# PROJECT DEVELOPMENT & ENVIRONMENT NOISE STUDY REPORT

Central Polk Parkway East from US 17/92 to Poinciana Connector (SR 538)

Polk County, Florida

Financial Project ID Number: 451419-1



Prepared For: FLORIDA'S TURNPIKE ENTERPRISE

October 2025

#### **EXECUTIVE SUMMARY**

Florida's Turnpike Enterprise (FTE) is conducting a Project Development and Environment (PD&E) study to evaluate an approximately eight-mile new tolled, multi-lane, limited access highway referred to as the Central Polk Parkway (CPP) East. The PD&E study area extends from US 17/92, south of the Power Line Road extension, to the future Poinciana Connector (State Road (SR) 538), with the CSX railroad delineating the western study area boundary. Most of the study area is located in northeast Polk County, with a small section extending into Osceola County. Refer to **Figure 1-1** for the Project Location Map.

Within the project limits, noise levels were predicted at 354 noise receptor locations, representing 481 residences and 16 non-residential special land use (SLU) sites. Of these sites, noise levels at 159 residences and eight SLU sites are predicted to approach or exceed the Noise Abatement Criteria (NAC) in the design year (2050) for the Build condition. An additional 27 residences and one SLU receptor are predicted to have substantial noise increases [≥15 dB(A)] when compared to existing conditions. Nine residences are expected to have both a substantial noise increase and noise levels that approach or exceed the NAC.

The project is expected to impact a total of 204 noise sensitive sites (195 residences and nine SLU sites [with the Equivalent Residential (ER) value of 15.64]) when contributing railroad noise is included. The results of the noise abatement evaluation conclude that four noise barrier systems are a potentially feasible and reasonable method to abate traffic-related noise impacts for five common noise environments (CNEs). These four noise barrier systems will provide at least 5 dB(A) noise reduction benefit to 93 of the 204 impacted residential receptors (including substantial noise impacts) and one impacted SLU receptor, as well as providing a 5 dB(A) benefit to 81 non-impacted residences.

#### Statement of Likelihood

FTE is committed to the construction of feasible and reasonable noise abatement measures. Four potentially feasible and reasonable noise barrier systems have been identified for this project (see **Table 4-2** for more detail on the noise barriers) contingent upon the following conditions:

- Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
- Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to FTE; and
- Safety and engineering aspects have been reviewed, and any conflicts or issues resolved.

During the design phase, a land use review will be performed to identify all noise sensitive sites that may have received a building permit subsequent to the noise study but prior to the project's Date of Public Knowledge (DPK). The date that the State Environmental Impact Report (SEIR) is approved by FTE will be the DPK. If the review identifies noise sensitive sites that have been permitted prior to the DPK, then

the DPK. If the review identifies noise sensitive sites that have been permitted prior to the DPK, then those sensitive sites will be evaluated during the design phase for traffic noise impacts and abatement considerations.

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#### 1.0 INTRODUCTION

Florida's Turnpike Enterprise (FTE) is conducting a Project Development and Environment (PD&E) study to evaluate an approximately eight-mile new tolled, multi-lane, limited access highway referred to as the Central Polk Parkway (CPP) East. The PD&E study area extends from US 17/92, south of the Power Line Road extension, to the future Poinciana Connector (State Road (SR) 538), with the CSX railroad delineating the western study area boundary. Most of the study area is located in northeast Polk County, with a small section extending into Osceola County, as shown in **Figure 1-1**.

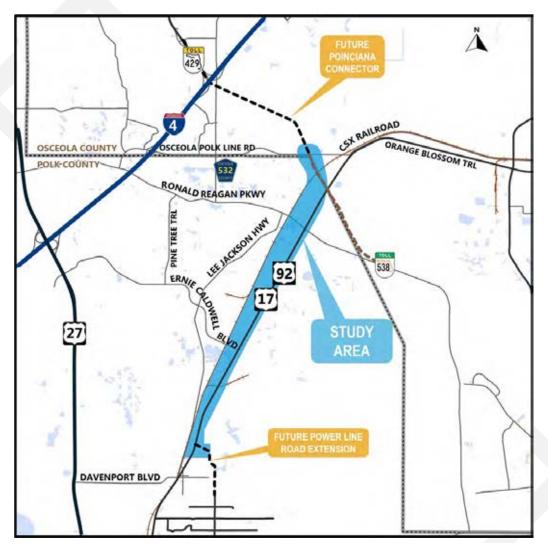


Figure 1-1: Project Location Map

#### 1.1. Description of the Preferred Alternative

The project begins as a co-location with US 17/92 south of the intersection with the Power Line Road extension until approximately 0.7 miles south of Ernie Caldwell Boulevard, where the CPP East begins on new alignment as a four-lane limited access facility. At this point, the new alignment curves to the west and follows the CSX railroad line for approximately 1.4 miles before curving back towards US 17/92. The alignment crosses over US 17/92 near the Providence neighborhood and parallels US 17/92 on the east side until after Ronald Reagan Parkway. Approximately 2,000 feet north of Ronald Reagan Parkway, the

CPP East curves to the north, crossing over US 17/92, and then the northbound and southbound lanes diverge. Northbound CPP East crosses over the future Poinciana Connector to tie into the outside lanes in the vicinity of the CR 532 overpass, and CPP East southbound is created with a ramp that forms just south of CR 532 and crosses over US 17/92.

The CPP East is comprised of two 12-foot-wide travel lanes in each direction separated by a 50-foot-wide median, including the inside shoulders. In the northbound direction, there is an eight-foot-wide inside shoulder and a 12-foot-wide outside shoulder. In the southbound direction, there is a 13.5-foot-wide inside shoulder with guardrail and a 12-foot-wide outside shoulder. The proposed limited access right of way (ROW) is 286 feet, including 94 feet of border width on either side. A 12-foot-wide shared-use path is being evaluated between the US 17/92 and Power Line Road intersection and Ernie Caldwell Boulevard. An additional 50 feet of ROW is required for the shared-use path footprint. **Figure 1-2** illustrates the preferred typical section for the CPP East new alignment.

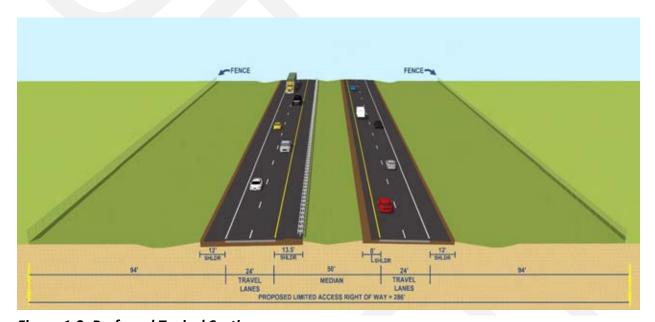


Figure 1-2: Preferred Typical Section

#### 2.0 METHODOLOGY

The traffic noise study was performed in accordance with *Code of Federal Regulations, Title 23, Part 772 (23 CFR 772) Procedures for Abatement of Highway Traffic Noise and Construction Noise* <sup>1</sup> using methodology established by the Florida Department of Transportation (FDOT) in the *Project Development and Environment Manual, Part 2, Chapter 18* <sup>2</sup>, FDOT's *Traffic Noise Modeling and Analysis Practitioners' Handbook* <sup>3</sup>, and FDOT's *Methodology to Evaluate Highway Traffic Noise at Special Land Uses* <sup>4</sup>. Predicted noise levels were produced using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM), version 2.5. Where the CSX railroad line is located near the project corridor, the Federal Railroad Administration's (FRA) CREATE railroad noise model was used to determine contributing noise levels following the FRA's *Guidance on Assessing Noise and Vibration Impacts* <sup>5</sup> and the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* <sup>6</sup>.

#### 2.1. Noise Metrics

Noise levels developed for this analysis are expressed in decibels (dB) using an "A"-scale [dB(A)] weighting. This scale most closely approximates the response characteristics of the human ear. All noise levels are reported as hourly equivalent noise levels [Leq(h)]. The Leq(h) is defined as the equivalent steady-state sound level that, in a given hourly period, contains the same acoustic energy as the timevarying sound level for the same hourly period <sup>3</sup>. Use of the dB(A) and Leq(h) metrics to evaluate traffic noise is consistent with 23 CFR 772<sup>1</sup>.

#### 2.2. Traffic Data

Traffic noise is heavily dependent on both traffic speed and traffic volume, with the amount of noise generated by traffic increasing as the vehicle speed and number of vehicles increase. The traffic conditions that result in the highest noise levels for roadways are the hourly traffic volumes representing Level of Service (LOS) C traffic conditions because they represent maximized traffic volumes that continue to travel at free-flow speed.

Traffic volumes and vehicle mix (e.g., cars, medium trucks, heavy trucks, motorcycles, and buses) were predicted for the design year (2050) under the Build and No-Build conditions. For all roadway segments, LOS C hourly traffic volumes were compared to predicted design year demand hourly volumes, and the lower of the two was used in the model. For ramps, hourly traffic demand volumes were used. Traffic volumes and speeds used in the analysis are provided in **Appendix A**.

#### 2.3. Noise Abatement Criteria and Considerations

Noise sensitive sites are any property where frequent exterior and/or interior human use occurs and where a lowered noise level would be a benefit. FHWA has established noise levels at which noise abatement must be considered for various types of noise sensitive sites. These levels, which the FTE uses for the purpose of evaluating traffic noise, are referred to as the Noise Abatement Criteria (NAC). As shown in **Table 2-1**, the NAC vary by activity category. Noise abatement measures are considered when the Build condition's predicted traffic noise levels approach or exceed the NAC for its respective category. The FDOT defines "approach" as within one dB(A) of the applicable FHWA criterion. For comparison purposes, typical noise levels for common indoor and outdoor activities are provided in **Figure 2-1**.

Noise abatement measures must also be considered when a substantial increase in traffic noise will occur as a direct result of the transportation project. FDOT defines a substantial increase as 15 or more dB(A) above existing conditions. A substantial increase typically occurs in areas where traffic noise is a minor component of the existing noise environment but would become a major component after the project is constructed. This typically occurs with a new alignment project like the CPP East.

Table 2-1: FHWA & FDOT Noise Abatement Criteria

## NOISE ABATEMENT CRITERIA (NAC) [Hourly A-Weighted Sound Level-decibels (dB(A))]

			• ,						
Activity Category	Activity FHWA	Leq(h) <sup>1</sup> FDOT	Evaluation Location	Description of Activity Category					
А	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 <sup>2</sup>	67	66	Exterior	Residential					
C <sup>2</sup>	67	66	Exterior	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare 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, daycare 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 <sup>2</sup>	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)<sup>1</sup>

*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.

<sup>&</sup>lt;sup>1</sup> The Leq(h) Activity Criteria values are for impact determination only and are not design standards for noise abatement measures.

 $<sup>^{\</sup>rm 2}$  Includes undeveloped lands permitted for this activity category.

Common Outdoor Activities	Noise Level dB(A)	Common Indoor Activities
	110	Rock Band
Jet Fly-Over 1000 ft.		
,	100	
Gas Lawn Mower at 3 ft.		
	90	
Diesel Truck at 50 ft., at 50 mph		Food Blender at 3 ft.
	80	Garbage Disposal at 3 ft.
Noise Urban Area (Daytime)		
Gas Lawn Mower at 100 ft.	70	Vacuum Cleaner at 10 ft.
Commercial Area		Normal Speech at 3 ft.
Heavy Traffic at 300 ft.	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room
		(Background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (Background)
	20	(Easing, Same)
<		
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing
Source: California Dept. of Transportation	on; Technical Noise Supplem	

Figure 2-1: Typical Noise Levels

#### 3.0 TRAFFIC NOISE ANALYSIS AND ABATEMENT ASSESSMENT

#### 3.1. Model Verification

To verify the accuracy of the TNM 2.5 noise model, field measurements were taken within the project limits following procedures documented in FHWA's *Noise Measurement Field Guide* <sup>7</sup>. Noise monitoring was performed on August 26, 2025, using an Extech Instruments Model 407780 Type 2 Integrating Sound Level Meter (noise monitor). All monitoring events were 10 minutes in duration, which is consistent with the methodology documented in FDOT's *Traffic Noise Modeling and Analysis Practitioners' Handbook* <sup>3</sup>. The noise monitor was calibrated using an Extech Instruments Model 407766 calibrator before and after each event. Typical vehicle speeds were established by sampling with a Bushnell Speedster handheld radar gun. Vehicles generally traveled within a few miles per hour (mph) of

the 45-mph posted speed limit on US 17/92. Traffic volumes by vehicle classification were recorded for each monitoring event and then extrapolated to one-hour equivalent volumes for input within the TNM.

One location was used to validate the ability of the TNM to accurately predict traffic noise for this project. The location of the validation site is shown as receptor point VS-1 on sheet 2 in the project aerials, located in **Appendix E**. Receptor point VS-1 is located approximately 50 feet from the northbound turn lane, approximately 185 feet from Tiny Flowers Road. Refer to **Appendix G** for the field data sheet.

Measurements were taken for three validation events. The results of the validation events are summarized in **Table 3-1**. As shown in this table, the variance between the measured and predicted noise levels was 3.0 dB(A) or less for all validation events. Therefore, the noise model is predicting traffic-related noise for this project within the level of accuracy specified in the Practitioners' Handbook <sup>3</sup>

Additional field measurements were taken to determine the existing noise levels along the proposed CPP East new alignment in areas where traffic is not the predominant noise source. Because there is no existing traffic, ambient field measurements cannot be used to validate the noise model. Three 10-minute field measurements were taken on August 26, 2025, at a site located in the Preservation Pointe subdivision closest to the proposed new alignment. The location of the field measurement site is identified as "Ambient" on sheet 8 in the project aerials, located in **Appendix E. Appendix G** contains the field data sheet.

The results of the field measurements are also shown in **Table 3-1**. The average of the three field measurements is 45.8 dB(A). This average was applied to the existing condition for 50 noise sensitive sites that are located along the proposed CPP East new alignment, where the TNM predicted noise levels that are below 45.8 dB(A) for the existing noise condition, and in some instances, also the No-Build noise condition.

Table 3-1: TNM Validation Results Summary

Location	Validation Event	Field Measured (dB(A))	TNM Predicted (dB(A))	Variance (dB(A))
	V1-1	65.2	65.2	0.0
VS-1 <sup>1</sup>	V1-2	64.6	65.7	1.1
	V1-3	65.4	65.6	0.2
	A-1	47.3	n/a	n/a
Ambient <sup>1</sup>	A-2	44.9	n/a	n/a
	A-3	45.2	n/a	n/a

<sup>&</sup>lt;sup>1</sup> Measurements Taken 8/26/2025.

#### 3.2. Noise Sensitive Sites and Impact Analysis

Within the project limits, residential and non-residential special land use (SLU) sites were evaluated. Receptor points representing the noise sensitive sites are located in accordance with the FDOT PD&E Manual<sup>2</sup> as follows:

- Residential receptor points are located at an area of frequent outdoor use (i.e., patio or lanai) or the corner of the residential building closest to the major traffic noise source.
- Where residences are clustered together, single receptor points are analyzed as representative of a group of sites with similar characteristics.
- Ground floor receptor points are assumed to be five feet above the ground elevation, and all
  receptors are assumed to be at ground level unless otherwise noted.
- Higher floor receptors are assumed to increase in elevation in ten-foot increments above the ground floor receptor.
- SLU receptor points are located in areas of the SLU site with frequent outdoor human use, following the methodology in FDOT's Methodology to Evaluate Highway Traffic Noise at Special Land Uses <sup>4</sup>.
- Predicted traffic noise levels, NAC classification, and impact criteria for all noise sensitive sites in
  this project are documented in **Appendix B-1** and **Appendix B-2**, and the locations of the
  receptor points are depicted on the project aerials found in **Appendix E**. The alphanumeric
  identification for each receptor point associated with a noise sensitive receptor is formulated as
  follows:
  - All receptor point names begin with a single letter code indicating the receptor "type" that the point represents.
    - "R" for Residences
    - "N" for SLU Sites
  - Following the "type" code, receptors are assigned a common noise environment (CNE) identifier, which labels receptors according to the CNE within which they are located.
    - The first two letters (i.e., NB, SB) describe on which side of the roadway the CNE is located (e.g., "NB" indicates the receptor is located in a CNE on the northbound side of the travel lanes).
    - The number following the first two letters is a numeric sequencing number (e.g., CNE NB02 is the 2<sup>nd</sup> CNE on the northbound side of the roadway).
  - o The number following the CNE identifier is the receptor number and is separated from the first string of characters with a dash (e.g., RNB02-02 is the 2<sup>nd</sup> receptor of Residential "type", in the 2<sup>nd</sup> CNE on the northbound side of the roadway).
- The project aerials in **Appendix E** show the locations of all impacted and/or benefited receptors.

For the proposed design, 354 receptor points were utilized to represent 481 residences and 16 SLU sites. Noise levels at 159 residences are predicted to approach or exceed the Noise Abatement Criteria (NAC) in the design year (2050) for the Build condition. An additional 27 residences are predicted to be impacted by substantial noise increases [≥15 dB(A)] when compared to existing conditions. Nine residences are expected to have both a substantial noise increase and noise levels that approach or exceed the NAC. The impacted residences are located primarily in the first and second building rows

within the neighborhoods adjacent to the CPP East co-location with US 17/92 or the CPP East new alignment.

In addition to residences, Title 23 Code of Federal Regulations Part 772 ¹ specifies other Activity Categories addressing SLU noise sensitive sites. Within the project limits, SLU noise sensitive sites include outdoor use areas at a variety of locations, including parks, playgrounds, and churches. Noise levels are predicted to approach or exceed the 66 dB(A) NAC for the Equivalent Residential (ER) value of 12.53 at eight SLU sites SLU sites in the design year (2050) for the Build condition. One additional SLU receptor is predicted to be impacted by a substantial noise increase [ ≥15 dB(A)] when compared to existing conditions (ER value of 3.11). Predicted noise levels for the design year (2050) Build condition are included in **Appendix B-1** for residential receptors and **Appendix B-2** for SLU receptors. The receptors are shown on the project aerials located in **Appendix E**.

#### 3.3. Noise Abatement Analysis

Where noise impacts are identified, receptors are grouped into CNEs to evaluate the feasibility and cost reasonableness of providing noise barriers to reduce traffic noise. Noise barriers reduce traffic noise by blocking the sound path between a highway and noise sensitive receptors. To effectively reduce traffic noise, a noise barrier must be relatively long, continuous (with no intermittent openings), and of sufficient height. For a noise barrier to be considered feasible and cost reasonable (i.e., qualify for construction), the following conditions must be met.

To be considered feasible, it must:

- Demonstrate that it will benefit at least two impacted receptors by providing a reduction in traffic-related noise of at least 5 dB(A).
- Take into consideration a number of additional feasibility factors, including design and construction, safety, access, ROW, maintenance, drainage, and utility factors.

To be considered reasonable, it must:

- Take into consideration the viewpoints of the benefited property owners and residents.
- The cost of the noise barrier must not exceed \$64,000 per benefited receptor. A benefited receptor is defined as a receptor that would experience at least a 5 dB(A) reduction in noise levels as a result of providing a noise barrier. The current unit cost used to evaluate cost reasonableness is \$40 per square foot for all noise barriers. This cost covers barrier materials and labor.
- Satisfy the FDOT's Noise Reduction Design Goal (NRDG) of 7 dB(A). Therefore, a noise barrier must provide a noise reduction of at least 7 dB(A) for at least one benefited receptor.

Within the project limits, noise barrier locations were evaluated for the project as follows:

- Non-shoulder noise barriers located outside the clear recovery zone but within the ROW are initially considered at heights ranging from 8 feet to 22 feet in 2-foot increments.
- If a non-shoulder noise barrier cannot provide feasible and reasonable abatement to an
  impacted receptor, then a shoulder noise barrier is evaluated. When on a structure (e.g., bridge,
  retaining wall), a shoulder noise barrier is limited to a maximum height of 8 feet. If on

embankment or ground-mounted, a shoulder noise barrier is limited to a maximum height of 14 feet.

Using the evaluation process, noise barriers for each CNE are evaluated to determine an optimal barrier design. The noise barriers were evaluated to determine the maximum number of impacted receptors that could potentially be provided with at least a 5 dB(A) reduction in traffic-related noise. Specific conditions, such as overhead utilities, often constrain these noise barriers. As a result of the site-specific conditions, noise barriers may not provide a 5 dB(A) reduction in traffic-related noise to all impacted receptors.

At some locations, noise barriers will benefit receptors to a predicted noise level that does not approach the NAC. Since abatement consideration at these receptors is not required, noise barrier lengths or heights are not increased to benefit these sites. However, if benefited because of the proximity to an impacted receptor, these sites are included when determining the cost reasonableness of the noise barrier based on the cost per benefited receptor. This methodology is consistent with FHWA policy and guidance.

#### 3.4. Special Land Use (SLU) Site Analysis

The methodology used to evaluate noise barrier systems for non-residential SLU sites differs from that used for residential locations. The standard procedure for determining the feasibility and reasonableness of a noise barrier for a special land use (SLU) site is documented in FDOT's Methodology to Evaluate Highway Traffic Noise at Special Land Uses <sup>4</sup>. Figure 3-1 illustrates the multi-step methodology process, which is summarized below.

- If an impacted SLU receptor is not adjacent to impacted residences or other impacted SLUs such that a single noise barrier would not be a practical form of abatement for all impacted properties, it is considered isolated. It must go through a preliminary screening analysis to determine if it has enough person-hour usage to equate to at least two residences to be found feasible for noise abatement. To meet the feasibility requirement, the isolated SLU must have at least 44,326 person-hours of use per year in the benefited area for a noise barrier to be found as a feasible form of noise abatement.
- A noise barrier is evaluated if the preliminary screening results indicate that a full analysis is warranted or if the impacted SLU is adjacent to other impacted SLUs or residences.
- Once it is determined that impacted SLUs benefit from the analyzed noise barrier, the FDOT SLU
  Worksheet is utilized to assess whether a noise barrier is a reasonable form of abatement. The
  SLU Worksheet includes all residences and SLUs that would receive a benefit from the noise
  barrier. This methodology allows the combined evaluation of all impacted land use activity
  categories that would potentially benefit from a single noise barrier system.

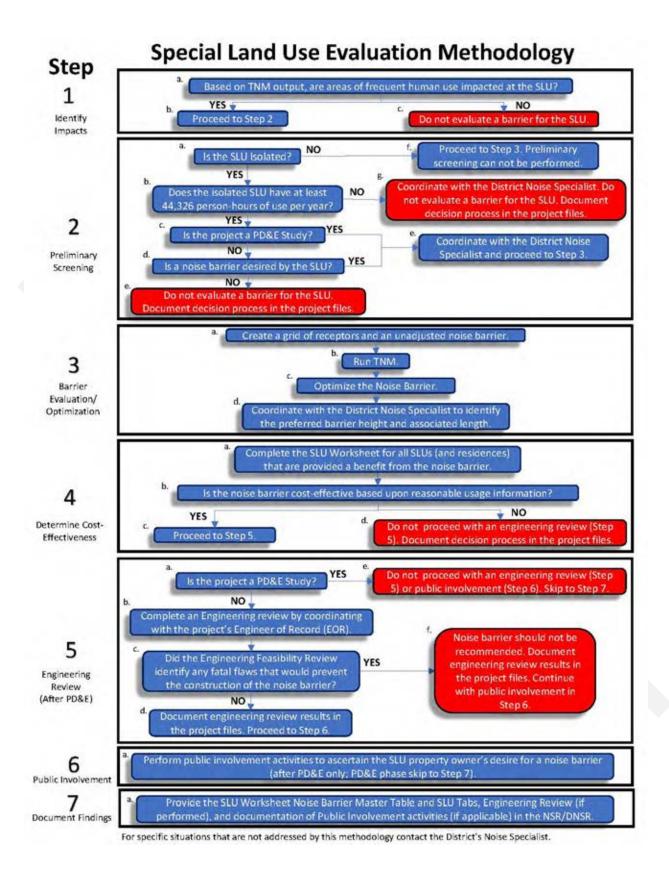


Figure 3-1:SLU Noise Abatement Evaluation Flowchart

#### 3.5. Contributing Railroad Noise Analysis

When non-highway transportation noise sources, such as freight rail facilities, may contribute to the noise levels in a project area, the potential effects of these secondary sources on the total noise level at potentially sensitive receptors must be assessed as part of the highway traffic noise assessment process. The noise levels from applicable secondary sources must be assessed separately and mathematically combined with the predicted highway traffic noise levels to determine the total impacts and the feasibility and reasonableness of noise abatement for the highway improvement.

For the CSX freight rail tracks adjacent to this study corridor, noise levels at noise sensitive receptors were assessed using guidance provided in the FRA's *Guidance on Assessing Noise and Vibration Impacts* <sup>5</sup> and the FTA's *Transit Noise and Vibration Impact Assessment* <sup>6</sup>.

Data collected from the U.S. DOT Crossing Inventory forms for three at-grade railroad crossings in proximity to the study corridor, as well as general railroad usage information from resources such as the Association of American Railroads, were used to perform the rail analysis. For this study, it was assumed that the CSX Railroad track, located west of the study corridor, can operate up to seven trains per day (four daytime and three nighttime), each with an average length of 5,280 feet and three locomotives, traveling at speeds up to 50 mph.

Using FRA guidance, the rail noise model developed as part of the Chicago Region Environmental and Transportation Efficiency (CREATE) program was used to calculate the rail-specific Leq noise levels for each receptor site that may have contributing rail noise levels. The respective Leq predictions generated by the CREATE model were mathematically added to the TNM Leq predictions for roadway noise for each receptor. The resulting cumulative noise from both transportation sources was used to identify project receptors that approach or exceed the NAC. The calculation summary table identifying the affected receptors is provided in **Appendix C**.

The noise abatement evaluation assessed two noise environment scenarios in areas that are affected by rail noise. The first scenario reflects the evaluated noise barrier's effectiveness with the influence of rail noise included in the background noise environment. The second scenario reflects the noise barrier's effectiveness without the influence of rail noise. The scenario that is most beneficial to the impacted receptors was used to determine whether the potential noise barrier met all FDOT feasibility and reasonableness criteria. The CNEs to which this approach applies are discussed individually in the following sections.

#### 3.6. Common Noise Environments on the Northbound Side of CPP East

#### 3.6.1. Jamestown Residences and Powerhouse Church of God in Christ (NB01)

Multiple single-family residences in the Jamestown neighborhood are located on the northbound side of US 17/92 between the southern project terminus south of James Street and the Power Line Road Extension (CNE NB01). This area is shown on sheet 1 in the project aerials located in **Appendix E**. In this area, 18 NAC B receptor points were added to the model to represent 18 residences. Also in CNE NB01 is the Powerhouse Church of God in Christ, a NAC C receptor. Of these 19 receptors, three NAC B residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 8.0 dB(A); therefore, no receptor experiences a

substantial increase (≥15 dB(A)) in traffic noise when compared to the existing condition. The predicted residential noise levels are shown in **Appendix B-1**, and the SLU receptor noise levels are shown in **Appendix B-2**.

A noise barrier system was evaluated for the three impacted residential sites to abate traffic-related noise. The barrier system requires gaps for cross street access to US 17/92, which limits the barrier's noise reduction effectiveness. Based on this evaluation, none of the potential noise barrier systems analyzed could meet the cost threshold of \$64,000 per benefited residence. For this reason, noise barriers are not a feasible and reasonable option for providing noise abatement to these residential sites. **Table 3-2** summarizes the barrier configurations evaluated for CNE NB01.

Table 3-2: Single-Family Residences (CNE NB01)

Height	(feet) (feet)	Length <sup>1</sup> (feet)	Location	Location	Location	Location	No. of NAC B	110100	Reduct ed Resi		Numb	er of Benefite	ed Resid	dences	Impacted Res. Not	Total Estimated	Cost per Benefited
(feet)			Impacts	5-5.9 dB(A)	6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Benefited <sup>4</sup>	Cost <sup>5</sup>	Residence				
8	866	ROW <sup>6</sup>	3	0	0	0	0	0	0	<5.0	3	N/A 7	N/A 7				
10	866	ROW <sup>6</sup>	3	0	0	0	0	0	0	<5.0	3	N/A 7	N/A 7				
12	866	ROW <sup>6</sup>	3	1	0	0	1	0	1	5.8	2	N/A 7	N/A 7				
14	866	ROW <sup>6</sup>	3	1	1	0	2	0	2	6.0	1	N/A <sup>8</sup>	N/A <sup>8</sup>				
16	866	ROW <sup>6</sup>	3	1	1	0	2	1	3	6.0	1	N/A <sup>8</sup>	N/A <sup>8</sup>				
18	546	ROW <sup>6</sup>	3	1	0	1	2	1	3	6.0	1	\$393,120	\$131,040				
20	661	ROW <sup>6</sup>	3	1	0	1	2	1	3	6.1	1	\$528,800	\$176,267				
22	661	ROW <sup>6</sup>	3	1	0	1	2	1	3	6.2	1	\$581,680	\$193,893				

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated, including openings to accommodate cross streets and driveways.

#### 3.6.2. Multiple Single-Family Residences and Temples Crossing (NB02)

Multiple single-family residences, the Horse Creek at Crosswinds subdivision, and the Temples Crossing subdivision are located on the northbound side of US 17/92 between the Power Line Road Extension and Lem Carnes Road (CNE NB02). This area is shown on sheets 1 through 4 in the project aerials located in **Appendix E**. In this area, 31 NAC B receptor points representing 62 residences were added to the model. Also in CNE NB02 is the Temples Crossing playground, a NAC C receptor. Of these 32 receptors, 17 NAC B residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 10.9 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A)) in traffic noise when compared to the existing condition. The predicted residential noise levels are shown in **Appendix B-1**, and the SLU receptor noise levels are shown in **Appendix B-2**.

One impacted receptor, RNB02-05, is considered "isolated" because it is separated from the other impacted receptors by non-impacted properties. Because a minimum of two impacted noise sensitive

 $<sup>^{\,2}\,\,</sup>$  Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft² for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Noise barrier located within the right of way of US 17/92.

<sup>&</sup>lt;sup>7</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

<sup>8</sup> Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor, so no further analysis was conducted.

locations must be benefited for noise abatement to be feasible, noise abatement was not considered for this isolated receptor.

A noise barrier system was evaluated for the remaining 16 impacted residential sites to abate traffic-related noise. The barrier system requires multiple, closely spaced gaps for driveway access to US 17/92, which limits the barrier's noise reduction effectiveness. Based on this evaluation, none of the potential noise barrier systems analyzed could meet the cost threshold of \$64,000 per benefited residence. For this reason, noise barriers are not a feasible and reasonable option for providing noise abatement to these residential sites. **Table 3-3** summarizes the barrier configurations evaluated for CNE NB01.

Table 3-3: Single-Family Residences (CNE NB02)

	Height	Length <sup>1</sup> (feet)	Location	Location	Location	No. of NAC B		Reduct ed Resi		Numb	er of Benefite	ed Resid	lences	Impacted Res. Not	Total Estimated	Cost per Benefited
(feet)		(feet)	Location	Impacts	5-5.9 dB(A)	6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Benefited <sup>4</sup>	Cost 5	Residence		
	18	731	ROW <sup>6</sup>	16	0	0	1	1	0	1	7.3	15	N/A 7	N/A 7		
	20	731	ROW <sup>6</sup>	16	1	0	1	2	0	2	6.2	14	\$584,800	\$292,400		
	22	731	ROW <sup>6</sup>	16	1	0	1	2	0	2	6.3	14	\$643,280	\$321,640		

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated, including openings to accommodate driveways.

# 3.6.3. Multiple Single-Family Residences and Kissimmee South MH and RV Resort (NB03)

Multiple single-family residences and the Kissimmee South MH and RV Resort are located on the northbound side of US 17/92 between Lem Carnes Road and the project's terminus east of Sunny Acres Road (CNE NB03). This area is shown on sheets 4, 15, and 16 in the project aerials located in **Appendix E**.

A planned residential community called Pine Point has been identified in this CNE at the intersection of US 17/92 with Ernie Caldwell Boulevard. As of August 6, 2025, there were no active building permits for noise-sensitive land uses. A land use review will be performed during the design phase to identify if this development received residential building permits subsequent to the noise study but prior to the project's Date of Public Knowledge (DPK). All homes that receive a building permit prior to the DPK will be included in the design analysis.

In CNE NB03, 17 NAC B receptor points were added to the model to represent 49 residences. Of these 49 receptors, 20 residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 7.2 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A) over existing conditions) in traffic noise. The predicted residential noise levels are shown in **Appendix B-1**.

Because a minimum of two impacted residences must be benefited for noise abatement to be feasible, noise abatement was not considered for the isolated impacted single-family residence (RNB03-01).

 $<sup>^{\</sup>rm 2}~$  Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

 $<sup>^{\</sup>rm 6}~$  ROW – Noise barrier located within the right of way of US 17/92.

<sup>&</sup>lt;sup>7</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

Noise barriers were evaluated for the 19 impacted residences at the Kissimmee South MH and RV Resort to abate traffic-related noise. **Table 3-4** summarizes the barrier configurations evaluated for CNE NB03. Based on this evaluation, a potential noise barrier system located along the US 17/92 ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. This noise barrier will not exceed the allowable \$64,000 per benefited receptor and, therefore, is a cost reasonable method to abate traffic-related noise impacts for the residences in CNE NB03.

The noise barrier system analyzed in CNE NB03 is the maximum height and length that was determined to be constructible. However, these potential dimensions are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as utilities, drainage, etc., could alter the barrier's placement, dimensions, and access. Such changes could render this noise barrier no longer constructible or not meet FDOT noise abatement criteria. Assuming the barrier is still feasible and reasonable in the design phase, community input may be solicited to confirm support.

Table 3-4: Kissimmee MH & RV Park (CNE NB03)

Height	Length <sup>1</sup>	Location	Location	Location	Location	Location	Location	No. of		Reduct		Numbe	er of Benefit	ed Resid	dences	Impacted Res. Not	Total Estimated	Cost per Benefited
(feet) 8	(feet)		Impacts	5-5.9 dB(A)		≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Benefited <sup>4</sup>	Cost <sup>5</sup>	Residence					
8	1,580	ROW <sup>6</sup>	19	5	0	0	5	0	5	5.9	14	N/A 7	N/A 7					
10	1,580	ROW <sup>6</sup>	19	14	0	5	19	0	19	6.8	0	\$632,000	\$33,263					
12	1,580	ROW <sup>6</sup>	19	0	0	19	19	1	20	7.7	0	\$758,400	\$37,920					
14	1,580	ROW <sup>6</sup>	19	0	0	19	19	4	23	7.2	0	\$884,800	\$38,470					
16	1,580	ROW <sup>6</sup>	19	0	0	19	19	14	33	7.2	0	\$1,011,200	\$30,642					
18	1,580	ROW <sup>6</sup>	19	0	0	19	19	21	40	7.6	0	\$1,137,600	\$28,440					
20	1,580	ROW <sup>6</sup>	19	0	0	19	19	21	40	8.1	0	\$1,264,000	\$31,600					
22	1,580	ROW 6	19	0	0	19	19	24	43	8.2	0	\$1,390,400	\$32,335					

Full height is for the preliminary length indicated.

Note: Potential noise barriers are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as overhead utilities, drainage, etc., could alter barrier system placement, dimensions, and access. Such changes could render noise barriers no longer constructible or not meet FDOT noise abatement criteria. Assuming barriers are still feasible and reasonable in the design phase, community input may be solicited to confirm support.

