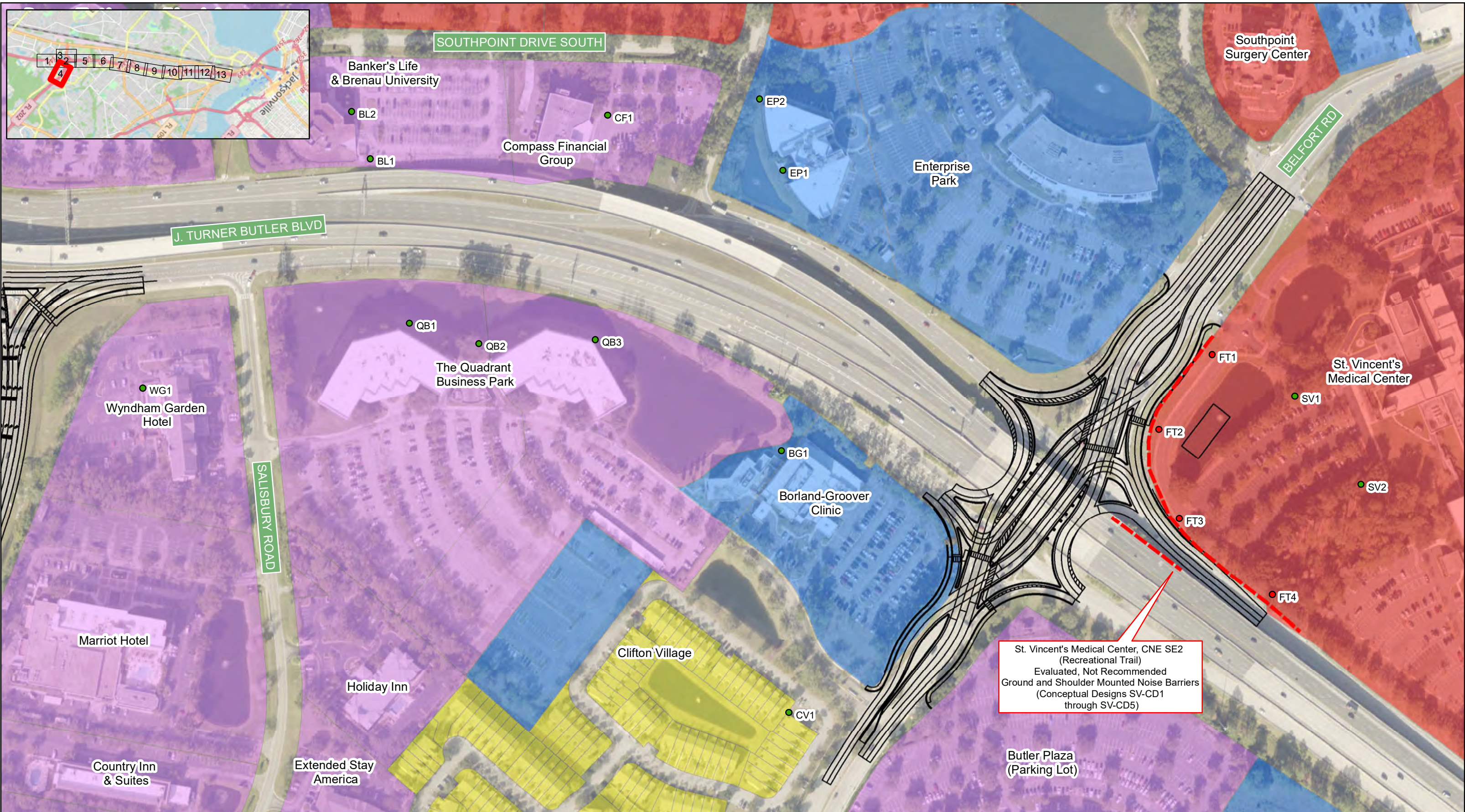
Land Uses by Noise Activity Category

-  B: Residential, 66.0 dB(A)
-  C: Other Sensitive Land Use, 66.0 dB(A)
-  D: Institutional (Interior), 51.0 dB(A)
-  E: Sensitive Commercial, 71.0 dB(A)
-  F: Non-Sensitive Developed, N/A
-  G: Vacant

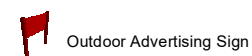


 0 75 150 300 Feet

**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 3 OF 13**



I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01



Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

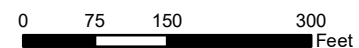
- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

Recommended Alternative

- Proposed Right-of-Way
- Pond Sites (Re-evaluation No. 1)

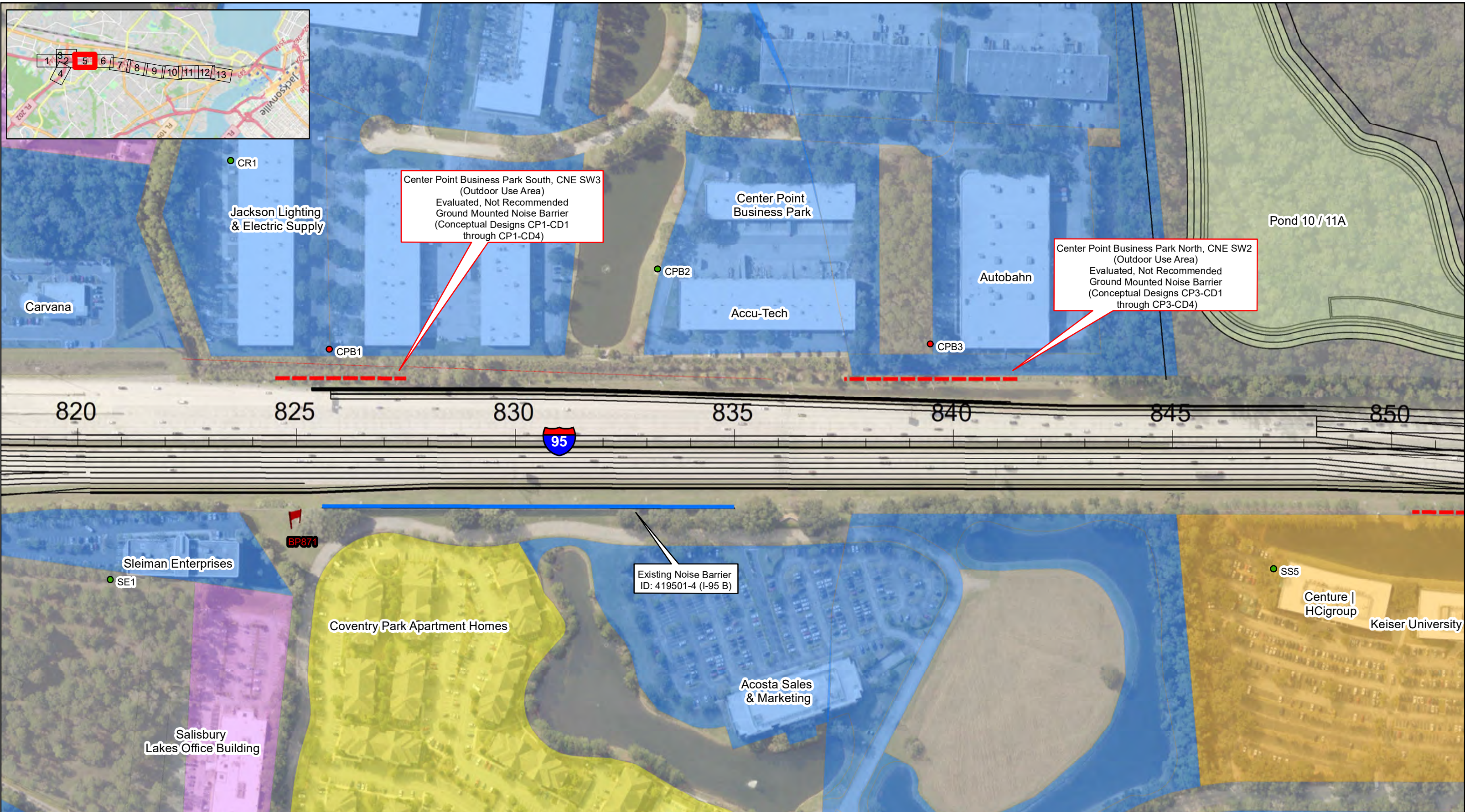
Land Uses by Noise Activity Category

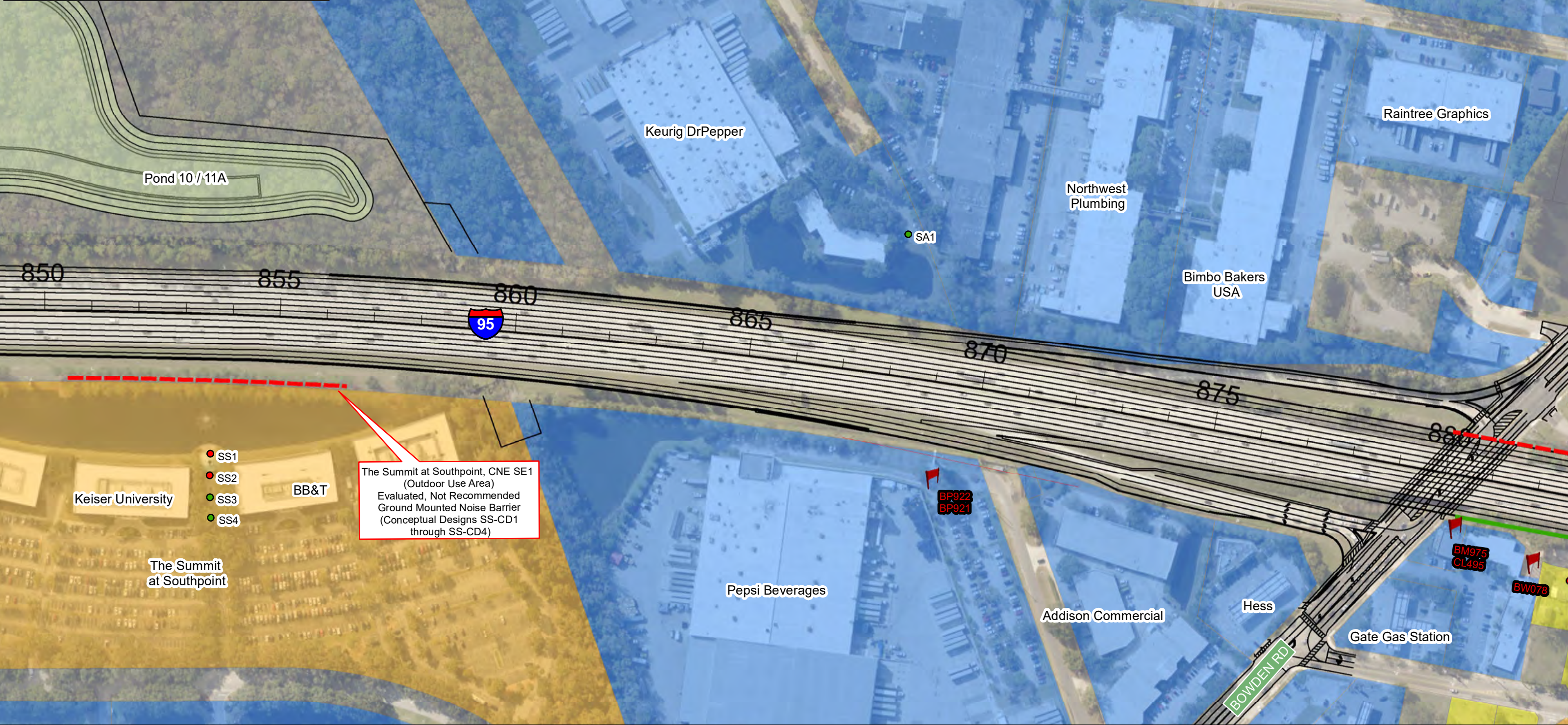
- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant



November 2021

**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 4 OF 13**





I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01



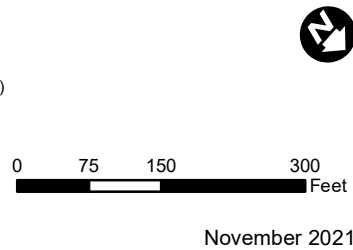
Outdoor Advertising Sign

- Receptor Sites**
- Predicted Noise Levels \geq Noise Abatement Criteria
 - Predicted Noise Levels $<$ Noise Abatement Criteria
 - Currently Undeveloped
 - To be Relocated

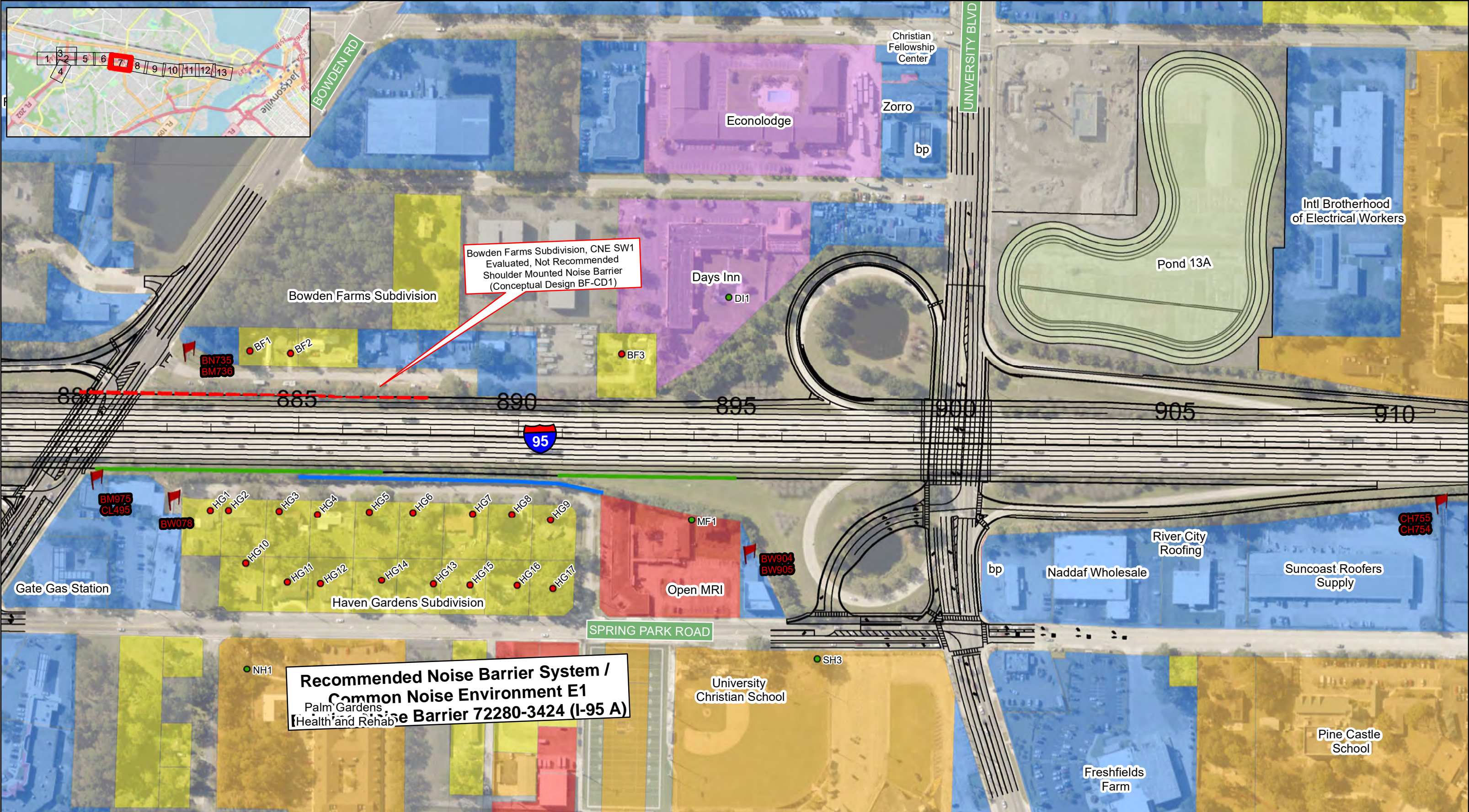
- Noise Barriers**
- Existing Noise Barrier to Remain
 - Extension of Existing Noise Barrier
 - Replacement of Existing Noise Barrier
 - Supplemental Noise Barrier
 - Not Recommended

- Recommended Alternative
- Proposed Right-of-Way
- Pond Sites (Re-evaluation No. 1)

- Land Uses by Noise Activity Category**
- B: Residential, 66.0 dB(A)
 - C: Other Sensitive Land Use, 66.0 dB(A)
 - D: Institutional (Interior), 51.0 dB(A)
 - E: Sensitive Commercial, 71.0 dB(A)
 - F: Non-Sensitive Developed, N/A
 - G: Vacant



**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 6 OF 13**



I-95 (SR-9) from SR 202 (J. Turner Blvd)
to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01



Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

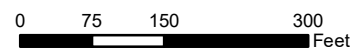
Recommended Alternative

Proposed Right-of-Way

Pond Sites (Re-evaluation No. 1)

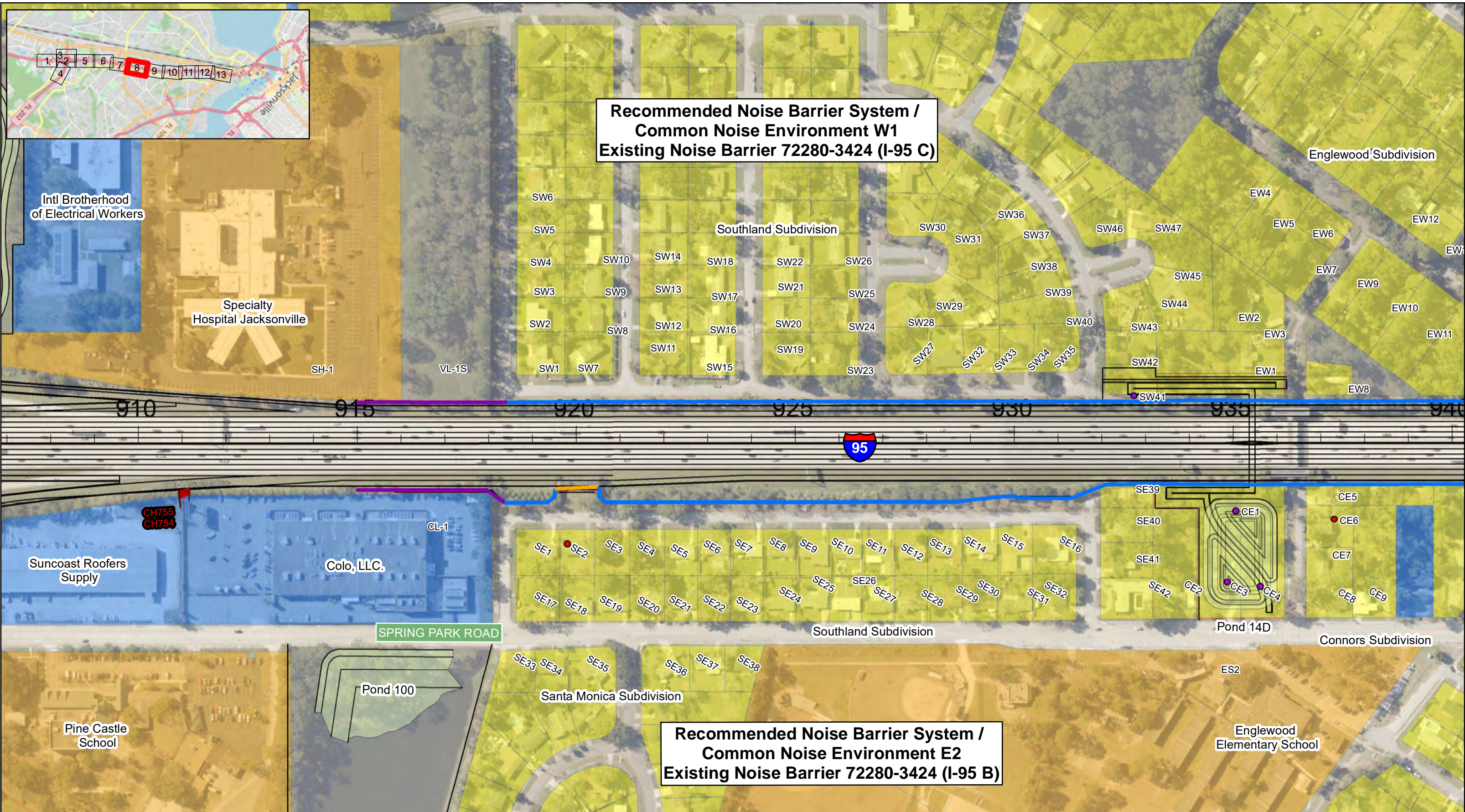
Land Uses by Noise Activity Category

- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant



November 2021

**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 7 OF 13**



I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01



Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

Recommended Alternative

Proposed Right-of-Way

Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant

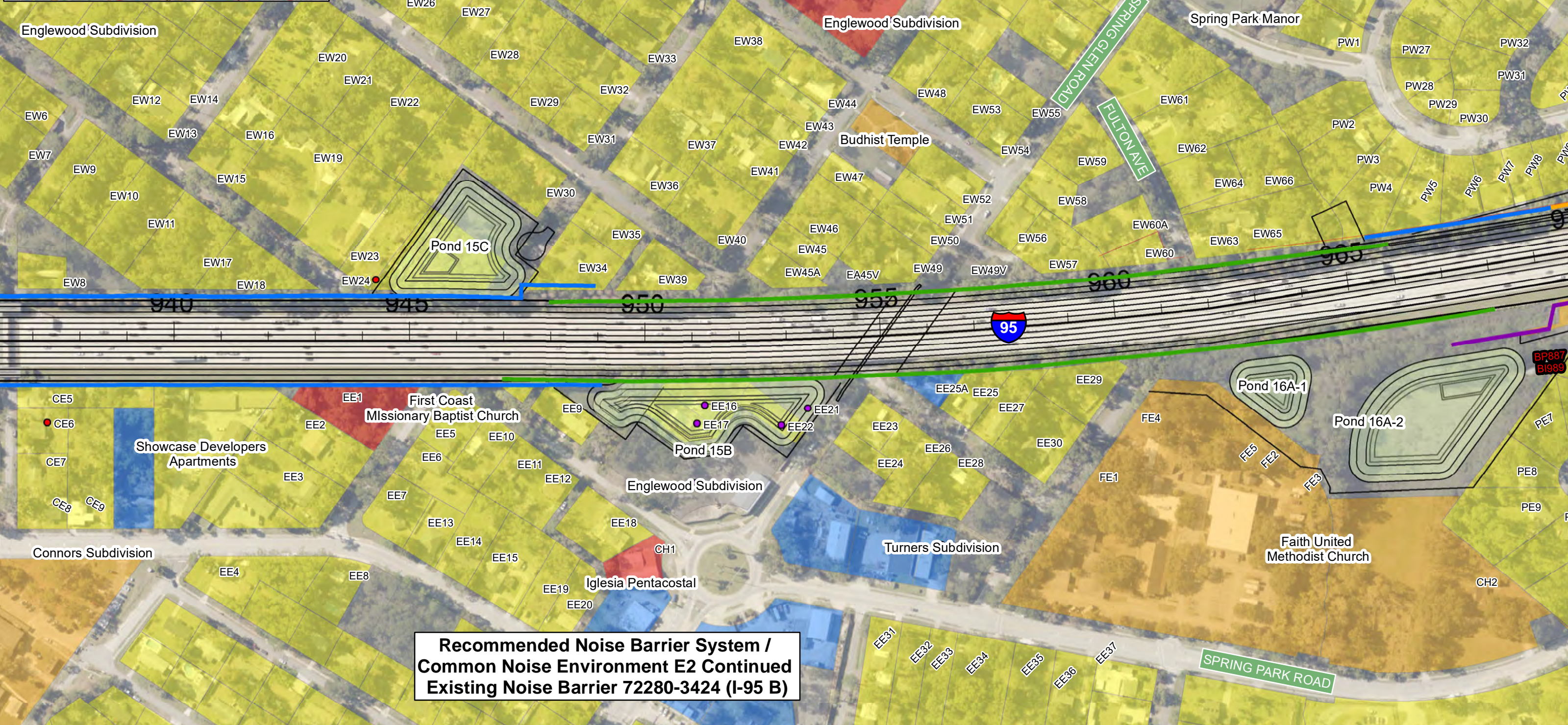
0 75 150 300 Feet

November 2021

FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 8 OF 13

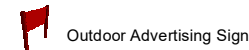


**Recommended Noise Barrier System /
Common Noise Environment W1 Continued
Existing Noise Barriers 72280-3424 (I-95 C)
& 72280-3424 (I-95 F)**



**Recommended Noise Barrier System /
Common Noise Environment E2 Continued
Existing Noise Barrier 72280-3424 (I-95 B)**

I-95 (SR-9) from SR 202 (J. Turner Blvd)
to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01

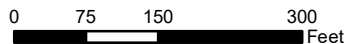


- Receptor Sites**
- Predicted Noise Levels \geq Noise Abatement Criteria
 - Predicted Noise Levels $<$ Noise Abatement Criteria
 - Currently Undeveloped
 - To be Relocated

- Noise Barriers**
- Existing Noise Barrier to Remain
 - Extension of Existing Noise Barrier
 - Replacement of Existing Noise Barrier
 - Supplemental Noise Barrier
 - Not Recommended

- Recommended Alternative
- Proposed Right-of-Way
- Pond Sites (Re-evaluation No. 1)

- Land Uses by Noise Activity Category**
- B: Residential, 66.0 dB(A)
 - C: Other Sensitive Land Use, 66.0 dB(A)
 - D: Institutional (Interior), 51.0 dB(A)
 - E: Sensitive Commercial, 71.0 dB(A)
 - F: Non-Sensitive Developed, N/A
 - G: Vacant



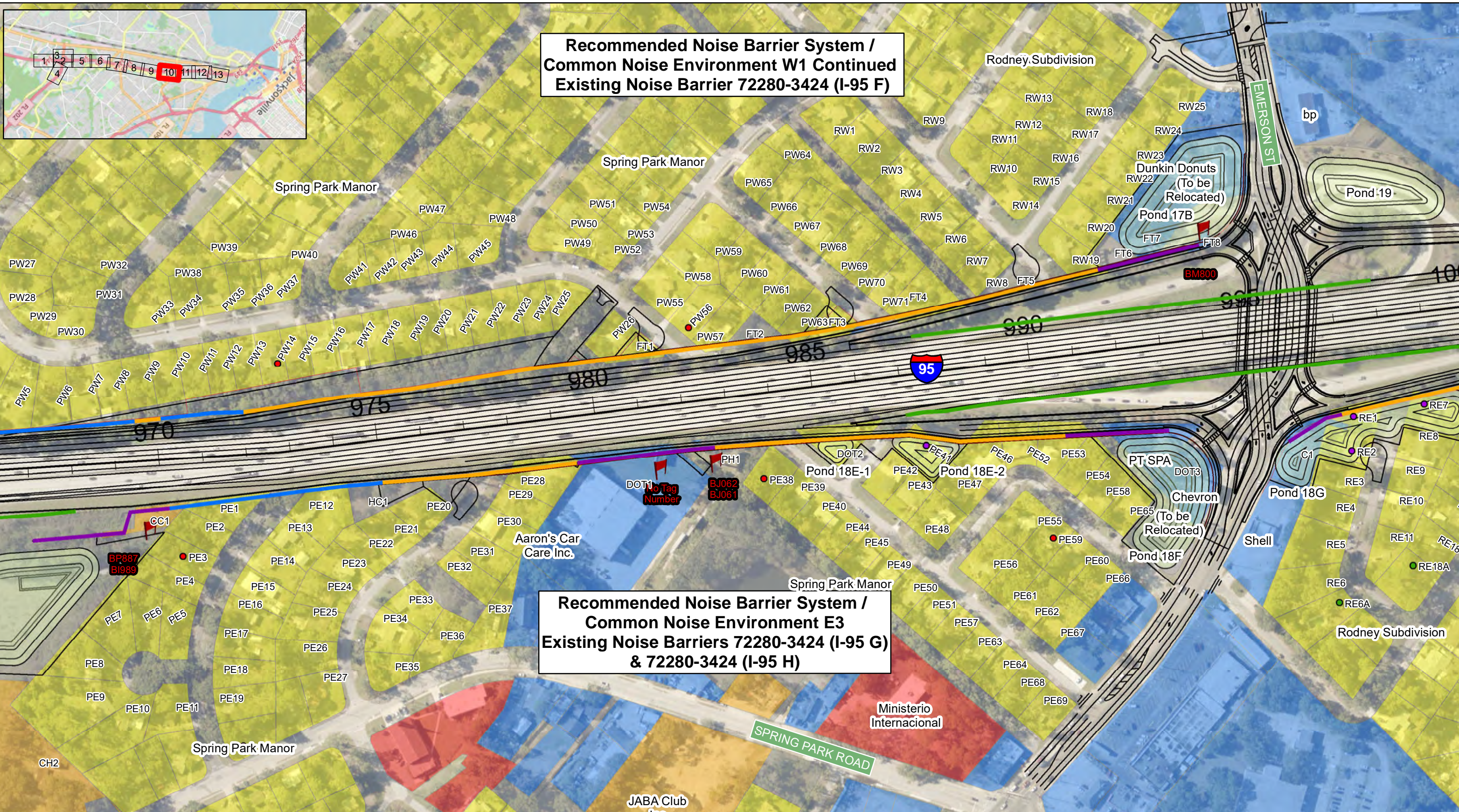
November 2021



**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 9 OF 13**



**Recommended Noise Barrier System /
Common Noise Environment W1 Continued
Existing Noise Barrier 72280-3424 (I-95 F)**



**Recommended Noise Barrier System /
Common Noise Environment E3
Existing Noise Barriers 72280-3424 (I-95 G)
& 72280-3424 (I-95 H)**

