Draft Noise Study Report

US 98 / SR 35 / SR 700

From CR 54 to US 301/SR 39

Project Development & Environment (PD&E) Study

Florida Department of Transportation

District 7

Work Program Item Segment No. 443368-2

ETDM Project No. 14374

Pasco County, Florida

October 2021

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to Section 327 of Title 23 of the United States Code (23 U.S.C. § 327) and a Memorandum of Understanding dated December 14, 2016 and executed by the Florida Highway Administration and FDOT.

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) District 7 is conducting a Project Development and Environment (PD&E) study along US Highway 98 (US 98) / State Road (SR) 35 / SR 700 from CR 54 to US 301 / SR 39, in Pasco County. The study will focus on widening this section of US 98 from a 2-lane undivided facility to a 4-lane divided facility and includes the realignment of US 98 between CR 35A to US 301. The realignment allows US 98 to align with the Clinton Avenue (New SR 52) intersection at US 301 and was the result of a separate Alternatives Corridor Evaluation (ACE) study (WPI Segment No. 443368-1). The study will also evaluate issues related to traffic operations, access management, safety, and include pedestrian and bicycle accommodations.

This Noise Study Report (NSR) was prepared as part of the US 98 PD&E study as required by the FDOT's PD&E Manual, Part 2, Chapter 18 (Highway Traffic Noise, July 1, 2020). The analysis was performed following the requirements of the PD&E Manual and Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772)—Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010).

Ninety-six noise sensitive receptors (i.e., discrete representative locations on a property that has noise sensitive land uses) were evaluated representing 95 residences and a recreational area (a shuffleboard court). The results of the analysis indicate that with the proposed improvements, six of the 95 residences would be impacted by traffic noise. Traffic management measures, modifications to the roadway alignment, buffer zones, and noise barriers were considered as abatement measures. Based on the results of the noise analysis performed, there appear to be no feasible and reasonable solutions available to mitigate the predicted impacts.

Table of Contents

List of Figures

List of Tables

Appendices

SECTION 1 INTRODUCTION

1.1 PD&E STUDY PURPOSE

The objective of the Project Development and Environment (PD&E) study is to assist the Florida Department of Transportation (FDOT's) Office of Environmental Management (OEM) in reaching a decision on the type, location, and conceptual design of the proposed improvements for the widening of US Highway 98 (US 98), including stormwater management facility (SMF) and floodplain compensation (FPC) sites. This study documents the need for the improvements as well as the procedures utilized to develop and evaluate various improvements, including elements such as proposed typical sections, preliminary horizontal alignments, and intersection enhancement alternatives.

The PD&E study satisfies all applicable requirements, including the National Environmental Policy Act (NEPA), to qualify for federal-aid funding of subsequent development phases (design, ROW acquisition, and construction). This project was screened through the FDOT's Efficient Transportation Decision Making (ETDM) process as ETDM Project No. 14374. The ETDM Programming Screen Summary Report was published on February 24, 2021, containing comments from the Environmental Technical Advisory Team (ETAT) on the project's effects on various natural, physical, and social resources. A Type 2 Categorical Exclusion will be prepared as part of this PD&E study.

The project is in Sections 11, 12, 13, and 14, Township 25S, and Range 21E; and Sections 18, 19, 20, 27, 28, 29, 34 and 35, Township 25S, and Range 22E; Pasco County, Florida. See **Figure 1-1** for Project Location Map.

1.2 PROJECT PURPOSE AND NEED

Purpose

The purpose of this project is to evaluate the realignment of US 301 at US 98 and Clinton Avenue to enhance safety and provide system linkage/regional connectivity.

Need

A realignment of US 98 to Clinton Avenue intersection is needed to eliminate the existing closely spaced intersections of US 301 at US 98 and US 301 at Clinton Avenue, to reduce crashes, and to enhance safety. Construction of the realignment of SR 52 from east of McKendree Road to east of US 301 began in 2019 and will serve as an additional east/west route in the regional transportation network. When completed, this improvement will increase traffic at the US 301 at US 98 and US 301 at Clinton Avenue intersections, exacerbating the current intersection safety concerns. Also, plans are currently underway for the widening of US 98 from north of West Socrum Loop Road to South of CR 54 (Financial Management No.: 436673-1-22-01). This project will address capacity needs for the final segment of US 98 connecting to US 301 (which is a designated regional freight mobility corridor) as well as operational improvements to the intersection of US 98 and US 301 ultimately resulting in enhanced transportation network connectivity.

System Linkage

US 98 is a regional corridor which provides a connecting link between Polk and Pasco Counties and, within the area, provides a connection to the cities of Lakeland and Bartow to the south.

US 98 is the longest road in Florida and spans from Pensacola to Palm Beach primarily traveling along the Gulf Coast. Plans are currently underway for the widening of US 98 from north of West Socrum Loop Road to South of CR 54 (Financial Management No.: 436673-1-22-01). This project will provide additional capacity for the final segment of US 98 connecting to US 301 (which is a designated regional freight mobility corridor) as well as operational improvements to the intersection of US 98 and US 301 ultimately resulting in enhanced transportation network connectivity. Currently, this segment of US 98 experiences truck volumes in excess of 23% of annual average daily traffic (AADT) which illustrates this facility's importance to the overall freight network within the State of Florida.

Also, the SR 52/Clinton Avenue extension from I-75 to West of Fort King Road (Financial Management No.: 435142-1) is currently under construction. This extension will provide direct linkage to I-75 from this project.

Safety

The closely spaced intersections of US 301 at US 98 and US 301 at Clinton Avenue have crash rates that exceed the statewide average. Between 2014 and 2018, the intersection of US 301 at US 98 experienced a total of 63 crashes. The predominant crash types were angle crashes (58%) followed by rear end crashes (29%). This intersection exhibited a crash rate (0.816 crashes per million entering vehicles) that was consistently higher than the statewide average (0.270) for a similar type of intersection resulting in a crash ratio of 3.022 (crash rate divided by statewide average crash rate).

Between 2014 and 2018, the intersection of US 301 and Clinton Avenue experienced a total of 65 crashes. The predominant crash types were rear end crashes (55%) followed by angle crashes (25%). This intersection exhibited a crash rate (1.259) that was consistently higher than the statewide average (0.526) for a similar type of intersection resulting in a crash ratio of 2.394. A realignment of US 98 to Clinton Avenue to eliminate high traffic volumes at one of the two closely spaced intersections has the potential to reduce crashes and enhance safety.

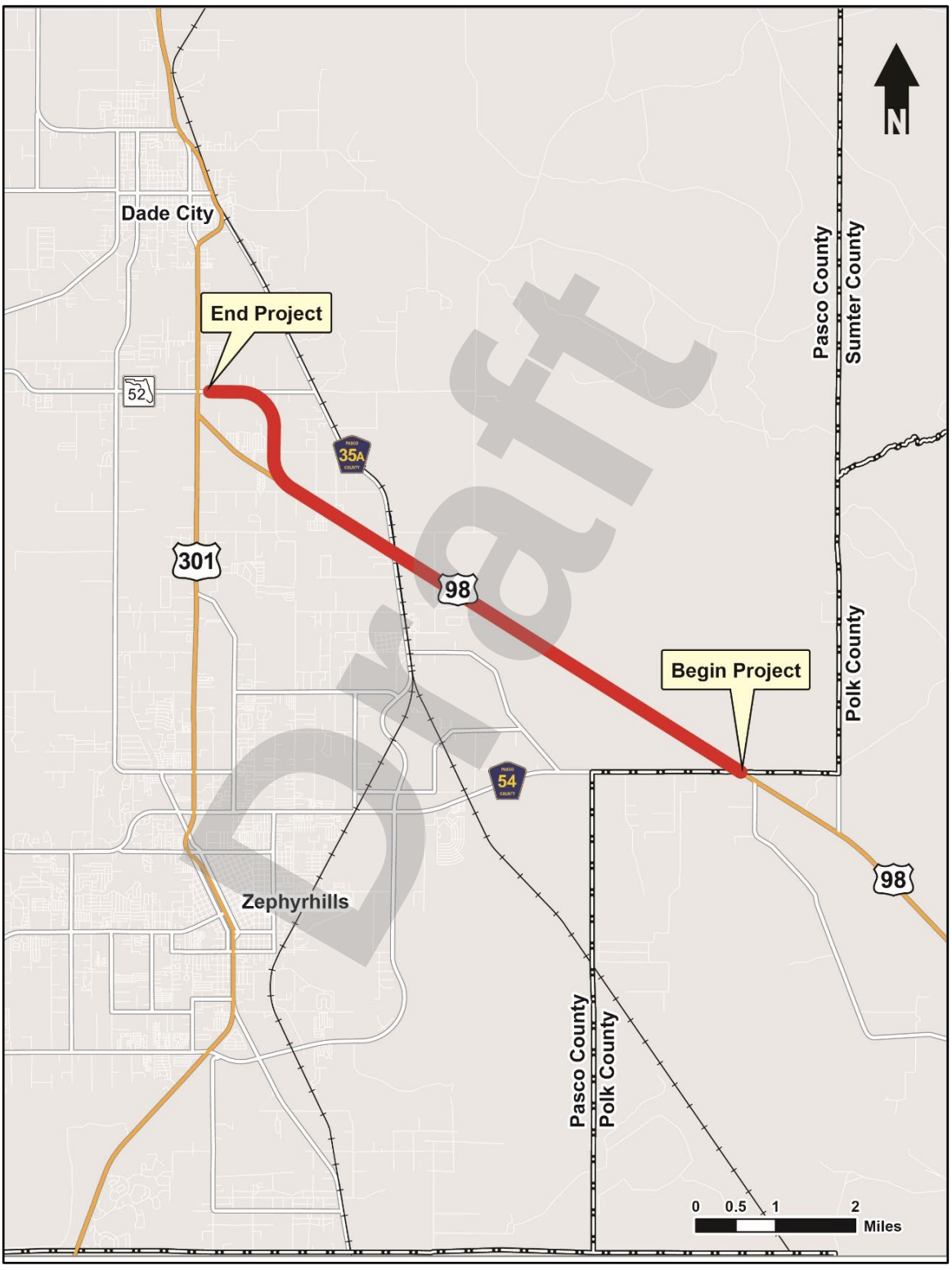


Figure 1-1 Project Location Map

1.3 EXISTING FACILITY AND PROPOSED IMPROVEMENTS

1.3.1 Existing Facility

The existing US 98 from CR 54 to US 301 is a 2-lane roadway. The roadway is functionally classified by FDOT as an Urban Principal Arterial – Other. In Pasco County, the 2-lane undivided facility has 12-foot travel lanes and 4-foot paved shoulders. The existing ROW along the project corridor is 160 feet wide. There are two (2) existing bridges in the project limits. The first carries US 98 over the Hillsborough River Bridge and the second carries US 98 over Old Lakeland Highway and the CSX railway. There are no sidewalks, multi-use trails, bike lanes or other similar multi-modal facilities within the project corridor.

