# FINAL NOISE STUDY REPORT 

PROJECT DEVELOPMENT AND ENVIRONMENT STUDY US 19 (SR 55)<br>FROM SOUTH OF US 98 TO CR 488<br>CITRUS COUNTY, FLORIDA

Work Program Item Segment No: 4058221
Federal-Aid Project No: 1852007 P

The proposed project involves improving US 19 (SR 55) to a six-lane divided facility from US 98 to Turkey Oak Drive, and improvements to the CR 488 intersection in Citrus County. The total length of the project is approximately 18.8 miles.


Prepared for:
Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456

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May 2004

## EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) conducted a Project Development and Environment (PD\&E) Study for improvement alternatives along US 19 (SR 55) from south of US 98 (milepost 1.730) to North Dunnellon Road (CR 488) (milepost 20.742) in Citrus County, Florida. The project is approximately 18.8 miles in length. The project location map (Figure 1-1) illustrates the location and limits of the PD\&E Study.

This Noise Study Report documented the effect of the proposed project on traffic noise levels. Specifically, the study evaluated the traffic noise levels at the sensitive sites, documented predicted noise levels at sensitive sites, and addressed noise abatement considerations. The study was prepared in accordance with Title 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise using methodology established by the FDOT in the PD\&E Manual, Part 2, Chapter 17 (November, 2001).

For the Build Alternative, 33 residences and 2 outdoor recreation areas (a congregational area for the Sugarmill Manor and Bicentennial Park) were predicted to experience noise levels that approach or exceed the Noise Abatement Criteria (NAC). Noise abatement measures were evaluated for these sites. An evaluation of traffic system management techniques, alignment modifications and property acquisition indicated that these abatement measures were not feasible or cost reasonable. Land use controls can be used by local planning officials to minimize development or redevelopment of noise sensitive land uses in proximity to US 19. A copy of the final Noise Study Report will be furnished to local officials to assist them in the development of compatible land uses for future development.

A noise barrier evaluation was also performed. Within the project limits, US 19 is characterized by numerous access drives and intersecting side streets. Access
requirements for driveways and intersecting streets limit the length of a noise barrier. Consequently, noise barriers could not provide the minimum 5 dBA reduction at some locations. At other locations, a 5 dBA reduction could be achieved, but the number of benefited residences was small because of the gaps in the barriers needed to accommodate access to US 19. Because of the small number of benefited residences, noise barriers were not cost reasonable at locations where a 5 dBA could be achieved. Based on the noise barrier evaluation at representative areas, noise barriers were determined to not be a feasible and cost reasonable abatement measure for the 33 residences and 2 outdoor recreation areas (congregational area for the Sugarmill Manor and Bicentennial Park) with predicted noise levels that approach or exceed the NAC.

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## SECTION 1

## INTRODUCTION

The FDOT conducted a PD\&E Study for improvement alternatives along US 19 (SR 55) from south of US 98 (milepost 1.730) to North Dunnellon Road (CR 488) (milepost 20.742) in Citrus County, Florida. The project location map (Figure 1-1) illustrates the location and limits of the PD\&E Study.

This Noise Study Report documented the effect of the proposed project on traffic noise levels. Specifically, the study evaluated the traffic noise levels at the sensitive sites, documented predicted noise levels at sensitive sites, and addressed noise abatement considerations.

### 1.1 PURPOSE

The purpose of the PD\&E Study was to provide documented environmental and engineering analyses to assist the FDOT and the Federal Highway Administration (FHWA) in reaching a decision on the type, location and conceptual design of the necessary improvements, in order to accommodate future traffic demand in a safe and efficient manner. The PD\&E Study also satisfied the requirements of the National Environmental Policy Act (NEPA) and other Federal requirements in order to qualify the project for federal-aid funding of future development phases of the project.

This Study documents the need for the improvements, and presents the procedures utilized to develop and evaluate various improvement alternatives. Information relating to the engineering and environmental characteristics essential for alternatives and analytical decisions were collected. Design criteria have been established and preliminary alternatives have been developed. The comparison of alternatives was based on a variety of parameters utilizing a matrix format. This process identified the alternative that would have minimal impacts, while providing the necessary improvements. The design year for the analysis is 2025.

Figure 1-1
Project Location Map


### 1.2 PROJECT DESCRIPTION

The PD\&E Study limits encompass the portion of US 19 from south of US 98 to North Dunnellon Road (CR 488) in western Citrus County (Sections 1, 12, 13, 24, and 25 of Township 20 South, Range 17 East; Sections 3, 10, 15, 22, 26, 27, 34, and 35 of Township 19 South, Range 17 East; Sections 5, 6, 8, 17, 20, 21, 22, 27, 28, and 34 of Township 18 South, Range 17 East; Sections 30 and 31 of Township 17 South, Range 17 East; and Section 25 of Township 17 South, Range 16 East). The total length of the Study is approximately 18.8 miles (mi). US 19 is primarily a north/south rural principal arterial which follows the West Coast of Florida. Within the project limits, US 19 is part of the National Highway System (NHS) and the Florida Intrastate Highway System (FIHS). The facility serves as a major evacuation route for residents in Citrus County.

For the purposes of evaluating improvement alternatives, the project was divided into six segments based on the existing and future land use, projected traffic volumes for the design year 2025, existing typical sections and available existing ROW. The project segments are as follows:

Segment 1: South of US 98 to West Green Acres Street; 4.86 mi
Segment 2: West Green Acres Street to West Jump Court; 2.07 mi
Segment 3: West Jump Court to West Fort Island Trail (CR 44); 4.65 mi
Segment 4: West Fort Island Trail (CR 44) to NE 1st Terrace; 0.86 mi
Segment 5: NE 1st Terrace to Turkey Oak Drive; 2.05 mi
Segment 6: Turkey Oak Drive to North Dunnellon Road (CR 488); 4.31 mi

### 1.3 NEED FOR IMPROVEMENT

### 1.3.1 Background

The need for improvement along the proposed project was established based on the evaluation of the following:

- Current quality of traffic operations in the study area;
- The expected future quality of traffic operations along US 19 under the No-Build Alternative;
- Traffic safety statistics for the period between 1995 and 1999;
- Consistency with local government comprehensive plans; and
- The projected socioeconomic growth within the study corridor.


### 1.3.2 Existing Conditions

The US 19 Study corridor is functionally classified as a rural principal arterial from south of US 98 to North Dunnellon Road (CR 488). The nine existing typical sections found within all six of the project segments are shown in Figures 1-2 through 1-10.

### 1.3.3 Proposed Improvements

Improvements considered as part of this PD\&E Study included widening US 19 from a 4, 5, and 7-lane roadway to a 6-lane divided roadway along the majority of the corridor to improve capacity, meet level of service standards, and improve safety. The roadway is currently and will remain a controlled access facility. However, the level of access control will be improved in Homosassa and Crystal River to incorporate a raised restricted median where none exists today. All signalized intersections along with CR 488 will be improved. In addition to pedestrian signals and crosswalks at each signalized intersection, a pedestrian overpass is proposed for the Crystal River bike path and over US 19 just south of US 98. The recommended typical sections for all six of the project segments are shown in Figures 1-11 through 1-16. Refer to the Final Preliminary Engineering Report for more detailed information.


SOUTH OF US 98 TO WEST GREEN ACRES STREET (SEGMENT 1)

US 19 (SR 55)


PDEE STUDY
From South of US 98 to CR 488
Citrus County, Florida
EXIISTILE TYPICAL SECTIOW WPI SEG NO: 4058221
FAP: 1852007 P


WEST GREEN ACRES STREET TO WEST YULEE DRIVE (CR 490) (PORTION OF SEGMENT 2)


US 19 (SR 55)
PDEE STUDY
From South of US 98 to CR 488
Citrus County, Florida
EXISTIUQ TYPICAL EECTLON WPI SEG NO: 4058221

FIGURE 1-3

## EXISTING TYPICAL SECTION



WEST YULEE DRIVE (CR 490) TO WEST ELKHORN DRIVE (PORTION OF SEGMENT 2)


US 19 (ER 55)

## PD\&E STUDY

From South of US 98 to CR 488 Citrus County, Florida
EXISTILC TVPICAL SECTION WPI SEG NO: 4058221
FAP: 1852007 P

## EXISTING TYPICAL SECTION



U8 19 (SR 55)
PD\& ETUDY
From South of US 98 to CR 488 Citrus County, Florida

EXIISTING TVPICAL SECTION WPI SEG NO: 4058221
FAP. 1852007 P


WEST JUMP COURT TO WEST FORT ISLAND TRAIL (CR 44) (SEGMENT 3)


US 19 (SR 55)
PDEE STUDY
From South of US 98 to CR 488

EXISTLUQ TYPICAL SECTION WPI ISEGNO:405822
FAP: 1852007 P

## EXISTING TYPICAL SECTION



WEST FORT ISLAND TRAIL (CR 44) TO NE 1ST TERRACE (SEGMENT 4)

US 19 (SR 55)


PD\&E STUDY
From South of US 98 to CR 488
Citrus County, Florida
EXISTIUQ TYPICAL SECTION wp SEE NO:400522 1 WPI SEG NO: 405
FAP: 1852007 P

## EXISTING TYPICAL SECTION



NE 1ST TERRACE TO SR 44 (PORTION OF SEGMENT 5)

US 19 (SR 55)


## EXISTING TYPICAL SECTION



SR 44 TO CRYSTAL RIVER MALL (STA. 865+00) (PORTION OF SEGMENT 5)




US 19 (SR 55) PDEE STUDY


Citrus County, Florida
EXISTIUC TVPICAL SECTIOW


## LEGEND

||IIIIT/ Proposed Widening \$1M1/V Asphalt Overbuild
Existing Pavement

US 19 ( 8 R 55) PDEE STUDY
From South of US 98 to CR 488 Citrus County, Florida

## RECOMMENDED TYPICAL SECTION






US 19 (8R 55) PD\&E STUDV
From South of US 98 to CR 488 Citrus County, Florida



US 19 (8R 55) PD\&E STUDY
From South of US 98 to CR 488 Citrus County, Florida
RECONUKENDED TYPICAL SECTION WPI SEG NO: 4058221

## RECOMMENDED TYPICAL SECTION



SEGMENT 4
WEST FORT ISLAND TRAIL (CR 44) TO NE 1ST TERRACE DESIGN SPEED 40 MPH


US 19 (8n 55)

From South of US 98 to CR 488 Citrus County, Florida
RECORNTENDED TYPICAL EECTION

*Border width varies to accommodate gravity wall.


US 19 (8R 55) PDEE STUDY
From South of US 98 to CR 488 Citrus County, Florida
RECOWNUEUDED TYPICAL SECTION

## SECTION 2 METHODOLOGY

### 2.1 EVALUATION PROCESS

The study was prepared in accordance with Title 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise ${ }^{1}$ using methodology established by the Florida Department of Transportation (FDOT) in the PD\&E Manual ${ }^{2}$, Part 2, Chapter 17 (November, 2001). Predicted noise levels were produced using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM), version 2.1.

### 2.2 NOISE METRICS

All measured and predicted noise levels are expressed in decibels (dB) using an "A"scale (dBA) weighting. This scale most closely approximates the response characteristics of the human ear. All noise levels are reported as hourly equivalent noise levels ( $\mathrm{L}_{\text {Aequh }}$ ). The $L_{\text {Aeq1h }}$ is defined as the equivalent steady-state sound level that, in a given hourly period, contains the same acoustic energy as the time-varying sound for the same hourly period.

### 2.3 TRAFFIC DATA

Traffic noise is heavily dependent on traffic speed with the amount of noise generated by traffic increasing as the vehicle speed increases. Traffic data for existing and year 2025 conditions with the improvements were reviewed to determine traffic volumes that would allow traffic to flow at speeds consistent with established speed limits. To simulate high speed traffic flow, and thus "worst-case" noise conditions, level of service (LOS) C or demand traffic volumes, whichever is less, was modeled. Similarly, the "without Suncoast Parkway Phase 2" traffic scenario was chosen over the "with Suncoast Parkway Phase 2" scenario to simulate a "worst-case" noise condition.

The traffic data sheets prepared for this study are included in Appendix A. In addition, traffic data for the Existing, 2025 No-Build and Build conditions are summarized in Tables 2-1 through 2-3. The factor used to reduce the average daily traffic volumes to hourly volumes and the truck factors used to divide hourly volumes between cars, medium trucks and heavy trucks are also provided in Tables 2-1 through 2-3. The modeled hourly vehicle volumes by vehicle type and lane are provided in Appendix A. The vehicle speeds are based on posted speed limits.

Table 2-1
Traffic Volumes for the Existing Condition

| Mainline Traffic Segment | Existing Condition |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | LOS C <br> (Hourly Volumes) |  | Demand(Hourly Volumes) |  | Posted Speed (mph) |
|  | Peak | Off-Peak | Peak | Off-Peak |  |
| US 19 south of US 98 | 2,457 | 2,084 | 674 | 572 | 60 |
| US 19 between US 98 and W. Cardinal Street | 2,457 | 2,084 | 1,031 | 875 | 60 |
| US 19 between W. Cardinal Street and W. Yulee Drive | 2,457 | 2,084 | 1,474 | 1,251 | 55 |
| US 19 between W. Yulee Drive and CR 490A | 1,720 | 1,459 | 1,777 | 1,507 | 45 |
| US 19 between CR 490A and CR 490 | 1,720 | 1,459 | 1,668 | 1,415 | 45 |
| US 19 between CR 490 and CR 494 | 2,457 | 2,084 | 1,560 | 1,323 | 45 |
| US 19 between CR 494 and W. Venable Street | 2,457 | 2,084 | 1,600 | 1,357 | 55 |
| US 19 between W. Venable Street and Crystal River Plaza | 2,457 | 2,084 | 1,645 | 1,396 | 55 |
| US 19 between Crystal River Plaza and CR 44 | 2,457 | 2,084 | 1,720 | 1,459 | 45 |
| US 19 between CR 44 and SE Kings Bay Drive | 2,588 | 2,196 | 1,691 | 1,435 | 45 |
| US 19 between SE Kings Bay Drive and SR 44 | 2,588 | 2,196 | 1,840 | 1,561 | 45 |
| US 19 between SR 44 and NE 3rd Avenue | 1,720 | 1,459 | 1,685 | 1,430 | 40 |
| US 19 between NE 3rd Avenue and CR 495 | 1,720 | 1,459 | 1,622 | 1,377 | 40 |
| US 19 between CR 495 and NW 6th Avenue | 1,720 | 1,459 | 1,251 | 1,062 | 45 |
| US 19 between NW 6th Avenue and the Crystal River Mall | 1,720 | 1,459 | 1,120 | 950 | 45 |
| US 19 between the Crystal River Mall and Turkey Oak Dr./NW 19 ${ }^{\text {th }}$ Street | 1,720 | 1,459 | 990 | 838 | 45 |
| US 19 between Turkey Oak Dr./NW 19 ${ }^{\text {th }}$ Street and Seven Rivers Community Hospital | 2,457 | 2,084 | 880 | 748 | 45 |
| US 19 between Seven Rivers Community Hospital and West Power Line Street | 2,457 | 2,084 | 720 | 610 | 55 |
| US 19 between West Power Line Street and CR 488 | 2,457 | 2,084 | 634 | 538 | 60 |
| US 19 north of CR 488 | 2,457 | 2,084 | 560 | 474 | 60 |

Notes: A factor of 10.56 percent was used to reduce daily volumes to hourly volumes.
A truck factor of 1 percent was used for medium trucks and 5 or $6 \%$ was used for heavy trucks.
Gray shading denotes volumes used in noise analysis (traffic segments without shading denote volumes that were not used in the analysis because they were not adjacent to noise sensitive sites).