#### 3.6.4. Multiple Single-Family Residences (NB04)

Multiple single-family residences are located on the northbound side of the CPP East new alignment between Ernie Caldwell Boulevard and south of Providence Boulevard (CNE NB04). This area is shown on sheets 5 through 9, and sheets 15 and 16 in the project aerials located in **Appendix E**. In this area, 15 NAC B receptor points representing 17 residences were added to the model. Eight of the receptors are located in areas where traffic noise is not the predominant noise source. For these residences, the average ambient noise measurement of 45.8 dB(A) was applied to represent the existing noise condition

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

 $<sup>^4</sup>$  Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Noise barrier located within the right of way of US 17/92.

Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor, so no further analysis was conducted.

instead of the TNM-predicted noise level. Refer to **Section 3.2** for more information on the field-measured ambient noise levels.

Additionally, the overall noise environment for this CNE includes noise from the adjacent CSX railroad. The contributing rail noise was added to the TNM noise predictions using the methodology discussed in **Section 3.6** and is summarized in **Appendix C**.

Noise levels at four residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 9.1 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A) over existing conditions) in traffic noise. The predicted residential noise levels are shown in **Appendix B-1**. Because a minimum of two impacted residences must be benefited for noise abatement to be feasible, noise abatement was not considered for the isolated impacted single-family residence (RNB04-06).

A noise barrier system was evaluated for three impacted residential sites to abate traffic-related noise. The barrier system requires gaps for driveway access to US 17/92, which limits the barrier's noise reduction effectiveness. For noise abatement evaluation, two scenarios were assessed to determine the scenario that is most beneficial to the impacted receptors. The first scenario, summarized in **Table 3-5**, reflects the noise barrier system's effectiveness with the influence of rail noise. The second scenario, summarized in **Table 3-6**, reflects the noise barrier system's effectiveness without the influence of rail noise. Based on the evaluation, both barrier scenarios could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors, but they exceed the allowable \$64,000 per benefited receptor. For this reason, noise barriers are not a feasible and reasonable option for providing noise abatement to these residential sites in CNE NB04.

Table 3-5: Single-Family Residences - With Rail Influence (CNE NB04)

Height	Length <sup>1</sup> Location			Location	Location	No. of		Reduct		Numbe	er of Benefite	d Resid	ences	Impacted Res. Not	Total Estimated	Cost per Benefited
(feet)	(feet) 851		Impacts	5-5.9 dB(A)		≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Benefited <sup>4</sup>	Cost 5	Residence			
8	851	ROW <sup>6</sup>	3	1	1	0	2	0	2	5.9	1	N/A 7	N/A 7			
10	523	ROW <sup>6</sup>	3	1	1	1	3	0	3	6.2	0	\$209,200	\$69,733			
12	434	ROW <sup>6</sup>	3	0	1	1	2	0	2	7.2	1	\$208,320	\$104,160			
14	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	6.8	0	\$243,040	\$81,013			
16	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	7.0	0	\$277,760	\$92,587			
18	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	7.2	0	\$312,480	\$104,160			
20	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	7.3	0	\$347,200	\$115,733			
22	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	7.4	0	\$381,920	\$127,307			

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated, including openings to accommodate driveways.

 $<sup>^{\</sup>rm 2}~$  Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Noise barrier located within the right of way of US 17/92.

<sup>7</sup> Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor, so no further analysis was conducted.

Table 3-6: Single-Family Residences – Without Rail Influence (CNE NB04)

Height	Length <sup>1</sup> (feet)	Location		Location	Location	No. of		Reduct		Numbe	er of Benefite	d Resid	ences	Impacted Res. Not	Total Estimated	Cost per Benefited
(feet)			Impacts	5-5.9 dB(A)	6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Benefited <sup>4</sup>		Residence			
8	851	ROW <sup>6</sup>	3	2	1	0	3	0	3	5.7	0	N/A 7	N/A 7			
10	523	ROW <sup>6</sup>	3	1	1	1	3	0	3	6.4	0	\$209,200	\$69,733			
12	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	6.7	0	\$208,320	\$69,440			
14	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	7.1	0	\$243,040	\$81,013			
16	434	ROW <sup>6</sup>	3	1	0	2	3	0	3	7.3	0	\$277,760	\$92,587			
18	434	ROW <sup>6</sup>	3	0	1	2	3	0	3	7.5	0	\$312,480	\$104,160			
20	434	ROW <sup>6</sup>	3	0	1	2	3	0	3	7.6	0	\$347,200	\$115,733			
22	434	ROW <sup>6</sup>	3	0	1	2	3	0	3	7.7	0	\$381,920	\$127,307			

Full height is for the length indicated, including openings to accommodate driveways.

#### 3.6.5. Providence and Kinney Harmon Cemetery (NB05)

The Providence neighborhood is located on the northbound side of the CPP East from south of Providence Boulevard to Ronald Reagan Parkway (CNE NB05). This area is shown on sheets 9 through 11 in the project aerials, located in **Appendix E.** In this area, 45 NAC B receptor points were added to the model to represent 45 residences. Also in CNE NB05 is the Kinney Harmon Cemetery, a NAC C receptor. Thirteen of the 45 residences are located in areas where traffic noise is not the predominant noise source. For these residences, the average ambient noise measurement of 45.8 dB(A) was applied to represent the existing noise condition instead of the TNM-predicted noise level. Refer to **Section 3.2** for more information on the field-measured ambient noise levels.

Of these 46 total receptors, five NAC B residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Additionally, 19 NAC B receptors, including the five impacted by noise levels, are impacted by a substantial increase (≥15 dB(A) over existing conditions), with the maximum predicted increase being 19.0 dB(A). The predicted residential noise levels are shown in **Appendix B-1**, and the SLU receptor noise levels are shown in **Appendix B-2**.

Noise barriers were evaluated for the 19 impacted residences at the Providence subdivision to abate traffic-related noise. Based on this evaluation, a potential noise barrier system located along the northbound shoulder, bridge structure, and mechanically stabilized earth (MSE) of the CPP East could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. This noise barrier will not exceed the allowable \$64,000 per benefited receptor and, therefore, noise barriers are a cost reasonable method to abate traffic-related noise impacts for the residences in CNE NB05. **Table 3-7** summarizes the barrier configurations evaluated for CNE NB05.

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Noise barrier located within the right of way of US 17/92.

<sup>7</sup> Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor, so no further analysis was conducted.

**Table 3-7: Providence (CNE NB05)** 

Height	Length <sup>1</sup>			Noise Reduction at Impacted Residences			Numbe	r of Benefite	ed Resid	lences	Impacted Res. Not	Total	Cost per Benefited
(feet)	(feet)	Location	NAC B Impacts		6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Benefited <sup>4</sup>	Estimated  Cost 5	Residence
22	396	ROW <sup>6</sup>											
8	306	ST <sup>7</sup>	19	4	3	12	19	22	41	6.7	0	\$1,854,240	\$45,225
14	2,514	SHLDR <sup>8</sup>											
8	306	ST <sup>7</sup>	19	5	5	9	19	18	37	6.2	0	\$1,505,760	\$40,696
14	2,514	SHLDR <sup>8</sup>	13	,	J	9	19	10	37	0.2	U	\$1,303,700	\$40,090

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

Note: Potential noise barriers are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as overhead utilities, drainage, etc., could alter barrier system placement, dimensions, and access. Such changes could render noise barriers no longer constructible or not meet FDOT noise abatement criteria. Assuming barriers are still feasible and reasonable in the design phase, community input may be solicited to confirm support.

The noise barrier system analyzed in CNE NB05 is the maximum height and length that was determined to be constructible. However, these potential dimensions are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as utilities, drainage, etc., could alter the barrier's placement, dimensions, and access. Such changes could render this noise barrier no longer constructible or not meet FDOT noise abatement criteria. Assuming the barrier is still feasible and reasonable in the design phase, community input may be solicited to confirm support.

#### 3.6.6. Vista Mar and Multiple Single-Family Residences (NB06)

The Vista Mar neighborhood and multiple single-family residences are located on the northbound side of the CPP East from Ronald Reagan Parkway to US 17/92 (CNE NB06). This area is shown on sheets 11 through 13 in the project aerials, located in **Appendix E.** In this area, 33 NAC B receptor points were added to the model to represent 69 residences. Of these receptors, six residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Additionally, 12 NAC B receptors are impacted by a substantial increase (≥15 dB(A) over existing conditions), with the maximum predicted increase being 17.3 dB(A). The predicted residential noise levels are shown in **Appendix B-1**.

Noise barriers were evaluated for the 18 total impacted residences to abate traffic-related noise. The existing pond adjacent to Vista Mar limits the ability to construct an effectively long noise barrier along the CPP East northbound ROW. Based on this evaluation, none of the potential noise barrier systems analyzed could meet the minimum requirement of a 5 dB(A) noise reduction at two impacted residences. For this reason, noise barriers are not a feasible and reasonable option for providing noise

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Noise barrier system located inside the CPP East right of way.

<sup>&</sup>lt;sup>7</sup> ST – Noise barrier system located on CPP East bridge structure and/or MSE.

<sup>&</sup>lt;sup>8</sup> SHLDR – Noise barrier system located on CPP East outside shoulder.

abatement to these residential sites. **Table 3-8** summarizes the barrier configurations evaluated for CNE NB06.

Table 3-8: Vista Mar and Single-Family Residences (CNE NB06)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of		Reduct		Numbe	er of Benefite	ed Resid	lences	Impacted Res. Not	Total Estimated	Cost per Benefited
(feet)			Impacts		6-6.9 dB(A)	-	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Renefited <sup>4</sup>		Residence
22	1,387	ROW <sup>6</sup>											
8	3,866	ST <sup>7</sup>	18	0	0	0	0	35	35	6	18	N/A 9	N/A 9
14	829	SHLDR <sup>8</sup>											

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

#### 3.6.7. Multiple Single-Family Residences (NB07)

Multiple single-family residences are located on the northbound side of the CPP East between US 17/92 and the project's terminus with the Poinciana Connector (SR 538) (CNE NB07). This area is shown on sheet 13 and sheet 14 in the project aerials located in **Appendix E**. In this area, three NAC B receptor points representing three residences were added to the model. One of the receptors is located in areas where traffic noise is not the predominant noise source. For this residence, the average ambient noise measurement of 45.8 dB(A) was applied to represent the existing noise condition instead of the TNM-predicted noise level. Refer to **Section 3.2** for more information on the field-measured ambient noise levels.

Additionally, the overall noise environment for this CNE includes noise from the adjacent CSX railroad. The contributing rail noise was added to the TNM noise predictions using the methodology discussed in **Section 3.6** and is summarized in **Appendix C**.

Noise levels at all three residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 8.2 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A)) in traffic noise when compared to the existing condition. The predicted noise levels are shown in **Appendix B-1**.

A noise barrier system was evaluated for the three impacted residential sites to abate traffic-related noise. The barrier system was analyzed on the northbound outside shoulder of the CPP East overpasses and MSE wall and is limited to a maximum height of 8 feet. For the noise abatement evaluation, two scenarios were assessed to determine the scenario that is most beneficial to the impacted receptors. The first scenario, summarized in **Table 3-9**, reflects the noise barrier system's effectiveness with the influence of rail noise. The second scenario, summarized in **Table 3-10**, reflects the effectiveness of the

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

 $<sup>^4</sup>$  Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Noise barrier system located inside the CPP East right of way.

<sup>7</sup> ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

<sup>&</sup>lt;sup>8</sup> SHLDR – Noise barrier system located on CPP East outside shoulder.

<sup>9</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

noise barrier system without the influence of rail noise. Based on this evaluation, regardless of rail noise, none of the analyzed noise barrier systems could attain the required minimum benefit of 5 dB(A) to two impacted residences. For this reason, noise barriers are not a feasible and reasonable option for providing noise abatement to these residential sites in CNE NB07.

Table 3-9: Single-Family Residences - With Rail Influence (CNE NB07)

	Uoight	Longth <sup>1</sup>		No. of		Reduct		Numb	er of Benefi	ted Resi	idences	Impacted	Total	Cost per
	(feet)	Length <sup>1</sup> (feet)	Location	NAC B Impacts	5-5.9 dB(A)	6-6.9 dB(A)	-	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Res. Not Benefited <sup>4</sup>	Estimated Cost 5	Benefited Residence
I	8	3,339	ST <sup>6</sup>	3	0	0	0	0	0	0	<5.0	3	N/A 7	N/A 7

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

Table 3-10: Single-Family Residences – Without Rail Influence (CNE NB07)

	l laicht	1 4 - 1		No. of		Reduct		Numb	er of Benefi	ted Resi	idences	Impacted	Total	Cost per
	(feet)	Length <sup>1</sup> (feet)	Location	NAC B Impacts		6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Res. Not Benefited <sup>4</sup>	Estimated  Cost 5	Benefited Residence
I	8	3,339	ST <sup>6</sup>	3	0	0	0	0	0	0	<5.0	3	N/A 7	N/A 7

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

#### 3.7. Noise Sensitive Area on the Southbound Side of CPP East

#### 3.7.1. Jamestown Residences, Churches, and Jamestown Park (SB01)

Multiple single-family residences in the Jamestown neighborhood are located on the southbound side of US 17/92 between the southern project terminus south of James Street and Bargain Barn Road (CNE SB01). This area is shown on sheet 1 in the project aerials located in **Appendix E**. The overall noise environment for this CNE includes noise from the adjacent CSX railroad. The contributing rail noise was added to the TNM noise predictions using the methodology discussed in **Section 3.6** and is summarized in **Appendix C**.

In this area, 17 NAC B receptor points were added to the model to represent 17 residences. Also in CNE SB01, there are four churches and the Jamestown Park basketball courts and playground, all NAC C receptors. Of these 23 receptors, one NAC B residence, the basketball courts, playground, and three churches are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

<sup>&</sup>lt;sup>7</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

year (2050). Noise levels are expected to increase up to 6.2 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A))in traffic noise when compared to the existing condition. The predicted residential noise levels are shown in **Appendix B-1**, and the SLU receptor noise levels are shown in **Appendix B-2**.

A noise barrier system was evaluated for the one impacted residence and the five impacted NAC C receptors to abate traffic-related noise. The barrier system requires gaps for cross street access to US 17/92, which limits the barrier's noise abatement effectiveness on some impacted receptors. Personhours of use for the NAC C receptors were calculated following the FDOT SLU special use abatement procedure outlined in **Section 3.5**. The Jamestown Park basketball courts, playground, and picnic pavilions were estimated to have 218 users per day, visiting for two hours/visitor. This conservative estimate equates to 158,704 annual person-hours and an Equivalent Residence (ER) value of 7.16. Each of the church entrances was estimated to have 100 users per day, visiting for 0.5 hours/visitor. This conservative estimate equates to 18,200 annual person-hours and an Equivalent Residence (ER) value of 0.82 per church. The total number of impacted ERs for the SLUs in CNE SB01 is 9.62. Refer to **Appendix E** for the SLU Equivalent Residence (ER) Barrier Evaluation, presenting the Benefited ER calculations for the four SLU receptors, which is a component of the overall abatement evaluation discussed below.

For the noise abatement acoustical evaluation, two scenarios were assessed to determine the scenario that is most beneficial to the impacted receptors. In both scenarios, a barrier system was evaluated at varying heights and lengths to determine potential noise reduction benefits. The noise barrier system does not provide a benefit to the impacted residential receptor with any evaluated configuration. Consequently, each scenario evaluated an optimized lowest cost configuration for the NAC C receptors. The first scenario, summarized in **Table 3-11**, reflects the noise barrier system's acoustical effectiveness with the influence of rail noise.

Table 3-11: Residential and SLU – With Rail Influence (CNE SB01)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of Impacted ERs <sup>2</sup>	Impacted and Benefited ERs <sup>3</sup>	Total Benefited ERs <sup>4</sup>	Avg. Reduction dB(A)	Total Estimated Cost <sup>5</sup>	Cost per Benefited ER	Barrier Feasible and Reasonable?
8	1,335	ROW <sup>6</sup>	9.62	3.60	3.58	6.2	\$427,200	\$119,330	No <sup>7, 8</sup>
10	1,335	ROW <sup>6</sup>	9.62	3.60	3.58	7.3	\$534,000	\$149,162	No <sup>8</sup>
12	1,335	ROW <sup>6</sup>	9.62	3.60	3.58	7.9	\$640,800	\$178,994	No <sup>8</sup>
14	822	ROW <sup>6</sup>	9.62	3.60	3.58	8.0	\$460,320	\$128,581	No <sup>8</sup>
16	1,335	ROW <sup>6</sup>	9.62	3.60	3.58	8.5	\$854,400	\$238,659	No <sup>8</sup>
18	1,335	ROW <sup>6</sup>	9.62	3.60	3.58	8.8	\$961,200	\$268,492	No <sup>8</sup>
20	1,335	ROW <sup>6</sup>	9.62	7.20	7.16	7.0	\$1,068,000	\$149,162	No <sup>8</sup>
22	1,335	ROW <sup>6</sup>	9.62	7.20	7.16	7.2	\$1,174,800	\$164,078	No <sup>8</sup>

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated.

<sup>&</sup>lt;sup>2</sup> ERs (Equivalent Residences) include NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Impacted NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>4</sup> All NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Right of Way noise barrier constructed on US 17/92.

<sup>&</sup>lt;sup>7</sup> Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor.

<sup>&</sup>lt;sup>8</sup> Barrier cannot meet FDOT's allowable cost threshold of \$64,000 per ER.

The evaluated noise barrier configurations with the addition of rail noise could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. However, the noise barrier system exceeds the allowable \$64,000 per benefited receptor under this scenario.

The second scenario, summarized in **Table 3-12**, reflects the effectiveness of the noise barrier system without the influence of rail noise. Without the rail noise, there is one less impacted NAC C receptor. This equates to a lower total number of impacted ERs in CNE SB01 of 8.80.

Table 3-12: Residential and SLU - Without Rail Influence (CNE SB01)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of Impacted ERs <sup>2</sup>	Impacted and Benefited ERs <sup>3</sup>	Total Benefited ERs <sup>4</sup>	Avg. Reduction dB(A)	Total Estimated Cost <sup>5</sup>	Cost per Benefited ER	Barrier Feasible and Reasonable?
8	1,335	ROW <sup>6</sup>	8.80	3.60	3.58	6.6	\$427,200	\$119,330	No <sup>7, 8</sup>
10	1,335	ROW <sup>6</sup>	8.80	3.60	3.58	7.8	\$534,000	\$149,162	No <sup>8</sup>
12	1,335	ROW <sup>6</sup>	8.80	3.60	3.58	6.8	\$640,800	\$178,994	No <sup>8</sup>
14	822	ROW <sup>6</sup>	8.80	7.20	7.16	6.9	\$460,320	\$64,291	No <sup>8</sup>
16	1,335	ROW <sup>6</sup>	8.80	7.20	7.16	6.8	\$854,400	\$119,330	No <sup>8</sup>
18	1,335	ROW <sup>6</sup>	8.80	7.20	7.16	7.0	\$961,200	\$134,246	No <sup>8</sup>
20	1,335	ROW <sup>6</sup>	8.80	7.20	7.16	7.2	\$1,068,000	\$149,162	No <sup>8</sup>
22	1,432	ROW <sup>6</sup>	8.80	8.80	8.80	6.0	\$1,260,160	\$143,200	No <sup>8</sup>

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated.

The evaluated noise barrier configurations without the addition of rail noise could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. However, the noise barrier system exceeds the allowable \$64,000 per benefited receptor under this scenario. For this reason, noise barriers are not a feasible and reasonable option for providing noise abatement for CNE SB01.

#### 3.7.2. Horse Creek Village, and Shady Oaks MH Park (SB02)

Horse Creek Village and the Shady Oaks Mobile Home Park are located on the southbound side of US 17/92 between Bargain Barn Road and Lem Carnes Road(CNE SB02). This area is shown on sheets 1 through 3 in the project aerials located in **Appendix E**. The overall noise environment for this CNE includes noise from the adjacent CSX railroad. The contributing rail noise was added to the TNM noise predictions using the methodology discussed in **Section 3.6** and is summarized in **Appendix C**.

In this area, 47 NAC B receptor points were added to the model to represent 59 residences. Also in CNE SB02 are the Horse Creek Village community pool and a basketball court, both NAC C receptors. Noise levels at 27 residences and both NAC C receptors are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 9.2 dB(A);

<sup>&</sup>lt;sup>2</sup> ERs (Equivalent Residences) include NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Impacted NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>4</sup> All NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Right of Way noise barrier constructed on US 17/92.

Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor.

<sup>&</sup>lt;sup>8</sup> Barrier cannot meet FDOT's allowable cost threshold of \$64,000 per ER.

therefore, no receptor experiences a substantial increase (≥15 dB(A)) in traffic noise when compared to the existing condition. The predicted residential noise levels are shown in **Appendix B-1**, and the SLU receptor noise levels are shown in **Appendix B-2**.

A noise barrier system was evaluated to abate traffic-related noise for the 27 impacted residences and the Horse Creek Village pool and basketball court. The barrier system, evaluated behind the southbound sidewalk, requires gaps for driveway access to US 17/92. Person-hours of use for the NAC C receptors were calculated following the FDOT SLU special use abatement procedure outlined in **Section 3.5**. The pool and basketball courts were estimated to have a maximum of 127 users per day, visiting for one hour/visitor. This conservative estimate equates to 46,228 annual person-hours and an ER value of 2.09. Refer to **Appendix E** for the SLU Equivalent Residence (ER) Barrier Evaluation, presenting the Benefited ER calculations for the four SLU receptors, which is a component of the overall abatement evaluation discussed below.

For the noise abatement evaluation, two scenarios were assessed to determine the scenario that is most beneficial to the impacted receptors. The first scenario reflects the noise barrier system's effectiveness with the influence of rail noise. Including both residential and SLU impacts, the total number of impacted ERs for this scenario is 29.09. The evaluated noise barrier configurations with the addition of rail noise could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors, as shown in **Table 3-13**. However, the noise barrier system exceeds the allowable \$64,000 per benefited receptor under this scenario.

Table 3-13: Horse Creek Village and Shady Oaks MH Park - With Rail Influence (CNE SB02)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of Impacted ERs <sup>2</sup>	Impacted and Benefited ERs <sup>3</sup>	Total Benefited ERs <sup>4</sup>	Avg. Reduction dB(A)	Max Reduction dB(A)	Total Estimated Cost <sup>5</sup>	Cost per Benefited ER	Barrier Feasible and Reasonable?
8	2,026	ROW <sup>6</sup>	29.09	2.00	2.00	6.8	8.1	\$648,320	\$324,160	No <sup>7</sup>
10	1,373	ROW <sup>6</sup>	29.09	2.00	2.00	6.8	8.1	\$549,200	\$274,600	No <sup>7</sup>
12	1,424	ROW <sup>6</sup>	29.09	10.00	10.04	6.4	9.2	\$683,520	\$68,080	No <sup>7</sup>
14	1,764	ROW <sup>6</sup>	29.09	12.00	12.04	7.0	10.0	\$987,840	\$82,047	No <sup>7</sup>
16	2,026	ROW <sup>6</sup>	29.09	17.00	17.04	7.1	10.5	\$1,296,640	\$76,094	No <sup>7</sup>
18	1,961	ROW <sup>6</sup>	29.09	21.00	22.04	7.4	11.2	\$1,411,920	\$64,062	No <sup>7</sup>
20	1,918	ROW <sup>6</sup>	29.09	22.00	23.04	7.2	11.9	\$1,534,400	\$66,597	No <sup>7</sup>
22	1,864	ROW <sup>6</sup>	29.09	22.00	25.04	7.4	12.5	\$1,640,320	\$65,508	No <sup>7</sup>

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated.

The second scenario, summarized in **Table 3-14,** reflects the effectiveness of the noise barrier system without the influence of rail noise. Without the rail noise, there are five fewer impacted residential receptors. Including both residential and SLU impacts, the total number of impacted ERs for this scenario is 24.09. However, under this scenario, a potential noise barrier system could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. This

<sup>&</sup>lt;sup>2</sup> ERs (Equivalent Residences) include NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Impacted NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>4</sup> All NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Right of Way noise barrier constructed on US 17/92.

<sup>&</sup>lt;sup>7</sup> Barrier cannot meet FDOT's allowable cost threshold of \$64,000 per ER.

noise barrier will not exceed the allowable \$64,000 per benefited receptor and, therefore, is a cost reasonable method to abate traffic-related noise impacts for the residences in CNE SB02.

The noise barrier system analyzed in CNE SB02 is the maximum height and length that was determined to be constructible. However, these potential dimensions are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as utilities, drainage, etc., could alter the barrier's placement, dimensions, and access. Such changes could render this noise barrier no longer constructible or not meet FDOT noise abatement criteria. Assuming the barrier is still feasible and reasonable in the design phase, community input may be solicited to confirm support.

Table 3-14: Horse Creek Village and Shady Oaks MH Park - Without Rail Influence (CNE SB02)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of Impacted ERs <sup>2</sup>	Impacted and Benefited ERs <sup>3</sup>	Total Benefited ERs <sup>4</sup>	Avg. Reduction dB(A)	Max Reduction dB(A)	Total Estimated Cost <sup>5</sup>	Cost per Benefited ER	Barrier Feasible and Reasonable?
8	2,026	ROW <sup>6</sup>	24.09	6.00	6.04	5.9	8.5	\$648,320	\$107,338	No <sup>7</sup>
10	1,373	ROW <sup>6</sup>	24.09	6.00	6.04	5.9	8.5	\$549,200	\$90,927	No <sup>7</sup>
12	1,424	ROW <sup>6</sup>	24.09	11.00	11.04	6.6	9.7	\$683,520	\$61,913	Yes
14	1,764	ROW <sup>6</sup>	24.09	22.00	25.04	6.7	10.6	\$987,840	\$39,450	Yes
16	2,026	ROW <sup>6</sup>	24.09	23.00	39.04	6.7	11.5	\$1,296,640	\$33,213	Yes
18	1,961	ROW <sup>6</sup>	24.09	23.00	52.04	6.7	12.5	\$1,411,920	\$27,131	Yes
20	2,004	ROW <sup>6</sup>	24.09	23.00	58.04	6.8	13.5	\$1,603,200	\$27,622	Yes
22	1,864	ROW <sup>6</sup>	24.09	23.00	58.04	7.0	14.2	\$1,640,320	\$28,262	Yes

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated.

#### 3.7.3. No Noise Sensitive Sites (SB03)

There are no noise sensitive sites located on the southbound side of US 17/92 between Lem Carnes Road and Ernie Caldwell Boulevard (CNE SB03). This area is shown on sheets 4 and 5 in the project aerials located in **Appendix E**.

#### 3.7.4. Preservation Pointe and Williams Preserve (SB04)

Two subdivisions, Preservation Pointe and Williams Preserve, are located on the southbound side of the CPP East new alignment between Ernie Caldwell Boulevard and south of Providence Boulevard (CNE SB04). This area is shown on sheets 6 through 9, in the project aerials located in **Appendix E**. In this area, 24 NAC B receptor points representing 24 residences were added to the model. Preservation Pointe is currently under construction. All residential parcels with an active building permit as of August 6, 2025, were included in the analysis. A land use review will be performed during the design phase to identify if this development received residential building permits subsequent to the noise study but prior to the project's Date of Public Knowledge (DPK). All homes that receive a building permit prior to the DPK will be included in the design analysis.

Each of these analyzed receptors is located in areas where traffic noise is not the predominant noise source. For these residences, the average ambient noise measurement of 45.8 dB(A) was applied to

<sup>&</sup>lt;sup>2</sup> ERs (Equivalent Residences) include NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

 $<sup>^{3}</sup>$  Impacted NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

 $<sup>^4</sup>$   $\,$  All NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Right of Way noise barrier constructed on US 17/92.

<sup>&</sup>lt;sup>7</sup> Barrier cannot meet FDOT's allowable cost threshold of \$64,000 per ER.

represent the existing noise condition instead of the TNM-predicted noise level. Refer to **Section 3.2** for more information on the field-measured ambient noise levels.

Additionally, the overall noise environment for this CNE includes noise from the adjacent CSX railroad. The contributing rail noise was added to the TNM noise predictions using the methodology discussed in **Section 3.6** and is summarized in **Appendix C**.

Noise levels at all but one residence are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 1.7 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A)) in traffic noise when compared to the existing condition. The predicted residential noise levels are shown in **Appendix B-1**.

A noise barrier system was evaluated for 23 impacted residential sites to abate traffic-related noise. For the noise abatement evaluation, two scenarios were assessed to determine the scenario that is most beneficial to the impacted receptors. The first scenario, summarized in **Table 3-15**, reflects the effectiveness of the noise barrier system with the influence of rail noise. The evaluated noise barrier configurations with this scenario cannot provide a 5 dB(A) reduction at two or more impacted receptors.

Table 3-15: Single-Family Residences - With Rail Influence (CNE SB04)

11-1-64	1		No. of		e Reduc	tion at idences	Numbe	er of Benefite	d Resid	ences	Impacted	Total	Cost per
Height (feet)	Length <sup>1</sup> (feet)	Location	NAC B Impacts	5-5.9 dB(A)		≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Res. Not Benefited <sup>4</sup>	Estimated Cost 5	Benefited Residence
8	172	ST <sup>6</sup>	23	0	0	0	0	0	0	<5.0	23	N/A <sup>8</sup>	N/A <sup>8</sup>
14	2,498	SHLDR 7	23	"	0	U	0	U	U	<b>\</b> 3.0	23	N/A	N/A
14	2,033	SHLDR <sup>7</sup>	23	0	0	0	0	0	0	<5.0	23	N/A <sup>8</sup>	N/A <sup>8</sup>
13	2,498	SHLDR <sup>7</sup>	23	0	0	0	0	0	0	<5.0	23	N/A <sup>8</sup>	N/A <sup>8</sup>

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

The second scenario, summarized in **Table 3-16**, reflects the effectiveness of the noise barrier system without the influence of rail noise. Without the rail noise, there are only six impacted receptors as compared to 23 impacts with the addition of rail noise. These six impacts are all from substantial noise increases. The evaluated noise barrier configurations without the rail influence could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. However, the noise barrier system exceeds the allowable \$64,000 per benefited receptor. For this reason, noise barriers are not a feasible and reasonable option for providing noise abatement to the impacted residential sites in CNE SB04.

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

 $<sup>^{5}</sup>$  Unit cost of \$40/ft $^{2}$  for all barrier segments.

 $<sup>^{6}~{</sup>m ST-Noise}$  barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

 $<sup>^{7}\,</sup>$  SHLDR – Noise barrier system located on CPP East outside shoulder.

<sup>&</sup>lt;sup>8</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

Table 3-16: Single-Family Residences – Without Rail Influence (CNE SB04)

11-1-64	1		No. of		e Reduc	tion at idences	Numbe	er of Benefite	d Resid	ences	Impacted	Total	Cost per
(feet)	Length <sup>1</sup> (feet)	Location	NAC B Impacts	5-5.9 dB(A)	6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Res. Not Benefited <sup>4</sup>	Estimated Cost 5	Benefited Residence
8	172	ST <sup>6</sup>	6	_	4	2	6	6	12	6.1	0	\$1,453,920	\$121,160
14	2,498	SHLDR <sup>7</sup>	6	U	4	2	0	0	12	0.1	U	\$1,455,920	\$121,100
14	2,033	SHLDR <sup>7</sup>	6	2	3	1	6	6	12	5.9	0	\$1,138,480	\$94,873
13	2,498	SHLDR <sup>7</sup>	6	4	2	0	6	6	12	5.7	0	N/A <sup>8</sup>	N/A <sup>8</sup>

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

#### 3.7.5. Aviana (SB05) and Pointe Grand Apartments (SB06)

The Aviana neighborhood (CNE SB05) and the Pointe Grand apartment complex (CNE SB06) are located on the southbound side of the CPP East from south of Providence Boulevard to Ronald Reagan Parkway. These areas are shown on sheets 9 through 11 in the project aerials, located in **Appendix E.** A planned residential community called Townhomes at Vista Village has been identified in CNE SB05 adjacent to US 17/92. As of August 6, 2025, there were no active building permits for noise-sensitive land uses. A land use review will be performed during the design phase to identify if this development received residential building permits subsequent to the noise study but prior to the project's Date of Public Knowledge (DPK). All homes that receive a building permit prior to the DPK will be included in the design analysis.

In the Aviana neighborhood, 48 NAC B receptor points were added to the model to represent 58 residences. Eleven of these 58 residences are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 13.6 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A))in traffic noise when compared to the existing condition.

In the 3-story Pointe Grand Apartments, 24 NAC B receptor points were added to the model to represent 60 apartment units with balconies or lanais. Forty of these 60 units are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 6.4 dB(A); therefore, no receptor experiences a substantial increase (≥15 dB(A)) in traffic noise when compared to the existing condition. The predicted residential noise levels for both CNEs are shown in **Appendix B-1**.

Noise barriers were evaluated for the 51 total impacted receptors to abate traffic-related noise in CNE SB05 and CNE SB06. A noise barrier system consisting of a segment within the southbound CPP East ROW and a segment on the southbound outside shoulder of the CPP East did not benefit a minimum of two impacted receptors. Consequently, a noise barrier system located within the FDOT US 17/92 southbound ROW, incorporating two access openings, was evaluated as an abatement measure.

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

 $<sup>^{\</sup>rm 3}$   $\,$  Benefited residences with predicted noise levels that do not approach the NAC.

 $<sup>^4</sup>$  Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

 $<sup>^{5}</sup>$  Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

 $<sup>^{6}\,\,</sup>$  ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

<sup>&</sup>lt;sup>7</sup> SHLDR – Noise barrier system located on CPP East outside shoulder.

<sup>8</sup> Noise barrier system did not meet the noise reduction design goal of 7 dB(A) at any receptor, so no further analysis was conducted.

Based on this evaluation, a potential noise barrier system located inside the FDOT US 17/92 southbound ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. This noise barrier will not exceed the allowable \$64,000 per benefited receptor and, therefore, noise barriers are a cost reasonable method to abate traffic-related noise impacts for the residences in CNEs SB05 and SB06. **Table 3-17** summarizes the barrier configurations evaluated for these two areas.

Table 3-17: Aviana (CNE SB05) and Pointe Grand Apartments (CNE SB06)

Height	1		No. of		e Reduc	tion at idences	Numbe	r of Benefite	ed Resid	ences	Impacted	Total	Cost per
(feet)	Length <sup>1</sup> (feet)	Location	NAC B Impacts	5-5.9 dB(A)	6-6.9 dB(A)	≥ 7.0 dB(A)	Impacted <sup>2</sup>	Not Impacted <sup>3</sup>	Total	Avg. Reduction dB(A)	Res. Not Benefited <sup>4</sup>	Estimated  Cost 5	Benefited Residence
8	5,051	ST <sup>7</sup>											
14	3,079	SHLDR <sup>8</sup>	51	0	0	0	0	15	15	5.6	51	N/A 10	N/A 10
22	4,834	ROW <sup>6</sup>											
14	2,258	ROW 9	51	12	8	0	20	0	20	5.7	31	N/A 11	N/A 11
16	2,258	ROW 9	51	18	0	8	26	0	26	5.9	25	\$1,445,120	\$55,582
18	2,258	ROW 9	51	24	0	8	32	2	34	5.9	19	\$1,625,760	\$47,816
20	2,258	ROW 9	51	18	6	8	32	2	34	6.2	19	\$1,806,400	\$53,129
22	2,258	ROW 9	51	6	6	20	32	4	36	6.2	19	\$1,987,040	\$55,196

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.

Note: Potential noise barriers are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as overhead utilities, drainage, etc., could alter barrier system placement, dimensions, and access. Such changes could render noise barriers no longer constructible or not meet FDOT noise abatement criteria. Assuming barriers are still feasible and reasonable in the design phase, community input may be solicited to confirm support.

