SR 400 (I-4) Project Development and Environment (PD&E) Study
FM No.: 432100-1-22-01

Preliminary Engineering Report

Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92

Seminole County (77160), Florida

June 2, 2017

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PRELIMINARY ENGINEERING REPORT

Florida Department of Transportation

ETDM Number: N/A
Financial Management Number: 432100-1-22-01
Federal-Aid Project Number: 0041-227-I

This preliminary engineering report contains detailed engineering information that fulfills the purpose and need for State Road 400 (SR 400)/Interstate 4 (I-4), from one mile east of SR 434 to east of SR 15-600/US 17-92, PD&E study.

6/14/2017
Date

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Notes to Reviewer:

The typical section package for the entire SR 400 (I-4) Beyond the Ultimate corridor has been submitted under separate cover.

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1.0 Summary of Project

The Florida Department of Transportation (FDOT) is conducting an update/reevaluation of the Project Development and Environment (PD&E) studies for the extension of proposed express lanes for State Road 400 (SR 400)/Interstate 4 (I-4). The project limits in the original PD&E studies were:

- West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line, (29.5 miles)
- CR 532 (Polk/Osceola County Line) to West of SR 528 Beachline Expressway (13.7 miles), and
- West of SR 528 Beachline Expressway to SR 472 (43 miles).

The corresponding environmental documents associated with these PD&E studies include: Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for SR 400 (I-4) from West of Memorial Boulevard (SR 546) to the Polk/Osceola County Line [Financial Project Number (FPN) 201210 (December 1998)] and from CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) [FPN 242526 and 242483 (December 1999)] and Final Environmental Impact Statement (FEIS) for I-4 from SR 528 (Beachline Expressway) to SR 472 [FPN 242486, 242592 and 242703 (August 2002, Record of Decision Pending)].

The project limits of the current SR 400 (I-4) PD&E reevaluation, herein referred to as I-4 Beyond the Ultimate (BtU) PD&E Reevaluation Study, include a total of approximately 43 miles of roadway sections east and west of the 21-mile, I-4 Ultimate project. The I-4 Ultimate project, which began construction in early 2015, is reconstruction to include new express lanes, of the section of I-4 that extends from west of SR 435 (Kirkman Road) to east of SR 434. For analysis purposes, the current I-4 BtU PD&E study has been divided into the following five segments:

- Segment 1: SR 400 (I-4) from West of CR 532 (Polk/Osceola County Line) to West of SR 528 (Beachline Expressway) - Osceola County (92130) and Orange County (75280)
- Segment 2: SR 400 (I-4) from West of SR 528 (Beachline Expressway) to West of SR 435 (Kirkman Road) - Orange County (75280)
- Segment 3: SR 400 (I-4) from 1 Mile East of SR 434 to East of SR 15-600/US 17-92 (Seminole/Volusia County Line) - Seminole County (77160)
- Segment 4: SR 400 (I-4) from East of SR 15-600/US 17-92 (Seminole/Volusia County Line) to 1/2 Mile East of SR 472 - Volusia County (79110)
- Segment 5: SR 400 (I-4) from West of SR 25/US 27 to West of CR 532 (Polk/Osceola County Line) Polk County (16320)

Since no Record of Decision has been issued by the Federal Highway Administration (FHWA) for Segments 2, 3 and 4, the current PD&E BtU study for these three segments will update the original PD&E study. This preliminary engineering report was prepared for Segment 3 of the I-4 BtU PD&E study and contains detailed engineering information that fulfills the purpose and need for SR 400 (I-

4) Segment 3, from one mile East of SR 434 to East of SR 15-600/US 17-92, Project Development and Environment (PD&E) study.

The purpose of this preliminary engineering report is to document design changes in support of the PD&E update for the I-4 BtU Segment 3 portion of the FEIS for I-4 from SR 528 (Beachline Expressway) to SR 472 (FPN 242486-1, 242592-1 and 242703-1, August 2002, Record of Decision pending). This update includes environmental and engineering analysis of the original design concept, which showed six general use lanes (GULs) and two high occupancy vehicles (HOV) lanes (6+2), to the current proposed design, which includes six GULs and four express lanes (EL) operating under a variable price toll plan (6+4). Other changes being reanalyzed include stormwater management, access plan and interchange configurations.

1.1 Commitments

To minimize impacts of this project on the environment, FDOT is committed to the following mitigation measures for impacts resulting from the Recommended Alternative.

1. Displacements and Relocations - FDOT will carry out a relocation assistance program in accordance with The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended, for Federal and Federally Assisted Programs (23 CFR and 49 CFR, Part 24, Sections 334.048, 339.09 and 421.55, Florida Statutes Rule 14-66, Florida Administrative Code).

2. Cultural Resources - FDOT commits to documenting any structures that reach historic age prior to project completion as part of a supplemental CRAS. FDOT commits to avoidance of the potentially eligible Paola Church Cemetery (8SE02326). The staging of construction equipment, materials, or vehicles will be prohibited during the project.

3. Wildlife and Habitat – The utilization of the following specific wildlife and habitat commitments and mitigation measures for unavoidable impacts are recommended to minimize the overall impacts to wildlife from this project:

    a. As required by FDOT Standard Specifications, the construction equipment staging areas for storage of oils, greases, fuel, road bed material and equipment maintenance will be sited in previously disturbed areas not adjacent to any streams, wetlands, or surface water bodies. The staging areas will be surveyed for listed species prior to their use. Also as required by FDOT Standard Specifications, if protected species are identified unexpectedly within the construction area during construction, coordination will be initiated with the appropriate resource agencies to avoid or mitigate impacts.

b. Eastern indigo snake habitat has been identified within the project limits. Utilize the US Fish and Wildlife Service (USFWS) Standard Protection Measures for the Eastern Indigo Snake, at the US Fish and Wildlife Service Link: http://www.fws.gov/northflorida/IndigoSnakes/20130812_Eastern_indigo_snake_Standard_Protection_Measures.htm

c. During permitting, all potential gopher tortoise habitat that could be impacted by the project will be systematically surveyed according to the current guidelines published by the Florida Fish and Wildlife Conservation Commission (FFWCC). If gopher tortoise burrows are found, all practicable design measures will be employed to avoid impacts to the burrows. For burrows which cannot be avoided, a permit will be obtained from FFWCC for relocation of gopher tortoises and commensals, and relocation will be performed at a time as close as practicable to the start of construction activities at the site of the burrows.

d. During permitting, FDOT will coordinate with the permitting agencies to quantify and provide compensation for any unavoidable impacts to wood stork suitable foraging habitat (SFH). Mitigation for these impacts will be provided within the service area of a USFWS-approved wetland mitigation bank that provides an amount of habitat and foraging function equivalent to that of the impacted SFH in accordance with the *Corps of Engineers and U.S. Fish and Wildlife Service Effect Determination Key for the Wood Stork in Central and North Peninsular Florida*.

e. During permitting, FDOT will re-survey for listed species to ensure no changes have occurred since the completion of the PD&E Study.

4. Wetlands - The following commitments are proposed to ensure that the project does not result in adverse impacts to wetland communities and the functions they provide:

    a. During the permitting process, FDOT will coordinate with federal and state agency personnel to ensure minimization and reduction of adverse wetland impacts have been explored to the fullest extent of the project while meeting engineering standards and practice.

    b. Wetland impacts (direct and secondary) that will result from the construction of this project will be mitigated pursuant to requirements of Part IV. Chapter 373, F.S. and 33 U.S.C.s.1344, as appropriate. Where feasible, the FDOT is committed to minimize direct, secondary and temporary impacts.

    c. During the development of the design, a Quality Enhancement Strategies (QES) plan addressing the avoidance and minimization for losses of waters of the United States and

alternative design changes to minimize wetland impacts (without jeopardizing safety) will be committed by others.

5. Contamination - Project commitments to address potential contamination sites include:
   a. FDOT commits to conducting Level II Contamination Screenings on all Medium and High Risk Rated sites before establishing a final determination. This will include investigating previous PD&E Studies and Design Projects covering the project area and its surroundings.
   b. All bridges and other structures which will require possible demolition or retrofit should be tested for asbestos containing materials, lead-based paint or any other hazardous materials prior to construction.
   c. Should any parcels containing medical facilities, doctor offices, hospitals, or drug stores be acquired, they should be tested for asbestos, lead-based paint, x-ray equipment, lead-lined walls, chemicals and pharmaceuticals prior to demolition.

6. Noise - FDOT is committed to the construction of feasible and reasonable noise abatement measures at Pine Bay Drive as shown on the Noise Maps contingent upon the following conditions:
   a. Cost analysis indicates that the cost of the noise barriers will not exceed the cost-reasonable criterion.
   b. Community input supporting types, heights and locations of noise barriers is provided to the District Office.
   c. Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

7. Section 4(f) - FDOT commits to avoidance of any Section 4(f) resources along the I-4 BtU corridor. The staging of construction equipment, materials, or vehicles will be prohibited within these areas during the project.

8. Trails, Sidewalks, and Bicycle Lanes - FDOT commits that during the construction of the project, connectivity to trails, sidewalks, and bicycle lanes will be maintained.

1.2 Recommendations

The FDOT recommends improvements to the 10.1-mile segment of I-4 from east of SR 434 to east of SR 15-600/US 17-92 (Seminole/Volusia County Line) in Seminole County. This recommendation was developed based on engineering and environmental analysis conducted as part of the PD&E Update/Re-evaluation studies, community input and coordination with local governments and other agencies.

The recommended improvements, as shown in the Concept Plans in Appendix A and described in detail in Chapter 6 of this report, provide for six general purpose lanes and four express lanes, interchange modifications, grade-separated ramps, ramp-to-ramp auxiliary lanes, intersection modifications and/or other improvements. As a result of the Public Hearing, environmental and engineering analyses and interagency coordination, the Recommended Alternative is recommended for Location Design Concept Acceptance by the FHWA.

Typical Section

Two mainline typical sections are recommended for I-4 Segment 3. The majority of the I-4 Segment 3 corridor will have a total of ten dedicated lanes (6 general use lanes + 4 express lanes). The section of I-4 from the begin project limits to just south of Lake Mary Boulevard will have three GUL and one auxiliary lane in each direction, resulting in a 12-lane section (6 GUL + 2 Aux + 4 EL) through this portion of the corridor. Both typical sections provide a design speed of 70 miles per hour (mph) within a minimum 300-foot right-of-way.

Interchanges

The recommended alternative for I-4 Segment 3 provides grade separations and/or interchanges at six locations:

1. EE Williamson Road (overpass),
2. Lake Mary Boulevard (Diverging Diamond Interchange),
3. CR 46A (Diverging Diamond Interchange),
4. SR 417/SR 429 (Seminole Expressway)/Wekiva Parkway (Systems Interchange),
5. SR 46 (Partial Cloverleaf), and
6. US 17-92 (Tight Urban Diamond Interchange)

Bridges/Structures

The recommended alternative for I-4 Segment 3 provides 28 existing, newly constructed or reconstructed bridges, the majority of which are multiple span structures except for the I-4 bridges over SR 46 and the proposed Lake Emma Ramp bridges at the Lake Mary Boulevard interchange, which are single span structures. The existing pedestrian bridge at EE Williamson Road over I-4 will be demolished; pedestrian accommodations will be provided in the proposed bridge section replacing the existing bridge structures. The structures carrying I-4 eastbound and westbound over US 17-92 and the St. Johns River will be widened with substructure retrofit. Additionally, an existing box culvert located approximately 0.7 mile east of SR 46 where I-4 goes over an outfall ditch will need to be extended.

Drainage

Stormwater management the recommended alternative for I-4 Segment 3 will involve collection of runoff by storm sewer systems or roadside ditches and routing to existing or proposed stormwater

ponds. There is a total of 22 basins within the project limits which will require 26 existing or proposed ponds and one swale to achieve water quality treatment and attenuation of project runoff. Additionally, one floodplain compensation pond is proposed to compensate for floodplain impacts.

1.3 Description of Proposed Action

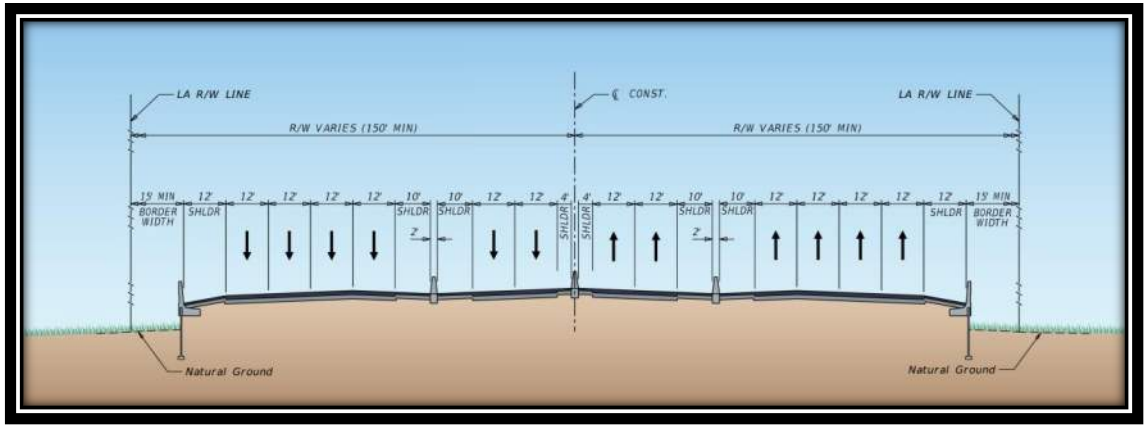
FDOT is proposing to reconstruct and widen I-4 as part of the I-4 BtU concept. This involves the build-out of I-4 to its ultimate condition through Central Florida, including segments in Polk, Osceola, Orange, Seminole and Volusia Counties. The project limits for the segment analyzed in this report are within an approximate 10-mile segment of I-4 which extends from east of SR 434 (Milepost 4.050) to east of US 17-92 (Milepost 14.135) in Seminole County (herein referred to as I-4 Segment 3), as shown in Figure 1.1.

The concept design proposes the addition of two new express lanes in each direction, resulting in a total of ten dedicated lanes for the majority of the I-4 Segment 3 corridor [6 general use lanes (GUL) + 4 express lanes (EL)]. The section of I-4 from the begin project limits to just south of Lake Mary Boulevard will have three GUL and one auxiliary lane in each direction, resulting in a 12-lane section (6 GUL + 2 Aux + 4 EL) through this portion of the corridor. Although, the interstate is a designated east-west corridor, the alignment follows a southwest to northeast orientation through the limits of Segment 3. The study area in this section from east of SR 434 to east of US 17-92 includes the interchanges at Lake Mary Boulevard, CR 46A, SR 417 (Seminole Expressway)/SR 429 (future Wekiva Parkway), SR 46 and US 17-92. Figure 1.2 illustrates the proposed mainline typical sections for I-4 Segment 3.

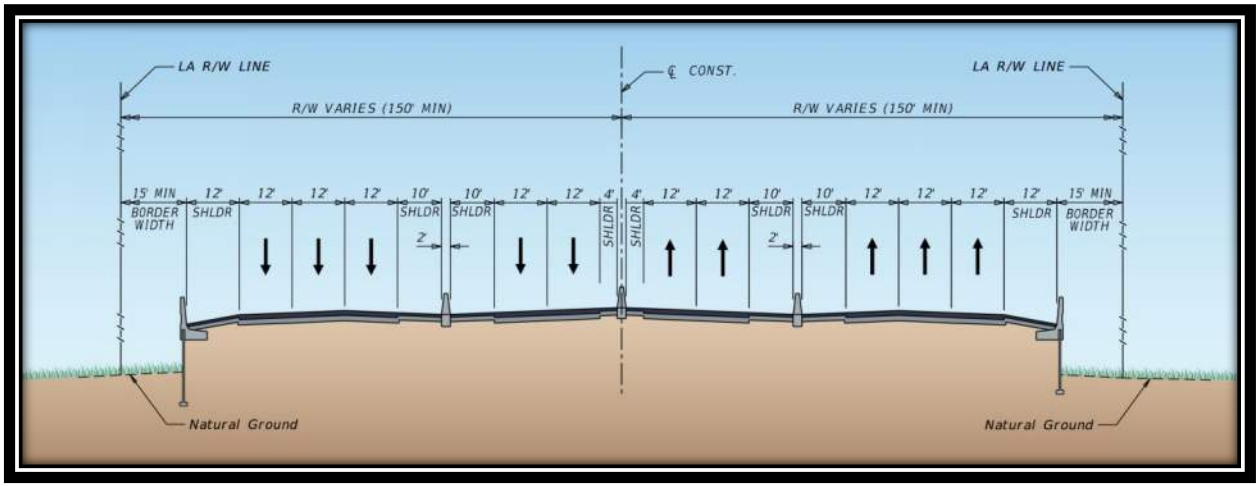
1.4 Purpose and Need

The proposed improvements to I-4 include widening the existing six-lane divided urban interstate to a 10- or 12-lane divided highway in order to improve traffic operations, enhance connectivity and improve mobility by providing travel choices to the motoring public. I-4 is an east-west limited access freeway which links the west and east coasts of Florida, from I-275 in Tampa to I-95 in Daytona Beach. I-4 spans across six counties in Central Florida, traversing many cities including Lakeland, Orlando, Altamonte Springs, Sanford and DeLand. I-4 is a critical component of Florida's Strategic Intermodal System (SIS) which links seaports, rail, airports and other intermodal facilities. This aspect of I-4's significance is evidenced through connectivity provided by major junctions with I-275 and I-75 in the Tampa Bay area, SR 429 (Daniel Webster Western Beltway), SR 417 (Southern Connector/Central Florida Greeneway/Seminole Expressway), SR 528 (Martin Andersen Beachline Expressway), SR 91 (Florida's Turnpike), SR 408 (Spessard Lindsay Holland East-West Expressway) in Central Florida and I-95 on the east coast.

Figure 1.1 – Project Location Map



Typical Section SR 400 (Interstate 4)
MP 4.725 to MP 7.843 (Seminole County)
Station 2079+37.95 to Station 2244+00.00
Design Speed = 70 MPH



Typical Section SR 400 (Interstate 4)
MP 7.843 to MP 14.178 (Seminole County)
Station 2244+00.00 to Station 2578+48.33
Design Speed = 70 MPH

Figure 1.2 - I -4 Segment 3 Proposed Typical Sections

I-4 serves as the primary corridor in the movement of people and freight between major population, employment and activity centers in the Central Florida region. When the entire Interstate was fully opened in the early 1960's, it was designed to serve intrastate and interstate travel by providing a critical link between the east and west coasts of Central Florida. Although this role continues to be a crucial transportation function of I-4, the highway also serves large volumes of local and commuter traffic with shorter trip distances. Today, the highway serves as the primary link between hotel/resort complexes and tourist attractions such as Walt Disney World, Universal Studios, Sea World, the International Drive Resort Area and downtown Orlando. Since I-4 is the only north-south limited access facility that is centrally located between the predominant employment centers and the major suburbs to the north, it has become the primary commuting corridor in the Central Florida metropolitan area.

Growth in Central Florida over the past decades has made it difficult for the transportation system to accommodate travel demand. Additionally, traffic congestion and crash incidents have resulted in major delays on the Interstate as well as other arterials surrounding the corridor. Increased congestion levels are experienced outside of the typical morning and afternoon rush-hour periods, affecting mobility levels for more hours of the day and impacting other non-commuter/non-weekday travel. The congestion on I-4 is further evidenced by the less than desirable levels of service on the Interstate as well as the crossroads.

Projections of future population and employment in the region indicate that travel demand will continue to increase well into the future. Table 1.1 and Table 1.2, respectively, provide a summary of the population and employment growth projections for counties surrounding the I-4 corridor. The ability to accommodate the new travel patterns resulting from growth must be provided to sustain the region's economy. Without the improvements, extremely congested conditions are expected to occur for extended periods of time in both the morning and evening peak periods. Due to these congested conditions, user travel times will continue to increase, the movement of goods through the urban area will be slower, and the deliveries of goods within the urban area will be forced to other times throughout the day. The need for improvements to I-4 is illustrated by the important transportation roles I-4 serves to the Central Florida region and the State of Florida. If no improvements are made to the Interstate, a loss in mobility for the area's residents, visitors and commuters can be expected, resulting in a severe threat to the continued viability of the economy and the quality of life.

This PD&E update involves revising the original design concept showing 6 GULs + 2 HOV lanes, as recommended in the FEIS for I-4 from SR 528 to SR 472 (FPN No. 242486, 242592 & 242703, August 2002, Record of Decision Pending), to the current proposed design of 6 GUL + 4 EL. The express lanes are tolled lanes and will extend the full length of the project. The access to/from the tolled lanes will be evaluated as part of this effort to determine if changes are needed from the previously approved

concept for access to/from the HOV Lanes. The original I-4 PD&E Studies involved physical separation between the general use lanes and the HOV lanes on I-4, with demand management in the HOV lanes. The original demand management strategy was to control the use of the lanes by requiring a minimum number of occupants per vehicle to maintain an acceptable level of service (Level of Service D).

Table 1.1: Population Projections for Counties in the I-4 Corridor

	April 1, 2013	2020	2030	2040
Flagler	97,843	124,863	160,705	191,861
Hillsborough	1,276,410	1,445,344	1,666,187	1,845,013
Lake	303,317	355,935	425,221	479,928
Orange	1,202,978	1,394,814	1,641,173	1,840,695
Osceola	288,361	360,478	452,651	532,472
Polk	613,950	691,355	794,061	883,393
Seminole	431,074	465,128	508,329	541,133
Sumter	105,104	138,220	181,846	219,396
Volusia	498,978	529,447	566,999	595,077
Total	4,818,015	5,505,584	6,397,172	7,128,968

Source: Florida Demographic Estimating Conference, February 2014 and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Bulletin 168, April 2014

Table 1.2: Employment Projections for Workforce Regions in the I-4 Corridor

	2014	2022	% Growth
Workforce Region	**Total, All Occupations**		
Flagler & Volusia Counties	200,541	224,127	11.8
Hillsborough County	699,877	789,163	12.8
Polk County	228,559	252,300	10.4
Lake, Orange, Osceola, Seminole and Sumter Counties	1,224,998	1,404,357	14.6

Source: Florida Department of Economic Opportunity

This update also addresses revising the demand management tool to convert the HOV lanes to tolled express lanes. The express lanes will be separated from the general use travel lanes by two shoulders with a barrier wall between the shoulders. A variable pricing tolling plan is proposed for the express lanes. The tolls will vary by time of day and day of week to maintain acceptable levels of service in the express lanes. The tolls will be collected electronically through existing E-Pass, SunPass and other systems currently in place in the Central Florida area. The conversion to express lanes will maintain the same right-of-way limits as documented previously and will not change the impacts to the social, natural or physical environment. An update to the Systems Access Modification Report (SAMR) prepared in January 2013 is being completed in conjunction with this effort.

2.0 Existing Conditions

The existing conditions within the I-4 study corridor were evaluated by reviewing existing plans and documents, coordination with regulatory agencies and performing field investigations. The following sections provide detailed descriptions of existing roadway characteristics, traffic and bridge features, drainage, soils, other physical features and traffic and crash data within the project study area.

2.1 Roadway Classification

I-4 is classified by FDOT as an Urban Interstate and Strategic Intermodal System (SIS) corridor throughout the limits of Segment 3. I-4 is a designated evacuation route by the Florida Division of Emergency Management.

2.2 Typical Section

The existing typical section for the I-4 Segment 3 mainline consists of three 12-foot travel lanes in each direction. The outside and inside shoulders are 12 feet wide with 10 feet paved with guardrail on the inside shoulder of the eastbound lanes. Both directions have auxiliary lanes in some areas. The roadways are separated by a grass median which varies in width from 40 feet to 164 feet. Table 2.1 provides a summary of the existing typical section features by approximate station location along I-4 and Figure 2.1 illustrates the existing I-4 typical section.

Table 2.1: Existing Typical Section Features

Station From	Station To	Median Width	Number of Eastbound Auxiliary Lanes	Number of Westbound Auxiliary Lanes
2043+71.32 (Begin Project)	2064+00.00 (East end of WB Rest Area)	128 feet	0-1	0
2064+00.00 (East end of WB Rest Area)	2143+00.00 (West end of EB Rest Area)	40 feet	0	0
2143+00.00 (West end of EB Rest Area)	2461+00.00 (East of SR 417)	64 feet	0-2	0-2
2461+00.00 (East of SR 417)	2506+00.00 (East of SR 46)	100 feet	1	0-1
2506+00.00 (East of SR 46)	2550+00.00 (West of the I-4 overpass at Orange Blvd.)	64 feet	1-2	1
2550+00.00 (West of the I-4 overpass at Orange Blvd.)	2583+00.00 (End Project)	164 feet	0-1	0-1

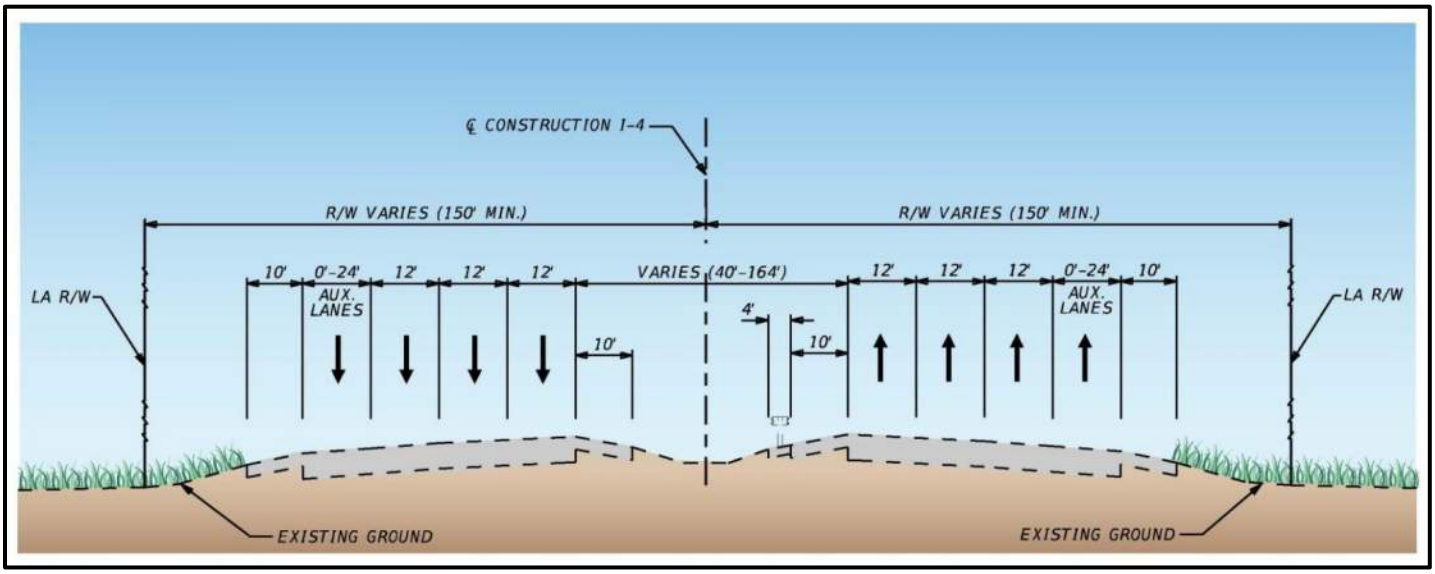


Figure 2.1 - Existing I-4 Typical Section

2.3 Right-of-way

The existing right-of-way varies from 300 feet to 350 feet. The Concept Plans for this project, included in Appendix A, show the existing right-of-way along the corridor.

2.4 Existing Property Lines and Land Use

The existing property lines for parcels within the project study area were available from the Seminole County GIS database and are shown on the Concept Plans in Appendix A. Parcels affected by the proposed improvements are identified on the Concept Plans. The proposed improvements to the 10-mile I-4 Segment 3 corridor lie within Seminole County, with portions of the segment adjacent to or within the cities of Longwood, Lake Mary and Sanford as shown in Figure 2.2.

Existing Land Use

The existing land use map, shown in Figure 2.3, was created using information from FDOT 2014 parcel tax data records compiled by the Florida Geographic Data Library (FGDL). The existing land use along the I-4 Segment 3 corridor varies with a mixture of uses. The southern end of the corridor is characterized by large portions of residential land use along both sides of I-4. The remainder of the corridor, which comprises the majority of the corridor limits, consists largely of retail/office land uses interspersed with some parcels designated for agricultural uses and some undeveloped non-residential parcels.

Future Land Use

The future land use map, shown in Figure 2.4, was created using FGDL future land use data from the adopted comprehensive plan amendments for each municipality within the project's limits.

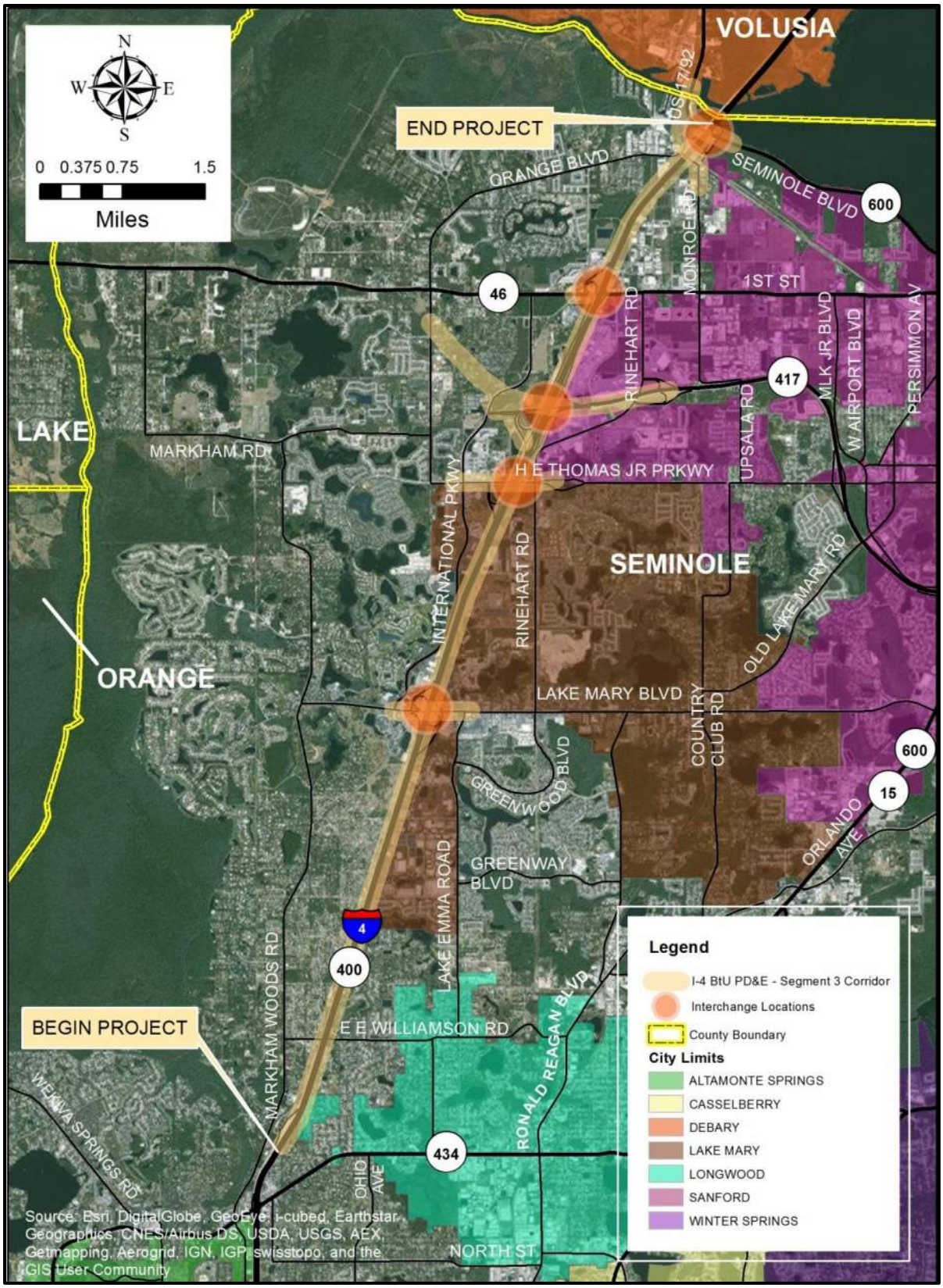


Figure 2.2 - Existing City Limits

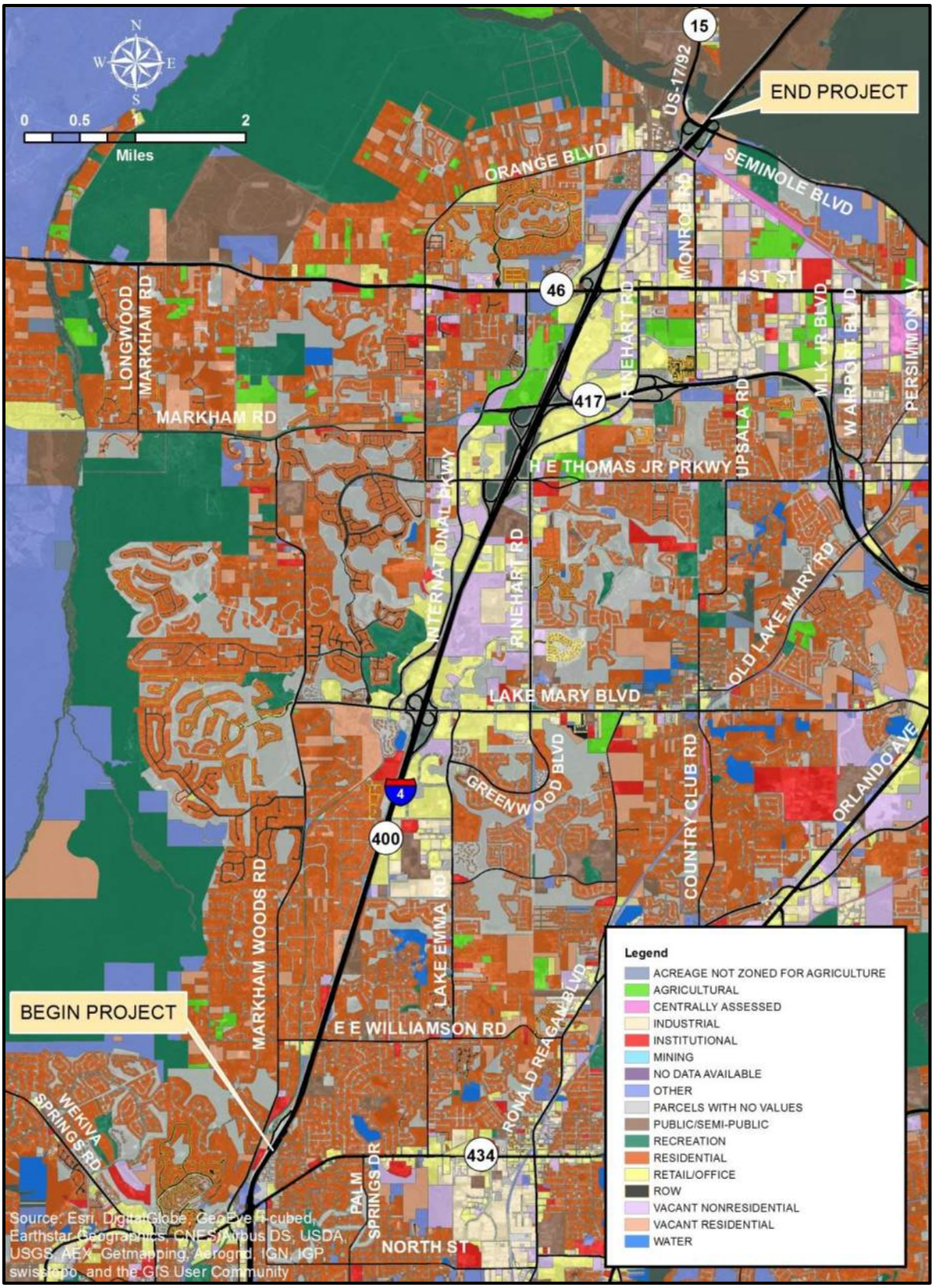


Figure 2.3 - Existing Land Use

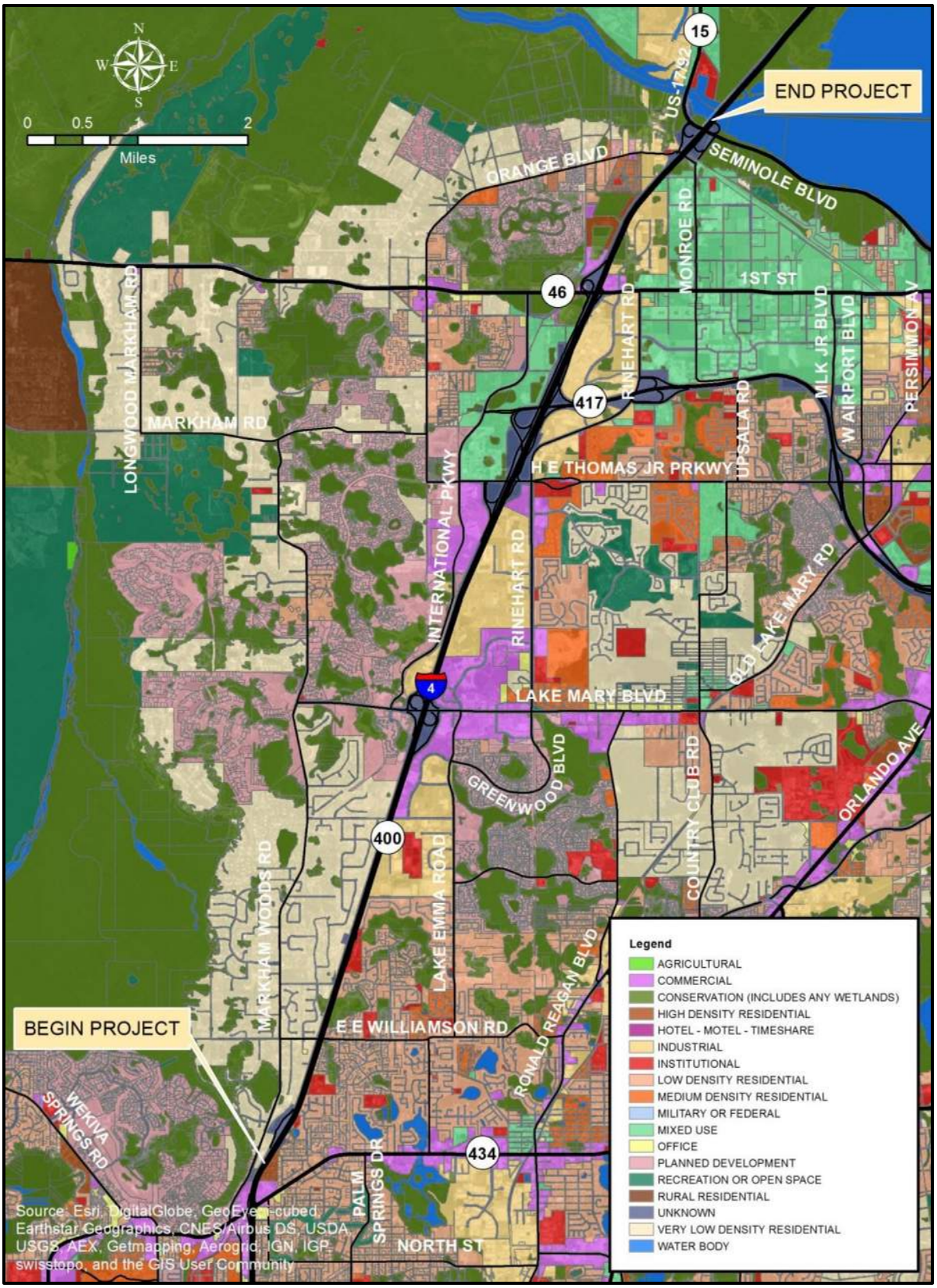


Figure 2.4 - Future Land Use

Future land use along the I-4 Segment 3 corridor starting from the southwestern end and going northeast, primarily consists of parcels designated for very low and low density residential uses with some planned development, industrial and commercial uses. The northern portion of the corridor consists of industrial land use interspersed with some commercial parcels on the east side of I-4, and mixed-use with commercial on the west side of I-4. Several parcels designated as conservation area are concentrated near the northern end of Segment 3.

2.5 Horizontal Alignment

The alignment on I-4 is typical of most interstate highways with long tangent sections connecting long, gradual curves. Table 2.2 lists the horizontal curve data within the study limits. According to the as-built FDOT construction plans from 2003, the existing pavement cross slope within the project limits has a downward slope of 0.02 ft/ft towards the outside (except in the superelevated sections of roadway). The curve to the east of the westbound rest area does not meet current design criteria for a 70-mph design speed. The superelevation rate, e, and radius for this curve are equivalent to a 55-mph design speed. The posted speed limit throughout Segment 3 is 65 mph. The curve to the east of SR 46 also does not meet current design criteria for a 70-mph design speed. The superelevation rate, e, and radius for this curve are equivalent to a 65-mph design speed. A superelevation of 0.037 is required by today's standards to meet a 70-mph design speed on this type of facility.

Table 2.2: Existing Horizontal Alignment

Location and PI Station from Existing FDOT Plans	Degree of Curvature/ Curve Direction	Existing Superelevation (ft/ft)	Equivalent Design Speed (Per FDOT PPM Table 2.9.1)
East of Westbound Rest Area Station 2461+38.55	1°00'00" Left	0.028	55
East of Lake Mary Boulevard Station 2719+47.19	0°30'00" Right	0.054	70
East of SR 46 Station 2920+42.87	1°00'00" Right	0.036	65

2.6 Vertical Alignment

Table 2.3 summarizes the vertical alignment of I-4 within the corridor study limits and the design speed associated with each curve based on current design criteria. Reference location stationing is included on the Concept Plans in Appendix A. There are 34 vertical curves along the I-4 Segment 3 corridor, of which 19 do not meet the current requirements for 70 mph design speed for length of curve or curve constant, K.