Table 2-2
Traffic Volumes for the No-Build Condition

| Mainline Traffic Segment | (Design Year 2025) No-Build Condition |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | LOS C(Hourly Volumes) |  | Demand(Hourly Volumes) |  | Posted Speed (mph) |
|  | Peak | Off-Peak | Peak | Off-Peak |  |
| US 19 south of US 98 | 2,457 | 2,084 | 1,012 | 858 | 60 |
| US 19 between US 98 and W. Cardinal Street | 2,457 | 2,084 | 1,900 | 1,612 | 60 |
| US 19 between W. Cardinal Street and W. Yulee Drive | 2,457 | 2,084 | 2,479 | 2,104 | 55 |
| US 19 between W. Yulee Drive and CR 490A | 1,720 | 1,459 | 2,582 | 2,191 | 45 |
| US 19 between CR 490A and CR 490 | 1,720 | 1,459 | 2,422 | 2,055 | 45 |
| US 19 between CR 490 and CR 494 | 2,457 | 2,084 | 2,142 | 1,818 | 45 |
| US 19 between CR 494 and W. Venable Street | 2,457 | 2,084 | 2,217 | 1,881 | 55 |
| US 19 between W. Venable Street and Crystal River Plaza | 2,457 | 2,084 | 2,285 | 1,939 | 55 |
| US 19 between Crystal River Plaza and CR 44 | 2,457 | 2,084 | 2,374 | 2,014 | 45 |
| US 19 between CR 44 and SE Kings Bay Drive | 2,588 | 2,196 | 2,348 | 1,992 | 45 |
| US 19 between SE Kings Bay Drive and SR 44 | 2,588 | 2,196 | 2,348 | 1,992 | 45 |
| US 19 between SR 44 and NE 3rd Avenue | 1,720 | 1,459 | 2,514 | 2,133 | 40 |
| US 19 between NE 3rd Avenue and CR 495 | 1,720 | 1,459 | 2,365 | 2,007 | 40 |
| US 19 between CR 495 and NW 6th Avenue | 1,720 | 1,459 | 1,971 | 1,672 | 45 |
| US 19 between NW 6th Avenue and the Crystal River Mall | 1,720 | 1,459 | 1,508 | 1,280 | 45 |
| US 19 between the Crystal River Mall and Turkey Oak Dr./NW 19 ${ }^{\text {th }}$ Street | 1,720 | 1,459 | 1,640 | 1,392 | 45 |
| US 19 between Turkey Oak Dr./NW 19 ${ }^{\text {th }}$ Street and Seven Rivers Community Hospital | 2,547 | 2,084 | 1,532 | 1,298 | 45 |
| US 19 between Seven Rivers Community Hospital and West Power Line Street | 2,547 | 2,084 | 1,370 | 1,164 | 55 |
| US 19 between West Power Line Street and CR 488 | 2,547 | 2,084 | 1,290 | 1,094 | 60 |
| US 19 north of CR 488 | 2,547 | 2,084 | 1,040 | 882 | 60 |

Notes: A factor of 10.56 percent was used to reduce daily volumes to hourly volumes.
A truck factor of 1 percent was used for medium trucks and 5 or $6 \%$ was used for heavy trucks.
Gray shading denotes volumes used in noise analysis (traffic segments without shading denote volumes that were not used in the analysis because they were not adjacent to noise sensitive sites).

Table 2-3
Traffic Volumes for the Build Condition

| Mainline Traffic Segment | (Design Year 2025) Build Condition |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | LOS C(Hourly Volumes) |  | Demand(Hourly Volumes) |  | Posted Speed (mph) |
|  | Peak | Off-Peak | Peak | Off-Peak |  |
| US 19 south of US 98 | 2,457 | 2,084 | 1,012 | 858 | 60 |
| US 19 between US 98 and W. Cardinal Street | 3,685 | 3,126 | 1,900 | 1,612 | 60 |
| US 19 between W. Cardinal Street and W. Yulee Drive | 3,685 | 3,126 | 2,479 | 2,104 | 55 |
| US 19 between W. Yulee Drive and CR 490A | 2,588 | 2,196 | 2,582 | 2,191 | 45 |
| US 19 between CR 490A and CR 490 | 2,588 | 2,196 | 2,422 | 2,055 | 45 |
| US 19 between CR 490 and CR 494 | 3,685 | 3,126 | 2,142 | 1,818 | 45 |
| US 19 between CR 494 and W. Venable Street | 3,685 | 3,126 | 2,217 | 1,881 | 55 |
| US 19 between W. Venable Street and Crystal River Plaza | 3,685 | 3,126 | 2,285 | 1,939 | 55 |
| US 19 between Crystal River Plaza and CR 44 | 3,685 | 3,126 | 2,374 | 2,014 | 45 |
| US 19 between CR 44 and SE Kings Bay Drive | 2,588 | 2,196 | 2,348 | 1,992 | 45 |
| US 19 between SE Kings Bay Drive and SR 44 | 2,588 | 2,196 | 2,348 | 1,992 | 45 |
| US 19 between SR 44 and NE 3rd Avenue | 2,588 | 2,196 | 2,514 | 2,133 | 40 |
| US 19 between NE 3rd Avenue and CR 495 | 2,588 | 2,196 | 2,365 | 2,007 | 40 |
| US 19 between CR 495 and NW 6th Avenue | 2,588 | 2,196 | 1,971 | 1,672 | 45 |
| US 19 between NW 6th Avenue and the Crystal River Mall | 2,588 | 2,196 | 1,508 | 1,280 | 45 |
| US 19 between the Crystal River Mall and Turkey Oak Dr./NW 19 ${ }^{\text {th }}$ Street | 2,457 | 2,084 | 1,671 | 1,419 | 60 |
| US 19 between Turkey Oak Dr./NW 19 ${ }^{\text {th }}$ Street and Seven Rivers Community Hospital | 2,457 | 2,084 | 1,532 | 1,298 | 60 |
| US 19 between Seven Rivers Community Hospital and West Power Line Street | 2,457 | 2,084 | 1,370 | 1,164 | 60 |
| US 19 between West Power Line Street and CR 488 | 2,457 | 2,084 | 1,290 | 1,094 | 60 |
| US 19 north of CR 488 | 2,457 | 2,084 | 1,040 | 882 | 60 |

Notes: A factor of 10.56 percent was used to reduce daily volumes to hourly volumes.
A truck factor of 1 percent was used for medium trucks and 5 or $6 \%$ was used for heavy trucks.
Gray shading denotes volumes used in noise analysis (traffic segments without shading denote volumes that were not used in the analysis because they were not adjacent to noise sensitive sites).

## SECTION 3

## TRAFFIC NOISE ANALYSIS

### 3.1 NOISE SENSITIVE SITES

Noise sensitive sites are any property (owner-occupied, rented, or leased) where frequent exterior human use occurs and where a lowered noise level would be of benefit. The FHWA has established noise levels at which noise abatement must be considered for various types of noise sensitive sites. These noise levels are referred to as the Noise Abatement Criteria (NAC). As shown in Table 3-1, the NAC vary according to the activity category. Noise abatement measures are considered when predicted traffic noise levels for design year Build conditions approach or exceed the NAC. The FDOT defines "approach" as within 1 dBA of the FHWA criteria.

Noise abatement measures must also be considered if the Build Alternative is predicted to cause a substantial increase in noise at sensitive sites. A "substantial increase" is defined as an increase of 15 dBA , or more, above existing noise levels as a direct result of the transportation improvement project.

Table 3-1
FHWA Noise Abatement Criteria

| Activity Category | Leq(h) | Description of Land Use Activity Category |
| :---: | :---: | :---: |
| A | $57$ <br> (Exterior) | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B | 67 (Exterior) | Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals. |
| C | $\begin{gathered} 72 \\ \text { (Exterior) } \end{gathered}$ | Developed lands, properties, or activities not included in Categories A or B. |
| D | -- | Undeveloped lands. |
| E | $\begin{gathered} 52 \\ \text { (Interior) } \\ \hline \end{gathered}$ | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

US 19 bisects Homosassa, Homosassa Springs, the City of Crystal River, and unincorporated areas of Citrus County. The existing land use within the US 19 corridor consisted of residential, commercial, public/semi-public (including community facilities), conservation and open areas containing upland forests and wetlands in both rural and urban settings. There were also limited industrial, transportation and extractive uses. The existing land use is shown in Figure 3-1.

Most of the existing noise sensitive sites within the study area occurred within the following residential developments: Whispering Pines Mobile Home Park, apartments located behind Miss Jean’s Emporium south of Industrial Lane, Covered Wagon RV Park, a mobile home park located south of West Elkhorn Drive, Bell Villa Mobile Home Park, Forest View Mobile Home Park, Imperial Gardens Mobile Home Park, Suncoast Mobile Home Park, and Crystal Wood Mobile Home Park. In addition to the residences associated with these developments, there were many isolated residences and small neighborhoods that were scattered throughout the study area.

In addition to the residential areas described above, noise sensitive land uses along the project corridor included the Crystal River Pre-school, eleven churches (St. Thomas the Apostle, Suncoast Baptist, Christian Center, Homosassa Church of God, St. Benedict, St. Timothy Lutheran, First Presbyterian, Baily Temple Church of God in Christ, New Life Christian Center, House of God church and a small church located along NE 2nd Avenue) and outdoor recreation areas associated with the Sugarmill Manor (assisted living facility) and Bicentennial Park. No outdoor areas of frequent human use were noted at the churches; therefore, the churches were evaluated under Activity Category E. The residences, recreation areas and school were evaluated under Activity Category B of the NAC. There were no libraries, hotel/motels or hospitals in close proximity to the project corridor that would be affected by traffic noise attributable to the project.

The designated land uses on the Citrus County Comprehensive Plan 1995-2020 ${ }^{3}$ Future Land Use Map (Figure 3-2) indicated that future land uses would show an increase in residential, commercial, industrial, transportation, communication, utility, public/semi-


public, recreation and open space. Likewise, the City of Crystal River Comprehensive Plan $^{4}$ indicated that there will be a small increase in residential, commercial and public/semi public land uses and a decrease in vacant/other use. The future land use did not indicate that the existing noise sensitive uses would transition into less sensitive uses in future years.

In addition to the established residential areas, the traffic noise evaluation also considered residential areas that have been planned, designed and programmed. Field reviews were conducted in 2002 and 2003 which indicated no construction of additional noise sensitive sites has taken place. Consistent with the FDOT PD\&E Manual, noise sensitive use for which a building permit has been granted shall be evaluated as existing noise sensitive sites. Because of the elapsed time between when the noise study is performed and when the date of public knowledge will be established, there is the potential for residential building permits to be granted subsequent to this study. Any noise analysis performed during the design phase of this project will include a review of new development and building permit dates.

Receiver points representing the noise sensitive sites were located in accordance with the PD\&E Manual, Part 2, Chapter 17 (November 2001), as follows:

- Receiver sites for residences and institutional uses were placed at the edge of the building closest to the major traffic noise source.
- Receivers for outdoor recreational areas were located in areas where frequent human use would commonly occur (i.e., benches, etc.).
- Where more than one noise sensitive site was clustered together, single sites were analyzed as representative of the group.
- Ground floor receiver sites were assumed to be 5 ft above the ground elevation.

The noise sensitive sites associated with the receivers are described below and all referenced street names and receiver locations can be found on the aerials in Appendix B.

## East of US 19

## Segment 1

- Congregational area at Sugarmill Manor (assisted living facility) located north of Delaware Street, represented by receiver R5 (aerial sheet number 2).
- 1 isolated residence located in front of Yanni’s Restaurant south of Cardinal Street, represented by receiver R12 (aerial sheet number 5).
- 1 isolated residence located adjacent to Emily's Family Restaurant north of Cardinal Street, represented by receiver R14 (aerial sheet number 6).
- 3 scattered residences located to the north and south of W. Industrial Lane, represented by receivers R16, R132 and R17 (aerial sheet number 7).
- 15 residences located north of W. Industrial Lane in the Covered Wagon RV Park, represented by receivers R18 through R26 and R133 (aerial sheet number 7)
- 3 residences located along S. Kerley Way, south of W. McKinley Street, represented by receivers R27 and R28 (aerial sheet number 8).
- 2 residences located along S. Memorial Drive, north of W. McKinley Street, represented by receiver R31 (aerial sheet number 8).
- 1 residence located along S. Knobhill Terrace, represented by receiver R32 (aerial sheet number 9).


## Segment 2

- Christian Center Church located north of W. Green Acres St, represented by receiver R34 (aerial sheet number 10).
- 12 residences located north of W. Bradshaw Street in the Homosassa Commons Apartments complex, represented by receivers R39 through R44 (aerial sheet number 11).
- 13 residences located in a mobile home park located south of W. Elkhorn Drive, represented by receivers R45 through R51, R57 and R134 through R136 (aerial sheet number 13).
- 2 residences located south of S. Canadian Way, represented by receiver R82 (aerial sheet number 14).


## Segment 3

- 10 residences located along W. Longfellow Street and S. Sandburg Point, represented by receivers R85 through R88 (aerial sheet number 16).
- St. Benedict Catholic Church located south of CR 494, represented by receivers R102 and R103 (aerial sheet number 19).
- 2 residences located in the Crystalwood Court Mobile Home Park north of the Crystal River Airport, represented by receivers R112 and R113 (aerial sheet number 22).


## Segment 4

- First Presbyterian Church located north of CR 44W, represented by receiver R115 (aerial sheet number 23).


## Segment 5

- Crystal River Preschool located north of NE 1st Street, represented by receiver R116 (aerial sheet number 24).
- Bailey Temple Church of God in Christ located north of NE 2nd Street, represented by receiver R117 (aerial sheet number 24).
- Small church located east of NE 2nd Avenue, represented by receiver R123 (aerial sheet number 26).
- Single residence located west of NE 2nd Avenue, represented by receiver R121 (aerial sheet number 26).
- Benches at Bicentennial Park located west of NW 2nd Avenue, represented by receiver R124 (aerial sheet number 26).
- New Life Christian Center Church located south of the Crystal River Mall, represented by receiver R 129 (aerial sheet number 27).


## West of US 19

## Segment 1

- 5 residences located north and south of Maine Street, represented by receivers R1 through R4 (aerial sheet number 1).
- 1 isolated residence located south of New York Street, represented by receiver R6 (aerial sheet number 2).
- 6 residences located north of Ohio Street, represented by receiver R7 (aerial sheet number 3).
- 4 residences located south of Cardinal Street in the Whispering Pines Mobile Home Park, represented by receivers R8 through R11 (aerial sheet number 5).
- St. Thomas the Apostle Church located south of Cardinal Street, represented by receiver R13 (aerial sheet number 5).
- 4 apartment residences located south of W. Industrial Lane, represented by receivers R15, and R129 through R131 (aerial sheet number 7).
- 2 residences located between W. McKinley Street and W. Fair Acres Place, represented by receivers R29 and R30 (aerial sheet number 8).
- Suncoast Baptist Church located south of W. Cyprian Court, represented by receiver R33 (aerial sheet number 9).


## Segment 2

- 5 residences located along S. Roebuck Street and W. Bradshaw Street, represented by receivers R35 through R37 (aerial sheet numbers 10 and 11).
- Homosassa Church of God located north of W. Bradshaw Street, represented by receiver R38 (aerial sheet number 11).
- 12 residences located north of W. Elkhorn Drive in the Bell Villa Mobile Home Park, represented by receivers R68 through R75 (aerial sheet numbers 13 and 14).


## Segment 3

- 3 residences located along S. Gabin Terrace south of W. Kingston Drive, represented by receivers R83 and R84 (aerial sheet number 16).
- 2 residences located north and 2 residences located south of W. Arber Court, represented by receivers R89 and R90 (aerial sheet number 17).
- 10 residences located along W. Forestview Drive in the Forest View Mobile Home Park, represented by receivers R92 through R94 (aerial sheet number 18).
- 10 residences located north of Highland Street in the Imperial Gardens Mobile Home Park, represented by receivers R95 through R100, and R 133 (aerial sheet numbers 18 and 19).
- 7 residences located south of W. Venable Street in the Suncoast Mobile Home Park, represented by receivers R134 and R104 through R108 (aerial sheet number 20).
- St. Timothy Lutheran Church located south of W. Sue Lane, represented by receiver R111 (aerial sheet number 22).


## Segment 4

- No noise sensitive sites are located west of US 19 within this segment.