1.3.2 Proposed Improvements

The proposed improvements will widen US 98 to a 4-lane divided facility from CR 54 to north of Townsend Road and realign US 98 from north of Townsend Road to US 301. The realignment allows US 98 to align with the Clinton Avenue (New SR 52) intersection at US 301 and was the results of a separate Alternatives Corridor Evaluation (ACE) study (WPI Segment No. 443368-1).

The widened 4-lane divided facility roadway will consist of two 12-foot travel lanes with a varying 24 to 40-foot median. Where the roadway is widened, the roadway consists of a rural typical section and will fit within the existing 160-foot wide ROW. In the realignment section, the roadway consists of a suburban typical section within a proposed 245-foot wide ROW and include a 6-foot sidewalk on the east side of the road and a 12-foot trail on the west side of the road. Where the new US 98 connects to Clinton Avenue and extends to US 301, the roadway consists of an urban typical section within a 140-foot wide ROW and includes a 6-foot sidewalk on the east side of the road and a 10-foot trail on the west side of the road that will connect to the existing trail on US 301.

There are three proposed roadway typical sections for the project, described below. The limits of each typical section along US 98 are shown in **Figure 1-2**.

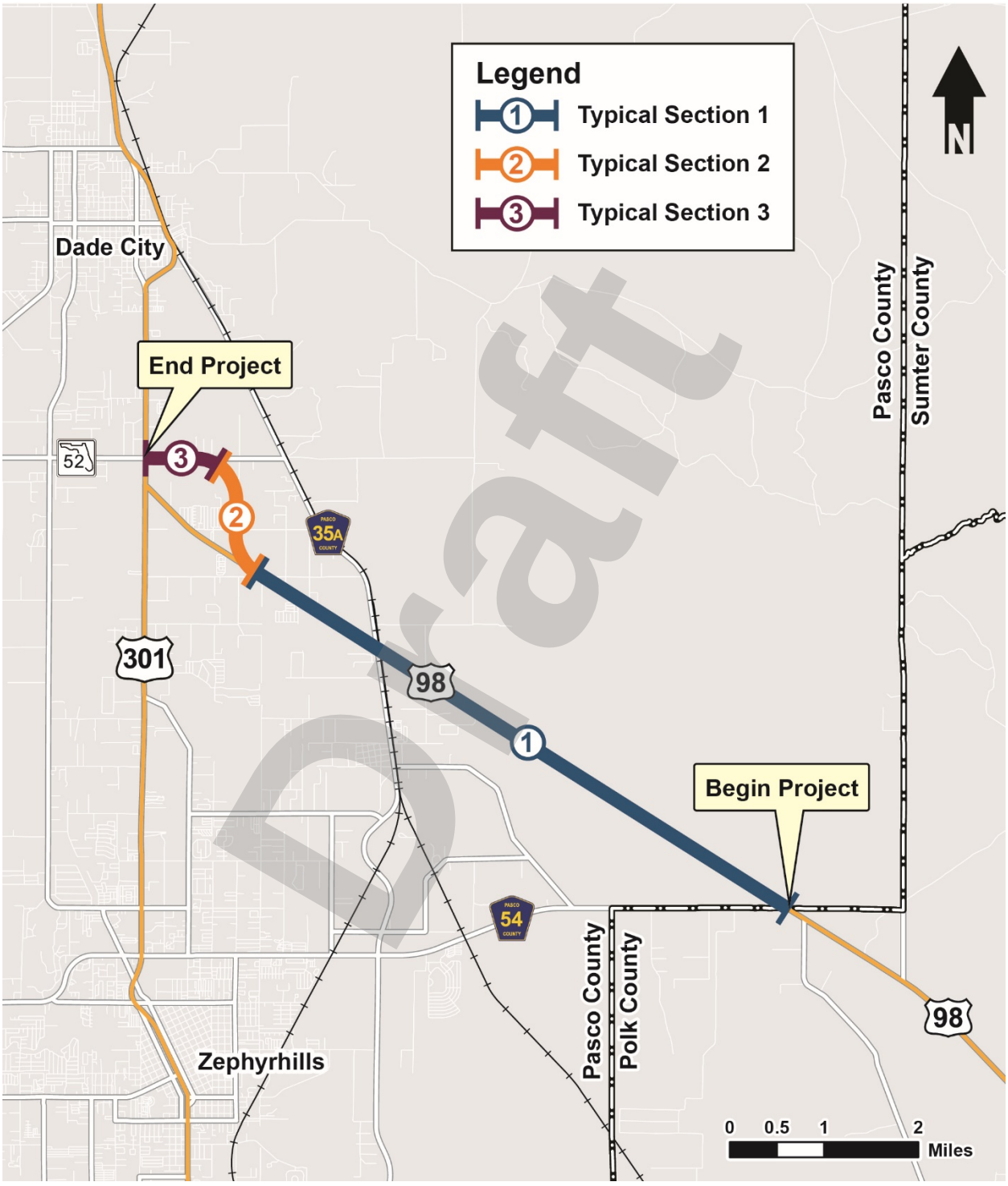


Figure 1-2 Project Location Map

Typical Section 1 is for the widening of existing US 98 and includes a 4-lane divided rural facility with a 24 to 30-foot median centered within the existing 160-foot ROW. There will be two 12-foot travel lanes in each direction with 8-foot (4-foot paved) inside shoulders and ten-foot (5-foot paved) outside shoulders. Typical Section 1 is depicted in **Figure 1-3**. This typical section will be utilized from CR 54 to Station 990 and to north of Townsend Road.

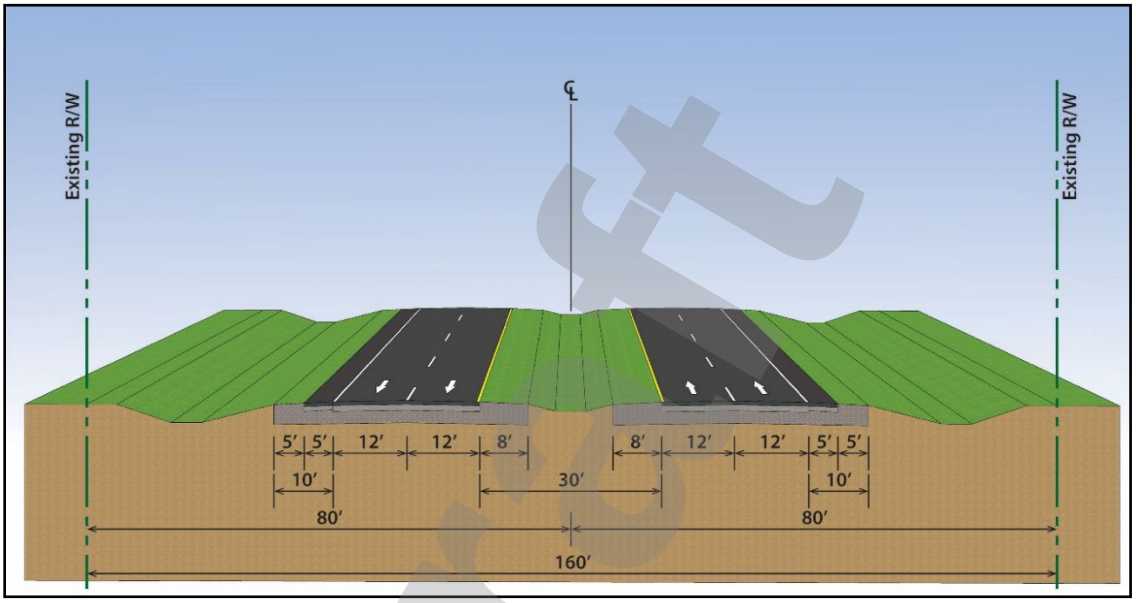


Figure 1-3 Proposed Roadway Typical Section 1

Typical Section 2 is for the realigned section of US 98 and includes a 4-lane divided suburban facility with a 40-foot raised median within the proposed 245-foot ROW. There will be two 12-foot travel lanes in each direction with 4-foot inside shoulders and 10-foot (5-foot paved) outside shoulders. A 6-foot sidewalk is provided on the east side of the roadway and a 12-foot shared use path is provided on the west side of the roadway. Typical Section 2 is depicted in **Figure 1-4**. This typical section will be utilized from north of Townsend Road to Clinton Avenue.

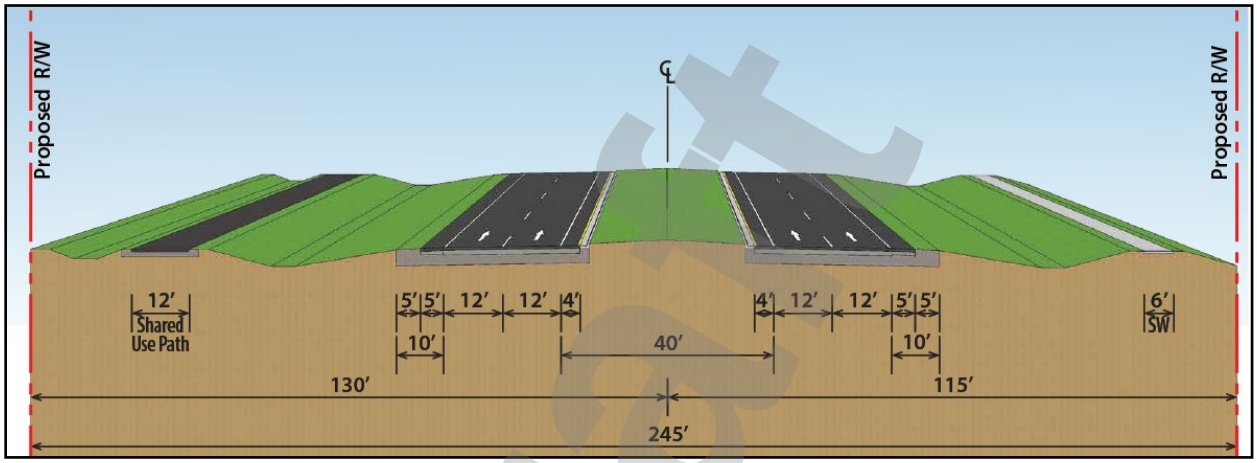


Figure 1-4 Proposed Roadway Typical Section 2

Typical Section 3 includes a 4-lane divided urban facility with a 22-foot raised median within a 140-foot ROW. There will be two 11-foot travel lanes in each direction with 7-foot bicycle lanes. A 6-foot sidewalk is provided on the east side of the roadway and a 10-foot shared use path is provided on the west side of the roadway. Typical Section 3 is depicted in **Figure 1-5**. This typical section will be utilized from the realignment section of US 98 to US 301 along Clinton Avenue.

