Design Noise Study Report (NSR) Addendum

Florida Department of Transportation
District One

I-75 (SR 93) at SR 72 (Clark Rd)

Sarasota County, Florida

Financial Project ID No. 201277-3-52-01

February 2019

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

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Financial Project ID No. 201277-3-52-01

Prepared for:

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February 2019

Executive Summary

A design traffic noise update analysis has been performed for the Interstate 75 (I-75) improvements at the State Road (SR) 72 (Clark Road) interchange. An update was performed to the Traffic Noise Model (TNM) that was prepared as part of the original Project Development and Environment (PD&E) study and approved under the Type 2 Categorical Exclusion on December 8, 2011 (Date of Public Knowledge), by the Federal Highway Administration (FHWA).

This update utilized the Phase II design plans for the I-75/Clark Road interchange improvement project. The concept plans from the PD&E were compared to the Phase II design plans to determine what changes may have occurred during the design phase. This re-analysis was completed to incorporate the current design, to determine if additional noise-sensitive receptors were permitted between the time of the original noise study and Date of Public Knowledge, determine if the noise barriers considered cost reasonable and feasible during the original PD&E study were still cost reasonable and feasible, and incorporate the updated requirements of the Code of Federal Regulations Title 23 Part 772 (23 CFR 772): *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (effective July 13, 2011) and the Florida Department of Transportation (FDOT) *PD&E Manual, Part 2, Chapter 18: Highway Traffic Noise* (updated June 2017).

The prediction of future traffic noise levels with the roadway improvement was performed using the FHWA latest computer model for highway traffic noise prediction and analysis, TNM – Version 2.5. The TNM propagates sound energy, in one-third octave bands, between highways and nearby receptors taking into account the intervening ground's acoustical characteristics and topography, and intervening structures (i.e., buildings).

A total of 387 noise receptors were modeled in the TNM, representing 461 residences within the Camelot Lakes, Camelot Lakes East, Windward Isle, Grove Pointe, Foxfire West, Lakewood, Orange Acres and Sunrise Golf Club communities, the pool at Orange Acres and two hotels with outdoor pools. This includes 22 new receptors incorporated in the noise model which represent the Days Inn pool, Quality Inn pool, and residences east of the Camelot Lakes East entrance (Receptor IDs N1 – N20).

Noise levels at 216 residences are predicted to approach, meet or exceed the FHWA noise abatement criteria (NAC) for the 2040 Build condition. Impacts occurred within Camelot Lakes, Windward Isle, Grove Pointe, Camelot Lakes East, Foxfire West and Lakewood communities. Three barriers were evaluated for the impacted receptors to determine if noise barriers would provide the minimum required insertion loss (or more) at a cost within the cost reasonable limit for the receptors predicted to be affected by traffic noise with the proposed improvements. Barrier 1 was evaluated for the 137 impacted receptors within Camelot Lakes and Grove Pointe communities. Barrier 2 was evaluated for the 67 impacted receptors within Camelot Lakes East and Foxfire West communities. Barrier 3 was evaluated for the 12 impacted receptors within the Lakewood community. The construction of two noise barriers (Barrier 1 and Barrier 2) were determined to be a feasible and reasonable means to reducing predicted traffic noise levels for all 204 impacted receptors within Camelot Lakes, Windward Isle, Grove Pointe, Camelot Lakes East and Foxfire West communities. Barrier 3 was determined to not

be a reasonable means to reducing traffic noise levels for the 12 impacted receptors within the Lakewood community.

Noise Barrier Engineering Feasibility Reviews were conducted for these barriers to determine if construction is feasible and reasonable for the analyzed noise barriers, and it was determined there were no issues that would preclude noise barrier construction. It was determined that Barrier 1 and Barrier 2 are feasible and reasonable means to reduce traffic noise levels and are recommended for the proposed project.

No outdoor advertising signs were identified within the project area; therefore, no impacts to outdoor signs are anticipated.

The FDOT coordinated with the benefited property owners and residents to determine their desire for the proposed barriers. Coordination included mailed survey packages and a noise barrier workshop held on August 15, 2017. Based on the coordination and responses, the benefited property owners and residents were in favor of constructing Barrier 1 and Barrier 2. The results of the surveys indicated that Ashlar Stone is the preferred texture and Light Beige the preferred color of the property owners and residents. Based on the results, the FDOT District 1 plans to move forward with the design of Barrier 1 and Barrier 2, and they will be included with future project construction.

The FDOT will coordinate with Sarasota County prior to construction to determine the County's preference on the color and texture of reasonable and feasible noise barriers for the roadway side of the noise barriers.

Table of Contents

List of Figures

List of Tables

SECTION 1 INTRODUCTION

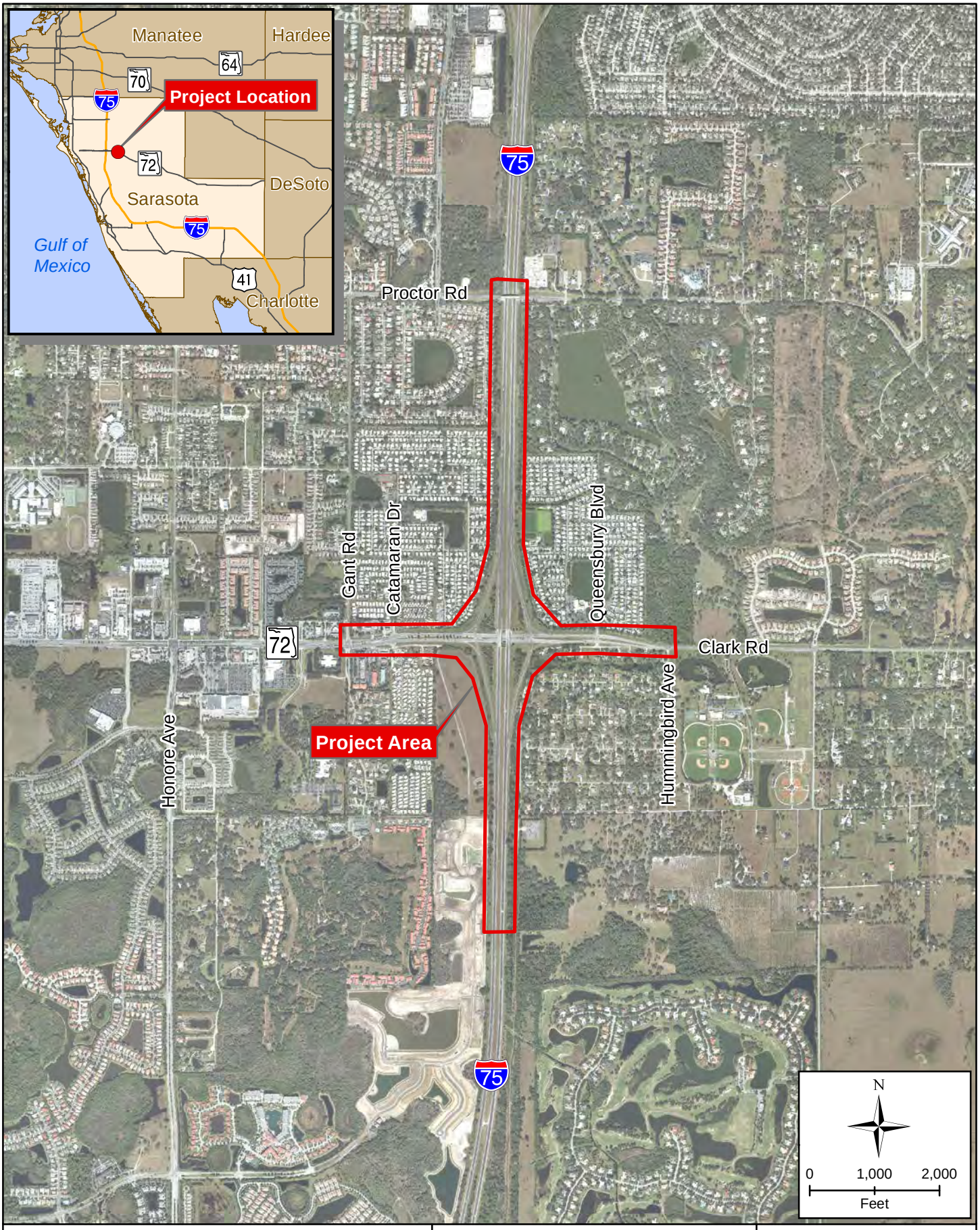
1.1 Project Description

The purpose of this project is to provide improvements for the interchange of Interstate 75 (I-75) at State Road (SR) 72 (Clark Road) in the form of a Diverging Diamond Interchange (DDI). Clark Road, in Sarasota County, is currently a 6-lane urban facility and is classified as an Urban Minor Arterial. The proposed improvements include reconstructing Clark Road to an 8-lane divided urban facility from Gantt Road (M.P. 4.204) to east of Queensbury Boulevard (M.P. 5.282). The total length of the proposed project limits along Clark Road is approximately 1.1 miles. The proposed project limits along I-75 are from approximately 1.1 miles south of Clark Road to just north of Proctor road, a length of approximately 2.1 miles. A project location map is provided below (**Figure 1-1**).

The proposed improvements for I-75 include widening to provide auxiliary lanes for each on- and off-ramp south of the Clark Road interchange, widening for a 12-foot auxiliary lane north of the Clark Road interchange in each direction, milling and resurfacing the existing mainline pavement, and reconstruction of all of the ramps at the Clark Road interchange. The southbound and northbound off-ramps will consist of two exit lanes off of I-75; one exit only lane and one decision lane. The northbound and southbound on-ramps will consist of two lanes; ultimately the two lanes will merge as one lane along I-75 and become the new auxiliary lanes.

The proposed improvements along Clark Road include providing an eight-lane divided DDI with 11-foot travel lanes and a 7-foot wide buffered bike lane in each direction of travel. Clark Road will utilize an urban typical from Gantt Road to east of the I-75 interchange with curb and gutter to the inside and outside. Clark Road will utilize a rural typical from east of the I-75 interchange to east of Queensbury Boulevard with 10-foot outside shoulders (7-foot paved) and 8-foot unpaved median shoulders.

The purpose of this report is to reevaluate the traffic noise study conducted during the Project Development and Environment (PD&E) study. This noise study update utilized the Phase II plans (**Appendix A** – on CD) to update the traffic noise analysis. This re-analysis was completed to incorporate the current design, incorporate additional noise-sensitive receptors permitted between the time of the original noise study and Date of Public Knowledge, determine if the noise barriers considered cost reasonable and feasible during the original PD&E study were still cost reasonable and feasible, and incorporate the updated requirements of the Code of Federal Regulations Title 23 Part 772 (23 CFR 772): *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (effective July 13, 2011) and the Florida Department of Transportation (FDOT) *PD&E Manual, Part 2, Chapter 18: Highway Traffic Noise* (updated June 2017).



FDOT **I-75 / Clark Road Interchange** FPID No. 201277-3-52-01	**Project Location Map**	**Figure 1-1**

1.2 Summary of PD&E Results

The PD&E study limits were from SR 681 to University Parkway. The PD&E Study Noise Study Report (NSR) was completed in June 2012. The NSR was originally completed earlier, but was later revised after the Date of Public Knowledge to comply with federal policy/regulation changes and update to the PD&E manual. The NSR determined that with the proposed improvements at the I-75/Clark Road interchange, 252 noise-sensitive receptors were predicted to experience traffic noise levels that approach, meet, or exceed the noise abatement criteria (NAC). This included residences within Camelot Lakes, Camelot Lakes East, Windward Isle, Grove Pointe, Lakewood and Orange Acres communities. Based on the results of the analysis, the construction of two noise barriers along I-75 and portions of Clark Road were determined to be a potentially feasible and cost reasonable method of reducing traffic noise at 235 impacted residences. Those noise-sensitive receptors include residences in the Camelot Lakes, Camelot Lakes East, Windward Isle and Grove Pointe communities. A summary of the barrier analyses conducted during the PD&E for the I-75/Clark Road interchange are provided below.

Barrier 2

Barrier 2 was evaluated for the pool located within the Orange Acres community, located south of Clark Road, to the west of I-75, which is predicted to be impacted by the proposed I-75 improvements. The predicted maximum traffic noise level in the area of frequent use that is impacted is 68.7 decibels on the A-weighted scale [dB(A)] – a level that exceeds the NAC. The impacted frequent use area includes the pool and the surrounding deck area. For non-residential properties such as this, the FDOT's *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations* procedures were used to determine if a noise barrier could be considered a potential abatement measure.

The results of both the right of way (ROW) and shoulder barrier evaluations indicate that the barriers could not provide any portion of the affected area with a reduction in traffic noise levels of at least five dB(A). As such, neither a ROW or shoulder barrier is considered a feasible noise abatement measure for the affected special use area. An opening required in the barrier to maintain access via Catamaran Drive did not allow for a barrier of sufficient continuous length to be evaluated for the special use area.

Barrier 3 (Design Barrier 1)

Barrier 3 was evaluated during the PD&E for the 161 impacted residences in the Windward Isle, Camelot Lakes Mobile Home Park and Grove Pointe communities. The impacted receptors were predicted to experience future traffic noise levels ranging from 66.1 to 77.5 dB(A) with the proposed improvements to I-75. The barrier could provide at least a 5 dB(A) reduction for 63 to 156 of the impacted receptors at heights ranging from 10 to 22 feet. Five impacted receptors could not achieve the minimum 5 dB(A) reduction. The noise reduction design goal of 7 dB(A)could be achieved for 23 to 120 of the impacted receptors at barrier heights ranging from 10 to 22 feet. At those heights, the total estimated cost to construct the barrier ranged from $1,410,000 to $4,046,460. The cost per benefited receptor ranged from $18,477 to $22,381 – costs that are below the FDOT cost reasonable guideline. A noise barrier was determined to be a potentially feasible and cost reasonable abatement measure for the residences in the Windward Isle, Camelot Lakes and Grove Pointe communities.

Barrier 7 (Design Barrier 3)

Barrier 7 was evaluated during the PD&E for the 11 impacted residences in the Lakewood community. The impacted receptors were predicted to experience future traffic noise levels ranging from 66.2 to 70.7 dB(A) with the proposed improvements to I-75. Two barriers were evaluated at this location, a ROW barrier located five feet inside the FDOT ROW and a shoulder barrier located along the outside shoulder of I-75 as well as the off-ramp from northbound I-75 to Clark Road.

