

DRAFT

Noise Study Report



Tampa Hillsborough Expressway Authority (THEA)

East Selmon Expressway PD&E Study

From I-4 Connector to US 301

Hillsborough County, Florida

THEA Project Number: P-01619

Date: March 2024

CONTENTS

Executive Summary	4
1 Project Summary	6
1.1 Project Description	6
1.2 Purpose and Need	7
1.3 Description of Alternatives	7
2 Methodology	8
2.1 Noise Metrics	8
2.2 Traffic Data	9
2.3 Noise Abatement Criteria	9
2.4 Noise Abatement Measures	12
2.4.1 Traffic Management	13
2.4.2 Alignment Modifications	13
2.4.3 Buffer Zones	13
2.4.4 Noise Barriers	13
3 Traffic Noise Analyses	13
3.1 Measured Sound Levels	14
3.2 Predicted Traffic Noise Levels	15
4 Abatement Considerations	18
4.1 Traffic Management	18
4.2 Alignment Modifications	18
4.3 Buffer Zones	18
4.4 Noise Barriers	18
4.4.1 Noise Barrier – CNE 5 (Green Ridge Estates and Delaney Creek Estates)	19
4.4.2 Noise Barrier – CNE 6 (Harvest Time Christian School)	20
4.4.3 Noise Barrier – CNE 8 (Century Crosstown Apartments)	21
4.4.4 Additional Noise Barrier Considerations and Noise Barrier Summary	22
5 Construction Noise and Vibration	24

6	References	25
---	------------------	----

FIGURES

Figure 1: Project Location Map	6
Figure 2: Build Alternative Typical Section	8

TABLES

Table ES-1: CNEs with Potential Noise Barriers	5
Table 2-1: FHWA Noise Abatement Criteria	10
Table 2-2: Typical Noise Levels	11
Table 3-1: Common Noise Environments	14
Table 3-2: TNM Validation Data	15
Table 3-3: Summary of Predicted Traffic Noise Levels.....	17
Table 4-1: Noise Barrier Evaluation - CNE 5	20
Table 4-2: Noise Barrier Evaluation - CNE 8	21
Table 4-3: Additional Noise Barrier Feasibility Considerations.....	22
Table 4-4: Summary of the Noise Barrier Evaluation.....	24

APPENDICES

- Appendix A – Traffic Data
- Appendix B – Project Aerials
- Appendix C – Validation Data
- Appendix D – Predicted Traffic Noise Levels

EXECUTIVE SUMMARY

The Tampa Hillsborough Expressway Authority (THEA) is conducting a Project Development and Environment (PD&E) Study to evaluate the needs, costs, and effects of constructing improvements that will increase traffic capacity and safety on the Selmon Expressway (SR 618) from the I-4 Connector to US 301 in Hillsborough County. The project involves adding an additional lane in each direction along the mainline Selmon Expressway (SR 618) from the I-4 Connector to US 301. The total project length is 6.17 miles.

The highway traffic noise analysis presented in this Noise Study Report (NSR) was prepared to support the PD&E Study. The analysis was performed so that the results comply with the requirements of the Code of Federal Regulations (23 CFR 772)—*Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 13, 2010) using methodologies outlined in the Florida Department of Transportation's (FDOT's) Noise Policy (i.e., the FDOT's PD&E Manual, Chapter 18 [*Highway Traffic Noise*]).

A total of 380 properties for which the existing land use has a Federal Highway Administration/FDOT established Noise Abatement Criteria (NAC) were evaluated within nine Common Noise Environments (CNEs). CNEs are groups of properties within the same area that have the same land use (e.g., the residences within a subdivision or abutting subdivisions) and that are exposed to similar noise sources and levels. The 380 properties are comprised of 377 residences, a school, a radio station, and an office building.

Traffic noise levels are predicted to exceed the NAC for at least one evaluated property with the Build Alternative within CNE 3 (scattered residential from US 41 to S 78th Street), CNE 5 (Green Ridge Estates and Delaney Creek Estates), CNE 6 (Harvest Time Christian School), CNE 8 (Century Crosstown Apartments), and CNE 9 (Courtney Palms Condominiums). The maximum increase in traffic noise with the Build Alternative when compared to the existing condition is 11.0 dB(A) at CNE 5. Notably, this increase in the predicted traffic noise is not considered to be a substantial increase. The number of properties impacted varies depending on the CNE. The total number of impacted properties with the Build Alternative is 127 (126 residential and one school).

Traffic management measures, modifications to the roadway alignment, and buffer zones were considered as potential traffic noise abatement measures for the impacted properties, but these measures would not be both feasible and reasonable methods of reducing/eliminating predicted impacts with the Build Alternative. Noise barriers were also considered as an abatement measure. Based on the results of a noise barrier-specific evaluation, barriers may be both a feasible and reasonable traffic noise abatement method for the CNEs listed in **Table ES-1** (the barrier locations are depicted on aerials in the appendices of this NSR).

Table ES-1: CNEs with Potential Noise Barriers

CNE	Area	Number of Impacted Properties ¹	Number of Benefited Properties		Estimated Total Barrier Cost ²	Cost Per Benefited Property ²
			Impacted	Not Impacted		
5	Green Ridge Estates/Delaney Creek Estates	44	40	2	\$422,400	\$10,057
8	Century Crosstown Apartments	80	75	45	\$1,348,380	\$11,237

¹ Impacted properties are defined as receptors with a future design year, build alternative traffic noise level that is predicted to approach, meet, or exceed the NAC for its respective activity category, or will experience an increase in noise levels of 15 dB(A) or more in the design year when compared to an existing noise level.

² The total barrier cost and cost per benefited property are for the most cost-effective barrier that benefits the maximum number of impacted properties and achieves the noise reduction design goal of 7 dB(A).

Following FDOT safety requirements, noise barriers on bridges and retaining structures were limited to a maximum height of 8 feet, traffic railing/noise barrier combinations on the roadway shoulder were limited to a maximum height of 14 feet, and ground mounted barriers at the right of way were limited to a maximum height of 22 feet.

THEA is committed to constructing the noise barriers listed in Table ES-1 contingent upon the following:

- Detailed noise analysis during the final design process supports the need for, and the feasibility and reasonableness of, providing the noise barriers as abatement;
- The detailed analysis demonstrates that the cost of a noise barrier would not exceed the cost-effective criterion of \$42,000 per benefited property;
- All safety and engineering conflicts or issues related to the construction of a noise barrier are resolved; and
- The property owners/renters benefited by a noise barrier desire that a barrier be constructed.

1 PROJECT SUMMARY

1.1 Project Description

The Tampa Hillsborough Expressway Authority (THEA) is conducting a Project Development and Environment (PD&E) Study to evaluate the needs, costs, and effects of constructing improvements that will increase traffic capacity and safety on the Selmon Expressway (SR 618) from the I-4 Connector to US 301 in Hillsborough County (**Figure 1**). The project involves adding an additional lane in each direction along the mainline Selmon Expressway (SR 618) from the I-4 Connector to US 301. The total project length is 6.17 miles.

Within the project limits, the Selmon Expressway generally provides two or three lanes in each direction along the mainline lanes with access to the I-4 Connector, 50th Street, 78th Street, and US 301. The Reversible Express Lanes (REL) are generally located in the median of the Selmon Expressway with three lanes from Downtown Tampa to Palm River Road and two lanes from Palm River Road across I-75 and into Brandon. The REL provides additional system capacity to the peak direction of traffic with access available to westbound traffic in the morning and eastbound traffic in the afternoon. When the project is completed, the mainline lanes would provide three to four lanes in each direction.

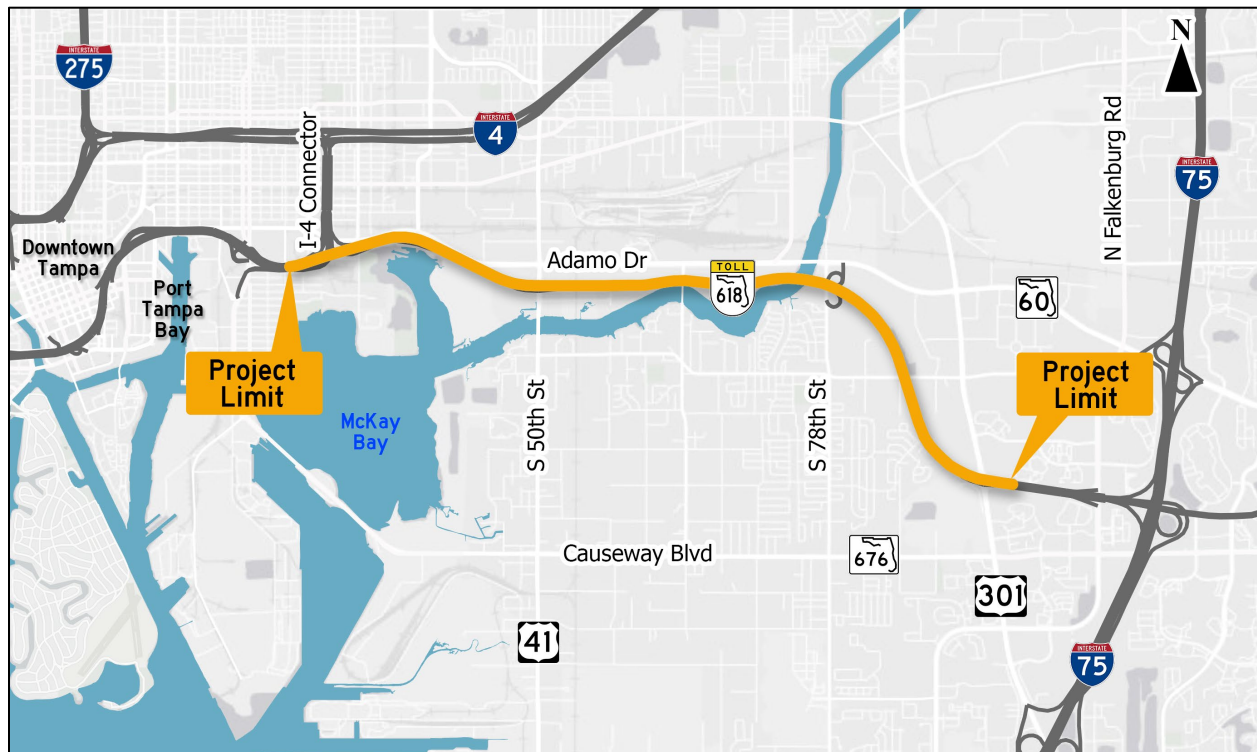


Figure 1: Project Location Map

1.2 Purpose and Need

The purpose of this project is to accommodate existing and future traffic demands and improve travel time reliability and safety on the Selmon Expressway from the I-4 Connector to US 301.

During the morning rush hour, congestion regularly occurs in the westbound direction from I-75 to 50th Street. Primary issues along the westbound direction include travel demands that exceed available capacity resulting in a Level of Service (LOS) F. On-going improvements by THEA to construct additional slip ramps (Contact #O-02520) between the mainline lanes and the REL is expected to improve traffic conditions along the westbound direction by encouraging traffic to shift to the REL. However, even with improved access to the REL, westbound segments, such as the two-lane section between 78th Street and 50th Street, will start to fail again by 2030.

During the afternoon rush hour, both directions of travel along the mainline operate acceptably at a LOS D or better. However, by 2027, segments of the eastbound lanes where the mainline only has two lanes, such as 50th Street to 78th Street, will begin to fail.

Over the five-year period from 2015 to 2019, there were 571 crashes within the project limits. One crash resulted in a fatality and twelve crashes resulted in severe injuries. Of the 571 crashes, 249 (44%) involved rear-end collisions indicating congestion as one of the primary contributing factors. High crash locations include the interchange areas at 50th Street, 78th Street, and US 301. Safety enhancements are needed to address THEA's Vision Zero safety goals to eliminate all traffic fatalities and serious injuries.

Improving the Selmon Expressway is critical for accommodating future travel demands, addressing congestion, and improving safety. Usage of the facility will continue to grow leading to more congestion and crashes if nothing is done. In 2019, 95,000 vehicles per day utilized the Selmon Expressway. By 2046, that number is expected to grow to 167,000, an increase of 75%. Population and economic growth in the region are directly linked to increasing traffic. The University of Florida Bureau of Economic and Business Research (BEBR) projects that the population of Hillsborough County will increase from 1,444,870 residents in 2019 to 1,919,900 residents in 2045, an increase of 33%. Furthermore, the portions of the Tampa Bay region contributing to traffic on the Selmon Expressway (consisting of parts of Hillsborough, Manatee, Polk, Pasco, Hernando, and Citrus counties) are expected to grow by 85% by 2045.

Improving the Selmon Expressway is also important for regional connectivity and hurricane evacuations. The Selmon Expressway connects Pinellas County and the City of St. Petersburg with Hillsborough County via the Gandy Boulevard Bridge and provides connectivity between Downtown Tampa, Port Tampa Bay, I-4 via the I-4 Connector, I-75, and Brandon.

1.3 Description of Alternatives

The alternatives under evaluation are the No-Build Alternative and the Build Alternative.

The No-Build Alternative has the same number of lanes as the existing condition and makes no improvements except for routine maintenance. The No-build forms the baseline for establishing environmental impacts of the build alternative and remains a viable alternative throughout the study.

The Build Alternative proposes to add an additional lane in each direction along the local lanes of the Selmon Expressway from the I-4 Connector to US 301 (**Figure 2**). All proposed improvements associated with the Build Alternative are located within existing right-of-way.