## Segment 5

- 2 residences located north of NE 2nd Street, represented by receiver R118 and R119 (aerial sheet number 24).
- 1 residence located north of NE 5th Street, represented by R120 (aerial sheet number 26).
- House of God Church located east of the Crystal River bike path, represented by receiver R122 (aerial sheet number 26).
- 1 residence located to the east and 1 residence located to the west of NW 1st Avenue, represented by receivers R126 and R125 (aerial sheet number 26).
- 1 residence located to the south of NW 6th Street, represented by receiver R127 (aerial sheet number 27).
- 3 residences located along NW Snug Harbor Road and represented by receiver R128 (aerial sheet number 27).


### 3.2 MODEL VALIDATION

To validate the computer noise model, field measurements were taken within the project area following procedures documented in FHWA's Measurement of Highway-Related Noise ${ }^{5}$. On October 8, 2002, field measurements were obtained using a Quest Q300 noise monitor. All monitoring events lasted 10 minutes. The noise monitor was calibrated using a Quest QC-10 sound level calibrator. Traffic speeds were recorded with a MPH, Model K-15 hand-held radar gun.

Site selection for model validation was based on the location of noise sensitive sites and access to monitoring sites where a representative sampling of free-flow traffic could be obtained. Traffic volumes by vehicle classification and vehicle speeds were recorded at each monitoring site. The recorded speeds indicated that traffic was typically traveling at about the posted speed.

Data for each monitoring event is provided in Table 3-2. The variance between measured and predicted noise levels is less than 3 dBA . Therefore, the noise model validation is within the accepted level of accuracy documented in the FDOT's PD\&E Manual.

Table 3-2
Noise Model Validation

| Location | Trial \# | Date | Time | Field Measured Level (dBA) | Computer <br> Predicted <br> Level <br> (dBA) | $\begin{aligned} & \text { Variance } \\ & \text { (dBA) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Monitoring Site \#1 <br> St. Thomas the Apostle Church West of US 19, South of Cardinal Street | 1 | 10/8/02 | 9:20 AM | 59.7 | 59.7 | 0 |
|  | 2 | 10/8/02 | 9:34 AM | 60.4 | 59.2 | 1.2 |
|  | 3 | 10/8/02 | 9:45 AM | 60.7 | 60.0 | 0.7 |
| Monitoring Site \#2 <br> Ballard Residence - East of US 19, North of Cardinal Street | 1 | 10/8/02 | 10:20 AM | 61.0 | 63.0 | 2.0 |
|  | 2 | 10/8/02 | 10:33 AM | 60.5 | 62.5 | 2.0 |
|  | 3 | 10/8/02 | 10:45 AM | 61.6 | 64.4 | 2.8 |
| Monitoring Site \#3 <br> Forest View Mobile Home Park West of US 19, South of CR 494 | 1 | 10/8/02 | 11:14 AM | 65.3 | 67.1 | 1.8 |
|  | 2 | 10/8/02 | 11:25 AM | 63.4 | 64.9 | 1.5 |
|  | 3 | 10/8/02 | 11:36 AM | 64.1 | 65.1 | 1.0 |

### 3.3 PREDICTED NOISE LEVELS

The distance to the 66 dBA noise contour for the proposed improvements was estimated using the TNM computer model and previously discussed traffic volumes and speed data. The 66 dBA contour delineates the distance from the nearest proposed edge of pavement for US 19 that an approach of the NAC for Activity Category B was anticipated to occur for year 2025 Build conditions. The contour did not consider any shielding of noise provided by structures or topographic features between the receiver and the roadway. Additionally, the noise contour did not account for traffic noise from roadways other than US 19 (i.e., no intersecting streets). The distances between the edge of the nearest lane for the proposed US 19 project and the 66 dBA contour are provided in Table 3-3.

Table 3-3
66 dBA Noise Contour for the Year 2025 Build Condition

| Segment of US 19 | Distance to $66 \mathrm{dBA}^{1}$ |
| :---: | :---: |
| US 19 between US 98 and W. Cardinal Street | 180 ft |
| US 19 between W. Cardinal Street and W. Green Acres Street | 190 ft |
| US 19 between W. Green Acres Street and W. Yulee Drive | 200 ft |
| US 19 between W. Yulee Drive and CR 490A | 160 ft |
| US 19 between CR 490A and CR 490 | 150 ft |
| US 19 between CR 490 and W. Elkhorn Drive | 140 ft |
| US 19 between W. Elkhorn Drive and W. Jump Ct. | 140 ft |
| US 19 between W. Jump Ct and CR 494 | 140 ft |
| US 19 between CR 494 and W. Venable Street | 190 ft |
| US 19 between W. Venable Street and Crystal River Plaza | 190 ft |
| US 19 between Crystal River Plaza and CR 44 | 140 ft |
| US 19 between CR 44 and NE 1st Terrace | 160 ft |
| US 19 between NE 1st Terrace and SR 44 | 150 ft |
| US 19 between SR 44 and NE 3rd Avenue | 130 ft |
| US 19 between NE 3rd Avenue and CR 495 | 130 ft |
| US 19 between CR 495 and NW 6th Avenue | 130 ft |
| US 19 between NW 6th Avenue and the Crystal River Mall | 110 ft |

${ }^{1}$ The 66 dBA contour line is measured from the nearest proposed edge of pavement.

Based on the noise contour data, a review of land use data, proximity of noise sensitive sites to US 19, and field verification of noise sensitive locations, a total of 113 receivers were modeled. East of the US 19 corridor, 54 receivers representing 66 residences, 6 churches and 2 outdoor recreation areas (congregational area for Sugarmill Manor and Bicentennial Park) were modeled. West of the US 19 corridor, 59 receivers representing 82 residences and 5 churches were modeled. The noise sensitive sites represented by the receivers were discussed previously in Section 3.1 - Noise Sensitive Sites. Predicted noise levels are summarized in Tables 3-4 (receivers east of US 19) and 3-5 (receivers west of US 19).

Table 3-4
Predicted Noise Levels for the US 19 (Citrus County) PD\&E Study Eastern Receivers

| Receiver Identificatio <br> n (Aerial Sheet No.) | Noise Sensitive Sites Represented | Existing (dBA) | $\begin{aligned} & 2025 \text { No- } \\ & \text { Build } \\ & \text { (dBA) } \end{aligned}$ | 2025 <br> Build <br> (dBA) | Difference between Existing and Build (dBA) | NAC <br> Approached Or Exceeded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment 1 |  |  |  |  |  |  |
| Sugarmill Manor (Assisted Living Facility) |  |  |  |  |  |  |
| R5 (A2) | Congregational area | 69.3 | 71.9 | 71.5 | 2.2 | Y |
| Private Residence |  |  |  |  |  |  |
| R12 (A5) | 1 residence | 69.2 | 71.8 | 71.7 | 2.5 | Y |
| Private Residence |  |  |  |  |  |  |
| R14 (A6) | 1 residence | 65.6 | 67.9 | 68.4 | 2.8 | Y |
| Private Residences |  |  |  |  |  |  |
| R16 (A7) | 1 residence | 64.7 | 67.0 | 67.5 | 2.8 | Y |
| R17 (A7) | 1 residence | 63.2 | 65.4 | 66.0 | 2.8 | Y |
| R132 (A7) | 1 residence | 61.7 | 63.9 | 63.9 | 2.2 | N |
| Covered Wagon RV Park |  |  |  |  |  |  |
| R18 (A7) | 1 residence | 69.6 | 71.8 | 71.7 | 2.1 | Y |
| R19 (A7) | 1 residence | 68.3 | 70.5 | 70.4 | 2.1 | Y |
| R20 (A7) | 1 residence | 66.5 | 68.8 | 68.8 | 2.3 | Y |
| R21 (A7) | 1 residence | 64.0 | 66.3 | 66.8 | 2.8 | Y |
| R22 (A7) | 2 residences | 63.9 | 66.1 | 66.6 | 2.7 | Y |
| R23 (A7) | 2 residences | 62.9 | 65.1 | 65.4 | 2.5 | N |
| R24 (A7) | 2 residences | 62.2 | 64.4 | 64.8 | 2.6 | N |
| R25 (A7) | 1 residence | 63.6 | 65.8 | 66.3 | 2.7 | Y |
| R26 (A7) | 3 residences | 62.3 | 64.5 | 65.0 | 2.7 | N |
| R133 (A7) | 1 residence | 69.7 | 71.9 | 71.7 | 2.0 | Y |
| Private Residences |  |  |  |  |  |  |
| R27 (A8) | 1 residence | 62.6 | 64.9 | 64.7 | 2.1 | N |
| R28 (A8) | 2 residences | 62.2 | 64.4 | 64.0 | 1.8 | N |
| R31 (A8) | 2 residences | 61.8 | 64.0 | 63.6 | 1.8 | N |
| R32 (A9) | 1 residence | 63.9 | 66.1 | 65.9 | 2.0 | N |
| Segment 2 |  |  |  |  |  |  |
| Christian Center Church |  |  |  |  |  |  |
| R34 (A10) | Church | $46.4^{1}$ | $48.6{ }^{1}$ | $49.2^{1}$ | 2.8 | N |
| Homosassa Commons Apartments |  |  |  |  |  |  |
| R39 (A11) | 2 residences | 61.8 | 63.9 | 64.4 | 2.6 | N |
| R40 (A11) | 2 residences | 60.9 | 62.9 | 63.8 | 2.9 | N |
| R41 (A11) | 2 residences | 60.1 | 62.2 | 62.8 | 2.7 | N |
| R42 (A11) | 2 residences | 60.0 | 62.0 | 62.2 | 2.2 | N |
| R43 (A11) | 2 residences | 59.7 | 61.6 | 62.0 | 2.3 | N |
| R44 (A11) | 2 residences | 62.8 | 64.9 | 65.3 | 2.5 | N |
| Mobile Home Park Located South of West Elkhorn Drive |  |  |  |  |  |  |
| R45 (A13) | 1 residence | 71.2 | 72.5 | 73.1 | 1.9 | Y |
| R46 (A13) | 1 residence | 70.9 | 72.2 | 73.0 | 2.1 | Y |
| R47 (A13) | 1 residence | 67.3 | 68.6 | 69.2 | 1.9 | Y |

Table 3-4 (Cont.)
Predicted Noise Levels for the US 19 (Citrus County) PD\&E Study Eastern Receivers

| Receiver Identificatio n (Aerial Sheet No.) | Noise <br> Sensitive Sites Represented | Existing (dBA) | $\begin{aligned} & 2025 \text { No- } \\ & \text { Build } \\ & \text { (dBA) } \end{aligned}$ | $\begin{gathered} 2025 \\ \text { Build } \\ \text { (dBA) } \end{gathered}$ | Difference between Existing and Build (dBA) | NAC <br> Approached Or Exceeded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| R48 (A13) | 1 residence | 65.9 | 67.2 | 67.6 | 1.7 | Y |
| R49 (A13) | 1 residence | 64.2 | 65.6 | 65.9 | 1.7 | N |
| R50 (A13) | 1 residence | 65.4 | 66.8 | 67.1 | 1.7 | Y |
| R51 (A13) | 3 residences | 63.9 | 65.2 | 65.5 | 1.6 | N |
| R57 (A13) | 1 residence | 64.8 | 66.2 | 66.4 | 1.6 | Y |
| R134 (A13) | 1 residence | 71.8 | 73.2 | 74.0 | 2.2 | Y |
| R135 (A13) | 1 residence | 65.3 | 66.6 | 66.9 | 1.6 | Y |
| R136 (A13) | 1 residence | 64.3 | 65.6 | 65.8 | 1.5 | N |
| Private Residences |  |  |  |  |  |  |
| R82 (A14) | 2 residences | 60.8 | 62.2 | 63.2 | 2.4 | N |
| Segment 3 |  |  |  |  |  |  |
| Private Residences |  |  |  |  |  |  |
| R85 (A16) | 4 residences | 57.9 | 59.3 | 59.8 | 1.9 | N |
| R86 (A16) | 4 residences | 58.2 | 59.6 | 60.0 | 1.8 | N |
| R87 (A16) | 1 residence | 58.8 | 60.1 | 60.7 | 1.9 | N |
| R88 (A16) | 1 residence | 58.3 | 59.7 | 59.9 | 1.6 | N |
| St. Benedict Catholic Church |  |  |  |  |  |  |
| R102 (A19) | Church | $43.5{ }^{1}$ | $44.8{ }^{1}$ | $46.7^{1}$ | 3.2 | N |
| R103 (A19) | Church | $38.9^{1}$ | $40.2^{1}$ | $40.8{ }^{1}$ | 1.9 | N |
| Crystalwood Court Mobile Home Park |  |  |  |  |  |  |
| R112 (A22) | 1 residence | 62.0 | 63.3 | 65.3 | 3.3 | N |
| R113 (A22) | 1 residence | 60.8 | 62.2 | 62.8 | 2.0 | N |
| Segment 4 |  |  |  |  |  |  |
| First Presbyterian Church |  |  |  |  |  |  |
| R115 (A23) | Church | $46.1^{1}$ | $47.6^{1}$ | $47.8{ }^{1}$ | 1.7 | N |
| Segment 5 |  |  |  |  |  |  |
| Crystal River Preschool |  |  |  |  |  |  |
| R116 (A24) | Preschool | 62.3 | 63.4 | 63.4 | 1.1 | N |
| Baily Temple Church of God in Christ |  |  |  |  |  |  |
| R117 (A24) | Church | $43.9^{1}$ | $45.0{ }^{1}$ | $45.5{ }^{1}$ | 1.6 | N |
| Private Residence |  |  |  |  |  |  |
| R121 (A26) | 1 residence | 59.7 | 60.1 | 61.1 | 1.4 | N |
| Church |  |  |  |  |  |  |
| R123 (A26) | Church | $42.8{ }^{1}$ | $43.1{ }^{1}$ | $43.1{ }^{1}$ | 0.3 | N |
| Bicentennial Park |  |  |  |  |  |  |
| R124 (A26) | Benches at park | 68.5 | 69.9 | 71.3 | 2.8 | Y |
| New Life Christian Center Church |  |  |  |  |  |  |
| R129 (A27) | Church | $38.8{ }^{1}$ | $40.1^{1}$ | $41.4^{1}$ | 2.6 | N |

${ }^{1}$ Represents an interior noise level. Reduced predicted noise level by 20 dBA to account for noise reduction provided by the building. The reduction factor is consistent with FHWA guidance.