The ROW barrier could provide at least a 5 dB(A) reduction for one to 11 of the impacted receptors at heights ranging from 8 to 22 feet. The noise reduction design goal of 7 dB(A)could be achieved for two to seven of the impacted receptors at barrier heights ranging from 14 to 22 feet. At those heights, the total estimated cost to construct the barrier ranged from $1,178,940 to $1,878,000. The cost per benefited receptor ranged from $128,417 to $170,727, costs that exceed the FDOT cost reasonable guideline. Even though Barrier 7 located along the ROW was predicted to provide all 11 of the impacted residences with a reduction in traffic noise of at least 5 dB(A) and meet the noise reduction design goal for at least one additional residence, the cost per benefited residence exceeds the cost reasonable criteria; therefore this barrier was not considered a reasonable noise abatement measure. Because of the low density of residential development, the barrier could not provide a minimum 5 dB(A) reduction to enough residences to meet the cost reasonable criteria.

The results of the shoulder barrier evaluation indicated that the shoulder barrier system could not provide any of the impacted residences with the noise reduction design goal of at least 7 dB(A) or more. As such, a shoulder barrier was not considered a reasonable abatement measure for the impacted residences within the Lakewood community. The limitations placed on the height of the shoulder barriers due to their location did not allow for a barrier of sufficient height to be evaluated for the impacted residences.

Barrier 8 (Design Barrier 2)

Barrier 8 during the PD&E was evaluated for the 79 impacted residences in the Camelot Lakes East and Foxfire West communities. The impacted receptors were predicted to experience future traffic noise levels ranging from 66.0 to 74.9 dB(A) with the proposed improvements to I-75. The barrier could provide at least a 5 dB(A) reduction for three to 79 of the impacted receptors at heights ranging from 10 to 22 feet. The noise reduction design goal of 7 dB(A) could be achieved for eight to 57 of the impacted receptors at barrier heights ranging from 14 to 22 feet. At those heights, the total estimated cost to construct the barrier ranged from $2,348,220 to $3,658,380. The cost per benefited receptor ranged from $34,190 to $60,211, with costs that were below the FDOT cost reasonable guideline at barrier heights of 16, 20 and 22 feet. A noise barrier was determined to be a potentially feasible and cost reasonable abatement measure for the residences in the Camelot Lakes East and Foxfire West communities.

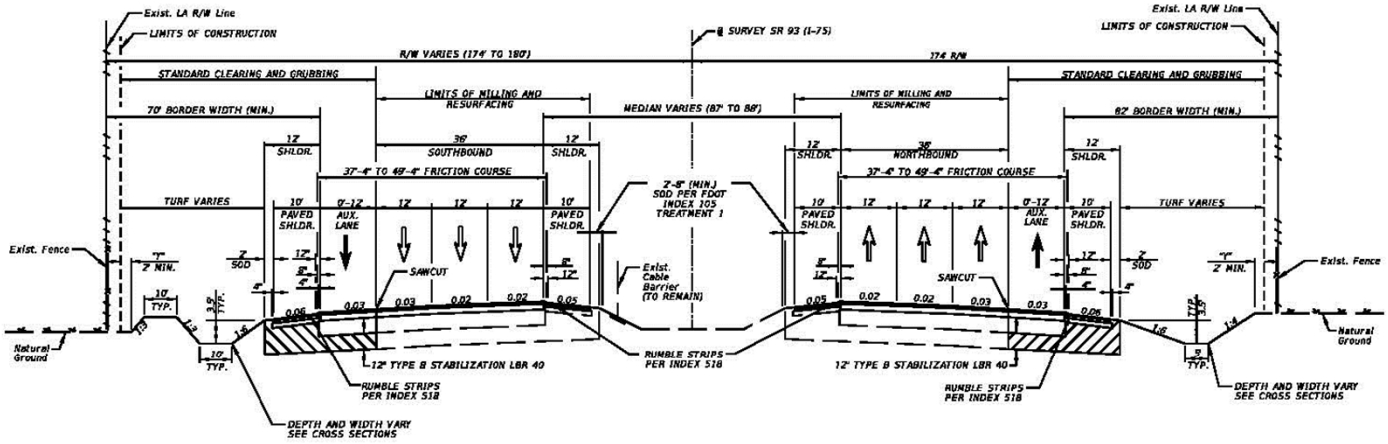
1.3 Design Improvements

A traffic noise update analysis has been performed for the I-75 improvements at the Clark Road interchange. An update was performed to the Traffic Noise Model (TNM) that was prepared as part of the original PD&E study and approved under the Type 2 Categorical Exclusion on December 8, 2011 (Date of Public Knowledge), by the Federal Highway Administration (FHWA).

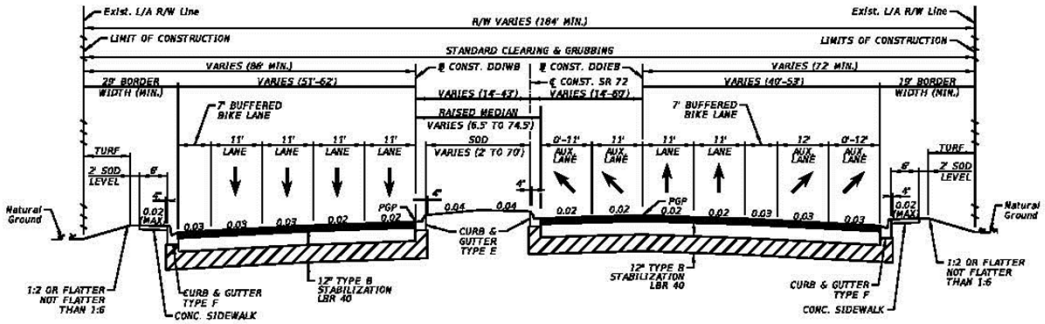
The concept plans from the PD&E were compared to the Phase II design plans to determine what changes may have occurred during the design phase. The Phase II design plans can be found in **Appendix A** (provided on CD). This re-analysis was completed to incorporate the current design, incorporate additional noise-sensitive receptors permitted between the time of the original noise study and Date of Public Knowledge, determine if the noise barriers considered cost reasonable and feasible during the original PD&E study were still cost reasonable and feasible, and incorporate the updated requirements of the Code of Federal Regulations Title 23 Part 772 (23 CFR 772): *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (effective July 13, 2011) and the FDOT *PD&E Manual, Part 2, Chapter 18: Highway Traffic Noise* (updated June 2017). The following bullets describe the updates that were incorporated into the TNM model:

- No substantial design changes are proposed from the conceptual design plans during the PD&E. Widening will be completed in the median. The proposed typical sections can be found on **Figure 1-2**. The ramps were designed for the ultimate configuration;
- The original noise study for this project was evaluated based on 23 CFR 772 and the FDOT PD&E Manual, Part 2, Chapter 17, dated May 24, 2011. This noise re-analysis incorporated the requirements of 23 CFR 772: *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (effective July 13, 2011) and the FDOT *PD&E Manual, Part 2, Chapter 18: Highway Traffic Noise* (updated June 2017);
- The Date of Public Knowledge will remain December 8, 2011;
- This noise re-analysis, as well as the original noise study, was evaluated using the latest version of TNM (TNM Version 2.5);
- A land use field review and review of building permits was conducted to include all sites permitted between the date of the initial noise model validation data collection (October 5, 2006) and the Date of Public Knowledge (December 8, 2011). New receptors incorporated in the noise model include the Days Inn pool, Quality Inn pool, and residences east of the Camelot Lakes East entrance (N1 – N20). These receptors were added due to additional work along Clark Road not included in the original noise study. The receptor IDs from the PD&E study NSR were used in this design re-analysis, where applicable;
- All residences were modeled as Activity Category B with the abatement criterion set at 67 dB(A);
- The pool at Orange Acres was modeled as Activity Category C with the abatement criterion set at 67 dB(A);
- Days Inn and Quality Inn pools were modeled as Activity Category E with the abatement criterion set at 72 dB(A);
- All receptor heights were set at five feet above ground;

- All bridge sections were modeled as “on structure”;
- Ground zones were added for the large ponds north of Clark Road on the east side of I-75 to account for the acoustical effects of water;
- The PD&E NSR included one existing privacy wall at the Grove Pointe subdivision (ranging from approximately 4 feet to 8.5 feet in height). This privacy wall was modeled in the current noise analysis at an approximate height of 6 feet;
- Series of buildings/homes were modeled as building rows in the TNM. The heights and building percentages were the same as those used in the PD&E noise analysis; and
- Speed limits in the model were assumed at the posted speed limits within the project corridor as follows:
    - I-75: 70 mph
    - I-75 off-ramps: 55 mph down to 35 mph near Clark Road
    - I-75 onramps: 35 mph (onramp flow control used with max speeds at 65 mph near the interstate merge)
    - Clark Road (SR 72): 35 mph (45 mph west of Gantt Road and east of Hummingbird Avenue)



I-75 Typical Section



Clark Road Typical Section

I-75 / Clark Road Interchange FPID No. 201277-3-52-01	**Typical Sections**	**Figure 1-2**

SECTION 2 METHODOLOGY

The I-75 traffic noise update analysis was performed in accordance with 23 CFR 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (effective July 13, 2011), using methodology established by the FDOT in the *PD&E Manual, Part 2, Chapter 18: Highway Traffic Noise* (updated June 2017).

2.1 Noise Metrics

The prediction of future traffic noise levels with the roadway improvement was performed using the FHWA latest computer model for highway traffic noise prediction and analysis, TNM – Version 2.5. The TNM propagates sound energy, in one-third octave bands, between highways and nearby receptors taking into account the intervening ground's acoustical characteristics and topography, and intervening structures (i.e., buildings). The noise levels presented in this report are expressed in decibels (dB) on the A-weighted scale [dB(A)]. This scale most closely approximates the response characteristics of the human ear to traffic noise and is defined as the level equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period. All noise levels are reported as equivalent level [Leq(h)] values which theoretically contain the same amount of acoustic energy as an actual time-varying A-weighted sound level over a period of one hour.

2.2 Traffic Data

The traffic data for the future forecast year 2040 that was used in TNM for this project are presented in **Appendix B**. All traffic data came from the *Design Traffic Technical Memorandum* completed for this project, December 2014, and agreed upon by FDOT District 1 in the *Traffic Data for Noise Studies* data sheets that were signed January 2016. For traffic inputs into the model, the lesser of the project demand volumes or LOS "C" volumes were utilized and varied along the corridor. This methodology produces the worst-case traffic noise conditions. Volumes greater than LOS "C" generally operate at lower speeds and produce lower noise levels. Demand volumes were used for all ramps.

2.3 Noise-Sensitive Receptors and Noise Abatement Criteria

Noise-sensitive receptors are defined as discrete or representative locations where frequent human use occurs. To evaluate traffic noise, the FHWA established NAC. As shown in **Table 2-1**, the NAC vary according to a property's activity category. When predicted noise levels approach, meet or exceed the NAC or, when predicted noise levels increase substantially, the FHWA requires that noise abatement measures be considered. The FDOT defines approach to mean within 1.0 dB(A) of the FHWA NAC and considers that a substantial increase will occur if traffic noise levels are predicted to increase by 15.0 or more dB(A) over the existing noise levels as a direct result of a transportation improvement project.

Table 2-1 FHWA Abatement Criteria

Activity Category	Abatement Level in Leq(h)[1]	Description of Activity Category
A	57 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[2]	67 (Exterior)	Residential
C[2]	67 (Exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[2]	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	—	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	—	Undeveloped lands that are not permitted.

(Based on Table 1 of 23 CFR Part 772)

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

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

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

A total of 387 noise receptors were modeled in the TNM, representing 461 residences within the Camelot Lakes, Camelot Lakes East, Windward Isle, Grove Pointe, Foxfire West, Lakewood, Orange Acres and Sunrise Golf Club communities, the pool at Orange acres and two hotels with outdoor pools. This includes 22 new receptors incorporated in the noise model which represent the Days Inn pool, Quality

Inn pool, and residences east of the Camelot Lakes East entrance (N1 – N20). The location of each of the noise-sensitive receptors is shown in **Appendix C**. The residences modeled include single-family residences. The 461 residences were modeled as Activity Category B, the pool at Orange Acres was modeled as Activity Category C and the hotels were modeled as Activity Category E. Noise abatement measures were considered if the predicted traffic noise level is 66.0 dB(A) or more for Activity Categories B and C, and 71 dB(A) or more for Activity Category E, or if a substantial increase occurs.

Various factors affect the transmittal of sound from a source to a receptor. The factors include vegetation, intervening structures, elevation of the source and/or the receptor, surrounding topography and the type of ground surface between the source and the receptor. The attenuation (reduction) of sound levels due to intervening structures occurs when a receptor's view (line-of-sight) is obstructed or partially obstructed by dense objects (e.g. rows of buildings or other barriers). The attenuation provided by a row of buildings depends on the actual length and density of the row occupied by the buildings.

2.4 Noise Abatement Measures

While other noise abatement measures were considered during the PD&E, noise barriers were determined to be the only viable abatement measure to reduce traffic noise at existing noise-sensitive receptors. For a noise barrier to be considered feasible and cost reasonable under the procedures within the FDOT *PD&E Manual, Part 2, Chapter 18: Highway Traffic Noise* (updated June 2017), the following conditions should be met:

- The barrier must provide at least a 7.0 dB(A) reduction for at least one benefited receptor;
- The barrier must reduce traffic noise levels a minimum of 5 dB(A) for at least two impacted receptors;
- The barrier should not cost more than $42,000 per benefited receptor (a benefited receptor is a site that receives at least a 5.0 dB(A) reduction in noise from the barrier). A noise barrier cost of $30.00 per square foot was used to calculate the cost per benefited receptor; and
- Special land uses should utilize the FDOT's research publication, *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*, dated July 2009, to determine if a noise barrier could be considered a potential abatement measure.

Other factors considered when evaluating noise barriers as a potential noise abatement measure address both the feasibility of the barriers (given site-specific details, can a barrier actually be constructed) and the reasonableness of the barriers. Feasibility factors that relate to noise barriers include driver/pedestrian sight distance (safety), ingress and egress requirements to and from affected properties, ROW requirements including access rights and easements for construction and/or maintenance, impacts on existing/planned utilities, and drainage.

The TNM accounts for the shielding effect of a noise barrier, the diffraction of sound over a noise barrier, and the effects of the ground between a barrier and a receptor (i.e. sound absorption). The net effect of the barrier shielding is referred to as insertion loss. In other words, insertion loss is the difference in sound level before and after the installation of the barrier.

SECTION 3 TRAFFIC NOISE ANALYSIS

3.1 Model Validation

As previously stated, future noise levels with the proposed improvements were modeled using the TNM Version 2.5. To ensure that these predictions were as accurate as possible, the computer model was validated using measured noise levels at locations adjacent to the project corridor. Traffic and meteorological data, including traffic volumes, traffic mix vehicle speeds, background noise and atmospheric conditions, were recorded during each measurement period.

The field measurements for the I-75/Clark Road interchange noise evaluation were conducted in accordance with the FHWA's *Measurement of Highway Related Noise*. Each field measurement was obtained using a Larson Davis SoundTrack LXT2 Type 2 Sound Level Meter. The meter was calibrated before and after each monitoring period with a Larson Davis CAL 150 Type 2 Sound Level Calibrator.