The noise barrier system analyzed in CNE SB05 and SB06 is the maximum height and length that was determined to be constructible. However, these potential dimensions are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as utilities, drainage, etc., could alter the barrier's placement, dimensions, and access. Such changes could render this noise barrier no longer constructible or not meet FDOT noise abatement criteria. Assuming the barrier is still feasible and reasonable in the design phase, community input may be solicited to confirm support.

## 3.7.6. Multiple Single-Family Residences, Churches, and The Learning Experience Preschool (SB07 and SB08)

Multiple single-family residences are located on the southbound side of the CPP East between Ronald Reagan Parkway and the project's terminus with the Poinciana Connector (SR 538) (CNE SB07). This area is shown on sheets 11 through 14 in the project aerials located in **Appendix E**.

<sup>&</sup>lt;sup>2</sup> Benefited residences with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Benefited residences with predicted noise levels that do not approach the NAC.

<sup>&</sup>lt;sup>4</sup> Impacted residences that do not receive a minimum 5 dB(A) reduction from analyzed noise barrier system.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

 $<sup>^{\</sup>rm 6}~$  ROW – Noise barrier system located inside the CPP East right of way.

<sup>&</sup>lt;sup>7</sup> ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

<sup>&</sup>lt;sup>8</sup> SHLDR – Noise barrier system located on CPP East outside shoulder.

<sup>&</sup>lt;sup>9</sup> ROW – Noise barrier system located inside the FDOT US 17/92 right of way.

<sup>10</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

Noise barrier system did not meet the noise reduction design goal of 7 dB(A), so no further analysis was conducted.

In CNE SB07, three NAC B receptor points were added to the model to represent three residences. Also in this area are two NAC C receptors, The Learning Experience Preschool playground, and the Casa De Israel Yarah Church. One of the three residences and the church is expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Additionally, one residence and the preschool are impacted by a substantial increase (≥15 dB(A) over existing conditions) with the maximum predicted increase being 18.2 dB(A). A total of two NAC B and two NAC C receptors in CNE SB07 require abatement consideration.

In CNE SB08, the overall noise environment includes noise from the adjacent CSX railroad. The contributing rail noise was added to the TNM noise predictions using the methodology discussed in **Section 3.6** and is summarized in **Appendix C**. Thirteen NAC B receptor points were added to the model to represent 13 residences. Also in this area are three NAC C receptors, a neighborhood basketball court, the Church of God & Pillar of Zion, and the Antioch Missionary Baptist Church. Seven of the 13 NAC B receptors are expected to approach or exceed the 66 dB(A) NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 14.7 dB(A); therefore, no receptor experiences a substantial increase ( $\geq$ 15 dB(A))in traffic noise when compared to the existing condition. The predicted residential noise levels for both CNEs are shown in **Appendix B-1**, and the SLU receptor noise levels are shown in **Appendix B-2**.

A noise barrier system was evaluated to abate traffic-related noise for the nine impacted NAC B residential sites in both CNEs and the two NAC C receptors (the preschool and church) in CNE SB07. The barrier system was analyzed with a combination of noise barrier segments within the CPP East ROW, and on the outside shoulder of the southbound CPP East overpasses and MSE walls. Person-hours of use for the NAC C receptors were calculated following the FDOT SLU special use abatement procedure outlined in **Section 3.5**. The Learning Experience Preschool was estimated to have a maximum of 287 users per day, based on an enrollment capacity of 215 and an estimated staff ratio of 1:6. It was assumed that usage of the playground would be for one hour/visitor. This conservative estimate equates to 68,880 annual person-hours and an Equivalent Residence (ER) value of 3.11. The Casa De Israel Yarah Church front entrance was estimated to have a maximum of 100 users per day, visiting for 0.5 hours/visitor. This conservative estimate equates to 18,200 annual person-hours and an ER value of 0.82 per church. The total number of impacted ERs for the SLUs in CNE SB07 is 3.93. Refer to **Appendix E** for the SLU Barrier Evaluation, presenting the Benefited ER calculations for the four SLU receptors, which is a component of the overall abatement evaluation discussed below.

Because there is a rail noise contribution in CNE SB08, two potential noise barrier scenarios were assessed to determine the scenario that is most beneficial to the impacted receptors. The first scenario, summarized in **Table 3-18**, reflects the noise barrier system's effectiveness with the influence of rail noise. The second scenario, summarized in **Table 3-19**, reflects the noise barrier system's effectiveness without the influence of rail noise. Note that when rail noise is not added to CNE SB08, two additional NAC B receptors and the Church of God & Pillar of Zion NAC C receptor, with an ER value of 0.82, are impacted by traffic noise levels.

Table 3-18: Single-Family Residences - With Rail Influence (CNE SB07 and CNE SB08)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of Impacted ERs <sup>2</sup>	Impacted and Benefited ERs <sup>3</sup>	Total Benefited ERs <sup>4</sup>	Avg. Reduction dB(A)	Max Reduction dB(A)	Total Estimated Cost <sup>5</sup>	Cost per Benefited ER	Barrier Feasible and Reasonable?
8	7,536	ST <sup>7</sup>	12.02	0.00	0.00	1.9	4.4	N/A <sup>9</sup>	N/A <sup>9</sup>	No <sup>9</sup>
14	1,171	SHLDR <sup>8</sup>	12.93	0.00	0.00	1.9	4.4	N/A	N/A	NO
8	7,536	ST <sup>7</sup>								
14	1,171	SHLDR <sup>8</sup>	12.93	1.00	2.00	7.1	7.6	\$6,870,640	\$3,435,320	No <sup>10</sup>
22	4,322	ROW <sup>6</sup>								
8	3,469	ST <sup>7</sup>	12.93	1.00	2.00	7.1	7.6	\$2,894,720	\$1,447,360	No <sup>10</sup>
22	2,028	ROW <sup>6</sup>	12.93	1.00	2.00	7.1	7.0	72,034,720	71,447,300	INO

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated.

Table 3-19: Single-Family Residences – Without Rail Influence (CNE SB07 and CNE SB08)

Height (feet)	Length <sup>1</sup> (feet)	Location	No. of Impacted ERs <sup>2</sup>	Impacted and Benefited ERs <sup>3</sup>	Total Benefited ERs <sup>4</sup>	Avg. Reduction dB(A)	Max Reduction dB(A)	Total Estimated Cost <sup>5</sup>	Cost per Benefited ER	Barrier Feasible and Reasonable?
8	7,536	ST <sup>7</sup>	15 75	0.00	0.00	3.0	4.4	N/A <sup>9</sup>	N/A <sup>9</sup>	No <sup>9</sup>
14	1,171	SHLDR <sup>8</sup>	15.75	0.00	0.00	3.0	4.4	N/A	N/A	NO
8	7,536	ST <sup>7</sup>								
14	1,171	SHLDR <sup>8</sup>	15.75	4.00	4.00	6.7	8.4	\$6,870,640	\$1,717,660	No <sup>10</sup>
22	4,322	ROW <sup>6</sup>	13.75							
8	3,469	ST <sup>7</sup>	15.75	4.00	4.00	5.7	7.1	\$2,894,720	\$723,680	No <sup>10</sup>
22	2,028	ROW <sup>6</sup>		4.00	4.00	5.7	7.1	72,034,720	7123,000	INO

<sup>&</sup>lt;sup>1</sup> Full height is for the length indicated.

Based on the abatement evaluation, neither abatement scenario provides a benefit to the impacted SLU receptors. The potential noise barrier system with rail influence could not attain the required minimum benefit of 5 dB(A) to two impacted residences. While the potential noise barrier system without rail influence does attain the acoustic requirements, it will exceed the allowable \$64,000 per benefited receptor. For these reasons, noise barriers are not a feasible and reasonable option for providing noise abatement for CNE SB07 and CNE SB08.

<sup>&</sup>lt;sup>2</sup> ERs (Equivalent Residences) include NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Impacted NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>4</sup> All NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Right of Way noise barrier located inside CPP East right of way.

<sup>&</sup>lt;sup>7</sup> ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

<sup>&</sup>lt;sup>8</sup> SHLDR – Noise barrier system located on CPP East outside shoulder.

<sup>&</sup>lt;sup>9</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

<sup>&</sup>lt;sup>10</sup> Barrier cannot meet FDOT's allowable cost threshold of \$64,000 per ER.

<sup>&</sup>lt;sup>2</sup> ERs (Equivalent Residences) include NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>3</sup> Impacted NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

 $<sup>^4</sup>$  All NAC B and NAC C receptors that receive at least 5 dB(A) reduction from proposed noise barrier.

<sup>&</sup>lt;sup>5</sup> Unit cost of \$40/ft<sup>2</sup> for all barrier segments.

<sup>&</sup>lt;sup>6</sup> ROW – Right of Way noise barrier located inside CPP East right of way.

<sup>&</sup>lt;sup>7</sup> ST – Noise barrier system located on CPP East bridge structure and/or mechanically stabilized earth (MSE).

<sup>&</sup>lt;sup>8</sup> SHLDR – Noise barrier system located on CPP East outside shoulder.

<sup>9</sup> Noise barrier system did not benefit a minimum requirement of two impacted residences, so no further analysis was conducted.

<sup>&</sup>lt;sup>10</sup> Barrier cannot meet FDOT's allowable cost threshold of \$64,000 per ER.

#### 4.0 CONCLUSIONS

Within the project limits, noise levels were predicted at 354 noise receptor locations, representing 481 residences and 16 SLU sites. Of these sites, noise levels at 159 residences and eight SLU sites are predicted to approach or exceed the NAC in the design year (2050) for the Build condition. Additionally, 27 residences and one SLU site are expected to have a substantial noise increase [≥15 dB(A)] over existing noise conditions. Nine residences are expected to have both a substantial noise increase and noise levels that approach or exceed the NAC.

The project is expected to impact a total of 195 residences and nine SLU sites (with the Equivalent Residential (ER) value of 15.64), when contributing railroad noise is included. Because a noise barrier must benefit a minimum of two impacted noise sensitive sites for a noise barrier to be feasible, noise abatement was not considered for three isolated receptors.

Twelve noise barriers were evaluated for the remaining 183 impacted residences and the nine impacted SLU sites. The results of the noise barrier evaluation conclude that eight of the evaluated noise barriers do not meet the FDOT noise abatement feasibility and/or reasonableness criteria, as summarized by common noise environment in **Table 4-1**.

The four noise barrier systems found to be a feasible and/or reasonable method to abate traffic-related noise impacts will provide at least a 5 dB(A) benefit to 97 impacted residences in five common noise environments, as shown in **Table 4-2**.

Table 4-1: Evaluated Noise Barriers that are Not Feasible and Reasonable

Common Noise Environment (CNE)	Number of Impacted Residences & SLU Equivalent	Analyzed Noise Barrier System Location	Analyzed Barrier System Height (ft)	Analyzed Barrier System Length (ft)	& ERs Po Benefited b	Receptors stentially by Analyzed Barrier <sup>5</sup>	Does Barrier System Meet Minimum Benefit Feasibility	Does Barrier System Meet	Is Barrier System Cost- Reasonable? <sup>8</sup>	Probable Cause For Not Meeting Feasbility and Reasonableness Criteria
(CIVE)	Residences (ERs) <sup>1</sup>	Location	neight (it)	Length (it)	Impacted	Total	Requirement? 6	NRDG? 7		
NB01	3	ROW <sup>2</sup>	18	546	2	3	Yes	Yes	No	Accommodating mulitple cross street access reduces the noise barrier system's ability to benefit more receptors in this low-density area.
NB02	16	ROW <sup>2</sup>	22	731	2	0	Yes	Yes		Accommodating mulitple, closely-spaced driveways reduces the noise barrier system's ability to benefit more receptors in this low-density area.
NB04	3	ROW <sup>2</sup>	14	434	3	3	Yes	Yes	No	Accommodating mulitple cross street access reduces the noise barrier system's ability to benefit more receptors in this low-density area.
		ROW <sup>2</sup>	22	1,387						Existing pond limits ability to construct a ROW barrier to provide noise reduction to impacted receptors. CPP East is
NB06	18	ST <sup>3</sup>	8	3,866 829	0	35	No	N/A <sup>6</sup>	N/A <sup>6</sup>	elevated for majority of the CNE which limits potential barrier heights to 8' on structure/MSE wall and 14' on the shoulder.
NB07	3	ST <sup>3</sup>	8	3,339	0	0	No	N/A <sup>6</sup>	I NI/A °	CPP East is elevated through the CNE which limits potential barrier heights to 8' on structure and MSE wall.
SB01	8.8	ROW <sup>2</sup>	14	822	7	7	Yes	Yes		Accommodating mulitple cross street access reduces the noise barrier system's ability to benefit more receptors in this low-density area.
SB04	23	SHLDR <sup>3</sup>	14	2,033	6	6	Yes	Yes	No	More than half of impacted receptors are located at too great a distance to benefit from any noise barrier configuration. CPP East is elevated approx. 17' higher than the ROW ground in most locations.
		ST <sup>3</sup>	8	3,469						Majority of impacted receptors in this low density area are located at too great a distance to benefit from noise barrier. CPP East is elevated approx. 20' higher than ROW
SB07 & SB08	16	ROW <sup>2</sup>	22	2,028	4	4	Yes	Yes	No	ground in most locations, and is predominantly on MSE with several bridges. This limits the possible barrier heights needed to achieve greater benefits.

<sup>&</sup>lt;sup>1</sup> Includes both NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

<sup>&</sup>lt;sup>2</sup> ROW - Noise barrier located within Florida's Turnpike Enterprise or FDOT right of way.

<sup>&</sup>lt;sup>3</sup> ST- Noise barrier located on the shoulder of the roadway bridge structure or mechanically-stabilized earth (MSE).

<sup>&</sup>lt;sup>4</sup> SHLDR - Noise barrier located on the roadway outside shoulder.

<sup>&</sup>lt;sup>5</sup> Noise reduction of at least 5 dB(A) is required to be considered benefited from the analyzed noise barrier.

<sup>&</sup>lt;sup>6</sup> Noise barrier system did not benefit a minimum requirement of 5 dB(A) noise reduction for two impacted residences, so no further analysis was conducted.

<sup>&</sup>lt;sup>7</sup> Noise barrier system did not meet the FDOT Noise Reduction Design Goal (NRDG) of 7 dB(A) at any receptor, so no further analysis was conducted.

<sup>&</sup>lt;sup>8</sup> Noise barrier exceeds the reasonable cost guideline of \$64,000 per benefited receptor (or benefited equivalent receptor)

#### 4.1. Statement of Likelihood

FTE is committed to the construction of feasible and reasonable noise abatement measures. Four potentially feasible and reasonable noise barrier systems have been identified for this project (see **Table 4-2** for more detail on the noise barriers) contingent upon the following conditions:

- Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
- Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to FTE; and
- Safety and engineering aspects have been reviewed, and any conflicts or issues resolved.

During the design phase, a land use review will be performed to identify all noise sensitive sites that may have received a building permit subsequent to the noise study but prior to the project's Date of Public Knowledge (DPK). The date that the State Environmental Impact Report (SEIR) is approved by FTE will be the DPK. If the review identifies noise sensitive sites that have been permitted prior to the DPK, then those sensitive sites will be evaluated during the design phase for traffic noise impacts and abatement considerations.

Table 4-2: Potentially Feasible and Reasonable Noise Barrier Evaluation Summary

Common Noise Environment (CNE)	Number of Impacted Residences & SLU Equivalent Residences	Noise Barrier Approx. Begin	Noise Barrier Approx. End	Preliminary Noise Barrier Height (ft)	Preliminary Noise Barrier	Preliminary Noise Barrier	Preliminary Noise Barrier Cost <sup>3</sup>	Number of R ERs Potentia by a Noise	lly Benefited	Cost Per Benefited
	(ERs) <sup>1</sup>	Station	Station		Length (ft) <sup>2</sup>	Location	Cost	Impacted	Total	Residence
			NOISE E	ARRIERS NORTHBOU	IND SIDE OF US 1	7/92				
<b>NB03</b> Kissimmee MH & RV Resort	19	85+20	101+00	22	1,580	ROW <sup>5</sup>	\$1,390,400	19	43	\$32,335
			NOISE E	BARRIERS SOUTHBOU	ND SIDE OF US 17	7/92				
		1048+15	1053+80	22	547	ROW <sup>5</sup>				
		1054+10	1057+00	22	301	ROW <sup>5</sup>				
SB02		1057+65	1060+50	22	283	ROW <sup>5</sup>				
Horse Creek Village & Shady Oaks	24.09 <sup>8</sup>	1060+80	1062+10	22	127	ROW <sup>5</sup>	\$1,640,320	23.00	58.04	\$28,262
,		1062+40	1064+15	22	172	ROW <sup>5</sup>				
		1064+40	1067+20	22	278	ROW <sup>5</sup>				
		1067+40	1069+00	22	156	ROW <sup>5</sup>				
		N/A	N/A	22	574	ROW <sup>5</sup>				
<b>SB05</b> Aviana <b>SB06</b> Pointe Grand Apts	51	N/A	N/A	22	1,124	ROW <sup>5</sup>	\$1,987,040	32	36	\$55,196
, ,		N/A	N/A	22	560	ROW <sup>5</sup>				
			NOISE BARRIERS N	ORTHBOUND SIDE O	F CENTRAL POLK	PARKWAY EAST				
NB05	10	1283+00	1286+00	8	306	ST <sup>6</sup>	64 505 760	10	27	¢40.606
Providence	19	1286+00	1311+00	14	2,514	SHLDR <sup>7</sup>	\$1,505,760	19	37	\$40,696

<sup>1</sup> Includes both NAC B and NAC C receptors with predicted noise levels that approach or exceed the NAC.

Note: Potential noise barriers are based on PD&E phase concepts. Future refinements in the project design phase and known constraints such as overhead utilities, drainage, etc., could alter barrier system placement, dimensions, and access. Such changes could render noise barriers no longer constructible or not meet FDOT noise abatement criteria. Assuming barriers are still feasible and reasonable in the design phase, community input may be solicited to confirm support.

<sup>2</sup> Full height is for length indicated. The length for any required taper in height at a shoulder noise barrier termination would be in addition to the length indicated. (See FDOT Standard Plans)

<sup>3</sup> Unit cost of \$40 per square foot for all barrier segments.

<sup>4</sup> Total includes impacted/benefited residences with a predicted noise level that does not approach or exceed 67 dB(A) but are incidentally benefited.

<sup>5</sup> ROW -Noise barrier system located within Florida's Turnpike Enterprise or FDOT right of way.

<sup>6</sup> ST – Noise barrier system located on CPP East bridge structure or mechanically-stabilized earth (MSE).

<sup>7</sup> SHLDR – Noise barrier located on CPP East outside shoulder. Any required tapers in height at a shoulder noise barrier termination would be in addition to the length indicated. (See FDOT Standard Plans)

<sup>8</sup> Number of impacts differs from that shown in Appendix B-1. Noise abatement evaluation scenario without the addition of rail noise selected as most beneficial to receptors. Refer to Section 3.8.2 for further explanation.

#### 5.0 CONSTRUCTION NOISE AND VIBRATION

During the construction phase of the proposed project, short-term noise may be generated by stationary and mobile construction equipment. The construction noise will be temporary at any location and will be controlled by adherence to the most recent edition of FDOT's *Standard Specifications for Road and Bridge Construction* <sup>8</sup>.

Using the listing of sensitive sites found in FDOT's *Project Development and Environment Manual* <sup>3</sup>, residences were identified as the only land use potentially sensitive to vibration that could occur during construction. If, during final design, it is determined that measures to control vibration are necessary, the project's construction provisions can be modified as needed.

#### 6.0 PUBLIC COORDINATION

To promote compatibility between land development planning and the project roadways, the distance between the edge of the roadway outside travel lane and the point where the roadway-related noise is predicted to reach the NAC for each activity category was estimated. These estimates are referred to as noise contours and are shown in **Appendix D**. These estimates provide the general distance at which the noise approaches or exceeds the NAC for each activity type.

Coordination with the public and local agencies and officials has been accomplished during the development of the project. In addition, local and community officials have had the opportunity to comment on the proposed project at the public meetings.

This section will be updated when all public involvement efforts have been concluded.

#### 7.0 REFERENCES

- 1. 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise; Federal Register, Vol. 75, No. 133, July 13, 2010.
- 2. *Project Development and Environment Manual*; Florida Department of Transportation; Tallahassee, Florida; July 31, 2024.
- 3. *Traffic Noise Modeling and Analysis Practitioners' Handbook*; Florida Department of Transportation; Tallahassee, Florida; September 2025.
- 4. *Methodology to Evaluate Highway Traffic Noise at Special Land Uses*; Florida Department of Transportation; Tallahassee, Florida; December 2024.
- 5. *Guidance on Assessing Noise and Vibration Impacts*; Federal Railroad Administration; Washington, DC; February 27, 2020.
- 6. Transit Noise and Vibration Impact Assessment; Federal Transit Administration's (FTA)
- 7. *Noise Measurement Field Guide*; Federal Highway Administration; Washington, DC; June 2018.
- 8. *Standard Specifications for Road and Bridge Construction*; Florida Department of Transportation; Tallahassee, Florida; 2022.

### Appendix A Noise Analysis Traffic Data

						Highway	Traffic I	Noise: Tr	affic Data											
<u> </u>	Project Name	Central Polk Pkwy (CPP) East- from 17/92 to SR	538																	
atio	Project Number	451419-1																		
Ĕ	Condition	Existing																		
Infor	Year	2024																		
Ita I	Source	Travel Demand Model																		
/Da	Preparer [Traffic Engineer]	Amin Mohammadnazar																		
ect	Prepared Date	8/22/2025																		
Proj	Notes																			
<u>a</u> .		Roadway D	Details							Traff	ic Details								Traffic Data Select Off-Peak Calculatio	
Traffic Segment Number	Roadway Name	From	То	Roadway Type	Number of Lanes *In 1 direction	Two-Way LOS C AADT	LOS C Peak Hour Peak Direction (PHPD)	Demand Two-Way AADT	Demand Hourly Volumes (DHV) Peak Hour Peak Direction (PHPD)	% Autos	% Medium Trucks	% Heavy Trucks	% Buses	% Motorcycles	Standard K- factor	D-factor	Posted Speed (mph)	LOS C vs. DHV Comparison	Peak Direction Volume* *Used on both sides for LOS C	Off-Peak Direction Volume*  *DHV only
1	US 17/92 (TNM SEG. 1)	South of James Street	Bargain Barn Rd (Sta. 1043)	Arterial	1	9,300	490	15,800	850	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	59%	45	LOS C	490	N/A
2	US 17/92 (TNM SEG. 1)	Bargain Barn Rd (Sta. 1043)	Tiny Flower Rd (Sta. 1060)	Arterial	1	9,300	490	16,200	860	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	59%	45	LOS C	490	N/A
3	US 17/92 (TNM SEG. 1)	Tiny Flower Rd (Sta. 1060)	Lem Carnes Rd (Sta. 1107+60)	Arterial	1	9,300	490	17,400	960	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	61%	50	LOS C	490	N/A
4	US 17/92 (TNM SEG.2)	Lem Carnes Rd (Sta. 1107+60)	Ernie Caldwell Blvd (Sta. 60+40)	Arterial	1	9,300	490	17,800	980	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	61%	55	LOS C	490	N/A
5	US 17/92 (TNM SEG.2)	Ernie Caldwell Blvd (Sta. 60+40)	Garman Ave (Sta. 101+20)	Arterial	1	9,300	490	16,800	770	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	51%	55	LOS C	490	N/A
6	US 17/92 (TNM SEG.3)	Garman Ave (Sta. 101+20)	Orange Cosmos Blvd (Sta. 126+40)	Arterial	1	9,300	490	16,800	770	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	51%	55	LOS C	490	N/A
7	US 17/92 Did not use	Orange Cosmos Blvd (Sta. 126+40)	Loughman Oaks Elementary School (Sta. 138+60)	Arterial	1	9,300	490	16,800	770	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	51%	30	LOS C	490	N/A
8	US 17/92 (TNM SEG.3)	Loughman Oaks Elementary School (Sta. 138+60)	Providence Blvd (Sta. 165+20)	Arterial	1	9,300	490	18,400	910	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	55%	55	LOS C	490	N/A
9	US 17/92 (TNM SEG.3)	Providence Blvd (Sta. 165+20)	Hart Rd (CPP Sta. 1304)	Arterial	1	9,300	490	19,600	900	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	51%	55	LOS C	490	N/A
10	US 17/92 (TNM SEG.3)	Hart Rd (CPP Sta. 1304)	S. of Ronald Reagan Pkwy at Lane Add Taper (CPP Sta. 1320)	Arterial	1	9,300	490	20,200	950	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	52%	55	LOS C	490	N/A
11	US 17/92 (TNM SEG.3)	S. of Ronald Reagan Pkwy at Lane Add Taper (CPP Sta. 1320)	Ronald Reagan Pkwy (CPP Sta. 1324)	Arterial	2	51,950	2,710	20,200	950	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	52%	55	DHV	950	872
12	US 17/92 (TNM SEG.4)	Ronald Reagan Pkwy (CPP Sta. 1324)	N. Ronald Reagan Pkwy at Lane Drop Taper (Sta. 43)	Arterial	2	51,950	2,710	16,000	840	94.85%	1.61%	3.09%	0.16%	0.29%	9.02%	58%	45	DHV	840	605
13	US 17/92 (TNM SEG.4)	N. Ronald Reagan Pkwy at Lane Drop Taper (Sta. 43)	Poinciana Extension	Arterial	1	9,300	490	16,000	840	94.85%	1.61%	3.09%	0.16%	0.29%	9.0%	58%	45	LOS C	490	N/A
14	Ronald Reagan Pkwy (TNM SEGS 3/4)	Old Kissimmee Rd	US 17/92	Arterial	2	36,020	1,790	25,000	1,450	96.19%	1.71%	1.65%	0.16%	0.28%	9.0%	65%	45	DHV	1450	789
15	Kinney Harmon Rd (Poinciana Pkwy) (TNM SEGS 3/4)	US 17/92	E. of US 17/92 at Lane Drop Taper	Arterial	2	36,020	1,790	17,000	1,170	97.31%	1.14%	1.10%	0.16%	0.28%	9.0%	69%	45	DHV	1170	522
16	Kinney Hamon Rd (Poinciana Pkwy)(TNM SEGS 3/4)	E. of US 17/92 at Lane Drop Taper	Oakhill Blvd	Arterial	1	36,015	1,790	17,000	1,050	97.31%	1.14%	1.10%	0.16%	0.28%	9.0%	69%	45	DHV	1050	468
17	Kinney Harmon Rd (Poinciana Pkwy)	E. of US 17/92 at Lane Drop Taper	Oak Haven Dr.	Arterial	1	20,580	1,020	17,000	1,170	97.31%	1.14%	1.10%	0.16%	0.28%	8.97%	69%	45	LOS C	1020	N/A
18	Lee Jackson Hwy (CR 547)	Magnolia St West	Bargain Barn Rd	Arterial	1	14,490	760	12,800	830	97.45%	1.07%	1.03%	0.16%	0.28%	9.0%	62%	45	LOS C	760	N/A
19	Lee Jackson Hwy (CR 547)	Bargain Barn Rd	Oak Haven Dr.	Arterial	1	14,490	760	12,800	830	97.45%	1.07%	1.03%	0.16%	0.28%	9.0%	62%	45	LOS C	760	N/A
20	Bargain Barn Rd (TNM SEG.1)	Lee Jackson Hwy (CR 547)	US 17/92	Arterial	1	14,490	760	2,000	100	97.45%	1.07%	1.03%	0.16%	0.28%	9.3%	53%	30	DHV	100	88
21	Old Lake Wilson Rd (did not use)	Ronald Reagan Pkwy	CR 532	Arterial	1	14,490	760	7,600	520	97.88%	0.85%	0.82%	0.16%	0.28%	9.1%	65%	30	DHV	520	275
22	Old Kissimmee Rd (TNM SEG. 4)	Ronald Reagan Pkwy	CR 532	Arterial	1	14,490	760	3,800	260	97.88%	0.85%	0.82%	0.16%	0.28%	9.1%	65%	35	DHV	260	137

				Hig	ghway	Traffic N	oise: Tra	ffic Data	<u> </u>											
5	Project Name	Central Polk Pkwy (CPP) East- from 17/92 to SR 538																		
i ji	Project Number	451419-1																		
Ē	Condition	No-Build																		
€	Year	2050																		
<u></u>	Source	Travel Demand Model																		
Tag I	Preparer [Traffic Engineer]	Amin Mohammadnazar																		
ਝ	Prepared Date	8/22/2025																		
**	Notes	5,55,555																		
<u>F</u>	notes	Roadway Details								Traff	ic Details								Traffic Data Selec Off-Peak Calculation	
Traffic Segment Number	Roadway Name	From	То	Roadway Type	Number of Lanes *In 1 direction	Two-Way LOS C AADT	LOS C Peak Hour Peak Direction (PHPD)	Demand Two-Way AADT	Demand Hourly Volumes (DHV) Peak Hour Peak Direction (PHPD)	% Autos	% Medium Trucks	% Heavy Trucks	% Buses	% Motorcycles	Standard K- factor	D-factor	Posted Speed (mph)	LOS C vs. DHV Comparison	Peak Direction Volume* *Used on both side for LOS C	Off-Peak Direction Volume* *DHV only
1	US 17/92 (TNM SEG. 1)	South of James Street	Power Line Rd Intersection (Sta. 1041)	Arterial	2	24,900	1,300	21,800	1,050	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	54%	45	DHV	1050	910
2	US 17/92 (TNM SEG. 1)	Power Line Rd Intersection (Sta. 1041)	Bargain Barn Rd (Sta. 1043)	Arterial	2	24,900	1,300	31,300	1,580	93.83%	1.96%	3.76%	0.16%	0.29%	8.9%	57%	45	LOS C	1300	N/A
3	US 17/92 (TNM SEG. 1)	Bargain Barn Rd (Sta. 1043)	Tiny Flower Rd (Sta. 1060)	Arterial	1	15,760	820	31,600	1,600	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	56%	45	LOS C	820	N/A
4	US 17/92 (TNM SEG.1)	Tiny Flower Rd (Sta. 1060)	Lem Carnes Rd (Sta. 1107+60)	Arterial	1	15,760	820	32,000	1,660	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	57%	55	LOS C	820	N/A
5	US 17/92 (TNM SEG.2)	Lem Carnes Rd (Sta. 1107+60)	Ernie Caldwell Blvd (Sta. 60+40)	Arterial	1	15,760	820	32,600	1,680	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	57%	55	LOS C	820	N/A
6	US 17/92 (TNM SEG.2)	Ernie Caldwell Blvd (Sta. 60+40)	Garman Ave (Sta. 101+20)	Arterial	1	15,760	820	29,000	1,400	93.83%	1.96%	3.76%	0.16%	0.29%	9.1%	54%	55	LOS C	820	N/A
7	US 17/92 (TNM SEG.3)	Garman Ave (Sta. 101+20)	Orange Cosmos Blvd (Sta. 126+40)	Arterial	1	15,760	820	29,000	1,410	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	54%	55	LOS C	820	N/A
8	US 17/92 Did not use	Orange Cosmos Blvd (Sta. 126+40)	Loughman Oaks Elementary School (Sta. 138+60)	Arterial	1	15,760	820	29,400	1,430	93.83%	1.96%	3.76%	0.16%	0.29%	9.00%	54%	30	LOS C	820	N/A
9	US 17/92 (TNM SEG.3)	Loughman Oaks Elementary School (Sta. 138+60)	Providence Blvd (Sta. 165+20)	Arterial	1	15,760	820	31,400	1,440	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	51%	55	LOS C	820	N/A
10	US 17/92 (TNM SEG.3)	Providence Blvd (Sta. 165+20)	Hart Rd (CPP Sta. 1304)	Arterial	1	15,760	820	33,000	1,700	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	57%	55	LOS C	820	N/A
11	US 17/92 (TNM SEG.3)	Hart Rd (CPP Sta. 1304)	S. of Ronald Reagan Pkwy at Lane Add Taper (CPP Sta. 1320)	Arterial	1	15,760	820	33,400	1,770	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	59%	55	LOS C	820	N/A
12	US 17/92 (TNM SEG.4)	S. of Ronald Reagan Pkwy at Lane Add Taper (CPP Sta. 1320)	Ronald Reagan Pkwy (CPP Sta. 1324)	Arterial	2	24,900	1,300	33,400	1,770	93.83%	1.96%	3.76%	0.16%	0.29%	9.01%	59%	55	LOS C	1300	N/A
13	US 17/92 (TNM SEG.4)	Ronald Reagan Pkwy (CPP Sta. 1324)	Poinciana Extension (Sta. 66)	Arterial	2	24,900	1,300	31,400	1,740	93.83%	1.96%	3.76%	0.16%	0.29%	9.0%	62%	45	LOS C	1300	N/A
14	Ronald Reagan Pkwy	Old Kissimmee Rd	US 17/92	Arterial	2	36,020	1,790	24,600	1,120	95.47%	2.08%	2.01%	0.16%	0.28%	9.0%	51%	45	DHV	1120	1090
15	Kinney Harmon Rd (Poinciana Pkwy) (TNM SEGS 3/4)	US 17/92	E. of US 17/92 at Lane Drop Taper	Arterial	2	36,020	1,790	8,000	440	97.31%	1.14%	1.10%	0.16%	0.28%	9.0%	61%	45	DHV	440	280
16	Kinney Hamon Rd (Poinciana Pkwy)(TNM SEGS 3/4)	E. of US 17/92 at Lane Drop Taper	Oakhill Blvd	Arterial	1	20,580	1,020	8,000	440	97.31%	1.14%	1.10%	0.16%	0.28%	9.0%	61%	45	DHV	440	280
17	Power Line Rd (TNM SEG 1)- SEE ETP INPUT	East of US17/92	US 17/92	Arterial	2	36,020	1,790	16,000	830	95.49%	1.39%	2.67%	0.16%	0.29%	9.00%	58%	45	DHV	830	610
18	Lee Jackson Hwy (CR 547) Did not use	Magnolia St West	Bargain Barn Rd	Arterial	1	15,760	820	16,200	1,030	96.99%	1.30%	1.26%	0.16%	0.28%	9.0%	64%	45	LOS C	820	N/A
19	Lee Jackson Hwy (CR 547) Did not use	Bargain Barn Rd	Oak Haven Dr.	Arterial	1	15,760	820	16,200	1,030	96.99%	1.30%	1.26%	0.16%	0.28%	9.0%	64%	45	LOS C	820	N/A
20	Bargain Barn Rd (TNM SEG.1)	Lee Jackson Hwy (CR 547)	US 17/92	Arterial	1	15,760	820	2,800	130	96.99%	1.30%	1.26%	0.16%	0.28%	8.9%	52%	30	DHV	130	120
21	Old Lake Wilson Rd (did not use)	Ronald Reagan Pkwy	CR 532	Arterial	1	15,760	820	9,800	640	97.52%	1.03%	1.00%	0.16%	0.28%	9.0%	64%	30	DHV	640	354
22	Poinciana Pkwy Extension	Poinciana Pkwy Extension	US 17/92 NB Off/ SB On-Ramps	Mainline	2	66690	3300	54600	3840	89%	6%	2%	3%	1%	0.11	0.640159046	65	LOS C	3300	N/A
23	Poinciana Pkwy Extension	US 17/92 NB On/ SB Off-Ramps	CR 532 CPP East Ramps	Mainline	2	66690	3300	67000	4720	89%	6%	2%	3%	1%	0.11	0.640159046	65	LOS C	3300	N/A
24	Poinciana Pkwy Extension	CR 532 CPP East Ramps	North of CR 532	Mainline	2	66690	3300	81600	5750	89%	6%	2%	3%	1%	0.11	0.640159046	65	LOS C	3300	N/A
25	Poinciana Pkwy Extension - NB Off-ramp to US 17/92	Poinciana Pkwy Extension	US 17/92	Ramp	1	9700	1370	11900	840	89%	6%	2%	3%	1%	0.11	0.640159046	35	DHV	840	472
26	Poinciana Pkwy Extension - SB On-ramp from US 17/92	US 17/92	Poinciana Pkwy Extension	Ramp	1	9700	1370	11900	840	89%	6%	2%	3%	1%	0.11	0.640159046	35	DHV	840	472
27	Poinciana Pkwy Extension - NB On-ramp from US 17/92	US 17/92	Poinciana Pkwy Extension	Ramp	1	9700	1370	24300	1710	89%	6%	2%	3%	1%	0.11	0.640159046	35	DHV	1710	961
28	Poinciana Pkwy Extension - SB Off-ramp to US 17/92	Poinciana Pkwy Extension	US 17/92	Ramp	1	9700	1370	24300	1710	89%	6%	2%	3%	1%	0.11	0.640159046	35	DHV	1710	961
29	Poinciana Pkwy Extension - NB On-ramp from CR 532	CR 532	Poinciana Pkwy Extension	Ramp	1	9700	1370	14600	1030	89%	6%	2%	3%	1%	0.11	0.640159046	35	DHV	1030	579
30	Poinciana Pkwy Extension - SB Off-ramp to CR 532	Poinciana Pkwy Extension	CR 532	Ramp	1	9700	1370	14600	1030	89%	6%	2%	3%	1%	0.11	0.640159046	35	DHV	1030	579
31	Old Kissimmee Rd (TNM SEG.4)	Ronald Reagan Pkwy	CR 532	Arterial	1	15,760	820	4,900	320	97.52%	1.03%	1.00%	0.16%	0.28%	9.0%	64%	35	DHV	320	177