I-95 (SR-9) from SR 202 (J. Turner Blvd)
to Atlantic Blvd PD&E Study
Re-evaluation No. 2
(Mainline GU Lanes)
Duval County, Florida
FPID: 432259-2-52-01



Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

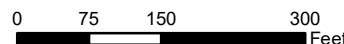
- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

Recommended Alternative

- Proposed Right-of-Way
- Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

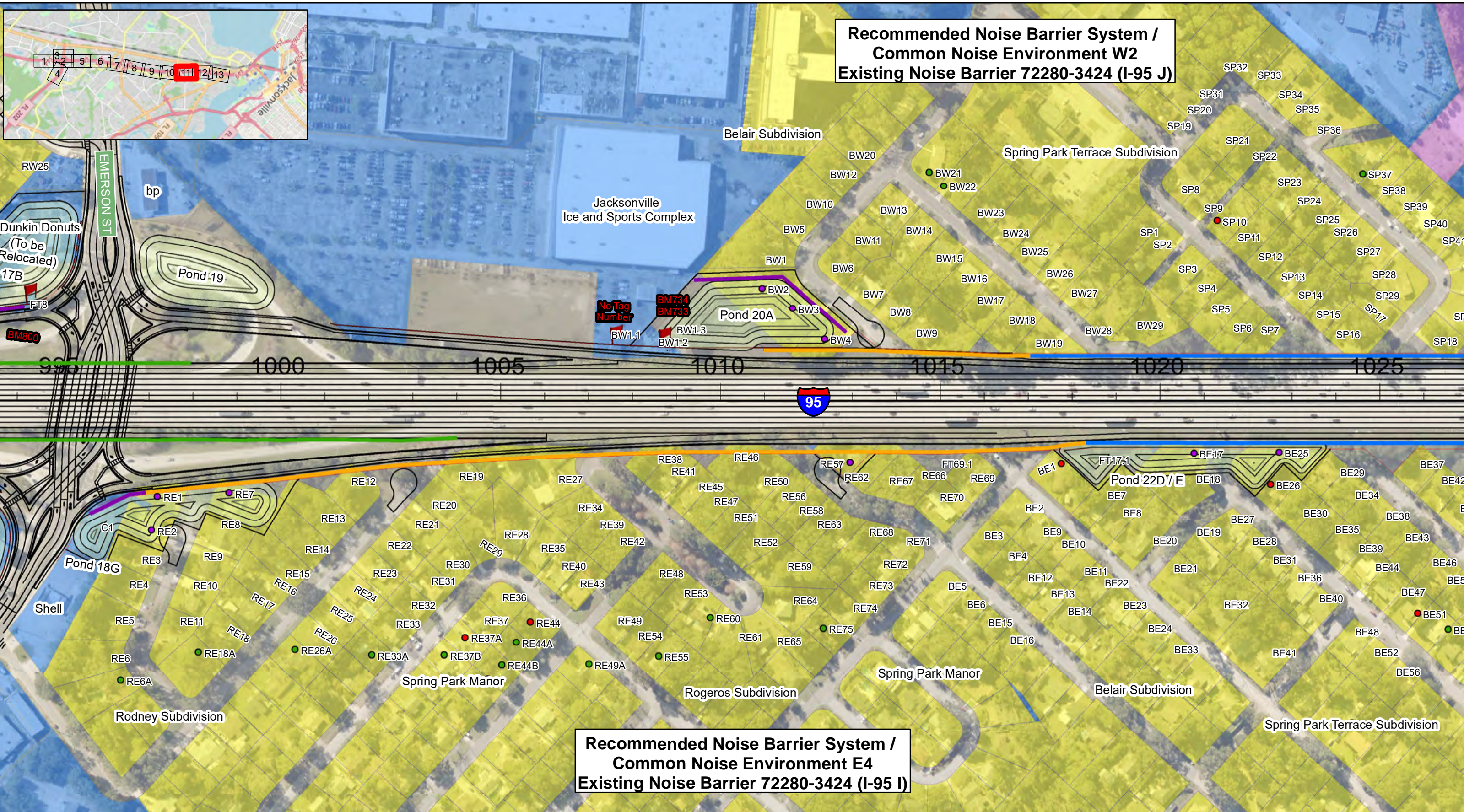
- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant




November 2021




**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 10 OF 13**







I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01









 Outdoor Advertising Sign


Receptor Sites


-  Predicted Noise Levels ≥ Noise Abatement Criteria
-  Predicted Noise Levels < Noise Abatement Criteria
-  Currently Undeveloped
-  To be Relocated

Noise Barriers







-  Existing Noise Barrier to Remain
-  Extension of Existing Noise Barrier
-  Replacement of Existing Noise Barrier
-  Supplemental Noise Barrier
-  Not Recommended


 Recommended Alternative

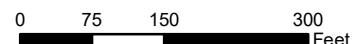
 Proposed Right-of-Way

 Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

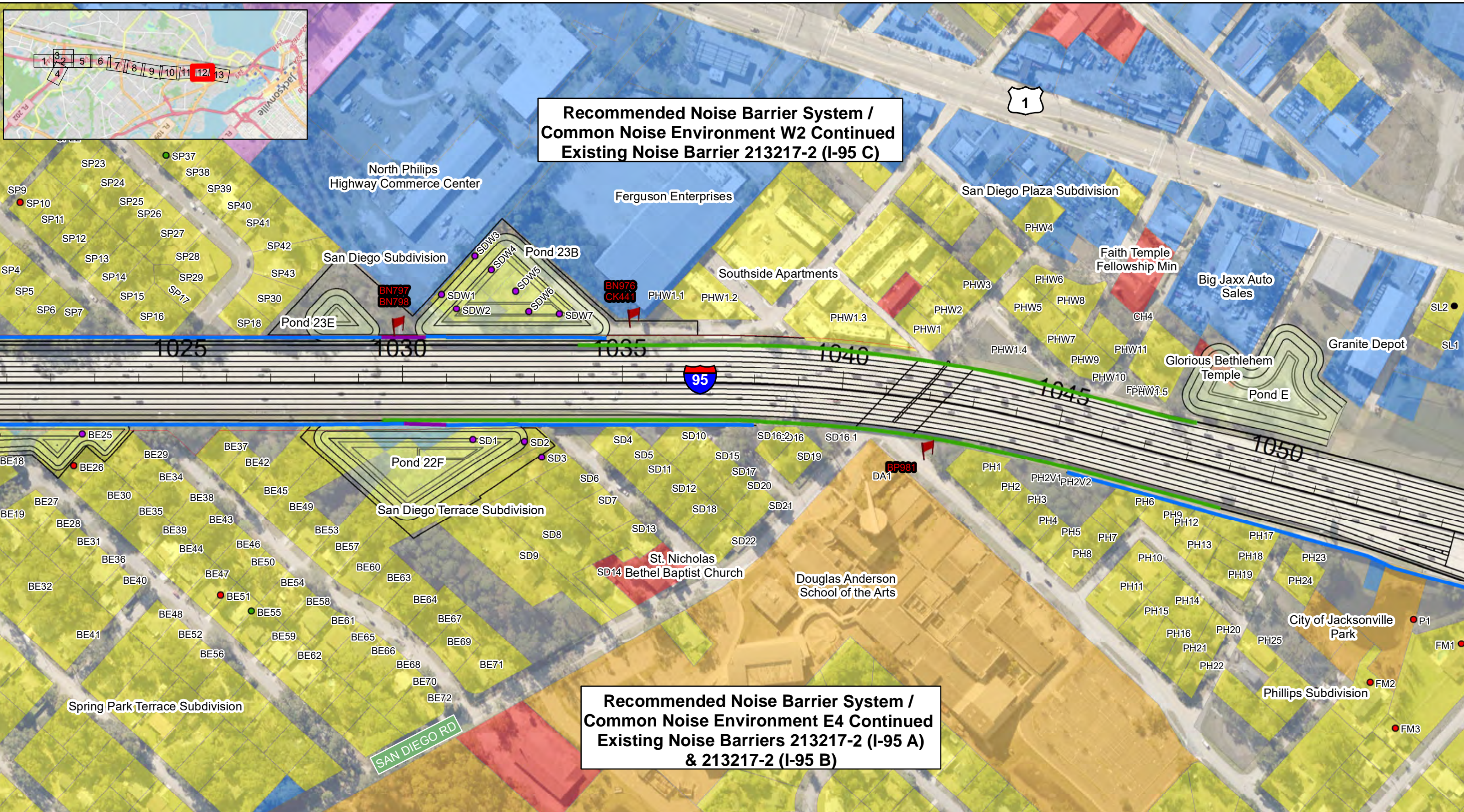
-  B: Residential, 66.0 dB(A)
-  C: Other Sensitive Land Use, 66.0 dB(A)
-  D: Institutional (Interior), 51.0 dB(A)
-  E: Sensitive Commercial, 71.0 dB(A)
-  F: Non-Sensitive Developed, N/A
-  G: Vacant



 0 75 150 300 Feet

November 2021

**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 11 OF 13**



I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01



Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels ≥ Noise Abatement Criteria
- Predicted Noise Levels < Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

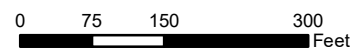
Recommended Alternative

Proposed Right-of-Way

Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

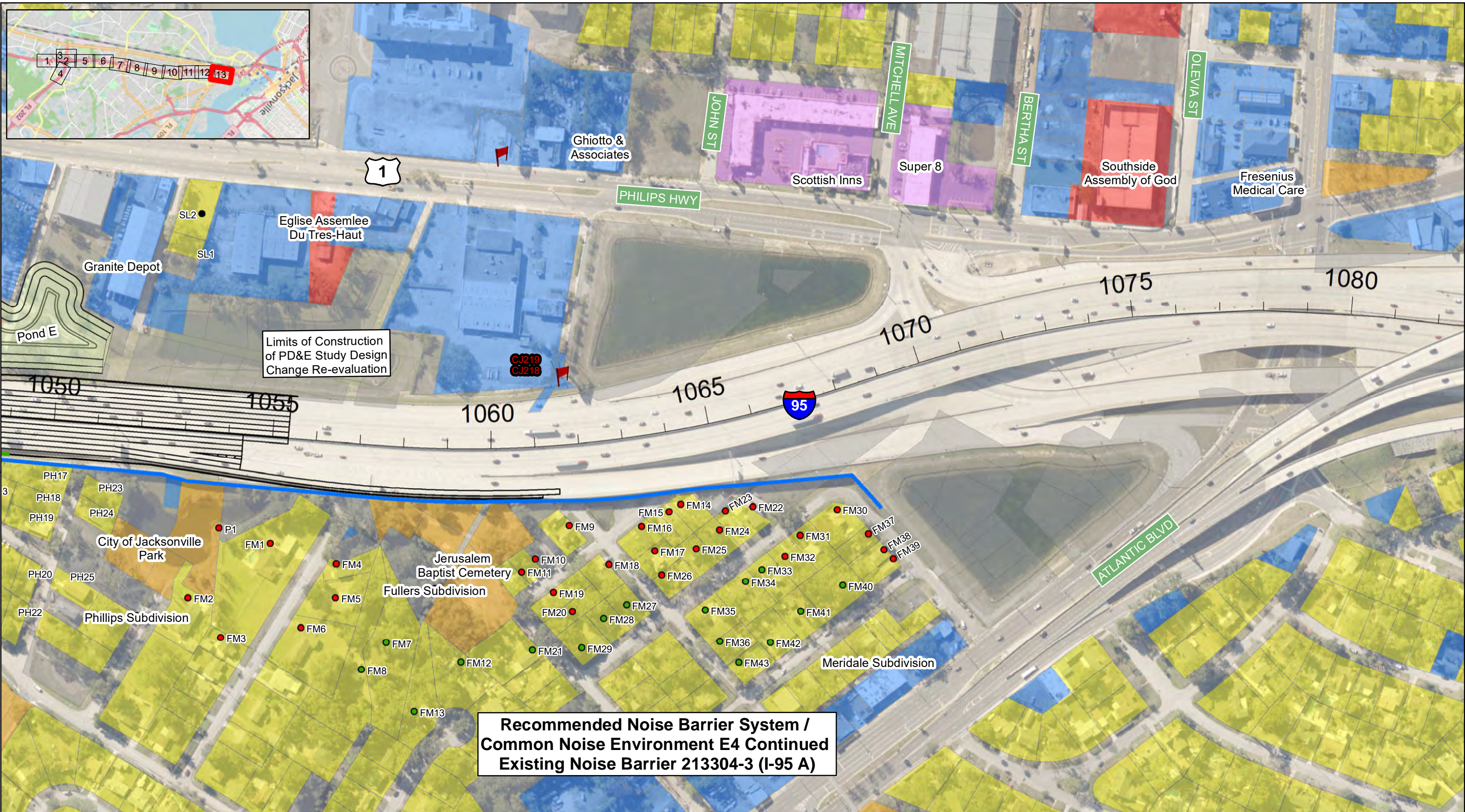
- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant



November 2021



**FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 12 OF 13**



I-95 (SR-9) from SR 202 (J. Turner Blvd) to Atlantic Blvd PD&E Study Re-evaluation No. 2 (Mainline GU Lanes) Duval County, Florida FPID: 432259-2-52-01



Outdoor Advertising Sign

Receptor Sites

- Predicted Noise Levels \geq Noise Abatement Criteria
- Predicted Noise Levels $<$ Noise Abatement Criteria
- Currently Undeveloped
- To be Relocated

Noise Barriers

- Existing Noise Barrier to Remain
- Extension of Existing Noise Barrier
- Replacement of Existing Noise Barrier
- Supplemental Noise Barrier
- Not Recommended

Recommended Alternative

- Proposed Right-of-Way
- Pond Sites (Re-evaluation No. 1)

Land Uses by Noise Activity Category

- B: Residential, 66.0 dB(A)
- C: Other Sensitive Land Use, 66.0 dB(A)
- D: Institutional (Interior), 51.0 dB(A)
- E: Sensitive Commercial, 71.0 dB(A)
- F: Non-Sensitive Developed, N/A
- G: Vacant

0 75 150 300 Feet

November 2021

FIGURE 3-1
NOISE ANALYSIS MAP
SHEET 13 OF 13

APPENDIX D

Noise Modeling Traffic Data



Noise Study Report Addendum No. 1

I-95 Express Lanes PD&E Study

Design Change Re-evaluation No. 2 (Mainline GU Lanes)

SYSTEMS INTERCHANGE MODIFICATION REPORT (SIMR) RE-EVALUATION

I-95 from International Golf Parkway to Atlantic Boulevard

Financial Project Identification Numbers

432259-1: I-95 Corridor Planning between International Golf Parkway and Atlantic Boulevard

422938-9: I-95 between International Golf Parkway and First Coast Expressway

422938-8: SR 23 (First Coast Expressway) from I-95 to East of CR 16A

424026-4: I-95 between First Coast Expressway and Duval/St. Johns County Line

424026-5: I-95 between St. Johns County/Duval County Line to I-295

435577-2: I-95 between I-295 and SR 152/Baymeadows Road

446153-1: I-95 between SR 152/Baymeadows Road and SR 202/Butler Boulevard

432259-2: I-95 between SR 202/Butler Boulevard and Atlantic Boulevard

446386-1: SR 202/Butler Boulevard at Belfort Road

Duval and St. Johns Counties, Florida

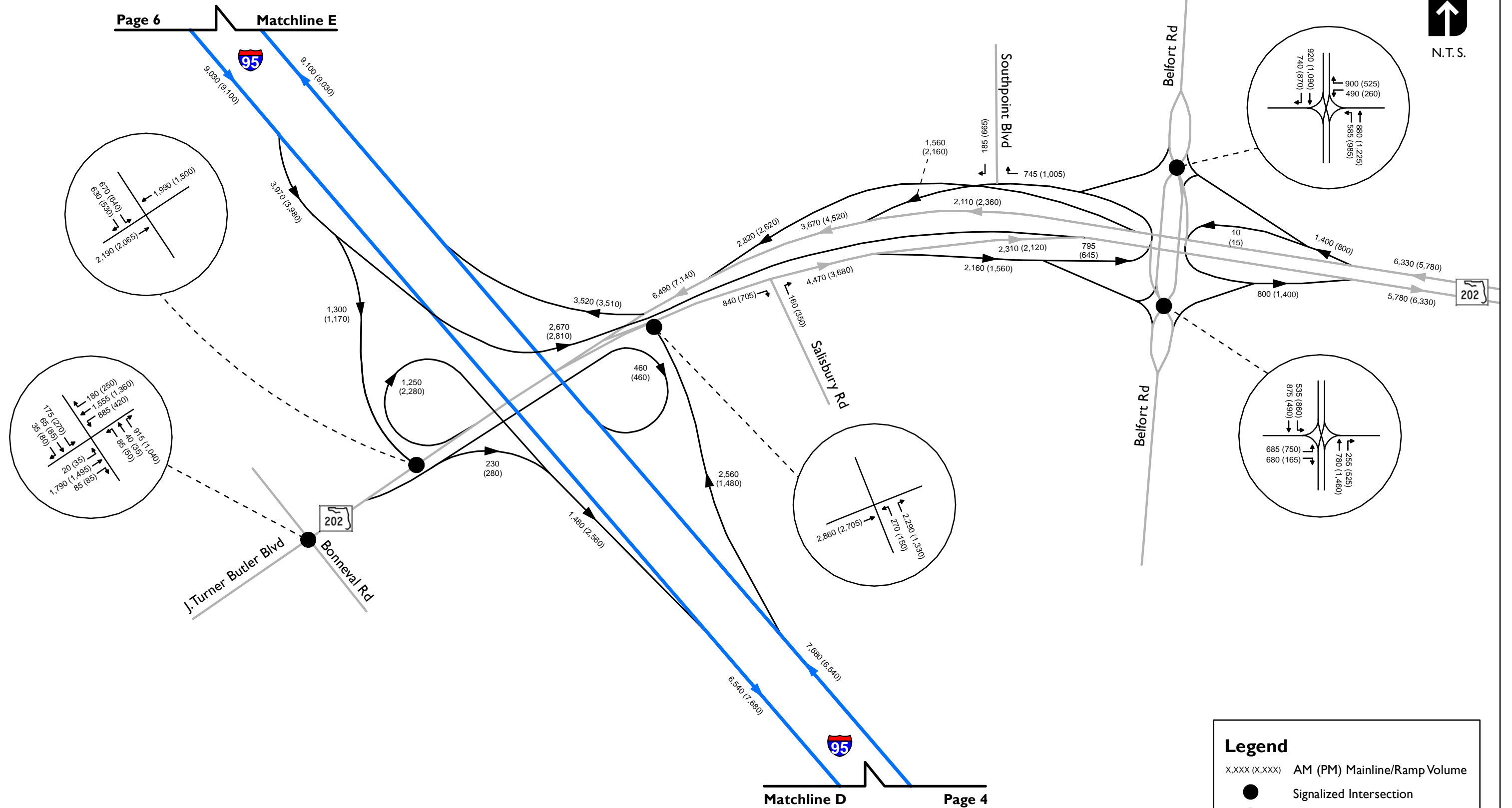
Prepared for



Florida Department of Transportation
District Two

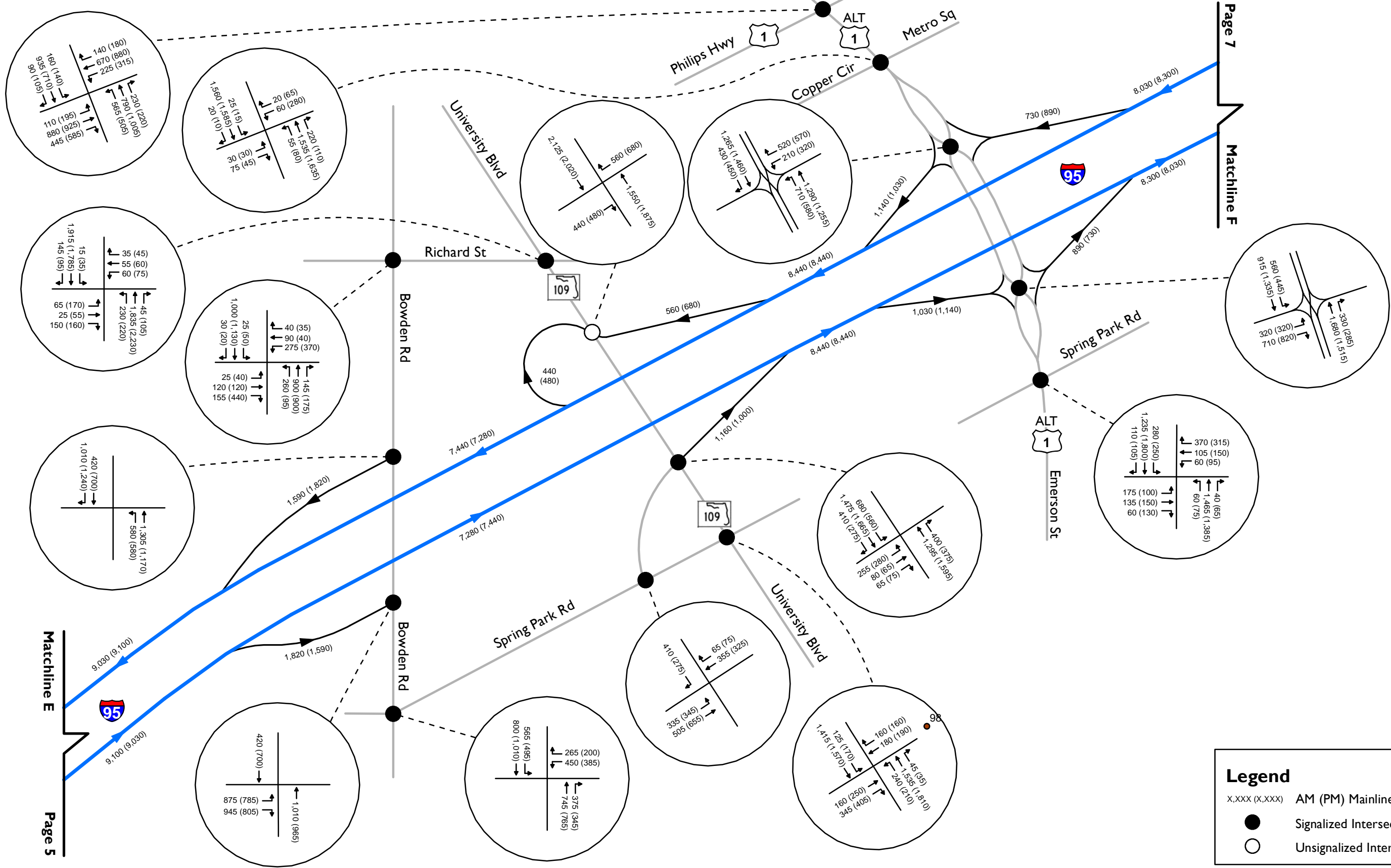
DRAFT REPORT

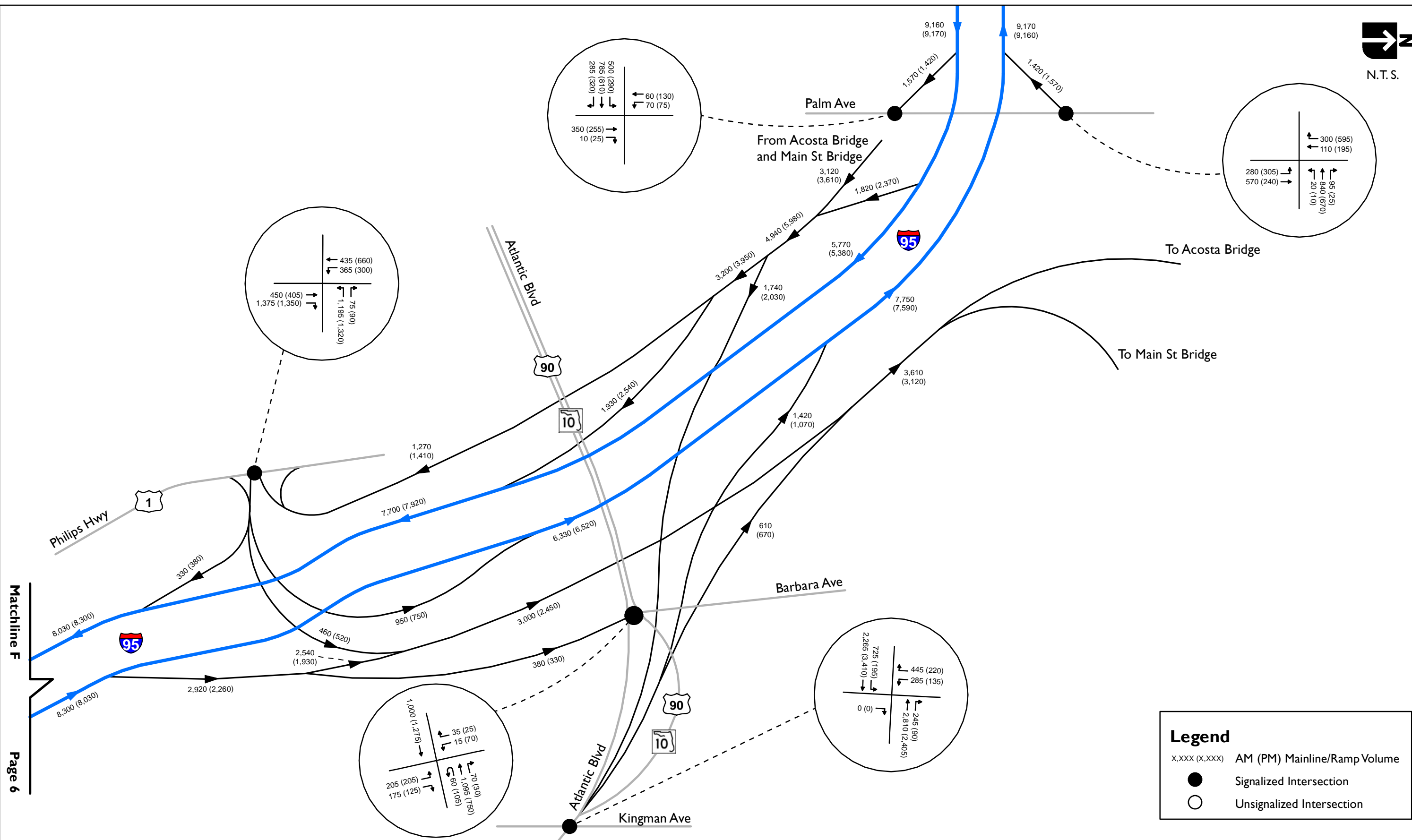
July 2020



Legend

- X,XXX (X,XXX) AM (PM) Mainline/Ramp Volume
- Signalized Intersection
- Unsignalized Intersection





TRAFFIC DATA FOR I-95 EXPRESS LANES PD&E STUDY - DESIGN CHANGE RE-EVALUATION NOISE STUDY

FDOT DISTRICT 2

FPID Number: 432259-2-52-01

Table 2.2-1: Traffic Data for Noise Modeling - Future (2045) Build Conditions for Arterial Roadways (Sheet 1 of 2)

