Display Purposes Only- Please Do Not Remove

TAMPA BAY EXPRESS

I-4 Project Development and Environment (PD&E) Study from east of 50th Street to Polk Parkway

Draft

Noise Study Report

May 2015

Project Limits:
I-4 from east of 50th Street to Polk Parkway

Hillsborough County, Florida
Polk County, Florida

Work Program Item Segment Number:
431746-1

FDOT
Florida Department of Transportation
District Seven
11201 North McKinley Drive
Tampa, Florida 33612-6456

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study to evaluate the need for express lane improvements along the 22.1 mile segment of I-4 from east of 50th Street (US 41/SR 583) in Hillsborough County to the Polk Parkway (SR 570) in Polk County. The express lane improvements are needed to increase the capacity, maintain the operations and improve the safety of I-4.

This *Noise Study Report (NSR)* for the project was prepared as part of the PD&E Study as required by the FDOT's PD&E Manual, Part 2, Chapter 17 (May 4, 2011) and in accordance with the Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772)—Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010).

One-thousand and twelve noise sensitive receptors (i.e., discrete representative locations on a property that has noise sensitive land uses) representing 1,034 noise sensitive land uses were evaluated within 59 noise sensitive areas (NSAs). Nine hundred and seventy-seven receptors were evaluated on residential properties, two in cemeteries, six at two schools, seven at hotels, 13 at places of worship, two in outdoor dining areas at restaurants, two in a park, one in a recreational area, one at a 20-acre for-profit business for which the theme is dinosaurs and one at a concert-only outdoor amphitheater.

Of the 1,012 evaluated receptors, 379 are predicted to be impacted by traffic noise with existing conditions. In the future without the proposed improvements 395 of the receptors are predicted to be impacted. Finally, with the proposed improvements, 582 receptors are predicted to be impacted by traffic noise. Five hundred and sixty-eight of the 582 receptors were evaluated on residential properties, two in cemeteries, five at two schools, five at places of worship and two in a park.

Traffic management measures, modifications to the roadway alignment, buffer zones and noise barriers were considered as abatement measures. With the exception of the proposed noise barriers for the impacted properties within the following NSAs, the noise abatement measures were not determined to be both feasible and reasonable.

- NSA 4: Residences in the Pardeau Shores subdivision (see Sheets 3 and 4 in Appendix B)
- NSA 21: Residences south of I-4 between Parsons Avenue and Brinwood Drive (see Sheet 14 in Appendix B)
- NSA 45: Residences in the Bracewell Heights subdivision (Sheets 33 and 34 in Appendix B)
- NSA 57: Residences south of I-4 between Wiggins Road and County Line Road (Sheets 38 and 39 in Appendix B)

The estimated cost to construct the noise barriers ranges from $2,228,000 to $4,325,000 depending on barrier length and height.

The FDOT is committed to the construction of noise barriers at the locations above, contingent upon the following:

- Detailed noise analysis during the final design process supports the need for, and the feasibility and reasonableness of providing the barriers as abatement;
- The detailed analysis demonstrates that the cost of the noise barrier will not exceed the cost effective limit;
- The residents/property owners benefitted by the noise barrier desire that a noise barrier be constructed; and
- All safety and engineering conflicts or issues related to construction of a noise barrier are resolved.

Notably, the noise barriers for the impacted properties in NSA 21 and NSA 45 have the potential to visually block outdoor advertising signs. Should the barriers at these locations remain a feasible and reasonable abatement measure after the detailed noise analysis during the final design process and the signs are determined to be conforming and legally permitted signs, a notice of the possible noise wall screening will be provided to the affected sign permit holder(s) and the appropriate local sign regulating agency and a public hearing will be held to receive input on the proposed noise barrier/sign conflict.

Some land uses adjacent to I-4 are identified on the FDOT listing of noise- and vibration-sensitive sites (e.g., residential use). Application of the *FDOT Standard Specifications for Road and Bridge Construction* may minimize or eliminate potential issues should they arise during the construction process.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
Table of Contents iii
Figures iv
Tables iv
Appendices v
1.0 INTRODUCTION 1
1.1 Purpose and Need 1
1.2 Existing Facility and Proposed Improvements 3
2.0 METHODOLOGY 5
2.1 Noise Metrics 5
2.2 Traffic Data 5
2.3 Noise Abatement Criteria 6
2.4 Noise Abatement Measures 6
2.4.1 Traffic Management 8
2.4.2 Alignment Modifications 9
2.4.3 Buffer Zones 9
2.4.2 Noise Barriers 9
3.0 TRAFFIC NOISE ANALYSIS 11
3.1 Noise Sensitive Receptors 11
3.2 Measured Noise Levels 14
3.3 Predicted Traffic Noise Levels 15
3.4 Abatement Considerations 17
3.4.1 Traffic Management 17
3.4.2 Alignment Modifications 17
3.4.3 Buffer Zones 17
3.4.4 Noise Barriers 18
4.0 CONCLUSIONS 59
4.1 Statement of Likelihood 59
5.0 NOISE CONTOURS 61
6.0 CONSTRUCTION NOISE AND VIBRATION 62
7.0 COMMUNITY COORDINATION 63
8.0 REFERENCES 64

FIGURES

Figure 1-1. Aerial Location Map 2
Figure 1-2. Existing Typical Section 4
Figure 1-3. Proposed Typical Section 4

TABLES

Table 2-1. FHWA/FDOT Noise Abatement 7
Table 2-2. Typical Noise Levels 8
Table 3-1. Noise Sensitive Areas 11
Table 3-2. Validation Data 15
Table 3-3. Summary of Traffic Noise Analysis Results 15
Table 3-4. NSA 1: Barrier Results for Impacted Residences in Grant Park Subdivision 19
Table 3-5. NSA 4: Barrier Results for Impacted Residences in Pardeau Shores Subdivision 21
Table 3-6. NSA 4: Additional Barrier Considerations 22
Table 3-7. NSA 5: Barrier Results for Impacted Residences in the East Lake Park Subdivision (Barrier Five Feet Within FDOT ROW) 23
Table 3-8. NSA 5: Barrier Results for Impacted Residences in the East Lake Park Subdivision (Combination ROW and Shoulder Barrier) 24
Table 3-9. NSA 9: Barrier Results for Impacted Residences Along Maple Lane and Eureka Springs Road 25
Table 3-10. NSA 10: Barrier Results for Impacted Residences Along Garden Lane 26
Table 3-11. NSA 11: Barrier Results for Impacted Residences between Garden Land and Clewis Avenue 27
Table 3-12. NSA 12: Barrier Results for Impacted Residences along Eureka Springs Road 28
Table 3-13. NSA 13: Barrier Results for Impacted Residences Between East Hillsborough Avenue and I-75 29
Table 3-14. NSA 17: Barrier Results for Impacted Residences West of Black Dairy Road 31
Table 3-15. NSA 20: Barrier Results for Impacted Residences East of Pine Street 32
Table 3-16. NSA 21: Barrier Results for Impacted Residences in Parsons Village MHP, East of North Parsons Avenue and Graystone Subdivision 33
Table 3-17. NSA 21: Additional Barrier Considerations 34
Table 3-18. NSA 22: Barrier Results for Impacted Residences Between Parsons Avenue and Kingsway Road 35
Table 3-19. NSA 24: Barrier Results for Impacted Residences from West of Kingsway Road to East of Kingsway Subdivision 36
Table 3-20. NSA 25: Barrier Results for Impacted Residences East of the Truck Weigh Station 37
Table 3-21. NSA 26: Barrier Results for Impacted Residences from McIntosh Road to Gallagher Road 38
Table 3-22. NSA 29: Barrier Results for Impacted Residences West of Reola Road to Fritzke Road 40
Table 3-23. NSA 30: Barrier Results for Impacted Residences West of Fritzke Road 41

TABLES (CONTINUED)

Table 3-24. NSA 31: Barrier Results for Impacted Residences South of I-4 from Bethlehem Road to Branch Forbes Road....42
Table 3-25. NSA 32: Barrier Results for Impacted Residences North of I-4 from Bethlehem Road to Branch Forbes Road....43
Table 3-26. NSA 34: Barrier Results for Impacted Residences West of Hawk Griffin Road....44
Table 3-27. NSA 35: Barrier Results for Impacted Residences South of I-4 between Hawk Griffin Road and Thonotosassa Road....45
Table 3-28. NSA 37: Barrier Results for Impacted Residences North of I-4 between Hawk Griffin Road and Thonotosassa Road....46
Table 3-29. NSA 40: Barrier Results for Impacted Residences Along Bennett Road....47
Table 3-30. NSA 41: Barrier Results for Impacted Residences in the Orange Court Subdivision (Five Feet Within ROW)....48
Table 3-31. NSA 41: Barrier Results for Impacted Residences in the Orange Court Subdivision (Shoulder Barrier)....48
Table 3-32. NSA 45: Barrier Results for Impacted Residences in Bracewell Heights Subdivision....50
Table 3-33. NSA 45: Additional Barrier Considerations....50
Table 3-34. NSA 47: Barrier Results for Impacted Residences West of Maryland Avenue....51
Table 3-35. NSA 50: Barrier Results for Impacted Residences in Colonial Village Subdivision....52
Table 3-36. NSA 51: Barrier Results for Impacted Residences in Dorene Terrace Subdivision....53
Table 3-37. NSA 53: Barrier Results for Impacted Residences West and East of Charlie Taylor Road....54
Table 3-38. NSA 54: Barrier Results for Impacted Residences West of Charlie Taylor Road....54
Table 3-39. NSA 57: Barrier Results for Impacted Residences Between Wiggins Road and County Line Road....56
Table 3-40. NSA 57: Additional Barrier Considerations....56
Table 3-41. NSA 58: Barrier Results for Impacted Residences from Charlie Taylor Road to County Line Road....57
Table 5-1. Noise Contour Limits....61

APPENDICES

Appendix A – Traffic Data
Appendix B – Noise Sensitive Receptors
Appendix C – Validation Data
Appendix D – Predicted Traffic Noise Levels at Individual Receptors
Appendix E - Hillsborough County's Land Development Code

1.0 INTRODUCTION

This *Noise Study Report (NSR)* is one of several documents being prepared as part of the I-4 (SR 400) Project Development and Environment (PD&E) Study. Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772), Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010), requires that projects requiring approval, or that are funded by, the Federal Highway Administration (FHWA) be subjected to a traffic noise analysis and, if applicable, an evaluation of abatement measures.

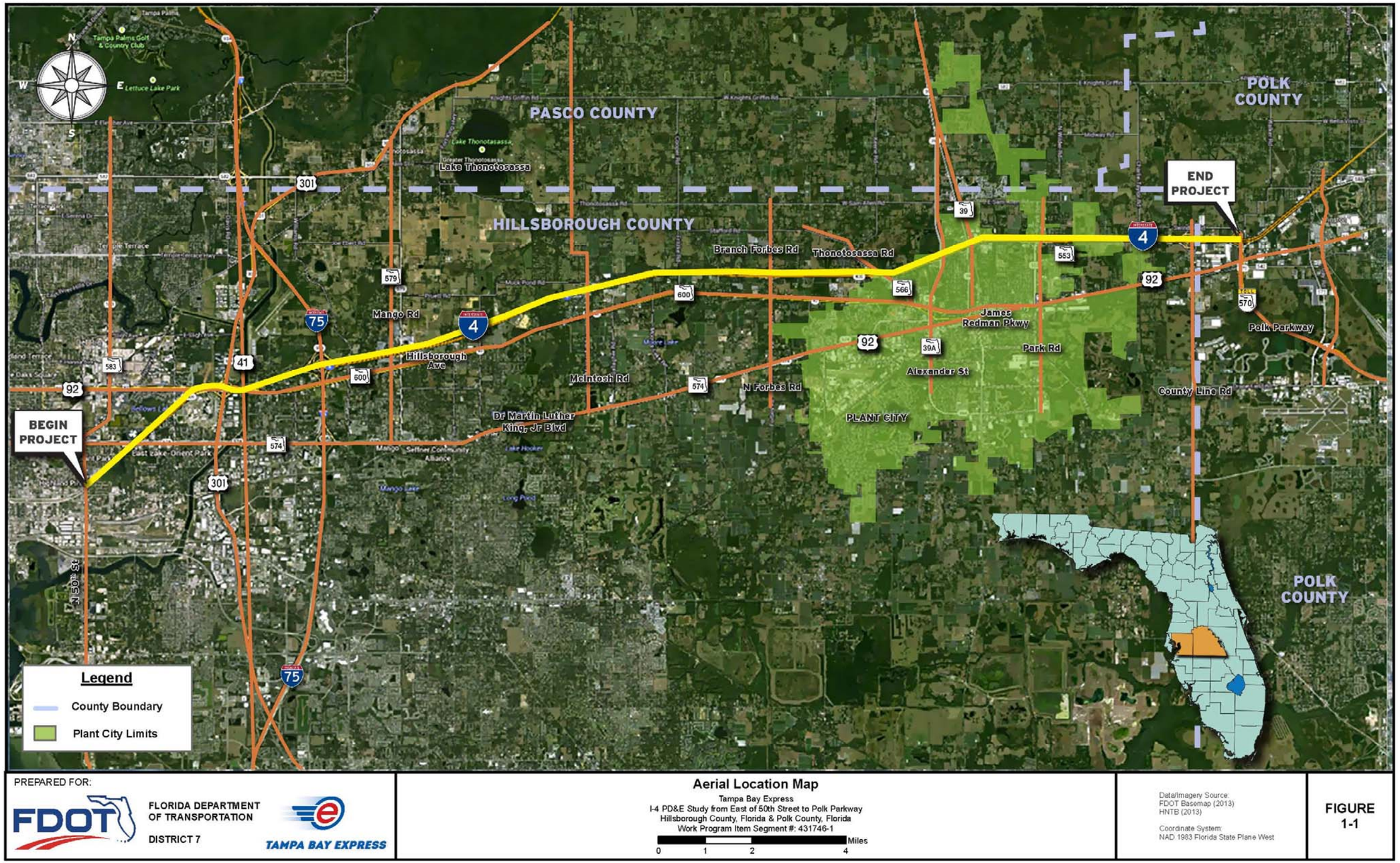
To implement this guidance, the Florida Department of Transportation (FDOT) authored Part 2, Chapter 17 of the PD&E Manual (May 4, 2011), which identifies and explains the purpose, process and procedures that are to be used when conducting a traffic noise analysis. This NSR has been prepared in accordance with all applicable guidelines as stated within both 23 CFR 772 and Part 2, Chapter 17 of the FDOT PD&E Manual.

1.1 Purpose and Need

I-4 is a major east-west interstate highway that connects I-275, the Lee Roy Selmon Expressway, I-75 and the Polk Parkway. I-4 provides access to important industrial areas, such as the Port of Tampa, as well as downtown Tampa and residential/ commercial areas in eastern Hillsborough and western Polk Counties. I-4 also provides an important connection to the regional and statewide transportation networks linking the Tampa Bay region to the remainder of the state and nation. On a more regional scale, I-4 extends from the I-275 interchange in downtown Tampa to I-95 in Daytona Beach. FDOT has designated I-4 eastbound from Tampa as one of seven one-way emergency evacuation routes in Florida.

The I-4 PD&E study will examine the need for express lane improvements along the 22.1-mile segment of I-4 from east of 50th Street (US 41/SR 583) in Hillsborough County to the Polk Parkway (SR 570) in Polk County. The express lane improvements are needed to increase the capacity, maintain the operations and improve the safety of I-4. A project location map is provided as Figure 1-1 below.

Figure 1-1. Project Location Map



1.2 Existing Facility and Proposed Improvements

Throughout the project study limits, I-4 typically includes six 12-foot general use lanes, 10-foot paved outside shoulders, 10-foot paved inside shoulders and a 64-foot grassed median. The existing right-of-way (ROW) ranges from approximately 240- to 390-feet wide. The posted speed limit varies between 60 and 70 miles per hour (mph). Figure 1-2 depicts an existing typical section of I-4 within the project corridor.

The improvements being considered for this project include widening I-4 to accommodate four express lanes with two express lanes in each direction. The proposed typical section allows for two 11-foot express lanes, a 4-foot buffer, two 11-foot general use lanes and one 12-foot general use lane, at a minimum, in each direction. Widening will occur both to the inside and the outside throughout most of the project study area, except from approximately Alexander Street (SR 39A) to Polk Parkway (SR 570) where widening will be only to the inside. The project is to be constructed mainly within the existing I-4 ROW with the exception of ten locations, six on the north side of I-4 and four on the south side of I-4. The additional ROW is needed to correct horizontal geometry, provide for various ramp improvements where necessary, provide 10-foot maintenance berms behind Mechanically Stabilized Earth (MSE) walls and for the inclusion of express lanes at the I-4 and I-75 interchange. Figure 1-3 depicts the proposed typical section for I-4 throughout the project limits.

Figure 1-2. Existing Typical Section

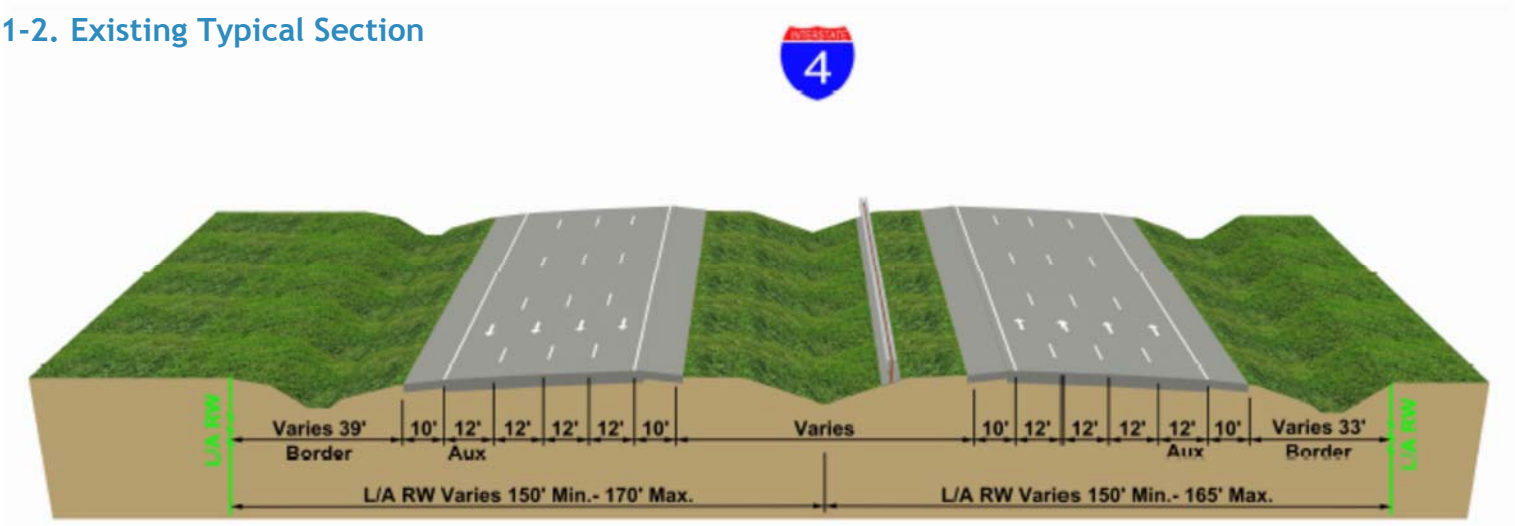
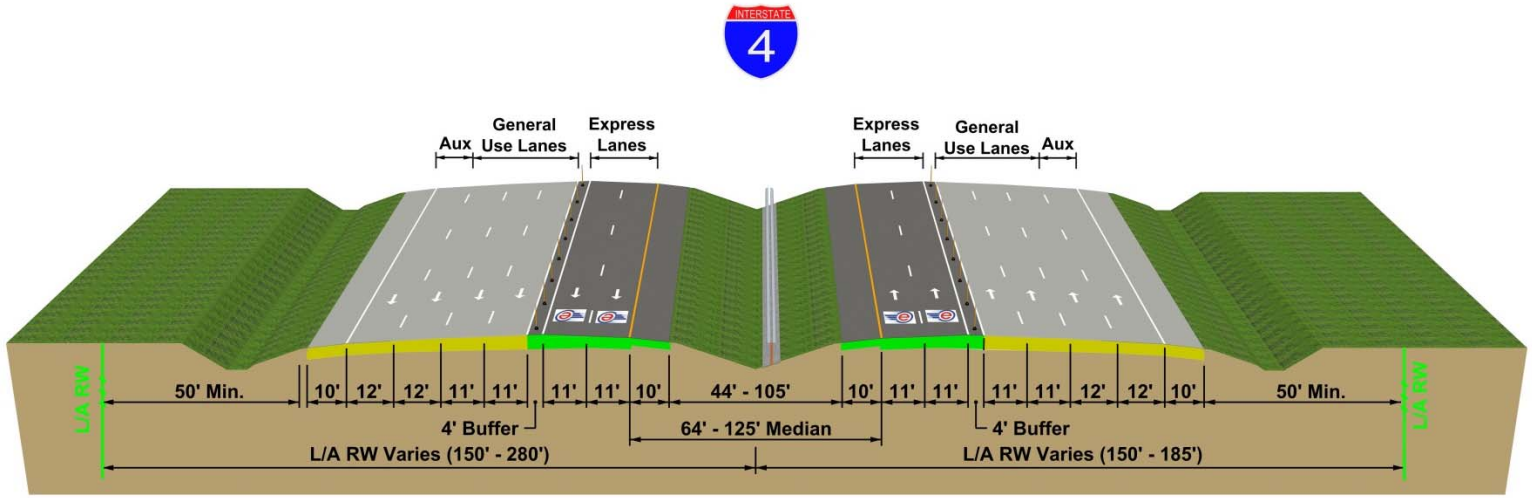


Figure 1-3. Proposed Typical Section



2.0 METHODOLOGY

As stated in the Introduction of this NSR, the traffic noise analysis has been prepared in accordance with all applicable guidelines as stated within both 23 CFR 772 and Part 2, Chapter 17 of the FDOT PD&E Manual. As such, the analysis was performed using the FHWA's Traffic Noise Model (TNM, Version 2.5). Use of the TNM is required when evaluating the potential for traffic noise impacts during the design year of roadway improvement projects for which the regulations, policies and guidelines with 23 CFR 772 and Part 2, Chapter 17 of the PD&E Manual are applicable.

For properties with uses other than residential, the methodologies described in the FDOT's *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations* were also used. Special land uses include churches, schools, parks and amphitheaters.

2.1 Noise Metrics

The predicted traffic noise levels presented in this report are expressed in decibels on the "A"-weighted scale (dB(A)). This scale most closely approximates the response characteristics of the human ear to traffic noise. All traffic noise levels are reported as equivalent levels (Leq(h)). Levels reported as Leq(h) are equivalent steady-state sound levels that contain the same acoustic energy as time-varying sound levels over a period of one hour.

2.2 Traffic Data

Noise levels are low when traffic volumes are low and operating conditions are good (level-of-service (LOS) A or B) and when traffic is so congested that movement is slow (LOS D, E, or F). Generally, the maximum hourly noise level occurs between these two conditions (i.e., LOS C).

The traffic volumes used in the analysis were either the roadway design LOS C volume or the forecast demand volume, whichever was less, so that the predicted traffic noise levels with the improvements to I-4 represent the maximum hourly noise level during the project's design year. The Existing (year 2014), Future No-

Build (year 2040) and Future Build (year 2040) traffic data used in the analysis are provided in **Appendix A** of this NSR.

2.3 Noise Abatement Criteria

For the purpose of evaluating traffic noise, the FHWA established Noise Abatement Criteria (NAC). As shown in **Table 2-1**, these criteria vary according to a properties' activity category (i.e., land use). For comparative purposes, typical noise levels for common indoor and outdoor activities are provided in **Table 2-2**.

When predicted traffic noise levels "approach" or exceed the NAC, or when predicted future noise levels increase substantially from existing levels, the FHWA requires that noise abatement measures be considered. FDOT defines the word "approach" to mean within 1 dB(A) of the NAC. The FDOT's NAC are also shown in Table 2-1.

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

2.4 Noise Abatement Measures

When traffic noise impacts are predicted, noise abatement measures are considered for the impacted properties and the feasibility and reasonableness of providing an abatement measure are considered. Feasibility factors are related to the acoustical and engineering properties of an abatement measure while reasonableness factors relate to the social, economic and environmental properties of a measure.

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

Table 2-1 - FHWA/FDOT Noise Abatement Criteria

Activity Category	Description of Activity Category	Activity Leq(h)[1]	
		FHWA	FDOT
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	57 (Exterior)	56 (Exterior)
B[2]	Residential	67 (Exterior)	66 (Exterior)
C[2]	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails and trail crossings.	67 (Exterior)	66 (Exterior)
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools and television studios.	52 (Interior)	51 (Interior)
E[2]	Hotels, motels, offices, restaurants/bars and other developed lands, properties or activities not included in A-D or F.	72 (Exterior)	71 (Exterior)
F	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing.	--	--
G	Undeveloped lands that are not permitted.	--	--

Sources: Table 1 of 23 CFR Part 772 and Table 17.1 of Chapter 17 of the FDOT's PD&E Manual (dated 5-24-11).

[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: Noise abatement considerations are also warranted when a substantial noise increase is predicted to occur (i.e., when the predicted future traffic noise level with an improvement project is equal to or greater than 15 dB(A) when compared to the existing traffic noise level.

Table 2-2 - Typical Noise Levels

Common Outdoor Activities	Noise Level dB(A)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		
		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area daytime		
Gas lawnmower at 100 feet	**70**	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	**60**	
		Large business office
Quiet urban daytime	**50**	Dishwasher in next room
		Theater, large conference room (background)
Quiet urban nighttime	**40**	
Quiet suburban nighttime		
	30	Library
		Bedroom at night, concert hall (background)
Quiet rural nighttime		
	20	
		Broadcast/recording studio
	10	
	0	

2.4.1 Traffic Management

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

2.4.2 Alignment Modifications

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

2.4.3 Buffer Zones

Providing a buffer between a roadway and noise-sensitive land uses is an abatement measure that can minimize/eliminate noise impacts. To abate traffic noise at an existing noise sensitive land use, the property would be acquired to create a buffer zone. Buffer zones can also be used to eliminate the potential for new noise sensitive land uses to be impacted by traffic noise. For this purpose, and to encourage use of this abatement measure through local land use planning, noise contours have been developed and are further discussed in Section 5.0 of this NSR.

2.4.4 Noise Barriers

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

In order to effectively reduce traffic noise, a noise barrier must be relatively long, continuous (without intermittent openings) and sufficiently tall. For a noise barrier to be considered a potential abatement measure the barrier must also provide the following noise reduction requirements:

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

The cost of a noise barrier must also be reasonable. For this purpose, the FDOT established the following cost effective limit:

- Cost Effective Limit – At a cost of $30 per square foot, a barrier should not cost more than $42,000 per benefited noise sensitive receptor (a benefited receptor is one that receives at least a 5 dB(A) reduction in noise from a mitigation measure). For special land uses (e.g., the outdoor eating area of a restaurant), the cost of a barrier is based on the number of people using the impacted and benefitted area.

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

3.0 TRAFFIC NOISE ANALYSIS

3.1 Noise Sensitive Receptors

As previously stated, noise sensitive receptors are representative locations of a noise sensitive land use. The location of the receptors evaluated for the I-4 improvements are shown on aerials provided in **Appendix B**. One-thousand and twelve noise sensitive receptors (i.e., discrete representative locations on a property that has noise sensitive land uses) representing 1,034 noise sensitive land uses were evaluated within 59 noise sensitive areas (NSAs). Nine hundred and seventy-seven receptors were evaluated on residential properties, two in cemeteries, six at two schools, seven at hotels, 13 at places of worship, two in outdoor dining areas at restaurants, two in parks, one in a recreational area, one at a 20-acre for-profit business for which the theme is dinosaurs and one at a concert-only outdoor amphitheater.

Table 3-1 lists and describes each NSAs and provides the number of evaluated noise sensitive receptors in each area.

Table 3-1 Noise Sensitive Areas

NSA No.	Sheet No. (See Appendix B)	Activity Category	Number of Evaluated Receptors	Name and/or Location of Noise Sensitive Properties
1	1-2	B – Residential	107	Grant Park and Tradewinds Subdivisions
		D - Place of Worship (Interior)	1	Trinity Chapel
2	2-3	E - Hotel	2	Fairfield Inn and Suites, Master's Inn
3	3	C - Place of Worship (Exterior)	1	New Dawn Restoration Church
		D – Place of Worship (Interior)	1	New Dawn Restoration Church
4	3-4	B – Residential	51	Pardeau Shores Subdivision
5	4	B - Residential	43	East Lake Park Subdivision
		C – Park	2	East Lake Park Homeowners Civic Club
6	4	E – Hotel	1	Hard Rock Hotel
7	5	C – Amphitheater	1	MidFlorida Credit Union Amphitheatre
8	6	E – Restaurant	1	Wing House
9	6-7	B – Residential	9	Residences along Maple Lane and Eureka Springs Road
10	6	B – Residential	5	Residences along Garden Lane

NSA No.	Sheet No. (See Appendix B)	Activity Category	Number of Evaluated Receptors	Name and/or Location of Noise Sensitive Properties
11	7	B – Residential	11	Residences between Garden Lane and Clewis Avenue
12	7-9	B – Residential	33	Residences along Eureka Springs Road
13	7-9	B – Residential	32	Residences between Eureka Springs Road and I-75
		D – Place of Worship (Interior)	1	State Highway Baptist Church
14	10	B – Residential	6	Residences east and west of Williams Road
15	10	C – Place of Worship	2	Landmark Baptist Ministries Church
16	11	B – Residential	1	Residence north of I-4 and west of Black Dairy Road
17	11	B – Residential	19	Residences south of I-4 and west of Black Dairy Road
18	12	E – Hotel	1	Hampton Inn and Suites
19	12-13	C – School	2	Armwood High School
20	13	B – Residential	3	Residences east of Pine Street
21	14	B – Residential	44	Residences within Parsons Village, east of Parsons Avenue North and within Graystone Subdivision
22	14-15	B – Residential	20	Residences between Parsons Avenue North and North Kingsway Road
23	15	C – Recreational Area	1	Evans Recreational Center
24	15-16	B – Residential	51	Residences from west of Kingsway Road to east of the Kingsway Subdivision
25	18-19	B – Residential	7	Residences east of the truck weigh station
26	19-20	B – Residential	14	Residences from McIntosh Road to east of Gallagher Road
27	19-20	C – School	4	Strawberry Crest High School
28	20-21	B – Residential	3	Residences east of Strawberry Crest High School
29	22	B – Residential	3	Residences west of Reola Road and Fritzke Road
30	22	B – Residential	3	Residences west of Fritzke Road
31	23-25	B – Residential	37	Residences from west of Bethlehem Road to Branch Forbes Road
32	23-24	B – Residential	13	Residences between Bethlehem Road and Branch Forbes Road
33	25	E – Other Activity	1	Dinosaur World
34	26	B – Residential	3	Residences west of Hawk Griffin Road
35	26-29	B – Residential	50	Residences south of I-4 between Hawk Griffin Road and Thonotosassa Road
36	27	D – Place of Worship (Interior)	1	Nazarene Christian Congregation
37	27-29	B – Residential	42	Residences north of I-4 from Hawk Griffin Road to east of Thonotosassa Road
38	29	E – Restaurant	1	Starbucks

NSA No.	Sheet No. (See Appendix B)	Activity Category	Number of Evaluated Receptors	Name and/or Location of Noise Sensitive Properties
39	29-30	B – Residential	60	Residences and common area pools in Townsgate Apartments
40	30	B – Residential	3	Residences along Bennett Road
41	31-32	B – Residential	52	Residences in the Orange Court Subdivision
42	32	E – Hotel	1	Red Rose Inn and Suites
43	32	C – Cemetery	1	Memorial Park Cemetery
44	32	E – Hotel	1	Knight's Inn
45	33-34	B – Residential	54	Residences in the Bracewell Heights Subdivision
46	33	B – Residential	1	Residence west of Procchi Street
47	34	B – Residential	3	Residences along Maryland Avenue
48	34	D – Place of Worship (Interior)	1	Plant City Assembly Hall
49	35	E – Hotel	1	Best Western
50	35	B – Residential	46	Residences in Colonial Village Subdivision
51	35-36	B – Residential	49	Residences in the Dorene Terrace Subdivision
52	36	D – Place of Worship (Interior)	1	Covenant Bible Church
53	36-38	B – Residential	37	Residences west and east of Charlie Taylor Road
54	37-38	B – Residential	17	Residences west of Charlie Taylor Road
55	38	D – Place of Worship (Interior)	3	Mt. Enon Primitive Baptist Church
56	38-39	C – Cemetery	1	Mt. Enon Cemetery
57	38-39	B – Residential	40	Residences between Wiggins Road and County Line Road
58	39	B – Residential	5	Residences from Charlie Taylor Road to County Line Road
59	39	C – Place of Worship	1	Faith Temple Assembly of God Church
Total			1,012	

Following FHWA/FDOT guidance, the residences were evaluated as Activity Category "B" (i.e. abatement considered at a predicted traffic noise of 66 dB(A)). Where exterior areas of use exist the schools, cemeteries, the community park, the recreational area, the amphitheater and the places of worship were evaluated as Activity Category "C" (i.e., abatement considered at a predicted traffic noise level of 66 dB(A)). Several places of worship do not have areas of exterior use. Therefore, these receptors were evaluated as Activity Category "D" (i.e., abatement considered at a predicted interior level of 51 dB(A)). Finally, the hotels, the outdoor

dining areas and the for-profit property were evaluated as Activity Category "E" (i.e., abatement considered at a predicted traffic noise level of 71 dB(A)). These Activity Categories are also listed in the table above for each NSA.

3.2 Measured Noise Levels

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

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

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

Table 3-2 presents the field measurements and the validation results. As shown, the ability of the model to predict noise levels within the FDOT limits of plus or minus 3 dB(A) for the project was confirmed. Documentation in support of the validation is provided in **Appendix C** of this NSR.

Table 3-2 Validation Data

Location	Measurement Period	Modeled (dB(A))	Measured (dB(A))	Difference
Site 1: South side of I-4 between Mango Road and Kingsway Road	1	78.8	78.8	0.0
	2	78.7	78.8	-0.1
	3	78.5	79.0	-0.5
Site 2: North side of I-4 between Charlie Taylor Road and County Line Road	1	71.3	70.6	0.7
	2	70.9	71.3	-0.4
	3	71.1	70.4	0.7

3.3 Predicted Traffic Noise Levels

The predicted traffic noise levels for each evaluated receptor are provided in **Appendix D**. **Table 3-3** lists the number of evaluated receptors in each NSA and the number of receptors predicted to be impacted by traffic noise with existing conditions and for future conditions with and without the improvements to I-4.

Table 3-3 Summary of the Traffic Noise Analysis Results

NSA No.	Sheet No. (See Appendix B)	Activity Category	Number of Evaluated Receptors	Number of Impacted Receptors		
				Existing	No- Build	Build
1	1-2	B – Residential	107	1	1	5
		D - Place of Worship (Interior)	1	0	0	0
2	2-3	E - Hotel	2	0	0	0
3	3	C - Place of Worship (Exterior)	1	1	1	1
		D – Place of Worship (Interior)	1	1	1	1
4	3-4	B – Residential	51	16	19	27
5	4	B - Residential	43	17	21	27
		C – Park	2	2	2	2
6	4	E – Hotel	1	0	0	0
7	5	C – Amphitheater	1	0	0	0
8	6	E – Restaurant	1	0	0	0
9	6-7	B – Residential	9	2	5	8
10	6	B – Residential	5	5	5	5
11	7	B – Residential	11	6	7	8
12	7-9	B – Residential	33	18	20	23
13	7-9	B – Residential	32	3	4	10
		D – Place of Worship (Interior)	1	0	0	0
14	10	B – Residential	6	1	1	1
15	10	C – Place of Worship	2	2	2	2
16	11	B – Residential	1	0	0	0
17	11	B – Residential	19	11	11	15

NSA No.	Sheet No. (See Appendix B)	Activity Category	Number of Evaluated Receptors	Number of Impacted Receptors		
				Existing	No- Build	Build
18	12	E – Hotel	1	0	0	0
19	12-13	C – School	2	1	1	1
20	13	B – Residential	3	1	1	2
21	14	B – Residential	44	31	31	35
22	14-15	B – Residential	20	5	5	9
23	15	C – Recreational Area	1	0	0	0
24	15-16	B – Residential	51	21	21	25
25	18-19	B – Residential	7	0	0	2
26	19-20	B – Residential	14	8	8	11
27	19-20	C – School	4	3	3	4
28	20-21	B – Residential	3	0	0	1
29	22	B – Residential	3	1	1	2
30	22	B – Residential	3	0	0	2
31	23-25	B – Residential	37	5	5	17
32	23-24	B – Residential	13	9	9	9
33	25	E – Other Activity	1	0	0	0
34	26	B – Residential	3	2	2	3
35	26-29	B – Residential	50	32	32	47
36	27	C – Recreational Area	1	0	0	0
37	27-29	B – Residential	42	35	35	41
38	29	C – School	1	0	0	0
39	29-30	B – Residential	60	0	0	0
40	30	B – Residential	3	1	1	2
41	31-32	B – Residential	52	33	35	50
42	32	E – Hotel	1	0	0	0
43	32	C – Cemetery	1	1	1	1
44	32	E – Hotel	1	0	0	0
45	33-34	B – Residential	54	19	19	42
46	33	B – Residential	1	0	0	1
47	34	B – Residential	3	1	1	3
48	35	D – Place of Worship (Interior)	1	0	0	0
49	35	E – Hotel	1	0	0	0
50	35	B – Residential	46	20	20	24
51	35-36	B – Residential	49	16	16	33
52	36	D – Place of Worship (Interior)	1	0	0	0
53	36-38	B – Residential	37	17	17	28
54	37-38	B – Residential	17	7	7	13
55	38	D – Place of Worship (Interior)	3	0	0	0
56	38-39	C – Cemetery	1	1	1	1
57	38-39	B – Residential	40	18	18	32
58	39	B – Residential	5	4	4	5
59	39	C – Place of Worship	1	1	1	1
Total			1,012	379	395	582

As shown in the table above, of the 1,012 evaluated receptors, 379 are predicted to be impacted by traffic noise with existing conditions. In the future without the proposed improvements 395 of the receptors are predicted to be impacted. Finally, with the proposed improvements, 582 receptors are predicted to be impacted by traffic noise. Five hundred and sixty-eight of the 582 receptors were evaluated on residential properties, two in cemeteries, five at two schools, five at places of worship and two in a park.

3.4 Abatement Considerations

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

3.4.1 Traffic Management

Reducing traffic speeds and/or the traffic volume or changing the motor vehicle fleet on I-4 is inconsistent with the goal of improving the ability of the roadway to handle the forecast traffic volume. Therefore traffic management measures are not considered to be a reasonable noise abatement measure for the I-4 project.

3.4.2 Alignment Modifications

The proposed improvements would be constructed to follow the existing roadway alignment. Because shifting the alignment horizontally would require substantial right-of-way (ROW) acquisitions and, because noise sensitive land uses are located on both sides of the roadway, a modification to the alignment of I-4 for the purpose of reducing traffic impacts is not considered to be a reasonable noise abatement measure.

3.4.3 Buffer Zones

As previously stated, to abate predicted traffic noise at an existing noise sensitive land use, the property would have to be acquired. The same cost effective limit that applies to noise barriers (i.e., $42,000 per benefited noise sensitive receptor) would apply to the purchase price of any impacted noise sensitive property. A review of data from the Hillsborough and Polk County Property Appraisers indicates that the cost to acquire the developed properties adjacent to I-4 exceed the cost

effective limit. Therefore, creating a buffer zone by acquiring existing noise sensitive properties is not considered to be a reasonable noise abatement measure.

3.4.4 Noise Barriers

The TNM was used to evaluate the ability of noise barriers to reduce traffic noise levels for the impacted noise sensitive receptors adjacent to I-4. The barriers were evaluated at heights from eight to 22 feet (in two-foot increments). The length of each barrier was optimized to determine if at least the minimum noise reduction requirements (i.e., a minimum reduction of 5 dB(A) for two impacted receptors and a minimum reduction of 7 dB(A) for one benefitted receptor) could be achieved.

For the majority of the NSAs, noise barriers were evaluated five feet within the FDOT's ROW. In areas where frontage roads[1] abut and parallel I-4, barriers were evaluated on the roadway shoulder. Shoulder barriers were also evaluated for impacted receptors in NSAs located near elevated portions of I-4 (e.g., overpasses at interchanges). Notably, shoulder barriers were not evaluated at all locations where a ROW barrier wouldn't provide at least the minimum noise reduction requirements because a shoulder barrier would be limited in height to a maximum of 14 feet and a barrier of this height would provide less reduction in traffic noise than a ROW barrier.

Notably, barriers were optimized (length and height) in an attempt to benefit all of the impacted receptors in an NSA. In areas with varying densities of receptors (e.g., NSA 35). The barriers were optimized by inserting gaps in the barrier, where possible, between the areas of higher density impacted receptors.

The following provides the results of the noise barrier evaluation and discusses the potential amount of noise reduction and the cost effectiveness of providing barriers as an abatement measure for the NSAs in which traffic noise has been predicted to impact noise sensitive properties (i.e, the NSAs listed in Table 3-3 for which receptors are predicted to be impacted with the Build Alternative).

[1] A frontage road is a local road that runs parallel to a higher-speed, limited-access road.

NSA 1

A noise barrier was evaluated for the impacted residences in the Grant Park and Tradewinds subdivisions (Receptors 88, 89, 91, 92 and 101). In this area, there is an existing 22-foot noise barrier that was constructed by the FDOT as part of a previous improvement to I-4. The existing noise barrier abates (i.e., reduces) traffic noise levels to levels below the NAC at all but five residences at the east end of the Grant Park subdivision. The five residences are located between Wiggings Leaf Street and Smith Tree Street.

Notably, a review of documentation prepared for the existing barrier (*Noise Barrier Conceptual Design Study Technical Memorandum, I-4 (SR 400) from 50th Street to SR 39 (Wheeler St),* August 2003), states that the existing barrier was not extended to the east because doing so would block a portion of the water that flows to a drainage pipe. Regardless, to abate predicted traffic noise levels at these residences, consideration was given to extending the existing barrier.

The results of the barrier analysis are provided in **Table 3-4**. As shown, the noise reduction design goal of 7 dB(A) could not be achieved at any of the evaluated barrier length/heights. Therefore, the barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 1.

Table 3-4 NSA 1: Barrier Results for Impacted Residences in the Grant Park Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 5										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
16	NA[5]	2	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
18	NA[5]	3	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
20	NA[5]	3	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
22	NA[5]	3	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 3

A noise barrier was evaluated for the impacted areas of the New Dawn Restoration Church (Receptors 1 and 2). The church is located between Dr Martin Luther King Jr Boulevard and Orient Road, north of I-4. Both the interior of the church and the exterior area of frequent use, a basketball court, are predicted to be impacted by traffic noise exceeding the NAC. For these areas, the FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 972 feet and an optimal height of 20 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the church would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the church in order for a barrier to be considered cost effective is 820 person-hours (i.e., 820 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, a barrier is not considered a reasonable noise abatement measure for the impacted areas of the New Dawn Restoration Church.

NSA 4

A noise barrier was evaluated five feet within the FDOT ROW line for the 27 impacted residences located south of I-4 between 72nd Street and Orient Road within the Pardeau Shores Subdivision (Receptors 1 through 5, 12 through 28, 36, 37, 39, 40 and 47).