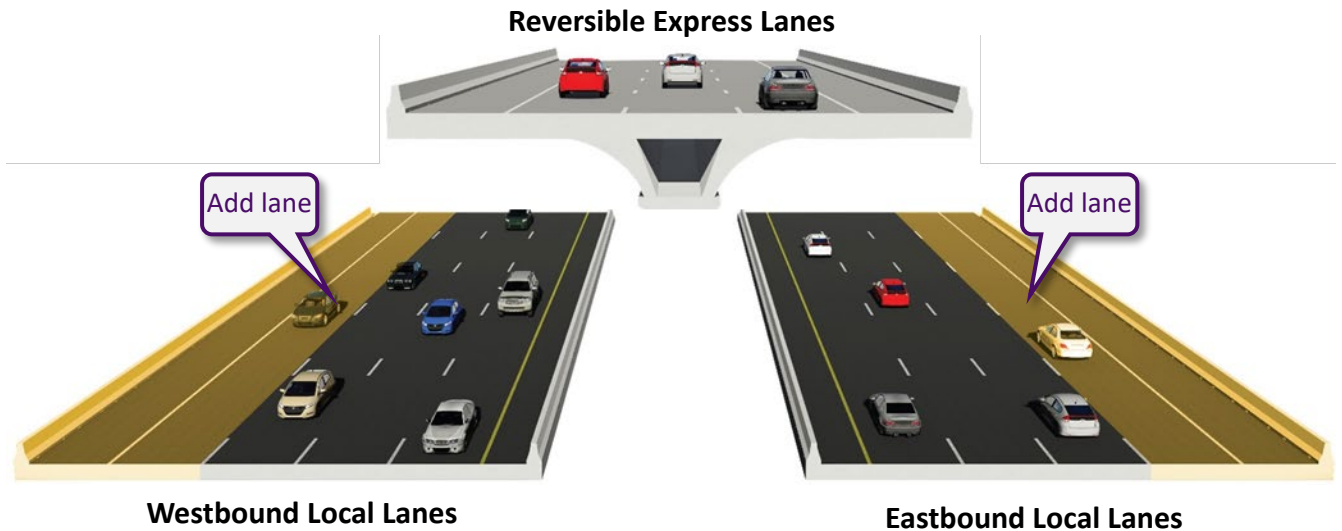


Figure 2: Build Alternative Typical Section

2 METHODOLOGY

The highway traffic noise analysis results presented in this NSR were prepared in accordance with all applicable guidelines as stated within both Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) and Chapter 18 of the FDOT's PD&E Manual (the FDOT's Noise Policy). The analysis was performed using the Federal Highway Administration's (FHWA's) Traffic Noise Model (TNM, Version 2.5). Both 23 CFR 772 and the FDOT's Noise Policy require the use of the TNM for the evaluation of traffic noise for roadway improvement projects for which the regulations, policies, and guidelines within 23 CFR 772 and the FDOT Noise Policy are applicable.

Following FDOT's Noise Policy, for non-residential properties, the traffic noise analysis methodologies described in the FDOT's A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations were used.

2.1 Noise Metrics

The predicted traffic noise levels presented in this report are expressed in decibels on the "A"-weighted scale (dB(A)). This scale most closely approximates the response characteristics of the

human ear to traffic noise. All traffic noise levels are reported as equivalent levels (Leq(h)). Levels reported as Leq(h) are equivalent steady-state sound levels that contain the same acoustic energy as time-varying sound levels over a period of one hour.

2.2 Traffic Data

Traffic noise levels are low when traffic volumes are low and operating conditions are good (level of service [LOS]¹ A or B) and when traffic is so congested that movement is slow (LOS D, E, or F). Generally, the maximum hourly noise level occurs between these two conditions (i.e., LOS C). For these reasons, when demand volumes are forecast to be less than LOS C conditions, LOS A or B conditions are modeled (because the demand volume is not forecast to reach the LOS C level). Conversely, when demand volumes are forecast to be greater than LOS C conditions, LOS C conditions are modeled because use of the LOS C data provides conservative results. The traffic data that was used to evaluate traffic noise for the proposed alternative is provided in **Appendix A** of this NSR.

2.3 Noise Abatement Criteria

For the purpose of evaluating traffic noise, the FHWA established Noise Abatement Criteria (NAC). As shown in **Table 2-1**, these criteria vary according to a properties' activity category (i.e., land use). For comparative purposes, typical noise levels for common indoor and outdoor activities are provided in **Table 2-2**. The TNM is used to predict worst-case traffic noise for both existing conditions and future conditions both with and without the proposed Build Alternative. The predictions are made at discrete representative locations on the properties for which there are NAC. These TNM-modeled locations are referred to as "receptors".

FHWA regulations also state that a traffic noise impact is predicted to occur when predicted traffic noise levels with a proposed improvement are considered substantial when compared to existing levels. The FDOT considers that a substantial increase in traffic noise occurs when traffic noise levels are predicted to increase 15 dB(A) or more above existing conditions as a direct result of a transportation improvement project.

¹ Level of Service: A quantitative stratification of a performance measure that represents quality of service of a transportation facility measured on an A-F scale, with LOS A representing the best operating conditions from the traveler's perspective and LOS F the worst.

Table 2-1: FHWA Noise Abatement Criteria

Activity Category	Description of Activity Category	Activity Leq(h) ¹ (dB(A))	
		FHWA	FDOT
A	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.	57 (Exterior)	56 (Exterior)
B ²	Residential	67 (Exterior)	66 (Exterior)
C ²	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails and trail crossings.	67 (Exterior)	66 (Exterior)
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.	52 (Interior)	51 (Interior)
E ²	Hotels, motels, offices, restaurants/bars and other developed lands, properties or activities not included in A-D or F.	72 (Exterior)	71 (Exterior)
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.	--	--

Sources: Table 1 of 23 CFR Part 772 and Table 18.1 of Chapter 18 of the FDOT's PD&E Manual (dated July 1, 2020).

¹ The Leq(h) activity criteria values are for impact determination only. The values are not design standards for noise abatement measures.

² Includes undeveloped lands permitted for this activity category.

Note: FDOT defines that a substantial traffic 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, there is a requirement to consider noise abatement.

Table 2-2: Typical Noise Levels

Common Outdoor Activities	Noise Level dB(A)	Common Indoor Activities
	110	← Rock band
Jet flyover (at 1,000 feet) →		
	100	
Gas lawnmower (at 3 feet) →		
	90	
Diesel truck (at 50 feet at 50 mph) →		← Food blender (at 3 feet)
	80	← Garbage disposal (at 3 feet)
Noisy urban area (daytime) →		
Gas lawnmower (at 100 feet) →		← Vacuum cleaner (at 10 feet)
Commercial area →		← Normal speech (at 3 feet)
Heavy traffic (at 300 feet) →		
	60	
		← Large business office
Quiet urban (daytime) →		← Dishwasher (in next room)
	50	
Quiet urban (nighttime) →		← Theater, large conference room (background)
	40	
Quiet suburban (nighttime) →		
	30	← Library
Quiet rural (nighttime) →		← Bedroom (at night), concert hall (background)
	20	
		← Broadcast/recording studio
	10	
	0	

Source: California Dept. of Transportation Technical Noise Supplement, Nov. 2013, Page 2-20.

2.4 Noise Abatement Measures

When traffic noise impacts are predicted, noise abatement measures are considered for the impacted properties and the feasibility and reasonableness of providing abatement is evaluated. For PD&E studies, a measure is considered a potential noise abatement measure if the following criteria are met:

- **Minimum Noise Reduction** – To meet the minimum noise reduction criteria, an abatement measure must provide at least a 5 dB(A) reduction in traffic noise for two or more impacted receptors and provide a 7 dB(A) reduction, the FDOT’s Noise Reduction Design Goal (NRDG), for one or more benefited receptors. Failure of a measure to provide at least a 5 dB(A) reduction for two or more impacted receptors results in a measure being deemed not feasible. Failure to achieve the NRDG results in a measure being deemed not reasonable.
- **Cost Effectiveness Criterion** – Based on FDOT’s Noise Policy, to be considered a reasonable abatement measure for a residence, the measure should cost no more than \$42,000 per benefited receptor (i.e., per benefited property for which the land use has a NAC). For the cost of an abatement measure for a special land use (e.g., Harvest Time Christian School) to be considered reasonable, the measure should cost no more than \$995,935 per person-hour per square foot. The FDOT currently uses an estimated cost of \$30 per square foot for noise barrier-related materials and labor.

If the results of an abatement measure evaluation indicate that a measure would provide at least the minimum required reduction in traffic noise at a cost that is less than the cost effectiveness criterion, additional factors are considered. Depending on the measure, feasibility factors relate to design and construction (i.e., given site-specific details, can an abatement measure be implemented), safety, accessibility, right of way (ROW) requirements, maintenance, and impacts on utilities and/or drainage. Because the analysis is performed on conceptual designs for roadway improvements, noise abatement measures are only identified as being potentially feasible and reasonable at the conclusion of a project’s PD&E phase. For such measures, a commitment to perform a detailed analysis in the project’s design phase (including obtaining the viewpoints of the property owners and/or residents of the benefited properties) when the final construction plans for an improvement are prepared.

The following subsections of this NSR discuss the four methods of abating (i.e., reducing) traffic noise impacts that are typically considered for roadway improvement projects.

2.4.1 Traffic Management

Some types of traffic management measures can reduce motor vehicle noise levels. For example, trucks can be prohibited from certain streets and roads, or be permitted to only use certain streets and roads during daylight hours. The timing of traffic lights can also be changed to smooth out the flow of traffic and eliminate the need for frequent stops and starts. Speed limits can also be reduced.

2.4.2 Alignment Modifications

Modifying the horizontal and/or vertical alignment of a roadway can also be an effective traffic noise mitigation measure. When the horizontal alignment is shifted (i.e., moved) away from a noise sensitive property or when the vertical alignment is shifted below (i.e., placing the roadway below the elevation of a noise sensitive land use) or above a noise sensitive property, highway traffic noise may be reduced due to shielding.

2.4.3 Buffer Zones

Providing a buffer between a roadway and noise sensitive land uses is an abatement measure that can minimize/eliminate noise impacts. To abate traffic noise at an existing noise sensitive land use, the property would be acquired to create a buffer zone.

2.4.4 Noise Barriers

The most common noise abatement measure is providing a noise barrier. Noise barriers have the potential to reduce traffic noise levels by interrupting the sound path between the motor vehicles on the roadway (i.e., the source of the sound) and the noise sensitive land uses adjacent to the roadway. In order to effectively reduce traffic noise, a noise barrier must be relatively long, continuous (without intermittent openings) and sufficiently tall. Based on FDOT's Noise Policy, for a noise barrier to be considered a potential noise abatement measure, the barrier must meet the acoustic and cost requirements described at the beginning of this section.

3 TRAFFIC NOISE ANALYSES

The properties and receptor locations that were evaluated for the proposed alternatives are shown on aerials in **Appendix B**. For the evaluation of the improvements, 380 noise sensitive properties were evaluated within nine Common Noise Environments (CNEs). A CNE is comprised of a group of receptors within the same activity category that are exposed to similar noise sources and levels; traffic volumes, traffic mix, speed, and topographic features. Generally, CNEs occur between two secondary noise sources (e.g., interchanges, intersections, cross-roads, etc.). Of the 380 noise sensitive properties, there are 377 residences, a school, a radio station, and an office building. **Table 3-1** lists each of the evaluated CNEs and provides the number of noise sensitive properties that were evaluated within each CNE.

Table 3-1: Common Noise Environments

CNE	Location or Area	Activity Category	Number of Properties
1	Palmetto Beach Neighborhood	B – Residential	85
2	Radio Station (Super Q106.7 FM)	D – Radio Studios	1
3	Residences from US 41 to S 78 th St	B – Residential	30
4	Residences on S 90 th St	B – Residential	3
5	Green Ridge and Delaney Creek Estates	B – Residential	66
6	Harvest Time Christian School	C – Schools	1
7	USAA Office Building	E – Offices	1
8	Century Crosstown Apts	B – Residential	139
9	Courtney Palms Condominiums	B – Residential	54
Total Number of Properties			380

Note: See **Appendix B** for CNE locations.

St = Street S = South Apts = Apartments

Following the FDOT's Noise Policy, the residences were evaluated as Activity Category "B" and abatement was considered if the predicted future traffic noise level with the Build Alternative was 66 dB(A) or greater. The school was evaluated as Activity Category "C" and abatement was considered if the predicted future traffic noise with the Build Alternative was also 66 dB(A) or greater. Since the radio station does not have areas of frequent exterior use, these properties were evaluated as Activity Category "D" and abatement was considered if the predicted future interior traffic noise was 51 dB(A) or greater with the Build Alternative. The outdoor use areas of the office building were evaluated as Activity Category "E" and abatement was considered if the predicted future traffic noise levels with the Build Alternative was 71 dB(A) or greater.

3.1 Measured Sound Levels

For the purpose of verifying that the TNM accurately predicts existing traffic noise levels, field measurements of sound levels are taken. During each measurement period, average vehicle travel speeds, vehicle counts and fleet identification (e.g., automobiles, trucks, buses, and motorcycles), site conditions (e.g., topography and distance from the roadway(s)) and sources of sound other than motor vehicles (e.g., aircraft flyovers, birds, barking dogs, etc.) are noted. The motor vehicle data and site conditions are used to create input for the TNM, and the model is executed. Following FDOT's Noise Policy, the TNM is considered valid to predict existing conditions if the field measured sound levels are plus or minus 3.0 dB(A) of the TNM predicted traffic noise levels.

The field measurements were conducted in accordance with the FHWA's Noise Measurement Handbook. The measurements were obtained using Larson Davis sound level meters Model LxT and 831. The sound level meters were calibrated before and after each monitoring period with a Larson Davis calibrator Model CAL200. Documentation in support of the validation is provided in **Appendix C** of this NSR.

The locations at which the measurements were obtained are depicted on the aerials in Appendix B. **Table 3-2** provides the field measurements and the validation results for the Selmon Expressway. As shown, the ability of the model to predict noise levels within the FDOT threshold of plus or minus 3.0 dB(A) was confirmed.

Table 3-2: TNM Validation Data

Location	Sheet No. ¹	Measurement Period	Modeled Traffic Noise (dB(A))	Measured Sound (dB(A))	Difference (dB(A))
1-1	5	1	66.8	65.2	1.6
		2	67.1	65.0	2.1
		3	67.2	65.1	2.1
1-2	5	1	62.9	60.9	2.0
		2	63.2	60.4	2.8
		3	63.3	60.6	2.7
2-1	5	1	66.2	63.7	2.5
		2	66.5	63.9	2.6
		3	65.9	63.8	2.1
2-2	5	1	61.8	60.0	1.8
		2	62.1	60.7	1.4
		3	61.9	60.8	1.1

¹ See Appendix B.

3.2 Predicted Traffic Noise Levels

A summary of the predicted traffic noise levels for each CNE is provided in **Table 3-3**. Table 3-3 summarizes the total number of properties evaluated within each CNE, the NAC for the land uses within the CNEs, as well as the ranges of predicted traffic noise for the existing condition (year 2019) and for future conditions (year 2046) without the proposed alternative (No Build) and with the proposed alternative (Build). The maximum increase in traffic noise within each CNE with the proposed alternative when compared to existing levels and the number of impacted properties within each CNE is also provided. The predicted traffic noise levels for each of the evaluated receptors are provided in **Appendix D**

As shown in Table 3-3, traffic noise levels are predicted to exceed the NAC with the Build Alternative at CNEs 3, 5, 6, 8, and 9 (predicted traffic noise levels exceed the NAC for at least one

evaluated property within each of the CNEs). The maximum increase in traffic noise with the Build Alternative when compared to the existing condition is 11.0 dB(A) at CNE 5. Notably, this increase in the predicted traffic noise is not considered to be a substantial increase.