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5	Project Name	Central Polk Pkwy (CPP) East- from 17/92 to SR 538			•														
:≛	Project Number	451419-1																	
Ε Ι	•	Build																<del></del>	
Ē	Condition	2050																	
트	Year	2050																	
aţ	Source	Travel Demand Model																	
🕏	Preparer [Traffic Engineer]	Amin Mohammadnazar																	
<u>je</u>	Prepared Date	8/22/2025																	
S.	Notes																		
_		Roadway Details								Traff	ic Details						Rav	w Traffic Data Select Off-Peak Calculatio	
Traffic Segment Number	Roadway Name	From	То	Roadway Type	Number of Lanes *In 1 direction	Two-Way LOS C AADT	LOS C Peak Hour Peak Direction (PHPD)	Demand Two-Way AADT	Demand Hourly Volumes (DHV) Peak Hour Peak Direction (PHPD)	% Autos	% Medium Trucks	% Heavy % Buse Trucks	% Motorcycles	Standard K- factor	D-factor	Posted Speed (mph)	LOS C vs. DHV Comparison	Peak Direction Volume* *Used on both sides for LOS C	Off-Peak Direction Volume* *DHV only
1	CPP East (TNM Segs. 1 & 2)	Power Line Rd	Intermediate Ramps (Sta. 1200)	Mainline	2	66,690	3,300	40,400	2,760	88.70%	5.65%	1.74% 3.26%	0.66%	10.5%	65%	70	DHV	2760	1486
2	CPP East (TNM Seg. 2, 3,4)	Intermediate Ramps (Sta. 1200)	Poinciana Connector	Mainline	2	66,690	3,300	47,800	3,270	88.70%	5.65%	1.74% 3.26%	0.66%	10.5%	65%	70	DHV	3270	1761
3	CPP East - Northbound On-ramp (TNM Seg.2)	US 17/92	CPP East	Ramp	1	10,000	1,370	7,400	510	88.70%	5.65%	1.74% 3.26%	0.66%	10.5%	65%	35	DHV	510	275
4	CPP East - Southbound Off-ramp (TNM Seg.2)	CPP East	US 17/92	Ramp	1	10,500	1,440	7,400	510	88.70%	5.65%	1.74% 3.26%		10.5%	65%	45	DHV	510	275
5	US 17/92 (TNM Seg.1)	South of James Street (Sta. 1028)	Power Line Rd Intersection (Sta. 1041)	Arterial	3	43,460	2,270	37,600	2,030	92.40%	2.45%	4.70% 0.16%	0.29%	9.0%	60%	45	DHV	2030	1353
6	US 17/92 (TNM Seg.1)	Power Line Rd Intersection (Sta. 1041)	Tiny Flower Rd (Sta. 1060)	Arterial	3	43,460	2,270	62,800	3,450	93.69%	2.01%	3.85% 0.16%	+	9.0%	61%	45	LOS C	2270	N/A
,	US 17/92 (TNM Seg.1)	Power Line Rd Intersection (Sta. 1041)  Power Line Rd Intersection (Sta. 1041)	Tiny Flower Rd (Sta. 1060)	Arterial	4	63,520	3,330	62,800	3,450	93.69%	2.01%	3.85% 0.16%	_	9.0%	61%	45	LOS C	3330	N/A
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*	US 17/92 Same as #6	Tiny Flower Rd (Sta. 1060)	CPP East On-Ramp	Arterial	3	43,460	2,270	65,600	3,610	93.69%	2.01%	3.85% 0.16% 3.85% 0.16%		9.0%	61%	45	LOS C	2270	N/A
9	US 17/92 Same as #7	Tiny Flower Rd (Sta. 1075)	CPP East On-Ramp	Arterial	4	63,520	3,330	65,600	3,610	93.69%	2.01%			9.00%	61%	45	LOS C	3330	N/A
10	US 17/92 DID NOT USE	CPP East Ramps	Lem Carnes Rd (Sta. 1107+60)	Arterial	2	24,900	1,300	25,200	850	96.14%	1.17%	2.24% 0.16%	0.29%	8.0%	55%	50	DHV	850	695
11	US 17/92 (TNM Seg. 2)	Lem Carnes Rd (Sta. 1107+60)	Ernie Caldwell Blvd (Sta. 60+40)	Arterial	2	24,900	1,300	18,000	780	96.14%	1.17%	2.24% 0.16%	0.29%	0.0%	0%	55	DHV	780	#DIV/0!
12	US 17/92 (TNM Seg. 2)	Ernie Caldwell Blvd (Sta. 60+40)	CPP East Intermediate Ramps (Sta. 61)	Arterial	2	24,900	1,300	25,800	1,420	96.14%	1.17%	2.24% 0.16%	_	8.5%	60%	55	LOS C	1300	N/A
13	US 17/92 (TNM Seg. 2)	CPP East Intermediate Ramps (Sta. 61)	S. of Garman Ave at Lane Drop Taper (Sta. NB84/SB92)	Arterial	2	24,900	1,300	18,600	990	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	55	DHV	990	660
14	US 17/92 (TNM Seg. 2)	S. of Garman Ave at Lane Drop Taper (Sta. NB84/SB92)	Garman Ave (Sta. 111)	Arterial	1	15,760	820	18,600	990	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	55	LOS C	820	N/A
15	US 17/92 (TNM Seg. 2)	Garman Ave (Sta. 111)	Orange Cosmos Blvd (Sta. 126+40)	Arterial	1	15,760	820	18,800	1,000	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	55	LOS C	820	N/A
16	US 17/92 DID NOT USE	Orange Cosmos Blvd (Sta. 126+40)	Loughman Oaks Elementary School (Sta. 138+60)	Arterial	1	15,760	820	19,200	1,030	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	30	LOS C	820	N/A
17	US 17/92 (TNM Seg. 3)	Loughman Oaks Elementary School (Sta. 138+60)	Providence Blvd (Sta. 165+20)	Arterial	1	15,760	820	21,400	1,040	96.14%	1.17%	2.24% 0.16%		8.5%	60%	55	LOS C	820	N/A
18	US 17/92 (TNM Seg. 3)	Providence Blvd (Sta. 165+20)	Hart Rd (CPP Sta. 1304)	Arterial	1	15,760	820	23,200	1,300	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	55	LOS C	820	N/A
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19	US 17/92 (TNM Seg. 3)	Hart Rd (CPP Sta. 1304)	S. of Ronald Reagan Pkwy at Lane Add Taper (CPP Sta. 1320)	Arterial	1	15,760	820	23,600	1,370	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	55	LOS C	820	N/A
20	US 17/92 (TNM Seg. 3)	S. of Ronald Reagan Pkwy at Lane Add Taper (CPP Sta. 1320)	Ronald Reagan Pkwy (CPP Sta. 1324)	Arterial	2	24,900	1,300	23,600	1,370	96.14%	1.17%	2.24% 0.16%	0.29%	8.5%	60%	55	LOS C	1300	N/A
21	US 17/92 (TNM Seg. 3,4)	Ronald Reagan Pkwy (CPP Sta. 1324)	Poinciana Extension (Sta. 66)	Arterial	2	24,900	1,300	29,600	1,690	96.14%	1.17%	2.24% 0.16%	0.29%	9.0%	63%	45	LOS C	1300	N/A
22	Ronald Reagan Pkwy	Poinciana Extension (Sta. 66)	US 17/92	Arterial	2	36,020	1,790	24800	1,190	95.47%	2.08%	2.01% 0.16%	0.28%	8.9%	55%	45	DHV	1190	974
23	Kinney Harmon Rd (Poinciana Pkwy) (TNM Seg 3,4)	US 17/92	E. of US 17/92 at Lane Drop Taper	Arterial	2	36,020	1,790	8000	440	97.31%	1.14%	1.10% 0.16%	0.28%	9.0%	61%	45	DHV	440	280
24	Kinney Harmon Rd (Poinciana Pkwy) (TNM Seg 3,4)	E. of US 17/92 at Lane Drop Taper	Oakhill Blvd	Arterial	1	20,580	1,020	8000	440	97.31%	1.14%	1.10% 0.16%	0.28%	9.0%	61%	45	DHV	440	280
25	Power Line Rd (TNM Seg. 1)	East of US17/92	US 17/92	Arterial	2	36,020	1,790	28400	1,530	95.49%	1.39%	2.67% 0.16%	0.29%	9.0%	60%	45	DHV	1530	1020
26	Lee Jackson Hwy (CR 547) - DID NOT USE	Magnolia St West	Bargain Barn Rd	Arterial	1	15,760	820	14800	940	96.99%	1.30%	1.26% 0.16%	0.28%	8.9%	66%	45	LOS C	820	N/A
27	Lee Jackson Hwy (CR 547) - DID NOT USE	Bargain Barn Rd	Oak Haven Dr.	Arterial	1	15,760	820	14800	940	96.99%	1.30%	1.26% 0.16%	0.28%	8.9%	66%	45	LOS C	820	N/A
28	Bargain Barn Rd (TNM Seg. 1)	Lee Jackson Hwy (CR 547)	US 17/92	Arterial	1	15,760	820	8800	430	96.99%	1.30%	1.26% 0.16%	0.28%	9.1%	54%	30	DHV	430	370
29	Old Lake Wilson Rd - NOT MODELED, but used traffic for Old Kissimmee (#47)	Ronald Reagan Pkwy	CR 532	Arterial	1	15,760	820	9800	640	97.52%	1.03%	1.00% 0.16%	0.28%	9.0%	64%	30	DHV	640	354
30	Poinciana Pkwy Extension (TNM Seg 4)	Poinciana Pkwy Extension	US 17/92 NB Off/ SB On-Ramps	Mainline	2	66,690	3,300	47,600	3,350	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	65	LOS C	3300	N/A
31	Poinciana Pkwy Extension (TNM Seg 4)	US 17/92 NB On/ SB Off-Ramps	CPP East Ramps	Mainline	2	66,690	3,300	40,100	2,820	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	65	DHV	2820	1585
32	Poinciana Pkwy Extension (TNM Seg 4)	CPP East Ramps	CR 532 Ramps	Mainline	2	66,690	3,300	87,900	6,190	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	65	LOS C	3300	N/A
33	Poinciana Pkwy Extension DID NOT USE	CR 532 Ramps	North of CR 532	Mainline	2	66,690	3,300	90,400	6,370	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	65	LOS C	3300	N/A
34	Poinciana Pkwy Extension - NB Off-ramp to US 17/92(TNM Seg. 4)	Poinciana Pkwy Extension	US 17/92	Ramp	1	10,000	1,370	17,400	1,230	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	35	DHV	1230	691
35	Poinciana Pkwy Extension - SB On-ramp from US 17/92 (TNM Seg. 4)	US 17/92	Poinciana Pkwy Extension	Ramp	1	10,000	1,370	17400	1,230	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	35	DHV	1230	691
36	Poinciana Pkwy Extension - NB On-ramp from US 17/92 (TNM Seg. 4)	US 17/92	Poinciana Pkwy Extension	Ramp	1	10,000	1,370	9,900	700	88.70%	5.65%	1.74% 3.26%		11.0%	64%	35	DHV	700	393
37	Poinciana Pkwy Extension - SB Off-ramp to US 17/92 (TNM Seg. 4)	Poinciana Pkwy Extension	US 17/92	Ramp	1	10,000	1,370	9900	700	88.70%	5.65%	1.74% 3.26%		11.0%	64%	35	DHV	700	393
38	Poinciana Pkwy Extension - NB On-ramp from CPP East (TNM Seg. 4)	US 17/92	Poinciana Pkwy Extension	Ramp	2	20,400	2,880	47,800	3,370	88.70%	5.65%	1.74% 3.26%		11.0%	64%	45	DHV	3370	1894
39	Poinciana Pkwy Extension - SB Off-ramp to CPP East (TNM Seg. 4)	Poinciana Pkwy Extension	US 17/92	Ramp	2	20,400	2,880	47,800	3,370	88.70%	5.65%	1.74% 3.26%		11.0%	64%	45	DHV	3370	1894
40	Poinciana Pkwy Extension - NB On-ramp from CR 532 - did not use	CR 532	Poinciana Pkwy Extension	Ramp	1	10,000	1,370	2,500	180	88.70%	5.65%	1.74% 3.26%		11.0%	64%	35	DHV	180	101
41			<u> </u>							4									
41	Poinciana Pkwy Extension - SB Off-ramp to CR 532 - did not use	Poinciana Pkwy Extension	CR 532	Ramp	1	10,000	1,370	2,500	180	88.70%	5.65%	1.74% 3.26%	0.66%	11.0%	64%	35	DHV	180	101

## **Appendix B-1: Residential Properties Predicted Noise Levels**

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Common				NAC	FDOT	2024	2050	2050 Build		NAC	Substantial	
Noise	Receptor	No. of	NAC	Criterion	Criterion	Existing	No-Build	LAeq1h	Increase	Approach	Increase	Description
Environment	Point	Units		(dB(A))	(dB(A))	LAeq1h	LAeq1h	(dB(A))		or	(≥15dB(A))	·
(CNE)				,		(dB(A))	(dB(A))			Exceeded		
XX.X Imp	pacted Receptor											
NB01	RNB01-01	1	В	67	66	54.5	58.1	61.0	6.5	No	No	Jamestown residence
NB01	RNB01-02	1	В	67	66	53.0	56.6	59.8	6.8	No	No	Jamestown residence
NB01	RNB01-03	1	В	67	66	60.6	64.2	65.7	5.1	No	No	Jamestown residence
NB01	RNB01-04	1	В	67	66	56.4	59.9	62.5	6.1	No	No	Jamestown residence
NB01 NB01	RNB01-05 RNB01-06	1	B B	67 67	66 66	62.4 59.4	65.9 63.0	<b>67.7</b> 65.8	5.3 6.4	Yes No	No No	Jamestown residence Jamestown residence
NB01	RNB01-00	1	В	67	66	57.6	61.2	63.6	6.0	No	No	Jamestown residence
NB01	RNB01-08	1	В	67	66	55.3	58.9	62.0	6.7	No	No	Jamestown residence
NB01	RNB01-09	1	В	67	66	52.2	56.0	59.9	7.7	No	No	Jamestown residence
NB01	RNB01-10	1	В	67	66	58.0	61.5	64.7	6.7	No	No	Jamestown residence
NB01 NB01	RNB01-11 RNB01-12	1	B B	67 67	66 66	59.8 56.8	63.4 60.4	<b>66.6</b> 63.6	6.8	Yes No	No No	Jamestown residence Jamestown residence
NB01	RNB01-13	1	В	67	66	55.8	59.4	62.9	7.1	No	No	Jamestown residence
NB01	RNB01-14	1	В	67	66	54.2	57.9	61.7	7.5	No	No	Jamestown residence
NB01	RNB01-15	1	В	67	66	52.4	56.3	60.4	8.0	No	No	Jamestown residence
NB01 NB01	RNB01-16 RNB01-17	1	B B	67 67	66 66	60.5 56.6	64.0 60.3	<b>66.9</b> 63.7	6.4 7.1	Yes No	No No	Jamestown residence Jamestown residence
NB01	RNB01-17 RNB01-18	1	В	67	66	53.7	57.6	61.4	7.7	No	No	Jamestown residence
NB02	RNB02-01	1	В	67	66	53.4	60.8	63.7	10.3	No	No	Single-family residence
NB02	RNB02-02	1	В	67	66	51.1	59.7	62.0	10.9	No	No	Single-family residence
NB02	RNB02-03	1	В	67	66	60.7	63.7	68.3	7.6	Yes	No	Single-family residence
NB02	RNB02-04	1	В	67	66	59.3	62.1	67.4	8.1	Yes	No No	Single-family residence
NB02 NB02	RNB02-05 RNB02-06	1	B B	67 67	66 66	61.6 58.7	64.2 61.7	<b>69.1</b> 65.9	7.5 7.2	Yes No	No No	Single-family residence Horse Creek at Crosswinds residence
NB02	RNB02-07	1	В	67	66	55.6	58.6	63.5	7.9	No	No	Horse Creek at Crosswinds residence
NB02	RNB02-08	1	В	67	66	53.0	56.1	61.7	8.7	No	No	Single-family residence
NB02	RNB02-09	1	В	67	66	65.0	68.6	71.3	6.3	Yes	No	Single-family residence
NB02	RNB02-10	1	В	67	66	64.8	68.4 67.6	71.0 70.0	6.2	Yes	No No	Single-family residence
NB02 NB02	RNB02-11 RNB02-12	1	В	67 67	66 66	64.0 63.9	67.5	70.0	6.5	Yes Yes	No No	Single-family residence Single-family residence
NB02	RNB02-13	1	В	67	66	63.6	67.2	70.4	6.8	Yes	No	Single-family residence
NB02	RNB02-14	1	В	67	66	62.8	66.4	70.1	7.3	Yes	No	Single-family residence
NB02	RNB02-15	8	В	67	66	64.5	68.1	72.0	7.5	Yes	No	Temples Crossing residence
NB02	RNB02-16	1	В	67	66	53.5	56.9	62.0	8.5	No	No	Temples Crossing residence
NB02 NB02	RNB02-17 RNB02-18	1	B B	67 67	66 66	53.7 51.3	57.2 54.8	62.8 61.5	9.1	No No	No No	Temples Crossing residence Temples Crossing residence
NB02	RNB02-18	1	В	67	66	51.1	54.6	61.3	10.2	No	No	Temples Crossing residence
NB02	RNB02-20	9	В	67	66	50.9	54.3	61.1	10.2	No	No	Temples Crossing residence
NB02	RNB02-21	8	В	67	66	50.9	54.3	61.1	10.2	No	No	Temples Crossing residence
NB02	RNB02-22	7	В	67	66	52.5	56.0	62.7	10.2	No	No	Temples Crossing residence
NB02 NB02	RNB02-23 RNB02-24	1	B B	67 67	66 66	53.7 53.9	57.2 57.4	63.3 63.1	9.6	No No	No No	Temples Crossing residence Temples Crossing residence
NB02	RNB02-24	1	В	67	66	55.1	58.7	64.1	9.0	No	No	Temples Crossing residence
NB02	RNB02-26	1	В	67	66	54.7	58.2	63.6	8.9	No	No	Temples Crossing residence
NB02	RNB02-27	1	В	67	66	54.3	57.8	63.3	9.0	No	No	Temples Crossing residence
NB02	RNB02-28	1	В	67	66	53.9	57.4	62.8	8.9	No	No	Temples Crossing residence
NB02 NB02	RNB02-29 RNB02-30	1	B B	67 67	66 66	53.5 52.7	57.0 56.6	62.4 61.4	8.9 8.7	No No	No No	Temples Crossing residence Temples Crossing residence
NB02	RNB02-31	1	В	67	66	52.1	55.6	60.9	8.8	No	No	Temples Crossing residence
NB03	RNB03-01	1	В	67	66	62.5	67.4	69.7	7.2	Yes	No	Single-family residence
NB03	RNB03-02	1	В	67	66	59.8	64.5	65.0	5.2	No	No	Single-family residence
NB03 NB03	RNB03-03 RNB03-04	1	B B	67 67	66 66	49.8 50.3	54.0 54.6	55.7 56.2	5.9 5.9	No No	No No	Kissimmee South MH & RV Resort residence Kissimmee South MH & RV Resort residence
NB03	RNB03-04	1	В	67	66	51.7	56.0	57.1	5.4	No	No	Kissimmee South MH & RV Resort residence
NB03	RNB03-06	1	В	67	66	54.2	58.8	59.5	5.3	No	No	Kissimmee South MH & RV Resort residence
NB03	RNB03-07	1	В	67	66	59.5	64.2	64.2	4.7	No	No	Kissimmee South MH & RV Resort residence
NB03	RNB03-08	14	В	67	66	61.8	66.6	66.1	4.3	Yes	No	Kissimmee South MH & RV Resort residence
NB03 NB03	RNB03-09 RNB03-10	5	B B	67 67	66 66	54.7 52.2	59.3 56.6	59.8 58.2	5.1 6.0	No No	No No	Kissimmee South MH & RV Resort residence Kissimmee South MH & RV Resort residence
NB03	RNB03-10	3	В	67	66	52.5	56.9	58.2	5.7	No	No	Kissimmee South MH & RV Resort residence
NB03	RNB03-12	7	В	67	66	50.2	54.4	56.8	6.6	No	No	Kissimmee South MH & RV Resort residence
NB03	RNB03-13	1	В	67	66	52.5	56.8	58.9	6.4	No	No	Kissimmee South MH & RV Resort residence
NB03	RNB03-14	1	В	67	66	53.1	57.4	59.6	6.5	No No	No No	Kissimmee South MH & RV Resort residence
NB03 NB03	RNB03-15 RNB03-16	1	B B	67 67	66 66	54.1 56.8	58.6 61.4	60.5 62.7	6.4 5.9	No No	No No	Kissimmee South MH & RV Resort residence Kissimmee South MH & RV Resort residence
NB03	RNB03-16 RNB03-17	5	В	67	66	61.1	65.9	66.6	5.5	Yes	No	Kissimmee South MH & RV Resort residence
NB04	RNB04-01 1, 2	1	В	67	66	56.4	56.5	62.0	5.6	No	No	Single-family residence
NB04	RNB04-02 1, 2	1	В	67	66	56.4	55.3	58.4	2.0	No	No	Single-family residence
NB04	RNB04-03 <sup>1</sup>	1	В	67	66	54.9	58.4	60.3	5.4	No	No	Single-family residence
NB04	RNB04-04 <sup>1</sup>	3	В	67	66	61.8	66.4	68.8	7.0	Yes	No	Single-family residence
NB04	RNB04-05 <sup>1</sup>	1	В	67	66	60.1	64.6	65.9	5.8	No	No	Single-family residence
NB04	RNB04-06 <sup>1</sup>	1	В	67	66	64.4	69.1	70.6	6.2	Yes	No	Single-family residence
NB04	RNB04-07 1, 2	1	В	67	66	55.5	55.5	63.4	7.9	No	No	Single-family residence
NB04	RNB04-08 1, 2	1	В	67	66	55.5	55.5	63.6	8.1	No	No	Single-family residence
NB04	RNB04-09 1, 2	1	В	67	66	54.6	54.7	62.7	8.1	No	No	Single-family residence
NB04	RNB04-10 1, 2	1	В	67	66	54.6	54.8	61.5	6.9	No	No	Single-family residence
NB04	RNB04-11 1,2	1	В	67	66	53.8	54.2	61.1	7.3	No	No	Single-family residence
NB04	RNB04-12 <sup>1</sup>	1	В	67	66	53.6	56.0	59.4	5.8	No	No	Single-family residence
NB04	RNB04-13 <sup>1</sup>	1	В	67	66	56.0	59.8	61.0	5.0	No No	No No	Single-family residence
NB04	RNB04-14 1	1	В	67	66	60.3	64.8	65.3	5.0	No No	No	Single-family residence
NB04 NB05	RNB04-15 <sup>1, 2</sup> RNB05-01	1	B B	67 67	66 66	55.5 47.8	55.5 50.3	64.6 59.1	9.1	No No	No No	Single-family residence Providence residence
NB05	RNB05-01 RNB05-02	1	В	67	66	47.8 47.1	50.3 49.6	61.9	11.3 14.8	No No	No No	Providence residence Providence residence
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Common Noise Environment	Receptor Point	No. of Units	NAC	NAC Criterion	FDOT Criterion	2024 Existing LAeq1h	2050 No-Build LAeq1h	2050 Build LAeq1h	Increase	NAC Approach or	Substantial Increase	Description
(CNE)				(dB(A))	(dB(A))	(dB(A))	(dB(A))	(dB(A))		Exceeded	(≥15dB(A))	
NB05	RNB05-03	1	В	67	66	47.6	50.1	62.3	14.7	No	No	Providence residence
NB05	RNB05-04	1	В	67	66	47.3	49.7	62.4	15.1	No	Yes	Providence residence
NB05	RNB05-05	1	В	67	66	46.4	48.8	61.4	15.0	No	Yes	Providence residence
NB05	RNB05-06	1	В	67	66	46.2	48.7	61.3	15.1	No	Yes	Providence residence
NB05	RNB05-07	1	В	67	66	46.0	48.4	61.0	15.0	No	Yes	Providence residence
NB05	RNB05-08 <sup>2</sup>	1	В	67 67	66	45.8	48.1	60.6	14.8	No	No	Providence residence
NB05 NB05	RNB05-09 2	1	B B	67	66 66	45.8	47.8 47.7	60.0	14.2 14.1	No No	No No	Providence residence Providence residence
	RNB05-10 <sup>2</sup>	1	В			45.8 45.8	47.7	59.9	13.2	No	No No	
NB05	RNB05-11 <sup>2</sup>			67	66			59.0				Providence residence
NB05	RNB05-12 <sup>2</sup>	1	В	67	66	45.8	47.0	58.5	12.7	No	No	Providence residence
NB05	RNB05-13 <sup>2</sup>	1	В	67	66	45.8	46.9	58.4	12.6	No	No	Providence residence
NB05	RNB05-14 <sup>2</sup>	1	В	67	66	45.8	47.0	58.6	12.8	No	No	Providence residence
NB05	RNB05-15 2	1	В	67	66	45.8	47.5	59.2	13.4	No	No	Providence residence
NB05	RNB05-16 <sup>2</sup>	1	В	67	66	45.8	48.1	60.2	14.4	No	No	Providence residence
NB05 NB05	RNB05-17	1	В	67 67	66 66	46.1	48.5	60.9	14.8	No No	No	Providence residence Providence residence
NB05	RNB05-18 RNB05-19	1	B B	67	66	46.5 46.6	48.9 49.0	61.5 61.8	15.0 15.2	No	Yes Yes	Providence residence Providence residence
NB05	RNB05-20	1	В	67	66	47.1	49.5	62.6	15.5	No	Yes	Providence residence
NB05	RNB05-21	1	В	67	66	47.4	49.8	63.3	15.9	No	Yes	Providence residence
NB05	RNB05-22	1	В	67	66	47.6	50.0	63.6	16.0	No	Yes	Providence residence
NB05	RNB05-23	1	В	67	66	47.8	50.2	63.9	16.1	No	Yes	Providence residence
NB05	RNB05-24	1	В	67	66	48.6	51.0	65.8	17.2	No	Yes	Providence residence
NB05	RNB05-25	1	В	67	66	49.1	51.5	66.8	17.7	Yes	Yes	Providence residence
NB05	RNB05-26	1	В	67	66	49.6	52.0	68.0	18.4	Yes	Yes	Providence residence
NB05	RNB05-27	1	В	67	66	50.0	52.4	69.0	19.0	Yes	Yes	Providence residence
NB05 NB05	RNB05-28 RNB05-29	1	В	67 67	66 66	49.9	52.3	68.6	18.7	Yes	Yes	Providence residence
NB05	RNB05-29 RNB05-30	1	B B	67	66	49.5 48.7	51.9 51.0	<b>67.5</b> 65.4	18.0 16.7	Yes No	Yes Yes	Providence residence Providence residence
NB05	RNB05-31	1	В	67	66	48.4	50.7	64.6	16.2	No	Yes	Providence residence
NB05	RNB05-32	1	В	67	66	47.7	49.9	62.7	15.0	No	Yes	Providence residence
NB05	RNB05-33	1	В	67	66	46.7	48.8	60.7	14.0	No	No	Providence residence
NB05	RNB05-34 <sup>2</sup>	1	В	67	66	45.8	47.8	59.9	14.1	No	No	Providence residence
NB05	RNB05-35 <sup>2</sup>	1	В	67	66	45.8	47.6	59.5	13.7	No	No	Providence residence
NB05	RNB05-36	1	В	67	66	46.5	48.7	61.2	14.7	No	No	Providence residence
NB05	RNB05-37	1	В	67	66	47.7	49.9	61.7	14.0	No	No	Providence residence
NB05	RNB05-38	1	В	67	66	48.0	50.3	62.2	14.2	No	No	Providence residence
NB05	RNB05-39	1	В	67	66	47.5	49.8	61.3	13.8	No	No	Providence residence
NB05	RNB05-40	1	В	67	66	47.0	49.2	60.9	13.9	No	No	Providence residence
NB05 NB05	RNB05-41 RNB05-42	1	B B	67 67	66 66	46.8 46.5	49.0 48.7	60.4 60.0	13.6 13.5	No No	No No	Providence residence Providence residence
NB05	RNB05-43	1	В	67	66	46.3	48.6	59.8	13.5	No	No	Providence residence
NB05	RNB05-44 <sup>2</sup>	1	В	67	66	45.8	48.0	59.6	13.8	No	No	Providence residence
NB05	RNB05-45 <sup>2</sup>	1	В	67	66	45.8	47.6	59.4	13.6	No	No	Providence residence
NB06	RNB06-01	1	В	67	66	59.2	56.9	62.5	3.3	No	No	Vista Mar residence
NB06	RNB06-02	1	В	67	66	59.5	57.3	63.2	3.7	No	No	Vista Mar residence
NB06	RNB06-03	1	В	67	66	59.6	57.7	64.4	4.8	No	No	Vista Mar residence
NB06	RNB06-04	1	В	67	66	58.9	57.5	65.0	6.1	No	No	Vista Mar residence
NB06	RNB06-05	1	В	67	66	57.8	57.1	65.2	7.4	No	No	Vista Mar residence
NB06	RNB06-06	2	В	67	66	55.9	56.3	64.8	8.9	No	No	Vista Mar residence
NB06 NB06	RNB06-07 RNB06-08	6 14	B B	67 67	66 66	54.3 51.2	55.6 54.6	64.5 65.2	10.2 14.0	No No	No No	Vista Mar residence Vista Mar residence
NB06	RNB06-08	14	В	67	66	50.1	54.7	67.1	17.0	Yes	Yes	Vista Mar residence
NB06	RNB06-10	1	В	67	66	49.7	54.4	66.5	16.8	Yes	Yes	Vista Mar residence
NB06	RNB06-11	1	В	67	66	49.6	54.2	66.2	16.6	Yes	Yes	Vista Mar residence
NB06	RNB06-12	1	В	67	66	49.1	54.0	66.1	17.0	Yes	Yes	Vista Mar residence
NB06	RNB06-13	1	В	67	66	48.6	53.5	65.5	16.9	No	Yes	Vista Mar residence
NB06	RNB06-14	1	В	67	66	48.5	53.6	65.8	17.3	No	Yes	Vista Mar residence
NB06	RNB06-15	1	В	67	66	48.2	53.4	65.4	17.2	No	Yes	Vista Mar residence
NB06 NB06	RNB06-16 RNB06-17	1	B B	67 67	66 66	47.8 47.1	53.0 52.7	64.7 64.2	16.9 17.1	No No	Yes Yes	Vista Mar residence Vista Mar residence
NB06	RNB06-17 RNB06-18	1	В	67	66	47.1	52.7	63.8	16.8	No	Yes	Vista Mar residence Vista Mar residence
NB06	RNB06-19	1	В	67	66	46.4	52.3	63.3	16.9	No	Yes	Vista Mar residence
NB06	RNB06-20	1	В	67	66	54.9	54.2	61.8	6.9	No	No	Vista Mar residence
NB06	RNB06-21	1	В	67	66	55.4	54.7	62.4	7.0	No	No	Vista Mar residence
NB06	RNB06-22	4	В	67	66	53.8	54.5	62.7	8.9	No	No	Vista Mar residence
NB06	RNB06-23	15	В	67	66	50.6	53.6	63.1	12.5	No	No	Vista Mar residence
NB06	RNB06-24	1	В	67	66	48.0	52.3	63.0	15.0	No	Yes	Vista Mar residence
NB06	RNB06-25	1	В	67	66	47.6	52.1	62.0	14.4	No	No	Vista Mar residence
NB06	RNB06-26	1	В	67	66	47.3	52.0	61.8	14.5	No	No	Vista Mar residence
NB06 NB06	RNB06-27 RNB06-28	1	B B	67 67	66 66	47.2 46.5	52.0 51.7	62.6	15.4 15.5	No No	Yes	Vista Mar residence Vista Mar residence
NB06	RNB06-28 RNB06-29	1	В	67	66	46.5	51.7	62.0 61.2	15.5	No	Yes Yes	Vista Mar residence Vista Mar residence
NB06	RNB06-30	1	В	67	66	45.6	51.0	60.7	15.1	No	Yes	Vista Mar residence
NB06	RNB06-31	1	В	67	66	54.4	60.9	66.7	12.3	Yes	No	US 17/92 residence
NB06	RNB06-32	1	В	67	66	59.0	65.8	69.1	10.1	Yes	No	US 17/92 residence
NB06	RNB06-33	1	В	67	66	48.5	58.1	63.1	14.6	No	No	US 17/92 residence
NB07	RNB07-01 1	1	В	67	66	59.7	68.1	67.9	8.2	Yes	No	Single-family residence
NB07	RNB07-02 <sup>1</sup>	1	В	67	66	61.0	65.9	66.6	5.6	Yes	No	Single-family residence
NB07	RNB07-03 1,2	1	В	67	66	63.1	65.3	68.9	5.8	Yes	No	Single-family residence
SB01	RSB01-01 <sup>1</sup>	1	В	67	66	64.1	67.3	69.2	5.1	Yes	No	Jamestown residence
SB01	RSB01-02 <sup>1</sup>	1	В	67	66	60.8	63.5	65.8	5.0	No	No	Jamestown residence
SB01	RSB01-03 <sup>1</sup>	1	В	67	66	59.3	61.2	63.5	4.2	No	No	Jamestown residence
SB01	RSB01-04 <sup>1</sup>	1	В	67	66	59.2	60.9	62.8	3.6	No	No	Jamestown residence
SB01	RSB01-05 <sup>1</sup>	1	В	67	66	59.8	60.8	62.2	2.4	No	No	Jamestown residence
SB01	RSB01-05	1	В	67	66	60.1	62.6	65.1	5.0	No	No	Jamestown residence
	I/2DOT-00					55.1	. 02.0		3.0			