Table 3-5
Predicted Noise Levels for the US 19 (Citrus County) PD\&E Study Western Receivers

| Receiver Identification (Aerial Sheet No.) | Noise Sensitive Sites Represented | Existing (dBA) | $\begin{aligned} & 2025 \text { No- } \\ & \text { Build } \\ & \text { (dBA) } \end{aligned}$ | 2025 <br> Build <br> (dBA) | Difference between Existing and Build (dBA) | NAC <br> Approached Or Exceeded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment 1 |  |  |  |  |  |  |
| Private Residences - Maine Street Neighborhood |  |  |  |  |  |  |
| R1 (A1) | 2 residences | 68.3 | 71.0 | 70.7 | 2.4 | Y |
| R2 (A1) | 1 residence | 64.0 | 66.7 | 67.7 | 3.7 | Y |
| R3 (A1) | 1 residence | 63.3 | 65.9 | 66.5 | 3.2 | Y |
| R4 (A1) | 1 residence | 67.0 | 69.7 | 70.7 | 3.7 | Y |
| R6 (A2) | 1 residence | 61.5 | 64.2 | 65.3 | 3.8 | N |
| R7 (A3) | 5 residences | 59.9 | 62.6 | 61.9 | 2.0 | N |
| Whispering Pines Mobile Home Park |  |  |  |  |  |  |
| R8 (A5) | 1 residence | 63.0 | 65.6 | 65.7 | 2.7 | N |
| R9 (A5) | 1 residence | 62.0 | 64.7 | 64.8 | 2.8 | N |
| R10 (A5) | 1 residence | 61.4 | 64.0 | 63.3 | 1.9 | N |
| R11 (A5) | 1 residence | 61.6 | 64.2 | 64.3 | 2.7 | N |
| St. Thomas the Apostle Church |  |  |  |  |  |  |
| R13 (A5) | Church | $40.4{ }^{1}$ | $43.1{ }^{1}$ | $43.3{ }^{1}$ | 2.9 | N |
| Apartments |  |  |  |  |  |  |
| R15 (A7) | 1 residence | 64.2 | 66.4 | 66.7 | 2.5 | Y |
| R129 (A7) | 1 residence | 63.5 | 65.7 | 66.0 | 2.5 | Y |
| R130 (A7) | 1 residence | 62.7 | 64.9 | 65.2 | 2.5 | N |
| R131 (A7) | 1 residence | 61.6 | 63.8 | 64.0 | 2.4 | N |
| Private Residences |  |  |  |  |  |  |
| R29 (A8) | 1 residence | 62.0 | 64.2 | 64.3 | 2.3 | N |
| R30 (A8) | 1 residence | 62.2 | 64.4 | 64.6 | 2.4 | N |
| Suncoast Baptist Church |  |  |  |  |  |  |
| R33 (A9) | Church | $44.2^{1}$ | $46.4^{1}$ | $46.6{ }^{1}$ | 2.4 | N |
| Segment 2 |  |  |  |  |  |  |
| Private Residences |  |  |  |  |  |  |
| R35 (A10) | 3 residences | 61.9 | 64.1 | 64.1 | 2.2 | N |
| R36 (A11) | 1 residence | 58.1 | 60.2 | 62.0 | 3.9 | N |
| R37 (A11) | 1 residence | 61.9 | 64.1 | 63.8 | 1.9 | N |
| Homosassa Church of God |  |  |  |  |  |  |
| R38 (A11) | Church | $44.0{ }^{1}$ | $46.2^{1}$ | $46.6^{1}$ | 2.6 | N |
| Bell Villa Mobile Home Park |  |  |  |  |  |  |
| R68 (A13) | 1 residence | 61.9 | 63.2 | 63.5 | 1.6 | N |
| R69 (A13) | 1 residence | 59.6 | 60.9 | 61.4 | 1.8 | N |
| R70 (A13) | 2 residences | 62.0 | 63.3 | 62.8 | 0.8 | N |
| R71 (A14) | 2 residences | 61.3 | 62.6 | 62.9 | 1.6 | N |
| R72 (A14) | 1 residence | 64.2 | 65.5 | 65.6 | 1.4 | N |
| R73 (A14) | 1 residence | 63.0 | 64.3 | 64.3 | 1.3 | N |
| R74 (A14) | 2 residences | 62.2 | 63.5 | 63.4 | 1.2 | N |
| R75 (A14) | 2 residences | 61.1 | 62.5 | 62.7 | 1.6 | N |

Table 3-5 (Cont.)
Predicted Noise Levels for the US 19 (Citrus County) PD\&E Study Western Receivers

| Receiver Identification <br> (Aerial Sheet No.) | Noise Sensitive Sites Represented | Existing (dBA) | $\begin{aligned} & 2025 \text { No- } \\ & \text { Build } \\ & \text { (dBA) } \end{aligned}$ | 2025 <br> Build <br> (dBA) | Difference between Existing and Build (dBA) | NAC <br> Approached Or Exceeded |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Segment 3 |  |  |  |  |  |  |
| Private Residences |  |  |  |  |  |  |
| R83 (A16) | 2 residences | 62.3 | 63.7 | 63.1 | 0.8 | N |
| R84 (A16) | 1 residence | 62.4 | 63.7 | 63.2 | 0.8 | N |
| R89 (A17) | 2 residences | 61.3 | 62.6 | 63.1 | 1.8 | N |
| R90 (A17) | 2 residences | 60.0 | 61.4 | 61.9 | 1.9 | N |
| Forest View Mobile Home Park |  |  |  |  |  |  |
| R92 (A18) | 3 residences | 58.8 | 60.2 | 59.9 | 1.1 | N |
| R93 (A18) | 4 residences | 58.6 | 60.0 | 59.6 | 1.0 | N |
| R94 (A18) | 3 residences | 58.5 | 59.9 | 59.5 | 1.0 | N |
| Imperial Gardens Mobile Home Park |  |  |  |  |  |  |
| R95 (A18) | 2 residences | 65.1 | 66.5 | 65.8 | 0.7 | N |
| R96 (A19) | 1 residence | 67.9 | 69.3 | 68.7 | 0.8 | Y |
| R97 (A18) | 2 residences | 64.1 | 65.4 | 64.9 | 0.8 | N |
| R98 (A18) | 1 residence | 63.2 | 64.5 | 63.9 | 0.7 | N |
| R99 (A18) | 1 residence | 62.1 | 63.5 | 62.9 | 0.8 | N |
| R100 (A19) | 2 residences | 61.7 | 63.0 | 62.6 | 0.9 | N |
| R133 (A18) | 1 residence | 67.3 | 68.7 | 67.9 | 0.6 | Y |
| Suncoast Mobile Home Park |  |  |  |  |  |  |
| R134 (A20) | 1 residence | 65.9 | 67.3 | 66.8 | 0.9 | Y |
| R104 (A20) | 1 residence | 69.8 | 71.2 | 70.9 | 1.1 | Y |
| R105 (A20) | 1 residence | 67.6 | 69.0 | 69.2 | 1.6 | Y |
| R106 (A20) | 1 residence | 66.6 | 68.0 | 67.3 | 0.7 | Y |
| R107 (A20) | 2 residences | 64.6 | 66.0 | 65.5 | 0.9 | N |
| R108 (A20) | 1 residence | 63.3 | 64.7 | 65.4 | 2.1 | N |
| St. Timothy Lutheran Church |  |  |  |  |  |  |
| R111 (A22) | Church | $46.9^{1}$ | $48.3{ }^{1}$ | $48.5{ }^{1}$ | 1.6 | N |
| Segment 5 |  |  |  |  |  |  |
| Private Residences |  |  |  |  |  |  |
| R118 (A24) | 1 residence | 64.7 | 65.8 | 65.4 | 0.7 | N |
| R119 (A24) | 1 residence | 63.3 | 64.4 | 63.9 | 0.6 | N |
| R120 (A26) | 1 residence | 63.9 | 64.1 | 64.0 | 0.1 | N |
| Church - House of God |  |  |  |  |  |  |
| R122 (A26) | Church | $47.9^{1}$ | $48.1^{1}$ | $48.3{ }^{1}$ | 0.4 | N |
| Private Residences |  |  |  |  |  |  |
| R125 (A26) | 1 residence | 63.2 | 64.5 | 64.5 | 1.3 | N |
| R126 (A26) | 1 residence | 61.2 | 62.4 | 63.4 | 2.2 | N |
| R127 (A27) | 1 residence | 57.0 | 58.3 | 59.0 | 2.0 | N |
| R128 (A27) | 3 residences | 59.0 | 60.3 | 60.2 | 1.2 | N |

[^0] building. The reduction factor is consistent with FHWA guidance.

For the 2025 Build Alternative 33 receivers representing 33 residences and 2 outdoor recreation areas were predicted to experience noise levels that approach or exceed the NAC for the Build condition.

Comparing the existing to the design year Build condition, the range of increase for the predicted noise levels is from 0.1 to 3.9 dBA . No noise sensitive sites were predicted to experience a substantial increase in traffic noise attributable to the project.

### 3.4 NOISE ABATEMENT TECHNIQUES

As stipulated in 23 CFR Part 772, the FHWA requires that noise abatement measures be considered if the noise level at a sensitive site approaches or exceeds the NAC. Therefore, abatement measures were evaluated for the residences with a predicted outdoor noise level of 66 dBA , or greater, for the Build alternative. Abatement measures considered included traffic system management techniques, alignment modifications, property acquisition, land use controls and noise barriers.

### 3.4.1 Traffic System Management Techniques

Traffic system management techniques that limit motor vehicle speeds and reduce traffic volumes can be used to abate traffic noise. However, these measures conflict with the purpose of providing a facility that can accommodate forecasted traffic volumes. For example, a substantial speed reduction on the proposed roadway would lower traffic noise levels. However, the capacity of the roadway to service traffic would also be reduced. As a major north-south route in Citrus County, reducing traffic volumes or prohibiting truck traffic is not a viable alternative. Therefore, traffic system management techniques were not considered feasible abatement measures.

### 3.4.2 Alignment Modifications

Alignment modification involves orientating and/or siting the roadway at sufficient distances from the noise sensitive areas so as to minimize traffic noise. Since this project involved lane additions to an existing roadway, the existing alignment dictated the proposed horizontal and vertical alignment. Making use of the existing corridor would minimize project costs and detrimental environmental/community impacts. An alignment modification that could provide a substantial noise reduction was, therefore, not a feasible or reasonable abatement measure.

### 3.4.3 Property Acquisition

Property acquisition of vacant land to serve as a noise buffer was not feasible due to the limited availability of vacant land in proximity to noise sensitive sites.

### 3.4.4 Land Use Controls

Land use controls can be used to minimize noise sensitive sites that may be affected by traffic noise. The traffic noise evaluation determined that residences within 110 to 200 ft of the nearest proposed travel lane (see Table 3-3) would experience traffic noise levels that approach or exceed the NAC. Local planning officials can use this information as a guide to minimize development of noise sensitive land uses in proximity to the proposed roadway.

### 3.4.5 Noise Barriers

Noise barriers reduce noise levels by blocking the sound path between a roadway and noise sensitive site. To effectively reduce traffic noise, a noise barrier must be relatively long, continuous (with no intermittent openings) and of sufficient height. On roadways
with minimal access control, such as US 19, the ability of a noise barrier to reduce noise levels can be limited by the need to accommodate access drives and side streets. Noise barriers located along the ROW line were evaluated for heights ranging from 8 to 22 ft in 2 -ft increments. For a particular height, the length of the barrier was optimized to minimize cost while trying to maintain at least a 5 dBA reduction at affected noise sensitive sites. The evaluation included a preliminary line-of-sight review to ensure that safety requirements are maintained.

For a noise barrier to be considered feasible and cost reasonable, the following minimum conditions should be met:

- A noise barrier must provide a minimum noise reduction of at least 5 dBA with a design goal of 10 dBA , or more.
- The cost of the noise barrier should not exceed $\$ 30,000$ per benefited noise sensitive site. This is the upper cost limit established by FDOT. A benefited noise sensitive site is defined as a site that would experience at least a 5 dBA reduction as a result of providing a noise barrier. The current unit cost used to evaluate economic reasonableness is $\$ 25$ per square foot, which covers barrier materials and labor.

After consideration of the amount of noise reduction and cost reasonableness, other factors such as community desires, adjacent land uses and land use stability, antiquity, predicted noise level increases, safety considerations, drainage issues, utility conflicts, maintenance requirements and construction issues are also considered when evaluating the feasibility and reasonableness of providing noise barriers.

In order to analyze the effectiveness of noise barriers, the TNM model was used. Noise study areas are established by reviewing the proximity of affected noise sensitive sites to each other and grouping the sites (e.g., neighborhood, apartment complex, etc.). A noise barrier is then modeled to reduce noise levels for the group of noise sensitive sites. At
each noise barrier location, the feasibility (i.e., at least a 5 dBA reduction can be achieved) is established. If feasible, then the cost reasonableness is evaluated.

Within the project limits, US 19 is characterized by numerous access drives and intersecting side streets. At any specific location, the length of a noise barrier was very limited to accommodate the access to US 19. The numerous access drives and intersecting side streets also divided the affected noise sensitive sites into numerous small groups typically composed of only one or two sites. Therefore, a noise barrier evaluation was performed for representative areas. The premise behind this approach is that if noise barriers were not feasible and cost reasonable under best-case conditions, then noise barriers would not be feasible and cost reasonable at other locations.

The grouping of affected noise sensitive sites were reviewed to identify representative areas where a noise barrier had the greatest possibility of being both feasible and cost reasonable. These areas were selected based on the following criteria:

- Area where spacing between access drives allows for longer noise barriers (the longer the potential barrier length, the greater the potential noise reduction),
- Area with a higher density of affected residences (the higher the density of residences, the lower the cost per benefited residence),
- Area where the affected residences are closer to the potential noise barrier (the decreased distance between the residence and barrier allows for a lower barrier height which will decrease the cost per benefited residence), and
- Area where the affected residences are further away from an access drive or intersecting street (the further away from the edge of the barrier the better the noise reduction).

If determined to be feasible and cost reasonable for an area, then subsequent areas were selected for noise barrier evaluation. The noise barriers that were evaluated are discussed below.

## Segment 1 - East side of US 19, Sugarmill Manor outdoor recreation area north of Delaware Street

A congregational area (benches represented by receiver R5 on aerial sheet 2) associated with Sugarmill Manor (assisted living facility) was predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. This noise sensitive site has characteristics similar to the residences identified as R96 and R133 (aerial sheets 18 and 19) in the Imperial Gardens Mobile Home Park. As with the residences in Imperial Gardens, the noise sensitive area is about 50 ft from the ROW and located very close to an access road that limits the noise barrier length. Based on the noise barrier evaluation for Imperial Gardens, a noise barrier would also not be a feasible abatement measure at this location.

## Segment 1 - East side of US 19, Single Residence south of Cardinal Street

A single residence was predicted to experience noise levels that exceed the NAC for the Build Alternative. This residence is located in front of Yanni’s Greek/Italian Seafood and Steak and was represented by receiver R12 (aerial sheet number 5). At a height of 22 ft , the maximum noise barrier height considered by FDOT, a noise barrier along the ROW did not provide at least a 5 dBA reduction to this residence. A noise barrier was not effective in this area due to the adjacent driveway which limited the length of the barrier, and close proximity of the residence to US 19. Based on the evaluation, a noise barrier was not a feasible abatement measure at this location.

A single residence was predicted to experience noise levels that exceed the NAC for the Build Alternative. This residence is located adjacent to Emily's Family Restaurant and was represented by receiver R14 (aerial sheet number 6). There is driveway access to both the restaurant and residence from US 19. A noise barrier would be shorter than the building structure length at this location because of a driveway access. Based on the evaluation, a noise barrier was not a feasible abatement measure at this location.

## Segment 1 - East side of US 19, Single Residence south of Industrial Lane

A single residence was predicted to experience noise levels that exceed the NAC for the Build Alternative. This residence (represented by R16 on aerial sheet 7) is approximately 150 ft from the ROW. At a height of 22 ft , the maximum noise barrier height considered by FDOT, a noise barrier along the ROW did not provide at least a 5 dBA reduction to this residence. A noise barrier was not effective in this area due to the large distance between US 19 and the affected residence. Based on the evaluation, a noise barrier was not a feasible abatement measure at this location.

## Segment 1 - East side of US 19, Single Residence north of Industrial Lane

A single residence was predicted to experience noise levels that approach the NAC for the Build Alternative. This residence (represented by R17 on aerial sheet 7) is approximately 250 ft from the ROW, and has very similar characteristics as the residence represented by R16 on aerial sheet 7 (same property/lot frontage and large distance between US 19 and the affected residence). Based on the noise barrier evaluation for R16, a noise barrier was not a feasible abatement measure at this location.

## Segment 1 - East side of US 19, Covered Wagon RV Park

Eight residences within the Covered Wagon RV Park represented by receivers R18 through R22, R25 and R133 (aerial sheet 7), were predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. The analysis determined that noise barriers along the ROW could provide at least a 5 dBA reduction to only one of the eight affected residences because the access drives to the park will not allow for a continuous barrier. Additionally, the adjacent properties limited the length of each of the barriers.

The results of the noise barrier analysis are provided in Table 3-6. At heights ranging from 12 to 22 ft and combined lengths ranging between 138 and 176 ft , the two modeled barriers provided at least a 5 dBA reduction to only one of the eight affected residences with predicted noise levels that approach or exceed the NAC. The lowest barrier cost per benefited residence that could be achieved was $\$ 48,300$ for 14 ft high noise barriers with a combined length of 138 ft , which exceeds the cost criteria of $\$ 30,000$. Therefore, a noise barrier at this location was not cost reasonable.