The results of the evaluation are provided in **Table 3-5**. As shown, at barrier heights of 14, 18 and 22 feet, at least 12 of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more, the noise reduction design goal of 7 dB(A) would be achieved and the cost of the barrier would be below the FDOT's cost reasonable limit. Notably, at 16 and 20 feet a noise barrier is no longer cost reasonable because the additional length of the barrier does not add a sufficient number of benefited receivers.

Because a barrier is predicted to provide the minimum noise reduction requirements at a cost below the cost effective limit, the barrier was evaluated further. A summary of the additional barrier considerations is provided in **Table 3-6**. Based on the review of these factors, a barrier was determined to be a potential noise abatement measure for the impacted residences in NSA 4. The limits of the most cost reasonable barrier (based on the results of this PD&E analysis) are depicted on Sheets 3 and 4 in Appendix B.

Table 3-5 NSA 4: Barrier Results for Impacted Residences in the Pardeau Shores Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 27										
8	869	1	1	1	3	0	3	$208,560	$69,520	No
10	801	2	2	1	5	0	5	$240,300	$48,060	No
12	936	4	1	3	8	0	8	$336,960	$42,120	No
14	1,191	5	3	4	12	0	12	$500,220	$41,685	Yes
16	1,485	5	2	7	14	0	14	$712,800	$50,914	No
18	1,285	6	4	7	17	0	17	$693,900	$40,818	Yes
20	1,540	6	6	9	21	0	21	$924,000	$44,000	No
22	1,291	8	2	13	23	0	23	$852,060	$37,046	Yes

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

Table 3-6 NSA 4: Additional Barrier Considerations

Type of Factor	Evaluation Criteria	Comment
Feasibility	Design and Construction	A determination of whether a noise barrier can be constructed using standard construction methods and techniques will be made during the project's design phase. Notably, additional costs to solely construct a noise barrier will be included in the final cost reasonableness evaluation of a noise barrier at this location.
	Safety	It does not appear that there would be any safety concerns (e.g., loss of sight distance).
	Accessibility	The barrier would be located within the FDOT's ROW for I-4 and would not block ingress or egress to any property.
	ROW	No acquisition of ROW or easements for construction/ maintenance would be necessary to construct a barrier within the FDOT's ROW.
	Maintenance	The FDOT should be able to maintain a barrier at this location using standard practices.
	Drainage	A determination as to whether the barrier can be design so that water would be directed along, under, or away from the barrier will be made during the project's design phase.
	Utilities	A determination of utility conflicts will be made during the project's design phase. Notably, there are existing poles within the FDOT ROW that may cause a conflict with a noise barrier.
Reasonable -ness	Community desires	The desires of the property owners and renters (if applicable) will be solicited during the design phase of the project.

NSA 5

In NSA 5, two barriers were evaluated for the 27 impacted residential receptors within the East Lake Park Subdivision ((Receptors 4, 7 through 12, 16 through 28, 30 through 34 and 42). The first barrier was evaluated five feet within the FDOT's ROW. The results of the evaluation for this barrier are provided in **Table 3-7**. As shown, at barrier heights between 12 and 22 feet, at least three of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier five feet within the FDOT's ROW is not considered a reasonable noise abatement measure.

Table 3-7 NSA 5: Barrier Results for Impacted Residences in the East Lake Park Subdivision (Barrier Five Feet Within FDOT ROW)

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 27										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	1	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	1,461	2	0	1	3	0	3	$525,960	$175,320	No
14	538	2	0	1	3	0	3	$225,960	$75,320	No
16	538	1	1	1	3	0	3	$258,240	$86,080	No
18	1,074	3	2	1	6	0	6	$579,960	$96,660	No
20	829	3	2	1	6	0	6	$497,400	$82,900	No
22	1,335	5	3	3	11	0	11	$881,100	$80,100	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

The East Lake Park Subdivision is located in the northwest quadrant of the I-4/Orient Road interchange. As previously stated, for those impacted receptors located near elevated portions of I-4, shoulder barriers were also evaluated if the results of the analysis indicates that a barrier five feet within the ROW would not be feasible and reasonable. For the receptors in this area, a combination barrier, segments both five feet within the ROW and on the roadway shoulder was evaluated. The results of the evaluation for this barrier combination are provided in **Table 3-8**.

As shown in Table 3-8, at barrier heights between 10 and 22 feet, at least three of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a combination barrier is also not considered a reasonable noise abatement measure for the impacted residences in NSA 5.

A third barrier was evaluated within this NSA for the impacted area of East Lake Park Homeowners Civic Club. The impacted frequent use area is comprised of a basketball court and picnic tables. The FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure for this impacted area.

Table 3-8 NSA 5: Barrier Results for Impacted Residences in the East Lake Park Subdivision (Combination ROW and Shoulder Barrier)

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 27										
8	NA[5]	2	0	0	2	0	2	NA[5]	NA[5]	NA[5]
10	2,574	1	1	1	3	0	3	$690,960	$230,320	No
12	3,005	1	0	3	4	0	4	$895,320	$223,830	No
14	2,174	3	0	2	5	0	5	$741,360	$148,272	No
16	2,674	5	2	3	10	0	10	$934,560	$93,456	No
18	2,674	6	1	6	13	1	14	$1,007,760	$71,983	No
20	3,105	2	4	10	16	1	17	$1,339,560	$78,798	No
22	3,205	4	2	13	19	2	21	$1,462,620	$80,100	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.

[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.

[3] Based on a unit cost of $30 per square foot.

[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

[5] 7 dB(A) reduction not achieved at any receptor.

[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 98 feet and an optimal height of 16 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area in order for a barrier to be considered cost effective is 727 person-hours (i.e., 727 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, a barrier is not considered a reasonable noise abatement measure for the impacted area of the East Lake Park Homeowners Civic Club.

NSA 9

A noise barrier was evaluated for the eight impacted residences (Receptors 1 through 6, 8 and 9) along Maple Lane and Eureka Springs Road. The barrier was evaluated five feet inside of the FDOT ROW line. The results of the evaluation are provided in **Table 3-9**. As shown, at a barrier height of 22 feet, four of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 9.

Table 3-9 NSA 9: Barrier Results for Impacted Residences Along Maple Lane and Eureka Springs Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 8										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5]	2	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
16	NA[5]	3	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
18	NA[5]	3	2	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
20	NA[5]	4	2	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
22	1,106	4	1	1	6	0	6	$879,420	$146,570	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 10

A barrier was evaluated five feet within the FDOT ROW line for the five impacted residences located along Garden Lane and south of I-4 (Receptors 1 through 5). The results of the evaluation are provided in **Table 3-10**. As shown, at barrier heights between 16 and 22 feet, at least two of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier

at all barrier heights would be above the FDOT's cost reasonable limit, the barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 10.

Table 3-10 NSA 10: Barrier Results for Impacted Residences along Garden Lane

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 5										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	1	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[6]	0	0	1	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
14	NA[6]	0	0	1	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
16	1,289	1	0	1	2	0	2	$489,360	$244,680	No
18	1,435	2	0	1	3	0	3	$613,200	$204,400	No
20	1,362	1	1	1	3	0	3	$623,160	$207,720	No
22	1,106	1	1	1	3	0	3	$611,100	$203,700	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 11

A barrier was evaluated five feet within the FDOT ROW line for the eight impacted residences located south of I-4 between Garden Lane and Clewis Avenue (Receptors 1 through 6, 8 and 9). The results of the evaluation are provided in **Table 3-11**. As shown, at barrier heights between 18 and 22 feet, at least five of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 11.

Table 3-11 NSA 11: Barrier Results for Impacted Residences between Garden Lane and Clewis Avenue

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 8										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5]	0	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
14	NA[5]	1	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
16	NA[5]	3	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
18	1,857	4	1	0	5	0	5	$841,080	$168,216	No
20	1,857	5	0	1	6	0	6	$920,160	$153,360	No
22	1,957	4	1	1	6	2	8	$1,065,240	$133,155	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 12

A barrier was evaluated five feet within the FDOT's ROW for the 28 impacted residences located along Eureka Springs Road and north of I-4 (Receptors 1, 3 through 18 and 26 through 31). The results of the evaluation are provided in **Table 3-12**. As shown, at all analyzed barrier heights, at least two of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 12.

Table 3-12 NSA 12: Barrier Results for Impacted Residences along Eureka Springs Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 28										
8	584	1	0	1	2	0	2	$140,160	$70,080	No
10	3,581	4	0	2	6	0	6	$1,074,300	$179,050	No
12	4,045	5	3	2	10	0	10	$1,456,200	$145,620	No
14	5,437	9	4	5	18	0	18	$2,283,540	$126,863	No
16	5,886	6	5	10	21	0	21	$2,825,280	$134,537	No
18	4,605	5	5	12	22	0	22	$2,486,700	$113,032	No
20	4,561	6	3	14	23	0	23	$2,736,600	$118,983	No
22	4,311	4	5	14	23	0	23	$2,845,260	$123,707	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

NSA 13

A noise barrier was evaluated for the ten impacted residences located south of I-4 between Eureka Springs Road and I-75 (Receptors 1 through 6, 10, 12, 13 and 16). In a portion of this area there is an existing noise barrier that is 16 feet in height. This barrier was considered in the evaluation. The results of the evaluation are provided in **Table 3-13**. As shown, at barrier heights between 12 and 22 feet, at least four of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit the barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 13.

Table 3-13 NSA 13: Barrier Results for Impacted Residences Between East Hillsborough Avenue and I-75

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 10										
8	NA[6]	0	0	1	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
10	NA[6]	0	0	1	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
12	2,417	3	0	1	4	0	4	$723,360	$103,337	No
14	2,417	5	1	1	7	0	7	$1,201,500	$171,643	No
16	1,507	5	1	1	7	0	7	$1,270,200	$141,133	No
18	2,225	2	5	0	7	0	7	$1,529,220	$139,020	No
20	2,117	2	2	4	8	0	9	$870,120	$217,530	No
22	2,317	2	1	6	9	2	11	$1,015,140	$145,020	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 14

There is only one traffic noise impacted receptor in NSA 14, a residence located east of Williams Road (Receptor 2). As stated previously, for a noise barrier to be considered for construction, at least the minimum noise reduction requirements must be met (i.e., two or more impacted noise-sensitive receptors must be benefited). Because this requirement cannot be met for this area, a barrier is not considered a feasible and reasonable abatement measure for the impacted receptor in NSA 14.

NSA 15

A noise barrier was evaluated for the impacted area of the Landmark Baptist Ministries Church (Receptors 1 and 2). The church is located east of Williams Road, south of I-4. The impacted frequent use area is a playground and multi-use court. The FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure for the impacted area.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 937 feet and an optimal height of 22 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the church would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the church in order for a barrier to be considered cost effective is 869 person-hours (i.e., 869 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, it is not considered a reasonable noise abatement measure for the impacted area of the Landmark Baptist Ministries Church.

NSA 17

A noise barrier was evaluated five feet within the FDOT's ROW for the 15 impacted residences located south of I-4 and west of Black Dairy Road (Receptors 1 through 10 and 12 through 16). The results of the evaluation are provided in **Table 3-14**. As shown, at barrier heights between 20 and 22 feet, all of the 15 impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 17.

Table 3-14 NSA 17: Barrier Results for Impacted Residences West of Black Dairy Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
16	NA[5]	5	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
18	NA[5]	9	4	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
20	1,928	3	9	3	15	3	18	$1,156,800	$64,267	No
22	1,728	3	9	3	15	3	18	$1,140,480	$63,360	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 19

A noise barrier was evaluated for the impacted area of Armwood High School (Receptors 1 and 2). The school is located south of I-4 and east of Mango Road. The impacted frequent use area is a track and football field. The FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure for the impacted area.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 718 feet and an optimal height of 22 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the school would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the school in order for a barrier to be considered cost effective is 1,211 person-hours (i.e., 1,211 people

would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, it is not considered a reasonable noise abatement measure for the impacted area of Armwood High School.

NSA 20

A barrier was evaluated five feet within the FDOT's ROW for the two impacted residences south of I-4 and east of Pine Street (Receptors 1 and 2). The results of the evaluation are provided in **Table 3-15**. As shown, at barrier heights between 14 and 22 feet, the two impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 20.

Table 3-15 NSA 20: Barrier Results for Impacted Residences East of Pine Street

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 2										
8	NA[5,6]	0	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
10	NA[6]	0	0	1	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
12	NA[6]	0	0	1	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
14	1,470	1	0	1	2	0	2	$617,400	$308,700	No
16	1,370	1	0	1	2	0	2	$657,600	$328,800	No
18	1,270	1	0	1	2	0	2	$685,800	$342,900	No
20	1,170	1	0	1	2	0	2	$702,000	$351,000	No
22	1,170	1	0	1	2	0	2	$772,200	$386,100	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 21

A barrier was evaluated 5 feet within the FDOT's ROW for the 35 residences located south of I-4 within Parsons Village mobile home park (MHP), east of Parsons Avenue North and within Graystone Subdivision (Receptors 1, 2, 23 through 29 and 31 through 37). The results of the evaluation are provided in **Table 3-16**. As shown, at barrier heights between 8 and 22 feet, at least 22 of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more, the noise reduction design goal of 7 dB(A) would be achieved and the cost of the barrier would be below the FDOT's cost reasonable limit. Because the results of the analysis indicate that a barrier would provide the minimum noise reduction requirements at a cost below the cost effective limit, the barrier was evaluated further. A summary of the additional barrier considerations is provided in **Table 3-17**. Based on the review of these factors, a barrier was determined to be a potential noise abatement measure for the impacted residences in NSA 21. The limits of the most cost reasonable barrier (based on the results of this PD&E analysis) are depicted on Sheet 14 in Appendix B.

Table 3-16 NSA 21: Barrier Results for Impacted Residences in Parsons Village MHP, east of Parsons Avenue North and Graystone Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 35										
8	2,290	11	3	8	22	0	22	$549,600	$24,982	Yes
10	2,879	9	11	8	28	0	28	$863,700	$30,846	Yes
12	2,644	8	7	15	30	0	30	$4951,840	$31,728	Yes
14	2,623	5	6	23	34	0	34	$1,101,660	$32,402	Yes
16	2,400	9	6	20	35	0	35	$1,152,000	$32,914	Yes
18	2,400	7	6	22	35	1	36	$1,296,000	$36,000	Yes
20	2,300	4	6	25	35	2	37	$1,406,400	$38,011	Yes
22	2,300	3	8	24	35	2	37	$1,518,000	$41,027	Yes

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

Table 3-17 NSA 21: Additional Barrier Considerations

Type of Factor	Evaluation Criteria	Comment
Feasibility	Design and Construction	A determination of whether a noise barrier can be constructed using standard construction methods and techniques will be made during the project's design phase. Notably, additional costs to solely construct a noise barrier will be included in the final cost reasonableness evaluation of a noise barrier at this location.
	Safety	It does not appear that there would be any safety concerns (e.g., loss of sight distance).
	Accessibility	The barrier would be located within the FDOT's ROW for I-4 and would not block ingress or egress to any property.
	ROW	No acquisition of ROW or easements for construction/ maintenance would be necessary to construct a barrier within the FDOT's ROW.
	Maintenance	The FDOT should be able to maintain a barrier at this location using standard practices.
	Drainage	A determination as to whether the barrier can be design so that water would be directed along, under, or away from the barrier will be made during the project's design phase.
	Utilities	A determination of utility conflicts will be made during the project's design phase.
Reasonable -ness	Community desires	The desires of the property owners and renters (if applicable) will be solicited during the design phase of the project.

Notably, should a final determination be made that a noise barrier is a feasible and reasonable abatement measure during the project's design phase and depending on the final length of the barrier, there is a potential for outdoor advertising signs to be visually blocked. One sign is located west of Parsons Village MHP (at latitude 28.008247, longitude -82.288329), the other sign is located east of Graystone Subdivision (at latitude 28.010061, longitude -82.281979).

NSA 22

A noise barrier was evaluated five feet within the FDOT ROW for the nine impacted residences north of I-4 between Parsons Avenue North and North Kingsway Road (Receptor 3, 4, 8, 10 and 13 through 17). The results of the evaluation are provided in **Table 3-18**. As shown, at barrier heights between 12 and 22 feet, four impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 22.

Table 3-18 NSA 22: Barrier Results for Impacted Residences Between Parsons Avenue North and North Kingsway Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 9										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5]	2	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
12	2,128	2	1	1	4	0	4	$766,080	191,520	No
14	1,368	2	1	1	4	0	4	$574,560	143,640	No
16	1,100	1	2	1	4	0	4	$528,000	132,000	No
18	900	2	1	1	4	0	4	$486,000	121,500	No
20	900	2	1	1	4	0	4	$540,000	135,000	No
22	800	2	1	1	4	0	4	$528,000	132,000	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 24

A noise barrier was evaluated five feet within the FDOT ROW for the twenty-five impacted residences located south of I-4 from west of North Kingsway Road to east of the Kingsway Subdivision (Receptors 2, 3, 5, 11, 12, 19 through 32 and 37 through 42). The results of the evaluation are provided in **Table 3-19**. As shown, at barrier heights between 8 and 22 feet, at least seven impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 24.

Table 3-19 NSA 24: Barrier Results for Impacted Residences from West of Kingsway Road to east of the Kingsway Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 25										
8	2,816	*5*	*0*	2	7	0	7	$675,840	$96,549	No
10	2,430	10	2	2	14	0	14	$729,000	$52,071	No
12	2,915	10	6	5	21	0	21	$1,049,400	$49,971	No
14	2,356	8	9	5	22	0	22	$989,520	$44,978	No
16	2,356	4	8	10	22	1	23	$1,130,880	$49,169	No
18	2,891	3	2	19	24	7	31	$1,561,140	$50,359	No
20	3,081	3	8	14	25	5	30	$1,848,600	$61,620	No
22	2,881	4	4	17	25	5	30	$1,901,460	$63,382	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

NSA 25

A barrier was evaluated five feet within the FDOT's ROW for the two impacted residences located south of I-4 and east of the truck weigh station (Receptors 2 and 4). The results of the evaluation are provided in **Table 3-20**. As shown, at a barrier height of 22 feet, both of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 25.

Table 3-20 NSA 25: Barrier Results for Impacted Residences East of the Truck Weigh Station

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 2										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
16	NA[5]	2	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
18	NA[5]	0	2	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
20	NA[5]	0	2	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
22	2,068	1	0	1	2	1	3	$1,364,880	$454,960	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 26

A noise barrier was evaluated five feet within the FDOT ROW for the eleven impacted residences north of I-4 from McIntosh Road to Gallagher Road (Receptors 1 through 9, 11 and 12). The results of the evaluation are provided in **Table 3-21**. As shown, at barrier heights between 10 and 22 feet, seven of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 26.

Table 3-21 NSA 26: Barrier Results for Impacted Residences from McIntosh Road to Gallagher Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 11										
8	NA[5]	2	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
10	2,329	6	0	1	7	0	7	$668,700	$95,529	No
12	2,329	5	4	2	11	0	11	$838,440	$76,222	No
14	1,829	4	4	3	11	0	11	$768,180	$69,835	No
16	1,629	4	3	4	11	0	11	$781,920	$71,084	No
18	1,629	4	2	5	11	0	11	$879,660	$79,969	No
20	1,629	4	0	7	11	0	11	$879,660	$79,969	No
22	1,529	3	4	4	11	0	11	$1,009,140	$91,740	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.

NSA 27

Two noise barriers were evaluated for impacted areas of Strawberry Crest High School. The school is located south of I-4 and east of McIntosh Road. The first barrier was evaluated for an outdoor eating/gathering area (Receptor 1) and the second barrier was evaluated for the sports fields (Receptors 2 through 4). The impacted sports fields are the softball and baseball fields and the track/football field. The FDOT's special land use procedures were used to determine if these noise barriers could be considered a potential abatement measure for the impacted areas.

Outdoor Eating/Gathering Area – For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 595 feet and an optimal height of 12 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the school would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the school in order for a barrier to be considered cost effective is 1,204 person-hours (i.e., 1,204 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, a barrier is not considered a reasonable noise abatement measure for the impacted outdoor eating/gathering area at Strawberry Crest High School.

Sports Fields - For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 1,664 feet and an optimal height of 20 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the school would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the school in order for a barrier to be considered cost effective is 1,684 person-hours (i.e., 1,684 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, a barrier is not considered a reasonable noise abatement measure for the impacted area of the sports fields at Strawberry Crest High School.

NSA 29

A noise barrier was evaluated five feet within FDOT's ROW for the two impacted residences south of I-4 and located west of Reola Road to Fritzke Road (Receptors 1 and 2). The results of the evaluation are provided in **Table 3-22**. As shown, at

barrier heights between 14 and 22 feet, both of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 29.

Table 3-22 NSA 29: Barrier Results for Impacted Residences West of Reola Road to Fritzke Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 2										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	1	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	1	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	1,121	1	0	1	2	0	2	$470,820	$235,410	No
16	1,021	1	0	1	2	0	2	$490,080	$245,040	No
18	921	1	0	1	2	0	2	$497,340	$248,670	No
20	921	1	0	1	2	0	2	$552,600	$276,300	No
22	821	1	0	1	2	0	2	$541,860	$270,930	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 30

A noise barrier was evaluated five feet within the FDOT's ROW for the two residences located north of I-4 west of Fritzke Road (Receptors 1 and 2). The results of the barrier analysis are provided in **Table 3-23**. Due to the distance of the receptors from the barrier, the noise reduction design goal of 7 dB(A) could not be achieved at any of the evaluated barrier heights. Therefore, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 30.

Table 3-23 NSA 30: Barrier Results for Impacted Residences West of Fritzke Rd

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 2										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
16	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
18	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
20	NA[5,6]	1	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
22	NA[5,6]	1	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 31

A noise barrier was evaluated five feet within the FDOT's ROW for the seventeen impacted residences located south of I-4 from west of Bethlehem Road to Branch Forbes Road (Receptors 2, 7 through 9, 18 through 28, 30 and 35). The results of the evaluation are provided in **Table 3-24**. As shown, at barrier heights between 12 and 22 feet, at least six of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 31.

Table 3-24 NSA 31: Barrier Results for Impacted Residences South of I-4 from Bethlehem Road to Branch Forbes Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 17										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5]	3	1	0	4	0	0	NA[5]	NA[5]	NA[5]
12	2,153	4	1	1	6	0	6	$775,080	$129,180	No
14	3,435	5	1	2	8	0	8	$1,442,700	$180,338	No
16	2,625	6	1	3	10	0	10	$1,260,000	$126,000	No
18	2,725	4	3	4	11	0	11	$1,471,500	$133,773	No
20	2,453	4	2	6	12	0	12	$1,471,800	$122,650	No
22	2,355	7	1	7	15	0	15	$1,554,300	$103,620	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 32

A barrier was evaluated five feet within the FDOT's ROW for the nine impacted residences located north of I-4 from Bethlehem Road to Branch Forbes Road (Receptors 1 through 9). The results of the evaluation are provided in **Table 3-25**. As shown, at barrier heights between 18 and 22 feet, all of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 32.

Table 3-25 NSA 32: Barrier Results for Impacted Residences North of I-4 from Bethlehem Road to Branch Forbes Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 9										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5]	2	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
14	NA[5]	7	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
16	NA[5]	1	8	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
18	2,244	2	4	3	9	0	9	$1,211,760	$134,640	No
20	2,144	2	2	5	9	1	10	$1,286,400	$128,640	No
22	2,144	2	1	6	9	1	10	$1,415,040	$141,504	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 34

A barrier was evaluated five feet within the FDOT's ROW for the three residences located north of I-4 and west of Hawk Griffin Road (Receptors 1 through 3). The results of the barrier analysis are provided in **Table 3-26**. Due to the distance of the receptors from the barrier, the noise reduction design goal of 7 dB(A) could not be achieved at any of the evaluated barrier heights. Therefore, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 34.

Table 3-26 NSA 34: Barrier Results for Impacted Residences West of Hawk Griffin Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 3										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
16	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
18	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
20	NA[5]	3	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
22	NA[5]	3	1	0	NA[5]	NA[5]	NA[5,6]	NA[5]	NA[5]	NA[5]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 35

A noise barrier was evaluated five feet within the FDOT's ROW for the 47 impacted residences located south of I-4 between Hawk Griffin Road and Thonotosassa Road (Receptors 1 through 14, 16 through 21, 23 through 29 and 31 through 50). The results of the evaluation are provided in **Table 3-27**. As shown, at barrier heights between 8 and 22 feet, at least 22 of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 35.

Table 3-27 NSA 35: Barrier Results for Impacted Residences South of I-4 Between Hawk Griffin Road and Thonotosassa Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 47										
8	6,848	11	3	8	22	0	22	$1,643,520	$74,705	No
10	8,003	15	7	12	34	2	36	$2,400,900	$64,889	No
12	7,507	10	11	16	37	2	39	$2,702,520	$69,295	No
14	7,285	11	9	19	39	2	41	$3,059,700	$74,627	No
16	7,180	7	9	24	40	2	42	$3,446,400	$82,057	No
18	7,184	9	5	28	42	2	44	$3,879,360	$88,167	No
20	7,484	7	4	33	44	2	46	$4,392,000	$95,478	No
22	7,085	8	3	34	45	3	48	$4,676,100	$97,419	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

NSA 37

A noise barrier was evaluated five feet within FDOT's ROW for the 41 impacted residences located north of I-4 from Hawk Griffin Road to east of Thonotosassa Road (Receptors 1 through 6 and 8 through 42). The results of the evaluation are provided in **Table 3-28**. As shown, at barrier heights between 8 and 22 feet, at least seven of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 37.

Table 3-28 NSA 37: Barrier Results for Impacted Residences North of I-4 from Hawk Griffin Road to Thonotosassa Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 41										
8	3,531	3	2	2	7	0	7	$847,440	$121,063	No
10	5,357	10	1	5	16	0	16	$1,607,100	$100,444	No
12	6,091	13	7	6	26	0	26	$2,192,760	$84,337	No
14	5,891	10	11	10	31	0	31	$2,474,220	$79,814	No
16	5,791	9	10	15	34	0	34	$2,779,680	$81,755	No
18	6,853	6	9	21	36	0	36	$3,700,620	$102,795	No
20	6,221	10	3	24	37	0	37	$3,732,600	$100,881	No
22	6,853	6	6	28	40	0	40	$4,522,980	$113,075	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

NSA 40

A barrier was evaluated five feet within FDOT's ROW for the three residences located north of I-4 along Bennett Road (Receptors 1 and 2). The results of the barrier analysis are provided in **Table 3-29**. Due to the distance of the receptors from the barrier, the noise reduction design goal of 7 dB(A) could not be achieved at any of the evaluated barrier heights. Therefore, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 40.

Table 3-29 NSA 40: Barrier Results for Impacted Residences Along Bennett Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 3										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
16	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
18	NA[5,6]	1	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
20	NA[5]	1	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
22	NA[5]	1	1	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 41

Two barriers were evaluated for the 50 impacted residences in the Orange Court Subdivision (Receptors 1 through 34, 36, 37 and 39 through 52). The first barrier was evaluated five feet within the FDOT's ROW. The results of the evaluation for this barrier are provided in **Table 3-30**. As shown, at barrier heights between 12 and 22 feet, at least two of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a ROW barrier is not considered a reasonable noise abatement measure.

Table 3-30 NSA 41: Barrier Results for Residences in the Orange Court Subdivision (Five Feet Within ROW)

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 49										
8	NA[5,6]	1	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[6]	0	0	1	NA[5,6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
12	591	1	0	1	2	0	2	$212,760	$106,380	No
14	591	1	1	1	3	0	3	$248,220	$82,740	No
16	989	2	0	2	4	0	4	$474,720	$118,680	No
18	1,189	2	2	2	6	0	6	$642,060	$107,010	No
20	1,289	4	1	3	8	0	8	$773,400	$96,675	No
22	1,089	4	2	3	9	0	9	$718,740	$79,860	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

Because this segment of I-4 is elevated and a ROW barrier would not be cost reasonable, a second barrier was evaluated on the shoulder of the roadway. The results of the evaluation are provided in **Table 3-31**. As shown, at barrier heights between 12 and 14 feet, four of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more. However, the noise reduction design goal of 7 dB(A) could not be achieved at any of the evaluated barrier heights. Therefore, a shoulder barrier is also not considered a reasonable noise abatement measure for the impacted residences in NSA 41.

Table 3-31 NSA 41: Barrier Results for Impacted Residences in the Orange Court Subdivision (Shoulder Barrier)

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 49										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[6]	0	0	0	NA[5,6]	NA[6]	NA[6]	NA[6]	NA[6]	NA[6]
12	591	4	0	0	4	0	4	NA[5]	NA[5]	NA[5]
14	591	4	0	0	4	0	4	NA[5]	NA[5]	NA[5]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 43

A noise barrier was evaluated for the impacted area of Memorial Park Cemetery (Receptor 1). The cemetery is located north of I-4 and west of N Wheeler Street. The FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure for the impacted area.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 650 feet and an optimal height of 22 feet, a barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the cemetery would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the cemetery in order for a barrier to be considered cost effective is 2,111 person-hours (i.e., 2,111 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, it is not considered a reasonable noise abatement measure for the impacted area of the Memorial Park Cemetery.

NSA 45

Due to a constraint caused by a frontage road, a noise barrier was evaluated at the roadway shoulder for the 42 residences at the Bracewell Heights Subdivision (Receptors 1 through 19, 26 through 32, 36 through 46 and 50 through 54). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barrier was limited to a maximum of 14 feet. The results of the evaluation are provided in **Table 3-32**. As shown, at barrier heights between 8 and 14 feet, at least 25 of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more, the noise reduction design goal of 7 dB(A) would be achieved and the cost of the barrier would be below the FDOT's cost reasonable limit. Because a barrier is predicted to provide the minimum noise reduction requirements at a cost

below the cost effective limit, the barrier was evaluated further. A summary of the additional barrier considerations is provided in **Table 3-33**. Based on the review of these factors, a barrier was determined to be a potential noise abatement measure for the impacted residences in NSA 45. The limits of the most cost reasonable barrier (based on the results of this PD&E analysis) are depicted on Sheets 33 and 34 in Appendix B.

Table 3-32 NSA 45: Barrier Results for Impacted Residences in Bracewell Heights Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 42										
8	2,960	13	7	5	25	0	25	$710,400	$28,416	Yes
10	2,721	14	9	15	38	1	39	$816,300	$20,931	Yes
12	3,773	5	9	28	42	7	49	$1,272,720	$25,974	Yes
14	3,417	4	5	33	42	8	50	$1,352,880	$27,058	Yes

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

Table 3-33 NSA 45: Additional Barrier Considerations

Type of Factor	Evaluation Criteria	Comment
Feasibility	Design and Construction	A determination of whether a noise barrier can be constructed using standard construction methods and techniques will be made during the project's design phase. Notably, additional costs to solely construct a noise barrier will be included in the final cost reasonableness evaluation of a noise barrier at this location.
	Safety	It does not appear that there would be any safety concerns (e.g., loss of sight distance).
	Accessibility	The barrier would be located within the FDOT's ROW for I-4 and would not block ingress or egress to any property.
	ROW	No acquisition of ROW or easements for construction/ maintenance would be necessary to construct a barrier within the FDOT's ROW.
	Maintenance	The FDOT should be able to maintain a barrier at this location using standard practices.
	Drainage	A determination as to whether the barrier can be design so that water would be directed along, under, or away from the barrier will be made during the project's design phase.
	Utilities	A determination of utility conflicts will be made during the project's design phase.
Reasonable -ness	Community desires	The desires of the property owners and renters (if applicable) will be solicited during the design phase of the project.

Notably, should a final determination be made that a noise barrier is a feasible and reasonable abatement measure during the project's design phase and depending on the final length of the barrier, there is a potential for an outdoor advertising sign to be visually blocked. The sign is located west of the Bracewell Heights Subdivision (at latitude 28.036271, longitude -82.117994).

NSA 47

Again, due to the constraints caused by a frontage road, a noise barrier was evaluated at the roadway shoulder for the three residences located north of I-4 west of Maryland Avenue (Receptors 1 through 3). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barriers is limited to a maximum of 14 feet. The results of the barrier analysis are provided in **Table 3-34**. Due to the distance of the receptors from the barrier, the noise reduction design goal of 7 dB(A) could not be achieved at any of the evaluated barrier heights. Therefore, the barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 47.

Table 3-34 NSA 47: Barrier Results for Impacted Residences West of Maryland Avenue

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 3										
8	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
10	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
12	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]
14	NA[5,6]	0	0	0	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]	NA[5,6]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.
[6] 5 dB(A) reduction or greater was not achieved at two or more receptors.

NSA 50

Also due to the constraints caused by a frontage road, a shoulder barrier was evaluated for the 24 impacted residences in the Colonial Village Subdivision (Receptors 1 through 2, 10 through 18, 22 through 23, 25 through 31, 40, 42, 43 and

46). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barriers is limited to a maximum of 14 feet. The results of the evaluation are provided in **Table 3-35**. As shown, at barrier heights between 8 and 14 feet, at least nine of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 50.

Table 3-35 NSA 50: Barrier Results for Impacted Residences in Colonial Village Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 24										
8	NA[5]	3	2	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
10	1,636	5	2	2	9	0	9	$486,900	$54,100	No
12	1,336	5	4	5	14	0	14	$1,053,480	$75,249	No
14	2,163	4	6	8	18	0	18	$1,211,700	$67,317	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.

NSA 51

Again, due to the constraints caused by a frontage road, a barrier was evaluated at the roadway shoulder for the 33 impacted residences in the Dorene Terrace Subdivision (Receptors 1 through 10, 14, 15, 18 through 20, 27 through 31, 34 through 45 and 49). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barriers is limited to a maximum of 14 feet. The results of the evaluation are provided in **Table 3-36**. As shown, at barrier heights between 8 and 14 feet, at least seven of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 51.

Table 3-36 NSA 51: Barrier Results for Impacted Residences in Dorene Terrace Subdivision

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 33										
8	3,357	3	1	3	7	0	7	$805,680	$115,097	No
10	3,057	7	5	4	16	0	16	$878,580	$54,911	No
12	4,262	13	5	9	27	0	27	$1,426,440	$52,831	No
14	3,100	10	8	10	28	0	28	$1,268,700	$45,311	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

NSA 53

Again, due to the constraints caused by a frontage road, a barrier was evaluated at the roadway shoulder for the 28 impacted residences located north of I-4 and both west and east of Charlie Taylor Road (Receptors 1 through 8, 10 through 16, 17, 20, 21, 24, 26, 27, 29 through 33, 35 and 36). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barriers is limited to a maximum of 14 feet. The results of the evaluation are provided in **Table 3-37**. As shown, at barrier heights between 8 and 14 feet, at least eight of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 53.

Table 3-37 NSA 53: Barrier Results for Impacted Residences West and East of Charlie Taylor Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 27										
8	6,397	6	1	1	8	0	8	$1,535,280	$1,579,620	No
10	5,615	11	3	2	16	1	17	$191,910	$92,919	No
12	5,315	7	7	3	17	2	19	$1,535,280	$1,579,620	No
14	5,415	6	2	10	18	2	20	$191,910	$92,919	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

NSA 54

In this segment of I-4, the roadway is elevated. Due to this constraint and the constraint of a frontage road, a barrier was evaluated on the wall structure along the shoulder for the 13 impacted residences south of I-4 and west of Charlie Taylor Road (Receptors 1, 2, 4 through 8 and 10 through 15). Following FDOT's *Plans Preparation Manual* (PPM), the height of a roadway shoulder barrier on structure is limited to a maximum of 8 feet. The results of the barrier analysis are provided in **Table 3-38**. Due to the limitation on barrier height, the noise reduction design goal of 7 dB(A) could not be achieved at the evaluated barrier height. Therefore, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 54.

Table 3-38 NSA 54: Barrier Results for Impacted Residences West of Charlie Taylor Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
8	NA[5]	2	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.

NSA 56

A noise barrier was also evaluated at the roadway shoulder for the impacted area of Mt. Enon Cemetery (Receptor 1). The cemetery is located north of I-4 and east of Charlie Taylor Road. The FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure for the impacted area.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 1,741 feet and an optimal height of 14 feet, a shoulder barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the cemetery would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the cemetery in order for a barrier to be considered cost effective is 1,979 person-hours (i.e., 1,979 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, it is not considered a reasonable noise abatement measure for the impacted area of Mt. Enon Cemetery.

NSA 57

Again due to a constraint caused by a frontage road, a barrier was evaluated on the shoulder for the 32 impacted residences located south of I-4 between Wiggins Road and County Line Road (Receptors 1 through 26 and 28 through 33). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barriers is limited to a maximum of 14 feet. The results of the evaluation are provided in **Table 3-39**. As shown, at barrier heights between 8 and 14 feet, at least 31 of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more, the noise reduction design goal of 7 dB(A) would be achieved and the cost of the barrier would be below the FDOT's cost reasonable limit. Because a barrier is predicted to provide the minimum noise reduction requirements at a cost below the cost effective limit, the barrier was evaluated further. A summary of the additional

barrier considerations is provided in **Table 3-40**. Based on the review of these factors, a barrier was determined to be a potential noise abatement measure for the impacted residences in NSA 57. The limits of the most cost reasonable barrier (based on the results of the PD&E analysis) are depicted on Sheets 38 and 39 in Appendix B.

Table 3-39 NSA 57: Barrier Results for Impacted Residences Between Wiggins Road and County Line Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 32										
8	2,348	13	5	13	31	0	31	$563,520	$18,178	Yes
10	2,154	11	6	15	32	0	32	$601,620	$18,801	Yes
12	1,448	8	8	16	32	0	32	$468,120	$14,629	Yes
14	1,448	7	8	17	32	0	32	$528,420	$16,513	Yes

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

Table 3-40 NSA 57: Additional Barrier Considerations

Type of Factor	Evaluation Criteria	Comment
Feasibility	Design and Construction	A determination of whether a noise barrier can be constructed using standard construction methods and techniques will be made during the project's design phase. Notably, additional costs to solely construct a noise barrier will be included in the final cost reasonableness evaluation of a noise barrier at this location.
	Safety	It does not appear that there would be any safety concerns (e.g., loss of sight distance).
	Accessibility	The barrier would be located within the FDOT's ROW for I-4 and would not block ingress or egress to any property.
	ROW	No acquisition of ROW or easements for construction/ maintenance would be necessary to construct a barrier within the FDOT's ROW.
	Maintenance	The FDOT should be able to maintain a barrier at this location using standard practices.
	Drainage	A determination as to whether the barrier can be design so that water would be directed along, under, or away from the barrier will be made during the project's design phase.
	Utilities	A determination of utility conflicts will be made during the project's design phase.
Reasonable -ness	Community desires	The desires of the property owners and renters (if applicable) will be solicited during the design phase of the project.

NSA 58

Again due to a constraint caused by a frontage road, a barrier was evaluated on the shoulder for the five impacted residences located north of I-4 from Charlie Taylor Road to County Line Road (Receptors 1 through 5). Following FDOT's *Plans Preparation Manual* (PPM), the height of roadway shoulder barriers is limited to a maximum of 14 feet. The results of the evaluation are provided in **Table 3-41**. As shown, at barrier heights between 12 and 14 feet, all of the impacted residences would receive a benefit from a reduction in traffic noise of 5 dB(A) or more and the noise reduction design goal of 7 dB(A) would be achieved. However, because the cost of the barrier at all barrier heights would be above the FDOT's cost reasonable limit, a barrier is not considered a reasonable noise abatement measure for the impacted residences in NSA 58.

Table 3-41 NSA 58: Barrier Results for Impacted Residence from Charlie Taylor Road to County Line Road

Barrier Height (feet)	Barrier Length (feet)	Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Total Estimated Cost[3]	Cost per Benefited Receptor[4]	Cost Reasonable Yes/No
		5 - 5.9	6 - 6.9	≥7	Impacted	Not Impacted	Total			
Number of Impacted Receptors = 5										
8	NA[5]	4	0	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
10	NA[5]	0	4	0	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]	NA[5]
12	1,448	2	0	3	5	0	5	$543,600	$108,720	No
14	1,448	1	1	3	5	0	5	$634,200	$126,840	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.
[5] 7 dB(A) reduction not achieved at any receptor.

NSA 59

A noise barrier was evaluated for the impacted area of Faith Temple Assembly of God Church (Receptor 1). The church is located north of I-4 and west of County Line Road. The impacted frequent use area is a playground. The FDOT's special land use procedures were used to determine if a noise barrier could be considered a potential abatement measure for the impacted area.

For the purpose of this special land use evaluation, the optimal length and height for a noise barrier was determined using TNM. At an optimal length of 7,742 feet and an optimal height of 14 feet, a shoulder barrier would reduce predicted traffic noise levels within the impacted area a minimum of 7 dB(A). Because it is not known how frequently the impacted and benefited area of the church would be used and by how many people, the minimum number of person-hours of use on an average day in order for a barrier to be considered cost effective was calculated.

The cost effectiveness calculations were based on the formulas from the special land use procedures. Assuming the optimal barrier length and height, the minimum daily use required within the impacted and benefited area of the church in order for a barrier to be considered cost effective is 326 person-hours (i.e., 326 people would have to use the area for one hour each day of the year). Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, it is not considered a reasonable noise abatement measure for the impacted area of the Faith Temple Assembly of God Church.

4.0 CONCLUSIONS

As previously stated, future traffic noise levels with the proposed improvements are predicted to approach, meet, or exceed the NAC at 582 properties with noise sensitive uses. The results of the evaluation indicate that construction of noise barriers is a potentially reasonable and feasible noise abatement method to reduce predicted traffic noise for up to 132 of the 582 properties. These properties are located at

- NSA 4: Residences in the Pardeau Shores subdivision
- NSA 21: Residences south of I-4 between Parsons Avenue and Brinwood Drive
- NSA 45: Residences in the Bracewell Heights subdivision
- NSA 57: Residences south of I-4 between Wiggins Road and County Line Road

The estimated cost to construct the noise barriers ranges from $2,228,000 to $4,325,000 depending on barrier length and height.

Notably, the noise barriers for the impacted properties in NSA 21 and NSA 45 have the potential to visually block outdoor advertising signs. Should the barriers at these locations remain a feasible and reasonable abatement measure after the detailed noise analysis during the final design process and the signs are determined to be conforming and legally permitted signs, a notice of the possible screening will be provided to the affected sign permit holder(s) and the appropriate local sign regulating agency and a public hearing will be held to receive input on the proposed noise barrier/sign conflict.

4.1 Statement of Likelihood

The FDOT is committed to the construction noise barriers at the locations in the bullet list above, contingent upon the following:

- Detailed noise analysis during the final design process continues to support the need for, and the feasibility and reasonableness of providing the barriers as abatement;

- The detailed analysis demonstrates that the cost of the noise barrier will not exceed the cost effective limit;

- The residents/property owners benefitted by the noise barrier desire that a noise barrier be constructed; and

- All safety and engineering conflicts or issues related to construction of a noise barrier are resolved.

5.0 NOISE CONTOURS

Land uses such as residences and recreational areas are considered incompatible with highway noise levels that approach or exceed the NAC. To reduce the possibility of additional traffic noise-related impacts, noise level contours were developed for the future improved roadway facility. These noise contours delineate the extent of the predicted traffic noise impact area from the improved roadway's edge-of-travel lane for each of the land use Activity Categories (Table 2-1). **Table 5-1** provides the distance from the edge-of-travel lane at which traffic noise levels are predicted to be 56 dB(A)—the NAC for land uses classified as Activity Category A, to 66 dB(A)—the NAC for land uses classified as Activity Category B and C, and to 71 dB(A)—the NAC for land uses classified as Activity Category E.

Local officials will be provided a copy of the Final NSR to promote compatibility between any future land developments in this area and the proposed project.