Common						2024	2050	2050 5 111		NAC		
Noise Environment	Receptor Point	No. of Units	NAC	NAC Criterion (dB(A))	FDOT Criterion (dB(A))	Existing LAeq1h	No-Build LAeq1h	2050 Build LAeq1h (dB(A))	Increase	Approach or Exceeded	Substantial Increase (≥15dB(A))	Description
(CNE) SB01	RSB01-07 <sup>1</sup>	1	В	67	66	(dB(A)) 59.5	(dB(A)) 61.4	64.1	4.6	No	No	Jamestown residence
SB01	RSB01-08 <sup>1</sup>	1	В	67	66	58.9	60.6	63.0	4.1	No	No	Jamestown residence
SB01	RSB01-09 <sup>1</sup>	1	В	67	66	59.3	60.6	62.6	3.3	No	No	Jamestown residence
SB01	RSB01-10 <sup>1</sup>	1	В	67	66	59.2	61.1	63.7	4.5	No	No	Jamestown residence
SB01	RSB01-11 1	1	В	67	66	59.2	60.5	62.6	3.4	No	No	Jamestown residence
SB01 SB01	RSB01-12 <sup>1</sup>	1	B B	67 67	66 66	59.7 59.0	60.6 60.7	62.1 63.4	2.4 4.4	No No	No No	Jamestown residence Jamestown residence
SB01	RSB01-13 <sup>1</sup>	1	В	67	66	58.6	60.7	62.7	4.1	No	No	Jamestown residence
SB01	RSB01-15 <sup>1</sup>	1	В	67	66	58.9	59.9	61.8	2.9	No	No	Jamestown residence
SB01	RSB01-16 <sup>1</sup>	1	В	67	66	59.6	60.4	62.1	2.5	No	No	Jamestown residence
SB01	RSB01-17 <sup>1</sup>	1	В	67	66	59.5	60.1	61.7	2.2	No	No	Jamestown residence
SB02 SB02	RSB02-01 1	1	В	67	66	63.7	66.0 64.3	72.9 70.5	9.2 8.3	Yes	No No	Horse Creek Village residence
SB02	RSB02-02 <sup>1</sup>	1	B B	67 67	66 66	60.8	62.7	68.3	7.5	Yes Yes	No	Horse Creek Village residence Horse Creek Village residence
SB02	RSB02-04 <sup>1</sup>	1	В	67	66	59.6	61.2	66.8	7.2	Yes	No	Horse Creek Village residence
SB02	RSB02-05 <sup>1</sup>	1	В	67	66	57.9	59.4	64.9	7.0	No	No	Horse Creek Village residence
SB02	RSB02-06 1	1	В	67	66	58.7	59.8	64.5	5.8	No	No	Horse Creek Village residence
SB02	RSB02-07 <sup>1</sup>	1	В	67	66	59.0	59.7	63.7	4.7	No	No	Horse Creek Village residence
SB02 SB02	RSB02-08 <sup>1</sup>	1	B B	67 67	66 66	59.7 59.6	60.2 60.1	63.5 63.3	3.8 3.7	No No	No No	Horse Creek Village residence Horse Creek Village residence
SB02	RSB02-09 <sup>1</sup> RSB02-10 <sup>1</sup>	1	В	67	66	58.9	59.7	63.5	4.6	No	No	Horse Creek Village residence
SB02	RSB02-10 <sup>1</sup>	2	В	67	66	59.1	59.9	64.0	4.9	No	No	Horse Creek Village residence
SB02	RSB02-12 <sup>1</sup>	1	В	67	66	58.7	59.8	64.5	5.8	No	No	Horse Creek Village residence
SB02	RSB02-13 1	2	В	67	66	59.3	60.7	65.6	6.3	No	No	Horse Creek Village residence
SB02	RSB02-14 1	1	В	67	66	61.5	63.4	69.1	7.6	Yes	No No	Horse Creek Village residence
SB02 SB02	RSB02-15 1	1	B B	67 67	66 66	62.7 58.8	64.9 59.9	<b>71.2</b> 64.5	8.5 5.7	Yes No	No No	Horse Creek Village residence  Horse Creek Village residence
SB02	RSB02-16 <sup>1</sup> RSB02-17 <sup>1</sup>	1	В	67	66	59.2	60.0	64.0	4.8	No	No	Horse Creek Village residence
SB02	RSB02-17	1	В	67	66	59.8	60.3	63.6	3.8	No	No	Horse Creek Village residence
SB02	RSB02-19 <sup>1</sup>	1	В	67	66	59.4	60.3	64.3	4.9	No	No	Horse Creek Village residence
SB02	RSB02-20 <sup>1</sup>	1	В	67	66	59.1	59.9	63.8	4.7	No	No	Horse Creek Village residence
SB02	RSB02-21 <sup>1</sup>	1	В	67	66	59.7	60.3	63.5	3.8	No	No	Horse Creek Village residence
SB02 SB02	RSB02-22 1	1	B B	67 67	66 66	64.6	66.9 62.5	73.7 67.5	9.1 6.9	Yes Yes	No No	Horse Creek Village residence Horse Creek Village residence
SB02	RSB02-23 <sup>1</sup> RSB02-24 <sup>1</sup>	1	В	67	66	59.7	60.3	63.4	3.7	No	No	Horse Creek Village residence
SB02	RSB02-25 <sup>1</sup>	1	В	67	66	59.2	60.0	63.8	4.6	No	No	Horse Creek Village residence
SB02	RSB02-26 <sup>1</sup>	1	В	67	66	60.1	61.9	66.9	6.8	Yes	No	Horse Creek Village residence
SB02	RSB02-27 <sup>1</sup>	1	В	67	66	60.1	61.7	66.3	6.2	Yes	No	Horse Creek Village residence
SB02	RSB02-28 1	1	В	67	66	59.5	60.9	65.4	5.9	No	No	Horse Creek Village residence
SB02 SB02	RSB02-29 1	1	B B	67 67	66 66	59.5 59.7	60.5 60.3	64.3 63.2	4.8 3.5	No No	No No	Horse Creek Village residence Horse Creek Village residence
SB02	RSB02-30 <sup>1</sup> RSB02-31 <sup>1</sup>	1	В	67	66	64.0	66.4	72.1	8.1	Yes	No	Horse Creek Village residence
SB02	RSB02-31	1	В	67	66	61.7	63.9	68.9	7.2	Yes	No	Horse Creek Village residence
SB02	RSB02-33 <sup>1</sup>	1	В	67	66	60.1	61.8	66.3	6.2	Yes	No	Horse Creek Village residence
SB02	RSB02-34 <sup>1</sup>	1	В	67	66	59.9	61.2	65.1	5.2	No	No	Horse Creek Village residence
SB02	RSB02-35 <sup>1</sup>	3	В	67	66	62.0	64.7	67.8	5.8	Yes	No	Shady Oaks MH Park residence
SB02 SB02	RSB02-36 <sup>1</sup> RSB02-37 <sup>1</sup>	2	B B	67 67	66 66	60.0 60.6	62.0 61.0	65.2 64.5	5.2 3.9	No No	No No	Shady Oaks MH Park residence Shady Oaks MH Park residence
SB02	RSB02-37	1	В	67	66	60.0	61.0	63.5	3.5	No	No	Shady Oaks MH Park residence
SB02	RSB02-39 <sup>1</sup>	1	В	67	66	65.5	68.8	71.6	6.1	Yes	No	Shady Oaks MH Park residence
SB02	RSB02-40 <sup>1</sup>	3	В	67	66	62.7	65.6	68.2	5.5	Yes	No	Shady Oaks MH Park residence
SB02	RSB02-41 1	3	В	67	66	61.1	63.3	66.4	5.3	Yes	No	Shady Oaks MH Park residence
SB02	RSB02-42 1	3	В	67	66	60.4	62.6	65.6	5.2	No	No	Shady Oaks MH Park residence
SB02	RSB02-43 <sup>1</sup>	2	В	67	66	65.3	61.6	64.3	-1.0	No	No No	Shady Oaks MH Park residence
SB02 SB02	RSB02-44 <sup>1</sup> RSB02-45 <sup>1</sup>	1	B B	67 67	66 66	65.0 63.2	68.0 66.1	71.7 69.3	6.7 6.1	Yes Yes	No No	Shady Oaks MH Park residence Shady Oaks MH Park residence
SB02	RSB02-45  RSB02-46 <sup>1</sup>	1	В	67	66	61.7	64.3	67.8	6.1	Yes	No	Shady Oaks MH Park residence
SB02	RSB02-47 <sup>1</sup>	1	В	67	66	61.4	63.9	66.7	5.3	Yes	No	Shady Oaks MH Park residence
SB04	RSB04-01 1, 2	1	В	67	66	65.1	65.1	66.6	1.5	Yes	No	Preservation Pointe residence
SB04	RSB04-02 1, 2	1	В	67	66	64.1	64.1	65.8	1.7	No	No	Preservation Pointe residence
SB04 SB04	RSB04-03 1, 2	1	В	67 67	66 66	70.0	70.0	70.7	0.7	Yes	No No	Preservation Pointe residence Preservation Pointe residence
SB04 SB04	RSB04-04 <sup>1, 2</sup> RSB04-05 <sup>1, 2</sup>	1	B B	67 67	66	70.0 70.0	70.0 70.0	70.7 70.5	0.7 0.5	Yes Yes	No No	Preservation Pointe residence Preservation Pointe residence
SB04	RSB04-05 <sup>1, 2</sup>	1	В	67	66	70.0	70.0	70.5	0.5	Yes	No	Preservation Pointe residence
SB04	RSB04-00 1, 2	1	В	67	66	70.0	70.0	70.5	0.5	Yes	No	Preservation Pointe residence
SB04	RSB04-08 1, 2	1	В	67	66	70.0	70.0	70.5	0.5	Yes	No	Preservation Pointe residence
SB04	RSB04-09 1, 2	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No	Preservation Pointe residence
SB04	RSB04-10 1, 2	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No No	Preservation Pointe residence
SB04	RSB04-11 1, 2	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No No	Preservation Pointe residence
SB04 SB04	RSB04-12 <sup>1, 2</sup>	1	B B	67 67	66 66	70.0 70.0	70.0 70.0	70.4 70.4	0.4	Yes Yes	No No	Preservation Pointe residence Preservation Pointe residence
SB04	RSB04-13 <sup>1, 2</sup>	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No	Preservation Pointe residence
SB04	RSB04-15 <sup>1, 2</sup>	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No	Preservation Pointe residence
SB04	RSB04-16 1, 2	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No	Preservation Pointe residence
SB04	RSB04-17 1, 2	1	В	67	66	70.0	70.0	70.4	0.4	Yes	No	Preservation Pointe residence
SB04	RSB04-18 1, 2	1	В	67	66	70.0	70.0	68.5	-1.5	Yes	No	Preservation Pointe residence
SB04 SB04	RSB04-19 1, 2 RSB04-20 1, 2	1	В	67 67	66	70.0	70.0	70.2	0.2	Yes	No No	Williams Preserve residence
	K5BU4-20 ***	1	В	0/	66	70.0	70.0	70.2	0.2	Yes	No	Williams Preserve residence

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Common	D	N6		NAC	FDOT	2024	2050	2050 Build		NAC	Substantial	
Noise Environment	Receptor Point	No. of Units	NAC	Criterion	Criterion	Existing LAeq1h	No-Build LAeg1h	LAeq1h	Increase	Approach or	Increase	Description
(CNE)	Polit	Ullits		(dB(A))	(dB(A))	(dB(A))	(dB(A))	(dB(A))		Exceeded	(≥15dB(A))	
SB04	RSB04-21 1, 2	1	В	67	66	70.0	70.0	70.2	0.2	Yes	No	Williams Preserve residence
SB04	RSB04-21 1, 2	1	В	67	66	70.0	70.0	70.2	0.2	Yes	No	Williams Preserve residence
SB04	RSB04-23 1, 2	1	В	67	66	70.0	70.0	70.2	0.2	Yes	No	Williams Preserve residence
SB04	RSB04-24 1, 2	1	В	67	66	70.0	70.0	70.2	0.2	Yes	No	Williams Preserve residence
SB05	RSB05-01	1	В	67	66	63.4	65.8	68.5	5.1	Yes	No	Aviana residence
SB05	RSB05-02	1	В	67	66	60.0	62.5	67.0	7.0	Yes	No	Aviana residence
SB05 SB05	RSB05-03 RSB05-04	1	B B	67 67	66 66	58.2 53.1	60.6 55.6	<b>66.3</b> 64.6	8.1 11.5	Yes No	No No	Aviana residence Aviana residence
SB05	RSB05-05	1	В	67	66	52.2	54.7	64.1	11.9	No	No	Aviana residence
SB05	RSB05-06	1	В	67	66	51.0	53.5	63.4	12.4	No	No	Aviana residence
SB05	RSB05-07	1	В	67	66	49.8	52.3	62.7	12.9	No	No	Aviana residence
SB05	RSB05-08	1	В	67	66	52.2	54.7	63.9	11.7	No	No	Aviana residence
SB05 SB05	RSB05-09 RSB05-10	1	B B	67 67	66 66	51.3 50.8	53.8 53.3	63.5 63.2	12.2 12.4	No No	No No	Aviana residence Aviana residence
SB05	RSB05-11	1	В	67	66	50.2	52.7	63.0	12.8	No	No	Aviana residence
SB05	RSB05-12	1	В	67	66	49.4	51.9	62.8	13.4	No	No	Aviana residence
SB05	RSB05-13	1	В	67	66	52.7	55.2	64.3	11.6	No	No	Aviana residence
SB05 SB05	RSB05-14	1	В	67 67	66 66	52.1 51.6	54.6	64.3	12.2 12.6	No No	No	Aviana residence Aviana residence
SB05	RSB05-15 RSB05-16	1	B B	67	66	51.6	54.1 53.5	64.2 63.7	12.5	No	No No	Aviana residence Aviana residence
SB05	RSB05-17	1	В	67	66	50.5	53.0	63.0	12.5	No	No	Aviana residence
SB05	RSB05-18	1	В	67	66	50.0	52.5	62.5	12.5	No	No	Aviana residence
SB05	RSB05-19	1	В	67	66	49.5	52.0	62.1	12.6	No	No	Aviana residence
SB05	RSB05-20	1	В	67	66	53.2	55.7	62.3	9.1	No	No No	Aviana residence
SB05 SB05	RSB05-21 RSB05-22	1	B B	67 67	66 66	55.3 56.0	57.8 58.5	64.9 65.3	9.6 9.3	No No	No No	Aviana residence Aviana residence
SB05	RSB05-22 RSB05-23	8	В	67	66	63.8	66.2	68.2	9.3 4.4	Yes	No No	Aviana residence
SB05	RSB05-24	1	В	67	66	57.3	59.8	64.3	7.0	No	No	Aviana residence
SB05	RSB05-25	1	В	67	66	47.7	50.2	60.9	13.2	No	No	Aviana residence
SB05	RSB05-26	1	В	67	66	47.0	49.5	60.6	13.6	No	No	Aviana residence
SB05 SB05	RSB05-27 RSB05-28	1	B B	67 67	66 66	46.5 45.9	49.0 48.4	59.7 58.3	13.2 12.4	No No	No No	Aviana residence Aviana residence
SB05	RSB05-28	1	В	67	66	45.9	48.4	57.7	12.4	No	No	Aviana residence
SB05	RSB05-30	1	В	67	66	49.6	52.1	62.7	13.1	No	No	Aviana residence
SB05	RSB05-31	1	В	67	66	48.7	51.2	60.9	12.2	No	No	Aviana residence
SB05	RSB05-32	1	В	67	66	47.0	49.5	59.0	12.0	No	No	Aviana residence
SB05 SB05	RSB05-33 RSB05-34	1	B B	67 67	66 66	46.3 48.9	48.8 51.4	58.0 61.5	11.7 12.6	No No	No No	Aviana residence Aviana residence
SB05	RSB05-35	1	В	67	66	48.5	50.9	61.0	12.5	No	No	Aviana residence
SB05	RSB05-36	1	В	67	66	48.0	50.4	60.4	12.4	No	No	Aviana residence
SB05	RSB05-37	1	В	67	66	47.6	50.0	59.9	12.3	No	No	Aviana residence
SB05	RSB05-38	1	В	67	66	47.2	49.6	59.5	12.3	No	No	Aviana residence
SB05 SB05	RSB05-39 RSB05-40	1	B B	67 67	66 66	46.7 46.3	49.1 48.7	58.9 58.5	12.2 12.2	No No	No No	Aviana residence Aviana residence
SB05	RSB05-41	1	В	67	66	49.7	52.2	60.0	10.3	No	No	Aviana residence
SB05	RSB05-42	1	В	67	66	49.7	52.2	60.1	10.4	No	No	Aviana residence
SB05	RSB05-43	1	В	67	66	49.5	51.9	59.8	10.3	No	No	Aviana residence
SB05	RSB05-44	1	В	67	66	49.6	52.0	59.8	10.2	No	No	Aviana residence
SB05 SB05	RSB05-45 RSB05-46	1	B B	67 67	66 66	49.5 49.9	52.0 52.4	59.3 59.6	9.8 9.7	No No	No No	Aviana residence Aviana residence
SB05	RSB05-47	1	В	67	66	50.6	53.0	60.2	9.6	No	No	Aviana residence
SB05	RSB05-48	4	В	67	66	51.0	53.4	60.4	9.4	No	No	Aviana residence
SB06	RSB06-01a	6	В	67	66	65.1	67.5	68.4	3.3	Yes	No	Pointe Grand Apts 1st floor unit
SB06	RSB06-01b	6	В	67	66	67.9	70.2	71.6	3.7	Yes	No	Pointe Grand Apts 2nd floor unit
SB06 SB06	RSB06-01c RSB06-02a	6	B B	67 67	66	67.6 68.0	70.0 69.7	72.6 70.4	5.0 2.4	Yes	No No	Pointe Grand Apts 3rd floor unit Pointe Grand Apts 1st floor unit
SB06	RSB06-02a RSB06-02b	6	В	67	66 66	70.2	71.8	70.4	2.4	Yes Yes	No No	Pointe Grand Apts 1st floor unit Pointe Grand Apts 2nd floor unit
SB06	RSB06-02c	6	В	67	66	70.0	71.5	73.7	3.7	Yes	No	Pointe Grand Apts 3rd floor unit
SB06	RSB06-03a	2	В	67	66	51.5	53.8	55.0	3.5	No	No	Pointe Grand Apts 1st floor unit
SB06	RSB06-03b	2	В	67	66	54.9	57.2	58.5	3.6	No	No	Pointe Grand Apts 2nd floor unit
SB06	RSB06-03c	2	В	67	66	55.7	57.9	59.9	4.2	No	No	Pointe Grand Apts 3rd floor unit
SB06 SB06	RSB06-04a RSB06-04b	2	B B	67 67	66 66	54.9 58.9	55.9 59.1	56.1 59.4	1.2 0.5	No No	No No	Pointe Grand Apts 1st floor unit Pointe Grand Apts 2nd floor unit
SB06	RSB06-04b	2	В	67	66	60.1	60.5	61.0	0.9	No	No	Pointe Grand Apts 3rd floor unit
SB06	RSB06-05a	1	В	67	66	49.6	50.9	56.9	7.3	No	No	Pointe Grand Apts 1st floor unit
SB06	RSB06-05b	1	В	67	66	53.3	54.6	58.9	5.6	No	No	Pointe Grand Apts 2nd floor unit
SB06	RSB06-05c	1	В	67	66	55.1	56.4	61.5	6.4	No	No	Pointe Grand Apts 3rd floor unit
SB06 SB06	RSB06-06a RSB06-06b	1	B B	67 67	66 66	58.6 62.3	59.6 63.0	63.3 66.2	4.7 3.9	No Yes	No No	Pointe Grand Apts 1st floor unit Pointe Grand Apts 2nd floor unit
SB06	RSB06-06c	1	В	67	66	63.7	64.4	67.9	4.2	Yes	No	Pointe Grand Apts 3rd floor unit
SB06	RSB06-07a	1	В	67	66	57.9	58.9	62.7	4.8	No	No	Pointe Grand Apts 1st floor unit
SB06	RSB06-07b	1	В	67	66	61.5	62.1	65.4	3.9	No	No	Pointe Grand Apts 2nd floor unit
SB06	RSB06-07c	1	В	67	66	62.9	63.5	66.9	4.0	Yes	No	Pointe Grand Apts 3rd floor unit
SB06 SB06	RSB06-08a RSB06-08b	1	B B	67 67	66 66	57.5 61.1	58.5 61.6	62.3 64.9	4.8 3.8	No No	No No	Pointe Grand Apts 1st floor unit Pointe Grand Apts 2nd floor unit
SB06	RSB06-080	1	В	67	66	62.5	63.0	66.4	3.8	Yes	No	Pointe Grand Apts 2nd floor unit
SB07	RSB07-01	1	В	67	66	52.6	56.7	65.5	12.9	No	No	Single-family residence
SB07	RSB07-02	1	В	67	66	53.8	58.5	66.3	12.5	Yes	No	Single-family residence
SB07	RSB07-03	1	В	67	66	49.6	56.3	65.3	15.7	No	Yes	Single-family residence
SB08	RSB08-01 1	1	В	67	66	52.3	57.4	67.0	14.7	Yes	No	Single-family residence
SB08	RSB08-02 1	1	В	67	66	52.2	57.3	66.4	14.2	Yes	No	Single-family residence
SB08	RSB08-03 <sup>1</sup>	1	В	67	66	52.8	57.5	65.5	12.7	No	No	Single-family residence
SB08	RSB08-04 <sup>1</sup>	1	В	67	66	53.9	57.4	64.0	10.1	No	No	Single-family residence
SB08	RSB08-05 <sup>1</sup>	1	В	67	66	54.5	57.7	63.9	9.4	No	No	Single-family residence
SB08	RSB08-06 1	1	В	67	66	54.0	57.1	63.4	9.4	No	No	Single-family residence

Central Polk Parkway East from US 17/92 to Poinciana Connector (SR 538) FM No. 451419-1

Common Noise Environment (CNE)	Receptor Point	No. of Units	NAC	NAC Criterion (dB(A))	FDOT Criterion (dB(A))	2024 Existing LAeq1h (dB(A))	2050 No-Build LAeq1h (dB(A))	2050 Build LAeq1h (dB(A))	Increase	NAC Approach or Exceeded	Substantial Increase (≥15dB(A))	Description
SB08	RSB08-07 <sup>1</sup>	1	В	67	66	59.5	61.2	65.5	6.0	No	No	Single-family residence
SB08	RSB08-08 <sup>1</sup>	1	В	67	66	55.5	57.9	64.1	8.6	No	No	Single-family residence
SB08	RSB08-09 1	1	В	67	66	59.7	61.5	66.2	6.5	Yes	No	Single-family residence
SB08	RSB08-10 <sup>1</sup>	1	В	67	66	59.8	62.0	66.5	6.7	Yes	No	Single-family residence
SB08	RSB08-11 1,2	1	В	67	66	60.2	61.9	67.1	6.9	Yes	No	Single-family residence
SB08	RSB08-12 1, 2	1	В	67	66	63.1	64.8	67.1	4.0	Yes	No	Single-family residence
SB08	RSB08-13 1, 2	1	В	67	66	62.1	64.3	67.2	5.1	Yes	No	Single-family residence

Receptor is influenced by both roadway and railroad noise.
 Ambient field measurement average applied for existing condition noise level.

## **Appendix B-2: SLU Properties Predicted Noise Levels**

Central Polk Parkway East from US 17/92 to Poinciana Connector (SR 538) FM No. 451419-1

Common Noise Environment (CNE)	Receptor Point	No. of Units	NAC	NAC Criterion (dB(A))	FDOT Criterion (dB(A))	2024 Existing LAeq1h (dB(A))	2050 No-Build LAeq1h (dB(A))	2050 Build LAeq1h (dB(A))	Increase	NAC Approach or Exceeded	Substantial Increase (≥15dB(A))	Description
XX.X Imp	acted Receptor											
NB01	NNB01-01	1	С	67.0	66.0	58.0	61.6	63.7	5.7	No	No	Powerhouse Church of God in Christ
NB02	NNB02-01	1	С	67.0	66.0	50.8	54.2	58.9	8.1	No	No	Temples Crossing playground
NB05	NNB05-01	1	С	67.0	66.0	55.8	54.4	61.5	5.7	No	No	Kinney Harmon Cemetery
SB01	NSB01-01 1	1	С	67.0	66.0	61.7	64.7	66.6	4.9	Yes	No	Mt. Calvary MB Church
SB01	NSB01-02.1 1	1	С	67.0	66.0	64.7	67.9	70.9	6.2	Yes	No	Jamestown Park BB Courts
SB01	NSB01-02.2 <sup>1</sup>	1	C	67.0	66.0	64.7	64.8	66.7	2.0	Yes	No	Jamestown Park playground
SB01	NSB01-03 1	1	С	67.0	66.0	61.8	64.8	67.7	5.9	Yes	No	Church of God by Faith
SB01	NSB01-04 1	1	С	67.0	66.0	60.0	62.6	66.1	6.1	Yes	No	St. Mark AME Church
SB01	NSB01-05 <sup>1</sup>	1	С	67.0	66.0	58.3	59.6	62.3	4.0	No	No	Friendship Missionary Baptist Church
SB02	NSB02-01 <sup>1</sup>	1	С	67.0	66.0	61.7	63.6	69.0	7.3	Yes	No	Horse Creek Village pool
SB02	NSB02-02 1	1	С	67.0	66.0	62.1	64.2	69.5	7.4	Yes	No	Horse Creek Village BB court
SB07	NSB07-01	1	С	67.0	66.0	43.2	53.6	61.4	18.2	No	Yes	The Learning Experience Preschool
SB07	NSB07-02	1	С	67.0	66.0	59.4	62.7	67.1	7.7	Yes	No	Casa De Israel Yarah Church
SB08	NSB08-01 <sup>1</sup>	1	С	67.0	66.0	60.6	60.5	64.2	3.6	No	No	Neighborhood basketball court
SB08	NSB08-02 <sup>1</sup>	1	С	67.0	66.0	59.2	59.1	65.0	5.8	No	No	Church of God & Pillar of Zion
SB08	NSB08-03 1, 2	1	С	67.0	66.0	58.4	58.3	64.5	6.1	No	No	Antioch Missionary Baptist Church

Notes:

Receptor is influenced by both roadway and railroad noise.

 $<sup>^{\</sup>rm 2}\,$  Ambient field measurement average applied for existing condition noise level.

# Appendix C Decibel Addition with Contributing Rail Noise

	CSX Rail	2024 Exis Leq(dB(	_	2050 N Leq(d			Build dB(A))
Receptor Point	Noise Leq (dB) <sup>1</sup>	Roadway Noise <sup>2</sup> (See Note 1)	Decibel Addition Sum	Roadway Noise <sup>2</sup>	Decibel Addition Sum	Roadway Noise <sup>2</sup>	Decibel Addition Sum
		Resid	lential Noise	Receptors			
RNB04-01	56.0	45.8	56.4	46.8	56.5	60.8	62.0
RNB04-02	54.0	45.8	56.4	49.5	55.3	56.5	58.4
RNB04-03	51.0	52.7	54.9	57.1	58.4	59.8	60.3
RNB04-04	50.0	61.5	61.8	66.3	66.4	68.7	68.8
RNB04-05	50.0	59.7	60.1	64.4	64.6	65.8	65.9
RNB04-06	50.0	64.2	64.4	69.0	69.1	70.6	70.6
RNB04-07	55.0	45.8	55.5	45.9	55.5	62.7	63.4
RNB04-08	55.0	45.8	55.5	45.7	55.5	63.0	63.6
RNB04-09	54.0	45.8	54.6	46.4	54.7	62.1	62.7
RNB04-10	54.0	45.8	54.6	47.2	54.8	60.7	61.5
RNB04-11	53.0	45.8	53.8	47.9	54.2	60.4	61.1
RNB04-12	51.0	50.1	53.6	54.4	56.0	58.7	59.4
RNB04-13	50.0	54.7	56.0	59.3	59.8	60.6	61.0
RNB04-14	50.0	59.9	60.3	64.7	64.8	65.2	65.3
RNB04-15	55.0	45.8	55.5	45.8	55.5	64.1	64.6
RNB07-01	54.0	58.4	59.7	67.9	68.1	67.7	67.9
RNB07-02	55.0	59.8	61.0	65.6	65.9	66.3	66.6
RNB07-03	63.0	45.8	63.1	61.5	65.3	67.6	68.9
RSB01-01	56.0	63.4	64.1	67.0	67.3	69.0	69.2
RSB01-02	56.0	59.1	60.8	62.6	63.5	65.3	65.8
RSB01-03	57.0	55.5	59.3	59.1	61.2	62.4	63.5
RSB01-04	58.0	54.2	59.2	57.8	60.9	61.1	62.8
RSB01-05	59.0	52.3	59.8	56.0	60.8	59.3	62.2
RSB01-06	56.0	57.9	60.1	61.5	62.6	64.5	65.1
RSB01-07	57.0	55.8	59.5	59.4	61.4	63.1	64.1
RSB01-08	57.0	54.4	58.9	58.1	60.6	61.8	63.0
RSB01-09	58.0	53.4	59.3	57.1	60.6	60.7	62.6
RSB01-10	57.0	55.3	59.2	58.9	61.1	62.7	63.7
RSB01-11	58.0	53.2	59.2	56.8	60.5	60.7	62.6
RSB01-12	59.0	51.7	59.7	55.4	60.6	59.1	62.1
RSB01-13	57.0	54.6	59.0	58.3	60.7	62.3	63.4
RSB01-14	57.0	53.6	58.6	57.2	60.1	61.3	62.7
RSB01-15	58.0	51.7	58.9	55.4	59.9	59.4	61.8
RSB01-16	59.0	51.0	59.6	54.7	60.4	59.1	62.1
RSB01-17	59.0	49.9	59.5	53.7	60.1	58.4	61.7
RSB02-01	55.0	63.1	63.7	65.6	66.0	72.8	72.9
RSB02-02	55.0	61.3	62.2	63.8	64.3	70.4	70.5
RSB02-03	56.0	59.1	60.8	61.6	62.7	68.0	68.3
RSB02-04	56.0	57.1	59.6	59.7	61.2	66.4	66.8
RSB02-05	55.0	54.7	57.9	57.4	59.4	64.4	64.9
RSB02-06	57.0	53.8	58.7	56.6	59.8	63.7	64.5
RSB02-07	58.0	52.1	59.0	54.9	59.7	62.3	63.7
RSB02-08	59.0	51.3	59.7	54.2	60.2	61.6	63.5
RSB02-09	59.0	51.0	59.6	53.8	60.1	61.3	63.3
RSB02-10	58.0	51.8	58.9	54.7	59.7	62.0	63.5
RSB02-11	58.0	52.7	59.1	55.4	59.9	62.7	64.0
RSB02-12	57.0	53.9	58.7	56.6	59.8	63.7	64.5

Doorston	CSX Rail	2024 Exis Leq(dB(	_	2050 N Leq(d		2050 Leq(c	Build IB(A))
Receptor Point	Noise Leq (dB) <sup>1</sup>	Roadway Noise <sup>2</sup> (See Note 1)	Decibel Addition Sum	Roadway Noise <sup>2</sup>	Decibel Addition Sum	Roadway Noise <sup>2</sup>	Decibel Addition Sum
		Resid	lential Noise	Receptors			
RSB02-13	57.0	55.5	59.3	58.2	60.7	65.0	65.6
RSB02-14	56.0	60.0	61.5	62.5	63.4	68.9	69.1
RSB02-15	55.0	61.9	62.7	64.4	64.9	71.1	71.2
RSB02-16	57.0	54.1	58.8	56.8	59.9	63.7	64.5
RSB02-17	58.0	52.9	59.2	55.7	60.0	62.8	64.0
RSB02-18	59.0	51.8	59.8	54.6	60.3	61.8	63.6
RSB02-19	58.0	53.8	59.4	56.5	60.3	63.2	64.3
RSB02-20	58.0	52.7	59.1	55.5	59.9	62.5	63.8
RSB02-21	59.0	51.7	59.7	54.5	60.3	61.6	63.5
RSB02-22	55.0	64.1	64.6	66.6	66.9	73.6	73.7
RSB02-23	56.0	58.8	60.6	61.4	62.5	67.2	67.5
RSB02-24	59.0	51.7	59.7	54.6	60.3	61.5	63.4
RSB02-25	58.0	52.9	59.2	55.8	60.0	62.5	63.8
RSB02-26	56.0	57.9	60.1	60.6	61.9	66.5	66.9
RSB02-27	57.0	57.1	60.1	59.9	61.7	65.8	66.3
RSB02-28	57.0	55.8	59.5	58.7	60.9	64.7	65.4
RSB02-29	58.0	54.1	59.5	57.0	60.5	63.2	64.3
RSB02-30	59.0	51.5	59.7	54.4	60.3	61.1	63.2
RSB02-31	55.0	63.4	64.0	66.1	66.4	72.0	72.1
RSB02-32	56.0	60.4	61.7	63.1	63.9	68.7	68.9
RSB02-33	57.0	57.2	60.1	60.1	61.8	65.8	66.3
RSB02-34	58.0	55.4	59.9	58.4	61.2	64.1	65.1
RSB02-35	56.0	60.7	62.0	64.1	64.7	67.5	67.8
RSB02-36	57.0	57.0	60.0	60.4	62.0	64.5	65.2
RSB02-37	59.0	55.2	60.6	58.6	61.0	63.0	64.5
RSB02-38	59.0	53.3	60.0	56.7	61.0	61.6	63.5
RSB02-39	56.0	65.0	65.5	68.6	68.8	71.5	71.6
RSB02-40	56.0	61.6	62.7	65.1	65.6	67.9	68.2
RSB02-41	57.0	59.0	61.1	62.5	63.3	65.9	66.4
RSB02-42	57.0	57.7	60.4	61.2	62.6	64.9	65.6
RSB02-43	58.0	55.6	65.3	59.1	61.6	63.2	64.3
RSB02-44	56.0	64.4	65.0	67.7	68.0	71.0	71.7
RSB02-45	56.0	62.3	63.2	65.6	66.1	69.1	69.3
RSB02-46	56.0	60.3	61.7	63.6	64.3	67.5	67.8
RSB02-47	57.0	59.4	61.4	62.9	63.9	66.2	66.7
RSB04-01	65.0	45.8	65.1	45.8	65.1	61.6	66.6
RSB04-02	64.0	45.8	64.1	45.8	64.1	61.2	65.8
RSB04-03	70.0	45.8	70.0	45.8	70.0	62.7	70.7
RSB04-04	70.0	45.8	70.0	45.8	70.0	62.6	70.7
RSB04-05	70.0	45.8	70.0	45.8	70.0	60.8	70.5
RSB04-06	70.0	45.8	70.0	45.8	70.0	60.8	70.5
RSB04-07	70.0	45.8	70.0	45.8	70.0	60.6	70.5
RSB04-08	70.0	45.8	70.0	45.8	70.0	60.4	70.5
RSB04-09	70.0	45.8	70.0	45.8	70.0	60.3	70.3
RSB04-10	70.0	45.8	70.0	45.8	70.0	60.1	70.4
RSB04-11	70.0	45.8	70.0	45.8	70.0	59.9	70.4
RSB04-12	70.0	45.8	70.0	45.8	70.0	59.8	70.4
1,5004 12	, 0.0	73.0	, 5.0	73.0	, 0.0	55.0	, 0.4

Receptor Point	CSX Rail Noise Leq (dB) <sup>1</sup>	2024 Existing Leq(dB(A))		2050 No-Build Leq(dB(A))		2050 Build Leq(dB(A))	
		Roadway Noise <sup>2</sup> (See Note 1)	Decibel Addition Sum	Roadway Noise <sup>2</sup>	Decibel Addition Sum	Roadway Noise <sup>2</sup>	Decibel Addition Sum
Residential Noise Receptors							
RSB04-13	70.0	45.8	70.0	45.8	70.0	59.6	70.4
RSB04-14	70.0	45.8	70.0	45.8	70.0	59.7	70.4
RSB04-15	70.0	45.8	70.0	45.8	70.0	59.6	70.4
RSB04-16	70.0	45.8	70.0	45.8	70.0	59.4	70.4
RSB04-17	70.0	45.8	70.0	45.8	70.0	59.5	70.4
RSB04-18	68.0	45.8	70.0	45.8	70.0	59.3	68.5
RSB04-19	70.0	45.8	70.0	45.8	70.0	57.6	70.2
RSB04-20	70.0	45.8	70.0	45.8	70.0	57.8	70.2
RSB04-21	70.0	45.8	70.0	45.8	70.0	57.5	70.2
RSB04-22	70.0	45.8	70.0	45.8	70.0	57.3	70.2
RSB04-23	70.0	45.8	70.0	45.8	70.0	57.2	70.2
RSB04-24	70.0	45.8	70.0	45.8	70.0	57.0	70.2
RSB08-01	49.0	49.6	52.3	56.7	57.4	66.9	67.0
RSB08-02	49.0	49.4	52.2	56.6	57.3	66.0	66.4
RSB08-03	50.0	49.5	52.8	56.6	57.5	65.4	65.5
RSB08-04	50.0	51.6	53.9	56.5	57.4	63.8	64.0
RSB08-05	50.0	52.6	54.5	56.9	57.7	63.7	63.9
RSB08-06	50.0	51.8	54.0	56.2	57.1	63.2	63.4
RSB08-07	51.0	58.8	59.5	60.8	61.2	65.3	65.5
RSB08-08	52.0	53.0	55.5	56.6	57.9	63.8	64.1
RSB08-09	52.0	58.9	59.7	61.0	61.5	66.0	66.2
RSB08-10	54.0	58.5	59.8	61.2	62.0	66.2	66.5
RSB08-11	60.0	45.8	60.2	57.5	61.9	66.1	67.1
RSB08-12	63.0	45.8	63.1	60.2	64.8	65.0	67.1
RSB08-13	62.0	45.8	62.1	60.5	64.3	65.7	67.2
Non-Residential Noise Receptors							
NSB01-01	55.0	60.6	61.7	64.2	64.7	66.3	66.6
NSB01-02.1	55.0	64.2	64.7	67.7	67.9	70.8	70.9
NSB01-02.2	55.0	60.8	64.7	64.3	64.8	66.4	66.7
NSB01-03	55.0	60.8	61.8	64.3	64.8	67.5	67.7
NSB01-04	55.0	58.3	60.0	61.8	62.6	65.8	66.1
NSB01-05	57.0	52.6	58.3	56.2	59.6	60.8	62.3
NSB02-01	56.0	60.3	61.7	62.8	63.6	68.8	69.0
NSB02-02	56.0	60.9	62.1	63.5	64.2	69.3	69.5
NSB08-01	50.0	58.3	58.9	60.2	60.6	64.2	64.4
NSB08-02	50.0	54.5	55.8	58.6	59.2	65.0	65.1
NSB08-03	54.0	45.8	54.5	56.4	58.4	64.5	64.9

<sup>&</sup>lt;sup>1</sup> Results from the CREATE rail noise prediction model.