Table 2.3: Existing I-4 Vertical Alignments within Segment 3

PVI Stationing*	Location	At Inter-Change (Y/N)	Crest or Sag Curve	Grade In (%)	Grade Out (%)	Existing Curve Length (ft)	Existing K-Value	Equivalent Design Speed
2055+50		N	Sag	-1.404	2.335	650	173.8	60
2066+50		N	Crest	2.335	0.344	500	251.1	55
2093+90		N	Crest	0.344	-1.56	600	315.1	60
2106+00	EE Williamson Road	Y	Sag	-1.56	0.1	400	241.0	70
2112+50		N	No VC	0.1	0.31	0	0.0	65
2124+50		N	No VC	0.31	-0.8	–	–	–
2134+50		N	Sag	-0.8	-0.259	400	739.4	70
2154+50		N	Sag	-0.259	2.52	600	215.9	70
2168+00		N	Crest	2.52	-3.03	1350	243.2	55
2179+00		N	Sag	-3.03	2.951	850	142.1	55
2188+50		N	Crest	2.951	-1.42	1050	240.2	55
2199+50		N	Sag	-1.42	-0.1	400	303.0	70
2224+50		N	Crest	-0.1	-1.03	500	537.6	70
2244+39		N	Sag	-1.03	0	400	388.3	70
2270+00	Lake Mary Boulevard	Y	Sag	0	1.419	400	281.9	70
2284+50		N	Crest	1.419	-1.721	800	254.8	55
2291+50		N	Sag	-1.721	0.12	600	325.9	70
2317+50		N	Sag	0.12	0.82	400	571.4	70
2340+44.44		N	Crest	0.82	0.1	400	555.6	70
2355+50		N	Crest	0.1	-0.1	500	2500.0	70
2368+50		N	Crest	-0.1	-0.728	500	796.2	70
2384+50		N	Sag	-0.728	0	400	549.5	70
2410+91		N	Sag	0	3	500	166.7	60
2424+50	SR 417	Y	Crest	3	-3	1500	250.0	55
2437+48.31		N	Sag	-3	-0.475	400	158.4	60
2457+50		N	Crest	-0.475	-2.558	600	288.0	55
2468+00		N	Sag	-2.558	0	450	175.9	60
2475+55.79		N	Sag	0	3	420	140.0	55
2484+90.78	SR 46	Y	Crest	3	-3	1450	241.7	55
2495+42.13		N	Sag	-3	0.143	450	143.2	55
2520+50		N	Crest	0.143	-0.467	600	983.6	70
2553+27.61		N	Sag	-0.467	3	500	144.2	55

Table 2.3: Existing I-4 Vertical Alignments within Segment 3

PVI Stationing*	Location	At Inter-Change (Y/N)	Crest or Sag Curve	Grade In (%)	Grade Out (%)	Existing Curve Length (ft)	Existing K-Value	Equivalent Design Speed
2565+18.8	Orange Boulevard	Y	Crest	3	-2.592	1350	241.4	55
2575+38.8	US 17-92	Y	Sag	-2.592	2.298	690	141.1	55
*Stationing based on the Concept Plans in Appendix A.								

2.7 Pedestrian and Bicycle Facilities

I-4 is a limited access interstate facility that accordingly prohibits bicycle and pedestrian traffic. Pedestrian and bicycle facility information along the Segment 3 corridor is provided in the following sections.

I-4 and Lake Mary Boulevard Interchange

No crosswalks, sidewalks or bicycle lanes are currently present at the ramp terminals of the I-4 and Lake Mary Boulevard interchange.

Cross Seminole Trail

The Seminole County Cross Seminole Trail is a 23-mile long paved, multi-use recreational trail which crosses over I-4 approximately 1/2 mile south of CR 46A. The Cross Seminole Trail connects to the 14-mile Seminole Wekiva Trail just west of I-4 and to the 6.5-mile Cady Way Trail in Winter Park which continues on to Orange County. Within the I-4 Segment 3 project area, the Cross Seminole trail extends east from the pedestrian overpass at I-4 for approximately 0.4 mile to Rinehart Road. The trail follows a north/south alignment parallel to Rinehart Road for approximately three miles to Greenway Boulevard where it turns east to continue into other parts of Seminole County. There is one trailhead which provides parking at the northeast corner of Rinehart Road/Greenwood Boulevard and Lake Mary Boulevard, approximately one mile east of I-4.

Seminole Wekiva Trail

The Seminole Wekiva Trail is a 14-mile paved recreational trail which follows a north/south alignment west of the Interstate and extends from Markham Road to the north to SR 436 to the south, entirely within Seminole County. Within the I-4 Segment 3 project area, the Seminole Wekiva Trail extends approximately 7.7 miles between the CR 46A and International Parkway and the SR 434 and Markham Woods Road intersections. There is one minor trailhead with parking located at the Southeast corner of Markham Woods Road and Long Pond Road, approximately 2/3 mile west of I-4. The Seminole Wekiva Trail connects to two pedestrian overpasses within the project area: Cross Seminole Trail/I-4 Overpass located approximately ½ mile south of CR 46A and EE Williamson Road/I-4 Overpass. The

pedestrian overpass at EE Williamson Road is a separate bridge structure on the north side of the bridge carrying EE Williamson Road over I-4. A concrete barrier with pedestrian/bike railing separates the multi-use path from the roadway.

I-4 and CR 46A (HE Thomas Jr. Parkway) Interchange

At the I-4 and CR 46A interchange, continuous sidewalks and paved shoulders/unmarked bicycle lanes are present on the north and south sides of the road along CR 46A between Colonial Center Parkway, west of I-4, and Rinehart Road, east of I-4. The sidewalks on the CR 46A overpass are separated from the travel lanes by jersey barriers and shielded by chain link fencing on the outside. Crosswalks are present on all four approaches at the Colonial Center Parkway and CR 46A and at the Rinehart Road and CR 46A intersections located approximately 1/4 mile west and 0.2 mile east of I-4, respectively. At the ramp terminal located east of I-4, crosswalks are present only on the ramp entry and exit approaches; there are no crosswalks on CR 46A at this location.

I-4 and SR 417 Interchange

No crosswalks, sidewalks or bicycle lanes are present at the I-4 and SR 417 interchange because it is a system-to-system interchange.

I-4 and SR 46 Interchange

A 14’ sidewalk is present along the south side of SR 46, from 0.3 mile west of I-4 and continuing east for approximately 0.25 mile to Towne Center Boulevard. At Towne Center Boulevard, the sidewalk becomes 5’ and continues on the south side of the road for several miles east of the Interstate, providing connectivity to the Cross Seminole Trail at the Rinehart Road and SR 46 intersection. Sidewalk is discontinuous on the north side of SR 46 in the immediate vicinity of the interchange; a 6’ sidewalk is present for approximately 500 feet east of the I-4 eastbound on ramp and a 12’ sidewalk exists for approximately 0.35 mile, from west of North Elder Road to Monroe Road. Crosswalks are present on the south approach (exit ramp) of the I-4 eastbound ramp terminal and on the entrance ramp from SR 46 eastbound to I-4 westbound. Bicycles are accommodated by 5-foot unmarked lanes along the north and south sides of SR 46.

I-4 and US 17-92 Interchange

Near the I-4 and US 17-92 interchange, crosswalks are present on the east and north approaches of the US 17-92 and I-4 East Ramp/Monroe Road intersection and a 10’ sidewalk is present along the north side of US 17-92 between the I-4 east and west ramp terminals. Paved shoulders/unmarked bicycle lanes exist along both sides of US 17-92 east and west of the I-4 eastbound and westbound ramps, respectively.

2.8 Design and Posted Speed

The design speed for I-4 is 70 miles per hour (MPH) and the posted speed limit along Segment 3 is 65 MPH.

2.9 Lighting

An inventory of the existing lighting along I-4 was completed by field review to identify locations where lighting currently exists. Approximately 50% of the Segment 3 mainline corridor, including the rest areas and all interchanges with the exception of I-4 and US 17-92, has existing lighting. The existing lighting consists of conventional lighting poles along the mainline of I-4 and at the rest areas. Several of the interchanges and the area surrounding the Cross Seminole Trail overpass have high mast lighting poles. Table 2.4 shows the approximate limits and type of existing lighting along the I-4 Segment 3 mainline.

TABLE 2.4: Existing Lighting Limits along I-4 Segment 3

Location	Begin MP	End MP	Existing Lighting
Westbound Rest Area	4.050	4.458	Conventional
Eastbound Rest Area	5.733	6.200	Conventional
Lake Mary Boulevard Interchange	7.660	8.711	High Mast
I-4 Mainline (EB and WB)	8.740	9.790	Conventional
Cross Seminole Trail Overpass	9.820	10.040	High Mast
CR 46A Interchange to SR 417 Interchange (EB and WB)	10.050	12.025	High Mast
SR 46 Interchange	12.025	12.880	Conventional

2.10 Existing Traffic

Existing (2011) traffic information including volume counts, geometry, signal timing plans and other pertinent data for the I-4 Segment 3 study corridor was provided in the *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – from East of SR 434 to East of SR 472* (March 2017). This data was used to perform operational analyses of existing conditions using the latest VISSIM (Version 7.0) microsimulation software.

2.10.1 Traffic Volumes

Existing traffic volume data consists of year 2011 AM and PM peak hour counts compiled from FDOT's Florida Traffic Information (FTI) database, Florida's Turnpike Enterprise, Seminole County count program, other agencies and field data collection. The existing (year 2011) traffic counts for the I-4 Segment 3 study corridor were obtained from the *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – from East of SR 434 to East of SR 472* (March 2017) and are depicted in Figure 2.5 through Figure 2.7.

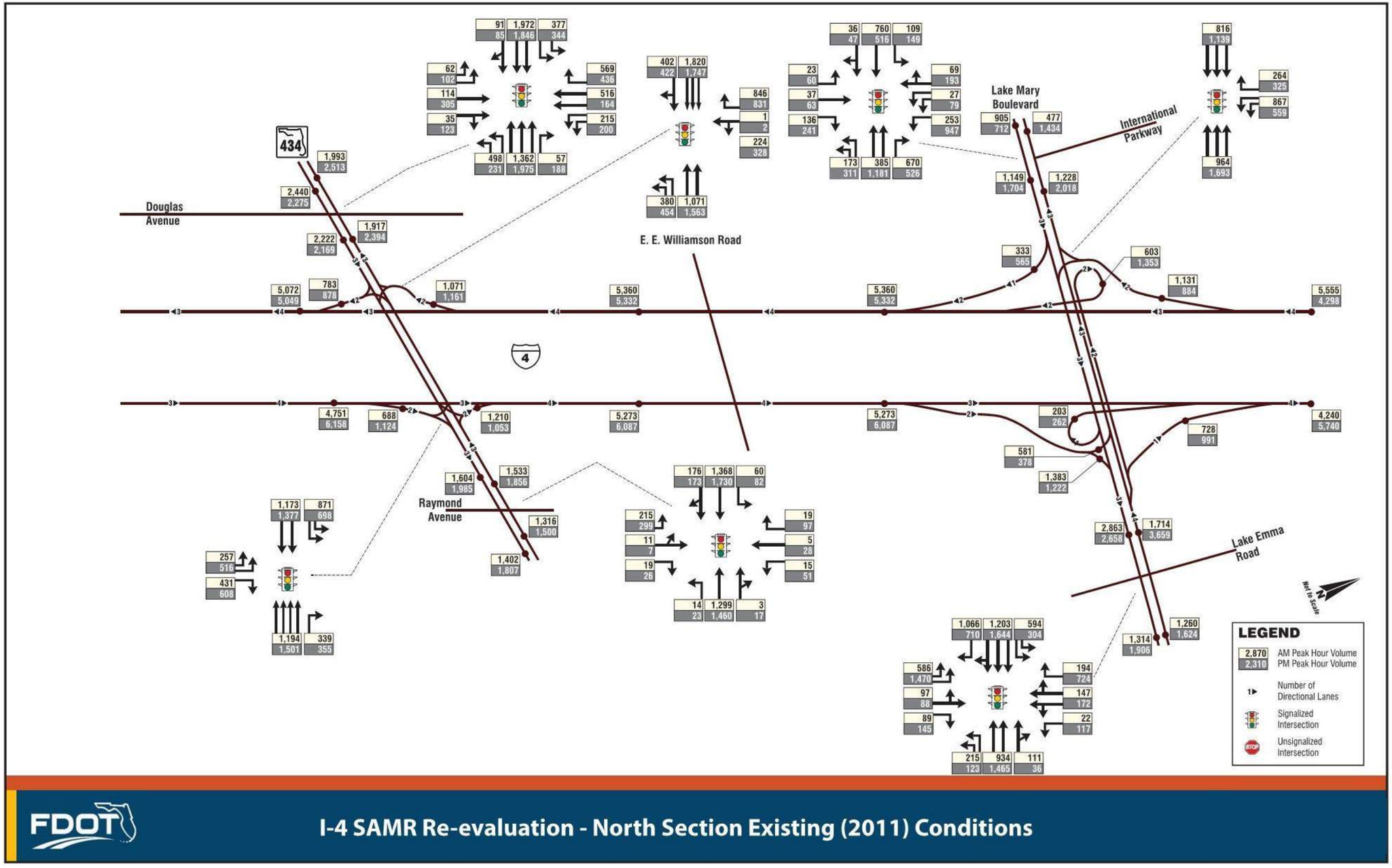


Figure 2.5 - Existing (Year 2011) Traffic Volumes (Sheet 1 of 3)

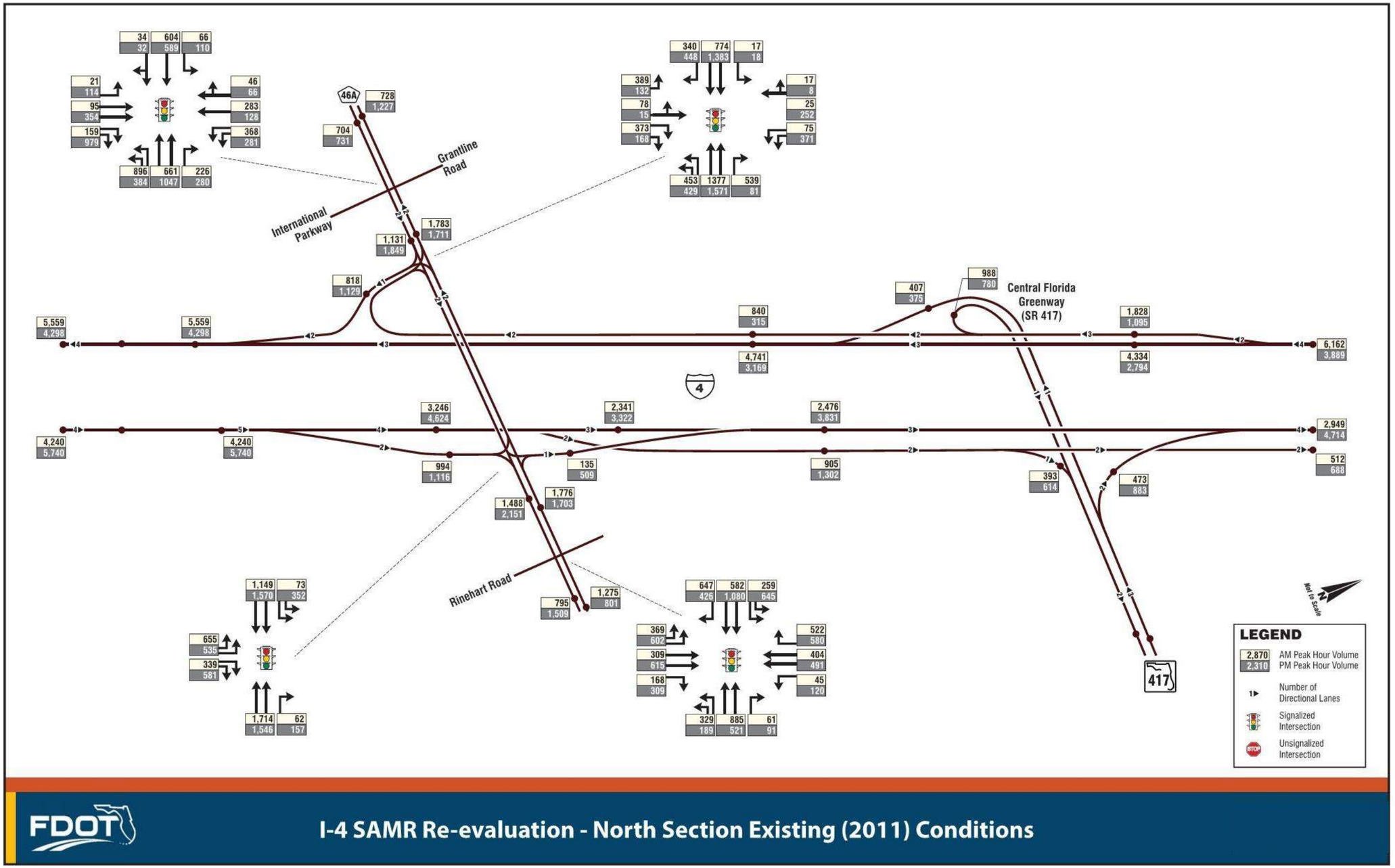


Figure 2.6 - Existing (Year 2011) Traffic Volumes (Sheet 2 of 3)

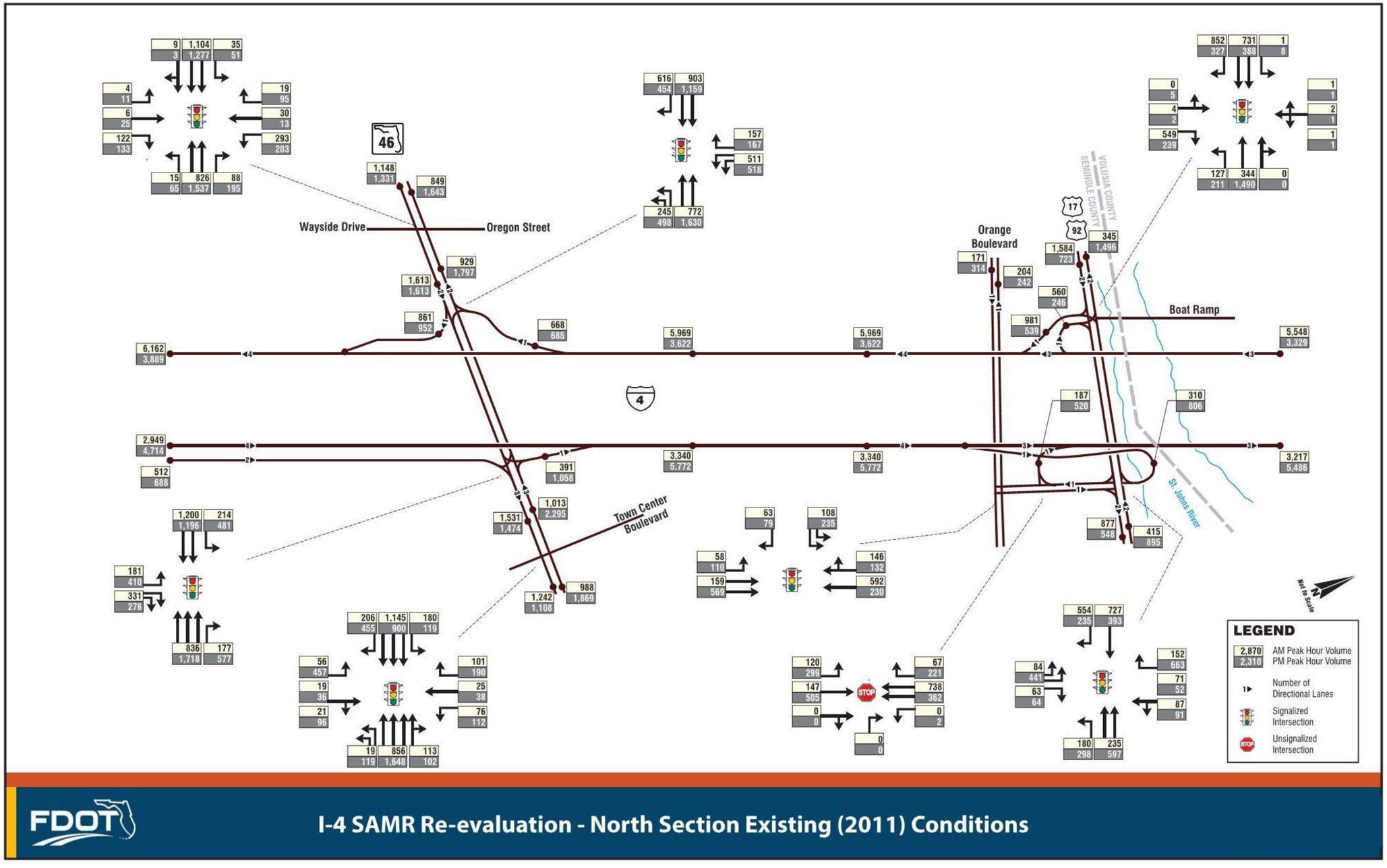


Figure 2.7 - Existing (Year 2011) Traffic Volumes (Sheet 3 of 3)

2.10.2 Intersection Geometry and Signalization

There are five existing interchanges within the limits of I-4 Segment 3. The interchange configurations were depicted in Figure 2.5 through Figure 2.7 and are described in detail in the following sections.

I-4 and Lake Mary Boulevard Interchange

The I-4 interchange at Lake Mary Boulevard is a four-quadrant, six-ramp partial cloverleaf interchange with loop ramps in the northwest and southeast quadrants. The northwest quadrant loop ramp is a two-lane on-ramp from westbound Lake Mary Boulevard to westbound I-4. The outer connector ramp in the northwest quadrant is a two-lane off ramp from westbound I-4 that flares to three lanes at the signalized ramp terminus on Lake Mary Boulevard. The southeast quadrant loop ramp is a single lane on-ramp from eastbound Lake Mary Boulevard to eastbound I-4. The outer connector ramp in the southeast quadrant is a two-lane off ramp which flares to four lanes at the signalized ramp terminus on Lake Mary Boulevard. The I-4 eastbound and westbound off-ramps both form signalized, T- intersections with directional median openings which allow dual left turns from the exit ramps. The I-4 eastbound exit ramp also has two right turn lanes which are separated by an island onto eastbound Lake Mary Boulevard. The outside right turn lane is a free-flow right turn lane; the inside right turn lane is under signal control. The northeast and southwest quadrants contain a single lane on ramp from westbound Lake Mary Boulevard to eastbound I-4 and from eastbound Lake Mary Boulevard to westbound I-4, respectively.

I-4 Interchanges with CR 46A (HE Thomas Jr. Parkway), SR 417 and SR 46

The I-4 Interchanges with CR 46A, SR 417 and SR 46 are connected by a collector-distributor (C-D) system with two-lane C-D roads in both the eastbound and westbound directions. The eastbound C-D road spurs off I-4 just north of CR 46A, going under the CR 46A to I-4 eastbound on ramp. The road continues parallel to the Interstate providing an exit ramp to SR 417 southbound before crossing over SR 417 and the on ramp from SR 417 northbound to I-4 eastbound and terminating at SR 46. The westbound C-D road begins at SR 46, crosses over SR 417 providing an exit ramp to SR 417 southbound. Continuing parallel to the Interstate, the westbound C-D road crosses over the SR 417 northbound to I-4 westbound on ramp and continues under CR 46A providing entry and exit ramps for CR 46A before merging with the I-4 westbound lanes.

I-4 and CR 46A

The I-4 and CR 46A (HE Thomas Jr. Parkway) interchange has ramps in three quadrants. The I-4 eastbound on and off ramps form a single signalized intersection with dual left lanes and dual right lanes from the exit ramp and dual left lanes from eastbound 46A onto the entrance ramp. I-4 westbound traffic exits the freeway from a single lane loop ramp in the southwest quadrant which terminates at the signalized, four-way intersection of CR 46A and Colonial Center Parkway,

approximately 1200 feet west of the Interstate. The south leg of this intersection also serves as the on ramp for I-4 westbound from CR 46A.

I-4 and SR 417

The I-4 and SR 417 interchange is a systems interchange with a single-lane loop ramp in the southwest quadrant which serves as the connecting ramp from I-4 westbound to SR 417 southbound. SR 417 is a tolled, limited access highway which forms an eastern beltway between I-4 in Seminole County and I-4 in Osceola County. In the vicinity of I-4, SR 417 has its westerly terminus at International Parkway, approximately 2,800 feet west of I-4. Access from northbound SR 417 to westbound I-4 is provided by a single lane flyover ramp over the east-west connector road from International Parkway to SR 417 southbound. I-4 eastbound traffic connects to SR 417 southbound via single lane exit ramp from the C-D road in the southeast quadrant. SR 417 northbound traffic connects to I-4 eastbound by a two-lane ramp in the northeast quadrant.

I-4 and SR 46

The I-4 and SR 46 interchange is a partial cloverleaf interchange with ramps in all four quadrants. The northwest quadrant loop ramp is a single lane on ramp from SR 46 westbound to I-4 westbound. The northeast quadrant on ramp provides access from SR 46 to I-4 eastbound and the southwest quadrant single-lane on ramp provides access from SR 46 eastbound to I-4 westbound. The outer connector ramp in the northwest quadrant is a two-lane exit ramp from I-4 westbound which forms a signalized "T" intersection at the ramp terminal on SR 46. I-4 eastbound does not have a direct exit onto SR 46. Access to SR 46 is provided by the eastbound C-D road which terminates at SR 46. At the signalized ramp terminal, a single left turn lane and dual right lanes separated by a channelizing, painted island provide access to SR 46 westbound and eastbound, respectively.

I-4 and US 17-92 Interchange

The I-4 and US 17-92 interchange is a partial cloverleaf interchange with loop ramps in the northeast and southwest quadrants. The loop ramp in the northeast quadrant begins as a single lane off-ramp from I-4 eastbound approximately 3,380 feet south of US 17-92. It flares to two lanes near the signalized ramp terminal intersection of US 17-92 and Monroe Road. East/west traffic on US 17-92 enters I-4 eastbound from the single lane loop ramp in the southeast quadrant accessed via the US 17-92 and Monroe Road signalized intersection. The loop ramp in the southwest quadrant is a single lane exit ramp from I-4 westbound, which has a signalized ramp terminal on US 17-92, approximately 650 feet west of the Interstate. I-4 westbound is accessed from this signalized intersection which connects to the single lane outer connector entry ramp in the southwest quadrant.

2.10.3 Traffic Operational Analyses

Existing conditions operational analyses were performed for the I-4 mainline and study area intersections using the latest version of microsimulation software (VISSIM, Version 7.0). Link and node evaluation was performed to estimate Level of Service based on Highway Capacity Manual metrics for the I-4 mainline and study intersections. The intersection analysis indicates that the Lake Mary Boulevard and Lake Emma Road intersection operates at LOS F in the PM peak hour. The link evaluation of freeway segments indicates that all segments operate with average speeds greater than 60 mph, with the exception of I-4 eastbound, west of SR 434. The results of the operational analyses for I-4 Segment 3 are summarized in Table 2.5 and Table 2.6. Detailed outputs from the software programs are provided in the *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – from East of SR 434 to East of SR 472* (March 2017).

Table 2.5: Existing (2011) AM and PM Peak Hour Intersection Operational Analysis

Primary Road	Secondary Road	Existing AM		Existing PM	
		Delay (sec)	LOS	Delay (sec)	LOS
SR 434	Markham Woods Rd	43.8	D	32.3	C
	I-4 WB Ramps	19.3	B	27.0	C
	I-4 EB Ramps	26.4	C	24.3	C
	Raymond Ave	11.7	B	20.5	C
Lake Mary Blvd	International Pkwy	29.5	C	47.8	D
	I-4 WB Ramps	34.5	C	22.3	C
	I-4 EB Ramps	13.4	B	9.7	A
	Lake Emma Rd	42.2	D	87.1	F
CR 46A	International Pkwy	34.9	C	34.7	C
	I-4 WB Ramps	27.4	C	32.9	C
	I-4 EB Ramps	21.8	C	26.6	C
	Rinehart Rd	34.3	C	43.5	D
SR 46	Oregon St	14.2	B	18.1	B
	I-4 WB Ramps	18.2	B	28.4	C
	I-4 EB Ramps	13.7	B	32.7	C
	Towne Center Blvd	16.2	B	32.6	C
US 17-92	Orange Blvd	11.2	B	16.6	B
	I-4 WB Ramps	10.6	B	10.1	A
	I-4 EB off Ramp	19.0	B	23.5	C
CR 15/Monroe St	I-4 EB on Ramp	1.3	A	1.1	A

Intersection operating at or below LOS E.

Table 2.6: I-4 Mainline Freeway Link/Segment Operational Analysis

Location	Average Speed (mph)	
	AM Peak Hour	PM Peak Hour
I-4 Segment 3 Eastbound		
I-4 EB at SR 434	65.6	64.8
I-4 EB West of SR 434	49.6	57.7
I-4 EB Lake Mary Blvd off-ramp	66.8	66.0
I-4 EB East of CR 46A	67.7	66.5
I-4 EB West of SR 46	67.5	65.7
I-4 EB at SR 46	68.0	66.3
I-4 EB at US 17-92	66.8	63.4
I-4 EB East of US 17-92	66.4	67.4
I-4 Segment 3 Westbound		
I-4 WB between SR 434 & Lake Mary Blvd	70.1	70.1
I-4 WB West of US 17-92	67.5	67.9
I-4 WB West of Lake Mary Blvd	68.3	67.8
Link segment operating with average speed <60 mph.		

2.11 Pavement Conditions

Pavement condition surveys are conducted by FDOT and are rated on a scale of zero to 10, with a rating of six or less considered critical. The pavement surface and base conditions on I-4 throughout the study area were rated as "good" to "very good" based on high pavement survey ratings between 7.0 and 8.0. The section of I-4 from EE Williamson Road to Lake Mary Boulevard was recently milled and resurfaced in March 2015. Table 2.7 provides the existing pavement condition ratings for 2013 and forecasted 2018 ratings for I-4 Segment 3.

Table 2.7: Pavement Conditions I-4 Segment 3

Begin MP	End MP	Side	Crack Rating 2013	Ride Rating 2013	Rut Rating 2013	Crack Rating 2018	Ride Rating 2018	Rut Rating 2018
2.838	7.346	L	6.5	7.8	9.0	5.0	7.5	8.0
2.859	7.346	R	4.5	7.3	9.0	3.0	7.0	8.0
7.346	9.353	L	9.0	7.7	9.0	5.5	7.4	8.0
9.353	12.876	L	–	–	–	9.5	8.0	9.0
12.876	14.135	L	8.0	7.4	9.0	6.5	7.1	8.0
7.346	14.135	R	8.0	7.7	9.0	4.5	7.4	8.0
Source: Florida Department of Transportation, *All System Pavement Condition Forecast* (2013 Ratings)								

2.12 Drainage and Hydrology

Existing drainage characteristics in the study area were determined by reviewing FDOT construction plans, the Straight Line Diagrams of Road Inventory, St. Johns River Water Management District (SJRWMD) drainage and permitting files, United States Geological Survey (USGS) Quadrangle Maps, Geographic Information System (GIS) maps and Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). Field reviews were also conducted along the corridor. The study area lies within the jurisdiction of SJRWMD.

2.12.1 Existing Drainage Patterns

The project is separated into 22 basins in the existing condition, which includes the pond sites and the full roadway right-of-way. There are 24 ponds that were constructed for treatment and attenuation of the runoff. The stormwater runoff from the roadway is collected by roadside ditches and cross drains that either discharge to an existing pond for treatment and attenuation, or discharge directly to the outfall untreated. The Wekiva River Hydrologic Basin is considered an Outstanding Florida Water (OFW) and Lake Monroe is a nutrient impaired water body. The overall drainage maps for the project are provided in Figure 6.1 through Figure 6.4 in Section 6.6 of this report.

The first nine basins (Basin HH to 306) are located within the Wekiva Recharge Protection Basin and the Wekiva River Hydrologic Basin. The basin limits start at one mile east of SR 434 and ends just north of the I-4 and Lake Mary Boulevard interchange. The basins include nine existing ponds that were constructed for treatment and attenuation. The first two ponds (Ponds HH & II) are located within the Richie Green Rest Area in Longwood and discharge to the Little Wekiva River, which is an OFW. Ponds 300, 301, 302, 303 and 304 are land-locked and discharge to either Grace Lake or existing depressional areas. The existing ponds were designed as dry retention ponds, for interim improvements only. Ponds 305 and 306 discharge to the Heathrow Development stormwater management system, which is an open basin.

There are two basins (Basins 307 to 308) that are located within the Lake Emma Basin, which is land-locked. The basin limits start north of Lake Mary Boulevard and end just south of CR 46A. The basins include two existing ponds, which were designed as dry retention ponds and constructed for treatment and attenuation.

The next three basin limits (Basins 309-311) start from CR 46A and extend to the I-4 and SR 417 interchange. The basins are considered land-locked and include four existing ponds that were constructed for treatment and attenuation. Three of the four existing ponds (Ponds 309, 310 and 311) were designed as wet detention ponds and Pond 309A was designed as a dry retention pond.

Basin 312 begins at the existing I-4 and SR 417 interchange (future I-4 and Wekiva Parkway/SR 429 interchange) and continues north along the I-4 corridor. The basin includes one existing pond that

was constructed for treatment and attenuation. The existing pond was designed as a wet detention pond and ultimately discharges to the Lockhart-Smith Canal.

The next three basins (Basins 313-315) begin at SR 46 and continue north along the I-4 corridor. The basins include four existing ponds that were constructed for treatment and attenuation. The existing ponds (Ponds 313, 313A, 314 and 315) were designed as wet detention ponds and ultimately discharge to the Lockhart-Smith Canal.

The final three basins (Basins 316-318) begin north of SR 46 and continue north along the I-4 corridor to the US 17-92 bridge at the St. Johns River. Basin 318 also includes CR 15, School Street and Orange Boulevard. The basins include five existing ponds that were constructed for treatment and attenuation. The existing ponds (Ponds 316, 317A, 317B, 317C and 318) were designed as wet detention ponds and ultimately discharge to Lake Monroe, which is a nutrient impaired water body. Additional information on existing drainage patterns is presented in the *Pond Siting Report (November 2016).*

2.12.2 Cross Drains

There are two existing cross drains within the study area. Table 2.8 presents the existing cross drain data obtained from the original I-4 construction plans pertinent to the project study area. In addition to the cross drains, there are several other drainage structures to convey onsite drainage, such as ditch bottom inlets, roadside swales and driveway culverts. Additional information is presented in the *Location Hydraulic Report (November 2016)* prepared for this project.

Table 2.8: Existing Cross Drains

Milepost	Station	Description from Straight Line Diagram of Road Inventory						
		Count	Span (in)	Rise (in)	Type	Length (ft)	Elevation (ft NAVD)	
							Upstream	Downstream
5.471	2120+87	1	48	48	RCP	222	57.77	57.39
5.731	2134+09	1	54	54	RCP	228	52.90	51.69
Abbreviations: RCP – Reinforced Concrete Pipe								

2.13 Existing Bridges

Within Segment 3 of the I-4 study corridor, there are six existing bridge structures which cross I-4 and seven existing mainline bridge structures which carry I-4 over local roads. The existing bridges are listed in Table 2.9 and depicted graphically in Figure 2.8**.**

2.13.1 Type of Structure

Mainline Bridges - The superstructures of the existing mainline I-4 bridges consist of a cast-in-place concrete deck carried by steel plate girders or AASHTO prestressed precast concrete girders. Table 2.9 summarizes the span lengths, deck widths, shoulder/lane widths and superstructure types.

Table 2.9: Existing Bridge Structures

Facility	Bridge No.	No. of Spans	Bridge Length (ft)	MAX Span Length (ft)[1]	Deck Width (ft)	Lane/ Shoulder Widths (ft)	Superstructure Type
EE Williamson Road Over I-4	770018	4	285.5	71.9	34.1	2’ shldr., 2 lanes @ 12’, 2’ shldr.	AASHTO Concrete Beam
EE Williamson Pedestrian Over I-4	774051	4	285.5	72.0	9.0	N/A	Steel Plate Girder
Lake Mary Boulevard EB Over I-4	770040	2	226.7	119.6	68.5	1.5’ inside shldr., 4 lanes @ 12’, 6’ outside shldr.	AASHTO Concrete Beam
Lake Mary Boulevard WB Over I-4	770039	2	226.7	119.6	104.5	1.5’ inside shldr., 3 lanes @ 12’, 10’ shldr., 4’ traffic separator, 6’ shldr., 2 lanes @ 12’, 10’ outside shldr.	AASHTO Concrete Beam
Pedestrian Bridge Over I-4	774049	1	1006.9 [1]	373.3	14.0	N/A	Steel Truss
CR-46A Over I-4	770077	3	356.1	148.5	100.5	4’ shldr., 2 lanes @ 12’, 5.5’ median, 4 lanes @ 12’, 4’ shldr.	Steel Plate Girder
I-4 WB over SR-417	770008	3	146.0	53.2	58.4	10’ outside shldr., 4 lanes @ 12’, 10’ inside shldr.	AASHTO Concrete Beam
I-4 EB over SR-417	770910	3	146.0	53.2	70.5	10’ outside shldr., 3 lanes @ 12’, 10’ inside shldr.	AASHTO Concrete Beam
I-4 WB Over SR-46	770084	1	202.1	200.5	63.7 [2]	10’ inside shldr., 3 lanes @ 12’, 10’ outside shldr. [2]	Steel Plate Girder

Table 2.9: Existing Bridge Structures

Facility	Bridge No.	No. of Spans	Bridge Length (ft)	MAX Span Length (ft)[1]	Deck Width (ft)	Lane/ Shoulder Widths (ft)	Superstructure Type
I-4 EB Over SR-46	770085	1	202.1	200.5	68.9	10’ outside shldr., 4 lanes @ 12’, 10’ inside shldr.	Steel Plate Girder
I-4 Over Outfall Ditch	770029	1	23.0	9.8	58.0	12’ inside shldr., 3 lanes @ 12’, 10’ inside shldr.	Concrete Box Culvert
I-4 WB Over Orange Boulevard &CSX RR	770086	2	280.0	140.0	66.9	10’ outside shldr., 3 lanes @ 12’, 12’ inside shldr.	Steel Plate Girder
I-4 EB Over Orange Boulevard &CSX RR	770087	2	245.5	122.8	66.3	10’ outside shldr., 3 lanes @ 12’, 12’ inside shldr.	Steel Plate Girder
I-4 WB Over St. Johns River	790196	20	2566.3	142.3	Varies 70.0 to 58.0	12’ inside shldr., 3 lanes @ 12’, 1 aux. lane @ 12’, 10’ outside shldr.	AASHTO Concrete Beam
I-4 EB Over St. Johns River	790197	20	2566.3	142.3	Varies 70.0 to 58.0	12’ inside shldr., 3 lanes @ 12’, 1 aux. lane @ 12’, 10’ outside shldr.	AASHTO Concrete Beam

[1]Plans for bridge are not available. Data taken from Bridge Inspection Reports.
[2]Data shown is for pre-widened configuration. Current data will be provided at a future date.

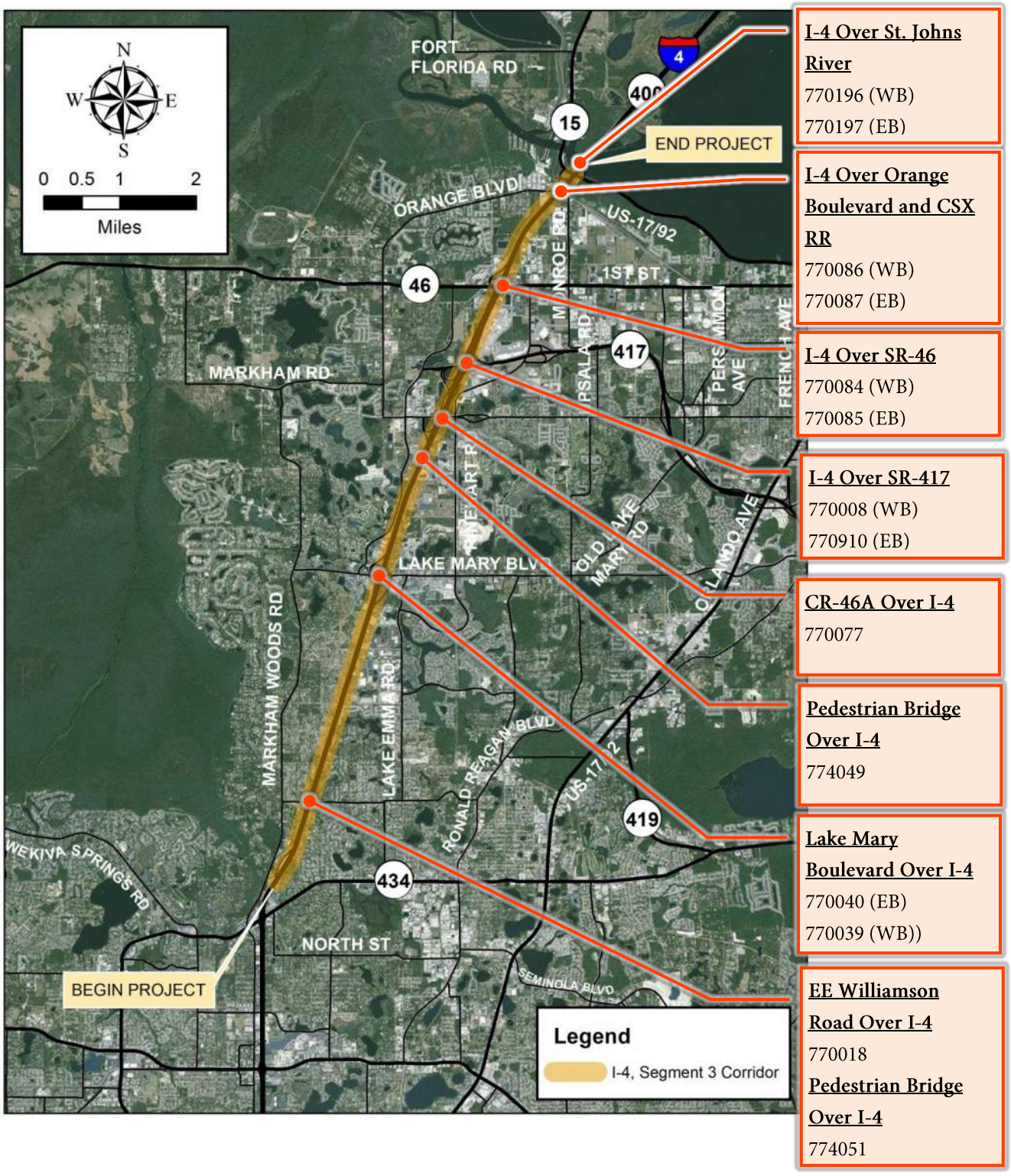


Figure 2.8 – Existing Bridge Locations

Overpass Bridges - The superstructures for the bridges over I-4 consist of steel plate girders or AASHTO prestressed concrete beams, with the exception of the Cross Seminole Trail pedestrian bridge which employs a single span, steel through-truss superstructure.

2.13.2 Current Conditions and Year of Construction

Table 2.10 provides a description of the existing bridges within the I-4 study corridor. This information was obtained from existing plans and the most recent bridge inspection reports. The sufficiency rating is derived from a formula that evaluates factors that are indicative of the structure's ability to remain in service. A rating of 100 percent represents an entirely sufficient bridge and a rating of zero percent represents an entirely deficient bridge. The table provides data on the year of original construction and when the bridges were widened or replaced. This data was obtained from the most recent bridge inspection reports or approximated from the dates of the existing plans. The oldest existing bridge is EE Williamson Road over I-4, which was constructed in 1963. The oldest existing bridge culvert is I-4 over Outfall Ditch, which was constructed in 1959.

None of the mainline facilities are classified as "functionally obsolete" or "structurally deficient." The facility carrying I-4 WB over SR-417 Ramps A1 and C1 has a structural sufficiency rating below 90. Likewise, bridges carrying EE Williamson Road and Lake Mary Boulevard eastbound over the I-4 mainline have a structural sufficiency rating below 90. The culvert carrying I-4 over Outfall Ditch also has a sufficiency rating below 90. All other facilities have a structural sufficiency rating above 90.