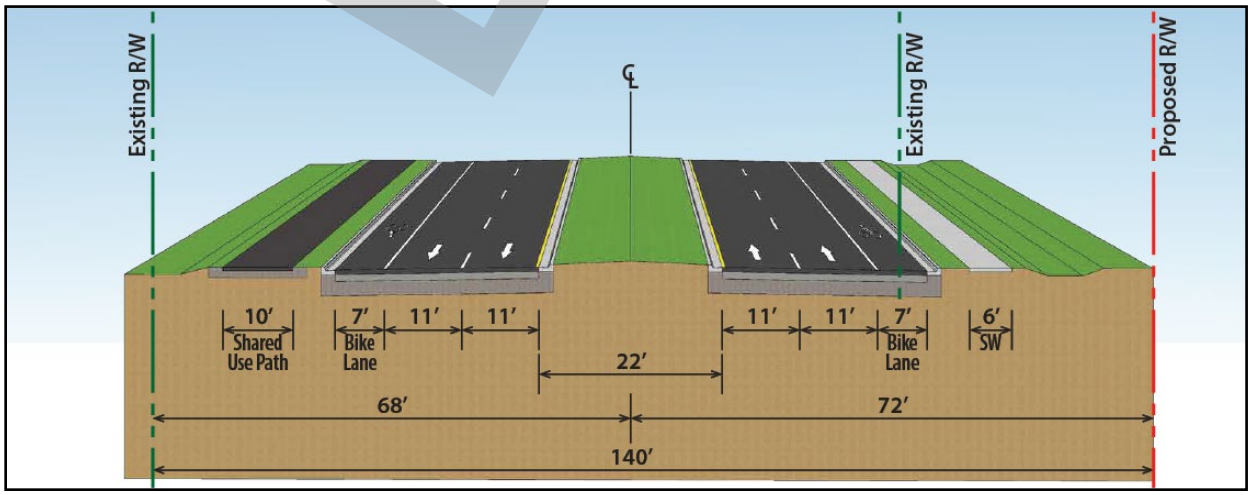


Figure 1-5 Proposed Roadway Typical Section 3

At both the Hillsborough River and Old Lakeland Highway / CSX locations, the bridges will be replaced with twin bridges with two 12-foot travel lanes with 6-foot inside shoulders and 10-foot outside shoulders. The Old Lakeland Highway / CSX bridge will also include barrier separated 10-foot walkway to accommodate future trail and/or sidewalk (bicycle and pedestrian) accommodations. The bridges will be located within the existing 160-foot ROW. The Hillsborough River bridge typical section is provided in **Figure 1-6**.

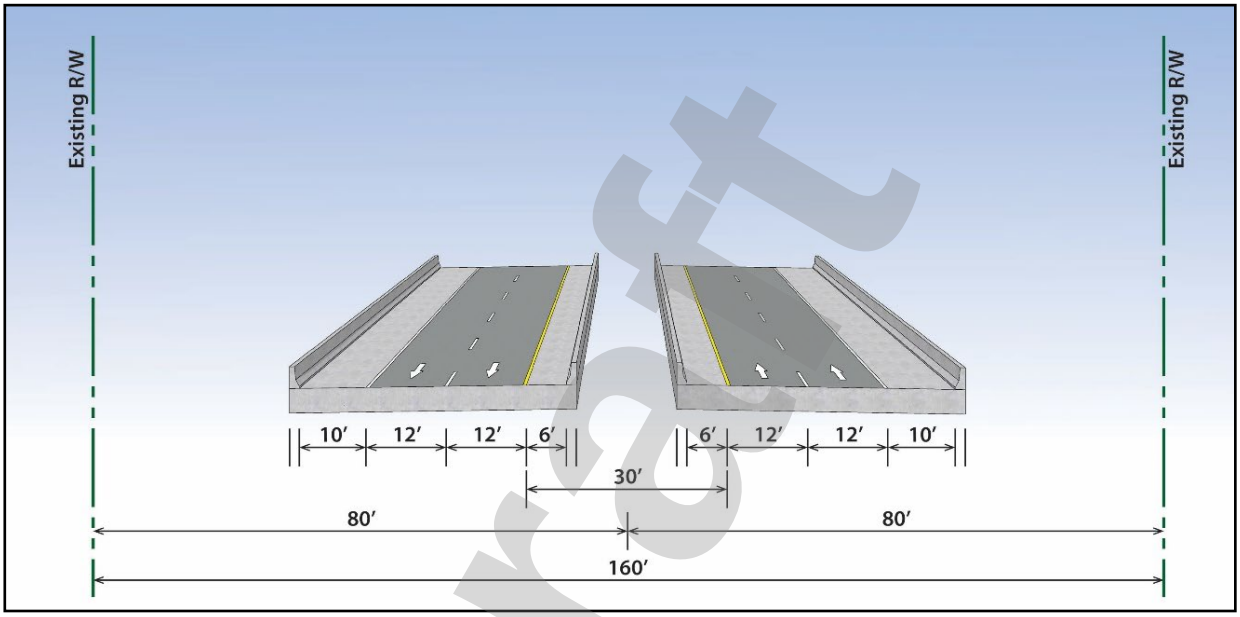


Figure 1-6 Proposed Bridge Typical Section – Hillsborough River

The Old Lakeland Highway / CSX bridge typical section is provided in **Figure 1-7**.

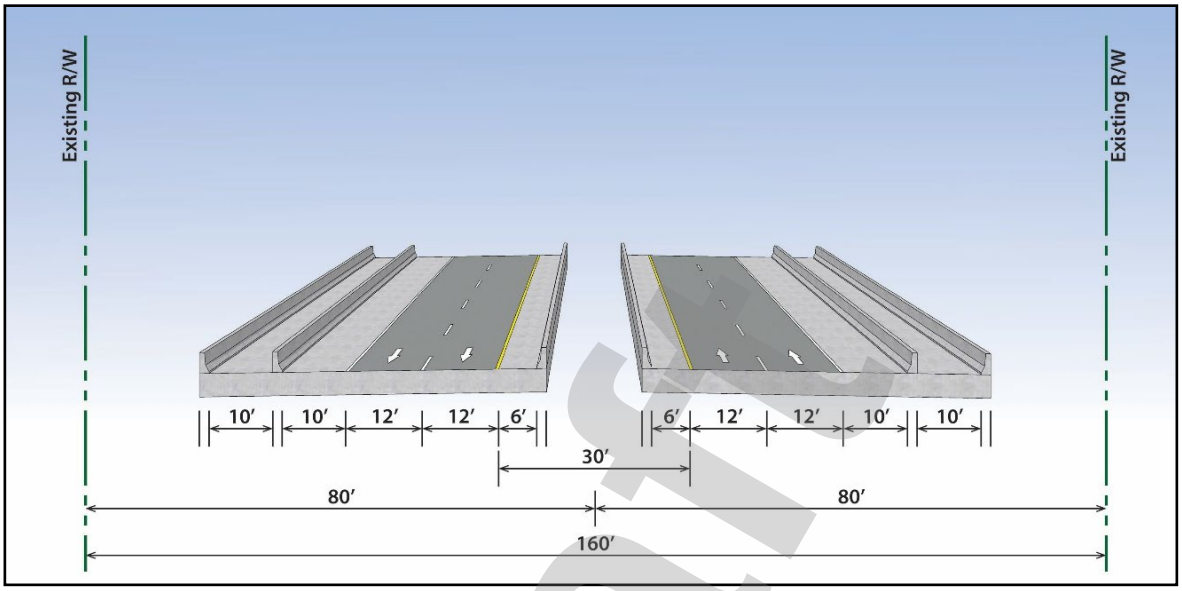


Figure 1-7 Proposed Bridge Typical Section – Old Lakeland Highway / CSX Railroad

1.4 REPORT PURPOSE

This Noise Study Report (NSR) presents the assumptions, data, procedures, and results of the highway traffic noise analysis that was conducted to evaluate the proposed improvements to US 98. The objectives of the NSR are to identify noise sensitive receptors (discrete or representative locations of a noise sensitive area) adjacent to the project corridor, to predict and evaluate future traffic noise levels at the receptors with and without the improvements, and to evaluate the need for, and effectiveness of, noise abatement measures. Additional objectives include the evaluation of construction noise and vibration impacts and the identification of traffic noise impact areas for future compatible land use planning adjacent to the project corridor.

SECTION 2 METHODOLOGY

The highway traffic noise analysis for the US 98 project was prepared in accordance with the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772)—Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010) and Chapter 18 (Highway Traffic Noise, July 1, 2020) of the FDOT's PD&E Manual. The analysis was performed using the Federal Highway Administration's (FHWA's) Traffic Noise Model (TNM), Version 2.5. Use of the TNM is required when evaluating the potential for highway traffic noise impacts during the design year of roadway improvement projects for which 23 CFR 772 and the PD&E Manual are applicable.

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

Noise levels are low when traffic volumes are low and operating conditions are good (Level of Service (LOS) A or B) and when traffic is so congested that movement is slow (LOS D, E, or F). For these reasons, highway traffic noise assessment are performed for the condition that would result in the maximum hourly noise level (i.e., LOS C).

The traffic volumes used in the analysis for the existing condition and future (2045) Build Alternative were the forecast demand volumes. The traffic volumes used in the analysis for the future (2045) No-Build Alternative are both the forecast demand volumes and the LOS C traffic volumes, depending on the segment of roadway. The traffic data for the existing (2019) condition, the future (2045) No-Build Alternative, and the future (2045) Build Alternative are 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**.

Table 2-1 FHWA/FDOT Noise Abatement Criteria

Activity Category	Description of Activity Category	Activity Leq(h)[1]	
		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 1-14-19).

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

[2] Includes undeveloped lands permitted for this activity category.

Note: FDOT defines that a substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 decibels or more because of the transportation improvement project. When this occurs, the requirement for abatement consideration will be followed.

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	**70**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**60**	
		Large business office
Quiet urban daytime	**50**	Dishwasher in next room
		Theater, large conference room
Quiet urban nighttime	**40**	(background)
Quiet suburban nighttime		
	30	Library
		Bedroom at night, concert hall
Quiet rural nighttime		(background)
	20	
		Broadcast/recording studio
	10	
	0	

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

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 a substantial increase to be 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.

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 an abatement measure are considered. Feasibility factors are related to the acoustical and engineering properties of an abatement measure

while reasonableness factors relate to the social, economic, and environmental properties of a measure.

The following subsections of this NSR present and discuss four methods of abating traffic noise impacts.

2.4.1 Traffic Management

Some types of traffic management reduce 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, traffic noise levels could potentially be reduced.

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. Buffer zones can also be used to eliminate the potential for new noise sensitive land uses to be impacted by traffic noise. For this purpose, and to encourage use of this abatement measure through local land use planning, noise contours have been developed and are further discussed in Section 4.0 of this NSR.

2.4.4 Noise Barriers

The most common type of noise abatement measure is construction of a noise barrier. Noise barriers have the potential to reduce traffic noise levels by blocking the sound path between the motor vehicles on the roadway (the source) and the noise sensitive land uses adjacent to the roadway.

To effectively reduce traffic noise, a noise barrier must be relatively long, continuous (without intermittent openings) and sufficiently tall. For a noise barrier to be considered a potential abatement measure the barrier must meet the following conditions:

- Minimum Noise Reduction Requirements - A barrier must provide at least a 5 dB(A) reduction in traffic noise for two or more impacted noise sensitive receptors and also provide at least a 7 dB(A) reduction (i.e., the FDOT's noise reduction design goal) for at least one impacted receptor. Receptors are discrete representative locations on a property that has noise sensitive land uses (see **Table 2-1**).