Roadway Segment		Speed Limit	2045 Build Traffic (vph)		Number of Lanes	LOS C Volume*	Highest Peak Volume	Volume used in TNM	Percent Heavy Trucks	Percent Medium Trucks	Percent Buses	Percent Motorcycles	Volume used in TNM	Cars per lane	Heavy Trucks per lane	Medium Trucks per Lane	Buses per lane	Motorcycles per lane
			AM	PM														
Eastbound / Northbound																		
Atlantic Blvd	EB Atlantic Blvd West of Barbara Ave	45	1,000	1,275	2	1,910	1,275	1,275	0.61%	0.36%	0.04%	0.12%	1,275	630	4	3	0	1
	EB Atlantic Blvd to Barbara Ave	45	1,380	1,705	2	1,910	1,705	1,705	0.61%	0.36%	0.04%	0.12%	1,705	843	5	3	1	1
	Barbara Ave to Kingman Ave	45	1,630	2,005	2	1,910	2,005	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
	Barbara Ave to Kingman Ave with Diverge Ramp to Atlantic Blvd	45	2,990	3,605	4	3,970	3,605	3,605	0.61%	0.36%	0.04%	0.12%	3,605	891	6	3	0	1
Philips Hwy	NB toward Ramp Terminal Intersection	45	1,825	1,755	2	2,006	1,825	1,825	0.61%	0.36%	0.04%	0.12%	1,825	902	6	3	1	1
	N of Philips Hwy and Ramp Terminal Intersection	45	525	495	1	872	525	525	0.61%	0.36%	0.04%	0.12%	525	519	3	2	0	1
Emerson St	Copper Cir to I-95 SB Ramp Terminal Intersection	40	1,695	1,910	2	1,910	1,910	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
	I-95 SB Ramp Terminal Intersection to I-95 NB Ramp Terminal Intersection	40	1,475	1,780	2	1,910	1,780	1,780	0.61%	0.36%	0.04%	0.12%	1,780	879	6	3	1	1
	I-95 NB Ramp Terminal Intersection to Spring Park Rd	40	1,625	2,155	2	1,910	2,155	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
University Blvd	Richard St to I-95 SB Ramp Terminal Intersection	40	2,125	2,020	3	3,087	2,125	2,125	0.61%	0.36%	0.04%	0.12%	2,125	700	4	3	0	1
	I-95 SB Ramp Terminal Intersection to I-95 NB Ramp Terminal Intersection	40	2,565	2,500	2	2,006	2,565	2,006	0.61%	0.36%	0.04%	0.12%	2,006	991	6	4	1	1
	I-95 NB Ramp Terminal Intersection to Spring Park Rd	40	1,540	1,740	2	2,006	1,740	1,740	0.61%	0.36%	0.04%	0.12%	1,740	859	6	3	1	1
Bowden Road	Richard St to I-95 SB Entrance Ramp	40	1,430	1,940	2	1,910	1,940	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
	I-95 SB Entrance Ramp to I-95 NB Ramp Bowden Rd Exit Ramp	40	420	700	2	1,433	700	700	0.61%	0.36%	0.04%	0.12%	700	346	2	1	0	1
	I-95 NB Ramp Terminal Intersection to Spring Park Rd	40	1,365	1,505	2	1,815	1,505	1,505	0.61%	0.36%	0.04%	0.12%	1,505	743	5	3	1	1
J. Turner Butler Blvd	West of Bonneval Road	45	1,895	1,615	3	2,940	1,895	1,895	0.61%	0.36%	0.04%	0.12%	1,895	625	4	2	0	1
	Bonneval Road to I-95 SB On Ramp	45	2,880	2,805	3	3,087	2,880	2,880	0.61%	0.36%	0.04%	0.12%	2,880	950	6	3	0	1
	I-95 SB On Ramp to I-95 SB Off Ramp Intersection	45	2,190	2,065	2	2,006	2,190	2,006	0.61%	0.36%	0.04%	0.12%	2,006	991	6	4	1	1
	I-95 SB Off Ramp Intersection to I-95 NB Off Ramp to JTB Intersection	45	2,860	2,705	3	2,940	2,860	2,860	0.61%	0.36%	0.04%	0.12%	2,860	943	6	3	0	1
	I-95 NB Ramp Intersection to Salisbury Rd Intersection	45	4,480	3,130	3	3,087	4,480	3,087	0.61%	0.36%	0.04%	0.12%	3,087	1,018	6	4	0	1
	Between Salisbury Road and Belfort Road Off Ramp	45	4,470	3,680	3	3,087	4,470	3,087	0.61%	0.36%	0.04%	0.12%	3,087	1,018	6	4	0	1
	Belfort Road Off Ramp	35	2,160	1,560	2	---	2,160	2,160	0.61%	0.36%	0.04%	0.12%	2,160	1,066	7	4	1	2
	East of Belfort Road Off Ramp to I-95 Southbound Off Ramp to JTB	45	2,310	2,120	2	---	2,310	2,310	0.61%	0.36%	0.04%	0.12%	2,310	1,141	7	4	1	2
	I-95 Southbound Off Ramp to JTB	45	2,670	2,810	2	---	2,810	2,810	0.61%	0.36%	0.04%	0.12%	2,810	1,388	9	5	1	2
	JTB East of Belfort Road On Ramp and I-95 Southbound Off Ramp to JTB	55	4,980	4,930	3	4,580	4,980	4,580	0.61%	0.36%	0.04%	0.12%	4,580	1,510	9	5	1	2
Belfort Road	South of JTB South Intersection	35	1,035	1,985	3	1,229	1,985	1,229	0.61%	0.36%	0.04%	0.12%	1,229	407	2	1	0	0
	Through Traffic	35	780	1,460	2	767	1,460	767	0.61%	0.36%	0.04%	0.12%	767	377	3	2	0	1
	Right Turn Lanes to Eastbound JTB	35	255	525	1	389	525	389	0.61%	0.36%	0.04%	0.12%	389	386	2	1	0	0
	Left Turns to Westbound JTB	35	585	985	1	389	985	389	0.61%	0.36%	0.04%	0.12%	389	386	2	1	0	0
	North of JTB North Intersection	35	1,780	1,750	2	767	1,780	767	0.61%	0.36%	0.04%	0.12%	767	377	3	2	0	1
Spring Park Road	South of University Boulevard	35	400	420	2	767	420	420	0.61%	0.36%	0.04%	0.12%	420	206	2	1	0	1

TRAFFIC DATA FOR I-95 EXPRESS LANES PD&E STUDY - DESIGN CHANGE RE-EVALUATION NOISE STUDY

FDOT DISTRICT 2

FPID Number: 432259-2-52-01

Table 2.2-1: Traffic Data for Noise Modeling - Future (2045) Build Conditions for Arterial Roadways (Sheet 2 of 2)

Roadway Segment		Speed Limit	2045 Build Traffic (vph)		Number of Lanes	LOS C Volume*	Highest Peak Volume	Volume used in TNM	Percent Heavy Trucks	Percent Medium Trucks	Percent Buses	Percent Motorcycles	Volume used in TNM	Cars per lane	Heavy Trucks per lane	Medium Trucks per Lane	Buses per lane	Motorcycles per lane
			AM	PM														
Westbound / Southbound																		
Atlantic Blvd	West of Kingman Ave to I-95 NB Ramps	45	3,255	2,625	4	3,970	3,255	3,255	0.61%	0.36%	0.04%	0.12%	3,255	805	5	3	0	1
	Kingman Ave to Barbara Ave	45	1,225	885	2	1,910	1,225	1,225	0.61%	0.36%	0.04%	0.12%	1,225	606	4	2	0	1
	Barbara Ave to WB Atlantic Blvd	45	1,165	1,170	2	1,910	1,170	1,170	0.61%	0.36%	0.04%	0.12%	1,170	578	4	2	0	1
Phillips Hwy	SB toward ramp terminal intersection	45	800	960	2	1,910	960	960	0.61%	0.36%	0.04%	0.12%	960	474	3	2	0	1
	S of Philips Hwy and Ramp Terminal Intersection	45	1,630	1,980	2	1,910	1,980	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
Emerson St	Spring Park Rd to I-95 NB Ramp Terminal Intersection	40	2,010	1,800	2	1,910	2,010	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
	I-95 NB Ramp Terminal Intersection to I-95 SB Ramp Terminal Intersection	40	2,000	1,835	2	2,006	2,000	2,000	0.61%	0.36%	0.04%	0.12%	2,000	988	6	4	1	1
	I-95 SB Ramp Terminal Intersection to Copper Cir	40	2,000	1,835	2	1,910	2,000	1,910	0.61%	0.36%	0.04%	0.12%	1,910	943	6	4	1	1
University Blvd	Spring Park Rd to I-95 NB On-Ramp	40	1,695	1,970	2	2,006	1,970	1,970	0.61%	0.36%	0.04%	0.12%	1,970	973	6	4	1	1
	I-95 NB On-Ramp to I-95 SB Ramp Terminal Intersection	40	1,550	1,875	2	1,910	1,875	1,875	0.61%	0.36%	0.04%	0.12%	1,875	926	6	4	1	1
	I-95 SB Ramp Terminal Intersection to Richard St	40	2,110	2,555	3	2,940	2,555	2,555	0.61%	0.36%	0.04%	0.12%	2,555	843	5	3	0	1
Bowden Road	Spring Park Rd to I-95 NB Ramp Terminal Intersection	40	1,010	965	2	1,910	1,010	1,010	0.61%	0.36%	0.04%	0.12%	1,010	499	3	2	0	1
	I-95 NB Ramp Bowden Rd Exit Ramp to I-95 SB Entrance Ramp	40	1,885	1,750	2	1,910	1,885	1,885	0.61%	0.36%	0.04%	0.12%	1,885	931	6	4	1	1
	I-95 SB Entrance Ramp to Richard St	40	1,305	1,170	2	1,910	1,305	1,305	0.61%	0.36%	0.04%	0.12%	1,305	645	4	3	0	1
	JTB West of Southpoint Blvd	45	4,200	5,330	4	3,970	5,330	3,970	0.61%	0.36%	0.04%	0.12%	3,970	982	6	4	0	1
	Off-Ramp from Belfort Rd to I-95 On-Ramp	45	6,440	7,160	7	10,320	7,160	7,160	0.61%	0.36%	0.04%	0.12%	7,160	1,012	6	4	0	1
	I-95 On-Ramp to I-95 SB Ramp Terminal Intersection	45	3,700	4,920	3	3,087	4,920	3,087	0.61%	0.36%	0.04%	0.12%	3,087	1,018	6	4	0	1
	I-95 SB On-Ramp to I-95 SB Ramp Terminal Intersection	45	1,720	1,350	2	2,006	1,720	1,720	0.61%	0.36%	0.04%	0.12%	1,720	850	5	3	1	1
	I-95 SB Ramp Terminal Intersection to Bonneval Road	45	2,620	2,030	3	3,087	2,620	2,620	0.61%	0.36%	0.04%	0.12%	2,620	864	5	3	0	1
	West of Bonneval Road	45	1,675	1,490	3	3,087	1,675	1,675	0.61%	0.36%	0.04%	0.12%	1,675	552	3	2	0	1
	West of JTB	45	1,750	2,650	1	872	2,650	872	0.61%	0.36%	0.04%	0.12%	872	863	5	3	0	1
Belfort Road	South of JTB South Intersection	35	2,045	915	2	767	2,045	767	0.61%	0.36%	0.04%	0.12%	767	377	3	2	0	1
	Through Traffic	35	875	490	2	767	875	767	0.61%	0.36%	0.04%	0.12%	767	377	3	2	0	1
	Right Turn Lanes to Westbound JTB	35	740	870	1	389	870	389	0.61%	0.36%	0.04%	0.12%	389	386	2	1	0	0
	Left Turns to Eastbound JTB	35	535	860	1	389	860	389	0.61%	0.36%	0.04%	0.12%	389	386	2	1	0	0
	North of JTB North Intersection	35	1,660	1,960	2	767	1,960	767	0.61%	0.36%	0.04%	0.12%	767	377	3	2	0	1

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* LOS "C" volumes obtained from Table 7 of FDOT's Level of Service Handbook (2013) and HCM 2000 (Volume adjustments have been applied as appropriate)

I certify that the above information is accurate and appropriate for use with the traffic noise analysis.

Prepared By:

Shawn Birst, P.E.

Print Name

Date: 10/28/2020

TRAFFIC DATA FOR I-95 EXPRESS LANES PD&E STUDY - DESIGN CHANGE RE-EVALUATION NOISE STUDY

FDOT DISTRICT 2

FPID Number: 432259-2-52-01

Table 2.2-2: Traffic Data for Noise Modeling - Future (2045) Build Conditions for I-95 and Ramps, Acosta Bridge, and Main Street Bridge (Sheet 1 of 2)

Roadway Segment		Speed Limit	2045	Build Traffic (vph)	Number of Lanes	LOS C Volume*	Highest Peak Volume	Volume used in TNM	Percent Heavy Trucks	Percent Medium Trucks	Percent Buses	Percent Motorcycles	Volume used in TNM	Cars per lane	Heavy Trucks per lane	Medium Trucks per Lane	Buses per lane	Motorcycles per lane
			AM	PM														
Northbound																		
I-95	South of JTB	65	7,680	6,540	4	6,080	7,680	6,080	3.65%	2.14%	0.22%	0.12%	6,080	1,426	56	33	3	2
	JTB Blvd Exit Ramp	45	2,560	1,480	2	-	2,560	2,560	0.61%	0.36%	0.04%	0.12%	2,560	1,264	8	5	1	2
	Between JTB Blvd Exit and EB Entrance Ramps	65	5,120	5,060	4	6,080	5,120	5,120	3.65%	2.14%	0.22%	0.12%	5,120	1,201	47	27	3	2
	JTB Blvd EB Entrance Ramp	25	460	460	1	-	460	460	0.61%	0.36%	0.04%	0.12%	460	454	3	2	0	1
	Between JTB Blvd EB Entrance and WB Entrance Ramps	65	5,580	5,520	5	7,680	5,580	5,580	3.65%	2.14%	0.22%	0.12%	5,580	1,048	41	24	2	1
	JTB Blvd WB Entrance Ramp	45	3,520	3,510	2	-	3,520	3,520	0.61%	0.36%	0.04%	0.12%	3,520	1,739	11	7	1	2
	Between JTB Blvd WB Entrance Ramp and Bowden Road Exit Ramp	65	9,100	9,030	6	10,320	9,100	9,100	3.65%	2.14%	0.22%	0.12%	9,100	1,425	55	32	3	2
	Bowden Rd Exit Ramp	45	1,820	1,590	2	-	1,820	1,820	0.61%	0.36%	0.04%	0.12%	1,820	899	6	3	1	1
	Between Bowden Road and University Boulevard Entrance Ramps	65	7,280	7,440	5	7,680	7,440	7,440	3.65%	2.14%	0.22%	0.12%	7,440	1,397	54	32	3	2
	University Boulevard Entrance Ramp	45	1,160	1,000	1	-	1,160	1,160	0.61%	0.36%	0.04%	0.12%	1,160	1,148	7	4	0	1
	Between University Boulevard and Emerson Street	65	8,440	8,440	5	7,680	8,440	7,680	3.65%	2.14%	0.22%	0.12%	7,680	1,442	56	33	3	2
	Emerson Street Exit Ramp	45	1,030	1,140	1	-	1,140	1,140	0.61%	0.36%	0.04%	0.12%	1,140	1,128	7	4	0	1
	Between Emerson Street Ramps	65	7,410	7,300	5	7,680	7,410	7,410	3.65%	2.14%	0.22%	0.12%	7,410	1,391	54	32	3	2
	Emerson Street Northbound Entrance Ramp	45	890	730	1	-	890	890	0.61%	0.36%	0.04%	0.12%	890	881	5	3	0	1
	North of Emerson Street	65	8,300	8,030	5	10,320	8,300	8,300	3.65%	2.14%	0.22%	0.12%	8,300	1,297	51	30	3	2
	Atlantic / Main St CD Road Exit Ramp	45	2,920	2,260	3	-	2,920	2,920	0.61%	0.36%	0.04%	0.12%	2,920	963	6	3	0	1
	North of Atlantic Boulevard/Main Street Exit Ramp	65	5,380	5,770	3	4,580	5,770	4,580	3.65%	2.14%	0.22%	0.12%	4,580	1,433	56	33	3	2
I-95 Exit Ramp toward Atlantic Blvd, Acosta Bridge, and Main St Bridge	Diverge toward Acosta Bridge and Main St Bridge	45	2,540	1,930	2	-	2,540	2,540	0.61%	0.36%	0.04%	0.12%	2,540	1,254	8	5	1	2
	Diverge toward Atlantic Blvd	45	380	330	1	-	380	380	0.61%	0.36%	0.04%	0.12%	380	377	2	1	0	0
Philips Hwy Exit Ramp toward Atlantic Blvd	Philips Hwy Ramp toward Acosta Bridge and Main St Bridge	45	460	520	1	-	520	520	0.61%	0.36%	0.04%	0.12%	520	514	3	2	0	1
I-95 Exit Ramp toward Atlantic Blvd, Acosta Bridge, and Main St Bridge	Combine Diverge toward Acosta Bridge and Main St Bridge and Philips Hwy Ramp toward Acosta Bridge and Main St Bridge	45	3,000	2,450	3	-	3,000	3,000	0.61%	0.36%	0.04%	0.12%	3,000	989	6	4	0	1
Atlantic Blvd	Ramp to Acosta Bridge and Main St Bridge	45	610	670	1	-	670	670	0.61%	0.36%	0.04%	0.12%	670	663	4	2	0	1
Ramp to Acosta Bridge and Main St Bridge	Combined diverge ramp toward Acosta Bridge and Main St Bridge and ramp from Atlantic Blvd to Acosta Bridge and Main St Bridge	45	3,610	3,120	3	-	3,610	3,610	0.61%	0.36%	0.04%	0.12%	3,610	1,191	7	4	0	1
I-95	Philips Hwy Entrance Ramp	45	950	750	1	-	950	950	0.61%	0.36%	0.04%	0.12%	950	940	6	3	0	1
	Between Philips Hwy Entrance and Atlantic Blvd Entrance Ramps	65	6,330	6,520	4	6,080	6,520	6,080	3.65%	2.14%	0.22%	0.12%	6,080	1,426	56	33	3	2
	Atlantic Blvd Entrance Ramp	45	1,420	1,070	1	-	1,420	1,420	0.61%	0.36%	0.04%	0.12%	1,420	1,403	9	5	1	2
	Between Atlantic Boulevard Entrance and Palm Ave Entrance Ramps	65	7,750	7,590	4	6,080	7,750	6,080	3.65%	2.49%	0.22%	0.12%	6,080	1,421	56	38	3	2
	Palm Ave Entrance Ramp	45	1,420	1,570	1	-	1,570	1,570	0.61%	0.36%	0.04%	0.12%	1,570	1,551	10	6	1	2
	North of Palm Ave Entrance Ramp	65	9,170	9,160	5	7,680	9,170	7,680	3.65%	2.49%	0.22%	0.12%	7,680	1,437	56	38	3	2
Southbound																		
I-95	North of Palm Ave Exit Ramp	65	9,160	9,170	6	11,320	9,170	9,170	3.65%	2.14%	0.22%	0.12%	9,170	1,434	56	33	3	2
	Palm Ave Exit	45	1,570	1,420	2	-	1,570	1,570	0.61%	0.36%	0.04%	0.12%	1,570	775	5	3	1	1
Acosta Bridge and Main St Bridge	Acosta Bridge and Main St Bridge Entrance Ramp	45	3,120	3,610	3	-	3,610	3,610	0.61%	0.36%	0.04%	0.12%	3,610	1,191	7	4	0	1
I-95	Between Acosta Bridge and Main St Bridge Entrance Ramp and CD Road Exit Ramp	65	7,590	7,750	4	6,080	7,750	6,080	3.65%	2.14%	0.22%	0.12%	6,080	1,426	56	33	3	2
	SB CD Road Exit Ramp	45	1,820	2,370	2	-	2,370	2,370	0.61%	0.36%	0.04%	0.12%	2,370	1,171	7	4	1	2
Acosta Bridge and Main St Bridge	Combined I-95 Exit Ramp and Entrance Ramp from Acosta Bridge and Main St Bridge	45	4,940	5,980	5	-	5,980	5,980	0.61%	0.36%	0.04%	0.12%	5,980	1,184	7	4	0	1
	Diverge Ramp to Atlantic Blvd	45	1,740	2,030	2	-	2,030	2,030	0.61%	0.36%	0.04%	0.12%	2,030	1,003	6	4	1	1
	Combined Diverge Ramp to I-95 SB and Philips Hwy	45	3,200	3,950	3	-	3,950	3,950	0.61%	0.36%	0.04%	0.12%	3,950	1,302	8	5	0	2
	Ramp to Philips Hwy	45	1,270	1,410	1	-	1,410	1,410	0.61%	0.36%	0.04%	0.12%	1,410	1,393	9	5	1	2

TRAFFIC DATA FOR I-95 EXPRESS LANES PD&E STUDY - DESIGN CHANGE RE-EVALUATION NOISE STUDY

FDOT DISTRICT 2

FPID Number: 432259-2-52-01

Table 2.2-2: Traffic Data for Noise Modeling - Future (2045) Build Conditions for I-95 and Ramps, Acosta Bridge, and Main Street Bridge (Sheet 2 of 2)

Roadway Segment		Speed Limit	2045	Build Traffic (vph)	Number of Lanes	LOS C Volume*	Highest Peak Volume	Volume used in TNM	Percent Heavy Trucks	Percent Medium Trucks	Percent Buses	Percent Motorcycles	Volume used in TNM	Cars per lane	Heavy Trucks per lane	Medium Trucks per Lane	Buses per lane	Motorcycles per lane
			AM	PM														
Southbound (Continued)																		
I-95	North of I-95 SB CD Road Entrance Ramp	65	5,770	5,380	3	4,580	5,770	4,580	3.65%	2.14%	0.22%	0.12%	4,580	1,433	56	33	3	2
	I-95 SB CD Road Entrance Ramp	45	1,930	2,540	2	-	2,540	2,540	0.61%	0.36%	0.04%	0.12%	2,540	1,254	8	5	1	2
	Between SB CD Entrance and Philips Hwy Entrance Ramps	65	7,700	7,920	6	4,580	7,920	4,580	3.65%	2.14%	0.22%	0.12%	4,580	716	28	16	2	1
	Philips Hwy Entrance Ramp	45	330	380	1	-	380	380	0.61%	0.36%	0.04%	0.12%	380	377	2	1	0	0
	I-96 Southbound North of Emerson Street	65	8,030	8,300	5	10,320	8,300	8,300	3.65%	2.14%	0.22%	0.12%	8,300	1,558	61	35	4	2
	Emerson Street Exit Ramp	45	730	890	1	-	890	890	0.61%	0.36%	0.04%	0.12%	890	881	5	3	0	1
	Between Emerson Street Exit and Entrance Ramps	65	7,300	7,410	5	7,680	7,410	7,410	3.65%	2.14%	0.22%	0.12%	7,410	1,391	54	32	3	2
	Emerson Street Entrance Ramp	45	1,140	1,030	1	-	1,140	1,140	0.61%	0.36%	0.04%	0.12%	1,140	1,128	7	4	0	1
	Between Emerson Street Entrance and University Blvd WB Exit Ramps	65	8,440	8,440	5	7,680	8,440	7,680	3.65%	2.14%	0.22%	0.12%	7,680	1,442	56	33	3	2
	University Blvd WB Exit Ramp	45	560	680	1	-	680	680	0.61%	0.36%	0.04%	0.12%	680	673	4	2	0	1
	Between University Blvd WB and EB Exit Ramps	65	7,880	7,760	5	7,680	7,880	7,680	3.65%	2.14%	0.22%	0.12%	7,680	1,442	56	33	3	2
	University Blvd EB Exit Ramp	25	440	480	1	-	480	480	0.61%	0.36%	0.04%	0.12%	480	474	3	2	0	1
	Between University Blvd EB Exit and Bowden Rd Entrance Ramps	65	7,440	7,280	5	7,680	7,440	7,440	3.65%	2.14%	0.22%	0.12%	7,440	1,397	54	32	3	2
	Bowden Rd Entrance Ramp	45	1,590	1,820	2	-	1,820	1,820	0.61%	0.36%	0.04%	0.12%	1,820	899	6	3	1	1
	Between Bowden Road Entrance Ramp and JTB Blvd EB Flyover Exit Ramp	65	9,030	9,100	5	8,680	9,100	8,680	3.65%	2.14%	0.22%	0.12%	8,680	1,630	63	37	4	2
	JTB Blvd EB Flyover Exit Ramp	45	3,970	3,980	3	-	3,980	3,980	0.61%	0.36%	0.04%	0.12%	3,980	1,312	8	5	0	2
	Exit Ramp to JTB Intersection	45	1,300	1,170	1	-	1,300	1,300	0.61%	0.36%	0.04%	0.12%	1,300	1,285	8	5	0	2
	EB JTB Exit Ramp	45	2,670	2,810	2	-	2,810	2,810	0.61%	0.36%	0.04%	0.12%	2,810	1,388	9	5	1	2
	Between JTB Exit and Entrance Ramps	65	5,060	5,120	3	4,580	5,120	4,580	3.65%	2.14%	0.22%	0.12%	4,580	1,433	56	33	3	2
	JTB Blvd WB Entrance Ramp	25	1,250	2,280	2	-	2,280	2,280	0.61%	0.36%	0.04%	0.12%	2,280	1,126	7	4	1	2
	JTB Blvd EB Entrance Ramp	45	230	280	1	-	280	280	0.61%	0.36%	0.04%	0.12%	280	277	2	1	0	0
	Combined JTB Entrance Ramps	45	1,480	2,560	2	-	2,560	2,560	0.61%	0.36%	0.04%	0.12%	2,560	1,264	8	5	1	2
	South of JTB Entrance Ramps	65	6,540	7,680	4	6,080	7,680	6,080	3.65%	2.14%	0.22%	0.12%	6,080	1,426	56	33	3	2

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* LOS "C" volumes obtained from Table 7 of FDOT's Level of Service Handbook (2013) and HCM 2000 (Volume adjustments have been applied as appropriate)

I certify that the above information is accurate and appropriate for use with the traffic noise analysis.

Prepared By: Shawn Birst, P.E.