Table 3-6
Covered Wagon RV Park Barrier Analysis Results

| Barrier <br> Height / <br> Length ${ }^{1}$ <br> (ft) | Number of Residences Within a Noise Reduction Range |  |  |  |  |  | Number of Benefited Residences |  |  | Total Estimated Cost | Cost Per <br> Benefited <br> Residence |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 5- \\ 5.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 6- \\ 6.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 7- \\ 7.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 8- \\ 8.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 9+ \\ \text { dBA } \end{gathered}$ | Avg. | Affected | Other ${ }^{2}$ | Total |  |  |
| 8 / N/A | 0 | 0 | 0 | 0 | 0 | N/A | 0 | 0 | 0 | N/A | N/A |
| 10 / N/A | 0 | 0 | 0 | 0 | 0 | N/A | 0 | 0 | 0 | N/A | N/A |
| 12 / 176 | 1 | 0 | 0 | 0 | 0 | 5.0 | 1 | 0 | 1 | \$52,800 | \$52,800 |
| 14/138 | 1 | 0 | 0 | 0 | 0 | 5.1 | 1 | 0 | 1 | \$48,300 | \$48,300 |
| 16 / 138 | 1 | 0 | 0 | 0 | 0 | 5.2 | 1 | 0 | 1 | \$55,200 | \$55,200 |
| 18 / 138 | 1 | 0 | 0 | 0 | 0 | 5.4 | 1 | 0 | 1 | \$62,100 | \$62,100 |
| 20 / 138 | 1 | 0 | 0 | 0 | 0 | 5.5 | 1 | 0 | 1 | \$69,000 | \$69,000 |
| 22 / 138 | 1 | 0 | 0 | 0 | 0 | 5.5 | 1 | 0 | 1 | \$75,900 | \$75,900 |

${ }^{1}$ Length was optimized for a given height.
${ }^{2}$ Other refers to residences that are not affected by the project, but are benefited by the noise barrier.

Segment 2 - East side of US 19, Mobile Home Park Located South of West Elkhorn Drive

Eight residences represented by receivers R45 through R48, R50, R57, R134 and R135 (aerial sheet 13) located within this mobile home park were predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. Line-of-sight and access requirements for vehicles on driveways and side streets intersecting US 19 were addressed in the noise barrier evaluation. With only 12 ft . between the edge of pavement of US 19 and the ROW, line-of-sight requirements for the commercial driveways preclude the construction of a noise barrier at this location. Because of the safety issue, a noise barrier was not a feasible measure to abate noise at this location.

## Segment 5 - East side of US 19, Bicentennial Park located west of NW 2nd Avenue

Some of the facilities located within Bicentennial Park, represented by receiver R124 (aerial sheet 26), were predicted to experience noise levels that approach or exceed the

NAC for the Build Alternative. This noise sensitive site has characteristics similar to the residence identified as R16 on aerial sheet 7. Many of the park facilities are located 100 ft or more from the ROW and the barrier length would be limited to less than 100 ft by NW 22nd Avenue to the east and a spring fed creek to the west. Based on the noise barrier evaluation for R16, a noise barrier was not a feasible abatement measure at this location.

## Segment 1 - West side of US 19, Maine Street Neighborhood

Five residences located north and south of Maine Street represented by receivers R1 through R4 (aerial sheet A1) were predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. The analysis determined that noise barriers along the ROW could provide at least a 5 dBA reduction to all of the five affected residences. Two barriers were modeled at this location due to the residences being separated by Maine Street (one to the north and four on the south side of Maine Street).

The results of the noise barrier analysis are provided in Table 3-7. At heights ranging from 12 to 22 ft and combined lengths ranging between 475 and 676 ft , the two modeled barriers would provide at least a 5 dBA reduction to all five of the affected residences with predicted noise levels that approach or exceed the NAC. The lowest barrier cost per benefited residence that could be achieved was $\$ 38,000$ for two 16 ft high noise barriers with a combined length of 475 ft , which exceeds the cost criteria of $\$ 30,000$. Therefore, a noise barrier at this location was not cost reasonable.

Table 3-7
Maine Street Neighborhood Barrier Analysis Results

| Barrier <br> Height / <br> Length ${ }^{1}$ <br> (ft) | Number of Residences Within a Noise Reduction Range |  |  |  |  |  | Number of Benefited Residences |  |  | Total Estimated Cost | Cost Per <br> Benefited <br> Residence |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 5- \\ 5.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 6- \\ 6.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} \hline 7- \\ 7.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 8- \\ 8.9 \\ \text { dBA } \end{gathered}$ | $\begin{gathered} 9+ \\ \text { dBA } \end{gathered}$ | Avg. | Affected | Other ${ }^{2}$ | Total |  |  |
| $8 / 668$ | 0 | 1 | 1 | 0 | 1 | 7.1 | 3 | 0 | 3 | \$133,600 | \$44,533 |
| 10/658 | 1 | 1 | 0 | 1 | 1 | 7.4 | 4 | 0 | 4 | \$164,500 | \$41,125 |
| 12/676 | 2 | 0 | 0 | 1 | 2 | 7.9 | 5 | 0 | 5 | \$202,800 | \$40,560 |
| 14/576 | 2 | 0 | 0 | 1 | 2 | 8.2 | 5 | 0 | 5 | \$201,600 | \$40,320 |
| 16/475 | 2 | 0 | 1 | 0 | 2 | 8.0 | 5 | 0 | 5 | \$190,000 | \$38,000 |
| 18 / 475 | 2 | 0 | 1 | 0 | 2 | 8.2 | 5 | 0 | 5 | \$213,750 | \$42,750 |
| $20 / 475$ | 2 | 0 | 1 | 0 | 2 | 8.4 | 5 | 0 | 5 | \$237,500 | \$47,500 |
| 22 / 475 | 2 | 0 | 1 | 0 | 2 | 8.6 | 5 | 0 | 5 | \$261,250 | \$52,250 |

${ }^{1}$ Length was optimized for a given height.
${ }^{2}$ Other refers to residences that are not affected by the project, but are benefited by the noise barrier.

## Segment 1 - West side of US 19, Apartments

Two residences are predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. These residences represented by receivers R15 and R129 (aerial sheet 7) are located behind a commercial property, which precludes construction of a noise barrier along the ROW. Based on the evaluation, a noise barrier was not a feasible abatement measure at this location.

## Segment 3 - West side of US 19, Imperial Gardens Mobile Home Park

Two residences within the Imperial Gardens Mobile Home Park represented by receivers R96 and R133 (aerial sheets 18 and 19), were predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. Two barriers were modeled at this location because the access drive to the park will not allow for a continuous barrier. At a height of 22 ft , noise barriers along the ROW did not provide at least a 5 dBA
reduction to the residences. Noise barriers are not effective in this area due to the opening in the barriers for the access drive and the close proximity of the adjacent properties which limited the length of the barriers. Based on the evaluation, a noise barrier was not a feasible abatement measure at this location.

## Segment 3 - West side of US 19, Suncoast Mobile Home Park

Four residences within the Suncoast Mobile Home Park represented by receivers R104 through R106 and R134 (aerial sheet 20), were predicted to experience noise levels that approach or exceed the NAC for the Build Alternative. One residence is located behind a commercial property, which precludes construction of a noise barrier along the ROW. The remaining three residences have characteristics very similar to residences in the Imperial Garden Homes Mobile Home Park shown on aerial sheets 18 and 19 (residences are located near an access drive or very near the property limits of the mobile home park which limit the noise barrier length). Based on the noise barrier evaluation for Imperial Gardens, a noise barrier was not a feasible abatement measure at this location.

### 3.4.6 Conclusions

For the Build Alternative, 33 residences, a congregational area for Sugarmill Manor and an outdoor recreation area at Bicentennial Park were predicted to experience noise levels that approach or exceed the NAC. Noise abatement measures were evaluated for these sites. An evaluation of traffic system management techniques, alignment modifications and property acquisition indicated that these abatement measures were not feasible or reasonable. Land use controls can be used by local planning officials to minimize development or redevelopment of noise sensitive land uses in proximity to US 19. A copy of the final Noise Study Report will be furnished to local officials to assist them in the development of compatible land uses for future development.

A noise barrier evaluation was also performed. Within the project limits, US 19 was characterized by numerous access drives and intersecting side streets. Access requirements for driveways and intersecting streets limit the length of a noise barrier. Consequently, noise barriers could not provide a minimum reduction at some locations. At other locations, a 5 dBA reduction could be achieved, but the number of benefited residences was small because of the gaps in the barriers to accommodate access to US 19. Because of the small number of benefited residences, noise barriers were not cost reasonable at locations where a 5 dBA reduction could be achieved. Based on the noise analysis performed to date, there are no apparent solutions available to mitigate traffic noise at 33 residences, a congregational area for Sugarmill Manor and an outdoor recreation area at Bicentennial Park.

## SECTION 4 CONSTRUCTION NOISE AND VIBRATION

During the construction phase of the proposed project, short-term noise may be generated by stationary and mobile construction equipment. The construction noise will be temporary at any location and will be controlled by adherence to the most recent edition of the FDOT Standard Specifications for Road and Bridge Construction ${ }^{6}$.

Using FDOT's listing of vibration sensitive sites; residences were identified as potentially sensitive to vibration caused during construction. If during final design it is determined that provisions to control vibration are necessary, the project's construction provisions can be modified as needed.

## SECTION 5 <br> PUBLIC COORDINATION

Local officials can promote compatibility between land development and highways. A copy of this report will be provided to local agencies responsible for controlling land use.

The traffic noise evaluation determined that noise sensitive sites within 110 to 200 feet of the nearest proposed travel lane would experience traffic noise levels that approach or exceed the NAC for the Build Alternative. The distance between the nearest proposed travel lane and the 66 dBA contour (ie., approach of the NAC Activity Category B) by project segment is provided in Table 3-3. Local officials can use the noise contour data as a guide to minimize development of noise sensitive land uses in proximity to the proposed roadway.

# SECTION 6 <br> REFERENCES 

1. Title 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise; Federal Highway Administration; April 2001.
2. PD\&E Manual, Part 2, Chapter 17, Florida Department of Transportation; Tallahassee, Florida; November, 2001.
3. Citrus County Comprehensive Plan 1995-2020; Citrus County Department of Development Services; Lecanto, Florida; Revisions through December 14, 1999.
4. City of Crystal River Comprehensive Plan; Crystal River Florida; Adopted March 1998.
5. Measurement of Highway-Related Noise; Federal Highway Administration; Springfield, VA; May 1996.
6. Standard Specifications for Road and Bridge Construction; Florida Department of Transportation; Tallahassee, Florida; 2003.

## APPENDICES

Appendix A:
Appendix B:
Appendix C:

Traffic Data
Project Aerials
Technical Appendix

Appendix A
Traffic Data

## Existing Traffic (year 2001) - Hourly Vehicle Volume by Lane

| Mainline Traffic Segment | $\begin{gathered} \text { LOS C } \\ \text { ADT } \end{gathered}$ | $\begin{aligned} & \text { Demand } \\ & \text { ADT } \end{aligned}$ | Peak Direction Hourly Volumes |  |  | Off-Peak Direction Hourly Volumes |  |  | \% MT | \% HT | K-factor | D-factor | $\mathrm{Bi}-$ directional Hourly | Speed (mph) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Cars | MT | HT | Cars | MT | HT |  |  |  |  |  |  |
| US 19 South of US 98 (2 lanes) | 43000 | 11800 | 314 | 3 | 20 | 266 | 3 | 17 | 1\% | 6\% | 10.6\% | 54.1\% | 1246.08 | 60 |
| US 19 between US 98 and W. Cardinal St. (2 | 43000 | 18050 | 480 | 5 | 30 | 407 | 4 | 26 | 1\% | 6\% | 10.6\% | 54.1\% | 1906.08 | 60 |
| US 19 between W. Cardinal St. and W. Yulee Dr. (2 lanes) | 43000 | 25800 | 686 | 7 | 43 | 582 | 6 | 37 | 1\% | 6\% | 10.6\% | 54.1\% | 2724.48 | 55 |
| US 19 between W. Yulee Dr. and CR 490A (2 lanes) | 30100 | 31100 | 801 | 9 | 50 | 680 | 7 | 43 | 1\% | 6\% | 10.6\% | 54.1\% | 3178.56 | 45 |
| US 19 between CR 490A and CR 490 (2 lanes) | 30100 | 29200 | 777 | 8 | 49 | 659 | 7 | 41 | 1\% | 6\% | 10.6\% | 54.1\% | 3083.52 | 45 |
| US 19 between CR 490 and CR 494 (2 lanes) | 43000 | 27300 | 726 | 8 | 46 | 616 | 7 | 39 | 1\% | 6\% | 10.6\% | 54.1\% | 2882.88 | 45 |
| US 19 between CR 494 and W. Venable St. | 43000 | 28000 | 745 | 8 | 47 | 632 | 7 | 40 | 1\% | 6\% | 10.6\% | 54.1\% | 2956.8 | 55 |
| US 19 between W. Venable St.and Crystal River Plaza (2 lanes) | 43000 | 28800 | 766 | 8 | 48 | 650 | 7 | 41 | 1\% | 6\% | 10.6\% | 54.1\% | 3041.28 | 55 |
| US 19 between Crystal River Plaza and CR 44 (2 lanes) | 43000 | 30100 | 801 | 9 | 50 | 680 | 7 | 43 | 1\% | 6\% | 10.6\% | 54.1\% | 3178.56 | 45 |
| US 19 between CR 44 and SE Kings Bay Dr. | 45300 | 29600 | 525 | 6 | 33 | 445 | 5 | 28 | 1\% | 6\% | 10.6\% | 54.1\% | 3125.76 | 45 |
| US 19 between SE Kings Bay Dr. and SR 44 | 45300 | 32200 | 571 | 6 | 36 | 485 | 5 | 30 | 1\% | 6\% | 10.6\% | 54.1\% | 3400.32 | 45 |
| US 19 between SR 44 and NE 3rd Ave. (2 lanes) | 30100 | 29500 | 792 | 8 | 42 | 672 | 7 | 36 | 1\% | 5\% | 10.6\% | 54.1\% | 3115.2 | 40 |
| US 19 between NE 3rd Ave. and CR 495 (2 lanes) | 30100 | 28400 | 763 | 8 | 41 | 647 | 7 | 34 | 1\% | 5\% | 10.6\% | 54.1\% | 2999.04 | 40 |
| US 19 between CR 495 and NW 6th Ave (2 lanes) | 30100 | 21900 | 588 | 6 | 31 | 499 | 5 | 27 | 1\% | 5\% | 10.6\% | 54.1\% | 2312.64 | 45 |
| US 19 between NW 6th Ave and the Crystal River Mall (2 lanes) | 30100 | 19600 | 526 | 6 | 28 | 447 | 5 | 24 | 1\% | 5\% | 10.6\% | 54.1\% | 2069.76 | 45 |
| US 19 between the Crystal River Mall and Turkey Oak Dr./NW 19th St. (2 lanes) | 30100 | 17300 | 465 | 5 | 25 | 394 | 4 | 21 | 1\% | 5\% | 10.6\% | 54.1\% | 1826.88 | 45 |
| US 19 betweenTurkey Oak Dr./NW 19th St. and Seven Rivers Comm. Hospital (2 lanes) | 43000 | 15400 | 414 | 4 | 22 | 351 | 4 | 19 | 1\% | 5\% | 10.6\% | 54.1\% | 1626.24 | 45 |
| US 19 between Seven Rivers Comm. Hospital and West Power Line St. (2 lanes) | 43000 | 12600 | 338 | 4 | 18 | 287 | 3 | 15 | 1\% | 5\% | 10.6\% | 54.1\% | 1330.56 | 55 |
| US 19 between West Power Line St. And CR $488(2$ lanes) | 43000 | 11100 | 298 | 3 | 16 | 253 | 3 | 13 | 1\% | 5\% | 10.6\% | 54.1\% | 1172.16 | 60 |
| US 19 North of CR 488 (2 lanes) | 43000 | 9800 | 263 | 3 | 14 | 223 | 2 | 12 | 1\% | 5\% | 10.6\% | 54.1\% | 1034.88 | 60 |

[^1]Traffic Volumes for the US 19 PDE Study (Citrus Co.)