Table 5-1 Noise Contour Limits

I-4 Roadway Segment	Distance from Improved Roadway's Edge-of-Pavement (ft)*		
	Activity Category A 56 dB(A)	Activity Category B/C 66 dB(A)	Activity Category E 71 dB(A)
East of 50th Street to US 92 Flyover	1,390	490	290
US 92 Flyover to East of I-75	1,390	495	290
East of I-75 to West of SR 579	1,330	470	275
West of SR 579 to West of County Line Rd	1,595	610	340

* See Table 2-1 for a description of the activities that occur within each category. Distances do not reflect any reduction in noise levels that would occur from existing structures (shielding) and should be used for planning purposes only.

6.0 CONSTRUCTION NOISE AND VIBRATION

Some land uses adjacent I-4 are identified on the FDOT listing of noise- and vibration-sensitive sites (e.g., residential use). Construction of the proposed roadway improvements is not expected to have a significant noise or vibration effect. Additionally, the application of the *FDOT Standard Specifications for Road and Bridge Construction* may minimize or eliminate potential issues. Should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

7.0 COMMUNITY COORDINATION

A project-related public hearing is planned. Details regarding the hearing (i.e, date and location) and any traffic noise-related issues raised at the hearing will be documented in the final NSR.

8.0 REFERENCES

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

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

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

Federal Highway Administration. May 1996. *Measurement of Highway-Related Noise*. FHWA-PD-96-046.

Florida Department of Transportation. May 24, 2011. *Project Development and Environment Manual*, Part 2, Chapter 17 – Noise.

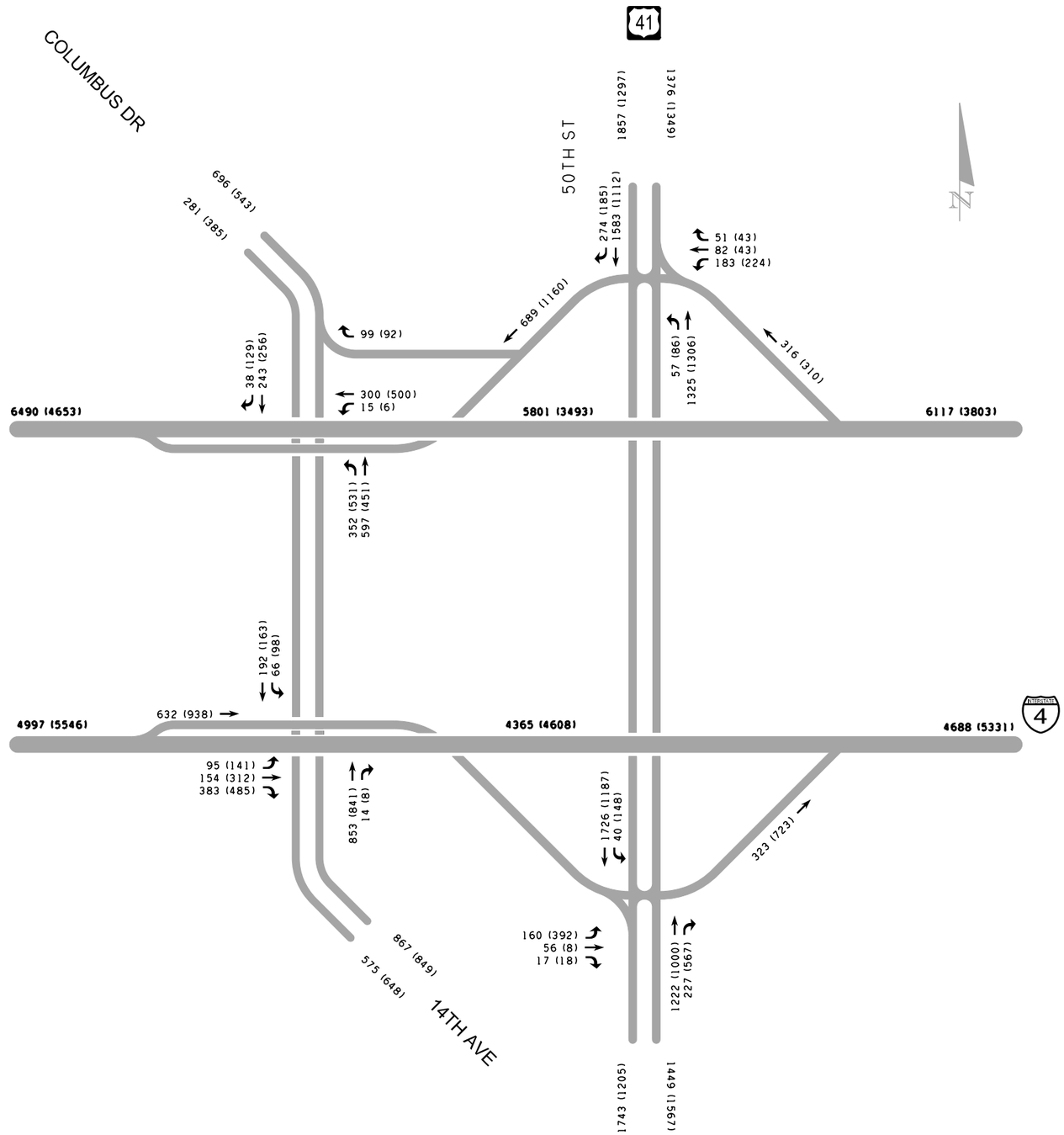
Florida Department of Transportation. July 1, 2013. *Plans Preparation Manual*, Volume 1, Chapter 32 – Sound Barriers.

Florida Department of Transportation. 2014. *Standard Specifications for Road and Bridge Construction*.

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

APPENDIX A

Traffic Data



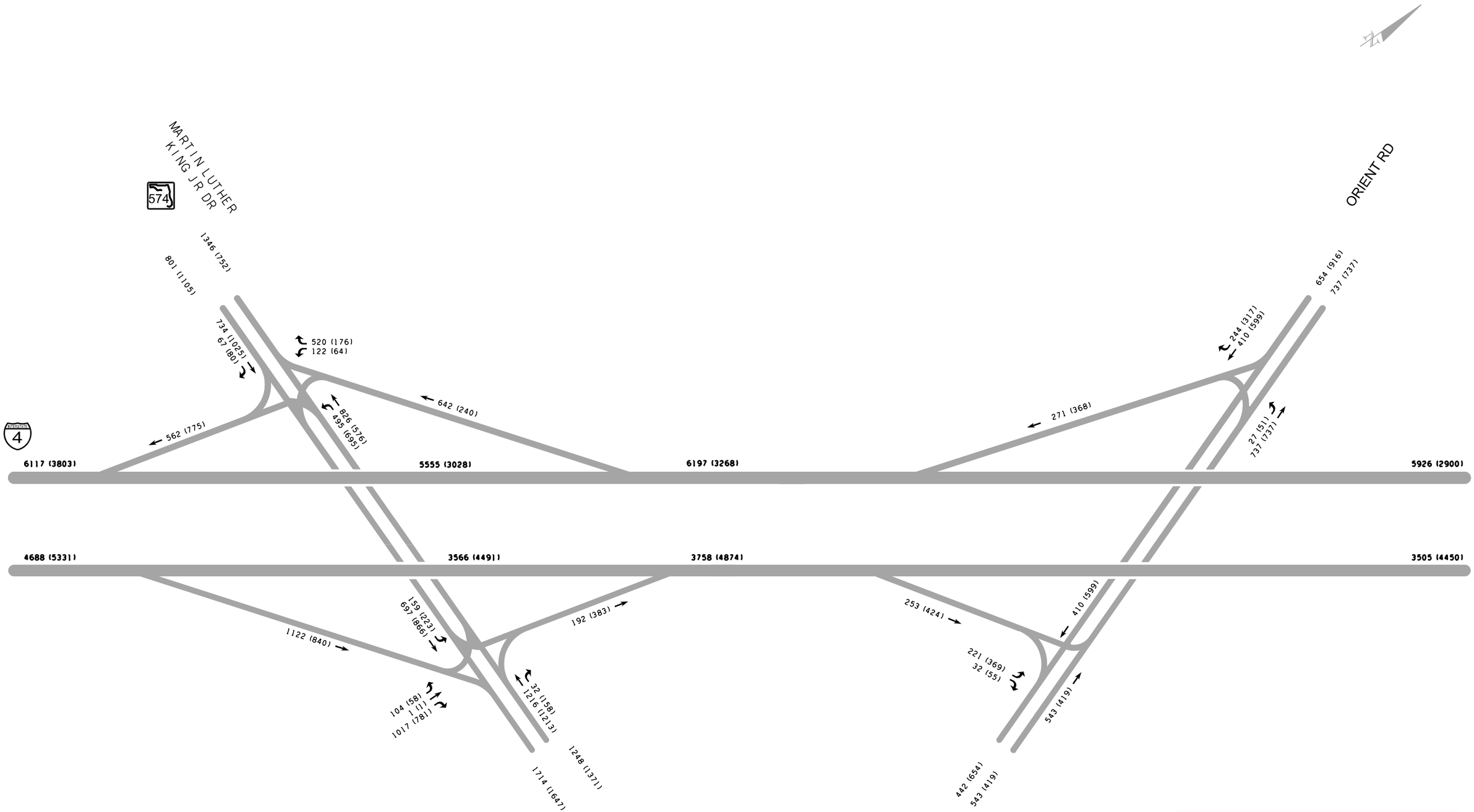
XXX (XXX) 2012 Existing AM Volume (PM Volume)

Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-1



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

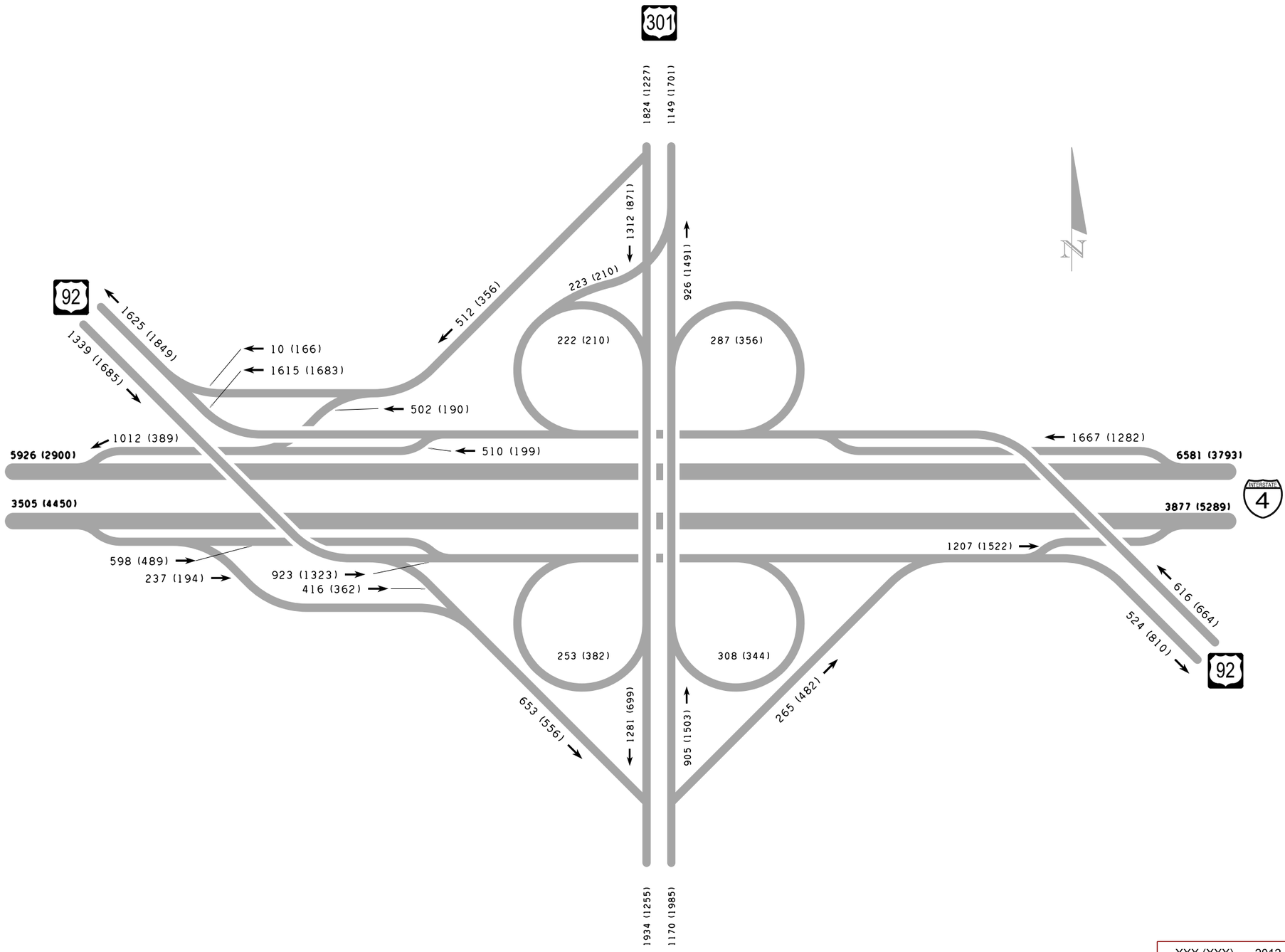
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-2

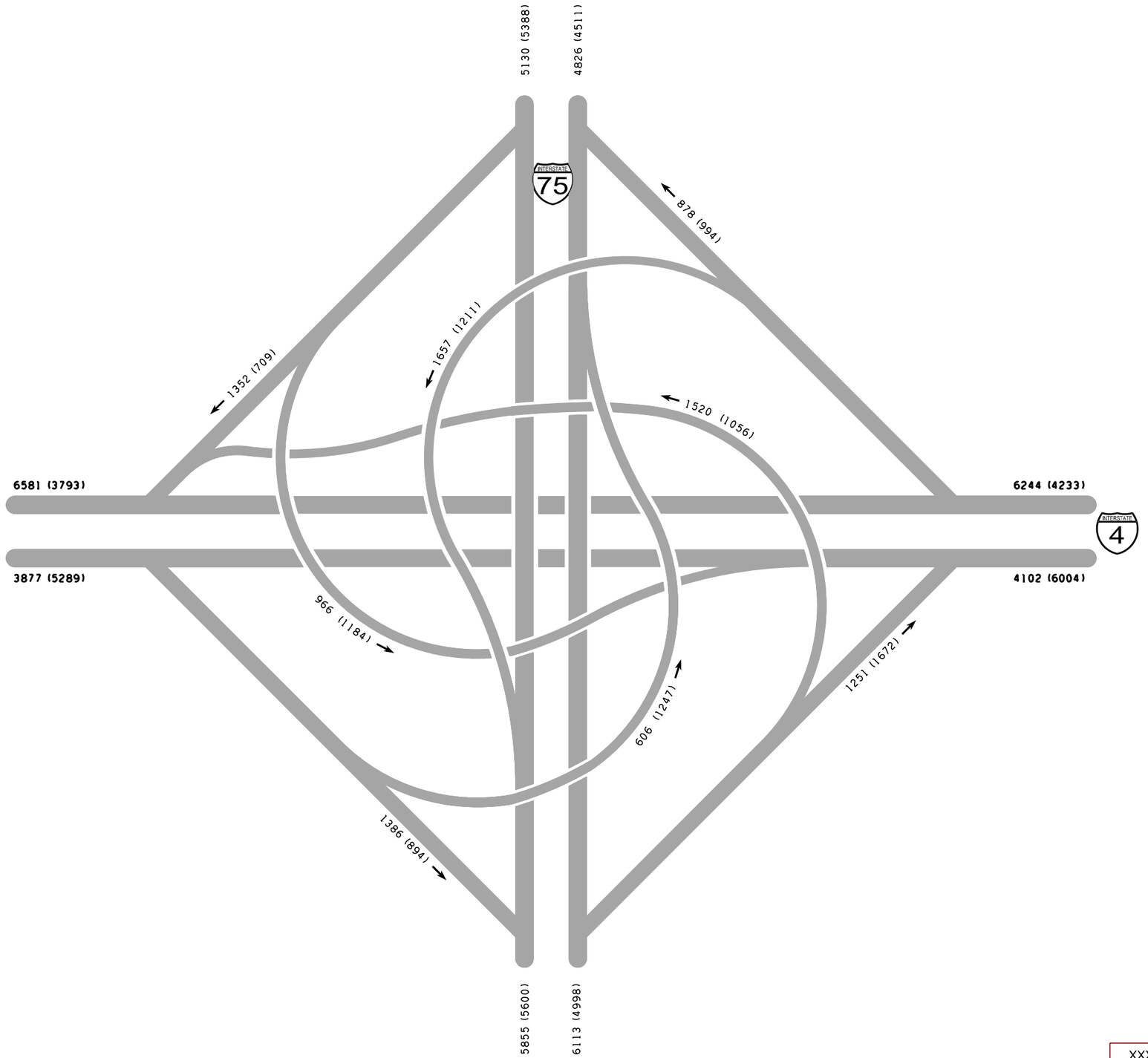


Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-3



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

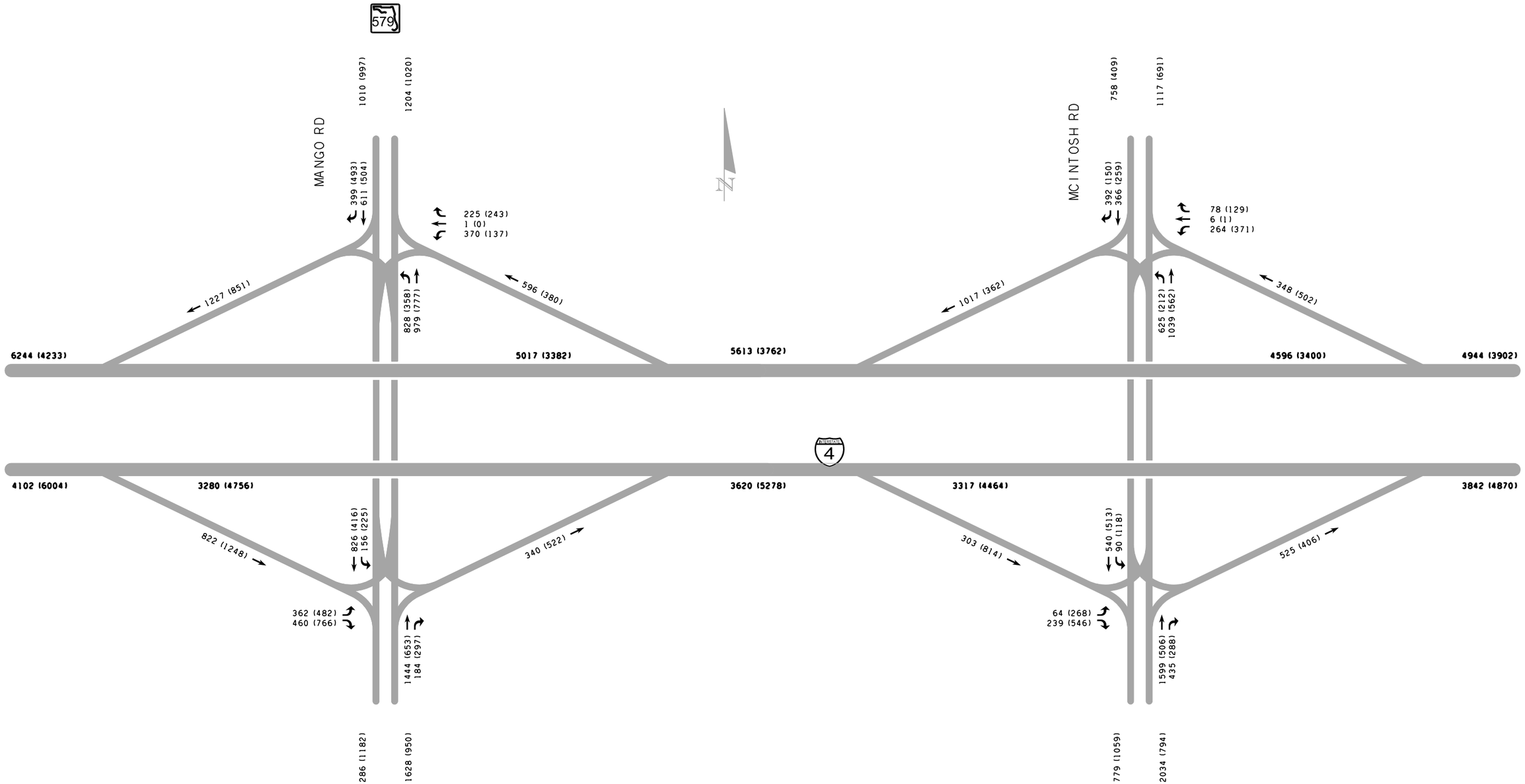
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-4



Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

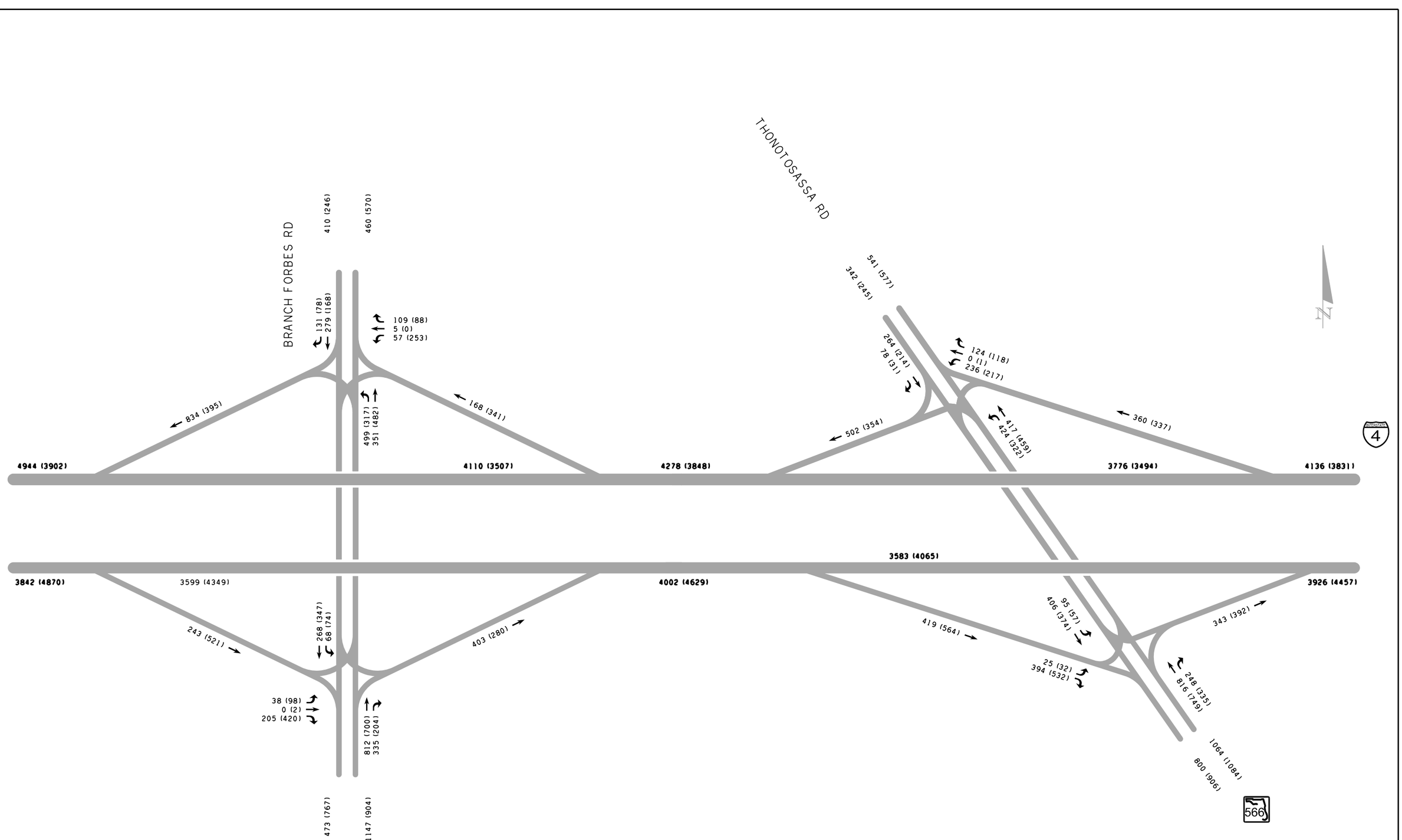
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-5



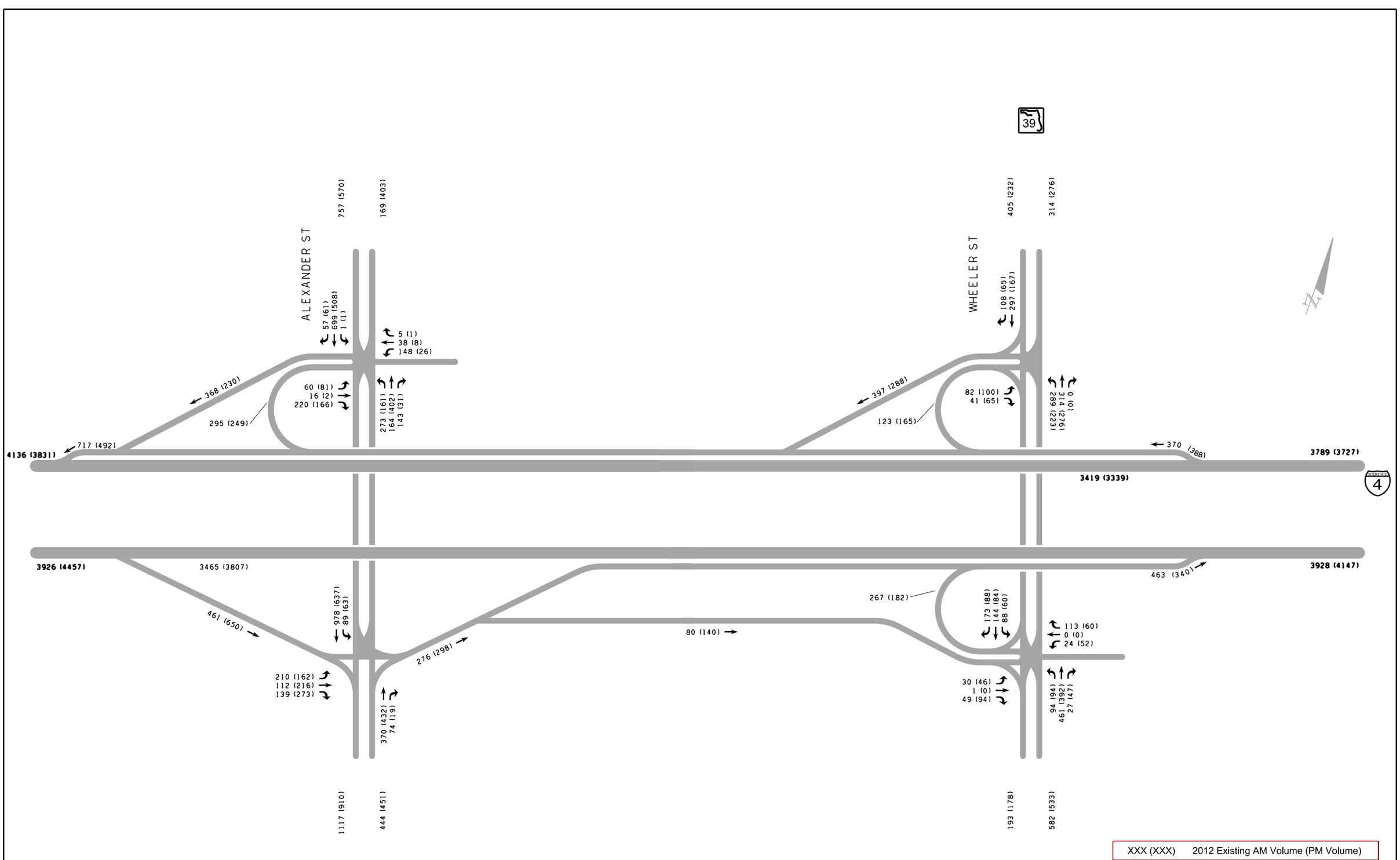
XXX (XXX) 2012 Existing AM Volume (PM Volume)

Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-6



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

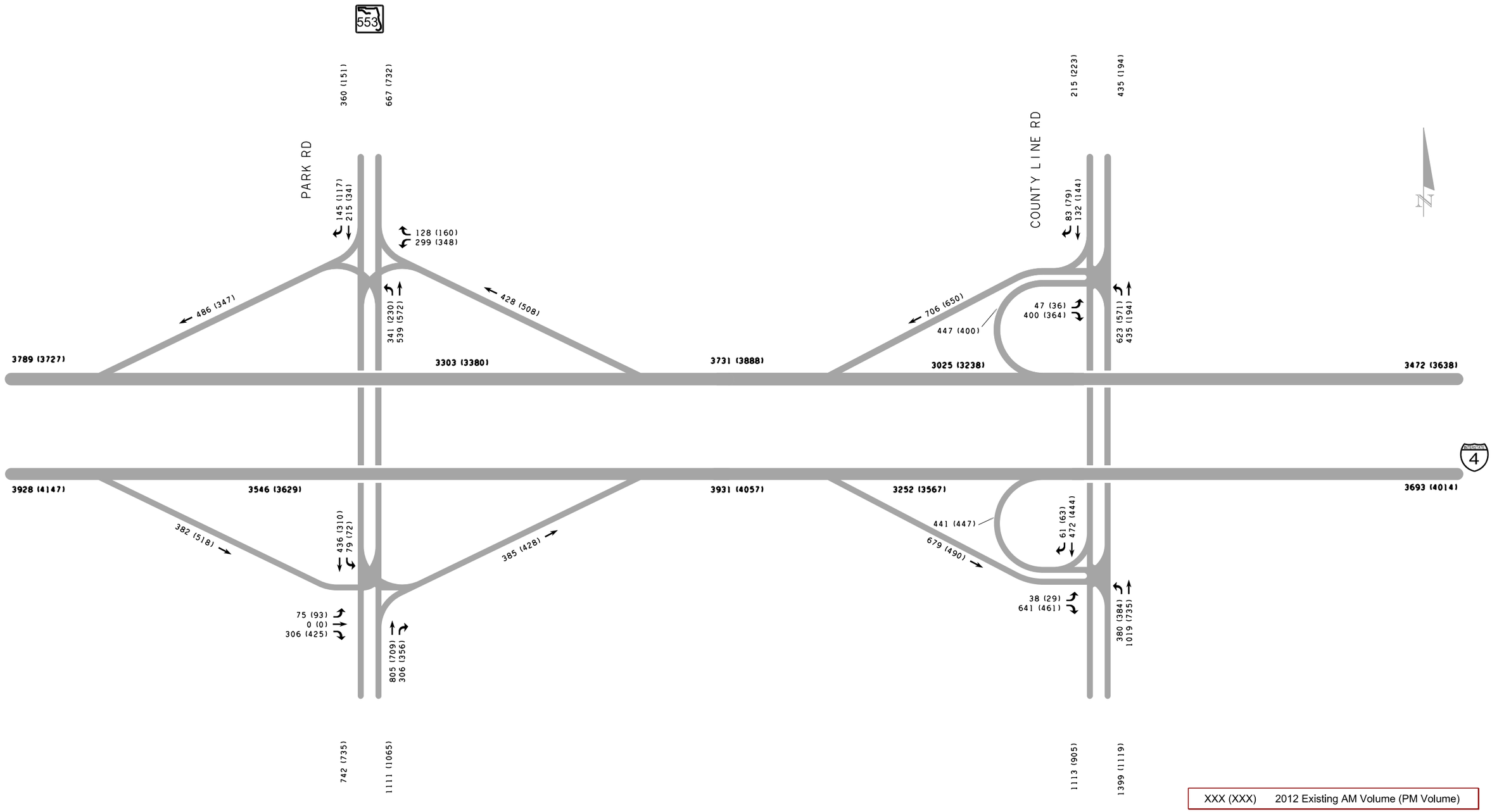
From 50th Street (US 41) to Polk Parkway (SR 570)

WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-7

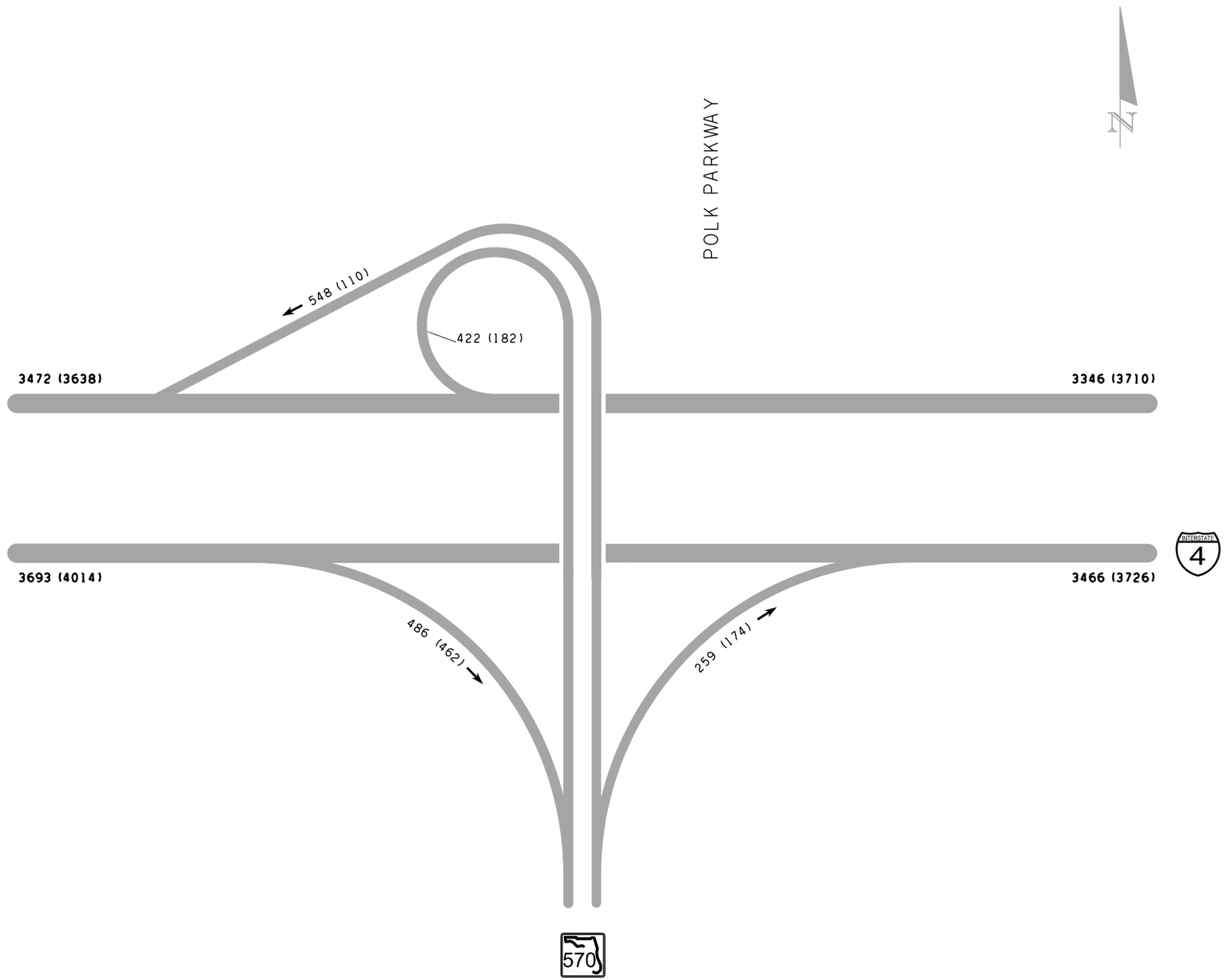


Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-8



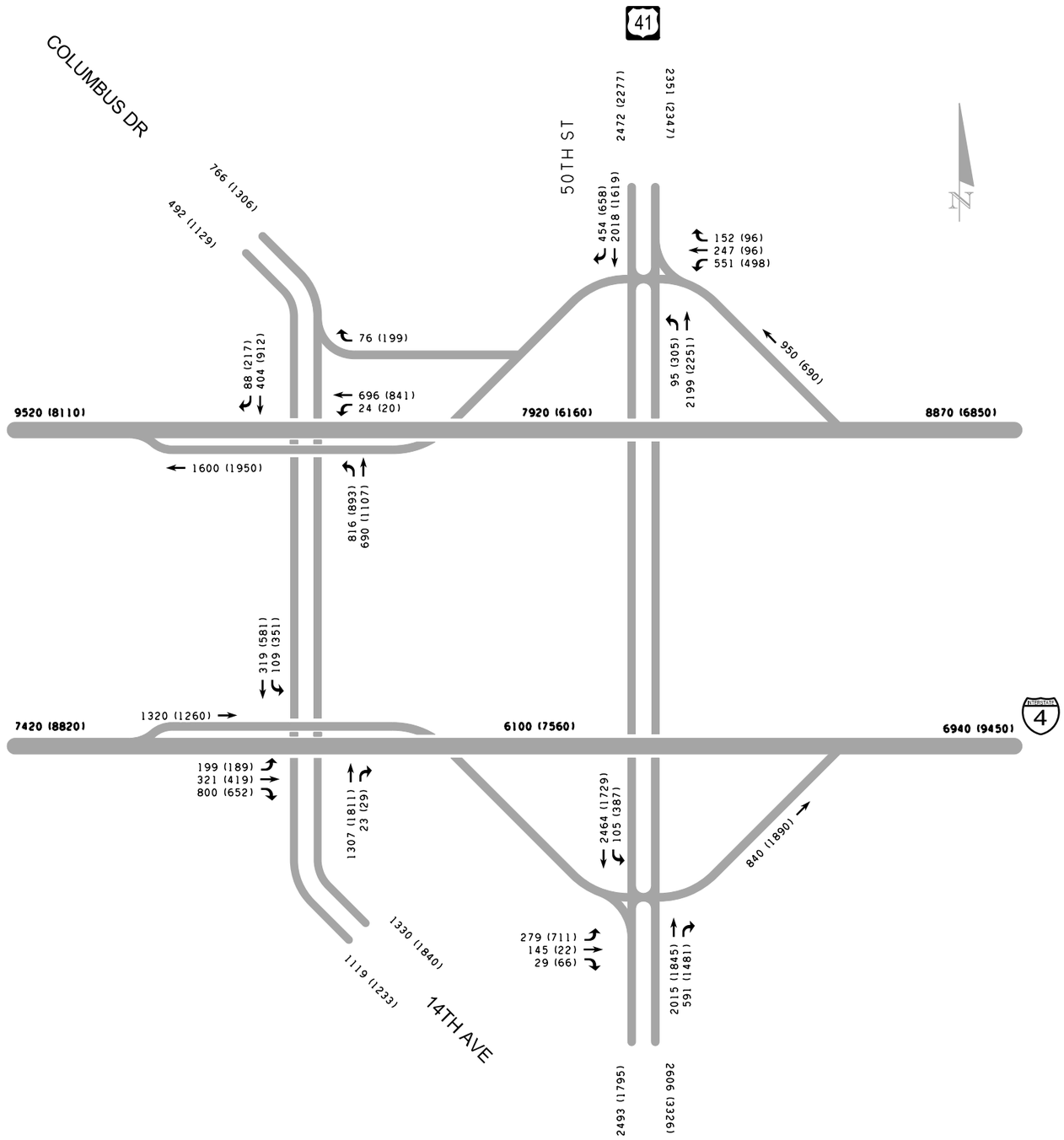
XXX (XXX) 2012 Existing AM Volume (PM Volume)

Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for Existing (2012)

Figure 2-9



Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

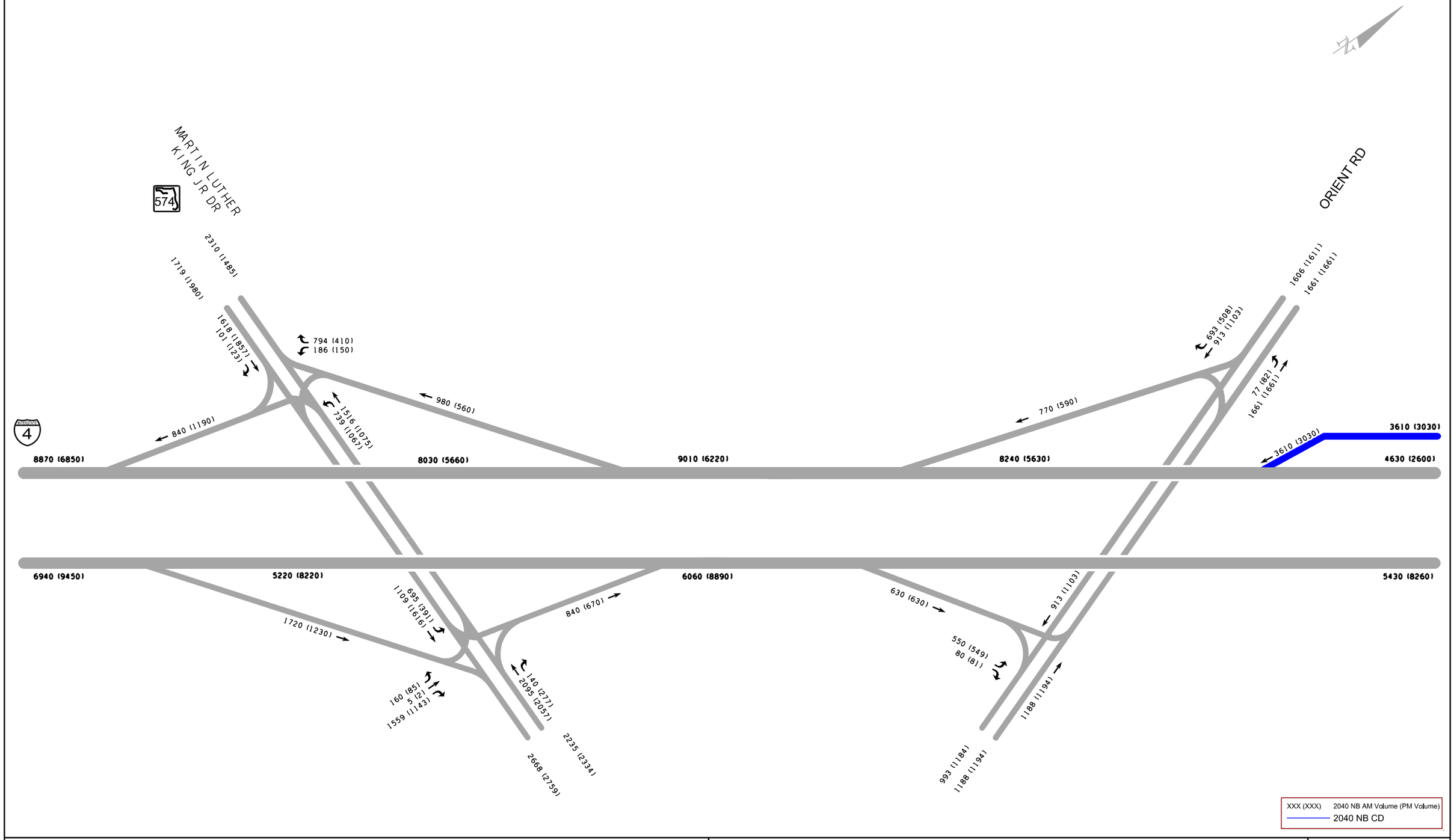
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-28