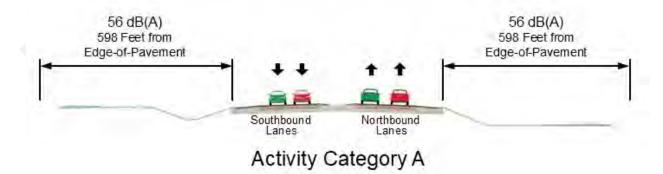
Note 1: Ambient field measurement average applied for existing condition noise level.

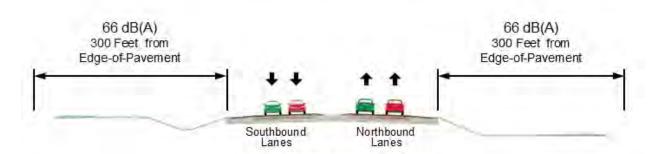
 $<sup>^{\,2}\,</sup>$  Results from the FHWA TNM 2.5 traffic noise prediction model.

## Appendix D Project Noise Contours

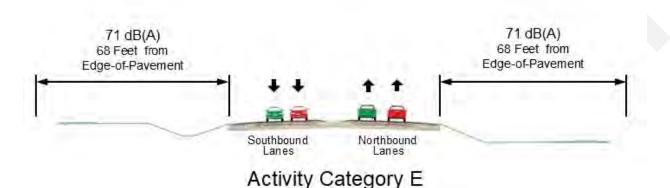
### Noise Contours \* For Central Polk Parkway East

From US 17/92 to Poinciana Connector (SR 538)



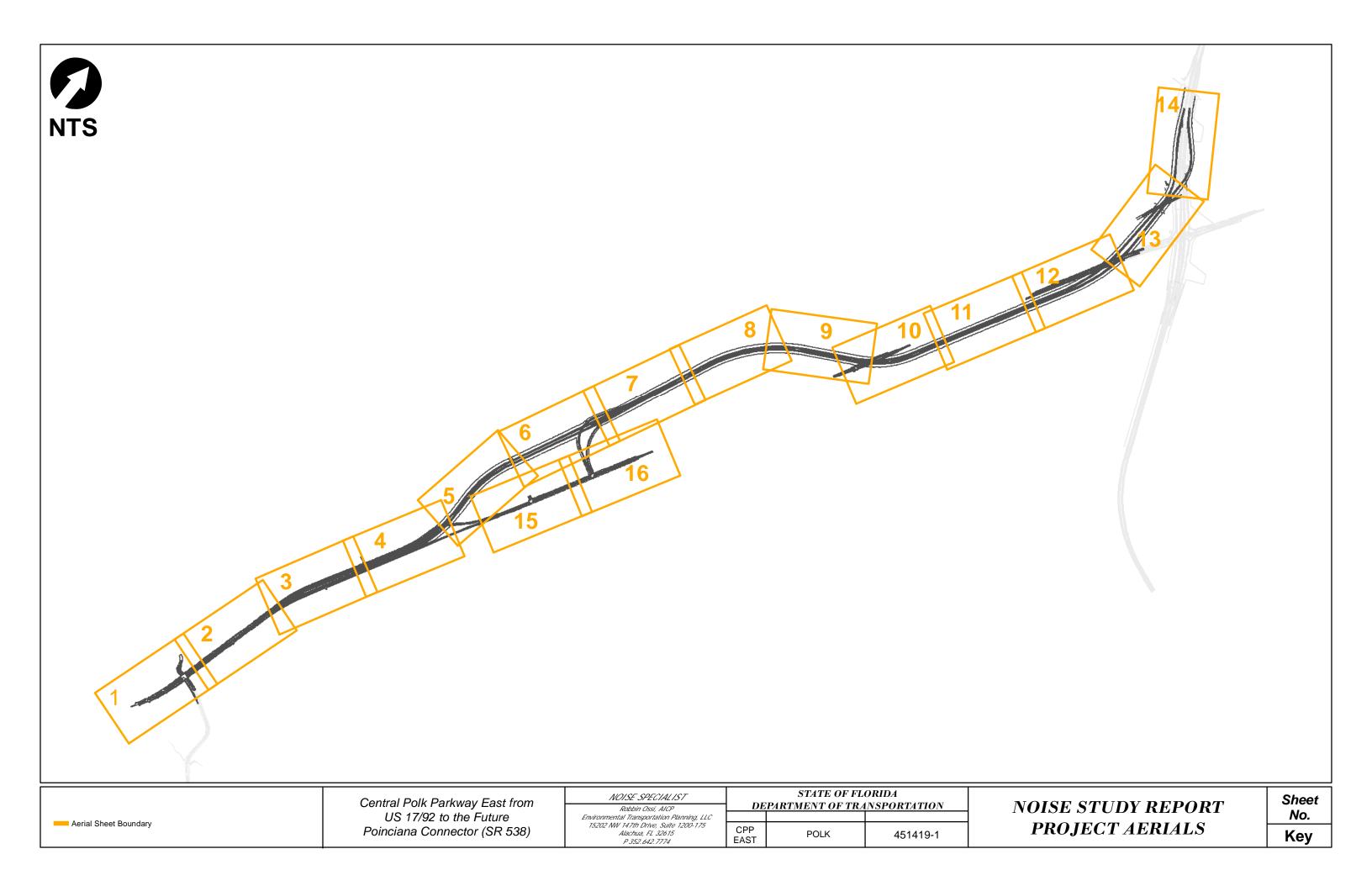


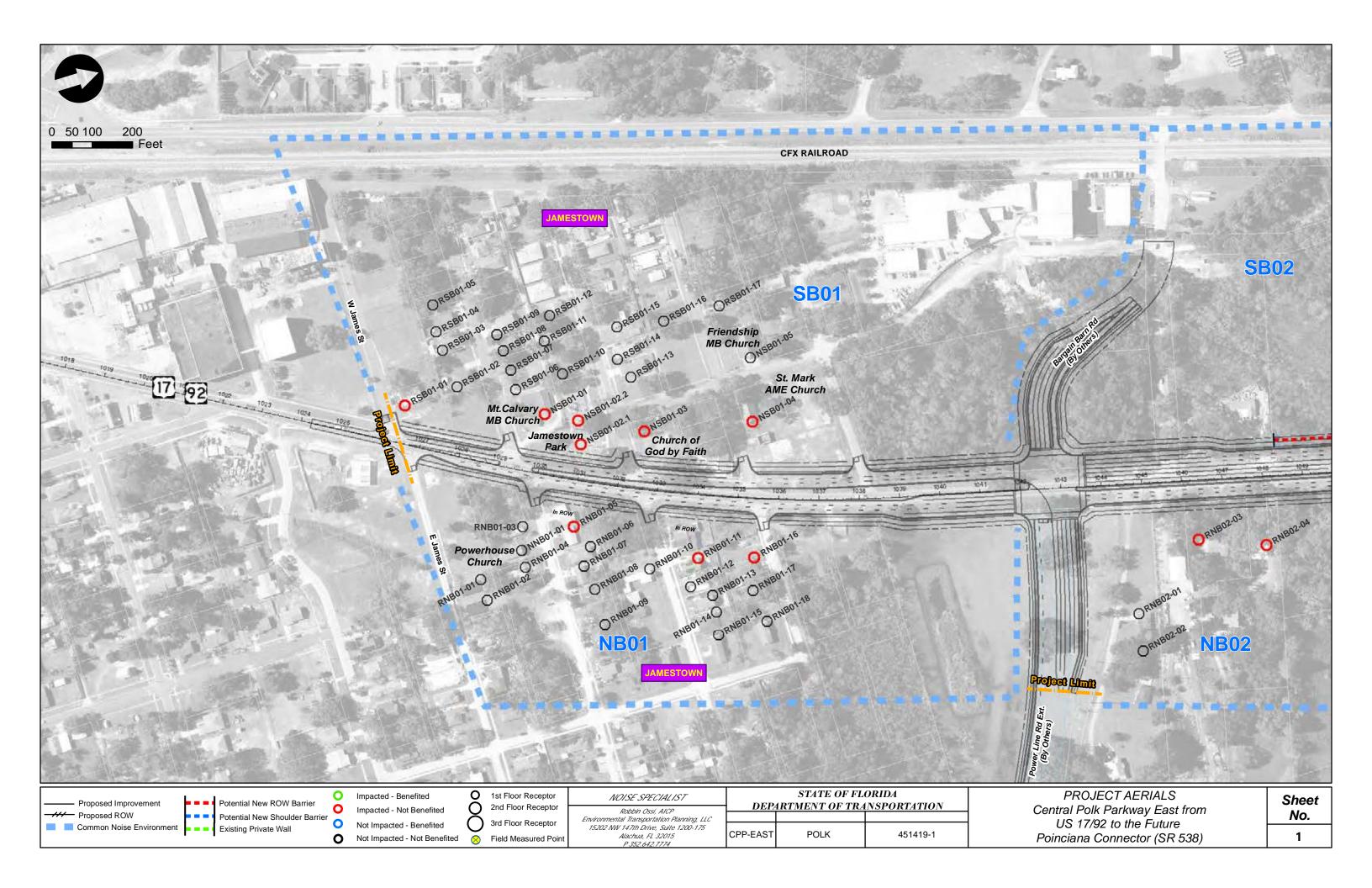
Activity Category B/C

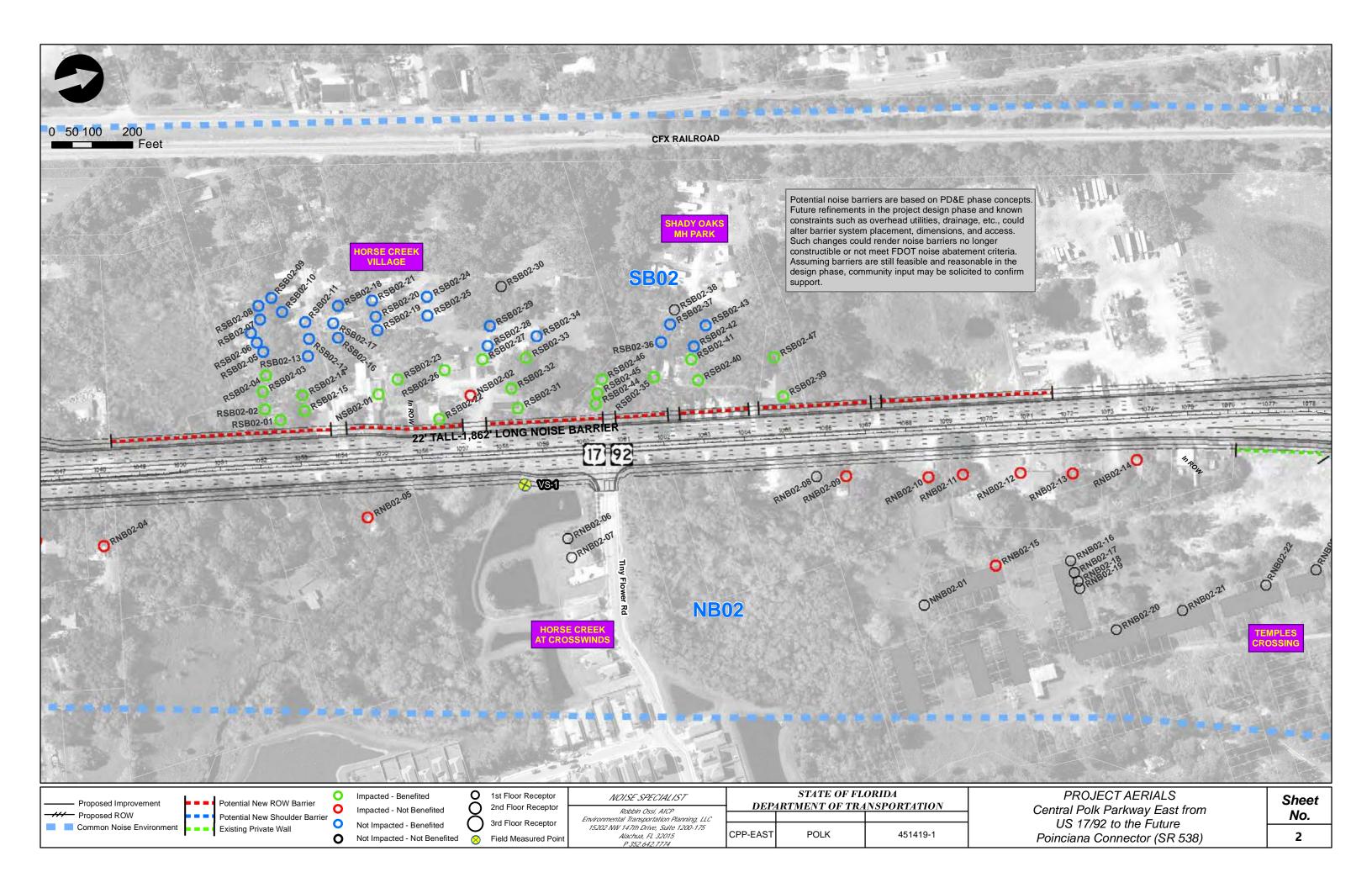


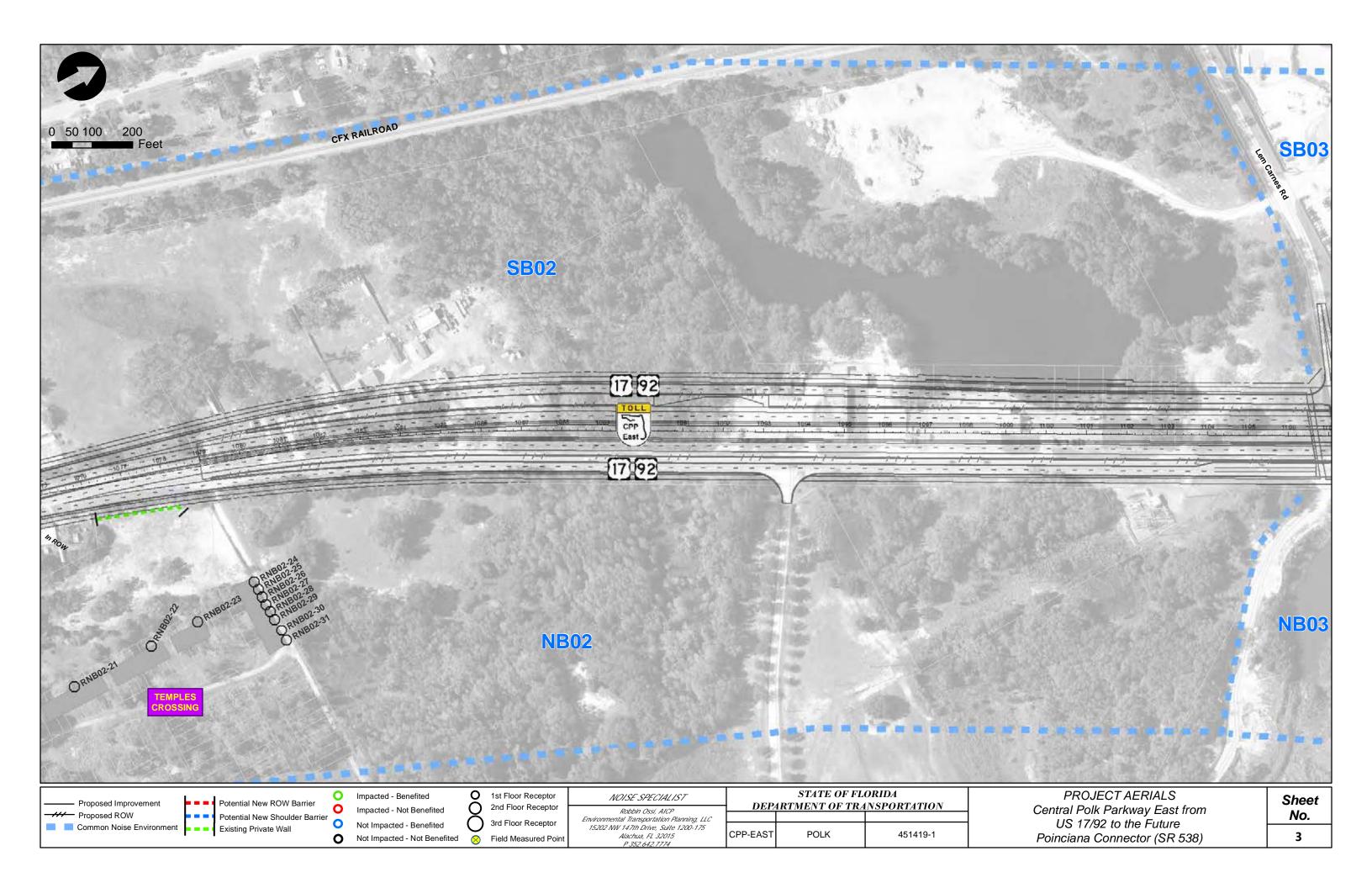
\* Excludes potential railroad noise contribution