Date: 10/28/2020

Print Name

APPENDIX E

Table 3-1: TNM Predicted Noise Levels



Table 3-1: TNM Predicted Noise Levels (Sheet 1 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Common Noise Environment E1 - East of I-95 between Bowden Road and University Boulevard (Residential Land Uses)											
Haven Gardens	HG1	First Row Single Family Residences (B)	1	66.0	883+03	68.5	70.6	Exceeds	Exceeds	64.4	6.2
	HG2	First Row Single Family Residences (B)	1	66.0	883+44	68.7	70.8	Exceeds	Exceeds	64.6	6.2
	HG3	First Row Single Family Residences (B)	1	66.0	884+60	69.6	71.5	Exceeds	Exceeds	65.0	6.5
	HG4	First Row Single Family Residences (B)	1	66.0	885+47	70.3	72.0	Exceeds	Exceeds	65.8	6.2
	HG5	First Row Single Family Residences (B)	1	66.0	886+65	70.8	72.4	Exceeds	Exceeds	65.1	7.3
	HG6	First Row Single Family Residences (B)	1	66.0	887+64	71.7	72.9	Exceeds	Exceeds	65.6	7.3
	HG7	First Row Single Family Residences (B)	1	66.0	889+03	73.2	73.7	Exceeds	Exceeds	66.1	7.6
	HG8	First Row Single Family Residences (B)	1	66.0	889+91	72.3	73.3	Exceeds	Exceeds	65.7	7.6
	HG9	First Row Single Family Residences (B)	1	66.0	890+80	71.4	72.9	Exceeds	Exceeds	65.3	7.6
	HG10	Second Row Single Family Residences (B)	1	66.0	883+85	68.6	69.7	Exceeds	Exceeds	64.1	5.6
	HG11	Second Row Single Family Residences (B)	1	66.0	884+80	68.3	69.3	Exceeds	Exceeds	64.3	5.0
	HG12	Second Row Single Family Residences (B)	1	66.0	885+55	69.0	69.6	Exceeds	Exceeds	64.6	5.0
	HG13	Second Row Single Family Residences (B)	1	66.0	888+13	70.3	70.5	Exceeds	Exceeds	64.8	5.7
	HG14	Second Row Single Family Residences (B)	1	66.0	886+95	70.8	70.0	Exceeds	Exceeds	64.8	5.2
	HG15	Second Row Single Family Residences (B)	1	66.0	888+96	70.3	71.3	Exceeds	Exceeds	65.0	6.3
	HG16	Second Row Single Family Residences (B)	1	66.0	890+08	69.6	70.5	Exceeds	Exceeds	64.8	5.7
	HG17	Second Row Single Family Residences (B)	1	66.0	890+89	69.0	69.8	Exceeds	Exceeds	64.4	5.4
Minimum						68.3	69.3	---	---	64.1	5.0
Maximum						73.2	73.7	---	---	66.1	7.6
Average						70.1	71.2	---	---	65.0	6.3
Total Number of Sites Approaching or Exceeding the NAC / Total Number of Benefited Sites (Common Noise Environment E1)								17	17	---	17
Common Noise Environment E1 - East of I-95 between Bowden Road and University Boulevard (Special Land Uses)											
Palm Gardens Health and Rehab	NH1	Medical Facility Building/Exterior Seating Area (C)	1 (Special Land Use)	66.0	886+11	65.8	64.8	Below	Below	62.6	3.4
University Baptist Church	SH3	Place of Worship Recreational Area - Playground (C)	1 (Special Land Use)	66.0	896+89	64.8	65.8	Below	Below	----	----
Baptist Health	MF1	Medical Facility Building/Windows Closed Interior Use (D)	1 (Special Land Use)	51.0	894+01	44.0	46.3	Below	Below	----	----
Common Noise Environment E2 - East of I-95 between University Boulevard and North of Fulton Avenue (Residential Land Uses)											
Southland Subdivision, Connors Subdivision, and Englewood Subdivision	SE1	First Row Single Family Residences (B)	1	66.0	918+91	75.0	72.8	Exceeds	Exceeds	64.4	8.4
	SE2	First Row Single Family Residences (B)	1	66.0	919+81	74.7	72.9	Exceeds	Exceeds	64.9	8.0
	SE3	First Row Single Family Residences (B)	1	66.0	920+67	74.2	73.1	Exceeds	Exceeds	64.9	8.2
	SE4	First Row Single Family Residences (B)	1	66.0	921+41	73.6	73.0	Exceeds	Exceeds	65.0	8.0
	SE5	First Row Single Family Residences (B)	1	66.0	922+17	72.6	72.3	Exceeds	Exceeds	64.6	7.7
	SE6	First Row Single Family Residences (B)	1	66.0	922+92	72.7	72.6	Exceeds	Exceeds	64.8	7.8
	SE7	First Row Single Family Residences (B)	1	66.0	923+63	72.7	72.4	Exceeds	Exceeds	64.8	7.6
	SE8	First Row Single Family Residences (B)	1	66.0	924+42	72.6	72.0	Exceeds	Exceeds	64.7	7.3
	SE9	First Row Single Family Residences (B)	1	66.0	925+12	72.4	71.9	Exceeds	Exceeds	64.8	7.1
	SE10	First Row Single Family Residences (B)	1	66.0	925+84	72.3	71.6	Exceeds	Exceeds	64.6	7.0
	SE11	First Row Single Family Residences (B)	1	66.0	926+62	72.3	71.7	Exceeds	Exceeds	64.8	6.9
	SE12	First Row Single Family Residences (B)	1	66.0	927+43	71.7	71.0	Exceeds	Exceeds	64.4	6.6
	SE13	First Row Single Family Residences (B)	1	66.0	928+09	72.0	71.3	Exceeds	Exceeds	64.5	6.8
	SE14	First Row Single Family Residences (B)	1	66.0	928+87	72.2	71.4	Exceeds	Exceeds	64.6	6.8
	SE15	First Row Single Family Residences (B)	1	66.0	929+73	72.4	71.6	Exceeds	Exceeds	64.7	6.9
	SE16	First Row Single Family Residences (B)	1	66.0	931+05	71.6	71.1	Exceeds	Exceeds	64.3	6.8
	SE17	Second Row Single Family Residences (B)	1	66.0	919+05	70.6	68.5	Exceeds	Exceeds	61.5	7.0
	SE18	Second Row Single Family Residences (B)	1	66.0	919+75	70.0	68.0	Exceeds	Exceeds	61.4	6.6
	SE19	Second Row Single Family Residences (B)	1	66.0	920+54	69.3	68.0	Exceeds	Exceeds	61.4	6.6
	SE20	Second Row Single Family Residences (B)	1	66.0	921+41	69.4	68.1	Exceeds	Exceeds	61.7	6.4
	SE21	Second Row Single Family Residences (B)	1	66.0	922+13	69.1	68.1	Exceeds	Exceeds	61.8	6.3
	SE22	Second Row Single Family Residences (B)	1	66.0	922+90	68.8	68.1	Exceeds	Exceeds	62.1	6.0
	SE23	Second Row Single Family Residences (B)	1	66.0	923+66	68.4	67.8	Exceeds	Exceeds	62.2	5.6
	SE24	Second Row Single Family Residences (B)	1	66.0	924+64	68.8	68.5	Exceeds	Exceeds	62.6	5.9
	SE25	Second Row Single Family Residences (B)	1	66.0	925+40	68.5	68.5	Exceeds	Exceeds	63.5	5.0
	SE26	Second Row Single Family Residences (B)	1	66.0	926+29	69.7	69.3	Exceeds	Exceeds	62.7	6.6
	SE27	Second Row Single Family Residences (B)	1	66.0	926+80	68.8	68.2	Exceeds	Exceeds	62.7	5.5
	SE28	Second Row Single Family Residences (B)	1	66.0	927+89	68.1	67.8	Exceeds	Exceeds	62.3	5.5
	SE29	Second Row Single Family Residences (B)	1	66.0	928+68	67.9	68.0	Exceeds	Exceeds	62.3	5.7
	SE30	Second Row Single Family Residences (B)	1	66.0	929+17	69.3	68.8	Exceeds	Exceeds	62.5	6.3
	SE31	Second Row Single Family Residences (B)	1	66.0	930+31	67.2	67.4	Exceeds	Exceeds	61.9	5.5
	SE32	Second Row Single Family Residences (B)	1	66.0	930+71	66.8	67.0	Approaches	Exceeds	61.9	5.1
	SE33	Third Row Single Family Residences (B)	1	66.0	918+58	66.3	64.4	Approaches	Below	59.6	4.8
	SE34	Third Row Single Family Residences (B)	1	66.0	919+18	65.6	63.7	Below	Below	59.4	4.3
	SE35	Third Row Single Family Residences (B)	1	66.0	920+25	65.3	63.4	Below	Below	59.7	3.7
	SE36	Third Row Single Family Residences (B)	1	66.0	922+04	64.4	63.0	Below	Below	59.9	3.1
	SE37	Third Row Single Family Residences (B)	1	66.0	922+74	64.3	63.2	Below	Below	60.1	3.1
	SE38	Third Row Single Family Residences (B)	1	66.0	923+70	63.9	63.0	Below	Below	60.2	2.8

Table 3-1: TNM Predicted Noise Levels (Sheet 2 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Southland Subdivision, Connors Subdivision, Englewood Subdivision, and Faith United Methodist Church Residential Use Areas	SE39	First Row Single Family Residences (B)	1	66.0	932+77	76.8	77.6	Exceeds	Exceeds	65.6	12.0
	SE40	Second Row Single Family Residences (B)	1	66.0	932+79	72.3	72.3	Exceeds	Exceeds	64.8	7.5
	SE41	Third Row Single Family Residences (B)	1	66.0	932+77	67.5	67.6	Exceeds	Exceeds	61.1	6.5
	SE42	Fourth Row Single Family Residences (B)	1	66.0	933+08	66.5	66.6	Approaches	Approaches	60.9	5.7
	CE1 (Relocation)	First Row Single Family Residences (B)	0	66.0	935+08	74.2	75.2	Exceeds	Exceeds	65.9	9.3
	CE2	First Row Single Family Residences (B)	1	66.0	933+90	67.0	67.5	Exceeds	Exceeds	61.2	6.3
	CE3 (Relocation)	Second Row Single Family Residences (B)	0	66.0	934+88	67.3	68.7	Exceeds	Exceeds	61.4	7.3
	CE4 (Relocation)	Second Row Single Family Residences (B)	0	66.0	935+63	66.8	68.3	Approaches	Exceeds	61.4	6.9
	CE5	First Row Single Family Residences (B)	1	66.0	937+39	74.6	76.1	Exceeds	Exceeds	64.9	11.2
	CE6	Second Row Single Family Residences (B)	1	66.0	937+32	72.1	72.9	Exceeds	Exceeds	64.8	8.1
	CE7	Third Row Single Family Residences (B)	1	66.0	937+26	68.4	69.1	Exceeds	Exceeds	62.6	6.5
	CE8	Fourth Row Single Family Residences (B)	1	66.0	937+41	65.0	65.7	Below	Below	60.3	5.4
	CE9	First Row Single Family Residences (B)	1	66.0	938+11	66.1	66.2	Approaches	Approaches	60.4	5.8
	EE1	First Row Single Family Residences (B)	1	66.0	943+57	78.6	76.6	Exceeds	Exceeds	66.7	9.9
	EE2	Second Row Single Family Residences (B)	1	66.0	942+77	72.9	72.2	Exceeds	Exceeds	64.0	8.2
	EE3	Third Row Single Family Residences (B)	1	66.0	942+30	65.6	65.0	Below	Below	60.7	4.3
	EE4	Fourth Row Single Family Residences (B)	1	66.0	940+94	58.2	58.2	Below	Below	56.9	1.3
	EE5	First Row Single Family Residences (B)	1	66.0	945+48	74.4	73.2	Exceeds	Exceeds	66.7	6.5
	EE6	Second Row Single Family Residences (B)	1	66.0	945+19	70.4	69.7	Exceeds	Exceeds	62.8	6.9
	EE7	Third Row Single Family Residences (B)	1	66.0	944+51	66.1	65.8	Approaches	Below	61.2	4.6
	EE8	Fourth Row Single Family Residences (B)	1	66.0	943+70	60.4	60.6	Below	Below	58.4	2.2
	EE9	First Row Single Family Residences (B)	1	66.0	948+23	73.2	72.1	Exceeds	Exceeds	65.9	6.2
	EE10	First Row Single Family Residences (B)	1	66.0	946+67	73.4	72.0	Exceeds	Exceeds	66.2	5.8
	EE11	Second Row Single Family Residences (B)	1	66.0	947+07	71.9	70.4	Exceeds	Exceeds	65.4	5.0
	EE12	Second Row Single Family Residences (B)	1	66.0	947+86	69.6	69.1	Exceeds	Exceeds	64.3	4.8
	EE13	Fourth Row Single Family Residences (B)	1	66.0	945+37	64.4	63.7	Below	Below	60.9	2.8
	EE14	Fifth Row Single Family Residences (B)	1	66.0	945+97	64.4	63.8	Below	Below	61.2	2.6
	EE15	> Fifth Row Single Family Residences (B)	1	66.0	946+74	63.5	63.7	Below	Below	60.9	2.8
	EE16 (Relocation)	First Row Single Family Residences (B)	0	66.0	951+27	71.0	70.6	Exceeds	Exceeds	65.2	5.4
	EE17 (Relocation)	Second Row Single Family Residences (B)	0	66.0	951+10	70.5	70.9	Exceeds	Exceeds	64.4	6.5
	EE18	Third Row Single Family Residences (B)	1	66.0	949+26	67.7	67.3	Exceeds	Exceeds	63.5	3.8
	EE19	> Fifth Row Single Family Residences (B)	1	66.0	947+82	63.2	63.7	Below	Below	60.2	3.5
	EE20	> Fifth Row Single Family Residences (B)	1	66.0	948+32	61.7	63.0	Below	Below	59.5	3.5
	EE21 (Relocation)	First Row Single Family Residences (B)	0	66.0	953+59	70.0	69.6	Exceeds	Exceeds	64.2	5.4
	EE22 (Relocation)	Second Row Single Family Residences (B)	0	66.0	953+16	69.7	69.8	Exceeds	Exceeds	63.6	6.2
	EE23	First Row Single Family Residences (B)	1	66.0	954+73	69.4	69.4	Exceeds	Exceeds	63.4	6.0
	EE24	Second Row Single Family Residences (B)	1	66.0	954+83	66.1	66.3	Approaches	Approaches	61.3	5.0
	EE25	First Row Single Family Residences (B)	1	66.0	956+87	68.3	68.8	Exceeds	Exceeds	63.6	5.2
	EE26	First Row Single Family Residences (B)	1	66.0	955+81	68.5	68.1	Exceeds	Exceeds	62.7	5.4
	EE27	Second Row Single Family Residences (B)	1	66.0	957+39	69.2	69.1	Exceeds	Exceeds	63.6	5.5
	EE28	Second Row Single Family Residences (B)	1	66.0	956+47	67.5	67.0	Exceeds	Exceeds	62.3	4.7
	EE29	First Row Single Family Residences (B)	1	66.0	959+06	68.4	69.3	Exceeds	Exceeds	64.0	5.3
	EE30	Second Row Single Family Residences (B)	1	66.0	958+13	68.6	68.5	Exceeds	Exceeds	63.2	5.3
	EE31	> Fifth Row Single Family Residences (B)	1	66.0	954+60	62.9	63.3	Below	Below	60.1	3.2
	EE32	> Fifth Row Single Family Residences (B)	1	66.0	955+31	62.6	62.8	Below	Below	59.7	3.1
	EE33	> Fifth Row Single Family Residences (B)	1	66.0	955+73	62.4	62.6	Below	Below	59.4	3.2
	EE34	> Fifth Row Single Family Residences (B)	1	66.0	956+43	62.2	62.3	Below	Below	59.2	3.1
	EE35	> Fifth Row Single Family Residences (B)	1	66.0	957+52	61.4	61.6	Below	Below	58.6	3.0
	EE36	> Fifth Row Single Family Residences (B)	1	66.0	958+15	60.5	60.6	Below	Below	57.6	3.0
	EE37	> Fifth Row Single Family Residences (B)	1	66.0	959+02	58.6	59.5	Below	Below	56.8	2.7
	FE1	Second Row Single Family Residences (B)	1	66.0	959+50	67.6	67.6	Exceeds	Exceeds	63.1	4.5
	FE2	First Row Recreational Vehicle (RV) Parking Spaces (B) Faith United Methodist Church Parcel	2	66.0	963+00	68.9	67.1	Exceeds	Exceeds	63.1	4.0
	FE3		2	66.0	963+70	66.9	66.9	Approaches	Approaches	62.7	4.2
Minimum						58.2	58.2	---	---	56.8	1.3
Maximum						78.6	77.6	---	---	66.7	12.0
Average						68.6	68.2	---	---	62.5	5.7
Total Number of Sites Approaching or Exceeding the NAC / Total Number of Benefited Sites (Common Noise Environment E2)								72	63	---	56
Common Noise Environment E2 - East of I-95 between University Boulevard and North of Fulton Avenue (Special Land Uses)											
Englewood Elementary School	ES2	School / Exterior Use (C)	1 (Special Land Use)	66.0	934+72	61.0	63.3	Below	Below	59.0	4.3
Faith United Methodist Church	FE4	Place of Worship / Playground (C)	1 (Special Land Use)	66.0	960+36	69.6	69.8	Exceeds	Exceeds	64.3	5.5
Faith United Methodist Church (South Building)	FE5	Place of Worship Building / Windows Closed Interior Use (D)	1 (Special Land Use)	51.0	962+34	44.7	42.8	Below	Below	38.2	4.6
Iglesia Pentecostal	CH1	Place of Worship Building / Windows Closed Interior Use (D)	1 (Special Land Use)	51.0	950+17	41.9	41.8	Below	Below	37.9	3.9
Faith United Methodist Church (North Building)	CH2	Place of Worship / Exterior Use (C)	1 (Special Land Use)	66.0	966+74	62.1	64.2	Below	Below	60.1	4.1

Table 3-1: TNM Predicted Noise Levels (Sheet 3 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Common Noise Environment W1 - West of I-95 between University Boulevard and Emerson Street (Residential Land Uses)											
Southland Subdivision, Englewood Subdivision, Spring Park Manor, & Rodney Subdivision	SW1	First Row Single Family Residences (B)	1	66.0	919+14	74.6	73.9	Exceeds	Exceeds	65.3	8.6
	SW2	Second Row Single Family Residences (B)	1	66.0	918+92	68.9	69.1	Exceeds	Exceeds	63.5	5.6
	SW3	Third Row Single Family Residences (B)	1	66.0	919+02	66.8	66.9	Approaches	Approaches	62.2	4.7
	SW4	Fourth Row Single Family Residences (B)	1	66.0	918+94	64.9	65.2	Below	Below	60.9	4.3
	SW5	Fifth Row Single Family Residences (B)	1	66.0	919+02	62.8	63.2	Below	Below	59.3	3.9
	SW6	> Fifth Row Single Family Residences (B)	1	66.0	918+98	61.2	61.7	Below	Below	58.2	3.5
	SW7	First Row Single Family Residences (B)	1	66.0	920+03	74.5	73.8	Exceeds	Exceeds	64.9	8.9
	SW8	Second Row Single Family Residences (B)	1	66.0	920+70	70.0	69.8	Exceeds	Exceeds	61.4	8.4
	SW9	Third Row Single Family Residences (B)	1	66.0	920+64	66.4	66.4	Approaches	Approaches	59.5	6.9
	SW10	Fourth Row Single Family Residences (B)	1	66.0	920+60	64.0	64.1	Below	Below	58.2	5.9
	SW11	First Row Single Family Residences (B)	1	66.0	921+69	71.7	71.4	Exceeds	Exceeds	63.2	8.2
	SW12	Second Row Single Family Residences (B)	1	66.0	921+79	69.3	69.2	Exceeds	Exceeds	62.0	7.2
	SW13	Third Row Single Family Residences (B)	1	66.0	921+78	67.0	67.3	Exceeds	Exceeds	61.0	6.3
	SW14	Fourth Row Single Family Residences (B)	1	66.0	921+78	64.5	64.8	Below	Below	59.5	5.3
	SW15	First Row Single Family Residences (B)	1	66.0	922+96	73.7	73.3	Exceeds	Exceeds	64.0	9.3
	SW16	Second Row Single Family Residences (B)	1	66.0	923+04	69.6	69.3	Exceeds	Exceeds	61.5	7.8
	SW17	Third Row Single Family Residences (B)	1	66.0	923+08	66.6	66.6	Approaches	Approaches	60.1	6.5
	SW18	Fourth Row Single Family Residences (B)	1	66.0	922+97	64.9	65.0	Below	Below	59.2	5.8
	SW19	First Row Single Family Residences (B)	1	66.0	924+57	72.0	71.8	Exceeds	Exceeds	63.4	8.4
	SW20	Second Row Single Family Residences (B)	1	66.0	924+53	69.3	69.0	Exceeds	Exceeds	61.5	7.5
	SW21	Third Row Single Family Residences (B)	1	66.0	924+59	66.4	66.3	Approaches	Approaches	59.7	6.6
	SW22	Fourth Row Single Family Residences (B)	1	66.0	924+57	64.8	64.9	Below	Below	59.0	5.9
	SW23	First Row Single Family Residences (B)	1	66.0	926+18	73.7	73.2	Exceeds	Exceeds	64.6	8.6
	SW24	Second Row Single Family Residences (B)	1	66.0	926+21	68.9	68.9	Exceeds	Exceeds	61.9	7.0
	SW25	Third Row Single Family Residences (B)	1	66.0	926+20	66.4	66.6	Approaches	Approaches	60.4	6.2
	SW26	Fourth Row Single Family Residences (B)	1	66.0	926+14	64.8	64.8	Below	Below	59.2	5.6
	SW27	First Row Single Family Residences (B)	1	66.0	927+72	74.5	73.7	Exceeds	Exceeds	64.9	8.8
	SW28	Second Row Single Family Residences (B)	1	66.0	927+56	68.4	68.4	Exceeds	Exceeds	60.8	7.6
	SW29	Third Row Single Family Residences (B)	1	66.0	928+21	65.6	66.0	Below	Approaches	60.7	5.3
	SW30	Fourth Row Single Family Residences (B)	1	66.0	927+83	64.1	64.2	Below	Below	58.6	5.6
	SW31	Fourth Row Single Family Residences (B)	1	66.0	928+64	64.7	64.8	Below	Below	58.9	5.9
	SW32	First Row Single Family Residences (B)	1	66.0	928+85	73.7	73.1	Exceeds	Exceeds	64.8	8.3
	SW33	First Row Single Family Residences (B)	1	66.0	929+59	73.6	73.1	Exceeds	Exceeds	64.7	8.4
	SW34	First Row Single Family Residences (B)	1	66.0	930+34	73.4	73.1	Exceeds	Exceeds	64.6	8.5
	SW35	First Row Single Family Residences (B)	1	66.0	930+94	73.0	72.8	Exceeds	Exceeds	64.3	8.5
	SW36	> Fifth Row Single Family Residences (B)	1	66.0	929+62	63.9	63.8	Below	Below	58.5	5.3
	SW37	Fifth Row Single Family Residences (B)	1	66.0	930+20	64.4	64.4	Below	Below	58.9	5.5
	SW38	Fourth Row Single Family Residences (B)	1	66.0	930+37	65.9	66.0	Below	Approaches	59.6	6.4
	SW39	Third Row Single Family Residences (B)	1	66.0	930+70	67.1	67.3	Exceeds	Exceeds	60.5	6.8
	SW40	Second Row Single Family Residences (B)	1	66.0	931+18	68.8	68.8	Exceeds	Exceeds	61.9	6.9
	SW41 (Relocation)	First Row Single Family Residences (B)	0	66.0	932+75	75.8	76.9	Exceeds	Exceeds	63.9	13.0
	SW42	Second Row Single Family Residences (B)	1	66.0	932+68	71.1	71.3	Exceeds	Exceeds	63.3	8.0
	SW43	Third Row Single Family Residences (B)	1	66.0	932+66	68.2	68.2	Exceeds	Exceeds	61.3	6.9
	SW44	Fourth Row Single Family Residences (B)	1	66.0	933+35	67.3	67.3	Exceeds	Exceeds	60.5	6.8
	SW45	Fifth Row Single Family Residences (B)	1	66.0	933+65	65.3	65.4	Below	Below	59.5	5.9
SW46	> Fifth Row Single Family Residences (B)	1	66.0	931+87	64.0	64.2	Below	Below	59.0	5.2	
SW47	> Fifth Row Single Family Residences (B)	1	66.0	933+21	63.7	63.7	Below	Below	58.8	4.9	
EW1	First Row Single Family Residences (B)	1	66.0	935+50	70.1	71.0	Exceeds	Exceeds	62.1	8.9	
EW2	Third Row Single Family Residences (B)	1	66.0	935+12	66.7	67.0	Approaches	Exceeds	60.3	6.7	
EW3	Second Row Single Family Residences (B)	1	66.0	935+72	68.1	68.4	Exceeds	Exceeds	61.2	7.2	
EW4	> Fifth Row Single Family Residences (B)	1	66.0	935+38	61.7	61.9	Below	Below	57.7	4.2	
EW5	Fourth Row Single Family Residences (B)	1	66.0	935+91	62.6	62.8	Below	Below	58.5	4.3	
EW6	Third Row Single Family Residences (B)	1	66.0	936+81	63.2	63.3	Below	Below	58.7	4.6	
EW7	Second Row Single Family Residences (B)	1	66.0	936+90	64.9	64.9	Below	Below	59.4	5.5	
EW8	First Row Single Family Residences (B)	1	66.0	937+62	75.8	77.1	Exceeds	Exceeds	65.1	12.0	
EW9	Second Row Single Family Residences (B)	1	66.0	937+84	66.1	66.1	Approaches	Approaches	60.2	5.9	
EW10	First Row Single Family Residences (B)	1	66.0	938+62	67.9	67.7	Exceeds	Exceeds	61.3	6.4	
EW11	First Row Single Family Residences (B)	1	66.0	939+42	70.4	70.2	Exceeds	Exceeds	62.4	7.8	
EW12	Third Row Single Family Residences (B)	1	66.0	939+09	62.9	63.0	Below	Below	57.4	5.6	
EW13	Second Row Single Family Residences (B)	1	66.0	939+86	63.9	63.8	Below	Below	58.8	5.0	
EW14	Third Row Single Family Residences (B)	1	66.0	940+32	61.3	61.3	Below	Below	55.7	5.6	
EW15	Second Row Single Family Residences (B)	1	66.0	940+90	65.6	65.4	Below	Below	60.1	5.3	
EW16	Third Row Single Family Residences (B)	1	66.0	941+50	62.5	62.6	Below	Below	58.3	4.3	
EW17	Second Row Single Family Residences (B)	1	66.0	940+61	74.9	74.7	Exceeds	Exceeds	64.7	10.0	
EW18	First Row Single Family Residences (B)	1	66.0	941+31	78.0	76.9	Exceeds	Exceeds	65.6	11.3	
EW19	Second Row Single Family Residences (B)	1	66.0	942+95	65.6	65.5	Below	Below	60.7	4.8	