| No-Build Traffic (design year 2025) - Hourly Vehicle Volume by Lane |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mainline Traffic Segment | $\begin{gathered} \text { LOS C } \\ \text { ADT } \end{gathered}$ | $\begin{aligned} & \text { Demand } \\ & \text { ADT } \end{aligned}$ | Peak Direction Hourly Volumes Per Lane |  |  | Off-Peak Direction Hourly Volumes Per Lane |  |  | \% MT | \% HT | K-factor | D-factor | $\mathrm{Bi}-$ directional Hourly | Speed (mph) |
|  |  |  | Cars | MT | HT | Cars | MT | HT |  |  |  |  |  |  |
| US 19 South of US 98 (2 lanes) | 43000 | 17700 | 471 | 5 | 30 | 400 | 4 | 25 | 1\% | 6\% | 10.6\% | 54.1\% | 1869.12 | 60 |
| US 19 between US 98 and W. Cardinal St. (2 lanes) | 43000 | 33250 | 885 | 9 | 56 | 751 | 8 | 47 | 1\% | 6\% | 10.6\% | 54.1\% | 3511.2 | 60 |
| US 19 between W. Cardinal St. and W. Yulee Dr. (2 lanes) | 43000 | 43400 | 1144 | 12 | 72 | 971 | 10 | 61 | 1\% | 6\% | 10.6\% | 54.1\% | 4540.8 | 55 |
| US 19 between W. Yulee Dr. and CR 490A (2 lanes) | 30100 | 45200 | 801 | 9 | 50 | 680 | 7 | 43 | 1\% | 6\% | 10.6\% | 54.1\% | 3178.56 | 45 |
| US 19 between CR 490A and CR 490 (2 lanes) | 30100 | 42400 | 801 | 9 | 50 | 680 | 7 | 43 | 1\% | 6\% | 10.6\% | 54.1\% | 3178.56 | 45 |
| US 19 between CR 490 and CR 494 (2 lanes) | 43000 | 37500 | 998 | 11 | 63 | 847 | 9 | 53 | 1\% | 6\% | 10.6\% | 54.1\% | 3960 | 45 |
| US 19 between CR 494 and W. Venable St. (2 lanes) | 43000 | 38800 | 1032 | 11 | 65 | 876 | 9 | 55 | 1\% | 6\% | 10.6\% | 54.1\% | 4097.28 | 55 |
| US 19 between W. Venable St.and Crystal River Plaza (2 lanes) | 43000 | 40000 | 1064 | 11 | 67 | 903 | 10 | 57 | 1\% | 6\% | 10.6\% | 54.1\% | 4224 | 55 |
| US 19 between Crystal River Plaza and CR 44 (2 lanes) | 43000 | 41550 | 1106 | 12 | 69 | 938 | 10 | 59 | 1\% | 6\% | 10.6\% | 54.1\% | 4387.68 | 45 |
| US 19 between CR 44 and SE Kings Bay Dr. (3 lanes) | 45300 | 41100 | 729 | 8 | 46 | 619 | 7 | 39 | 1\% | 6\% | 10.6\% | 54.1\% | 4340.16 | 45 |
| US 19 between SE Kings Bay Dr. and SR 44 <br> (3 lanes) | 45300 | 41100 | 729 | 8 | 46 | 619 | 7 | 39 | 1\% | 6\% | 10.6\% | 54.1\% | 4340.16 | 45 |
| US 19 between SR 44 and NE 3rd Ave. (2 <br> lanes) | 30100 | 44000 | 808 | 9 | 43 | 686 | 7 | 36 | 1\% | 5\% | 10.6\% | 54.1\% | 3178.56 | 40 |
| US 19 between NE 3rd Ave. and CR 495 (2 lanes) | 30100 | 41400 | 808 | 9 | 43 | 686 | 7 | 36 | 1\% | 5\% | 10.6\% | 54.1\% | 3178.56 | 40 |
| US 19 between CR 495 and NW 6th Ave (2 lanes) | 30100 | 34500 | 808 | 9 | 43 | 686 | 7 | 36 | 1\% | 5\% | 10.6\% | 54.1\% | 3178.56 | 45 |
| US 19 between NW 6th Ave and the Crystal River Mall (2 lanes) | 30100 | 26400 | 709 | 8 | 38 | 601 | 6 | 32 | 1\% | 5\% | 10.6\% | 54.1\% | 2787.84 | 45 |
| US 19 between the Crystal River Mall and Turkey Oak Dr./NW 19th St. (2 lanes) | 30100 | 28700 | 771 | 8 | 41 | 654 | 7 | 35 | 1\% | 5\% | 10.6\% | 54.1\% | 3030.72 | 45 |
| US 19 betweenTurkey Oak Dr./NW 19th St. and Seven Rivers Comm. Hospital (2 lanes) | 43000 | 26800 | 720 | 8 | 38 | 611 | 6 | 32 | 1\% | 5\% | 10.6\% | 54.1\% | 2830.08 | 45 |
| US 19 between Seven Rivers Comm. Hospital and West Power Line St. (2 lanes) | 43000 | 24000 | 644 | 7 | 34 | 547 | 6 | 29 | 1\% | 5\% | 10.6\% | 54.1\% | 2534.4 | 55 |
| US 19 between West Power Line St. And CR <br> 488 (2 lanes) | 43000 | 22600 | 607 | 6 | 32 | 515 | 5 | 27 | 1\% | 5\% | 10.6\% | 54.1\% | 2386.56 | 60 |
| US 19 North of CR 488 (2 lanes) | 43000 | 18200 | 489 | 5 | 26 | 415 | 4 | 22 | 1\% | 5\% | 10.6\% | 54.1\% | 1921.92 | 60 |

Note: traffic used was the "without Suncoast Parkway Phase 2"

Traffic Volumes for the US 19 PDE Study (Citrus Co.)

Build Traffic (design year 2025) - Hourly Vehicle Volume by Lane

| Mainline Traffic Segment | $\begin{gathered} \text { LOS C } \\ \text { ADT } \end{gathered}$ | $\begin{aligned} & \text { Demand } \\ & \text { ADT } \end{aligned}$ | Peak Direction Hourly Volumes Per Lane |  |  | Off-Peak Direction Hourly Volumes <br> Per Lane |  |  | \% MT | \% HT | K-factor | D-factor | Bi directional Hourly | Speed (mph) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Cars | MT | HT | Cars | MT | HT |  |  |  |  |  |  |
| US 19 South of US 98 (2 lanes) | 43000 | 17700 | 471 | 5 | 30 | 400 | 4 | 25 | 1\% | 6\% | 10.6\% | 54.1\% | 1869.12 | 60 |
| US 19 between US 98 and W. Cardinal St. (3 lanes) | 64500 | 33250 | 604 | 6 | 37 | 513 | 5 | 31 | 1\% | 6\% | 10.6\% | 54.1\% | 3511.2 | 60 |
| US 19 between W. Cardinal St. and W. Yulee Dr. (3 lanes) | 64500 | 43400 | 789 | 8 | 48 | 669 | 7 | 41 | 1\% | 6\% | 10.6\% | 54.1\% | 4583.04 | 55 |
| US 19 between W. Yulee Dr. and CR 490A (3 lanes) | 45300 | 45200 | 821 | 9 | 50 | 697 | 7 | 43 | 1\% | 6\% | 10.6\% | 54.1\% | 4773.12 | 45 |
| US 19 between CR 490A and CR 490 (3 lanes) | 45300 | 42400 | 771 | 8 | 47 | 654 | 7 | 40 | 1\% | 6\% | 10.6\% | 54.1\% | 4477.44 | 45 |
| US 19 between CR 490 and CR 494 (3 lanes) | 64500 | 37500 | 682 | 7 | 42 | 578 | 6 | 35 | 1\% | 6\% | 10.6\% | 54.1\% | 3960 | 45 |
| US 19 between CR 494 and W. Venable St. <br> (3 lanes) | 64500 | 38800 | 705 | 7 | 43 | 598 | 6 | 37 | 1\% | 6\% | 10.6\% | 54.1\% | 4097.28 | 55 |
| US 19 between W. Venable St.and Crystal River Plaza ( 3 lanes) | 64500 | 40000 | 727 | 8 | 45 | 617 | 6 | 38 | 1\% | 6\% | 10.6\% | 54.1\% | 4224 | 55 |
| US 19 between Crystal River Plaza and CR 44 (3 lanes) | 64500 | 41550 | 755 | 8 | 46 | 641 | 7 | 39 | 1\% | 6\% | 10.6\% | 54.1\% | 4387.68 | 45 |
| US 19 between CR 44 and SE Kings Bay Dr. (3 lanes) | 45300 | 41100 | 729 | 8 | 46 | 619 | 7 | 39 | 1\% | 6\% | 10.6\% | 54.1\% | 4340.16 | 45 |
| US 19 between SE Kings Bay Dr. and SR 44 (3 lanes) | 45300 | 41100 | 729 | 8 | 46 | 619 | 7 | 39 | 1\% | 6\% | 10.6\% | 54.1\% | 4340.16 | 45 |
| US 19 between SR 44 and NE 3rd Ave. (3 lanes) | 45300 | 44000 | 804 | 8 | 42 | 682 | 7 | 36 | 1\% | 5\% | 10.6\% | 54.1\% | 4646.4 | 40 |
| US 19 between NE 3rd Ave. and CR 495 (3 lanes) | 45300 | 41400 | 757 | 8 | 39 | 642 | 7 | 33 | 1\% | 5\% | 10.6\% | 54.1\% | 4371.84 | 40 |
| US 19 between CR 495 and NW 6th Ave (3 lanes) | 45300 | 34500 | 631 | 7 | 33 | 535 | 6 | 28 | 1\% | 5\% | 10.6\% | 54.1\% | 3643.2 | 45 |
| US 19 between NW 6th Ave and the Crystal River Mall (3 lanes) | 45300 | 26400 | 483 | 5 | 25 | 409 | 4 | 21 | 1\% | 5\% | 10.6\% | 54.1\% | 2787.84 | 45 |
| US 19 between the Crystal River Mall and Turkey Oak Dr./NW 19th St. (3 lanes) | 45300 | 28700 | 525 | 5 | 27 | 445 | 5 | 23 | 1\% | 5\% | 10.6\% | 54.1\% | 3030.72 | 60 |
| US 19 betweenTurkey Oak Dr./NW 19th St. and Seven Rivers Comm. Hospital (2 lanes) | 64500 | 26800 | 720 | 8 | 38 | 611 | 6 | 32 | 1\% | 5\% | 10.6\% | 54.1\% | 2830.08 | 60 |
| US 19 between Seven Rivers Comm. Hospital and West Power Line St. (2 lanes) | 64500 | 24000 | 644 | 7 | 34 | 547 | 6 | 29 | 1\% | 5\% | 10.6\% | 54.1\% | 2534.4 | 60 |
| US 19 between West Power Line St. And CR <br> 488 (2 lanes) | 64500 | 22600 | 607 | 6 | 32 | 515 | 5 | 27 | 1\% | 5\% | 10.6\% | 54.1\% | 2386.56 | 60 |
| US 19 North of CR 488 (2 lanes) | 64500 | 18200 | 489 | 5 | 26 | 415 | 4 | 22 | 1\% | 5\% | 10.6\% | 54.1\% | 1921.92 | 60 |

DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

DATE: $\quad \frac{16-A p r-02}{\text { PREPARED BY: } \quad}$| A. Robinson |
| :--- |

| Financial Project Number(s): | $\frac{4058221}{1852007 ~ P}$ |
| :--- | :--- |
| Federal Aid Numbers (s): |  |

Project Description: US 19 from south of US 98 to CR 488
Segment Description: US 19 south of US 98
(data sheets are to be filled out for every segment having a change in traffic parameters such
as volume, posted speed, typical section, etc.)
NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
| AADT: | AADT: | AADT: |
| LOS (C) $\quad 43000$ | LOS (C) $\quad 43000$ | LOS (C) $\quad 43000$ |
| Demand 11800 | Demand 17700 | Demand 17700 |
| Posted Speed: 60 mph | Posted Speed: $\quad 60 \mathrm{mph}$ | Posted Speed: $\quad 60 \mathrm{mph}$ |
| $100 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56 \%$ | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $\mathrm{T}=14 \mathrm{l}$ \% for 24 hrs | $T=14 \%$ for 24 hrs | $T=14 \%$ for 24 hrs |
| $T=77 \%$ Design Hr . | $T=77 \%$ Design Hr. | $T=77$ \% Design Hr. |
| 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: $\quad 2025$ | Year: 2025 |
|  | ) | AAD |
| LOS (C) | LOS (C) $\quad 43000$ | LOS (C) $\quad 43000$ |
| Demand | Demand 15800 | Demand 15800 |
| Posted Speed: __ mph | Posted Speed: $\quad 60 \mathrm{mph}$ | Posted Speed: 60 mph |
| - $\mathrm{mm} / \mathrm{h}$ | . $100 \mathrm{~km} / \mathrm{h}$ | - $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=-\quad \mathrm{l}$ | $K=10.56$ \% | $K=10.56$ \% |
| $D=-\quad \%$ | $D=54.1$ \% | $D=54.1$ \% |
| $T=\square \%$ for 24 hrs | $T=14 \%$ for 24 hrs | $T=14 \%$ for 24 hrs |
| $T=\overline{-} \%$ Design Hr. | $\begin{aligned} & T=\frac{7}{7} \text { \% Design Hr. } \\ & 6.00 \% \text { Heavy Trucks DHV } \end{aligned}$ | $T=$ $\qquad$ $7 \%$ Design Hr. <br> 6.00 \% Heavy Trucks DHV |
| $\qquad$ \% Heavy Trucks DHV <br> \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

## DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | $\quad$ A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between US 98 and W. Cardinal St.
(data sheets are to be filled out for every segment having a change in traffic parameters such
as volume, posted speed, typical section, etc.)
NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
|  |  |  |
| LOS (C) 43000 | LOS (C) $\quad 43000$ | LOS (C) $\quad 64500$ |
| Demand 18050* | Demand 33250* | Demand 33250* |
| Posted Speed: 60 mph | Posted Speed: $\quad 60 \mathrm{mph}$ | Posted Speed: $\quad 60 \mathrm{mph}$ |
| $100 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $\mathrm{D}=\mathrm{54.1} \%$ | $\mathrm{D}=54.1$ \% |
| $T=14 \%$ for 24 hrs | $T=\quad 14 \%$ for 24 hrs | $T=14 \%$ for 24 hrs |
| $T=$ $\qquad$ \% Design Hr. 00 | $\begin{aligned} & T=\frac{7}{7} \text { \% Design Hr. } \\ & 6.00 \% \text { Heavy Trucks DHV } \end{aligned}$ | $\begin{aligned} & T=\frac{7}{7} \text { \% Design Hr. } \\ & 6.00 \% \text { Heavy Trucks DHV } \end{aligned}$ |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility |  | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year: | Not Applicable | Year: | 2025 | Year: | 2025 |
| AADT: |  | DT: |  | AADT: |  |
| LOS (C) | - | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand | - - | Demand | $28750^{*}$ | Demand | 28750* |
| Posted Speed: | - mph | Posted Speed: | 60 mph | Posted Speed: | 60 mph |
|  | /h |  | $100 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=$ | - $\%$ |  | 10.56 \% |  | 10.56 \% |
| $D=$ | - \% |  | 54.1 \% |  | 54.1 \% |
| $T=$ | - \% for 24 hrs |  | $14 \%$ for 24 hrs |  | $14 \%$ for 24 hrs |
|  | - $\%$ Design Hr. |  | 7 \% Design Hr. |  | 7 \% Design Hr. |
|  | Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| - | \%Medium Trucks DHV |  | \%Medium Trucks DHV | 1.00 | \%Medium Trucks DHV |

[^2]DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY
$\begin{array}{ll}\text { DATE: } & \text { 16-Apr-02 } \\ \text { PREPARED BY: } & \text { A. Robinson }\end{array}$
Financial Project Number(s):
4058221
Federal Aid Numbers (s):
1852007 P
Project Description:
US 19 from south of US 98 to CR 488

Segment Description: US 19 between W. Cardinal St. and W. Yulee Dr.
(data sheets are to be filled out for every segment having a change in traffic parameters such
as volume, posted speed, typical section, etc.)
NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook, Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)