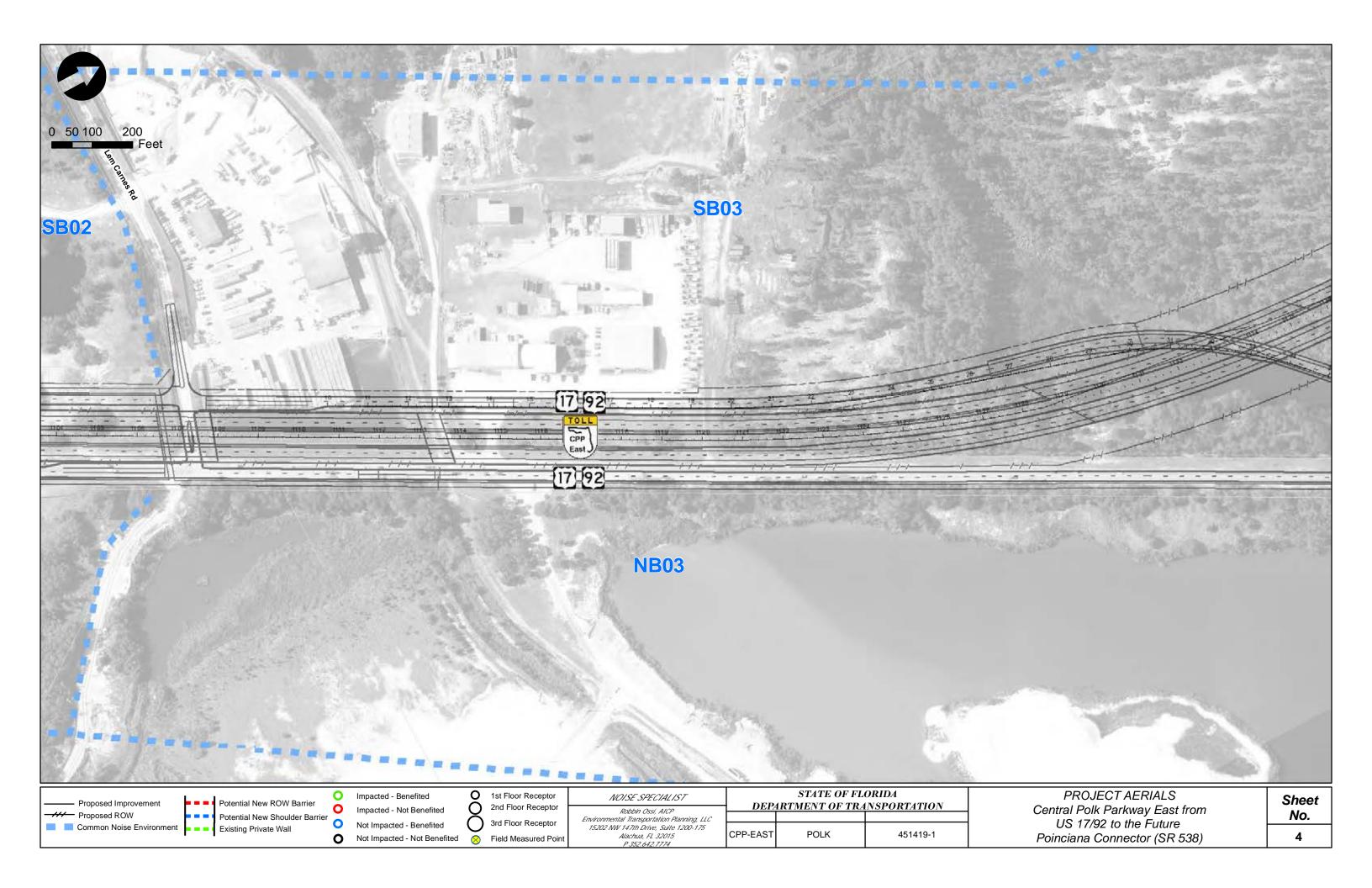
### Appendix E Project Aerials

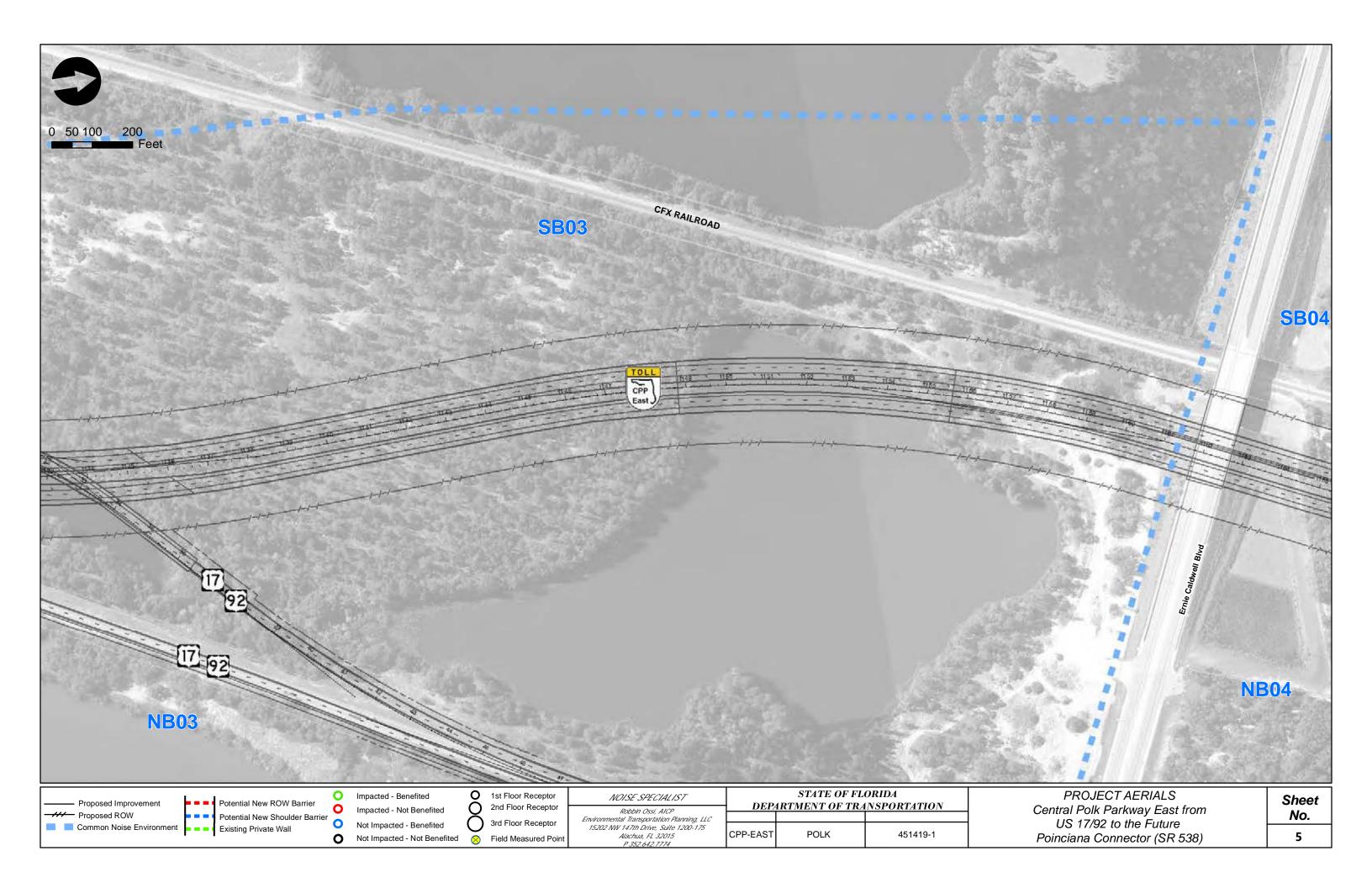


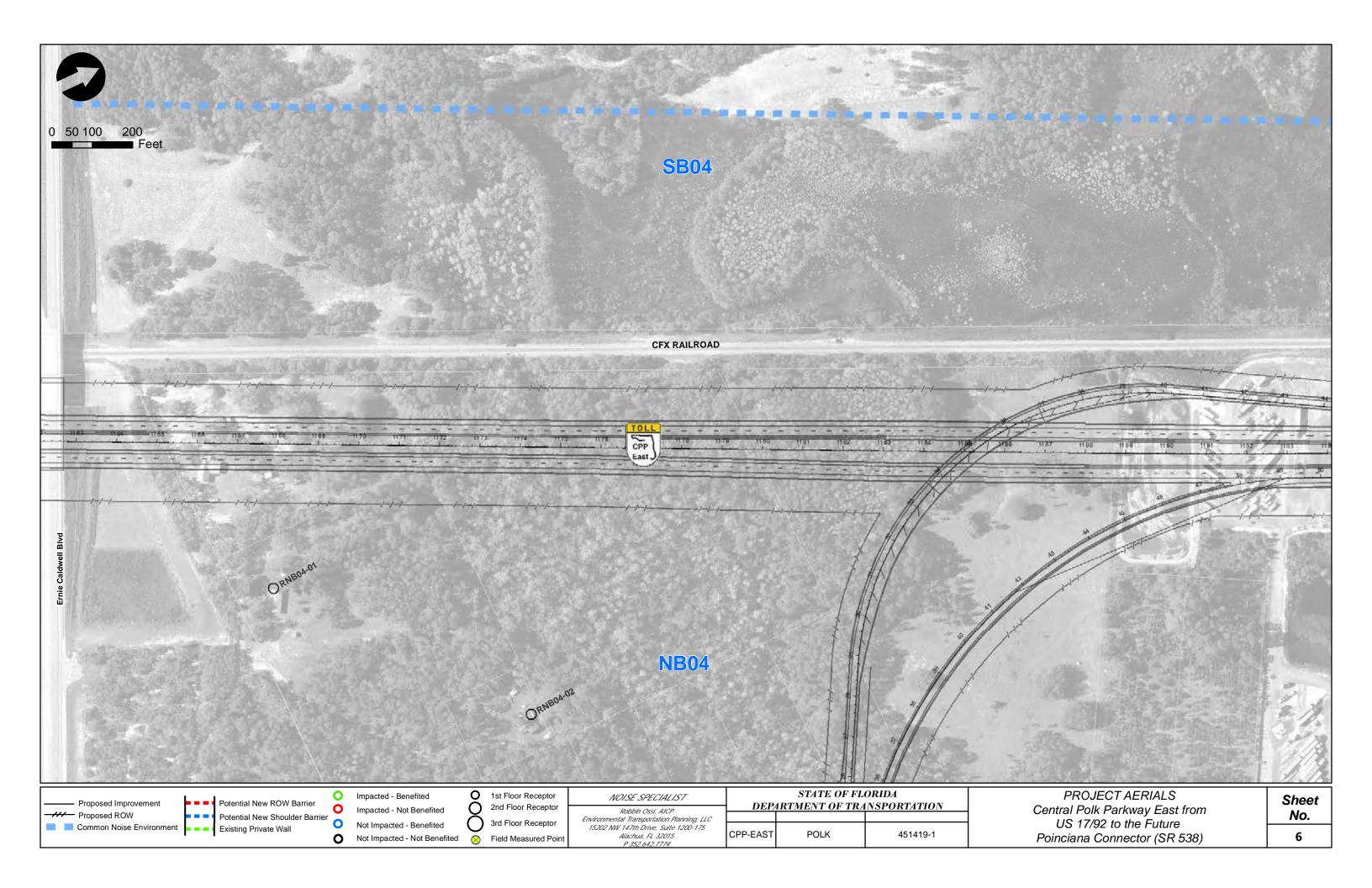


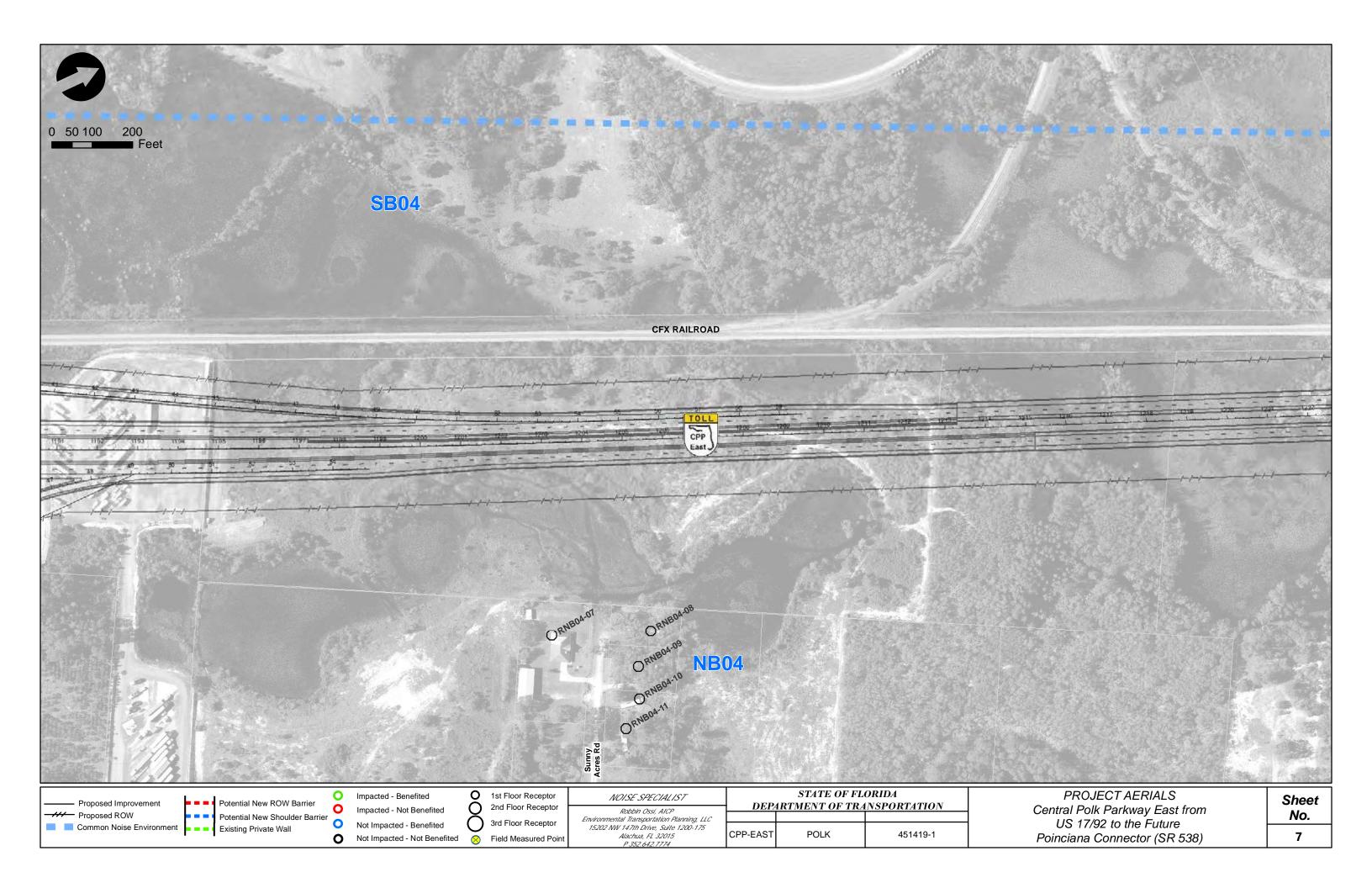


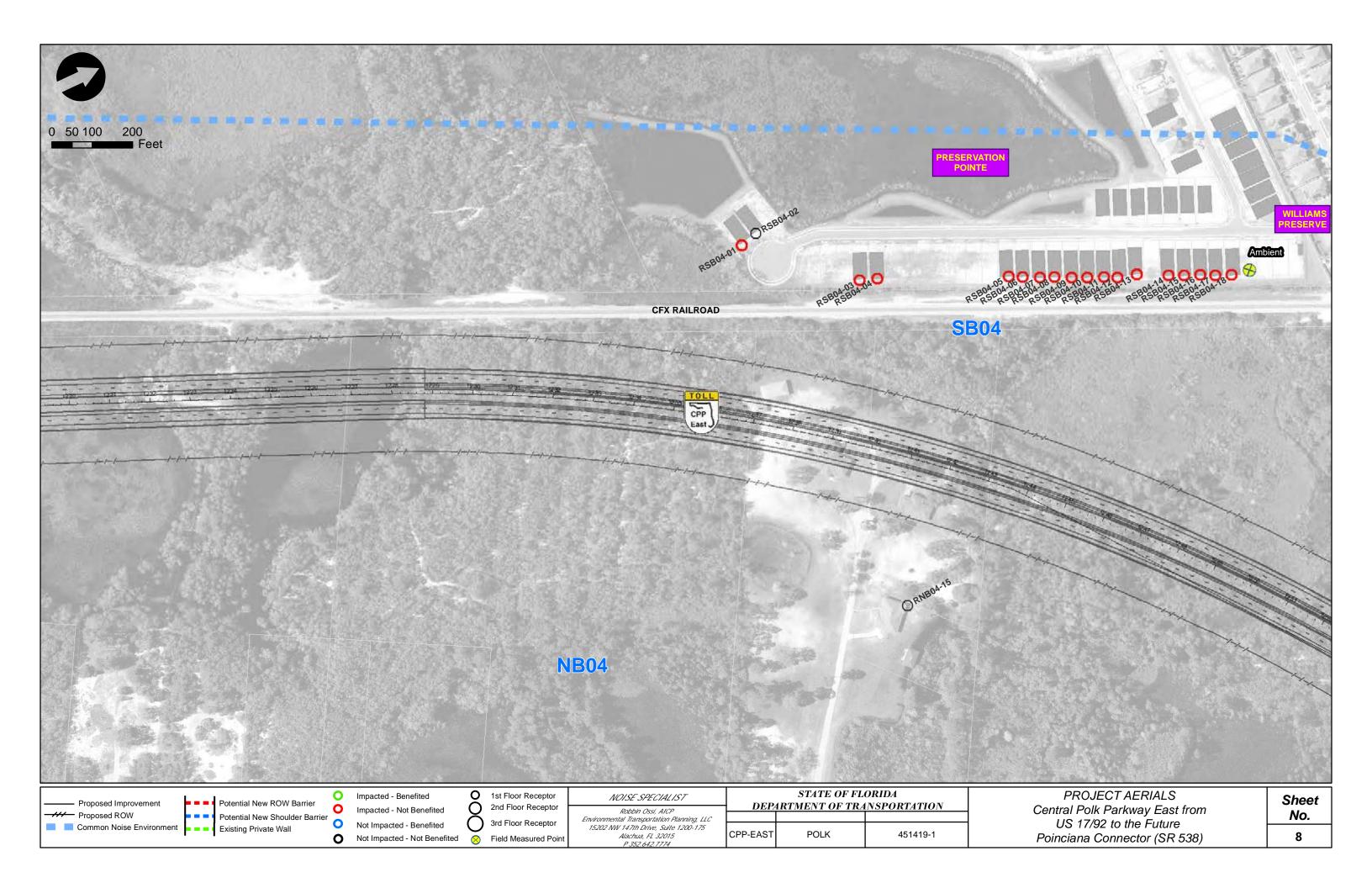


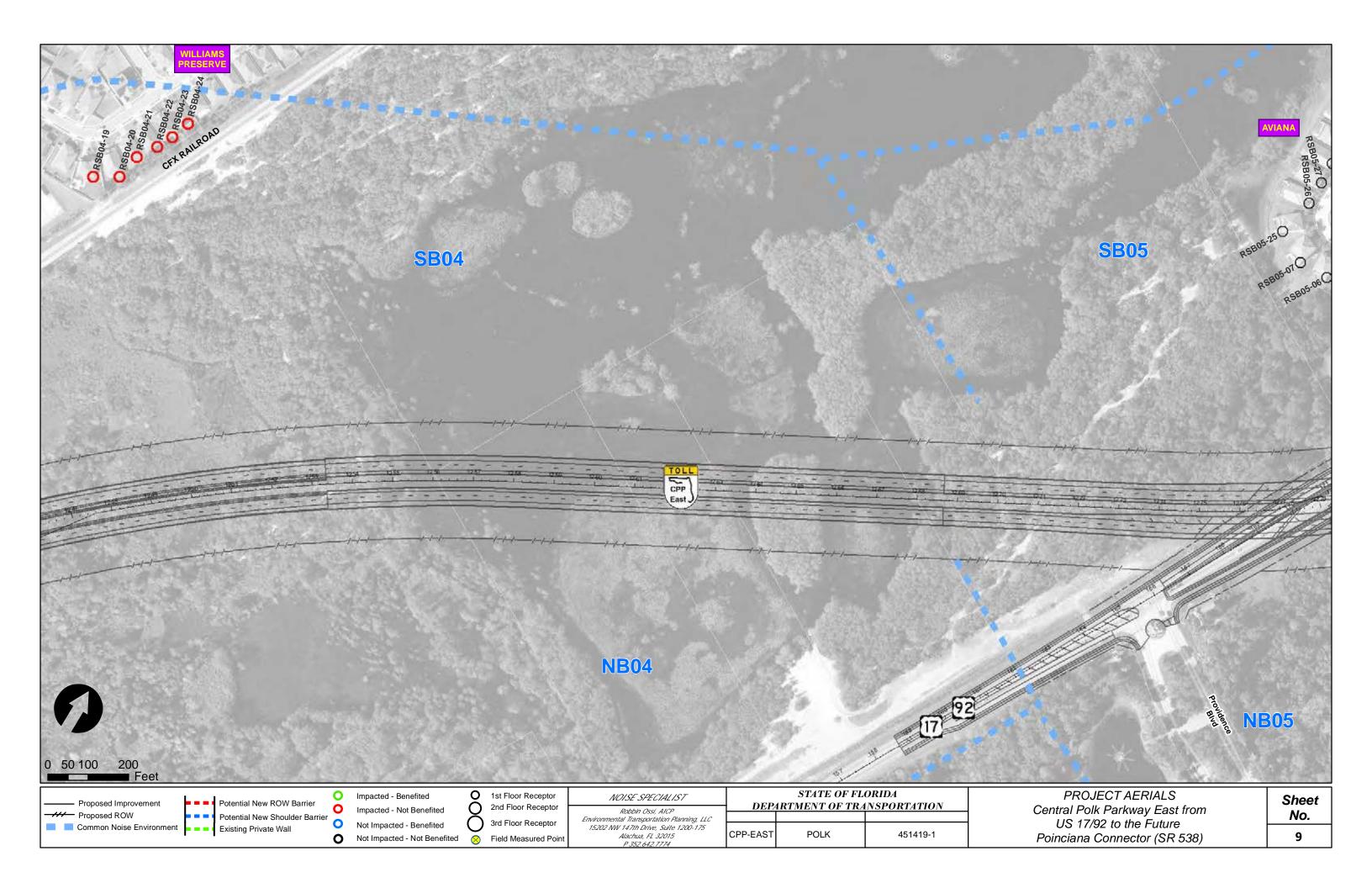


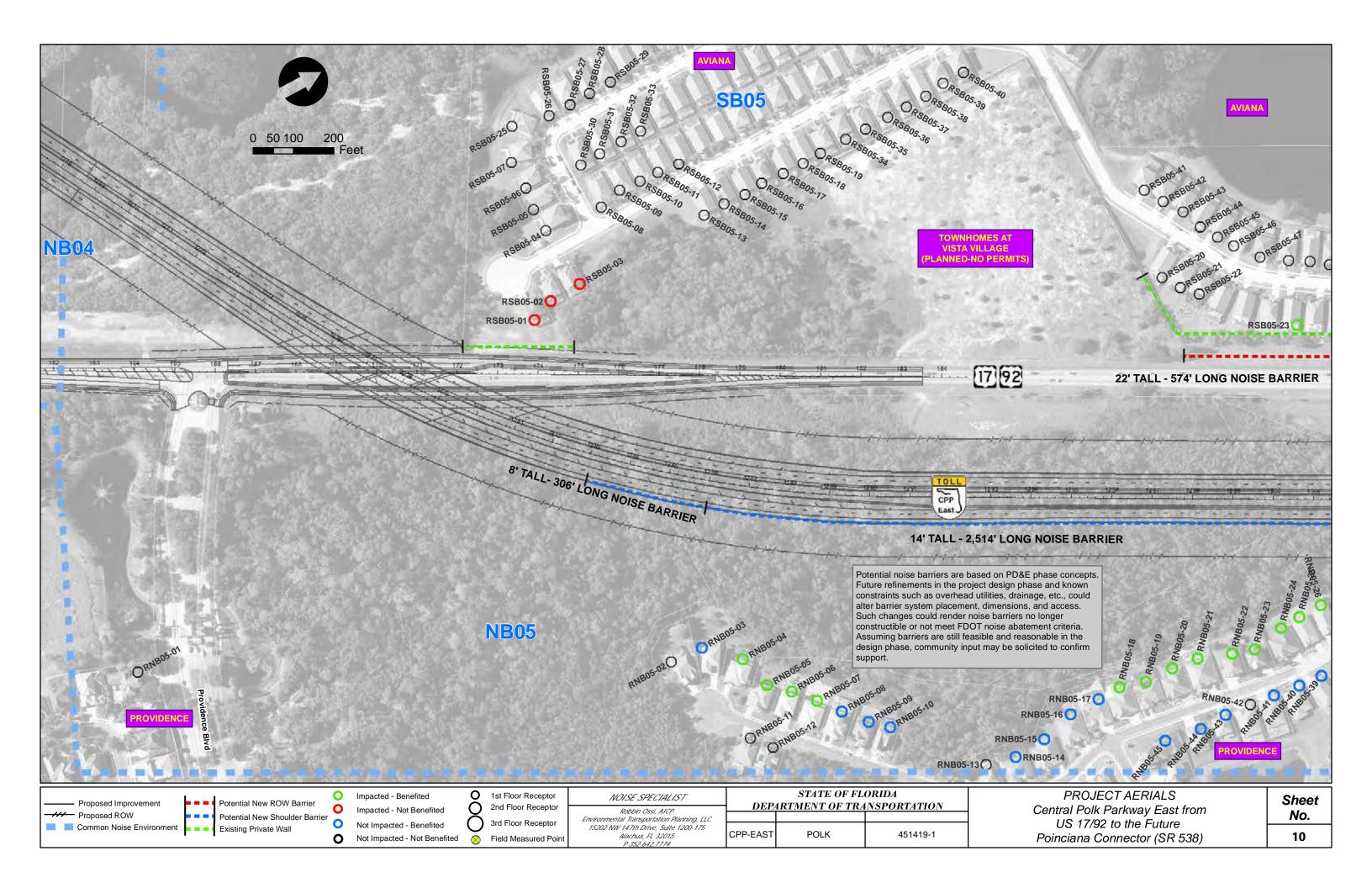


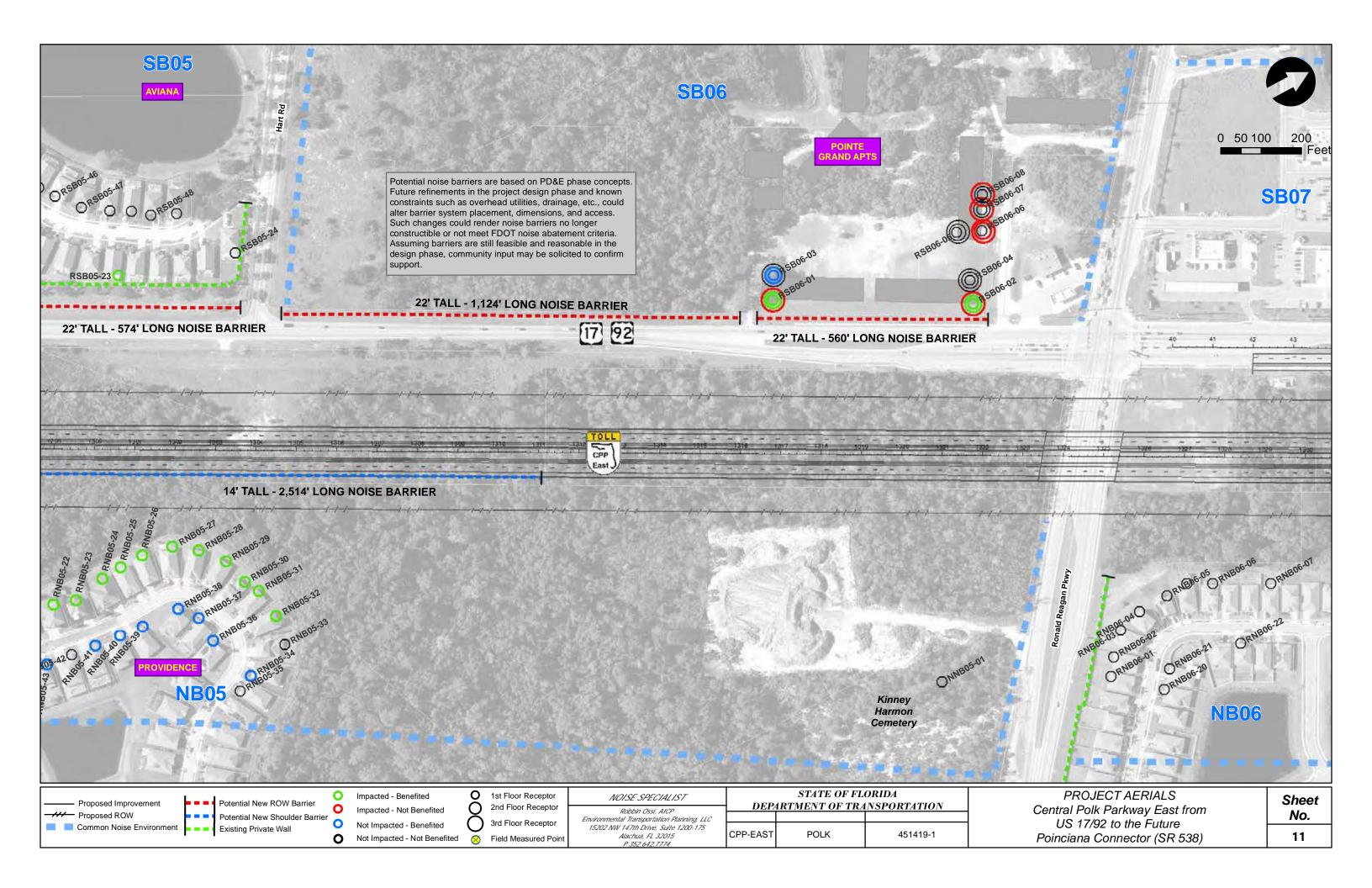


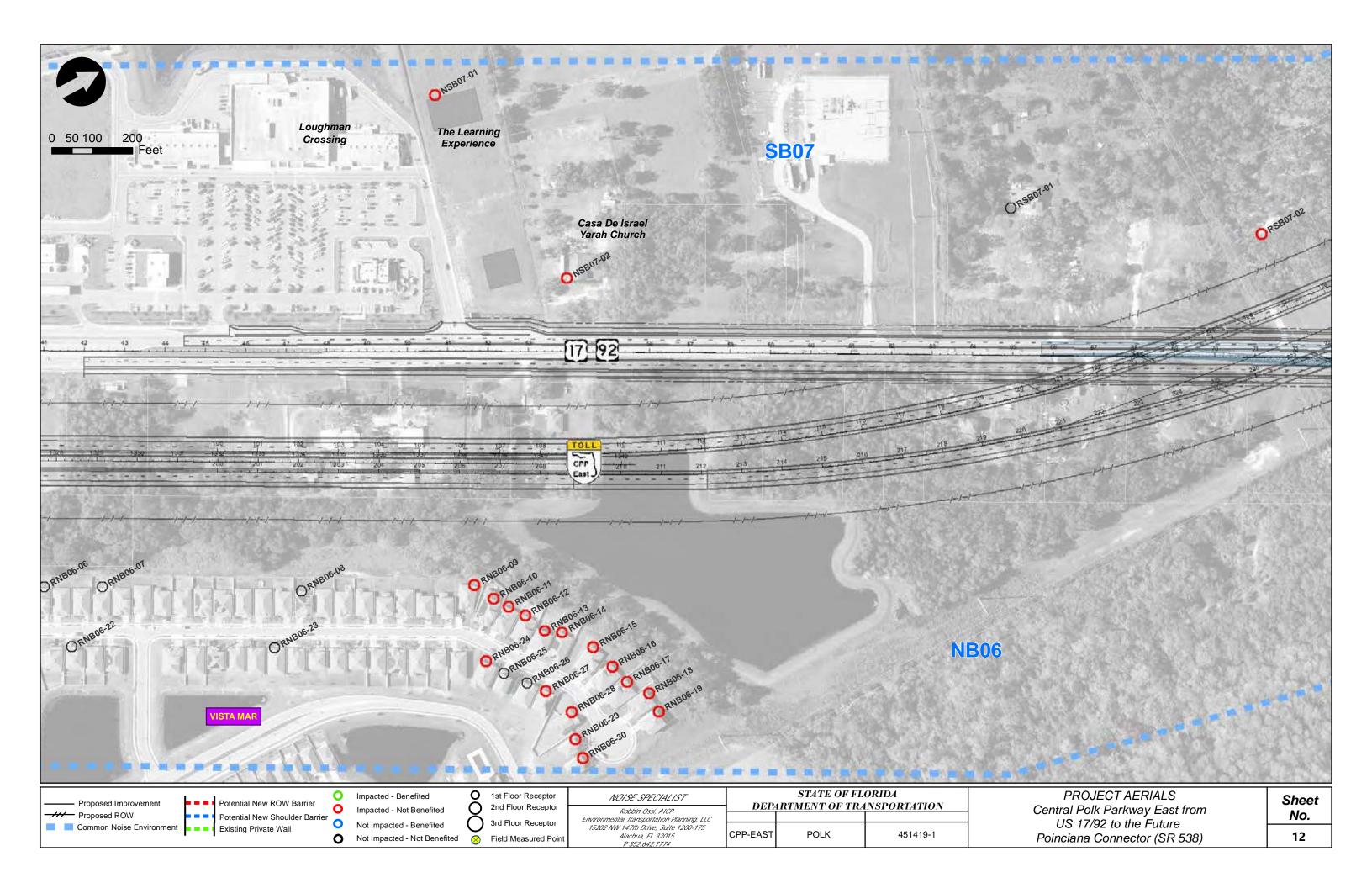


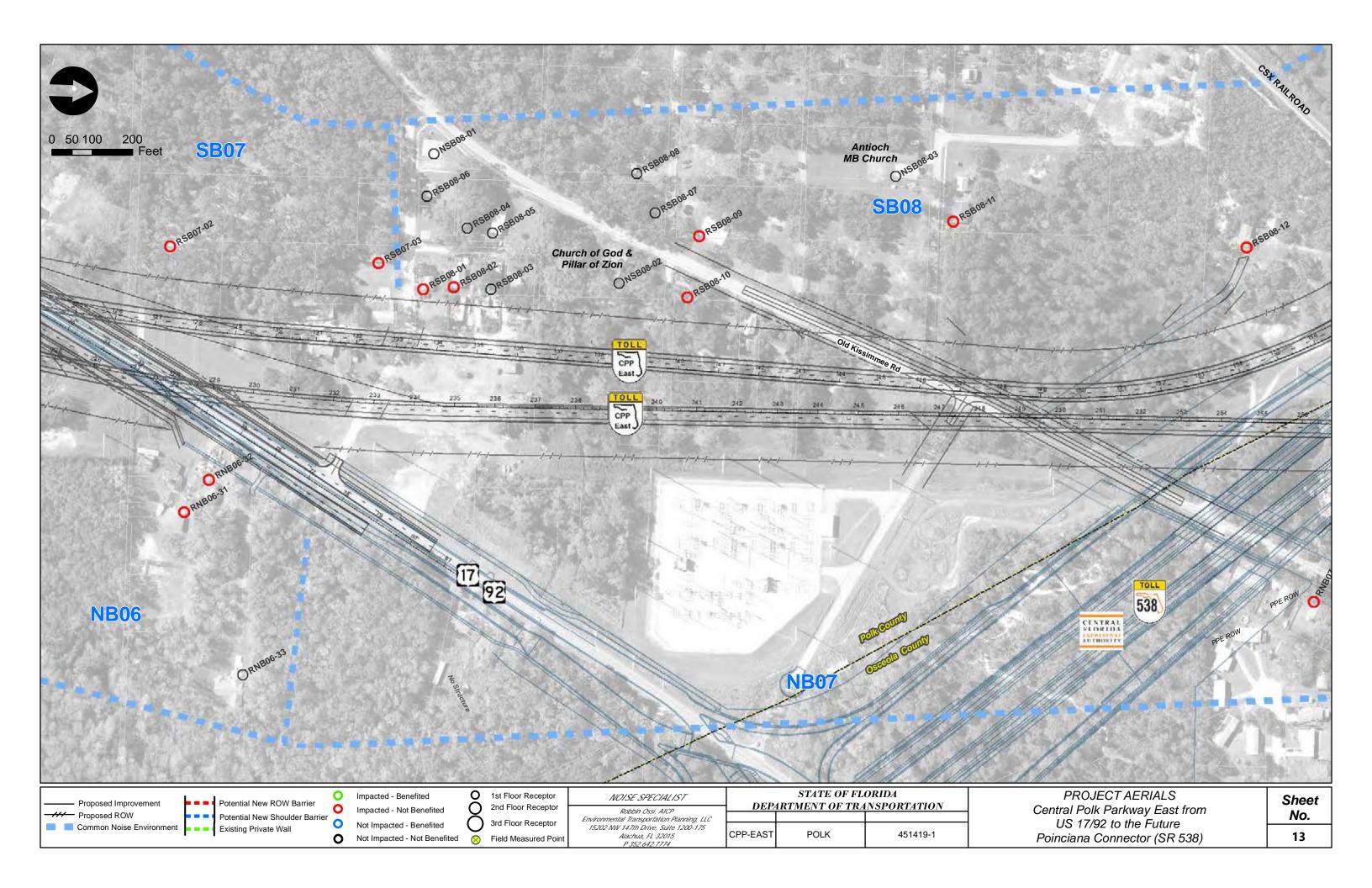


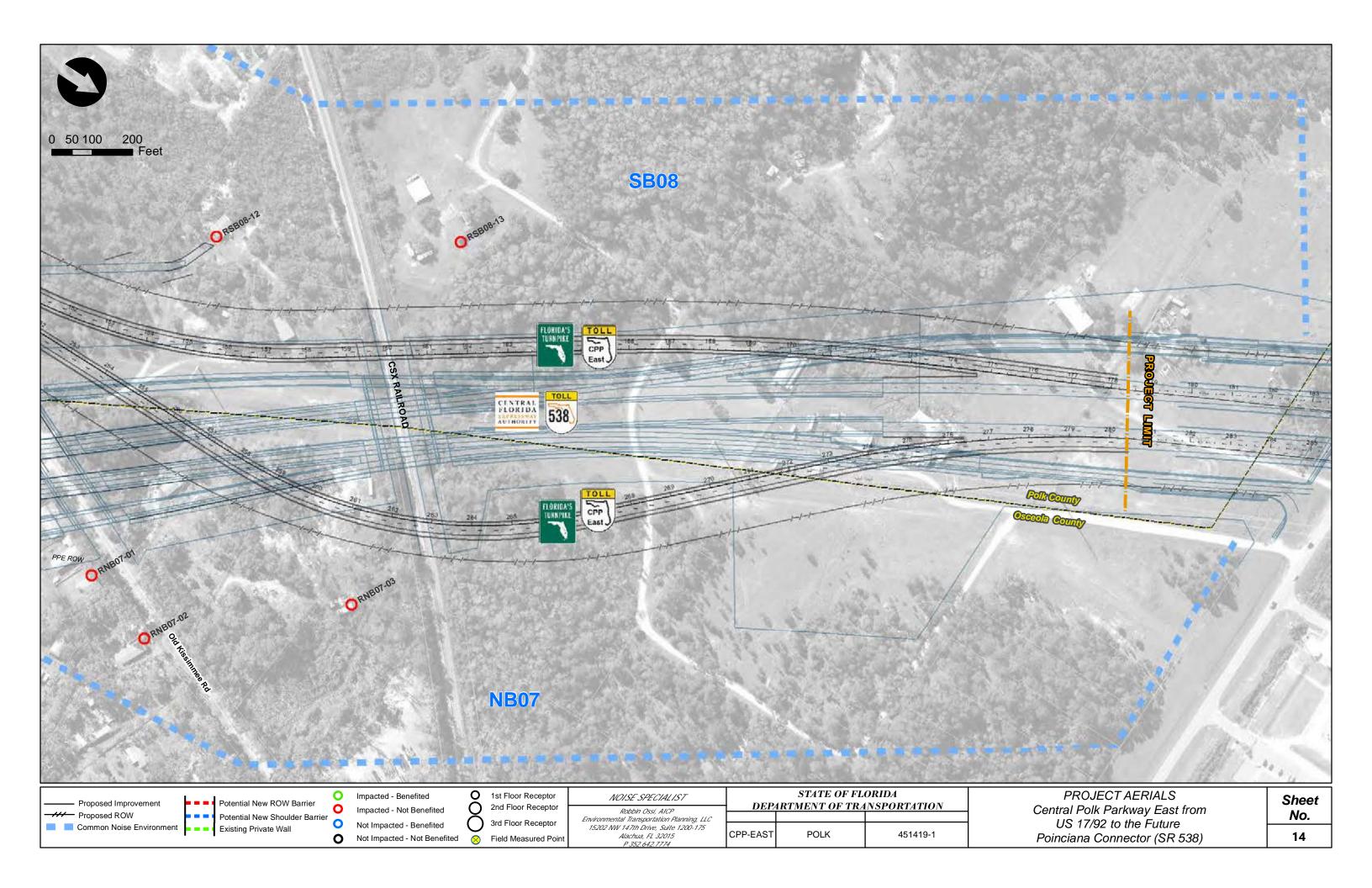


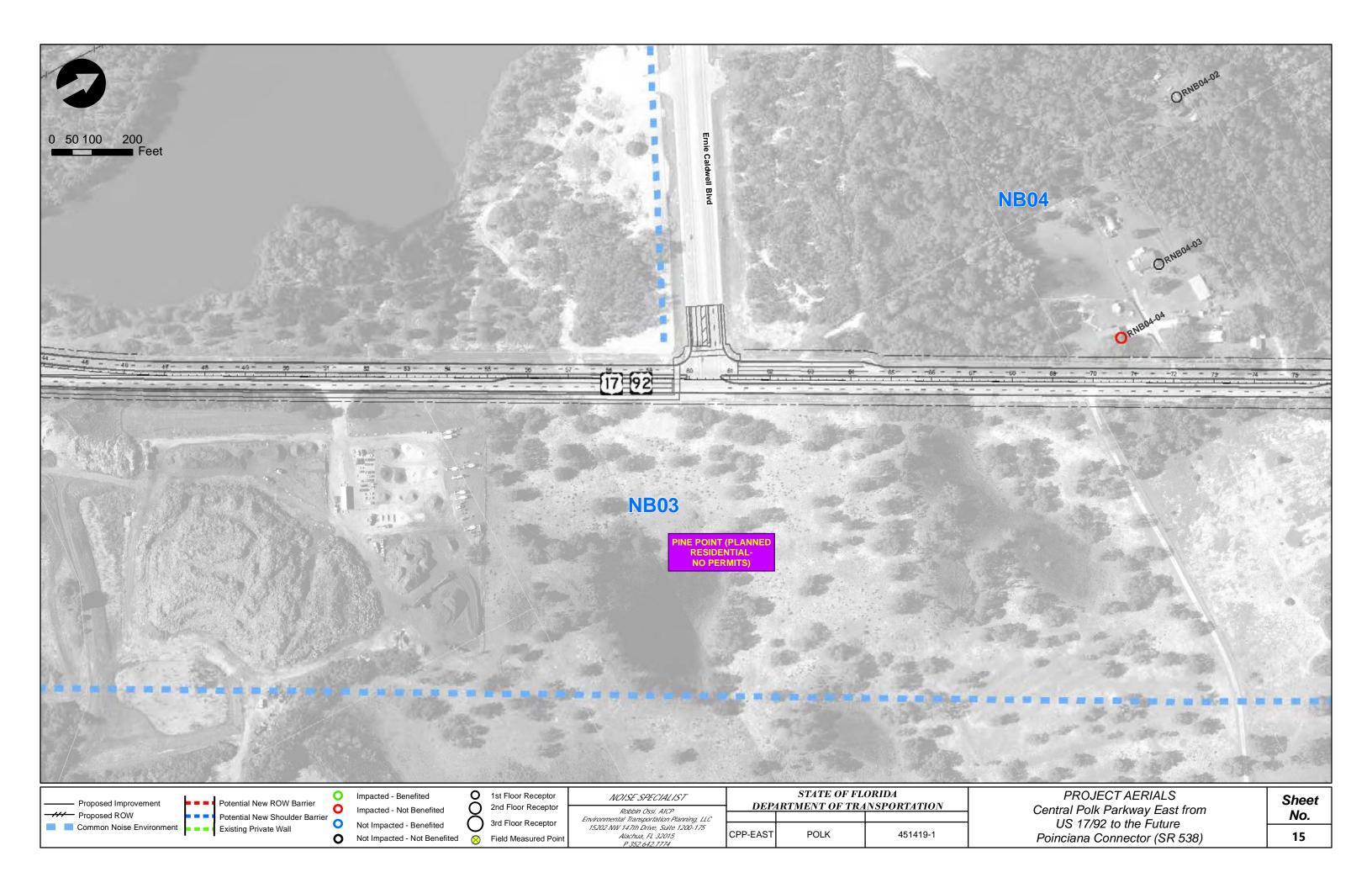


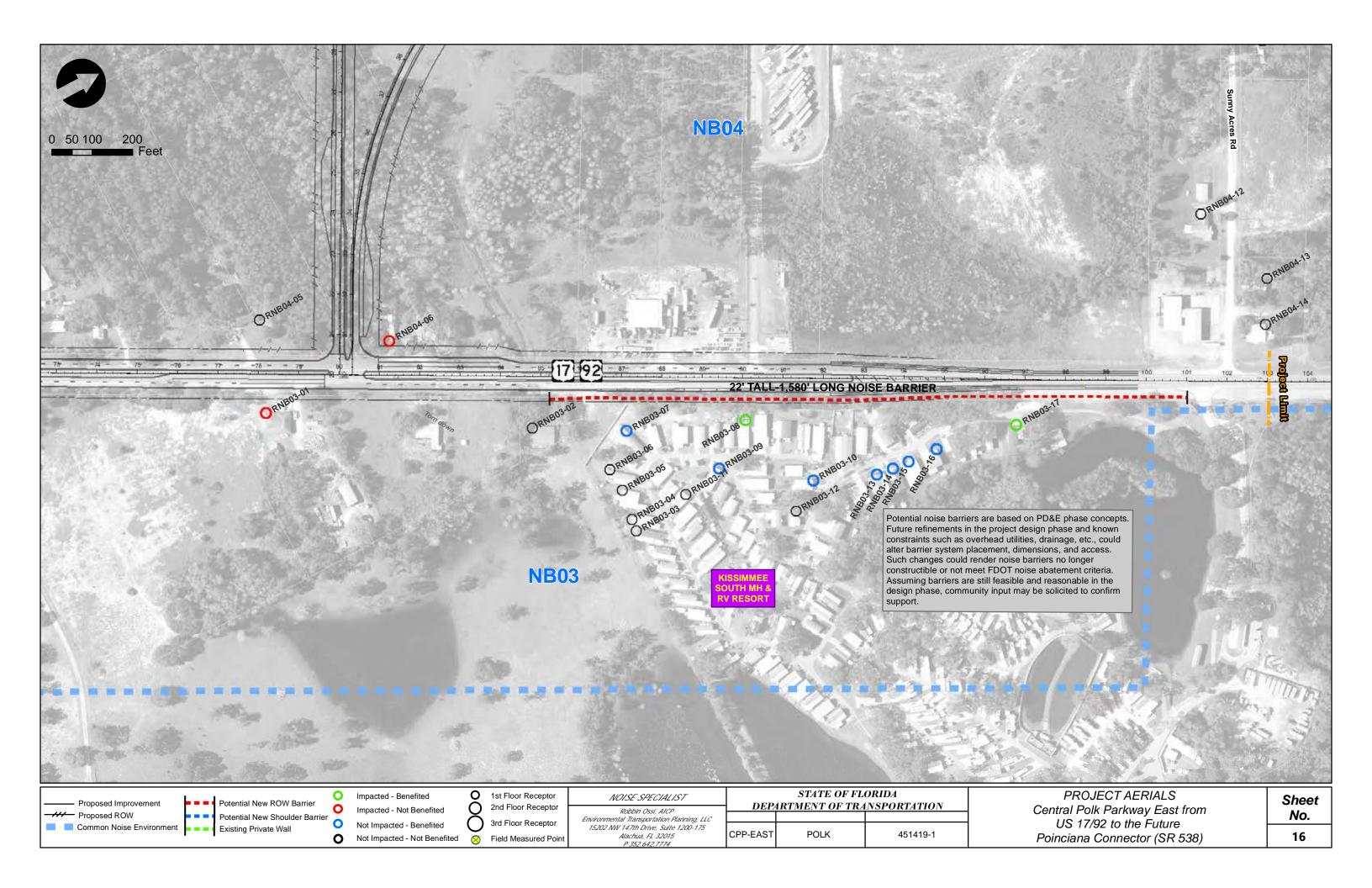












# Appendix F SLU Equivalent Residence (ER) Barrier Evaluation

Central Polk Parkway East from US 17/92 to Poinciana Connector (SR 538) FM No. 451419-1

SLU NAI	ME	Mt. Calvary	y Missionary	Baptist Church								
SLU DES	CRIPTION	Front Entra	ance									
NAC		С										
		SLU	J Equivale	nt Residence	(ER) Identifica	tion						
Step	Sub-Step		•	Descrip			Value					
	-		Average Single-F	amily Residence in Flo	rida - Person Hours per Ye	ar	-					
	a				da (US CENSUS, 2018-2022 dat	a)	2.53					
A1	b c		on-Hours per Year	ailable for use (24 hours x Available for Use	365 days)		8,760 22,163					
				SLU Person Hours p	er Year		22,200					
	а			the area evaluated at the			100					
A2	b c	Approximate daily hourly usage by each person <i>in the area evaluated</i> at the SLU Number of days per week the SLU is operational										
AZ	d		s per year the SLU				7 52					
	е	Person-Hours pe	ours per Year Available for Use at the SLU									
	Γ	le	SLU Area Evaluated Equivalent Residence (ER)									
A3	a	Equivalent Resid			D (ED)		0.82					
	a	Identify the num	iber of receptors ev	J Receptor Equivalent	Residence (ER)		1 1					
A4	b b			dence (i.e., each receptor p	point evaluated is worth)		0.821					
				U Weighted Residenti								
A5	a	Barrier ID Select					CNE SB01					
	b	Number of votes		Barrier Voting Process (if			#N/A					
			Barrier E	Evaluation for	SLU NSB01-01							
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER					
	ROW	8	1335									
1				0	0	0.00	0.00					
	ROW	10	1335									
2				0	0	0.00	0.00					
3	ROW	12	1335	0	0	0.00	0.00					
J				, and the second	· ·	0.00	0.00					
	ROW	14	822									
4				0	0	0.00	0.00					
	ROW	16	1335									
5		10	1000	0	0	0.00	0.00					
6	ROW	18	1335	0	0	0.00	0.00					
J				,		0.00	0.00					
	ROW	20	1335									
7				0	0	0.00	0.00					
	ROW	22	1335									
8				0	0	0.00	0.00					
				e Specialist. Grev cells have emb								

Note: Yellow highlighted cells are to be filled out by Noise Analyst/District Noise Specialist. Grey cells have embedded formulas.