- Cost Effective Limit – At a cost of $30 per square foot, a barrier should not cost more than $42,000 per benefited noise sensitive receptor (a benefited receptor is one that receives at least a 5 dB(A) reduction in noise from a mitigation measure). For special land uses (e.g., the outdoor eating area of a restaurant), the cost of a barrier should not be more than $995,935 per person-hour per square foot (dollars/person-ft^2).

If the results of the preliminary analysis indicate that a noise barrier would provide the required reduction in traffic noise at a cost at or below the cost-effective limit, additional feasibility factors are then considered. These feasibility factors relate to barrier design and construction (i.e., given site-specific details, can a barrier 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.

SECTION 3 TRAFFIC NOISE ANALYSIS

3.1 NOISE SENSITIVE RECEPTORS

As previously stated, receptors are discrete representative locations of a noise sensitive land use. The locations of the receptors evaluated for the US 98 improvements are shown on aerials in **Appendix B**. Ninety-six receptors were evaluated--95 residential properties and a recreational area (a common area shuffleboard court at a recreational vehicle (RV) resort). Following FHWA/FDOT guidance, the residences were evaluated as Activity Category "B" and the recreational area was evaluated as Activity Category "C" (i.e. abatement considered at a predicted traffic noise level of 66 dB(A)). Thirty-three of the 96 residential properties are located on individual lots. The remaining residences are within the following mobile home parks (MHP), RV resorts, and subdivisions:

- Commercial Highlands South (Receptors 1-1 through 1-3 and 2-1)
- Citrus Hill RV Resort (Receptors 4-8 through 4-19)
- Appaloosa Trails (Receptors 8-1 through 8-7)
- Anderson Acres (Receptors 10-1 through 10-4)
- Zephyrhills Colony Company Subdivision (Receptors 11-1 through 11-3, 11-13, 11-14, 12-1, 13-1, 14-1 through 14-6, 16-1, and 16-2)
- Country Aire MHP/RV Park (Receptors 11-4 through 11-12)
- Hampton Court (Receptor 11-15)
- Grove Ridge Carefree RV Resort (Receptor 15-1)
- Southfork Manufactured Home Community (Receptors 17-1 and 17-2)
- Sunset Hills (Receptors 18-9 through 18-13, and 19-2)

3.2 MEASURED NOISE LEVELS

Both existing and future noise levels (with and without the proposed improvements) were modeled using the TNM. To verify the accuracy of the predictions, the computer model was validated using field measured noise levels adjacent to the project corridor. Traffic data including motor vehicle volumes, vehicle mix, vehicle speeds and meteorological conditions were recorded during each measurement period.

The field measurements were conducted in accordance with the FHWA's Measurement of Highway-Related Noise. The measurements were obtained using a Larson Davis Model 831, Type II integrating sound level meter (SLM). The SLM was calibrated before and after the measurement period with a Larson Davis CAL200 calibrator.

The recorded traffic data were used as input for the TNM to determine if, given the topography and site conditions of the area, the computer model could "re-create" the measured levels with the existing roadway. Following FDOT guidelines, a noise prediction model is considered within the accepted level of accuracy if the measured and predicted noise levels are within a tolerance standard of 3 dB(A).

Table 3-1 presents the field measurements and the validation results. As shown, the ability of the model to predict noise levels within the FDOT limits of plus or minus 3 dB(A) for the project was confirmed. Documentation in support of the validation is provided in **Appendix C** of this NSR.

Table 3-1 Validation Data

Location	Site	Measurement Period	Modeled (dB(A))	Measured (dB(A))	Difference
Clinton Avenue (west of Curtis Lane)	1	1	54.2	56.7	-2.5
		2	55.8	56.3	-0.5
		3	56.9	59.7	-2.8
US 98 (adjacent to Jim Jordan Road)	2	1	62.3	60.5	1.8
		2	62.8	60.1	2.7
		3	62.0	59.5	2.5

As described previously, the proposed US 98 improvements will realign US 98 from north of Townsend Road to US 301. To establish existing noise levels for the area in which there would be a new alignment, additional field measurements were performed. Measurements were conducted at two locations along Clinton Avenue and Wild Road, near where the new alignment is proposed. Three repetitions of 10-minute measurements were obtained at each location. The measurement results are provided in **Table 3-2**. The average of the measurements was used for both the existing and No-Build Alternative noise levels for the receptors evaluated in the area of the new alignment (Sites 16-1 to 17-2 and 18-1 to 19-3).

Table 3-2 Ambient Sounds Levels

Location	Noise Measurement Period						Average Noise Level
	Larson Davis LxT			Larson Davis 831			
	1	2	3	1	2	3	
Site #1 - Clinton Avenue (west of Curtis Lane)	57.3	55.5	58.9	56.7	56.3	59.7	**57.4**
Site #2 – Wild Road (southeast of Southfork MHP)	53.6	49.0	50.8	51.7	48.5	50.2	**50.6**

3.3 PREDICTED TRAFFIC NOISE LEVELS

Table 3-3 provides the results of the traffic noise analysis for the proposed improvements. As shown, with the existing (2019) conditions, traffic noise is predicted to range from 44.1 to 63.5 dB(A) and in the future (2045) with the No-Build Alternative, traffic noise is predicted to range from 46.3 to 68.6 dB(A). In the future year with the Build Alternative, traffic is predicted to range from 49.1 to 71.1 dB(A) with predicted levels approaching, meeting, or exceeding the NAC at six of the evaluated residential properties. Traffic noise is not predicted to increase substantially at any of the evaluated receptors.

Table 3-3 Traffic Noise Analysis Results

Receptor ID	Description of Activity Category	Appendix B Sheet No.	Activity Category	FDOT NAC	Existing (2019)	No-Build (2045)	Build (2045)	Increase from Existing	Approaches, Meets, or Exceeds the NAC?
1-1	Residential	2	B	66	57.2	60.9	63.3	6.1	—
1-2	Residential	2	B	66	52.8	56.5	58.8	6.0	—
1-3	Residential	2	B	66	52.5	56.2	58.7	6.2	—
2-1	Residential	2	B	66	55.0	58.7	61.1	6.1	—
3-1	Residential	6	B	66	48.2	51.9	54.6	6.4	—
4-1	Residential	8	B	66	54.5	58.2	60.4	5.9	—
4-2	Residential	8	B	66	53.0	56.7	58.9	5.9	—
4-3	Residential	8	B	66	58.7	62.5	65.0	6.3	—
4-4	Residential	8	B	66	52.9	56.7	58.8	5.9	—
4-5	Residential	8	B	66	53.4	57.3	59.1	5.7	—
4-6	Residential	8	B	66	55.9	59.7	61.8	5.9	—
4-7	Residential	8	B	66	58.0	61.9	63.6	5.6	—
4-8	Residential	8	B	66	55.9	59.9	60.1	4.2	—
4-9	Residential	8	B	66	57.7	61.7	61.4	3.7	—
4-10	Residential	8	B	66	60.5	64.5	61.2	0.7	—
4-11	Residential	8	B	66	62.9	67.0	59.1	-3.8	—
4-12	Residential	8	B	66	62.2	66.5	59.6	-2.6	—
4-13	Residential	8	B	66	62.7	67.4	63.7	1.0	—
4-14	Residential	8	B	66	58.8	63.4	63.3	4.5	—
4-15	Residential	8	B	66	56.5	61.1	61.1	4.6	—
4-16	Residential	8	B	66	53.6	58.5	59.0	5.4	—
4-17	Residential	8	B	66	54.9	59.9	60.5	5.6	—
4-18	Residential	8	B	66	54.3	59.3	59.8	5.5	—
4-19	Residential	8	B	66	53.5	58.5	59.0	5.5	—
4-20	Residential	8	B	66	58.3	63.3	64.2	5.9	—
4-21	Residential	8	B	66	63.5	68.6	71.1	7.6	YES
4-22	Residential	8	B	66	55.1	60.2	60.7	5.6	—
4-23	Residential	8	B	66	57.2	62.2	63.0	5.8	—
5-1	Recreational Area	8	C	66	55.8	60.1	59.6	3.8	—
6-1	Residential	8	B	66	63.0	66.8	69.3	6.3	YES
6-2	Residential	8	B	66	49.8	53.7	56.0	6.2	—
7-1	Residential	8	B	66	54.9	59.9	60.4	5.5	—
8-1	Residential	10	B	66	50.0	54.8	53.9	3.9	—

Receptor ID	Description of Activity Category	Appendix B Sheet No.	Activity Category	FDOT NAC	Existing (2019)	No-Build (2045)	Build (2045)	Increase from Existing	Approaches, Meets, or Exceeds the NAC?
8-2	Residential	10	B	66	51.7	56.5	55.5	3.8	—
8-3	Residential	10	B	66	53.0	57.8	56.7	3.7	—
8-4	Residential	10	B	66	55.3	59.9	58.7	3.4	—
8-5	Residential	10	B	66	53.2	57.4	57.0	3.8	—
8-6	Residential	10	B	66	52.7	56.7	56.7	4.0	—
8-7	Residential	10	B	66	53.3	57.0	57.4	4.1	—
9-1	Residential	10	B	66	58.6	60.8	64.8	6.2	—
9-2	Residential	10	B	66	56.8	59.0	63.1	6.3	—
9-3	Residential	10	B	66	59.3	61.5	64.9	5.6	—
9-4	Residential	10	B	66	57.4	59.6	63.2	5.8	—
9-5	Residential	11	B	66	59.8	62.0	65.0	5.2	—
9-6	Residential	11	B	66	61.2	63.4	66.3	5.1	YES
9-7	Residential	11	B	66	61.8	63.9	66.9	5.1	YES
9-8	Residential	11	B	66	62.4	64.6	67.6	5.2	YES
9-9	Residential	11	B	66	55.4	57.5	60.5	5.1	—
9-10	Residential	11	B	66	54.6	56.7	59.8	5.2	—
10-1	Residential	11	B	66	51.0	53.2	56.5	5.5	—
10-2	Residential	11	B	66	60.4	62.6	65.8	5.4	—
10-3	Residential	11	B	66	59.9	62.1	65.2	5.3	—
10-4	Residential	11	B	66	61.1	63.2	66.3	5.2	YES
11-1	Residential	11	B	66	58.7	60.9	64.4	5.7	—
11-2	Residential	11	B	66	58.1	60.2	63.7	5.6	—
11-3	Residential	12	B	66	57.3	59.4	63.0	5.7	—
11-4	Residential	12	B	66	50.3	52.4	55.6	5.3	—
11-5	Residential	12	B	66	51.2	53.4	56.5	5.3	—
11-6	Residential	12	B	66	52.2	54.3	57.5	5.3	—
11-7	Residential	12	B	66	53.9	56.0	58.9	5.0	—
11-8	Residential	12	B	66	51.8	54.0	56.5	4.7	—
11-9	Residential	12	B	66	50.4	52.6	55.6	5.2	—
11-10	Residential	12	B	66	50.5	52.6	55.2	4.7	—
11-11	Residential	12	B	66	50.9	53.0	54.8	3.9	—
11-12	Residential	12	B	66	51.5	53.7	55.2	3.7	—
11-13	Residential	12	B	66	60.6	62.8	64.6	4.0	—
11-14	Residential	12	B	66	58.7	60.8	61.8	3.1	—
11-15	Residential	12	B	66	55.3	57.4	58.5	3.2	—