The measured field data were used as input for the TNM to determine if, given the topography and actual site conditions of the area, the computer model could re-create the measured noise levels with the existing roadway. Following FDOT guidelines, a noise prediction model is considered valid for the use of predicting traffic noise levels if the measured and predicted noise levels are within a tolerance standard of 3 dB(A). Field measurements were taken on January 29, 2016, at two stations within the project limits. Station 1 field measurements were taken along northbound I-75 near approximate station 1944+00. The sound level meter was placed approximately 35 feet from the edge of pavement at a height of five feet above ground. Station 2 field measurements were taken along eastbound Clark Road near approximate station 301+20. The sound level meter was placed approximately 35 feet from the edge of pavement at a height of five feet above ground.

The locations at which the measurements were taken can be seen in **Appendix C**. Three sets of 10-minute measurements were taken for both directions of traffic. Data collected in the field and information that supports the model validation can be found in **Appendix D.**

Table 3-1 presents the field measurements and the computer validation results for the I-75/Clark Road interchange project. As shown, the computer model predicted noise levels within 3 dB(A) of the field measured noise levels in all instances. The ability of the model to accurately predict noise levels for the project was confirmed with the three measurement periods taken at each station. The slightly higher noise levels measured during the field reviews are due to loud exhaust of certain vehicles, planes overhead, rumble strips along Clark Road, and other external noise factors not considered in the model. Documentation in support of the validation is provided in **Appendix D** of this report.

Table 3-1 Validation Data

Location	Measurement Period	Modeled dB(A)	Measured dB(A)	Difference (Modeled - Measured) dB(A)
Station 1 NB I-75 near approximate station 1944+00	10:59 – 11:09	78.4	78.8	-0.4
	11:16 – 11:26	78.8	79.0	-0.2
	11:32 – 11:42	78.7	79.0	-0.3
Station 2 EB Clark Road near approximate station 301+20	12:08 – 12:18	65.7	67.2	-1.5
	12:24 – 12:34	65.7	66.0	-0.3
	12:38 – 12:48	67.9	69.7	-1.8

3.2 Predicted Noise Levels

As shown in **Table 3-2**, noise levels at 216 residences are predicted to approach, meet or exceed the NAC for the 2040 Build condition. The locations of the modeled receptors, as well as which receptors were impacted, are shown in **Appendix C**. Impacts occurred within Camelot Lakes, Camelot Lakes East, Foxfire West, Grove Pointe and Lakewood communities. No impacts were predicted from the TNM for the pool at Orange Acres, Quality Inn pool and Days Inn pool. The receptor IDs from the PD&E study NSR were used for this re-analysis, with the addition of 22 new receptors not included in the PD&E study NSR (N1 – N20, Quality Inn Pool and Days Inn Pool). The results of the noise analysis are reflective of the results from the PD&E study with some minor differences likely due to detailed design plans and topographic information, as well as current traffic data. The TNM files and results of the analyses can be found in **Appendix E** (provided on CD).

Abatement measures must also be considered when a substantial increase in traffic noise would occur as a direct result of the transportation project. Following FDOT procedure, a substantial increase is defined as 15 dB(A), or more, above existing conditions. A substantial increase typically occurs in areas where traffic noise is a minor component of the existing noise environment but could become a major component after the project is constructed. Traffic noise from I-75 and Clark Road is a notable noise source at noise-sensitive receptors adjacent to the existing road. The current design is similar to the conceptual design analyzed during the PD&E study NSR and is located within the existing I-75 and Clark Road ROWs. The PD&E traffic noise study, as well as the current design re-analysis, demonstrated that the project would not cause a substantial increase in noise levels compared to the existing conditions.

Table 3-2 Traffic Noise Levels

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
101	1	57.7	No
102	1	58.9	No
103	1	67.2	Yes
104	1	67.4	Yes
105	1	67.8	Yes
106	1	67.5	Yes
107	1	67.5	Yes
108	1	67.7	Yes
109	1	68.2	Yes
110	1	68.3	Yes
111	1	68.5	Yes
112	1	68.2	Yes
113	1	68.1	Yes
114	1	68.0	Yes
115	1	65.0	No
116	1	65.7	No
117	1	66.0	Yes
118	1	66.1	Yes
119	1	66.3	Yes
120	1	66.2	Yes
121	1	66.2	Yes
122	1	66.0	Yes
123	1	66.0	Yes
124	1	66.0	Yes
125	1	65.0	No
126	2	65.5	No
127	2	65.0	No
128	2	64.8	No
129	2	64.6	No
130	2	65.7	No
131	2	65.7	No
132	1	65.7	No
133	1	69.7	Yes
134	1	69.1	Yes
135	1	67.5	Yes
136	1	69.2	Yes
137	1	71.2	Yes
138	1	70.6	Yes
139	1	67.5	Yes
140	1	67.7	Yes
141	1	68.9	Yes
142	2	65.1	No
143	1	67.6	Yes
144	1	68.2	Yes
145	1	69.6	Yes
146	1	72.4	Yes
147	1	72.5	Yes
148	1	69.6	Yes
149	1	68.0	Yes

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
150	1	66.9	Yes
151	1	66.5	Yes
152	1	68.1	Yes
153	1	69.6	Yes
154	1	72.1	Yes
155	1	72.9	Yes
156	1	72.2	Yes
157	1	69.4	Yes
158	1	68.0	Yes
159	1	66.3	Yes
160	1	66.2	Yes
161	1	67.6	Yes
162	1	69.4	Yes
163	1	70.9	Yes
164	1	74.6	Yes
165	1	74.5	Yes
166	1	71.5	Yes
167	1	69.4	Yes
168	1	67.6	Yes
169	1	66.6	Yes
170	1	66.6	Yes
171	1	67.8	Yes
172	1	69.1	Yes
173	1	71.6	Yes
175	1	74.8	Yes
176	1	75.7	Yes
177	1	71.4	Yes
178	1	69.5	Yes
179	1	67.7	Yes
180	1	66.8	Yes
174	1	63.3	No
181	1	64.6	No
182	1	66.4	Yes
183	1	67.5	Yes
184	1	69.1	Yes
185	1	72.0	Yes
186	1	74.9	Yes
187	1	75.4	Yes
188	1	75.3	Yes
189	1	75.1	Yes
190	1	75.1	Yes
191	1	74.9	Yes
192	1	75.5	Yes
193	1	75.2	Yes
194	1	75.5	Yes
195	1	75.5	Yes
196	1	75.2	Yes
197	1	75.2	Yes
198	1	75.0	Yes
199	1	75.1	Yes

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
200	1	74.2	Yes
201	1	70.0	Yes
202	1	67.9	Yes
203	1	66.2	Yes
204	1	64.6	No
205	1	63.2	No
206	1	70.7	Yes
207	1	71.0	Yes
208	1	70.6	Yes
209	1	70.7	Yes
210	1	70.7	Yes
211	1	70.6	Yes
212	1	70.5	Yes
222	1	70.6	Yes
223	1	70.4	Yes
224	1	70.3	Yes
225	1	70.3	Yes
226	1	70.2	Yes
227	1	70.1	Yes
213	2	67.5	Yes
214	3	67.5	Yes
215	2	67.3	Yes
216	2	64.9	No
217	3	64.1	No
218	2	63.9	No
219	2	63.8	No
220	3	63.2	No
221	2	62.8	No
228	1	67.3	Yes
229	1	64.7	No
230	1	63.8	No
231	1	62.9	No
232	2	66.9	Yes
233	2	66.6	Yes
234	1	64.0	No
235	2	62.8	No
236	2	63.3	No
237	1	63.0	No
238	1	64.6	No
239	1	66.6	Yes
240	1	68.8	Yes
241	1	69.9	Yes
242	1	69.8	Yes
243	1	69.4	Yes
244	1	70.2	Yes
245	1	70.3	Yes
246	1	69.8	Yes
247	1	69.6	Yes
248	1	69.6	Yes
249	1	69.5	Yes

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
250	1	69.7	Yes
251	1	69.7	Yes
252	1	69.9	Yes
253	1	69.7	Yes
254	1	69.6	Yes
255	1	69.7	Yes
256	1	69.5	Yes
257	1	69.6	Yes
258	1	69.9	Yes
259	1	69.5	Yes
260	1	69.6	Yes
261	1	69.7	Yes
262	1	68.6	Yes
263	1	65.7	No
264	1	63.8	No
265	1	61.8	No
266	1	60.2	No
268	1	62.6	No
269	1	63.7	No
270	1	63.0	No
271	1	62.8	No
272	1	62.4	No
273	2	62.1	No
274	2	62.1	No
275	2	62.0	No
276	2	61.8	No
277	2	61.7	No
278	2	61.5	No
279	1	61.8	No
280	1	62.7	No
281	1	62.1	No
282	1	60.5	No
283	2	60.8	No
284	1	60.1	No
285	1	60.1	No
631	1	61.7	No
632	1	63.3	No
633	1	64.3	No
634	2	64.2	No
635	2	63.9	No
636	2	63.7	No
637	2	64.3	No
638	2	64.4	No
639	1	64.6	No
640	2	65.1	No
641	2	65.1	No
642	2	65.8	No
643	1	61.1	No
644	4	61.4	No
645	6	61.9	No

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
646	4	62.3	No
647	1	63.4	No
648	2	62.8	No
267	1	61.6	No
617	1	63.9	No
618	1	59.8	No
619	1	59.6	No
620	1	61.5	No
621	1	61.6	No
622	1	60.6	No
623	1	60.5	No
624	1	59.7	No
625	2	59.3	No
626	2	59.8	No
627	1	60.4	No
628	1	60.4	No
629	1	61.0	No
630	1	61.3	No
QualityInnPool	1	57.4	No
DaysInnPool	1	56.9	No
385	1	66.8	Yes
395	1	64.9	No
402	1	62.7	No
376	1	68.9	Yes
384	1	66.1	Yes
394	1	64.2	No
400	1	62.4	No
401	1	61.7	No
375	1	69.8	Yes
383	1	66.5	Yes
393	1	64.2	No
398	1	62.4	No
399	1	61.2	No
374	1	69.4	Yes
381	1	67.0	Yes
382	1	65.4	No
397	1	61.3	No
373	1	68.5	Yes
380	1	65.0	No
391	1	63.2	No
392	1	62.3	No
396	1	60.6	No
372	1	68.5	Yes
379	1	64.7	No
390	1	62.2	No
371	1	68.8	Yes
378	1	64.5	No
389	1	62.1	No
370	1	68.3	Yes
377	1	64.8	No

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
388	1	61.9	No
387	1	61.9	No
369	1	68.3	Yes
386	1	62.0	No
403	1	65.1	No
404	1	65.1	No
405	1	65.3	No
406	1	65.5	No
407	1	65.8	No
408	1	65.7	No
409	1	66.0	Yes
410	1	66.3	Yes
411	1	67.1	Yes
412	1	67.4	Yes
413	1	67.7	Yes
414	1	68.1	Yes
415	1	68.3	Yes
416	1	68.5	Yes
417	1	69.0	Yes
418	1	69.2	Yes
419	1	69.1	Yes
420	1	69.0	Yes
421	1	69.1	Yes
422	1	69.4	Yes
423	1	69.1	Yes
424	1	69.1	Yes
425	1	69.5	Yes
426	1	63.1	No
427	1	63.6	No
428	1	64.1	No
429	1	64.9	No
430	1	64.9	No
431	1	65.1	No
432	1	65.3	No
433	1	65.6	No
434	1	66.0	Yes
435	1	66.4	Yes
436	1	66.6	Yes
437	1	66.8	Yes
438	1	67.1	Yes
439	1	67.1	Yes
440	1	67.2	Yes
441	1	67.3	Yes
442	1	67.5	Yes
443	1	67.3	Yes
444	2	63.5	No
445	2	63.8	No
446	2	64.3	No
447	2	65.1	No
448	1	65.6	No

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
449	1	63.3	No
450	2	63.8	No
451	2	64.2	No
452	1	64.6	No
453	1	64.6	No
454	2	63.2	No
455	2	63.1	No
456	1	63.3	No
457	1	63.8	No
458	2	62.4	No
459	2	62.8	No
460	2	63.2	No
461	2	63.5	No
462	2	63.0	No
471	1	71.1	Yes
472	1	68.9	Yes
473	1	67.2	Yes
474	1	65.9	No
475	1	64.7	No
476	1	63.4	No
463	1	73.9	Yes
464	1	73.7	Yes
465	1	73.8	Yes
466	1	73.7	Yes
467	1	73.8	Yes
468	1	74.1	Yes
469	1	74.0	Yes
470	1	74.1	Yes
477	1	69.4	Yes
478	1	69.6	Yes
479	1	69.7	Yes
480	1	70.2	Yes
481	1	70.2	Yes
482	1	70.3	Yes
483	1	70.5	Yes
486	1	67.0	Yes
487	1	67.1	Yes
488	2	67.2	Yes
489	2	67.6	Yes
490	1	68.0	Yes
491	1	64.3	No
492	2	64.0	No
493	2	64.2	No
494	2	64.8	No
499	2	63.2	No
500	3	63.0	No
501	2	63.3	No
484	1	71.8	Yes
485	1	69.6	Yes
495	1	68.1	Yes

Receptor ID	# of Units per Receptor	2040 Build Noise Levels dB(A)	Approaches, Meets or Exceeds NAC?
496	1	66.6	Yes
497	1	65.0	No
498	1	63.9	No
502	1	67.1	Yes
503	1	67.5	Yes
504	1	69.7	Yes
505	1	69.1	Yes
506	1	68.8	Yes
507	1	68.1	Yes
508	1	67.3	Yes
509	1	68.4	Yes
510	1	68.8	Yes
511	1	72.0	Yes
512	1	66.9	Yes
513	1	61.6	No
514	1	59.6	No
515	1	61.0	No
516	1	59.0	No
N1	1	61.4	No
N2	1	61.7	No
N3	1	61.1	No
N4	1	60.9	No
N5	1	60.9	No
N6	1	60.7	No
N7	1	60.3	No
N8	1	59.9	No
N9	1	58.7	No
N10	1	59.3	No
N11	1	58.7	No
N12	1	58.1	No
N13	1	57.6	No
N14	1	57.1	No
N15	1	56.7	No
N16	1	56.5	No
N17	2	58.1	No
N18	2	57.6	No
N19	2	56.5	No
N20	1	55.8	No