Appendix F

SLU NAM	ΛE	Jamestown	Park						
SLU DESC	CRIPTION	Basketball C	ourts, playgrou	and, picnic pavillions					
NAC		С	71 70	,, ,					
			SLU Equi	valent Residence	(ER) Identification				
Step	Sub-Step			Descrip			Value		
		-	Average Single-F	amily Residence in Flo	rida - Person Hours per Ye	ar	-		
A1	a b c	Hours a single-fa		vailable for use (24 hours x	da (US CENSUS, 2018-2022 dat 365 days)	a)	2.53 8,760 22,163		
				SLU Person Hours p	er Year				
A2	a Average number of users per day in the area evaluated at the SLU b Approximate daily hourly usage by each person in the area evaluated at the SLU A2 c Number of days per week the SLU is operational d Number of weeks per year the SLU is operational e Person-Hours per Year Available for Use at the SLU								
			SLU A	rea Evaluated Equivale	nt Residence (ER)				
A3	a	Equivalent Resid					7.16		
			SLU	J Receptor Equivalent	Residence (ER)				
A4	а		nber of receptors ev	aluated at the SLU			2		
A4	b	Individual Recep		dence (i.e., each receptor)	· · · · · · · · · · · · · · · · · · ·		3.580		
				U Weighted Residenti	al Vote Value				
A5	a b	Barrier ID Select		Barrier Voting Process (if	annlicable)		CNE SB01		
	D	Number of vote			B01-2.1 & NSB01-2.2		#N/A		
	<u> </u>	1	Dairiei Lvai		D01-2.1 & N3D01-2.2		1		
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER		
1	ROW	8	1335	1	1	3.58	3.58		
2	ROW	10	1335	1	1	3.58	3.58		
3	ROW	12	1335	1	1	3.58	3.58		
4	ROW	14	822	1	1	3.58	3.58		
5	ROW	16	16 1335 1 1 1 3.58						
6	ROW	18	1335	1	1	3.58	3.58		
7	ROW	20	1335	2	2	7.16	7.16		
8	ROW	22	1335	2	2	7.16	7.16		

SLU NA	ME	Church of (	God by Faith								
SLU DES	DESCRIPTION Front Entrance										
NAC		С									
		SLI	J Equivale	ent Residence	(ER) Identificat	tion					
Step	Sub-Step		•	Descrip	• •		Value				
			Average Single-F	amily Residence in Flo	rida - Person Hours per Ye	ar					
A1	a b c	Hours a single-fa		vailable for use (24 hours x <b>Available for Use</b>		a)	2.53 8,760 22,163				
	a	Average number	of users per day in	SLU Person Hours po			100				
A2	b c d	Approximate da Number of days Number of week		each person <i>in the area ev</i> s operational is operational			0.5 7 52 18,200				
	е	reison-nouis pe		rea Evaluated Equivale	nt Residence (FR)		18,200				
A3	a	Equivalent Resid		rea Evaluateu Equivale	nt Residence (LIV)		0.82				
			SLU	J Receptor Equivalent	Residence (ER)						
A4	a		ber of receptors ev		and a first and the seath of A		1				
	b	individual Recep		dence (i.e., each receptor p	· ·		0.821				
	а	Barrier ID Select		LO Weighted Residenti	ai vote value		CNE SB01				
A5	b	Number of votes	s Assigned to SLU in	Barrier Voting Process (if	applicable)		#N/A				
			Barrier E	Evaluation for	SLU NSB01-03						
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER				
1	ROW	8	1335	0	0	0.00	0.00				
2	ROW	10	1335	0	0	0.00	0.00				
3	ROW	12	1335	0	0	0.00	0.00				
4	ROW	14	822	0	0	0.00	0.00				
5	ROW	W 16 1335 0 0 0.00									
6	ROW	18	1335	0	0	0.00	0.00				
7	ROW	20	1335	0	0	0.00	0.00				
8	ROW	22	1335	0	0	0.00	0.00				

SLU NAI	ME	St. Marks A	ME Church							
SLU DES	DESCRIPTION Front Entrance									
NAC		С								
		SLI	J Equivale	ent Residence	(ER) Identificat	tion				
Step	Sub-Step		•	Descrip			Value			
					rida - Person Hours per Ye					
A1	a b c	Hours a single-fa		ailable for use (24 hours x	da (US CENSUS, 2018-2022 dat 365 days)	a)	2.53 8,760 22,163			
				SLU Person Hours p						
A2	a b c d e	b Approximate daily hourly usage by each person in the area evaluated at the SLU c Number of days per week the SLU is operational d Number of weeks per year the SLU is operational e Person-Hours per Year Available for Use at the SLU								
			SLU A	rea Evaluated Equivale	nt Residence (ER)					
A3	a	Equivalent Resid	lence (ER)				0.82			
				J Receptor Equivalent	Residence (ER)					
A4	а		ber of receptors ev				1			
	b	Individual Recep		dence (i.e., each receptor posterior).U Weighted Residentia	<u> </u>		0.821			
	a	Barrier ID Select		.o weighted Residentia	ai vote value		CNE SB01			
A5	b			Barrier Voting Process (if	applicable)		#N/A			
			Barrier E	valuation for	SLU NSB01-04					
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER			
1	ROW	8	1335	0	0	0.00	0.00			
2	ROW	10	1335	0	0	0.00	0.00			
3	ROW	12	1335	0	0	0.00	0.00			
4	ROW	14	822	0	0	0.00	0.00			
5	ROW 16 1335 0 0 0.00									
6	ROW	18	18 1335 0 0 0.00							
7	ROW	20	1335	0	0	0.00	0.00			
8	ROW	22	1335	0	0	0.00	0.00			

SLU NAI	ME	Mt. Calvary	/ Missionary	Baptist Church								
SLU DES	CRIPTION	Front Entra	ince									
NAC		С										
		SLU	J Equivale	ent Residence	(ER) Identifica	tion						
Step	Sub-Step		•	Descrip			Value					
					rida - Person Hours per Ye							
	a				da (US CENSUS, 2018-2022 dat	a)	2.53 8,760					
A1	b c	la crioria di suo a mora di										
	·			SLU Person Hours p	er Year		22,163					
a Average number of users per day in the area evaluated at the SLU												
	b			each person in the area eve	aluated at the SLU		100 0.5					
A2	С		per week the SLU is				7 52					
	d e		r of weeks per year the SLU is operational Hours per Year Available for Use at the SLU									
				rea Evaluated Equivale	nt Residence (ER)		18,200					
A3	a	Equivalent Resid	lence (ER)	·			0.82					
				J Receptor Equivalent	Residence (ER)							
A4	a		ber of receptors ev		and a first and the second of the A		1					
	b	individual Recep		dence (i.e., each receptor p			0.821					
	a	Barrier ID Select		LO Weignted Residenti	ai vote value		CNE SB01					
A5	b b			Barrier Voting Process (if	applicable)		#N/A					
					SLU NSB01-01		,					
			<u> </u>									
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER					
	ROW	8	1335	_								
1				0	0	0.00	0.00					
	ROW	10	1335									
2	11011	10	1333	0	0	0.00	0.00					
	ROW	12	1335									
3				0	0	0.00	0.00					
	ROW	14	822									
4		1-1	022	0	0	0.00	0.00					
	ROW	16	1335									
5 0 0.00 0.00												
	ROW	18	1335									
6				0	0	0.00	0.00					
	ROW	20	1335									
7				0	0	0.00	0.00					
	ROW	22	1432									
8			1/32	1	1	0.82	0.82					

SLU NAM	1E	Jamestown I	Park								
SLU DESC	CRIPTION	Basketball C	ourts, playgrou	und, picnic pavillions							
NAC		С									
		-	SLU Equi	valent Residence	(ER) Identification						
Step	Sub-Step			Descrip			Value				
					rida - Person Hours per Ye						
	a				da (US CENSUS, 2018-2022 data	a)	2.53				
A1	b c		on-Hours per Year	vailable for use (24 hours x <b>Available for Use</b>	365 days)		8,760 22,163				
	<u> </u>			SLU Person Hours	per Year						
	а			the area evaluated at the			218				
	b Approximate daily hourly usage by each person in the area evaluated at the SLU c Number of days per week the SLU is operational										
A2	2 c Number of days per week the SLU is operational Number of weeks per year the SLU is operational										
	e		n-Hours per Year Available for Use at the SLU								
			SLU A	rea Evaluated Equivale	nt Residence (ER)						
А3	a	Equivalent Resid	uivalent Residence (ER)								
				J Receptor Equivalent	Residence (ER)						
A4	a			valuated at the SLU	and a land of the A		2 500				
	b	individual Recep		dence (i.e., each receptor p			3.580				
	a	Barrier ID Select		LO Weighted Residenti	ai vote value		CNE SB01				
A5	b b			Barrier Voting Process (if	applicable)		#N/A				
	•		Barrier I	Evaluation for SLU	NSB01-2.1 & 2.2		,				
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU #1	Total Number of Benefited Receptors at SLU #1	Impacted BER	Total BER				
	ROW	8	1335								
1				1	1	3.58	3.58				
2	ROW	10	1335	1	1	3.58	3.58				
2				1	1	3.36	3.36				
3	ROW	12	1335	1	1	3.58	3.58				
	ROW	14	822								
4	ROW	14	622	2	2	7.16	7.16				
	ROW	16	1335								
5				2	2	7.16	7.16				
	ROW	18	1335								
6				2	2	7.16	7.16				
	ROW	20	1335								
7		20	1000	2	2	7.16	7.16				
8	ROW	22	1432	2	2	7.16	7.16				

SLU NAI	ME	Church of (	God by Faith									
SLU DES	CRIPTION	Front Entra	ince									
NAC		С										
		SLI	J Equivale	ent Residence	(ER) Identificat	tion						
Step	Sub-Step		•	Descrip	•		Value					
					rida - Person Hours per Ye							
	a				da (US CENSUS, 2018-2022 dat	a)	2.53					
A1	b c			vailable for use (24 hours x <b>Available for Use</b>	365 days)		8,760 22,163					
C Residential Person-Hours per Year Available for Use SLU Person Hours per Year												
a Average number of users per day in the area evaluated at the SLU												
A2	b c		ximate daily hourly usage by each person <i>in the area evaluated</i> at the SLU er of days per week the SLU is operational									
AZ	d		of weeks per year the SLU is operational									
	e	Person-Hours pe	Hours per Year Available for Use at the SLU  SLU Area Evaluated Equivalent Residence (ER)									
				rea Evaluated Equivale	nt Residence (ER)							
A3	a	Equivalent Resid	lence (ER)				0.82					
				J Receptor Equivalent	Residence (ER)							
A4	а		ber of receptors ev	raluated at the SLU dence (i.e., each receptor p	ooint ovaluated is worth		0.821					
	b	individual Recep		LU Weighted Residenti	·		0.821					
	а	Barrier ID Select		LO Weighted Residenti	ai vote value		CNE SB01					
A5	b	Number of votes	Assigned to SLU in	Barrier Voting Process (if	applicable)		#N/A					
			Barrier E	Evaluation for	SLU NSB01-03							
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER					
	ROW	8	1335									
1				0	0	0.00	0.00					
	DOW	10	1225									
2	ROW	10	1335	0	0	0.00	0.00					
_					· ·	0.00	0.00					
	ROW	12	1335									
3				0	0	0.00	0.00					
	ROW	14	822									
4				0	0	0.00	0.00					
-	ROW	16	1335		2	0.00	0.00					
5 0 0 0.00												
	ROW	18	1335									
6				0	0	0.00	0.00					
	ROW	20	1335									
7	KUW	20	0 0 0.00									
	ROW	22	1432									
8	NO W	22	1432	0	0	0.00	0.00					

SLU NAI	ME	St. Marks A	ME Church									
SLU DES	CRIPTION	Front Entra	ince									
NAC		С										
		SLI	J Equivale	ent Residence	(ER) Identificat	tion						
Step	Sub-Step		·	Descrip			Value					
					rida - Person Hours per Ye							
	a				da (US CENSUS, 2018-2022 dat	a)	2.53 8,760					
A1	b c	Hours a single-family residence is available for use (24 hours x 365 days)  Residential Person-Hours per Year Available for Use										
				SLU Person Hours p	er Year		22,163					
a Average number of users per day in the area evaluated at the SLU												
A2	b c		ily hourly usage by one of the second in the		aluated at the SLU		0.5 7					
A2	d		s per year the SLU				52					
	е	Person-Hours pe	er Year Available fo				18,200					
		ı		rea Evaluated Equivale	nt Residence (ER)							
A3	a	Equivalent Resid					0.82					
				J Receptor Equivalent	Residence (ER)							
A4	a b		ber of receptors ev	raluated at the SLU dence (i.e., each receptor p	point evaluated is worth)		0.821					
	, b	marriada: Nedep		.U Weighted Residentia			0.021					
A5	а	Barrier ID Select	ed				CNE SB01					
A3	b	Number of votes		Barrier Voting Process (if	,,		#N/A					
			Barrier E	Evaluation for	SLU NSB01-04							
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER					
	ROW	8	1335									
1				0	0	0.00	0.00					
	ROW	10	1335									
2	KOW	10	1333	0	0	0.00	0.00					
	ROW	12	1335			0.00	0.00					
3				0	0	0.00	0.00					
	ROW	14	822									
4				0	0	0.00	0.00					
	DOW	16	1225									
5	ROW	16	1335	0	0	0.00	0.00					
	ROW	18	1335									
6				0	0	0.00	0.00					
	ROW	20	1335									
7				0	0	0.00	0.00					
	DOW	22	4.422									
8	ROW	22	1432	0	1	0.00	0.82					

SLU NAM	1E	Horsecreek '	Village								
SLU DESC	CRIPTION	Pool , Basket	tball Court								
NAC		С									
			SLU Equi	valent Residence	(ER) Identification						
Step	Sub-Step			Descrip	otion		Value				
			ar								
	a	Average number	of people in a sing	gle-family residence in Flori	ida (US CENSUS, 2018-2022 dat	a)	2.53				
A1	b			vailable for use (24 hours x	( 365 days)		8,760 22,163				
	c Residential Person-Hours per Year Available for Use SLU Person Hours per Year										
	а	Average number	r of users per day ir	the area evaluated at the			127				
	b			each person in the area ev			1.00				
A2	С		per week the SLU i s per year the SLU				7				
	d		52 46,228								
	е	Person-Hours pe	n-Hours per Year Available for Use at the SLU  SLU Area Evaluated Equivalent Residence (ER)								
A3	а	Equivalent Resid		rea Evaluateu Equivale	the Residence (LR)		2.09				
A3	a	Equivalent Kesic		I Danas dan Essabadan d	D!-  /ED)		2.09				
		Identify the num		J Receptor Equivalent valuated at the SLU	Residence (ER)		1 2				
A4	a b				point evaluated is worth)		1.043				
		a.rrada.rredep		LU Weighted Residenti			2.0.10				
	а	Barrier ID Select		LO TTEIGHTEU NESIGENT	ar vote value		CNE SB02				
A5	b			Barrier Voting Process (if	applicable)		#N/A				
			Barrier Ev	aluation for SLU N	NSB02-1 & NSB02-2						
				Number of Impacted and	Total Number of Benefited						
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Benefited Receptors at	Receptors at SLU	Impacted BER	Total BER				
				SLU							
	ROW	8	2026								
1				0	0	0.00	0.00				
	ROW	10	1373								
2	NOVV	10	1373	0	0	0.00	0.00				
	ROW	12	1424								
3				1	1	1.04	1.04				
	ROW	14	1764								
4	ROW	14	1704	1	1	1.04	1.04				
•				-	-	210 1	2.0 .				
	ROW	16	2026								
5				1	1	1.04	1.04				
	ROW	18	1961		1	1.04	1.04				
6				1	1	1.04	1.04				
	ROW	20	1918								
7				1	1	1.04	1.04				
	ROW	22	1862								
8				1	1	1.04	1.04				

SLU DESCRIPTION   Pool, Basketball Court	SLU NAM	1E	Horsecreek Village									
Step   Sub-Step   Sub-Step   Description	SLU DESC	CRIPTION	Pool, Basket	ball Court								
Signature	NAC		С									
Sept   Sub-Step				SLU Equi	valent Residence	(ER) Identification						
A	Step	Sub-Step		·				Value				
C   Residential Person-Hours per Year Available for Use   12,163   10	A1						a)					
A		С	Residential Pers	on-Hours per Year	Available for Use							
Approximate daily hourly usage by each person in the area evaluated at the SLU   7   7   52   6   6   7   7   7   7   7   7   7   7												
A2												
Mumber of weeks per year the SLU is operational person-Hours per Year Available for Use at the SLU	۸۵					aluatea at the SLO						
Person-Hours per Year Available for Use at the SLU	A2	d Number of weeks per year the SLU is operational										
A3   a   Equivalent Residence (ER)   2.09   Company				son-Hours per Year Available for Use at the SLU								
SLU Receptor Equivalent Residence (ER)   Ad				SLU A	rea Evaluated Equivale	nt Residence (ER)						
Ad	А3	a	Equivalent Resid	lence (ER)				2.09				
Note						Residence (ER)						
SLU Weighted Residential Vote Value	A4			•		and a first and the standard A		2				
AS		b	Individual Recep	•				1.043				
Number of votes Assigned to SLU in Barrier Voting Process (if applicable)   #N/A   #N/A		ı <u>.</u>	Darriar ID Calast		LO Weighted Residenti	ai vote value		CNE CDO2				
Barrier ID   Barrier Location   Barrier Height   Barrier Length   Barrie	A5				Barrier Voting Process (if	annlicable)						
Barrier ID   Barrier Location   Barrier Height   Barrier Length   Barrie		<u> </u>						niy/x				
Barrier ID   Barrier Location   Barrier Height   Barrier Length   Barrie												
1 1 1 1.04 1.04  2	Barrier ID	Barrier Location	Barrier Height	Barrier Length	Benefited Receptors at		Impacted BER	Total BER				
ROW		ROW	8	2026								
2     1     1     1.04     1.04       3     ROW     12     1424     1     1     1.04     1.04       4     ROW     14     1764     1     1     1.04     1.04       5     ROW     16     2026     1     1     1.04     1.04       6     ROW     18     1961     1     1     1.04     1.04       7     ROW     20     2004     1     1     1.04     1.04       ROW     22     1862     1     1     1.04     1.04	1				1	1	1.04	1.04				
2     1     1     1.04     1.04       3     ROW     12     1424     1     1     1.04     1.04       4     ROW     14     1764     1     1     1.04     1.04       5     ROW     16     2026     1     1     1.04     1.04       6     ROW     18     1961     1     1     1.04     1.04       7     ROW     20     2004     1     1     1.04     1.04       ROW     22     1862     1     1     1.04     1.04		2011	10	1070								
ROW 12 1424  A ROW 14 1764  A ROW 16 2026  A ROW 18 1961  A ROW 18 1961  A ROW 20 2004  A ROW 20 2004  B ROW 22 1862	2	ROW	10	1373	1	1	1.04	1.04				
1 1 1.04 1.04  ROW 14 1764 1 1 1 1.04 1.04  ROW 16 2026 1 1 1 1.04 1.04  ROW 18 1961 ROW 20 2004 7 ROW 22 1862	2				1	1	1.04	1.04				
ROW		ROW	12	1424								
1 1 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1	3				1	1	1.04	1.04				
1 1 1.04 1.04 1.04 1.04 1.04 1.04 1.04 1		ROW	14	1764								
5     1     1     1.04     1.04       6     ROW     18     1961     1     1     1.04     1.04       7     ROW     20     2004     1     1     1.04     1.04     1.04       ROW     20     2004     1     1     1.04     1.04     1.04	4				1	1	1.04	1.04				
5     1     1     1.04     1.04       6     ROW     18     1961     1     1     1.04     1.04       7     ROW     20     2004     1     1     1.04     1.04     1.04       ROW     20     2004     1     1     1.04     1.04     1.04												
ROW     18     1961       1     1     1.04       1     1     1.04       1     1     1.04       1     1     1.04       1     1     1.04       1     1     1.04       1     1     1.04       1     1     1.04       1     1     1       1     1 <td></td> <td>ROW</td> <td>16</td> <td>2026</td> <td></td> <td></td> <td></td> <td></td>		ROW	16	2026								
6	5				1	1	1.04	1.04				
7 ROW 20 2004 1 1 1 1.04 1.04 ROW 22 1862		ROW	18	1961								
7 1 1 1.04 1.04 1.04 ROW 22 1862	6				1	1	1.04	1.04				
7 1 1 1.04 1.04 1.04 ROW 22 1862		ROW	20	2004								
	7	NOV	20	2004		1	1.04	1.04				
1 1.04 1.04		ROW	22	1862	1	1	1.04	1.04				
	δ				1	1	1.04	1.04				

SLU NAM	ΛE	The Learning	g Experience P	reschool			
SLU DES	CRIPTION	Playground					
NAC		С					
			SLU Equi	valent Residence	(ER) Identification		
Step	Sub-Step			Descrip	otion		Value
					rida - Person Hours per Ye		
	a				da (US CENSUS, 2018-2022 dat	a)	2.53
A1	b c		imily residence is av <b>on-Hours per Year</b>	vailable for use (24 hours x	365 days)		8,760 22,163
		Residential Fers	on nours per reur	SLU Person Hours p	ner Year		22,103
	а	Average number	of users per day in	the area evaluated at the			287
	b	Approximate da	ily hourly usage by	each person in the area ev			1.00
A2	C		per week the SLU is per year the SLU				5
	d e		48 68,880				
	е	r craon-rioura pe	er Year Available fo	rea Evaluated Equivale	nt Residence (FR)		08,880
A3	a	Equivalent Resid		ica Evaluatea Equivale	in residence (Erry		3.11
713				J Receptor Equivalent	Residence (FR)		J.11
	а	Identify the num		valuated at the SLU	nesidence (Lity		1
A4	b			dence (i.e., each receptor)	point evaluated is worth)		3.108
			SI	U Weighted Residenti	al Vote Value		
A5	a	Barrier ID Select	ed				CNE SB07
AS	b	Number of votes		Barrier Voting Process (if			#N/A
			Barri	er Evaluation for	SLU NSB07-01		
				Number of Impacted and	Total Number of Benefited		
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Benefited Receptors at SLU	Receptors at SLU	Impacted BER	Total BER
	ROW	0	0				
1	Shoulder	14	1171	0	0	0.00	0.00
	Structure	8	7536				
2	ROW Shoulder	22	4322 1171	0	0	0.00	0.00
2	Structure	8	7536	U	0	0.00	0.00
	ROW	22	2028				
3	Shoulder	0	0	0	0	0.00	0.00
	Structure	8	3469				
4				0	0	0.00	0.00
	DOW	0	0				
5	ROW	0	0	0	0	0.00	0.00
, ,						0.00	0.00
	ROW	0	0				
6				0	0	0.00	0.00
	DOM						
7	ROW	0	0	0	0	0.00	0.00
,		0 0.00					0.00
	ROW	0	0				
8				0	0	0.00	0.00

SLU NAI	ME	Casa De Isr	ael Yarah Chı	urch								
SLU DES	CRIPTION	Front Entra	ınce									
NAC		С										
		SLI	J Equivale	ent Residence	(ER) Identifica	tion						
Step	Sub-Step		•	Descrip			Value					
			Average Single-Family Residence in Florida - Person Hours per Year									
A1	a b c	Hours a single-fa		vailable for use (24 hours x	da (US CENSUS, 2018-2022 dat 365 days)	a)	2.53 8,760 22,163					
	L C	nesidential Fers	on nours per reur	SLU Person Hours p	er Year		22,103					
A2	a Average number of users per day in the area evaluated at the SLU b Approximate daily hourly usage by each person in the area evaluated at the SLU											
				rea Evaluated Equivale	nt Residence (ER)		18,200					
A3	a	Equivalent Resid			,		0.82					
				J Receptor Equivalent I	Residence (ER)							
A4	а		ber of receptors ev				1					
	b	Individual Recep		dence (i.e., each receptor p			0.821					
	a	Barrier ID Select		LU Weighted Residentia	ai vote value		CNE SB07					
A5	b b			Barrier Voting Process (if a	applicable)		#N/A					
			Barrier E	valuation for	SLU NSB07-02							
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER					
1	ROW	0	0	0	0	0.00	0.00					
2	ROW	22	4322	0	0	0.00	0.00					
3	ROW	22	2028	0	0	0.00	0.00					
4	ROW	0	0	0	0	0.00	0.00					
5	5 ROW 0 0 0 0 0 0 0.00											
6	ROW	0	0	0	0	0.00	0.00					
7	ROW	0	0	0	0	0.00	0.00					
8	ROW	0	0	0	0	0.00	0.00					

SLU NAN	<b>ЛЕ</b>	The Learning	g Experience P	reschool				
SLU DESCRIPTION		Playground						
NAC		С						
			SLU Equi	valent Residence	(ER) Identification			
Step	Sub-Step			Descrip	tion		Value	
					rida - Person Hours per Ye		2.53	
۸1	a	Average number of people in a single-family residence in Florida (US CENSUS, 2018-2022 data)  Hours a single-family residence is available for use (24 hours x 365 days)						
A1 b Hours a single-family residence is available for use (24 hours x 365 days)  C Residential Person-Hours per Year Available for Use								
		-		SLU Person Hours p	er Year		22,163	
	a Average number of users per day in the area evaluated at the SLU						287 1.00	
A2	b c	Approximate daily hourly usage by each person in the area evaluated at the SLU  Number of days per week the SLU is operational						
72	d	Number of weeks per year the SLU is operational						
	е	Person-Hours pe	er Year Available fo				68,880	
			SLU A	rea Evaluated Equivale	nt Residence (ER)		•	
A3	а	Equivalent Resid	lence (ER)				3.11	
				J Receptor Equivalent	Residence (ER)			
A4	a			valuated at the SLU	agint avaluated is worth		3.108	
	b	individual Recep		dence (i.e., each receptor p			3.100	
	l a	Barrier ID Select		LO Weighted Residenti	ai vote value		CNE SB07	
A5	A5 b Number of votes Assigned to SLU in Barrier Voting Process (if applicable)						#N/A	
			Barri	er Evaluation for	SLU NSB07-01			
				Number of Impacted and			1	
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Benefited Receptors at	Total Number of Benefited	Impacted BER	Total BER	
				SLU	Receptors at SLU			
	ROW	0	0	0	0	0.00	0.00	
1	Shoulder Structure	14	1171 7536					
	ROW	22	4322					
2	Shoulder	14	1171	0	0	0.00	0.00	
	Structure	8	7536					
	ROW	22	2028	0	0	0.00	0.00	
3	Shoulder	0	0 3469					
	Structure	8	3469					
4				0	0	0.00	0.00	
	ROW	0	0		_			
5				0	0	0.00	0.00	
6	ROW	0	0	0	0	0.00	0.00	
		-						
7	ROW	0	0	0	0	0.00	0.00	
/							0.00	
	ROW	0	0					
8	ROW	0	0	0	0	0.00	0.00	

SLU NAI	SLU NAME Casa De Israel Yarah Church								
SLU DES	CRIPTION	Front Entrance							
NAC									
11110			I Fauivale	ent Residence	(ER) Identifica	tion			
Step	Sub-Step	<u> </u>	Lquivai	Descrip			Value		
	T COM CICP		Average Single-F		rida - Person Hours per Ye	ar			
A1	a b c	Average number Hours a single-fa	of people in a sing	le-family residence in Flori vailable for use (24 hours x	da (US CENSUS, 2018-2022 dat		2.53 8,760 22,163		
				SLU Person Hours p					
A2	a Average number of users per day in the area evaluated at the SLU b Approximate daily hourly usage by each person in the area evaluated at the SLU c Number of days per week the SLU is operational d Number of weeks per year the SLU is operational e Person-Hours per Year Available for Use at the SLU						100 0.5 7 52 18,200		
			SLU A	rea Evaluated Equivale	nt Residence (ER)				
A3	а	Equivalent Resid					0.82		
				J Receptor Equivalent	Residence (ER)				
A4	a		iber of receptors ev		noint evaluated is worth)		0.821		
	b Individual Receptor Equivalent Residence (i.e., each receptor point evaluated is worth)  SLU Weighted Residential Vote Value								
A5	a Barrier ID Selected								
b Number of votes Assigned to SLU in Barrier Voting Process (if applicable)							#N/A		
			Barrier E	Evaluation for	SLU NSB07-02				
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER		
1	ROW	0	0	0	0	0.00	0.00		
2	ROW	22	4322	0	0	0.00	0.00		
3	ROW	22	2028	0	0	0.00	0.00		
4	ROW	0	0	0	0	0.00	0.00		
5	ROW	0	0	0	0	0.00	0.00		
6	ROW	0	0	0	0	0.00	0.00		
7	ROW	0	0	0	0	0.00	0.00		
8	ROW	0	0	0	0	0.00	0.00		

SLU NAI	ME	Church of C	God & Pillar c	of Zion					
SLU DESCRIPTION		Front Entrance							
NAC									
		SLI	J Equivale	ent Residence	(ER) Identificat	tion			
Step	Sub-Step			Descrip	•		Value		
	Average Single-Family Residence in Florida - Person Hours per Year								
	а	Average number of people in a single-family residence in Florida (US CENSUS, 2018-2022 data)							
A1 b Hours a single-family residence is available for use (24 hours x 365 days)							8,760		
	С	Residential Pers	on-nours per rear	SLU Person Hours p	ar Vaar		22,163		
	а	Average number	of users per day in	the area evaluated at the			100		
	b	Approximate daily hourly usage by each person in the area evaluated at the SLU							
A2	c	Number of days per week the SLU is operational							
	d	Number of weeks per year the SLU is operational  Person-Hours per Year Available for Use at the SLU							
	е	Person-Hours pe			/55)		18,200		
		l- · · · - ·		rea Evaluated Equivale	nt Residence (ER)				
A3	а	Equivalent Resid					0.82		
		Indeed: Control of		J Receptor Equivalent	Residence (ER)				
A4	a b		ber of receptors ev	aluated at the SLU dence (i.e., each receptor <sub>ا</sub>	oint avaluated is worth		0.821		
	D	iliulviuuai kecep		LU Weighted Residenti	·		0.821		
	а	Barrier ID Select		LO Weighted Residenti	ai vote value		CNE SB08		
A5	b a			Barrier Voting Process (if	applicable)		#N/A		
			Barrier E	valuation for	SLU NSB08-02				
Barrier ID	Barrier Location	Barrier Height	Barrier Length	Number of Impacted and Benefited Receptors at SLU	Total Number of Benefited Receptors at SLU	Impacted BER	Total BER		
	ROW	0	0						
1	Shoulder	14	1171	0	0	0.00	0.00		
	Structure	8	7536						
	ROW	22	4322						
2	Shoulder	14	1171		0	0.00	0.00		
	Structure	8	7536						
	ROW	22	2028						
3	Shoulder	0	0	0	0	0.00	0.00		
	Structure ROW	8	3469						
4	ROW	U	0	0	0	0.00	0.00		
4				U	U	0.00	0.00		
	ROW	0	0						
5				0	0	0.00	0.00		
	ROW	0	0	0	0	0.00			
6							0.00		
	DOW								
7	ROW	0	0		0	0.00	0.00		
/				0			0.00		
	ROW	0	0						
8		Ü		0	0	0.00	0.00		
				j	Ŭ	0.50	0.00		

## Appendix G Field Data Sheets

#### **Noise Measurement Data Sheet**



Date: 8/26/25 Measurement Taken By: Robbin Ossi, AICP CPP East from US 17/92 to Poinciana Connector (SR 538) FM#451419-1 Project: Site ID: Tiny Flower Rd Weather Conditions: Clear: Partly Cloudy: X Cloudy: Other: 84° End: \_\_\_\_\_ (°F) Temperature: Start: Wind Direction: Start: End: Max: 4+ MPH Average: \_\_\_\_ Wind Speed (Start): Min: 3 MPH (mph) Max: \_\_\_\_\_ Average: \_\_\_\_\_ Wind Speed (End): Min: (mph) 81% Start: End: Humidity: (%) **Equipment Data** Sound Level Meter: **Extech 407780A** Serial Number: Z360539 Date of Last Traceable Calibration: 02/21/2025 End: \_ 114 Start: \_ 114 Calibration: Start: <u>X</u> \_\_\_\_\_ End: X Battery: Weighting Scale: Response: Slow Serial Number: **Z362129** Calibrator: **Extech 407766** Site Sketch US 17/92 NB Session Time 10:46-10:56 65.2 dBA Turn Lane EOP 11:00 - 11:10 64.6 dBA 11:13-11:23 65.4 dBA 50' Tiny Flowers 17/92 Main Source 185' Yard equipment Pond fountain pond

### **Ambient Noise Measurement Data Sheet**



Date: 8/26/25		Measurement Taken By: Robbin Ossi, AICP			
Project: CPP Ea	st from US 17/92 to	Poinciana Con	nector (SR 538)		
Site ID: Preserv	vation Pointe				
Weather Conditions	s: Clear: Partly	Cloudy: X Cl	oudy: Other:		
Temperature: Wind Direction:	Start: WSW	End:			
Wind Speed (Start): Wind Speed (End): Humidity:			Average: (mpl  Average: (mpl  (%)		
Date of Last Traceal	Extech 407780A  ble Calibration: 02/21/202	End: 114	Serial Number:_Z360539		
Calibration:  Battery:  Weighting Scale:	Start:X	End:XRespons	e: Slow		
Calibrator: Exte	ch 407766	Serial Number: Z36 Site Sketch	52129		
Session Time 9:28-9:38 47.3 9:40-9:50 44.9 1:47–1:57 45.2	dBA	33'	CSX RAIL	<u>-</u>	
	SCRUB OAK HAMMOCK RD	SA	WGRASS HAMMOCK L	_N 1 of 2	

#### **Observed Field Data**

Session #1	Session Time: 9:28 AM	Results Leq dB(A):	47.3				
Noise Sources	3:						
• Du	ımp truck entering subdivisio	n well behind me	eter.				
• In	sects						
Other Observa	ations:						
Train trac	k slightly higher elevation tha	ın house grades.					
Session #2	Session Time: 9:40 AM	Results Leq dB(A):	44.9				
Noise Sources		results Led ub(A).	11.0				
• Co	onstruction in distance.						
• In	sects						
Other Observa	ations:						
Other Observa	ations.						
Session #3	Session Time: 1:47 PM	Results Leq dB(A):	45.2				
		Results Led ub(A).	43.2				
Noise Sources	<b>:</b>						
<ul> <li>Insects</li> </ul>							