Receptor ID	Description of Activity Category	Appendix B Sheet No.	Activity Category	FDOT NAC	Existing (2019)	No-Build (2045)	Build (2045)	Increase from Existing	Approaches, Meets, or Exceeds the NAC?
12-1	Residential	12	B	66	60.8	62.9	63.5	2.7	—
13-1	Residential	12	B	66	48.2	50.4	51.1	2.9	—
14-1	Residential	13	B	66	56.1	58.2	63.3	7.2	—
14-2	Residential	13	B	66	49.5	51.7	58.2	8.7	—
14-3	Residential	13	B	66	50.9	53.1	58.6	7.7	—
14-4	Residential	13	B	66	50.6	52.7	56.7	6.1	—
14-5	Residential	13	B	66	44.1	46.3	50.7	6.6	—
14-6	Residential	13	B	66	58.7	60.8	59.3	0.6	—
15-1	Residential	13	B	66	63.2	65.3	52.9	-10.3	—
16-1[1]	Residential	14	B	66	50.6	50.6	60.7	10.1	—
16-2[1]	Residential	14	B	66	50.6	50.6	51.5	0.9	—
17-1[1]	Residential	14	B	66	50.6	50.6	49.1	-1.5	—
17-2[1]	Residential	14	B	66	50.6	50.6	49.1	-1.5	—
18-1[1]	Residential	15	B	66	57.4	57.4	50.4	-7.0	—
18-2[1]	Residential	15	B	66	57.4	57.4	55.1	-2.3	—
18-3[1]	Residential	15	B	66	57.4	57.4	53.5	-3.9	—
18-4[1]	Residential	15	B	66	57.4	57.4	51.7	-5.7	—
18-5[1]	Residential	15	B	66	57.4	57.4	49.8	-7.6	—
18-6[1]	Residential	16	B	66	57.4	57.4	55.0	-2.4	—
18-7[1]	Residential	16	B	66	57.4	57.4	56.0	-1.4	—
18-8[1]	Residential	16	B	66	57.4	57.4	56.3	-1.1	—
18-9[1]	Residential	16	B	66	57.4	57.4	59.4	2.0	—
18-10[1]	Residential	16	B	66	57.4	57.4	62.4	5.0	—
18-11[1]	Residential	16	B	66	57.4	57.4	62.0	4.6	—
18-12[1]	Residential	16	B	66	57.4	57.4	52.6	-4.8	—
18-13[1]	Residential	16	B	66	57.4	57.4	50.9	-6.5	—
19-2[1]	Residential	16	B	66	57.4	57.4	62.3	4.9	—
19-3[1]	Residential	16	B	66	57.4	57.4	63.7	6.3	—

[1]Existing and No-Build Alternative levels are based on the ambient noise measurements presented in Table 3-2.

3.4 ABATEMENT CONSIDERATIONS

As previously stated, when traffic noise impacts are predicted, noise abatement measures are considered for the impacted properties. The following discusses the FDOT's consideration of each of the measures for which an overview was provided in Section 2.4 of this NSR.

3.4.1 Traffic Management

Reducing traffic speeds and/or the traffic volume or changing the motor vehicle fleet on US 98 is inconsistent with the goal of improving the ability of the roadway to handle the forecast traffic volume. Therefore, traffic management measures are not considered to be a reasonable noise abatement measure for the US 98 project.

3.4.2 Alignment Modifications

Except the northwest end of the project, the proposed improvements would be constructed to follow the existing roadway alignment. Where the improvements follow the existing alignment, shifting the alignment horizontally would require ROW acquisitions. Because noise sensitive land uses are located on both sides of the roadway, a modification to the alignment of US 98 for the purpose of reducing traffic noise impacts is not considered to be a reasonable noise abatement measure. The realignment of US 98 on the northwest end of the project allows US 98 to align with the Clinton Avenue (New SR 52) intersection at US 301 and was the result of a separate Alternatives Corridor Evaluation (ACE) study (WPI 443368-1). The proposed alignment for the new corridor was selected because the alignment has fewer potential social impacts and half the potential residential relocations as other alignments.

3.4.3 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 Pasco County Appraisers Office indicates that the cost to acquire the developed properties adjacent to US 98 exceed the cost-effective limit. Therefore, creating a buffer zone by acquiring existing noise sensitive properties is not considered to be a reasonable noise abatement measure.

3.4.4 Noise Barriers

Barriers were not considered for four of the seven impacted properties (Receptors 4-21, 6-1, and 10-4), because these receptors are isolated. In order for a barrier to be considered acoustically feasible and reasonable, at least two impacted receptors are required to be benefited by a barrier.

TNM was used to evaluate the ability of a noise barrier to reduce traffic noise levels for the remaining three impacted receptors (Receptors 9-6, 9-7, and 9-8). The barrier was evaluated five feet inside the FDOT's ROW at heights from eight to 22 feet (in two-foot increments). The length of the barrier was optimized to determine if at least the minimum noise reduction requirements (i.e., a minimum reduction of 5 dB(A) for two impacted receptors and a minimum reduction of 7 dB(A) for one benefitted receptor) could be achieved. Because the length of the barrier was limited to allow access to/from the properties, the minimum required noise reduction of 5 dB(A) for two impacted receptors

could not be achieved at any of the evaluated barrier heights. Therefore, a barrier is not considered a feasible abatement measure for the three noise impacted residences.

3.5 SUMMARY

A highway traffic noise analysis was performed to evaluate highway traffic noise with the proposed improvements to US 98. The improvements would widen US 98 from a 2-lane undivided facility to a 4-lane divided facility along from CR 54 to US 301 / SR 39, in Pasco County and realign US 98 between CR 35A to US 301. The results of the analysis indicate that six properties for which there are NAC would be impacted by highway traffic noise. An evaluation of potential abatement measures was performed. Based on the results of the evaluation, there appear to be no feasible and reasonable measures to mitigate the impacts.

SECTION 4 NOISE CONTOURS

Land uses such as residences and recreational areas are considered incompatible with highway noise levels that approach, meet, or exceed the NAC. To reduce the possibility of additional traffic noise-related impacts, noise level contours were developed for the future improved roadway facility. These contours delineate the extent of the predicted traffic noise impact area from the improved roadway's edge-of-travel lane for each of the FHWA/FDOT land use Activity Categories (Table 2-1). **Table 4-1** provides the distance from the edge-of-travel lane at which traffic noise levels are predicted to be 56 dB(A)—the NAC for land uses classified as Activity Category A, to 66 dB(A)—the NAC for land uses classified as Activity Category B and C, and to 71 dB(A)—the NAC for land uses classified as Activity Category E.

Table 4-1 Noise Contours

US 98 Roadway Segment	Distance from Improved Roadway's Edge-of-Travel Lane (ft)*		
	Activity Category A 56 dB(A)	Activity Category B/C 66 dB(A)	Activity Category E 71 dB(A)
Clinton Ave to Old US 98	210	60	25
Old US 98 to west of Old Lakeland Hwy Access Rd	230	65	30
West of Old Lakeland Hwy Access Rd to East of Old Lakeland Hwy	330	85	45
East of Old Lakeland Hwy to east of Citrus Hill RV Resort	325	90	45
East of Citrus Hill RV Resort to CR 54	320	90	45

SECTION 5 CONSTRUCTION NOISE AND VIBRATIONS

Some land uses adjacent to US 98 are identified on the FDOT listing of noise- and vibration-sensitive sites (e.g., residential use). Construction of the proposed roadway improvements is not expected to 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 unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

SECTION 6 COMMUNITY COORDINATION

Details regarding the public involvement and any traffic-noise related issues raised by the public will be documented in the final NSR.

SECTION 7 REFERENCES

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

Federal Highway Administration. February 2004. Traffic Noise Model, Version 2.5.

Federal Highway Administration. December 2011. Highway Traffic Noise: Analysis and Abatement Guidance.

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

Florida Department of Transportation. July 1, 2020. Project Development and Environment Manual, Part 2, Chapter 18 – Highway Traffic Noise.

Florida Department of Transportation. July 1, 2017. Plans Preparation Manual, Volume 1, Chapter 32 – Noise Walls and Perimeter Walls.

Florida Department of Transportation. January 2021. Standard Specifications for Road and Bridge Construction.

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

APPENDICES

Appendix A Traffic Data
Appendix B Receptor Aerials
Appendix C Validation and Ambient Levels Documentation

APPENDIX A

Traffic Data

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 301
Federal Aid Number(s):	N/A	Build Sheet	US 301
Segment Description:	US 301 - US 301 from US 98 to Clinton Ave		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	4	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	35,700	ADT: LOS (C)	35,700	ADT: LOS (C)	35,700
Demand	28,000	Demand	38,000	Demand	29,000
Posted Spd:	50 mph	Posted Spd:	50 mph	Posted Spd:	50 mph
	80 kmh		80 kmh		80 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	6.4 % for 24 hrs.	T=	6.4 % for 24 hrs.	T=	6.4 % for 24 hrs.
T=	3.2 % Design hr	T=	3.2 % Design hr	T=	3.2 % Design hr
1.60	% Medium Trucks DHV	1.60	% Medium Trucks DHV	1.60	% Medium Trucks DHV
1.60	% Heavy Trucks DHV	1.60	% Heavy Trucks DHV	1.60	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		**Demand**	**No-Build (Design Year) Model:**		**LOS (C)**	**Build (Design Year) Model:**		**Demand**
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	1782	Peak:	Autos	1782	Peak:	Autos	1782
	Med Trucks	29		Med Trucks	29		Med Trucks	29
	Hvy Trucks	29		Hvy Trucks	29		Hvy Trucks	29
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	1329	Off Peak:	Autos	1329	Off Peak:	Autos	1329
	Med Trucks	22		Med Trucks	22		Med Trucks	22
	Hvy Trucks	22		Hvy Trucks	22		Hvy Trucks	22
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	1397	Peak:	Autos	1896	Peak:	Autos	1447
	Med Trucks	23		Med Trucks	31		Med Trucks	24
	Hvy Trucks	23		Hvy Trucks	31		Hvy Trucks	24
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	1042	Off Peak:	Autos	1414	Off Peak:	Autos	1079
	Med Trucks	17		Med Trucks	23		Med Trucks	18
	Hvy Trucks	17		Hvy Trucks	23		Hvy Trucks	18
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 1
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 2 E
Segment Description:	US 98 Seg 1 - US 98 from US 301 to west of Wilds Rd / US 98 Seg 2 BLD - US 98 from Clinton Ave to Old US 98		

(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.