Table 2.10: Current Structure Condition and Year of Construction

Facility	Bridge No.	Sufficiency Rating	Overall NBI Rating[1]				Year Built[2]	Year Replaced/ Widened[2]
			Deck	Super-structure	Sub-structure	Channel		
EE Williamson Road Over I-4	770018	73.6	6	7	7	N/A	1963	N/A
EE Williamson Pedestrian Over I-4	774051	N/A	N/A	N/A	N/A	N/A	2005	N/A
Lake Mary Boulevard EB Over I-4	770040	80.6	7	7	7	N/A	1992	N/A
Lake Mary Boulevard WB Over I-4	770039	93.2	8	7	7	N/A	1992	N/A
Pedestrian Bridge Over I-4	774049	N/A	N/A	N/A	N/A	N/A	2003	N/A
CR-46A Over I-4	770077	100.0	7	7	8	N/A	1999	N/A
I-4 WB over SR-417	770008	94.8	7	7	7	N/A	1963	2002

Table 2.10: Current Structure Condition and Year of Construction

Facility	Bridge No.	Sufficiency Rating	Overall NBI Rating[1]				Year Built[2]	Year Replaced/ Widened[2]
			Deck	Super-structure	Sub-structure	Channel		
I-4 EB over SR-417	770910	94.8	7	7	7	N/A	1963	2002
I-4 WB Over SR-46	770084	94.5	7[3]	7[3]	7[3]	N/A	2004	2013
I-4 EB Over SR-46	770085	98.0	7	8	8	N/A	2003	N/A
I-4 Over Outfall Ditch	770029	72.5	N/A	N/A	N/A	N/A	1959	2004
I-4 WB Over Orange Boulevard & CSX RR	770086	92.9	7	7	7	N/A	2003	N/A
I-4 EB Over Orange Boulevard & CSX RR	770087	93.9	7	7	7	N/A	2003	N/A
I-4 WB Over St. Johns River	790196	91.6	7	7	7	8	2002	N/A
I-4 EB Over St. Johns River	790197	91.6	8	7	6	9	2003	N/A

[1] National Bridge Inventory (NBI) Rating: 9- Excellent; 8- Very Good; 7- Good; 6- Satisfactory; 5 – Fair.
N/A - Per FHWA National Bridge Inspection Standards 23 CFR 650.303, bridges not carrying highways are not covered by NBIS regulations and therefore, do not require NBI ratings.
[2] Construction and widening years obtained from Bridge Inspection Reports.
[3] Data shown is for pre-widened configuration. Current data will be provided at a future date.

2.13.3 Horizontal and Vertical Alignments of Structures

Existing vertical clearances less than 16.5 feet are undesirable over the Interstate. The facilities carrying EE Williamson Road and CR 46A over the mainline do not meet the minimum vertical clearance threshold while all other over the mainline provide adequate vertical clearance. Table 2.11 presents the pier locations and horizontal clearances for each of the bridges. Table 2.12 summarizes the vertical curve data at each location. Table 2.13 provides the vertical clearance information at each structure.

Table 2.11: Horizontal Clearances at Bridges

Facility	Bridge No.	Horizontal Clearance To Substructure
EE Williamson Road Over I-4	770018	30.5’ to Pier 3
EE Williamson Pedestrian Over I-4	774051	30.5’ to Pier 3
Lake Mary Boulevard EB Over I-4	770040	30.0’ to Pier 2
Lake Mary Boulevard WB Over I-4	770039	30.0’ to Pier 2
Pedestrian Bridge Over I-4	774049	Approximately 369’ pylon-to-pylon
CR-46A Over I-4	770077	17.2’ to Pier 3
I-4 WB over SR-417	770008	N/A
I-4 EB over SR-417	770910	N/A
I-4 WB Over SR-46	770084	N/A
I-4 EB Over SR-46	770085	N/A
I-4 Over Outfall Ditch	770029	N/A
I-4 WB Over Orange Boulevard &CSX RR	770086	N/A
I-4 EB Over Orange Boulevard &CSX RR	770087	N/A
I-4 WB Over St. Johns River	790196	6.7’ US 17-92 to Pier 2
I-4 EB Over St. Johns River	790197	6.7’ US 17-92 to Pier 2

Table 2.12: Vertical Curve Data at Bridges

Facility	Bridge No.	Vertical Curve Length (ft)	Vertical Curve Grade In/Grade Out
EE Williamson Road Over I-4	770018	300	+1.13%/-1.24%
EE Williamson Pedestrian Over I-4	774051	300	+1.13%/-1.24%
Lake Mary Boulevard EB Over I-4	770040	600	+3%/-1.50%
Lake Mary Boulevard WB Over I-4	770039	600	+3%/-1.50%
Pedestrian Bridge Over I-4	774049	N/A	N/A
CR-46A Over I-4	770077	600	+3.27%/-4.19%
I-4 WB over SR-417	770008	253	+0.5073%/-0.5313%
I-4 EB over SR-417	770910	253	+0.5073%/-0.5313%
I-4 WB Over SR-46	770084	1,804	+2.00%/-2.00%
I-4 EB Over SR-46	770085	1,804	+2.00%/-2.00%
I-4 Over Outfall Ditch	770029	N/A	N/A
I-4 WB Over Orange Boulevard & CSX RR	770086	1,130	+2.9947%/-0.7699%
I-4 EB Over Orange Boulevard & CSX RR	770087	1,130	+2.9947%/-0.7699%
I-4 WB Over St. Johns River	790196	2,180	+2.0396%/-2.1802%
I-4 EB Over St. Johns River	790197	2,180	+2.0396%/-2.1802%

Table 2.13: Vertical Clearances at Bridges

Location	Bridge No.	Vertical Clearance (ft)
EE Williamson Road Over I-4	770018	16.4
EE Williamson Pedestrian Over I-4	774051	18.8
Lake Mary Boulevard EB Over I-4	770040	16.5
Lake Mary Boulevard WB Over I-4	770039	16.5
Pedestrian Bridge Over I-4	774049	20.7
CR-46A Over I-4	770077	16.3
I-4 WB over SR-417	770008	23.05
I-4 EB over SR-417	770910	21.77
I-4 WB Over SR-46	770084	16.6
I-4 EB Over SR-46	770085	16.6
I-4 Over Outfall Ditch	770029	N/A
I-4 WB Over Orange Boulevard & CSX RR	770086	22.0 to Orange Blvd., 23.7 to CSX RR
I-4 EB Over Orange Boulevard & CSX RR	770087	22.4 to Orange Blvd., 23.7 to CSX RR
I-4 WB Over St. Johns River	790196	21.2' to US 17-92
I-4 EB Over St. Johns River	790197	22.8' to US 17-92

2.13.4 Span Arrangement

The existing span arrangement (number and length of spans) of the bridges within the project limits were listed in Table 2.9.

2.13.5 Historical Significance

Existing bridges in Segment 3 of the I-4 study corridor carry no historical significance. Thus, this section is not applicable to this project.

2.13.6 Channel Dimensions

Table 2.14 summarizes the channel dimensions for I-4 EB and I-4 WB over the St. Johns River.

Table 2.14: Channel Dimensions

Location	Bridge No.	Vertical Clearance (ft)[1]	Horizontal Clearance (ft)[2]
I-4 WB Over St. Johns River	790196	45.0	112.7
I-4 EB Over St. Johns River	790197	45.0	112.7

[1] Vertical clearance is measured from the lowest point under the bridge (including lighting, utilities, etc.) to the Near High Water (NHW) elevation
[2] Horizontal clearance is measured between the inside faces of the existing fender system

2.13.7 Bridge Openings

Since the I-4 widening project does not involve any moveable bridges that fall within the study limits, this section is not applicable to this project.

2.13.8 Ship Impact Data

Table 2.15 summarizes the ship impact forces for I-4 eastbound and I-4 westbound over the St. Johns River which the substructures were designed to withstand.

Table 2.15: Ship Impact Data

Pier	Equivalent Static Force (Kips)	
	Transverse	Longitudinal
2 to 4 & 5 EB	N/A	N/A
5 WB	300	260
6	1,000	500
7	2,000	1,000
8	2,000	1,000
9	2,600	1,300
10	2,600	1,300
11	2,600	1,300
12	2,600	1,300
14	2,600	1,300
15 EB	1,500	750
15 WB	300	260
16 TO 20	N/A	N/A

2.14 Crash Data

The five-year crash data, between 2008 and 2012, was analyzed for the I-4 segment between east of SR 434 and east of SR 15-600/US 17-92 (Seminole/Volusia County Line), from Milepost 4.050 to 14.135 in Seminole County. The crash data was downloaded from the FDOT Crash Analysis Reporting System (CARS) system and includes data for the I-4 mainline as well as the ramps.

The five-year crash data analysis showed that there were 801 crashes within this approximate 10-mile segment of I-4 in the last five years. Out of these 801 crashes there were thirteen (13) fatal crashes, 422 injury crashes and 366 property damage only crashes. Table 2.16 shows the summary of crashes by severity within the study area. Figure 2.9 shows the crash distribution by severity along the I-4 Segment 3 mainline within Seminole County.

Table 2.16: Crash Severity Summary

Crash Severity	2008	2009	2010	2011	2012	Total
Fatal	2	0	1	8	2	13
Injury	78	83	84	87	90	422
Property Damage Only	77	57	86	60	86	366
Total	**157**	**140**	**171**	**155**	**178**	**801**

During the five-year study period, of the crashes that were classified as specific crash events, the highest were rear end collisions (248 crashes), angle collisions (89 crashes) and hitting guard rail collisions (63 crashes). The highest numbers of contributing causes were careless driving (396 crashes) followed by improper lane change (95 crashes).

Rear end collisions represent nearly 31% of the total crashes occurring along the I-4 Segment 3 study corridor for the five-year period analyzed. Over 60% (151 crashes) of the rear end collisions occurred during "clear" weather conditions and approximately 63% (156 crashes) occurred during daylight lighting conditions. The data indicates that the high occurrence of rear end collisions may be due to peak periods of heavy congestion along the corridor. Table 2.17 provides a summary of the types of crashes within the study area and Table 2.18 provides a summary of contributing causes.

As part of the crash data analysis, the FDOT District 5 High Crash Roadway Segments list was reviewed. Within I-4 Segment 3, the sections identified as high crash segments are shown in Table 2.19. The actual crash rates on these segments were greater than the average district wide crash rate for urban interstate facility type. The segment in Seminole County between MP 7.100 and MP 7.300, just west of the Lake Mary Boulevard interchange, appears on the list for two of the five years of data analyzed.

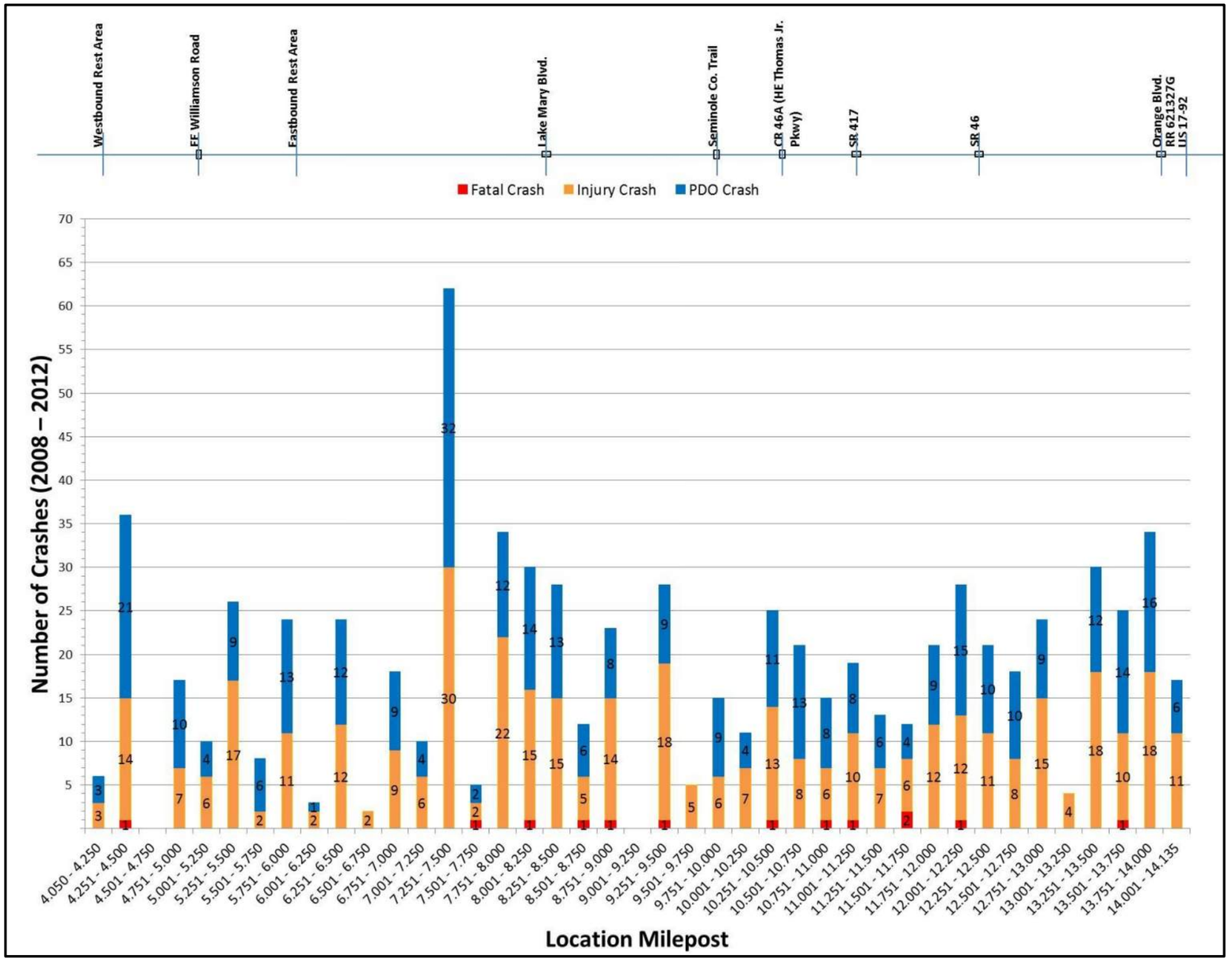


Figure 2.9 - Crash Distribution Along I-4 Segment 3 Corridor (Seminole County)

Table 2.17: Crash Event Summary

Harmful Event	2008	2009	2010	2011	2012	Total
All Other	6	10	19	17	31	83
Angle	30	22	17	9	11	89
Animal	-	2	-	1	-	3
Backed Into	-	-	1	-	-	1
Bike	-	-	1	-	-	1
Cargo Loss or Shift	1	3	2	3	4	13
Collision with Motor Vehicle On Road	-	1	7	18	29	55
Crash Attenuator	1	-	1	-	-	2
Fire	-	-	-	1	-	1
Hit Concrete Barrier Wall	4	3	2	2	5	16
Hit Const Barricd/SignBr/Pier/Abutt	-	-	1	-	-	1
Hit Guardrail	15	13	13	8	14	63
Hit Sign/Sign Post	2	3	1	1	-	7
Hit Tree/Shrub	-	-	2	-	1	3
Hit Utility Pole	3	1	3	2	1	10
Median Crossover	-	-	1	-	-	1
Moveable Object	-	2	4	1	6	13
Occupant Fell from Vehicle	-	-	-	1	-	1
Other Fixed Object	2	2	3	4	-	11
Overturned	8	7	12	9	7	43
Parked Car	1	1	1	3	-	6
Pedestrian	-	-	-	1	-	1
Ran into Ditch/Culvert	-	1	1	-	-	2
Ran Off Rd Into Water	-	2	-	-	-	2
Rear End	49	44	53	50	52	248
Separation of Units	-	-	1	-	-	1
Sideswipe	19	19	16	-	-	54
Trac/Trail Jackknifed	2	-	-	-	-	2
Unknown/Not Coded	14	4	9	24	17	68
Total	**157**	**140**	**171**	**155**	**178**	**801**

Table 2.18: Contributing Cause Summary

Contributing Cause	2008	2009	2010	2011	2012	Total
Alcohol-Under Influence	1	-	-	-	-	1
All Other	18	6	21	17	29	91
Careless Driving	75	71	86	74	90	396
Disregarded Traffic Signal	-	-	1	-	-	1
Driver Distraction	-	3	-	-	-	3
Drove Left of Center	-	-	1	-	-	1

Table 2.18: Contributing Cause Summary

Contributing Cause	2008	2009	2010	2011	2012	Total
Exceeded Safe Speed Limit	4	5	7	4	13	33
Failed to Maintain Equipment	2	3	5	-	-	10
Followed Too Closely	1	2	1	-	1	5
Failed to Yield Right-of-way	-	-	1	5	6	12
Improper Backing	-	-	2	2	1	5
Improper Lane Change	33	32	30	-	-	95
Improper Load	2	5	2	-	-	9
Improper Passing	2	-	-	-	-	2
No Improper Driving	14	12	9	28	21	84
Obstructing Traffic	2	-	1	-	-	3
Unknown/Not Coded	3	1	4	25	17	50
Total	**157**	**140**	**171**	**155**	**178**	**801**

Table 2.19: High Crash Segment Summary

Year	Begin MP	End MP	Total # Crashes	ADT	Crash Rate	Average District Wide Crash Rate (Urban Interstate)
2008	-	-	-	-	-	0.417
2009	-	-	-	-	-	0.477
2010	7.100	7.400	18	133,907	1.227	0.519
2011	-	-	-	-	-	0.458
2012	7.100	7.300	12	132,663	1.239	0.497
	13.700	14.135	22	102,993	1.345	

- Milepost locations within I-4 Segment 3 do not appear on the "High Crash Roadway Segments" list for 2008, 2009 or 2011.

2.15 Railroad

There is one at-grade rail/highway crossing within the project limits, approximately 800 feet east of I-4 at Monroe Road. There is also one grade separated crossing, located just north of Orange Boulevard where the I-4 bridge over Orange Boulevard also spans over the railroad. In this region, this rail corridor is known as the Central Florida Rail Corridor and is owned by the Florida Department of Transportation. The tracks are primarily used by the SunRail commuter trains; other users include CSXT and Florida Central Railroad (FCEN), for freight transportation and Amtrak intercity passenger rail service.

2.16 Utilities

The utilities located within the right-of-way were identified through the use of existing plans and by contacting all of the utility companies identified via the Sunshine State One call system. Table 2.20 provides a list of the utility companies and contact information. Table 2.21 provides approximate

locations of the major utilities that are within the project corridor. The easements by utility type and owner are shown in the Concept Plans (Appendix A).

Table 2.20: Utility Contact information

Utility	Contact Name	Address	Phone	E-Mail
AT&T Corporation	Greg Jacobson	6015 Benjamin Rd Suite 306 Lake Mary, FL 32746	(813) 342-0512	gtjacobson@att.com
AT&T Florida	Alan Reynolds	5100 Steyr Street Orlando, FL 32819	(407) 351-8180	AR2916@att.com
BrightHouse Networks	Marvin Usry	3767 All American Boulevard Orlando, FL 32810	(407) 532-8509	marvin.usry@mybrighthouse.com
CenturyLink	Jeff Griffin	33 North Main St Winter Garden, FL 34787	(407) 814-5344	jeff.w.griffin@centurylink.com
City of Altamonte Springs	Ed Torres	223 Newburyport Ave Altamonte Springs, FL 32701	(407) 571-8337	etorres@altamonte.org
City of Lake Mary	Bruce Paster	911 Wallace Court Lake Mary, FL 32746	(407) 585-1452	bpaster@lakemaryfl.com
City of Sanford	Richard Blake	300 N. Park Ave Sanford, FL 32771	(407) 688-5101	blakerl@sanfordfl.gov
Comcast Communications	Cesar Rivera	4305 Vineland Rd. Suite G-2 Orlando, FL 32811	(407) 849-3611	Cesea_rivera@cable.comcast.com

Table 2.20: Utility Contact information

Utility	Contact Name	Address	Phone	E-Mail
Duke Energy-Distribution	Sharon Dear	3300 Exchange Place NP4A Lake Mary, FL 32746	(407) 942-9421	sharon.dear@duke-energy.com
Duke Energy-Transmission	Jennifer Williams	20525 Amberfield Dr. Suite 201 Land O'Lakes, FL 34638	(813) 909-1210	jewilliams@ucseng.com
Embarq Communications	Rod Judy	420 Pineview St Altamonte Springs, FL 32701	(407) 920-8981	judyr@outsource-inc.com
Florida Power & Light	Robert Helfer	5910 E Highway 100 Palm Coast, FL 32164	(386) 586-6432	robert.helfer@fpl.com
Florida Power & Light Overhead Transmission	Peter Washio	700 Universe Boulevard TS4/JW Juno Beach, FL 33408	(561) 904-3693	Peter.h.washio@fpl.com
Florida Power & Light Underground Transmission	Seyed Hajassadollah	158 McArthur Causeway Miami Beach, FL 33408	(305) 228-5290	Seyed.hajassadollah@fpl.com
Florida Public Utilities	Dan Scribben	450 South Highway 17-92 Debary, FL 32713	(386) 668-9319	dscribben@fpuc.com
Level 3 Communications	Richard Simonton	380 South Lake Destiny Dr. Orlando, FL 32810	(407) 462-0609	richard.simonton@level3.com

Table 2.20: Utility Contact information

Utility	Contact Name	Address	Phone	E-Mail
Sanlando Utilities	Bryan Gongre	200 Weathersfield Ave Altamonte Springs, FL 32714	(800) 272-1919 ext. 1360	bkgongre@uiwater.com
Seminole County	James Monahan	500 W. Lake Mary Blvd. Suite 200 Sanford, FL 32773	(407) 665-2021	jmonahan02@seminolecountyfl.gov
TECO Peoples Gas	Bruce Stout	600 West Robinson St. Orlando, FL 32801	(407) 420-2678	bstout@tecoenergy.com
Transcore	Eric Gordon	Milepost 263 Ocoee, FL 34761	(407) 264-3316	eric.gordon@dot.state.fl.us
TW Telecom	Sean Moss	485 North Keller Rd. Suite 551 Maitland, FL 32751	(407) 215-6895	sean.moss@twtelecom.com
Verizon	John McNeil	210 Recker Highway Auburndale, FL 33823	(862) 965-6438	john.mcneil@verizon.com

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	ATT	6.5" Underground Fiber Optic	Crossing at intersection of Markham Woods Blvd & Lake Mary Blvd	East side of intersection
Communications	ATT	Unknown Size Underground Fiber Optic	From intersection of Markham Woods Blvd & Lake Mary Blvd east on Lake Mary Blvd for 700-ft	South side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	ATT	Unknown Size Underground Fiber Optic	Crossing at intersection of Primera Blvd & Lake Mary Blvd	West side of intersection
Communications	ATT	Unknown Size Underground Fiber Optic	Crossing on SR 417, 1520-ft east of Rinehart Rd, SR 417 underpass	N/A
Communications	ATT	Unknown Size Underground Fiber Optic	Crossing at intersection of Monroe Rd & SR 46	West side of intersection
Communications	ATT	Unknown Size Underground Fiber Optic	Crossing of I-4 Corridor at Orange Blvd, I-4 underpass	Center of underpass
Communications	ATT	Unknown Size Underground Fiber Optic	From 200-ft north of intersection of Barwick Rd & US 17-92 to 260-ft west of intersection of I-4 east bound ramp to US 17-92 & US 17-92	North/west side of road
Communications	ATT	Unknown Size Underground Fiber Optic	From 200-ft north of intersection of Barwick Rd & US 17-92 to intersection of Old Deland Rd & US 17-92	East side of road
Communications	ATT	Unknown Size Underground Fiber Optic	Crossing US 17-92 at I-4 Main Corridor Overpass	West side of overpass
Communications	ATT	Unknown Size Underground Fiber Optic	From west side of US 17-92, I-4 Overpass to intersection of Monroe Rd & US 17-92	South side of road
Communications	ATT	Varying Size Underground Fiber Optic	Two Crossings at intersection of Rinehart Rd & CR 46a	East side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	ATT	25 Pair Underground Fiber Optic	From intersection to 930-ft east of intersection of Primera Blvd & Lake Mary Blvd	North side of road
Communications	ATT	50 Pair Underground Fiber Optic	From 760-ft west of to intersection of N Sun Dr. & Lake Mary Blvd	North side of Road
Communications	ATT	144 Pair Underground Fiber Optic	From intersection of Rinehart Rd & CR 46A east to end of project limits on CR 46A	South side of road
Communications	ATT	200 Pair Underground Fiber Optic	From intersection of to 470-ft east of intersection of Rinehart Rd & CR 46A	South side of road
Communications	ATT	200 Pair Underground Fiber Optic	Crossing of CR 46A 470-ft east of intersection of Rinehart Rd & CR46A	N/A
Communications	ATT	600 Pair Underground Fiber Optic	Crossing at intersection of S Sun Dr. & Lake Mary Blvd	East side of intersection
Communications	ATT	600 Pair Underground Fiber Optic	From intersection of N Sun Dr. & Lake Mary Blvd east to intersection of Rinehart Rd & Lake Mary Blvd	North side of road
Communications	ATT	600 Pair Underground Fiber Optic	Crossing of SR 417 at Rinehart Rd underpass	East side of underpass
Communications	ATT	2-4" Underground PVC Duct Bank	From 1130-ft east of to Towne Center Blvd underpass of SR 417	South side of road

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	ATT	2-4" Underground PVC Duct Bank	Crossing of SR 417 at Towne Center Blvd underpass	West side of underpass
Communications	ATT	6-4" PVC Duct Bank	From intersection of Markham Woods & Lake Mary Blvd east to intersection of International Pkwy & Lake Mary Blvd	South side of road
Communications	ATT	9-4" PVC Duct Bank	Crossing of I-4 at Lake Mary Blvd overpass	South side of overpass
Communications	ATT	9-4" PVC Duct Bank	From intersection of I-4 east bound ramp to Lake Mary Blvd east to intersection of Lake Emma Rd & Lake Mary Blvd	South side of road
Communications	ATT	12-4" PVC Duct Bank	Crossing at intersection of Lake Emma Rd & Lake Mary Blvd	West side of intersection
Communications	ATT	16-4" PVC Duct Bank	Crossing of I-4 2690-ft east of Lake Mary, I-4 overpass	N/A
Communications	ATT	18-4" PVC Duct Bank	Crossing at intersection of International Pkwy & Lake Mary Blvd	West side of intersection
Communications	ATT	Unknown Size PVC Duct Bank	From 450-ft east of intersection of Lake Emma Rd & Lake Mary Blvd east to intersection of Rinehart Rd & Lake Mary Blvd	Center of road
Communications	ATT	Unknown Size PVC Duct Bank	Crossing at intersection of Rinehart Rd & Lake Mary Blvd	West side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	CenturyLink	Underground Copper Cable	From 13720-ft to 11030-ft south of Lake Mary, I-4 overpass	East side of road
Communications	CenturyLink	Underground Fiber Optic Cable	Crossing of I-4 Corridor, north side of E.E. Williamson overpass	North side of overpass
Communications	CenturyLink	Underground Fiber Optic Cable	Crossing of I-4 Corridor, north side of E.E. Williamson overpass	North side of overpass
Communications	Comcast Communications	Unknown Size Underground Fiber Optic	Crossing of I-4 Corridor at Orange Blvd, I-4 underpass	Center of underpass
Communications	Comcast Communications	Unknown Size Underground Fiber Optic	From 260-ft west of intersection of US 17-92 ramp to I-4 west bound & US 17-92 & Monroe Rd & US 17-92	South side of road
Communications	Embarq Communications	Unknown Size Underground Fiber Optic	Crossing on I-4 Corridor, 9320-ft south of Lake Mary Blvd, I-4 overpass	N/A
Communications	Embarq Communications	Unknown Size Underground Fiber Optic	Crossing on I-4 Corridor, 2640-ft north of Lake Mary Blvd, I-4 overpass	N/A
Communications	FPL Fibernet	Unknown Size Underground Fiber Optic	Crossing at the EE. Williamson, I-4 Overpass	North side of overpass
Communications	FPL Fibernet	Unknown Size Aerial Fiber Optic	Crossing of SR 417, 1350-ft west of Towne Center Blvd, SR 417 underpass	N/A
Communications	Level 3	12-1.25" Underground Fiber Optic	Crossing 700-ft south of intersection of Barwick Rd & US 17-92	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	Level 3	3-1.25" Underground Fiber Optic	Crossing at intersection of Primera Blvd & Lake Mary Blvd	West side of intersection
Communications	Level 3	3-1.25" Underground Fiber Optic	Crossing at intersection of Primera Blvd & Lake Mary Blvd	East side of intersection
Communications	TW Telecom	Fiber Optic Cable	From International Pkwy to Primera Blvd on Lake Mary Blvd	North side of road
Communications	TW Telecom	Fiber Optic Cable	Crossing of I-4 at Lake Mary Blvd overpass	North side of overpass
Communications	TW Telecom	Fiber Optic Cable	Crossing at intersection of Primera Blvd & Lake Mary Blvd	West side of intersection
Communications	TW Telecom	Fiber Optic Cable	Crossing at intersection of Business Center Dr. & CR 46A	East side of intersection
Communications	TW Telecom	Fiber Optic Cable	Crossing at intersection of International Pkwy & Lake Mary Blvd	North side of intersection
Communications	TW Telecom	Fiber Optic Cable	Crossing at intersection of I-4 eastbound ramp to CR 46A & CR 46A	East side of intersection
Communications	TW Telecom	Fiber Optic Cable	From intersection of I-4 west bound ramp to CR 46A & CR 46A to intersection of Rinehart Rd & CR 46A	South side of road
Communications	TW Telecom	Fiber Optic Cable	Crossing at intersection of Rinehart Rd & CR 46A	South side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Communications	TW Telecom	Fiber Optic Cable	Crossing at CR 46A overpass of I-4	South side of overpass
Electricity	Duke Energy Distribution	13 KV Aerial Electric	Crossing of I-4 Corridor E.E. Williamson Overpass	East side of overpass
Electricity	Duke Energy Distribution	13 KV Aerial Electric	Crossing at entrance of 7-11 on Lake Mary Blvd	South side of road
Electricity	Duke Energy Distribution	7.2 KV Aerial Electric	Crossing of I-4 Corridor 2330-ft east of E.E. Williamson Overpass	N/A
Electricity	Duke Energy Distribution	7.2 KV Aerial Electric	From 1500-ft to 5000-ft east of E.E. Williamson Overpass on I-4 Corridor	West side of road
Electricity	Duke Energy Distribution	7.2 KV Aerial Electric	Crossing of Lake Mary Blvd, 1790-ft west of intersection of International Pkwy & Lake Mary Blvd	N/A
Electricity	Duke Energy Distribution	13 KV Underground Electric	From 400-ft west to E.E. Williamson Overpass on I-4 Corridor	West side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	Two Crossings of I-4 Corridor, 9340-ft west of Lake Mary, I-4 Overpass	N/A
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing of I-4 Corridor, 5380-ft west of Lake Mary, I-4 Overpass	N/A
Electricity	Duke Energy Distribution	13 KV Underground Electric	Three Crossings of I-4 Corridor, 2680-ft east of Lake Mary, I-4 Overpass	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of Markham Woods Blvd & Lake Mary Blvd	South side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	From intersection of Markham Woods Blvd & Lake Mary Blvd east to 130-ft west of intersection of I-4 westbound ramp to Lake Mary Blvd & Lake Mary Blvd	North side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	From intersection of Markham Woods Blvd & Lake Mary Blvd east to intersection of International Pkwy & Lake Mary Blvd	South side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing of Lake Mary Blvd, 2440-ft west of intersection of International Pkwy & Lake Mary Blvd	N/A
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of International Pkwy & Lake Mary Blvd	North side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing 180-ft east of intersection of International Pkwy & Lake Mary Blvd	N/A
Electricity	Duke Energy Distribution	13 KV Underground Electric	From 320-ft west to intersection of Lake Emma Rd & Lake Mary Blvd	South side of road

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Duke Energy Distribution	13 KV Underground Electric	Two crossings at intersection of Lake Emma Rd & Lake Mary Blvd.	South side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of Primera Blvd & Lake Mary Blvd	North side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	From intersection of Primera Blvd & Lake Mary Blvd east to station 138+00 on Lake Mary Blvd	North side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	From 350-ft east to intersection of Lake Emma Rd & Lake Mary Blvd	South side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	From intersection of Lake Emma Blvd & Lake Mary Blvd east to station 138+00 on Lake Mary Blvd	South side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of N. Sun Dr. & Lake Mary Blvd	North side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of N. Sun Dr. & Lake Mary Blvd	South side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	From intersection to 500-ft east of intersection of N. Sun Dr. & Lake Mary Blvd	North side of road
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of Rinehart Rd & Lake Mary Blvd	North side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at intersection of Rinehart Rd & Lake Mary Blvd	South side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	Multiple crossings at intersection of Rinehart Rd & Lake Mary Blvd	East side of intersection
Electricity	Duke Energy Distribution	13 KV Underground Electric	Two lines from Lake Mary Overpass to 2760-ft east of Lake Mary, I-4 Overpass on I-4 Corridor	West side of road
Electricity	Duke Energy Distribution	7.2 KV Underground Electric	Crossing at intersection of Markham Woods Blvd & Lake Mary Blvd	West side of intersection
Electricity	Duke Energy Distribution	7.2 KV Underground Electric	From 240-ft west to intersection of International Pkwy & Lake Mary Blvd	South side of intersection
Electricity	Duke Energy Distribution	7.2 KV Underground Electric	From 160-ft east of intersection of International Pkwy & Lake Mary Blvd to 150-ft west of intersection of I-4 westbound ramp to Lake Mary Blvd & Lake Mary Blvd	North side of road
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of I-4 Corridor, 9380-ft west of Lake Mary Blvd, I-4 Corridor Overpass	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of I-4 Corridor, 9400-ft west of Lake Mary Blvd, I-4 Corridor Overpass	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Diagonal Crossing of I-4 Corridor, from 1560-ft west of to 730-ft east of SR 46, I-4 Underpass	Diagonally across road
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Two Crossings of I-4 Corridor, 2420-ft west of US 17-92, I-4 underpass	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing at intersection of Rinehart Rd & CR 46A	East side of intersection
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of CR 46A, 190-ft east of intersection of Rinehart Rd & CR 46A	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of CR 46A, 210-ft east of intersection of Rinehart Rd & CR 46A	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of SR 417, 1350-ft west of Towne Center Blvd, SR 417 underpass	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Two Crossings of SR 417, 1180-ft west of Towne Center Blvd, SR 417 underpass	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of SR 46, 690-ft east of intersection of N. Oregon St. & SR 46	N/A
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of SR 46, 270-ft west of intersection of Hickman Dr. & SR 46	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Crossing of SR 46, 220-ft west of intersection of Hickman Dr. & SR 46	N/A
Electricity	Florida Power and Light	13 KV Aerial Electric	Crossing at intersection of Rinehart Rd & CR 46A	West side of intersection
Electricity	Florida Power and Light	13 KV Aerial Electric	From 500-ft east to 1320-ft east of intersection of Rinehart Rd & CR 46A on west bound CR 46A	South side of road
Electricity	Florida Power and Light	13 KV Aerial Electric	From 1440-ft east of intersection of Rinehart Rd & CR 46A east bound CR 46A, east to station 139+00 on CR 46A	South side of road
Electricity	Florida Power and Light	13 KV Aerial Electric	Crossing at intersection of Banana Lake Rd & CR 46A	Diagonally across intersection
Electricity	Florida Power and Light	13 KV Aerial Electric	Crossing at intersection of International Pkwy & Wekiva Pkwy	East side of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	From 85-ft west of intersection of Bright Meadow Dr. & CR 46A	West of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of Bright Meadow Dr.& CR 46A	South side of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing 500-ft east of intersection of Bright Meadow Dr. & CR 46A	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing 770-ft west of intersection of Lake Como Dr. & CR 46A	N/A
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing 610-ft west of intersection of Lake Como Dr. & CR 46A	N/A
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing of I-4 Corridor, 2980-ft south of CR 46A, I-4 overpass	North side of pedestrian overpass
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing of I-4 Corridor 3030-ft south of CR 46A, I-4 overpass	South of pedestrian overpass
Electricity	Florida Power and Light	13 KV Underground Electric	From station 10+00 on CR 46A to intersection of Banana Lake Rd & CR 46A	Varies from north to center of road
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing 230-ft west of intersection of St. Albans Loop & CR 46A	West bound lane only
Electricity	Florida Power and Light	13 KV Underground Electric	From 230-ft west to 100-ft east of St. Albans Loop on CR 46A	Center of road
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of St. Albans Loop & CR 46A	North east corner of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of Banana Lake Rd & CR 46A	West side of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of Banana Lake Rd & CR 46A	Diagonally across intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of Business Center Rd & CR 46A	East side of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of International Pkwy & CR 46A	North side of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of Colonial Center Pkwy & CR 46A	North side of intersection
Electricity	Florida Power and Light	13 KV Underground Electric	Crossing at intersection of Lake George Dr. & CR 46A	North side of intersection
Electricity	Florida Power and Light	230 KV Aerial Electric	Three Crossings of I-4, 5720-ft north of the SR 46, I-4 underpass	N/A
Electricity	Florida Power and Light	230 KV Aerial Electric	Two Crossings of SR 46, 590-ft east of the intersection of Rinehart Road & SR 46	N/A
Electricity	Florida Power and Light	115 KV Aerial Electric	Crossing of I-4 at the US 17-92, I-4 underpass	N/A
Electricity	Florida Power and Light	115 KV Aerial Electric	Crossing of US 17-92,500-ft east of the intersection of US 17-92 and I-4 WB Ramp to US 17-92	N/A
Electricity	Florida Power and Light	115 KV Aerial Electric	Crossing at the intersection of Orange Blvd and Monroe Road	West side of intersection
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Two Lines from beginning of project limits on I-4 east to 6600-ft west of I-4 Lake Mary Overpass.	West side of road

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Four Crossings of I-4 10900-ft west of I-4, Lake Mary Overpass	N/A
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Two Crossings of I-4 6600-ft ft west of I-4, Lake Mary Overpass	N/A
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Two lines from 6600-ft west of I-4, Lake Mary Overpass east to CR 46a, I-4 Overpass	East side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Crossing of I-4 at Lake Mary Blvd overpass	West side of overpass, runs through Lake Mary Barrier Wall
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From the intersection of International Pkwy east to end of project limits on Lake Mary Blvd	South side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Crossing of I-4 at CR 46a overpass	West side of overpass
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From CR 46a on I-4 east to 2380-ft west of SR 46a underpass	West side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Crossing of I-4 2380-ft west of SR 46a underpass	N/A
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From 2380-ft west of SR 46a east to 4000-ft west of Orange Blvd, I-4 Underpass	East side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From I-4, SR 417 underpass on SR 417, east to Towne Center Rd, SR 417 underpass	South side of road

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Crossing of SR 417 at Towne Center Blvd underpass	East side of underpass
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From Towne Center Blvd, SR 417 underpass east to end of project limits on SR 417	North side of Road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Two Crossings of I-4, 4000-ft west of Orange Blvd, I-4 Underpass	N/A
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From 4000-ft west of Orange Blvd, I-4 underpass east to Orange Blvd, I-4 underpass	West side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Crossing at I-4, Orange Blvd underpass	West side of underpass
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Two lines on I-4 from I-4, Orange Blvd, underpass east to I-4, US 17-92, underpass	East side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From the intersection of Monroe Rd & Orange Blvd north to the intersection of Monroe Blvd & US 17-92	East side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From US 17-92 east to end of project limits of Segment Three along I-4	East side of road
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Two crossings of I-4 at US 17-92, I-4 underpass	West side of underpass

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	Crossing of US 17-92, 1320-ft west of intersection of US 17-92 and Monroe Road	N/A
Intelligent Transportation System	Florida Department of Transportation	Intelligent Transportation System Cable	From end of project limits on US 17-92 east to 1320-ft east of intersection of US 17-92 and Monroe Road	North side of Road
Natural Gas	Florida Public Utilities	6" Natural Gas Main	Crossing on I-4 Corridor, 5410-ft south of Lake Mary Blvd, I-4 overpass	N/A
Natural Gas	Florida Public Utilities	6" Natural Gas Main	From intersection of Tournament Dr. & Lake Mary Blvd to intersection of International Way & Lake Mary Blvd on Lake Mary Blvd	South side of road
Natural Gas	Florida Public Utilities	6" Natural Gas Main	Crossing at intersection of International Way & Lake Mary Blvd	West side of intersection
Natural Gas	Florida Public Utilities	6" Natural Gas Main	Crossing at intersection of Rinehart Rd & Lake Mary Blvd	West side of intersection
Natural Gas	Florida Public Utilities	6" Natural Gas Main	From 670-ft west of intersection of Business Center Dr. & Lake Mary Blvd to intersection of International Pkwy & Lake Mary Blvd	South side of road
Natural Gas	Florida Public Utilities	6" Natural Gas Main	Crossing at intersection of International Pkwy & CR 46A	South side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Natural Gas	Florida Public Utilities	4"-6" Natural Gas Main	From intersection of N. Oregon St & SR 46 to east to station 141+00 on SR 46	North side of road
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing at intersection of Markham Woods Blvd & Lake Mary Blvd	East side of intersection
Natural Gas	Florida Public Utilities	4" Natural Gas Main	From intersection of Markham Woods Blvd & Lake Mary Blvd to intersection of Tournament Dr. & Lake Mary Blvd	North side of road
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing at intersection of Tournament Dr. & Lake Mary Blvd	West side of intersection
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing at intersection of Rinehart Rd & Lake Mary Blvd	North side of intersection
Natural Gas	Florida Public Utilities	4" Natural Gas Main	From intersection of Rinehart Rd & Lake Mary Blvd east to station 138+00 on Lake Mary Blvd	North side of road
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing of SR 417 at Towne Center Blvd underpass	West side underpass
Natural Gas	Florida Public Utilities	4" Natural Gas Main	From station 10+00 on SR 46 to intersection of Terracina Dr. & SR 46	North side of road
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing at intersection of N. Oregon St & SR 46	North side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing at intersection of Hickman Dr. & SR 46	East side of intersection
Natural Gas	Florida Public Utilities	4" Natural Gas Main	Crossing 330-ft west of intersection of Central Park Dr. & SR 46	N/A
Natural Gas	Florida Public Utilities	2" Natural Gas Main	From 130-ft west to 300-ft east of intersection of International Way & Lake Mary Blvd	South side of road
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing at intersection of International Way & Lake Mary Blvd	South side of intersection
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing at intersection of Primera Blvd & Lake Mary Blvd	East side of intersection
Natural Gas	Florida Public Utilities	2" Natural Gas Main	From intersection of Primera Blvd & Lake Mary Blvd to 410-ft west of intersection of N. Sun Dr. & Lake Mary Blvd	North side of road
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing at intersection of N. Sun Dr. & Lake Mary Blvd	South side of intersection
Natural Gas	Florida Public Utilities	2" Natural Gas Main	From 450-ft west to 600-ft east of N. Sun Dr. & Lake Mary Blvd	South side of road
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing 150-ft west of intersection of International Pkwy & CR 46A	N/A
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing at intersection of Townpark Ave & CR 46A	East side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing 260-ft west of intersection of Colonial Center Pkwy & CR 46A	N/A
Natural Gas	Florida Public Utilities	2" Natural Gas Main	From 190-ft west of intersection of Colonial Center Pkwy & CR 46A to intersection of Rinehart Rd & CR 46A	South side of road
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing at intersection of Rinehart Rd & SR 46	East side of intersection
Natural Gas	Florida Public Utilities	2" Natural Gas Main	Crossing at intersection of Monroe Rd & SR 46	East side of intersection
Natural Gas	Florida Public Utilities	1.25" Natural Gas Main	From Towne Center Blvd, SR 417 underpass east to 500-ft east of Towne Center Blvd	North side of road
Natural Gas	Florida Gas Transmission	12.75" Natural Gas Main	Crossing of SR 46 and SR 46 ramp to I-4 west bound 180-ft east of I-4 west bound ramp to SR 46	N/A
Natural Gas	Florida Gas Transmission	3.5" Natural Gas Main	Crossing of I-4 460-ft north of the SR 46, I-4 Overpass	N/A
Television	Bright House Networks	55" Underground CATV	From north side to south side of US 17-92 bridge crossing St. John's River	West side of bridge
Television	Bright House Networks	Unknown Size Aerial CATV	From 940-ft west of intersection of Bright Meadow Dr. & CR 46A on east bound CR 46A, east to station 141+00 on CR 46A	South side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Television	Bright House Networks	Unknown Size Aerial CATV	From station 10+00 on SR 46 to 500-ft east of intersection of N. Hendersen Ln & SR 46	North side of road
Television	Bright House Networks	Unknown Size Aerial CATV	From intersection of Terracina Dr. & SR 46 to 270-ft west of intersection of N. Oregon St & SR 46	North side of road
Television	Bright House Networks	Unknown Size Aerial CATV	From 450-ft west to 630-ft west of intersection of Hickman Dr. & SR 46	North side of road
Television	Bright House Networks	Unknown Size Aerial CATV	Crossing at intersection of Sewell Rd & SR 46	West side of intersection
Television	Bright House Networks	Unknown Size Aerial CATV	From 250-ft east of intersection of Towne Center Blvd & SR 46 east to station 141+00 on SR 46	South side of road
Television	Bright House Networks	Unknown Size Aerial CATV	Crossing at intersection of Elder Rd & SR 46	East side of intersection
Television	Bright House Networks	Unknown Size Aerial CATV	Crossing at intersection of Monroe Rd & SR 46	West side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	From intersection of Markham Woods Blvd & Lake Mary Blvd to intersection of International Pkwy & Lake Mary Blvd	South side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing 280-ft west of intersection of International Pkwy & Lake Mary Blvd	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Television	Bright House Networks	Unknown Size Underground CATV	Crossing of I-4 Corridor, 5450-ft south of Lake Mary Blvd, I-4 overpass	N/A
Television	Bright House Networks	Unknown Size Underground CATV	From station 10+00 on Lake Mary Blvd west on Lake Mary Blvd for 520-ft	South side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing on I-4 Corridor, 4370-ft north of Lake Mary Blvd, I-4 overpass	N/A
Television	Bright House Networks	Unknown Size Underground CATV	From station 10+00 on CR 46A to intersection of St. Albans Loop & CR 46A	North side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of Orange Blvd & CR 46A	East side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of Banana Lake Rd & CR 46A	South side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	From intersection of Orange Blvd & CR 46A to intersection of International Pkwy & CR 46A	North side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of International Pkwy & CR 46A	West side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of International Pkwy & CR 46A	North side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of International Pkwy & CR 46A	East side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	From intersection of International Pkwy & CR 46A to intersection of Colonial Center Pkwy & CR 46A	North side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of I-4 west bound ramp to CR 46A & CR 46A	East side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of I-4 west bound ramp to CR 46A & CR 46A to intersection of Rinehart Rd & CR 46A	South side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of Rinehart & CR 46A	West side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of Rinehart & CR 46A	South side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of International Pkwy & Wekiva Pkwy	East side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	Crossing on SR 417, Rinehart Rd & SR 417 underpass	East side of underpass
Television	Bright House Networks	Unknown Size Underground CATV	From 500-ft east of intersection of N. Henderson Ln & SR 46 to 250-ft west of intersection of Lake Forest Blvd & SR 46	North side of road