Without Suncoast Parkway Phase 2


With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: | 2025 | Year: | 2025 |
| AADT: | AADT: |  | AADT: |  |
| LOS (C) | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand | Demand | $36250^{*}$ | Demand | $36250^{*}$ |
| Posted Speed: $\quad$ _ $\quad \mathrm{mph}$ | Posted Speed: | 55 mph | Posted Speed: | 60 mph |
| - $\mathrm{km} / \mathrm{h}$ |  | $90 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=\square . \quad \%$ |  | 10.56 \% |  | 10.56 \% |
| $D=-\quad \%$ |  | 54.1 \% |  | 54.1 \% |
| $T=-\quad \%$ for 24 hrs |  | $14 \%$ for 24 hrs |  | 14 \% for 24 hrs |
| $\mathrm{T}=-\quad$ \% Design Hr . |  | 7 \% Design Hr. |  | 7 \% Design Hr. |
| \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| _\%Medium Trucks DHV | 1.00 | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

[^3]DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | $\quad$ A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
Project Description: US 19 from south of US 98 to CR 488
US 19 1852007 P

Segment Description: US 19 between W. Yulee Dr. and W. Grover Cleveland Blvd. / W. Halls River Rd. (CR 490A) (data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: 2001 | Year: | 2025 | Year: | 2025 |
| AADT: | AADT: |  | AADT: |  |
| LOS (C) $\quad 30100$ | LOS (C) | 30100 | LOS (C) | 45300 |
| Demand 31100 | Demand | 45200 | Demand | 45200 |
| Posted Speed: 45 mph | Posted Speed: | 45 mph | Posted Speed: | 45 mph |
| $70 \mathrm{~km} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=10.56$ \% |  | 10.56 \% |  | 10.56 \% |
| $D=54.1$ \% |  | 54.1 \% |  | 54.1 \% |
| $T=14 \%$ for 24 hrs |  | $14 \%$ for 24 hrs |  | 14 \% for 24 hrs |
| $\mathrm{T}=77 \mathrm{7}$ \% Design Hr . |  | 7 F \% Design Hr. |  | 7 7 \% Design Hr. |
| 6.00 \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV |  | Medium Trucks DHV |  | Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: $\quad 2025$ | Year: 2025 |
| AADT: | ADT: <br> LOS (C) 30100 | LOS (C) 45300 |
| Demand - | Demand 39400 | Demand 39400 |
| Posted Speed: $\quad$ - mph | Posted Speed: 45 mph | Posted Speed: 45 mph |
| - $\mathrm{Cm} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=-\quad$ - $\%$ | $K=10.56$ \% | $K=10.56$ \% |
| $D=-\quad \%$ | $D=54.1$ \% | $D=54.1$ \% |
| $T=\square$ - $\%$ for 24 hrs | $T=14 \%$ for 24 hrs | $T=14 \%$ for 24 hrs |
| $T=-\quad$ \% Design Hr . | $T=\frac{7}{7} \%$ Design Hr. | $T=\frac{7}{7} \%$ Design Hr. |
| $\qquad$ \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV <br> 1.00 \%Medium Trucks DHV | 6.00 \% Heavy Trucks DHV 1.00 \%Medium Trucks DHV |

DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | $\frac{16-\text { Adr }-02}{\text { PREPARED BY: }} \quad$ A.Robinson |
| :--- | :--- |

Financial Project Number(s):
4058221
Federal Aid Numbers (s):
1852007 P
Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between W. Grover Cleveiand Blvc. / W. Halls River Rd. (CR 490A) and
W. Homosassa Tr. (CR 490)
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2


With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: Not Applicable | Year: $\quad 2025$ | Year: 2025 |
| AADT: | AADT: | AADT: |
| LOS (C) | LOS (C) $\quad 30100$ | LOS (C) $\quad 45300$ |
| Demand | Demand 37000 | Demand 37000 |
| Posted Speed: _ - mph | Posted Speed: $\quad 45 \mathrm{mph}$ | Posted Speed: 45 mph |
| [ $\mathrm{km} / \mathrm{h}$ | 70 $\mathrm{km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $K=$ - \% | $K=10.56$ \% | $K=10.56$ \% |
| $\mathrm{D}=$ - $\%$ | $D=54.1$ \% | $D=54.1$ \% |
| $T=\square$ - $\%$ for 24 hrs | $T=14 \%$ for 24 hrs | $T=14 \%$ for 24 hrs |
| $T=$ - \% Design Hr. | $T=7$ | $T=77 \%$ Design Hr . |
| \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV |
| _ \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | $\quad$ A. Robinson |


| Financial Project Number(s): | $\frac{4058221}{1852007 \text { P }}$ |
| :--- | :--- |
| Federal Aid Numbers (s): |  |
| Project Description: |  |

Segment Description: US 19 between W. Homosassa Tr. (CR 490) and W. Ozello Tr. (CR 494)
(data sheets are to be filled out for every segment having a change in traffic parameters such
as volume, posted speed, typical section, etc.)
NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
|  |  | CT: 0 (0) 64500 |
| LOS (C) $\quad 43000$ | (C) $\quad 43000$ | LOS (C) $\quad 64500$ |
| Demand 27300 | Demand 37500* | Demand 37500* |
| Posted Speed: 45 mph | Posted Speed: 45 mph | Posted Speed: 45 mph |
| $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56 \%$ | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=14 \%$ for 24 hrs | $T=$ | $T=14 \%$ for 24 hrs |
| $T=770$ | $T=7$ | $T=77$ \% Design Hr. |
| 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2


[^4]
# DISTRICT 7 PD\&E <br> TRAFFIC DATA FOR NOISE STUDY 

| DATE: | 16-ADr-02 |
| :--- | :--- |
| PREPARED BY: $\quad$ | A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between W. Ozello Tr.(CR 494) and W. Venable St.
(data sheets are to be filled out for every segment having a change in traffic parameters sucn as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook.
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2


With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: | 2025 | Year: | 2025 |
|  | AAD |  | AADT: |  |
| LOS (C) | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand | Demand | 33600 | Demand | 33600 |
| Posted Speed:___ mph | Posted Speed: | 55 mph | Posted Speed: | 60 mph |
| _ $\mathrm{km} / \mathrm{h}$ |  | $90 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=\ldots$ - \% |  | 10.56 \% |  | 10.56 \% |
| $D=$ - \% |  | 54.1 \% |  | 54.1 \% |
| $T=$ - \% for 24 hrs |  | $14 \%$ for 24 hrs |  | $14 \%$ for 24 hrs |
| $T=-\quad \%$ Design Hr . |  | 7 \% Design Hr. |  | 7 F \% Design Hr. |
| \% Heavy Trucks DHV |  | Heavy Trucks DHV | 6.00 | Heavy Trucks DHV |
| \%Medium Trucks DHV | 1.00 | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

## DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | $\quad$ A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):

4058221
1852007 P

Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between W. Venable St. and Crystal River Plaza
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: 2001 | Year: | 2025 | Year: | 2025 |
| AADT: | AADT: |  | AADT: |  |
| LOS (C) $\quad 43000$ | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand 28800 | Demand | 40000 | Demand | 40000 |
| Posted Speed: 55 mph | Posted Speed: | 55 mph | Posted Speed: | 60 mph |
| $90 \mathrm{~km} / \mathrm{h}$ |  | $90 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% |  | 10.56 \% |  | 10.56 \% |
| $D=54.1$ \% |  | 54.1 \% |  | 54.1 \% |
| $T=14 \%$ for 24 hrs |  | $14 \%$ for 24 hrs |  | 14 \% for 24 hrs |
| $T=7$ |  | 7 \% Design Hr. |  | 7 \% Design Hr. |
| 6.00 \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV |  | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: | 2025 | Year: | 2025 |
|  |  |  |  |  |
| LOS (C) | LOS (C) | 43000 | $\operatorname{LOS}(\mathrm{C})$ | 64500 |
| Demand | Demand | 35800 | Demand | 35800 |
| Posted Speed: $\quad$ - mph | Posted Speed: | 55 mph | Posted Speed: | 60 mph |
| [ km/h |  | $90 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=\square$ - $\%$ |  | 10.56 \% |  | 10.56 \% |
| $D=-\quad \%$ |  | 54.1 \% |  | 54.1 \% |
| $T=\square$ - $\%$ for 24 hrs |  | 14 \% for 24 hrs |  | $14 \%$ for 24 hrs |
| $T=\square$ \% Design Hr . |  | 7 \% Design Hr . |  | $7 \mathrm{7} \%$ Design Hr. |
| \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| \%Medium Trucks DHV | 1.00 | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | $\frac{16 \text {-Apr-02 }}{\text { PREPARED BY: }} \quad$ A.Robinson |
| :--- | :--- |


| Financial Project Number(s): | $\frac{4058221}{1852007 \text { P }}$ |
| :--- | :--- |
| Federal Aid Numbers (s): |  |
| Project Description: $\quad$ US 19 from south of US 98 to CR 488 |  |

Segment Description: US 19 between Crystal River Plaza and S.E. 8th Ave. W. Fort Isiand TR. (CR 44) (data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook.
Table 5-6 (Rural Undeveioped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: 2001 | Year: | 2025 | Year: | 2025 |
|  |  |  |  |  |
| LOS (C) $\quad 43000$ | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand 30100 | Demand | $41550^{*}$ | Demand | $41550^{*}$ |
| Posted Speed: 45 mph | Posted Speed: | 45 mph | Posted Speed: | 60 mph |
| $70 \mathrm{~km} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% |  | 10.56 \% |  | 10.56 \% |
| $D=54.1 \%$ |  | 54.1 \% |  | 54.1 \% |
| $T=14 \%$ for 24 hrs |  | 14 \% for 24 hrs |  | 14 \% for 24 hrs |
| $T=7$ |  | 7 \% Design Hr. |  | 7 \% Design Hr. |
| 6.00 \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV |  | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

With the Suncoast Parkway Phase 2


[^5]
## DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

| DATE: |  |
| :--- | :--- |
| PREPARED BY: | 16-Adr-02 |

Financial Project Number(s):
Federal Aid Numbers (s):
Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between S.E. 8th Ave. / W. Fort Isiand Tr. (CR 44) and S.E. Kings Bay Dr.
(data sheets are to be filled out for every segment having a change in traffic parameters such
as volume, posted speed, typical section, etc.)
NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook, Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)

Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
| AADT |  | T |
| LOS (C) $\quad 45300$ | LOS (C) $\quad 45300$ | LOS (C) $\quad 45300$ |
| Demand $\underline{29600}$ | Demand 41100 | Demand 41100 |
| Posted Speed: 45 mph | Posted Speed: 45 mph | Posted Speed: 45 mph |
| - $70 \mathrm{~km} / \mathrm{h}$ | 70 $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=10.55$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=14 \%$ for 24 hrs | $\mathrm{T}=14 \mathrm{l}$ \% for 24 hrs | $T=14 \%$ for 24 hrs |
| $T=770$ Design Hr. | $\mathrm{T}=7$. | $T=77 \%$ Design Hr. |
| 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2


DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: $\quad$ | A. Robinson |


| Financial Project Number(s): | 4058221 |
| :--- | :--- |
| Federal Aid Numbers (s): | $\underline{1852007 \mathrm{P}}$ |

Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between S.E. Kings Bay Dr. and SR 44
(data sheets are to be filled out for every segment having a change in traffic parameters such
as volume, posted speed, typical section, etc.)
NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without the Suncoast Parkway

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
|  |  |  |
| LOS (C) $\quad 45300$ | LOS (C) $\quad 45300$ | LOS (C) $\quad 45300$ |
| Demand 32200 | Demand 41100 | Demand $\quad 41100$ |
| Posted Speed: 45 mph | Posted Speed: 45 mph | Posted Speed: 45 mph |
| $70 \mathrm{~km} / \mathrm{h}$ | 70 $\mathrm{km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56 \%$ |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=14 \%$ for 24 hrs | $T=14 \%$ for 24 hrs | $T=$ |
| $T=7$ | $T=77$ Design Hr . | $T=77 \%$ Design Hr. |
| 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: $\quad 2025$ | Year: 2025 |
| AADT: | AADT: | AADT: |
| LOS (C) | LOS (C) $\quad 45300$ | LOS (C) $\quad 45300$ |
| Demand | Demand $\quad 35700$ | Demand $\quad 35700$ |
| Posted Speed: $\quad$ - mph | Posted Speed: 45 mph | Posted Speed: 45 mph |
| [ km/h | 70 $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $K=-\quad \%$ | $K=10.56$ \% | $K=10.56$ \% |
| $D=\square \%$ | $D=54.1$ \% | $D=54.1$ \% |
| $T=-\quad \%$ for 24 hrs | $\mathrm{T}=14 \mathrm{~m}$ for 24 hrs | $\mathrm{T}=14 \mathrm{~m}$ for 24 hrs |
| $T=$ - \% Design Hr. | $T=77$ \% Design Hr . | $\mathrm{T}=7.7$ Design Hr. |
| \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV | 6.00 \% Heavy Trucks DHV |
| \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | $\quad$ A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
Project Description:

US 19 from south of US 98 to CR 488

Segment Description: US 19 between SR 44 and N.E. 3rd Ave.
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.

LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)

Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: 2025 | Year: 2025 |
|  |  |  |
| LOS (C) 30100 | LOS (C) $\quad 30100$ | LOS (C) 45300 |
| Demand 29500 | Demand 44000 | Demand 44000 |
| Posted Speed: $\quad 40 \mathrm{mph}$ | Posted Speed: 40 mph | Posted Speed: 45 mph |
| $60 \mathrm{~km} / \mathrm{h}$ | 60 $\mathrm{km} / \mathrm{h}$ | 70 |
| $K=10.56$ \% | $\mathrm{K}=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=\frac{12}{} \%$ for 24 hrs | $\mathrm{T}=\frac{12}{} \%$ for 24 hrs | $T=\frac{12}{} \%$ for 24 hrs |
| $\mathrm{T}=\ldots \quad 6 \%$ Design Hr. | $\mathrm{T}=\ldots \quad 6$ \% Design Hr. | $T=\ldots 6$ Design Hr . |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
|  |  |  |

DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY
DATE: $\quad \frac{16-\text { ADr }-02}{\text { PREPARED BY: } \quad \text { A. Rodinson }}$

Financial Project Number(s):
4058221
Federal Aid Numbers (s):
1852007 P
Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between N.E. 3rd Ave. and N. Citrus Ave. (CR 495)
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS $(\mathrm{C})$ or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveioped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: $\quad 2025$ |
| AADT: | AADT: | AADT: |
| LOS (C) $\quad 30100$ | LOS (C) $\quad 30100$ | LOS (C) $\quad 45300$ |
| Demand 28400 | Demand 41400 | Demand 41400 |
| Posted Speed: 40 mph | Posted Speed: 40 mph | Posted Speed: 45 mph |
| $60 \mathrm{~km} / \mathrm{h}$ | $60 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $\mathrm{D}=54.1$ \% |
| $\mathrm{T}=12 \mathrm{l}$ \% for 24 hrs | $\mathrm{T}=12 \mathrm{l}$ \% for 24 hrs | $T=12 \%$ for 24 hrs |
| $T=\quad 6 \%$ Design Hr. | $T=66$ Design Hr. | $T=\quad 6 \%$ Design Hr . |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2


DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
4058221
1852007 P
Project Description:
US 19 from south of US 98 to CR 488