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Southland Subdivision, Englewood Subdivision, Spring Park Manor, & Rodney Subdivision (Continued)	EW20	Third Row Single Family Residences (B)	1	66.0	943+05	61.1	61.3	Below	Below	58.5	2.8
	EW21	Third Row Single Family Residences (B)	1	66.0	943+59	62.2	62.4	Below	Below	59.3	3.1
	EW22	Second Row Single Family Residences (B)	1	66.0	944+58	63.8	63.7	Below	Below	60.4	3.3
	EW23	Second Row Single Family Residences (B)	1	66.0	943+73	73.1	71.8	Exceeds	Exceeds	63.8	8.0
	EW24	First Row Single Family Residences (B)	1	66.0	944+41	77.2	75.1	Exceeds	Exceeds	65.6	9.5
	EW25	Fourth Row Single Family Residences (B)	1	66.0	943+87	59.4	59.7	Below	Below	57.6	2.1
	EW26	Third Row Single Family Residences (B)	1	66.0	944+93	60.6	60.9	Below	Below	58.5	2.4
	EW27	Second Row Single Family Residences (B)	1	66.0	946+10	61.3	61.5	Below	Below	58.9	2.6
	EW28	Second Row Single Family Residences (B)	1	66.0	946+71	62.4	62.8	Below	Below	59.7	3.1
	EW29	Second Row Single Family Residences (B)	1	66.0	947+55	63.2	64.0	Below	Below	60.6	3.4
	EW30	First Row Single Family Residences (B)	1	66.0	947+90	67.6	68.0	Exceeds	Exceeds	63.1	4.9
	EW31	Second Row Single Family Residences (B)	1	66.0	948+77	63.9	64.7	Below	Below	61.5	3.2
	EW32	Fourth Row Single Family Residences (B)	1	66.0	949+04	62.3	63.0	Below	Below	60.6	2.4
	EW33	Fifth Row Single Family Residences (B)	1	66.0	950+08	62.5	63.2	Below	Below	60.7	2.5
	EW34	First Row Single Family Residences (B)	1	66.0	948+50	73.8	73.2	Exceeds	Exceeds	64.7	8.5
	EW35	Second Row Single Family Residences (B)	1	66.0	949+20	70.2	70.5	Exceeds	Exceeds	64.6	5.9
	EW36	Third Row Single Family Residences (B)	1	66.0	950+12	69.6	68.0	Exceeds	Exceeds	63.5	4.5
	EW37	Fourth Row Single Family Residences (B)	1	66.0	950+95	65.9	66.2	Below	Approaches	62.7	3.5
	EW38	Fifth Row Single Family Residences (B)	1	66.0	952+03	63.4	64.0	Below	Below	61.4	2.6
	EW39	First Row Single Family Residences (B)	1	66.0	950+28	69.0	71.1	Exceeds	Exceeds	65.2	5.9
	EW40	Second Row Single Family Residences (B)	1	66.0	951+57	69.3	70.4	Exceeds	Exceeds	64.6	5.8
	EW41	Third Row Single Family Residences (B)	1	66.0	952+33	67.8	67.4	Exceeds	Exceeds	63.2	4.2
	EW42	Fourth Row Single Family Residences (B)	1	66.0	952+96	66.6	66.5	Approaches	Approaches	62.7	3.8
	EW43	Fifth Row Single Family Residences (B)	1	66.0	953+56	65.7	65.9	Below	Below	62.2	3.7
	EW44	> Fifth Row Single Family Residences (B)	1	66.0	954+09	65.1	65.3	Below	Below	61.8	3.5
	EW45	First Row Single Family Residences (B)	1	66.0	953+06	69.4	70.5	Exceeds	Exceeds	63.9	6.6
	EW46	Second Row Single Family Residences (B)	1	66.0	953+57	65.4	66.5	Below	Approaches	60.9	5.6
	EW47	Third Row Single Family Residences (B)	1	66.0	954+07	66.1	67.0	Approaches	Exceeds	62.4	4.6
	EW48	Fourth Row Single Family Residences (B)	1	66.0	956+08	65.6	65.4	Below	Below	61.6	3.8
	EW49	First Row Single Family Residences (B)	1	66.0	955+78	69.7	70.5	Exceeds	Exceeds	64.7	5.8
	EW50	Second Row Single Family Residences (B)	1	66.0	956+08	69.3	70.0	Exceeds	Exceeds	63.4	6.6
	EW51	Third Row Single Family Residences (B)	1	66.0	956+41	68.9	69.7	Exceeds	Exceeds	64.0	5.7
	EW52	Fourth Row Single Family Residences (B)	1	66.0	956+92	67.8	68.8	Exceeds	Exceeds	63.7	5.1
	EW53	Fifth Row Single Family Residences (B)	1	66.0	957+27	65.2	65.8	Below	Below	62.0	3.8
	EW54	Fifth Row Single Family Residences (B)	1	66.0	957+84	66.2	66.5	Approaches	Approaches	62.3	4.2
	EW55	> Fifth Row Single Family Residences (B)	1	66.0	958+58	65.0	65.3	Below	Below	61.9	3.4
	EW56	First Row Single Family Residences (B)	1	66.0	958+07	69.3	70.1	Exceeds	Exceeds	63.7	6.4
	EW57	First Row Single Family Residences (B)	1	66.0	958+69	69.5	70.8	Exceeds	Exceeds	65.1	5.7
	EW58	Second Row Single Family Residences (B)	1	66.0	958+98	68.2	69.3	Exceeds	Exceeds	63.5	5.8
	EW59	Third Row Single Family Residences (B)	1	66.0	959+50	66.7	66.7	Approaches	Approaches	62.4	4.3
	EW60	First Row Single Family Residences (B)	1	66.0	960+78	71.2	72.2	Exceeds	Exceeds	65.7	6.5
	EW61	Fourth Row Single Family Residences (B)	1	66.0	961+44	64.8	65.0	Below	Below	62.0	3.0
	EW62	Thirld Row Single Family Residences (B)	1	66.0	961+71	66.7	66.9	Approaches	Approaches	63.1	3.8
	EW63	First Row Single Family Residences (B)	1	66.0	962+18	72.1	73.2	Exceeds	Exceeds	66.5	6.7
	EW64	Second Row Single Family Residences (B)	1	66.0	962+49	65.4	64.3	Below	Below	61.2	3.1
	EW65	First Row Single Family Residences (B)	1	66.0	963+12	75.3	73.0	Exceeds	Exceeds	66.8	6.2
	EW66	Second Row Single Family Residences (B)	1	66.0	963+52	69.4	68.1	Exceeds	Exceeds	63.7	4.4
	PW1	Fourth Row Single Family Residences (B)	1	66.0	965+41	62.2	62.9	Below	Below	60.6	2.3
	PW2	Third Row Single Family Residences (B)	1	66.0	965+13	68.1	68.5	Exceeds	Exceeds	63.4	5.1
	PW3	Second Row Single Family Residences (B)	1	66.0	965+56	70.2	70.5	Exceeds	Exceeds	64.6	5.9
	PW4	First Row Single Family Residences (B)	1	66.0	965+75	74.9	75.0	Exceeds	Exceeds	66.1	8.9
	PW5	First Row Single Family Residences (B)	1	66.0	966+86	77.2	76.9	Exceeds	Exceeds	66.1	10.8
	PW6	First Row Single Family Residences (B)	1	66.0	967+82	75.6	75.2	Exceeds	Exceeds	65.3	9.9
	PW7	First Row Single Family Residences (B)	1	66.0	968+58	75.3	74.5	Exceeds	Exceeds	65.5	9.0
	PW8	First Row Single Family Residences (B)	1	66.0	969+18	74.8	74.1	Exceeds	Exceeds	65.5	8.6
	PW9	First Row Single Family Residences (B)	1	66.0	969+91	74.2	73.5	Exceeds	Exceeds	65.3	8.2
	PW10	First Row Single Family Residences (B)	1	66.0	970+65	74.3	73.5	Exceeds	Exceeds	65.2	8.3
	PW11	First Row Single Family Residences (B)	1	66.0	971+30	74.1	73.2	Exceeds	Exceeds	65.0	8.2
	PW12	First Row Single Family Residences (B)	1	66.0	971+85	74.2	73.3	Exceeds	Exceeds	64.9	8.4
	PW13	First Row Single Family Residences (B)	1	66.0	972+33	74.0	73.2	Exceeds	Exceeds	64.8	8.4
	PW14	First Row Single Family Residences (B)	1	66.0	972+97	73.6	72.9	Exceeds	Exceeds	64.6	8.3
	PW15	First Row Single Family Residences (B)	1	66.0	973+51	74.9	73.5	Exceeds	Exceeds	64.8	8.7
	PW16	First Row Single Family Residences (B)	1	66.0	974+16	73.7	73.0	Exceeds	Exceeds	64.5	8.5
	PW17	First Row Single Family Residences (B)	1	66.0	974+86	73.6	72.8	Exceeds	Exceeds	64.5	8.3
	PW18	First Row Single Family Residences (B)	1	66.0	975+43	74.1	73.0	Exceeds	Exceeds	64.6	8.4
	PW19	First Row Single Family Residences (B)	1	66.0	976+09	73.8	72.7	Exceeds	Exceeds	64.6	8.1
	PW20	First Row Single Family Residences (B)	1	66.0	976+63	73.7	72.5	Exceeds	Exceeds	64.5	8.0

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Southland Subdivision, Englewood Subdivision, Spring Park Manor, & Rodney Subdivision (Continued)	PW21	First Row Single Family Residences (B)	1	66.0	977+23	74.2	72.5	Exceeds	Exceeds	64.6	7.9
	PW22	First Row Single Family Residences (B)	1	66.0	977+85	74.1	72.3	Exceeds	Exceeds	64.3	8.0
	PW23	First Row Single Family Residences (B)	1	66.0	978+46	74.4	72.2	Exceeds	Exceeds	64.2	8.0
	PW24	First Row Single Family Residences (B)	1	66.0	978+94	74.9	72.4	Exceeds	Exceeds	64.2	8.2
	PW25	First Row Single Family Residences (B)	1	66.0	979+38	73.7	71.8	Exceeds	Exceeds	63.8	8.0
	PW26	First Row Single Family Residences (B)	1	66.0	980+80	77.5	73.9	Exceeds	Exceeds	61.9	12.0
	PW27	Fourth Row Single Family Residences (B)	1	66.0	966+80	58.8	59.1	Below	Below	57.7	1.4
	PW28	Third Row Single Family Residences (B)	1	66.0	966+74	63.7	64.1	Below	Below	59.6	4.5
	PW29	Second Row Single Family Residences (B)	1	66.0	967+20	66.4	66.6	Approaches	Approaches	60.7	5.9
	PW30	Second Row Single Family Residences (B)	1	66.0	967+82	68.5	68.5	Exceeds	Exceeds	63.1	5.4
	PW31	Third Row Single Family Residences (B)	1	66.0	968+79	66.2	66.4	Approaches	Approaches	60.5	5.9
	PW32	Fourth Row Single Family Residences (B)	1	66.0	968+97	63.9	64.2	Below	Below	59.6	4.6
	PW33	Second Row Single Family Residences (B)	1	66.0	970+19	68.6	68.6	Exceeds	Exceeds	62.1	6.5
	PW34	Second Row Single Family Residences (B)	1	66.0	970+86	68.5	68.6	Exceeds	Exceeds	62.1	6.5
	PW35	Second Row Single Family Residences (B)	1	66.0	971+87	68.4	68.5	Exceeds	Exceeds	61.9	6.6
	PW36	Second Row Single Family Residences (B)	1	66.0	972+55	68.4	68.6	Exceeds	Exceeds	61.9	6.7
	PW37	Second Row Single Family Residences (B)	1	66.0	973+19	68.9	68.8	Exceeds	Exceeds	62.0	6.8
	PW38	Third Row Single Family Residences (B)	1	66.0	970+81	60.3	60.8	Below	Below	57.5	3.3
	PW39	Third Row Single Family Residences (B)	1	66.0	971+73	60.2	60.8	Below	Below	57.8	3.0
	PW40	Third Row Single Family Residences (B)	1	66.0	973+55	63.8	64.0	Below	Below	58.4	5.6
	PW41	Second Row Single Family Residences (B)	1	66.0	974+75	68.3	68.3	Exceeds	Exceeds	61.7	6.6
	PW42	Second Row Single Family Residences (B)	1	66.0	975+42	68.4	68.4	Exceeds	Exceeds	61.7	6.7
	PW43	Second Row Single Family Residences (B)	1	66.0	976+05	68.1	68.0	Exceeds	Exceeds	61.5	6.5
	PW44	Second Row Single Family Residences (B)	1	66.0	976+74	67.9	67.8	Exceeds	Exceeds	61.4	6.4
	PW45	Second Row Single Family Residences (B)	1	66.0	977+61	67.8	67.5	Exceeds	Exceeds	61.3	6.2
	PW46	Third Row Single Family Residences (B)	1	66.0	975+86	59.5	59.5	Below	Below	55.6	3.9
	PW47	Third Row Single Family Residences (B)	1	66.0	976+53	62.5	62.6	Below	Below	57.9	4.7
	PW48	Third Row Single Family Residences (B)	1	66.0	978+15	64.3	64.0	Below	Below	58.3	5.7
	PW49	Second Row Single Family Residences (B)	1	66.0	979+72	67.5	67.1	Exceeds	Exceeds	61.1	6.0
	PW50	Third Row Single Family Residences (B)	1	66.0	979+92	64.1	63.8	Below	Below	57.7	6.1
	PW51	Fourth Row Single Family Residences (B)	1	66.0	980+40	63.1	62.8	Below	Below	57.7	5.1
	PW52	Second Row Single Family Residences (B)	1	66.0	980+84	68.3	67.6	Exceeds	Exceeds	61.4	6.2
	PW53	Third Row Single Family Residences (B)	1	66.0	981+19	65.9	65.3	Below	Below	59.3	6.0
	PW54	Fourth Row Single Family Residences (B)	1	66.0	981+62	64.1	63.8	Below	Below	58.6	5.2
	PW55	Second Row Single Family Residences (B)	1	66.0	981+70	71.7	70.4	Exceeds	Exceeds	62.1	8.3
	PW56	First Row Single Family Residences (B)	1	66.0	982+40	78.9	75.1	Exceeds	Exceeds	63.7	11.4
	PW57	First Row Single Family Residences (B)	1	66.0	982+53	79.2	74.8	Exceeds	Exceeds	63.0	11.8
	PW58	Third Row Single Family Residences (B)	1	66.0	982+39	70.5	68.7	Exceeds	Exceeds	60.6	8.1
	PW59	Fourth Row Single Family Residences (B)	1	66.0	983+17	70.0	68.4	Exceeds	Exceeds	60.8	7.6
	PW60	Fourth Row Single Family Residences (B)	1	66.0	983+68	72.3	70.6	Exceeds	Exceeds	61.8	8.8
	PW61	Third Row Single Family Residences (B)	1	66.0	984+16	74.1	72.0	Exceeds	Exceeds	62.3	9.7
	PW62	Second Row Single Family Residences (B)	1	66.0	984+59	77.0	74.2	Exceeds	Exceeds	63.1	11.1
	PW63	First Row Single Family Residences (B)	1	66.0	984+93	79.2	75.9	Exceeds	Exceeds	63.0	12.9
	PW64	> Fifth Row Single Family Residences (B)	1	66.0	984+90	66.8	66.3	Approaches	Approaches	60.5	5.8
	PW65	> Fifth Row Single Family Residences (B)	1	66.0	984+05	67.2	66.3	Exceeds	Approaches	60.3	6.0
	PW66	> Fifth Row Single Family Residences (B)	1	66.0	984+56	68.8	67.8	Exceeds	Exceeds	60.8	7.0
	PW67	Fifth Row Single Family Residences (B)	1	66.0	985+03	70.2	69.2	Exceeds	Exceeds	61.2	8.0
	PW68	Fourth Row Single Family Residences (B)	1	66.0	985+57	72.0	71.1	Exceeds	Exceeds	62.1	9.0
	PW69	Third Row Single Family Residences (B)	1	66.0	985+98	73.4	72.6	Exceeds	Exceeds	62.6	10.0
	PW70	Second Row Single Family Residences (B)	1	66.0	986+34	74.2	74.3	Exceeds	Exceeds	62.8	11.5
	PW71	First Row Single Family Residences (B)	1	66.0	986+83	74.4	75.3	Exceeds	Exceeds	62.8	12.5
	RW1	>Fifth Row Single Family Residences (B)	1	66.0	986+20	65.9	65.9	Below	Below	60.4	5.5
	RW2	>Fifth Row Single Family Residences (B)	1	66.0	986+76	67.4	67.3	Exceeds	Exceeds	61.3	6.0
	RW3	>Fifth Row Single Family Residences (B)	1	66.0	987+21	68.1	68.4	Exceeds	Exceeds	61.8	6.6
	RW4	Fifth Row Single Family Residences (B)	1	66.0	987+57	69.3	69.7	Exceeds	Exceeds	62.4	7.3
	RW5	Fourth Row Single Family Residences (B)	1	66.0	987+96	70.4	70.9	Exceeds	Exceeds	62.2	8.7
	RW6	Third Row Single Family Residences (B)	1	66.0	988+43	71.2	70.6	Exceeds	Exceeds	61.6	9.0
	RW7	Second Row Single Family Residences (B)	1	66.0	988+84	71.9	71.3	Exceeds	Exceeds	61.6	9.7
	RW8	First Row Single Family Residences (B)	1	66.0	989+24	69.1	71.8	Exceeds	Exceeds	60.2	11.6
	RW9	>Fifth Row Single Family Residences (B)	1	66.0	988+26	66.2	66.8	Approaches	Approaches	61.1	5.7
	RW10	Third Row Single Family Residences (B)	1	66.0	989+61	68.4	68.5	Exceeds	Exceeds	62.1	6.4
	RW11	Fourth Row Single Family Residences (B)	1	66.0	989+72	67.2	67.7	Exceeds	Exceeds	61.7	6.0
	RW12	Fifth Row Single Family Residences (B)	1	66.0	990+33	66.2	66.5	Approaches	Approaches	61.5	5.0
	RW13	>Fifth Row Single Family Residences (B)	1	66.0	990+63	65.2	66.0	Below	Approaches	61.3	4.7
	RW14	Second Row Single Family Residences (B)	1	66.0	989+96	69.7	69.3	Exceeds	Exceeds	61.2	8.1
	RW15	Third Row Single Family Residences (B)	1	66.0	990+49	69.3	68.6	Exceeds	Exceeds	62.2	6.4
	RW16	Fourth Row Single Family Residences (B)	1	66.0	990+99	68.7	67.9	Exceeds	Exceeds	62.7	5.2

Table 3-1: TNM Predicted Noise Levels (Sheet 6 of 13)											
Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Southland Subdivision, Englewood Subdivision, Spring Park Manor, & Rodney Subdivision (Continued)	RW17	Fifth Row Single Family Residences (B)	1	66.0	991+50	68.1	67.2	Exceeds	Exceeds	62.7	4.5
	RW18	>Fifth Row Single Family Residences (B)	1	66.0	991+88	67.4	66.7	Exceeds	Approaches	62.5	4.2
	RW19	First Row Single Family Residences (B)	1	66.0	991+26	67.6	71.8	Exceeds	Exceeds	59.4	12.4
	RW20	Second Row Single Family Residences (B)	1	66.0	991+69	69.0	70.0	Exceeds	Exceeds	61.1	8.9
	RW21	Third Row Single Family Residences (B)	1	66.0	992+21	68.4	69.0	Exceeds	Exceeds	62.2	6.8
	RW22	Fourth Row Single Family Residences (B)	1	66.0	992+70	67.9	68.5	Exceeds	Exceeds	63.2	5.3
	RW23	Fifth Row Single Family Residences (B)	1	66.0	993+01	67.7	67.9	Exceeds	Exceeds	64.0	3.9
	RW24	>Fifth Row Single Family Residences (B)	1	66.0	993+48	67.9	67.5	Exceeds	Exceeds	64.4	3.1
	RW25	>Fifth Row Single Family Residences (B)	1	66.0	994+08	67.9	67.2	Exceeds	Exceeds	64.8	2.4
Minimum						58.8	59.1	---	---	55.6	1.4
Maximum						79.2	77.1	---	---	66.8	13.0
Average						68.5	68.3	---	---	61.9	6.5
Total Number of Sites Equal to or Greater than 66.0 dB(A) / Total Number of Benefited Sites (Common Noise Environment W1)								145	149	---	155
Common Noise Environment E3 - East of I-95 between North of Fulton Avenue and Emerson Street (Residential Land Uses)											
Spring Park Manor	PE1	First Row Single Family Residences (B)	1	66.0	971+26	80.5	74.7	Exceeds	Exceeds	64.1	10.6
	PE2	Second Row Single Family Residences (B)	1	66.0	970+88	77.9	74.2	Exceeds	Exceeds	65.1	9.1
	PE3	Third Row Single Family Residences (B)	1	66.0	970+56	74.2	72.9	Exceeds	Exceeds	63.9	9.0
	PE4	Fourth Row Single Family Residences (B)	1	66.0	970+08	71.1	70.8	Exceeds	Exceeds	64.0	6.8
	PE5	Fifth Row Single Family Residences (B)	1	66.0	969+85	68.1	68.7	Exceeds	Exceeds	62.5	6.2
	PE6	Fifth Row Single Family Residences (B)	1	66.0	969+31	68.5	69.3	Exceeds	Exceeds	62.9	6.4
	PE7	Fifth Row Single Family Residences (B)	1	66.0	968+45	68.8	70.2	Exceeds	Exceeds	63.5	6.7
	PE8	>Fifth Row Single Family Residences (B)	1	66.0	967+91	67.0	68.9	Exceeds	Exceeds	62.5	6.4
	PE9	>Fifth Row Single Family Residences (B)	1	66.0	967+88	63.9	66.4	Below	Approaches	61.0	5.4
	PE10	>Fifth Row Single Family Residences (B)	1	66.0	968+72	61.1	61.6	Below	Below	57.6	4.0
	PE11	>Fifth Row Single Family Residences (B)	1	66.0	969+81	63.1	64.2	Below	Below	59.3	4.9
	PE12	First Row Single Family Residences (B)	1	66.0	973+27	76.1	73.7	Exceeds	Exceeds	65.2	8.5
	PE13	Second Row Single Family Residences (B)	1	66.0	972+73	74.5	72.7	Exceeds	Exceeds	64.7	8.0
	PE14	Third Row Single Family Residences (B)	1	66.0	972+29	72.9	71.6	Exceeds	Exceeds	63.8	7.8
	PE15	Fourth Row Single Family Residences (B)	1	66.0	971+79	70.9	70.2	Exceeds	Exceeds	62.7	7.5
	PE16	Fifth Row Single Family Residences (B)	1	66.0	971+41	68.6	68.6	Exceeds	Exceeds	61.7	6.9
	PE17	>Fifth Row Single Family Residences (B)	1	66.0	971+03	66.7	67.0	Approaches	Exceeds	61.3	5.7
	PE18	>Fifth Row Single Family Residences (B)	1	66.0	970+79	65.5	66.2	Below	Approaches	60.6	5.6
	PE19	>Fifth Row Single Family Residences (B)	1	66.0	970+78	62.8	64.0	Below	Below	59.5	4.5
	PE20	First Row Single Family Residences (B)	1	66.0	975+93	73.9	72.7	Exceeds	Exceeds	64.6	8.1
	PE21	Second Row Single Family Residences (B)	1	66.0	975+13	72.3	71.5	Exceeds	Exceeds	65.0	6.5
	PE22	Third Row Single Family Residences (B)	1	66.0	974+52	71.2	70.6	Exceeds	Exceeds	64.7	5.9
	PE23	Fourth Row Single Family Residences (B)	1	66.0	973+85	70.0	69.6	Exceeds	Exceeds	63.2	6.4
	PE24	Fifth Row Single Family Residences (B)	1	66.0	973+46	68.7	68.4	Exceeds	Exceeds	62.0	6.4
	PE25	>Fifth Row Single Family Residences (B)	1	66.0	973+05	67.1	67.0	Exceeds	Exceeds	61.1	5.9
	PE26	>Fifth Row Single Family Residences (B)	1	66.0	972+74	64.8	64.9	Below	Below	59.7	5.2
	PE27	>Fifth Row Single Family Residences (B)	1	66.0	973+11	63.8	64.0	Below	Below	59.2	4.8
	PE28	First Row Single Family Residences (B)	1	66.0	978+12	75.4	72.2	Exceeds	Exceeds	63.1	9.1
	PE29	Second Row Single Family Residences (B)	1	66.0	977+82	73.6	71.4	Exceeds	Exceeds	64.1	7.3
	PE30	Third Row Single Family Residences (B)	1	66.0	977+49	71.3	70.4	Exceeds	Exceeds	63.4	7.0
	PE31	Fourth Row Single Family Residences (B)	1	66.0	976+86	70.9	70.2	Exceeds	Exceeds	62.8	7.4
	PE32	Fifth Row Single Family Residences (B)	1	66.0	976+29	69.4	68.9	Exceeds	Exceeds	61.5	7.4
	PE33	>Fifth Row Single Family Residences (B)	1	66.0	975+40	67.2	67.0	Exceeds	Exceeds	61.2	5.8
	PE34	>Fifth Row Single Family Residences (B)	1	66.0	974+63	65.8	65.9	Below	Below	60.1	5.8
	PE35	>Fifth Row Single Family Residences (B)	1	66.0	974+76	63.4	63.5	Below	Below	58.4	5.1
	PE36	>Fifth Row Single Family Residences (B)	1	66.0	975+88	64.2	64.2	Below	Below	59.2	5.0
	PE37	>Fifth Row Single Family Residences (B)	1	66.0	977+04	65.3	65.0	Below	Below	59.6	5.4
	PE38	First Row Single Family Residences (B)	1	66.0	983+67	75.5	72.9	Exceeds	Exceeds	63.9	9.0
	PE39	Second Row Single Family Residences (B)	1	66.0	984+47	74.1	72.3	Exceeds	Exceeds	63.5	8.8
	PE40	Third Row Single Family Residences (B)	1	66.0	984+89	71.9	71.2	Exceeds	Exceeds	62.7	8.5
	PE41 (Relocation)	First Row Single Family Residences (B)	0	66.0	987+44	72.3	70.8	Exceeds	Exceeds	61.7	9.1
	PE42	Second Row Single Family Residences (B)	1	66.0	986+61	72.5	72.1	Exceeds	Exceeds	63.0	9.1
	PE43	Third Row Single Family Residences (B)	1	66.0	986+90	72.2	72.2	Exceeds	Exceeds	62.6	9.6
	PE44	Fourth Row Single Family Residences (B)	1	66.0	985+37	70.2	70.1	Exceeds	Exceeds	62.0	8.1
	PE45	Fifth Row Single Family Residences (B)	1	66.0	985+75	69.5	69.8	Exceeds	Exceeds	62.1	7.7
	PE46	First Row Single Family Residences (B)	1	66.0	988+89	71.5	70.2	Exceeds	Exceeds	59.6	10.6
	PE47	Second Row Single Family Residences (B)	1	66.0	988+03	71.3	70.3	Exceeds	Exceeds	61.5	8.8
	PE48	Third Row Single Family Residences (B)	1	66.0	987+17	69.9	70.4	Exceeds	Exceeds	61.9	8.5
	PE49	>Fifth Row Single Family Residences (B)	1	66.0	986+20	68.3	68.8	Exceeds	Exceeds	61.7	7.1
	PE50	>Fifth Row Single Family Residences (B)	1	66.0	986+74	66.8	67.5	Approaches	Exceeds	61.0	6.5
	PE51	>Fifth Row Single Family Residences (B)	1	66.0	987+12	66.7	67.5	Approaches	Exceeds	61.3	6.2
	PE52	First Row Single Family Residences (B)	1	66.0	989+72	71.0	70.5	Exceeds	Exceeds	59.3	11.2
	PE53	First Row Single Family Residences (B)	1	66.0	990+47	70.7	70.2	Exceeds	Exceeds	59.9	10.3