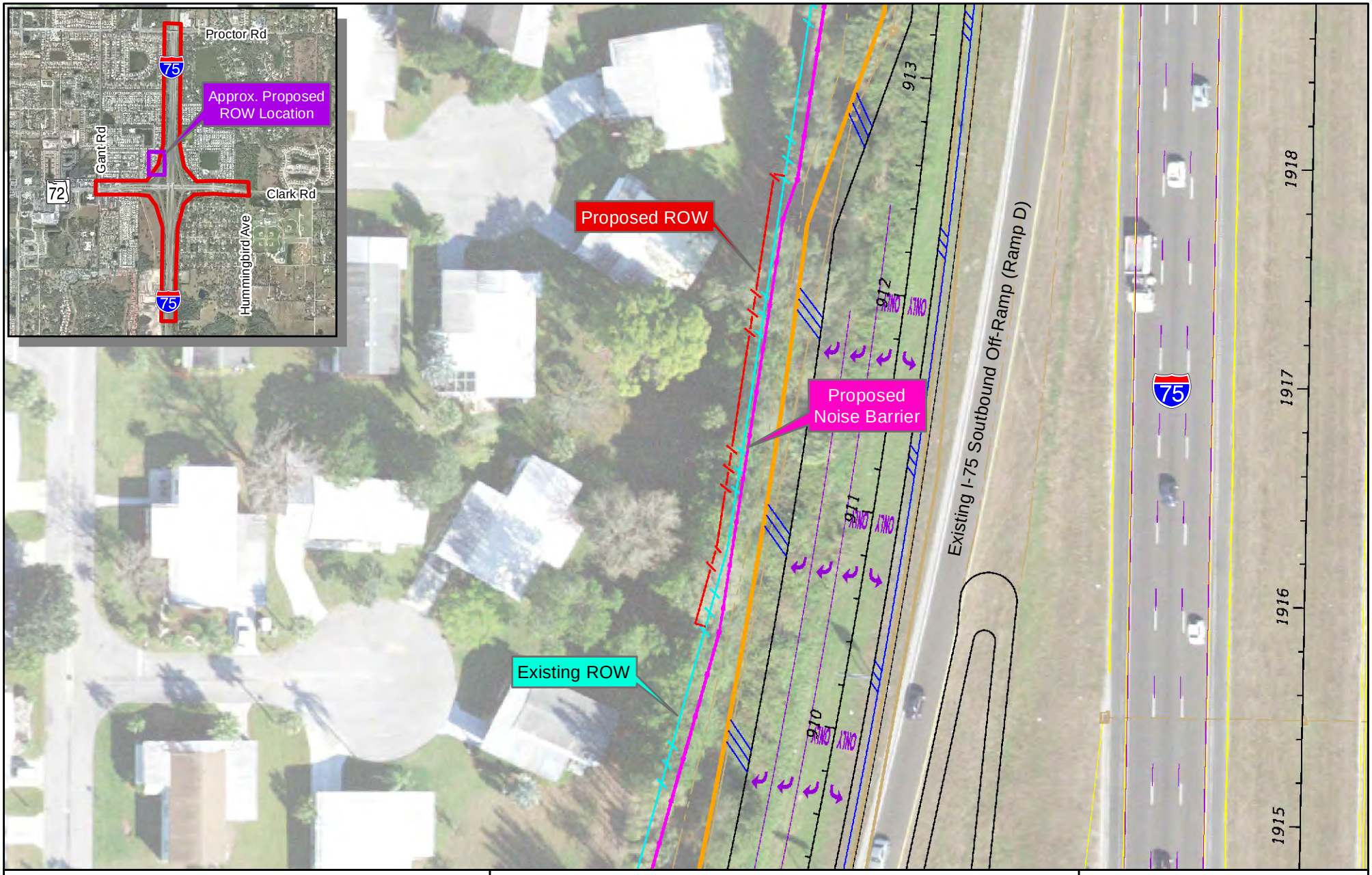
3.3 Noise Barrier Analysis

Noise abatement measures including traffic management, alignment modifications, property acquisition, land use controls, and noise barriers were evaluated in the PD&E phase noise analysis. Noise barriers were determined to be the only viable abatement measure to reduce traffic noise at existing noise-sensitive receptors. The different noise abatement measures as well as reasonableness and feasibility criterion/evaluation factors are provided in **Section 2**.

As previously stated, in year 2040 with the proposed improvements to I-75 and Clark Road, noise levels are predicted to approach, meet, or exceed the NAC at 216 residences. The following presents the results of the noise barrier analysis performed to determine if noise barriers would provide at least the minimum required insertion loss at a cost within the cost reasonable limit for the receptors predicted to be affected by traffic noise with the proposed I-75 and Clark Road improvements. A barrier analysis was not performed for the pool at Orange Acres, as conducted during the PD&E and determined to not be a reasonable noise abatement measure, since no impacts were anticipated with the proposed design. Documentation in support of the noise barrier analyses, including the TNM files, is provided in **Appendix F** (provided on CD).

Design Barrier 1 (Barrier 3 PD&E) – Windward Isle, Camelot Lakes and Grove Pointe

Barrier 1 was evaluated for the 137 impacted receptors within Camelot Lakes and Grove Pointe communities (receptor IDs 103-114, 117-124, 134-141, 144-173, 175-180, 182-203, 207-215, 223-228, 232-233 and 239-262). The impacted receptors consist of single-family residences. The impacted receptors are anticipated to experience traffic noise levels between 66.1 and 76.1 dB(A) with the proposed improvements. This noise-sensitive area was evaluated using a barrier located five feet inside the existing ROW along Clark Road and the southbound I-75 off-ramp (Ramp D) [Segment 1] and a barrier 12 feet inside the ROW along southbound I-75 [segment 2]. The first barrier segment was evaluated along the north side of Clark Road from approximate Sta. 67+40 and continued north along the I-75 off-ramp to approximate Sta. 1928+40. The second barrier segment was evaluated along the southbound I-75 ROW from approximate Sta. 1927+00 to approximate Sta. 130+40 (PC Station Equation: Sta. 1954+84.60 = Sta. 127+73.76). Overlap was provided between the evaluated barrier segments that was a minimum of four times the width of the gap between the barrier segments. The gap and overlap of barriers was provided to allow maintenance access. The overall evaluated barrier length was 6,256 feet. The barrier location is provided in **Appendix C**. The height of the barrier was evaluated in two-foot increments from 8 to 22 feet. In 2018, it was determined that five feet of additional right of way is needed for maintenance behind the proposed noise barrier along the I-75 southbound off-ramp from STA. 910+35.86 to STA. 912+48.10, a distance of 208.7 feet (totaling 1,045 square feet/0.02 acres). The estimated cost of the additional ROW is $30,900 and was included in the evaluation for the cost for benefited receptor shown in **Table 3-3**. The additional ROW is shown in **Figure 3-1**. In addition, a gap was added to the barrier along Ramp D to improve access for maintenance.



I-75 / Clark Road Interchange
FPID No. 201277-3-52-01

Right-of-Way Acquistion Map

Figure 3-1

The results of the evaluation are provided in **Table 3-3**. The barrier was evaluated at the full length for all heights in 2-ft increments as described above. The noise levels could be reduced by 7 dB(A) for at least one noise-sensitive receptor at all barrier heights. The barrier could provide a minimum 5 dB(A) reduction to all 137 impacted residences at barrier heights of 20 feet and greater. Further, at heights of 10 feet and greater, the barrier could provide a minimum 5 dB(A) reduction to residences that were not impacted by the improvements. The barrier was further evaluated to determine the highest number of benefited receptors that could achieve the design reduction goal of 7 dB(A) or greater. At a height of 22 feet, the barrier could provide a 7 dB(A) reduction or greater at 135 out of 208 benefited receptors. The optimum barrier length for Barrier 1 was 6,176 feet at a height of 22 feet. The second barrier segment was reduced to approximate Sta. 1927+80 to 130+40, which provides an overlap of approximately 60 feet. At this length and height, the barrier could provide a benefit to all of the 137 impacted residences as well as 71 additional residences not impacted by the proposed improvements. The total estimated cost to construct a barrier is between approximately $1,907,709 and $4,159,878. The cost-per-benefited residence was cost reasonable at barrier heights from 12 to 22 feet. The total cost of the barrier at the optimum length and height is $4,159,878 and a cost of $19,745 per benefited receptor. These costs include $30,900 for the additional ROW needed for maintenance behind the barrier. Barrier 1 has been determined to be a feasible and reasonable noise abatement method. A feasibility review was conducted for this barrier and determined to be a feasible means to reduce traffic noise levels. Coordination was conducted to determine the impacted and benefited property owners' and residents' desire for the proposed barrier. This coordination is provided below in **Section 6**.

Table 3-3 Barrier 1 Analysis

Barrier Height (feet)	Barrier Length (feet)	Number of Impacted Receptors	Noise Reduction at Impacted Receptors dB(A)			Number of Benefited Receptors			Average Reduction for Benefited Receptors dB(A)	Total Estimated Cost	Cost per Benefited Receptor
			5 -5.9 dB(A)	6 - 6.9 dB(A)	≥7 dB(A)	Impacted	Not Impacted	Total			
8	6,256	137	0	0	0	0	0	0	N/A	N/A	N/A
10	6,256		11	8	7	26	2	28	6.2	$1,907,709	$68,132
12	6,256		25	7	21	53	6	59	6.7	$2,283,070	$38,696
14	6,256		31	20	41	91	11	102	7.0	$2,658,432	$26,063
16	6,256		26	31	68	125	11	136	7.6	$3,033,794	$22,307
18	6,256		11	26	99	136	29	165	8.1	$3,409,156	$20,662
20	6,256		0	13	124	137	60	197	8.5	$3,784,517	$19,114
22	6,176		0	2	135	137	71	208	9.0	$4,106,976	$19,745

Design Barrier 2 (Barrier 8 PD&E) – Camelot Lakes East and Foxfire West

Barrier 2 was evaluated for the 67 impacted receptors within Camelot Lakes East and Foxfire West communities (receptor IDs 409-425, 434-443, 463-473, 477-490, 495-496 and 502-512. The impacted receptors consist of single-family residences. The impacted receptors are anticipated to experience traffic noise levels between 66.0 and 74.1 dB(A) with the proposed improvements. This noise-sensitive area was evaluated using a single barrier along Clark Road, continuing along the northbound I-75 on-ramp and northbound I-75, located 12 feet inside the existing ROW. The barrier was evaluated along

the north side of Clark Road from approximate Sta. 95+80 and continued north along I-75 to approximate Sta. 130+20, a length of 5,682 feet. The barrier location is provided in **Appendix C**. The height of the barrier was evaluated in two-foot increments from 8 to 22 feet.

The results of the evaluation are provided in **Table 3-4**. The barrier was evaluated at the full length for all heights in 2-ft increments as described above. The noise levels could be reduced by 7 dB(A) for at least one noise-sensitive receptor at barrier heights from 12 to 22 feet. The barrier could provide a minimum 5 dB(A) reduction to all impacted residences at barrier heights of 16 feet and greater. Further, at heights of 14 feet and greater, the barrier could provide a minimum 5 dB(A) reduction to residences that were not impacted by the improvements. The barrier was further evaluated to determine the highest number of benefited receptors that could achieve the design reduction goal of 7 dB(A) or greater. At a height of 22 feet, the barrier could provide a 7 dB(A) reduction or greater at 66 of the 120 benefited receptors. The optimum barrier length for Barrier 2 was 5,682 feet at a height of 22 feet. At this length and height, the barrier could provide a benefit to all impacted receptors as well as 53 additional receptors not impacted by the proposed improvements. The total estimated cost to construct a barrier is between approximately $1,704,714 and $3,750,369. The cost-per-benefited receptor was cost reasonable at barrier heights from 16 to 22 feet. The total cost of the barrier at the optimum length and height is $3,750,369 and a cost of $31,253 per benefited receptor. Barrier 2 has been determined to be a feasible and reasonable noise abatement method. A feasibility review was conducted for this barrier and determined to be a feasible means to reduce traffic noise levels. Coordination was conducted to determine the impacted and benefited property owners' and residents' desire for the proposed barrier. This coordination is provided below in **Section 6**.

Table 3-4 Barrier 2 Analysis

Barrier Height (feet)	Barrier Length (feet)	Number of Impacted Receptors	Noise Reduction at Impacted Receptors dB(A)			Number of Benefited Receptors			Average Reduction for Benefited Receptors dB(A)	Total Estimated Cost	Cost per Benefited Receptor
			5 -5.9 dB(A)	6 - 6.9 dB(A)	≥7 dB(A)	Impacted	Not Impacted	Total			
8	5,682	67	0	0	0	0	0	0	N/A	N/A	N/A
10	5,682		9	0	0	9	0	9	5.4	$1,704,714	$189,413
12	5,682		18	3	8	29	0	29	6.1	$2,045,656	$70,533
14	5,682		16	16	17	49	1	50	6.7	$2,386,600	$47,732
16	5,682		19	15	33	67	14	81	6.9	$2,727,541	$33,673
18	5,682		1	20	46	67	22	89	7.6	$3,068,484	$34,477
20	5,682		0	2	65	67	42	109	8.0	$3,409,427	$31,279
22	5,682		0	1	66	67	53	120	8.4	$3,750,369	$31,253

Design Barrier 3 (Barrier 7 PD&E) – Lakewood

Barrier 3 was evaluated for the 12 impacted receptors within the Lakewood community (receptor IDs 369-376, 381 and 383-385). The impacted receptors consist of single-family residences. The impacted residences are anticipated to experience traffic noise levels between 66.1 and 69.8 dB(A) with the proposed improvements. This noise-sensitive area was evaluated using a series of three barriers including twelve feet inside the ROW along northbound I-75, the northbound I-75 exit ramp shoulder and twelve feet inside the ROW for portions of the I-75 northbound off-ramp near Clark Road. The first

barrier segment was evaluated twelve feet inside ROW along the northbound I-75 from approximate Sta. 1877+00 and continued north along I-75 off-ramp to approximate Sta. 1883+60. The second barrier segment was evaluated along the I-75 northbound off-ramp shoulder starting at approximate Sta. 1882+00 and ending at approximate Sta. 1899+00. The third barrier segment was evaluated 12 feet inside the existing ROW along the I-75 northbound off-ramp from approximate Sta. 1896+60 to approximate Sta. 1904+50. Overlap was provided between the evaluated barrier segments that was a minimum of four times the width of the gap between the barrier segments. The overall evaluated barrier length was 3,332 feet. The barrier location is provided in **Appendix C**. The height of the barrier was evaluated in two-foot increments from 8 to 22 feet for the segments located near the ROW. The maximum height evaluated for the shoulder barrier was 14 feet; however, much of the off-ramp shoulder will be located on retaining wall (approximate Sta. 1886+80 to 1894+70), and the barrier height for these areas is restricted to eight feet in height. To simplify the analysis, the barrier heights discussed in this section refer to the two segments (segments 1 and 3 identified above) located near the ROW. For the 8-ft, 10-ft and 12-ft barrier analyses, the shoulder barrier (segment 2) was held at 8 feet since there is approximately 3-5 feet difference in ground elevation near the ROW to the proposed elevation of the shoulder where the shoulder barrier will be constructed. This was done to provide a uniform effective height of the barrier, to the extent practicable. For the 14-ft, 16-ft and 18-ft barrier analysis, the shoulder barrier (segment 2) height was increased in 2-ft increments for each analysis. The 20-ft and 22-ft barrier analyses held the shoulder barrier (segment 2) at 14 feet, since this is the maximum height for a barrier constructed on the shoulder of a roadway. As previously stated, the portion of the shoulder barrier (segment 2) located on retaining wall was held at eight feet for all analyses.