Existing			NB_2045			BLD_2045		
Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	4	
Year:	2019		Year:	2045		Year:	2045	
ADT: LOS (C)	11,520		ADT: LOS (C)	11,520		ADT: LOS (C)	25,500	
Demand	6,800		Demand	11,000		Demand	9,300	
Posted Spd:	55	mph	Posted Spd:	55	mph	Posted Spd:	55	mph
	89	kmh		89	kmh		89	kmh
K=	9.0	%	K=	9.0	%	K=	9.0	%
D=	57.3	%	D=	57.3	%	D=	57.3	%
T=	15.2	% for 24 hrs.	T=	15.2	% for 24 hrs.	T=	15.2	% for 24 hrs.
T=	7.6	% Design hr	T=	7.6	% Design hr	T=	7.6	% Design hr
3.80	% Medium Trucks DHV		3.80	% Medium Trucks DHV		3.80	% Medium Trucks DHV	
3.80	% Heavy Trucks DHV		3.80	% Heavy Trucks DHV		3.80	% Heavy Trucks DHV	
0.00	% Buses DHV		0.00	% Buses DHV		0.00	% Buses DHV	
0.00	% Motorcycles DHV		0.00	% Motorcycles DHV		0.00	% Motorcycles DHV	

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		Demand	No-Build (Design Year) Model:		Demand	Build (Design Year) Model:		Demand
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	549	Peak:	Autos	549	Peak:	Autos	1215
	Med Trucks	23		Med Trucks	23		Med Trucks	50
	Hvy Trucks	23		Hvy Trucks	23		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	409	Off Peak:	Autos	409	Off Peak:	Autos	906
	Med Trucks	17		Med Trucks	17		Med Trucks	37
	Hvy Trucks	17		Hvy Trucks	17		Hvy Trucks	37
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	324	Peak:	Autos	524	Peak:	Autos	443
	Med Trucks	13		Med Trucks	22		Med Trucks	18
	Hvy Trucks	13		Hvy Trucks	22		Hvy Trucks	18
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	242	Off Peak:	Autos	391	Off Peak:	Autos	330
	Med Trucks	10		Med Trucks	16		Med Trucks	14
	Hvy Trucks	10		Hvy Trucks	16		Hvy Trucks	14
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 2
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 2 B
Segment Description:	US 98 Seg 2 - US 98 from west of Wilds Rd to east of Grove Ridge RV Resort / US 98 Seg 2 BLD - US 98 from Clinton Ave to Old US 98		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	15,120	ADT: LOS (C)	15,120	ADT: LOS (C)	25,500
Demand	6,800	Demand	11,000	Demand	9,300
Posted Spd:	55 mph / 89 kmh	Posted Spd:	55 mph / 89 kmh	Posted Spd:	55 mph / 89 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.
T=	7.6 % Design hr	T=	7.6 % Design hr	T=	7.6 % Design hr
3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV
3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		Demand	No-Build (Design Year) Model:		Demand	Build (Design Year) Model:		Demand
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	720	Peak:	Autos	720	Peak:	Autos	1215
	Med Trucks	30		Med Trucks	30		Med Trucks	50
	Hvy Trucks	30		Hvy Trucks	30		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	537	Off Peak:	Autos	537	Off Peak:	Autos	906
	Med Trucks	22		Med Trucks	22		Med Trucks	37
	Hvy Trucks	22		Hvy Trucks	22		Hvy Trucks	37
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	324	Peak:	Autos	524	Peak:	Autos	443
	Med Trucks	13		Med Trucks	22		Med Trucks	18
	Hvy Trucks	13		Hvy Trucks	22		Hvy Trucks	18
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	242	Off Peak:	Autos	391	Off Peak:	Autos	330
	Med Trucks	10		Med Trucks	16		Med Trucks	14
	Hvy Trucks	10		Hvy Trucks	16		Hvy Trucks	14
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 3
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 3 B
Segment Description:	US 98 Seg 3 - US 98 from east of Grove Ridge RV Resort to west of Hemp Dr / US 98 Seg 3 BLD - US 98 from Old US 98 to west of Hemp Dr		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	11,520	ADT: LOS (C)	11,520	ADT: LOS (C)	25,500
Demand	6,800	Demand	11,000	Demand	10,500
Posted Spd:	55 mph / 89 kmh	Posted Spd:	55 mph / 89 kmh	Posted Spd:	55 mph / 89 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.
T=	7.6 % Design hr	T=	7.6 % Design hr	T=	7.6 % Design hr
3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV
3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		Demand	No-Build (Design Year) Model:		Demand	Build (Design Year) Model:		Demand
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	549	Peak:	Autos	549	Peak:	Autos	1215
	Med Trucks	23		Med Trucks	23		Med Trucks	50
	Hvy Trucks	23		Hvy Trucks	23		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	409	Off Peak:	Autos	409	Off Peak:	Autos	906
	Med Trucks	17		Med Trucks	17		Med Trucks	37
	Hvy Trucks	17		Hvy Trucks	17		Hvy Trucks	37
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	324	Peak:	Autos	524	Peak:	Autos	500
	Med Trucks	13		Med Trucks	22		Med Trucks	21
	Hvy Trucks	13		Hvy Trucks	22		Hvy Trucks	21
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	242	Off Peak:	Autos	391	Off Peak:	Autos	373
	Med Trucks	10		Med Trucks	16		Med Trucks	15
	Hvy Trucks	10		Hvy Trucks	16		Hvy Trucks	15
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 4
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 4
Segment Description:	US 98 Seg 4 - US 98 from west of Hemp Dr to east of Hemp Dr		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	15,120	ADT: LOS (C)	15,120	ADT: LOS (C)	34,000
Demand	6,800	Demand	11,000	Demand	10,500
Posted Spd:	60 mph / 97 kmh	Posted Spd:	60 mph / 97 kmh	Posted Spd:	60 mph / 97 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.
T=	7.6 % Design hr	T=	7.6 % Design hr	T=	7.6 % Design hr
3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV
3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		Demand	No-Build (Design Year) Model:		Demand	Build (Design Year) Model:		Demand
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	720	Peak:	Autos	720	Peak:	Autos	1620
	Med Trucks	30		Med Trucks	30		Med Trucks	67
	Hvy Trucks	30		Hvy Trucks	30		Hvy Trucks	67
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	537	Off Peak:	Autos	537	Off Peak:	Autos	1208
	Med Trucks	22		Med Trucks	22		Med Trucks	50
	Hvy Trucks	22		Hvy Trucks	22		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	324	Peak:	Autos	524	Peak:	Autos	500
	Med Trucks	13		Med Trucks	22		Med Trucks	21
	Hvy Trucks	13		Hvy Trucks	22		Hvy Trucks	21
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	242	Off Peak:	Autos	391	Off Peak:	Autos	373
	Med Trucks	10		Med Trucks	16		Med Trucks	15
	Hvy Trucks	10		Hvy Trucks	16		Hvy Trucks	15
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 5
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 5
Segment Description:	US 98 Seg 5 - US 98 from east of Hemp Dr to west of Old Lakeland Hwy Access Rd		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	11,520	ADT: LOS (C)	11,520	ADT: LOS (C)	25,500
Demand	6,800	Demand	11,000	Demand	10,500
Posted Spd:	60 mph	Posted Spd:	60 mph	Posted Spd:	60 mph
	97 kmh		97 kmh		97 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.	T=	15.2 % for 24 hrs.
T=	7.6 % Design hr	T=	7.6 % Design hr	T=	7.6 % Design hr
3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV	3.80	% Medium Trucks DHV
3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV	3.80	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		Demand	No-Build (Design Year) Model:		Demand	Build (Design Year) Model:		Demand
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	549	Peak:	Autos	549	Peak:	Autos	1215
	Med Trucks	23		Med Trucks	23		Med Trucks	50
	Hvy Trucks	23		Hvy Trucks	23		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	409	Off Peak:	Autos	409	Off Peak:	Autos	906
	Med Trucks	17		Med Trucks	17		Med Trucks	37
	Hvy Trucks	17		Hvy Trucks	17		Hvy Trucks	37
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	324	Peak:	Autos	524	Peak:	Autos	500
	Med Trucks	13		Med Trucks	22		Med Trucks	21
	Hvy Trucks	13		Hvy Trucks	22		Hvy Trucks	21
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	242	Off Peak:	Autos	391	Off Peak:	Autos	373
	Med Trucks	10		Med Trucks	16		Med Trucks	15
	Hvy Trucks	10		Hvy Trucks	16		Hvy Trucks	15
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 6
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 6
Segment Description:	US 98 Seg 6 - US 98 from west of Old Lakeland Hwy Access Rd to East of Old Lakeland Hwy Access Rd		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	14,400	ADT: LOS (C)	14,400	ADT: LOS (C)	34,000
Demand	6,800	Demand	14,500	Demand	14,500
Posted Spd:	60 mph	Posted Spd:	60 mph	Posted Spd:	60 mph
	97 kmh		97 kmh		97 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.
T=	11.9 % Design hr	T=	11.9 % Design hr	T=	11.9 % Design hr
5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV
5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		**Demand**	**No-Build (Design Year) Model:**		**LOS (C)**	**Build (Design Year) Model:**		**Demand**
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	654	Peak:	Autos	654	Peak:	Autos	1544
	Med Trucks	44		Med Trucks	44		Med Trucks	105
	Hvy Trucks	44		Hvy Trucks	44		Hvy Trucks	105
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	488	Off Peak:	Autos	488	Off Peak:	Autos	1151
	Med Trucks	33		Med Trucks	33		Med Trucks	78
	Hvy Trucks	33		Hvy Trucks	33		Hvy Trucks	78
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	309	Peak:	Autos	658	Peak:	Autos	658
	Med Trucks	21		Med Trucks	45		Med Trucks	45
	Hvy Trucks	21		Hvy Trucks	45		Hvy Trucks	45
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	230	Off Peak:	Autos	491	Off Peak:	Autos	491
	Med Trucks	16		Med Trucks	33		Med Trucks	33
	Hvy Trucks	16		Hvy Trucks	33		Hvy Trucks	33
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 7
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 7
Segment Description:	US 98 Seg 7 - US 98 Old Lakeland Hwy Overpass		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	11,520	ADT: LOS (C)	11,520	ADT: LOS (C)	25,500
Demand	4,500	Demand	14,500	Demand	14,500
Posted Spd:	60 mph	Posted Spd:	60 mph	Posted Spd:	60 mph
	97 kmh		97 kmh		97 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.
T=	11.9 % Design hr	T=	11.9 % Design hr	T=	11.9 % Design hr
5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV
5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		**Demand**	**No-Build (Design Year) Model:**		**LOS (C)**	**Build (Design Year) Model:**		**Demand**
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	523	Peak:	Autos	523	Peak:	Autos	1158
	Med Trucks	35		Med Trucks	35		Med Trucks	78
	Hvy Trucks	35		Hvy Trucks	35		Hvy Trucks	78
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	390	Off Peak:	Autos	390	Off Peak:	Autos	863
	Med Trucks	26		Med Trucks	26		Med Trucks	58
	Hvy Trucks	26		Hvy Trucks	26		Hvy Trucks	58
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	204	Peak:	Autos	658	Peak:	Autos	658
	Med Trucks	14		Med Trucks	45		Med Trucks	45
	Hvy Trucks	14		Hvy Trucks	45		Hvy Trucks	45
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	152	Off Peak:	Autos	491	Off Peak:	Autos	491
	Med Trucks	10		Med Trucks	33		Med Trucks	33
	Hvy Trucks	10		Hvy Trucks	33		Hvy Trucks	33
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 8
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 8
Segment Description:	US 98 Seg 8 - US 98 from east of Old Lakeland Hwy to west of Citrus Hill RV Resort		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	10,320	ADT: LOS (C)	10,320	ADT: LOS (C)	21,975
Demand	4,500	Demand	16,000	Demand	16,000
Posted Spd:	60 mph	Posted Spd:	60 mph	Posted Spd:	60 mph
	97 kmh		97 kmh		97 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.
T=	11.9 % Design hr	T=	11.9 % Design hr	T=	11.9 % Design hr
5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV
5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		**Demand**	**No-Build (Design Year) Model:**		**LOS (C)**	**Build (Design Year) Model:**		**Demand**
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	469	Peak:	Autos	469	Peak:	Autos	998
	Med Trucks	32		Med Trucks	32		Med Trucks	68
	Hvy Trucks	32		Hvy Trucks	32		Hvy Trucks	68
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	349	Off Peak:	Autos	349	Off Peak:	Autos	744
	Med Trucks	24		Med Trucks	24		Med Trucks	50
	Hvy Trucks	24		Hvy Trucks	24		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	204	Peak:	Autos	726	Peak:	Autos	726
	Med Trucks	14		Med Trucks	49		Med Trucks	49
	Hvy Trucks	14		Hvy Trucks	49		Hvy Trucks	49
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	152	Off Peak:	Autos	542	Off Peak:	Autos	542
	Med Trucks	10		Med Trucks	37		Med Trucks	37
	Hvy Trucks	10		Hvy Trucks	37		Hvy Trucks	37
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 9
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 9
Segment Description:	US 98 Seg 9 - US 98 from west of Citrus Hill RV Resort to East of Cirtus Hill RV Resort		