The number of properties predicted to be impacted within each CNE with the Build Alternative is also provided in Table 3-3. The total number of impacted properties with the Build Alternative is 127 (126 residential and one school).

Table 3-3: Summary of Predicted Traffic Noise Levels

CNE	Sheet No. ¹	Activity Category	Number of Evaluated Properties	NAC (dB(A))	Predicted Traffic Noise Level (dB(A))			Maximum Increase in Traffic Noise with Build Alternative When Compared to Existing (dB(A))	Number of Properties Impacted with the Build Alternative ²
					Existing (2019)	No Build (2046)	Build (2046) ²		
1	1	B – Residential	85	66	59.3 – 63.5	60.9 – 65.3	61.6 – 65.7	2.7	0
2	2	D – Radio Studio/Interior	1	51	39.2	39.6	39.6	0.4	0
3	2-3	B – Residential	30	66	61.8 – 67.6	62.4 – 67.9	63.6 – 69.6	2.2	1
4	4	B – Residential	3	66	62.9	63.7	64.6	1.7	0
5	4	B – Residential	66	66	58.7 – 68.3	59.4 – 69.1	62.2 – 78.0	11.0	44
6	4	C – School/Exterior	1	66	65.2	65.8	67.0	1.8	1
7	5	E – Office/Exterior	1	71	63.8 – 66.7	64.7 – 67.7	65.5 – 68.0	1.7	0
8	5	B – Residential	139	66	50.3 – 75.3	51.3 – 76.5	51.9 – 76.2	2.6	80
9	5	B – Residential	54	66	41.2 – 66.0	42.1 – 67.0	43.6 – 66.0	2.6	1
Total Number of Impacted Properties with the Build Alternative									127

¹ See Appendix B.² Impacted properties are defined as receptors with a future design year, build alternative traffic noise level that is predicted to approach, meet, or exceed the NAC for its respective activity category, or will experience an increase in noise levels of 15 dB(A) or more in the design year when compared to an existing noise level.

4 ABATEMENT CONSIDERATIONS

As previously stated, when traffic noise impacts are predicted, noise abatement measures are considered for the impacted properties. The following discusses the consideration of each of the measures to reduce predicted traffic noise with the proposed Build Alternative.

4.1 Traffic Management

Reducing traffic speeds and/or the traffic volume or changing the motor vehicle fleet on the Selmon Expressway is inconsistent with the goal of improving the ability of the roadway to handle the forecast traffic volume. Therefore, traffic management measures were not considered to be a reasonable traffic noise abatement measure.

4.2 Alignment Modifications

A change in the horizontal or vertical alignment of a roadway may reduce noise levels at noise sensitive receptors. The Build Alternative would be constructed to follow the existing roadway alignment. Because shifting the alignment horizontally would require substantial ROW acquisitions and, because noise sensitive land uses are located on both sides of the roadway, a modification to the alignment of the Selmon Expressway for the purpose of reducing traffic noise impacts is not considered to be a reasonable noise abatement measure. Suppressing the roadway's vertical alignment to create a natural berm between the highway and receivers or raising the vertical alignment is not considered to be reasonable due to the cost associated with such a measure.

4.3 Buffer Zones

As previously stated, to abate predicted traffic noise at an existing noise sensitive land use, the property would have to be acquired. The same cost-effective limit that applies to noise barriers (i.e., \$42,000 per benefited noise sensitive receptor) would apply to the purchase price of any impacted noise sensitive property. A review of data from the Hillsborough Property Appraiser indicates that the cost to acquire the developed properties adjacent to the Selmon Expressway exceeds the cost-effective limit. Therefore, creating a buffer zone by acquiring existing properties for which there are NAC exceedances is not considered to be a reasonable noise abatement measure.

4.4 Noise Barriers

TNM was used to evaluate the ability of noise barriers to reduce traffic noise levels for the impacted receptors adjacent to the Selmon Expressway with the Build Alternative. A noise barrier was not evaluated for the isolated impacted receptor in CNE 3 (Receptor 1 between US 41 and S 78th Street) and in CNE 9 (Receptor 15c at the Courtney Palms Condominiums) because it would not meet the minimum feasibility requirement. A shoulder barrier along the outside edge of the

improved Selmon Expressway shoulder lanes and/or bridge structures were evaluated for the impacted receptors in CNE 5 (Green Ridge Estates and Delaney Creek Estates). Noise barriers were evaluated 10 feet within the ROW for the impacted receptors in CNE 6 (Harvest Time Christian School) and CNE 8 (Century Crosstown Apartments).

Following FDOT safety requirements, noise barriers on bridges and retaining structures (referred to as structure barriers in this NSR) were limited to a height of 8 feet², traffic railing/noise barrier combinations (referred to in this NSR as shoulder barriers) were limited to a maximum height of 14 feet, and ground mounted barriers located within the Selmon Expressway ROW were limited to a maximum height of 22 feet (referred to as ROW barriers in this NSR).

For each CNE, the length of the barriers was optimized in an attempt to benefit all of the impacted receptors. Once optimized, the reduction in traffic noise at each impacted property was reviewed to determine if the acoustic feasibility requirement (i.e., a reduction of at least 5 dB(A) for two or more impacted properties) and the acoustic reasonableness requirement (i.e., a reduction of at least 7 dB(A) for one benefited property) could be achieved. If the acoustic requirements were met, the cost effectiveness/reasonableness of providing a noise barrier as an abatement measure was also considered.

As stated in the Introduction to this NSR, the proposed project is currently in the PD&E phase. As such, the roadway elevations and alignment information used to perform the traffic noise analysis are not finalized. Therefore, the results of the analysis presented in this report should be considered preliminary (i.e., the locations of the noise barriers are potential). A final determination as to the feasibility and reasonableness of providing noise barriers as a traffic noise abatement measure will be made during the project's design phase.

The following discusses the results of the evaluated noise barriers for the Build Alternative.

4.4.1 Noise Barrier – CNE 5 (Green Ridge Estates and Delaney Creek Estates)

The existing 8-foot shoulder noise barrier at this location would have to be removed to accommodate the improvements of the Build Alternative. The removal of the existing shoulder noise barrier resulted in predicted traffic noise impacts to 44 properties (six within Green Ridge Estates and 38 within Delaney Creek Estates) with the Build Alternative. Thus, an in-kind replacement of the shoulder noise barrier was evaluated for this CNE. The evaluated shoulder noise barrier, with a maximum allowable height of 14 feet, was evaluated from approximately where the existing shoulder noise barrier begins to east of Delaney Creek Estates.

² Structure barriers are barriers on bridges and on mechanically stabilized earth (MSE) walls. MSE walls stabilize slopes and retain soil on steep slopes. The wall face is typically precast segmental blocks.

The results of the analysis with shoulder noise barrier heights ranging from 8 to 14 feet are provided in **Table 4-1**. As shown, a maximum of 40 of the 44 impacted properties would benefit from a reduction in traffic noise of 5 dB(A) or more and the NRDG of 7 dB(A) would be achieved starting at a height of 10 feet. Additionally, at least two properties, not predicted to be impacted by traffic noise, would also be benefited by the barrier. The estimated total barrier costs range from \$349,440 to \$570,780 and the cost per benefited property ranges from \$8,523 to \$13,274. The costs of a shoulder noise barrier ranging from 8 to 14 feet are below the FDOT’s cost effectiveness criterion (i.e., \$42,000 per benefited property). Additional considerations regarding the construction of a traffic noise barrier for the residences in CNE 5 are discussed in **Section 4.4.6**.

Table 4-1: Noise Barrier Evaluation - CNE 5

Shoulder Barrier Height (feet) ¹	Shoulder Barrier Length (feet) ²	Noise Reduction at Impacted Properties (dB(A))		Number of Benefited Properties ⁴			Total Estimated Cost ⁵	Cost per Benefited Property ⁶
		5 – 6.9	≥7	Impacted	Not Impacted	Total		
<i>Number of Impacted Properties³ = 44</i>								
8	1,456	15	24	39	2	41	\$349,440	\$8,523
10	1,408	15	25	40	2	42	\$422,400	\$10,057
12	1,359	15	25	40	2	42	\$489,240	\$11,649
14	1,359	7	33	40	3	43	\$570,780	\$13,274

¹ The noise barrier evaluated for this area was located on the shoulder of the Selmon Expressway. The height of the barrier on shoulder is limited to a maximum height of 14 feet.

² The optimal length of the shoulder barrier is provided.

³ Properties for which the predicted traffic noise level is 66 dB(A) or greater.

⁴ Properties with a predicted reduction of 5 dB(A) or more are considered benefited.

⁵ Based on a unit cost of \$30 per square foot.

⁶ FDOT cost reasonable criterion is \$42,000 per benefited receptor.

4.4.2 Noise Barrier – CNE 6 (Harvest Time Christian School)

A noise barrier was analyzed for the impacted outdoor use areas (i.e., playgrounds) of the school using FDOT’s Special Land Use Methodology. The barrier was evaluated 10 feet within the Selmon Expressway ROW. The barrier was evaluated at a minimum height of eight feet to the maximum allowable height of 22 feet in two-foot increments. At an optimal height of 22 feet and an optimal length of 809 feet, a noise barrier would reduce predicted traffic noise levels for 80% of the impacted playgrounds by at least 5 dB(A) and achieve the NRDG of 7 dB(A). Because it is not known how long the playgrounds would be used and by how many people, the minimum number of person-hours of use on an average day to have the cost be considered effective was calculated (i.e., cost not to exceed \$995,935 per person-hour per square foot).

The cost calculations were based on the formulas for evaluating cost effectiveness from the special land use procedures. Assuming the optimal barrier height and length above, the minimum daily use required in order for a noise barrier to be considered cost effective is 938 person-hours (i.e.,

938 people would have to use the playgrounds for one hour each day of the year). Because the playground areas are small and the number of person-hours of use required for a noise barrier to be considered cost effective exceeds the school’s enrollment, it is not reasonable to assume that this level of activity would occur every day. Therefore, a noise barrier is not considered a reasonable noise abatement measure for the school.

4.4.3 Noise Barrier – CNE 8 (Century Crosstown Apartments)

The noise barrier evaluated for this CNE was located 10 feet within the Selmon Expressway ROW with a maximum allowable height of 22 feet.

The results of the analysis with a ROW noise barrier with heights ranging from eight to 22 feet are provided in **Table 4-2**. As shown, at noise barrier heights between 10 to 22 feet, six to as many as 75 of the 80 impacted properties would benefit from a reduction in traffic noise of 5 dB(A) or more and the NRDG of 7 dB(A) would be achieved. Additionally, at heights between 12 and 22 feet, five to as many as 45 properties not predicted to be impacted by traffic noise, would also be benefited by the noise barrier. The estimated total noise barrier costs range from \$726,300 to \$1,452,600 and the cost per benefited property ranges from \$11,237 to \$121,050. The costs of a ROW barrier ranging from 12 to 22 feet are below the FDOT’s cost effectiveness criterion (i.e., \$42,000 per benefited property). Additional considerations regarding the construction of a traffic noise barrier for the residences in CNE 8 are discussed in Section 4.4.6.

Table 4-2: Noise Barrier Evaluation - CNE 8

ROW Barrier Height (feet) ¹	ROW Barrier Length (feet) ²	Noise Reduction at Impacted Properties (dB(A))		Number of Benefited Properties ⁴			Total Estimated Cost ⁵	Cost per Benefited Property ⁶
		5 – 6.9	≥7	Impacted	Not Impacted	Total		
<i>Number of Impacted Properties³ = 80</i>								
8 ⁷	--	--	--	--	--	--	--	--
10	2,421	3	3	6	0	6	\$726,300	\$121,050
12	2,421	14	5	19	5	24	\$871,560	\$36,315
14	2,421	16	14	30	17	47	\$1,016,820	\$21,634
16	2,421	23	28	51	25	76	\$1,162,080	\$15,291
18	2,421	14	44	58	35	93	\$1,307,340	\$14,057
20	2,421	14	53	67	43	110	\$1,452,600	\$13,205
22	2,043	17	58	75	45	120	\$1,348,380	\$11,237

¹ The noise barrier evaluated for this area was located inside the ROW of the Selmon Expressway. The height of the barrier is limited to a maximum height of 22 feet.

² The optimal length of the ROW barrier is provided.

³ Properties for which the predicted traffic noise level is 66 dB(A) or greater.

⁴ Properties with a predicted reduction of 5 dB(A) or more are considered benefited.

⁵ Based on a unit cost of \$30 per square foot.

⁶ FDOT cost reasonable criterion is \$42,000 per benefited receptor.

⁷ Minimum predicted reduction of 7 dB(A) for at least one benefited receptor could not be achieved at this barrier height.

4.4.4 Additional Noise Barrier Considerations and Noise Barrier Summary

As previously stated, when the results of the preliminary analysis indicate that a noise barrier could provide the required reduction in traffic noise at a cost at or below the cost-effective limit, additional feasibility factors are considered. These feasibility factors relate to barrier design and construction (i.e., given site-specific details, can a barrier actually be constructed), safety, access to and from adjacent properties, ROW requirements, maintenance and impacts on utilities and drainage. The viewpoint of the impacted property owners (and renters if applicable) who may, or may not, desire a noise barrier, is also a factor that is considered when evaluating noise barriers as an abatement measure.

Comments on additional feasibility factors as they relate to the noise barriers evaluated for the proposed project are provided in **Table 4-3**. As stated, there are certain noise barrier considerations for which decisions and/or data are not available until design plans for the improvements are prepared.

Because the traffic noise analysis presented in this report was performed using data developed for the project's PD&E phase, the analysis results are considered preliminary. A more detailed analysis will be performed during the project's design phase for the noise barriers that are found to be reasonable and feasible in the project's PD&E phase, at which time the desires of the impacted property owners and renters (if applicable) that would benefit from a noise barrier will be solicited.

Table 4-3: Additional Noise Barrier Feasibility Considerations

Evaluation Criteria	Comment
Design and Construction	A determination of whether the noise barriers can be constructed using standard construction methods and techniques will be made during the project's design phase. Notably, any barrier-specific additional costs identified in the design phase will be included in the final cost reasonableness evaluation of the barriers.
Safety	Safety concerns associated with the noise barriers will be addressed during the project's design phase.
Accessibility	The barriers would be located within the Selmon Expressway ROW or on the shoulder and would not block ingress or egress to any property.
ROW	The acquisition of ROW or easements for construction/maintenance of noise barriers will be made during the project's design phase.
Maintenance	The barriers should be maintainable at the evaluated locations using standard practices but will be confirmed during the project's design phase.

Drainage	A determination as to whether the noise barriers can be designed so that water would be directed along, under, or away from the noise barriers will be made during the project's design phase.
Utilities	A determination of utility conflicts will be made during the project's design phase.