Table 3-1: TNM Predicted Noise Levels (Sheet 7 of 13)											
Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Spring Park Manor (Continued)	PE54	Second Row Single Family Residences (B)	1	66.0	990+96	70.1	69.6	Exceeds	Exceeds	61.4	8.2
	PE55	Second Row Single Family Residences (B)	1	66.0	989+74	66.7	66.1	Approaches	Approaches	60.2	5.9
	PE56	Third Row Single Family Residences (B)	1	66.0	988+61	68.4	68.4	Exceeds	Exceeds	61.7	6.7
	PE57	>Fifth Row Single Family Residences (B)	1	66.0	987+56	65.9	66.8	Below	Approaches	61.3	5.5
	PE58	Third Row Single Family Residences (B)	1	66.0	991+49	69.2	68.7	Exceeds	Exceeds	62.6	6.1
	PE59	Fourth Row Single Family Residences (B)	1	66.0	990+32	64.7	66.5	Below	Approaches	60.4	6.1
	PE60	Fifth Row Single Family Residences (B)	1	66.0	990+70	69.1	67.2	Exceeds	Exceeds	62.8	4.4
	PE61	>Fifth Row Single Family Residences (B)	1	66.0	988+98	67.2	67.6	Exceeds	Exceeds	61.7	5.9
	PE62	>Fifth Row Single Family Residences (B)	1	66.0	989+53	66.5	66.8	Approaches	Approaches	62.4	4.4
	PE63	>Fifth Row Single Family Residences (B)	1	66.0	988+05	65.3	66.3	Below	Approaches	61.7	4.6
	PE64	>Fifth Row Single Family Residences (B)	1	66.0	988+56	65.1	66.0	Below	Approaches	62.6	3.4
	PE65	Fourth Row Single Family Residences (B)	1	66.0	991+91	69.1	68.6	Exceeds	Exceeds	64.4	4.2
	PE66	>Fifth Row Single Family Residences (B)	1	66.0	991+12	68.9	67.3	Exceeds	Exceeds	63.7	3.6
	PE67	>Fifth Row Single Family Residences (B)	1	66.0	989+95	66.9	67.1	Approaches	Exceeds	64.0	3.1
	PE68	>Fifth Row Single Family Residences (B)	1	66.0	988+91	65.8	66.4	Below	Approaches	63.9	2.5
	PE69	>Fifth Row Single Family Residences (B)	1	66.0	989+37	67.6	68.0	Exceeds	Exceeds	66.5	1.5
Minimum						61.1	61.6	---	---	57.6	1.5
Maximum						80.5	74.7	---	---	66.5	11.2
Average						69.2	68.8	---	---	62.1	6.7
Total Number of Sites Equal to or Greater than 66.0 dB(A) / Total Number of Benefited Sites (Common Noise Environment E3)								53	59	---	55
Common Noise Environment E4 - East of I-95 between Emerson Street and Atlantic Boulevard (Residential Land Uses)											
Rodney Subdivision, Belair Subdivision, San Diego Terrace Subdivision, Philips Subdivision, & Fullers Subdivision	RE1 (Relocation)	First Row Single Family Residences (B)	0	66.0	997+20	73.2	72.5	Exceeds	Exceeds	58.3	14.2
	RE2 (Relocation)	Second Row Single Family Residences (B)	0	66.0	997+03	70.2	70.3	Exceeds	Exceeds	60.7	9.6
	RE3	Third Row Single Family Residences (B)	1	66.0	996+85	69.2	69.1	Exceeds	Exceeds	62.7	6.4
	RE4	Fourth Row Single Family Residences (B)	1	66.0	996+54	68.3	68.1	Exceeds	Exceeds	64.4	3.7
	RE5	Fifth Row Single Family Residences (B)	1	66.0	996+31	67.7	67.6	Exceeds	Exceeds	64.8	2.8
	RE6	>Fifth Row Single Family Residences (B)	1	66.0	996+16	66.9	66.8	Approaches	Approaches	64.4	2.4
	RE7 (Relocation)	First Row Single Family Residences (B)	0	66.0	998+83	70.9	70.6	Exceeds	Exceeds	58.3	12.3
	RE8	Second Row Single Family Residences (B)	1	66.0	998+62	69.5	69.6	Exceeds	Exceeds	59.4	10.2
	RE9	Third Row Single Family Residences (B)	1	66.0	998+23	68.9	68.8	Exceeds	Exceeds	61.6	7.2
	RE10	Fourth Row Single Family Residences (B)	1	66.0	997+99	67.9	67.7	Exceeds	Exceeds	62.9	4.8
	RE11	Fifth Row Single Family Residences (B)	1	66.0	997+69	67.3	67.3	Exceeds	Exceeds	63.5	3.8
	RE12	First Row Single Family Residences (B)	1	66.0	1001+59	72.6	72.1	Exceeds	Exceeds	59.5	12.6
	RE13	First Row Single Family Residences (B)	1	66.0	1000+90	70.3	70.3	Exceeds	Exceeds	60.0	10.3
	RE14	Second Row Single Family Residences (B)	1	66.0	1000+53	69.0	69.1	Exceeds	Exceeds	60.7	8.4
	RE15	Third Row Single Family Residences (B)	1	66.0	1000+09	68.2	68.3	Exceeds	Exceeds	61.9	6.4
	RE16	Fourth Row Single Family Residences (B)	1	66.0	999+86	68.0	68.0	Exceeds	Exceeds	61.9	6.1
	RE17	Fifth Row Single Family Residences (B)	1	66.0	999+34	67.6	67.5	Exceeds	Exceeds	62.0	5.5
	RE18	First Row Single Family Residences (B)	1	66.0	998+79	66.6	66.7	Approaches	Approaches	62.2	4.5
	RE19	Second Row Single Family Residences (B)	1	66.0	1004+04	73.1	71.7	Exceeds	Exceeds	61.8	9.9
	RE20	Third Row Single Family Residences (B)	1	66.0	1003+43	73.3	71.4	Exceeds	Exceeds	61.6	9.8
	RE21	Fourth Row Single Family Residences (B)	1	66.0	1003+04	72.5	70.7	Exceeds	Exceeds	61.4	9.3
	RE22	Fifth Row Single Family Residences (B)	1	66.0	1002+41	71.2	69.6	Exceeds	Exceeds	61.1	8.5
	RE23	>Fifth Row Single Family Residences (B)	1	66.0	1002+08	69.6	68.4	Exceeds	Exceeds	61.2	7.2
	RE24	>Fifth Row Single Family Residences (B)	1	66.0	1001+86	69.3	68.0	Exceeds	Exceeds	61.1	6.9
	RE25	>Fifth Row Single Family Residences (B)	1	66.0	1001+33	68.4	67.3	Exceeds	Exceeds	61.0	6.3
	RE26	>Fifth Row Single Family Residences (B)	1	66.0	1000+77	67.2	66.4	Exceeds	Approaches	60.8	5.6
	RE27	First Row Single Family Residences (B)	1	66.0	1006+30	76.9	74.8	Exceeds	Exceeds	63.9	10.9
	RE28	Second Row Single Family Residences (B)	1	66.0	1005+07	71.7	71.5	Exceeds	Exceeds	61.6	9.9
	RE29	Second Row Single Family Residences (B)	1	66.0	1004+54	71.2	71.2	Exceeds	Exceeds	61.4	9.8
	RE30	Third Row Single Family Residences (B)	1	66.0	1003+73	70.1	70.4	Exceeds	Exceeds	61.3	9.1
	RE31	Fourth Row Single Family Residences (B)	1	66.0	1003+41	68.7	69.3	Exceeds	Exceeds	60.8	8.5
	RE32	Fifth Row Single Family Residences (B)	1	66.0	1002+95	67.6	68.3	Exceeds	Exceeds	60.7	7.6
	RE33	>Fifth Row Single Family Residences (B)	1	66.0	1002+60	66.7	67.4	Approaches	Exceeds	60.4	7.0
	RE34	Second Row Single Family Residences (B)	1	66.0	1006+75	74.1	73.0	Exceeds	Exceeds	62.8	10.2
	RE35	Third Row Single Family Residences (B)	1	66.0	1005+90	70.8	70.5	Exceeds	Exceeds	61.7	8.8
	RE36	Third Row Single Family Residences (B)	1	66.0	1005+02	67.1	67.3	Exceeds	Exceeds	60.4	6.9
	RE37	Fourth Row Single Family Residences (B)	1	66.0	1004+62	66.4	66.7	Approaches	Approaches	60.2	6.5
	RE38	First Row Single Family Residences (B)	1	66.0	1008+56	80.1	79.1	Exceeds	Exceeds	62.9	16.2
	RE39	Third Row Single Family Residences (B)	1	66.0	1007+24	72.7	71.7	Exceeds	Exceeds	62.5	9.2
	RE40	Fourth Row Single Family Residences (B)	1	66.0	1006+37	69.9	69.5	Exceeds	Exceeds	61.4	8.1
	RE41	Second Row Single Family Residences (B)	1	66.0	1008+88	77.1	75.9	Exceeds	Exceeds	63.9	12.0
	RE42	Fourth Row Single Family Residences (B)	1	66.0	1007+71	70.9	70.4	Exceeds	Exceeds	62.0	8.4
	RE43	Fifth Row Single Family Residences (B)	1	66.0	1006+79	68.4	68.2	Exceeds	Exceeds	60.7	7.5
	RE44	Fifth Row Single Family Residences (B)	1	66.0	1005+69	66.1	66.2	Approaches	Approaches	60.0	6.2
	RE45	Second Row Single Family Residences (B)	1	66.0	1009+49	75.1	74.4	Exceeds	Exceeds	63.5	10.9
	RE46	First Row Single Family Residences (B)	1	66.0	1010+91	79.5	77.9	Exceeds	Exceeds	62.3	15.6

Table 3-1: TNM Predicted Noise Levels (Sheet 8 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Rodney Subdivision, Belair Subdivision, San Diego Terrace Subdivision, Philips Subdivision, & Fullers Subdivision (Continued)	RE47	Second Row Single Family Residences (B)	1	66.0	1009+84	74.5	73.6	Exceeds	Exceeds	63.1	10.5
	RE48	Fifth Row Single Family Residences (B)	1	66.0	1008+59	67.9	68.1	Exceeds	Exceeds	60.8	7.3
	RE49	>Fifth Row Single Family Residences (B)	1	66.0	1007+65	65.9	66.1	Below	Approaches	59.4	6.7
	RE50	First Row Single Family Residences (B)	1	66.0	1011+59	75.1	74.9	Exceeds	Exceeds	63.7	11.2
	RE51	Third Row Single Family Residences (B)	1	66.0	1010+29	72.3	71.9	Exceeds	Exceeds	62.4	9.5
	RE52	Fourth Row Single Family Residences (B)	1	66.0	1010+74	70.1	70.0	Exceeds	Exceeds	61.6	8.4
	RE53	>Fifth Row Single Family Residences (B)	1	66.0	1009+32	66.3	66.7	Approaches	Approaches	60.0	6.7
	RE54	>Fifth Row Single Family Residences (B)	1	66.0	1008+11	65.0	65.4	Below	Below	59.2	6.2
	RE55	>Fifth Row Single Family Residences (B)	1	66.0	1008+61	64.3	64.5	Below	Below	58.8	5.7
	RE56	Second Row Single Family Residences (B)	1	66.0	1011+99	74.2	73.8	Exceeds	Exceeds	63.4	10.4
	RE57 (Relocation)	First Row Single Family Residences (B)	0	66.0	1013+15	76.4	76.0	Exceeds	Exceeds	63.9	12.1
	RE58	Third Row Single Family Residences (B)	1	66.0	1012+39	72.1	72.3	Exceeds	Exceeds	62.7	9.6
	RE59	Fifth Row Single Family Residences (B)	1	66.0	1011+52	67.9	68.3	Exceeds	Exceeds	60.6	7.7
	RE60	>Fifth Row Single Family Residences (B)	1	66.0	1009+78	65.4	65.9	Below	Below	59.5	6.4
	RE61	>Fifth Row Single Family Residences (B)	1	66.0	1010+40	64.7	65.1	Below	Below	59.1	6.0
	RE62	First Row Single Family Residences (B)	1	66.0	1013+61	74.9	74.8	Exceeds	Exceeds	63.7	11.1
	RE63	Fourth Row Single Family Residences (B)	1	66.0	1012+80	71.0	71.2	Exceeds	Exceeds	62.2	9.0
	RE64	>Fifth Row Single Family Residences (B)	1	66.0	1011+65	65.8	66.3	Below	Approaches	59.6	6.7
	RE65	>Fifth Row Single Family Residences (B)	1	66.0	1011+27	64.2	64.7	Below	Below	58.8	5.9
	RE66	First Row Single Family Residences (B)	1	66.0	1014+57	75.7	75.5	Exceeds	Exceeds	63.7	11.8
	RE67	First Row Single Family Residences (B)	1	66.0	1014+02	74.2	74.2	Exceeds	Exceeds	63.6	10.6
	RE68	Second Row Single Family Residences (B)	1	66.0	1013+38	70.2	70.6	Exceeds	Exceeds	61.9	8.7
	RE69	First Row Single Family Residences (B)	1	66.0	1015+49	78.9	77.5	Exceeds	Exceeds	63.3	14.2
	RE70	Second Row Single Family Residences (B)	1	66.0	1014+98	73.3	73.3	Exceeds	Exceeds	62.9	10.4
	RE71	Third Row Single Family Residences (B)	1	66.0	1014+22	69.3	69.7	Exceeds	Exceeds	61.3	8.4
	RE72	Fourth Row Single Family Residences (B)	1	66.0	1013+70	68.0	68.4	Exceeds	Exceeds	60.9	7.5
	RE73	Fifth Row Single Family Residences (B)	1	66.0	1013+37	66.8	67.3	Approaches	Exceeds	60.2	7.1
	RE74	>Fifth Row Single Family Residences (B)	1	66.0	1013+01	65.5	66.0	Below	Approaches	59.4	6.6
	RE75	Fifth Row Single Family Residences (B)	1	66.0	1012+35	64.7	65.2	Below	Below	59.1	6.1
	RE6A	>Fifth Row Single Family Residences (B)	1	66.0	996+50	---	65.7	---	Below	62.8	2.9
	RE18A	> Fifth Row Single Family Residences (B)	1	66.0	998+00	---	65.5	---	Below	61.1	4.4
	RE26A	>Fifth Row Single Family Residences (B)	1	66.0	1000+10	---	65.7	---	Below	60.5	5.2
	RE33A	>Fifth Row Single Family Residences (B)	1	66.0	1002+10	---	65.9	---	Below	59.9	6.0
	RE37A	Fifth Row Single Family Residences (B)	1	66.0	1004+00	---	66.2	---	Approaches	60.1	6.1
	RE37B	>Fifth Row Single Family Residences (B)	1	66.0	1003+75	---	65.7	---	Below	59.8	5.9
	RE44A	>Fifth Row Single Family Residences (B)	1	66.0	1005+30	---	65.8	---	Below	59.7	6.1
	RE44B	>Fifth Row Single Family Residences (B)	1	66.0	1005+00	---	65.2	---	Below	59.5	5.7
	RE49A	>Fifth Row Single Family Residences (B)	1	66.0	1006+85	---	64.5	---	Below	58.8	5.7
	BE1	First Row Single Family Residences (B)	1	66.0	1018+05	78.4	76.8	Exceeds	Exceeds	64.6	12.2
	BE2	First Row Single Family Residences (B)	1	66.0	1017+07	71.3	71.6	Exceeds	Exceeds	65.2	6.4
	BE3	Second Row Single Family Residences (B)	1	66.0	1016+00	69.5	69.9	Exceeds	Exceeds	61.0	8.9
	BE4	Third Row Single Family Residences (B)	1	66.0	1016+55	67.6	68.0	Exceeds	Exceeds	60.0	8.0
	BE5	Fourth Row Single Family Residences (B)	1	66.0	1015+18	66.1	66.6	Approaches	Approaches	59.4	7.2
	BE6	Fifth Row Single Family Residences (B)	1	66.0	1015+60	64.7	65.3	Below	Below	58.7	6.6
	BE7	First Row Single Family Residences (B)	1	66.0	1018+80	73.3	73.1	Exceeds	Exceeds	63.8	9.3
	BE8	Second Row Single Family Residences (B)	1	66.0	1019+16	71.7	71.6	Exceeds	Exceeds	62.8	8.8
	BE9	Second Row Single Family Residences (B)	1	66.0	1017+48	68.8	69.3	Exceeds	Exceeds	61.2	8.1
	BE10	Third Row Single Family Residences (B)	1	66.0	1017+90	68.0	68.5	Exceeds	Exceeds	60.8	7.7
	BE11	Fourth Row Single Family Residences (B)	1	66.0	1018+28	66.6	67.0	Approaches	Exceeds	59.9	7.1
	BE12	Fourth Row Single Family Residences (B)	1	66.0	1017+00	65.6	66.1	Below	Approaches	59.1	7.0
	BE13	Fifth Row Single Family Residences (B)	1	66.0	1017+51	64.9	65.4	Below	Below	58.6	6.8
	BE14	>Fifth Row Single Family Residences (B)	1	66.0	1017+89	63.6	64.2	Below	Below	58.1	6.1
	BE15	>Fifth Row Single Family Residences (B)	1	66.0	1016+09	63.1	63.8	Below	Below	57.9	5.9
	BE16	>Fifth Row Single Family Residences (B)	1	66.0	1016+58	62.1	62.8	Below	Below	57.4	5.4
	BE17 (Relocation)	First Row Single Family Residences (B)	0	66.0	1020+78	78.7	76.2	Exceeds	Exceeds	63.9	12.3
	BE18	Second Row Single Family Residences (B)	1	66.0	1020+82	75.2	74.5	Exceeds	Exceeds	64.5	10.0
	BE19	Third Row Single Family Residences (B)	1	66.0	1020+83	67.2	67.8	Exceeds	Exceeds	61.0	6.8
	BE20	Third Row Single Family Residences (B)	1	66.0	1019+84	69.1	69.2	Exceeds	Exceeds	61.5	7.7
	BE21	Fourth Row Single Family Residences (B)	1	66.0	1020+26	67.2	67.6	Exceeds	Exceeds	60.9	6.7
	BE22	Fifth Row Single Family Residences (B)	1	66.0	1018+85	65.6	66.1	Below	Approaches	59.4	6.7
	BE23	>Fifth Row Single Family Residences (B)	1	66.0	1019+16	64.5	65.0	Below	Below	58.9	6.1
	BE24	>Fifth Row Single Family Residences (B)	1	66.0	1019+72	62.8	63.5	Below	Below	58.0	5.5
	BE25 (Relocation)	First Row Single Family Residences (B)	0	66.0	1022+72	77.5	76.3	Exceeds	Exceeds	63.7	12.6
	BE26	Second Row Single Family Residences (B)	1	66.0	1022+46	74.1	74.3	Exceeds	Exceeds	64.4	9.9
	BE27	Third Row Single Family Residences (B)	1	66.0	1021+60	70.7	70.9	Exceeds	Exceeds	62.5	8.4
	BE28	Fourth Row Single Family Residences (B)	1	66.0	1022+10	68.7	69.2	Exceeds	Exceeds	61.5	7.7
	BE29	First Row Single Family Residences (B)	1	66.0	1024+10	74.3	74.6	Exceeds	Exceeds	64.7	9.9
	BE30	Second Row Single Family Residences (B)	1	66.0	1023+26	70.6	71.2	Exceeds	Exceeds	62.7	8.5
	BE31	Third Row Single Family Residences (B)	1	66.0	1022+57	67.0	67.9	Exceeds	Exceeds	60.9	7.0

Table 3-1: TNM Predicted Noise Levels (Sheet 9 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Rodney Subdivision, Belair Subdivision, San Diego Terrace Subdivision, Philips Subdivision, & Fullers Subdivision (Continued)	BE32	Fifth Row Single Family Residences (B)	1	66.0	1021+46	64.1	64.9	Below	Below	59.2	5.7
	BE33	>Fifth Row Single Family Residences (B)	1	66.0	1020+33	61.5	62.4	Below	Below	57.6	4.8
	BE34	Second Row Single Family Residences (B)	1	66.0	1024+43	71.7	72.7	Exceeds	Exceeds	64.2	8.5
	BE35	Third Row Single Family Residences (B)	1	66.0	1023+98	68.9	69.8	Exceeds	Exceeds	61.9	7.9
	BE36	Fourth Row Single Family Residences (B)	1	66.0	1023+13	65.5	66.7	Below	Approaches	60.4	6.3
	BE37	First Row Single Family Residences (B)	1	66.0	1025+92	73.5	74.9	Exceeds	Exceeds	64.8	10.1
	BE38	Second Row Single Family Residences (B)	1	66.0	1025+13	70.2	71.7	Exceeds	Exceeds	63.5	8.2
	BE39	Fourth Row Single Family Residences (B)	1	66.0	1024+52	67.1	68.5	Exceeds	Exceeds	61.3	7.2
	BE40	>Fifth Row Single Family Residences (B)	1	66.0	1023+62	64.2	65.6	Below	Below	59.5	6.1
	BE41	>Fifth Row Single Family Residences (B)	1	66.0	1022+56	61.3	62.7	Below	Below	57.9	4.8
	BE42	First Row Single Family Residences (B)	1	66.0	1026+41	72.7	74.7	Exceeds	Exceeds	65.0	9.7
	BE43	Third Row Single Family Residences (B)	1	66.0	1025+57	68.5	70.6	Exceeds	Exceeds	63.1	7.5
	BE44	Fifth Row Single Family Residences (B)	1	66.0	1024+90	66.2	67.9	Approaches	Exceeds	61.0	6.9
	BE45	Second Row Single Family Residences (B)	1	66.0	1026+83	70.4	73.0	Exceeds	Exceeds	64.5	8.5
	BE46	Fourth Row Single Family Residences (B)	1	66.0	1026+20	66.7	69.5	Approaches	Exceeds	62.9	6.6
	BE47	>Fifth Row Single Family Residences (B)	1	66.0	1025+49	64.6	66.8	Below	Approaches	60.8	6.0
	BE48	>Fifth Row Single Family Residences (B)	1	66.0	1024+43	62.1	64.1	Below	Below	59.0	5.1
	BE49	Third Row Single Family Residences (B)	1	66.0	1027+40	69.6	72.4	Exceeds	Exceeds	64.7	7.7
	BE50	Fifth Row Single Family Residences (B)	1	66.0	1026+53	65.8	68.9	Below	Exceeds	62.7	6.2
	BE51	>Fifth Row Single Family Residences (B)	1	66.0	1025+87	63.7	66.2	Below	Approaches	60.3	5.9
	BE52	>Fifth Row Single Family Residences (B)	1	66.0	1024+88	61.2	63.5	Below	Below	58.5	5.0
	BE53	Fourth Row Single Family Residences (B)	1	66.0	1027+98	68.7	71.4	Exceeds	Exceeds	64.7	6.7
	BE54	>Fifth Row Single Family Residences (B)	1	66.0	1027+21	64.9	68.3	Below	Exceeds	62.4	5.9
	BE55	>Fifth Row Single Family Residences (B)	1	66.0	1026+57	62.9	65.7	Below	Below	60.0	5.7
	BE56	>Fifth Row Single Family Residences (B)	1	66.0	1025+37	60.3	62.8	Below	Below	58.2	4.6
	BE57	Fifth Row Single Family Residences (B)	1	66.0	1028+45	67.5	70.6	Exceeds	Exceeds	64.4	6.2
	BE58	>Fifth Row Single Family Residences (B)	1	66.0	1027+79	64.0	67.7	Below	Exceeds	62.3	5.4
	BE59	>Fifth Row Single Family Residences (B)	1	66.0	1027+01	61.6	64.6	Below	Below	59.8	4.8
	BE60	>Fifth Row Single Family Residences (B)	1	66.0	1028+93	66.4	69.8	Approaches	Exceeds	64.1	5.7
	BE61	>Fifth Row Single Family Residences (B)	1	66.0	1028+36	63.2	67.2	Below	Exceeds	62.1	5.1
	BE62	>Fifth Row Single Family Residences (B)	1	66.0	1027+59	60.8	64.2	Below	Below	59.5	4.7
	BE63	>Fifth Row Single Family Residences (B)	1	66.0	1029+62	66.0	69.5	Approaches	Exceeds	63.8	5.7
	BE64	>Fifth Row Single Family Residences (B)	1	66.0	1030+23	64.7	68.7	Below	Exceeds	63.3	5.4
	BE65	>Fifth Row Single Family Residences (B)	1	66.0	1028+81	62.6	66.8	Below	Approaches	61.9	4.9
	BE66	>Fifth Row Single Family Residences (B)	1	66.0	1029+27	61.9	66.3	Below	Approaches	61.7	4.6
	BE67	>Fifth Row Single Family Residences (B)	1	66.0	1030+78	63.7	68.0	Below	Exceeds	62.8	5.2
	BE68	>Fifth Row Single Family Residences (B)	1	66.0	1029+84	61.4	66.0	Below	Approaches	61.5	4.5
	BE69	>Fifth Row Single Family Residences (B)	1	66.0	1031+00	62.9	67.3	Below	Exceeds	62.3	5.0
	BE70	>Fifth Row Single Family Residences (B)	1	66.0	1030+21	60.9	65.6	Below	Below	61.3	4.3
	BE71	>Fifth Row Single Family Residences (B)	1	66.0	1031+74	62.1	66.6	Below	Approaches	61.8	4.8
	BE72	>Fifth Row Single Family Residences (B)	1	66.0	1030+55	60.2	65.0	Below	Below	61.0	4.0
	SD1 (Relocation)	First Row Single Family Residences (B)	0	66.0	1031+99	74.6	71.4	Exceeds	Exceeds	62.8	8.6
	SD2 (Relocation)	First Row Single Family Residences (B)	0	66.0	1032+78	77.1	71.5	Exceeds	Exceeds	64.9	6.6
	SD3 (Relocation)	Second Row Single Family Residences (B)	0	66.0	1033+17	75.8	72.0	Exceeds	Exceeds	66.2	5.8
	SD4	First Row Single Family Residences (B)	1	66.0	1035+19	78.2	70.2	Exceeds	Exceeds	64.6	5.6
	SD5	Second Row Single Family Residences (B)	1	66.0	1035+25	75.1	71.1	Exceeds	Exceeds	65.0	6.1
	SD6	Second Row Single Family Residences (B)	1	66.0	1034+02	73.5	73.0	Exceeds	Exceeds	66.1	6.9
	SD7	Third Row Single Family Residences (B)	1	66.0	1034+43	71.6	73.2	Exceeds	Exceeds	65.3	7.9
	SD8	Third Row Single Family Residences (B)	1	66.0	1033+17	67.6	69.7	Exceeds	Exceeds	64.7	5.0
	SD9	Fourth Row Single Family Residences (B)	1	66.0	1032+64	66.1	68.9	Approaches	Exceeds	64.4	4.5
	SD10	First Row Single Family Residences (B)	1	66.0	1036+72	74.7	68.9	Exceeds	Exceeds	63.8	5.1
	SD11	Third Row Single Family Residences (B)	1	66.0	1035+57	73.9	71.1	Exceeds	Exceeds	65.4	5.7
	SD12	Fourth Row Single Family Residences (B)	1	66.0	1036+11	72.3	71.4	Exceeds	Exceeds	65.2	6.2
	SD13	Fifth Row Single Family Residences (B)	1	66.0	1035+20	69.1	70.9	Exceeds	Exceeds	64.7	6.2
	SD14	>Fifth Row Single Family Residences (B)	1	66.0	1034+41	65.4	68.2	Below	Exceeds	63.9	4.3
	SD15	First Row Single Family Residences (B)	1	66.0	1037+10	73.2	70.3	Exceeds	Exceeds	64.5	5.8
	SD16	First Row Single Family Residences (B)	1	66.0	1038+61	73.6	68.3	Exceeds	Exceeds	63.9	4.4
	SD17	Second Row Single Family Residences (B)	1	66.0	1037+47	72.6	70.3	Exceeds	Exceeds	65.1	5.2
	SD18	Fifth Row Single Family Residences (B)	1	66.0	1036+58	71.3	72.7	Exceeds	Exceeds	65.0	7.7
	SD19	First Row Single Family Residences (B)	1	66.0	1039+05	73.3	70.4	Exceeds	Exceeds	64.6	5.8
	SD20	Third Row Single Family Residences (B)	1	66.0	1037+97	71.7	70.0	Exceeds	Exceeds	65.1	4.9
	SD21	Third Row Single Family Residences (B)	1	66.0	1038+41	70.8	71.2	Exceeds	Exceeds	65.1	6.1
	SD22	Fifth Row Single Family Residences (B)	1	66.0	1037+47	69.5	70.4	Exceeds	Exceeds	64.4	6.0
	PH1	First Row Single Family Residences (B)	1	66.0	1043+49	73.0	69.5	Exceeds	Exceeds	64.5	5.0
	PH2	First Row Single Family Residences (B)	1	66.0	1044+03	73.0	70.9	Exceeds	Exceeds	64.9	6.0
	PH3	First Row Single Family Residences (B)	1	66.0	1044+72	73.1	70.9	Exceeds	Exceeds	65.4	5.5
	PH4	First Row Single Family Residences (B)	1	66.0	1045+12	72.2	71.0	Exceeds	Exceeds	65.7	5.3
	PH5	First Row Single Family Residences (B)	1	66.0	1045+70	72.6	73.9	Exceeds	Exceeds	66.1	7.8
	PH6	First Row Single Family Residences (B)	1	66.0	1047+13	74.4	71.6	Exceeds	Exceeds	60.6	11.0