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

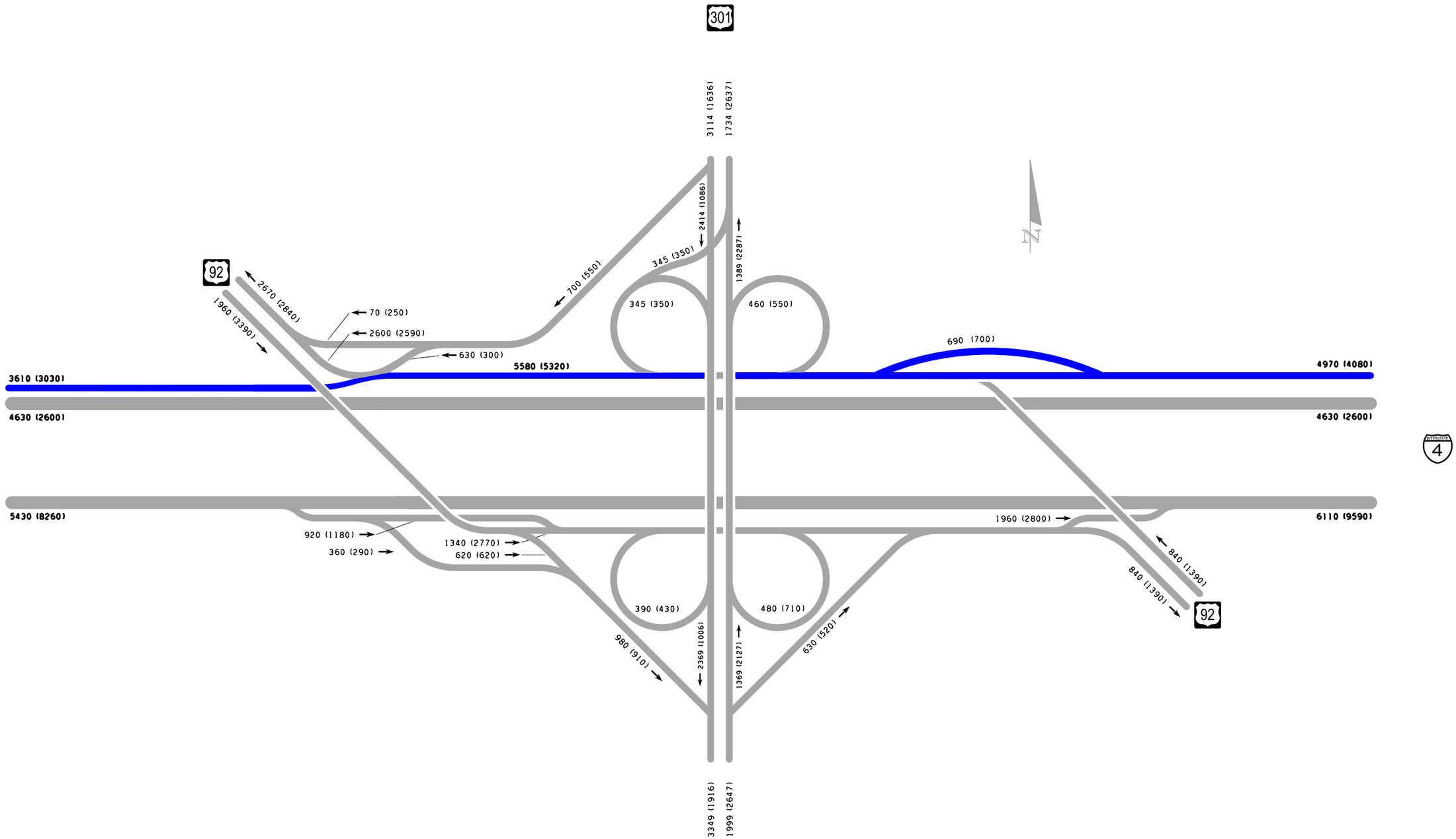
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-29



Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

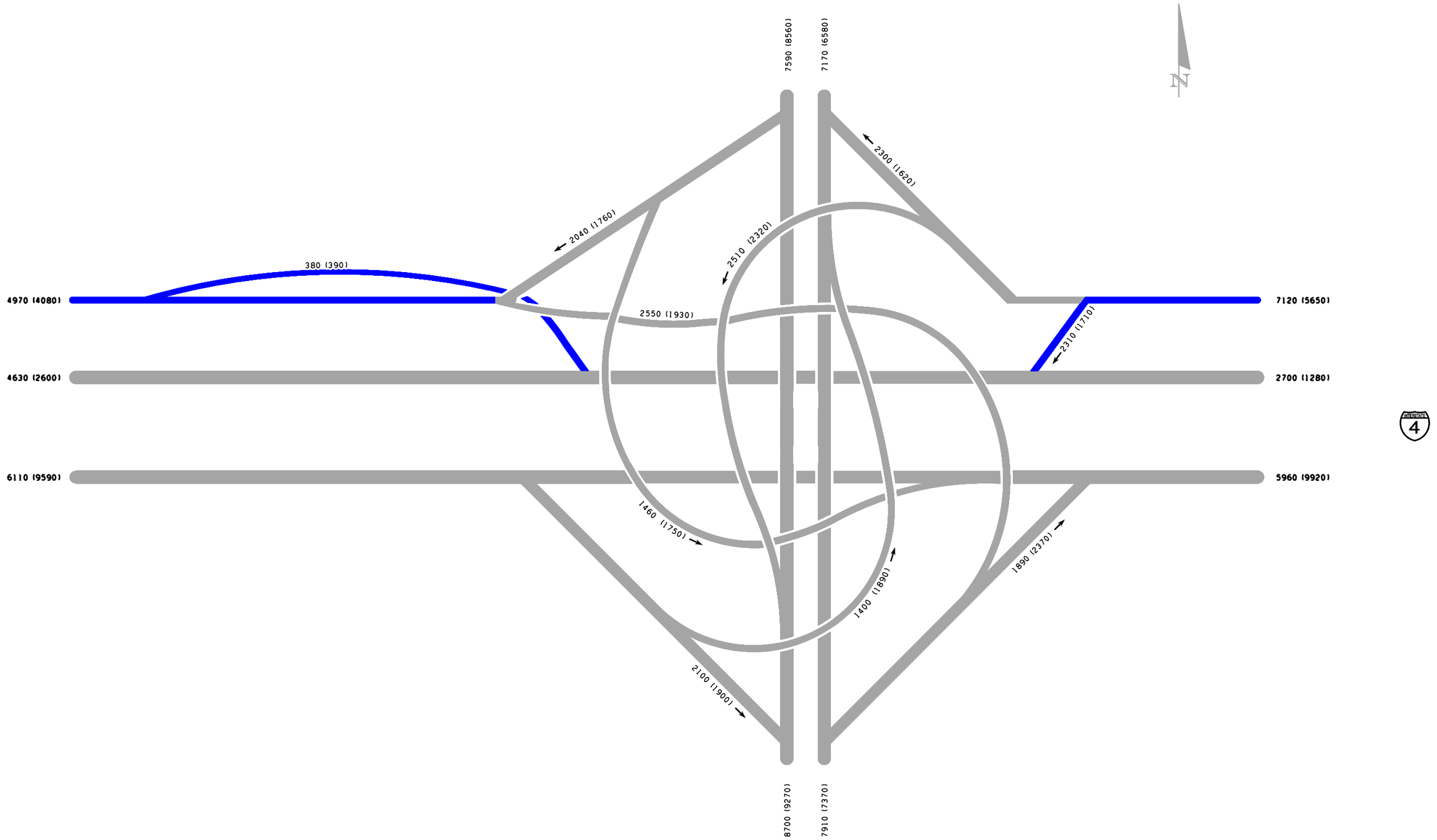
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-30

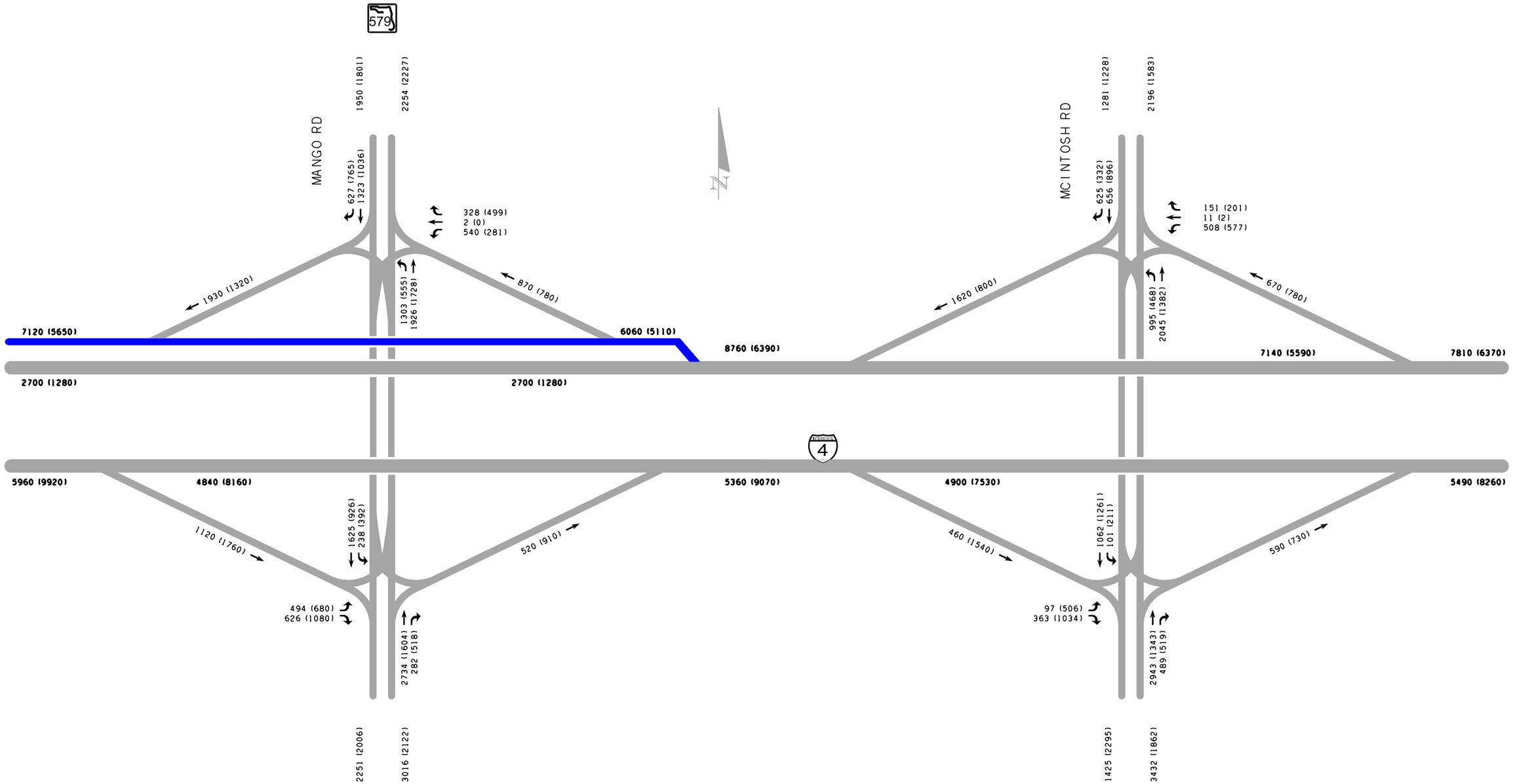


Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-31

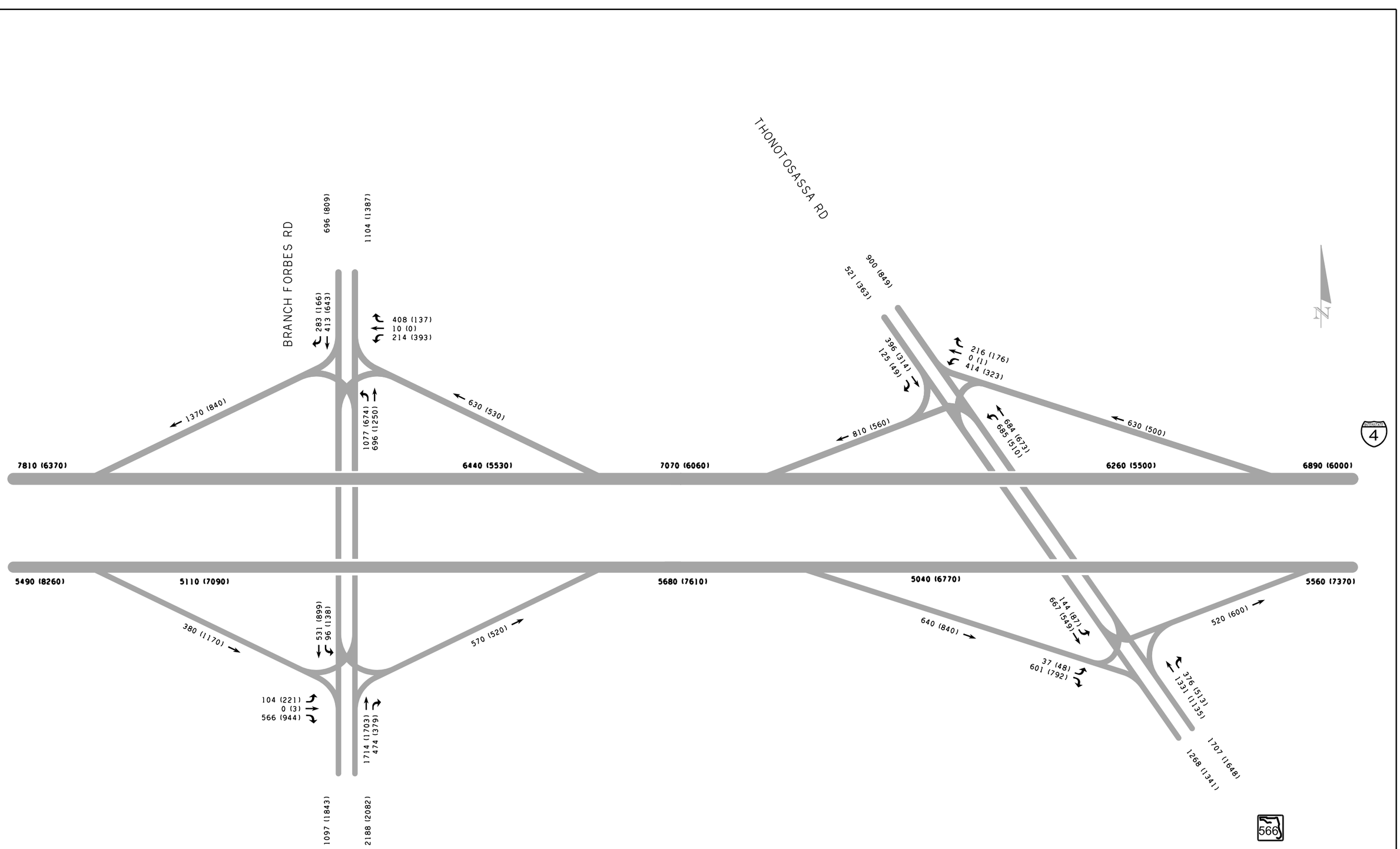


Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-32

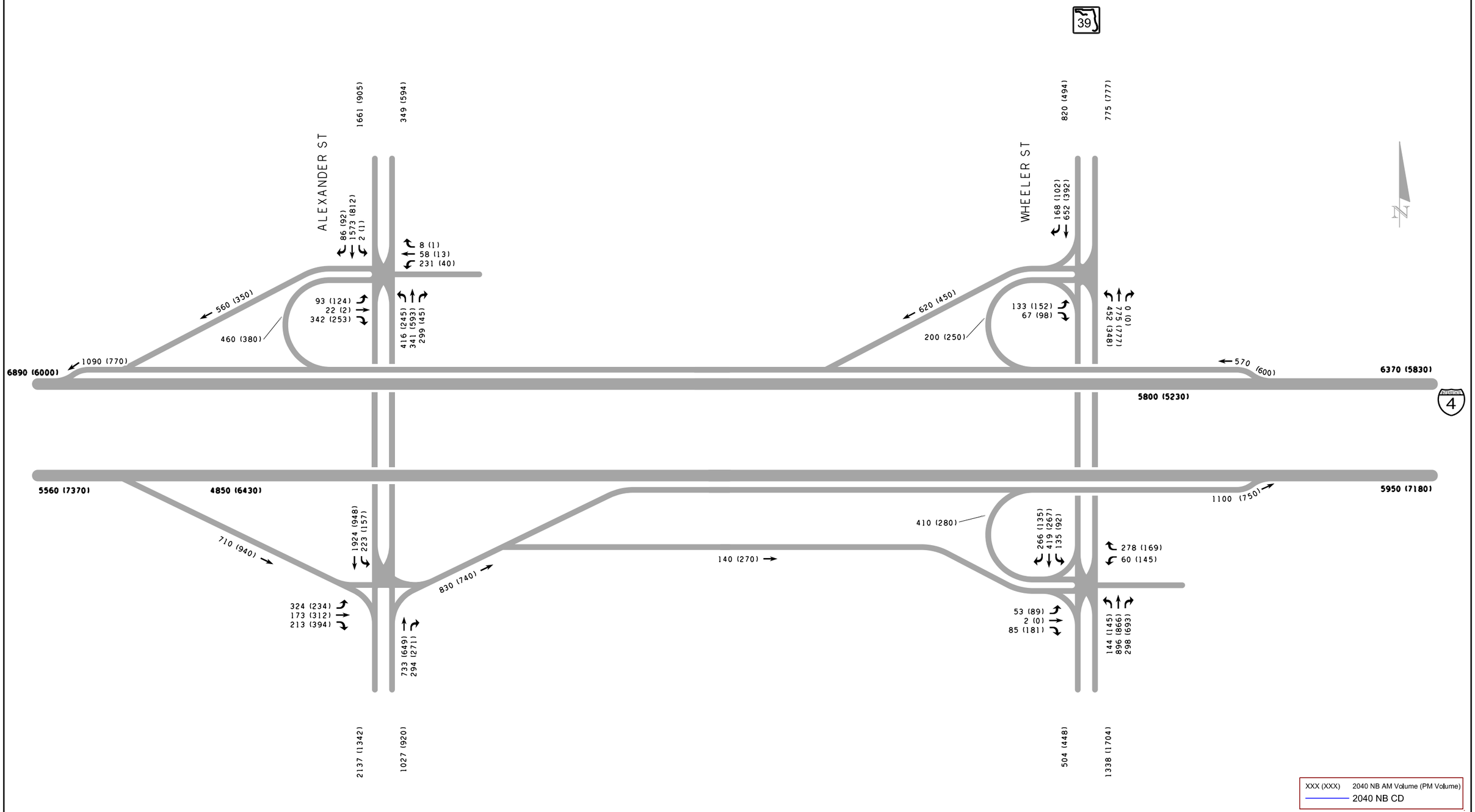


Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-33



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

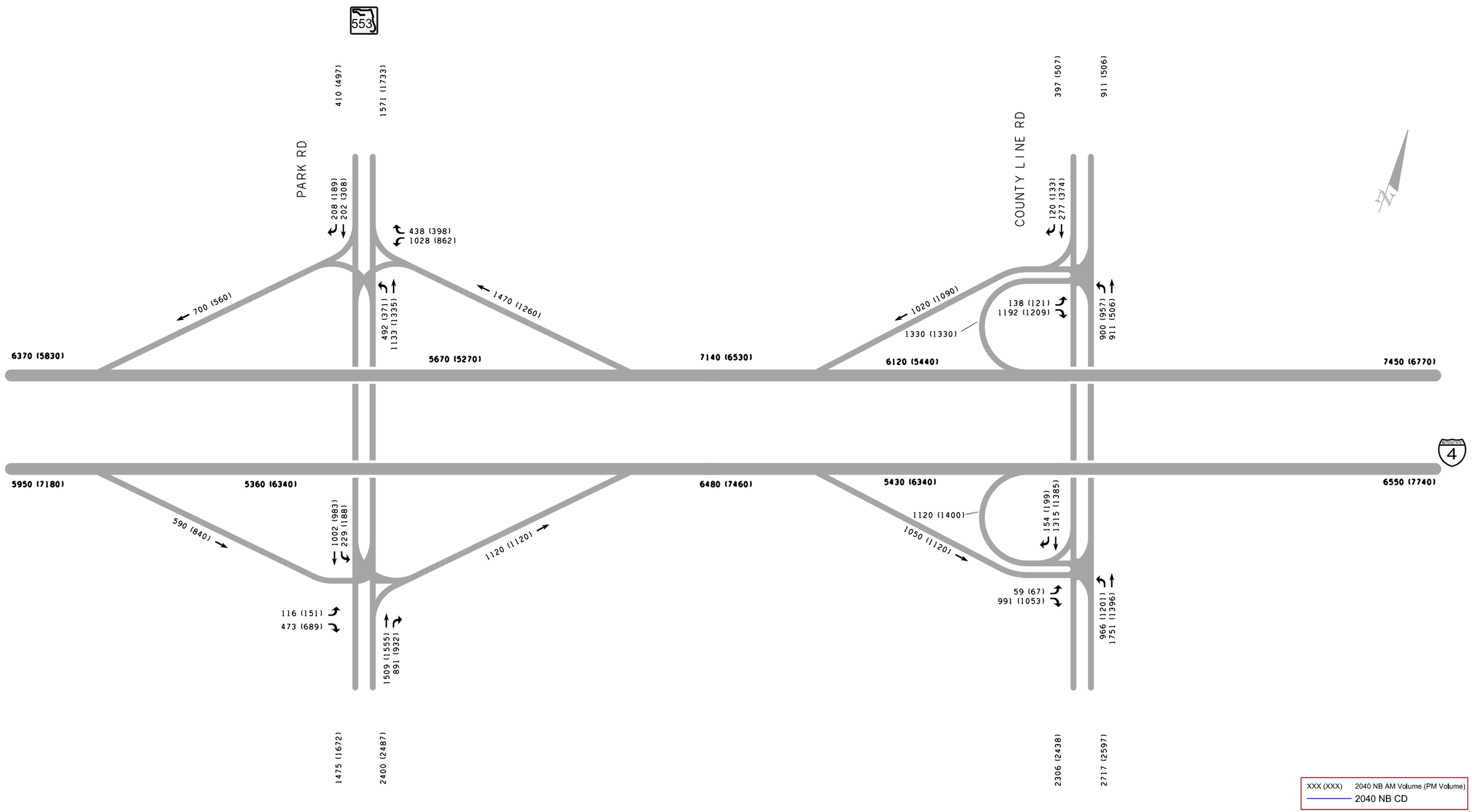
From 50th Street (US 41) to Polk Parkway (SR 570)

WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-34



Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

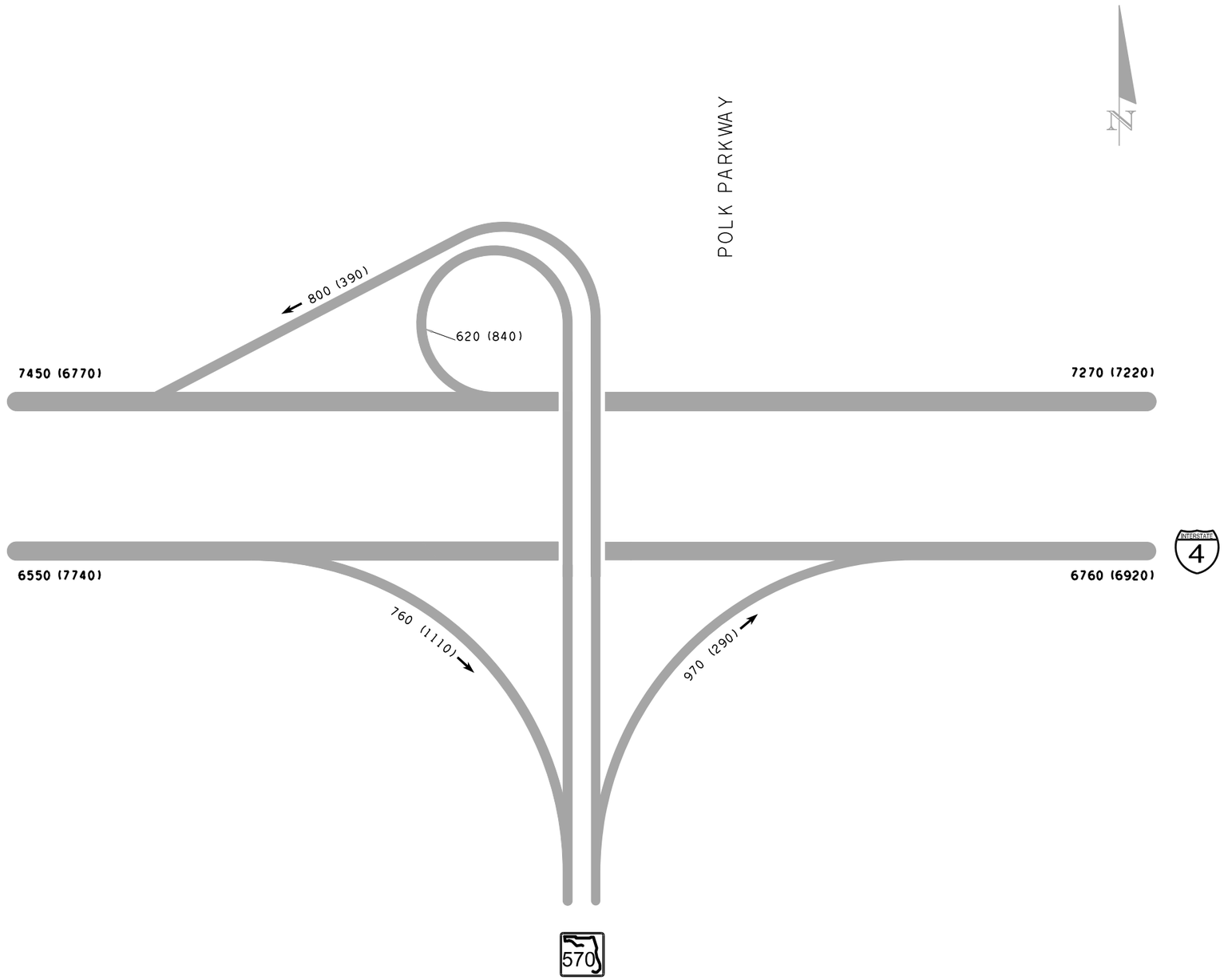
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-35



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

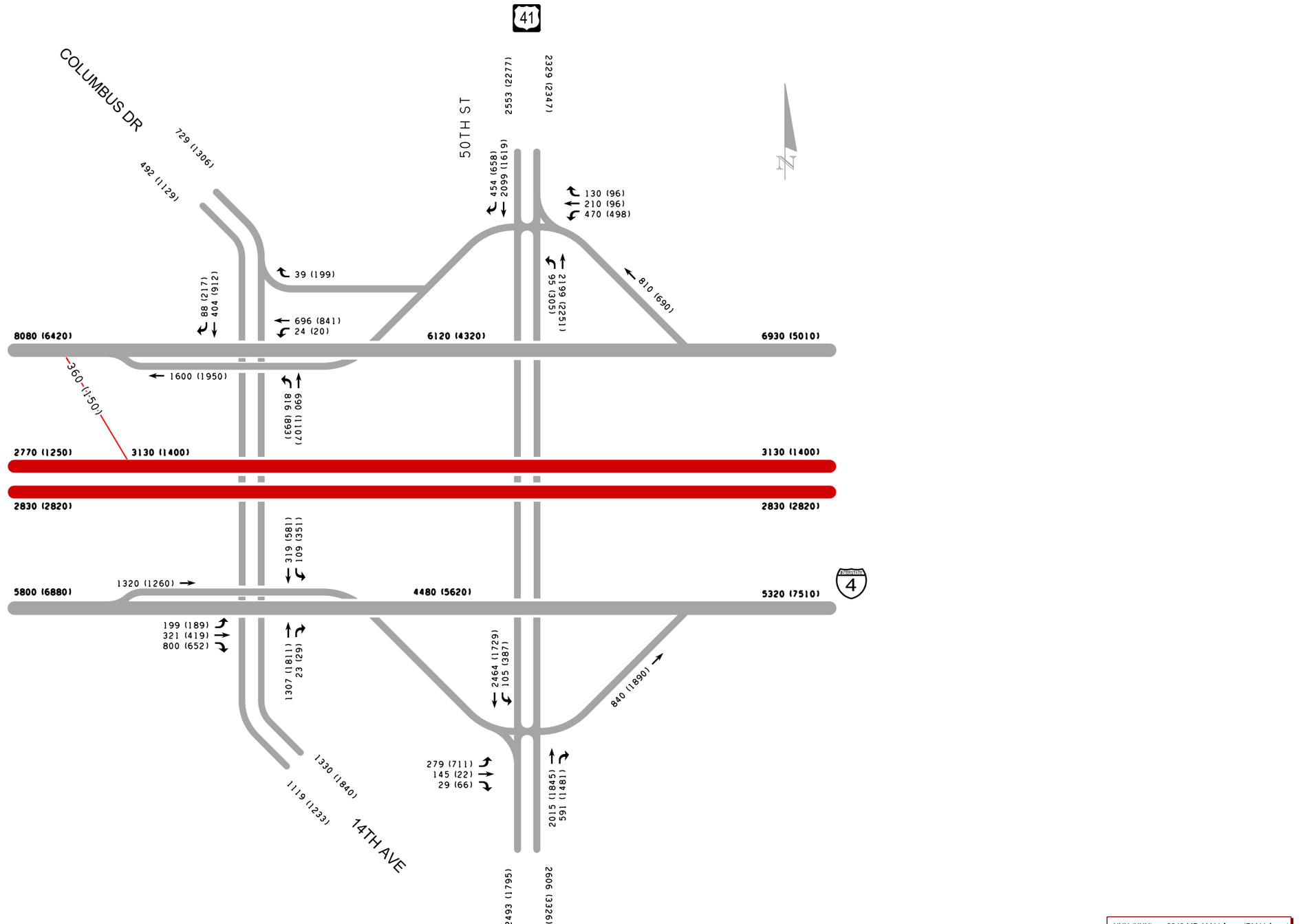
From 50th Street (US 41) to Polk Parkway (SR 570)

WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 No Build

Figure 3-36



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

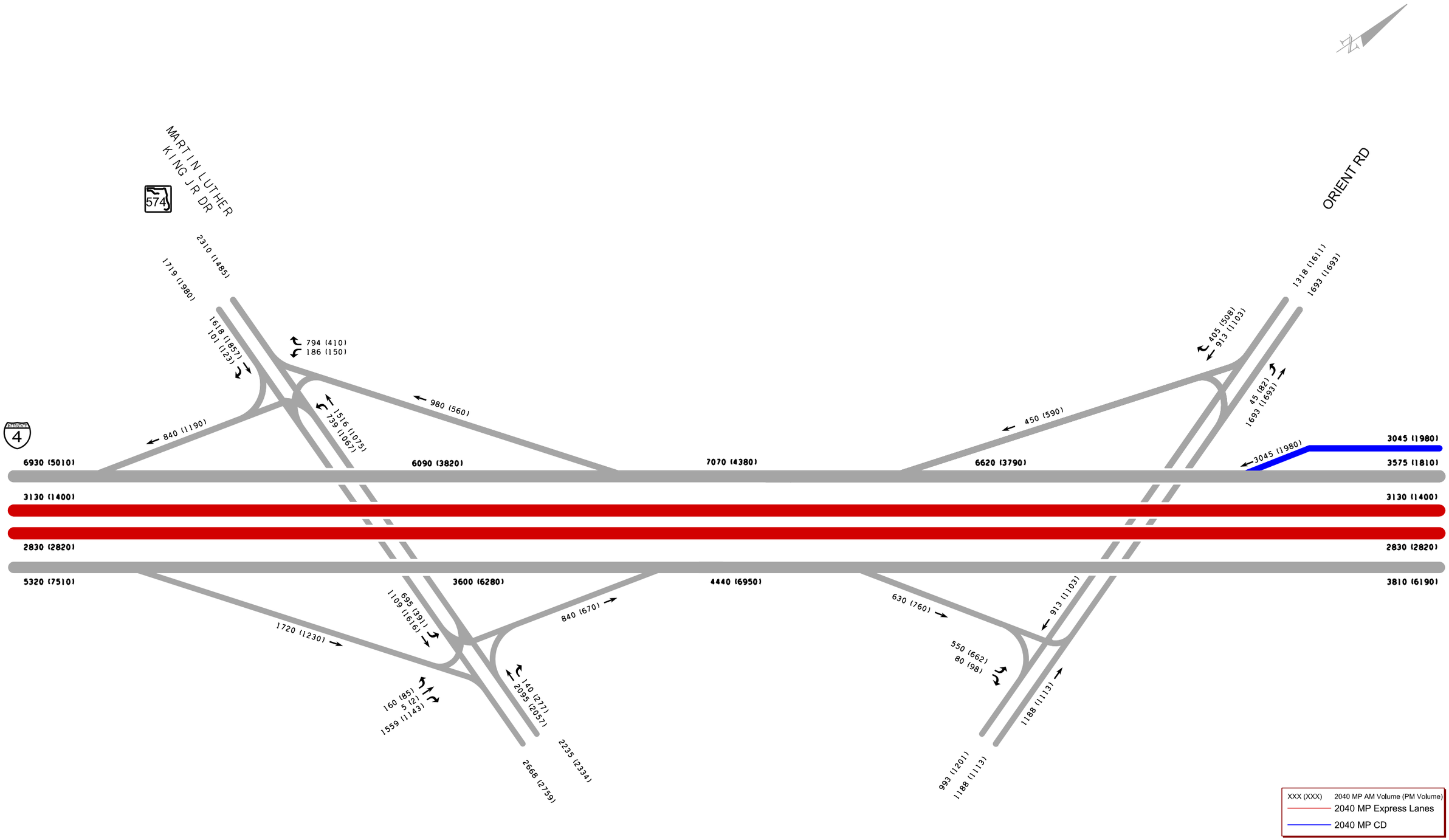
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-19



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

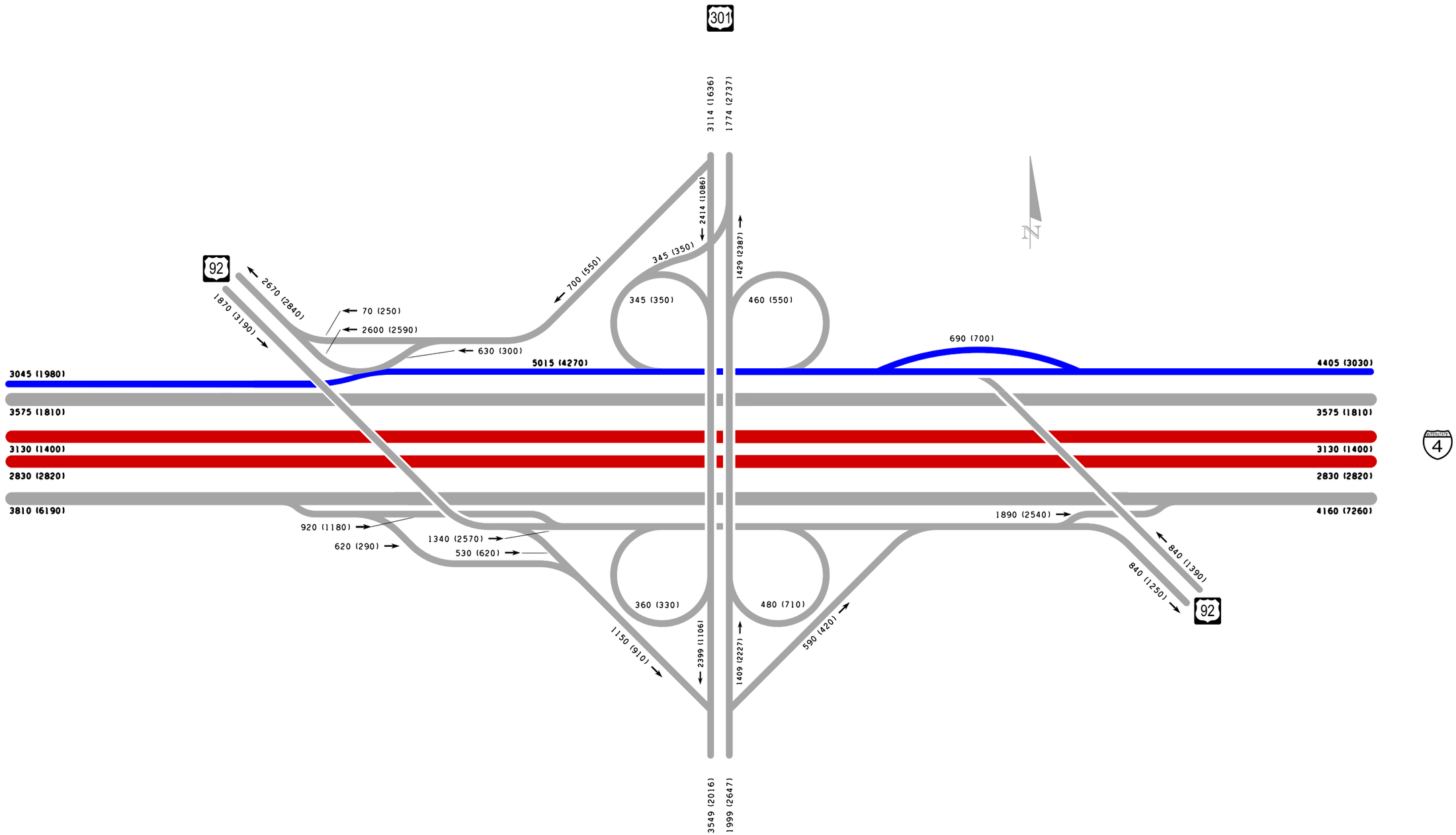
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-20



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

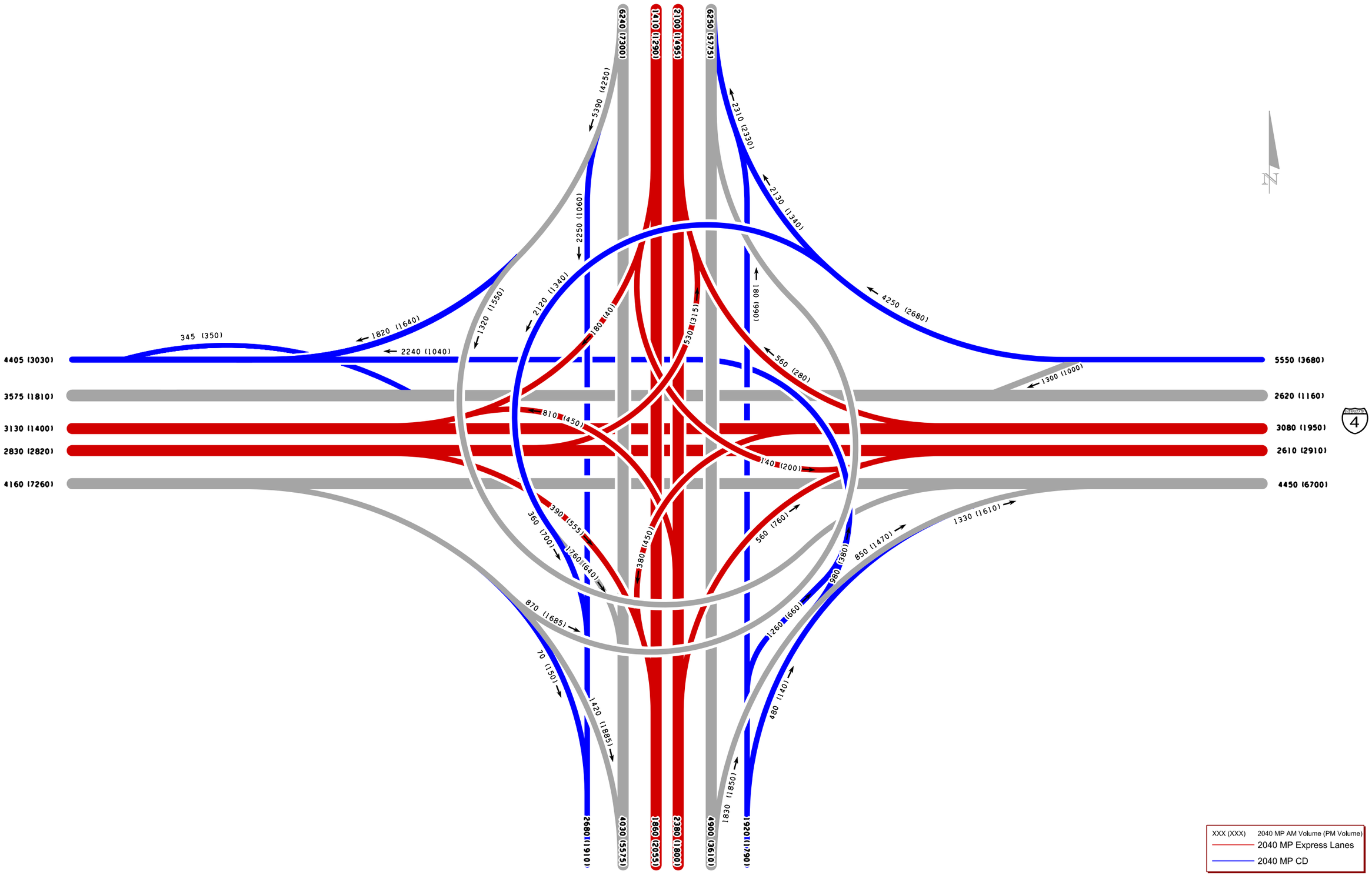
WPI Segment No: 431746-1

Hillsborough County

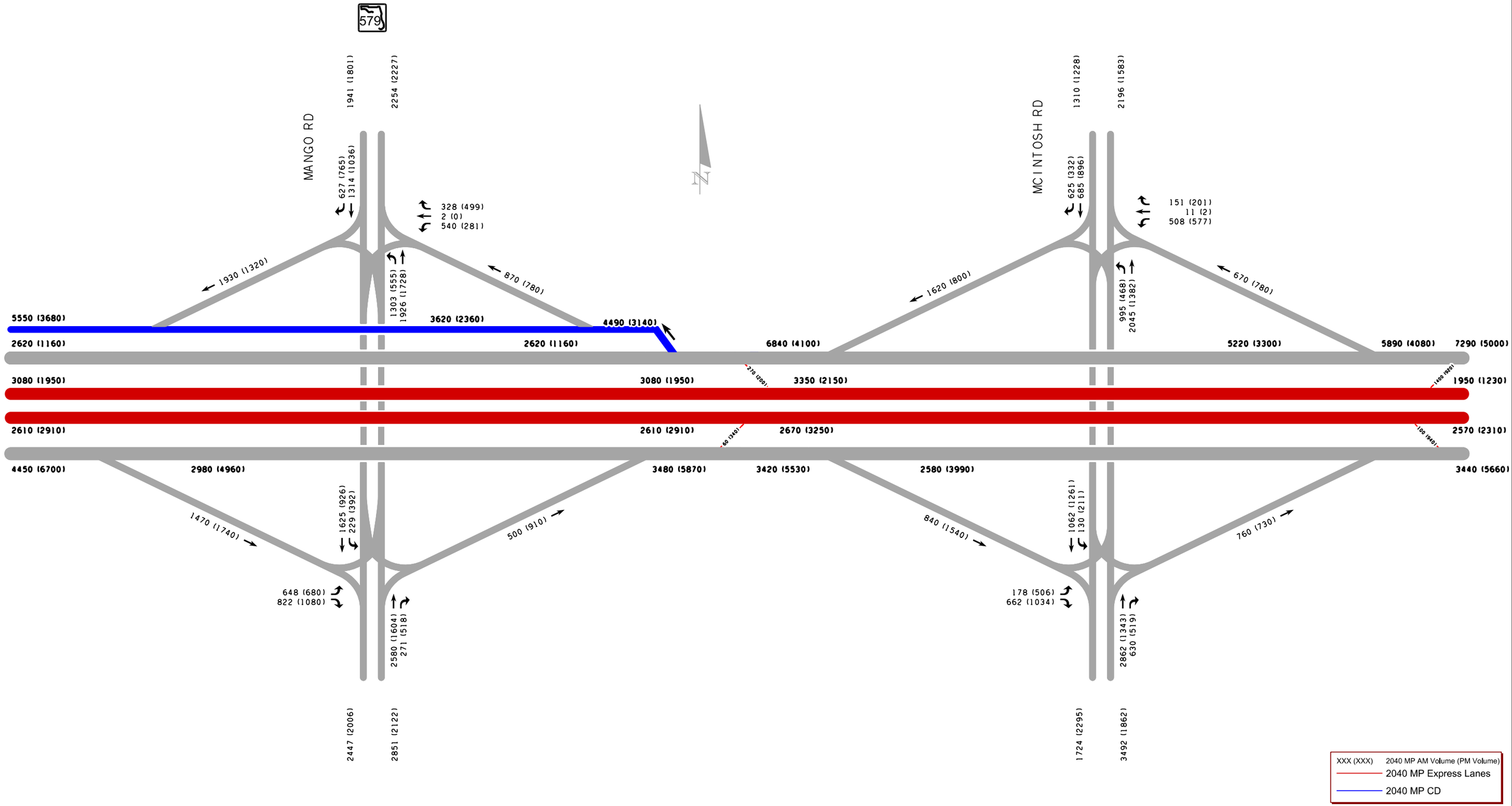
TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-21