The results of the evaluation are provided in **Table 3-5**. The barrier was initially evaluated at the full length for all heights in 2-ft increments as described above. The length of the barrier was reduced at each evaluated height in an effort to reduce costs, while maintaining the same number of impacted receptors that benefited from the full length barrier. The noise levels could be reduced by 7 dB(A) for at least one noise-sensitive receptor and a minimum 5 dB(A) reduction for at least two noise-sensitive receptors at barrier heights from 10 to 22 feet. The barrier could provide a minimum 5 dB(A) reduction to 9 of 12 impacted residences at barrier heights of 16 feet and greater. At barrier heights ranging from 10 to 22 feet and the lengths shown in **Table 3-5** below, the total estimated cost to construct a barrier ranged from $489,372 to $1,288,834. The costs per benefited receptor ranged from $117,866 to $182,956, costs that exceed the cost reasonable guideline. Since the cost per benefited residence exceeds the cost reasonable criteria, the barrier is not considered a feasible and reasonable noise abatement measure and will not be included in the design plans.

Table 3-5 Barrier 3 Analysis

Barrier Height (feet)	Barrier Length (feet)	Number of Impacted Receptors	Noise Reduction at Impacted Receptors dB(A)			Number of Benefited Receptors			Average Reduction for Benefited Receptors dB(A)	Total Estimated Cost	Cost per Benefited Receptor
			5 -5.9 dB(A)	6 - 6.9 dB(A)	≥7 dB(A)	Impacted	Not Impacted	Total			
8	2,039	12	0	0	1	1	0	1	7.0	$489,372	$489,372
10	2,052		1	1	1	3	0	3	6.6	$548,868	$182,956
12	2,172		2	0	2	4	0	4	6.7	$619,651	$154,913
14	1,285		2	0	2	4	0	4	6.9	$471,463	$117,866
16	2,952		6	1	2	9	0	9	6.5	$1,130,650	$125,628
18	2,912		4	2	3	9	0	9	7.1	$1,232,634	$136,959
20	2,772		4	3	2	9	0	9	7.0	$1,262,532	$140,281
22	2,652		4	2	3	9	0	9	7.1	$1,288,834	$143,204

3.4 Engineering Feasibility Review

The Noise Barrier Engineering Feasibility Review was held on May 8, 2017, and May 24, 2017. It was determined that noise barriers are feasible at the proposed locations for Barrier 1 and Barrier 2, which includes the communities of Windward Isle, Camelot Lakes, Grove Pointe, Camelot Lakes East and Foxfire West.

SECTION 4 OUTDOOR ADVERTISING

Desktop and field reviews were conducted to determine if there are any outdoor advertising signs located within the project area that may be affected by the proposed noise barriers. No outdoor advertising signs were identified within the project area; therefore, there are no impacts to outdoor advertising signs are anticipated with the proposed noise barriers.

SECTION 5 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the noise analysis, noise levels at 216 residences are predicted to approach, meet or exceed the NAC for the 2040 Build condition. The construction of two noise barriers (Barriers 1 and 2) along Clark Road and I-75 are a cost reasonable and feasible means to reducing predicted traffic noise levels for most of the impacted noise-sensitive receptors.

Barrier 1 was evaluated for the 137 impacted receptors within Windward Isle, Camelot Lakes and Grove Pointe communities. The barrier could provide a minimum 5 dB(A) reduction to all of the 137 impacted residences at barrier heights of 20 feet and greater. At a height of 22 feet, the barrier could provide a 7 dB(A) reduction or greater at 135 out of the 208 benefited receptors. The optimum barrier length for Barrier 1 was 6,176 feet at a height of 22 feet. At this length and height, the barrier could provide a benefit to all of the 137 impacted residences as well as 71 additional residences not impacted by the

proposed improvements. The total cost of the barrier at the optimum length and height is $4,106,976 and a cost of $19,745 per benefited residence. In 2018, it was determined that five feet of additional right of way is needed for maintenance behind the proposed noise barrier along the I-75 southbound off-ramp from STA. 910+35.86 to STA. 912+48.10, a distance of 208.7 feet. The ROW cost was included in the costs for the barrier and cost per benefited receptor. The additional ROW is shown in **Figure 2**. In addition, a gap was added to the barrier along Ramp D to improve access for maintenance. Barrier 1 has been determined to be a feasible and reasonable noise abatement method. A barrier detail summary is provided in **Table 5-1**.

Barrier 2 was evaluated for the 67 impacted receptors within Camelot Lakes East and Foxfire West communities. The barrier could provide a minimum 5 dB(A) reduction to all impacted residences at barrier heights of 16 feet and greater. At a height of 22 feet, the barrier could provide a 7 dB(A) reduction or greater at 66 of the 67 impacted residences. The optimum barrier length for Barrier 2 was 5,682 feet at a height of 22 feet. At this length and height, the barrier could provide a benefit to all impacted residences as well as 53 additional residences not impacted by the proposed improvements. The total cost of the barrier at the optimum length and height is $3,750,369 and a cost of $31,253 per benefited residence. Barrier 2 has been determined to be a feasible and reasonable noise abatement method. A barrier detail summary is provided in **Table 5-1**.

Barrier 3 was evaluated for the 12 impacted receptors within the Lakewood community. The barrier could provide a minimum 5 dB(A) reduction to 9 of 12 impacted residences at barrier heights of 16 feet and greater. The total estimated cost to construct a barrier ranged from $489,372 to $1,288,834. The costs per benefited receptor ranged from $117,866 to $182,956, costs that exceed the cost reasonable guideline. Since the cost per benefited residence exceeds the cost reasonable criteria, the barrier is not considered a reasonable noise abatement measure and will not be included in the design plans.

Noise Barrier Engineering Feasibility Reviews were held on May 8, 2017, and May 24, 2017. It was determined that noise barriers are feasible and reasonable at the proposed locations for Barrier 1 and Barrier 2, which includes the communities of Windward Isle, Camelot Lakes, Grove Pointe, Camelot Lakes East and Foxfire West.

No outdoor advertising signs were identified within the project area; therefore, no impacts to outdoor signs are anticipated.

Table 5-1 Barrier Detail Summary

Barrier ID	Height (ft)	Length (ft)	Approx. Begin Station	Approx. End Station	Location	ROW Offset
Barrier 1	22	6,176	67+40 (Clark Rd)	130+40 (SB I-75)	Clark Rd and west side of I-75	5’ along Clark Rd and Ramp D; 12’ along I-75
Barrier 2	22	5,682	95+80 (Clark Rd)	130+20 (NB I-75)	Clark Rd and east side of I-75	12’

Table 5-1 (Cont’d)

Barrier ID	Benefited Receptors (Impacted)	Benefited Receptors (non-impacted)	Average Noise Reduction	Selected Color	Selected Texture	Total Barrier Cost	Cost per Benefited Receptor
Barrier 1	137	71	9.0	Light Beige	Ashlar Stone	$4,106,976	$19,745
Barrier 2	67	53	8.4	Light Beige	Ashlar Stone	$3,750,369	$31,253

SECTION 6 CONSTRUCTION NOISE AND VIBRATION

Based on the existing land use within the limits of this project, construction of the proposed roadway improvements may have noise or vibration impact. If noise-sensitive land uses develop adjacent to the roadway prior to construction, additional impacts could result. It is anticipated that the application of the FDOT Standard Specifications for Road and Bridge Construction will minimize or eliminate most of the potential construction noise and vibration impacts. However, should unanticipated noise or vibration issues arise during the construction process, the Project Manager, in concert with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts. The following sites were identified that have potential for construction noise and vibration impacts:

- Shroeter Dental
- Clark Road Animal Clinic
- All Children's Specialty Care
- Pediatric Pulmonary Associates
- Days Inn Hotel
- Quality Inn Hotel
- Holiday Inn Express & Suites

SECTION 7 COMMUNITY COORDINATION

The FDOT coordinated with benefited property owners and residents to determine their desire for the proposed barriers. Coordination included mailed survey packages and a noise barrier workshop. Notification letters were sent to benefited property owners and residents (benefited receptors) in July 2017 to notify the public of the proposed project and noise barriers, as well as notify them about the August 15, 2017, public workshop to discuss the proposed noise barriers. Display boards, a brief presentation and question and answer session were provided at the public workshop. Property owners and residents were also given the opportunity to talk directly with FDOT staff regarding the proposed noise barriers. Surveys were mailed to the benefited property owners and residents in late July/early August 2017. The surveys were provided to get feedback regarding the desires for noise barriers, and if in favor of the barriers, provide input about preferences for color and texture.

Barrier 1

A total of 59 surveys were received for Barrier 1, including one survey from the Camelot Lakes property owner, 45 surveys from residents within Camelot Lakes, one survey from the Windward Isle property owner/HOA, and 12 surveys from property owners within Grove Pointe. Of the 59 surveys received, all were in favor of construction of Barrier 1. The one survey that was received was from Camelot Communities MHP, LLC is the land owner of Camelot Lakes that represents approximately 75 percent of the benefited receptors for Barrier 1. An additional 45 surveys were received from residents within Camelot Lakes. The Windward Isle Homeowners, Inc. (property owner/HOA) represents the 22

benefited receptors within the Windward Isle community. The portion of Barrier 1 located along Camelot Lakes and Windward Isle accounts for approximately 70 percent of the total length of Barrier 1. Surveys were received from 12 of 29 (approximately 41 percent) of the benefited receptors within Grove Pointe. Based on the surveys received, the preferred color was light beige and the preferred texture was ashlar stone.

Barrier 2

A total of 59 surveys were received for Barrier 2, including one survey from the Camelot Lakes East property owner, 49 surveys from residents within Camelot Lakes East and nine surveys from property owners within Foxfire West. Of the surveys received, 57 of 59 were in favor of construction of Barrier 2 and two were opposed to the construction of Barrier 2. The survey that was received from Camelot Communities MHP, LLC (Camelot Lakes East), which is the land owner that represents approximately 90 percent of the benefited receptors for Barrier 2, was in favor of the proposed Barrier 2. Of the 49 surveys that were received from residents within Camelot Lakes East, 47 were in favor of construction of Barrier 2 and two were opposed to the construction of Barrier 2. The portion of Barrier 2 located along Camelot Lakes East accounts for approximately 65 percent of the total length of Barrier 2. Surveys were received from 9 of 14 (approximately 64 percent) of the benefited receptors within Foxfire West and all were in favor of Barrier 2. Based on the surveys received, the preferred color was light beige and the preferred texture was ashlar stone.

Summary

Based on the coordination and responses, the benefited property owners and residents were in favor of constructing Barrier 1 and Barrier 2. The results of the surveys indicated that ashlar stone is the preferred texture and light beige the preferred color of the property owners and residents for both barriers. Based on the results, the FDOT District 1 plans to move forward with the design of Barrier 1 and Barrier 2, and they will be included with future project construction.

The FDOT will coordinate with Sarasota County prior to construction to determine the County's preference on the color and texture of reasonable and feasible noise barriers for the residential face of the noise barriers.

SECTION 8 REFERENCES

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

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Florida Department of Transportation. December 2014. *Design Traffic Technical Memorandum, Interstate 75 and State Road 72 (Clark Road) Interchange*, prepared by American Consulting Engineers of FL, LLC.

Florida Department of Transportation. June 2012. *Noise Study Report, Project Development and Environment Study Interstate 75 - SR 681 to University Parkway*, prepared by Environmental Science Associates, Inc.

Florida Department of Transportation, *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*, FL-ER-65-97, July 22, 2009.

Appendix A

Phase II Design Plans

(To be Included on CD in Final Submittal)

Appendix B

Noise Model Traffic Data

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 north of SR 72
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	4580
Demand Peak Hour Volume:	4802
Posted Speed:	70

D =	55.00%	%
T24 =	11.00%	% of 24 Hour Volume
Tpeak =	6.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	4580
Demand Peak Hour Volume:	6351
Posted Speed:	70

D =	55.00%	%
T24 =	11.00%	% of 24 Hour Volume
Tpeak =	6.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

Build Alternative (Design Year)

Year:	2040
LOS C Peak Hour Directional Volume:	6080
Demand Peak Hour Volume:	6351
Posted Speed:	70

D =	55.00%	%
T24 =	11.00%	% of 24 Hour Volume
Tpeak =	6.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

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

Prepared By: Akram Hussein (Print Name) _____ (Signature) **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 north of SR 72

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 70 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 70 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 70 Number of Travel Lanes: 8
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use LOS C	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	4561	6032	6032
		Med Trucks	90	119	119
		Heavy Trucks	142	188	188
		Buses	6	8	8
		Motorcycles	3	4	4
		Total	4802	6351	6351
	Off-Peak Direction	Autos	3733	4936	4936
		Med Trucks	73	97	97
		Heavy Trucks	116	154	154
		Buses	5	6	6
		Motorcycles	2	3	3
		Total	3929	5196	5196
LOS C	Peak Direction	Autos	4350	4350	5775
		Med Trucks	86	86	114
		Heavy Trucks	136	136	180
		Buses	5	5	7
		Motorcycles	3	3	4
		Total	4580	4580	6080
	Off-Peak Direction	Autos	4350	4350	5775
		Med Trucks	86	86	114
		Heavy Trucks	136	136	180
		Buses	5	5	7
		Motorcycles	3	3	4
		Total	4580	4580	6080

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 south of SR 72
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	4580
Demand Peak Hour Volume:	4455
Posted Speed:	70

D =	55.00%	%
T24 =	11.00%	% of 24 Hour Volume
Tpeak =	6.00%	% of Design Hour Volume
MT =	1.50%	% of Design Hour Volume
HT =	3.02%	% of Design Hour Volume
B =	0.16%	% of Design Hour Volume
MC =	0.23%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	4580
Demand Peak Hour Volume:	6099
Posted Speed:	70

D =	55.00%	%
T24 =	11.00%	% of 24 Hour Volume
Tpeak =	6.00%	% of Design Hour Volume
MT =	1.50%	% of Design Hour Volume
HT =	3.02%	% of Design Hour Volume
B =	0.16%	% of Design Hour Volume
MC =	0.23%	% of Design Hour Volume

Build Alternative (Design Year)

Year:	2040
LOS C Peak Hour Directional Volume:	6080
Demand Peak Hour Volume:	6099
Posted Speed:	70