Table 3-1: TNM Predicted Noise Levels (Sheet 10 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Rodney Subdivision, Belair Subdivision, San Diego Terrace Subdivision, Philips Subdivision, & Fullers Subdivision (Continued)	PH7	First Row Single Family Residences (B)	1	66.0	1046+54	72.4	74.0	Exceeds	Exceeds	65.7	8.3
	PH8	Second Row Single Family Residences (B)	1	66.0	1046+08	71.2	72.8	Exceeds	Exceeds	65.8	7.0
	PH9	First Row Single Family Residences (B)	1	66.0	1048+30	75.3	72.9	Exceeds	Exceeds	62.0	10.9
	PH10	Second Row Single Family Residences (B)	1	66.0	1047+54	72.4	72.4	Exceeds	Exceeds	65.7	6.7
	PH11	Third Row Single Family Residences (B)	1	66.0	1047+32	70.6	70.8	Exceeds	Exceeds	65.6	5.2
	PH12	First Row Single Family Residences (B)	1	66.0	1048+80	75.5	75.7	Exceeds	Exceeds	64.0	11.7
	PH13	Second Row Single Family Residences (B)	1	66.0	1049+13	74.8	76.5	Exceeds	Exceeds	64.9	11.6
	PH14	Third Row Single Family Residences (B)	1	66.0	1048+76	71.3	73.1	Exceeds	Exceeds	65.4	7.7
	PH15	Fourth Row Single Family Residences (B)	1	66.0	1048+00	69.3	71.0	Exceeds	Exceeds	65.2	5.8
	PH16	Fifth Row Single Family Residences (B)	1	66.0	1048+63	68.2	70.2	Exceeds	Exceeds	64.5	5.7
	PH17	First Row Single Family Residences (B)	1	66.0	1049+85	77.3	77.7	Exceeds	Exceeds	64.1	13.6
	PH18	Second Row Single Family Residences (B)	1	66.0	1049+73	74.5	75.8	Exceeds	Exceeds	65.2	10.6
	PH19	Third Row Single Family Residences (B)	1	66.0	1049+62	72.4	73.9	Exceeds	Exceeds	64.9	9.0
	PH20	Fourth Row Single Family Residences (B)	1	66.0	1049+70	68.6	70.7	Exceeds	Exceeds	64.3	6.4
	PH21	>Fifth Row Single Family Residences (B)	1	66.0	1049+08	67.6	69.6	Exceeds	Exceeds	64.1	5.5
	PH22	>Fifth Row Single Family Residences (B)	1	66.0	1049+55	66.8	68.9	Approaches	Exceeds	63.7	5.2
	PH23	First Row Single Family Residences (B)	1	66.0	1051+13	76.4	77.2	Exceeds	Exceeds	64.7	12.5
	PH24	Second Row Single Family Residences (B)	1	66.0	1050+98	73.6	75.1	Exceeds	Exceeds	64.6	10.5
	PH25	Fourth Row Single Family Residences (B)	1	66.0	1050+67	68.2	70.3	Exceeds	Exceeds	63.5	6.8
	FM1	First Row Single Family Residences (B)	1	66.0	1055+18	70.7	70.7	Exceeds	Exceeds	63.0	7.7
	FM2	Second Row Single Family Residences (B)	1	66.0	1053+42	67.3	68.3	Exceeds	Exceeds	62.4	5.9
	FM3	Second Row Single Family Residences (B)	1	66.0	1054+25	65.6	66.1	Below	Approaches	61.5	4.6
	FM4	First Row Single Family Residences (B)	1	66.0	1056+73	69.8	69.3	Exceeds	Exceeds	62.9	6.4
	FM5	Second Row Single Family Residences (B)	1	66.0	1056+78	67.9	67.4	Exceeds	Exceeds	62.3	5.1
	FM6	Third Row Single Family Residences (B)	1	66.0	1056+05	66.4	66.3	Approaches	Approaches	61.9	4.4
	FM7	First Row Single Family Residences (B)	1	66.0	1057+94	65.9	65.6	Below	Below	62.1	3.5
	FM8	Second Row Single Family Residences (B)	1	66.0	1057+51	64.8	64.6	Below	Below	61.6	3.0
	FM9	First Row Single Family Residences (B)	1	66.0	1061+66	73.1	69.6	Exceeds	Exceeds	62.8	6.8
	FM10	First Row Single Family Residences (B)	1	66.0	1060+90	71.1	68.5	Exceeds	Exceeds	63.3	5.2
	FM11	First Row Single Family Residences (B)	1	66.0	1060+61	70.1	68.1	Exceeds	Exceeds	63.2	4.9
	FM12	Second Row Single Family Residences (B)	1	66.0	1059+38	65.6	64.9	Below	Below	62.4	2.5
	FM13	Second Row Single Family Residences (B)	1	66.0	1058+54	63.7	63.4	Below	Below	61.2	2.2
	FM14	First Row Single Family Residences (B)	1	66.0	1064+08	72.3	68.7	Exceeds	Exceeds	60.6	8.1
	FM15	First Row Single Family Residences (B)	1	66.0	1063+81	71.6	68.2	Exceeds	Exceeds	61.6	6.6
	FM16	First Row Single Family Residences (B)	1	66.0	1063+18	70.4	67.4	Exceeds	Exceeds	61.8	5.6
	FM17	Second Row Single Family Residences (B)	1	66.0	1063+37	69.3	67.0	Exceeds	Exceeds	62.6	4.4
	FM18	Second Row Single Family Residences (B)	1	66.0	1062+40	69.2	67.4	Exceeds	Exceeds	63.0	4.4
	FM19	Second Row Single Family Residences (B)	1	66.0	1061+22	68.9	67.0	Exceeds	Exceeds	63.6	3.4
	FM20	Third Row Single Family Residences (B)	1	66.0	1061+57	68.0	66.3	Exceeds	Approaches	63.6	2.7
	FM21	Third Row Single Family Residences (B)	1	66.0	1060+75	66.3	65.2	Approaches	Below	63.0	2.2
	FM22	First Row Single Family Residences (B)	1	66.0	1065+55	71.8	68.1	Exceeds	Exceeds	61.3	6.8
	FM23	First Row Single Family Residences (B)	1	66.0	1064+97	71.3	68.0	Exceeds	Exceeds	61.4	6.6
	FM24	Second Row Single Family Residences (B)	1	66.0	1064+76	70.1	67.2	Exceeds	Exceeds	62.3	4.9
	FM25	Second Row Single Family Residences (B)	1	66.0	1064+21	69.3	66.9	Exceeds	Approaches	63.1	3.8
	FM26	Third Row Single Family Residences (B)	1	66.0	1063+43	68.3	66.4	Exceeds	Approaches	63.4	3.0
	FM27	Third Row Single Family Residences (B)	1	66.0	1062+64	67.4	65.8	Exceeds	Below	63.6	2.2
	FM28	Fourth Row Single Family Residences (B)	1	66.0	1062+16	67.1	65.6	Exceeds	Below	63.4	2.2
	FM29	Fourth Row Single Family Residences (B)	1	66.0	1061+69	66.2	64.8	Approaches	Below	63.0	1.8
	FM30	First Row Single Family Residences (B)	1	66.0	1067+28	71.1	68.0	Exceeds	Exceeds	61.6	6.4
	FM31	First Row Single Family Residences (B)	1	66.0	1066+33	69.7	66.6	Exceeds	Approaches	63.0	3.6
	FM32	Second Row Single Family Residences (B)	1	66.0	1065+92	68.8	66.0	Exceeds	Approaches	64.2	1.8
	FM33	Second Row Single Family Residences (B)	1	66.0	1065+41	68.2	65.6	Exceeds	Below	64.1	1.5
	FM34	Third Row Single Family Residences (B)	1	66.0	1065+03	67.7	65.4	Exceeds	Below	64.0	1.4
	FM35	Fourth Row Single Family Residences (B)	1	66.0	1064+15	67.2	65.1	Exceeds	Below	64.1	1.0
	FM36	Fifth Row Single Family Residences (B)	1	66.0	1064+30	65.9	63.9	Below	Below	63.2	0.7
	FM37	Second Row Single Family Residences (B)	1	66.0	1067+79	69.7	66.9	Exceeds	Approaches	64.8	2.1
	FM38	Third Row Single Family Residences (B)	1	66.0	1068+02	69.0	66.5	Exceeds	Approaches	65.8	0.7
	FM39	Fourth Row Single Family Residences (B)	1	66.0	1068+16	68.9	66.6	Exceeds	Approaches	66.2	0.4
	FM40	Third Row Single Family Residences (B)	1	66.0	1066+87	67.9	65.6	Exceeds	Below	65.1	0.5
	FM41	Third Row Single Family Residences (B)	1	66.0	1065+92	67.2	65.0	Exceeds	Below	64.6	0.4
	FM42	Fourth Row Single Family Residences (B)	1	66.0	1065+22	66.4	64.3	Approaches	Below	64.0	0.3
	FM43	>Fifth Row Single Family Residences (B)	1	66.0	1064+56	65.8	63.9	Below	Below	63.4	0.5
Minimum						60.2	62.4	---	---	57.4	0.3
Maximum						80.1	79.1	---	---	66.2	16.2
Average						69.2	69.1	---	---	62.3	6.7
Total Number of Sites Equal to or Greater than 66.0 dB(A) / Total Number of Benefited Sites (Common Noise Environment E4)								185	188	---	183

Table 3-1: TNM Predicted Noise Levels (Sheet 11 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Common Noise Environment E4 - East of I-95 between Emerson Street and Atlantic Boulevard (Special Land Uses)											
City of Jacksonville Park	P1	Recreational Use (C)	1 (Special Land Use)	66.0	1053+98	71.0	71.1	Exceeds	Exceeds	62.9	8.2
Common Noise Environment W2 - West of I-95 between Emerson Street and Atlantic Boulevard (Residential Land Uses)											
Belair Subdivision, Spring Park Terrace Subdivision & San Diego Subdivision	BW1	Second Row Single Family Residences (B)	1	66.0	1011+02	70.2	71.8	Exceeds	Exceeds	59.1	12.7
	BW2 (Relocation)	First Row Single Family Residences (B)	0	66.0	1010+96	71.8	73.4	Exceeds	Exceeds	71.4	2.0
	BW3 (Relocation)	First Row Single Family Residences (B)	0	66.0	1011+65	73.7	74.1	Exceeds	Exceeds	70.4	3.7
	BW4 (Relocation)	First Row Single Family Residences (B)	0	66.0	1012+38	77.1	75.7	Exceeds	Exceeds	66.2	9.5
	BW5	Third Row Single Family Residences (B)	1	66.0	1011+42	68.0	68.1	Exceeds	Exceeds	61.9	6.2
	BW6	Third Row Single Family Residences (B)	1	66.0	1012+54	70.2	70.9	Exceeds	Exceeds	60.2	10.7
	BW7	Second Row Single Family Residences (B)	1	66.0	1013+23	72.3	72.0	Exceeds	Exceeds	61.7	10.3
	BW8	First Row Single Family Residences (B)	1	66.0	1013+85	74.0	73.2	Exceeds	Exceeds	62.9	10.3
	BW9	First Row Single Family Residences (B)	1	66.0	1014+44	76.2	74.7	Exceeds	Exceeds	65.0	9.7
	BW10	Fourth Row Single Family Residences (B)	1	66.0	1011+94	66.4	66.0	Approaches	Approaches	62.3	3.7
	BW11	Fourth Row Single Family Residences (B)	1	66.0	1012+92	68.7	69.5	Exceeds	Exceeds	60.8	8.7
	BW12	Fifth Row Single Family Residences (B)	1	66.0	1012+48	65.1	64.7	Below	Below	60.7	4.0
	BW13	Fifth Row Single Family Residences (B)	1	66.0	1013+63	66.5	67.1	Approaches	Exceeds	60.5	6.6
	BW14	Fourth Row Single Family Residences (B)	1	66.0	1014+20	67.7	67.9	Exceeds	Exceeds	60.3	7.6
	BW15	Third Row Single Family Residences (B)	1	66.0	1014+81	68.9	68.9	Exceeds	Exceeds	60.7	8.2
	BW16	Second Row Single Family Residences (B)	1	66.0	1015+37	70.5	70.1	Exceeds	Exceeds	63.6	6.5
	BW17	First Row Single Family Residences (B)	1	66.0	1015+84	72.7	72.1	Exceeds	Exceeds	63.2	8.9
	BW18	First Row Single Family Residences (B)	1	66.0	1016+55	74.2	73.6	Exceeds	Exceeds	64.4	9.2
	BW19	First Row Single Family Residences (B)	1	66.0	1017+03	76.5	75.3	Exceeds	Exceeds	64.7	10.6
	BW20	>Fifth Row Single Family Residences (B)	1	66.0	1012+91	64.2	63.4	Below	Below	60.6	2.8
	BW21	>Fifth Row Single Family Residences (B)	1	66.0	1014+76	64.8	64.8	Below	Below	61.4	3.4
	BW22	>Fifth Row Single Family Residences (B)	1	66.0	1015+09	65.4	65.2	Below	Below	61.0	4.2
	BW23	Fifth Row Single Family Residences (B)	1	66.0	1015+83	66.6	66.2	Approaches	Approaches	60.3	5.9
	BW24	Fourth Row Single Family Residences (B)	1	66.0	1016+41	67.7	67.1	Exceeds	Exceeds	60.5	6.6
	BW25	Third Row Single Family Residences (B)	1	66.0	1016+84	68.9	68.3	Exceeds	Exceeds	61.2	7.1
	BW26	Second Row Single Family Residences (B)	1	66.0	1017+41	70.1	69.5	Exceeds	Exceeds	62.1	7.4
	BW27	Second Row Single Family Residences (B)	1	66.0	1017+97	71.6	71.0	Exceeds	Exceeds	63.2	7.8
	BW28	First Row Single Family Residences (B)	1	66.0	1018+95	75.1	74.1	Exceeds	Exceeds	65.5	8.6
	BW29	First Row Single Family Residences (B)	1	66.0	1019+46	74.0	73.4	Exceeds	Exceeds	65.5	7.9
	SP1	Fifth Row Single Family Residences (B)	1	66.0	1019+54	67.5	66.7	Exceeds	Approaches	60.9	5.8
	SP2	Fourth Row Single Family Residences (B)	1	66.0	1019+84	68.2	67.4	Exceeds	Exceeds	61.3	6.1
	SP3	Third Row Single Family Residences (B)	1	66.0	1020+42	69.4	68.8	Exceeds	Exceeds	62.2	6.6
	SP4	Third Row Single Family Residences (B)	1	66.0	1020+85	70.8	70.2	Exceeds	Exceeds	63.2	7.0
	SP5	Second Row Single Family Residences (B)	1	66.0	1021+17	72.9	72.4	Exceeds	Exceeds	64.6	7.8
	SP6	First Row Single Family Residences (B)	1	66.0	1021+66	74.6	74.0	Exceeds	Exceeds	65.5	8.5
SP7	First Row Single Family Residences (B)	1	66.0	1022+29	75.6	74.6	Exceeds	Exceeds	65.7	8.9	
SP8	>Fifth Row Single Family Residences (B)	1	66.0	1020+47	65.4	64.9	Below	Below	60.0	4.9	
SP9	>Fifth Row Single Family Residences (B)	1	66.0	1021+00	66.2	65.6	Approaches	Below	60.1	5.5	
SP10	>Fifth Row Single Family Residences (B)	1	66.0	1021+31	66.8	66.2	Approaches	Approaches	60.5	5.7	
SP11	Fifth Row Single Family Residences (B)	1	66.0	1021+76	67.9	67.3	Exceeds	Exceeds	61.2	6.1	
SP12	Fourth Row Single Family Residences (B)	1	66.0	1022+23	69.2	68.8	Exceeds	Exceeds	62.3	6.5	
SP13	Third Row Single Family Residences (B)	1	66.0	1022+75	70.7	70.3	Exceeds	Exceeds	63.2	7.1	
SP14	Second Row Single Family Residences (B)	1	66.0	1023+14	71.9	71.6	Exceeds	Exceeds	63.8	7.8	
SP15	First Row Single Family Residences (B)	1	66.0	1023+55	73.8	73.4	Exceeds	Exceeds	65.2	8.2	
SP16	First Row Single Family Residences (B)	1	66.0	1024+00	75.3	75.0	Exceeds	Exceeds	65.8	9.2	
SP17	First Row Single Family Residences (B)	1	66.0	1025+14	74.0	74.6	Exceeds	Exceeds	65.6	9.0	
SP18	First Row Single Family Residences (B)	1	66.0	1026+22	76.4	78.2	Exceeds	Exceeds	66.0	12.2	
SP19	>Fifth Row Single Family Residences (B)	1	66.0	1020+15	62.8	63.3	Below	Below	59.2	4.1	
SP20	>Fifth Row Single Family Residences (B)	1	66.0	1020+61	62.2	62.8	Below	Below	59.0	3.8	
SP21	>Fifth Row Single Family Residences (B)	1	66.0	1021+48	63.1	63.2	Below	Below	59.2	4.0	
SP22	>Fifth Row Single Family Residences (B)	1	66.0	1022+10	63.7	63.6	Below	Below	59.4	4.2	
SP23	>Fifth Row Single Family Residences (B)	1	66.0	1022+74	65.0	64.9	Below	Below	60.0	4.9	
SP24	>Fifth Row Single Family Residences (B)	1	66.0	1023+19	66.0	66.0	Approaches	Approaches	60.7	5.3	
SP25	>Fifth Row Single Family Residences (B)	1	66.0	1023+61	67.0	67.2	Exceeds	Exceeds	61.3	5.9	
SP26	Fifth Row Single Family Residences (B)	1	66.0	1024+02	67.7	68.1	Exceeds	Exceeds	61.8	6.3	
SP27	Fourth Row Single Family Residences (B)	1	66.0	1024+54	68.8	69.2	Exceeds	Exceeds	62.2	7.0	
SP28	Third Row Single Family Residences (B)	1	66.0	1024+89	70.6	71.1	Exceeds	Exceeds	63.4	7.7	
SP29	Second Row Single Family Residences (B)	1	66.0	1025+49	71.6	72.9	Exceeds	Exceeds	64.5	8.4	
SP30	First Row Single Family Residences (B)	1	66.0	1026+68	73.9	73.6	Exceeds	Exceeds	64.8	8.8	
SP31	>Fifth Row Single Family Residences (B)	1	66.0	1020+89	61.7	62.6	Below	Below	58.9	3.7	
SP32	>Fifth Row Single Family Residences (B)	1	66.0	1021+44	60.7	61.7	Below	Below	58.3	3.4	
SP33	>Fifth Row Single Family Residences (B)	1	66.0	1022+20	61.0	61.9	Below	Below	58.4	3.5	
SP34	>Fifth Row Single Family Residences (B)	1	66.0	1022+69	61.6	62.4	Below	Below	58.5	3.9	
SP35	>Fifth Row Single Family Residences (B)	1	66.0	1023+07	62.0	62.8	Below	Below	58.7	4.1	

Table 3-1: TNM Predicted Noise Levels (Sheet 12 of 13)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Belair Subdivision, Spring Park Terrace Subdivision & San Diego Subdivision (Continued)	SP36	>Fifth Row Single Family Residences (B)	1	66.0	1023+56	62.8	63.6	Below	Below	59.1	4.5
	SP37	>Fifth Row Single Family Residences (B)	1	66.0	1024+62	64.6	65.7	Below	Below	60.5	5.2
	SP38	>Fifth Row Single Family Residences (B)	1	66.0	1025+11	65.5	66.9	Below	Approaches	61.1	5.8
	SP39	>Fifth Row Single Family Residences (B)	1	66.0	1025+60	66.3	68.0	Approaches	Exceeds	61.8	6.2
	SP40	Fifth Row Single Family Residences (B)	1	66.0	1026+06	67.3	69.3	Exceeds	Exceeds	62.6	6.7
	SP41	Fourth Row Single Family Residences (B)	1	66.0	1026+49	68.2	70.3	Exceeds	Exceeds	62.9	7.4
	SP42	Third Row Single Family Residences (B)	1	66.0	1026+97	69.8	70.6	Exceeds	Exceeds	63.0	7.6
	SP43	Second Row Single Family Residences (B)	1	66.0	1026+99	71.2	70.9	Exceeds	Exceeds	63.5	7.4
	SDW1 (Relocation)	First Row Single Family Residences (B)	0	66.0	1030+90	74.4	72.0	Exceeds	Exceeds	66.5	5.5
	SDW2 (Relocation)	First Row Single Family Residences (B)	0	66.0	1031+24	75.8	72.2	Exceeds	Exceeds	66.0	6.2
	SDW3 (Relocation)	Third Row Single Family Residences (B)	0	66.0	1031+65	71.5	70.4	Exceeds	Exceeds	65.3	5.1
	SDW4 (Relocation)	Second Row Single Family Residences (B)	0	66.0	1032+03	72.4	70.6	Exceeds	Exceeds	65.8	4.8
	SDW5 (Relocation)	Second Row Single Family Residences (B)	0	66.0	1032+58	75.2	71.2	Exceeds	Exceeds	66.0	5.2
	SDW6 (Relocation)	First Row Single Family Residences (B)	0	66.0	1032+88	78.2	71.7	Exceeds	Exceeds	65.6	6.1
	SDW7 (Relocation)	First Row Single Family Residences (B)	0	66.0	1033+58	78.2	70.7	Exceeds	Exceeds	65.0	5.7
	PHW1	First Row Single Family Residences (B)	1	66.0	1041+52	69.7	67.4	Exceeds	Exceeds	62.2	5.2
	PHW2	Second Row Single Family Residences (B)	1	66.0	1041+90	69.2	67.7	Exceeds	Exceeds	62.1	5.6
	PHW3	Third Row Single Family Residences (B)	1	66.0	1042+31	68.5	67.3	Exceeds	Exceeds	62.1	5.2
	PHW4	Fifth Row Single Family Residences (B)	1	66.0	1043+33	66.0	66.1	Approaches	Approaches	62.2	3.9
	PHW5	Second Row Single Family Residences (B)	1	66.0	1043+44	69.2	67.8	Exceeds	Exceeds	62.5	5.3
	PHW6	Third Row Single Family Residences (B)	1	66.0	1043+72	68.2	67.6	Exceeds	Exceeds	63.2	4.4
	PHW7	Second Row Single Family Residences (B)	1	66.0	1044+28	70.3	68.0	Exceeds	Exceeds	63.0	5.0
	PHW8	Third Row Single Family Residences (B)	1	66.0	1044+26	69.1	68.0	Exceeds	Exceeds	63.5	4.5
	PHW9	First Row Single Family Residences (B)	1	66.0	1044+88	71.4	68.4	Exceeds	Exceeds	63.3	5.1
	PHW10	First Row Single Family Residences (B)	1	66.0	1045+43	71.4	67.9	Exceeds	Exceeds	63.1	4.8
	PHW11	Second Row Single Family Residences (B)	1	66.0	1045+73	71.6	69.5	Exceeds	Exceeds	64.3	5.2
	PHW12	First Row Single Family Residences (B)	1	66.0	1047+05	74.1	70.1	Exceeds	Exceeds	65.1	5.0
	SL1	Third Row Single Family Residences (B)	1	66.0	1052+90	67.2	69.3	Exceeds	Exceeds	65.6	3.7
	SL2	Currently Vacant Commercial (F); During PD&E Study Single Family Residences (B)	0	---	1052+96	65.1	---	Below	---	---	---
Minimum						60.7	61.7	---	---	58.3	2.8
Maximum						78.2	78.2	---	---	66.5	12.7
Average						69.4	69.0	---	---	62.4	6.4
Total Number of Sites Equal to or Greater than 66.0 dB(A) / Total Number of Benefited Sites (Common Noise Environment W2)								74	64	---	60
Common Noise Environment W2 - West of I-95 between Emerson Street and Atlantic Boulevard (Special Land Uses)											
Faith Temple Fellowship Ministries	CH4	Place of Worship Building / Windows Closed Interior Use (D)	1 (Special Land Use)	51.0	1045+96	44.7	44.3	Below	Below	---	---
Common Noise Environment SW1 - West of I-95 between Bowden Road and University Boulevard (Residential and Special Land Uses)											
Bowden Farms Subdivision	BF1	First Row Single Family Residences (B)	1	66.0	883+60	---	71.8	---	Exceeds	---	---
	BF2	First Row Single Family Residences (B)	1	66.0	884+50	---	71.8	---	Exceeds	---	---
	BF3	First Row Single Family Residences (B)	1	66.0	892+00	---	70.7	---	Exceeds	---	---
Days Inn	DI1	Hotel - Recreational Area / Pool (E)	1 (Special Land Use)	71.0	894+50	---	68.0	---	Below	---	---
Common Noise Environment SE1 - East of I-95 between J. Turner Butler Boulevard and Bowden Road (Special Land Uses)											
The Summit at Southpoint	SS1	Office Buildings - Outdoor Use Area / Small Pavilion, Picnic Tables, and Benches (E)	1 (Special Land Use)	71.0	853+80	---	72.4	---	Exceeds	---	---
	SS2			71.0	853+80	---	71.1	---	Approaches	---	---
	SS3			71.0	853+80	---	68.4	---	Below	---	---
	SS4			71.0	853+80		68.4		Below		
	SS5	Office Buildings - Outdoor Use Area / Park Bench (E)		71.0	847+50	---	70.8	---	Below	---	---
Sleiman Enterprises	SE1	Office Building - Outdoor Use Area / Two Picnic Tables (E)	1 (Special Land Use)	71.0	821+00	---	70.3	---	Below	---	---
Tricove Inn	TI1	Hotel - Recreational Area / Pool (E)	1 (Special Land Use)	71.0	815+60	---	63.1	---	Below	---	---
Dentures & More	DM1	Medical - Interior Use Area / Windows Closed (D)	1 (Special Land Use)	71.0	812+00	---	44.6	---	Below	---	---
Common Noise Environments SW2 and SW3 - West of I-95 between J. Turner Butler Boulevard and Bowden Road (Special Land Uses)											
Southeast Atlantic Beverage	SA1	Office Buildings - Outdoor Use Area / Park Bench (E)	1 (Special Land Use)	71.0	867+80	---	69.9	---	Below	---	---
Center Point Business Park	CPB1	Office Buildings - Outdoor Use Area / Two Picnic Tables (E)	1 (Special Land Use)	71.0	825+60	---	75.4	---	Exceeds	---	---
	CPB2	Office Buildings - Outdoor Use Area / Picnic Table (E)	1 (Special Land Use)	71.0	833+00	---	68.0	---	Below	---	---
	CPB3	Office Buildings - Outdoor Use Area / Picnic Table (E)	1 (Special Land Use)	71.0	839+50	---	75.4	---	Exceeds	---	---
Church of the Redeemer	CR1	Place of Worship Building / Windows Closed Interior Use (D)	1 (Special Land Use)	51.0	823+00	---	37.0	---	Below	---	---
Red Roof Inn	RR1	Hotel - Outdoor Use Area / Park Bench	1 (Special Land Use)	71.0	813+75	---	60.0	---	Below	---	---
	RR2	Hotel - Recreational Area / Pool (E)	1 (Special Land Use)	71.0	814+00	---	63.9	---	Below	---	---
Courtyard Jacksonville	CY1	Hotel - Recreational Area / Pool (E)	1 (Special Land Use)	71.0	811+00	---	62.3	---	Below	---	---
Cracker Barrel	CB1	Restaurant - Outdoor Seating (E)	1 (Special Land Use)	71.0	810+50	---	62.1	---	Below	---	---
La Quinta Inn	LQ1	Hotel - Recreational Area / Pool (E)	1 (Special Land Use)	71.0	809+60	---	58.7	---	Below	---	---
Center State Bank	CSB1	Office Building - Outdoor Use Area / Park Bench (E)	1 (Special Land Use)	71.0	806+00		64.5		Below		

Table 3-1: TNM Predicted Noise Levels (Sheet 13 of 13)											
Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)		Noise Abatement Criteria Status (Impacted Sites)		Design Change Build Alternative (Mainline GU Lanes) - Predicted Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		PD&E Study (July 2018) Approved Build Alternative without Existing Noise Barriers (Design Year 2045)	Design Change Build Alternative (Mainline GU Lanes) without Existing Noise Barriers (Design Year 2045)	PD&E Study Approved Build Alternative	Design Change Build Alternative (Mainline GU Lanes)	With Existing and Recommended Noise Barriers	Noise Reduction with Existing and Recommended Noise Barriers
Noise Study Area - West of I-95 South of J. Turner Butler Boulevard (Special Land Uses)											
Fresh Mex & Company	F1	Restaurant - Outdoor Seating (E)	1 (Special Land Use)	71.0	801+20	---	64.1	---	Below	---	---
SMkN Q	SM1	Restaurant - Outdoor Seating (E)	1 (Special Land Use)	71.0	800+00	---	60.6	---	Below	---	---
Noise Study Area - North of J. Turner Butler Boulevard and East of I-95 to Belford Road (Special Land Uses)											
Regency Electric & University of Phoenix)	RE1	Office Building - Outdoor Use Area / Two Park Benches (E)	1 (Special Land Use)	71.0	867+80	---	66.5	---	Below	---	---
Banker's Life & Brenau University	BL1	Office Building - Outdoor Use Area / Park Bench (E)	1 (Special Land Use)	71.0	123+30	---	70.2	---	Below	---	---
	BL2	Office Building - Outdoor Use Area / Two Park Benches (E)	1 (Special Land Use)	71.0	128+20	---	61.3	---	Below	---	---
Compass Financial Group	CF1	Office Building - Outdoor Use Area / Park Bench (E)	1 (Special Land Use)	71.0	821+00	---	60.9	---	Below	---	---
Enterprise Park	EP1	Office Building - Outdoor Use Area /Two Park Benches (E)	1 (Special Land Use)	71.0	825+60	---	63.9	---	Below	---	---
	EP2	Office Building - Outdoor Use Area / Four Picnic Tables (E)	1 (Special Land Use)	71.0	839+50	---	58.6	---	Below	---	---
Noise Study Area - South of J. Turner Butler Boulevard and East of I-95 to Belford Road (Residential and Special Land Uses)											
Wyndham Garden Hotel	WG1	Hotel - Recreational Area / Pool (E)	1 (Special Land Use)	71.0	116+80	---	65.7	---	Below	---	---
The Quadrant Business Park	QB1	Office Building - Outdoor Use Area / Three Picnic Tables & Two Park Benches (E)	1 (Special Land Use)	71.0	123+30	---	69.1	---	Below	---	---
	QB2	Office Building - Outdoor Use Area / Six Park Benches (E)	1 (Special Land Use)	71.0	125+00	---	68.1	---	Below	---	---
	QB3	Office Building - Outdoor Use Area / Three Picnic Tables & One Park Bench (E)	1 (Special Land Use)	71.0	128+20	---	70.7	---	Below	---	---
Borland-Grover Clinic	BG1	Medical - Outdoor Use Area / Picnic Table (C)	1 (Special Land Use)	66.0	134+00	---	65.8	---	Below	---	---
Clifton Village	CV1	Multi-Family Residence / Patio (B)	1	66.0	138+00	---	60.1	---	Below	---	---
Common Noise Environment SE2 - North of J. Turner Butler Boulevard and East of Belford Road (Special Land Uses)											
St. Vincent's Medical Center	SV1	Medical - Outdoor Use Area / Four Park Benches (C)	1 (Special Land Use)	66.0	142+80	---	63.6	---	Below	---	---
	SV2	Medical - Outdoor Use Area / Six Picnic Tables (C)	1 (Special Land Use)	66.0	145+00	---	63.8	---	Below	---	---
	FT1	Recreational Use - Trail (C)	1 (Special Land Use)	66.0	140+80	---	66.2	---	Approaches	---	---
	FT2			66.0	140+80	---	67.7	---	Exceeds	---	---
	FT3			66.0	142+20	---	69.3	---	Exceeds	---	---
	FT4			66.0	145+00	---	69.1	---	Exceeds	---	---

C:\P\Noise_Studies\936_2\Hb\Atlantic_D2\Reevaluation\NSRA_2nd\CA\Tables\table_3-1_Appendix_PRLs_196_Noval_1-30-2021.docx (date: 3.3.1.1-92-216)

APPENDIX F

Referenced Pages from I-95 Widening PD&E Noise Study Report (July 2020)



Noise Study Report Addendum No. 1

I-95 Express Lanes PD&E Study

Design Change Re-evaluation No. 2 (Mainline GU Lanes)

NOISE STUDY REPORT

FLORIDA DEPARTMENT OF TRANSPORTATION

District 2

I-95 Widening PD&E Study

Limits of Project: Baymeadows Road to South of J. Turner
Butler Boulevard/SR 202

Duval County, Florida

Financial Project ID No.: 446153-1

ETDM Number: Not Applicable

Submitted by:
RS&H
1715 N. Westshore Blvd, Suite 600
Tampa, FL 33607

July 2020

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 December 14, 2016 and executed by the Federal Highway Administration and FDOT.