FDOT TAMPA BAY EXPRESS	Interstate 4 (I-4/SR 400) Corridor PD&E Study *From 50th Street (US 41) to Polk Parkway (SR 570)* WPI Segment No: 431746-1 Hillsborough County	I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan	Figure 3-22



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

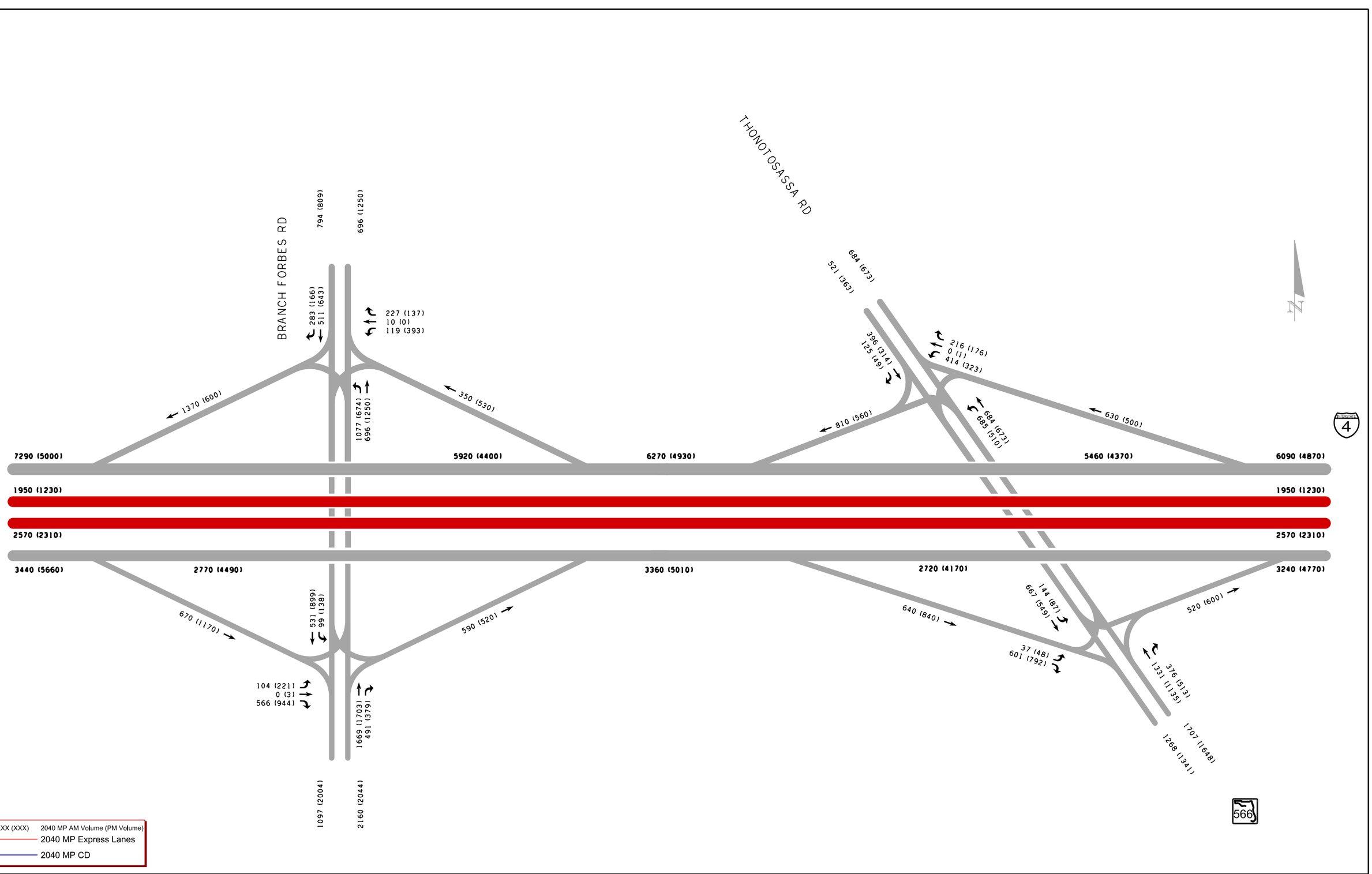
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-23



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

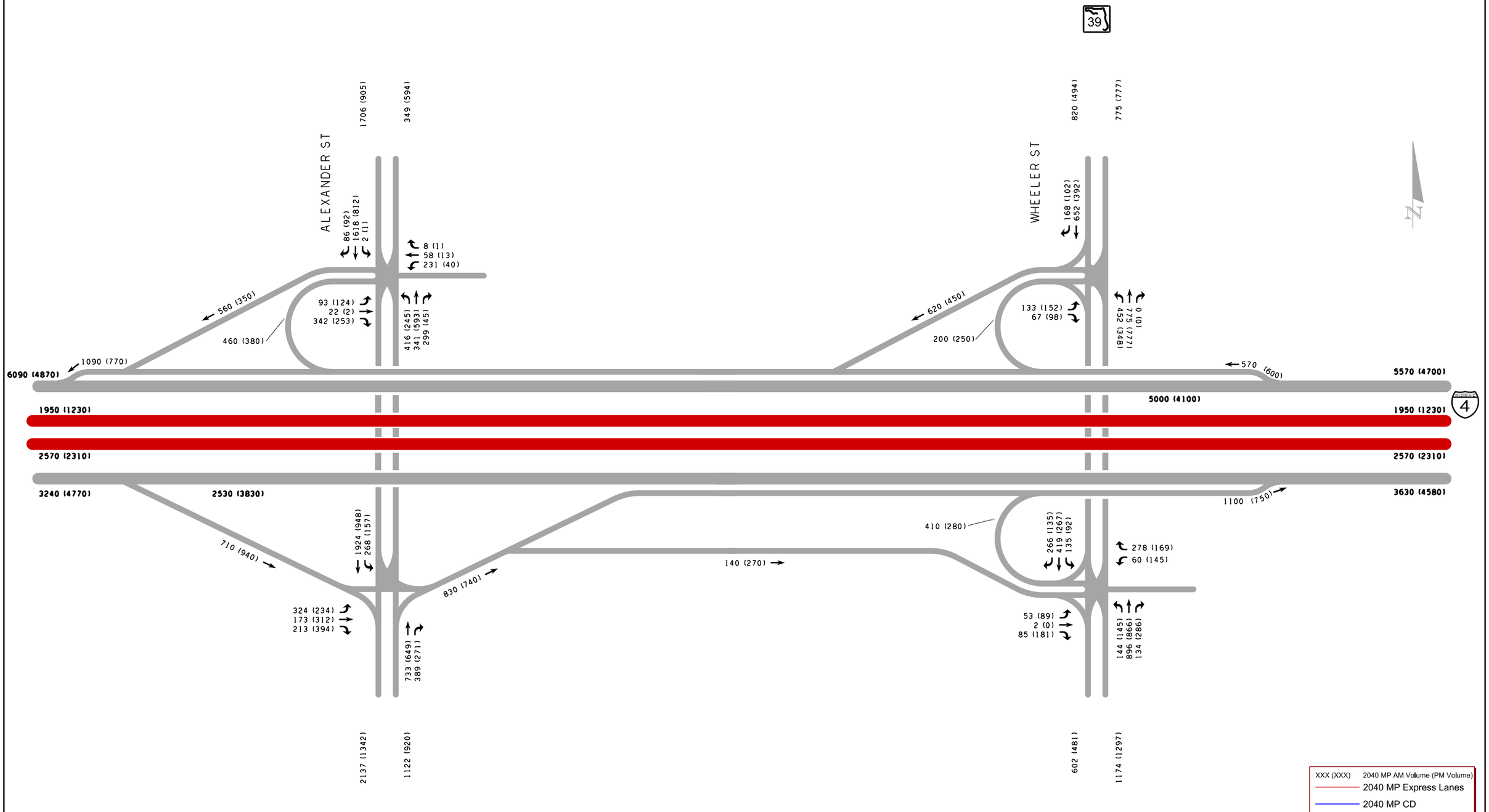
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-24



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

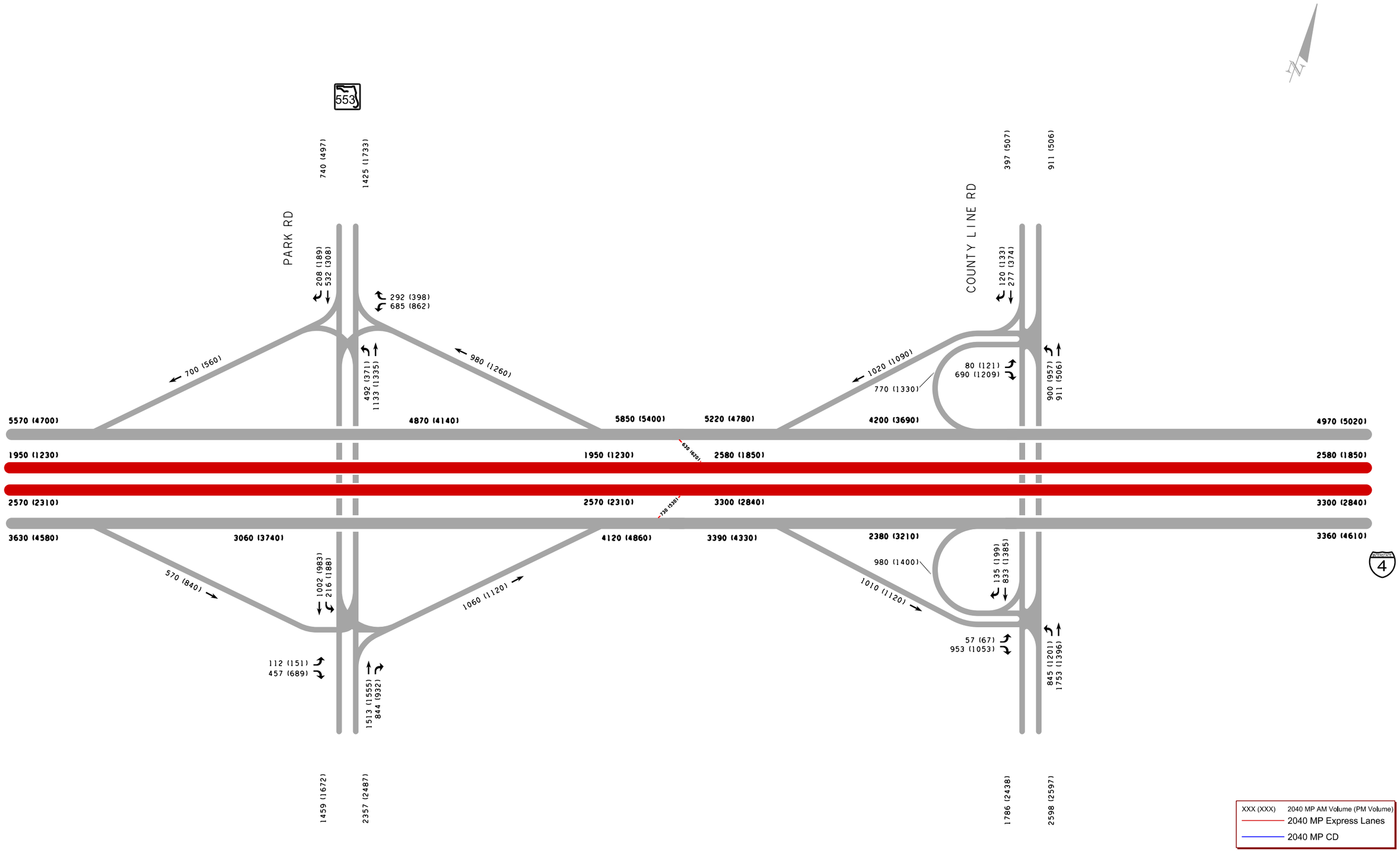
From 50th Street (US 41) to Polk Parkway (SR 570)

WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-25



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study

From 50th Street (US 41) to Polk Parkway (SR 570)

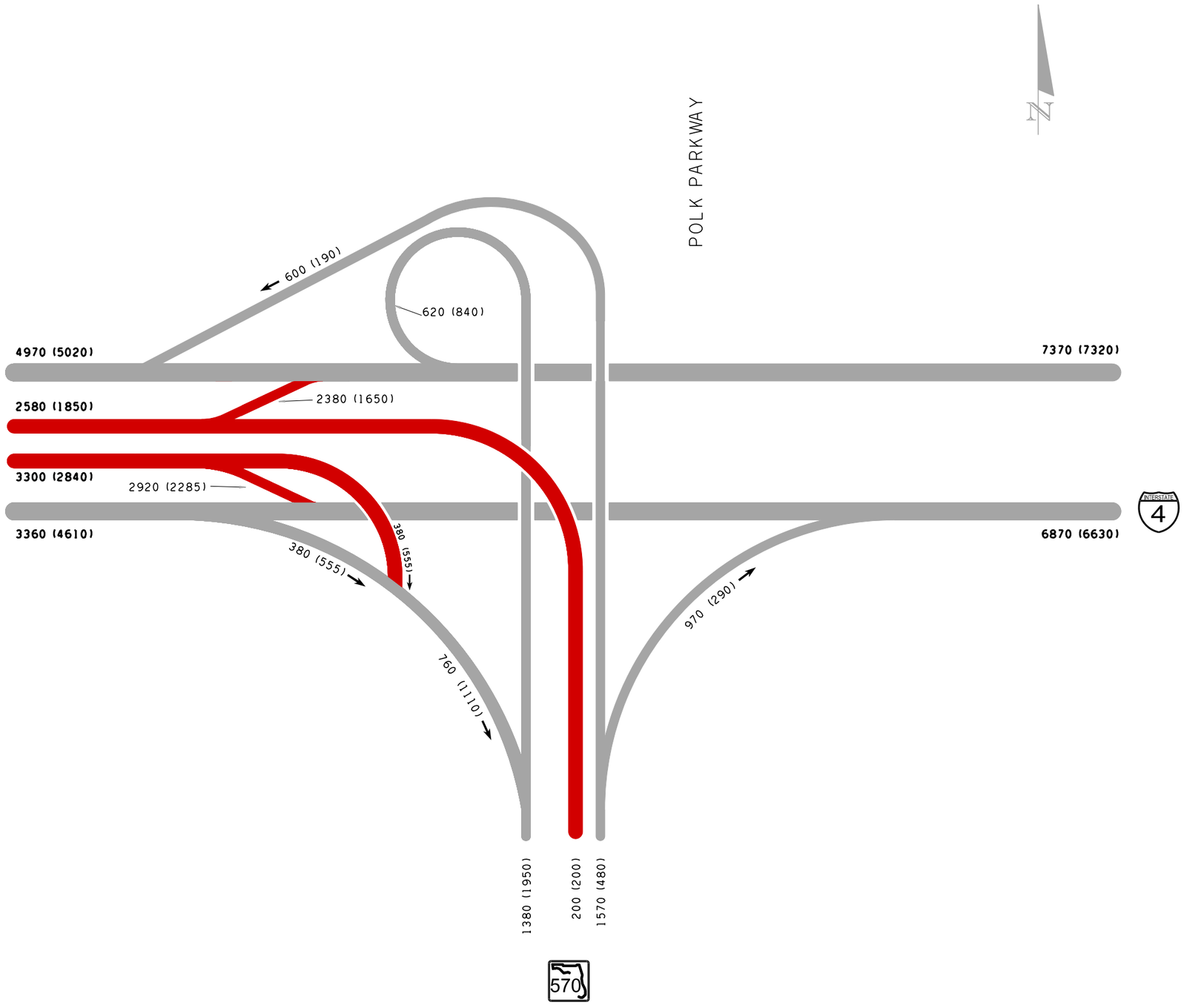
WPI Segment No: 431746-1

Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-26



FDOT

Interstate 4 (I-4/SR 400) Corridor PD&E Study
From 50th Street (US 41) to Polk Parkway (SR 570)
WPI Segment No: 431746-1
Hillsborough County

TAMPA BAY EXPRESS

I-4 Mainline and Ramps Directional Design Hour Volumes and Ramp Intersection Turning Movement Volumes for 2040 Master Plan

Figure 3-27

APPENDIX B

Noise Sensitive Receptors

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

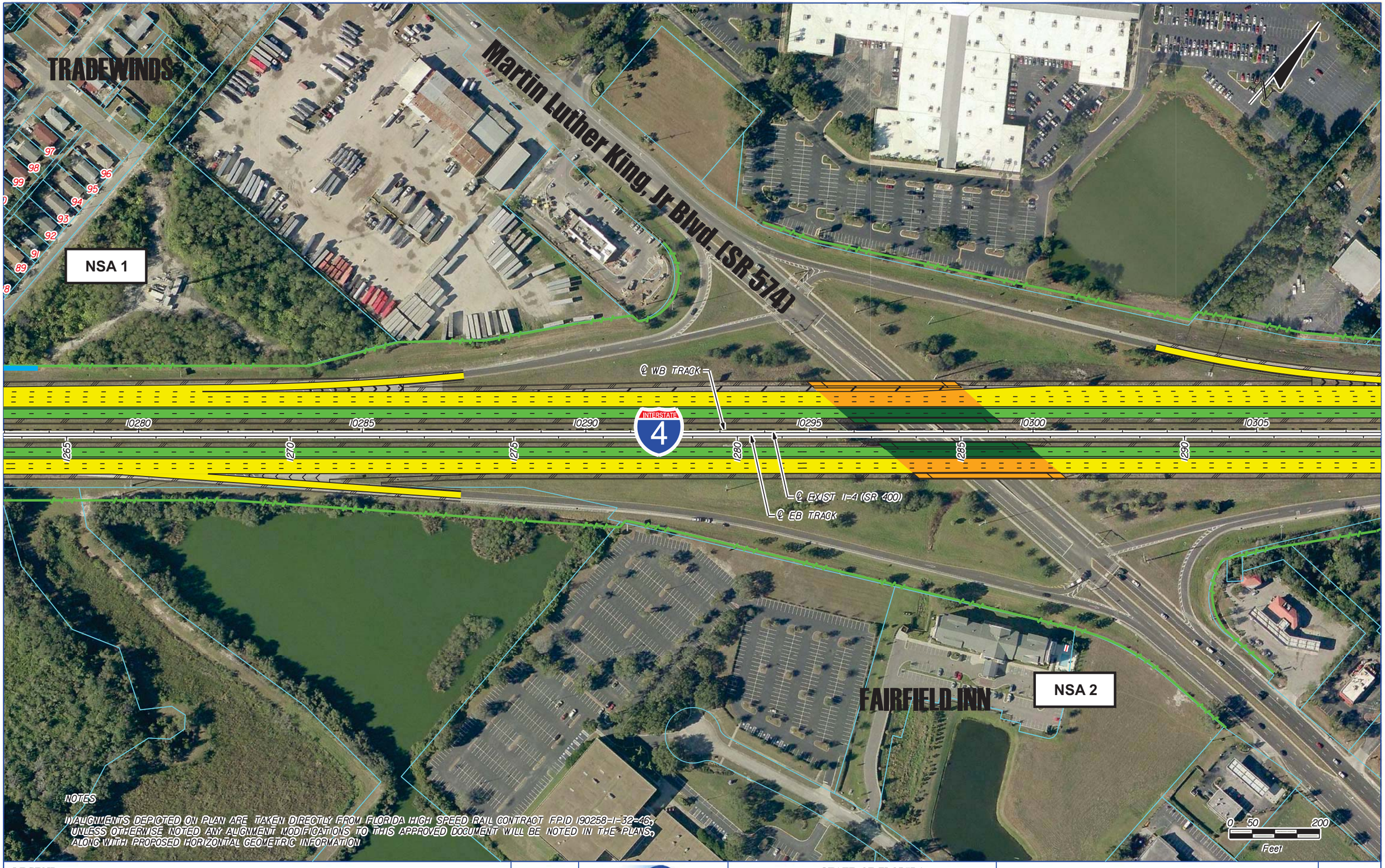
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 1

jroche 5/5/2015 11:29:37 AM J:\56636\CADD\43174612201\roadway\PLANRD01_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 2

jroche 5/5/2015 12:02:29 PM J:\56636\CADD\43174612201\roadway\PLANRD02_R-U.DGN

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

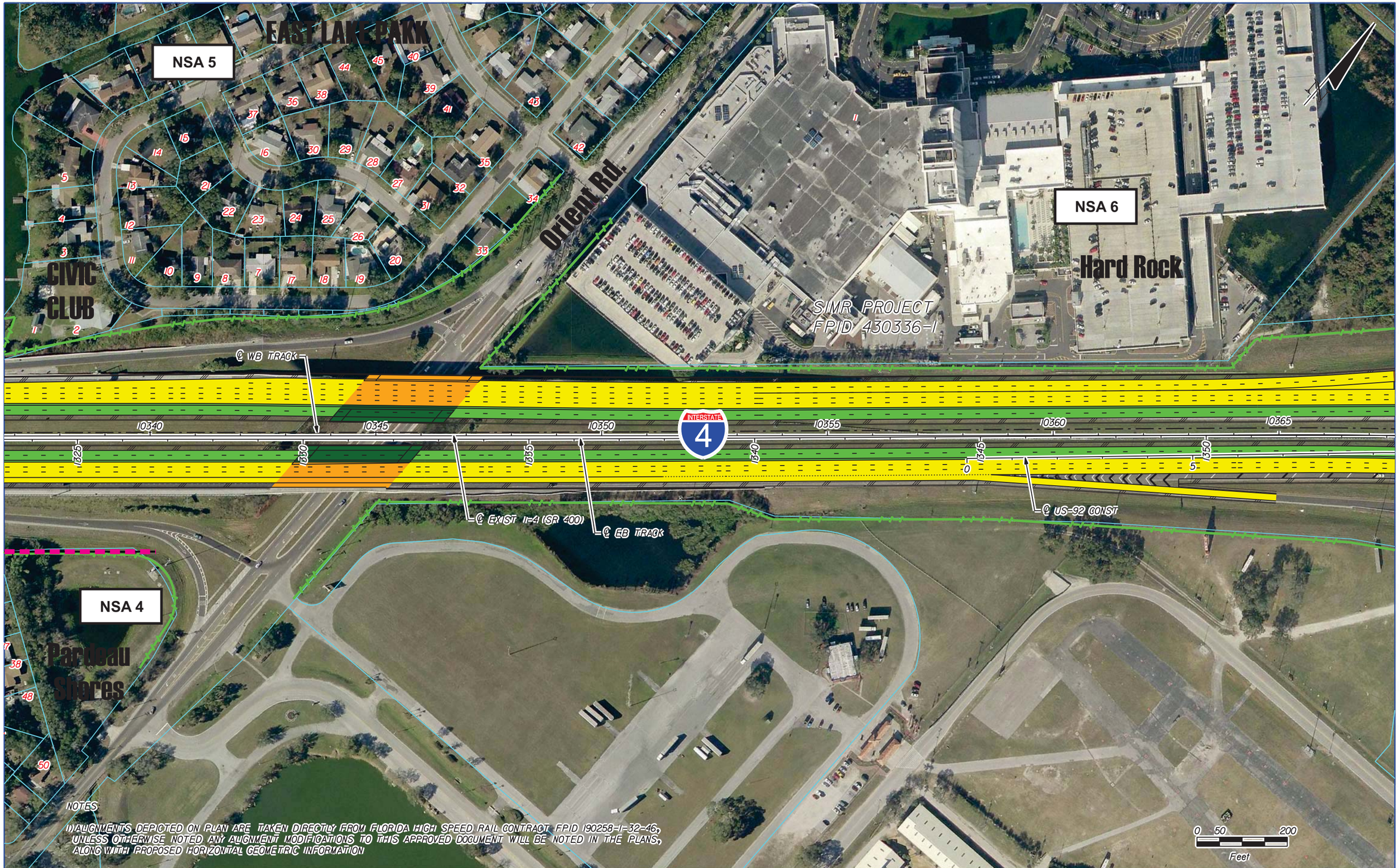
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 3

jroche 5/5/2015 12:13:12 PM J:\56636\CADD\43174612201\roadway\PLANRD03_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

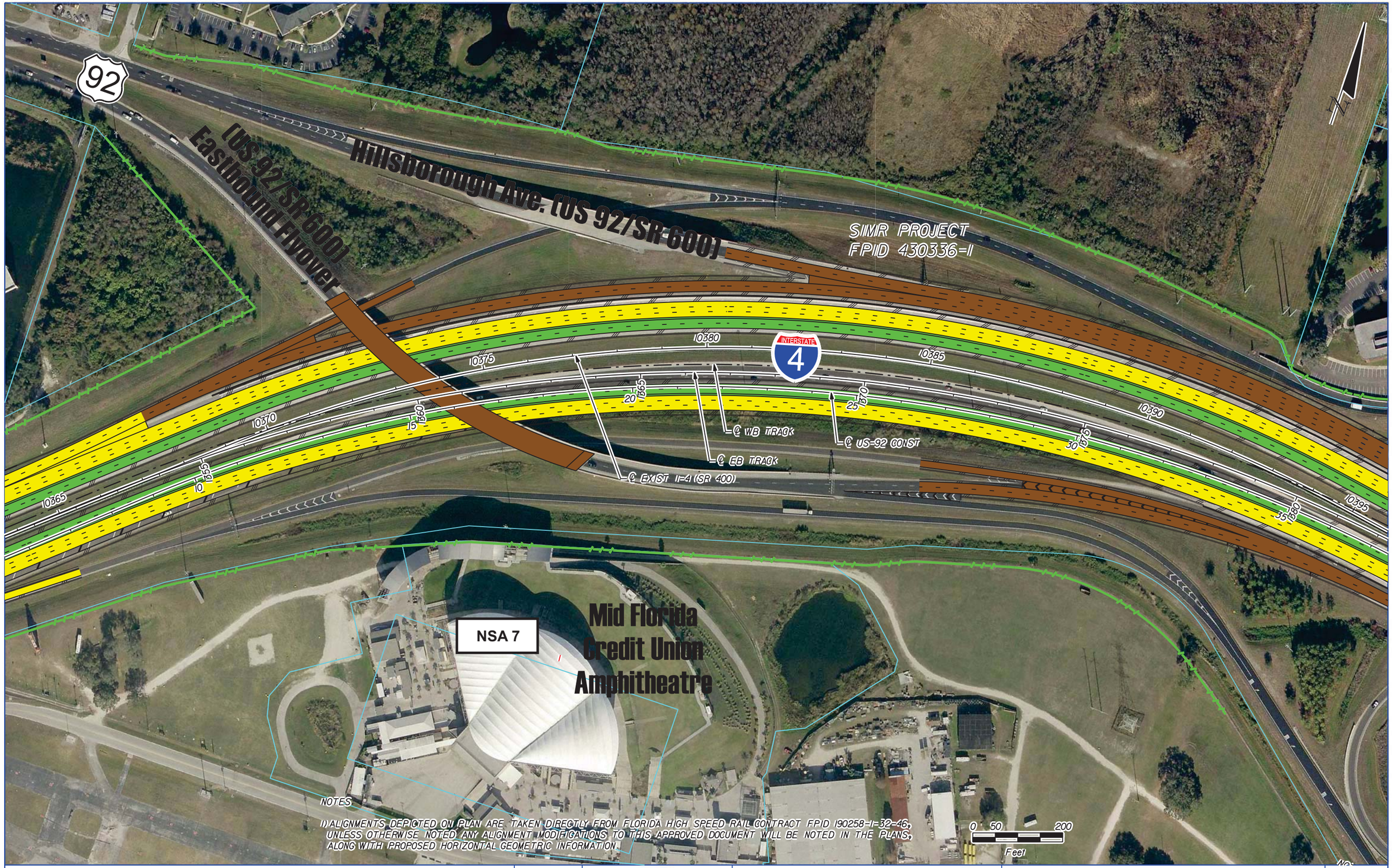
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 4

jroche 5/5/2015 12:14:20 PM J:\56636\CADD\43174612201\roadway\PLANRD04_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 5

jroche 5/5/2015 12:15:09 PM J:\56636\CADD\43174612201\roadway\PLANRD05_R-U.DGN

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 90258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

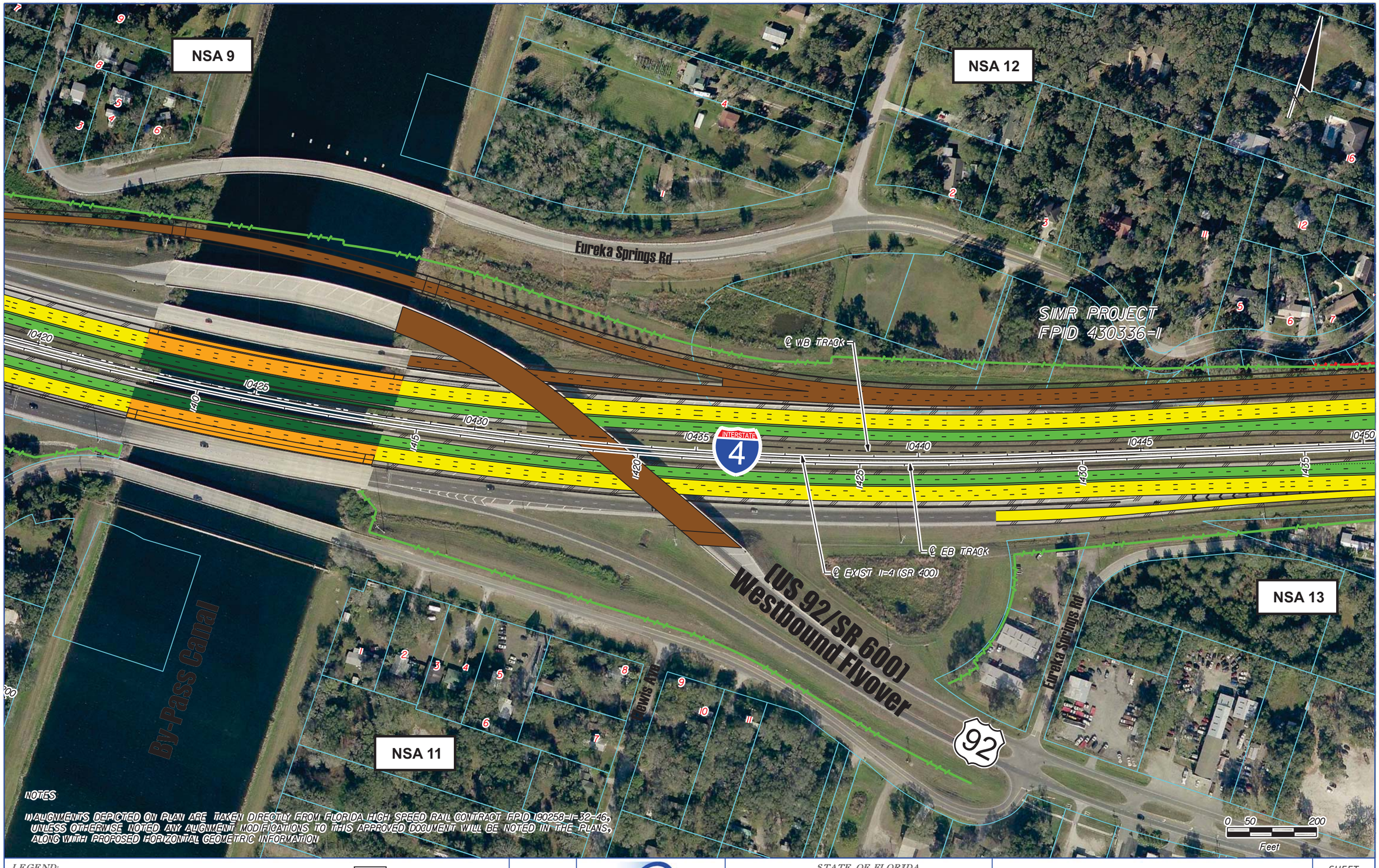
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 6

jroche 5/5/2015 12:15:50 PM J:\56636\CADD\43174612201\roadway\PLANRD06_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

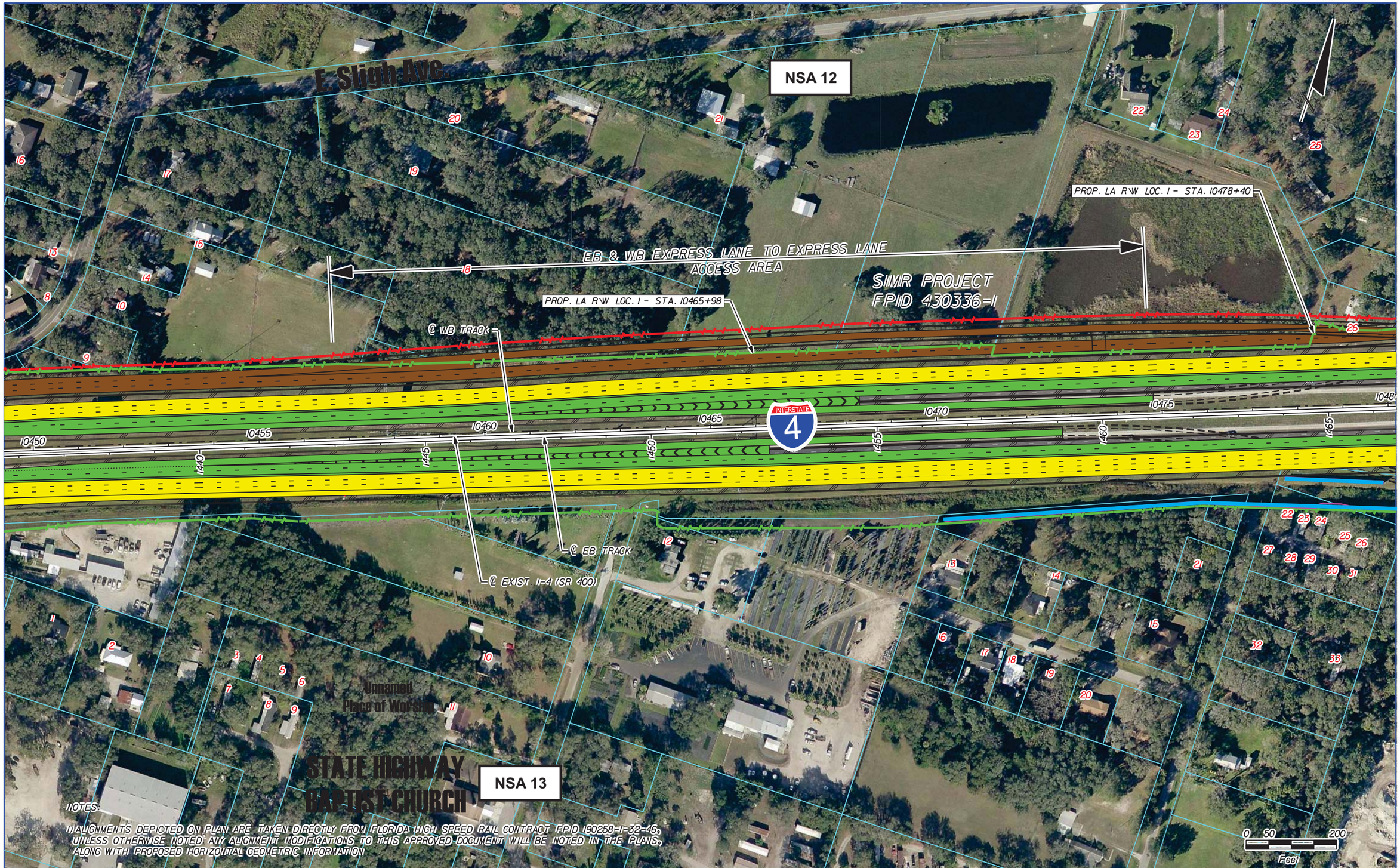
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 7

jroche 5/5/2015 12:16:52 PM J:\56636\CADD\43174612201\roadway\PLANRD07_R-U.DGN



NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 8

jroche 5/5/2015 12:17:36 PM J:\56636\CADD\43174612201\roadway\PLANRD08_R-U.DGN

NSA 12

PROP. LA RW LOC. 2 - STA. 10479+35 TO STA. 10481+57

SIMR PROJECT
FPID 430336-1

℄ WB TRACK

℄ EXIST I-4 (SR 400)

℄ EB TRACK

NSA 13

I-75 (SR 93)

SIMR PROJECT
FPID 430335-1

0 50 200
Feet

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 9

jroche 5/5/2015 12:18:15 PM J:\56636\CADD\43174612201\roadway\PLANRD09_R-U.DGN

WB EXPRESS LANE TO EXPRESS LANE ACCESS AREA

END FPID 190258-1-32-46 HSR ALIGNMENT
BEGIN I-4 (SR 400) RE-ALIGNMENT

PROP. LA R/W LOC. 3 - STA. 102+43

I-4 (SR 400) WB RE-ALIGNMENT
RADIUS = 50,000'
DELTA ANGLE = 3° 31' 38" LT

I-4 (SR 400) EB RE-ALIGNMENT
RADIUS = 50,026'
DELTA ANGLE = 3° 31' 38" LT

℄ WB TRACK

℄ EXIST I-4 (SR 400)

℄ EB TRACK

PC STA 100+00.00

PC STA 200+00.00

Williams Rd.