D =	55.00%	%
T24 =	11.00%	% of 24 Hour Volume
Tpeak =	6.00%	% of Design Hour Volume
MT =	1.50%	% of Design Hour Volume
HT =	3.02%	% of Design Hour Volume
B =	0.16%	% of Design Hour Volume
MC =	0.23%	% of Design Hour Volume

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

Prepared By: Akram Hussein _____ **Date:** 1/28/16
Print Name Signature

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez _____ **Date:** 1/28/16
Print Name Signature

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____

Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0

Section Number: 0

FPID Number(s): 201277-3-32-01

Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 south of SR 72

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 70 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 70 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 70 Number of Travel Lanes: 8
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	4236	5800	5800
		Med Trucks	67	91	91
		Heavy Trucks	135	184	184
		Buses	7	10	10
		Motorcycles	10	14	14
		Total	4455	6099	6099
	Off-Peak Direction	Autos	3466	4745	4745
		Med Trucks	55	75	75
		Heavy Trucks	110	151	151
		Buses	6	8	8
		Motorcycles	8	11	11
		Total	3645	4990	4990
LOS C	Peak Direction	Autos	4355	4355	5781
		Med Trucks	69	69	91
		Heavy Trucks	138	138	184
		Buses	7	7	10
		Motorcycles	11	11	14
		Total	4580	4580	6080
	Off-Peak Direction	Autos	4355	4355	5781
		Med Trucks	69	69	91
		Heavy Trucks	138	138	184
		Buses	7	7	10
		Motorcycles	11	11	14
		Total	4580	4580	6080

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 Between Ramps
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014	D =	55.00%	%
		T24 =	11.00%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	4580	Tpeak =	6.00%	% of Design Hour Volume
Demand Peak Hour Volume:	3465	MT =	1.50%	% of Design Hour Volume
Posted Speed:	70	HT =	3.02%	% of Design Hour Volume
		B =	0.16%	% of Design Hour Volume
		MC =	0.23%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040	D =	55.00%	%
		T24 =	11.00%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	4580	Tpeak =	6.00%	% of Design Hour Volume
Demand Peak Hour Volume:	4593	MT =	1.50%	% of Design Hour Volume
Posted Speed:	70	HT =	3.02%	% of Design Hour Volume
		B =	0.16%	% of Design Hour Volume
		MC =	0.23%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040	D =	55.00%	%
		T24 =	11.00%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	4580	Tpeak =	6.00%	% of Design Hour Volume
Demand Peak Hour Volume:	4593	MT =	1.50%	% of Design Hour Volume
Posted Speed:	70	HT =	3.02%	% of Design Hour Volume
		B =	0.16%	% of Design Hour Volume
		MC =	0.23%	% of Design Hour Volume

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

Prepared By: Akram Hussein — Print Name — Signature — **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Ileana Baez — Print Name — Signature — **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 Between Ramps

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 70 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 70 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 70 Number of Travel Lanes: 6
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	3294	4367	4367
		Med Trucks	52	69	69
		Heavy Trucks	105	139	139
		Buses	6	7	7
		Motorcycles	8	11	11
		Total	3465	4593	4593
	Off-Peak Direction	Autos	2694	3574	3574
		Med Trucks	43	56	56
		Heavy Trucks	86	113	113
		Buses	5	6	6
		Motorcycles	7	9	9
		Total	2835	3758	3758
LOS C	Peak Direction	Autos	4355	4355	4355
		Med Trucks	69	69	69
		Heavy Trucks	138	138	138
		Buses	7	7	7
		Motorcycles	11	11	11
		Total	4580	4580	4580
	Off-Peak Direction	Autos	4355	4355	4355
		Med Trucks	69	69	69
		Heavy Trucks	138	138	138
		Buses	7	7	7
		Motorcycles	11	11	11
		Total	4580	4580	4580

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 NB off ramp to SR 72
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	444
Demand Peak Hour Volume:	720
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.50%	% of Design Hour Volume
HT =	3.02%	% of Design Hour Volume
B =	0.16%	% of Design Hour Volume
MC =	0.23%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	444
Demand Peak Hour Volume:	1440
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.50%	% of Design Hour Volume
HT =	3.02%	% of Design Hour Volume
B =	0.16%	% of Design Hour Volume
MC =	0.23%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	876
Demand Peak Hour Volume:	1440
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.50%	% of Design Hour Volume
HT =	3.02%	% of Design Hour Volume
B =	0.16%	% of Design Hour Volume
MC =	0.23%	% of Design Hour Volume

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

Prepared By: Alcram Hussein (Print Name) _____ (Signature) Date: 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) Date: 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 NB off ramp to SR 72

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 35 Number of Travel Lanes: 1	No Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 1	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 2
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use LOS C	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	684	1370	1370
		Med Trucks	11	22	22
		Heavy Trucks	22	43	43
		Buses	1	2	2
		Motorcycles	2	3	3
		Total	720	1440	1440
	Off-Peak Direction	Autos	-3	-3	-3
		Med Trucks	1	1	1
		Heavy Trucks	1	1	1
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	1	1	1
LOS C	Peak Direction	Autos	422	422	834
		Med Trucks	7	7	13
		Heavy Trucks	13	13	26
		Buses	1	1	1
		Motorcycles	1	1	2
		Total	444	444	876
	Off-Peak Direction	Autos	422	422	834
		Med Trucks	7	7	13
		Heavy Trucks	13	13	26
		Buses	1	1	1
		Motorcycles	1	1	2
		Total	444	444	876

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 SB on ramp from SR 72
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014	D =	100.00%	%
		T24 =	8.40%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	444	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	720	MT =	1.50%	% of Design Hour Volume
Posted Speed:	35	HT =	3.02%	% of Design Hour Volume
		B =	0.16%	% of Design Hour Volume
		MC =	0.23%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040	D =	100.00%	%
		T24 =	8.40%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	444	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	1440	MT =	1.50%	% of Design Hour Volume
Posted Speed:	35	HT =	3.02%	% of Design Hour Volume
		B =	0.16%	% of Design Hour Volume
		MC =	0.23%	% of Design Hour Volume

Build Alternative (Design Year)

Year:	2040	D =	100.00%	%
		T24 =	8.40%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	876	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	1440	MT =	1.50%	% of Design Hour Volume
Posted Speed:	35	HT =	3.02%	% of Design Hour Volume
		B =	0.16%	% of Design Hour Volume
		MC =	0.23%	% of Design Hour Volume

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

Prepared By: Akram Hussein _____ **Date:** 1/28/16
Print Name Signature

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez _____ **Date:** 1/28/16
Print Name Signature

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 SB on ramp from SR 72

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 35 Number of Travel Lanes: 1	No Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 1	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 1
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use LOS C	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	684	1370	1370
		Med Trucks	11	22	22
		Heavy Trucks	22	43	43
		Buses	1	2	2
		Motorcycles	2	3	3
		Total	720	1440	1440
	Off-Peak Direction	Autos	-3	-3	-3
		Med Trucks	1	1	1
		Heavy Trucks	1	1	1
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	1	1	1
LOS C	Peak Direction	Autos	422	422	834
		Med Trucks	7	7	13
		Heavy Trucks	13	13	26
		Buses	1	1	1
		Motorcycles	1	1	2
		Total	444	444	876
	Off-Peak Direction	Autos	422	422	834
		Med Trucks	7	7	13
		Heavy Trucks	13	13	26
		Buses	1	1	1
		Motorcycles	1	1	2
		Total	444	444	876

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 NB on ramp from SR 72
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	876
Demand Peak Hour Volume:	1350
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	876
Demand Peak Hour Volume:	2034
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

Build Alternative (Design Year)

Year:	2040
LOS C Peak Hour Directional Volume:	876
Demand Peak Hour Volume:	2034
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

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

Prepared By: Akram Hussein (Print Name) Akram Hussein (Signature) **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yeana Baez (Print Name) Yeana Baez (Signature) **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 NB on ramp from SR 72

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 35 Number of Travel Lanes: 2	No Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 2	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 2
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use LOS C	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	1282	1933	1933
		Med Trucks	25	38	38
		Heavy Trucks	40	60	60
		Buses	2	2	2
		Motorcycles	1	1	1
		Total	1350	2034	2034
	Off-Peak Direction	Autos	-3	-3	-3
		Med Trucks	1	1	1
		Heavy Trucks	1	1	1
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	1	1	1
LOS C	Peak Direction	Autos	832	832	832
		Med Trucks	16	16	16
		Heavy Trucks	26	26	26
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	876	876	876
	Off-Peak Direction	Autos	832	832	832
		Med Trucks	16	16	16
		Heavy Trucks	26	26	26
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	876	876	876

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	I-75
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	I-75 SB off ramp to SR 72
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	444
Demand Peak Hour Volume:	1350
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	444
Demand Peak Hour Volume:	2034
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	876
Demand Peak Hour Volume:	2034
Posted Speed:	35

D =	100.00%	%
T24 =	8.40%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.87%	% of Design Hour Volume
HT =	2.96%	% of Design Hour Volume
B =	0.12%	% of Design Hour Volume
MC =	0.06%	% of Design Hour Volume

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

Prepared By: Akram Hussein (Print Name) _____ (Signature) Date: 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) Date: 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: I-75

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: I-75 SB off ramp to SR 72

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 35 Number of Travel Lanes: 1	No Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 1	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 2
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use LOS C	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	1282	1933	1933
		Med Trucks	25	38	38
		Heavy Trucks	40	60	60
		Buses	2	2	2
		Motorcycles	1	1	1
		Total	1350	2034	2034
	Off-Peak Direction	Autos	-3	-3	-3
		Med Trucks	1	1	1
		Heavy Trucks	1	1	1
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	1	1	1
LOS C	Peak Direction	Autos	421	421	832
		Med Trucks	8	8	16
		Heavy Trucks	13	13	26
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	444	444	876
	Off-Peak Direction	Autos	421	421	832
		Med Trucks	8	8	16
		Heavy Trucks	13	13	26
		Buses	1	1	1
		Motorcycles	1	1	1
		Total	444	444	876

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 East of I-75
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	2006
Demand Peak Hour Volume:	887
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	2.91%	% of Design Hour Volume
HT =	1.68%	% of Design Hour Volume
B =	0.25%	% of Design Hour Volume
MC =	0.20%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	2006
Demand Peak Hour Volume:	1253
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	2.91%	% of Design Hour Volume
HT =	1.68%	% of Design Hour Volume
B =	0.25%	% of Design Hour Volume
MC =	0.20%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	767
Demand Peak Hour Volume:	1253
Posted Speed:	35

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	2.91%	% of Design Hour Volume
HT =	1.68%	% of Design Hour Volume
B =	0.25%	% of Design Hour Volume
MC =	0.20%	% of Design Hour Volume

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

Prepared By: Akram Hussein (Print Name) _____ (Signature) **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: SR 72 East of I-75

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 4	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 4	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 4
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	842	1190	1190
		Med Trucks	26	36	36
		Heavy Trucks	15	21	21
		Buses	2	3	3
		Motorcycles	2	3	3
		Total	887	1253	1253
	Off-Peak Direction	Autos	610	862	862
		Med Trucks	19	26	26
		Heavy Trucks	11	15	15
		Buses	2	2	2
		Motorcycles	1	2	2
		Total	643	907	907
LOS C	Peak Direction	Autos	1905	1905	728
		Med Trucks	58	58	22
		Heavy Trucks	34	34	13
		Buses	5	5	2
		Motorcycles	4	4	2
		Total	2006	2006	767
	Off-Peak Direction	Autos	1905	1905	728
		Med Trucks	58	58	22
		Heavy Trucks	34	34	13
		Buses	5	5	2
		Motorcycles	4	4	2
		Total	2006	2006	767

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 East of Camelot East Ent.
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
		Tpeak =	4.00%	% of Design Hour Volume
LOS C Peak Hour Directional Volume:	2006	MT =	2.91%	% of Design Hour Volume
Demand Peak Hour Volume:	783	HT =	1.68%	% of Design Hour Volume
Posted Speed:	45	B =	0.25%	% of Design Hour Volume
		MC =	0.20%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
		Tpeak =	4.00%	% of Design Hour Volume
LOS C Peak Hour Directional Volume:	2006	MT =	2.91%	% of Design Hour Volume
Demand Peak Hour Volume:	1096	HT =	1.68%	% of Design Hour Volume
Posted Speed:	45	B =	0.25%	% of Design Hour Volume
		MC =	0.20%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
		Tpeak =	4.00%	% of Design Hour Volume
LOS C Peak Hour Directional Volume:	767	MT =	2.91%	% of Design Hour Volume
Demand Peak Hour Volume:	1096	HT =	1.68%	% of Design Hour Volume
Posted Speed:	35	B =	0.25%	% of Design Hour Volume
		MC =	0.20%	% of Design Hour Volume

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

Prepared By: Akram Hussein — Print Name — Signature — **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Ileana Baez — Print Name — Signature — **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: SR 72 East of Camelot East Ent.