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Television	Bright House Networks	Unknown Size Underground CATV	From 550-ft west of intersection of Lake Forest Blvd & SR 46 to intersection of Terracina Dr. & SR 46	North side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of N. Oregon St & SR 46	West side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	From intersection of Wayside Dr. & SR 46 to intersection of Upsala Rd & SR 46	South side of road
Television	Bright House Networks	Unknown Size Underground CATV	From 450-ft west of intersection of Hickman Dr. & SR 46 to 380-ft of intersection of N. Elder Rd & SR 46	North side of road
Television	Bright House Networks	Unknown Size Underground CATV	Crossing at intersection of Monroe Rd & SR 46	West side of intersection
Television	Bright House Networks	Unknown Size Underground CATV	From south side of US 17-92 bridge crossing St. John's River to intersection of Monroe Rd & US 17-92	South side of road
Wastewater/ Storm Water	Lake Mary Utilities	8" Sanitary Main	From station 10+00 on Lake Mary Blvd east for 650-ft	Varies from north to center of road
Wastewater/ Storm Water	Lake Mary Utilities	4" Sanitary Main	From intersection east of Primera Blvd & Lake Mary Blvd intersection to intersection of N. Sun Dr. & Lake Mary Blvd	North side of road

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of International Pkwy & Lake Mary Blvd	West side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of International Pkwy & Lake Mary Blvd	North side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of Markham Woods Rd & Lake Mary Blvd	North side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	From intersection of Markham Woods Rd & Lake Mary Blvd to intersection of International Pkwy & Lake Mary Blvd	North side of road
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	From intersection of Keenwicka Dr. & CR 46A to intersection of St. Albans Loop & CR 46A	Center/north side of road
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of St. Albans Loop & CR 46A	East side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of Orange Blvd & CR 46A	West side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of Orange Blvd & CR 46A	South side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of Rinehart Rd & CR 46A	East side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of International Pkwy & Wekiva Pkwy	Diagonally across intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of International Pkwy & Wekiva Pkwy	Center of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	From Intersection of International Pkwy & Wekiva Pkwy to beginning of Wekiva Pkwy on SR 417	North side of road
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing of I-4 Corridor 2040-ft west of SR 417 underpass	N/A
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing of SR 417 at Rinehart Rd underpass	East side of underpass
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing of SR 46 270-ft west of intersection of Hickman Dr. & SR 46	N/A
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	From station 10+00 on SR 46 east to SR 46 west bound ramp to I-4 west bound	North side of road
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at SR 46 west bound ramp to I-4 west bound	Center of ramp
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing at intersection of N. Oregon St & SR 46	East side of intersection
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Two Crossings of I-4 Corridor at Orange Blvd & US 17-92 underpasses	Center/east side of underpass
Water	Lake Mary Utilities	City of Sanford	Crossing of I-4 Corridor at Orange Blvd, I-4 underpass	East side of underpass

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Lake Mary Utilities	20" Water Main	Crossing at intersection of Rinehart Rd. & Lake Mary Blvd	East side of intersection
Water	Lake Mary Utilities	16" Water Main	From intersection of Primera Blvd & Lake Mary Blvd west to station 138+00 on Lake Mary Blvd	Varies from center to south side of road
Water	Lake Mary Utilities	12" Water Main	From 5900-ft to 5500-ft south of Lake Mary Blvd, I-4 overpass	East side of road
Water	Lake Mary Utilities	12" Water Main	Crossing at intersection of Primera Blvd & Lake Mary Blvd	East center of intersection
Water	Lake Mary Utilities	12" Water Main	Crossing at intersection of N. Sun Dr. & Lake Mary Blvd	East side of intersection
Water	Lake Mary Utilities	12" Water Main	Crossing at intersection of Rinehart Rd & Lake Mary Blvd	West side of intersection
Water	Lake Mary Utilities	12" Water Main	From intersection of Rinehart Rd & CR 46A east to station 139+00 on CR 46A	Varies from center to south side of road
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 425-ft east of intersection of Primera Blvd & Lake Mary Blvd	N/A
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 240-ft west of intersection of N. Sun Dr. & Lake Mary Blvd	N/A

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 240-ft east of intersection of N. Sun Dr. & Lake Mary Blvd	N/A
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 700-ft east of intersection of N. Sun Dr. & Lake Mary Blvd	N/A
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 490-ft west of intersection of Rinehart Rd. & Lake Mary Blvd	N/A
Water	Lake Mary Utilities	8" Water Main	Crossing at intersection of Rinehart Rd. & Lake Mary Blvd	North side of intersection
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 450-ft east of intersection of Rinehart Rd & Lake Mary Blvd	N/A
Water	Lake Mary Utilities	8" Water Main	Crossing on Lake Mary Blvd, 500-ft west to station 138+00 Lake Mary Blvd	N/A
Water	Lake Mary Utilities	6" Water Main	Crossing at intersection east of Primera Blvd & Lake Mary Blvd intersection	East side of intersection
Water	Lake Mary Utilities	Unknown Size Reclaim Main	Crossing at intersection of Primera Blvd & Lake Mary Blvd	West side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Lake Mary Utilities	Unknown Size Reclaim Main	From intersection of Primera Blvd & Lake Mary Blvd west to station 139+00 on Lake Mary Blvd	South side of road
Water	Lake Mary Utilities	Unknown Size Reclaim Main	Crossing on Lake Mary Blvd, 460-ft east of intersection of Rinehart Rd & Lake Mary Blvd	N/A
Water	Lake Mary Utilities	Unknown Size Reclaim Main	Crossing on I-4 Corridor, 2920-ft south of CR 46A, I-4 overpass	South of pedestrian overpass
Water	Lake Mary Utilities	Unknown Size Reclaim Main	Crossing at intersection of Rinehart Rd & CR 46A	South east corner of intersection
Water	Sanlando Utilities	24" Water Main	Crossing 13750-ft south of Lake Mary Blvd, I-4 Overpass	N/A
Water	Seminole County Utilities	Unknown Size Water Main	Crossing of I-4 Corridor, 4810-ft west of Lake Mary Blvd Overpass	N/A
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of Markham Woods Rd & Lake Mary Blvd	Center of intersection
Water	Seminole County Utilities	Unknown Size Water Main	From intersection of Markham Woods Rd & Lake Mary Blvd to intersection of International Pkwy & Lake Mary Blvd	North side of road
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of International Pkwy & Lake Mary Blvd	East side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Seminole County Utilities	Unknown Size Water Main	Crossing 280-ft east of intersection of International Pkwy & Lake Mary Blvd	N/A
Water	Seminole County Utilities	Unknown Size Water Main	From intersection of International Pkwy & Lake Mary Blvd to intersection of I-4 East Bound Ramp to Lake Mary Blvd & Lake Mary Blvd	South side on road
Water	Seminole County Utilities	Unknown Size Water Main	From 280-ft east to intersection of International Pkwy & Lake Mary Blvd	North side of road
Water	Seminole County Utilities	Unknown Size Water Main	From intersection of Lake Emma Rd & Lake Mary Blvd to intersection of Sun Dr. & Lake Mary Blvd	South side of road
Water	Seminole County Utilities	Unknown Size Water Main	Crossing of I-4 Corridor at Cross Seminole Trail Overpass	West side of overpass
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of Keenwicka Dr. & CR 46A	West side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	From intersection of Keenwicka Dr. & CR 46A to intersection of International Pkwy & CR 46A	South side of road
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of St. Albans Loop & CR 46A	East side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of Orange Blvd & CR 46A	East side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of Lake George Dr. & CR 46A	East side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of International Pkwy & CR 46A	West side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of International Pkwy & CR 46A	South side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	From intersection to 320-ft east of International Pkwy & Lake Mary Blvd	South side of road
Water	Seminole County Utilities	Unknown Size Water Main	From station 10+00 on SR 46 east to SR 46 west bound ramp to I-4 west bound	North side of road
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of International Pkwy & SR 46	West side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of N. Oregon St. & SR 46	East side of intersection
Water	Seminole County Utilities	Unknown Size Water Main	Crossing of SR 46 270-ft west of intersection of Hickman Dr. & SR 46	N/A
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at SR 46 west bound ramp to I-4 west bound	Center of ramp
Water	Seminole County Utilities	Unknown Size Water Main	Crossing at intersection of Orange Blvd & Kastner Pl.	East side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Seminole County Utilities	Unknown Size Water Main	From 1200-ft west of I-4 overpass on Orange Blvd to intersection of Orange Blvd & Kastner Pl.	North side of road
Water	Seminole County Utilities	Unknown Size Water Main	Crossing 100-ft east of intersection of Orange Blvd & Kastner Pl.	Center/east side of underpass
Water	Seminole County Utilities	Unknown Size Water Main	Two Crossings of I-4 Corridor at Orange Blvd & US 17-92 underpasses	Center/east side of underpass
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing of I-4 Corridor, 4810-ft west of Lake Mary Blvd Overpass	N/A
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing at intersection of Markham Woods Rd & Lake Mary Blvd	East side of intersection
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	From 350-ft east of intersection of Markham Woods Rd & Lake Mary Blvd to intersection of International Pkwy & Lake Mary Blvd	North side of road
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing 280-ft east of intersection of International Pkwy & Lake Mary Blvd	N/A
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	From 280-ft east to intersection of International Pkwy & Lake Mary Blvd	North side of road
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing at intersection of Primera Blvd & Lake Mary Blvd	West side of intersection

Table 2.21: Major Utilities

Type of Utility	Owner of Utility	Type of Facility	Limits	Offset/Side
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing of I-4 Corridor at Cross Seminole Trail Overpass	West side of overpass
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	From intersection of Keenwicka Dr. & CR 46A to intersection of International Pkwy & CR 46A	North side of road
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing at intersection of International Pkwy & CR 46A	East side of intersection
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing at intersection of Wekiva Pkwy & International Pkwy	West side of intersection
Water	Seminole County Utilities	Unknown Size Reclaim Water Main	Crossing at intersection of Bernini Way & SR 46	West side of intersection

2.17 Soils

A preliminary geotechnical review was conducted to assist in the evaluation of the stormwater management system in the project corridor study area. Soils data from the U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) and the United States Geological Society (USGS) Quadrangle Map was reviewed within the limits of the proposed improvements in Seminole County to determine soil and groundwater conditions along the I-4 Segment 3 corridor. Review of the USGS Forest City, Casselberry and Sanford, Florida Quadrangle maps indicates that the natural ground surface elevation for the proposed ponds in Segment 3 ranges from approximately +60 feet NGVD to +75 feet NGVD and for the proposed swale, +30 feet NGVD.

Based on the NRCS survey, the soils within the area of the proposed ponds in Segment 3 are characterized as sands with variable silt content (A-3, A-2-4). For the majority of the soils within the proposed pond footprints, the soil survey lists seasonal high water table levels at depths greater than 6 feet below the existing ground surface. However, the estimated seasonal high groundwater levels do not account for changes in groundwater due to development and are only relevant for the soil's natural, undisturbed condition. The soils in the vicinity of the proposed swales are generally classified as urban land with no estimated groundwater levels. However, the surrounding natural

soils typically have shallow seasonal high groundwater levels within about one foot of the natural ground. The predominant types of soils found in the study area and their corresponding soil properties are summarized in Table 2.22 and illustrated in Figure 2.10.

Table 2.22: Soil Types

Soil Name	Depth (in)	Soil Description	Soil Classification (AASHTO)	Seasonal High Ground-water Depth (ft)	Hydrologic Group
Astatula fine sand, 0 to 5 percent slopes	0 - 4 4 - 80	Fine sand Fine sand, sand	A-3 A-3	>6	A
Apopka fine sand, 0 to 5 percent slopes	0 – 64 64 - 80	Fine sand Sandy clay loam, sandy loam, sandy clay	A-3 A-6, A-2-4, A-2-6, A-4		
Astatula fine sand 5 to 8 percent slopes	0 - 3 3 - 80	Fine sand Fine sand, sand	A-3 A-3	>6	A
Apopka fine sand, 5 to 8 percent slopes	0 - 65 65 - 80	Fine sand Sandy clay loam, sandy loam, sandy clay	A-3 A-2-6, A-4, A-6, A-2-4		
Astatula fine sand, 8 to 12 percent slopes	0 - 3 3 - 80	Fine sand Fine sand, sand	A-3 A-3	>6	A
Apopka fine sand, 8 to 12 percent slopes	0 - 65 65 - 80	Fine sand Sandy clay loam, sandy loam, sandy clay	A-3 A-2-6, A-4, A-6, A-2-4		
Myakka fine sand	0 - 28 28 – 45 45 - 80	Fine sand, sand Fine sand, sand, loamy fine sand Fine sand, sand	A-3 A-2-4, A-3 A-3	0.5 - 1.5	A/D
EauGallie fine sand	0 - 18 18 - 41 41 – 60 60 - 80	Fine sand Fine sand, sand Sandy clay loam, sandy loam, fine sandy loam Loamy sand, sand, loamy fine sand	A-3 A-2-4, A-3 A-2-6, A-2-4 A-2-4, A-3		
Urban Land	-	-	-	-	-

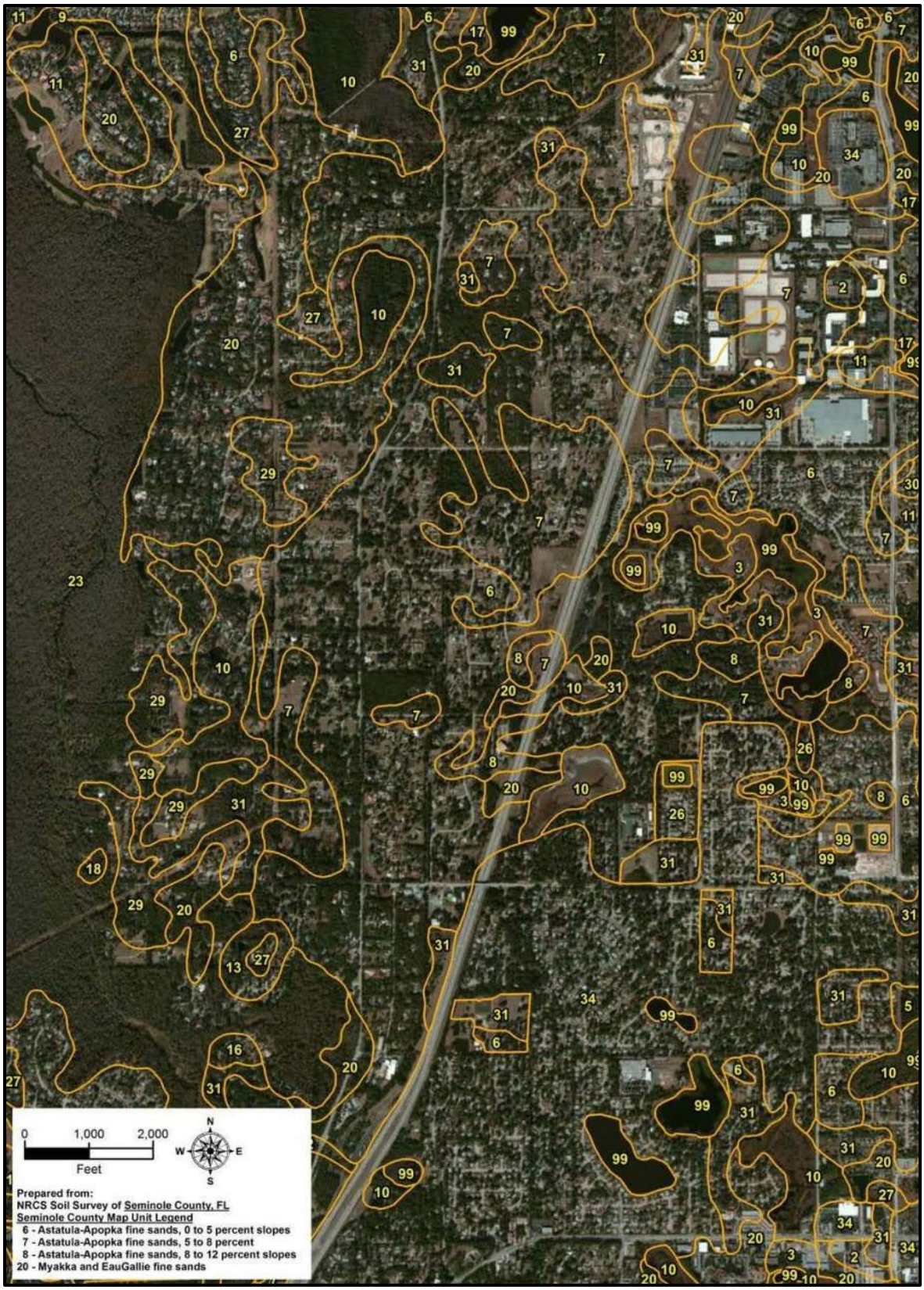


Figure 2.10 –Soils Map

Subsurface exploration to evaluate soil and groundwater conditions at the pond and swale locations generally consisted of performing 2 machine auger borings to a depth of 20 feet below the existing ground surface, along with one field permeability test at each of the proposed pond locations and one boring along with one field permeability test at each of the swale locations. The pond borings generally encountered fine sands with varying amounts of silt (A-3, A-2-4) to the boring termination depths of 10 to 20 feet below the existing ground surface. The majority of the soils encountered in the pond borings appear suitable for use as roadway embankment in accordance with Index 505 of the FDOT Standard. Detailed soil boring information, permeability test results and soil survey information can be found in the *Report of Preliminary Geotechnical Engineering Investigation for Ponds – Segment 3 (December 2015)* completed for this project.

2.18 Sociocultural Conditions

Sociocultural Effects (SCE) Evaluation is the process of determining and evaluating the effects a transportation action may have on a community and the quality of life of the citizenry. A community is defined as a geographic, manmade or natural boundary comprised of people and places, which may share similar social, cultural, economic, and political or other characteristics. This section of the report identifies community features and characteristics surrounding the project corridor, including a data inventory of existing community facilities that will be used in the subsequent SCE evaluation.

2.18.1 Study Area

The SCE study area was determined by evaluating project plans, land use maps, local government comprehensive plans and other relevant resources. Segment 3 is located in Seminole County which is within the U.S. Census designated Orlando-Kissimmee-Sanford Metropolitan Statistical Area. In this metro area, the corridor lies within U.S. postal zip codes 32750 and 32779 in Longwood, 32746 in Lake Mary and Heathrow and 32771 in Sanford. For the majority of the limits of improvements, the west side of the corridor is in unincorporated Seminole County, while the majority of the east side of the corridor is within or adjacent to the city limits of Lake Mary, Sanford or Longwood. The community of Heathrow lies to the west of the corridor about midway through the project limits.

2.18.2 Social Demographics

Based on the 2010 Census, Seminole County is the 13th most populous County in the State of Florida. With a 2014 population estimate of 437,086, the County represents approximately two percent of the total State population.[1] Seminole County population grew by 3.4% between 2010 and 2014 with a population increase of approximately 14,400. According to the US Census, the County population increased by 15.8% from 365,199 to 422,718 over the ten-year period from 2000 to 2010. The

[1] Florida Legislature, Office of Economic and Demographic Research, January 2015.

population projection for Seminole County for the year 2040 is 541,100, an increase of approximately 24% over a 26-year period.[2]

Demographic statistics specific to the area surrounding the I-4 Segment 3 corridor were obtained from the U.S. Census Bureau's American Community Survey (ACS). The U.S. Census Bureau has developed Zip Code Tabulation Areas (ZCTAs) to represent U.S. Postal Service (USPS) ZIP code service areas. Since USPS ZIP codes can cross state, county, census tract and census block boundaries, the Bureau has developed the ZCTAs to provide a correlation between postal zip codes and census bureau geographic boundaries. The socioeconomic demographic data for Seminole County and the ZCTAs in the study area is summarized in Table 2.23.

Table 2.23: Community Demographics

Community Characteristic	Seminole County	ZCTA 32746	ZCTA 32750	ZCTA 32771	ZCTA 32779
Total Population	422,718	40,571	22,713	49,481	27,556
% White	78.2	80.8	86.4	58.7	89.3
% Black or African American	11.1	6.9	4.5	31.2	3.2
% Other	10.7	12.3	9.1	10.1	7.5
% Hispanic Or Latino (Of Any Race)	17.1	14.5	14.3	14.1	9.1
% 65 Years and Over	12.0	11.0	15.7	10.4	15.1
% High School Graduate or Higher	91.1	94.8	90.7	85.6	94.5
% Bachelor's Degree or Higher	34.0	43.2	28.9	28.2	50.1
% Speak English Less Than "Very Well"	5.9	5.0	4.2	4.5	4.3
% Employed (Age 16 And Over)	61.9	65.7	59.7	59.2	58.8
% Unemployed	6.0	5.0	6.5	7.6	5.0
Commuting to Work					
% Car, Truck, Or Van -- Drove Alone	84.2	84.2	84.6	84.3	83.9
% Car, Truck, Or Van – Carpooled	7.0	6.0	5.3	7.5	5.5
% Public Transportation (Excluding Taxicab)	0.5	0.2	0.4	0.7	0.1
Mean Travel Time to Work (Minutes)	25.7	24.2	24.8	25.3	26.7
Average Household Size	2.77	2.86	2.83	2.70	2.78
Average Family Size	3.37	3.42	3.33	3.44	3.20
Median Household Income (Dollars)	58,908	75,515	60,951	46,984	83,895
Mean Household Income (Dollars)	79,008	99,889	76,891	69,323	123,005
Per Capita Income (Dollars)	29,894	36,460	28,284	26,964	45,474
Income Below the Poverty Level					
% All People	10.0	6.5	5.6	16.1	5.1
% 65 Years and Over	8.6	2.3	5.7	20.7	5.7
% Under 18 Years	12.5	11.3	4.5	20.9	5.0
Source: U.S. Census Bureau, 2010 Census					

[2] Stanley K. Smith and Stefan Rayer, *Florida Population Studies, Projections of Florida Population by County 2015-2040, with Estimates for 2013*. (Gainesville, FL: University of Florida Bureau of Economic and Business Research, 2014).

2.18.3 Economics

The total employment in Seminole County for 2014 was approximately 189,000. The employment is projected to increase by about 2% per year, with an estimated employment of 218,000 in 2022.[3] The top employment industries in Seminole County for 2014 consisted of: Trade, Transportation & Utilities (20.6%), Professional & Business Services (16.1%), Education & Health Services (11.3%) and Leisure & Hospitality (9.5%).

2.18.4 Community Facilities and Services

Existing community resources within the I-4 Segment 3 project study area were identified as part of the sociocultural analysis. The existing patterns of social activity revolve heavily around the businesses and commercial centers in this corridor. The International Parkway and Lake Mary Boulevard corridors consist of many, large office complexes which are home to several national corporations. The business corridors are surrounded by residential communities including several golf course/country club communities in this area of I-4. Numerous community resources exist to serve the residential and workforce population in this region. Table 2.24 provides a list of the locations of existing community facilities and services in the I-4 Segment 3 study area. Community resources which serve the residential population in this region are also illustrated in Figure 2.11 and Figure 2.12.

Table 2.24: Community Facilities and Services

Community Facility/Service	Address	Location	
		Within 500 feet of I-4	Within ½ mile of I-4
School/College/Daycare Facilities			
Woodlands Elementary School	1420 E E Williamson Rd, Longwood		✓
ITT Technical Institute	1400 South International Pkwy, Lake Mary	✓	
Remington College of Nursing	660 Century Pt., Lake Mary	✓	
Seminole State College of Florida - Heathrow Campus	1055 AAA Dr., Heathrow		✓
Baby Days Infant Care	109 S Pressview Ave, Longwood		✓
Gracekids Academy	1767 W. SR 434, Longwood		✓
La Petite Academy #146-Lake Mary	3850 Lake Emma Rd, Lake Mary		✓
Ladybird Academy #2	185 Timacuan Blvd, Lake Mary		✓
Lake Mary Child Care	875 Wallace Court, Suite 1001, Lake Mary		✓
Legacy Academy for Children	3050 International Parkway, Lake Mary		✓
Little Pros Academy of Heathrow	1032 AAA Drive, Lake Mary		✓
Longwood Huntington Learning Center	1907 W State Road 434, Longwood	✓	
Markham Woods Christian Academy	1675 Dixon Rd, Longwood	✓	

[3] Florida Department of Economic Opportunity, Labor Market Information, Employment Projections, (accessed April 2, 2015); available from http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections.

Table 2.24: Community Facilities and Services

Community Facility/Service	Address	Location	
		Within 500 feet of I-4	Within ½ mile of I-4
RHMC Mother's Morning Out	1525 West State Road 434, Longwood		✓
Rowe Family Day Care Home	135 Des Pinar Ln, Longwood	✓	
Royal Academy of Learning Inc	1001 Greenwood Blvd, Lake Mary		✓
Sanlando Christian School	1894 West State Road 434, Longwood	✓	
Seminole Community Private School System	4009 School St., Sanford		✓
Sommerville Kids Klub	1665 EE Williamson Road, Longwood	✓	
St. Peter's Preschool Kindergarten	700 Rinehart Rd., Lake Mary		✓
Star Child Academy - Crystal Creek	1701 Shandwick Ct, Longwood		✓
The Neighborhood Preschool	301 Markham Woods Rd, Longwood	✓	
Health/Safety Facilities			
Seminole County Fire Department & Rescue Station #34	4905 Wayside Dr., Sanford		✓
Sanford Police Department - Substation	200 Towne Center Circle, Sanford		✓
Lake Mary Fire Department & Rescue Station #37	911 Wallace Ct., Lake Mary		✓
US Drug Enforcement Administration - Orlando District Office	300 International Pkwy., Heathrow		✓
Religious Facilities			
Providence Missionary Baptist	4561 Douglas St, Lake Monroe		✓
Rose Hill Missionary Baptist Church	1161 Moton Ave, Sanford		✓
First Baptist Church of Lake Monroe	691 Monroe Rd, Lake Monroe		✓
Holy Cross Lutheran Church	780 N Sun Dr, Lake Mary		✓
St Peter's Episcopal Church	700 Rinehart Rd, Lake Mary		✓
Reality the Church	600 Rinehart Road, Lake Mary		✓
Neighborhood Alliance Church	301 Markham Woods Road, Longwood	✓	
Markham Woods Church of Seventh-day Adventists	505 Markham Woods Rd, Longwood	✓	
Sanlando United Methodist Church	1890 W. SR 434, Longwood	✓	
Rolling Hills Moravian Church	1525 W. SR 434, Longwood		✓
Church on the Living Edge	555 Markham Woods Rd, Longwood	✓	
Wekiva Assembly of God	1675 Dixon Rd, Longwood	✓	
Iglesia De Dios Pentecostal	975 Markham Woods Rd, Longwood		✓
Orlando North Community Church	7 Wooden Shoe Ln, Longwood	✓	
Parks/Recreation			
Lake Monroe Wayside Park	4150 U.S. 17/92, Sanford		✓
Central Florida Zoo and Botanical Gardens	3755 Seminole Blvd, Sanford		✓
Bookertown Park	4640 Richard Allen St., Sanford		✓
Heathrow Country Club	1200 Bridgewater Dr., Heathrow		✓

Table 2.24: Community Facilities and Services

Community Facility/Service	Address	Location	
		Within 500 feet of I-4	Within ½ mile of I-4
Seminole-Wekiva Trail	Seminole County	✓	
Government Facilities			
U.S. Post Office #46	755 Monroe Rd, Lake Monroe		✓
Lake Mary Municipal Services Complex	911 Wallace Ct., Lake Mary		✓
Economic Development	1055 AAA Dr, Suite 145, Heathrow		✓
Tourism Development Office	1000 AAA Dr, Lake Mary		✓
U.S. Post Office Headquarters, Southern Region	800 Rinehart Rd, Lake Mary		✓
Other Community Facilities			
Amstar Stadium 12 Movie Theater	950 Colonial Grand Ln, Lake Mary		✓
Seminole Town Center Movie Theater	430 Towne Center Cir, Sanford	✓	
Seminole State College of Florida Library	1055 AAA Dr, Suite 145, Heathrow		✓
Joyful Music and Dance Studios	105 Commerce Street #109, Lake Mary		✓
Arthur Murray Dance Studio	120 International Pkwy #176, Lake Mary		✓
Extreme Dance	4932 Florida 46, Sanford		✓

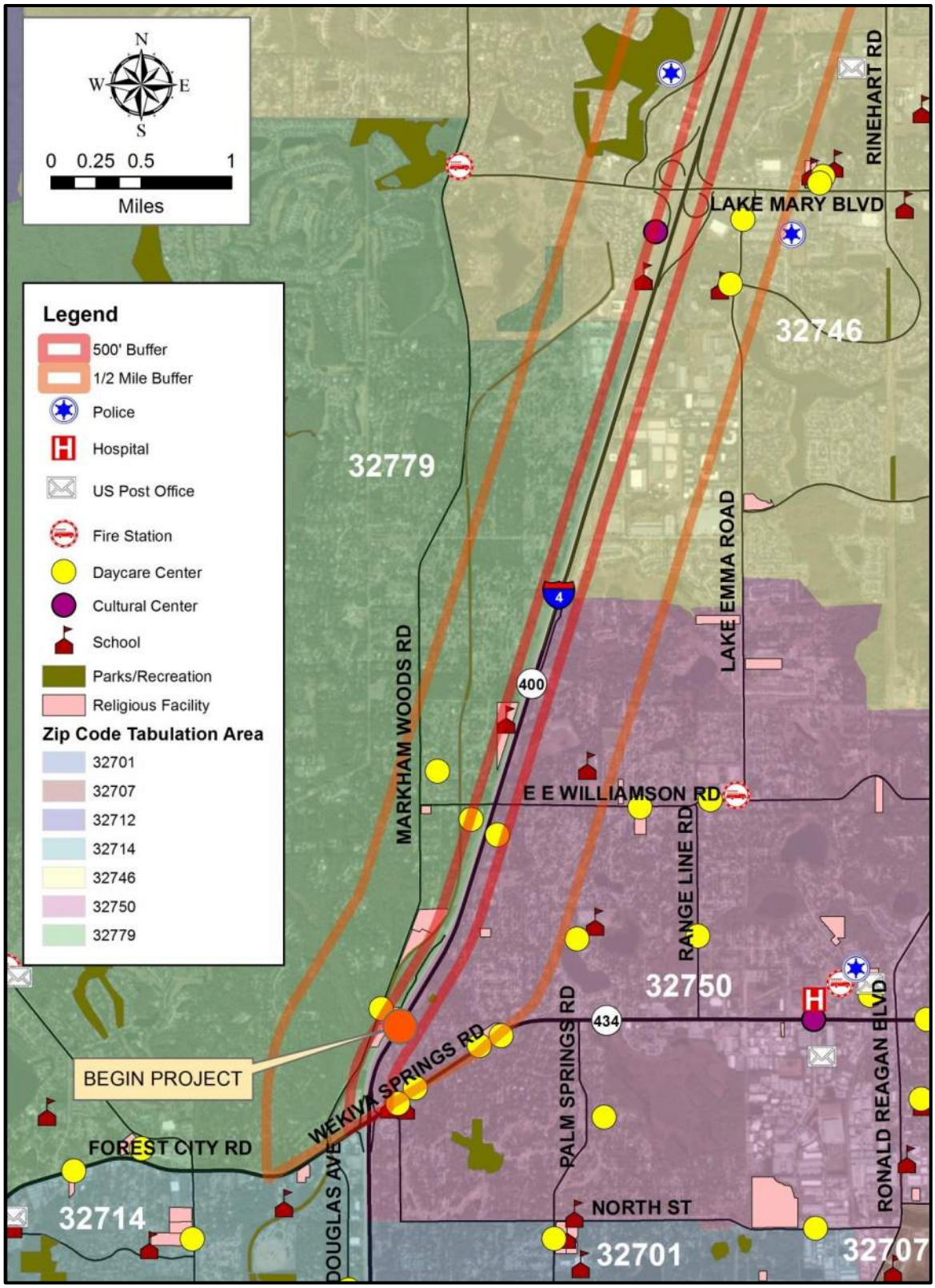


Figure 2.11 - Community Facilities and Services (Sheet 1 of 2)

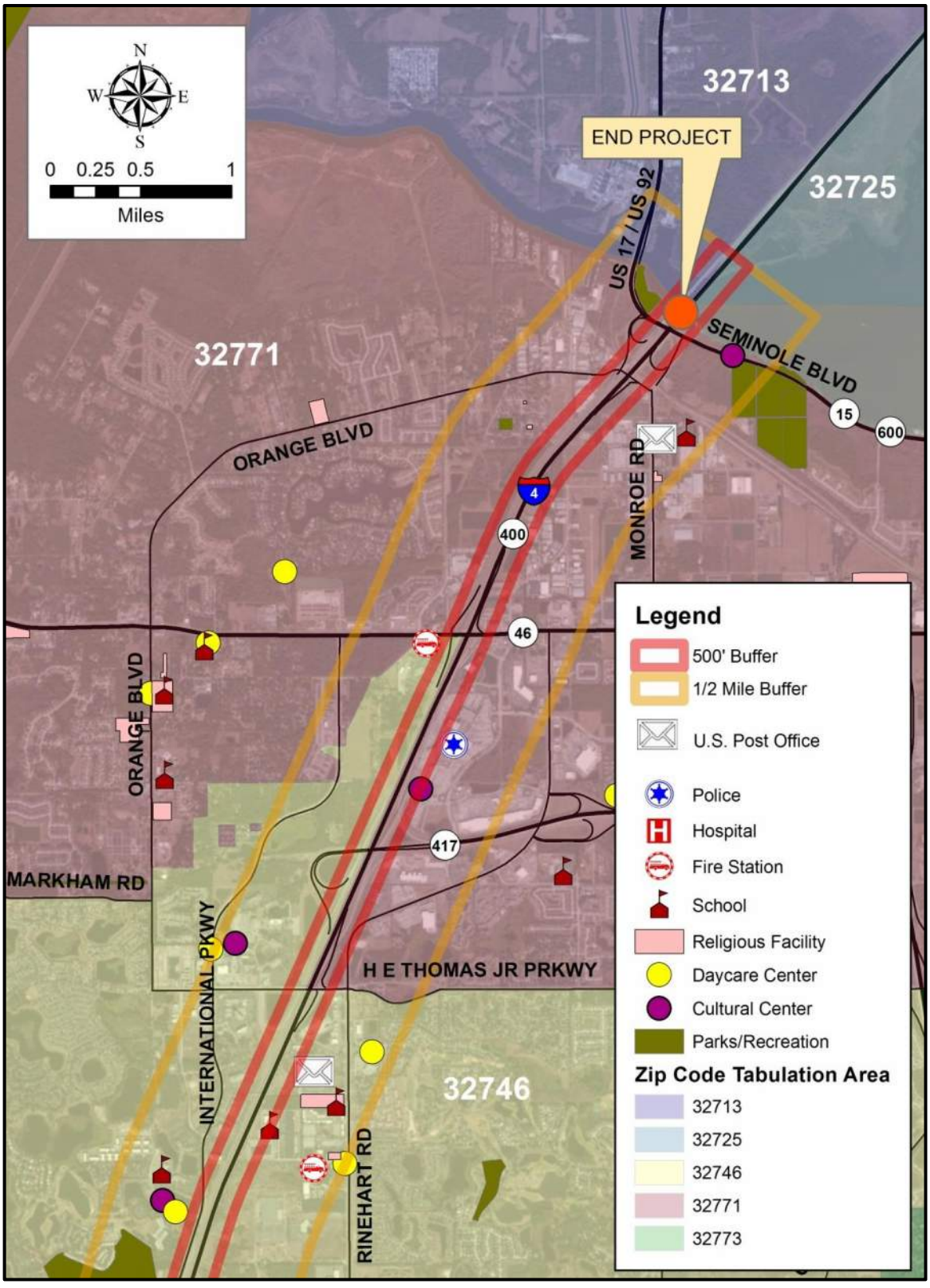


Figure 2.12 - Community Facilities and Services (Sheet 2 of 2)

3.0 Planning Phase/Corridor Analysis

The current PD&E study is an update to the previously approved PD&E study for I-4 from West of SR 528 (Beachline Expressway) to SR 472 [FM Nos. 242486, 242592 and 242703 (FEIS – August 2002, Record of Decision Pending)]. The original projects followed a multi-level screening process which involved preliminary evaluations of the I-4 corridor with respect to constructability, design speeds and type of physical separation between the special use (HOV in the original design concept and express lanes in the current design concept) and general use lanes. The preliminary evaluations were reviewed with FDOT, and the corridor was analyzed with the following project goals:

- Use the existing infrastructure to the maximum extent possible
- Evaluate a barrier-separated facility
- Refine concept plans to minimize traffic disruptions during construction
- Minimize construction costs and right-of-way requirements
- Avoid and/or minimize impacts especially for wetlands, floodplains, Section 4(f) properties and Section 106 properties

Since the proposed project is a widening project, no alternative alignments were evaluated.

4.0 Design Criteria and Standards

The I-4 BtU PD&E Reevaluation Study incorporates project elements with various design requirements. Table 4.1 presents the roadway design criteria established for each design element. The design criteria and standards are based on design parameters in accordance with *A Policy on Geometric Design of Highway and Streets* (AASHTO 2011), *Roadway Plans Preparation Manual (PPM), Volumes I and II* (FDOT, January 2015), and *Roadway and Traffic Design Standards* (FDOT, 2015).