I-95 Widening PD&E Study
Baymeadows Road
to South of JTB/SR 202
Duval County, Florida
FPID: 446153-1



Note: CNE = Common Noise Environment



FIGURE 3-1
SHEET 3 OF 3
NOISE ANALYSIS MAP

Table 3.2-2: TNM Predicted Noise Levels (Sheet 1 of 3)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)			Difference Between Existing and Build Alternative Design Year (2045) Noise Levels	Noise Abatement Criteria Status for Build Alternative (Impacted Sites)	TNM Predicted Build Alternative Design Year (2045) Noise Levels dB(A)		
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		Existing Conditions	No Build Alternative (Design Year 2045)	Build Alternative (Design Year 2045)			With Recommended Noise Barrier	Noise Reduction with Recommended Noise Barrier	
Noise Study Area 1 (Non-Residential - Special Land Use) - East of I-95 and South of Baymeadows Road (See Figure 3-1 Sheet 1)													
4 Rivers Smokehouse	4RS-1	Restaurant - Outdoor Seating (E)	1 (Special Land Use)	71.0	56+00	62.9	63.3	63.9	1.0	Below		---	---
Noise Study Area 2 (Non-Residential - Special Land Uses) - East of I-95 between Baymeadows Road and Belfort Road (See Figure 3-1 Sheets 1 and 2)													
La Petite Academy	LPA-1	Institutional -Recreational Area/ School Playground (C)	1 (Special Land Use)	66.0	52+10	61.6	62.0	62.3	0.7	Below		---	---
Baymeadows Professional Building	BP-1	Medical Building Interior Use (D)	1 (Special Land Use)	51.0	46+00	43.9	44.5	44.6	0.7	Below		---	---
Great Expressions Dental Center	GE-1N	Medical Building Interior Use (D)	1 (Special Land Use)	51.0	959+00	44.4	44.8	45.0	0.6	Below		---	---
St. Philip Neri Ecumenical Church	SPC-1	Place of Worship Interior Use (D)	1 (Special Land Use)	51.0	964+00	42.0	42.1	42.3	0.3	Below		---	---
Jacksonville School of Autism	JSA-1	Institutional -Recreational Area/ School Playground (C)	1 (Special Land Use)	66.0	968+10	65.4	65.5	65.9	0.5	Below		---	---
Southpoint Community Church	SC-1	Place of Worship - Gazebo (C)	1 (Special Land Use)	66.0	1001+00	64.1	64.1	65.2	1.1	Below		---	---
	SC-2	Place of Worship -Interior Use (D)		51.0	1007+90	46.7	46.7	49.0	2.3	Below		---	---
	SC-3	Place of Worship - Outdoor Seating/Bench (C)		66.0	1008+10	67.0	67.0	69.7	2.7	Exceeds		---	---
Noise Study Area 2 (Residential Land Use) - East of I-95 between Baymeadows Road and Belfort Road (See Figure 3-1 Sheet 3)													
Canopy at Belfort Park Apartments	C-1.1	Multi-Family Residence Porch (B)	1	66.0	1041+90	66.8	66.8	69.5	2.7	Exceeds		60.3	9.2
	C-1.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+90	70.6	70.6	71.9	1.3	Exceeds		62.5	9.4
	C-1.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+90	71.3	71.3	72.5	1.2	Exceeds		64.2	8.3
	C-2.1	Multi-Family Residence Porch (B)	1	66.0	1041+80	66.4	66.4	69.1	2.7	Exceeds		60.1	9.0
	C-2.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+80	70.4	70.4	71.7	1.3	Exceeds		62.5	9.2
	C-2.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+80	71.1	71.1	72.3	1.2	Exceeds		64.1	8.2
	C-3.1	Multi-Family Residence Porch (B)	1	66.0	1041+60	65.3	65.3	68.0	2.7	Exceeds		60.1	7.9
	C-3.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+60	69.6	69.6	71.0	1.4	Exceeds		62.7	8.3
	C-3.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+60	70.3	70.3	71.6	1.3	Exceeds		64.0	7.6
	C-4.1	Multi-Family Residence Porch (B)	1	66.0	1041+30	65.3	65.3	67.8	2.5	Exceeds		60.4	7.4
	C-4.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+30	69.4	69.4	70.8	1.4	Exceeds		62.8	8.0
	C-4.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+30	70.1	70.1	71.3	1.2	Exceeds		64.0	7.3
	C-5.1	Multi-Family Residence Porch (B)	1	66.0	1041+00	63.4	63.4	65.5	2.1	Below		59.5	6.0
	C-5.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+00	65.7	65.7	66.6	0.9	Approaches		60.5	6.1
	C-5.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+00	66.6	66.6	67.5	0.9	Exceeds		61.8	5.7
	C-6.1	Multi-Family Residence Porch (B)	1	66.0	1041+90	62.3	62.3	64.3	2.0	Below		59.1	5.2
	C-6.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+90	64.5	64.5	65.4	0.9	Below		59.9	5.5
	C-6.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+90	65.4	65.4	66.2	0.8	Approaches		61.2	5.0
	C-7.1	Multi-Family Residence Porch (B)	1	66.0	1041+60	61.2	61.2	63.1	1.9	Below		58.5	4.6
	C-7.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+60	63.2	63.2	64.0	0.8	Below		59.1	4.9
	C-7.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+60	64.0	64.0	64.9	0.9	Below		60.2	4.7
	C-8.1	Multi-Family Residence Porch (B)	1	66.0	1041+30	61.0	61.0	62.7	1.7	Below		58.2	4.5
	C-8.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+30	62.7	62.7	63.6	0.9	Below		58.7	4.9
	C-8.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+30	63.6	63.6	64.4	0.8	Below		59.8	4.6
	C-9.1	Multi-Family Residence Porch (B)	1	66.0	1041+00	64.3	64.3	66.9	2.6	Approaches		60.7	6.2
	C-9.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+00	68.5	68.5	70.0	1.5	Exceeds		63.0	7.0
	C-9.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+00	69.3	69.3	70.6	1.3	Exceeds		64.0	6.6
	C-10.1	Multi-Family Residence Porch (B)	1	66.0	1040+20	64.0	64.0	66.4	2.4	Approaches		60.6	5.8
	C-10.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1040+20	68.0	68.0	69.6	1.6	Exceeds		63.1	6.5
	C-10.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1040+20	68.8	68.8	70.2	1.4	Exceeds		64.1	6.1
	C-11.1	Multi-Family Residence Porch (B)	1	66.0	1040+00	63.3	63.3	65.4	2.1	Below		60.6	4.8
	C-11.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1040+00	66.9	66.9	68.7	1.8	Exceeds		63.2	5.5
	C-11.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1040+00	68.0	68.0	69.4	1.4	Exceeds		64.1	5.3
	C-12.1	Multi-Family Residence Porch (B)	1	66.0	1039+90	62.9	62.9	65.0	2.1	Below		60.3	4.7
	C-12.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1039+90	66.5	66.5	68.3	1.8	Exceeds		63.2	5.1
	C-12.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1039+90	67.7	67.7	69.1	1.4	Exceeds		64.1	5.0
	C-13.1	Multi-Family Residence Porch (B)	1	66.0	1041+00	60.6	60.6	62.1	1.5	Below		57.6	4.5
	C-13.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+00	62.0	62.0	62.9	0.9	Below		58.1	4.8
	C-13.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+00	63.0	63.0	63.7	0.7	Below		59.1	4.6
	C-14.1	Multi-Family Residence Porch (B)	1	66.0	1040+20	60.2	60.2	61.6	1.4	Below		57.3	4.3
C-14.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1040+20	61.5	61.5	62.5	1.0	Below		57.7	4.8	
C-14.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1040+20	62.5	62.5	63.3	0.8	Below		58.7	4.6	
C-15.1	Multi-Family Residence Porch (B)	1	66.0	1040+00	60.1	60.1	61.1	1.0	Below		56.1	5.0	
C-15.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1040+00	58.9	58.9	60.3	1.4	Below		55.9	4.4	
C-15.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1040+00	61.2	61.2	61.8	0.6	Below		57.0	4.8	
C-16.1	Multi-Family Residence Porch (B)	1	66.0	1039+90	58.3	58.3	59.7	1.4	Below		54.7	5.0	
C-16.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1039+90	59.5	59.5	60.5	1.0	Below		55.0	5.5	
C-16.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1039+90	60.6	60.6	61.2	0.6	Below		55.9	5.3	
C-17.1	Multi-Family Residence Porch (B)	1	66.0	1041+00	64.7	64.7	66.4	1.7	Approaches		59.9	6.5	
C-17.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+00	67.0	67.0	67.8	0.8	Exceeds		60.9	6.9	

Table 3.2-2: TNM Predicted Noise Levels (Sheet 2 of 3)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)			Difference Between Existing and Build Alternative Design Year (2045) Noise Levels	Noise Abatement Criteria Status for Build Alternative (Impacted Sites)	TNM Predicted Build Alternative Design Year (2045) Noise Levels dB(A)	
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		Existing Conditions	No Build Alternative (Design Year 2045)	Build Alternative (Design Year 2045)			With Recommended Noise Barrier	Noise Reduction with Recommended Noise Barrier
Canopy at Belfort Park Apartments (Continued)	C-17.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+00	67.9	67.9	68.5	0.6	Exceeds	62.0	6.5
	C-18.1	Multi-Family Residence Porch (B)	1	66.0	1041+90	60.3	60.4	62.8	2.5	Below	54.4	8.4
	C-18.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+90	62.5	62.5	63.7	1.2	Below	54.3	9.4
	C-18.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+90	63.4	63.4	64.3	0.9	Below	55.7	8.6
	C-19.1	Multi-Family Residence Porch (B)	1	66.0	1041+70	63.6	63.6	64.9	1.3	Below	59.2	5.7
	C-19.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+70	65.7	65.7	66.6	0.9	Approaches	60.1	6.5
	C-19.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+70	66.7	66.7	67.3	0.6	Exceeds	61.1	6.2
	C-20.1	Multi-Family Residence Porch (B)	1	66.0	1041+80	58.0	58.0	60.5	2.5	Below	53.7	6.8
	C-20.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1041+80	60.0	60.0	61.3	1.3	Below	52.8	8.5
	C-20.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1041+80	61.1	61.1	62.1	1.0	Below	54.4	7.7
Minimum						58.0	58.0	59.7	0.6	---	52.8	4.3
Maximum						71.3	71.3	72.5	2.7	---	64.2	9.4
Average						64.6	64.6	66.0	1.4	---	59.8	6.3
Total Number of Sites Approaching or Exceeding the NAC/Total Number Benefited Sites										30	---	44
Noise Study Area 3 (Non-Residential - Special Land Uses) - East of I-95 between and Belfort Road and South of J. Turner Butler Boulevard (See Figure 3.1 Sheet 3)												
Concord Career Institute	CCI-1	Institutional - Interior Use (D)	1 (Special Land Use)	51.0	1030+00	44.5	44.5	46.5	2.0	Below	---	---
Concourse Business Park	CB-1	Office Building - Outdoor Use/Picnic Tables (E)	1 (Special Land Use)	71.0	1052+00	72.1	72.1	73.4	1.3	Exceeds	---	---
	CB-2			71.0	1051+00	68.3	68.3	69.9	1.6	Below	---	---
Premiere Best Western	PWB-P	Hotel - Recreational Area/Pool (E)	1 (Special Land Use)	71.0	1066+30	53.3	53.6	53.9	0.6	Below	---	---
Country Inn & Suites	CIS-P	Hotel - Recreational Area/Pool (E)	1 (Special Land Use)	71.0	1068+00	67.5	67.8	67.7	0.2	Below	---	---
Noise Study Area 3 (Residential Land Use) - East of I-95 between and Belfort Road and South of J. Turner Butler Boulevard (See Figure 3.1 Sheet 3)												
Portiva Apartments	P-1.1	Multi-Family Residence Porch (B)	1	66.0	1063+00	61.1	61.3	61.7	0.6	Below	---	---
	P-1.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1063+01	60.9	61.1	61.2	0.3	Below	---	---
	P-1.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1063+02	62.4	62.6	62.4	0.0	Below	---	---
	P-1.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1063+03	63.3	63.5	63.0	-0.3	Below	---	---
	P-2.1	Multi-Family Residence Porch (B)	1	66.0	1063+00	61.2	61.4	61.9	0.7	Below	---	---
	P-2.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1063+01	61.4	61.6	61.7	0.3	Below	---	---
	P-2.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1063+02	62.9	63.1	62.8	-0.1	Below	---	---
	P-2.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1063+03	63.7	63.9	63.4	-0.3	Below	---	---
	P-3.1	Multi-Family Residence Porch (B)	1	66.0	1062+80	61.5	61.7	62.2	0.7	Below	---	---
	P-3.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1062+81	61.9	62.1	62.2	0.3	Below	---	---
	P-3.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1062+82	63.4	63.6	63.3	-0.1	Below	---	---
	P-3.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1062+83	64.2	64.4	63.9	-0.3	Below	---	---
	P-4.1	Multi-Family Residence Porch (B)	1	66.0	1063+80	61.7	61.9	62.3	0.6	Below	---	---
	P-4.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1063+81	62.3	62.5	62.6	0.3	Below	---	---
	P-4.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1063+82	63.8	64.0	63.7	-0.1	Below	---	---
	P-4.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1063+83	64.5	64.7	64.3	-0.2	Below	---	---
	P-5.1	Multi-Family Residence Porch (B)	1	66.0	1062+40	62.0	62.2	62.6	0.6	Below	---	---
	P-5.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1062+41	62.8	63.0	63.1	0.3	Below	---	---
	P-5.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1062+42	64.3	64.5	64.2	-0.1	Below	---	---
	P-5.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1062+43	65.0	65.2	64.7	-0.3	Below	---	---
	P-6.1	Multi-Family Residence Porch (B)	1	66.0	1061+00	62.5	62.7	62.9	0.4	Below	---	---
	P-6.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1061+01	63.6	63.8	63.9	0.3	Below	---	---
	P-6.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1061+02	65.1	65.3	64.9	-0.2	Below	---	---
	P-6.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1061+03	65.7	65.9	65.5	-0.2	Below	---	---
	P-7.1	Multi-Family Residence Porch (B)	1	66.0	1061+80	62.9	63.1	63.1	0.2	Below	---	---
	P-7.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1061+81	64.2	64.4	64.4	0.2	Below	---	---
	P-7.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1061+82	65.6	65.9	65.4	-0.2	Below	---	---
	P-7.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1061+83	66.7	66.9	66.3	-0.4	Approaches	---	---
	P-8.2	Multi-Family Residence 2nd Floor Balcony (B)	1	66.0	1061+20	62.5	62.7	62.7	0.2	Below	---	---
	P-8.3	Multi-Family Residence 3rd Floor Balcony (B)	1	66.0	1061+21	64.0	64.2	63.8	-0.2	Below	---	---
	P-8.4	Multi-Family Residence 4th Floor Balcony (B)	1	66.0	1061+22	65.5	65.7	65.0	-0.5	Below	---	---
Minimum						60.4	60.6	60.6	-0.5	---	---	---
Maximum						66.7	66.9	66.3	0.7	---	---	---
Average						63.2	63.4	63.3	0.0	---	---	---
Total Number of Sites Approaching or Exceeding the NAC										1	---	---
Noise Study Area 4 (Non-Residential - Special Land Use) - West of I-95 and South of Baymeadows Road (See Figure 3.1 Sheet 1)												
Baymeadows Islamic Center	BIC-1	Place of Worship - Recreational Area/Basketball Court (C)	1 (Special Land Use)	66.0	957+00	68.2	68.3	68.4	0.2	Exceeds	---	---

Table 3.2-2: TNM Predicted Noise Levels (Sheet 3 of 3)

Name of Noise Sensitive Areas/Sites	Representative Noise Receptor Site Designation	Representative Noise Receptor Sites			Station Number	TNM Predicted Noise Levels dB(A)			Difference Between Existing and Build Alternative Design Year (2045) Noise Levels	Noise Abatement Criteria Status for Build Alternative (Impacted Sites)	TNM Predicted Build Alternative Design Year (2045) Noise Levels dB(A)		
		Description (Noise Activity Category)	Number of Sites Represented	Noise Abatement Criteria		Existing Conditions	No Build Alternative (Design Year 2045)	Build Alternative (Design Year 2045)			With Recommended Noise Barrier	Noise Reduction with Recommended Noise Barrier	
Noise Study Area 5 (Non-Residential - Special Land Uses) - West of I-95 between Baymeadows Road and Baymeadows Way West (See Figure 3-1 Sheets 1 and 2)													
Studio 6 Hotel	S6-P	Hotel - Recreational Area/Pool (E)	1 (Special Land Use)	71.0	969+00	69.4	69.5	69.9	0.5	Below		---	---
Jacksonville Operations Center	JC-1	Office Building - Outdoor Use Area/Small Pavilions (E)	1 (Special Land Use)	71.0	979+00	70.1	70.3	71.5	1.4	Exceeds		---	---
	JC-2			71.0	981+00	76.2	76.5	77.3	1.1	Exceeds		---	---
	JC-3			71.0	985+90	76.0	76.3	77.1	1.1	Exceeds		---	---
	JC-4			71.0	987+10	74.8	74.9	76.0	1.2	Exceeds		---	---
	JC-5	Office Building - Outdoor Use Area/Picnic Table Pavilions (E)		71.0	985+00	69.7	69.8	71.5	1.8	Exceeds		---	---
Spring Lake Business Canter	SL-1	Office Building - Outdoor Use Area/Picnic Tables (E)	1 (Special Land Use)	71.0	995+00	68.0	68.0	70.8	2.8	Below		---	---
Florida Coastal School of Law	FC-1	Institutional - Interior Use (D)	1 (Special Land Use)	51.0	1009+80	47.2	47.2	49.1	1.9	Below		---	---
Noise Study Area 6 (Non-Residential - Special Land Uses) - West of I-95 between Baymeadows Way West and J. Turner Butler Boulevard (See Figure 3-1 Sheet 3)													
JP Morgan Chase	JPC-1	South Office Building - Outdoor Use Area - Small Pavilion (E)	1 (Special Land Use)	71.0	1042+80	73.3	73.3	74.8	1.5	Exceeds		---	---
	JPC-2	North Office Building - Outdoor Use Area/Picnic Tables (E)	1 (Special Land Use)	71.0	1049+90	69.3	69.3	70.9	1.6	Below		---	---
	JPC-3			71.0	1050+00	76.0	76.0	77.3	1.3	Exceeds		---	---
	JPC-4			71.0	1051+90	69.1	69.2	70.9	1.8	Below		---	---

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4.0 Conclusions

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* (July 1, 2020), and *FDOT's Traffic Noise Modeling and Analysis Practitioners Handbook* (December 31, 2018).

Design year (2045) traffic noise levels for the Build Alternative will approach, meet, or exceed the NAC at 30 residences (NAC B) associated with the Canopy at Belfort Park Apartments, at one residence (NAC B) associated with the Portiva Apartments, and at six non-residential/special land use sites (NACs C and E) including: Southpoint Community Church; Concourse Business Park, Baymeadows Islamic Center; Jacksonville Operations Center; and JP Morgan Chase South and North Buildings. In accordance with FHWA and FDOT policies, the feasibility and reasonableness of noise barriers were considered for these impacted noise sensitive sites.

Noise barriers were not considered a feasible noise abatement measure at the one impacted residence at Portiva Apartments because the impacted site represents an isolated residence. For a noise barrier to be considered an acoustically feasible abatement measure, it must benefit at least two impacted receptor sites.

Noise barriers were evaluated for the impacted residences associated with the Canopy at Belfort Apartments (CNE E2) and the six special land use sites that approach, meet, or exceed the NAC (CNE E1, E3, and W1 through W4). The results of the noise barrier analysis for each of these locations/CNEs are summarized in **Table 4-1**. The locations of the noise barriers (both recommended and not recommended) are depicted on **Figure 3-1**.

A noise barrier was recommended for further consideration during the project's design phase and public input for the 30 impacted residences associated with the Canopy at Belfort Park Apartments (CNE E2). The recommended conceptual noise barrier design at this location (CBP-CD5) meets FDOT's noise abatement cost criteria (i.e., equal to or less than \$42,000 per benefited receptor site) and noise reduction reasonableness criteria of 7 dB(A) at one or more impacted sites. The recommended noise barrier is expected to reduce traffic noise by at least 5 dB(A) at 44 residences including all 30 impacted residences. The estimated cost of the recommended barrier is \$785,400. There are no nearby outdoor advertising signs that would be directly and/or indirectly affected by the recommended noise barrier.

Table 4-1: Noise Barrier Evaluation Summary and Recommendations

Noise Sensitive Area (Common Noise Environment)	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Conceptual Ground Mounted Noise Barrier Design Number (Location)	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Cost (\$30 per square foot)	Average Cost/Site Benefited	Does Optimal Barrier Design Meet FDOT's Reasonable Noise Abatement Criteria of \$42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal?	Noise Barrier Recommended for Further Consideration and Public Input?	Comments
Noise Study Area 2 - East of I-95 between Baymeadows Road and Belfort Road																	
Southpoint Community Church (CNE E1) - See Figure 3-1 Sheet 2	Place of Worship - Outdoor Use Area/Park Bench (C)	SC-CD1 (I -95 Eastern Right-of-Way Line)	16	640	1006+80	1013+20	Special Land Use	--	--	--	7.0	7.0	\$307,200	--	NO	NO	The conceptual design meets FDOT's 7.0 dB(A) Noise Reduction Design Goal, but does not meet the Reasonableness Cost Criteria for special uses. A noise barrier is not recommended for further consideration or public input during the project's design phase at this location.
Canopy at Belfort Park Apartments (CNE E2) - See Figure 3-1 Sheet 3	Multi-Family Residential (B)	CBP-CD5 (I-95 Eastern Right-of-Way Line)	22	1,190	1036+40	1048+20	30	30	14	44	6.9	9.4	\$785,400	\$17,850	YES	YES	Represents the optimal conceptual noise barrier design and is recommended for further consideration and public input during the project's design phase.
Noise Study Area 3 - East of I-95 between and Belfort Road and South of J. Turner Butler Boulevard																	
Concourse Business Park (CNE E3) - See Figure 3-1 Sheet 3	Office Building - Outdoor Use Area/Picnic Tables (E)	CB-CD1 (I-95 Eastern Right-of-Way Line)	16	560	1049+40	1055+60	Special Land Use	--	--	--	7.0	7.0	\$268,800	--	NO	NO	The conceptual design meets FDOT's 7.0 dB(A) Noise Reduction Design Goal, but does not meet the Reasonableness Cost Criteria for special uses. A noise barrier is not recommended for further consideration or public input during the project's design phase at this location.
Noise Study Area 4 - West of I-95 and South of Baymeadows Road																	
Baymeadows Islamic Center (CNE W1) - See Figure 3-1 Sheet 1	Place of Worship - Recreational Area/ Basketball Court (C)	BIC-CD4 (I-95 Western Right-of-Way Line)	22	500	954+60	959+00	Special Land Use	--	--	--	7.0	7.0	\$330,000	---	NO	NO	The conceptual design meets FDOT's 7.0 dB(A) Noise Reduction Design Goal, but does not meet the Reasonableness Cost Criteria. A noise barrier is not recommended for further consideration or public input during the project's design phase at this location.
Noise Study Area 5 - West of I-95 between Baymeadows Road and Baymeadows Way West																	
Jacksonville Operations Center (CNE W2) - See Figure 3-1 Sheet 1	Office Building - Outdoor Use Areas/Small Pavilions (E)	JC-CD1 (I-95 Western Right-of-Way Line)	16	1,080	976+80	987+60	Special Land Use	--	--	--	8.2	13.4	\$518,400	---	NO	NO	The conceptual design meets FDOT's 7.0 dB(A) Noise Reduction Design Goal, but does not meet the Reasonableness Cost Criteria. A noise barrier is not recommended for further consideration or public input during the project's design phase at this location.
Noise Study Area 6 - West of I-95 and South of J. Turner Butler Boulevard																	
JP Morgan Chase South Building (CNE W3) - See Figure 3-1 Sheet 3	Office Building - Outdoor Use Area/Small Pavilion (E)	JP1-CD2 (I-95 Western Right-of-Way Line)	16	560	1040+00	1045+60	Special Land Use	--	--	--	7.0	7.0	\$268,800	---	NO	NO	The conceptual design meets FDOT's 7.0 dB(A) Noise Reduction Design Goal, but does not meet the Reasonableness Cost Criteria. A noise barrier is not recommended for further consideration or public input during the project's design phase at this location.
JP Morgan Chase North Building (CNE W4) - See Figure 3-1 Sheet 3	Office Building - Outdoor Use Area/ Picnic Tables (E)	JP3-CD1 (I -95 Western Right-of-Way Line)	14	180	1049+60	1051+40	Special Land Use	--	--	--	7.0	7.0	\$75,600	---	NO	NO	The conceptual design meets FDOT's 7.0 dB(A) Noise Reduction Design Goal, but does not meet the Reasonableness Cost Criteria. A noise barrier is not recommended for further consideration or public input during the project's design phase at this location.

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Notes:



Conceptual noise barrier design that meets both FDOT's reasonable cost criteria of \$42,000 per benefited receptor site and the design goal of at least a 7.0 dB(A) of noise reduction for at least one impacted receptor site; Noise barrier recommended for further consideration and public input during the project's design phase.

Noise barriers are not recommended for further consideration at the six special land use locations (i.e., CNE E1, CNE-E3, and CNE-W1 through CNE W4). Noise barriers at these special land use sites are unable to meet the minimum required daily usage rate (i.e., person-hours per day) needed for the conceptual noise barrier designs to be considered cost reasonable.

Based on the noise analyses performed to date, there appears to be no apparent solutions available to mitigate the noise impacts at the one residence associated with the Portiva Apartments and the six special land uses (i.e., Southpoint Community Church; Concourse Business Park, Baymeadows Islamic Center; Jacksonville Operations Center; and JP Morgan Chase South and North Buildings). Therefore, the traffic noise impacts to these noise sensitive sites are an unavoidable consequence of the project.

Statement of Likelihood

FDOT is committed to the construction of feasible noise abatement measures (i.e., a noise barrier) at the noise impacted sites associated with the Canopy at Belfort Park Apartments as identified in **Table 4.1** and **Figure 3-1** contingent upon the following conditions:

- Final recommendations on the construction of abatement measures is determined during the project's 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 barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District 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 measures for the identified locations will be constructed if found feasible based on the contingencies listed above. If, during the project's design phase, any of the contingency conditions listed above cause abatement to no longer be considered reasonable or feasible for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during project reevaluation and at a time before the construction advertisement is approved.