A summary of the evaluated noise barriers is shown in **Table 4-4**. As shown, the locations of evaluated noise barriers are provided, as well as the NAC, number of evaluated properties within each CNE, the number of properties predicted to be impacted by traffic noise with the Build Alternative within each CNE, and whether the noise barrier was reasonable and feasible for each CNE. Two of the three evaluated noise barriers were found to be reasonable and feasible noise abatement measures. The noise barrier evaluated for the Harvest Time Christian School was found to be not cost reasonable.

Table 4-4: Summary of the Noise Barrier Evaluation

CNE ¹	Sheet No. ²	Location	Activity Category	Number of Evaluated Properties	Number of Properties Impacted with the Build Alternative ³	Feasibility and Reasonableness Determination
5	5	Green Ridge Estates/Delaney Creek Estates	B – Residential	66	44	Feasible and Reasonable
6	5	Harvest Time Christian School	C – School	1	1	Not cost reasonable
8	5	Century Crosstown Apartments	B – Residential	139	80	Feasible and Reasonable

¹ Noise barriers were not evaluated for CNEs 1-2, 4, or 7 because traffic noise impacts were not predicted at these locations. Noise barriers were not evaluated for the isolated impacted residences in CNE 3 and CNE 9 because they do not meet the minimum feasibility requirements.

² See **Appendix B**.

³ Impacted properties are defined as receptors with a future design year, build alternative traffic noise level that is predicted to approach, meet, or exceed the NAC for its respective activity category, or will experience an increase in noise levels of 15 dB(A) or more in the design year when compared to an existing noise level.

5 CONSTRUCTION NOISE AND VIBRATION

There are land uses adjacent to the Selmon Expressway that are both noise- and vibration-sensitive (i.e., the residences and the radio station). It is anticipated that construction of the proposed roadway improvements would not have a significant noise or vibration effect. Additionally, the application of the FDOT Standard Specifications for Road and Bridge Construction may minimize or eliminate potential issues. Should noise or vibration issues arise during the construction process, the Project Engineer, in coordination with THEA, will investigate additional methods of controlling such impacts.

6 REFERENCES

FHWA. U.S. Department of Transportation. July 13, 2010. Title 23 CFR, Part 772. Procedures for Abatement of Highway Traffic Noise and Construction Noise.

FHWA. February 2004. Traffic Noise Model, Version 2.5.

FHWA. December 2011. Highway Traffic Noise: Analysis and Abatement Guidance.

FHWA. June 1, 2018. Noise Measurement Handbook. FHWA-HEP-18-065.

FDOT. July 1, 2023. Project Development and Environment Manual, Part 2, Chapter 18 – Highway Traffic Noise.

FDOT. January 1, 2023. Design Manual, Volume 1, Chapter 264 – Noise Walls and Perimeter Walls.

FDOT. July 2023. Standard Plans for Road and Bridge Construction.

FDOT. Environmental Management Office. December 2018. Traffic Noise Modeling and Analysis Practitioners Handbook.

California Department of Transportation. November 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol.

Appendix A – Traffic Data

**DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES**

This spreadsheet is designed to calculate the appropriate traffic data for use in the noise model - do not input values for items in "red".

Project: East Selmon Expressway PD&E
State Project Number(s):
Work Program Number(s):
Federal Aid Number(s):
Segment Description: East Selmon Expressway from I-75 NB to Brorein St

Date: 2/29/2024
Prepared By: MBI

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)
 NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Eastbound Selmon Expressway Local Lanes

Segment No: From/To:	1 I-75 NB Off to WB REL Off			2 WB REL Off to I-75 SB Off			3 I-75 SB Off to Falkenburg Off			4 Falkenburg Off to US-301 On			5 US-301 On to Lane Drop			6 Lane Drop to US-301 Off			7 US-301 Off to REL Off			8 REL Off to REL On		
	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build
Dir Lanes:	2	2	2	2	2	2	2	2	3	3	3	4	2	2	3	3	3	3	3	3	4	3	3	4
Year:	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046
ADT: LOS (C)	86400	86400	86400	86400	86400	86400	86400	86400	117800	117800	117800	148900	86400	86400	117800	117800	117800	117800	117800	117800	148900	117800	117800	148900
ADT: Demand	29300	47660	56030	44000	82540	80510	50400	92860	70190	69500	116750	95760	58000	95520	97470	58000	95520	100420	73700	114870	121740	80500	122210	128920
Speed: (mph)	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
(kmh)	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
K=	6.9%	5.3%	6.9%	8.3%	7.2%	8.0%	8.1%	7.2%	8.4%	8.4%	7.1%	8.4%	8.6%	7.0%	8.1%	8.6%	7.0%	7.8%	9.0%	7.0%	8.1%	8.9%	6.9%	7.9%
D=	39.3%	28.3%	45.3%	66.4%	69.9%	67.3%	59.4%	62.8%	73.3%	59.6%	59.9%	69.1%	58.9%	59.3%	59.9%	58.9%	59.3%	59.9%	62.4%	63.5%	63.9%	65.5%	65.4%	65.0%
T24=	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	7.6%	7.6%	7.6%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%
DHT=	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	3.8%	3.8%	3.8%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
% Medium Trucks DHV	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.0%	2.0%	2.0%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
% Heavy Trucks DHV	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.7%	1.7%	1.7%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
% Buses DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
% Motorcycles DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
LOS C Peak:	2338	1287	2683	4754	4375	4636	4150	3889	7250	5880	4984	8630	4389	3582	5704	5983	4884	5537	6588	5230	7706	6904	5340	7646
LOS C Off-Peak:	3612	3263	3238	2405	1884	2254	2837	2307	2635	3985	3340	3856	3066	2460	3819	4180	3354	3707	3964	3005	4354	3629	2824	4112
Demand Peak:	793	710	1740	2421	4180	4320	2421	4180	4320	3469	4940	5550	2946	3960	4720	2946	3960	4720	4122	5100	6300	4718	5540	6620
Demand Off-Peak:	1225	1800	2100	1225	1800	2100	1655	2480	1570	2351	3310	2480	2058	2720	3160	2058	2720	3160	2480	2930	3560	2480	2930	3560
Model:	Demand	Demand	Demand	Demand	Demand	Demand	Demand	LOS (C)	Demand	Demand	Demand	Demand	Demand	LOS (C)	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	LOS (C)	Demand
LOS C Peak:																								
Autos	2239	1232	2569	4552	4189	4439	3989	3738	6968	5676	4812	8331	4237	3458	5507	5776	4715	5345	6347	5038	7423	6651	5144	7366
Med Trucks	50	28	58	102	94	99	82	76	142	104	88	153	78	64	101	106	87	98	124	98	145	130	100	144
Hvy Trucks	44	24	50	89	81	86	71	66	124	88	75	129	66	54	86	90	73	83	105	83	122	110	85	122
Buses	3	2	4	7	6	7	5	5	9	4	4	6	3	3	4	4	4	4	5	4	6	5	4	6
Motorcycles	2	1	3	5	5	5	4	4	7	6	5	9	5	4	6	7	5	6	8	6	9	8	6	9
Total	2338	1287	2683	4754	4375	4636	4150	3889	7250	5880	4984	8630	4389	3582	5704	5983	4884	5537	6588	5230	7706	6904	5340	7646
LOS C Off-Peak:																								
Autos	3459	3124	3101	2303	1804	2158	2727	2218	2532	3847	3224	3723	2960	2375	3687	4035	3238	3579	3819	2895	4195	3496	2721	3961
Med Trucks	78	70	69	52	40	48	56	45	52	71	59	68	54	44	68	74	60	66	75	57	82	68	53	77
Hvy Trucks	67	61	60	45	35	42	48	39	45	60	50	58	46	37	57	63	50	56	63	48	69	58	45	65
Buses	5	5	5	3	3	3	4	3	3	3	3	3	2	2	3	3	3	3	3	2	3	3	2	3
Motorcycles	4	3	3	2	2	2	3	2	3	4	4	4	3	3	4	5	4	4	5	4	5	4	3	5
Total	3612	3263	3238	2405	1884	2254	2837	2307	2635	3985	3340	3856	3066	2460	3819	4180	3354	3707	3964	3005	4354	3629	2824	4112
Demand Peak:																								
Autos	759	680	1666	2318	4002	4136	2327	4017	4152	3349	4769	5358	2844	3823	4557	2844	3823	4557	3971	4913	6069	4545	5337	6377
Med Trucks	17	15	37	52	90	93	48	82	85	62	88	99	52	70	84	52	70	84	78	96	119	89	104	125
Hvy Trucks	15	13	32	45	78	80	41	71	74	52	74	83	44	59	71	44	59	71	66	81	100	75	88	105
Buses	1	1	2	3	6	6	3	5	6	3	4	4	2	3	4	2	3	4	3	4	5	4	4	5
Motorcycles	1	1	2	3	4	4	2	4	4	4	5	6	3	4	5	3	4	5	5	6	7	5	6	8
Total	793	710	1740	2421	4180	4320	2421	4180	4320	3469	4940	5550	2946	3960	4720	2946	3960	4720	4122	5100	6300	4718	5540	6620
Demand Off-Peak:																								
Autos	1173	1723	2011	1173	1723	2011	1591	2383	1509	2270	3195	2394	1987	2626	3051	1987	2626	3051	2389	2823	3429	2389	2823	3429
Med Trucks	26	39	45	26	39	45	33	49	31	42	59	44	37	48	56	37	48	56	47	55	67	47	55	67
Hvy Trucks	23	34	39	23	34	39	28	42	27	35	50	37	31	41	47	31	41	47	39	47	57	39	47	57
Buses	2	3	3	2	3	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	3
Motorcycles	1	2	2	1	2	2	2	2	1	3	4	3	2	3	3	2	3	3	3	3	4	3	3	4
Total	1225	1800	2100	1225	1800	2100	1655	2480	1570	2351	3310	2480	2058	2720	3160	2058	2720	3160	2480	2930	3560	2480	2930	3560

**DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES**

This spreadsheet is designed to calculate the appropriate traffic data for use in the noise model - do not input values for items in "red".

Project: East Selmon Expressway PD&E
State Project Number(s):
Work Program Number(s):
Federal Aid Number(s):
Segment Description: East Selmon Expressway from I-75 NB to Brorein St

Date: 2/29/2024
Prepared By: MBI

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Eastbound Selmon Expressway Local Lanes

Segment No: From/To:	9			10			11			12			13			14			15			16		
	REL On to Lane Add			Lane Add to 78th Off			78th Off to 50th On			50th On to 50th Off			50th Off to I-4 On			I-4 On to WB 22nd Off			WB 22nd Off to REL Off			REL Off to Lane Drop		
Model:	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build
Dir Lanes:	3	3	4	2	2	3	2	2	3	2	2	3	3	3	4	2	2	3	2	2	3	2	2	3
Year:	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046
ADT: LOS (C)	117800	117800	148900	86400	86400	117800	86400	86400	117800	86400	86400	117800	117800	117800	148900	86400	86400	117800	86400	86400	117800	86400	86400	117800
ADT: Demand	73600	106710	122390	73600	106710	122390	78400	114310	131400	72700	107420	124540	83300	128640	144810	51500	74270	87740	47500	69130	82600	54100	80130	94020
Speed: (mph)	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
(kmh)	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
K=	8.4%	7.0%	7.7%	8.4%	7.0%	7.7%	8.3%	7.0%	7.7%	8.3%	6.8%	7.5%	8.2%	6.8%	7.4%	9.0%	7.3%	8.1%	9.4%	7.6%	8.3%	11.2%	7.9%	8.6%
D=	59.9%	60.8%	62.3%	59.9%	60.8%	62.3%	58.9%	59.8%	61.5%	58.4%	59.0%	60.8%	59.4%	62.1%	61.8%	52.1%	54.3%	55.2%	54.1%	56.5%	57.3%	66.2%	64.0%	64.0%
T24=	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.6%	6.6%	6.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%
DHT=	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.3%	3.3%	3.3%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
% Medium Trucks DHV	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.8%	1.8%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
% Heavy Trucks DHV	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
% Buses DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
% Motorcycles DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
LOS C Peak:	5941	5012	7166	4358	3676	5669	4235	3620	5567	4169	3459	5363	5751	4972	6828	4060	3443	5263	4402	3699	5591	6434	4378	6490
LOS C Off-Peak:	3969	3235	4331	2911	2372	3426	2950	2434	3487	2968	2405	3452	3930	3031	4226	3736	2897	4269	3740	2850	4164	3284	2458	3659
Demand Peak:	3712	4540	5890	3712	4540	5890	3843	4790	6210	3508	4300	5670	4067	5430	6640	2420	2960	3920	2420	2960	3920	4029	4060	5180
Demand Off-Peak:	2480	2930	3560	2480	2930	3560	2677	3220	3890	2497	2990	3650	2779	3310	4110	2227	2490	3180	2056	2280	2920	2056	2280	2920
Model:	Demand	Demand	Demand	Demand	LOS (C)	LOS (C)	Demand	LOS (C)	LOS (C)	Demand	LOS (C)	LOS (C)	Demand	LOS (C)	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand
LOS C Peak:																								
Autos	5723	4828	6903	4198	3541	5461	4096	3502	5385	4032	3345	5187	5554	4802	6593	3942	3343	5110	4274	3592	5428	6247	4250	6301
Med Trucks	112	94	135	82	69	107	73	62	96	72	59	92	104	90	123	69	59	90	75	63	95	110	75	111
Hvy Trucks	94	80	114	69	58	90	59	51	78	58	48	75	84	73	100	41	35	54	45	38	57	66	45	66
Buses	5	4	6	3	3	5	1	1	2	1	1	2	2	2	2	3	3	4	3	3	4	5	3	5
Motorcycles	7	6	8	5	4	7	6	5	7	5	4	7	8	7	9	4	4	6	5	4	6	7	5	7
Total	5941	5012	7166	4358	3676	5669	4235	3620	5567	4169	3459	5363	5751	4972	6828	4060	3443	5263	4402	3699	5591	6434	4378	6490
LOS C Off-Peak:																								
Autos	3824	3116	4172	2805	2285	3301	2853	2354	3373	2870	2326	3339	3795	2927	4081	3627	2812	4145	3631	2767	4043	3188	2387	3552
Med Trucks	75	61	81	55	45	64	51	42	60	51	41	59	71	55	76	64	49	73	64	49	71	56	42	62
Hvy Trucks	63	51	69	46	38	54	41	34	49	42	34	48	58	44	62	38	30	44	38	29	42	33	25	37
Buses	3	3	3	2	2	3	1	1	1	1	1	1	1	1	1	3	2	3	3	2	3	2	2	3
Motorcycles	5	4	5	3	3	4	4	3	5	4	3	4	5	4	6	4	3	5	4	3	5	4	3	4
Total	3969	3235	4331	2911	2372	3426	2950	2434	3487	2968	2405	3452	3930	3031	4226	3736	2897	4269	3740	2850	4164	3284	2458	3659
Demand Peak:																								
Autos	3576	4374	5674	3576	4374	5674	3717	4633	6006	3393	4159	5484	3927	5243	6412	2350	2874	3806	2350	2874	3806	3912	3942	5029
Med Trucks	70	85	111	70	85	111	66	82	107	60	74	98	73	98	120	41	50	67	41	50	67	69	69	88
Hvy Trucks	59	72	94	59	72	94	54	67	87	49	60	79	60	80	97	25	30	40	25	30	40	41	41	53
Buses	3	4	5	3	4	5	1	1	2	1	1	2	1	2	2	2	2	3	2	2	3	3	3	4
Motorcycles	4	5	7	4	5	7	5	6	8	5	6	7	6	7	9	3	3	4	3	3	4	4	4	6
Total	3712	4540	5890	3712	4540	5890	3843	4790	6210	3508	4300	5670	4067	5430	6640	2420	2960	3920	2420	2960	3920	4029	4060	5180
Demand Off-Peak:																								
Autos	2389	2823	3429	2389	2823	3429	2589	3114	3762	2415	2892	3530	2684	3196	3969	2162	2418	3087	1996	2214	2835	1996	2214	2835
Med Trucks	47	55	67	47	55	67	46	55	67	43	51	63	50	60	74	38	42	54	35	39	50	35	39	50
Hvy Trucks	39	47	57	39	47	57	37	45	54	35	42	51	41	49	60	23	25	32	21	23	30	21	23	30
Buses	2	2	3	2	2	3	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Motorcycles	3	3	4	3	3	4	3	4	5	3	4	5	4	5	6	2	3	3	2	3	3	2	3	3
Total	2480	2930	3560	2480	2930	3560	2677	3220	3890	2497	2990	3650	2779	3310	4110	2227	2490	3180	2056	2280	2920	2056	2280	2920

**DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES**

This spreadsheet is designed to calculate the appropriate traffic data for use in the noise model - do not input values for items in "red".

Project: East Selmon Expressway PD&E
State Project Number(s):
Work Program Number(s):
Federal Aid Number(s):
Segment Description: East Selmon Expressway from I-75 NB to Brorein St

Date: 2/29/2024
Prepared By: MBI

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Westbound Selmon Expressway Local Lanes

Segment No: From/To:	1 I-75 NB On to REL Off			2 REL Off to I-75 SB On			3 I-75 SB On to Falkenburg On			4 Falkenburg On to US-301 Off			5 US-301 Off to REL On (Relocated)			6 REL On (Relocated) to US-301 On			7 US-301 On to REL On			8 REL On to REL Off		
	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build
Dir Lanes:	2	2	2	2	2	2	3	3	2	3	3	2	3	3	3	2	2	3	3	3	4	3	3	4
Year:	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046
ADT: LOS (C)	86400	86400	86400	86400	86400	86400	117800	117800	86400	117800	117800	86400	117800	117800	117800	86400	86400	117800	117800	117800	148900	117800	117800	148900
ADT: Demand	29300	47660	56030	44000	82540	80510	50400	92860	70190	69500	116750	95760	58000	95520	97470	58000	95520	100420	73700	114870	121740	80500	122210	128920
Speed: (mph)	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
(kmh)	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
K=	10.5%	9.2%	10.2%	8.5%	5.6%	6.7%	8.4%	6.4%	6.3%	7.9%	6.5%	6.4%	7.8%	6.2%	7.0%	7.8%	6.2%	7.4%	7.7%	6.3%	7.2%	7.9%	6.3%	6.8%
D=	88.7%	87.7%	89.0%	72.4%	64.6%	67.5%	75.4%	72.1%	60.4%	68.9%	65.9%	56.8%	70.3%	67.7%	69.7%	70.3%	67.7%	72.1%	68.6%	66.4%	69.6%	71.8%	68.4%	69.6%
T24=	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	7.6%	7.6%	7.6%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	6.7%	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%
DHT=	4.2%	4.2%	4.2%	4.2%	4.2%	4.2%	3.8%	3.8%	3.8%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.4%	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
% Medium Trucks DHV	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.0%	2.0%	2.0%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%
% Heavy Trucks DHV	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.7%	1.7%	1.7%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
% Buses DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
% Motorcycles DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
LOS C Peak:	8021	6998	7864	5341	3151	3896	7421	5417	3287	6400	5075	3131	6491	4945	5753	4761	3627	6288	6245	4902	7498	6638	5051	7080
LOS C Off-Peak:	1020	979	971	2038	1727	1878	2426	2093	2154	2888	2623	2382	2738	2356	2502	2008	1728	2428	2853	2482	3278	2612	2333	3095
Demand Peak:	2720	3860	5100	2720	3010	3630	3175	4270	2670	3776	5030	3470	3196	4010	4760	3196	4010	5360	3907	4780	6130	4536	5240	6130
Demand Off-Peak:	346	540	630	1038	1650	1750	1038	1650	1750	1704	2600	2640	1348	1910	2070	1348	1910	2070	1785	2420	2680	1785	2420	2680
Model:	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	LOS (C)	Demand	Demand	Demand	Demand	LOS (C)	Demand	Demand	Demand	Demand	Demand	LOS (C)	Demand
LOS C Peak:																								
Autos	7680	6700	7530	5114	3017	3730	7132	5206	3159	6179	4900	3023	6267	4774	5554	4596	3502	6070	6016	4722	7223	6394	4866	6820
Med Trucks	172	150	169	115	68	84	146	106	65	114	90	56	115	88	102	85	64	112	117	92	141	125	95	133
Hvy Trucks	149	130	146	99	59	73	127	92	56	96	76	47	97	74	86	71	54	94	99	78	119	106	80	113
Buses	11	10	11	8	4	6	10	7	4	5	4	2	5	4	4	4	3	5	5	4	6	5	4	6
Motorcycles	8	7	8	6	3	4	7	5	3	7	6	3	7	5	6	5	4	7	7	6	9	8	6	8
Total	8021	6998	7864	5341	3151	3896	7421	5417	3287	6400	5075	3131	6491	4945	5753	4761	3627	6288	6245	4902	7498	6638	5051	7080
LOS C Off-Peak:																								
Autos	977	937	930	1952	1654	1798	2332	2012	2070	2788	2533	2300	2643	2274	2415	1939	1668	2344	2748	2391	3158	2516	2247	2982
Med Trucks	22	21	21	44	37	40	48	41	42	51	47	42	49	42	44	36	31	43	54	47	62	49	44	58
Hvy Trucks	19	18	18	38	32	35	41	36	37	43	39	36	41	35	38	30	26	36	45	39	52	42	37	49
Buses	1	1	1	3	2	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	3	2	2	2
Motorcycles	1	1	1	2	2	2	2	2	2	3	3	3	3	3	3	2	2	3	3	3	4	3	3	4
Total	1020	979	971	2038	1727	1878	2426	2093	2154	2888	2623	2382	2738	2356	2502	2008	1728	2428	2853	2482	3278	2612	2333	3095
Demand Peak:																								
Autos	2604	3696	4883	2604	2882	3476	3051	4104	2566	3645	4856	3350	3085	3871	4595	3085	3871	5175	3764	4605	5905	4370	5048	5905
Med Trucks	58	83	109	58	65	78	62	84	52	67	89	62	57	71	84	57	71	95	73	90	115	85	99	115
Hvy Trucks	51	72	95	51	56	68	54	73	46	57	75	52	48	60	71	48	60	80	62	76	97	72	83	97
Buses	4	5	7	4	4	5	4	6	3	3	4	3	2	3	4	2	3	4	3	4	5	4	4	5
Motorcycles	3	4	5	3	3	4	3	4	3	4	6	4	4	4	5	4	4	6	5	6	7	5	6	7
Total	2720	3860	5100	2720	3010	3630	3175	4270	2670	3776	5030	3470	3196	4010	4760	3196	4010	5360	3907	4780	6130	4536	5240	6130
Demand Off-Peak:																								
Autos	331	517	603	994	1580	1676	998	1586	1682	1645	2510	2549	1301	1844	1998	1301	1844	1998	1720	2331	2582	1720	2331	2582
Med Trucks	7	12	14	22	35	38	20	32	34	30	46	47	24	34	37	24	34	37	34	46	50	34	46	50
Hvy Trucks	6	10	12	19	31	33	18	28	30	26	39	40	20	29	31	20	29	31	28	38	43	28	38	43
Buses	0	1	1	1	2	2	1	2	2	1	2	2	1	1	2	1	1	2	1	2	2	1	2	2
Motorcycles	0	1	1	1	2	2	1	2	2	2	3	3	1	2	2	1	2	2	2	3	3	2	3	3
Total	346	540	630	1038	1650	1750	1038	1650	1750	1704	2600	2640	1348	1910	2070	1348	1910	2070	1785	2420	2680	1785	2420	2680

**DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES**

This spreadsheet is designed to calculate the appropriate traffic data for use in the noise model - do not input values for items in "red".

Project: East Selmon Expressway PD&E
State Project Number(s):
Work Program Number(s):
Federal Aid Number(s):
Segment Description: East Selmon Expressway from I-75 NB to Brorein St

Date: 2/29/2024
Prepared By: MBI

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)
 NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Westbound Selmon Expressway Local Lanes

Segment No: From/To:	9			10			11			12			13			14			15			16		
	REL Off to Lane Drop			Lane Drop to 78th On			78th On to 50th Off			50th Off to 50th On			50th On to I-4 Off			I-4 Off to 22nd Off			22nd Off to REL On (Ramp 2)			REL On (Ramp 2) to EB REL Off		
Model:	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build	Existing	2046 No Build	2046 Build
Dir Lanes:	3	3	4	2	2	3	2	2	3	2	2	3	3	3	4	2	2	3	2	2	3	2	2	3
Year:	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046	2019	2046	2046
ADT: LOS (C)	117800	117800	148900	86400	86400	117800	86400	86400	117800	86400	86400	117800	117800	117800	148900	86400	86400	117800	86400	86400	117800	86400	86400	117800
ADT: Demand	73600	106710	122390	73600	106710	122390	78400	114310	131400	72700	107420	124540	83300	128640	144810	51500	74270	87740	47500	69130	82600	54100	80130	94020
Speed: (mph)	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65	65
(kmh)	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
K=	7.4%	5.8%	6.2%	7.4%	5.8%	6.2%	7.4%	6.3%	6.8%	7.7%	6.1%	6.7%	7.8%	6.3%	6.9%	9.7%	7.6%	8.5%	10.0%	7.4%	8.5%	8.8%	6.8%	7.4%
D=	67.2%	61.2%	64.7%	67.2%	61.2%	64.7%	66.0%	61.5%	65.8%	66.1%	60.7%	65.5%	66.5%	63.5%	66.5%	75.3%	69.7%	73.4%	74.1%	66.5%	71.6%	74.1%	68.3%	71.6%
T24=	7.1%	7.1%	7.1%	7.1%	7.1%	7.1%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.6%	6.6%	6.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%	5.6%
DHT=	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%	3.2%	3.2%	3.2%	3.2%	3.2%	3.2%	3.3%	3.3%	3.3%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%	2.8%
% Medium Trucks DHV	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.8%	1.8%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
% Heavy Trucks DHV	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
% Buses DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
% Motorcycles DHV	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
LOS C Peak:	5856	4217	5974	4295	3093	4726	4376	3326	5253	4419	3209	5155	6091	4725	6807	6276	4607	7371	6405	4274	7145	5623	3990	6277
LOS C Off-Peak:	2857	2672	3260	2095	1959	2579	2256	2086	2734	2269	2075	2715	3064	2720	3424	2064	2001	2672	2237	2150	2838	1964	1855	2493
Demand Peak:	3659	3820	4910	3659	3820	4910	3971	4400	5860	3718	3990	5450	4307	5160	6620	3741	3960	5490	3521	3420	5010	3521	3700	5010
Demand Off-Peak:	1785	2420	2680	1785	2420	2680	2047	2760	3050	1909	2580	2870	2167	2970	3330	1230	1720	1990	1230	1720	1990	1230	1720	1990
Model:	Demand	Demand	Demand	Demand	LOS (C)	LOS (C)	Demand	LOS (C)	LOS (C)	Demand	LOS (C)	LOS (C)	Demand	LOS (C)	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand	Demand
LOS C Peak:																								
Autos	5642	4062	5754	4138	2980	4553	4233	3217	5081	4274	3104	4986	5882	4563	6573	6094	4473	7156	6218	4150	6937	5460	3873	6094
Med Trucks	110	79	112	81	58	89	75	57	90	76	55	89	110	85	123	107	79	126	109	73	122	96	68	107
Hvy Trucks	93	67	95	68	49	75	61	47	74	62	45	72	89	69	100	64	47	75	65	44	73	57	41	64
Buses	5	3	5	3	2	4	1	1	2	1	1	2	2	1	2	5	3	6	5	3	5	4	3	5
Motorcycles	7	5	7	5	4	6	6	4	7	6	4	7	8	6	9	7	5	8	7	5	8	6	4	7
Total	5856	4217	5974	4295	3093	4726	4376	3326	5253	4419	3209	5155	6091	4725	6807	6276	4607	7371	6405	4274	7145	5623	3990	6277
LOS C Off-Peak:																								
Autos	2752	2574	3141	2019	1888	2485	2182	2018	2645	2194	2007	2626	2959	2626	3306	2003	1943	2594	2172	2087	2755	1907	1801	2421
Med Trucks	54	50	61	39	37	49	39	36	47	39	36	47	55	49	62	35	34	46	38	37	48	33	32	43
Hvy Trucks	45	42	52	33	31	41	32	29	38	32	29	38	45	40	50	21	20	27	23	22	29	20	19	25
Buses	2	2	3	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	1	1	2
Motorcycles	3	3	4	2	2	3	3	3	4	3	3	4	4	4	5	2	2	3	2	2	3	2	2	3
Total	2857	2672	3260	2095	1959	2579	2256	2086	2734	2269	2075	2715	3064	2720	3424	2064	2001	2672	2237	2150	2838	1964	1855	2493
Demand Peak:																								
Autos	3525	3680	4730	3525	3680	4730	3841	4256	5668	3596	3859	5271	4159	4983	6393	3632	3845	5330	3419	3320	4864	3419	3592	4864
Med Trucks	69	72	92	69	72	92	68	76	101	64	69	94	78	93	119	64	68	94	60	58	85	60	63	85
Hvy Trucks	58	61	78	58	61	78	56	62	82	52	56	76	63	76	97	38	40	56	36	35	51	36	38	51
Buses	3	3	4	3	3	4	1	1	2	1	1	2	1	2	2	3	3	4	3	3	4	3	3	4
Motorcycles	4	4	6	4	4	6	5	6	8	5	5	7	6	7	9	4	4	6	4	4	6	4	4	6
Total	3659	3820	4910	3659	3820	4910	3971	4400	5860	3718	3990	5450	4307	5160	6620	3741	3960	5490	3521	3420	5010	3521	3700	5010
Demand Off-Peak:																								
Autos	1720	2331	2582	1720	2331	2582	1980	2669	2950	1846	2495	2776	2093	2868	3216	1194	1670	1932	1194	1670	1932	1194	1670	1932
Med Trucks	34	46	50	34	46	50	35	47	52	33	44	49	39	54	60	21	29	34	21	29	34	21	29	34
Hvy Trucks	28	38	43	28	38	43	29	39	43	27	36	40	32	44	49	13	18	20	13	18	20	13	18	20
Buses	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Motorcycles	2	3	3	2	3	3	3	4	4	2	3	4	3	4	5	1	2	2	1	2	2	1	2	2
Total	1785	2420	2680	1785	2420	2680	2047	2760	3050	1909	2580	2870	2167	2970	3330	1230	1720	1990	1230	1720	1990	1230	1720	1990

DISTRICT 7 PD&E

TRAFFIC DATA FOR NOISE STUDIES

This spreadsheet is designed to calculate the appropriate traffic data for use in the noise model - do not input values for items in "red".