Table 4.1: Roadway Design Criteria

Design Element	Design Standard	Source(s)
Design Vehicle	WB-62FL	PPM, Pg. 1-19
Design Year	2040	FDOT Scope of Services
Design Speed Mainline I-4 / Express Lanes Diamond Ramps Loop Ramp	 70 mph 50 mph 30 mph (25 mph min as per AASHTO)	FDOT PPM, Table 1.9.1 and 2011 AASHTO, Page 10-89
Median Width I-4	64 ft. without barrier 26 ft. minimum with barrier	FDOT PPM, Table 2.2.1
Maximum Degree of Curve Mainline I-4 / Express Lanes Direct Connection Ramp Loop Ramp	 3°00' 8°15' 24°45'	FDOT PPM, Table 2.8.3 (e MAX – 0.10)
Length of Horizontal Curves Mainline I-4 / Express Lanes Ramps	 Desirable: 30(V)[1] Minimum: 15(V)[1] Desirable: 15(V)[1] Minimum: 400 ft.	FDOT PPM, Table 2.8.2a
Minimum Stopping Sight Distance Mainline I-4 / Express Lanes Diamond Ramps Loop Ramp	 820 ft. 425 ft. 200 ft.	FDOT PPM, Table 2.7.1
Decision Sight Distance Mainline I-4 / Express Lanes Diamond Ramps Loop Ramp	 1,445 ft. 910 ft. 490 ft	2011 AASHTO, Exhibit 3-3, Page 3-7
Maximum Shoulder "Roll-Over" Maximum Lane “Roll-Over”	7% 4%	FDOT Roadway & Traffic Design Standard Index No. 510, 2011 AASHTO pg. 4-5

Table 4.1: Roadway Design Criteria

Design Element	Design Standard	Source(s)
Superelevation Transition		FDOT PPM, Page 2-53
Tangent	80% desirable, 50% minimum	
Curve	20% desirable, 50% maximum	
Maximum Superelevation		
Mainline I-4 / Express Lanes	10%	
Ramps	10%	
On- and Off-Ramp Design		FDOT Roadway & Traffic Design Standard Index No 525
Diamond On-Ramps	Taper Design with 50:1 (1200 ft)	
Diamond Off-Ramps	Taper Design with 3° to 5°	
Loop Ramp	(Parallel Design: 1,200' Accel + 300' Taper and 800' Decel + 300' Taper – District Preference)	
Maximum Profile Grade		FDOT PPM, Table 2.6.1
Mainline I-4 Express Lanes	3%	
Diamond Ramp	5%	
Loop Ramp	7%	
Maximum Change in Grade without Vertical Curve		FDOT PPM, Table 2.6.2
Mainline I-4 / Express Lanes	0.20%	
Diamond Ramp	0.60%	
Loop Ramp	1.00%	
Crest Vertical Curve		FDOT PPM, Table 2.8.5
Mainline I-4 / Express Lanes (Open Highway)	K=506, min. length 1,000ft.	
Mainline I-4 / Express Lanes (w/interchange)	K=506, min. length 1,800 ft.	
Diamond Ramp	K=136, min. length 300 ft.	
Loop Ramp	K=31, min. length 3V[1]	
Sag Vertical Curve		FDOT PPM, Table 2.8.6
Mainline I-4 / Express Lanes	K=206, min. length 800 ft.	
Diamond Ramp	K=96, min. length 200 ft.	
Loop Ramp	K=37, min. length 3V[1]	
Minimum Vertical Clearance		FDOT PPM, Tables 2.10.1 and 2.10.2
Bridges over I-4	16'-6"[2]	
I-4 Bridges over Cross Roads	16'-6"[2]	
Pedestrian Facilities over Rdwy	17'-6"[2]	
Overhead Signs	17'-6"[2]	
Roadway over Railroad	23'-6"[3]	

Table 4.1: Roadway Design Criteria

Design Element	Design Standard		Source(s)
Lane Widths			
Mainline I-4	12 ft. – Tangent		FDOT PPM, Tables 2.1.1, 2.1.2 and 2.1.3
One-Lane Ramp	15 ft. – Tangent		
Two-Lane Ramp	24 ft. – Tangent		
Lane Drop Taper			
Mainline I-4 / Express Lanes	70:1 Desirable		2011 AASHTO, Page 3-143
Shoulder Width – Roadway – Inside (or Left)	Total	Paved	FDOT PPM, Table 2.3.1
Mainline I-4	12 ft.	10 ft.	
One-Lane Ramp	6 ft.	2 ft.	
Two-Lane Ramp	8 ft.	4 ft.	
Two-Lane Express Lane	6 ft.	6 ft.	
Shoulder Width – Roadway – Outside (or Right)	Total	Paved	FDOT PPM, Table 2.3.1
Mainline I-4	12 ft.	10 ft.	
Mainline with Auxiliary Lane	12 ft.	10 ft.	
One-Lane Ramp	6 ft.	4 ft.	
Two-Lane Ramp	12 ft.	10 ft.	
Two-Lane Express Lane	10 ft.	10 ft.	
Typical Roadway Cross Section Slopes			
Roadways:			
2 Lanes in Same Direction	0.02		FDOT PPM, Figure 2.1.1 and Table 2.3.1
Addition Lane in Same Direction	0.03		
Shoulders:			
Inside Shoulder	0.05 (0.06 for 4 or more lanes)		FDOT PPM, Figure 2.1.1 and Table 2.3.1
Outside Shoulder	0.06		
Recoverable Terrain (min. from edge of travel way)			
Mainline I-4 / Express Lanes (> 55mph)	36 ft.		FDOT PPM Table 2.11.11
Auxiliary Lane (> 55mph)	24 ft.		
One-Lane Ramp (50 mph)	14 ft.		
Two-Lane Ramp (50 mph)	24 ft.		
Loop Ramp (30 mph)	18 ft.		
Shoulder Width – Bridge Structures – Inside			
Mainline I-4	10 ft.		FDOT PPM, Figure 2.0.1
One-Lane Ramp	6 ft.		
Two-Lane Ramp	6 ft.		

Table 4.1: Roadway Design Criteria

Design Element	Design Standard	Source(s)
Shoulder Width – Bridge Structures – Outside		
Mainline I-4	10 ft.	FDOT PPM, Figure 2.0.1
Auxiliary Lanes	10 ft.	
One-Lane Ramp	6 ft.	
Two-Lane Ramp	10 ft.	
Border Width[4]	94 ft.	FDOT PPM, Table 2.5.3

Notes:
[1] Where V = design speed of the roadway.
[2] Includes 6" allowance for resurfacing.
[3] Includes Rail Resurfacing (Track Raised): 12' for conventional railroads.
[4] Measured from outside edge of travel way to right-of-way.

5.0 Alternatives Analysis

The original I-4 PD&E Study, (*Interstate 4 (SR 400) Project Development and Environment Study, Section 2, from West of SR 528 Beachline Expressway to SR 472* (FM Nos. 242486, 242592 and 242703), *FEIS - August 2002*), was performed to address access, safety and capacity improvements. This update adheres to the project development process by examining the various concepts considered for this project. The alternatives analysis will focus primarily on the interchanges and pond sites. The mainline typical section will be consistent with the approved typical section that is being implemented for the I-4 Ultimate project from SR 435 (Kirkman Road) to SR 434, the section of I-4 that began construction in early 2015. The alternatives for the interchanges include no modifications to the existing interchange geometry (No Build), Transportation System Management and Operations (TSMO), and Study (Build) Alternatives. The following sections describe each of the proposed alternatives in greater detail and the advantages and disadvantages of each.

5.1 No Project (No-Build) Alternative

The No-Build Alternative assumes no changes to the transportation facilities within the project corridor beyond currently planned and programmed projects already committed within Metro Plan Orlando's *2030 Long Range Transportation Plan* and the *Fiscal Year 2013/14 to 2017/18 Transportation Improvement Program*. The No-Build Alternative forms the basis of the comparative analysis for each of the viable Study Alternatives.

The benefits of the No-Build Alternative are the absence of construction-related and short-term operational impacts associated with the Build Alternatives. However, long-term benefits accrued from serving future traffic demands will not be realized with this alternative. Operating conditions are anticipated to worsen with time, while further increasing delays and congestion. Specifically, the No-Build Alternative will offer no benefits to address existing or future traffic congestion anticipated on I-4. Distinct advantages and disadvantages associated with the No-Build Alternative are as follows.

Advantages:

- No impedance to traffic flow during construction,
- No expenditure of funds for design, right-of-way acquisition, or construction,
- No impact to the adjacent natural, social, physical and cultural environments and
- No disruption to existing/future land uses due to construction-related activities.

Disadvantages:

- Increase in traffic congestion and road user costs, unacceptable level of service and an increase in accidents associated with increases in travel times (due to excessive delays) and traffic volumes,
- Increase in maintenance costs due to roadway and structure deterioration,

- Increase in carbon monoxide levels and other air pollutants caused by an increase in traffic congestion,
- Increase in emergency service response time in addition to an increase in evacuation time during weather emergencies as a result of heavy congestion,
- Increase in delays to evacuation procedures throughout the state and
- Increase in safety-related accidents due to heavy congestion

The No-Build Alternative shall remain a viable alternative through the study. The final selection of an alternative will not be made until all impacts are considered and responses to the public hearing comments have been evaluated.

5.2 Transportation System Management and Operations

Transportation System Management and Operations (TSMO) Alternatives are defined as low capital cost transportation improvements designed to maximize the utilization and efficiency of the existing transportation system through improved system management. The various forms of TSMO activities include:

- Traffic signal improvements,
- Intersection/interchange improvements,
- Widening of parallel arterials,
- Ridesharing programs,
- Reversible flow roadway systems,
- Transit,
- ITS and
- Ramp-to-ramp auxiliary lanes.

Although the implementation of TSMO strategies would aid in localized operation of the existing roadway, the projected traffic volumes for the design year 2040 require I-4 to be widened to provide the additional capacity necessary to maintain or improve the existing and future levels of service. Therefore, the TSMO Alternative is not considered a viable alternative and no further evaluation of the TSMO Alternative will be conducted during this study.

5.3 Multi-Modal Alternatives

The project study area, including arterial streets crossing I-4, is served by different modes of travel, both motorized and non-motorized. Increased connectivity for bicycle, pedestrian, and transit users is an objective of the project.

5.3.1 Transit

The I-4 Segment 3 corridor has several transit opportunities available to the community. Phase one of the SunRail commuter rail line began operations in May 2014. The Phase One line extends from DeBary in the North, through downtown Orlando and terminates at Sand Lake Road in the South. Near the I-4 Segment 3 corridor, SunRail stations with parking facilities exist approximately 2.5 miles east of I-4, along SR 46 in Sanford and along Lake Mary Boulevard in Lake Mary. Commuter rail service is provided at the stations every 30 minutes during morning and evening peak hours and every 2.5 hours during mid-day service on weekdays. Future expansion plans near the I-4 Segment 3 corridor include extension of the commuter rail service to the north, between DeBary and DeLand. Connectivity to other transit opportunities such as the existing Amtrak operations in Winter Park and Sanford, Volusia County's Votran and Orlando's LYNX bus systems is another feature of the SunRail. Bus transit options in this corridor include the LYNX Bus service along I-4 (Link 200 - Volusia County/Downtown Orlando/I-4), SR 46 (Link 46W - West SR 46/ Seminole Towne Center) and Lake Mary Boulevard (Link 45 - Lake Mary).

5.3.2 Bicycles and Pedestrians

In accordance with Florida Statute 335.065, bicycle and pedestrian accommodations were given full consideration in the planning of the facilities and upgrades. There are no designated bicycle lanes currently on the cross streets within Segment 3 in the vicinity of I-4; however, there are undesignated bicycle lanes/paved shoulders along CR 46A, SR 46 and US 17-92. Pedestrian accommodations exist along EE Williamson Road, CR 46A, SR 46 and US 17-92. The Cross Seminole Trail crosses I-4 to the south of CR 46A utilizing a pedestrian bridge overpass. Additionally, a new trail crossing under I-4 at the SR 46 bridge has recently been constructed which connects to the Cross Seminole Trail at the Rinehart Road and SR 46 intersection, just east of I-4. The proposed build alternatives will include further bicycle and pedestrian accommodations at Lake Mary Boulevard and CR 46A.

The Coast to Coast Connector (C2C) trail, part of the Florida Greenways and Trails System Plan, is a multi-use trail that extends 275 miles across Central Florida, between the Gulf of Mexico and the Atlantic Ocean. Although the Connector is 75% complete, several gaps exist along the route. An effort to close the current gaps in the trail is currently under way and one of the gaps remaining in the trail is the crossing of the St. Johns River between Seminole and Volusia County. The crossing is planned to occur at the current sites of Lake Monroe Wayside Park in Seminole County and the Spring to Spring Trail at Lake Monroe Park in Volusia County. The I-4 BtU project will include provisions to accommodate the multi-use trail at the St. Johns River crossing, closing this gap in the Coast to Coast Connector. Details on the various alternatives developed and evaluated for the multi-use path at the river crossing are provided in *St. Johns River Multi-Use Bridge Concept Report, (November 2014)*.

5.4 Build Alternatives

The build alternative for the I-4 mainline involves widening from the existing 6-lane to the proposed 10-lane section with four, tolled express lanes. Access to and from the express lanes will be provided through direct access ramps at major interchanges or slip ramp connections between interchanges. Slip ramps provide access between the general use lanes and the express lanes, direct access ramps provide access between the crossroads at the major interchanges and the express lanes and dual access ramps provide both access between GULs and ELs and major crossroads and ELs. The build alternative will provide two slip ramps and one direct access ramp along I-4 Segment 3, as shown in Figure 5.1. Detailed analysis on the development of express lanes access points and tolling concepts, is provided in the supplemental report *Concept of Operations SR 400 (I-4) from West of SR 25/US 27 to East of SR 472 (June 2016)* prepared for this project.

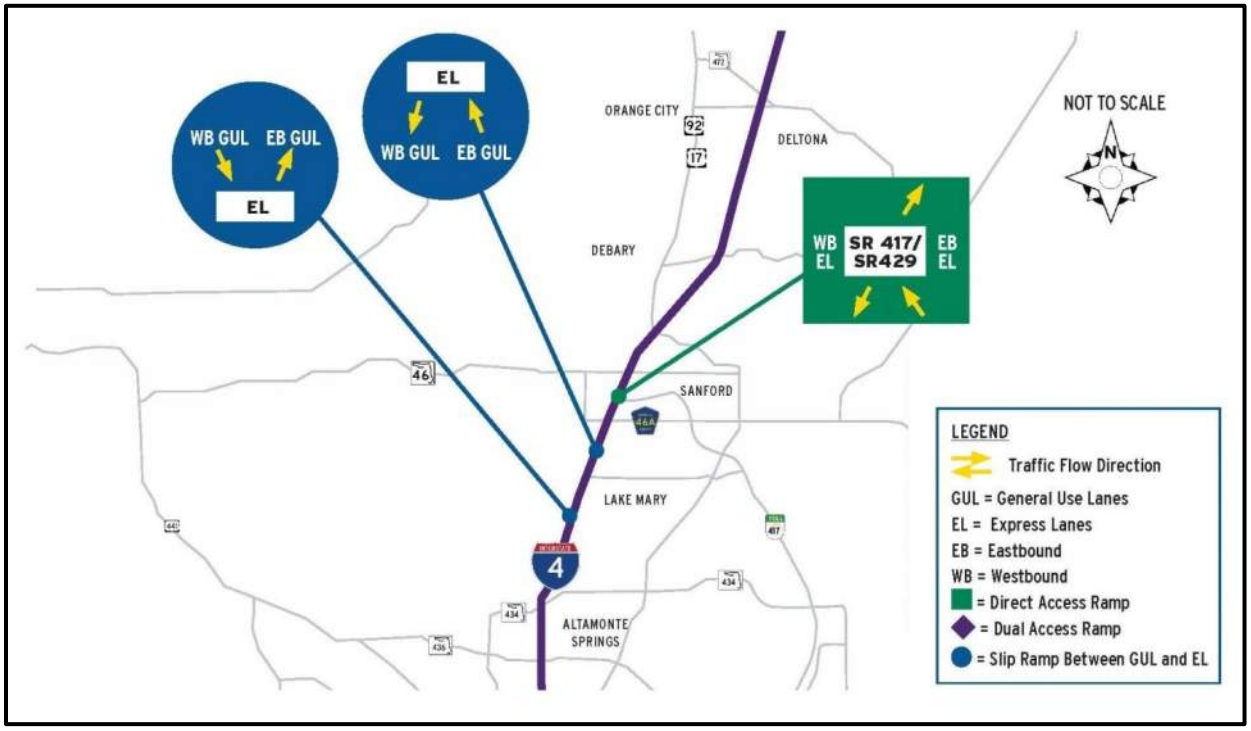


Figure 5.1 – I-4 Segment 3 Proposed Express Lane Access Points

As outlined previously, the project objective is to develop and evaluate viable interchange alternatives to enhance the ability of the roadways to meet anticipated traffic demands, improve safety, and serve existing and future land uses along the I-4 corridor. As part of the evaluation of Segment 3, four alternative typical sections were considered for the north/east segments of the I-4 BtU corridor to assess the need for reversible traffic lanes. Detailed analysis of the typical section alternatives evaluated for I-4 Segment 3 are provided in the supplemental report titled *Reversible Express Lanes Evaluation - Segment 3 (1 Mile East of SR 434 to East of US 17-92) in Seminole County*

and Segment 4 (East of SR 15/600-US 17-92 to 1/2 mile East of SR 472) in Volusia County (November 2014). The four typical section alternatives evaluated for I-4 Segment 3 were:

- Alternative 1 [6 GUL + 4 EL (No Reversible Lanes)] - Six general use lanes and four express lanes (two in each direction), no reversible lanes,
- Alternative 2 [6 GUL + 2 EL (No Reversible Lanes)] - Six general use lanes and two express lanes (one in each direction), no reversible lanes,
- Alternative 3 [6 GUL + 3 EL (with Reversible "Zipper" Lane)] - Six general use lanes and three express lanes (one in each direction with a center reversible "zipper" lane), and
- Alternative 4 [6 GUL + 4 EL & 6 GUL + 2 EL (No Reversible Lanes)] -Six general use lanes and four express lanes from east of SR 434 (Begin Project Station 2043+71.32) to the slip ramps west of Dirksen Drive (Station 2710+01.89) and six general use lanes and two express lanes from west of Dirksen Drive to east of SR 472 (End Project Station 3118+46.00).

The four alternative typical sections were evaluated based on several factors including historical and projected traffic volumes, existing and projected directional distribution patterns, project construction costs and reversible lane facility criteria established by AASHTO and the Institute of Transportation Engineers (ITE). Based on the preceding factors, Alternative 2 (6 GUL + 2 EL - No reversible lane) was not advanced for further consideration as desirable LOSs in the express lanes would not be achieved with a single express lane throughout the entire corridor. Of the remaining three alternatives, the estimated construction cost for the reversible lane alternative (Alternative 3) is approximately $303M. Although the roadway and bridge construction costs for Alternative 3 ($263M) were lower than for Alternative 1 ($290M), the initial capital costs and recurring annual costs of the Moveable Median Barrier (MMB) system resulted in an overall higher cost for this alternative. The total construction costs for Alternatives 1 and 4 were similar with Alternative 4 approximately 7% ($20M) lower than Alternative 1. Based on the life cycle cost analysis for the MMB system, the structural analysis of the bridge system over the St. Johns River and considering other design, operations, maintenance and cost factors, the Alternative 1 (6 GUL + 4 EL) typical section configuration was recommended for implementation throughout I-4 Segments 3 and 4.

Generally speaking, the typical section will be consistent throughout Segment 3 and will have six 12-foot general use travel lanes (3 in each direction with 10-foot inside and 12-foot outside shoulders) and four 12-foot express lanes (2 in each direction with 4-foot inside and 10-foot outside shoulders). The section of I-4 from the begin project limits to just south of Lake Mary Boulevard will have three GUL and one auxiliary lane in each direction, resulting in a 12-lane section (6 GUL + 2 Aux + 4 EL) through this portion of the corridor. The proposed mainline typical sections were previously shown in Figure 1.2. The complete typical section package for the I-4 BtU project has been submitted under separate cover.

The alternatives analysis will focus primarily on the interchanges and pond sites, since the mainline typical section (three general use lanes and two express lanes in each direction) will be consistent with the approved typical section that is being implemented for the I-4 Ultimate section from SR 435 (Kirkman Road) to SR 434. Build alternatives will be evaluated for the CR 46A, SR 417/Wekiva Parkway, SR 46, and US 17-92 interchanges and the EE Williamson Road overpass bridge.

5.4.1 Design Speed

The design speed of I-4 (general use lanes and express lanes) is 70 mph. The design speed of the remaining roadway facilities in the study corridor are:

- Lake Mary Boulevard and SR 46 - 50 mph,
- CR 46A - 45 mph,
- US 17-92 - 60 mph and
- SR 417/ Wekiva Parkway – 70 mph.

5.4.2 Interchange Alternatives

The Build Alternatives for I-4 Segment 3 include new interchanges at Lake Mary Boulevard, CR 46A, SR 417, SR 46 and US 17-92. The Concept Plans provided in Appendix A include detail sheets of the interchange alternatives described in the following sections.

Lake Mary Boulevard Interchange Alternatives

Four alternatives were considered for the Lake Mary Boulevard interchange. Alternative 1, shown in Sheets 33-36 of the Concept Plans in Appendix A, leaves the existing interchange as it is with the addition of a second free-flow right turn lane from the eastbound I-4 off ramp to the Lake Mary Boulevard and Lake Emma Road intersection. The existing 2-lane I-4 eastbound exit ramp will continue to connect to the I-4 general use lanes. The existing 1-lane eastbound Lake Mary Boulevard loop on ramp and the westbound Lake Mary Boulevard on ramp will now merge into a single lane prior to connecting to the I-4 eastbound general use lanes. The existing 2-lane I-4 westbound exit ramp will continue to connect to the general use lanes. The existing 2-lane westbound Lake Mary Boulevard loop on ramp will continue to connect to the I-4 westbound general use lanes and the 1-lane eastbound Lake Mary Boulevard on ramp will continue to connect to the I-4 westbound general use lanes. A new pedestrian bridge, in order to safely accommodate pedestrians, is proposed along the south side of Lake Mary Boulevard, extending across the interchange. To provide sidewalk connectivity in this area, new sidewalks are proposed along the south side of Lake Mary Boulevard from the proposed pedestrian bridge, west to International Parkway and east to Lake Emma Road. Bike lanes will also be added along both directions of travel on Lake Mary Boulevard. No additional right-of-way will be required along Lake Mary Boulevard.

Alternative 2, shown in Sheets 37-40 of the Concept Plans in Appendix A, is a single point urban interchange (SPUI) design. The SPUI design will allow for all through traffic on the crossroad, as well

as the left turns to and from the interstate to be controlled by a single set of traffic signals. The intersection will have dual left turn lanes from eastbound Lake Mary Boulevard onto eastbound I-4 and from westbound Lake Mary Boulevard onto westbound I-4. The SPUI design enables the opposing left turns to proceed simultaneously, increasing the capacity of the interchange. The I-4 eastbound, 2-lane off ramp will continue to connect to the general use lanes; however, the ramp terminus will shift approximately 500' west from its current location at Lake Mary Boulevard. In addition, the off ramp will increase to five lanes, with triple left turn lanes and dual right turn lanes to Lake Mary Boulevard. The eastbound dual lefts and the westbound single right turn lane ramps from Lake Mary Boulevard will merge to continue on to a single lane on ramp which will connect to the I-4 eastbound general use lanes. The same configuration would be designed for the I-4 westbound entrance and exit ramps with continued connection to the general use lanes. Both loop ramps are eliminated in this design. The SPUI design will make the interchange more compact, however it will require complete reconstruction of the bridge, as the intersection will necessitate a larger bridge width carrying Lake Mary Boulevard over I-4. However, no additional right-of-way would be needed to build this alternative. With proper construction phasing, traffic can be maintained through the intersection during construction.

Alternative 3, shown in Sheets 41-44 of the Concept Plans in Appendix A, is a grade separated diverging diamond interchange (DDI). A grade separated DDI is similar to an at grade DDI where traffic is briefly shifted to the opposite side of the roadway. Vehicles are guided by roadway signs and markings at each crossover on either end of the bridge. This design allows for free left turns onto the freeway on ramp without any opposing through conflict. The main feature of the grade separated DDI design is that there are no traffic signals, allowing uninterrupted traffic flow on Lake Mary Boulevard between Lake International Parkway and Lake Emma Boulevard. The opposing directions of the roadway are bridged over one another instead of intersecting at grade, eliminating the need for a traffic signal. The 2-lane eastbound off ramp will continue to connect to the general use lanes. This off ramp will increase to three lanes, with the two right turn lanes terminating near the current ramp connection. The left turn lane will go over Lake Mary Boulevard and I-4 before merging with westbound Lake Mary Boulevard on the right side. A single lane on ramp will connect to the I-4 eastbound general use lanes. The same configuration would be designed for the I-4 westbound entrance and exit ramps with continued connection to the general use lanes. Both loop ramps are eliminated in this design. There will be no additional right-of-way required to build this alternative. With proper construction phasing, traffic can be maintained through the intersection during construction. However, this alternative is not a viable option due to the low constructability, high cost and extreme grades required to tie down to the existing terrain.

Alternative 4, shown in Sheets 45-51 of the Concept Plans in Appendix A, proposes modifying the existing partial cloverleaf interchange to an at-grade DDI. A DDI is designed so that each direction of the crossing roadway traffic is split and then crosses over itself. The traffic will temporarily drive on

the left-hand side of the roadway and cross back over on the other side of the interchange. In order to avoid wrong way movements through this type of interchange, the opposite directions of the roadway are intersected at an angle that is large enough to appear to the driver as if they are making a through movement and that the other side of the roadway is an intersecting street. This alternative includes a new two-way, east-west connector roadway approximately 1/4 mile south of Lake Mary Boulevard. The eastbound connector road will spur off the I-4 eastbound off-ramp and terminate at a new signalized intersection at Lake Emma Road. The westbound connector road begins at Lake Emma Road and continues west until it splits and crosses over the I-4 eastbound off-ramp. The left spur will provide access to the I-4 eastbound general use lanes and the right spur will run parallel to Lake Mary Boulevard and over I-4 before connecting to the I-4 westbound general use lanes. Additional right-of-way will be required along the new connector road between Lake Emma Road and the I-4 eastbound off ramp.

The build alternative identified in the original PD&E study *(I-4 PD&E Study – Section 2, Final Environmental Impact Statement FEIS, August 2002*) for the Lake Mary Boulevard interchange maintained the existing partial cloverleaf design with the proposed I-4 improvements. Proposed modifications to the interchange included improvements to ramp gore areas and merging of the two I-4 westbound on ramps into a single ramp before connecting to I-4.

CR 46A Interchange Alternatives

Three interchange concepts were evaluated for the CR 46A interchange. Alternative 1, shown in Sheets 52-56 of the Concept Plans in Appendix A, maintains the existing interchange in the current configuration. The existing 2-lane eastbound exit ramp and the existing 1-lane eastbound on ramp will continue to connect to the general use lanes. I-4 westbound will have a C-D system that will connect to CR 46A via a single off lane ramp. Likewise, a single lane on ramp will connect CR 46A to the westbound I-4 C-D system. The westbound C-D lanes will connect to the I-4 general use lanes west of CR 46A. An additional lane will be added in each direction along CR 46A from International Parkway to Rinehart Road. The design speed for CR 46A will be maintained at 45 mph. The intersection at the I-4 eastbound off ramp will be modified to separate the outside right turn lane from the inside right turn lane with the use of a channelizing island. The purpose of the separation is to maintain the flow of vehicles from the I-4 eastbound off ramp onto CR 46A, similar to the configuration of the I-4 eastbound off ramp at Lake Mary Boulevard. The intersection of CR 46A at Colonial Center Parkway, which serves I-4 westbound entry and exit traffic, will be modified to include six lanes along CR 46A (three lanes in each direction between International Parkway and Rinehart Road). The CR 46A through lanes are 11-feet wide in order to minimize right-of-way impacts to the adjacent businesses. The current channelizing island for the right turn lane from eastbound CR 46A to westbound I-4 will need to be modified to fit the new CR 46A geometry by decreasing the radius of the bypass lane and decreasing the size of the channelizing island. The CR 46A overpass

will be modified by widening the bridge to accommodate the additional lanes. Additional right-of-way will not be required along CR 46A.

Alternative 2, shown in Sheets 57-62 of the Concept Plans in Appendix A, modifies the existing interchange design by adding Displaced Left Turns (DLTs) or Continuous Flow Intersections (CFIs) and the use of a reverse jug handle to improve the traffic flow along CR 46A and to decrease the potential for queue formation along the ramps extending to the I-4 mainline. The two-lane exit ramp from I-4 eastbound will increase to five lanes as it approaches CR 46A. This ramp will provide access to CR 46A via dual left and dual right turn lanes. One through lane will continue straight onto a new, three lane quadrant road that connects to Rinehart Road or to the I-4 eastbound general use lanes. A new single lane off ramp will connect the westbound C-D roadway via three right turn lanes to westbound CR 46A and by a single left turn lane directed to the quadrant road/Rinehart Road. The existing single lane I-4 westbound loop off ramp will become a two-lane loop ramp that provides access from the westbound C-D system to eastbound CR 46A. The outer connector ramp of the new loop ramp will accommodate westbound I-4 entering vehicles from the westbound CR 46A dual left lanes at the west end of the bridge. The intersection of CR 46A and Rinehart Road will be modified to eliminate left turns from CR 46A to improve traffic flow. Westbound CR 46A to southbound Rinehart Road traffic will continue straight through the intersection and then turn right onto the new quadrant roadway that connects back to Rinehart Road. Eastbound CR 46A to northbound Rinehart Road traffic will turn left at the intersection at the west end of the CR 46A bridge. Traffic will then proceed along a roadway similar to a displaced left turn and turn onto the quadrant roadway. The quadrant roadway will intersect Rinehart Road approximately 1,020 feet north of CR 46A at the existing roadway on the south side of Sanford Infiniti, forming the west leg of a new four-way intersection. The quadrant roadway will also provide access to eastbound I-4 with a new ramp that will connect to the general use lanes. The new intersection at the west end of the CR 46A bridge will accommodate westbound I-4 to westbound CR 46A, westbound I-4 to Rinehart Road, the displaced left turns from westbound CR 46A and Colonial Center Parkway and the displaced left turns from eastbound CR 46A and I-4 eastbound. The intersection will also serve as the connection for the westbound I-4 loop off ramp to eastbound CR 46A. The south leg of the CR 46A will no longer accommodate entry onto I-4 westbound from westbound CR 46A. This movement will take place at a displaced left turn at the new westbound off ramp terminal. The eastbound CR 46A to westbound I-4 on ramp will be modified to a two-lane free-flow right turn to increase capacity. Additional right-of-way will be required for this alternative at several locations including along CR 46A, Colonial Center Parkway and the I-4 westbound off ramp.

Alternative 3, shown in Sheets 63-69 of the Concept Plans in Appendix A, proposes a Diverging Diamond Interchange (DDI). The proposed I-4 exit ramp movements will be signalized and provide triple lefts and triple right turn lanes onto CR 46A. This design changes the signal operations at the eastbound ramp terminal from a three-phase to two-phase cycle, as the left turn movements from

the crossroad to the on ramp are now free flow movements. CR 46A will be widened to three through lanes in each direction between International Parkway and east of Rinehart Road and bike lanes have been provided along CR 46A through the interchange. To the west of the interchange, modifications include elimination of the westbound dual left lanes at CR 46A and Colonial Center Parkway; I-4 westbound will be accessed by the westbound lanes of the DDI. To the east of the interchange, modifications include elimination of eastbound and westbound left turn lanes at the intersection of CR 46A and Rinehart Road. Eastbound traffic on CR 46A destined to the north will have the option to go straight through and make a U-turn on CR 46A to return to the intersection and make a right turn onto northbound Rinehart Road. The other option for eastbound traffic is to turn right onto Rinehart Road and make a U-turn at a new, proposed median opening south of the intersection. Westbound traffic destined to the south would have to turn right onto Rinehart Road and access the existing median opening which will be modified to accommodate U-turns for a larger design vehicle. This alternative will require additional right-of-way at several locations including along CR 46A, Colonial Center Parkway and the I-4 westbound off ramp.

The build alternative identified in the original PD&E study/FEIS for the CR 46A interchange proposed modifying the full access diamond with loop ramp for the I-4 westbound to CR 46A movements to allow for the continuation of the westbound C-D ramp from SR 46 and providing a 2-lane eastbound off ramp. West of the interchange, the C-D ramp would merge with the I-4 westbound on ramp from CR 46A.

SR 417/Wekiva Parkway Interchange Alternatives

The Wekiva Parkway interchange will be constructed under the Wekiva Parkway Design-Build project that is currently under development and construction (FDOT FPN 240200-4). The interchange will be built to accommodate the express lanes along I-4 with minimal reconstruction during the Beyond the Ultimate construction. Four interchange concepts were developed for the SR 417/Wekiva Parkway interchange as part of the I-4 BtU project to facilitate coordination between the I-4 BtU improvements and the Wekiva Parkway project. The four interchange concepts are discussed in the following paragraphs; Concept Plans for the interchange are provided only for the recommended alternative.

Alternative 1 accommodates the additional lanes that will be needed with the construction of the Wekiva Parkway. The proposed improvements for this interchange are being coordinated with the Wekiva Parkway project. The existing interchange connects I-4 to SR 417 and International Parkway. The new SR 417/Wekiva Parkway and I-4 interchange will be a partial cloverleaf interchange. Direct connections to and from Wekiva Parkway/SR 417 will be provided to and from both the I-4 general use lanes and the express lanes. Eastbound Wekiva Parkway will have a single lane ramp which will provide access to the I-4 westbound general use lanes, the westbound express lanes, the eastbound general use lanes and the eastbound express lanes. The eastbound I-4 express lanes will have a ramp

that braids over eastbound I-4 general use lanes and ties into the 2-lane off ramp for the eastbound general use lanes. The 2-lane eastbound general use lane exit ramp will provide single lane access to SR 417 southbound and westbound Wekiva Parkway. Northbound SR 417 will have a two-lane off ramp which will split and provide access to the eastbound express lanes, eastbound general use lanes, westbound express lanes and westbound general use lanes. The westbound I-4 express lanes will have a single lane ramp that braids over westbound I-4 general use lanes and will split to provide access to westbound Wekiva Parkway and southbound SR 417 via the westbound collector distributor lanes. The westbound general use lanes will have access to westbound Wekiva Parkway and southbound SR 417 via the collector/ distributor lanes adjacent to westbound I-4. Additional right-of-way requirements for the Wekiva Parkway interchange will be purchased under the Wekiva Parkway Project.

Alternative 2 is the most radical design and costs more than the other three concepts evaluated. The eastbound express lane has a single left sided ramp that will combine with the westbound express lane ramp and braid over the westbound express lanes, the westbound general use lanes, and the C-D road between CR 46A and the Wekiva Parkway. The eastbound express lane splits where one lane goes to SR 417 southbound and the other goes to Wekiva Parkway westbound. I-4 eastbound general use will have a two-lane exit that will split into two separate exits: the left split will be the start of a C-D system that will end at SR 46. The right lane will split again and the left ramp will go to SR 417 southbound and the right ramp will go to Wekiva Parkway westbound. Northbound SR 417 will be a three-lane exit: one lane will taper off on the left, go under the eastbound C-D system, eastbound I-4 general use and express lanes, and will ramp up and merge into the eastbound express lanes between the eastbound and westbound express lanes. The other 3 lanes on the ramp will split and the right lane will merge into eastbound I-4 general use. The two other lanes will travel under the eastbound C-D system, eastbound I-4 general use and express lanes. It will split and the left lane will ramp up and merge into westbound I-4 express lanes in between the eastbound and westbound express lanes. The right lane will merge into the westbound C-D system between Wekiva Parkway and SR 46. The exit ramp for the westbound I-4 express lanes will braid over the westbound general use lanes and the westbound C-D system. The single lane ramp will turn into three lanes where the right lane will split off and merge with the westbound general use off ramp and will eventually split to go to southbound SR 417 and westbound Wekiva Parkway. The two left lanes will split: the right lane will merge with the two-lane ramp created from the express lane and general use lane exits. The left lane will continue straight and will merge with the two lanes that diverged off of the general use exit ramp. From here the express exit ramp, general use exit ramp, and SR 46 on ramp will combine into a C-D system allowing access to southbound SR 417, CR 46A, and westbound I-4 general use. The two-lane exit ramp off of the westbound general use lanes will travel under the SR 46 on ramp. One lane will taper off to the right and merge with the westbound express lane exit ramp while two lanes will continue straight and combine with the other westbound express off ramp and the SR 46 on ramp to form a C-D system between CR 46A and SR 46. Eastbound Wekiva Parkway has a single

lane exit ramp that splits. The right lane braids over the westbound C-D system, westbound general use lanes, and westbound express lanes. It ramps down and merges into the westbound express lanes from the left. The left lane splits again with the right lane merging into the westbound C-D system. The left lane splits and the left split travels under westbound I-4 and ramps up and merges into the eastbound express lanes. The right split travels under I-4 and merges with the eastbound C-D system.

Alternative 3 is the preferred alternative due to its lowest cost and impacts. The eastbound express exit ramp goes under the eastbound general use lanes and merges with the single lane off ramp from the general use lanes. From there, the two-lane ramp splits: right lane goes to southbound SR 417 and left lane goes to westbound Wekiva Parkway via a proposed loop ramp. Northbound SR 417 has a two-lane exit ramp that will provide two lanes to merge into the eastbound I-4 general use lanes and will have one lane taper off and braid over northbound and southbound SR 417 and then contraflow between the SR 417 southbound ramp and southbound SR 417 lanes. This single lane ramp will provide access to International Parkway and to I-4 westbound general use lanes. The single lane ramp from southbound SR 417 will merge with the two-lane ramp from northbound SR 417 to form a three-lane ramp. The left lane of the ramp will braid over the eastbound general use lanes and merge into the eastbound express lanes. The other two lanes will merge into the eastbound general use lanes. The westbound express lane exit will travel under the westbound general use lanes and the westbound C-D system. The ramp will split: the right split will combine with the exit ramp off of the C-D system and merge into westbound Wekiva Parkway and the left split will merge into the westbound C-D system and will provide access to southbound SR 417 via the existing loop ramp, to CR 46A or to the westbound general use lanes. There is a one lane exit ramp off of eastbound Wekiva Parkway that will split. The right split will merge with the contraflow ramp from northbound SR 417 and will merge into the westbound general use lanes. The left split will ramp up and braid over eastbound and westbound Wekiva Parkway. Then it will ramp under and across the I-4 lanes before merging with the two-lane ramp from northbound SR 417. From here the left lane will ramp off and braid over the eastbound general use lanes and merge into the eastbound express. The other two lanes will merge into the eastbound general use lanes.

Alternative 4 is nearly identical to the third except for the Wekiva Parkway/SR 417 mainline configuration. Northbound SR 417 crosses over southbound SR 417 at the Town Center Blvd bridges allowing a left-handed exit ramp onto International Parkway and westbound I-4 general use lanes. Wekiva Parkway eastbound will cross over the westbound lanes at the International Parkway bridges. A left-hand exit will split off of the westbound lanes and merge with the two-lane ramp from northbound SR 417 to eastbound I-4. The remaining two lanes of the eastbound Wekiva Parkway turn into southbound SR 417 and crosses back under northbound SR 417 to the original configuration at the Town Center Blvd bridges. SR 417/Wekiva Parkway is shown as a grade-separated diverging diamond.

The build alternative identified in the original PD&E study/FEIS for the SR 417 (Central Florida GreeneWay) interchange proposed modifying ramp junctions to and from I-4 to connect to the reconstructed freeway. The I-4 westbound to SR 417 ramp junction would be moved east to approximately 2,100 feet west of SR 46. This ramp would merge with the SR 46 to SR 417/I-4 C-D ramp and form a three-lane facility adjacent to I-4.

SR 46 Interchange Alternatives

Two interchange concepts are being evaluated for the SR 46 interchange. Alternative 1, shown in Sheets 70-73 of the Concept Plans in Appendix A, will leave the existing interchange as it is with widening of eastbound SR 46 for an additional left turn lane from eastbound SR 46 to eastbound I-4. The existing 2-lane eastbound C-D road between CR 46A and SR 46 will be removed. A new 2-lane exit ramp will be added for I-4 eastbound general use traffic to SR 46. The 1-lane eastbound on ramp will connect to the I-4 eastbound general use lanes. The SR 46 and I-4 eastbound ramp connection intersection will be changed so that there are two left turn lanes from SR 46 eastbound onto I-4 eastbound; three through lanes will remain along SR 46 eastbound. The westbound I-4 general use will have a 2-lane exit ramp connecting to SR 46 around the outside of the loop ramp in the northwest quadrant. The 1-lane SR 46 westbound loop on ramp will connect to the I-4 westbound C-D road. No additional right-of-way will be required for this concept.

Alternative 2, shown in Sheets 74-77 of the Concept Plans in Appendix A, is similar to Alternative 1, but has an additional off ramp that connects the I-4 eastbound off ramp to Towne Road. This additional off ramp provides access to Towne Center Boulevard without using SR 46. The connection for the new ramp will be a new roundabout intersection that connects to South Oregon Avenue and Towne Road. The existing access on the local roads will be maintained. Additional right-of-way will be required along North Towne Road and the existing right-of-way will need to be converted to limited access right-of-way.

The build alternative identified in the original PD&E study/FEIS for the SR 46 interchange proposed maintaining the full access diamond with I-4 eastbound to SR 46 movement provided via a C-D ramp that exits just east of CR 46A. Proposed modifications would add a loop ramp for SR 46 westbound to I-4 westbound; this loop ramp would begin the westbound C-D roadway that would serve the SR 46, SR 417 and CR 46A interchanges and realigning Oregon Street in the northwest quadrant.

US 17-92 Interchange Alternatives

Eight interchange concepts are being evaluated for the US 17-92 interchange. The eight concepts are a partial cloverleaf, a diamond interchange, a single point urban interchange, a diamond interchange that keeps the existing loop ramp, a single point urban interchange that modifies southbound US 17-92 to directly align with Monroe Road, a partial cloverleaf interchange that modifies US 17-92 to align with Monroe Road, a grade separated diverging diamond interchange (GSDDI), and a tight urban diamond interchange (TUDI) that realigns US 17-92 to align with Monroe

Road. The current configuration of the US 17-92 interchange was built in accordance with the approved concept from the original FEIS from 2002 Alternative concepts were developed for this interchange because the existing interchange has been shown to cause exiting traffic to back up onto I-4.

Alternative 1, shown in Sheets 78-81 of the Concept Plans in Appendix A, keeps the same overall existing geometry of the ramps and alignment of US 17-92. The single lane I-4 eastbound exit ramp will remain in place and be widened to allow for two lanes of traffic. The single lane I-4 eastbound on ramp will continue to connect to the general use lanes. The westbound I-4 off ramp will remain a single lane loop off ramp, but the channelizing island at the intersection with southbound US 17-92 will be removed. The single lane I-4 westbound on ramp will remain a single lane ramp and a new channelizing island will be constructed for the southbound US 17-92 traffic to improve the safety and geometry at this intersection. The southbound US 17-92 traffic will no longer have a dedicated turn lane for traffic turning south onto Monroe Road; instead traffic will have to turn at the intersection of US 17-92 and the I-4 eastbound off ramp. Dual left turn lanes will be added for the northbound US 17-92 traffic turning left onto Monroe Road.

Alternative 2, shown in Sheets 82-86 of the Concept Plans in Appendix A, changes the existing geometry of the ramps and the alignment of US 17-92. The interchange is changed to a diamond interchange with US 17-92 shifting further to the south and remaining an underpass, but requiring a new bridge to be built. The existing alignment of US 17-92 is changed at the St. John's River Bridge with the curve being moved to the south of its current location. Part of the existing US 17-92 bridge over Lake Monroe would need to be removed from the point of curve to the south and rebuilt to continue straight with four lanes further south. A curve would then be constructed to redirect the roadway back to the east under I-4, approximately halfway between the current underpass and the existing Orange Boulevard underpass. An access road will be added to the west of I-4 to maintain access to Lake Monroe Wayside Park. Beyond the interchange, US 17-92 will continue to the east and a new intersection with Monroe Road will be made, eliminating the roadway further to the north. US 17-92 will then curve back to the north and transition from a four-lane roadway to a two-lane roadway. The current entrance to the Central Florida Zoo & Botanical Gardens will be shifted further to the south with a new intersection being built for access. The design speed for the realignment of 17/92 is 60 mph. The current interchange ramps will be modified where possible or eliminated altogether and the I-4 St. John's River Bridge will need to be widened to accommodate the new ramps. The existing one lane I-4 eastbound off ramp will need to be widened and the vertical alignment may need to be changed to align with the US 17-92 underpass. A new single lane on-ramp will be added for the eastbound lanes. Additional single lane on ramps and off ramps will be added to the westbound lanes. Additional right-of-way will need to be purchased in order to build this alternative.

Alternative 3, shown in Sheets 87-91 of the Concept Plans in Appendix A, is a single point urban interchange design which will have the same geometric characteristics as Alternative 2 with the exception of the interchange design. The alignment of US 17-92 for Alternative 3 will be the same as the new alignment in Alternative 2. The changes to I-4 would also be the same with the exception of the new overpass bridge being larger for Alternative 3. The I-4 overpass bridge will need to be lengthened to accommodate extra space needed for the left turn lanes of the single point urban interchange. The same additional right-of-way will need to be purchased in order to build this alternative as in Alternative 2.