(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.

Existing		NB_2045		BLD_2045	
Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	4
Year:	2019	Year:	2045	Year:	2045
ADT: LOS (C)	14,190	ADT: LOS (C)	13,545	ADT: LOS (C)	30,765
Demand	4,500	Demand	16,000	Demand	16,000
Posted Spd:	60 mph	Posted Spd:	60 mph	Posted Spd:	60 mph
	97 kmh		97 kmh		97 kmh
K=	9.0 %	K=	9.0 %	K=	9.0 %
D=	57.3 %	D=	57.3 %	D=	57.3 %
T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.	T=	23.9 % for 24 hrs.
T=	11.9 % Design hr	T=	11.9 % Design hr	T=	11.9 % Design hr
5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV	5.97	% Medium Trucks DHV
5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV	5.97	% Heavy Trucks DHV
0.00	% Buses DHV	0.00	% Buses DHV	0.00	% Buses DHV
0.00	% Motorcycles DHV	0.00	% Motorcycles DHV	0.00	% Motorcycles DHV

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		**Demand**	**No-Build (Design Year) Model:**		**LOS (C)**	**Build (Design Year) Model:**		**Demand**
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	644	Peak:	Autos	615	Peak:	Autos	1397
	Med Trucks	44		Med Trucks	42		Med Trucks	95
	Hvy Trucks	44		Hvy Trucks	42		Hvy Trucks	95
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	480	Off Peak:	Autos	459	Off Peak:	Autos	1042
	Med Trucks	33		Med Trucks	31		Med Trucks	71
	Hvy Trucks	33		Hvy Trucks	31		Hvy Trucks	71
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	204	Peak:	Autos	726	Peak:	Autos	726
	Med Trucks	14		Med Trucks	49		Med Trucks	49
	Hvy Trucks	14		Hvy Trucks	49		Hvy Trucks	49
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	152	Off Peak:	Autos	542	Off Peak:	Autos	542
	Med Trucks	10		Med Trucks	37		Med Trucks	37
	Hvy Trucks	10		Hvy Trucks	37		Hvy Trucks	37
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

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

DISTRICT 7 PD&E
TRAFFIC DATA FOR NOISE STUDIES

Project:	US 98 PD&E Study	Date:	9/13/2021
State Project Number(s):		Prepared By:	Sean McNulty
Work Program Number(s):	N/A	No Build Sheet	US 98 Seg 10
Federal Aid Number(s):	N/A	Build Sheet	US 98 Seg 10
Segment Description:	US 98 Seg 10 - US 98 from east of Citrus Hill RV Resort to CR 54		

(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.

Existing			NB_2045			BLD_2045		
Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	4	
Year:	2019		Year:	2045		Year:	2045	
ADT: LOS (C)	10,320		ADT: LOS (C)	10,320		ADT: LOS (C)	21,975	
Demand	4,400		Demand	16,000		Demand	16,000	
Posted Spd:	60	mph	Posted Spd:	60	mph	Posted Spd:	60	mph
	97	kmh		97	kmh		97	kmh
K=	9.0	%	K=	9.0	%	K=	9.0	%
D=	57.3	%	D=	57.3	%	D=	57.3	%
T=	23.5	% for 24 hrs.	T=	23.5	% for 24 hrs.	T=	23.5	% for 24 hrs.
T=	11.8	% Design hr	T=	11.8	% Design hr	T=	11.8	% Design hr
5.88	% Medium Trucks DHV		5.88	% Medium Trucks DHV		5.88	% Medium Trucks DHV	
5.88	% Heavy Trucks DHV		5.88	% Heavy Trucks DHV		5.88	% Heavy Trucks DHV	
0.00	% Buses DHV		0.00	% Buses DHV		0.00	% Buses DHV	
0.00	% Motorcycles DHV		0.00	% Motorcycles DHV		0.00	% Motorcycles DHV	

TNM INPUT

The following are spreadsheet calculations based on the input above - do not enter data below this line

Existing Facility Model:		**Demand**	**No-Build (Design Year) Model:**		**LOS (C)**	**Build (Design Year) Model:**		**Demand**
LOS (C)			LOS (C)			LOS (C)		
Peak:	Autos	470	Peak:	Autos	470	Peak:	Autos	1000
	Med Trucks	31		Med Trucks	31		Med Trucks	67
	Hvy Trucks	31		Hvy Trucks	31		Hvy Trucks	67
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	350	Off Peak:	Autos	350	Off Peak:	Autos	746
	Med Trucks	23		Med Trucks	23		Med Trucks	50
	Hvy Trucks	23		Hvy Trucks	23		Hvy Trucks	50
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Demand			Demand			Demand		
Peak:	Autos	200	Peak:	Autos	728	Peak:	Autos	728
	Med Trucks	13		Med Trucks	48		Med Trucks	48
	Hvy Trucks	13		Hvy Trucks	48		Hvy Trucks	48
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0
Off Peak:	Autos	149	Off Peak:	Autos	543	Off Peak:	Autos	543
	Med Trucks	10		Med Trucks	36		Med Trucks	36
	Hvy Trucks	10		Hvy Trucks	36		Hvy Trucks	36
	Buses	0		Buses	0		Buses	0
	Motorcycles	0		Motorcycles	0		Motorcycles	0

APPENDIX B

Receptor Aerials

MATCHLINE - 929+50.00

MATCHLINE - 959+42.00

POLK COUNTY

PASCO COUNTY

COUNTY LINE

EXISTING RW

0 50 200

Feet

EXISTING RW

MATCH PROPOSED TYPICAL SECTION

FPID: 436673-1-22-01

CELL TOWER

BILL BOARD

POLK COUNTY SIGN

C.R. 54

PROPOSED RW

EXISTING RW

930 935 940 945 950 955

98

HISTORIC MARKER

PROPOSED SIGNAL

TRANSMISSION GUY

TRANSMISSION POLE

EXISTING RW

POLK COUNTY

PASCO COUNTY

COUNTY LINE

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

PASCO COUNTY, FLORIDA

FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 1

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 2

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 3

MATCHLINE - 1019+42.00

MATCHLINE - 1049+42.00

SWFWMD

SWFWMD

EXISTING RW

1020 1025 1030 1035 1040 1045

98

EXISTING RW

SKINNER FAMILY HIGHWAY 98 LLC

SWFWMD

SWFWMD GREEN SWAMP CONSERVATION EASEMENTS

1-1 Noise Sensitive Receptor

0 50 200

Feet

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

PASCO COUNTY, FLORIDA

FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 4

MATCHLINE - 1049+42.00

MATCHLINE - 1079+42.00

SWFWMD

EXISTING RW

1050 1055 1060 1065 1070 1075

98

EXISTING RW

SKINNER FAMILY HIGHWAY 98 LLC

SWFWMD GREEN SWAMP CONSERVATION EASEMENTS

1-1 Noise Sensitive Receptor

0 50 200
Feet

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 5

CELL TOWER

3-1

SWFWMD

EXISTING RW

0 50 200
Feet

MATCHLINE - 1079+42.00

1080 1085 1090 1095 98 1100 1105

N 57° 43' 07" W

MATCHLINE - 1109+42.00

EXISTING RW

BOARSHEAD RANCH

SWFWMD GREEN SWAMP CONSERVATION EASEMENTS

1-1 Noise Sensitive Receptor

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

PASCO COUNTY, FLORIDA

FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 6

MATCHLINE - SHEET 7A

SMF
300-1

SWFWMD

TARA OAKS
PLANTATION

ST ANTON HALL DRIVE

0 50 200
Feet

EXISTING RW

CATTLE PASS
TO BE REMOVED

1110 1115 1120 1125 1130 1135

98

EXISTING RW

BOARSHEAD RANCH

SWFWMD GREEN SWAMP CONSERVATION EASEMENTS

BOARSHEAD RANCH

1-1 Noise Sensitive Receptor

MATCHLINE - 1109+42.00

MATCHLINE - 1139+42.00

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 7

MATCHLINE - SHEET 7

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 7A

MATCHLINE - 1139+42.00

MATCHLINE - 1167+42.00

CITRUS HILL RV RESORT

0 50 200 Feet

EXISTING RW

TEMPORARY CONSTRUCTION EASEMENT

1140 1145 1150 1155 1160 1165

98

EXISTING RW

BOARSHEAD RANCH

FPC 300-NORTH-01

4-1 4-2 4-3 4-4 4-5 4-6 4-7 4-8 4-9 4-10 4-11 4-12 4-13 4-14 4-15 4-16 4-17 4-18 4-19 4-20 4-21 4-22 4-23 5-1 6-1 6-2 7-1