SIMR PROJECT
FPID 435726-1

SIMR PROJECT
FPID 430335-1

SIMR PROJECT
FPID 430335-1

NSA 14

NSA 15

LANDMARK BAPTIST MINISTRIES CHURCH

0 50 200
Feet

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

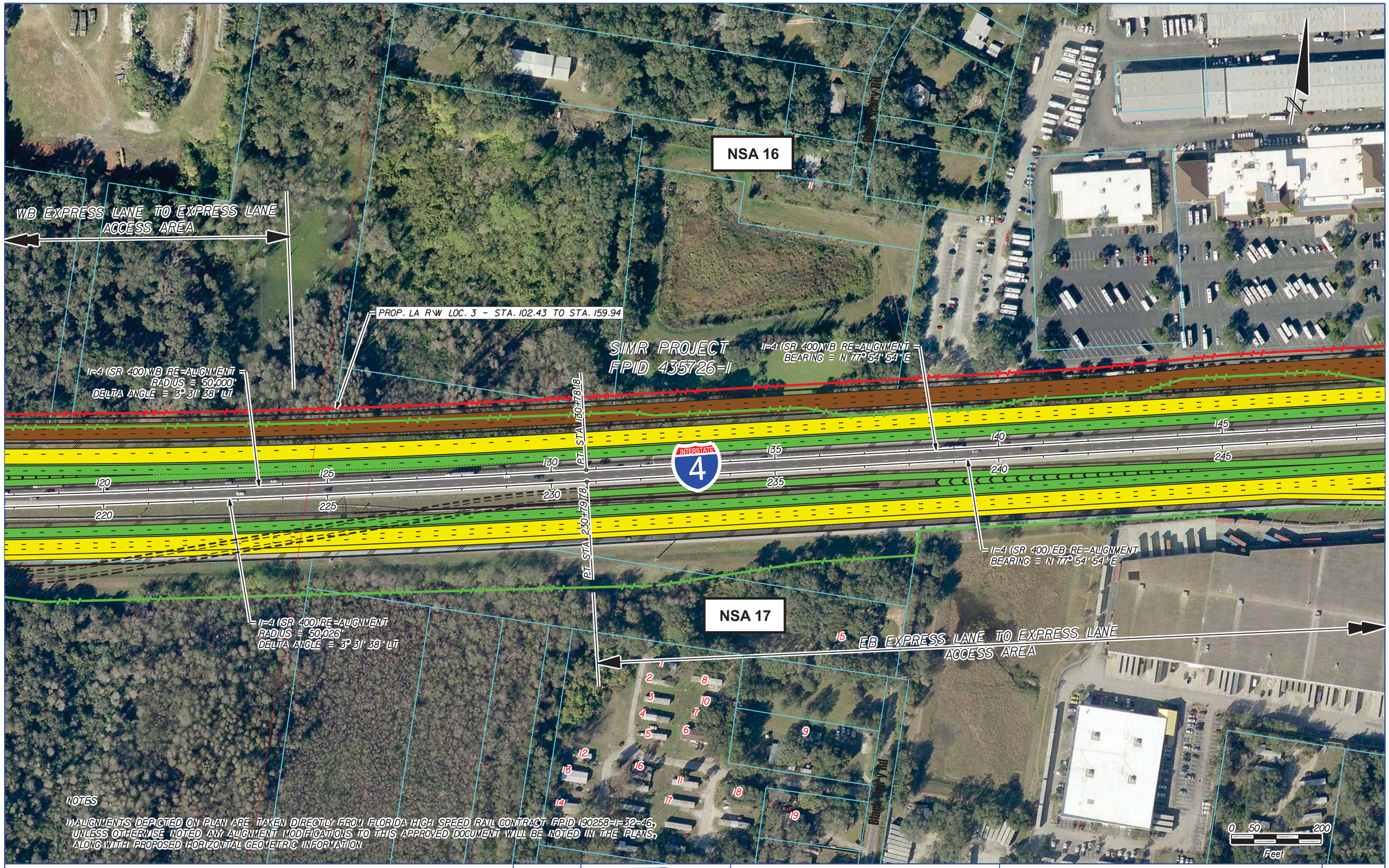
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 10

jroche 5/5/2015 12:19:18 PM J:\56636\CADD\43174612201\roadway\PLANRD10_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

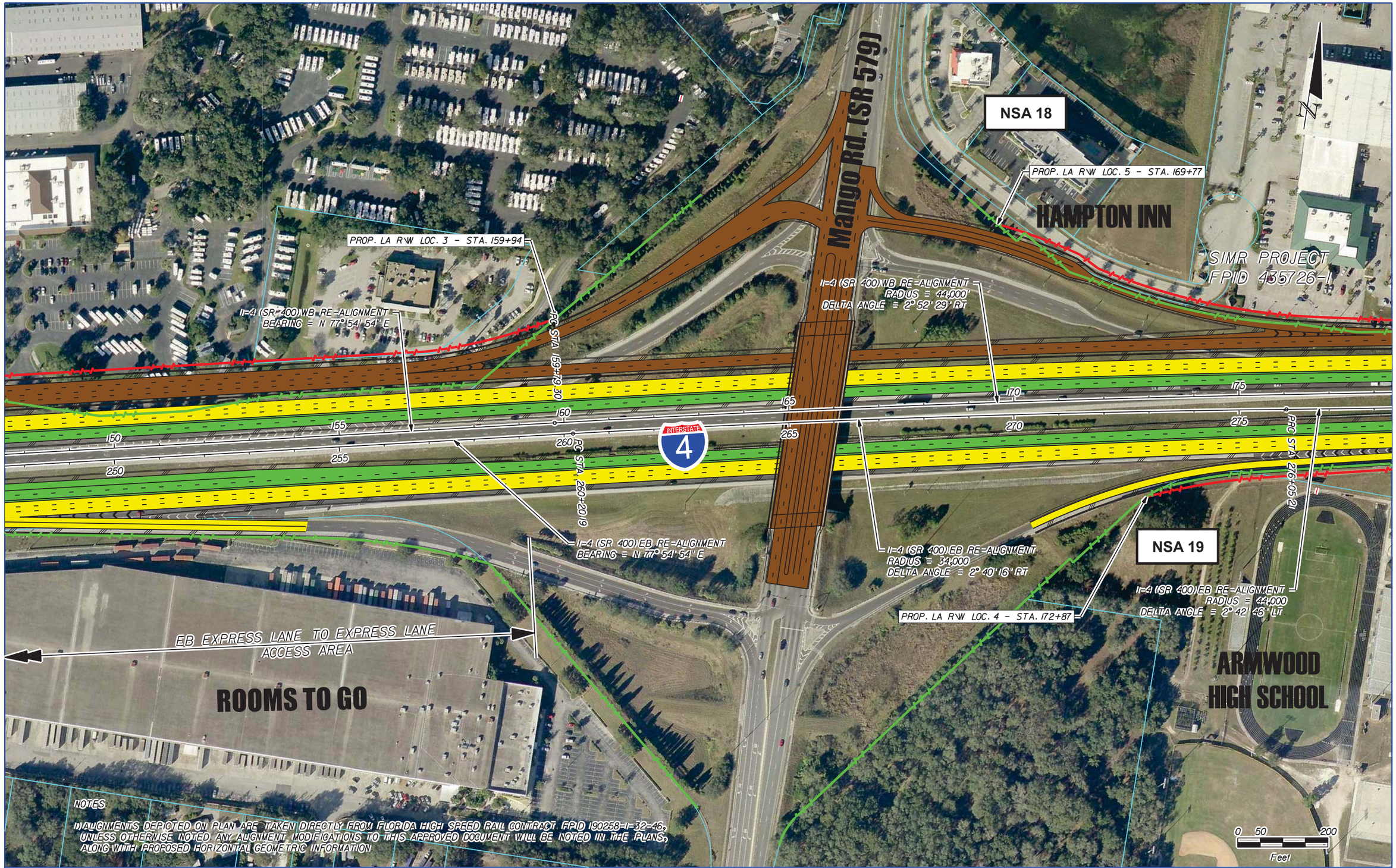
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 11

jroche 5/5/2015 12:19:53 PM J:\56636\CADD\43174612201\roadway\PLANRD11_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 12

jroche 5/5/2015 12:20:30 PM J:\56636\CADD\43174612201\roadway\PLANRD12_R-U.DGN

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

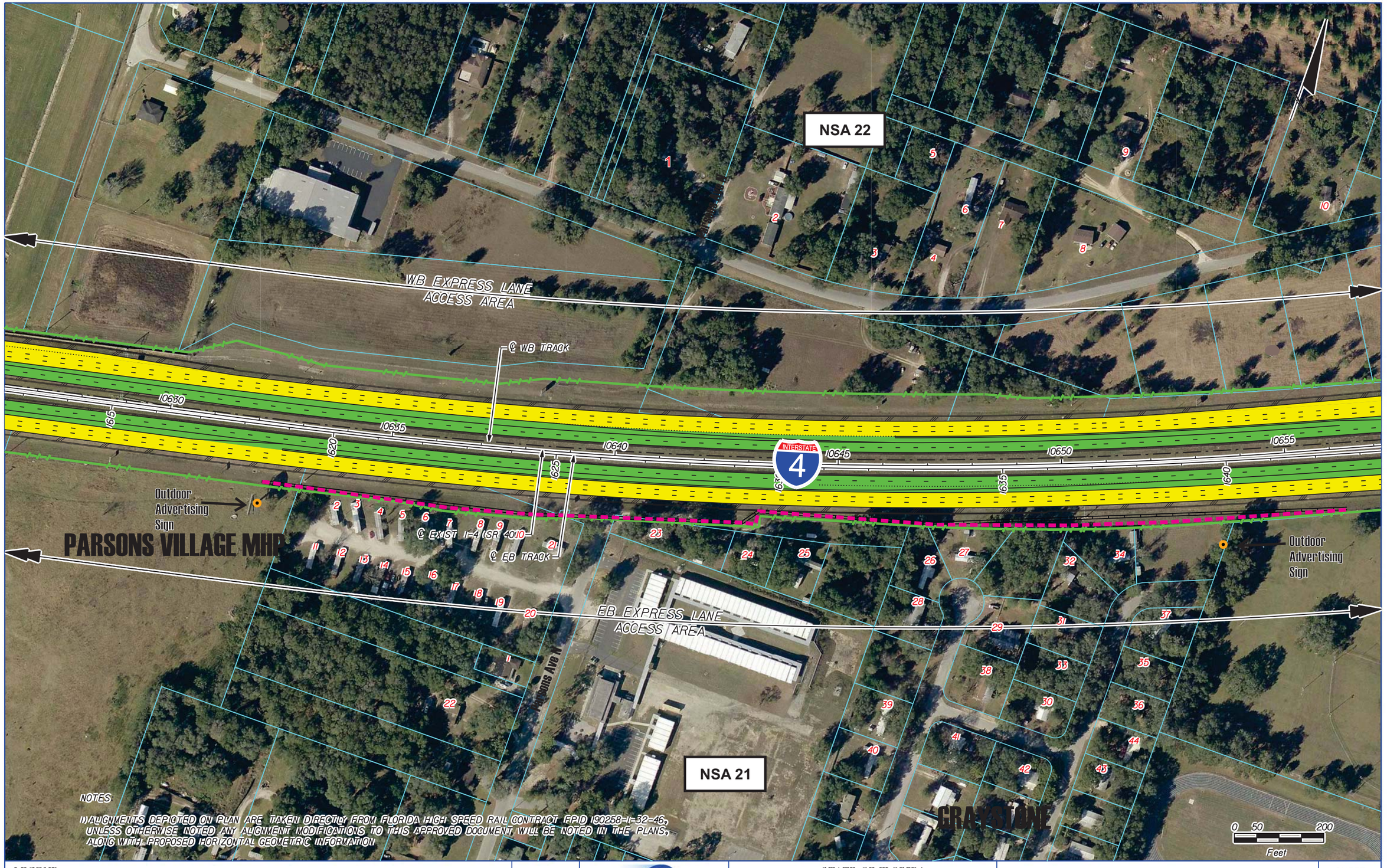
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 13

jroche 5/5/2015 12:21:11 PM J:\56636\CADD\43174612201\roadway\PLANRD13_R-U.DGN



NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-52-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 / 14 — NOISE SENSITIVE AREA RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 14

jroche 5/5/2015 12:21:47 PM J:\56636\CADD\43174612201\roadway\PLANRD14_R-U.DGN

NSA 22

N. Kingsway Rd

PROP. LA R\W LOC. 7
STA. 10681+11 TO
STA. 10686+73

WB EXPRESS LANE
ACCESS AREA

℄ WB TRACK

INTERSTATE 4

10660 10665 10670 10675 10680 10685

645 650 655 660 665 670

℄ EXIST I-4 (SR 400)

℄ EB TRACK

NSA 24

EVANS RECREATIONAL CENTER

EB EXPRESS LANE
ACCESS AREA

PROP. LA R\W LOC. 6 - STA. 10672+56

PROP. LA R\W LOC. 6 - STA. 10679+34

NSA 23

KINGSWAY SUBDIVISION

0 50 200
Feet

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-52-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 15

jroche 5/5/2015 12:22:25 PM J:\56636\CADD\43174612201\roadway\PLANRD15_R-U.DGN

WESTBOUND WEIGH STATION

PROP. LA RW LOC. 7
STA. 10681+11 TO
STA. 10686+73

PROP. LA RW LOC. 8 - STA. 10710+90

℄ WB TRACK

℄ EB TRACK

℄ EXIST. I-4 (SR 400)

10685 10690 10695 10700 10705 10710

675 680 685 690 695 700

INTERSTATE 4

EASTBOUND WEIGH STATION

NSA 24

KINGSWAY SUBDIVISION

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 / 14 NOISE SENSITIVE AREA RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

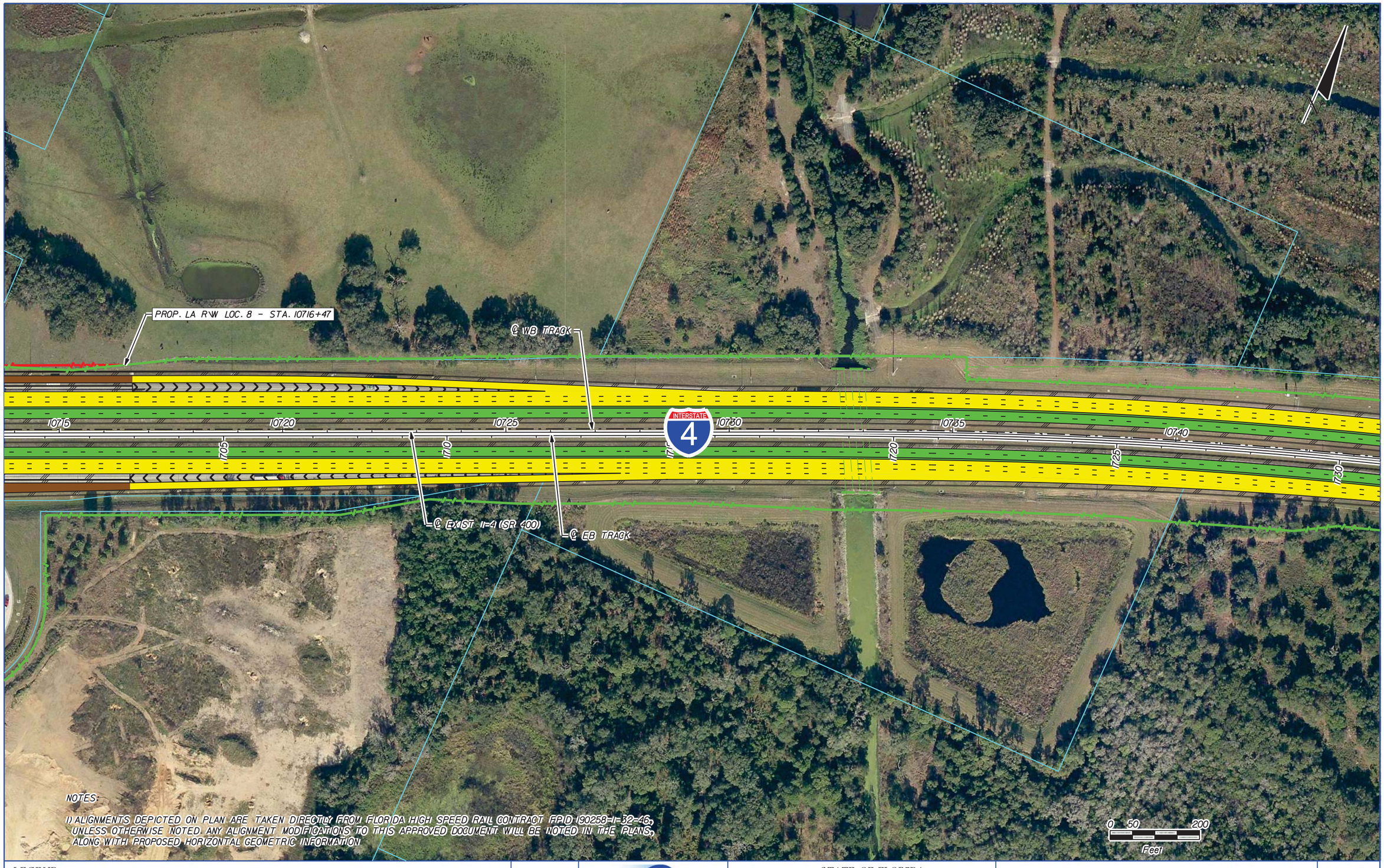
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 16

jroche 5/5/2015 12:23:10 PM J:\56636\CADD\43174612201\roadway\PLANRD16_R-U.DGN



LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 / 14 — NOISE SENSITIVE AREA RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

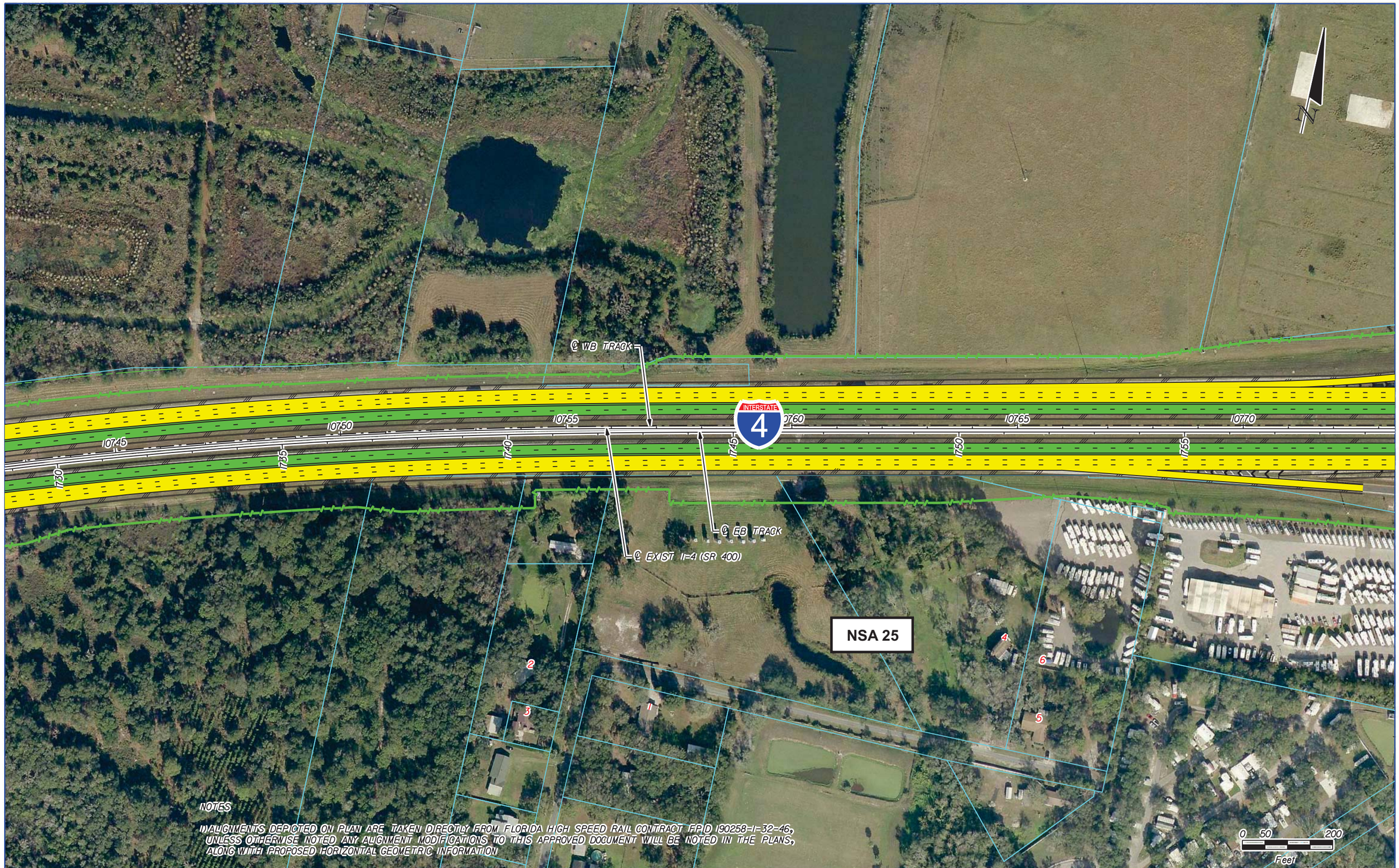
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 17

jroche 5/5/2015 12:23:55 PM J:\56636\CADD\43174612201\roadway\PLANRD17_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

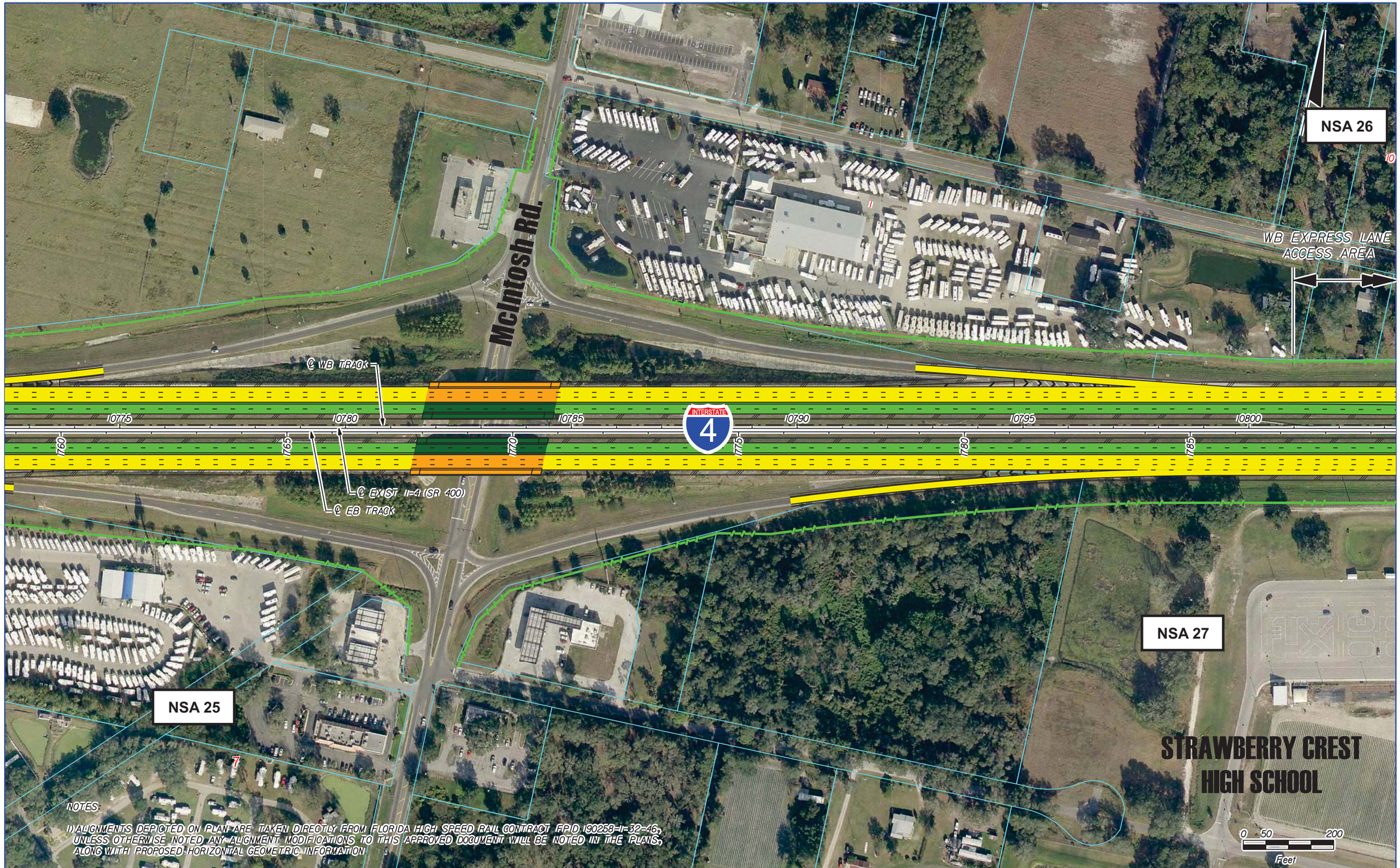
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 18

jroche 5/5/2015 12:24:30 PM J:\56636\CADD\43174612201\roadway\PLANRD18_R-U.DGN



NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 19

jroche 5/5/2015 12:25:07 PM J:\56636\CADD\43174612201\roadway\PLANRD19_R-U.DGN

NSA 26

NSA 27

NSA 28

W.B. EXPRESS LANE
ACCESS AREA

℄ W.B. TRACK

℄ EXIST. I-4 (SR 400)

℄ E.B. TRACK

E.B. EXPRESS LANE
ACCESS AREA

INTERSTATE 4

10805 10810 10815 10825 10830

790 795 800 805 810 815

STRAWBERRY CREST
HIGH SCHOOL

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 20

jroche 5/5/2015 12:25:52 PM J:\56636\CADD\43174612201\roadway\PLANRD20_R-U.DGN

WB EXPRESS LANE
ACCESS AREA

℄ WB TRACK

10835 10840 10845 10850 10855 10860

820 825 830 835 840 845

INTERSTATE 4

℄ EB TRACK

℄ EXIST I-4 (SR 400)

EB EXPRESS LANE
ACCESS AREA

NSA 28

3

N

0 50 200
Feet

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 21

jroche 5/5/2015 12:26:28 PM J:\56636\CADD\43174612201\roadway\PLANRD21_R-U.DGN

NSA 30

NSA 29

Fritzke Rd.

Reola Rd

℄ WB TRACK

℄ EB TRACK

℄ EXIST. I-4 (SR 400)

INTERSTATE 4

10865 10870 10880 10885 10890

850 855 860 865 870 875

0 50 200
Feet

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

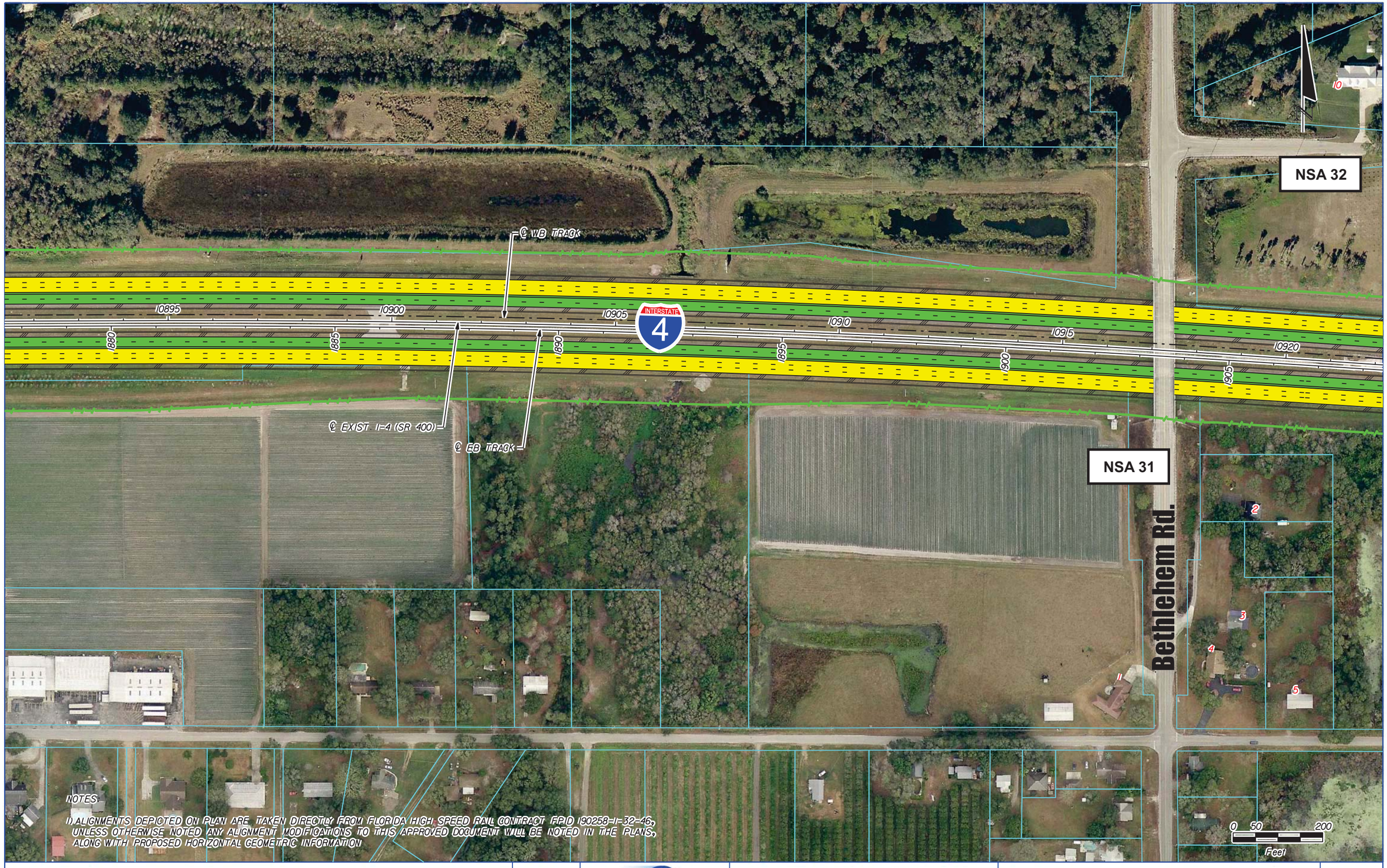
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 22

jroche 5/5/2015 12:27:04 PM J:\56636\CADD\43174612201\roadway\PLANRD22_R-U.DGN



NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 23

jroche 5/5/2015 12:27:39 PM J:\56636\CADD\43174612201\roadway\PLANRD23_R-U.DGN

NSA 32

NSA 31

℄ WB TRACK

℄ EXIST I-4 (SR 400)

℄ EB TRACK

10925 10930 10935 10940 10945 10950

90 95 920 925 930 935

INTERSTATE 4

0 50 200
Feet

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 24

jroche 5/5/2015 12:28:12 PM J:\56636\CADD\43174612201\roadway\PLANRD24_R-U.DGN

DINOSAUR WORLD

NSA 33

Branch Forbes Rd.

℄ WB TRACK

INTERSTATE 4

10955 10960 10965 10970 10975 10980

940 945 950 955 960 965

℄ EXIST I-4 (SR 400)

℄ EB TRACK

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

NSA 31

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

0 50 200

Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 25

jroche 5/5/2015 12:28:47 PM J:\56636\CADD\43174612201\roadway\PLANRD25_R-U.DGN

NSA 34

NSA 35

Hawk Griffin Rd

℄ WB TRACK

℄ EB TRACK

℄ EXIST I-4 (SR 400)

INTERSTATE 4

10985 10990 10995 11000 11005 11010

970 975 980 985 990 995

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 26

jroche 5/5/2015 12:29:22 PM J:\56636\CADD\43174612201\roadway\PLANRD26_R-U.DGN

NSA 37

NAZARENE CHRISTIAN CONGREGATION

NSA 36

NSA 35

℄ WB TRACK

℄ EXIST I-4 (SR 400)

℄ EB TRACK

INTERSTATE 4

11005 11020 11025 11030 11035 11040

2000 2005 2010 2015 2020 2025

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 27

jroche 5/5/2015 12:30:00 PM J:\56636\CADD\43174612201\roadway\PLANRD27_R-U.DGN

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

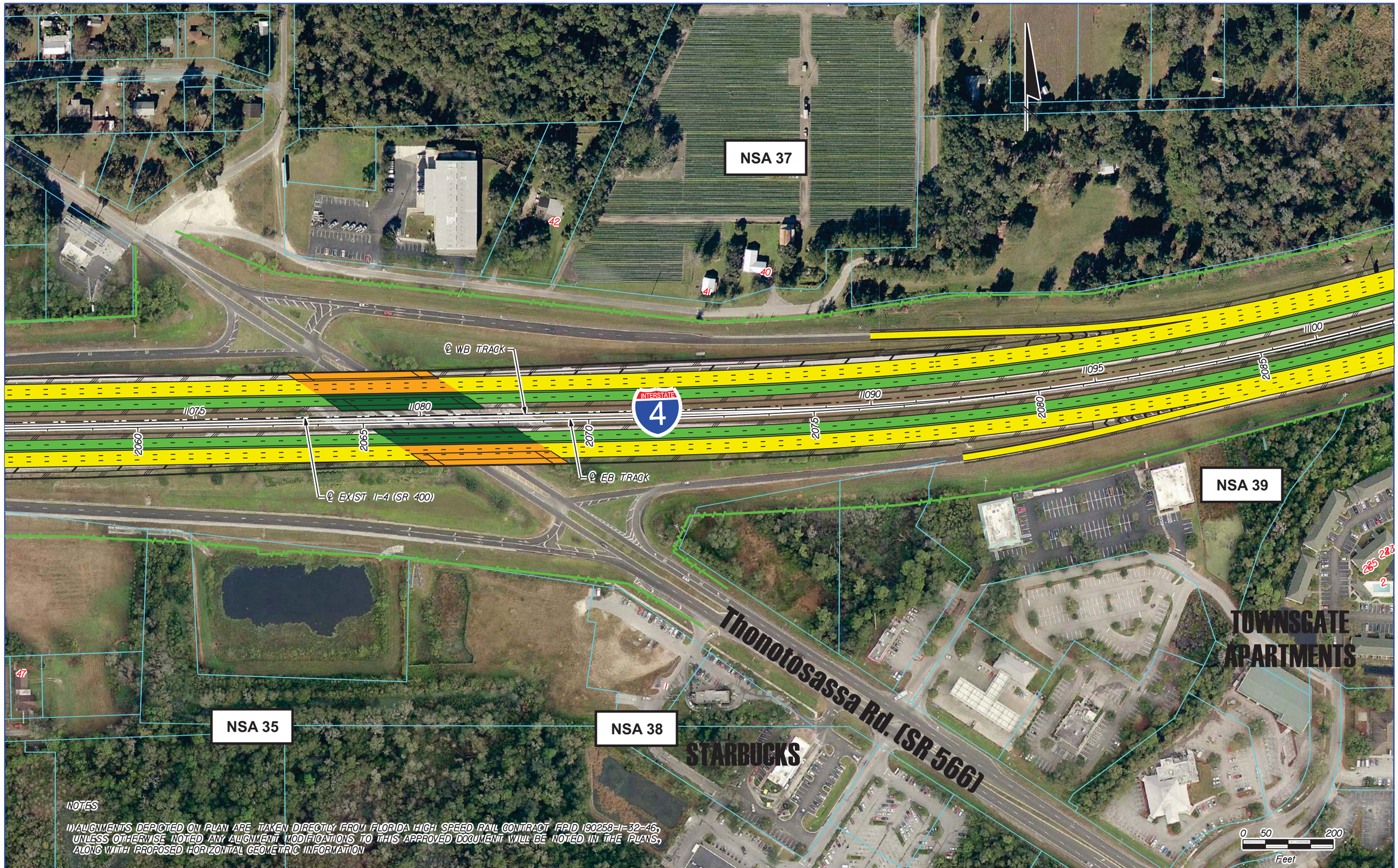
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 28

jroche 5/5/2015 12:30:36 PM J:\56636\CADD\43174612201\roadway\PLANRD28_R-U.DGN



NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 29

jroche 5/5/2015 12:31:15 PM J:\56636\CADD\43174612201\roadway\PLANRD29_R-U.DGN

Bennett Rd

NSA 40

℄ WB TRACK

INTERSTATE 4

℄ EB TRACK

PROP. LA RW LOC. 9 - STA. 11106+91 TO 11108+32

℄ EXIST I-4 (SR 400)

TOWNSGATE APARTMENTS

NSA 39

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

0 50 200 Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 NOISE SENSITIVE AREA
- 14 RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 30

jroche 5/5/2015 12:31:50 PM J:\56636\CADD\43174612201\roadway\PLANRD30_R-U.DGN

℄ WB TRACK

℄ EB TRACK

℄ EXIST. I-4 (SR 400)

INTERSTATE 4

Alexander St. (SR 39A)

ORANGE COURT

NSA 41

0 50 200
Feet

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 31

jroche 5/5/2015 12:33:56 PM J:\56636\CADD\43174612201\roadway\PLANRD31_R-U.DGN

MEMORIAL PARK CEMETERY

PAUL BUCHMAN HWY. (SR 39)

NSA 43

PROP. LA R/W LOC. 10 - STA. 302+92

I-4 (SR 400) WB RE-ALIGNMENT
RADIUS = 5,616'
DELTA ANGLE = 22°00'16" RT

PROP. LA R/W LOC. 10 - STA. 1117+44

N. Frontage Rd.

℄ WB TRACK

PC STA. 300+00.00

PC STA. 400+00.00

INTERSTATE 4

1160 1165 1170 1175 245 250 255 260 305 405

℄ EB TRACK

℄ EXIST I-4 (SR 400)

PROP. LA R/W LOC. 11 - STA. 301+32

I-4 (SR 400) EB RE-ALIGNMENT
RADIUS = 5,600'
DELTA ANGLE = 22°00'26" RT

NSA 41

NSA 42

Wheeler St. (SR 39)

RED ROSE INN

KNIGHTS INN

NSA 44

42 27 28 32 33 35 29 50 49 34 1

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 32

jroche 5/5/2015 12:34:31 PM J:\56636\CADD\43174612201\roadway\PLANRD32_R-U.DGN

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 33

jroche 5/5/2015 12:35:11 PM J:\56636\CADD\43174612201\roadway\PLANRD33_R-U.DGN

NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 90258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 34

jroche 5/5/2015 12:35:46 PM J:\56636\CADD\43174612201\roadway\PLANRD34_R-U.DGN

Receptor 6 is a residence north of this location

COLONIAL VILLAGE

NSA 50

WB EXPRESS LANE ACCESS AREA

℄ WB TRACK

INTERSTATE 4

℄ EXIST I-4 (SR 400)

℄ EB TRACK

BEST WESTERN

BORENE TERRACE

NSA 49

NSA 51

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

0 50 200 Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 35

jroche 5/5/2015 12:36:21 PM J:\56636\CADD\43174612201\roadway\PLANRD35_R-U.DGN

NSA 53

NSA 52

NSA 51

WB EXPRESS LANE
ACCESS AREA

EB EXPRESS LANE
ACCESS AREA

COVENANT BIBLE CHURCH

℄ WB TRACK

℄ EXIST. I-4 (SR 400)

℄ EB TRACK

INTERSTATE 4

11275 11280 11285 11295 11300 11305

2265 2270 2275 2280 2285 2290

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 90258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

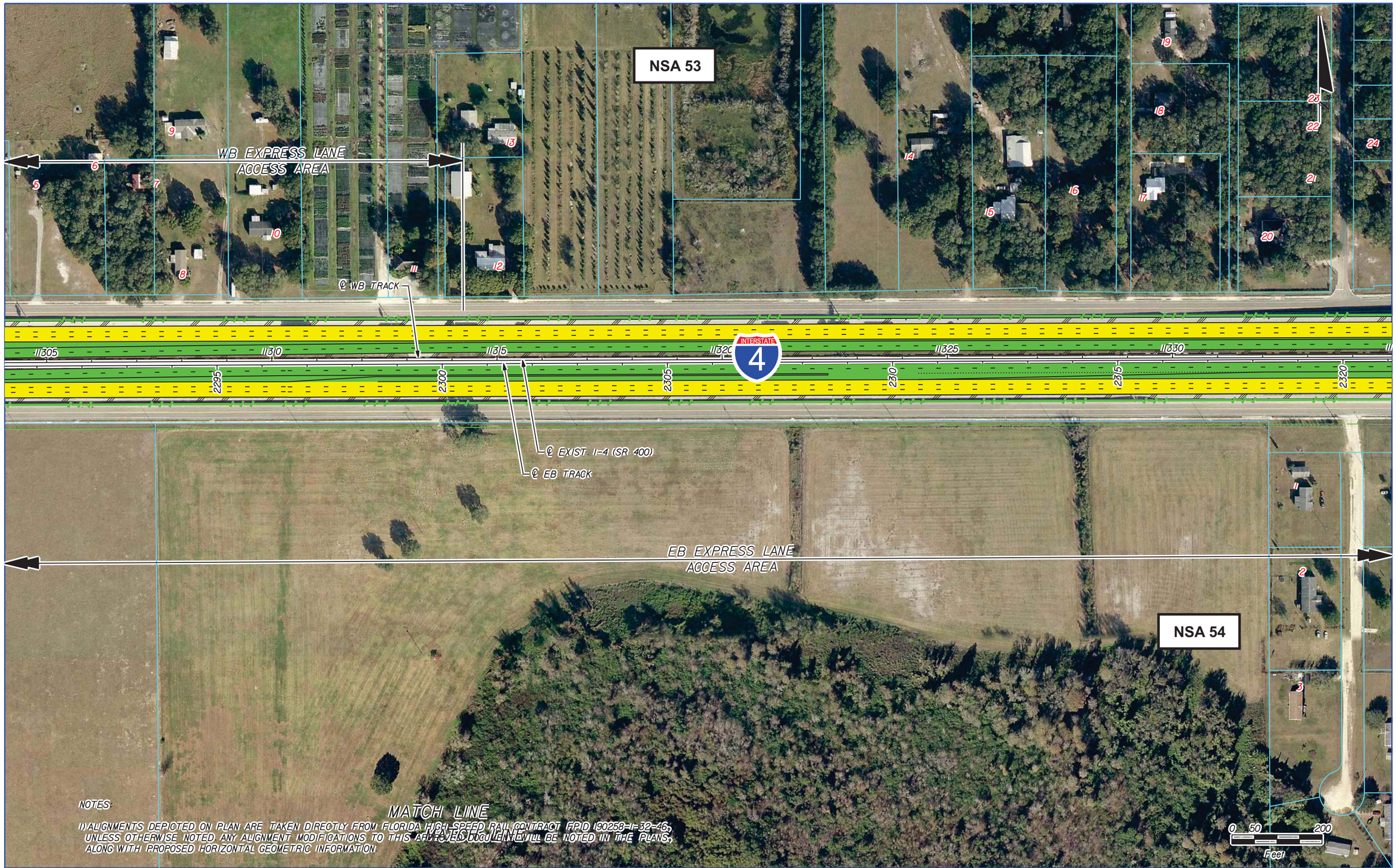
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 36

jroche 5/5/2015 12:37:05 PM J:\56636\CADD\43174612201\roadway\PLANRD36_R-U.DGN



NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 37

jroche 5/5/2015 12:37:53 PM J:\56636\CADD\43174612201\roadway\PLANRD37_R-U.DGN

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 38

NSA 58

NSA 56

FAITH TEMPLE
ASSEMBLY OF GOD

NSA 59

℄ WB TRACK

INTERSTATE 4

℄ EXIST I-4 (SR 400)

℄ EB TRACK

NSA 57

NOTES

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

0 50 200
Feet

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN
DATE:
2013

TAMPA BAY EXPRESS

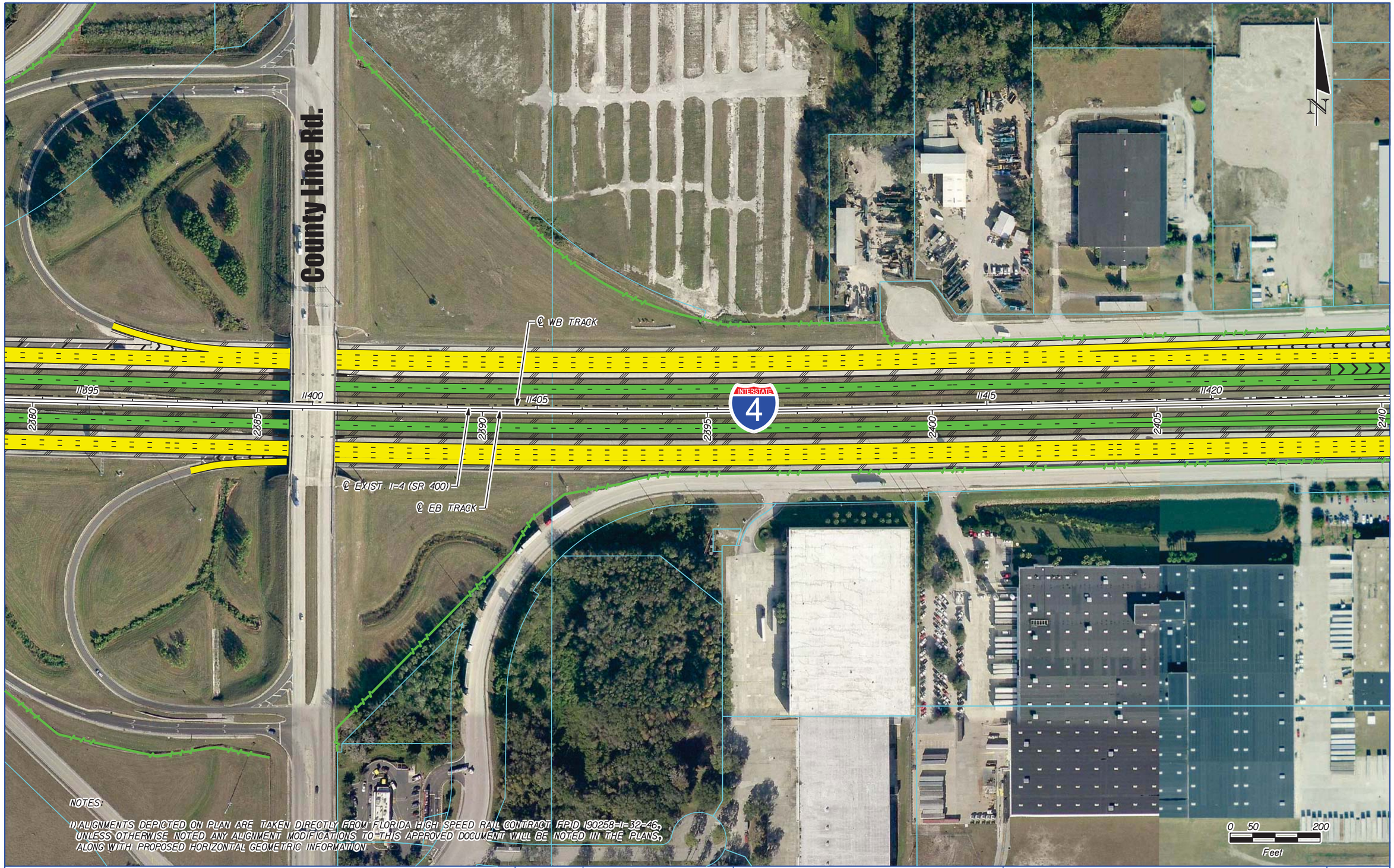
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 39

jroche 5/5/2015 12:39:15 PM J:\56636\CADD\43174612201\roadway\PLANRD39_R-U.DGN



NOTES:

1) ALIGNMENTS DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, ALONG WITH PROPOSED HORIZONTAL GEOMETRIC INFORMATION.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	HILLSBOROUGH POLK	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 40

jroche 5/5/2015 12:39:58 PM J:\56636\CADD\43174612201\roadway\PLANRD40_R-U.DGN

END PROJECT

TOLL FACILITY TO WB EXPRESS LANE ACCESS AREA

WB EXPRESS LANE ACCESS AREA

℄ WB TRACK

℄ EXIST. I-4 (SR 400)

℄ EB TRACK

EB EXPRESS LANE TO TOLL FACILITY ACCESS AREA

EB EXPRESS LANE ACCESS AREA

℄ CONST POLK PARKWAY (SR 570)

Polk Pkwy. (SR 570)

Swindell Rd.

Clark Rd.

MATCHLINE STA. 921+00.00

11425 11430 11435 11440 11445 11450

240 245 2420 2425 2430 2435

905 90 95 920

INTERSTATE 4

0 50 200 Feet

NOTES:

1) CENTERLINES DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, INCLUDING PROPOSED HORIZONTAL GEOMETRY.

2) CENTERLINE CONSTRUCTION POLK PARKWAY (SR 570) TAKEN DIRECTLY FROM FDOT RIGHT OF WAY MAP STATE PROJECT NO. 16390-2423

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	POLK	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 41

jroche 5/5/2015 12:40:40 PM J:\56636\CADD\43174612201\roadway\PLANRD41_R-U.DGN

END CONSTRUCTION

Old Tampa Hwy. (SR 542)

New Tampa Hwy. (US-92/SR 600)

℄ CONST POLK PARKWAY (SR 570)

945 940 935 930 925 920

MATCHLINE STA 921+00.00

Polk Pkwy. (SR 570)

Clark Rd.