Alternative 4, shown in Sheets 92-96 of the Concept Plans in Appendix A, is also a diamond interchange with a realignment of US 17-92 similar to Alternative 2. The exception is that the current loop ramp from the I-4 eastbound off ramp is kept and extended back to the new Monroe Road and US 17-92 intersection. This extension can be accomplished using the existing Monroe Road lanes to direct traffic back to the intersection. The other exception is that the current I-4 eastbound on ramp will be reused for access from US 17-92 to I-4 eastbound. Thus, the eastbound I-4 St. John's River Bridge may only need minimal adjustments to accommodate the new ramp. The same additional right-of-way will need to be purchased in order to build this alternate as in Alternative 2.

Alternative 5, shown in Sheets 97-101 of the Concept Plans in Appendix A, is a single point urban interchange similar to Alternative 3, but with a realignment of US 17-92 to connect directly into Monroe Road. The old section of 17-92 along Lake Monroe will become a low speed, scenic road and will connect to US 17-92 via a T intersection. The new US 17-92 will terminate at SR 46 to the south. There is one at grade rail road crossing that will need to be reconstructed due to the realignment of Monroe Road, also known as the new US 17-92. A traffic operational analysis was conducted for this alternative, and the majority of the traffic through the interchange is coming from the north, via US 17-92 and from the south via Monroe Road. It is also desired by the local agency to make the old section of US 17-92 a lower speed scenic roadway. Additional right-of-way will need to be purchased in order to build this alternative.

Alternative 6, shown in Sheets 102-109 of the Concept Plans in Appendix A, is a partial cloverleaf interchange that realigns US 17-92 to connect with Monroe Road similar to Alternative 5. Alternative 6 proposes a grade separation at the Monroe Road and SunRail crossing. This grade separation will improve traffic flow and safety in the area. The existing grade crossing will remain only to provide a connection between Monroe Road and the existing US 17-92 portion that goes to downtown Sanford, Florida. The traffic volumes will be reduced along the existing Monroe Road alignment resulting in the SunRail grade crossing on Monroe Road having less of an impact on the overall operations of this interchange. The existing westbound single lane loop off ramp and on ramp will connect to the general use lanes. The existing eastbound single lane off ramp and partial loop on ramp will also connect to the general use lanes. The eastbound off ramp and on ramp will be

realigned to use School Street and the connection will be at the existing School Street/Monroe Road intersection. A new roundabout will be added to connect Orange Boulevard and School Street to the east of the new US 17-92 and existing Monroe Road alignments. Additional right-of-way will be required to build the new loop ramps, US 17-92 alignment, and roundabout as well as purchasing new limited access right-of-way between the eastbound ramps. Residential relocations will be required to build this alternative.

Alternative 7, shown in Sheets 110-116 of the Concept Plans in Appendix A, is a Grade Separated Diverging Diamond Interchange (GSDDI) which realigns the existing US 17-92 to align with Monroe Road similar to Alternative 5. The existing US 17-92 roadway that travels to downtown Sanford will remain and be renamed, but will tee into the new US 17-92 alignment. The new alignment of US 17-92 will provide grade separation between US 17-92 and SunRail. The existing at grade crossing of Monroe Road and SunRail will be eliminated in this alternative. A new roundabout will be added to connect Orange Boulevard and School Street to the east of the new US 17-92 and existing Monroe Road alignments. Due to the constraint of not being able to reconstruct the I-4 bridge over the St. Johns River, this alternative is not feasible to build. Additional right-of-way will be required to construct the new roundabout and new 17/92 alignment.

Alternative 8, shown in Sheets 117-123 of the Concept Plans in Appendix A, is a Tight Urban Diamond Interchange (TUDI) that realigns US 17-92 to directly align with Monroe Road. The existing US 17-92 roadway that travels to downtown Sanford, Florida will be renamed and will remain, but will tee into the new US 17-92 alignment, west of I-4. Two single-lane roundabouts are proposed with this alternative, one each at the locations of the existing US 17-92 ramp terminals east and west of I-4. The new alignment of US 17-92 will provide grade separation between US 17-92 and SunRail. The existing at grade crossing of Monroe Road and SunRail will remain in this alternative; however, Monroe Road will be a two-lane roadway north of Orange Boulevard instead of the current four-lane section, reducing the rail crossing width. A new road will be added to connect Orange Boulevard and School Street to the east of the new US 17-92 and existing Monroe Road alignments. The existing westbound single lane off ramp and on ramp will connect to the general use lanes. The existing eastbound single lane off ramp and on ramp will also connect to the general use lanes. Additional right-of-way will be required to construct the new extension of Orange Blvd to Monroe Road and the new 17/92 alignment.

Alternatives 2 through 8 for the US 17-92 interchange involve reconstruction of the US 17-92 bridge over the St. Johns River, as shown in the Concept Plans in Appendix A. The US 17-92 bridge is in superelevation. During design, survey will be required to determine the exact limits of deck replacement, in order to obtain the correct cross slope for the horizontal geometry.

The build alternative identified in the original PD&E study/FEIS for the US 17-92 interchange proposed maintaining the full access partial cloverleaf design with all movements occurring at US 17-92 as they are today, instead of being split between US 17-92 and Orange Boulevard.

5.4.3 EE Williamson Road Bridge

Two alternatives were evaluated for the EE Williamson Road overpass bridge over I-4. Alternative 1, shown in Sheets 27-29 of the Concept Plans in Appendix A, proposes a new bridge section over I-4 which replaces the two existing bridges with a single bridge that will carry both highway and pedestrian traffic. The proposed bridge will accommodate one 11-foot travel lane in each direction with a 14-foot two-way left turn lane. In addition, 6-foot and 10-foot sidewalks are proposed on the south and north sides of the road, respectively. No additional right-of-way is required to construct this alternative.

Alternative 2, shown in Sheets 30-32 of the Concept Plans in Appendix A, proposes a direct connect interchange with access to the I-4 westbound express lanes and from the I-4 eastbound lanes, from and to EE Williamson Road, respectively. A westbound exclusive left turn lane on the bridge will provide access from westbound EE Williamson Road and the eastbound through lane will provide access from eastbound EE Williamson Road to a single lane on ramp which connects directly to the I-4 westbound express lanes. Similarly, a single lane exit ramp which connects directly to the I-4 eastbound express lanes will provide access from I-4 eastbound express to EE Williamson Road. No additional right-of-way is required to construct this alternative.

5.5 Design Traffic

Development of project traffic for I-4 and surrounding arterials within the study limits of Segment 3 was based on the procedures outlined in the Methodology Letter of Understanding (MLOU, October 2014 Update) and are provided in the *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – From East of SR 434 to East of SR 472* (March 2017) prepared for this project.

5.5.1 Future Traffic Volumes

Travel demand modeling using the Central Florida Regional Planning Model (CFRPM version 5.01) was utilized to forecast Directional Design Hour Volumes (DDHV) for the I-4 Segment 3 project. The future traffic forecasts were determined for 2020 (opening year), 2030 (interim year) and 2040 (design years) for two build alternatives: Original Build and Modified Build. The Original Build alternative refers to the preferred interchange alternatives identified in the original I-4 SAMR dated April 2000 and approved by FHWA in June 2000 with subsequent update in 2003. The Modified Build alternative refers to the current I-4 SAMR Reevaluation and constitutes revised improvement concepts, which account for changing conditions over time. These changes include variation in traffic

characteristics, modifications to express lane access points and other traffic and design considerations which led to the current proposed build alternatives.

5.5.2 Design Traffic Factors

The traffic volume outputs generated by the model represent Peak Season Weekday Average Daily Traffic (PSWADT). A Model Output Conversion Factor (MOCF) was used to convert the PSWADT to Average Annual Daily Traffic (AADT). The Base year for the CFRPM is 2005. A MOCF of 0.98 for I-4 and 0.97 for arterial streets in Seminole County was used for this study. DDHV for I-4 Segment 3 were produced by applying K and D factors to the AADT projections from the CFRPM model. The FDOT standard "K" and "D" factor approach was used to develop the DDHVs for I-4 Segment 3.

K Factor

The K factor is used to convert the 24-hour AADT estimate to an hourly volume (DHV-Design Hour Volume). It is the ratio of the AADT that occurs during the design hour for the design year. Standard K-factors have been adopted by FDOT based on area and facility type with consideration to typical peak periods of the day. The K-factor used in the analysis for I-4 Segment 3 traffic was 9.0 for I-4 and arterial streets in Seminole County.

D-Factor

The Directional Distribution (D) is the percentage of total, two-way design traffic traveling in the peak direction. The D-factors used in the analysis for I-4 Segment 3 traffic was 54.30 for the Interstate and 53.10 for arterials in Seminole County.

T Factor

The percentage of trucks (T) using a roadway is the most critical factor in pavement design. The T factor used in traffic analysis for I-4 Segment 3 traffic was 2.8% for the AM and PM peak hours.

5.5.3 Intersection/Interchange Traffic Volumes

Traffic volumes for intersections and interchanges within the I-4 Segment 3 corridor were developed for both Original Build and Modified Build conditions based on the procedures outlined in the *MLOU (October 2014 Update).* The CFRPM model was used to develop the existing, 2020 and 2030 forecasts. Year 2040 forecasts were developed by determining a growth rate from 2030 to 2035 (forecast year of the model) and using that growth rate to extrapolate volumes from 2030 to 2040. For the Original Build scenario, year 2040 peak hour volumes were adjusted based on reasonable growth rates for localized movements, current land-use patterns and future projected developments, population growth rate and, if needed, peak hour capacity of the proposed roadway configurations. Traffic volumes for the Modified Build scenario were developed based on the Original Build volumes. The redistribution of traffic between the Original Build and Modified Build was performed based on the current proposed interchange and freeway configurations. The resulting design year 2040 DDHVs for the Modified Build scenario, which is pertinent to the current reevaluation study, are shown in Figure 5.2 through Figure 5.4.

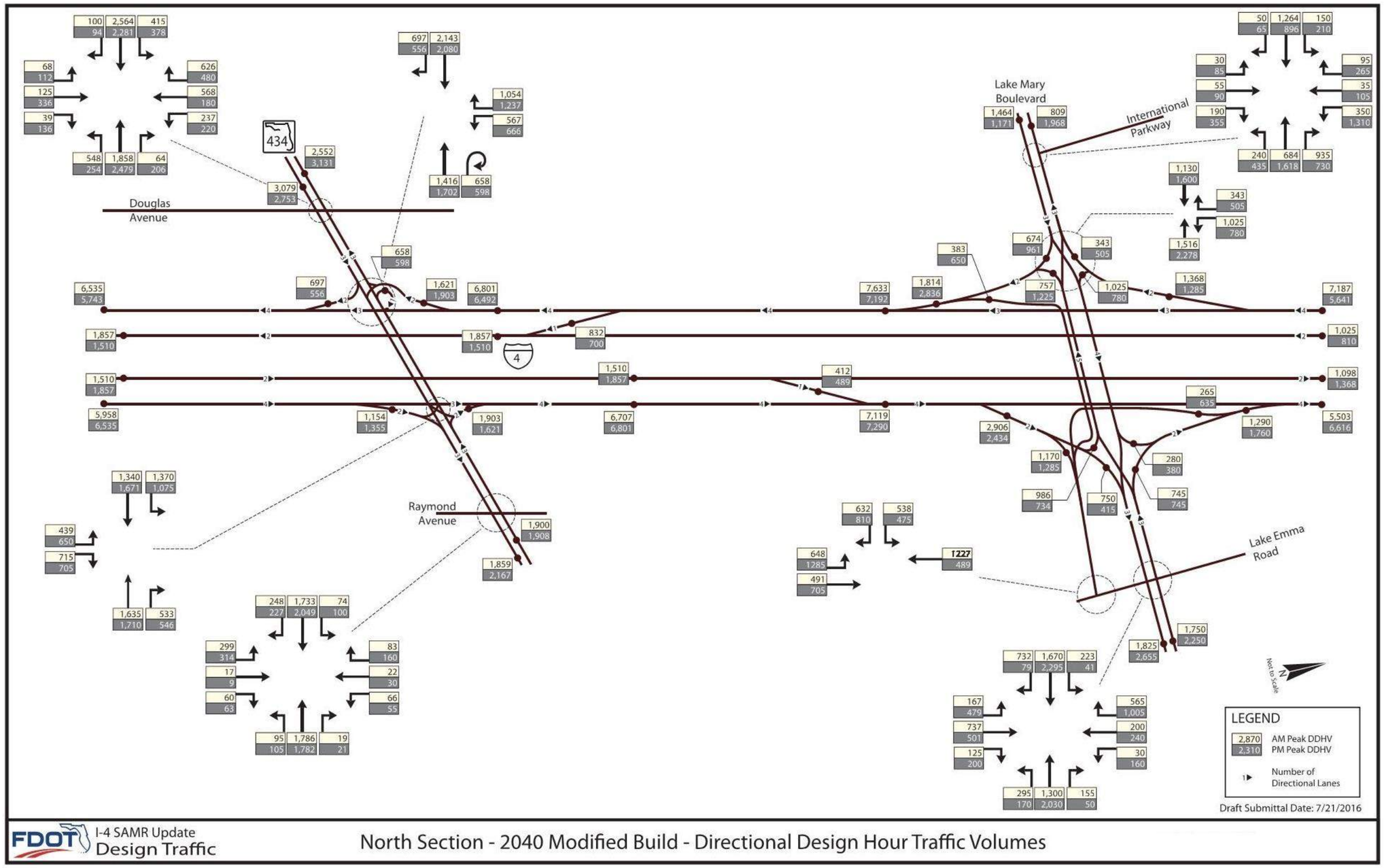


Figure 5.2 – Segment 3: 2040 Modified-Build Directional Design Hour Traffic Volumes (Sheet 1 of 3)

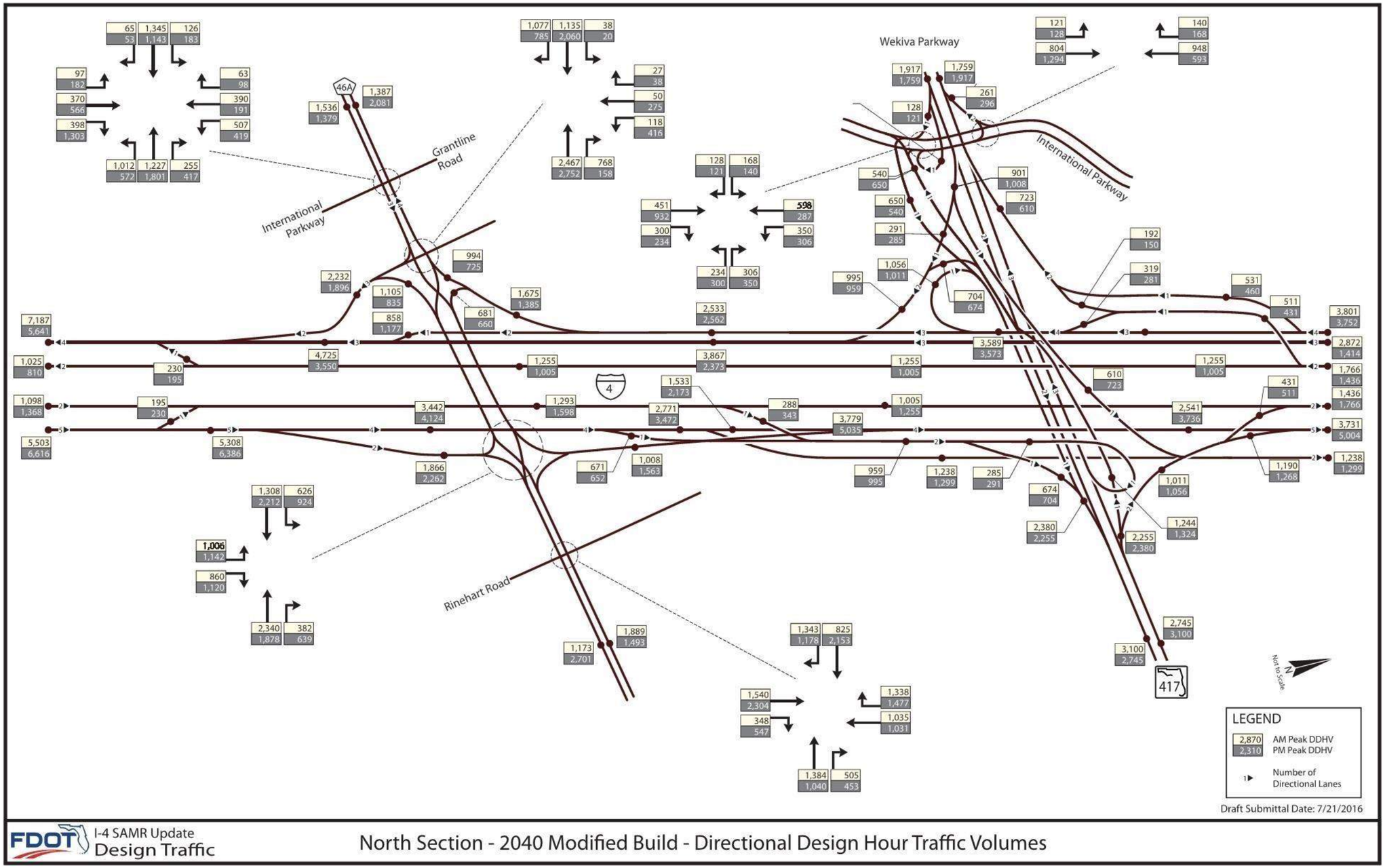


Figure 5.3 – Segment 3: 2040 Modified-Build Directional Design Hour Traffic Volumes (Sheet 2 of 3)

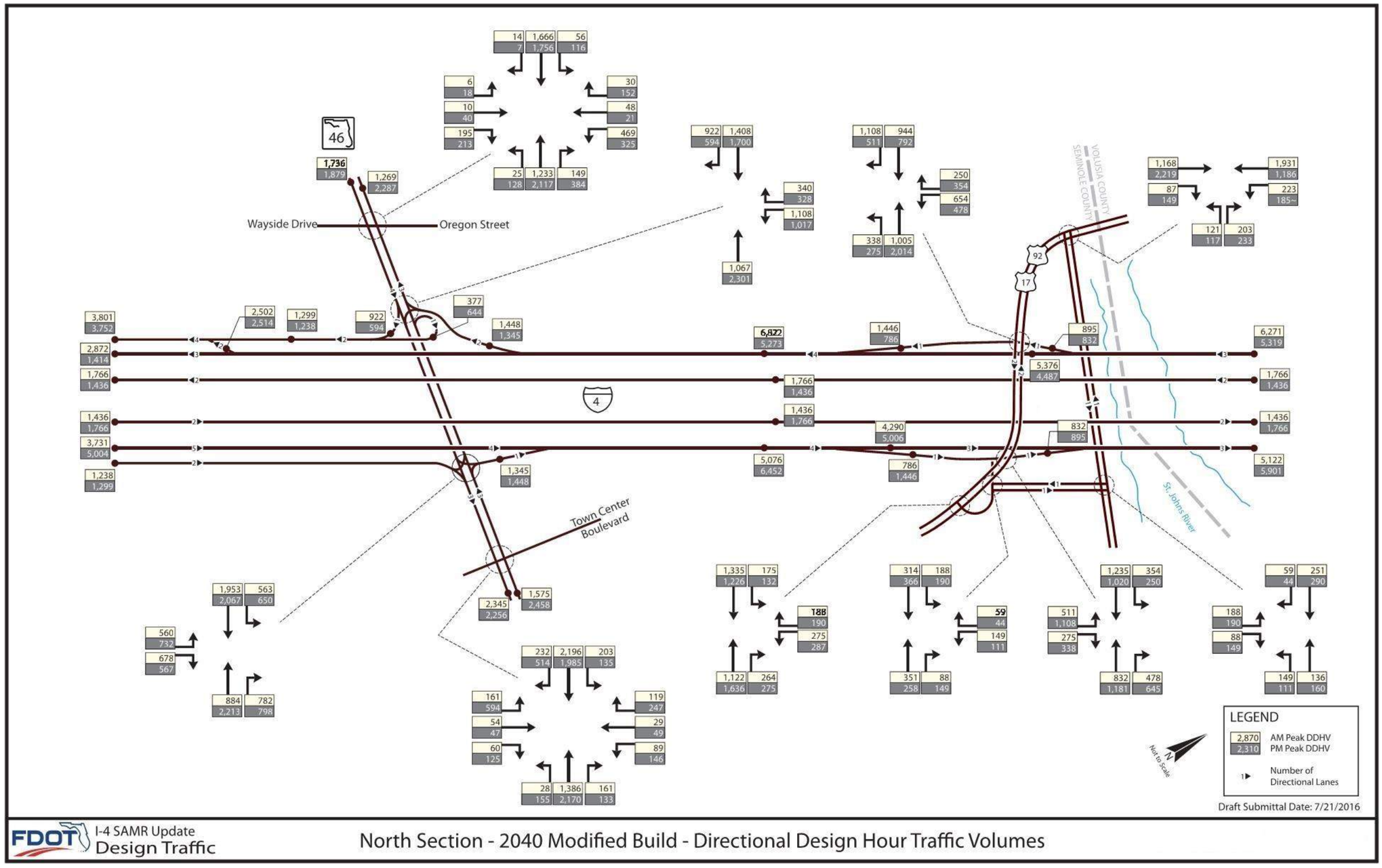


Figure 5.4 – Segment 3: 2040 Modified-Build Directional Design Hour Traffic Volumes (Sheet 3 of 3)

5.5.4 Intersection Operational Analysis

As part of the development of interchange alternatives for I-4 Segment 3, traffic operational analyses of the intersections within or near the proposed interchange improvements were completed for No Build and Build alternatives. Some alternatives were removed from consideration due to roadway geometric design constraints or other critical evaluation criteria and no further traffic analysis was completed. Peak hour operational analysis of intersections/ interchanges was completed using Synchro or VISSIM-version 5.4 software.

Lake Mary Boulevard Interchange

Five alternatives, in addition to the No-Build, were considered for the traffic operational analysis of the Lake Mary Boulevard interchange:

- No-Build,
- Alternative 1 - Single Point Urban Interchange (SPUI),
- Alternative 2 - Grade separated DDI (GS DDI),
- Alternative 3 - No-Build + Pedestrian Overpass across I-4 with additional free northbound right lane at I-4 EB Ramps intersection and exclusive 2nd eastbound right lane at Lake Emma Road intersection,
- Alternative 4a[4] - DDI with existing intersection geometry at Lake Mary Boulevard and Lake Emma Road intersection and
- Alternative 4 - DDI with additional ramp intersection on Lake Emma Road

The Lake Mary Boulevard interchange alternative concepts and associated operational analyses were evaluated in detail as part of the *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – from East of SR 434 to East of SR 472* (March 2017). During the development of interchange alternatives, which included agency and stakeholder coordination, Alternative 2 (GSDDI) was eliminated due to geometric constraints, cost and pedestrian access issues. Therefore, operational analysis was not evaluated for this alternative.

Preliminary operational analyses of the Lake Mary Boulevard Interchange for the No-Build and Alternatives 1 and 3 were conducted for the analysis year 2040. The results, summarized in Table 5.1, show that Alternative 3 provided better operational performance among the three alternatives; however, adjacent intersections on Lake Emma Road and International Parkway were operating poorly. Alternatives 4a and 4 were developed to provide improved operational performance for the study area. A detailed PM peak hour operational analysis was conducted for Alternatives 3, 4a and 4 using micro simulation software VISSIM version 5.4. As shown in Table 5.2, intersection operations are significantly improved in Alternative 4 when compared to Alternative 3 and Alternative 4a.

[4] Lake Mary Boulevard Alternative 4a was reviewed only for traffic operational purposes as a basis of comparison to Alternative 4; thus, a design concept was not developed for Alternative 4. The Concept Plans in Appendix A contain the alternative designs for Alternatives 1,2, 3 and 4.

Table 5.1: Average Delay and Level of Service (LOS) – Lake Mary Boulevard Intersections

Lake Mary Blvd Intersection with	No-Build Alternative		Alternative 1 SPUI		Alternative 3 Ped Overpass + 2nd EBR at Lake Emma Rd		No-Build Alternative		Alternative 1 SPUI		Alternative 3 Ped Overpass + 2nd EBR at Lake Emma Rd	
	AM Delay (sec/veh)	AM LOS	AM Delay (sec/veh)	AM LOS	AM Delay (sec/veh)	AM LOS	PM Delay (sec/veh)	PM LOS	PM Delay (sec/veh)	PM LOS	PM Delay (sec/veh)	PM LOS
International Pkwy	57.2	E	54.7	D	56.3	E	165.7	F	138.5	F	165.5	F
I-4 WB Ramps	43.6	D	-	-	49.2	D	48.7	D	-	-	52.7	D
I-4 EB Ramps	203.9	F	-	-	51.4	D	82.1	F	-	-	51.7	D
I-4 SPUI Ramps	-	-	142.7	F	-	-	-	-	183.5	F	-	-
Lake Emma Rd	125	F	102.5	F	84.6	F	245.1	F	256.7	F	202.8	F

Intersection operating at or below LOS E.

Table 5.2: Lake Mary Boulevard PM Peak Hour Node Evaluation Comparison

I-4 and Lake Mary Interchange						
Intersection	*Alternative 3 Ped. Overpass + 2nd EBR at Lake Emma Rd*		*Alternative 4a DDI w/existing geometry at Lake Mary Blvd/Lake Emma Rd*		*Alternative 4 DDI w/ramp intersection on Lake Emma Rd*	
	Delay	LOS	Delay	LOS	Delay	LOS
Lake Mary Blvd/International Pkwy	171.2	F	39.4	D	42.2	D
Lake Mary Blvd/I-4 WB Ramps	136.5	F	34.3	C	18.9	B
Lake Mary Blvd/I-4 EB Ramps	69.2	E	61.9	E	23.2	C
Lake Mary Blvd/Lake Emma Rd	169.3	F	127.8	F	31.0	C
Lake Emma Rd/Flagg Rd	119.2	F	52.8	D	20.7	C
Lake Emma Rd/Greenwood Blvd	107.7	F	29.0	C	33.7	C
Lake Emma Rd/Ramp Connection	-	-	-	-	29.7	C

Intersection operating at or below LOS E.

*Note: The differences in delay values shown in Table 5.1 and Table 5.2 are due to values being extracted from Synchro versus VISSIM, respectively.

CR 46A Interchange

Traffic operational analyses were completed for seven CR 46A interchange options; due to operational deficiencies and constructability issues, three alternatives in addition to the No-Build, were considered:

- No-Build
- Alternative 1 - CR 46A widening to six lanes
- Alternative 2 - CR 46A, continuous flow interchange (CFI) and restricted movements at Rinehart Road
- Alternative 3 – DDI with express left turns on Rinehart Road

A separate AM and PM peak hour intersection analysis for the study area intersections was completed in VISSIM for the study intersections along CR 46A; the intersection delay and LOS summary is shown in Table 5.3. Network-wide performance was also evaluated for all of the alternatives; the results of are summarized in Table 5.4. Based on the intersection operational analyses and network wide performance parameters, Alternatives 2 and 3 provide similar operational benefits when compared to the No-Build Alternative.

SR 46 Interchange

Two alternatives, in addition to the No-Build, were considered for the SR 46 interchange evaluation:

- No Build
- Alternative 1 - No-Build + second eastbound left turn lane at eastbound ramps intersection
- Alternative 2 – Alt. 1 + Slip Ramp from I-4 eastbound off ramp at SR 46 to N Towne Road/Towne Center Boulevard

Review of the three alternatives was conducted for SR 46 interchange for the analysis year 2040. Based on the operational analysis, Alternative 2 provides better operational performance among the alternatives. The results of the peak hour intersection operational analyses for SR 46 are summarized in Table 5.5.

US 17-92 Interchange

Although eight alternative design concepts were developed for the US 17-92 interchange, only four alternatives were considered for traffic operational modeling of the US 17-92 interchange in addition to the No-Build alternative. Alternatives 1-4, as shown on pages 78-96 of the Concept Plans included in Appendix A, maintain the current US 17-92 alignment. With the programmed designation change of US 17-92 to Monroe Road, proposed alternatives that maintain the existing US 17-92 alignment were not considered further in the traffic operational analysis.

Table 5.3: CR 46A Peak Hour Node Evaluation Comparison

CR 46A Intersection with	AM Peak								PM Peak							
	No-Build		Alternative 1 (CR 46A 6-lane)		Alternative 2 (CFI)		Alternative 3 (DDI)		No-Build		Alternative 1 (CR 46A 6-lane)		Alternative 2 (CFI)		Alternative 3 (DDI)	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
International Pkwy	167.6	F	158.6	F	63.9	E	58.7	E	230.5	F	212.5	F	48.1	D	61.3	E
I-4 WB On Ramp	85.9	F	80.9	F	10.0	A	11.8	B	99.9	F	134.0	F	18.3	B	18.5	B
I-4 WB Off Ramp							24.6	C							27.8	C
CR 46A Crossover	N/A		N/A		17.8	B	N/A		N/A		N/A		29.8	C		
I-4 EB Off Ramp	90.6	F	104.6	F	23.2	C	47.8	D	108.6	F	145.7	F	29.7	C	40.7	D
Rinehart Rd.	203.3	F	152.2	F	29.3	C	42.8	D	166.9	F	205.4	F	32.0	C	35.3	D
Rinehart Rd./ NB U-turn	N/A		N/A		13.3	B	45.2	D	N/A		N/A		15.4	B	20.7	C
Rinehart Rd./ SB U-turn	N/A		N/A		N/A		13.7	B	N/A		N/A		N/A		22.7	C

Intersection operating at or below LOS E.

Table 5.4: CR 46A Interchange Alternatives - Network Performance Comparison

	I-4 & CR 46A - AM Peak						
Performance Parameter	No-Build	Alt. 1	Alt. 1 Improvement	Alt. 2	Alt. 2 Improvement	Alt. 3	Alt. 3 Improvement
Total Travel Time (hr)	1070	1094	-2%	561	47.6%	721	32.6%
Total Delay Time (hr)	858	864	-1%	277	67.7%	451	47.4%
Average Delay Time (sec/veh)	319	283	11%	82	74.3%	137	57.1%
Latent Delay Time (hr)	312	183	41%	0	100.0%	22	92.9%
Number of Arrived Vehicles	8514	9721	-14%	11573	35.9%	10982	-29.0%
Latent Vehicles	2656	1519	43%	0	100.0%	262	90.1%
Total Delay + Latent Delay (hr)	1170	1047	11%	277	76.3%	473	59.6%
	I-4 & CR 46A - PM Peak						
Total Travel Time (hr)	1089	1193	-10%	668	38.7%	778	28.6%
Total Delay Time (hr)	892	981	-10%	349	60.9%	449	49.7%
Average Delay Time (sec/veh)	338	349	-3%	91	73.1%	118	65.1%
Latent Delay Time (hr)	582	490	16%	0	100.0%	31	94.7%
Number of Active Vehicles	1110	1245	-12%	643	42.1%	689	37.9%
Number of Arrived Vehicles	8377	8875	-6%	13188	57.4%	13001	-55.2%
Latent Vehicles	5047	4179	17%	4	99.9%	242	95.2%
Total Delay + Latent Delay (hr)	1474	1471	0%	349	76.3%	480	67.4%

Table 5.5: Average Delay and Level of Service (LOS) – SR 46 Intersections

		AM Peak			PM Peak		
Intersection	**MOEs**	**No-Build**	**Alt. 1**	**Alt. 2**	**No-Build**	**Alt. 1**	**Alt. 2**
SR 46 & Wayside Drive/Oregon Street	Delay	15.1	14.8	14.8	21.6	20.4	18.2
	LOS	B	B	B	C	C	B
SR 46 & I-4 WB Ramps	Delay	13.8	14.0	13.8	13.6	13.2	13.5
	LOS	B	B	B	B	B	B
SR 46 & I-4 EB Ramps	Delay	38.1	22.6	21.9	43.3	21.7	20.9
	LOS	D	C	C	D	C	C
SR 46 & Towne Center Boulevard/Hickman Drive	Delay	27.2	26.2	28.1	26.6	25.0	26.5
	LOS	C	C	C	C	C	C
Notes: Delay – Average delay (sec/veh), MOEs = Measures of Effectiveness							

Alternatives 5 through 8 consider the realignment of US 17-92 to connect directly to Monroe Road; the old section of US 17-92 along Lake Monroe will become a low speed, scenic road and will connect to US 17-92 via a T-intersection. The new US 17-92 will terminate at SR 46 to the south.

In addition to the No-Build alternative, the following alternatives were considered for the US 17-92 interchange evaluation:

- Alternative 5 – Single Point Urban Interchange with US 17-92 realigned
- Alternative 6 – Partial cloverleaf with US 17-92 realigned
- Alternative 7 – Grade Separated Diverging Diamond Interchange with US 17-92 realigned
- Alternative 8 - Tight Urban Diamond Interchange with US 17-92 realigned

Review of the four US 17-92 interchange alternatives in addition to the No-Build alternative was conducted for the 2040 analysis year. Based on the operational analysis, the results indicate that Alternatives 6, 7 and 8 all perform better than No-Build. The results of the network wide performance for US 17-92 are summarized in Table 5.6.

5.6 Intersection Improvements

Intersection improvements based on the Concept Plans are proposed at or adjacent to the interchanges at Lake Mary Boulevard, CR 46A, SR 46 and US 17-92 within Segment 3. The Concept Plans for the proposed intersection concepts can be found in Appendix A.

Table 5.6: US 17-92 Interchange Alternatives - Network Performance Comparison

Performance Parameter	(No-Build)	Alt. 5 (SPUI)	Alt. 5 (SPUI) Improvement	Alt. 6 (Parclo)	Alt. 6 (Parclo) Improvement	Alt. 7 (GSDDI)	Alt. 7 (GSDDI) Improvement	Alt. 8 (TUDI)	Alt. 8 (TUDI) Improvement
I-4 & US 17-92 - AM Peak									
Total Travel Time (hr)	409	512	-25%	327	20%	292	29%	286	30%
Total Delay Time (hr)	198	331	-67%	92	54%	75	62%	78	61%
Average Delay Time (sec/veh)	118	163	-38%	53	55%	43	64%	45	62%
Latent Delay Time (hr)	24	290	-1108%	3	88%	0	100%	0	100%
Number of Arrived Vehicles	5,635	6,767	20%	5,970	6%	5,982	6%	5,988	6%
Latent Vehicles	186	2,557	-1275%	8	96%	1	99%	1	99%
Total Delay + Latent Delay (hr)	222	621	-180%	95	57%	75	66%	78	65%
I-4 & US 17-92 - PM Peak									
Total Travel Time (hr)	396	491	-24%	327	17%	302	24%	304	23%
Total Delay Time (hr)	185	294	-59%	92	50%	85	54%	96	48%
Average Delay Time (sec/veh)	113	134	-19%	53	53%	49	57%	55	51%
Latent Delay Time (hr)	41	247	-502%	3	93%	0	100%	0	100%
Number of Active Vehicles	5,545	7,411	34%	5,970	8%	5,971	8%	5,955	7%
Number of Arrived Vehicles	328	2,161	-559%	8	98%	1	100%	1	100%
Latent Vehicles	226	541	-139%	95	58%	85	62%	96	58%
Total Delay + Latent Delay (hr)	396	491	-24%	327	17%	302	24%	304	23%

5.7 Environmental Impacts

5.7.1 Floodplains and Regulatory Floodways

The Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) for Seminole and Volusia Counties. According to FEMA Map No. 12117C0135F, portions of the roadway and the proposed pond within Basin 300 (Pond E in Permit No. 22434-1) are located in the 100-year floodplain.

Based on the FEMA floodplain lines, the roadway widening will impact the floodplain on both sides of the roadway. The widening of the westbound lanes will impact the floodplain from Station 2116+00 to 2124+00 and is located in Zone AE of the floodplain with an elevation of 66.00 ft NAVD. The widening of the eastbound lanes will impact the floodplain from Station 2106+50 to 2124+50 and is located in Zone AE of the floodplain with an elevation of 66.00 ft NAVD. The pond berm for Pond 300 will also impact the floodplain and is located in Zone AE of the floodplain with an elevation of 66.00 ft NAVD. Although the pond berm causes an impact to the floodplain, the area of cut between the existing ground and the design high water will result in the pond providing compensation for the floodplain impacts. The roadway impacts the floodplain for a total of 6.43 ac-ft.

Three alternatives were evaluated for the floodplain compensation pond in this basin. Based on input provided at the public involvement meeting, individual meetings with property owners and other considerations, it was determined that FPC Pond 300-A has the least amount of impacts. Additional right-of-way will be required for floodplain compensation pond, FPC 300-A, with acquisition of one parcel.

The locations of the FEMA floodplains are shown on Figure 5.5. Additional information including detailed floodplain impacts and compensation calculations are presented in the *Pond Siting Report (November 2016) and Location Hydraulic Report (November 2016)* prepared for this project

5.7.2 Wetlands

The jurisdictional extent of onsite wetlands and other surface water systems within the project corridor were evaluated through the review of current and historic aerial photography of the study area and by ground-truth activities. Current and historical information reviewed included infrared digitally orthorectified quadrangle maps (DOQs), U.S. Geological Survey Topographic Maps, National Wetlands Inventory (NWI) Maps and Soil Survey Maps.

Jurisdictional limits were identified and limits established in general accordance with the *1987 Corps of Engineers Wetlands Delineation Manual (Technical Report Y-87-1*); the *November 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region* and the *State of Florida's Delineation of the Landward Extent of Wetlands and Surface Waters*

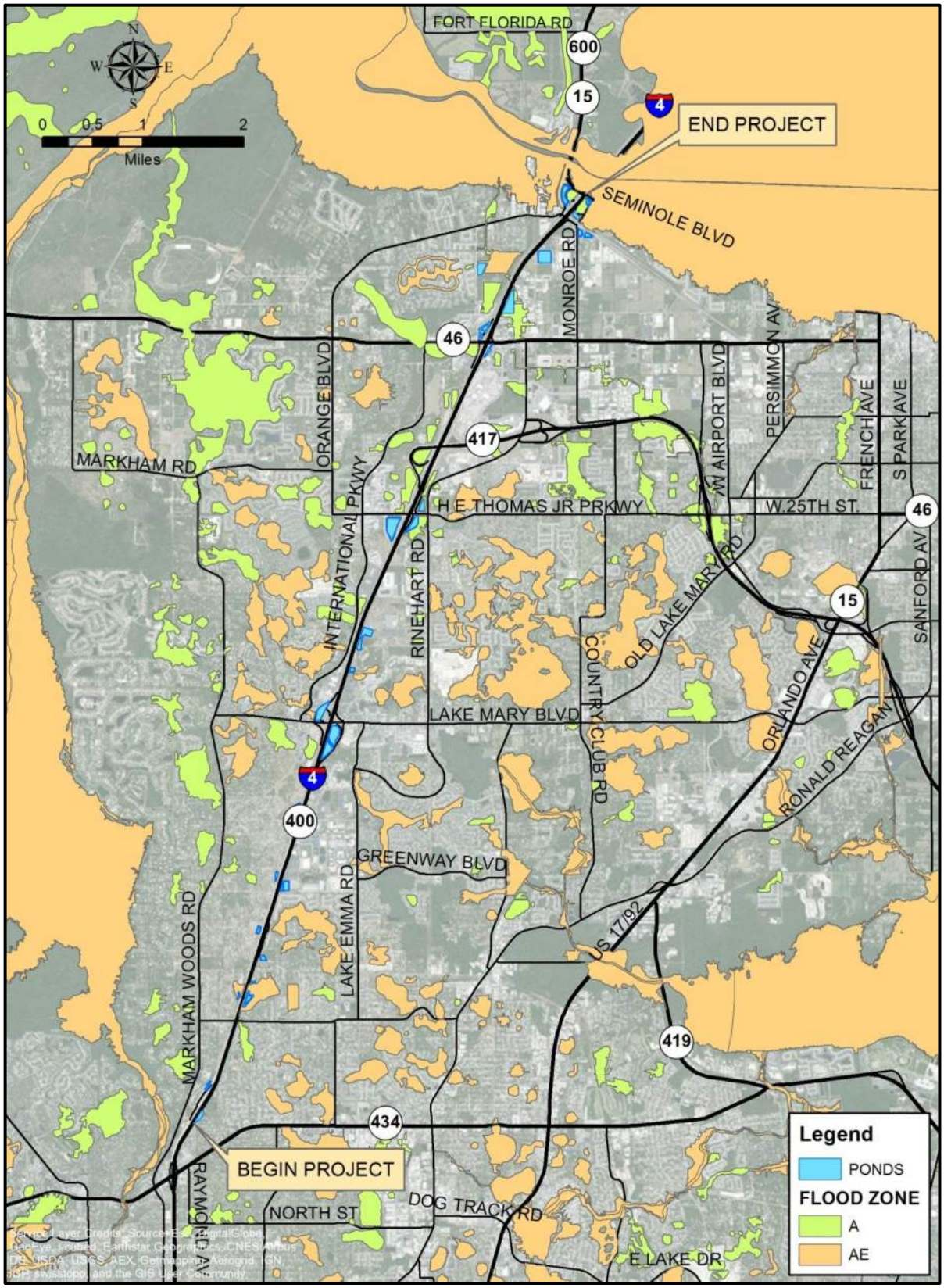


Figure 5.5 – FEMA Flood Insurance Map

(Chapter 62-340, Florida Administrative Code). Wetlands and surface waters observed were classified using the FDOT's Florida Land Use, Cover and Forms Classification System (FLUCFCS) and the U.S. Fish and Wildlife Service's (FWS) classification system as described in *Classification of Wetlands and Deepwater Habitats of the United States (Cowardin, et. al, 1979)*.

For this study, jurisdictional systems were identified from east to west and were classified as either Wetland (WL- #) or Other Surface Water (SW- #) and included the direction of the travel lanes of I-4 (i.e. East (E) or West (W)) relative to the location of the system. The term other surface water generally categorizes existing stormwater ponds, lakes, ditches or swales associated with the existing drainage conditions of Interstate 4. A description of wetlands and jurisdictional other surface waters within the study area are summarized in Table 5.7.

Preliminary estimates suggest that 11.86 acres of wetland communities and 6.75 acres of jurisdictional other surface waters will be impacted by proposed improvements associated with I-4 Segment 3. The impact areas, quality of each system and likelihood of requiring mitigation for adverse impacts are summarized in Table 5.8; surface water and wetland impact areas are illustrated in Figure 5.6 through Figure 5.20.