1-1 Noise Sensitive Receptor

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 8

MATCHLINE – 1167+42.00

MATCHLINE – 1197+42.00

JANMAR RD

TEMPORARY CONSTRUCTION EASEMENT

EXISTING RW

1170 1175 1180 1185 1190 1195

98

EXISTING RW

JANMAR RD

SMF 400-1

0 50 200

Feet

FPID# 44368-3

FPID# 44368-4

1-1 Noise Sensitive Receptor

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

PASCO COUNTY, FLORIDA

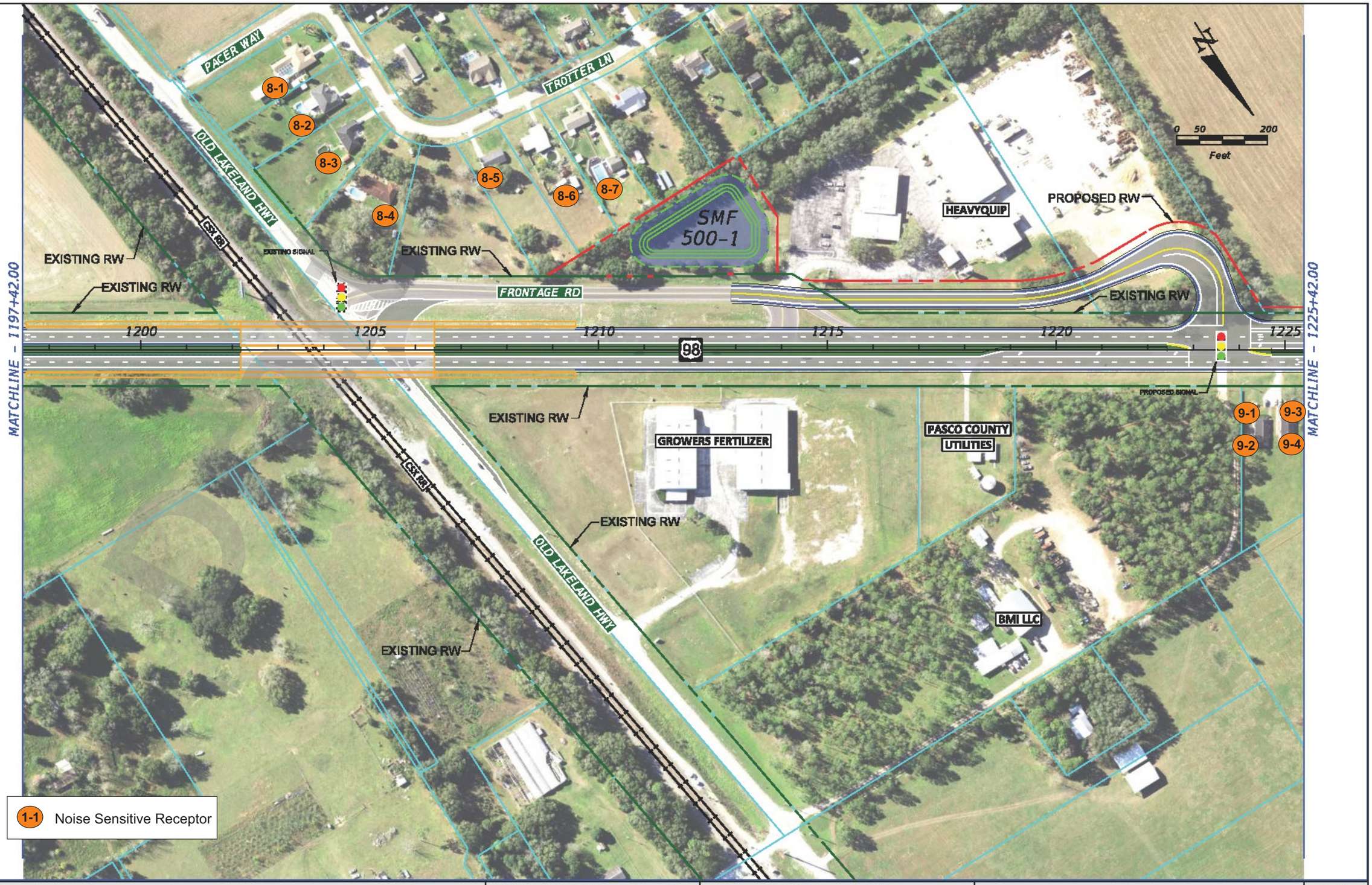
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 9



LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 10

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 11

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 12

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 13

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY

PASCO COUNTY, FLORIDA

FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 14

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 15

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 16

MATCHLINE - 1382+50.00

US 301

PRC STA. 1384+51.46

PI STA. 1385+96.03

EXISTING RW

CLINTON AVE

PROPOSED 10' SHARED USE PATH

1385

1390

98

PT STA. 1394+93.79

SUNTRUST

CIRCLE K

WITHLACOOCHEE STATE TRAIL

FUTURE

52

CLINTON AVE

N

0 50 200

Feet

PT STA. 1383+07.36

PROPOSED 6' SIDEWALK

PROPOSED RW

PT STA. 1387+40.13

PROPOSED 6' SIDEWALK

BURGER KING

EXISTING SIGNAL

WITHLACOOCHEE STATE TRAIL

PUBLIX

US 301

PERFECTION PARTNERS

1-1 Noise Sensitive Receptor

LEGEND

- Existing Right-of-Way
- Parcels
- Proposed Right-of-Way
- CSX Railroad
- Curb and Gutter
- Bridge
- Roadway Pavement
- Traffic Separator
- Pavement Removal
- Concrete Sidewalk
- Shared Use Path
- Road Labels
- Property Labels
- 98 US 98
- Grass
- Proposed SMF Site
- Proposed FPC Site

US 98 FROM POLK COUNTY LINE TO US 301

PROJECT DEVELOPMENT AND ENVIRONMENT (PD&E) STUDY
PASCO COUNTY, FLORIDA
FPID: 443368-1-22-01

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR35 / SR700	PASCO	443368-2-22-01

PREFERRED ALTERNATIVE CONCEPT PLAN SHEET

SHEET NO. 17

APPENDIX C

Validation and Ambient Levels Documentation

NOISE MEASUREMENT DATA SHEET (Validation Site 1/Ambient Levels Site 1)

Measurements Taken By: Wayne Arner and Evan Howard Date: 8/31/2021
Time Study Started: 9:40 am Time Study Ended: 10:20 am
Project Identification:
Financial Project ID: 443368-2
Project Location: US 98 from Polk County Line to US 301, Pasco County

Site Identification: Clinton Avenue

Validation Runs 1 - 3

Weather Conditions:
Sky: Clear X Partly Cloudy Cloudy Other
Temperature 85.4F Wind Speed 1.5 mph Wind Direction N Humidity 80%
Equipment:
Sound Level Meter:
Type: Larson Davis LxT & 831 Serial Number(s): 1843
Did you check the battery? Yes X No
Calibration Readings: Start 114.0 End 113.9
Response Settings: Fast Slow X
Weighting: A X Other
Calibrator:
Type: Larson Davis CAL 200 Serial Number: 14375
Did you check the battery? Yes X No

TRAFFIC DATA

Roadway Identification	Clinton Ave Eastbound		Clinton Ave Westbound	
Vehicle Type	Volume (veh/hr)	Speed (mph)	Volume (veh/hr)	Speed (mph)
Autos	30-48-54	49-n/a-49	66-48-102	52-54-45
Medium Trucks	6-6-0	n/a-n/a-49	0-0-0	n/a-n/a-n/a
Heavy Trucks	12-6-16	47-50-40	0-12-18	n/a-n/a-49
Duration	10 minute runs × 3		10 minute runs × 3	

RESULTS [dB(A)]

L_{EQ} 56.7/56.3/59.7 (LD 831); 57.3/55.5/58.9 (LD LxT)

Background Noise: birds, insects, low volume construction across street. Distant flyovers
Major Sources: Construction activity busy in afternoon. No PM measurements.
Unusual Events:

KB Environmental Sciences

NOISE MEASUREMENT DATA SHEET (Ambient)

Measurements Taken By: Wayne Arner and Evan Howard Date: 8/31/2021
Time Study Started: 10:35 Time Study Ended: 12:07
Project Identification:
Financial Project ID: 443368-2
Project Location: US 98 from Polk County Line to US 301, Pasco County

Site Identification: Ambient Site #1 – Wild Road
A.M. measurements

Weather Conditions:
Sky: Clear X Partly Cloudy Cloudy Other
Temperature 88F Wind Speed 1.5 mph Wind Direction N Humidity 59%
Equipment:
Sound Level Meter:
Type: Larson Davis LxT/831 Serial Number(s): 1843/1785
Did you check the battery? Yes X No
Calibration Readings: Start 114.0/114.0 End 114.0/114.1
Response Settings: Fast Slow X
Weighting: A X Other
Calibrator:
Type: Larson Davis CAL 200 Serial Number: 5592
Did you check the battery? Yes X No

TRAFFIC DATA

Roadway Identification				
Vehicle Type	Volume (veh/hr)	Speed (mph)	Volume (veh/hr)	Speed (mph)
Autos				
Medium Trucks				
Heavy Trucks				
Buses				
Motorcycles				
Duration				

RESULTS [dB(A)]

L_{EQ} 53.6/49.0/50.8 (831); 51.7/48.5/50.2 (LxT)

Background Noise: Distant flyovers, distant traffic noise from US 98?

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NOISE MEASUREMENT DATA SHEET (Validation)

Measurements Taken By: Wayne Arner and Evan Howard Date: 8/31/2021
Time Study Started: 12:35 Time Study Ended: 1:30
Project Identification:
Financial Project ID: 443368-2
Project Location: US 98 from Polk County Line to US 301, Pasco County

Site Identification: Validation Site 2 – US 98

Weather Conditions:
Sky: Clear X Partly Cloudy Cloudy Other
Temperature 91.5F Wind Speed 3.5 mph Wind Direction N Humidity 69%
Equipment:
Sound Level Meter:
Type: Larson Davis 831/LxT Serial Number(s): 1285/1843
Did you check the battery? Yes X No
Calibration Readings: Start 114.0/113.9 End 114.0/114.1
Response Settings: Fast Slow X
Weighting: A X Other
Calibrator:
Type: Larson Davis CAL 200 Serial Number: 5592
Did you check the battery? Yes X No

TRAFFIC DATA

Roadway Identification	US 98 Eastbound		US 98 Westbound	
Vehicle Type	Volume (veh/hr)	Speed (mph)	Volume (veh/hr)	Speed (mph)
Autos	120-126-108	57-61-59	78-72-186	49-55-57
Medium Trucks	6-6-6	n/a-33-62	12-0-6	49-n/a-n/a
Heavy Trucks	36-30-12	60-60-58	6-6-12	48-55-46
Duration	10 minute runs × 3		10 minute runs × 3	

RESULTS [dB(A)]

L_{EQ} 57.8/56.7/56.5 (831); 60.5/60.1/59.5 (LxT)

Background Noise: cicadas, birds, distant flyovers, intermittent flow, truck pulled off roads near meters.

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