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 4	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 4	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 4
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	743	1041	1041
		Med Trucks	23	32	32
		Heavy Trucks	13	18	18
		Buses	2	3	3
		Motorcycles	2	2	2
		Total	783	1096	1096
	Off-Peak Direction	Autos	539	754	754
		Med Trucks	16	23	23
		Heavy Trucks	10	13	13
		Buses	1	2	2
		Motorcycles	1	2	2
		Total	567	794	794
LOS C	Peak Direction	Autos	1905	1905	728
		Med Trucks	58	58	22
		Heavy Trucks	34	34	13
		Buses	5	5	2
		Motorcycles	4	4	2
		Total	2006	2006	767
	Off-Peak Direction	Autos	1905	1905	728
		Med Trucks	58	58	22
		Heavy Trucks	34	34	13
		Buses	5	5	2
		Motorcycles	4	4	2
		Total	2006	2006	767

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 East of Hummingbird Ave
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	664
Demand Peak Hour Volume:	731
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	2.91%	% of Design Hour Volume
HT =	1.68%	% of Design Hour Volume
B =	0.25%	% of Design Hour Volume
MC =	0.20%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	664
Demand Peak Hour Volume:	992
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	2.91%	% of Design Hour Volume
HT =	1.68%	% of Design Hour Volume
B =	0.25%	% of Design Hour Volume
MC =	0.20%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	664
Demand Peak Hour Volume:	992
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	2.91%	% of Design Hour Volume
HT =	1.68%	% of Design Hour Volume
B =	0.25%	% of Design Hour Volume
MC =	0.20%	% of Design Hour Volume

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

Prepared By: Akram Hussein (Print Name) _____ (Signature) Date: 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) Date: 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0

FPID Number(s): 201277-3-32-01 Section Number: 0

State/Federal Route No.: 0 Mile Post To/From: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: SR 72 East of Hummingbird Ave

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 2	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 2	Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 2
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles	Number of Vehicles	Number of Vehicles
			Use LOS C	Use LOS C	Use LOS C
Demand Peak Hour	Peak Direction	Autos	695	942	942
		Med Trucks	21	29	29
		Heavy Trucks	12	17	17
		Buses	2	2	2
		Motorcycles	1	2	2
		Total	731	992	992
	Off-Peak Direction	Autos	503	682	682
		Med Trucks	15	21	21
		Heavy Trucks	9	12	12
		Buses	1	2	2
		Motorcycles	1	1	1
		Total	529	718	718
LOS C	Peak Direction	Autos	631	631	631
		Med Trucks	19	19	19
		Heavy Trucks	11	11	11
		Buses	2	2	2
		Motorcycles	1	1	1
		Total	664	664	664
	Off-Peak Direction	Autos	631	631	631
		Med Trucks	19	19	19
		Heavy Trucks	11	11	11
		Buses	2	2	2
		Motorcycles	1	1	1
		Total	664	664	664

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 between I-75 Ramps
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014
LOS C Peak Hour Directional Volume:	3087
Demand Peak Hour Volume:	2036
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.56%	% of Design Hour Volume
HT =	1.25%	% of Design Hour Volume
B =	0.50%	% of Design Hour Volume
MC =	0.40%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	3087
Demand Peak Hour Volume:	2819
Posted Speed:	45

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.56%	% of Design Hour Volume
HT =	1.25%	% of Design Hour Volume
B =	0.50%	% of Design Hour Volume
MC =	0.40%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040
LOS C Peak Hour Directional Volume:	1691
Demand Peak Hour Volume:	2819
Posted Speed:	30

D =	58.00%	%
T24 =	7.70%	% of 24 Hour Volume
Tpeak =	4.00%	% of Design Hour Volume
MT =	1.56%	% of Design Hour Volume
HT =	1.25%	% of Design Hour Volume
B =	0.50%	% of Design Hour Volume
MC =	0.40%	% of Design Hour Volume

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

Prepared By: Akram Hussein (Print Name) _____ (Signature) Date: 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) Date: 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: SR 72 between I-75 Ramps

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 30 Number of Travel Lanes: 8
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	1961	2715	2715
		Med Trucks	32	44	44
		Heavy Trucks	25	35	35
		Buses	10	14	14
		Motorcycles	8	11	11
		Total	2036	2819	2819
	Off-Peak Direction	Autos	1420	1965	1965
		Med Trucks	23	32	32
		Heavy Trucks	18	26	26
		Buses	7	10	10
		Motorcycles	6	8	8
		Total	1474	2041	2041
LOS C	Peak Direction	Autos	2973	2973	1629
		Med Trucks	48	48	26
		Heavy Trucks	39	39	21
		Buses	15	15	8
		Motorcycles	12	12	7
		Total	3087	3087	1691
	Off-Peak Direction	Autos	2973	2973	1629
		Med Trucks	48	48	26
		Heavy Trucks	39	39	21
		Buses	15	15	8
		Motorcycles	12	12	7
		Total	3087	3087	1691

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 West of I-75
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	3087	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	2297	MT =	1.56%	% of Design Hour Volume
Posted Speed:	45	HT =	1.25%	% of Design Hour Volume
		B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	3087	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	3184	MT =	1.56%	% of Design Hour Volume
Posted Speed:	45	HT =	1.25%	% of Design Hour Volume
		B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	1691	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	3184	MT =	1.56%	% of Design Hour Volume
Posted Speed:	35	HT =	1.25%	% of Design Hour Volume
		B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

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Prepared By: Akram Hussein (Print Name) _____ (Signature) **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez (Print Name) _____ (Signature) **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: SR 72 West of I-75

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 8
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	2212	3065	3065
		Med Trucks	36	50	50
		Heavy Trucks	29	40	40
		Buses	11	16	16
		Motorcycles	9	13	13
		Total	2297	3184	3184
	Off-Peak Direction	Autos	1601	2220	2220
		Med Trucks	26	36	36
		Heavy Trucks	21	29	29
		Buses	8	12	12
		Motorcycles	7	9	9
		Total	1663	2306	2306
LOS C	Peak Direction	Autos	2973	2973	1629
		Med Trucks	48	48	26
		Heavy Trucks	39	39	21
		Buses	15	15	8
		Motorcycles	12	12	7
		Total	3087	3087	1691
	Off-Peak Direction	Autos	2973	2973	1629
		Med Trucks	48	48	26
		Heavy Trucks	39	39	21
		Buses	15	15	8
		Motorcycles	12	12	7
		Total	3087	3087	1691

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 West of Catamaran Dr.
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
		Tpeak =	4.00%	% of Design Hour Volume
LOS C Peak Hour Directional Volume:	3087	MT =	1.56%	% of Design Hour Volume
Demand Peak Hour Volume:	2349	HT =	1.25%	% of Design Hour Volume
Posted Speed:	45	B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
		Tpeak =	4.00%	% of Design Hour Volume
LOS C Peak Hour Directional Volume:	3087	MT =	1.56%	% of Design Hour Volume
Demand Peak Hour Volume:	3289	HT =	1.25%	% of Design Hour Volume
Posted Speed:	45	B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

Build Alternative (Design Year)

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
		Tpeak =	4.00%	% of Design Hour Volume
LOS C Peak Hour Directional Volume:	1691	MT =	1.56%	% of Design Hour Volume
Demand Peak Hour Volume:	3289	HT =	1.25%	% of Design Hour Volume
Posted Speed:	35	B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

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

Prepared By: Akram Hussein — Print Name — Signature — **Date:** 1/28/16

I have reviewed and concur that the above information is appropriate for use with the traffic noise analysis.

FDOT Reviewer: Yleana Baez — Print Name — Signature — **Date:** 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0

FPID Number(s): 201277-3-32-01 Section Number: 0

State/Federal Route No.: 0 Mile Post To/From: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

Segment Description: SR 72 West of Catamaran Dr.

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 35 Number of Travel Lanes: 8
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	2262	3168	3168
		Med Trucks	37	51	51
		Heavy Trucks	29	41	41
		Buses	12	16	16
		Motorcycles	9	13	13
		Total	2349	3289	3289
	Off-Peak Direction	Autos	1637	2292	2292
		Med Trucks	27	37	37
		Heavy Trucks	21	30	30
		Buses	9	12	12
		Motorcycles	7	10	10
		Total	1701	2381	2381
LOS C	Peak Direction	Autos	2973	2973	1629
		Med Trucks	48	48	26
		Heavy Trucks	39	39	21
		Buses	15	15	8
		Motorcycles	12	12	7
		Total	3087	3087	1691
	Off-Peak Direction	Autos	2973	2973	1629
		Med Trucks	48	48	26
		Heavy Trucks	39	39	21
		Buses	15	15	8
		Motorcycles	12	12	7
		Total	3087	3087	1691

TRAFFIC DATA FOR NOISE STUDIES - SUMMARY OUTPUT
FDOT DISTRICT 1

Federal Aid Number(s):	0
FPID Number(s):	201277-3-32-01
State/Federal Route No.:	0
Road Name:	SR 72
Project Description:	I-75 at SR 72 (Clark Road)
Segment Description:	SR 72 West of Gantt Rd/Approach Rd
Section Number:	0
Mile Post To/From:	0

Existing Facility:

Year:	2014	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	3087	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	2558	MT =	1.56%	% of Design Hour Volume
Posted Speed:	45	HT =	1.25%	% of Design Hour Volume
		B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

No Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	3087	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	3550	MT =	1.56%	% of Design Hour Volume
Posted Speed:	45	HT =	1.25%	% of Design Hour Volume
		B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

Build Alternative (Design Year):

Year:	2040	D =	58.00%	%
		T24 =	7.70%	% of 24 Hour Volume
LOS C Peak Hour Directional Volume:	3087	Tpeak =	4.00%	% of Design Hour Volume
Demand Peak Hour Volume:	3550	MT =	1.56%	% of Design Hour Volume
Posted Speed:	45	HT =	1.25%	% of Design Hour Volume
		B =	0.50%	% of Design Hour Volume
		MC =	0.40%	% of Design Hour Volume

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FDOT Reviewer: Yleana Baez — Print Name — Signature — Date: 1/28/16

FDOT TRAFFIC DATA FOR NOISE STUDIES - DETAILED OUTPUT

Prepared By: _____ Date: _____ Approved for Use By: _____ Date: _____

Federal Aid Number(s): 0 Section Number: 0

FPID Number(s): 201277-3-32-01 Mile Post To/From: 0

State/Federal Route No.: 0

Road Name: SR 72

Project Description: I-75 at SR 72 (Clark Road)

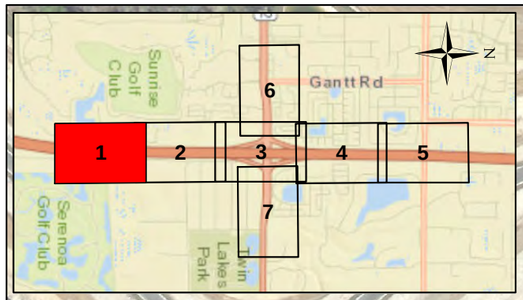
Segment Description: SR 72 West of Gantt Rd/Approach Rd

Note: Data sheets are to be completed for each segment having a change in traffic parameters (i.e., volume posted speed, typical section)

Demand Peak Hour/LOS C	Peak or Off-Peak Direction	Vehicle Type	Existing Year: 2014 Posted Speed: 45 Number of Travel Lanes: 6	No Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 6	Build (Design Year) Year: 2040 Posted Speed: 45 Number of Travel Lanes: 6
See Columns to Right > for Which Volumes To Use (Demand or LOS C)			Number of Vehicles Use Demand Volumes	Number of Vehicles Use LOS C	Number of Vehicles Use LOS C
Demand Peak Hour	Peak Direction	Autos	2463	3419	3419
		Med Trucks	40	55	55
		Heavy Trucks	32	44	44
		Buses	13	18	18
		Motorcycles	10	14	14
		Total	2558	3550	3550
	Off-Peak Direction	Autos	1784	2475	2475
		Med Trucks	29	40	40
		Heavy Trucks	23	32	32
		Buses	9	13	13
		Motorcycles	7	10	10
		Total	1852	2570	2570
LOS C	Peak Direction	Autos	2973	2973	2973
		Med Trucks	48	48	48
		Heavy Trucks	39	39	39
		Buses	15	15	15
		Motorcycles	12	12	12
		Total	3087	3087	3087
	Off-Peak Direction	Autos	2973	2973	2973
		Med Trucks	48	48	48
		Heavy Trucks	39	39	39
		Buses	15	15	15
		Motorcycles	12	12	12
		Total	3087	3087	3087

Appendix C

Noise Receptors and Barriers



Sunrise Golf Club

101

Begin Project

75

1855

1860

1865

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 1 of 7

Legend

- Existing ROW
- Proposed ROW
- Recommended Noise Barrier
- Non-Reasonable Noise Barrier
- Overlap for Maintenance
- Validation Sites
- Existing Wall

Receptors

- Impacted
- Not Impacted
- Not Impacted/Benefited
- Impacted/Benefited [Min 5 dB(A) Reduction]
- Impacted/Benefited [Meets 7 dB(A) Design Goal]

0 125 250
Feet

N

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 2 of 7

Legend

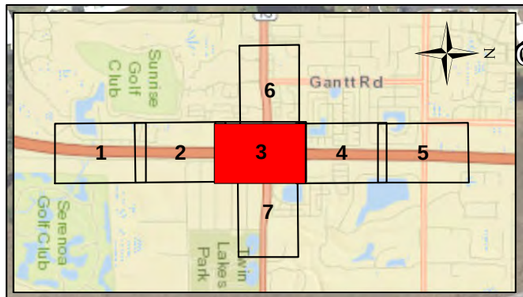
- Existing ROW
- Proposed ROW
- Recommended Noise Barrier
- Non-Reasonable Noise Barrier
- Overlap for Maintenance
- Validation Sites
- Existing Wall

Receptors

- Impacted
- Not Impacted
- Not Impacted/Benefited
- Impacted/Benefited [Min 5 dB(A) Reduction]
- Impacted/Benefited [Meets 7 dB(A) Design Goal]

0 125 250
Feet

N



Orange Acres

Camelot Lakes

Lakewood

Camelot East

Clark Rd

75

72

Barrier 1

Barrier 2

Barrier 3

Proposed ROW

Approximate Limits of Retaining Wall

1885 1890 1895 1900 1905 1910 1915 1920

629 630 642 647 648 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 150 151 149 152 148 153 154 155 159 160 158 161 157 162 156 163 164

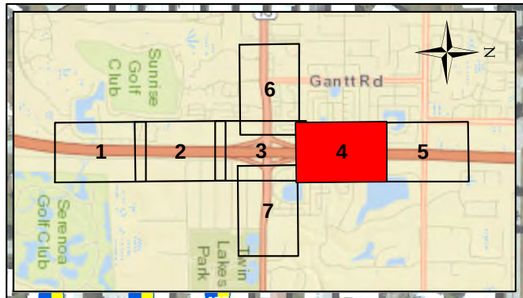
370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460

FDOT

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 3 of 7



Camelot Lakes

Grove Pointe

Foxfire West

Camelot East

Barrier 1

Barrier 2

Proposed ROW

Grove Pointe Wall

Barrier 1

Barrier 2

1915 1920 1925 1930 1935 1940 1945

75

V1

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 4 of 7

Legend

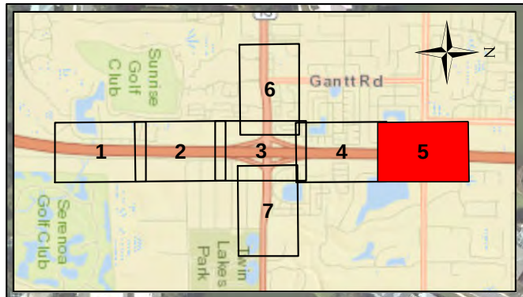
- Existing ROW
- Proposed ROW
- Recommended Noise Barrier
- Non-Reasonable Noise Barrier
- Overlap for Maintenance
- Validation Sites
- Existing Wall

Receptors

- Impacted
- Not Impacted
- Not Impacted/Benefited
- Impacted/Benefited [Min 5 dB(A) Reduction]
- Impacted/Benefited [Meets 7 dB(A) Design Goal]

0 125 250
Feet

N



Grove Pointe

Grove Pointe Wall

Barrier 1

Barrier 2

Foxfire West

Proctor Rd

End Project

I-75

1940 1945 1950

130 135 140 145 150

V1

267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 266 265 264 263 262 261 260 259 258 257 256 255 254 253 252 251 250 249 248 247 246 245 244 243 242 241 240 239 238 237

504 505 506 507 508 509 510 511 512 515 516

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 5 of 7

Legend

- Existing ROW
- Proposed ROW
- Recommended Noise Barrier
- Non-Reasonable Noise Barrier
- Overlap for Maintenance
- Validation Sites
- Existing Wall