Project: East Selmon Expressway PD&E

Date: 9/12/2023

State Project Number(s):

Prepared By: MBI

Work Program Number(s):

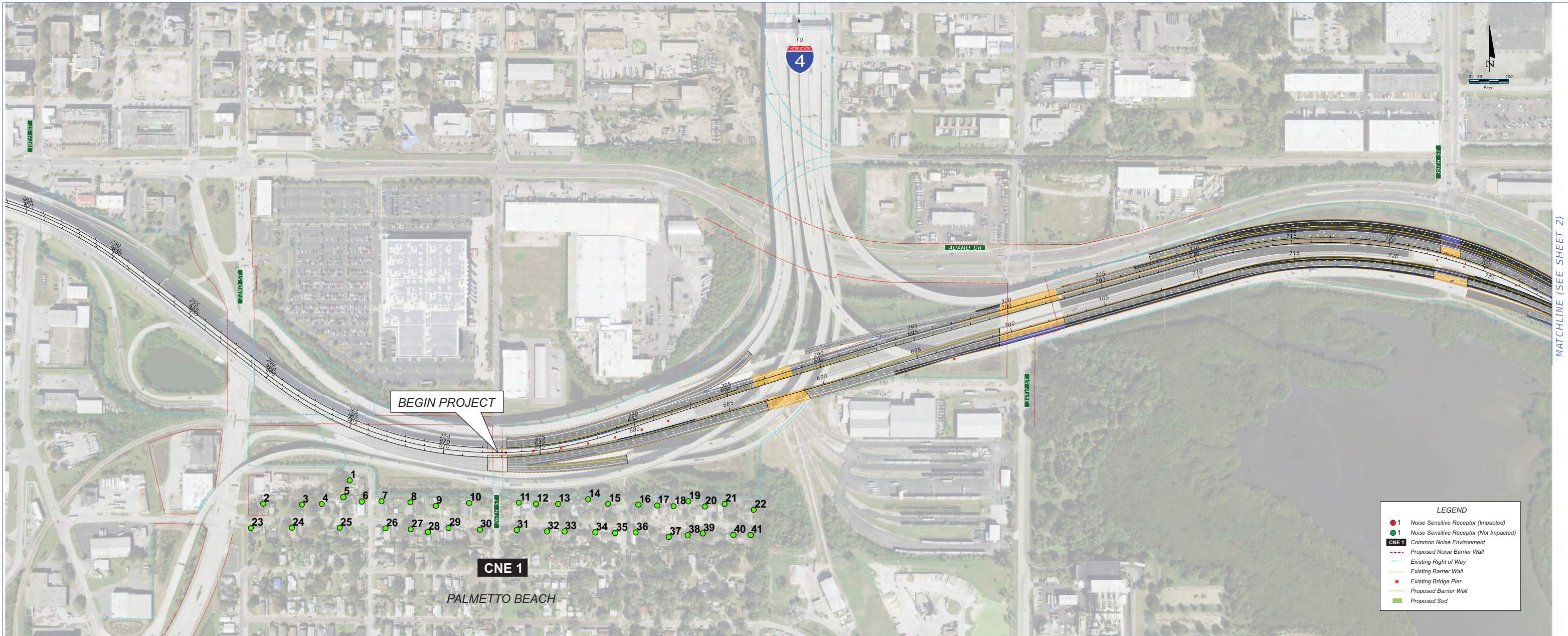
Federal Aid Number(s):

Segment Description: East Selmon Expressway from I-75 NB to Brorein St

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)
NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.
Eastbound Selmon Expressway Ramps

Table with 24 columns representing traffic parameters (Model, Dir Lanes, Year, ADT, Speed, K, D, T24, DHT, % Trucks, % Buses, % Motorcycles) and 24 rows representing segments and years (2019, 2046). Columns are grouped into 8 segments: 1 (I-75 NB Off), 2 (REL to I-75 SB Off), 3 (I-75 SB Off), 4 (Falkenburg Rd Off), 5 (US-301 On), 6 (US-301 Off), 7 (LL to REL Off), and 8 (REL to LL On). Each segment has 'Existing', '2046 No Build', and '2046 Build' sub-columns.

Appendix B – Project Aerials



REVISIONS	
DATE	DESCRIPTION

KIMLEY-HORN AND ASSOCIATES
 189 S. ORANGE AVE SUITE 1000
 ORLAND, FL 32801

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
618	HILLSBOROUGH	

SR 618 SELMON EAST PD&E STUDY CONCEPT
FROM 19TH STREET TO 39TH STREET

SHEET NO.
1

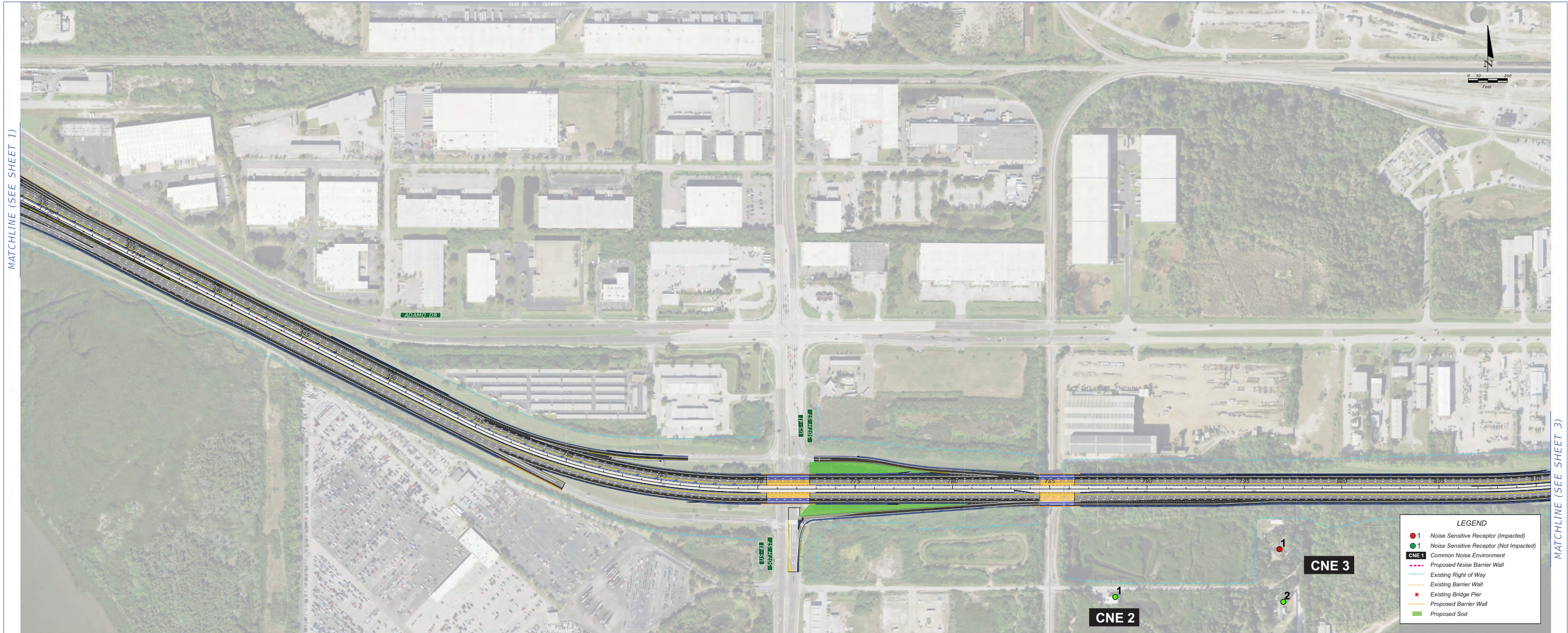
Brendan.Pearson

3/18/2024

6:09:10 PM

Default

c:\pw\khi\0394079\PLANRD03.dgn



MATCHLINE (SEE SHEET 1)

MATCHLINE (SEE SHEET 3)

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

KIMLEY-HORN AND ASSOCIATES
 189 S. ORANGE AVE SUITE 1000
 ORLAND, FL 32801

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
618	HILLSBOROUGH	

**SR 618 SELMON EAST PD&E STUDY CONCEPT
 FROM 39TH STREET TO MAYDELL DRIVE**

SHEET NO.
2

Brendan.Pearson

3/18/2024

6:12:14 PM

Default

c:\pw\khi\d0394079\PLANRD04.dgn



LEGEND

- 1 Noise Sensitive Receptor (Impacted)
- 1 Noise Sensitive Receptor (Not Impacted)
- CNE 1 Common Noise Environment
- Proposed Noise Barrier Wall
- Existing Right of Way
- Existing Barrier Wall
- Existing Bridge Pier
- Proposed Barrier Wall
- Proposed Sod

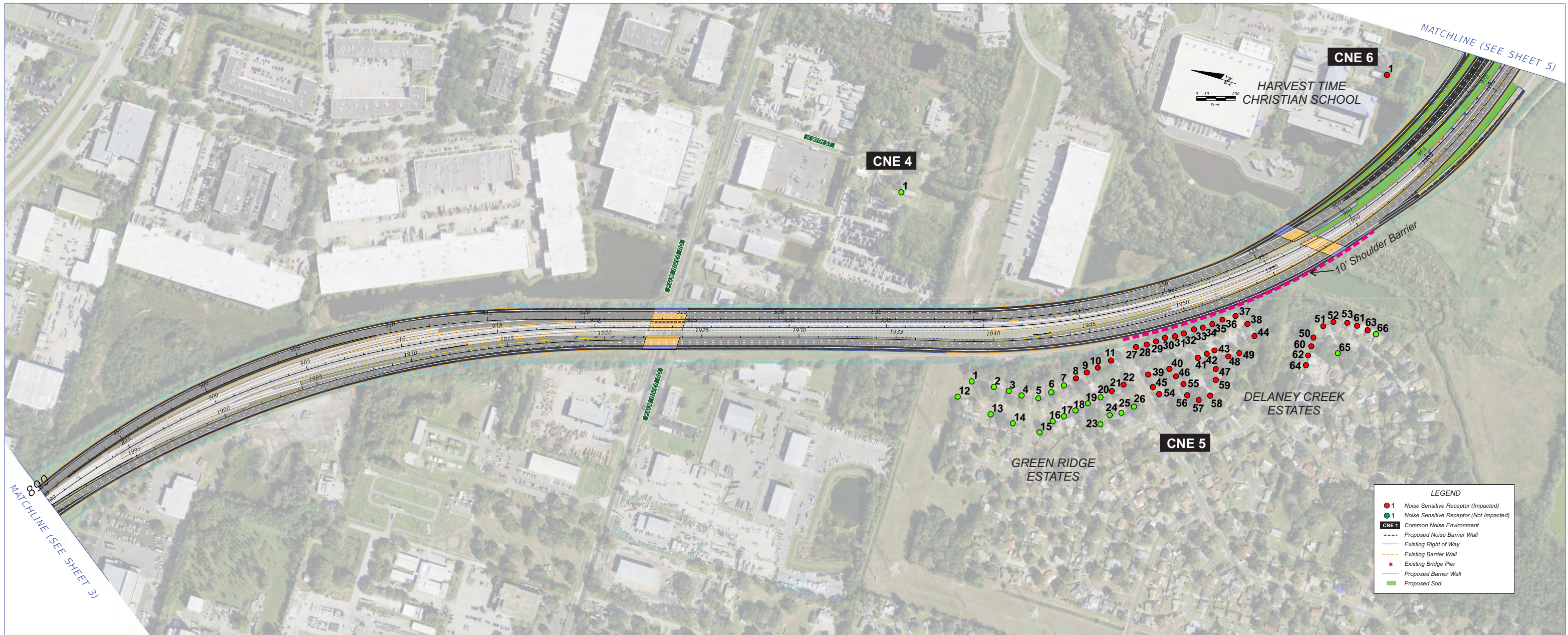
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

KIMLEY-HORN AND ASSOCIATES
 189 S. ORANGE AVE SUITE 1000
 ORLAND, FL 32801

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
618	HILLSBOROUGH	

SR 618 SELMON EAST PD&E STUDY CONCEPT
MAYDELL DRIVE TO 78TH STREET

SHEET NO.
3



LEGEND	
● 1	Noise Sensitive Receptor (Impacted)
● 1	Noise Sensitive Receptor (Not Impacted)
■ CNE-1	Common Noise Environment
---	Proposed Noise Barrier Wall
---	Existing Right of Way
---	Existing Barrier Wall
---	Existing Bridge Pier
---	Proposed Barrier Wall
---	Proposed Sod