Table 5.7: Summary of Jurisdictional Wetlands and Other Surface Waters

ID	USFWS Classification*	FLUCFCS Code**	Description/ Vegetation Summary
SW-2(E)	L1AB34	5240	Lake
SW-3(E)	PEM2E	5130	Upland-cut ditch
SW-5(E)	L2EM2/PFO4A	5230/6170	Lake/Mixed Forested Wetland
SW-6(E)	PEM2E	5130	Upland-cut ditch
SW-16(E)	PEM2E	5130	Upland-cut ditch
SW-17(E)	PEM2E	5130	Upland-cut ditch
SW-18(E)	PEM2E	5130	Upland-cut ditch
SW-19(E)	PEM2E	5130	Upland-cut swale
SW-20(E)	PEM2E	5130	Upland-cut ditch
SW-21(E)	PEM2E	5130	Upland-cut swale
SW-22(E)	PEM2E	5130	Upland-cut ditch
SW-22A(E)	PEM2E	5130	Upland-cut ditch
SW-22B(E)	PEM2E	5130	Upland-cut ditch
SW-24(E)	PEM2E	5130	Upland-cut ditch
SW-27(E)	PEM2E	5130	Upland-cut ditch
WL-1(E)	PFO67E	6170	Mixed Wetland Hardwoods
WL-1A(E)	PEM1E	6410	Freshwater Marsh
WL-2(E)	PEM1E	6410	Freshwater Marsh
WL-2A(E)	PSS67E	6180	Willow and Elderberry
WL-3(E)	PFO67E	6170	Mixed Wetland Hardwoods

Table 5.7: Summary of Jurisdictional Wetlands and Other Surface Waters

ID	USFWS Classification*	FLUCFCS Code**	Description/ Vegetation Summary
WL-4(E)	PFO67E	6170	Mixed Wetland Hardwoods
WL-5(E)	PF067E	6170	Mixed Wetland Hardwoods
WL-6(E)	PFO67E	6170	Mixed Wetland Hardwoods
SW-4(W)	PEM2E	5130	Upland-cut swale
SW-10(W)	PEM2E	5130	Upland-cut ditch
SW-10A(W)	PEM2E	5130	Upland-cut ditch
SW-10B(W)	PEM2E	5130	Upland-cut ditch
SW-11(W)	PEM2E	5130	Upland-cut swale
SW-12(W)	PEM2E	5130	Upland-cut ditch
SW-15(W)	PEM2E	5130	Upland-cut ditch
SW-16(W)	PEM2E	5130	Upland-cut swale
SW-17A(W)	PEM2E	5130	Upland-cut ditch
SW-17B(W)	PEM2E	5130	Upland-cut ditch
SW-18(W)	PEM2E	5130	Upland-cut swale
SW-19(W)	PEM2E	5130	Upland-cut ditch
SW-21(W)	PEM2E	5130	Upland-cut ditch
SW-22(W)	PEM2E	5130	Upland-cut swale
SW-23(W)	PEM2E	5130	Upland-cut ditch
WL-1(W)	PFO67E	6170	Mixed Wetland Hardwoods
WL-2(W)	PFO67E	6170	Mixed Wetland Hardwoods
WL-3(W)	PFO67E	6170	Mixed Wetland Hardwoods
WL-4(W)	PFO36F	6210	Cypress
WL-5(W)	PFO67E	6150	Streams and Lake Swamps (Bottomland)

*US Fish and Wildlife Service (USFWS) CLASSIFICATIONS:
PEM2E: Palustrine/Emergent/Non-persistent/Seasonally Flooded/Saturated PUBHx: Palustrine/Unconsolidated Bottom/Permanently flooded/Excavated L2EM2: Lacustrine/Littoral/Emergent/Non-persistent PFO67E: Palustrine/Forested/Deciduous/Evergreen/Seasonally flooded/Saturated PFO36F: Palustrine/Forested/Broad-Leaved Evergreen/Deciduous/Semipermanently Flooded PFO4A: Palustrine/Forested/Needle-Leaved Evergreen/Temporarily Flooded PEM1H: Palustrine/Emergent/Persistent/Permanently Flooded PEM1E: Palustrine/Emergent/Persistent/Seasonally Flooded/Saturated PSS67E: Palustrine/Scrub-Shrub/Deciduous/Evergreen/Seasonally Flooded/Saturated PFO67H: Palustrine/Forested/Deciduous/Evergreen/Permanently Flooded L1AB34: Lacustrine/Limnetic/Aquatic Bed/Rooted Vascular/Floating Vascular

**Florida Land Use Cover and Forms Classification System (FLUCFCS Code): 5130: Streams and Waterways (Ditch/Swale) 5230: Lakes larger than 10 acres, but less than 100 acres 5240: Lakes less than 10 acres verify this system 5330: Reservoirs larger than 10 acres, but less than 100 acres 5340: Reservoirs less than 10 acres 6150: Streams and Lake Swamps (Bottomland) 6170: Mixed wetland hardwoods 6180: Willow and elderberry 6210: Cypress 6410: Freshwater marshes

Table 5.8: Summary of Proposed Impacts to Jurisdictional Wetlands/Other Surface Waters

ID	FLUCFCS Code	Total Area within ROW (acres)	Proposed Impacts (acres)	*Quality (UMAM)	**Mitigation Requirements (Y, N, N/A)
Wetlands					
WL-1(E)	6170	0.07	0.07	Low	Y
WL-1A(E)	6410	0.91	0.00	Moderate	N/A
WL-2(E)	6410	0.00	0.00	Low	N/A
WL-2A(E)	6180	0.00	0.00	Low	N/A
WL-3(E)	6170	4.83	0.00	Moderate	N/A
WL-4(E)	6170	0.43	0.00	Moderate	N/A
WL-5(E)	6170	2.33	0.00	Moderate	N/A
WL-6(E)	6170	0.58	0.00	Moderate	N/A
WL-1(W)	6170	0.07	0.00	Moderate	N/A
WL-2(W)	6170	0.09	0.00	Moderate	N/A
WL-3(W)	6170	11.06	11.06	Moderate	Y
WL-4(W)	6210	5.14	0.73	Moderate	Y
WL-5(W)	6150	2.34	0.00	Moderate	N/A
Subtotal Acres		27.85			
Subtotal Impacts			11.86		
Other Surface Waters (Lakes, Upland-Cut Ditches, Swales)					
SW-2(E)	5240	0.00	0.00	Low	N/A
SW-3(E)	5130	0.31	0.31	Low	N
SW-5(E)	5230/6170	1.33	1.33	Moderate	Y
SW-6(E)	5130	0.02	0.02	Low	N
SW-16(E)	5130	0.01	0.00	Low	N
SW-17(E)	5130	0.04	0.04	Low	N
SW-18(E)	5130	0.33	0.33	Low	N
SW-19(E)	5130	0.06	0.06	Low	N
SW-20(E)	5130	0.11	0.11	Low	N
SW-21(E)	5130	0.01	0.01	Low	N
SW-22(E)	5130	0.02	0.02	Low	N
SW-22A(E)	5130	0.02	0.02	Low	N
SW-22B(E)	5130	0.41	0.00	Low	N/A
SW-24(E)	5130	0.16	0.00	Low	N/A
SW-27(E)	5130	0.41	0.00	Low	N/A
SW-4(W)	5130	0.15	0.15	Low	N
SW-10(W)	5130	0.08	0.08	Low	N
SW-10A(W)	5130	0.02	0.02	Low	N

Table 5.8: Summary of Proposed Impacts to Jurisdictional Wetlands/Other Surface Waters

ID	FLUCFCS Code	Total Area within ROW (acres)	Proposed Impacts (acres)	*Quality (UMAM)	**Mitigation Requirements (Y, N, N/A)
SW-10B(W)	5130	0.12	0.12	Low	N
SW-11(W)	5130	0.32	0.32	Low	N
SW-12(W)	5130	0.50	0.50	Low	N
SW-15(W)	5130	1.78	1.78	Low	N
SW-16(W)	5130	0.09	0.09	Low	N
SW-17A(W)	5130	0.00	0.00	Low	N
SW-17B(W)	5130	0.08	0.00	Low	N
SW-18(W)	5130	0.09	0.09	Low	N
SW-19(W)	5130	0.80	0.80	Low	N
SW-21(W)	5130	0.41	0.41	Low	N
SW-22(W)	5130	0.07	0.07	Low	N
SW-23(W)	5130	0.07	0.07	Low	N
Subtotal Acres		7.82			
Subtotal Impacts			6.75		
Project Total		35.67	18.61		

*Low= UMAM Score between 0 and 0.49 Moderate= UMAM Score between 0.50 and 0.79 High= UMAM Score of 0.80 or better.
**Y= Jurisdictional/Mitigation Required N = Jurisdictional/No Mitigation Required N/A = No Impacts Anticipated

Impact acreages will be further refined as detailed construction plans are developed during the permitting phase of the project. Impacts to surface waters and wetlands during construction will also be classified as temporary or permanent, depending on the proposed level of disturbance. The type and level of mitigation for adverse impacts will be based on the final impact acreages, the nature of disturbance (temporary or permanent) and the overall quality of the system.

It is anticipated that improvements along the mainline of I-4 may result in adverse secondary and cumulative impacts in meeting the intent of sections 10.2.7 and 10.2.8 of Volume I of the Environmental Resource Permit Information Manual. It is anticipated that the proposed project will not result in unacceptable cumulative impacts to wetland functions in the St. Johns River (Canaveral Marshes to Wekiva), Lake Jesup, and Wekiva River basins provided that there is appropriate and available mitigation within the same basin as the adverse impacts, or that a cumulative impact assessment analysis determines the mitigation plan is sufficient. A secondary and cumulative impacts assessment for I-4 Segment 3 improvements will be refined during the permitting phase in determining the exact mitigation needed in offsetting adverse impacts.

Figure 5.6 – Surface Water & Wetland Impact Map (Sheet 1 of 15)

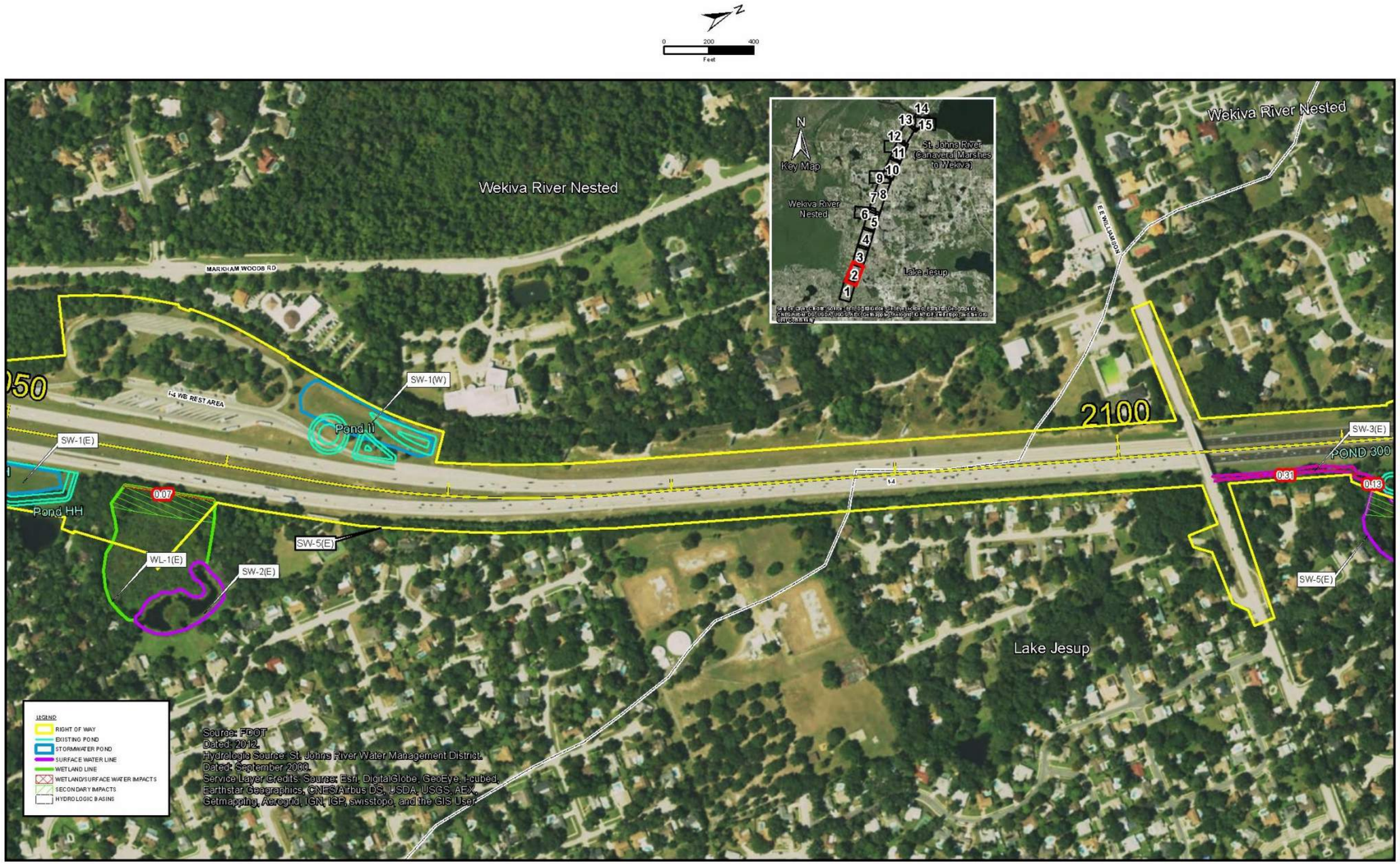


Figure 5.7 – Surface Water & Impact Wetland Map (Sheet 2 of 15)

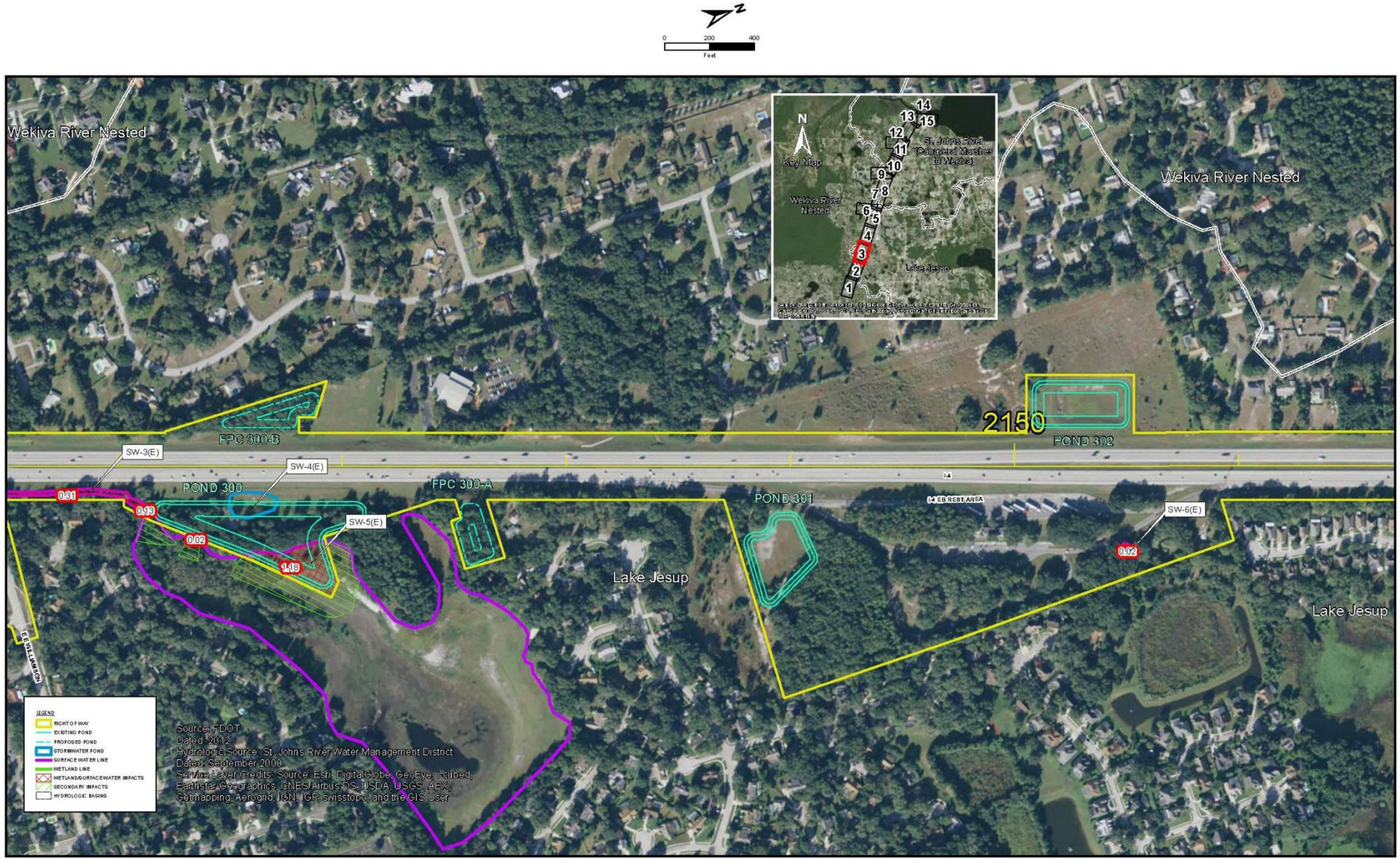


Figure 5.8 – Surface Water & Wetland Impact Map (Sheet 3 of 15)

Figure 5.9 – Surface Water & Wetland Impact Map (Sheet 4 of 15)

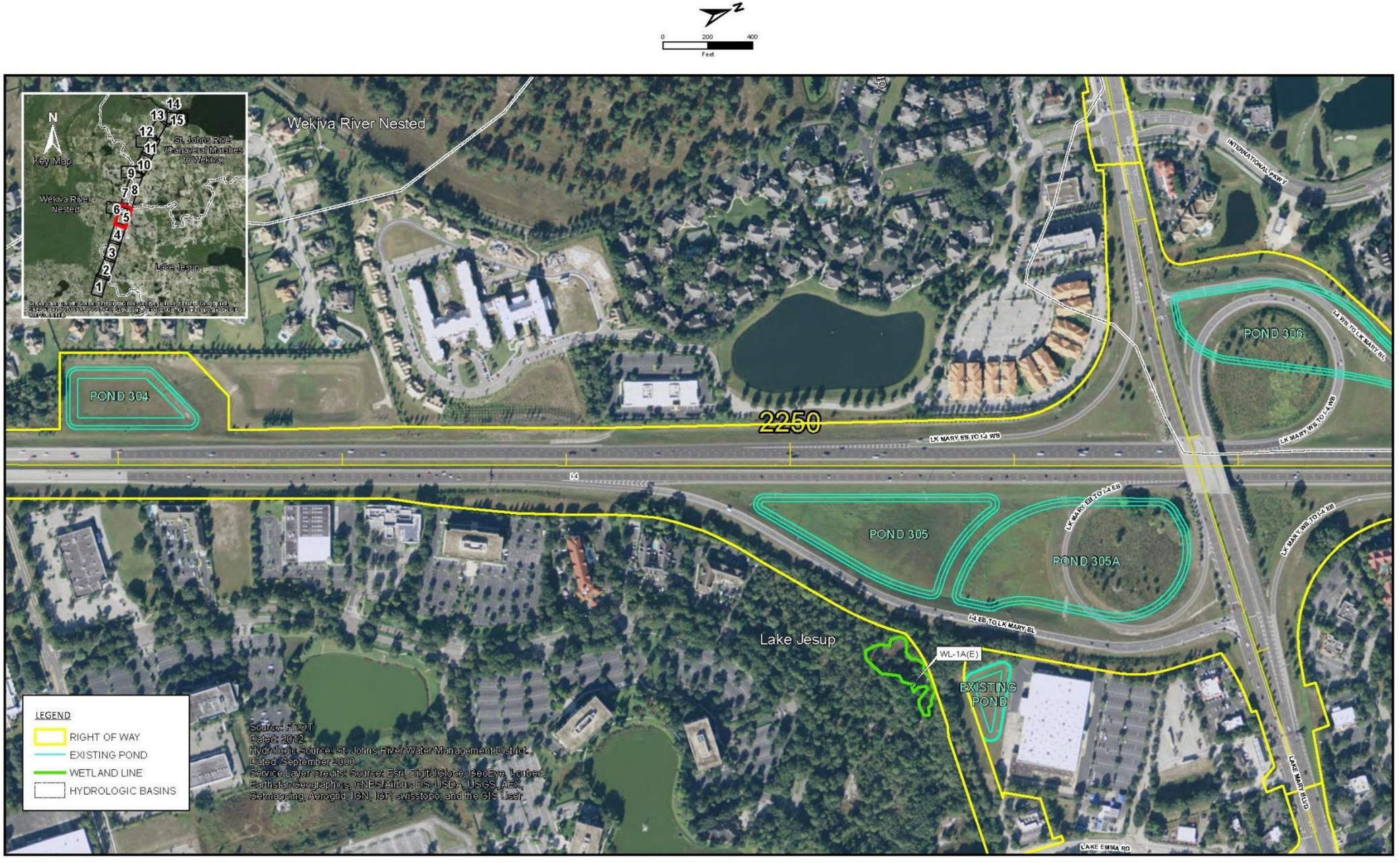


Figure 5.10 – Surface Water & Wetland Impact Map (Sheet 5 of 15)

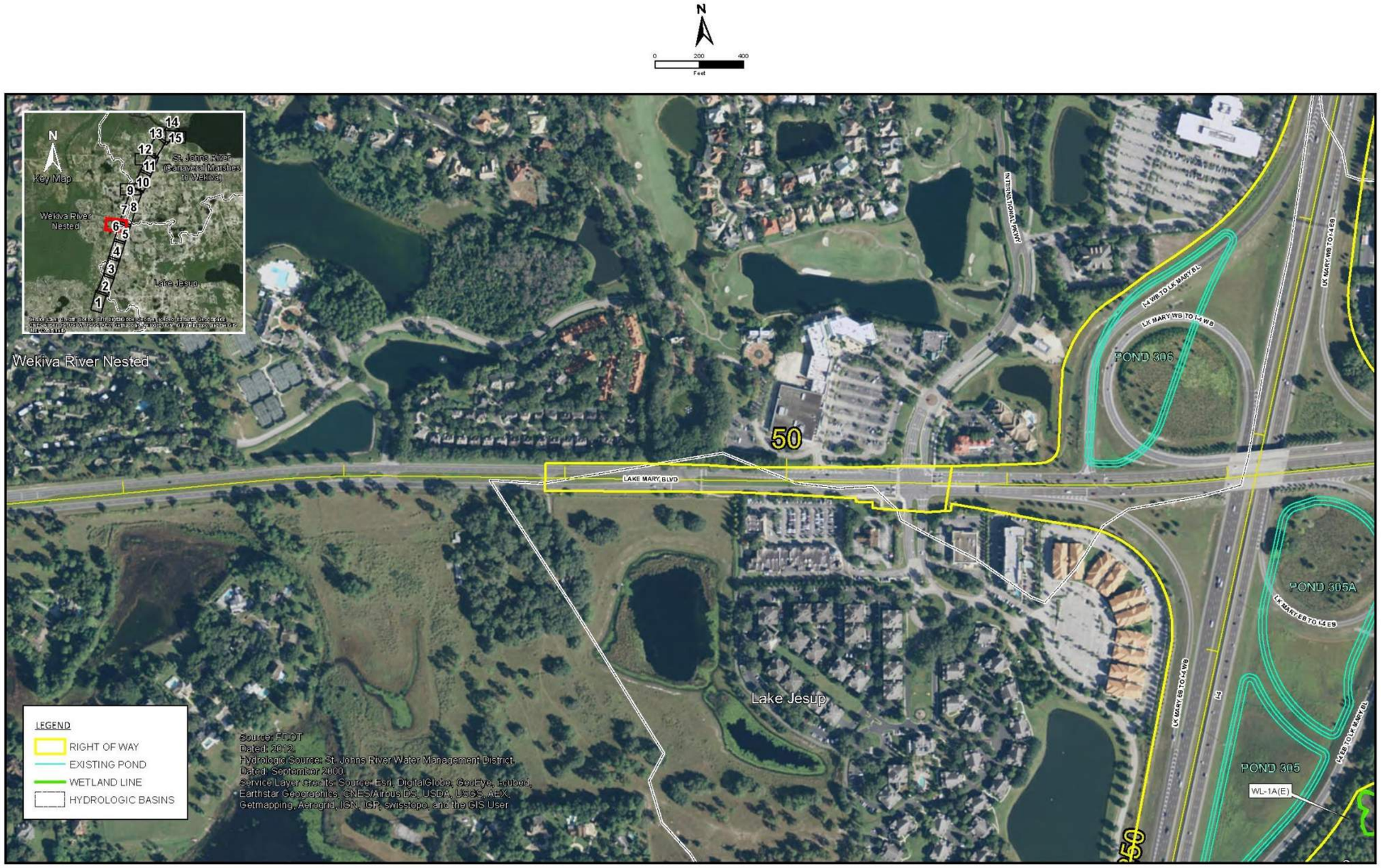


Figure 5.11 – Surface Water & Wetland Impact Map (Sheet 6 of 15)

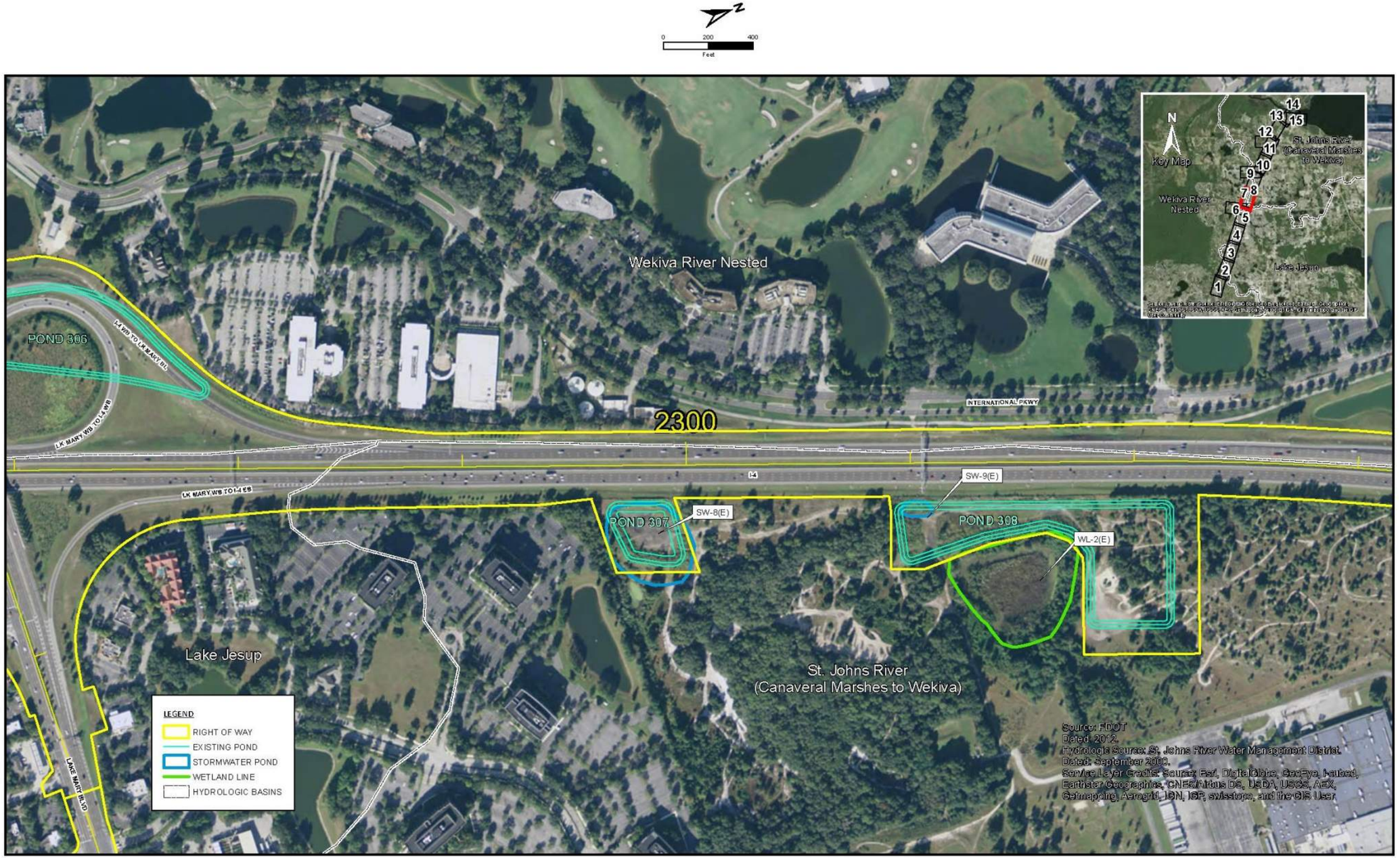


Figure 5.12 – Surface Water & Wetland Impact Map (Sheet 7 of 15)

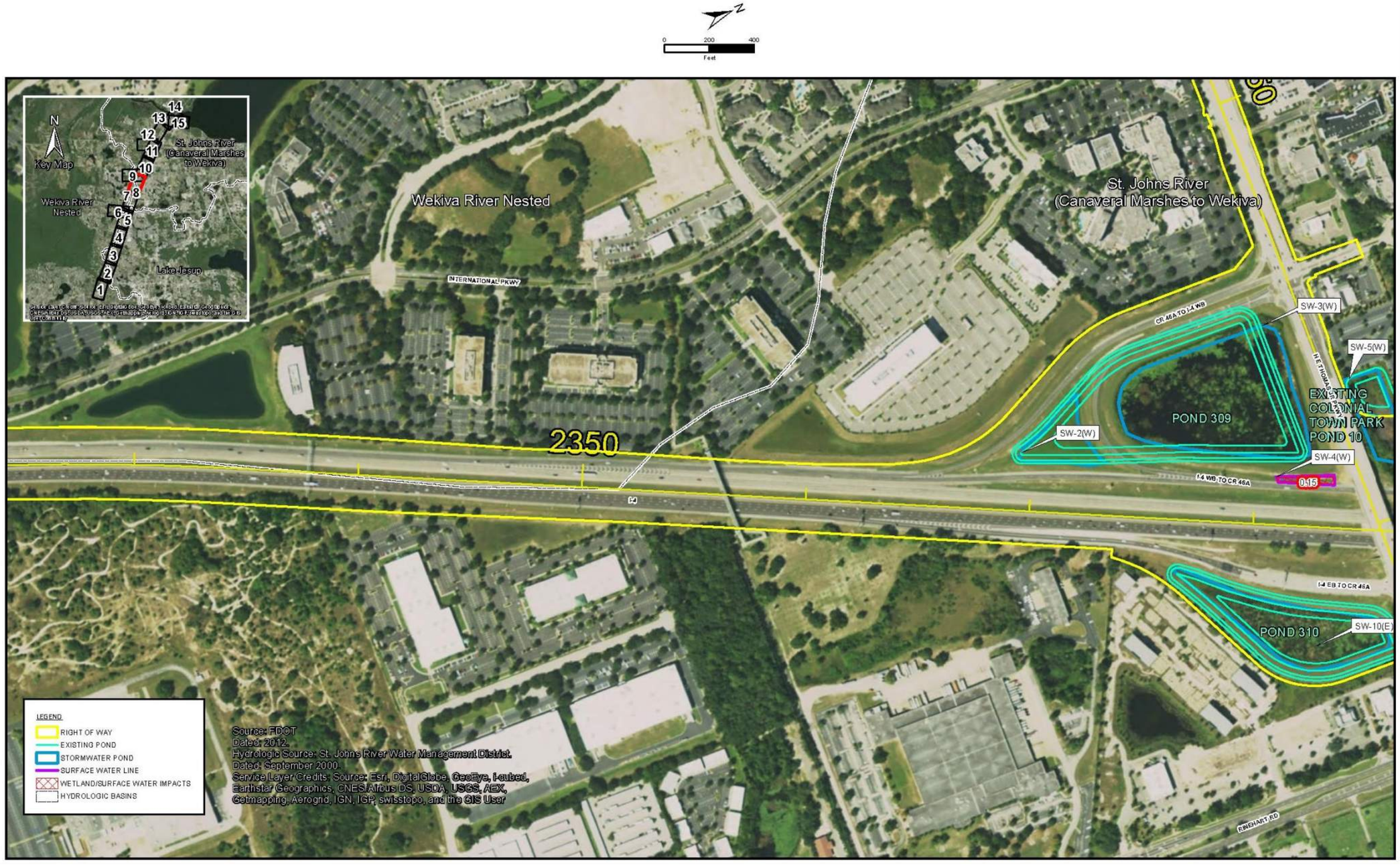


Figure 5.13 – Surface Water & Wetland Impact Map (Sheet 8 of 15)

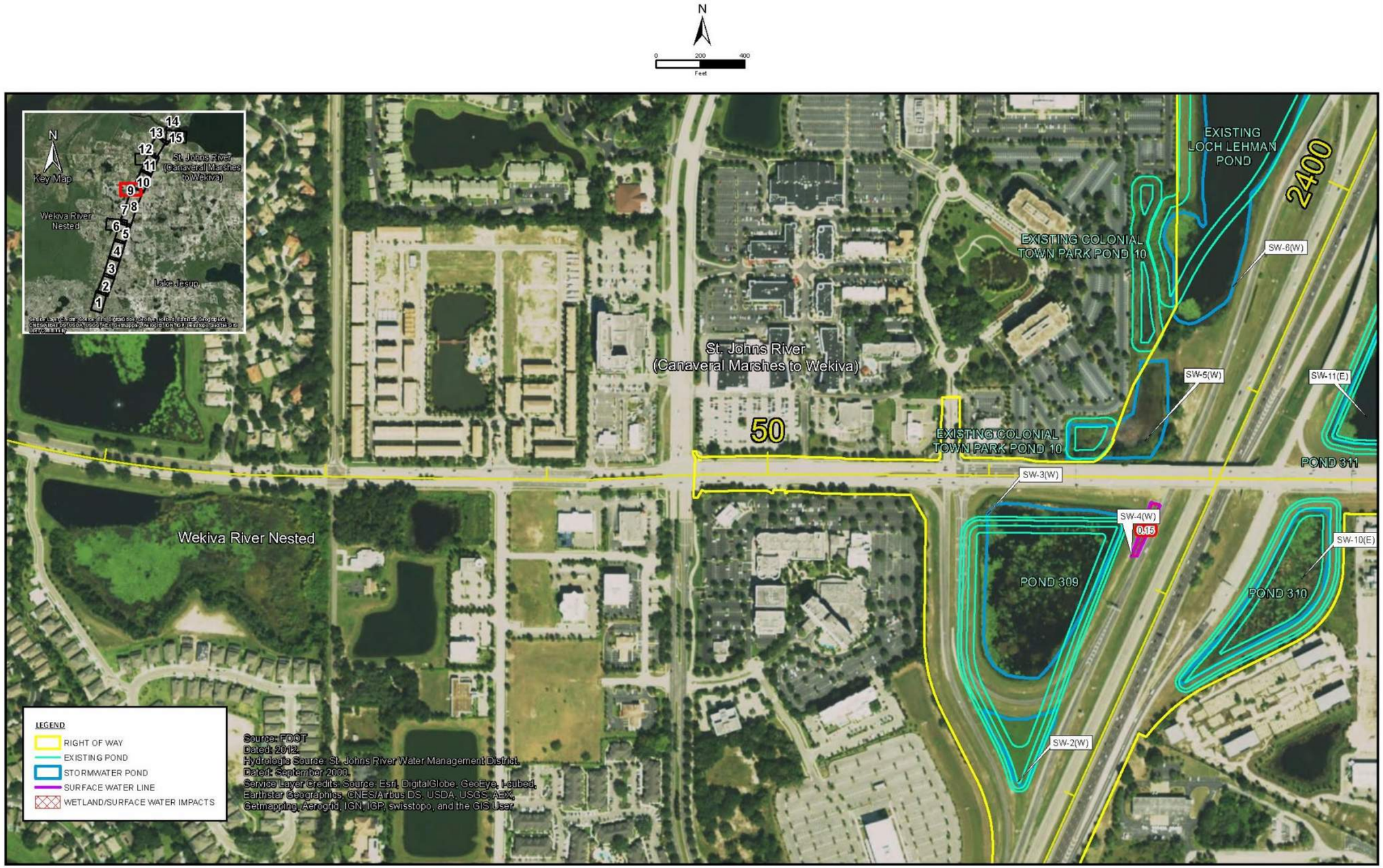


Figure 5.14 – Surface Water & Wetland Impact Map (Sheet 9 of 15)

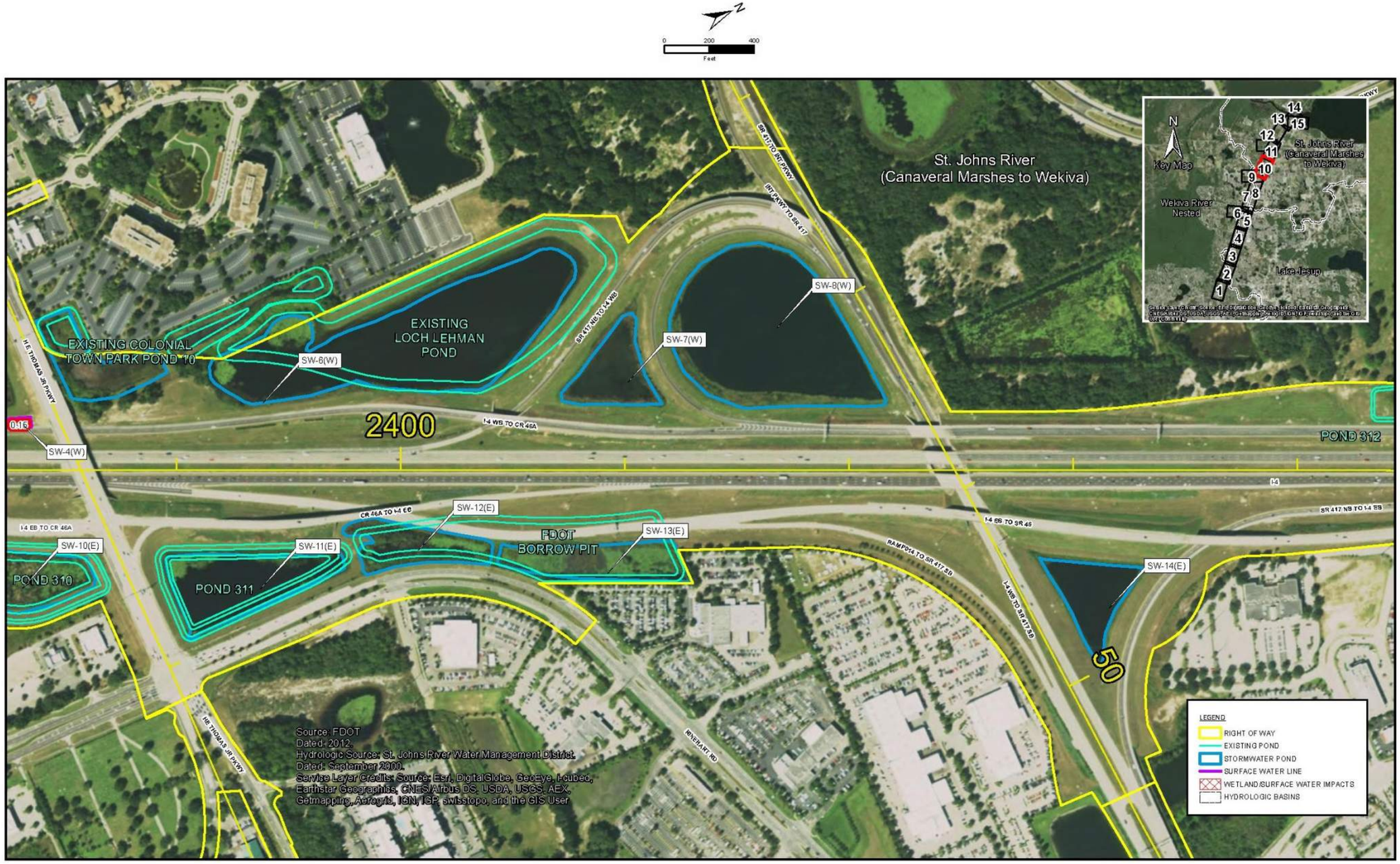


Figure 5.15 – Surface Water & Wetland Impact Map (Sheet 10 of 15)

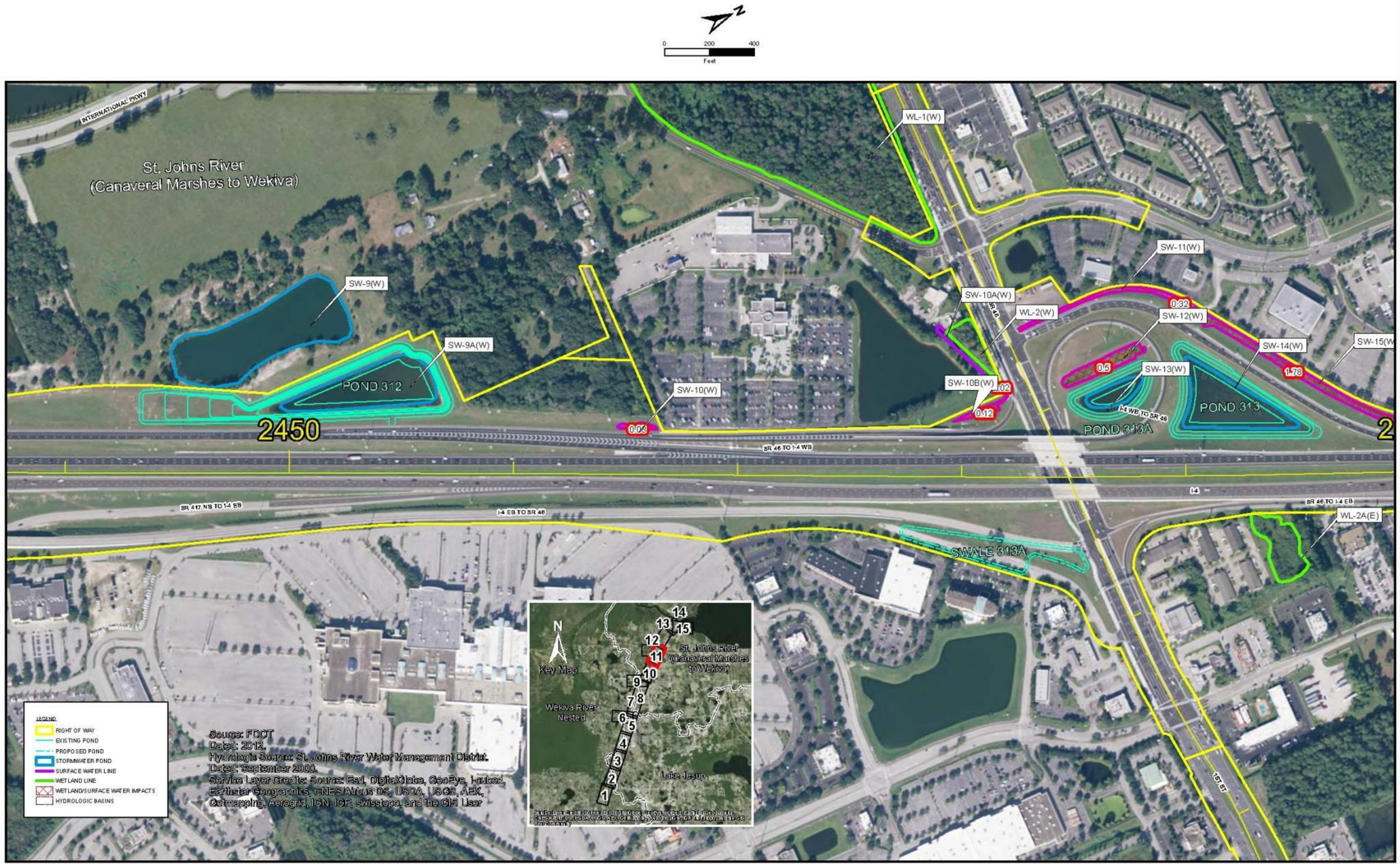


Figure 5.16 – Surface Water & Wetland Impact Map (Sheet 11 of 15)