0 50 200 Feet

NOTES:

1) CENTERLINES DEPICTED ON PLAN ARE TAKEN DIRECTLY FROM FLORIDA HIGH SPEED RAIL CONTRACT FPID 190258-1-32-46, UNLESS OTHERWISE NOTED. ANY ALIGNMENT MODIFICATIONS TO THIS APPROVED DOCUMENT WILL BE NOTED IN THE PLANS, INCLUDING PROPOSED HORIZONTAL GEOMETRY.

2) CENTERLINE CONSTRUCTION POLK PARKWAY (SR 570) TAKEN DIRECTLY FROM FDOT RIGHT OF WAY MAP STATE PROJECT NO. 16390-2423.

LEGEND:

- EXIST. R/W
- EXIST. L/A R/W
- PROP. L/A R/W
- PARCEL LINES
- EXPRESS LANE
- EXPRESS LANE - BRIDGE
- GENERAL USE LANE
- GENERAL USE LANE - BRIDGE
- NON-INTERSTATE RDWY. AND BRIDGE
- NSA 1 — NOISE SENSITIVE AREA
- 14 — RECEPTOR
- EXISTING NOISE BARRIER
- POTENTIAL NOISE BARRIER
- OUTDOOR ADVERTISING SIGN

AERIAL FLOWN DATE: 2013

TAMPA BAY EXPRESS

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	POLK	431746-1-22-01

SR 400 (I-4)
CONCEPT PLANS - ULTIMATE

SHEET NO. 42

jroche 5/5/2015 12:41:19 PM J:\56636\CADD\43174612201\roadway\PLANRD42_R-U.DGN

APPENDIX C

Validation Documentation

NOISE MEASUREMENT DATA SHEET

Measurements Taken By: Paola Pringle Date: 1/9/2015
Time Study Started: 11:20 Time Study Ended: 12:08
Project Identification:
Financial Project ID: 431746-3
Project Location: I-4 Managed Lanes

Site Identification: Site 1 Parson @ I4
(dead end street) next to trailer park and
private school

Weather Conditions:
Sky: Clear ___ Partly Cloudy __X__ Cloudy ____ Other _____
Temperature 54.2°F Wind Speed 1.8 mph Wind Direction NW Humidity 68%
Equipment:
Sound Level Meter:
Type: Larson Davis 831 Serial Number(s): 1285
Did you check the battery? Yes X No ____
Calibration Readings: Start 114.11 End 113.95
Response Settings: Fast ____ Slow X
Weighting: A X Other ____
Calibrator:
Type: Larson Davis CAL 200 Serial Number: 5592
Did you check the battery? Yes X No ____

TRAFFIC DATA

Roadway Identification	I-4 Westbound		I-4 Eastbound	
	Run 1-Run 2-Run 3		Run 1-Run 2-Run 3	
Vehicle Type	Volume	Speed (mph)	Volume	Speed (mph)
Autos	604-585-582	67-68-67	471-532-514	67-68-67
Medium Trucks	21-19-28	70-61-60	32-15-22	70-61-60
Heavy Trucks	65-49-71	60-64-63	55-52-42	60-64-60
Buses	1-13-1	70-61-60	1-0-0	70-0-0
Motorcycles	0-1-0	0-68-0	0-0-1	0-0-67
Duration	10 minutes per run		10 minutes per run	

RESULTS [dB(A)]

L_{EQ} 78.8-78.8-79.0 Lmax 86.0-83.5-85.0

Background Noise: Edger.
Major Sources: I-4
Unusual Events: Run 3: aircraft fly by.

KB Environmental Sciences

NOISE MEASUREMENT DATA SHEET

Measurements Taken By: Paola Pringle Date: 1/9/2015
Time Study Started: 1:35 PM Time Study Ended: 2:16 PM
Project Identification:
Financial Project ID: 431746-3
Project Location: I-4 Managed Lanes

Site Identification: Site 2 East of Charlie Taylor Rd next to the cemetery, north side of the road

Weather Conditions:
Sky: Clear ___ Partly Cloudy __X__ Cloudy ____ Other _____
Temperature 59.5°F Wind Speed 1.1 mph Wind Direction N Humidity 64%
Equipment:
Sound Level Meter:
Type: Larson Davis 831 Serial Number(s): 1285
Did you check the battery? Yes __X__ No ____
Calibration Readings: Start 114.11 End 113.95
Response Settings: Fast ____ Slow __X__
Weighting: A __X__ Other____
Calibrator:
Type: Larson Davis CAL 200 Serial Number: 5592
Did you check the battery? Yes __X__ No ____

TRAFFIC DATA

Roadway Identification	I-4 Westbound		I-4 Eastbound	
	Run 1-Run 2-Run 3		Run 1-Run 2-Run 3	
Vehicle Type	Volume	Speed (mph)	Volume	Speed (mph)
Autos	522-519-577	68-62-64	552-535-523	68-62-64
Medium Trucks	28-41-22	61-60-66	26-22-23	61-60-66
Heavy Trucks	38-32-38	57-59-59	5-56-46	57-59-59
Buses	1-0-0	61-0-0	0-0-0	0-0-0
Motorcycles	1-3-2	68-62-64	0-1-0	0-62-0
Duration	10 minutes per run		10 minutes per run	

RESULTS [dB(A)]

L_{EQ} 70.6-71.3-70.4 Lmax 78.5-83.0-79.4

Background Noise:
Major Sources: I-4
Unusual Events: Run 2: man yelled from car.