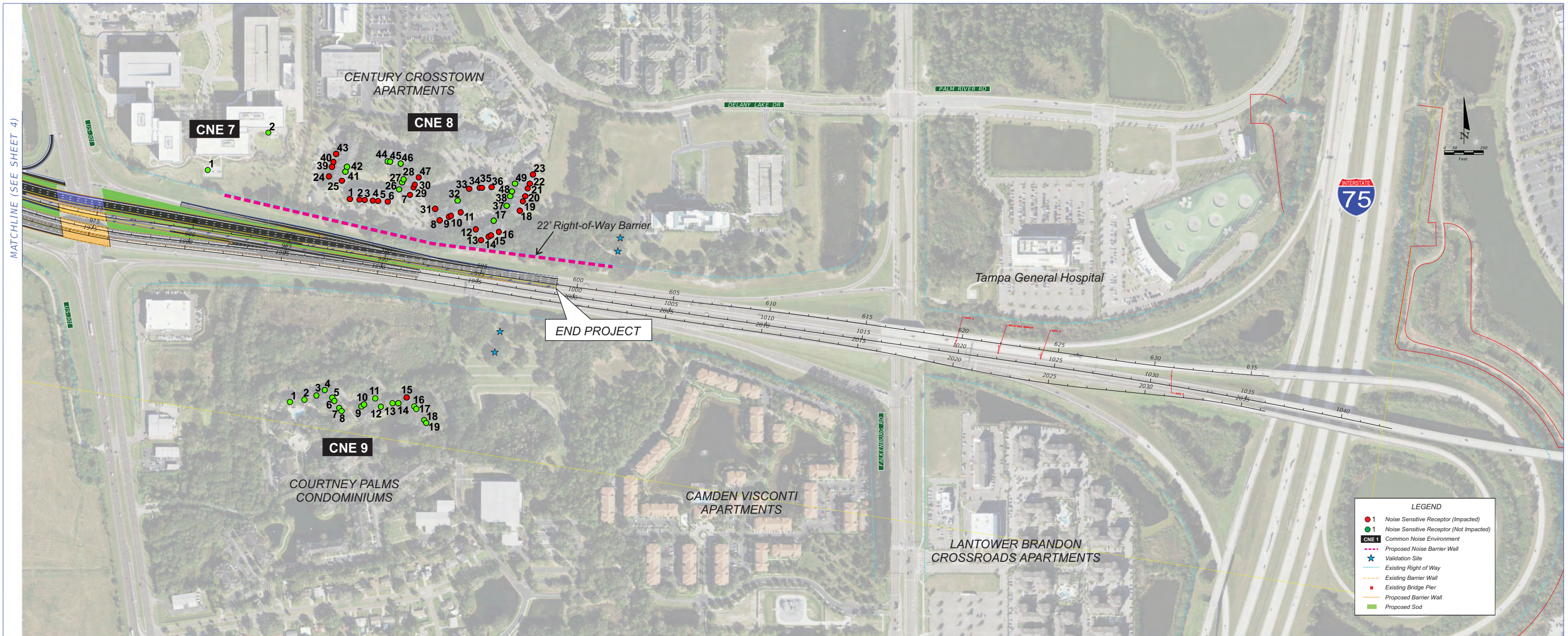
REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

KIMLEY-HORN AND ASSOCIATES
 189 S. ORANGE AVE SUITE 1000
 ORLAND, FL 32801

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
618	HILLSBOROUGH	

SR 618 SELMON EAST PD&E STUDY CONCEPT
FROM 78TH STREET TO US-301

SHEET NO. **4**



REVISIONS	
DATE	DESCRIPTION

KIMLEY-HORN AND ASSOCIATES
 189 S. ORANGE AVE SUITE 1000
 ORLAND, FL 32801

TAMPA HILLSBOROUGH EXPRESSWAY AUTHORITY		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
618	HILLSBOROUGH	

**SR 618 SELMON EAST PD&E STUDY CONCEPT
 FROM US-301 TO I-75**

SHEET NO.
5

Appendix C – Validation Data

NOISE MEASUREMENT DATA SHEET – SITE 1

Measurements Taken By: WA/LMB/JH Date: 1/31/22

Run 1 – Time Study Started: 10:00 Time Study Ended: 10:10

Run 2 - Time Study Started: 10:15 Time Study Ended: 10:25

Run 3 - Time Study Started: 10:27 Time Study Ended: 10:37

THEA Project Number: P-01619 Project Location: East Selmon Expressway

Site Identification: The Crossing Church, rear property adjacent to East Selmon Expressway

Weather Conditions:

Sky: Clear Partly Cloudy Cloudy Other

Temperature 66 F Wind Speed 5 mph Wind Direction E Humidity 70%

Sound Level Meter: Type: LxT/831 Serial Number: 1843/1285

Response Settings: Slow Weighting: A

RESULTS [dB(A)]

Run 1 – Leq – Location 1/Location 2 65.2 / 60.9

Run 2 – Leq – Location 1/Location 2 65.0 / 60.4

Run 3 – Leq – Location 1/Location 2 65.1 / 60.6

Background Noise: insects, birds, wind blowing through trees

Major Sources: contribution from mainline and express lanes

Unusual Events: N/A

Posted Speed: 65 mph

NOISE MEASUREMENT DATA SHEET – SITE 2

Measurements Taken By: WA/LMB/JH Date: 1/31/22

Run 1 – Time Study Started: 12:17 Time Study Ended: 12:27

Run 2 - Time Study Started: 12:32 Time Study Ended: 12:42

Run 3 - Time Study Started: 12:53 Time Study Ended: 13:03

THEA Project Number: P-01619 Project Location: East Selmon Expressway

Site Identification: Grow Financial, rear property adjacent to East Selmon Expressway

Weather Conditions:

Sky: Clear Partly Cloudy Cloudy Other

Temperature 73 F Wind Speed 0 mph Wind Direction calm Humidity 66%

Sound Level Meter: Type: LxT/831 Serial Number: 1843/1285

Response Settings: Slow Weighting: A

RESULTS [dB(A)]

Run 1 – Leq – Location 1/Location 2 63.7 / 60.6

Run 2 – Leq – Location 1/Location 2 63.9 / 60.7

Run 3 – Leq – Location 1/Location 2 63.8 / 60.8

Background Noise: insects, birds, wind blowing through trees

Major Sources: contribution from mainline and express lanes

Unusual Events: N/A

Posted Speed: 65 mph

Appendix D – Predicted Traffic Noise Levels

CNE #	Receptor #	Dwelling Units	NAC Category	Impact Criteria	Existing (2019) Noise Levels (dB(A))	No Build (2046) Noise Levels (dB(A))	Build (2046) Noise Levels (dB(A))	Increase over Existing (Build - Existing)	Impact (Yes/No)
1	1	2	B	66	62.9	64.1	64.9	2.0	
1	2	2	B	66	61.0	62.2	62.9	1.9	
1	3	1	B	66	61.4	62.6	63.3	1.9	
1	4	2	B	66	61.6	62.9	63.6	2.0	
1	5	1	B	66	62.2	63.4	64.1	1.9	
1	6	2	B	66	62.4	63.7	64.4	2.0	
1	7	2	B	66	62.9	64.2	64.9	2.0	
1	8	2	B	66	63.4	64.7	65.4	2.0	
1	9	2	B	66	63.5	64.9	65.6	2.1	
1	10	2	B	66	63.5	65.1	65.7	2.2	
1	11	2	B	66	62.4	64.1	64.7	2.3	
1	12	3	B	66	61.4	63.2	63.7	2.3	
1	13	2	B	66	60.5	62.5	62.9	2.4	
1	14	3	B	66	59.3	61.8	62.0	2.7	
1	15	2	B	66	61.3	63.5	63.7	2.4	
1	16	4	B	66	62.9	64.9	65.2	2.3	
1	17	2	B	66	63.4	65.3	65.6	2.2	
1	18	2	B	66	63.3	65.2	65.5	2.2	
1	19	1	B	66	63.2	65.1	65.3	2.1	
1	20	2	B	66	63.0	64.8	65.2	2.2	
1	21	1	B	66	63.0	64.9	65.2	2.2	
1	22	2	B	66	61.9	63.9	64.3	2.4	
1	23	1	B	66	59.8	60.9	61.6	1.8	
1	24	5	B	66	60.4	61.7	62.3	1.9	
1	25	4	B	66	61.1	62.4	63.0	1.9	
1	26	3	B	66	62.1	63.5	64.1	2.0	
1	27	2	B	66	62.4	63.8	64.5	2.1	
1	28	2	B	66	62.4	63.9	64.5	2.1	
1	29	2	B	66	63.0	64.5	65.1	2.1	
1	30	2	B	66	62.9	64.6	65.1	2.2	
1	31	1	B	66	62.9	64.7	65.2	2.3	
1	32	2	B	66	62.7	64.6	65.1	2.4	
1	33	3	B	66	62.5	64.5	64.9	2.4	
1	34	2	B	66	62.5	64.5	64.9	2.4	
1	35	1	B	66	62.5	64.5	64.9	2.4	
1	36	3	B	66	62.6	64.5	64.9	2.3	
1	37	3	B	66	62.0	63.9	64.3	2.3	
1	38	1	B	66	62.1	63.9	64.3	2.2	
1	39	1	B	66	61.7	63.6	64.0	2.3	
1	40	2	B	66	61.4	63.3	63.7	2.3	
1	41	1	B	66	60.8	62.8	63.2	2.4	
2	1	0	D	51	39.2	39.6	39.6	0.4	
3	1	1	B	66	67.6	67.9	69.6	2.0	Yes
3	2	1	B	66	63.2	63.7	64.9	1.7	
3	3	1	B	66	64.2	64.2	65.8	1.6	
3	4	1	B	66	63.7	63.7	65.6	1.9	
3	5	1	B	66	63.7	63.7	65.6	1.9	
3	6	1	B	66	63.5	63.6	65.7	2.2	
3	7	8	B	66	63.4	64.0	65.3	1.9	
3	8	8	B	66	63.0	63.6	64.7	1.7	
3	9	8	B	66	61.8	62.4	63.6	1.8	
4	1	3	B	66	62.9	63.7	64.6	1.7	
5	1	1	B	66	63.2	63.8	65.4	2.2	
5	2	1	B	66	62.2	62.8	64.5	2.3	
5	3	1	B	66	61.7	62.3	64.3	2.6	
5	4	1	B	66	61.2	61.8	64.2	3.0	
5	5	1	B	66	60.8	61.4	64.6	3.8	
5	6	1	B	66	61.2	61.8	65.2	4.0	
5	7	1	B	66	61.7	62.3	65.9	4.2	
5	8	1	B	66	62.2	62.9	66.6	4.4	Yes
5	9	1	B	66	62.6	63.3	67.4	4.8	Yes
5	10	1	B	66	62.9	63.6	68.2	5.3	Yes
5	11	1	B	66	63.5	64.2	69.7	6.2	Yes
5	12	1	B	66	62.3	62.9	64.5	2.2	
5	13	1	B	66	60.1	60.7	62.9	2.8	
5	14	1	B	66	59.1	59.8	62.8	3.7	
5	15	1	B	66	58.7	59.4	62.7	4.0	
5	16	1	B	66	59.6	60.3	63.7	4.1	

CNE #	Receptor #	Dwelling Units	NAC Category	Impact Criteria	Existing (2019) Noise Levels (dB(A))	No Build (2046) Noise Levels (dB(A))	Build (2046) Noise Levels (dB(A))	Increase over Existing (Build - Existing)	Impact (Yes/No)
5	17	1	B	66	59.9	60.6	64.2	4.3	
5	18	1	B	66	59.8	60.5	64.6	4.8	
5	19	1	B	66	60.1	60.9	65.4	5.3	
5	20	1	B	66	60.5	61.2	66.1	5.6	Yes
5	21	1	B	66	61.0	61.8	67.1	6.1	Yes
5	22	1	B	66	61.4	62.1	68.2	6.8	Yes
5	23	1	B	66	59.2	59.9	63.9	4.7	
5	24	1	B	66	59.7	60.4	64.9	5.2	
5	25	1	B	66	59.9	60.6	65.3	5.4	
5	26	1	B	66	60.6	61.3	66.2	5.6	Yes
5	27	1	B	66	64.9	65.6	75.2	10.3	Yes
5	28	1	B	66	65.5	66.2	77.0	11.5	Yes
5	29	1	B	66	66.9	67.6	77.8	10.9	Yes
5	30	1	B	66	67.6	68.3	78.4	10.8	Yes
5	31	1	B	66	67.2	68.0	78.2	11.0	Yes
5	32	1	B	66	67.3	68.1	78.4	11.1	Yes
5	33	1	B	66	66.6	67.4	78.3	11.7	Yes
5	34	1	B	66	67.1	67.9	78.5	11.4	Yes
5	35	1	B	66	67.0	67.8	78.6	11.6	Yes
5	36	1	B	66	67.6	68.4	78.6	11.0	Yes
5	37	1	B	66	67.9	68.6	77.0	9.1	Yes
5	38	1	B	66	68.3	69.1	74.9	6.6	Yes
5	39	1	B	66	62.2	62.9	70.5	8.3	Yes
5	40	1	B	66	62.9	63.6	71.6	8.7	Yes
5	41	1	B	66	63.8	64.5	72.6	8.8	Yes
5	42	1	B	66	65.0	65.8	73.0	8.0	Yes
5	43	1	B	66	65.5	66.3	73.3	7.8	Yes
5	44	1	B	66	67.8	68.6	72.6	4.8	Yes
5	45	1	B	66	61.6	62.3	68.8	7.2	Yes
5	46	1	B	66	62.8	63.5	70.3	7.5	Yes
5	47	1	B	66	63.1	63.8	69.3	6.2	Yes
5	48	1	B	66	65.0	65.7	71.6	6.6	Yes
5	49	1	B	66	65.5	66.2	71.5	6.0	Yes
5	50	1	B	66	66.1	66.9	69.2	3.1	Yes
5	51	1	B	66	67.2	68.0	69.8	2.6	Yes
5	52	1	B	66	67.3	68.0	69.8	2.5	Yes
5	53	1	B	66	66.3	67.0	68.9	2.6	Yes
5	54	1	B	66	61.7	62.5	68.0	6.3	Yes
5	55	1	B	66	62.0	62.7	69.1	7.1	Yes
5	56	1	B	66	61.3	62.0	67.4	6.1	Yes
5	57	1	B	66	60.6	61.3	66.5	5.9	Yes
5	58	1	B	66	60.8	61.6	66.7	5.9	Yes
5	59	1	B	66	62.1	62.9	68.2	6.1	Yes
5	60	1	B	66	65.0	65.7	68.3	3.3	Yes
5	61	1	B	66	65.5	66.2	68.1	2.6	Yes
5	62	1	B	66	64.2	64.9	67.7	3.5	Yes
5	63	1	B	66	64.6	65.3	67.1	2.5	Yes
5	64	1	B	66	63.1	63.8	66.8	3.7	Yes
5	65	1	B	66	63.5	64.2	66.4	2.9	Yes
5	66	1	B	66	63.8	64.4	66.3	2.5	Yes
6	1	0	C	66	65.2	65.8	67.0	1.8	Yes
7	1	0	E	71	66.7	67.7	68.0	1.3	
7	2	0	E	71	63.8	64.7	65.5	1.7	
8	1a	1	B	66	69.3	70.4	70.9	1.6	Yes
8	1b	1	B	66	72.3	73.4	73.6	1.3	Yes
8	1c	1	B	66	72.8	73.9	74.0	1.2	Yes
8	2b	1	B	66	72.2	73.3	73.4	1.2	Yes
8	2c	1	B	66	72.8	73.8	73.9	1.1	Yes
8	3a	1	B	66	69.0	70.0	70.6	1.6	Yes
8	3b	1	B	66	72.1	73.2	73.3	1.2	Yes
8	3c	1	B	66	72.7	73.8	73.8	1.1	Yes
8	4a	1	B	66	68.5	69.5	70.1	1.6	Yes
8	4b	1	B	66	71.9	73.0	73.1	1.2	Yes
8	4c	1	B	66	72.6	73.7	73.7	1.1	Yes
8	5b	1	B	66	71.8	72.8	72.9	1.1	Yes
8	5c	1	B	66	72.6	73.7	73.7	1.1	Yes
8	6a	1	B	66	67.3	68.4	68.8	1.5	Yes
8	6b	1	B	66	71.5	72.6	72.7	1.2	Yes