Receptors

- Impacted
- Not Impacted
- Not Impacted/Benefited
- Impacted/Benefited [Min 5 dB(A) Reduction]
- Impacted/Benefited [Meets 7 dB(A) Design Goal]

0 125 250
Feet

N

FDOT

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 6 of 7

Legend

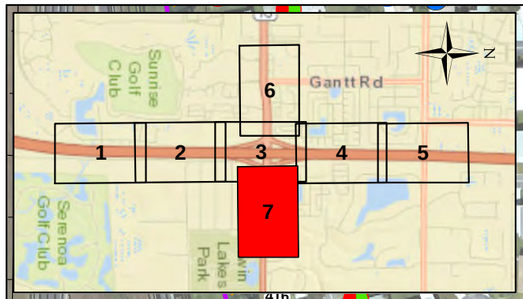
- Existing ROW
- Proposed ROW
- Recommended Noise Barrier
- Non-Reasonable Noise Barrier
- Overlap for Maintenance
- Validation Sites
- Existing Wall

Receptors

- Impacted
- Not Impacted
- Not Impacted/Benefited
- Impacted/Benefited [Min 5 dB(A) Reduction]
- Impacted/Benefited [Meets 7 dB(A) Design Goal]

0 125 250
Feet

N



Camelot East

Queensbury Blvd

Barrier 2

Barrier 3

Lakewood

Clark Rd

Hummingbird Ave

I-75

72

V2

90 85 95 100 105

415 414 413 412 411 410 409 408 407 406 405 404 403 434 433 432 431 430 429 428 427 426 445 449 444

N1 N2 N3 N4 N5 N6 N7 N8 N9 N10 N11 N12 N13 N14 N15 N16 N17 N18 N19 N20

385 395 402 376 384 394 400 401 375 383 393 398 399 374 381 382 397

I-75 / Clark Road Interchange
FPID No. 201277-3-32-01

Appendix C - Noise Receptors and Barriers

Sheet 7 of 7

Legend

- Existing ROW
- Proposed ROW
- Recommended Noise Barrier
- Non-Reasonable Noise Barrier
- Overlap for Maintenance
- Validation Sites
- Existing Wall

Receptors

- Impacted
- Not Impacted
- Not Impacted/Benefited
- Impacted/Benefited [Min 5 dB(A) Reduction]
- Impacted/Benefited [Meets 7 dB(A) Design Goal]

0 125 250
Feet

N

Appendix D

Noise Model Validation Data

1 - 5 of 45 days | All 45 days Next 5 >

Today	Sat	Sun	Mon	Tue
Jan 29	Jan 30	Jan 31	Feb 1	Feb 2
Turning sunny and less humid	Sun mixing with clouds	Sun mixing with clouds	Clouds breaking for some sun	Beautiful with periods of sun
64° Lo 47°	67° Lo 49°	71° Lo 62°	74° Lo 63°	77° Lo 67°
	more	more	more	more

Now Daily **Hourly** Morning Afternoon Evening Overnight

	Fri 8am	9am	10am	11am	12pm	1pm	2pm	3pm
Forecast	Mostly Cloudy	Partly Sunny	Partly Sunny	Mostly Sunny	Mostly Sunny	Mostly Sunny	Partly Sunny	Mostly Sunny
Temp (°F)	56°	56°	58°	61°	62°	63°	64°	64°
RealFeel®	53°	56°	60°	64°	66°	66°	65°	63°
Humidity	68%	64%	59%	53%	49%	46%	44%	43%
	8am	9am	10am	11am	12pm	1pm	2pm	3pm
Rain	0%	0%	0%	0%	0%	0%	0%	0%
Snow	0%	0%	0%	0%	0%	0%	0%	0%
Ice	0%	0%	0%	0%	0%	0%	0%	0%
	8am	9am	10am	11am	12pm	1pm	2pm	3pm
Wind (mph)	9 NNW	8 N	8 N	9 NNW	10 NW	10 NNW	12 NW	12 NW
UV Index	1	2	4	5	6	5	4	2
Cloud Cover	76%	40%	37%	25%	17%	22%	35%	22%
Dew Point	46°	44°	44°	44°	43°	42°	42°	41°

< Previous 8 hours Next 8 hours >

Temperature History - Jan 29 more Historical Weather Data >

Today	Normal	Record	1/29/2015

Trending Now

WATCH: Beachgoers watch in awe as plane makes low landing

VIDEO: Police rescue elk stuck in deep snow

Election 2016: Snowstorm to unfold as thousands gather for Iowa Caucuses

The 2016 Presidential Election season officially gets underway Monday evening, Feb. 1, with the Iowa Caucuses, and wintry weather may impact voter turnout.

Read Story >

Santa Clara may catch a break from El Nino-enhanced rainstorms in time for Super Bowl 50

Thousands of people will descend on Santa Clara, California, in the days leading up to the big game on Sunday, Feb. 7.

Read Story >

more on Trending Now >

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Noise Validation Data

Location (Address and County)/Site Identification	Station Number	Survey No.
I-75 NB	1	1

Date	Calibration Begin	Calibration End	Time Begin	Time End	Measured dB(A)
1/29/16	113.99	113.95	10:59	11:09	78.8

Weather Data

Temperature	Cloud/Sun Cover	Precipitation/ Humidity	Wind Speed Direction
61° F	Sunny	50%	10-15 mph NW

Traffic Classification - (NB) SB WB EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
622	1	0	11	41

Traffic Classifications - NB (SB) WB EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
513	3	1	27	26

Measurements Taken By: _____

Other Comments: _____

Noise Validation Vehicle Speeds

Location (Address and County)/Site Identification	Station Number	Survey No.
I-75 Northbound near Exit 207 Marker	1	1

Speed Counts - (NB) SB WB EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
53	80	66		51		41			
47	66	75		61		56			
51	67			68		63			
67	64			70		80			
68	70			73		68			
71	75			69					
73	73			62					
69	67			51					
69	66			64					
69	65			67					
71	66			59					
81	69								

Speed Counts - NB (SB) WB EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
70	81	71		62		70			71
71	71	68		65		65			
72	70	70		67		66			
71	75	71		69		72			
70	76	66		69		68			
72	67					60			
71	62					77			
68	76					64			
69	71					63			
69	76								
70	81								
72	72								

Noise Validation Data

Location (Address and County)/Site Identification	Station Number	Survey No.
I-75 NB	1	2

Date	Calibration Begin	Calibration End	Time Begin	Time End	Measured dB(A)
1/29/16	113.95	114.00	11:16	11:26	79.0

Weather Data

Temperature	Cloud/Sun Cover	Precipitation/ Humidity	Wind Speed Direction
61°F	Sunny	50%	10-15 mph NW

Traffic Classification - (NB) SB WB EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
580	0	2	22	39

Traffic Classifications - NB (SB) WB EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
607	0	0	21	39

Measurements Taken By: _____

Other Comments: _____

Noise Validation Vehicle Speeds

Location (Address and County)/Site Identification	Station Number	Survey No.
I-75 Northbound near Exit 201 Marker	1	2

Speed Counts - (NB) SB WB EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
69	68	67		68		65			
71	67	70		62		66			
75	65	68		67		68			
72	72	66		69		66			
78	70	63		62		64			
71	73	72		66		60			
66	78	72		62		68			
64	72	68		62		69			
66	72			65					
69	65			65					
71	65								
65	74								

Speed Counts - NB (SB) WB EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
75	68	68		68		69			
71	70	69		67		66			
81	79	71		60		66			
72	76	72		60		66			
73	73	68		72		62			
74	76	75		60		70			
77	79	76		66		62			
67	83	75		52		68			
70	75	71		56					
80	73	73		69					
70	68			64					
73	70			59					

Noise Validation Data

Location (Address and County)/Site Identification	Station Number	Survey No.
I-75 NB	1	3

Date	Calibration Begin	Calibration End	Time Begin	Time End	Measured dB(A)
1/29/16	114.00	113.97	11:32	11:42	79.0

Weather Data

Temperature	Cloud/Sun Cover	Precipitation/ Humidity	Wind Speed Direction
61° F	Sunny	50%	10-15mph NW

Traffic Classification - (NB) SB WB EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
664	0	4	18	32

Traffic Classifications - NB (SB) WB EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
573	0	2	20	27

Measurements Taken By: _____

Other Comments: _____

Noise Validation Vehicle Speeds

Location (Address and County)/Site Identification	Station Number	Survey No.
I-75 Northbound near Exit 207 Moker	1	3

Speed Counts - (NB) SB WB EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
68	70	71			61	62		55	
69	78	65			57	60		71	
65	72	72			60	69		63	
72	73	75			61	67			
63	72	72			59	66			
67	72	72			65				
69	73	70			55				
75	68	75			62				
67	71	68			70				
73	66	70			62				
70	69				70				
70	71				69				

Speed Counts - NB (SB) WB EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
69	76	69		70		74		50	
67	71	65		72		69			
64	71	71		67		71			
73	63	74		61		68			
72	67	71		53		67			
74	69	72		59					
75	61	73		64					
71	76	69		63					
69	67	67		62					
69	65	70							
70	75	73							
70	72	69							

Noise Validation Data

Location (Address and County)/Site Identification	Station Number	Survey No.
Clark Rd EB - East of Camelot	2	1

Date	Calibration Begin	Calibration End	Time Begin	Time End	Measured dB(A)
11/29/16	114.05	113.99	12:08	12:18	67.2

Weather Data

Temperature	Cloud/Sun Cover	Precipitation/ Humidity	Wind Speed Direction
62° F	Sunny	50%	10-15 mph NW

Traffic Classification - NB SB WB (EB)

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
81	0	0	1	1

Traffic Classifications - NB SB (WB) EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
98	6	0	5	2

Measurements Taken By: _____

Other Comments: Rumble strips

Noise Validation Vehicle Speeds

Location (Address and County)/Site Identification	Station Number	Survey No.
East of Queensbury on Clark Rd	2	1

Speed Counts - NB SB (WB) EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
44	45	46		44		44			44
48	38	47		39		47			48
45	44	49							51
46	40	45							44
47	52	49							
43	49	43							
42	52								
42	54								
37	51								
46	52								
43	53								
44	48								

Speed Counts - NB SB WB (EB)

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
45	48	52		54		43			
53	47	46				48			
48	48	42							
58	49	45							
54	50	54							
51	49	51							
49	48	50							
50	42	43							
48	43								
44	50								
47	49								
48	49								

Noise Validation Data

Location (Address and County)/Site Identification	Station Number	Survey No.
Clark Rd EB - East of Camelot	2	2

Date	Calibration Begin	Calibration End	Time Begin	Time End	Measured dB(A)
1/29/16	113.99	113.99	12:24	12:34	66.0

Weather Data

Temperature	Cloud/Sun Cover	Precipitation/ Humidity	Wind Speed Direction
62°F	Sunny	50%	10-15 mph NW

Traffic Classification - NB SB WB (EB)

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
91	0	0	3	0

Traffic Classifications - NB SB (WB) EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
99	0	0	5	0

Measurements Taken By: _____

Other Comments: Plane overhead early in run, rumble strips

Noise Validation Vehicle Speeds

Location (Address and County)/Site Identification	Station Number	Survey No.
East of Queensbury on Clark Rd	2	2

Speed Counts - NB SB (WB) EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
48	50	50	43			57			
49	45	40	50						
48	47	58							
51	49	44							
48	45	46							
47	52	42							
42	48	44							
43	46	49							
43	48	41							
49	46	51							
44	46	49							
49	47	52							

Speed Counts - NB SB WB (EB)

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
41	53	53				35			
40	51	51				45			
41	53	49				45			
39	47	51				54			
31	45	51							
51	46	48							
52	41	50							
52	47	52							
51	43	54							
48	51	51							
53	52	45							
52	46								

Noise Validation Data

Location (Address and County)/Site Identification	Station Number	Survey No.
Clark Rd EB- East of Camelot	2	3

Date	Calibration Begin	Calibration End	Time Begin	Time End	Measured dB(A)
1/29/16	113.99	113.89	12:38	12:48	69.7

Weather Data

Temperature	Cloud/Sun Cover	Precipitation/ Humidity	Wind Speed Direction
62°F	Sunny	50%	10-15 mph NW

Traffic Classification - NB SB WB (EB)

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
113	1	0	3	5

Traffic Classifications - NB SB (WB) EB

Cars	Motorcycles	Buses	Med. Trucks	Heavy Trucks
88	0	0	3	0

Measurements Taken By: _____

Other Comments: Rumble strips (w/ heavy trucks)

Noise Validation Vehicle Speeds

Location (Address and County)/Site Identification	Station Number	Survey No.
East of Queensbury on Clark Rd.	2	3

Speed Counts - NB SB (WB) EB

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
47	47	55				49			
53	44	56				49			
55	45	53							
45	59	54							
55	41	46							
46	47	51							
48	46	50							
45	54	46							
54	53	47							
51	54	55							
52	53								
60	54								

Speed Counts - NB SB WB (EB)

Cars	Cars	Cars	Cars	H. Trucks	H. Trucks	M. Trucks	M. Trucks	Buses	M. Cycles
51	50	45		46		42			44
49	51	45		50		50			
52	45	45		46		43			
42	49	46		45					
51	54	39		44					
51	56	53							
60	52	51							
50	44	54							
49	49	50							
51	46	48							
45	42	47							
48	50								

American Consulting
12 February 2016
C. Salicco
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: I-75 at Clark Road Interchange
RUN: Validation - Loc1Run1
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Loc1	1	1	0.0	78.4	66	78.4	15	Snd Lvl	78.4	0.0	5	-5.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

American Consulting
12 February 2016
C. Salicco
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: I-75 at Clark Road Interchange
RUN: Validation - Loc1Run2
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Loc1	1	1	0.0	78.8	66	78.8	15	Snd Lvl	78.8	0.0	5	-5.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

American Consulting
C. Salicco
12 February 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: I-75 at Clark Road Interchange
RUN: Validation - Loc1Run3
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Loc1	1	1	0.0	78.7	66	78.7	15	Snd Lvl	78.7	0.0	5	-5.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

American Consulting
C. Salicco
12 February 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: I-75 at Clark Road Interchange
RUN: Validation - Loc2Run1
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Noise Reduction Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Loc2	1	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

American Consulting
C. Salicco
12 February 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: I-75 at Clark Road Interchange
RUN: Validation - Loc2Run2
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Loc2	1	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

American Consulting
C. Salicco
12 February 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: I-75 at Clark Road Interchange
RUN: Validation - Loc2Run3
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
Loc2	1	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	1	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Appendix E

TNM Input/Output

(To be Included on CD in Final Submittal)

Appendix F

Barrier Analyses

TNM Input/output

(To be Included on CD in Final Submittal)