KB Environmental Sciences

APPENDIX D

Predicted Traffic Noise Levels at Individual Receptors

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
1-1	B	Residential	2	1	61.8	61.9	63.0	1.2	
1-2	B	Residential	2	1	61.6	61.7	63.0	1.4	
1-3	B	Residential	2	1	60.1	60.2	61.5	1.4	
1-4	B	Residential	2	1	58.7	58.8	60.5	1.8	
1-5	B	Residential	2	1	58.2	58.2	60	1.8	
1-6	B	Residential	2	1	57.4	57.5	59.4	2.0	
1-7	B	Residential	2	1	56.7	56.8	59.1	2.4	
1-8	B	Residential	2	1	57.7	57.8	59.4	1.7	
1-9	B	Residential	2	1	58.5	58.5	60.2	1.7	
1-10	B	Residential	2	1	59.8	59.9	61.6	1.8	
1-11	B	Residential	2	1	59.6	59.7	61.6	2.0	
1-12	B	Residential	2	1	60.4	60.5	62.3	1.9	
1-13	B	Residential	2	1	61.2	61.3	63.0	1.8	
1-14	B	Residential	2	1	62.0	62.1	63.6	1.6	
1-15	B	Residential	1	1	61.8	61.8	63.9	2.1	
1-16	B	Residential	2	1	60.5	60.6	62.7	2.2	
1-17	B	Residential	2	1	59.5	59.6	61.7	2.2	
1-18	B	Residential	1	1	59.7	59.8	61.5	1.8	
1-19	B	Residential	1	1	60.3	60.4	62.6	2.3	
1-20	B	Residential	2	1	56.6	56.7	58.7	2.1	
1-21	B	Residential	1	1	59.9	60.0	61.4	1.5	
1-22	B	Residential	1	1	59.5	59.6	61.1	1.6	
1-23	B	Residential	1	1	59.5	59.6	61.1	1.6	
1-24	B	Residential	1	1	59.9	59.9	61.4	1.5	
1-25	B	Residential	1	1	59.9	60.0	61.4	1.5	
1-26	B	Residential	1	1	59.9	60.0	61.4	1.5	
1-27	B	Residential	1	1	61.8	61.9	63.2	1.4	
1-28	B	Residential	1	1	59.3	59.4	60.2	0.9	
1-29	B	Residential	2	1	58.9	59.0	60.1	1.2	
1-30	B	Residential	1	1	57.7	57.7	59.0	1.3	
1-31	B	Residential	1	1	57.4	57.5	58.6	1.2	
1-32	B	Residential	1	1	57.1	57.2	58.3	1.2	
1-33	B	Residential	1	1	56.7	56.8	58.0	1.3	
1-34	B	Residential	1	1	58.1	58.1	59.2	1.1	
1-35	B	Residential	2	1	58.8	58.9	59.8	1.0	
1-36	B	Residential	2	1	59.0	59.1	59.7	0.7	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
1-37	B	Residential	1	1	59.5	59.5	60.4	0.9	
1-38	B	Residential	1	1	59.1	59.2	58.8	-0.3	
1-39	D	Place of Worship (Interior)	1	1	34.7	34.7	35.6	0.9	
1-40	B	Residential	1	1	58.3	58.3	60.0	1.7	
1-41	B	Residential	1	1	57.0	57.0	58.7	1.7	
1-42	B	Residential	1	1	58.0	58.1	59.3	1.3	
1-43	B	Residential	1	1	58.0	58.1	59.5	1.5	
1-44	B	Residential	1	1	59.1	59.2	60.0	0.9	
1-45	B	Residential	1	1	59.0	59.1	59.4	0.4	
1-46	B	Residential	1	1	59.0	59.0	60.0	1.0	
1-47	B	Residential	1	1	61.8	61.9	63.1	1.3	
1-48	B	Residential	1	1	60.0	60.1	61.6	1.6	
1-49	B	Residential	1	1	59.9	60.0	61.5	1.6	
1-50	B	Residential	1	1	60.9	60.9	62.2	1.3	
1-51	B	Residential	1	1	59.9	60.0	61.1	1.2	
1-52	B	Residential	1	1	59.3	59.3	60.4	1.1	
1-53	B	Residential	1	1	60.9	61.0	62.1	1.2	
1-54	B	Residential	1	1	58.7	58.8	60.1	1.4	
1-55	B	Residential	1	1	57.8	57.9	58.2	0.4	
1-56	B	Residential	1	1	57.5	57.6	57.8	0.3	
1-57	B	Residential	1	1	55.8	55.9	57.1	1.3	
1-58	B	Residential	1	1	56.3	56.4	57.6	1.3	
1-59	B	Residential	1	1	60.0	60.1	60.4	0.4	
1-60	B	Residential	1	1	61.7	61.7	59.7	-2.0	
1-61	B	Residential	1	1	58.6	58.7	60	1.4	
1-62	B	Residential	1	1	60.0	60.1	61.3	1.3	
1-63	B	Residential	1	1	59.7	59.8	60.9	1.2	
1-64	B	Residential	1	1	60.9	61.0	62.3	1.4	
1-65	B	Residential	1	1	61.0	61.0	62.5	1.5	
1-66	B	Residential	1	1	61.2	61.3	62.2	1.0	
1-67	B	Residential	1	1	60.2	60.2	61.3	1.1	
1-68	B	Residential	1	1	60.8	60.9	62.2	1.4	
1-69	B	Residential	1	1	61.5	61.6	62.8	1.3	
1-70	B	Residential	1	1	62.6	62.7	59.9	-2.7	
1-71	B	Residential	1	1	58.2	58.3	58.8	0.6	
1-72	B	Residential	1	1	56.6	56.7	58.2	1.6	
1-73	B	Residential	1	1	55.8	56.0	57.5	1.7	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
1-74	B	Residential	1	1	56.9	57.0	58.2	1.3	
1-75	B	Residential	1	1	56.4	56.5	57.7	1.3	
1-76	B	Residential	1	1	56.3	56.4	57.8	1.5	
1-77	B	Residential	1	1	60.8	60.8	62.0	1.2	
1-78	B	Residential	1	1	59.8	59.9	61.1	1.3	
1-79	B	Residential	1	1	58.1	58.2	59.4	1.3	
1-80	B	Residential	1	1	61.0	61.1	62.5	1.5	
1-81	B	Residential	1	1	61.3	61.3	62.6	1.3	
1-82	B	Residential	1	1	60.2	60.2	58.9	-1.3	
1-83	B	Residential	1	1	63.4	63.5	65.2	1.8	
1-84	B	Residential	1	1	63.3	63.4	65.4	2.1	
1-85	B	Residential	1	1	62.9	63.0	65.2	2.3	
1-86	B	Residential	1	1	63.2	63.3	65.4	2.2	
1-87	B	Residential	1	1	62.9	63.0	65.0	2.1	
1-88	B	Residential	1	1,2	66.5	66.6	68.6	2.1	Yes
1-89	B	Residential	1	1,2	65.8	65.9	68.0	2.2	Yes
1-90	B	Residential	1	1	61.0	61.1	62.1	1.1	
1-91	B	Residential	1	1,2	65.6	65.7	67.7	2.1	Yes
1-92	B	Residential	1	1,2	64.8	64.9	67.0	2.2	Yes
1-93	B	Residential	1	1,2	63.6	63.7	65.7	2.1	
1-94	B	Residential	1	1,2	63.0	63.1	65.0	2.0	
1-95	B	Residential	1	1,2	62.4	62.5	64.5	2.1	
1-96	B	Residential	1	1,2	61.9	62.0	64.0	2.1	
1-97	B	Residential	1	1,2	59.8	59.9	61.8	2.0	
1-98	B	Residential	1	1,2	61.6	61.7	63.7	2.1	
1-99	B	Residential	1	1,2	61.8	61.9	64.1	2.3	
1-100	B	Residential	1	1	63.0	63.1	64.8	1.8	
1-101	B	Residential	1	1	64.3	64.4	66.2	1.9	Yes
1-102	B	Residential	1	1	58.0	58.1	60.3	2.3	
1-103	B	Residential	1	1	58.7	58.7	60.3	1.6	
1-104	B	Residential	2	1	57.1	57.2	58.9	1.8	
1-105	B	Residential	1	1	60.7	60.7	61.9	1.2	
1-106	B	Residential	1	1	60.2	60.3	60.7	0.5	
1-107	B	Residential	1	1	59.4	59.5	60.3	0.9	
1-108	B	Residential	1	1	58.7	58.8	59.8	1.1	
2-1	E	Hotel	1	2	68.5	68.9	70.5	2.0	
2-2	E	Hotel	1	3	66.2	66.2	66.8	0.6	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
3-1	D	Place of Worship (Interior)	1	3	53.8	53.8	54.4	0.6	Yes
3-2	C	Place of Worship	1	3	69.3	69.4	70.0	0.7	Yes
4-1	B	Residential	1	3	72.7	72.8	74.5	1.8	Yes
4-2	B	Residential	1	3	70.8	70.9	73.2	2.4	Yes
4-3	B	Residential	1	3	66.6	66.6	67.8	1.2	Yes
4-4	B	Residential	1	3	65.9	66.0	66.7	0.8	Yes
4-5	B	Residential	1	3	65.0	65.1	66.0	1.0	Yes
4-6	B	Residential	1	3	63.9	64.0	64.8	0.9	
4-7	B	Residential	1	3	63.0	63.0	63.7	0.7	
4-8	B	Residential	1	3	63.5	63.6	64.3	0.8	
4-9	B	Residential	1	3	63.0	63.1	63.6	0.6	
4-10	B	Residential	1	3	62.6	62.7	63.2	0.6	
4-11	B	Residential	1	3	64.0	64.1	65.3	1.3	
4-12	B	Residential	1	3	65.1	65.2	66.9	1.8	Yes
4-13	B	Residential	1	3	68.9	68.9	71.0	2.1	Yes
4-14	B	Residential	1	3	69.0	69.1	71.5	2.5	Yes
4-15	B	Residential	1	3	68.7	68.8	70.4	1.7	Yes
4-16	B	Residential	1	3	68.3	68.4	68.8	0.5	Yes
4-17	B	Residential	1	3	68.1	68.3	68.2	0.1	Yes
4-18	B	Residential	1	3	68.0	68.1	68.3	0.3	Yes
4-19	B	Residential	1	3	67.9	68.2	69.5	1.6	Yes
4-20	B	Residential	1	3	67.5	67.6	70.2	2.7	Yes
4-21	B	Residential	1	3	66.8	66.9	69.5	2.7	Yes
4-22	B	Residential	1	3	66.2	66.3	69.0	2.8	Yes
4-23	B	Residential	1	3	65.8	66.0	68.7	2.9	Yes
4-24	B	Residential	1	3	64.9	65.0	67.8	2.9	Yes
4-25	B	Residential	1	3	64.1	64.3	67.5	3.4	Yes
4-26	B	Residential	1	3	66.2	66.3	67.8	1.6	Yes
4-27	B	Residential	1	3	65.3	65.5	67.1	1.8	Yes
4-28	B	Residential	1	3	64.7	64.9	66.7	2.0	Yes
4-29	B	Residential	1	3	62.4	62.6	65.0	2.6	
4-30	B	Residential	1	3	62.0	62.2	64.5	2.5	
4-31	B	Residential	1	3	63.1	63.2	64.4	1.3	
4-32	B	Residential	1	3	62.5	62.6	63.7	1.2	
4-33	B	Residential	1	3	61.9	62.0	63.5	1.6	
4-34	B	Residential	1	3	61.2	61.4	62.9	1.7	
4-35	B	Residential	1	3	60.8	61.0	62.5	1.7	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
4-36	B	Residential	1	3	67.6	67.8	67.9	0.3	Yes
4-37	B	Residential	1	3	66.8	67.0	67.0	0.2	Yes
4-38	B	Residential	1	3,4	63.9	64.1	65.7	1.8	
4-39	B	Residential	1	3	65.8	66.0	66.5	0.7	Yes
4-40	B	Residential	1	3	64.6	64.8	66.2	1.6	Yes
4-41	B	Residential	1	3	63.7	63.9	65.7	2.0	
4-42	B	Residential	1	3	62.7	63.0	64.7	2.0	
4-43	B	Residential	1	3	62.0	62.3	64.4	2.4	
4-44	B	Residential	1	3	62.4	62.6	64.6	2.2	
4-45	B	Residential	1	3	61.1	61.3	63.7	2.6	
4-46	B	Residential	1	3	61.4	61.6	63.8	2.4	
4-47	B	Residential	1	3	64.6	64.9	66.1	1.5	Yes
4-48	B	Residential	1	3,4	62.7	62.9	64.8	2.1	
4-49	B	Residential	1	3	61.6	61.9	63.7	2.1	
4-50	B	Residential	1	3,4	60.2	60.5	62.4	2.2	
4-51	B	Residential	1	3	61.4	61.7	63.5	2.1	
5-1	C	Park	1	4	67.5	69.8	70.9	3.4	Yes
5-2	C	Park	1	4	67.3	69.7	70.6	3.3	Yes
5-3	B	Residential	1	4	66.2	67.3	67.4	1.2	Yes
5-4	B	Residential	1	4	65.3	66.3	66.4	1.1	Yes
5-5	B	Residential	1	4	64.5	65.2	65.7	1.2	
5-6	B	Residential	1	4	63.3	63.8	64.9	1.6	
5-7	B	Residential	1	4	67.6	68.7	69.2	1.6	Yes
5-8	B	Residential	1	4	67.7	68.8	69.2	1.5	Yes
5-9	B	Residential	1	4	67.6	68.9	69.1	1.5	Yes
5-10	B	Residential	1	4	66.8	68.2	68.3	1.5	Yes
5-11	B	Residential	1	4	66.4	67.8	67.8	1.4	Yes
5-12	B	Residential	1	4	65.1	66.3	66.5	1.4	Yes
5-13	B	Residential	1	4	64.3	65.1	65.3	1.0	
5-14	B	Residential	1	4	63.9	64.7	65.1	1.2	
5-15	B	Residential	1	4	63.7	64.5	65.1	1.4	
5-16	B	Residential	1	4	64.6	65.2	66.1	1.5	Yes
5-17	B	Residential	1	4	68.0	69.0	69.5	1.5	Yes
5-18	B	Residential	1	4	68.1	69.0	69.7	1.6	Yes
5-19	B	Residential	1	4	68.3	69.2	70.1	1.8	Yes
5-20	B	Residential	1	4	67.8	68.5	69.7	1.9	Yes
5-21	B	Residential	1	4	65.6	66.5	66.8	1.2	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
5-22	B	Residential	1	4	66.4	67.3	67.6	1.2	Yes
5-23	B	Residential	1	4	66.6	67.5	67.9	1.3	Yes
5-24	B	Residential	1	4	66.5	67.3	67.9	1.4	Yes
5-25	B	Residential	1	4	66.6	67.3	68.1	1.5	Yes
5-26	B	Residential	1	4	66.9	67.6	68.7	1.8	Yes
5-27	B	Residential	1	4	65.3	65.8	67.0	1.7	Yes
5-28	B	Residential	1	4	64.7	65.2	66.2	1.5	Yes
5-29	B	Residential	1	4	64.4	65.0	65.9	1.5	
5-30	B	Residential	1	4	64.4	65.0	66.0	1.6	Yes
5-31	B	Residential	1	4	65.9	66.6	67.6	1.7	Yes
5-32	B	Residential	1	4	65.1	65.8	66.7	1.6	Yes
5-33	B	Residential	1	4	68.2	68.8	69.7	1.5	Yes
5-34	B	Residential	1	4	66.4	66.9	67.8	1.4	Yes
5-35	B	Residential	1	4	64.0	64.7	65.6	1.6	
5-36	B	Residential	1	4	62.7	63.3	64.4	1.7	
5-37	B	Residential	1	4	610.	61.7	62.9	1.9	
5-38	B	Residential	1	4	62.6	63.2	64.4	1.8	
5-39	B	Residential	1	4	62.5	63.1	64.1	1.6	
5-40	B	Residential	1	4	61.9	62.6	63.5	1.6	
5-41	B	Residential	1	4	62.9	63.6	64.4	1.5	
5-42	B	Residential	1	4	65.0	65.2	66.7	1.7	Yes
5-43	B	Residential	1	4	61.9	62.5	63.5	1.6	
5-44	B	Residential	1	4	62.3	62.9	64.1	1.8	
5-45	B	Residential	1	4	62.1	62.7	63.8	1.7	
6-1	E	Hotel	1	4	59.5	60.7	61.2	1.7	
7-1	C	Amphitheater	1	5	53.8	54.6	55.2	1.4	
8-1	E	Restaurant (Exterior)	1	6	68.3	68.4	68.6	0.3	
9-1	B	Residential	1	6	64.8	66.7	68.1	3.3	Yes
9-2	B	Residential	1	6	64.0	65.0	66.7	2.7	Yes
9-3	B	Residential	1	6,7	65.9	67.3	69.0	3.1	Yes
9-4	B	Residential	1	6,7	66.1	67.4	69.0	2.9	Yes
9-5	B	Residential	1	6,7	65.5	66.8	68.4	2.9	Yes
9-6	B	Residential	1	6,7	67.0	68.3	69.7	2.7	Yes
9-7	B	Residential	1	6	62.9	63.9	65.4	2.5	
9-8	B	Residential	1	6,7	64.3	65.6	67.2	2.9	Yes
9-9	B	Residential	1	6,7	63.5	64.6	66.2	2.7	Yes
10-1	B	Residential	1	6	71.4	72.3	73.2	1.8	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
10-2	B	Residential	1	6	66.6	67.3	68.1	1.5	Yes
10-3	B	Residential	1	6	66.4	67.0	67.8	1.4	Yes
10-4	B	Residential	1	6	67.2	67.9	68.8	1.6	Yes
10-5	B	Residential	1	6	66.5	67.2	68.0	1.5	Yes
11-1	B	Residential	1	7	68.0	68.7	69.6	1.6	Yes
11-2	B	Residential	1	7	67.6	68.4	69.2	1.6	Yes
11-3	B	Residential	1	7	67.1	67.9	68.7	1.6	Yes
11-4	B	Residential	1	7	66.7	67.5	68.5	1.8	Yes
11-5	B	Residential	1	7	66.3	67.1	68.1	1.8	Yes
11-6	B	Residential	1	7	65.1	65.8	66.6	1.5	Yes
11-7	B	Residential	1	7	63.7	64.5	65.4	1.7	
11-8	B	Residential	1	7	66.1	67.0	67.7	1.6	Yes
11-9	B	Residential	1	7	65.0	66.1	66.7	1.7	Yes
11-10	B	Residential	1	7	64.0	65.1	65.6	1.6	
11-11	B	Residential	1	7	63.5	64.8	65.4	1.9	
12-1	B	Residential	1	7	65.1	66.2	68.2	3.1	Yes
12-2	B	Residential	1	7	64.4	64.9	65.8	1.4	
12-3	B	Residential	1	7	65.9	66.8	67.7	1.8	Yes
12-4	B	Residential	1	7	66.1	67.2	67.7	1.6	Yes
12-5	B	Residential	1	7	70.7	72.1	72.6	1.9	Yes
12-6	B	Residential	1	7	71.8	73.3	73.7	1.9	Yes
12-7	B	Residential	1	7	71.9	73.3	73.6	1.7	Yes
12-8	B	Residential	1	7	70.0	71.4	71.9	1.9	Yes
12-9	B	Residential	1	8	75.1	76.3	74.1	-1.0	Yes
12-10	B	Residential	1	8	70.7	72.2	72.7	2.0	Yes
12-11	B	Residential	1	7	66.4	67.5	68.8	2.4	Yes
12-12	B	Residential	1	7	66.5	67.2	68.5	2.0	Yes
12-13	B	Residential	1	8	66.3	67.5	68.6	2.3	Yes
12-14	B	Residential	1	8	68.9	70.5	71.1	2.2	Yes
12-15	B	Residential	1	8	67.7	68.4	69.5	1.8	Yes
12-16	B	Residential	1	7,8	63.9	64.4	66.2	2.3	Yes
12-17	B	Residential	1	8	64.1	64.8	66.6	2.5	Yes
12-18	B	Residential	1	8	67.8	67.8	67.5	-0.3	Yes
12-19	B	Residential	1	8	63.2	64.6	65.4	2.2	
12-20	B	Residential	1	8	61.7	63.1	64.1	2.4	
12-21	B	Residential	1	8	62.4	63.7	64.2	1.8	
12-22	B	Residential	1	8	63.3	64.1	65.0	1.7	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
12-23	B	Residential	1	8	64.3	65.0	65.5	1.2	
12-24	B	Residential	1	8	63.5	64.3	65.2	1.7	
12-25	B	Residential	1	8	64.8	65.5	65.9	1.1	
12-26	B	Residential	1	8	75.5	77.6	78.8	3.3	Yes
12-27	B	Residential	1	9	68.9	70.1	71.1	2.2	Yes
12-28	B	Residential	1	9	66.7	68.4	68.8	2.1	Yes
12-29	B	Residential	1	9	66.5	67.9	68.5	2.0	Yes
12-30	B	Residential	1	9	66.5	67.6	68.4	1.9	Yes
12-31	B	Residential	1	9	64.9	65.6	66.7	1.8	Yes
12-32	B	Residential	1	9	63.9	64.5	65.0	1.1	
12-33	B	Residential	1	9	62.7	63.2	63.5	0.8	
13-1	B	Residential	1	8	65.3	65.6	66.8	1.5	Yes
13-2	B	Residential	1	8	65.4	65.7	67.0	1.6	Yes
13-3	B	Residential	1	8	65.2	65.5	67.8	2.6	Yes
13-4	B	Residential	1	8	65.8	66.0	68.1	2.3	Yes
13-5	B	Residential	1	8	65.2	65.5	67.6	2.4	Yes
13-6	B	Residential	1	8	65.1	65.4	67.4	2.3	Yes
13-7	B	Residential	1	8	62.8	63.1	64.9	2.1	
13-8	B	Residential	1	8	61.8	62.2	63.9	2.1	
13-9	B	Residential	1	8	62.0	62.4	64.2	2.2	
13-10	B	Residential	1	8	66.6	66.8	68.6	2.0	Yes
13-11	D	Place of Worship (Interior)	1	8	39.3	39.5	41.4	2.1	
13-12	B	Residential	1	8	73.9	74.0	75.9	2.0	Yes
13-13	B	Residential	1	8	67.4	67.7	70	2.6	Yes
13-14	B	Residential	1	8	62.8	63.0	64.6	1.8	
13-15	B	Residential	1	8	61.5	61.7	62.9	1.4	
13-16	B	Residential	1	8	64.3	64.6	66.7	2.4	Yes
13-17	B	Residential	1	8	62.6	62.8	64.8	2.2	
13-18	B	Residential	1	8	61.8	62.0	63.9	2.1	
13-19	B	Residential	1	8	60.7	61.0	62.7	2.0	
13-20	B	Residential	1	8	59.9	60.1	61.6	1.7	
13-21	B	Residential	1	8	62.6	62.8	63.8	1.2	
13-22	B	Residential	1	8	60.0	60.3	61.8	1.8	
13-23	B	Residential	1	8	61.1	61.4	62.5	1.4	
13-24	B	Residential	1	8	61.5	61.8	62.7	1.2	
13-25	B	Residential	1	8	62.1	62.4	63.2	1.1	
13-26	B	Residential	1	8,9	62.3	62.6	63.4	1.1	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
13-27	B	Residential	1	8	61.7	61.9	63.1	1.4	
13-28	B	Residential	1	8	61.9	62.1	63.1	1.2	
13-29	B	Residential	1	8	62.0	62.2	63.2	1.2	
13-30	B	Residential	1	8	62.2	62.4	63.3	1.1	
13-31	B	Residential	1	8	62.4	62.7	63.5	1.1	
13-32	B	Residential	1	8	61.3	61.5	62.3	1	
13-33	B	Residential	1	8	61.5	61.7	62.5	1	
14-1	B	Residential	1	10	63.8	64.3	65.0	1.2	
14-2	B	Residential	1	10	66.8	66.8	67.7	0.9	Yes
14-3	B	Residential	1	10	62.0	62.5	63.2	1.2	
14-4	B	Residential	1	10	63.5	63.5	64.4	0.9	
14-5	B	Residential	1	10	61.3	61.4	62.2	0.9	
14-6	B	Residential	1	10	60.1	60.1	61.3	1.2	
15-1	C	Place of Worship	1	10	70.7	70.7	70.9	0.2	Yes
15-2	C	Place of Worship	1	10	66.1	66.1	67.3	1.2	Yes
16-1	B	Residential	1	11	61.6	61.6	64.7	3.1	
17-1	B	Residential	1	11	67.7	67.7	68.1	0.4	Yes
17-2	B	Residential	1	11	68.5	68.5	69.0	0.5	Yes
17-3	B	Residential	1	11	68.0	68.0	68.6	0.6	Yes
17-4	B	Residential	1	11	67.7	67.7	68.0	0.3	Yes
17-5	B	Residential	1	11	66.7	66.7	69.0	2.3	Yes
17-6	B	Residential	1	11	67.2	67.2	68.9	1.7	Yes
17-7	B	Residential	1	11	67.8	67.8	69.6	1.8	Yes
17-8	B	Residential	1	11	69.1	69.1	70.4	1.3	Yes
17-9	B	Residential	1	11	66.1	66.1	69.3	3.2	Yes
17-10	B	Residential	1	11	68.4	68.4	70.6	2.2	Yes
17-11	B	Residential	1	11	64.3	64.4	65.9	1.6	
17-12	B	Residential	1	11	65.7	65.7	68.2	2.5	Yes
17-13	B	Residential	1	11	65.1	65.1	67.7	2.6	Yes
17-14	B	Residential	1	11	64.0	64.0	66.3	2.3	Yes
17-15	B	Residential	1	11	69.3	69.3	69.8	0.5	Yes
17-16	B	Residential	1	11	65.2	65.2	67.8	2.6	Yes
17-17	B	Residential	1	11	63.4	63.4	64.7	1.3	
17-18	B	Residential	1	11	64.1	64.1	65.8	1.7	
17-19	B	Residential	1	11	62.9	62.9	64.9	2.0	
18-1	E	Hotel	1	12	61.9	62.0	64.9	3.0	
19-1	C	School	1	12	77.3	77.4	77.5	0.2	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
19-2	C	School	1	13	64.0	64.0	65.2	1.2	
20-1	B	Residential	1	13	71.7	71.7	74.0	2.3	Yes
20-2	B	Residential	1	13	65.1	65.1	67.3	2.2	Yes
20-3	B	Residential	1	13	61.0	61.0	62.9	1.9	
21-1	B	Residential	1	14	65.6	65.6	67.9	2.3	Yes
21-2	B	Residential	1	14	75.6	75.6	77.1	1.5	Yes
21-3	B	Residential	1	14	76.0	76.0	77.7	1.7	Yes
21-4	B	Residential	1	14	75.4	75.4	77.0	1.6	Yes
21-5	B	Residential	1	14	75.3	75.3	76.9	1.6	Yes
21-6	B	Residential	1	14	75.4	75.4	76.9	1.5	Yes
21-7	B	Residential	1	14	75.4	75.4	76.6	1.2	Yes
21-8	B	Residential	1	14	75.2	75.2	76.8	1.6	Yes
21-9	B	Residential	1	14	75.2	75.2	76.8	1.6	Yes
21-10	B	Residential	1	14	74.5	74.5	76.2	1.7	Yes
21-11	B	Residential	1	14	70.9	70.9	73.1	2.2	Yes
21-12	B	Residential	1	14	70.7	70.7	72.9	2.2	Yes
21-13	B	Residential	1	14	70.4	70.4	72.6	2.2	Yes
21-14	B	Residential	1	14	70.8	70.8	72.7	1.9	Yes
21-15	B	Residential	1	14	71.5	71.5	72.8	1.3	Yes
21-16	B	Residential	1	14	71.5	71.5	72.8	1.3	Yes
21-17	B	Residential	1	14	70.5	70.5	72.0	1.5	Yes
21-18	B	Residential	1	14	70.0	70.0	71.6	1.6	Yes
21-19	B	Residential	1	14	69.4	69.4	71.0	1.6	Yes
21-20	B	Residential	1	14	68.5	68.5	70.2	1.7	Yes
21-21	B	Residential	1	14	73.5	73.5	75.4	1.9	Yes
21-22	B	Residential	1	14	63.1	63.1	65.7	2.6	
21-23	B	Residential	1	14	75.8	75.8	77.6	1.8	Yes
21-24	B	Residential	1	14	73.3	73.3	75.9	2.6	Yes
21-25	B	Residential	1	14	73.0	73.0	75.7	2.7	Yes
21-26	B	Residential	1	14	71.1	71.1	73.1	2.0	Yes
21-27	B	Residential	1	14	71.1	71.1	73.7	2.6	Yes
21-28	B	Residential	1	14	67.2	67.2	69.5	2.3	Yes
21-29	B	Residential	1	14	66.5	66.5	68.6	2.1	Yes
21-30	B	Residential	1	14	62.5	62.5	64.7	2.2	
21-31	B	Residential	1	14	67.0	67.0	69.8	2.8	Yes
21-32	B	Residential	1	14	71.4	71.4	73.8	2.4	Yes
21-33	B	Residential	1	14	64.5	64.5	67.2	2.7	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
21-34	B	Residential	1	14	73.7	73.7	75.7	2.0	Yes
21-35	B	Residential	1	14	65.7	65.7	68.0	2.3	Yes
21-36	B	Residential	1	14	63.8	63.8	66.2	2.4	Yes
21-37	B	Residential	1	14	67.7	67.7	70.7	3.0	Yes
21-38	B	Residential	1	14	64.0	64.0	65.7	1.7	
21-39	B	Residential	1	14	62.3	62.3	64.2	1.9	
21-40	B	Residential	1	14	61.3	61.3	62.9	1.6	
21-41	B	Residential	1	14	62.1	62.1	63.5	1.4	
21-42	B	Residential	1	14	60.6	60.6	62.7	2.1	
21-43	B	Residential	1	14	61.0	61.0	63.3	2.3	
21-44	B	Residential	1	14	60.3	60.3	63.2	2.9	
22-1	B	Residential	1	14	61.7	61.7	64.8	3.1	
22-2	B	Residential	1	14	64.6	64.6	64.1	-0.5	
22-3	B	Residential	1	14	65.7	65.7	66.7	1.0	Yes
22-4	B	Residential	1	14	65.8	65.8	66.7	0.9	Yes
22-5	B	Residential	1	14	62.4	62.4	62.9	0.5	
22-6	B	Residential	1	14	64.0	64.0	65.0	1	
22-7	B	Residential	1	14	64.3	64.3	65.5	1.2	
22-8	B	Residential	1	14	65.4	65.4	66.5	1.1	Yes
22-9	B	Residential	1	14	62.1	62.1	64.2	2.1	
22-10	B	Residential	1	14	63.8	63.8	66.4	2.6	Yes
22-11	B	Residential	1	15	63.0	63.0	65.0	2.0	
22-12	B	Residential	1	15	60.5	60.5	62.6	2.1	
22-13	B	Residential	1	15	66.7	66.7	68.0	1.3	Yes
22-14	B	Residential	1	15	66.3	66.3	67.2	0.9	Yes
22-15	B	Residential	1	15	70.4	70.4	71.1	0.7	Yes
22-16	B	Residential	1	15	69.7	69.7	70.8	1.1	Yes
22-17	B	Residential	1	15	70.2	70.2	70.5	0.3	Yes
22-18	B	Residential	1	15	63.9	63.9	65.8	1.9	
22-19	B	Residential	1	15	63.8	63.8	65.2	1.4	
22-20	B	Residential	1	15	59.0	59.0	60.7	1.7	
23-1	C	Recreational Area	1	15	62.8	62.9	65	2.2	
24-1	B	Residential	1	15	64.0	64.0	65.7	1.7	
24-2	B	Residential	1	15	70.2	70.2	72.1	1.9	Yes
24-3	B	Residential	1	15	73.7	73.7	75.5	1.8	Yes
24-4	B	Residential	1	15	65.4	65.4	64.5	-0.9	
24-5	B	Residential	1	15	67.9	67.9	66.5	-1.4	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
24-6	B	Residential	1	15	61.3	61.3	61.6	0.3	
24-7	B	Residential	1	15	64.9	64.9	63.4	-1.5	
24-8	B	Residential	1	15	60.7	60.7	60.8	0.1	
24-9	B	Residential	1	15	59.9	59.9	59.7	-0.2	
24-10	B	Residential	1	15	60.0	60.0	59.8	-0.2	
24-11	B	Residential	1	15	76.4	76.4	76.8	0.4	Yes
24-12	B	Residential	1	15	69.2	69.2	70.0	0.8	Yes
24-13	B	Residential	1	15	64.3	64.3	63.8	-0.5	
24-14	B	Residential	1	15	64.2	64.2	63.1	-1.1	
24-15	B	Residential	1	15	63.8	63.8	63.5	-0.3	
24-16	B	Residential	1	15	62.5	62.5	60.5	-2.0	
24-17	B	Residential	1	15,16	63.8	63.8	63.4	-0.4	
24-18	B	Residential	1	15,16	64.8	64.8	65.1	0.3	
24-19	B	Residential	1	16	65.9	65.9	66.7	0.8	Yes
24-20	B	Residential	1	16	67.6	67.6	68.6	1.0	Yes
24-21	B	Residential	1	16	67.4	67.4	68.4	1.0	Yes
24-22	B	Residential	1	16	69.6	69.6	70.7	1.1	Yes
24-23	B	Residential	1	16	71.4	71.4	72.7	1.3	Yes
24-24	B	Residential	1	16	68.1	68.1	69.3	1.2	Yes
24-25	B	Residential	1	16	68.4	68.4	69.6	1.2	Yes
24-26	B	Residential	1	16	68.9	68.9	70.1	1.2	Yes
24-27	B	Residential	1	16	69.4	69.4	70.5	1.1	Yes
24-28	B	Residential	1	16	69.8	69.8	70.9	1.1	Yes
24-29	B	Residential	1	16	70.7	70.7	72.0	1.3	Yes
24-30	B	Residential	1	16	67.5	67.5	68.6	1.1	Yes
24-31	B	Residential	1	16	69.7	69.7	71.4	1.7	Yes
24-32	B	Residential	1	16	65.8	65.8	67.9	2.1	Yes
24-33	B	Residential	1	16	63.4	63.4	65.3	1.9	
24-34	B	Residential	1	16	61.7	61.7	63.3	1.6	
24-35	B	Residential	1	16	63.2	63.2	62.8	-0.4	
24-36	B	Residential	1	16	64.2	64.2	64.1	-0.1	
24-37	B	Residential	1	16	65.0	65.0	66.2	1.2	Yes
24-38	B	Residential	1	16	65.9	65.9	67.2	1.3	Yes
24-39	B	Residential	1	16	66.1	66.1	67.4	1.3	Yes
24-40	B	Residential	1	16	66.3	66.3	67.6	1.3	Yes
24-41	B	Residential	1	16	66.5	66.5	67.9	1.4	Yes
24-42	B	Residential	1	16	66.8	66.8	67.9	1.1	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
24-43	B	Residential	1	16	65.1	65.1	61.2	-3.9	
24-44	B	Residential	1	16	63.6	63.6	59.3	-4.3	
24-45	B	Residential	1	16	63.7	63.7	60.1	-3.6	
24-46	B	Residential	1	16	62.9	62.9	60.0	-2.9	
24-47	B	Residential	1	16	60.5	60.5	61.6	1.1	
24-48	B	Residential	1	16	62.5	62.5	58.7	-3.8	
24-49	B	Residential	1	16	61.5	61.5	57.2	-4.3	
24-50	B	Residential	1	15,16	62.6	62.6	61.9	-0.7	
24-51	B	Residential	1	16	60.3	60.3	59.7	-0.6	
25-1	B	Residential	1	18	62.0	62.0	64.6	2.6	
25-2	B	Residential	1	18	64.2	64.2	66.9	2.7	Yes
25-3	B	Residential	1	18	62.0	62.0	64.5	2.5	
25-4	B	Residential	1	18	65.6	65.6	67.7	2.1	Yes
25-5	B	Residential	1	18	63.0	63.0	63.9	0.9	
25-6	B	Residential	1	18	64.0	64.1	64.2	0.2	
25-7	B	Residential	1	19	61.8	62.0	63.1	1.3	
26-1	B	Residential	1	20	72.4	72.4	74.1	1.7	Yes
26-2	B	Residential	1	20	72.7	72.8	72.0	-0.7	Yes
26-3	B	Residential	1	20	64.0	64.1	66.5	2.5	Yes
26-4	B	Residential	1	20	67.4	67.5	69.3	1.9	Yes
26-5	B	Residential	1	20	67.7	67.7	69.5	1.8	Yes
26-6	B	Residential	1	20	68.1	68.1	69.9	1.8	Yes
26-7	B	Residential	1	20	69.3	69.3	71.0	1.7	Yes
26-8	B	Residential	1	20	67.6	67.6	69.1	1.5	Yes
26-9	B	Residential	1	20	68.6	68.6	69.9	1.3	Yes
26-10	B	Residential	1	20	62.7	62.7	64.7	2.0	
26-11	B	Residential	1	20	64.5	64.5	67.0	2.5	Yes
26-12	B	Residential	1	20	64.5	64.5	67.2	2.7	Yes
26-13	B	Residential	1	20	58.9	58.9	61.2	2.3	
26-14	B	Residential	1	20	59.9	59.9	62.0	2.1	
27-1	C	School	1	20	65.7	65.7	68.7	3.0	Yes
27-2	C	School	1	20	74.0	74.0	75.8	1.8	Yes
27-3	C	School	1	20	73.7	73.7	74.8	1.1	Yes
27-4	C	School	1	20	66.0	66.1	67.8	1.8	Yes
28-1	B	Residential	1	20	63.2	63.2	64.8	1.6	
28-2	B	Residential	1	20	62.6	62.6	63.9	1.3	
28-3	B	Residential	1	21	64.2	64.2	66.5	2.3	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
29-1	B	Residential	1	22	70.1	70.1	72.7	2.6	Yes
29-2	B	Residential	1	22	64.6	64.6	67.3	2.7	Yes
29-3	B	Residential	1	22	59.4	59.4	61.4	2.0	
30-1	B	Residential	1	22	65.8	65.8	68.0	2.2	Yes
30-2	B	Residential	1	22	64.2	64.2	68.3	4.1	Yes
30-3	B	Residential	1	22	61.2	61.2	63.4	2.2	
31-1	B	Residential	1	23	59.8	59.8	61.9	2.1	
31-2	B	Residential	1	23	68.9	68.9	71.1	2.2	Yes
31-3	B	Residential	1	23	61.7	61.7	64.2	2.5	
31-4	B	Residential	1	23	61.8	61.8	63.7	1.9	
31-5	B	Residential	1	23	60.3	60.3	62.0	1.7	
31-6	B	Residential	1	24	61.2	61.2	62.9	1.7	
31-7	B	Residential	1	24	70.7	70.7	73.1	2.4	Yes
31-8	B	Residential	1	24	67.0	67.0	69.1	2.1	Yes
31-9	B	Residential	1	24	65.6	65.6	68	2.4	Yes
31-10	B	Residential	1	24	63.2	63.2	65.3	2.1	
31-11	B	Residential	1	24	63.7	63.8	65.5	1.8	
31-12	B	Residential	1	24	63.0	63.0	64.9	1.9	
31-13	B	Residential	1	24	62.5	62.5	64.7	2.2	
31-14	B	Residential	1	24	61.7	61.8	64.2	2.5	
31-15	B	Residential	1	24	61.7	61.7	64.2	2.5	
31-16	B	Residential	1	24	62.0	62.0	64.3	2.3	
31-17	B	Residential	1	24	62.4	62.5	64.8	2.4	
31-18	B	Residential	1	25	71.7	71.7	72.7	1.0	Yes
31-19	B	Residential	1	25	65.5	65.8	68.0	2.5	Yes
31-20	B	Residential	1	25	65.6	65.7	67.7	2.1	Yes
31-21	B	Residential	1	25	65.1	65.3	67.2	2.1	Yes
31-22	B	Residential	1	25	65.4	65.6	67.3	1.9	Yes
31-23	B	Residential	1	25	67.1	67.2	67.8	0.7	Yes
31-24	B	Residential	1	25	65.2	65.4	66.9	1.7	Yes
31-25	B	Residential	1	25	64.6	64.7	66.4	1.8	Yes
31-26	B	Residential	1	25	64.5	64.6	66.0	1.5	Yes
31-27	B	Residential	1	25	64.6	64.7	66.4	1.8	Yes
31-28	B	Residential	1	25	65.1	65.2	66.2	1.1	Yes
31-29	B	Residential	1	25	64.8	64.9	65.8	1	
31-30	B	Residential	1	25	65.0	65.1	66.5	1.5	Yes
31-31	B	Residential	1	25	64.4	64.5	65.8	1.4	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
31-32	B	Residential	1	25	64.0	64.1	65.6	1.6	
31-33	B	Residential	1	25	64.0	64.1	65.5	1.5	
31-34	B	Residential	1	25	64.2	64.3	65.7	1.5	
31-35	B	Residential	1	25	64.5	64.6	66.0	1.5	Yes
31-36	B	Residential	1	25	64.1	64.2	65.4	1.3	
31-37	B	Residential	1	25	64.2	64.3	65.4	1.2	
32-1	B	Residential	1	23	68.8	68.8	71.3	2.5	Yes
32-2	B	Residential	1	24	67.8	67.8	70.3	2.5	Yes
32-3	B	Residential	1	24	66.2	66.2	68.7	2.5	Yes
32-4	B	Residential	1	24	66.9	66.9	68.6	1.7	Yes
32-5	B	Residential	1	24	66.8	66.8	68.9	2.1	Yes
32-6	B	Residential	1	24	67.5	67.5	69.3	1.8	Yes
32-7	B	Residential	1	24	68.4	68.4	69.9	1.5	Yes
32-8	B	Residential	1	24	67.5	67.5	69.8	2.3	Yes
32-9	B	Residential	1	24	67.0	67.0	69.1	2.1	Yes
32-10	B	Residential	1	23	61.1	61.1	64.0	2.9	
32-11	B	Residential	1	24	61.7	61.7	64.2	2.5	
32-12	B	Residential	1	24	61.3	61.3	64.1	2.8	
32-13	B	Residential	1	24	61.2	61.2	64.3	3.1	
33-1	E	Other Activity (Dinosaur World)	1	25	64.9	65.1	66.3	1.4	
34-1	B	Residential	1	26	71.4	71.4	71.5	0.1	Yes
34-2	B	Residential	1	26	67.5	67.5	69.4	1.9	Yes
34-3	B	Residential	1	26	62.9	62.9	66.1	3.2	Yes
35-1	B	Residential	1	26	77.6	77.6	76.7	-0.9	Yes
35-2	B	Residential	1	26	70.7	70.7	72.9	2.2	Yes
35-3	B	Residential	1	26	68.8	68.8	71.0	2.2	Yes
35-4	B	Residential	1	26	65.1	65.1	67.1	2	Yes
35-5	B	Residential	1	26	74.5	74.5	76.0	1.5	Yes
35-6	B	Residential	1	26	67.6	67.6	69.1	1.5	Yes
35-7	B	Residential	1	26	66.7	66.7	67.3	0.6	Yes
35-8	B	Residential	1	26	69.3	69.3	70.8	1.5	Yes
35-9	B	Residential	1	26	66.5	66.5	68.9	2.4	Yes
35-10	B	Residential	1	26	67.1	67.1	68.8	1.7	Yes
35-11	B	Residential	1	26	75.1	75.1	76.6	1.5	Yes
35-12	B	Residential	1	26,27	74.0	74.0	75.8	1.8	Yes
35-13	B	Residential	1	26	72.4	72.4	73.7	1.3	Yes
35-14	B	Residential	1	26,27	66.5	66.5	67.6	1.1	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
35-15	B	Residential	1	26	62.4	62.4	62.9	0.5	
35-16	B	Residential	1	27	69.6	69.6	70.3	0.7	Yes
35-17	B	Residential	1	27	66.7	66.7	67.8	1.1	Yes
35-18	B	Residential	1	27	67.8	67.8	68.6	0.8	Yes
35-19	B	Residential	1	27	65.0	65.0	66.4	1.4	Yes
35-20	B	Residential	1	27	66.3	66.3	68.0	1.7	Yes
35-21	B	Residential	1	28	65.7	65.7	67.3	1.6	Yes
35-22	B	Residential	1	28	63.6	63.6	65.7	2.1	
35-23	B	Residential	1	28	68.7	68.7	71.8	3.1	Yes
35-24	B	Residential	1	28	68.3	68.3	71.8	3.5	Yes
35-25	B	Residential	1	28	68.3	68.3	71.2	2.9	Yes
35-26	B	Residential	1	28	71.3	71.3	73.9	2.6	Yes
35-27	B	Residential	1	28	73.5	73.5	75.8	2.3	Yes
35-28	B	Residential	1	28	70.6	70.6	73.2	2.6	Yes
35-29	B	Residential	1	28	66.6	66.6	69.4	2.8	Yes
35-30	B	Residential	1	28	63.6	63.6	65.7	2.1	
35-31	B	Residential	1	28	64.3	64.3	67.0	2.7	Yes
35-32	B	Residential	1	28	64.9	64.9	67.8	2.9	Yes
35-33	B	Residential	1	28	65.3	65.3	68.3	3.0	Yes
35-34	B	Residential	1	28	64.6	64.6	67.6	3.0	Yes
35-35	B	Residential	1	28	64.2	64.2	67.6	3.4	Yes
35-36	B	Residential	1	28	64.1	64.1	67.7	3.6	Yes
35-37	B	Residential	1	28	72.7	72.8	77.3	4.6	Yes
35-38	B	Residential	1	28	75.5	75.6	79.7	4.2	Yes
35-39	B	Residential	1	28	67.1	67.2	69	1.9	Yes
35-40	B	Residential	1	28	69.8	70.0	71.6	1.8	Yes
35-41	B	Residential	1	28	69.7	69.7	71.9	2.2	Yes
35-42	B	Residential	1	28	66.5	66.6	69.4	2.9	Yes
35-43	B	Residential	1	28	67.3	67.4	69.3	2	Yes
35-44	B	Residential	1	28	66.7	66.8	68.4	1.7	Yes
35-45	B	Residential	1	28	65.5	65.5	67.5	2	Yes
35-46	B	Residential	1	28	65.1	65.1	66.3	1.2	Yes
35-47	B	Residential	1	28,29	65.0	65.0	66.1	1.1	Yes
35-48	B	Residential	1	28	64.3	64.4	66.9	2.6	Yes
35-49	B	Residential	1	28	64.2	64.2	66.9	2.7	Yes
35-50	B	Residential	1	28	64.5	64.6	66.8	2.3	Yes
36-1	D	Place of Worship (Interior)	1	27	47.0	47.0	48.4	1.4	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
37-1	B	Residential	1	27	69.9	69.9	70.9	1.0	Yes
37-2	B	Residential	1	27	68.7	68.7	69.7	1.0	Yes
37-3	B	Residential	1	27	68.3	68.3	70.5	2.2	Yes
37-4	B	Residential	1	27	67.9	67.9	70.2	2.3	Yes
37-5	B	Residential	1	27	66.4	66.4	68.6	2.2	Yes
37-6	B	Residential	1	27	69.1	69.1	70.5	1.4	Yes
37-7	B	Residential	1	27,28	61.7	61.8	63.6	1.9	
37-8	B	Residential	1	28	63.1	63.1	66.4	3.3	Yes
37-9	B	Residential	1	27	68.1	68.1	69.6	1.5	Yes
37-10	B	Residential	1	27	69.8	69.8	71.3	1.5	Yes
37-11	B	Residential	1	27	71.7	71.7	72.9	1.2	Yes
37-12	B	Residential	1	27	68.9	68.9	70.5	1.6	Yes
37-13	B	Residential	1	27	68.2	68.2	69.7	1.5	Yes
37-14	B	Residential	1	28	70.2	70.3	72.0	1.8	Yes
37-15	B	Residential	1	28	69.7	69.8	71.5	1.8	Yes
37-16	B	Residential	1	27	65.5	65.5	67.2	1.7	Yes
37-17	B	Residential	1	28	68.2	68.2	71.0	2.8	Yes
37-18	B	Residential	1	27	69.3	69.3	70.6	1.3	Yes
37-19	B	Residential	1	27,28	65.8	65.8	67.8	2.0	Yes
37-20	B	Residential	1	28	67.1	67.1	68.9	1.8	Yes
37-21	B	Residential	1	28	66.5	66.5	68.4	1.9	Yes
37-22	B	Residential	1	28	66.9	66.9	68.7	1.8	Yes
37-23	B	Residential	1	28	78.0	78.0	79.1	1.1	Yes
37-24	B	Residential	1	28	69.3	69.3	70.8	1.5	Yes
37-25	B	Residential	1	28	67.2	67.2	68.7	1.5	Yes
37-26	B	Residential	1	28	66.4	66.4	67.8	1.4	Yes
37-27	B	Residential	1	28	66.9	66.9	68.1	1.2	Yes
37-28	B	Residential	1	28	66.5	66.5	68.6	2.1	Yes
37-29	B	Residential	1	28	75.1	75.1	76.1	1.0	Yes
37-30	B	Residential	1	28	67.7	67.7	69.8	2.1	Yes
37-31	B	Residential	2	28	74.8	74.8	76.9	2.1	Yes
37-32	B	Residential	1	28	64.9	64.9	66.9	2.0	Yes
37-33	B	Residential	1	28	65.0	65.0	67.5	2.5	Yes
37-34	B	Residential	1	28	68.3	68.4	70.9	2.6	Yes
37-35	B	Residential	1	28	75.0	75.0	75.8	0.8	Yes
37-36	B	Residential	1	28	71.0	71.1	71.8	0.8	Yes
37-37	B	Residential	1	28	68.4	68.4	70.3	1.9	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
37-38	B	Residential	1	28	65.1	65.1	66.5	1.4	Yes
37-39	B	Residential	1	28	66.1	66.2	67.5	1.4	Yes
37-40	B	Residential	1	29	68.4	68.5	70.5	2.1	Yes
37-41	B	Residential	1	29	67.8	67.9	70.7	2.9	Yes
37-42	B	Residential	1	29	66.1	66.1	69	2.9	Yes
38-1	E	Restaurant (Exterior)	1	29	63.9	63.9	65.3	1.4	
39-1	B	Residential	1	30	62.0	62.0	63.5	1.5	
39-2	B	Residential	1	30	52.9	52.9	54.4	1.5	
39-3	B	Residential	1	30	52.2	52.2	53.7	1.5	
39-4	B	Residential	1	30	52.1	52.1	53.6	1.5	
39-5	B	Residential	1	30	52.2	52.3	53.6	1.4	
39-6	B	Residential	1	30	52.2	52.2	53.6	1.4	
39-7	B	Residential	1	30	51.8	51.9	53.3	1.5	
39-8	B	Residential	1	30	51.7	51.8	53.2	1.5	
39-9	B	Residential	1	30	52.2	52.3	53.6	1.4	
39-10	B	Residential	1	30	53.0	53.1	54.3	1.3	
39-11	B	Residential	1	30	53.9	53.9	55.2	1.3	
39-12	B	Residential	1	30	53.9	53.9	55.2	1.3	
39-13	B	Residential	1	30	53.8	53.8	55.0	1.2	
39-14	B	Residential	1	30	53.5	53.5	54.8	1.3	
39-15	B	Residential	1	30	54.0	54.0	55.4	1.4	
39-16	B	Residential	1	30	54.1	54.2	55.5	1.4	
39-17	B	Residential	1	30	54.8	54.9	56.2	1.4	
39-18	B	Residential	1	30	55.9	55.9	57.2	1.3	
39-19	B	Residential	1	30	49.0	49.0	50.3	1.3	
39-20	B	Residential	1	30	48.4	48.4	49.7	1.3	
39-21	B	Residential	1	30	48.2	48.2	49.4	1.2	
39-22	B	Residential	1	30	48.2	48.2	49.5	1.3	
39-23	B	Residential	1	30	48.3	48.3	49.5	1.2	
39-24	B	Residential	1	30	48.2	48.2	49.5	1.3	
39-25	B	Residential	1	30	48.9	48.9	50.1	1.2	
39-26	B	Residential	1	30	50.3	50.3	51.8	1.5	
39-27	B	Residential	1	30	52.1	52.2	53.5	1.4	
39-28	B	Residential	1	30	52.2	52.2	53.5	1.3	
39-29	B	Residential	1	30	52.0	52.1	52.8	0.8	
39-30	B	Residential	1	30	51.5	51.6	52.8	1.3	
39-31	B	Residential	1	30	51.7	51.7	53.1	1.4	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
39-32	B	Residential	1	30	52.2	52.2	53.5	1.3	
39-33	B	Residential	1	30	52.2	52.3	53.6	1.4	
39-34	B	Residential	1	30	53.1	53.2	54.5	1.4	
39-35	B	Residential	1	30	53.1	53.1	54.4	1.3	
39-36	B	Residential	1	30	52.7	52.7	54	1.3	
39-37	B	Residential	1	30	51.5	51.5	52.9	1.4	
39-38	B	Residential	1	30	52.2	52.3	53.6	1.4	
39-39	B	Residential	1	30	52.6	52.6	53.9	1.3	
39-40	B	Residential	1	30	53.0	53.0	54.3	1.3	
39-41	B	Residential	1	30	51.9	51.9	53.2	1.3	
39-42	B	Residential	1	30	52.7	52.7	53.9	1.2	
39-43	B	Residential	1	30	53.0	53.0	54.3	1.3	
39-44	B	Residential	1	30	53.1	53.1	54.4	1.3	
39-45	B	Residential	1	30	53.3	53.3	54.6	1.3	
39-46	B	Residential	1	30	53.3	53.4	54.6	1.3	
39-47	B	Residential	1	30	52.9	52.9	54.2	1.3	
39-48	B	Residential	1	30	53.1	53.2	54.4	1.3	
39-49	B	Residential	1	30	53.4	53.4	54.7	1.3	
39-50	B	Residential	1	30	53.1	53.1	54.3	1.2	
39-51	B	Residential	1	30	53.3	53.4	54.6	1.3	
39-52	B	Residential	1	30	53.4	53.5	54.6	1.2	
39-53	B	Residential	1	30	53.2	53.3	54.4	1.2	
39-54	B	Residential	1	30	53.1	53.1	54.3	1.2	
39-55	B	Residential	1	30	52.8	52.9	54.1	1.3	
39-56	B	Residential	1	30	52.6	52.6	53.8	1.2	
39-57	B	Residential	1	30	53.3	53.4	54.6	1.3	
39-58	B	Residential	1	30	53.4	53.5	54.7	1.3	
39-59	B	Residential	1	30	53.4	53.5	54.7	1.3	
39-60	B	Residential	1	30	53.2	53.2	54.5	1.3	
40-1	B	Residential	1	30	62.6	62.6	66.6	4.0	Yes
40-2	B	Residential	1	30	66.1	66.1	69.3	3.2	Yes
40-3	B	Residential	1	30	61.8	61.8	65.9	4.1	
41-1	B	Residential	1	31	68.5	68.6	70.0	1.5	Yes
41-2	B	Residential	1	31	70.4	70.4	71.2	0.8	Yes
41-3	B	Residential	1	31	67.3	67.4	69.1	1.8	Yes
41-4	B	Residential	1	31	66.9	67.0	68.8	1.9	Yes
41-5	B	Residential	1	31	71.0	71.0	71.6	0.6	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
41-6	B	Residential	1	31	69.5	69.6	71.4	1.9	Yes
41-7	B	Residential	1	31	68.6	68.8	70.7	2.1	Yes
41-8	B	Residential	1	31	67.7	68.0	70.5	2.8	Yes
41-9	B	Residential	1	31	69.2	70.6	72.2	3.0	Yes
41-10	B	Residential	1	31	68.0	68.3	70.1	2.1	Yes
41-11	B	Residential	1	31	67.5	67.6	69.6	2.1	Yes
41-12	B	Residential	1	31	66.8	66.9	68.8	2.0	Yes
41-13	B	Residential	1	31	66.0	66.1	68.1	2.1	Yes
41-14	B	Residential	1	31	66.6	66.8	68.8	2.2	Yes
41-15	B	Residential	1	31	68.0	68.2	70.1	2.1	Yes
41-16	B	Residential	1	31	67.0	67.3	69.3	2.3	Yes
41-17	B	Residential	1	31	66.1	66.3	68.1	2.0	Yes
41-18	B	Residential	1	31	65.8	66.0	67.8	2.0	Yes
41-19	B	Residential	1	31	65.3	65.4	67.3	2.0	Yes
41-20	B	Residential	1	31	66.4	66.5	68.6	2.2	Yes
41-21	B	Residential	1	31	66.5	66.7	69.0	2.5	Yes
41-22	B	Residential	1	31	65.3	65.4	67.1	1.8	Yes
41-23	B	Residential	1	31	65.9	66.0	67.9	2.0	Yes
41-24	B	Residential	1	31	66.7	66.9	69.2	2.5	Yes
41-25	B	Residential	1	31	67.1	67.5	69.9	2.8	Yes
41-26	B	Residential	1	31	66.1	66.2	68.0	1.9	Yes
41-27	B	Residential	1	31,32	66.9	67.0	68.7	1.8	Yes
41-28	B	Residential	1	32	66.0	66.2	68.4	2.4	Yes
41-29	B	Residential	1	31,32	64.8	64.9	66.9	2.1	Yes
41-30	B	Residential	1	31	65.7	65.8	67.6	1.9	Yes
41-31	B	Residential	1	31	64.2	64.3	66.2	2.0	Yes
41-32	B	Residential	1	32	66.4	66.5	68.4	2.0	Yes
41-33	B	Residential	1	32	65.0	65.1	67.1	2.1	Yes
41-34	B	Residential	1	32	64.3	64.4	66.4	2.1	Yes
41-35	B	Residential	1	32	63.5	63.7	65.6	2.1	
41-36	B	Residential	1	31	65.5	65.6	67.8	2.3	Yes
41-37	B	Residential	1	31	63.8	63.9	66.0	2.2	Yes
41-38	B	Residential	1	31	63.7	63.8	65.9	2.2	
41-39	B	Residential	1	31	68.1	68.3	70.1	2.0	Yes
41-40	B	Residential	1	31	67.2	67.7	69.9	2.7	Yes
41-41	B	Residential	1	31	67.1	67.5	69.9	2.8	Yes
41-42	B	Residential	1	31,32	67.2	67.5	69.8	2.6	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
41-43	B	Residential	1	31	66.4	66.7	69.1	2.7	Yes
41-44	B	Residential	1	31	67.1	67.2	69.1	2.0	Yes
41-45	B	Residential	1	31	66.1	66.3	67.9	1.8	Yes
41-46	B	Residential	1	31	66.2	66.4	68.4	2.2	Yes
41-47	B	Residential	1	31	65.1	65.2	67.1	2.0	Yes
41-48	B	Residential	1	31	64.3	64.4	66.2	1.9	Yes
41-49	B	Residential	1	32	64.6	64.7	66.7	2.1	Yes
41-50	B	Residential	1	32	65.1	65.2	67.2	2.1	Yes
41-51	B	Residential	1	31	65.7	65.8	67.9	2.2	Yes
41-52	B	Residential	1	31	65.5	65.5	67.8	2.3	Yes
42-1	E	Hotel	1	32	50.1	50.4	52.1	2.0	
43-1	C	Cemetery	1	32	67.1	67.6	72.1	5.0	Yes
44-1	E	Hotel	1	32	61.7	61.9	64.4	2.7	
45-1	B	Residential	1	33	67.7	67.7	72.2	4.5	Yes
45-2	B	Residential	1	33	66.7	66.7	71.3	4.6	Yes
45-3	B	Residential	1	33	66.1	66.1	71.2	5.1	Yes
45-4	B	Residential	1	33	65.7	65.7	71.3	5.6	Yes
45-5	B	Residential	1	33	64.8	64.8	69.5	4.7	Yes
45-6	B	Residential	1	33	64.3	64.4	69.7	5.4	Yes
45-7	B	Residential	1	33	63.9	63.9	69.7	5.8	Yes
45-8	B	Residential	1	33	63.4	63.4	69.4	6.0	Yes
45-9	B	Residential	1	33	65.4	65.4	70.1	4.7	Yes
45-10	B	Residential	1	33	67.4	67.4	71.4	4.0	Yes
45-11	B	Residential	1	33	69.8	69.8	74.4	4.6	Yes
45-12	B	Residential	1	33	69.7	69.7	73.9	4.2	Yes
45-13	B	Residential	1	33	71.1	71.1	77.2	6.1	Yes
45-14	B	Residential	1	33	68.3	68.3	74.7	6.4	Yes
45-15	B	Residential	1	33	66.2	66.2	72.0	5.8	Yes
45-16	B	Residential	1	33	68.1	68.1	74.3	6.2	Yes
45-17	B	Residential	1	33	66.3	66.3	72.2	5.9	Yes
45-18	B	Residential	1	33	61.2	61.2	66.0	4.8	Yes
45-19	B	Residential	1	33	60.9	61.0	66.1	5.2	Yes
45-20	B	Residential	1	33	57.0	57.0	61.7	4.7	
45-21	B	Residential	1	33	53.1	53.2	55.5	2.4	
45-22	B	Residential	1	33	52.3	52.3	54.7	2.4	
45-23	B	Residential	1	33	53.2	53.2	56.9	3.7	
45-24	B	Residential	1	33	59.9	59.9	64.7	4.8	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
45-25	B	Residential	1	33	59.3	59.3	64.1	4.8	
45-26	B	Residential	1	33	64.0	64.0	69.1	5.1	Yes
45-27	B	Residential	1	33	64.0	64.0	69.3	5.3	Yes
45-28	B	Residential	1	33	63.8	63.8	69	5.2	Yes
45-29	B	Residential	1	33	63.7	63.7	69.1	5.4	Yes
45-30	B	Residential	1	33	63.4	63.4	68.9	5.5	Yes
45-31	B	Residential	1	33	64.6	64.6	69.5	4.9	Yes
45-32	B	Residential	1	33	64.3	64.3	69.2	4.9	Yes
45-33	B	Residential	1	33	59.7	59.7	63.8	4.1	
45-34	B	Residential	1	33	60.6	60.6	64.9	4.3	
45-35	B	Residential	1	33	60.9	60.9	65.3	4.4	
45-36	B	Residential	1	33	70.6	70.6	77.0	6.4	Yes
45-37	B	Residential	1	33	67.9	67.9	73.4	5.5	Yes
45-38	B	Residential	1	33	66.4	66.4	71.5	5.1	Yes
45-39	B	Residential	1	33	66.3	66.3	71.3	5.0	Yes
45-40	B	Residential	1	33	65.4	65.4	69.8	4.4	Yes
45-41	B	Residential	1	33	63.8	63.8	68.7	4.9	Yes
45-42	B	Residential	1	33	64.2	64.2	69.1	4.9	Yes
45-43	B	Residential	1	33	63.8	63.9	68.8	5.0	Yes
45-44	B	Residential	1	33	63.9	64.0	68.9	5.0	Yes
45-45	B	Residential	1	33	64.0	64.0	68.8	4.8	Yes
45-46	B	Residential	1	33	64.3	64.3	69.0	4.7	Yes
45-47	B	Residential	1	33	61.3	61.3	65.7	4.4	
45-48	B	Residential	1	33	60.1	60.1	64.4	4.3	
45-49	B	Residential	1	33	60.1	60.1	64.2	4.1	
45-50	B	Residential	1	33	71.2	71.2	77.3	6.1	Yes
45-51	B	Residential	1	33	68.1	68.1	72.9	4.8	Yes
45-52	B	Residential	1	33	71.4	71.4	77.4	6.0	Yes
45-53	B	Residential	1	34	65.7	65.8	69.2	3.5	Yes
45-54	B	Residential	1	34	70.3	70.3	74.2	3.9	Yes
46-1	B	Residential	1	33	64.6	64.6	69.2	4.6	Yes
47-1	B	Residential	1	34	64.5	64.6	69.1	4.6	Yes
47-2	B	Residential	1	34	67.4	67.5	69.6	2.2	Yes
47-3	B	Residential	1	34	63.8	63.9	67.3	3.5	Yes
48-1	D	Place of Worship (Interior)	1	34	43.4	43.5	45.1	1.7	
49-1	E	Hotel	1	35	63.2	63.3	64.6	1.4	
50-1	B	Residential	1	35	66.0	66.3	67.8	1.8	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
50-2	B	Residential	1	35	65.4	65.6	66.0	0.6	Yes
50-3	B	Residential	1	35	64.3	64.5	65.2	0.9	
50-4	B	Residential	1	35	63.0	63.1	64.1	1.1	
50-5	B	Residential	1	35	61.5	61.7	62.7	1.2	
50-6	B	Residential	1	35	60.2	60.3	61.5	1.3	
50-7	B	Residential	1	35	60.1	60.3	61.6	1.5	
50-8	B	Residential	1	35	61.0	61.1	62.2	1.2	
50-9	B	Residential	1	35	62.6	62.7	64.0	1.4	
50-10	B	Residential	1	35	66.8	66.9	67.9	1.1	Yes
50-11	B	Residential	1	35	71.7	71.9	71.4	-0.3	Yes
50-12	B	Residential	1	35	71.7	71.8	71.1	-0.6	Yes
50-13	B	Residential	1	35	69.9	70.1	70.8	0.9	Yes
50-14	B	Residential	1	35	69.7	69.8	71.8	2.1	Yes
50-15	B	Residential	1	35	69.1	69.2	71.5	2.4	Yes
50-16	B	Residential	1	35	70.5	70.5	73.2	2.7	Yes
50-17	B	Residential	1	35	67.1	67.2	68.7	1.6	Yes
50-18	B	Residential	1	35	66.4	66.5	67.7	1.3	Yes
50-19	B	Residential	1	35	63.4	63.5	65.2	1.8	
50-20	B	Residential	1	35	62.8	62.9	64.7	1.9	
50-21	B	Residential	1	35	62.1	62.2	64.2	2.1	
50-22	B	Residential	1	35	66.2	66.3	68.6	2.4	Yes
50-23	B	Residential	1	35	65.8	65.9	69.7	3.9	Yes
50-24	B	Residential	1	35	62.5	62.5	65.9	3.4	
50-25	B	Residential	1	35	62.0	62.1	66.4	4.4	Yes
50-26	B	Residential	1	35	66.6	66.6	71.2	4.6	Yes
50-27	B	Residential	1	35	71.0	71.0	75.1	4.1	Yes
50-28	B	Residential	1	35	70.9	70.9	75.0	4.1	Yes
50-29	B	Residential	1	35	71.5	71.5	75.0	3.5	Yes
50-30	B	Residential	1	35	66.1	66.2	70.2	4.1	Yes
50-31	B	Residential	1	35	66.1	66.1	70.8	4.7	Yes
50-32	B	Residential	1	35	61.5	61.5	65.8	4.3	
50-33	B	Residential	1	35	59.2	59.2	63.0	3.8	
50-34	B	Residential	1	35	58.8	58.9	61.8	3.0	
50-35	B	Residential	1	35	59.5	59.5	62.1	2.6	
50-36	B	Residential	1	35	59.7	59.8	61.4	1.7	
50-37	B	Residential	1	35	60.7	60.8	62.3	1.6	
50-38	B	Residential	1	35	59.3	59.4	63.2	3.9	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
50-39	B	Residential	1	35	58.8	58.8	62.7	3.9	
50-40	B	Residential	1	35	61.8	61.8	66.3	4.5	Yes
50-41	B	Residential	1	35	60.1	60.1	62.5	2.4	
50-42	B	Residential	1	35	70.7	70.7	73.7	3.0	Yes
50-43	B	Residential	1	35	66.1	66.2	67.3	1.2	Yes
50-44	B	Residential	1	35	64.3	64.4	65.9	1.6	
50-45	B	Residential	1	35	59.4	59.4	63.5	4.1	
50-46	B	Residential	1	35	70.2	70.2	74.4	4.2	Yes
51-1	B	Residential	1	35	68.4	68.6	71.5	3.1	Yes
51-2	B	Residential	1	35	69.8	70.1	72.7	2.9	Yes
51-3	B	Residential	1	35	72.5	72.6	76.2	3.7	Yes
51-4	B	Residential	1	35	72.1	72.2	75.7	3.6	Yes
51-5	B	Residential	1	35	70.2	70.3	75.1	4.9	Yes
51-6	B	Residential	1	35	67.8	68.0	72.0	4.2	Yes
51-7	B	Residential	1	35	67.6	67.7	71	3.4	Yes
51-8	B	Residential	1	35	67.6	67.7	71.7	4.1	Yes
51-9	B	Residential	1	35	66.9	67.1	70.5	3.6	Yes
51-10	B	Residential	1	35	65.8	65.9	67.8	2.0	Yes
51-11	B	Residential	1	35	63.7	63.8	65.9	2.2	
51-12	B	Residential	1	35	62.3	62.4	64.7	2.4	
51-13	B	Residential	1	35	62.6	62.7	65.7	3.1	
51-14	B	Residential	1	35	63.9	64.1	67	3.1	Yes
51-15	B	Residential	1	35	63.9	64.1	67.6	3.7	Yes
51-16	B	Residential	1	35	61.9	62.0	65.4	3.5	
51-17	B	Residential	1	35	62.0	62.1	65.6	3.6	
51-18	B	Residential	1	35	64.7	64.8	68.8	4.1	Yes
51-19	B	Residential	1	35	64.2	64.3	68.4	4.2	Yes
51-20	B	Residential	1	35	65.6	65.7	70.5	4.9	Yes
51-21	B	Residential	1	35	56.3	56.4	61.1	4.8	
51-22	B	Residential	1	35	60.3	60.4	64	3.7	
51-23	B	Residential	1	35	58.6	58.7	61.3	2.7	
51-24	B	Residential	1	35	60.4	60.5	64.3	3.9	
51-25	B	Residential	1	35	59.2	59.3	63.4	4.2	
51-26	B	Residential	1	35	61.2	61.3	65.8	4.6	
51-27	B	Residential	1	35	65.4	65.5	70.2	4.8	Yes
51-28	B	Residential	1	35	65.2	65.2	70.3	5.1	Yes
51-29	B	Residential	1	35	65.1	65.1	70.1	5.0	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
51-30	B	Residential	1	35	61.4	61.4	66.1	4.7	Yes
51-31	B	Residential	1	35	61.8	61.8	66.4	4.6	Yes
51-32	B	Residential	1	35	58.6	58.7	62.7	4.1	
51-33	B	Residential	1	35	58.5	58.5	63.4	4.9	
51-34	B	Residential	1	35	61.2	61.3	66.1	4.9	Yes
51-35	B	Residential	1	35	63.0	63.0	67.8	4.8	Yes
51-36	B	Residential	1	35	64.6	64.7	69.5	4.9	Yes
51-37	B	Residential	1	35	68.7	68.7	74.1	5.4	Yes
51-38	B	Residential	1	35	67.9	67.9	73.2	5.3	Yes
51-39	B	Residential	1	35	63.7	63.7	69.0	5.3	Yes
51-40	B	Residential	1	35	64.3	64.3	69.4	5.1	Yes
51-41	B	Residential	1	35	71.9	71.9	79.0	7.1	Yes
51-42	B	Residential	1	35	69.9	69.9	76.1	6.2	Yes
51-43	B	Residential	1	36	69.7	69.7	76.2	6.5	Yes
51-44	B	Residential	1	36	72.0	72.0	77.7	5.7	Yes
51-45	B	Residential	1	35	66.7	66.8	71.0	4.3	Yes
51-46	B	Residential	1	35	61.2	61.3	64.5	3.3	
51-47	B	Residential	1	35	59.1	59.3	63.1	4.0	
51-48	B	Residential	1	35	58.3	58.4	62.9	4.6	
51-49	B	Residential	1	35	61.3	61.3	66.2	4.9	Yes
52-1	D	Place of Worship (Interior)	1	35	43.0	43.0	46.9	3.9	
53-1	B	Residential	1	36	67.7	67.7	71.5	3.8	Yes
53-2	B	Residential	1	36	63.8	63.8	68	4.2	Yes
53-3	B	Residential	1	36	69.0	69.0	71.6	2.6	Yes
53-4	B	Residential	1	36	64.0	64.0	68.5	4.5	Yes
53-5	B	Residential	1	36,37	63.5	63.5	68.2	4.7	Yes
53-6	B	Residential	1	37	62.4	62.4	66.9	4.5	Yes
53-7	B	Residential	1	37	63.2	63.2	67.3	4.1	Yes
53-8	B	Residential	1	37	69.5	69.5	73.7	4.2	Yes
53-9	B	Residential	1	37	61.1	61.1	65.9	4.8	
53-10	B	Residential	1	37	66.3	66.3	70.3	4.0	Yes
53-11	B	Residential	1	37	69.5	69.5	73.7	4.2	Yes
53-12	B	Residential	1	37	70.1	70.1	75.6	5.5	Yes
53-13	B	Residential	1	37	61.9	61.9	67.0	5.1	Yes
53-14	B	Residential	1	37	63.7	63.7	68.7	5.0	Yes
53-15	B	Residential	1	37	67.0	67.0	72.0	5.0	Yes
53-16	B	Residential	1	37	65.5	65.5	70.5	5.0	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
53-17	B	Residential	1	37	65.6	65.6	69.1	3.5	Yes
53-18	B	Residential	1	37	62.4	62.4	65.6	3.2	
53-19	B	Residential	1	37	60.3	60.3	63.9	3.6	
53-20	B	Residential	1	37	67.9	67.9	70.7	2.8	Yes
53-21	B	Residential	1	37	64.9	64.9	67.8	2.9	Yes
53-22	B	Residential	1	37	63.3	63.3	65.9	2.6	
53-23	B	Residential	1	37	62.5	62.5	65.0	2.5	
53-24	B	Residential	1	37,38	64.0	64.0	66.7	2.7	Yes
53-25	B	Residential	1	38	63.2	63.2	65.8	2.6	
53-26	B	Residential	1	38	66.2	66.2	68.8	2.6	Yes
53-27	B	Residential	1	38	66.2	66.2	68.7	2.5	Yes
53-28	B	Residential	1	38	62.3	62.3	65.0	2.7	
53-29	B	Residential	1	38	67.6	67.6	70.2	2.6	Yes
53-30	B	Residential	1	38	67.3	67.3	69.8	2.5	Yes
53-31	B	Residential	1	38	67.0	67.0	69.7	2.7	Yes
53-32	B	Residential	1	38	68.2	68.2	71.0	2.8	Yes
53-33	B	Residential	1	38	66.3	66.3	69.0	2.7	Yes
53-34	B	Residential	1	38	61.3	61.3	63.5	2.2	
53-35	B	Residential	1	38	67.4	67.4	70.7	3.3	Yes
53-36	B	Residential	1	38	67.3	67.3	70.5	3.2	Yes
53-37	B	Residential	1	38	60.9	60.9	63.0	2.1	
54-1	B	Residential	1	37	68.0	68.0	71.1	3.1	Yes
54-2	B	Residential	1	37	65.0	65.0	67.8	2.8	Yes
54-3	B	Residential	1	37	61.1	61.1	63.8	2.7	
54-4	B	Residential	1	38	64.8	64.8	67.5	2.7	Yes
54-5	B	Residential	1	38	68.1	68.1	71.0	2.9	Yes
54-6	B	Residential	1	38	67.7	67.7	70.8	3.1	Yes
54-7	B	Residential	1	38	68.7	68.7	72.0	3.3	Yes
54-8	B	Residential	1	38	65.1	65.1	68.0	2.9	Yes
54-9	B	Residential	1	38	63.3	63.3	65.8	2.5	
54-10	B	Residential	1	38	65.3	65.3	68.0	2.7	Yes
54-11	B	Residential	1	38	68.2	68.2	71.7	3.5	Yes
54-12	B	Residential	1	38	67.5	67.5	70.8	3.3	Yes
54-13	B	Residential	1	38	67.2	67.2	70.2	3.0	Yes
54-14	B	Residential	1	38	64.4	64.4	66.8	2.4	Yes
54-15	B	Residential	1	38	64.2	64.2	66.6	2.4	Yes
54-16	B	Residential	1	38	61.9	61.9	64.4	2.5	

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
54-17	B	Residential	1	38	60.2	60.2	64.2	4.0	
55-1	D	Place of Worship (Interior)	1	38	40.0	40.0	42.5	2.5	
55-2	D	Place of Worship (Interior)	1	38	39.5	39.5	42.0	2.5	
55-3	D	Place of Worship (Interior)	1	38	36.3	36.3	38.8	2.5	
56-1	C	Cemetery	1	38	70.0	70.0	75.1	5.1	Yes
57-1	B	Residential	1	38,39	70.7	70.7	76.2	5.5	Yes
57-2	B	Residential	1	39	71.0	71.0	76.7	5.7	Yes
57-3	B	Residential	1	39	70.7	70.7	76.2	5.5	Yes
57-4	B	Residential	1	39	71.3	71.3	77.3	6.0	Yes
57-5	B	Residential	1	39	71.7	71.7	77.2	5.5	Yes
57-6	B	Residential	1	39	72.1	72.1	77.3	5.2	Yes
57-7	B	Residential	1	39	69.9	69.9	75.3	5.4	Yes
57-8	B	Residential	1	39	69.1	69.1	74.6	5.5	Yes
57-9	B	Residential	1	39	69.2	69.2	75.3	6.1	Yes
57-10	B	Residential	1	39	68.7	68.7	74.3	5.6	Yes
57-11	B	Residential	1	39	66.5	66.5	72.4	5.9	Yes
57-12	B	Residential	1	39	66.8	66.8	72.4	5.6	Yes
57-13	B	Residential	1	39	66.7	66.8	71.9	5.2	Yes
57-14	B	Residential	1	39	66.8	66.8	72.1	5.3	Yes
57-15	B	Residential	1	39	69.1	69.1	74.9	5.8	Yes
57-16	B	Residential	1	38,39	69.3	69.3	74.9	5.6	Yes
57-17	B	Residential	1	38,39	67.0	67.0	72.3	5.3	Yes
57-18	B	Residential	1	39,39	66.3	66.3	72.0	5.7	Yes
57-19	B	Residential	1	38	65.0	65.0	69.7	4.7	Yes
57-20	B	Residential	1	38	65.2	65.2	70.2	5.0	Yes
57-21	B	Residential	1	38	65.2	65.2	70.5	5.3	Yes
57-22	B	Residential	1	38	64.9	64.9	70.0	5.1	Yes
57-23	B	Residential	1	38	65.1	65.1	70.1	5.0	Yes
57-24	B	Residential	1	38,39	64.1	64.1	69.3	5.2	Yes
57-25	B	Residential	1	38,39	63.9	63.9	69.3	5.4	Yes
57-26	B	Residential	1	38,39	64.0	64.0	69.1	5.1	Yes
57-27	B	Residential	1	38,39	61.4	61.4	65.9	4.5	
57-28	B	Residential	1	38	62.0	62.0	66.9	4.9	Yes
57-29	B	Residential	1	38	63.3	63.3	67.9	4.6	Yes
57-30	B	Residential	1	38	63.3	63.3	68.1	4.8	Yes
57-31	B	Residential	1	38	63.2	63.2	68.2	5.0	Yes
57-32	B	Residential	1	38	63.0	63.0	67.8	4.8	Yes

Receptor ID#	Activity Category	Description of Activity Category	No. of Noise Sensitive Sites Repre-sented	Sheet No. (See Appendix B)	Predicted Traffic Noise Level (Leq(h)) [Expressed as dB(A)]				Approaches, Meets, or Exceeds the NAC?
					Existing (2014)	No-Build (2040)	Build (2040)	Increase/ Decrease from Existing*	
57-33	B	Residential	1	38	63.2	63.2	67.9	4.7	Yes
57-34	B	Residential	1	38	61.6	61.6	65.7	4.1	
57-35	B	Residential	1	38,39	61.1	61.1	65.4	4.3	
57-36	B	Residential	1	38,39	61.1	61.1	65.4	4.3	
57-37	B	Residential	1	38,39	60.8	60.8	64.9	4.1	
57-38	B	Residential	1	38	60.6	60.6	64.5	3.9	
57-39	B	Residential	1	38,39	60.3	60.3	64.1	3.8	
57-40	B	Residential	1	38,39	60.0	60.0	63.7	3.7	
58-1	B	Residential	1	39	61.8	61.8	68.0	6.2	Yes
58-2	B	Residential	1	39	67.7	67.7	72.3	4.6	Yes
58-3	B	Residential	1	39	69.5	69.5	74	4.5	Yes
58-4	B	Residential	1	39	70.5	70.5	74.5	4.0	Yes
58-5	B	Residential	1	39	66.9	67.0	71.3	4.4	Yes
59-1	C	Place of Worship	1	39	68.1	68.1	73.4	5.3	Yes
* When compared to predicted levels with the Build Alternative.									

APPENDIX E

Hillsborough County's Land Development Code

HILLSBOROUGH COUNTY, FL
LAND DEVELOPMENT CODE
PART 6.06.00 LANDSCAPING, IRRIGATION AND BUFFERING REQUIREMENTS

Section 6.06.06 Buffering and Screening Requirements

C – Screening

6. Areas of Excessive Traffic or Noise. If proposed residential development is adjacent to an area of excessive traffic or noise, including a limited access highway, screening shall consist of the landscaping required per Screening Standard "B" above or a berm/planting combination, with the berm an average height of four feet and dense plantings which will, when combined with the berm, achieve a minimum height of eight feet and 75 percent opacity within two years of planting. If demonstrated that screening has been or will be provided by another entity to an equivalent or higher degree, the Administrator may waive any portion or all of these requirements. Furthermore, because of the extensive landscaping provided on the public right-of-way, properties abutting the Veterans Expressway are exempt from the provision of this Section.