CNE #	Receptor #	Dwelling Units	NAC Category	Impact Criteria	Existing (2019) Noise Levels (dB(A))	No Build (2046) Noise Levels (dB(A))	Build (2046) Noise Levels (dB(A))	Increase over Existing (Build - Existing)	Impact (Yes/No)
8	6c	1	B	66	72.5	73.6	73.5	1.0	Yes
8	7a	1	B	66	66.1	67.4	66.1	0.0	Yes
8	7b	1	B	66	68.8	70.0	69.2	0.4	Yes
8	7c	1	B	66	69.5	70.7	70.2	0.7	Yes
8	8a	1	B	66	71.1	72.3	71.4	0.3	Yes
8	8b	1	B	66	73.3	74.5	74.0	0.7	Yes
8	8c	1	B	66	73.5	74.7	74.3	0.8	Yes
8	9b	1	B	66	72.3	73.5	73.0	0.7	Yes
8	9c	1	B	66	72.5	73.7	73.3	0.8	Yes
8	10b	1	B	66	72.0	73.2	72.7	0.7	Yes
8	10c	1	B	66	72.2	73.4	73.0	0.8	Yes
8	11a	1	B	66	68.4	69.6	68.4	0.0	Yes
8	11b	1	B	66	70.9	72.1	71.6	0.7	Yes
8	11c	1	B	66	71.1	72.3	71.9	0.8	Yes
8	12a	1	B	66	64.3	65.4	65.5	1.2	
8	12b	1	B	66	67.0	68.1	68.0	1.0	Yes
8	12c	1	B	66	67.4	68.5	68.4	1.0	Yes
8	13a	1	B	66	74.0	75.2	74.3	0.3	Yes
8	13b	1	B	66	75.2	76.4	76.0	0.8	Yes
8	13c	1	B	66	75.3	76.5	76.2	0.9	Yes
8	14a	1	B	66	72.9	74.1	73.2	0.3	Yes
8	14b	1	B	66	74.3	75.6	75.0	0.7	Yes
8	14c	1	B	66	74.4	75.7	75.3	0.9	Yes
8	15a	1	B	66	72.6	73.9	72.8	0.2	Yes
8	15b	1	B	66	74.1	75.4	74.8	0.7	Yes
8	15c	1	B	66	74.2	75.5	75.1	0.9	Yes
8	16a	1	B	66	71.8	73.1	71.8	0.0	Yes
8	16b	1	B	66	73.5	74.7	74.2	0.7	Yes
8	16c	1	B	66	73.6	74.9	74.5	0.9	Yes
8	17a	1	B	66	60.4	61.5	61.8	1.4	
8	17b	1	B	66	63.5	64.5	64.8	1.3	
8	17c	1	B	66	64.2	65.3	65.3	1.1	
8	18a	1	B	66	67.1	68.3	66.7	-0.4	Yes
8	18b	1	B	66	69.5	70.8	70.0	0.5	Yes
8	18c	1	B	66	70.0	71.2	70.7	0.7	Yes
8	19a	1	B	66	65.7	66.9	65.4	-0.3	
8	19b	1	B	66	68.4	69.6	68.7	0.3	Yes
8	19c	1	B	66	68.9	70.2	69.6	0.7	Yes
8	20a	1	B	66	65.1	66.3	64.9	-0.2	
8	20b	1	B	66	67.9	69.1	68.2	0.3	Yes
8	20c	1	B	66	68.4	69.7	69.2	0.8	Yes
8	21a	1	B	66	64.2	65.5	64.2	0.0	
8	21b	1	B	66	67.1	68.3	67.4	0.3	Yes
8	21c	1	B	66	67.8	69.1	68.6	0.8	Yes
8	22a	1	B	66	63.7	65.0	63.7	0.0	
8	22b	1	B	66	66.5	67.8	66.9	0.4	Yes
8	22c	1	B	66	67.4	68.7	68.2	0.8	Yes
8	23a	1	B	66	62.8	64.0	63.1	0.3	
8	23b	1	B	66	65.5	66.8	66.2	0.7	Yes
8	23c	1	B	66	66.8	68.1	67.5	0.7	Yes
8	24a	1	B	66	62.7	63.6	65.1	2.4	
8	24b	1	B	66	67.2	68.1	68.6	1.4	Yes
8	24c	1	B	66	67.9	68.8	69.3	1.4	Yes
8	25a	1	B	66	62.2	63.1	64.0	1.8	
8	25b	1	B	66	65.0	65.9	66.3	1.3	Yes
8	25c	1	B	66	65.8	66.8	67.0	1.2	Yes
8	26a	1	B	66	52.8	53.8	54.0	1.2	
8	26b	1	B	66	58.3	59.3	59.6	1.3	
8	26c	1	B	66	63.0	64.1	64.0	1.0	
8	27a	1	B	66	50.7	51.7	52.3	1.6	
8	27b	1	B	66	55.3	56.3	56.9	1.6	
8	27c	1	B	66	59.7	60.6	60.8	1.1	
8	28a	1	B	66	50.3	51.3	51.9	1.6	
8	28b	1	B	66	54.7	55.6	56.2	1.5	
8	28c	1	B	66	59.0	59.9	60.2	1.2	
8	29b	1	B	66	67.5	68.7	67.8	0.3	Yes
8	29c	1	B	66	68.0	69.2	68.7	0.7	Yes
8	30b	1	B	66	67.0	68.2	67.2	0.2	Yes

CNE #	Receptor #	Dwelling Units	NAC Category	Impact Criteria	Existing (2019) Noise Levels (dB(A))	No Build (2046) Noise Levels (dB(A))	Build (2046) Noise Levels (dB(A))	Increase over Existing (Build - Existing)	Impact (Yes/No)
8	30c	1	B	66	67.5	68.7	68.2	0.7	Yes
8	31a	1	B	66	58.3	59.3	60.2	1.9	
8	31b	1	B	66	63.5	64.4	64.9	1.4	
8	31c	1	B	66	65.0	65.9	66.3	1.3	Yes
8	32a	1	B	66	53.5	54.4	56.1	2.6	
8	32b	1	B	66	59.8	60.7	61.2	1.4	
8	32c	1	B	66	61.3	62.2	62.6	1.3	
8	33a	1	B	66	61.9	63.1	62.3	0.4	
8	33b	1	B	66	65.2	66.3	65.9	0.7	
8	33c	1	B	66	66.1	67.3	67.1	1.0	Yes
8	34a	1	B	66	62.8	64.1	63.2	0.4	
8	34b	1	B	66	66.0	67.2	66.5	0.5	Yes
8	34c	1	B	66	66.7	67.9	67.6	0.9	Yes
8	35a	1	B	66	63.0	64.2	63.3	0.3	
8	35b	1	B	66	66.1	67.3	66.5	0.4	Yes
8	35c	1	B	66	66.8	68.0	67.6	0.8	Yes
8	36a	1	B	66	62.8	64.1	63.1	0.3	
8	36b	1	B	66	65.9	67.1	66.2	0.3	Yes
8	36c	1	B	66	66.5	67.7	67.2	0.7	Yes
8	37a	1	B	66	60.8	61.9	61.3	0.5	
8	37b	1	B	66	63.4	64.5	64.1	0.7	
8	37c	1	B	66	64.0	65.2	64.9	0.9	
8	38b	1	B	66	62.3	63.4	62.7	0.4	
8	38c	1	B	66	63.0	64.1	63.9	0.9	
8	39b	1	B	66	66.4	67.3	67.6	1.2	Yes
8	39c	1	B	66	67.0	67.9	68.4	1.4	Yes
8	40a	1	B	66	61.5	62.4	63.6	2.1	
8	40b	1	B	66	66.0	66.9	67.2	1.2	Yes
8	40c	1	B	66	66.5	67.4	68.0	1.5	Yes
8	41a	1	B	66	59.3	60.3	60.6	1.3	
8	41b	1	B	66	62.0	63.0	63.2	1.2	
8	41c	1	B	66	63.0	63.9	64.2	1.2	
8	42a	1	B	66	58.4	59.3	59.3	0.9	
8	42b	1	B	66	60.9	61.8	61.9	1.0	
8	42c	1	B	66	61.8	62.8	63.1	1.3	
8	43a	1	B	66	60.7	61.6	62.5	1.8	
8	43b	1	B	66	65.2	66.1	66.4	1.2	Yes
8	43c	1	B	66	65.9	66.8	67.3	1.4	Yes
8	44a	1	B	66	55.6	56.8	57.3	1.7	
8	44b	1	B	66	58.9	60.1	59.6	0.7	
8	44c	1	B	66	59.8	60.9	60.9	1.1	
8	45a	1	B	66	55.5	56.7	57.2	1.7	
8	45b	1	B	66	58.8	59.9	59.6	0.8	
8	45c	1	B	66	59.9	61.1	61.0	1.1	
8	46a	1	B	66	52.4	53.6	54.7	2.3	
8	46b	1	B	66	56.5	57.6	57.8	1.3	
8	46c	1	B	66	59.6	60.8	60.6	1.0	
8	47a	1	B	66	63.2	64.5	63.6	0.4	
8	47b	1	B	66	66.0	67.2	66.2	0.2	Yes
8	47c	1	B	66	66.5	67.8	67.3	0.8	Yes
8	48a	1	B	66	59.3	60.4	60.3	1.0	
8	48b	1	B	66	62.3	63.4	62.7	0.4	
8	48c	1	B	66	63.0	64.1	63.9	0.9	
8	49a	1	B	66	58.5	59.7	59.4	0.9	
8	49b	1	B	66	61.7	62.8	62.1	0.4	
8	49c	1	B	66	62.6	63.7	63.5	0.9	
9	1b	2	B	66	43.4	44.3	45.4	2.0	
9	2b	2	B	66	41.2	42.1	43.6	2.4	
9	3a	1	B	66	55.2	56.1	53.5	-1.7	
9	3b	1	B	66	63.2	64.0	60.3	-2.9	
9	3c	1	B	66	65.3	66.2	64.7	-0.6	
9	4a	1	B	66	55.5	56.4	54.2	-1.3	
9	4b	1	B	66	63.5	64.4	60.9	-2.6	
9	4c	1	B	66	66.0	67.0	65.5	-0.5	
9	5a	1	B	66	54.7	55.7	53.5	-1.2	
9	5b	1	B	66	61.3	62.4	60.2	-1.1	
9	5c	1	B	66	64.6	65.6	64.2	-0.4	
9	6a	1	B	66	54.8	55.8	53.6	-1.2	

CNE #	Receptor #	Dwelling Units	NAC Category	Impact Criteria	Existing (2019) Noise Levels (dB(A))	No Build (2046) Noise Levels (dB(A))	Build (2046) Noise Levels (dB(A))	Increase over Existing (Build - Existing)	Impact (Yes/No)
9	6b	1	B	66	61.0	62.1	59.9	-1.1	
9	6c	1	B	66	64.3	65.3	63.9	-0.4	
9	7a	1	B	66	54.6	55.6	53.3	-1.3	
9	7b	1	B	66	60.0	61.0	58.8	-1.2	
9	7c	1	B	66	63.4	64.4	62.9	-0.5	
9	8a	1	B	66	54.3	55.3	53.0	-1.3	
9	8b	1	B	66	59.4	60.4	57.9	-1.5	
9	8c	1	B	66	62.9	63.9	62.2	-0.7	
9	9a	1	B	66	53.5	54.5	53.2	-0.3	
9	9b	1	B	66	61.6	62.5	59.5	-2.1	
9	9c	1	B	66	64.1	65.0	64.0	-0.1	
9	10a	1	B	66	53.3	54.3	53.0	-0.3	
9	10b	1	B	66	61.7	62.6	59.5	-2.2	
9	10c	1	B	66	64.2	65.2	64.2	0.0	
9	11a	1	B	66	55.2	56.3	55.0	-0.2	
9	11b	1	B	66	61.7	62.8	61.3	-0.4	
9	11c	1	B	66	65.1	66.2	65.3	0.2	
9	12a	1	B	66	52.1	53.2	50.4	-1.7	
9	12b	1	B	66	57.0	58.1	56.9	-0.1	
9	12c	1	B	66	63.4	64.6	63.5	0.1	
9	13b	2	B	66	41.6	42.8	44.2	2.6	
9	14a	1	B	66	55.2	56.3	53.8	-1.4	
9	14b	1	B	66	57.0	58.2	56.5	-0.5	
9	14c	1	B	66	64.4	65.4	64.4	0.0	
9	15a	1	B	66	57.3	58.4	56.4	-0.9	
9	15b	1	B	66	63.0	64.1	62.3	-0.7	
9	15c	1	B	66	65.7	66.8	66.0	0.3	Yes
9	16a	1	B	66	57.1	58.3	56.0	-1.1	
9	16b	1	B	66	61.4	62.8	61.9	0.5	
9	16c	1	B	66	64.0	65.3	64.6	0.6	
9	17a	1	B	66	57.1	58.2	56.5	-0.6	
9	17b	1	B	66	61.4	62.7	61.8	0.4	
9	17c	1	B	66	63.9	65.1	64.4	0.5	
9	18a	1	B	66	56.7	57.9	55.9	-0.8	
9	18b	1	B	66	61.3	62.6	61.6	0.3	
9	18c	1	B	66	63.3	64.5	63.9	0.6	
9	19a	1	B	66	56.5	57.7	55.3	-1.2	
9	19b	1	B	66	61.3	62.6	61.5	0.2	
9	19c	1	B	66	63.1	64.4	63.8	0.7	