Segment Description: US 19 between N.Citrus Ave. (CR 495) and N.W. 6th Ave.
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: $\quad 2001$ | Year: 2025 | Year: 2025 |
| AADT: | AADT: | AADT: |
| LOS (C) $\quad 30100$ | LOS (C) $\quad 30100$ | LOS (C) $\quad 45300$ |
| Demand 21900 | Demand 34500 | Demand 34500 |
| Posted Speed: 45 mph | Posted Speed: 45 mph | Posted Speed: 45 mph |
| $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs |
| $T=\quad 6 \%$ Design Hr. | $T=66 \%$ Design Hr . | $\mathrm{T}=\ldots \quad 6 \%$ Design Hr. |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: | 2025 | Year: | 2025 |
|  |  |  |  |  |
| LOS (C) . | LOS (C) | 30100 | LOS (C) | 45300 |
| Demand | Demand | 29000 | Demand | 29000 |
| Posted Speed: - $\quad \mathrm{mph}$ | Posted Speed: | 45 mph | Posted Speed: | 45 mph |
| - $\mathrm{Cm} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=-\quad$ - $\%$ |  | 10.56 \% |  | 10.56 \% |
| $D=-\quad$ \% |  | 54.1 \% |  | 54.1 \% |
| $T=$ - $\%$ for 24 hrs |  | $12 \%$ for 24 hrs |  | $12 \%$ for 24 hrs |
| $T=-\quad$ \% Design Hr . |  | 6 \% Design Hr. |  | 6 \% Design Hr. |
| - \% Heavy Trucks DHV |  | \% Heavy Trucks DHV |  | \% Heavy Trucks DHV |
| - \% Medium Trucks DHV |  | \%Medium Trucks DHV | 1.00 | M Medium Trucks DHV |

## DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

| DATE: | $16-$ Apr-02 |
| :--- | :--- |
| PREPARED BY: $\quad$ | A. Robinson |

Financial Project Number(s): $\quad \frac{4058221}{1852007 \text { P }}$
Federal Aid Numbers (s):
Project Description: US 19 from south of US 98 to CR 488

Segment Description: US 19 between N.W. 6th Ave. and Crvstal River Mall (data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2


With the Suncoast Parkway Phase 2


DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | A. Robinson |


| Financial Project Number(s): | $\frac{4058221}{1852007 ~ P}$ |
| :--- | :--- |
| Federal Aid Numbers (s): |  |
| Project Description: $\quad$ US 19 from south of US 98 to CR 488 |  |

Segment Description: US 19 between Crystal River Mall and Turkey Oak Dr. / N.W. 19th St.
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)

Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
| AADT: | AADT: | AADT: |
| LOS (C) $\quad 30100$ | LOS (C) $\quad 30100$ | LOS (C) $\quad 45300$ |
| Demand 17300 | Demand $\quad 28700$ | Demand 28700 |
| Posted Speed: 45 mph | Posted Speed: $\quad 45 \mathrm{mph}$ | Posted Speed: 60 mph |
| - $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56 \%$ | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=12 \%$ for 24 hrs | $T=$ | $\mathrm{T}=\ldots 12 \%$ for 24 hrs |
| $T=\frac{6}{6} \%$ Design Hr . | $T=\quad 6 \%$ Design Hr. | $\mathrm{T}=\quad 6 \%$ Design Hr . |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: | 2025 | Year: | 2025 |
|  |  |  |  |  |
| LOS (C) | LOS (C) | 30100 | LOS (C) | 45300 |
| Demand | Demand | 23900 | Demand | 23900 |
| Posted Speed: ___ mph | Posted Speed: | 45 mph | Posted Speed: | 60 mph |
| [ $\mathrm{km} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=$ - - \% |  | 10.56 \% |  | 10.56 \% |
| $D=$ |  | 54.1 \% |  | 54.1 \% |
| $T=\ldots$ - \% for 24 hrs |  | $12 \%$ for 24 hrs |  | $12 \%$ for 24 hrs |
| $T=-\quad \%$ Design Hr . |  | $6 \%$ Design Hr. |  | 6 \% Design Hr. |
| Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| _\%Medium Trucks DHV |  | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

DATE: $\quad \frac{16-A p r-02}{\text { PREPARED BY: } \quad \text { A. Robinson }}$

| Financial Project Number(s): | 18221 |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
| Federal Aid Numbers (s): | $\underline{1852007 ~ P}$ |  |  |  |

Project Description:
US 19 from south of US 98 to CR 488

Segment Description: US 19 between Turkey Oak Dr. / N.W. 19th St. and Seven Rivers Community Hospital (data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: $\quad 2025$ | Year: 2025 |
| AADT: | AAD | AADT: |
| LOS (C) $\quad 43000$ | LOS (C) $\quad 43000$ | LOS (C) 64500 |
| Demand 15400 | Demand $\quad 26800$ | Demand 26800 |
| Posted Speed: 45 mph | Posted Speed: $\quad 45 \mathrm{mph}$ | Posted Speed: $\quad 60 \mathrm{mph}$ |
| $70 \mathrm{~km} / \mathrm{h}$ | $70 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $\mathrm{D}=54.1$ \% |
| $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs |
| $T=\quad 6 \%$ Design Hr . | $T=6 \%$ Design Hr . | $\mathrm{T}=\square \mathrm{6} \%$ Design Hr . |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: Not Applicable | Year: | 2025 | Year: | 2025 |
| LOS (C) | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand | Demand | 21600 | Demand | 21600 |
| Posted Speed: _ - mph | Posted Speed: | 45 mph | Posted Speed: | 60 mph |
| - $\mathrm{km} / \mathrm{h}$ |  | $70 \mathrm{~km} / \mathrm{h}$ |  | $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=-\quad$ - $\%$ |  | 10.56 \% |  | 10.56 \% |
| $D=-\quad$ \% |  | 54.1 \% |  | 54.1 \% |
| $T=\ldots$ - \% for 24 hrs |  | $12 \%$ for 24 hrs |  | $12 \%$ for 24 hrs |
| $T=$ - \% Design Hr . |  | 6 \% Design Hr. |  | 6 \% Design Hr. |
| \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| \%Medium Trucks DHV | 1.00 | Medium Trucks DHV |  | Medium Trucks DHV |

## DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | $\quad$ A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
Project Description:
US 19 from south of US 98 to CR 488

Segment Description: US 19 between Seven Rivers Community Hospital and W. Power Line St. (data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2


With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) |  | Build (design year) |  |
| :---: | :---: | :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: | 2025 | Year: | 2025 |
| S (C) | LOS (C) | 43000 | LOS (C) | 64500 |
| Demand | Demand | 19000 | Demand | 19000 |
| Posted Speed: - mph | Posted Speed: | 55 mph | Posted Speed: | 60 |
| - ${ }^{\text {k }}$ |  | $90 \mathrm{~km} / \mathrm{h}$ |  | 100 |
| $K=-\quad \%$ |  | 10.56 \% |  | 10.56 \% |
| $D=-\quad \%$ |  | 54.1 \% |  | 54.1 \% |
| $T=\square$ - $\%$ for 24 hrs |  | $12 \%$ for 24 hrs |  | 12 \% for 24 hrs |
| $T=$ - \% Design Hr. |  | 6 \% Design Hr. |  | 6 \% Design Hr. |
| \% Heavy Trucks DHV |  | Heavy Trucks DHV |  | Heavy Trucks DHV |
| \% Medium Trucks DHV | 1.00 | Medium Trucks DHV | 1.00 | Medium Trucks DHV |

DISTRICT 7 PD\&E
TRAFFIC DATA FOR NOISE STUDY

| DATE: | 16-Apr-02 |
| :--- | :--- |
| PREPARED BY: | A. Robinson |

Financial Project Number(s):
Federal Aid Numbers (s):
4058221
1852007 P
Project Description:
US 19 from south of US 98 to CR 488

Segment Description: US 19 between W. Power Line St and CR 488
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: $\quad 2001$ | Year: $\quad 2025$ | Year: 2025 |
|  |  |  |
| LOS (C) 43000 | LOS (C) $\quad 43000$ | LOS (C) $\quad 64500$ |
| Demand 11100 | Demand $\quad 22600$ | Demand 22600 |
| Posted Speed: 60 mph | Posted Speed: 60 mph | Posted Speed: $\quad 60 \mathrm{mph}$ |
| 100 $\mathrm{km} / \mathrm{h}$ | 100 $\mathrm{km} / \mathrm{h}$ | 100 $\mathrm{km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs |
| $T=\frac{6}{6} \%$ Design Hr . | $T=66 \%$ Design Hr. | $T=\frac{6}{6} \%$ Design Hr. |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2


## DISTRICT 7 PD\&E

## TRAFFIC DATA FOR NOISE STUDY

|  |  | DATE: <br> PREPARED BY: | $\frac{16-\text { Apr-02 }}{\text { A. Robinson }}$ |
| :---: | :---: | :---: | :---: |
| inancial Project Number(s): |  | \% |  |
| Financial Project Number(s): | 4058221 | \% |  |
| Federal Aid Numbers (s): | 1852007 P |  |  |
| Project Description: US | US 19 from south of US 98 to CR 488 |  |  |

Segment Description: US 19 north of CR 488
(data sheets are to be filled out for every segment having a change in traffic parameters such as volume, posted speed, typical section, etc.)

NOTE: AADT is the LOS (C) or Demand, whichever is less.
LOS C volume obtained from FDOT 1998 Level of Service Handbook,
Table 5-6 (Rural Undeveloped Areas and Cities less than 5000)
Without Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: 2001 | Year: 2025 | Year: 2025 |
| AADT: | AADT: $\quad \cdots \geqslant$ | AADT: |
| LOS (C) $\quad 43000$ | LOS (C) $\underline{43000}^{\text {² }}$ | LOS (C) 64500 |
| Demand 9800 | Demand 18200 | Demand 18200 |
| Posted Speed: $\quad 60 \mathrm{mph}$ | Posted Speed: $\quad 60 \mathrm{mph}$ | Posted Speed: $\quad 60 \mathrm{mph}$ |
| $100 \mathrm{~km} / \mathrm{h}$ | 100 $\mathrm{km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| $K=10.56$ \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=54.1$ \% | $D=54.1$ \% | $D=54.1$ \% |
| $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs |
| $T=\frac{6}{6} \%$ Design Hr . | $\mathrm{T}=6$. | $T=6$ \% Design Hr. |
| 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

With the Suncoast Parkway Phase 2

| Existing Facility | No-Build (design year) | Build (design year) |
| :---: | :---: | :---: |
| Year: $\quad$ Not Applicable | Year: 2025 | Year: 2025 |
|  |  | AADT: |
| LOS (C) | LOS (C) 43000 - | LOS (C) $\quad 64500$ |
| Demand | Demand 15100 | Demand 15100 |
| Posted Speed: _ mph | Posted Speed: $\quad 60 \mathrm{mph}$ | Posted Speed: 60 mph |
| _ km/h | $100 \mathrm{~km} / \mathrm{h}$ | $100 \mathrm{~km} / \mathrm{h}$ |
| $\mathrm{K}=$ - - \% | $K=10.56$ \% | $K=10.56$ \% |
| $D=-\quad$ - | $D=54.1$ \% | $D=54.1$ \% |
| $T=\ldots$ - $\%$ for 24 hrs | $T=12 \%$ for 24 hrs | $T=12 \%$ for 24 hrs |
| $T=-\quad$ \% Design Hr. | $T=\quad 6 \%$ Design Hr . | $T=6$ |
| \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV | 5.00 \% Heavy Trucks DHV |
| - \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV | 1.00 \%Medium Trucks DHV |

## Appendix B

Project Aerials


SEGMENT 1 RECOMMENDED ALTERNATIVE

|  |  <br>  <br>  |
| :---: | :---: |



| $\underset{\text { SEPARTMENT OF }}{\text { OF TRANSPORTATION }}$ |  |  |
| :---: | :---: | :---: |
| Ao no. | counrr | FIWACOCAL PROO |
| SR 55 | CITRUS | 405822-1- |



SEGMENT 1 RECOMMENDED ALTERNATIVE

|  |  |
| :---: | :---: |

PBSI 㗜

| STATE OF FLORDAADEPARTMENT OF TRANSPORTATION |  |  |
| :---: | :---: | :---: |
| ROAD No. | counr | FINACCIAL PROIECT 10 |
| SR 55 | CITRUS | 405822-1-22-01 |



SEGMENT 1 RECOMMENDED ALTERNATIVE




SEGMENT 1 RECOMMENDED ALTERNATIVE

|  |  |
| :---: | :---: |



| STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION |  |  |
| :---: | :---: | :---: |
| A0 |  | FWNACILIL Prool |
| 55 | CITRUS | 405822--22 |

US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 48 CITRUS COUNTY, FLORIDA

SHEET


SEGMENT 1 RECOMMENDED ALTERNATIVE



SEGMENT 1 RECOMMENDED ALTERNATIVE




SEGMENT 1 RECOMMENDED ALTERNATIVE


US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 48 CITRUS COUNTY, FLORIDA


SEGMENT 1 RECOMMENDED ALTERNATIVE

|  | - ${ }^{\text {Proposed }}$ Richt of war <br>  PROPOSED <br> SIDEWALK OR MULTI-USE PATH |
| :---: | :---: |

PBS , wivis

US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 488
CITRUS COUNTY, FLORIDA







SEGMENT 3 RECOMMENDED ALTERNATIVE

|  |  |
| :---: | :---: |



SEGMENT 3 RECOMMENDED ALTERNATIVE


PBS

| STATE OF FLORIDA departuent of transportation |  |  |
| :---: | :---: | :---: |
| ROAD NO. | countr | FINANCIAL PROJECT 10 |
| SR 55 | CITRUS | 405822-1-22-01 |




SEGMENT 3 RECOMMENDED ALTERNATIVE



SEGMENT 3 RECOMMENDED ALTERNATIVE

|  |  |
| :---: | :---: |




SEGMENT 2 RECOMMENDED ALTERNATIVE


US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 48 CITRUS COUNTY, FLORIDA

SHEET





PBS ${ }^{\text {cum }}$


SEGMENT 6 RECOMMENDED ALTERNATIVE



| ROAD NO. | countr | FINANCIAL PROJECT ID |
| :---: | :---: | :---: |
| SR 55 | CITRUS | 405822-1-22-01 |



SEGMENT 6 RECOMMENDED ALTERNATIVE


PBS

| STATE OF FLORDA departuent of transportation |  |  |
| :---: | :---: | :---: |
| SOAO No. | counr |  |
| SR 55 | CITRUS | 405822-1-22-01 | US 19 (SR 55) PD\&E STUDY

FROM SOUTH OF US 98 TO CR FROM SOUTH OF US 98 TO CR 18 | $\begin{array}{c}\text { SHEET } \\ \text { NO. }\end{array}$ |
| :---: | CITRUS COUNTY, FLORIDA



SEGMENT 5 RECOMMENDED ALTERNATIVE

 US 19 (SR 55) PD\&E STUDY
FROM SOUTH OF US 98 TO CR 488 CITRUS COUNTY, FLORIDA



SEGMENT 5 RECOMMENDED ALTERNATIVE


US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 48 CITRUS COUNTY, FLORIDA


SEGMENT 5 RECOMMENDED ALTERNATIVE

|  |  <br>  PROPOSED <br> SIDEWALK OR MULTI-USE PAT |
| :---: | :---: |


US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 488 CITRUS COUNTY, FLORIDA



SEGMENT 4 RECOMMENDED ALTERNATIVE


US 19 (SR 55) PD\&E STUDY
FROM SOUTH OF US 98 TO CR CITRUS COUNTY, FLORIDA


SEGMENT 6 RECOMMENDED ALTERNATIVE

$\qquad$


SEGMENT 6 RECOMMENDED ALTERNATIVE

|  |  <br>  PROPOSED SIDEWALK <br> SIDEWALK OR MULTI-USE PATH |
| :---: | :---: |

PBS

| STATE OF FLORIDA <br> departuent of transportation |  |  |
| :---: | :---: | :---: |
| ROAD NO. | COUNTY | FINANCIAL PROJECT ID |
| SR 55 | CITRUS | 405822-1-22-01 |

US 19 (SR 55) PD\&E STUDY FROM SOUTH OF US 98 TO CR 48 CITRUS COUNTY, FLORIDA


SEGMENT 6 RECOMMENDED ALTERNATIVE



SEGMENT 6 RECOMMENDED ALTERNATIVE

|  |  |  |
| :---: | :---: | :---: |
|  |  |  |




[^0]:    Represents an interior noise level. Reduced predicted noise level by 20 dBA to account for noise reduction provided by the

[^1]:    Note: traffic used was the "without Suncoast Parkway Phase 2"

[^2]:    * Average of segment volumes

[^3]:    * Average of segment volumes

[^4]:    *Average of segment volume

[^5]:    - Average of segment volumes