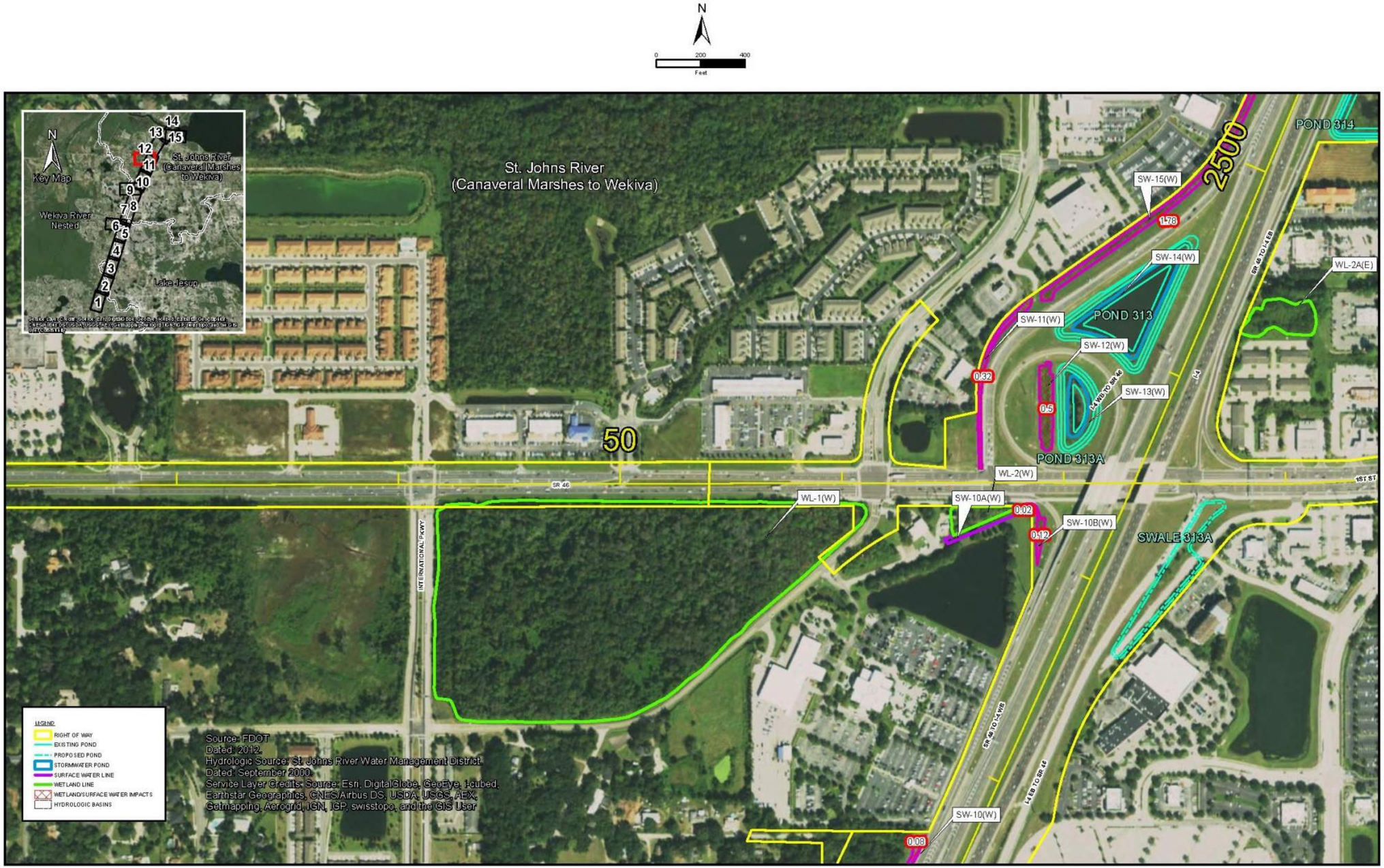


Figure 5.17 – Surface Water & Wetland Impact Map (Sheet 12 of 15)

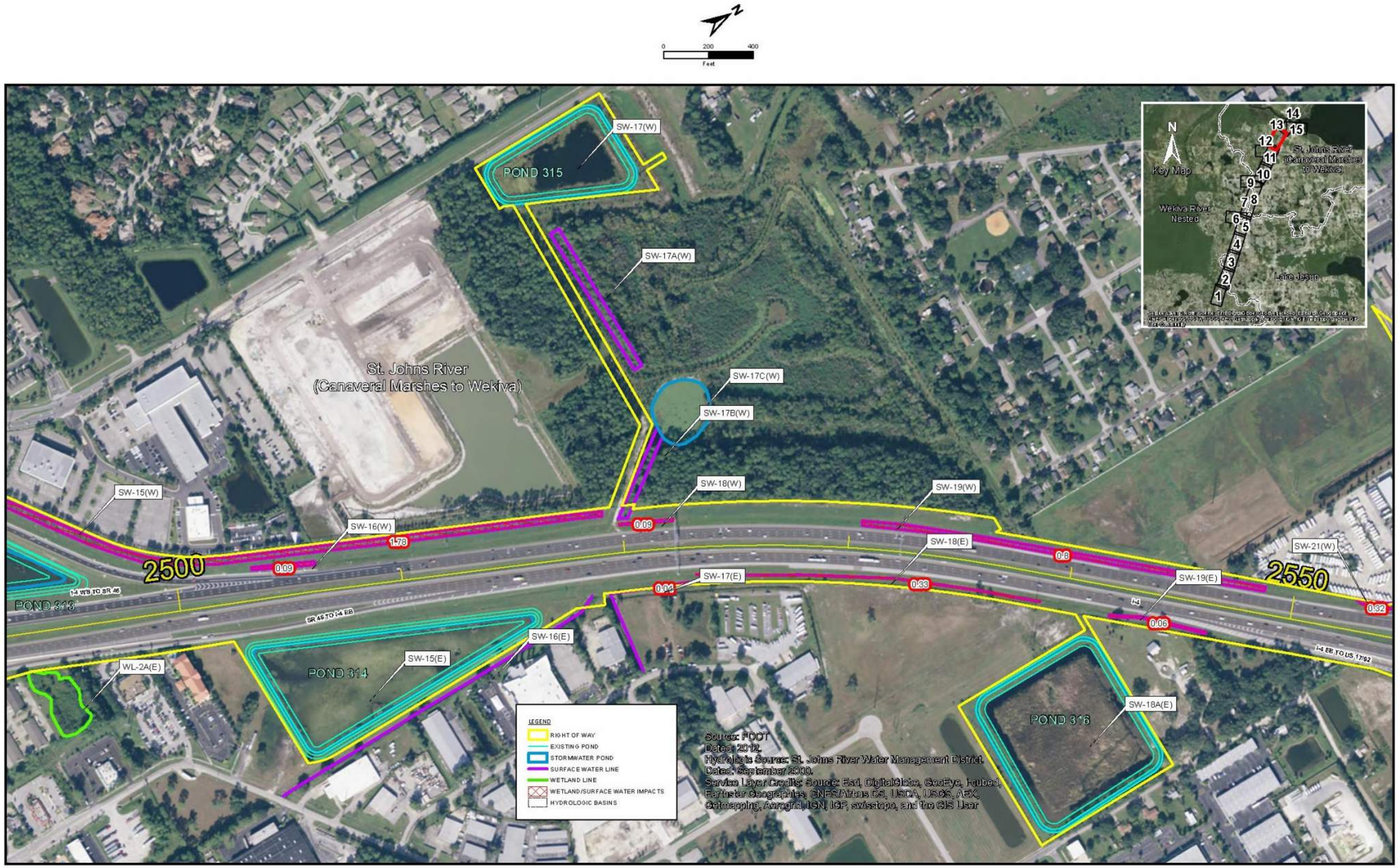


Figure 5.18 – Surface Water & Wetland Impact Map (Sheet 13 of 15)

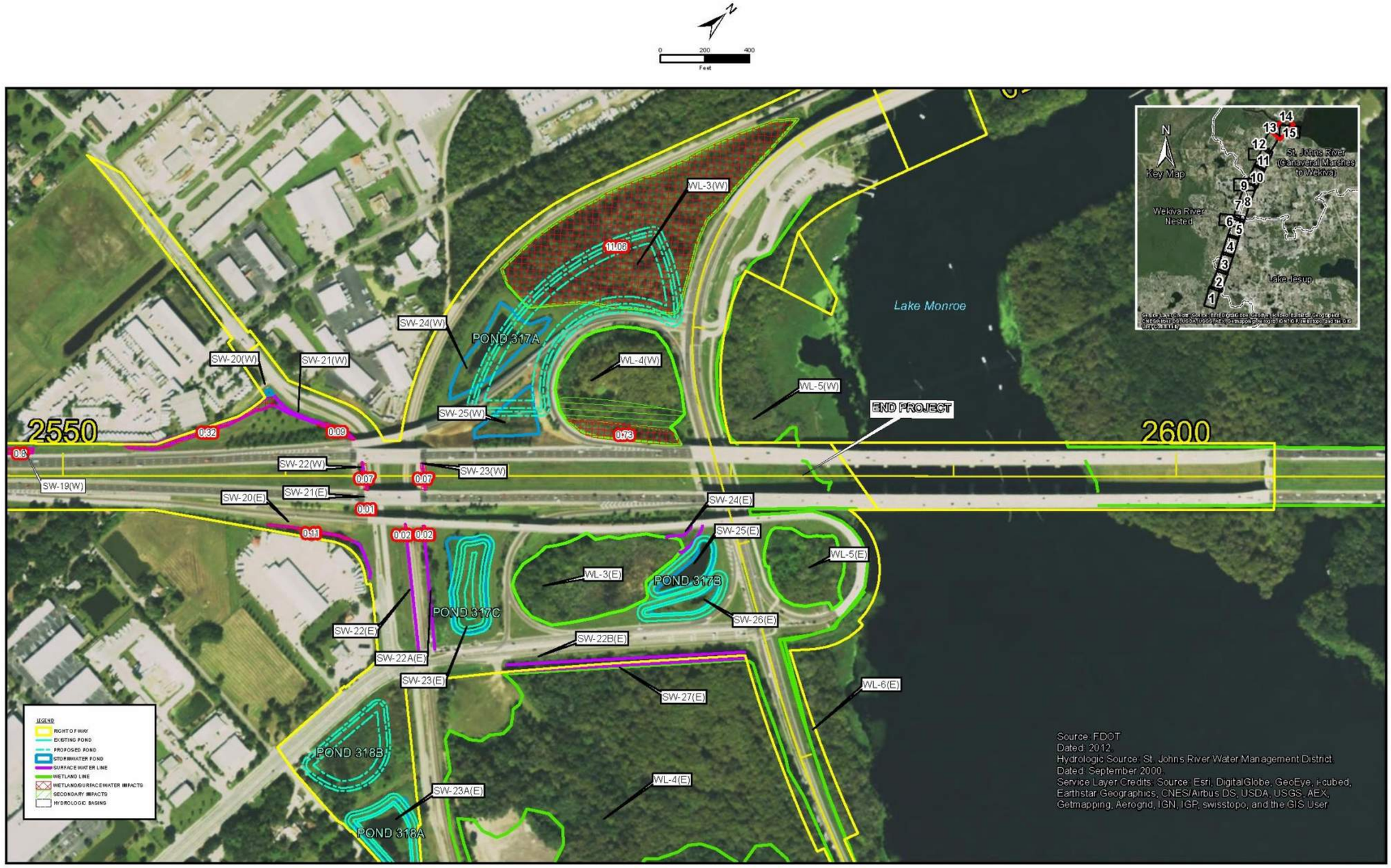


Figure 5.19 – Surface Water & Wetland Impact Map (Sheet 14 of 15)

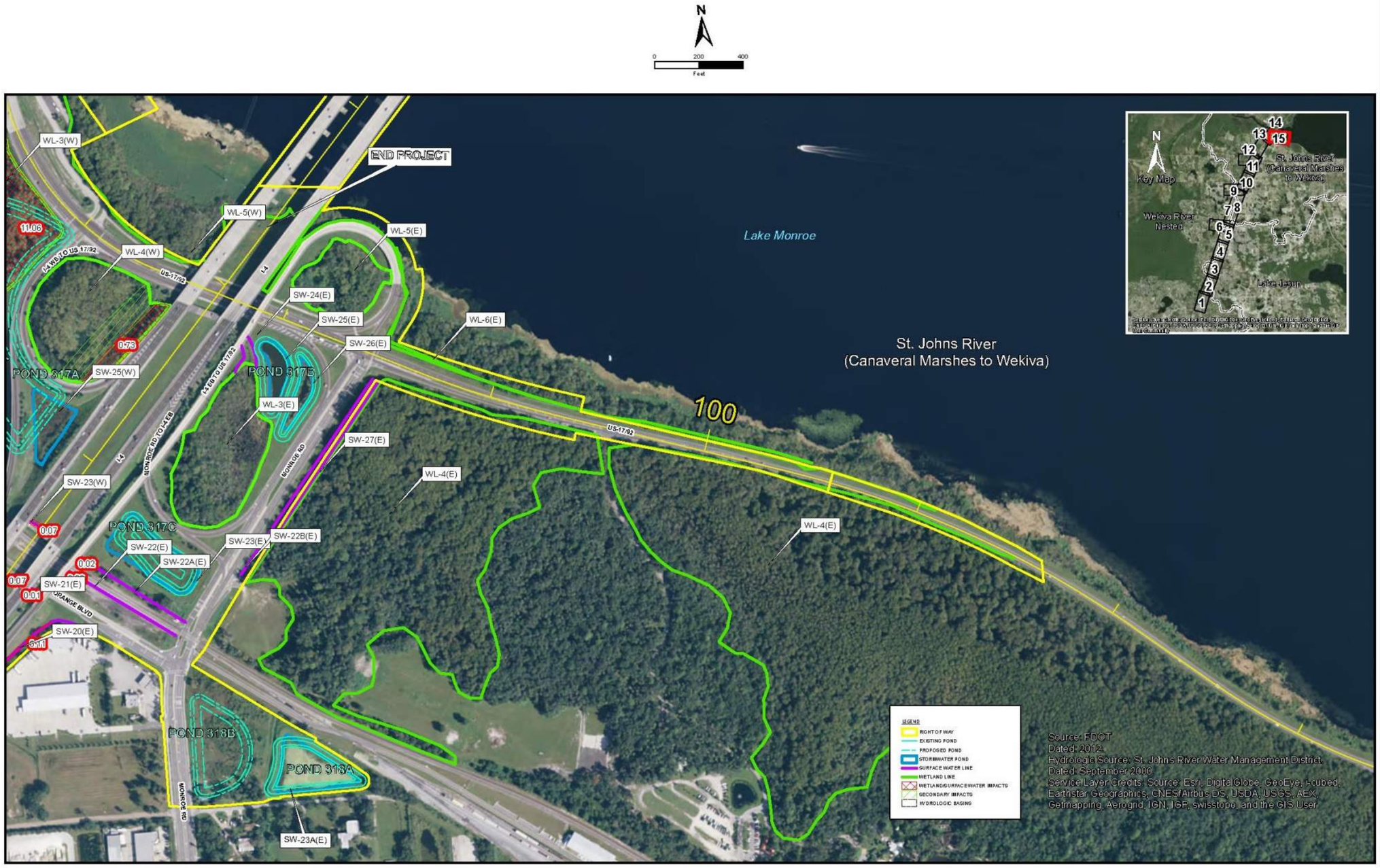


Figure 5.20 – Surface Water & Wetland Impact Map (Sheet 15 of 15)

Estimates suggest that 11.86 acres of low to moderate quality wetland impacts and 1.33 acres of low to moderate quality other surface water impacts associated with Segment 3 could require approximately 8.30 mitigation credits (based on average UMAM score of 0.7). Mitigation requirements are based on a compilation of wetland parameters including quality, type, function and size. Impacts to wetlands and other surface waters will be avoided and minimized to the maximum extent possible while maintaining safe and sound engineering and construction practices. Primarily, avoidance and minimization efforts are related at the proposed stormwater management pond locations.

A mitigation plan that adequately offsets adverse impacts was developed and will be implemented prior to construction activities. Adverse wetland impacts that may result from the construction of this project will be mitigated, satisfying the requirements of Part IV. Chapter 373, F.S. and 33 U.S.C.s. 1344. Compensatory mitigation for this project will be completed through the use of mitigation banks and/or other mitigation options that satisfy state and federal requirements. Detailed analysis and descriptions of existing wetlands and other surface waters are provided in the Wetland *Evaluation Report (WER) Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (July 2016)* prepared for this project.

5.7.3 Wildlife and Habitat

Potential environmental impacts include identifying impacts to wildlife and natural habitat within the proposed corridor. A supplemental report, *Endangered Species Biological Assessment Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (July 2016),* was prepared following guidelines presented in the PD&E Manual, Part 2, Chapter 27 (FDOT, 10/1/91) to identify wildlife species of known or potential occurrence and natural habitat types along the I-4 Segment 3 project corridor and to document potential project-related impacts. Particular attention was given to species that have been provided regulatory protection such as federal or state listed endangered, threatened or otherwise sensitive species, as well as suitable habitat for those species.

The study area for the project corridor included all potential pond sites, the existing right-of-way of I-4 and a buffer of 500 feet beyond the boundary of the current right-of-way. The methodology used to conduct the wildlife assessment included research of existing records and review of literature published by the Florida Natural Areas Inventory (FNAI), the Florida Committee on Rare and Endangered Plants and Animals (FCREPA), the Florida Fish and Wildlife Conservation Commission (FFWCC), the U.S. Fish and Wildlife Service (USFWS) and other relevant scientific publications. Based on these sources, 45 species of animals and 43 species of plants have been identified as potentially occurring in Seminole County, though suitable habitat may not be available for all of them along the project corridor. Of these, 7 are federally listed animals, 2 are federally listed plants, 23 are state listed animals and 43 are state listed plants.

During the field investigation, individuals or evidence of at least 46 mammal, bird and reptile species were identified along the project corridor. The following observed species appear on protected species lists developed by the USFWS, the FFWCC, FNAI or FCREPA: little blue heron, gopher tortoise, Florida sandhill crane, Florida black bear, osprey and American swallow-tailed kite.

Additional wildlife species observed during the field investigations included: red-winged blackbird, red-tailed hawk, armadillo, pied-billed grebe, mottled duck, red-shouldered hawk, opossum, raccoon, mallard duck, green heron, catbird, Florida cooter, anhinga, coyote, American coot, grackle, green anole, turkey vulture, common gallinule, gray squirrel, Cuban brown anole, six-lined racerunner, black-necked stilt, barred owl, Florida soft-shell turtle, black racer, loggerhead shrike , eastern cottontail, great egret, rock dove, river otter, great blue heron, American crow, brown water snake, cattle egret, black vulture and double-crested cormorant.

Observations of species protected under state or federal regulations were documented and are shown in Figure 5.21. Numerous other wildlife and plant species, many of which are protected, have the potential to occur in Seminole County. Although evidence of the occurrence of those species was not observed during field inspections of the existing right-of-way or proposed pond sites, suitable habitat exists in those areas. Details of the field surveys including species identification, soils and land use types, habitat locations and potential impacts to federal or state-listed species and other sensitive species are included in the *Endangered Species Biological Assessment Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (July 2016)* prepared for this project.

Scrub Jay and Gopher Tortoise Surveys

A scrub-jay survey was conducted during the original PD&E Study [Final Environmental Impact Statement (FEIS) for I-4 from SR 528 Beachline Expressway to SR 472, May 2000 with field work from 1996 – 1998] within this alignment corridor. Due to development that has occurred since the previous surveys were conducted, no potential habitat was identified in any of the previously identified locations, nor in any other area within this segment of the project. As such, no formal scrub-jay survey was conducted.

A gopher tortoise survey was conducted in April, May, and June of 2013 and April and October of 2015 in accordance with the FFWCC technical publication titled *Gopher Tortoise Permitting Guidelines, April 2008 (Rev. April 2013 & February 2015)*. Habitats that were suspected of supporting tortoise populations because of the nature of the vegetation, hydrology and soils, were selected for the survey, as well as cleared areas within the right-of-way and areas with suitable soil conditions along the right-of-way fence line. Surveys methods were developed to cover 100% of the suitable habitat within the right-of-way and 50% of suitable habitat within each proposed pond site. The location of each burrow is depicted in Figure 5.21.

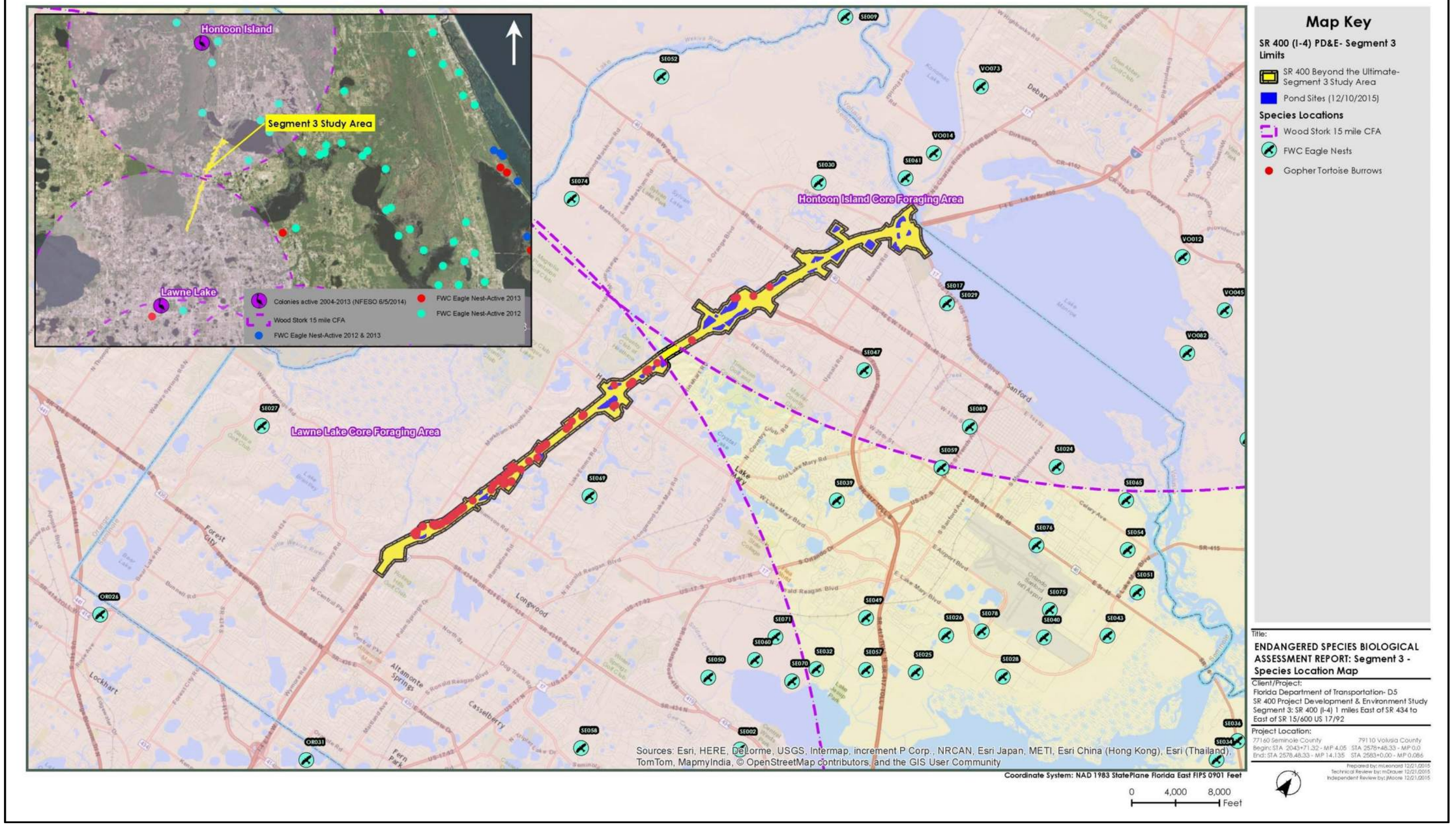


Figure 5.21 – Species Location Map

Additional wildlife and plant surveys were conducted in potential impact areas such as proposed pond site areas and the existing right-of-way that contain habitat for one or more listed species. The following sections describe those species with the potential to occur within the study limits and potentially be impacted by the project.

Federally Listed Species

Reptiles

Eastern Indigo Snake – The eastern indigo snake, listed by both the FFWCC and the USFWS as Threatened, is a habitat generalist, using a variety of habitats from mangrove swamps to xeric uplands. These snakes are cold-sensitive and require gopher tortoise burrows, other animal holes or stumps for protection during winter months. These snakes require large tracts of natural, undisturbed habitat, and prefer to forage in and around wetlands for their preferred prey – other snakes. Numerous burrows were located within the project area and the potential for indigo snakes is moderate, though no indigo snakes were observed during field studies and the closest documented sighting is located approximately 6 miles to the northwest (2008 sighting near Blue Springs State Park). If an eastern indigo snake is observed during construction, the contractor will be required to cease any operation that might cause harm to the snake. If the eastern indigo snake does not move away from the construction area, both the FFWCC and USFWS will be contacted for further guidance. An effects determination was made by utilizing the USFWS Programmatic Key for the Eastern Indigo Snake (January 2010, updated August 2013). In accordance with the key, the project will implement the Standard Protection Measures for the Eastern Indigo Snake (USFWS, 2013), will impact less than 25 acres of xeric habitat (scrub, sandhill, or scrubby flatwoods) but has more than 25 active and inactive gopher tortoise burrows. Therefore, the project would receive a may affect determination under the key. However, the FDOT will make the commitment to have permits conditioned such that all active and inactive gopher tortoise burrows will be evacuated prior to site manipulation in the vicinity of the burrow. In addition, the project occurs in a highly urbanized area with limited contiguous habitat to support this animal. USFWS has advised that for these reasons, they would support a finding of may affect, but not likely to adversely affect for the eastern indigo snake.

Avian

Florida Scrub-Jay – The Florida scrub-jay, listed as Threatened by both the FFWCC and USFWS, is an endemic species found in Florida scrub habitats. This gregarious jay is a habitat specialist and typically lives in scrub and scrubby flatwoods habitats. No suitable scrub habitat is located within the project corridor. During the initial PD&E (field work in 1996-1998), several stations were sampled for the presence of scrub-jays at the Lake Mary Boulevard interchange: 4 stations along the I-4 westbound right-of-way south of Lake Mary Boulevard, and 2 stations along the off-ramp from I-4 eastbound to Lake Mary Boulevard. Field investigations conducted during this study indicated that these areas no longer contained any suitable habitat. The areas along I-4 westbound have been developed into multi-family residential units with no natural vegetation remaining, and the area

along the eastbound off-ramp has been developed into a Gander Mountain store, with planted pines as a buffer from the road. Regardless, cursory surveys for scrub-jays were conducted in September of 2013 to evaluate the potential for presence of this species. No scrub-jays were observed within any proposed right-of-way or pond site areas of Segment 3. The proposed widening and stormwater ponds are not expected to have any direct impact on scrub-jays or scrub-jay habitat. Therefore, this project will have no effect on this species.

Red-Cockaded Woodpecker – This species is listed as Endangered by the USFWS and Threatened by the FFWCC. The colonial red-cockaded woodpecker (RCW) is a habitat specialist, requiring stands of over-mature pine that have contracted the red-heart disease. RCWs require diseased trees for cavity building, which they use for nest and roost cavities. Preferred pine stands need to have a fairly open canopy, with a sparse subcanopy to allow easy flight. RCWs must also have ample foraging habitat consisting of younger pines surrounding the cavity trees. No suitable nesting habitat was observed in the impact area within the project limits. The project occurs within the designated USFWS consultation area, though is not documented as having any nesting birds recorded within the project vicinity. The previous PD&E Study (May 2000) indicated no suitable habitat was observed nor any documented RCW sightings occurred within the proposed right-of-way or pond sites. Additionally, no suitable habitat for nesting or foraging was identified within the vicinity of the project during field surveys. Therefore, this project will have no effect on the red-cockaded woodpecker.

Snail Kite – The snail kite is listed as Endangered by both the USFWS and the FFWCC. This non-migratory, medium-sized raptor utilizes large open freshwater marsh habitats and lakes with shallow water. Nests are usually located in a low tree or shrub at the water's edge. The main staple of their diet is the apple snail, lending to their name. The project does occur within the USFWS consultation area for the snail kite though no observations have been documented within or near the project corridor. No adequate nesting or foraging habitat was located adjacent to the project area, within the proposed right-of-way or pond site areas. Therefore, this project will have no effect the snail kite.

Wood Stork – This species, now listed as Threatened by both the USFWS and the FFWCC, is the only true species of stork nesting in the United States. This reclassification does not change any conservation or protection measures for the wood stork under the Endangered Species Act (ESA), rather it recognizes the recovery and the positive impact that conservation efforts have had on breeding populations of storks. Feeding areas for wood storks include marshes, pools, or ditches in which fish congregate. This species typically nests in mixed woodlands comprised of such overstory species as cypress, gum, and southern willow; pond apple and mangrove swamps may also be utilized for nesting. Based upon the updated colony map prepared by the USFWS in June 2014, the project is located within the 15-mile Core Foraging Area (CFA) of two wood stork colonies, as previously shown in Figure 5.21**.** Foraging areas within the study area are limited to drainage features, small

water bodies, and stormwater ponds, though several marshes occur adjacent to the project corridor. Utilizing the *Army Corps of Engineers (ACOE) and USFWS Effect Determination Key for the Wood Stork in Central and North Peninsular Florida (2008)*, the project is not within 2,500 feet of an active colony site, will likely impact Suitable Foraging Habitat (SFH) of greater than 0.5 acres and is located within the CFA of two wood stork colonies (Lawne Lake and Hontoon Island). The estimated direct impacts to wetlands include approximately 11.86 acres of forested systems and 6.75 acres of other surface waters.

Additionally, FDOT commits to provide SFH compensation within the Service Area of a Service-approved wetland mitigation bank(s) within the CFA, and the project is not contrary to the Service's *Habitat Management Guidelines for the Wood Stork in the Southeast Region* and is in accordance with the Clean Water Act section 404(b)(1) guidelines. There are five currently permitted mitigation banks that include the project corridor within the bank service area that have credits available to offset impacts to SFH. FDOT will coordinate with the permitting agencies during the permitting phase of the project on compensatory mitigation and minimization of impacts to SFH. These actions should result in no net loss of foraging habitat; therefore, the project may affect but is not likely to adversely affect the wood stork.

Southern Bald Eagle – The southern bald eagle was delisted from both the US Endangered Species Act and FFWCC imperiled list, though it is still protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. The USFWS issued the National Bald Eagle Management Guidelines in May 2007 while Florida adopted a Bald Eagle Management Plan (BEMP) in April 2008, written closely to follow the federal guidelines. The BEMP provides guidelines and recommendations to help people avoid violating state and federal eagle laws. The BEMP also outlines strategies to maintain the Florida population of bald eagles at or above current levels. The BEMP goal is to, "maintain a stable or increasing population of eagles in Florida in perpetuity." Bald eagles almost always nest in the tops of living or dead tall trees along or very near lakes and rivers; these water bodies provide fish, typically their preferred food. Bald eagles generally avoid areas with extensive human activity, so management guidelines must be considered before any construction can be initiated within 660 feet of an active southern bald eagle nest. Three bald eagle nests are recorded to be in the general vicinity (within 1 mile) of the project corridor. However, none of these nests are located within 660 feet of the proposed right-of-way or any of the proposed pond sites. For that reason, the project will have no effect on the southern bald eagle.

Mammals

Florida Manatee - This species is listed as Threatened by both the USFWS and the FFWCC and has designated critical habitat along the St. Johns River and within the western and northern shores of Lake Monroe. Florida manatees are found in freshwater, brackish, and marine environments. Typical coastal and inland habitats include coastal tidal rivers and streams, mangrove swamps, salt

marshes, freshwater springs, and vegetated bottoms. As herbivores, manatees feed on the wide range of aquatic vegetation that these habitats provide. Shallow seagrass beds, with ready access to deep channels, are generally preferred feeding areas in coastal and riverine habitats (Smith 1993). Manatees use springs and freshwater runoff sites for drinking water; secluded canals, creeks, embayments, and lagoons for resting, cavorting, mating, calving and nurturing their young; and open waterways and channels as travel corridors. Manatees occupy different habitats during various times of the year, with a focus on warm water sites during winter. Manatees have also adapted to changing ecosystems in Florida. Industrial warm water discharges and deep-dredged areas are used as wintering sites, stormwater/freshwater discharges provide manatees with drinking water, and the imported exotic plant, *Hydrilla* spp. has become an important food source at some wintering sites. This segment of the project does not propose any work within the St. Johns River, Lake Monroe, or any areas that are connected to these water bodies where manatees could gain access, and therefore, according the Corps of Engineers, Jacksonville District, and the State of Florida Effect Determination Key for the Manatee in Florida (April 2013) will have no effect on the Florida manatee.

Federally Listed Plant Species

A review of agency databases and a field review of the project corridor indicate that there have been few reported occurrences of federally listed plant species within the proposed project area. USFWS currently shows that one federally listed species has been demonstrated to have the potential to occur within Seminole County, the pygmy fringe tree though other sources have listed the potential for the Okeechobee gourd to occur. Information from the previous PD&E Study (May 2000) indicated that no listed plants were observed in this segment. A follow up protected plant field survey covering the area of proposed right-of-way widening and pond sites was conducted in May 2013 and again in April 2015 by project botanists and other biologists. No federally listed plant species were identified within the proposed widening impact area or pond sites during the field investigations; though a potential sighting of the Okeechobee gourd was made in the floodplain between I-4 and the Wayside Park boat ramp, outside of the proposed project area near the St. Johns River. Confirmation was not definitively made as the observation was not made during flowering season. There is no appropriate habitat for any federally listed plant species within the project right-of-way or proposed ponds sites. No direct or indirect impacts to federally listed plant species are likely to occur and the I-4 Segment 3 project should have no effect on any of the federally listed plant species.

State Listed Species

Mammals

Sherman's Fox Squirrel – The Sherman's fox squirrel, listed by the FFWCC as a Species of Special Concern, is the largest of the three fox squirrel subspecies that occur in Florida. They have large ranges that can span over 80 acres. Optimum habitat for this subspecies is predominantly longleaf pine-turkey oak sandhills, although they are also reported to occur in mesic forested areas. Some

potential habitat is present within the project area, although Sherman's fox squirrels were not observed during the site investigations for this project. The amount of potential habitat for this species impacted by the project will be minimal. Therefore, the proposed project is not likely to adversely affect the Sherman's fox squirrel.

Florida Black Bear – The Florida black bear is a very wide-ranging species formerly listed as Threatened by the FFWCC. Preferred habitat of the black bear includes dense forest, both upland and wetland, but the bear is often encountered in other areas during its seasonal movements. The bear was removed from the list in August 2012 after the approval of the Florida Black Bear Management Plan. The plan was implemented to set a strategy in place to address challenges in bear management, to manage for a sustainable bear population state-wide, and reduce human-bear conflicts. Going forward, FFWCC will continue to engage with landowners and regulating agencies to guide future land use to be compatible with the objectives of the Bear Management Plan. The plan divides the state into seven Bear Management Units (BMUs) which support the seven sub-populations of bear across the state. The project occurs within the Central BMU, which includes Alachua, Bradford, Brevard, Clay, Flagler, Lake, Marion, Orange, Putnam, Seminole, St. Johns, Sumter and Volusia counties and contains the Ocala/St. Johns subpopulation, named after the Ocala National Forest and St. Johns River watershed. The Central BMU is the only BMU with a subpopulation estimated at 1,000 bears (the highest in the state), which is one of the criteria that determine a species risk for extinction. Evidence of bear passage was observed during field surveys (black fur on fences, tracks at Pond Site 300-B). Numerous calls to FFWCC come in every year related to bear sightings in Longwood, especially to the west of the project corridor that is adjacent to the Wekiva River Management Area, and at least 22 bear road kills on this segment of I-4 have been recorded since 1989. As no further fragmentation of bear habitat is proposed, the project is not likely to adversely affect the Florida black bear.

Reptiles

Gopher Tortoise – The occurrence of this species, listed as Threatened by the FFWCC (and designated as a Candidate species for listing by the USFWS), is a key factor in the determination of habitat suitability for certain other listed species because of the large number of other animals that use tortoise burrows for one or more of their life requisites. While it is common to find gopher tortoise burrows in most types of upland communities, the preferred habitats include xeric uplands and disturbed, ruderal areas. Approximately 140 burrows were observed along the corridor within the right-of-way and proposed potential pond sites. It is likely that impacts to these areas cannot be avoided; therefore, relocation of the tortoises and their commensals will be necessary. A conservation permit should be applied for from the FFWCC, and the relocation of any burrows to be impacted should be carried out within 30 days of construction. As FDOT will make the commitment to relocate all potentially impacted gopher tortoise burrows, the project is not likely to adversely affect the gopher tortoise.

Florida Pine Snake – This snake, listed as Threatened by the FFWCC, is another tortoise burrow commensal organism, utilizing both tortoise burrows and the tunnels of pocket gophers for feeding and shelter. Preferred habitat of the pine snake is xeric uplands, and to a lesser extent, flatwoods and other mesic uplands. Some habitat is available within the project, especially where gopher tortoise burrows and pocket gopher mounds were observed. Both the pocket gophers and the pine snakes live nearly their whole lives underground and are very hard to observe directly. Earth work in suitable habitat may impact subterranean pine snakes. With relocation of commensal organisms from gopher tortoise burrows if impacted, the project is not likely to adversely affect the Florida pine snake.

Short-tailed snake – The short-tailed snake, listed as Threatened by the FFWCC, belongs to a monotypic genus that is endemic to Florida. Rarely seen due to its earth-burrowing tendencies, it is restricted to xeric uplands, primarily longleaf pine-turkey oak sandhills and sand pine scrub, for its habitat requirements. Herpetologist Paul Moler (FFWCC) reports short-tailed snakes occur in a wider range of ecosystems than indicated in the scant literature on the species, and may be found where prey (small snakes) and loose soils occur in North-Central Florida. Suitable habitat (sand pine scrub) is not present on this project, nor were any of these snakes observed during any field surveys. Due to the lack of xeric habitat, it is anticipated that this project will have no effect on the short-tailed snake.

Avian

Florida Sandhill Crane – This non-migratory subspecies, listed as Threatened by the FFWCC, can often be seen foraging in improved pastures, open fields and along the roadside. During the winter months, it is distinguished from its migratory northern cousins by its smaller size and more delicate stature. Sandhill cranes nest in freshwater marshes and feed in adjacent fields and pastures. Some adequate nesting habitat is found within the freshwater marshes located adjacent to the project corridor, and foraging habitat was found within the project limits. Sandhill cranes were observed flying over the project area several times during multiple surveying events, and were observed foraging at Pond Site 302. No evidence of nests was observed within the project area. The proposed project is not likely to adversely affect the sandhill crane.

Southeastern American Kestrel – This resident subspecies of the kestrel, listed as Threatened by the FFWCC, can be distinguished from its cousin, *F. s. sparverius*, a winter migrant, by its smaller size. The Southeastern American kestrel requires three components for optimal habitat: large, open fields for foraging, snags for nesting and snags, fence lines or telephone poles as perching sites from which to hunt. No areas that meet these three standards have been identified within the project corridor. No kestrels were observed along the project corridor, nor within any pond sites or along the portion of the project to be widened. Therefore, this project is not likely to adversely affect this species.

Least tern – Historically, least terns nested on sandy beaches and lakeshores, but presently, they nest almost exclusively on man-made substrates such as spoil islands and gravel rooftops. This small tern, listed as Threatened by the FFWCC, is still fairly common in localized areas. However, none have been reported in the project study area. Prime nesting areas are minimal, so this species has only a low possibility of occurring along the project corridor, therefore the proposed project will have no effect on the least tern.

Wading Birds – Wading bird rookeries were not observed and are not known to occur within or adjacent to the study area. Potential foraging habitat for little blue heron, roseate spoonbill and tri-colored heron all classified as Threatened by the FFWCC, occurs within the limits of the study area. Little blue heron and white ibis were observed during field surveys. No wetlands providing critical foraging or nesting habitat for these avian species will be impacted by the proposed project and indirect impacts to wading birds are not anticipated. Therefore, the proposed project is not likely to adversely affect the wading bird population in the region.

State Listed Plant Species

A review of available information revealed that 43 state listed plant species have the potential to occur within the habitats located within the project area in Seminole County. No state listed plant species were observed during the field assessment of project area or during the previous PD&E Study (May 2000). No state-listed plant species were identified within the proposed widening impact area or pond sites during the field investigations, and no appropriate habitat for state listed plants was observed within the project right-of-way or proposed ponds sites. Therefore, the proposed project is not likely to adversely affect state listed plant species.

Other Sensitive Species

Migratory Birds

The Migratory Bird Conservation Commission was established on February 18, 1929 by the passage of the Migratory Bird Conservation Act. It was created and authorized to consider and approve any areas of land and/or water recommended by the Secretary of the Interior for purchase or rental by the USFWS under the Act. In 1989, the Commission acquired the additional responsibility to approve project funding under the North American Wetland Conservation Act. This Act provides for Federal funding to encourage partnerships to protect, enhance, restore, and manage wetland and other habitats for migratory birds and other fish and wildlife to carry out the North American Waterfowl Management Plan. Waterfowl are the most prominent and economically important group of migratory birds of the North American Continent. National Migratory Bird Areas in Florida include Arthur R. Marshall, Caloosahatchee, Cedar Key, Chassahowitzka, Egmont Key, Great White Heron, Hobe Sound, J.N. Ding Darling, Lake Woodruff, Matlacha Pass, Merritt Island, Okeefenokee, Pine Island, Pinellas, St. Marks, and St. Vincent. None of these National Migratory Bird Areas are located within a one-mile radius of the project corridor. If the project results in direct impacts to wetland

habitat or surface water features (i.e. roadside ditches) that could be utilized by migratory birds, there may be an impact on these species. Impacts to wetlands will be mitigated for at approved mitigation sites within the affected watershed and will offset any potential impacts to migratory birds from this project.

The proposed project will avoid and minimize impacts to wildlife and their habitat to the greatest practicable extent. Unavoidable impacts will be mitigated through a combination of actions designed to enhance local and regional ecological and hydrologic connectivity where possible. Those actions constitute the current recommendations developed and refined by staff and consulting environmental scientists representing various federal and state agencies and nongovernmental organizations, using the most current record and project specific scientific information available. The FDOT routinely reevaluates PD&E Study results and commitments prior to and during the project design phase, and again prior to right-of-way acquisition and construction. Therefore, the wildlife and recommendations proposed herein will be subject to reevaluation in the future. Appropriate modifications to the recommended actions may be made in the event that the latest science, design constraints or other relevant changes in circumstance so dictate.

5.7.4 Archaeological and Historical Resources

A Cultural Resource Assessment Survey (CRAS) in support of proposed improvements to I-4 from east of SR 434 to east of US 17-92 in Seminole County, Florida was conducted to comply with Section 106 of the National Historic Preservation Act (as amended) and its implementing regulation 36 CFR Part 800 (Protection of Historic Properties). All work was performed in accordance with Part 2, Chapter 12, of the Florida Department of Transportation (FDOT) PD&E Manual (revised January 1999) and the Cultural Resource Management Handbook (revised November 2004) and is consistent with the Florida Division of Historical Resources (FDHR) recommendations for such projects as stipulated in the FDHR's *Cultural Resource Management Standards & Operations Manual, Module Three: Guidelines for Use by Historic Preservation Professionals*. The CRAS study also complies with Chapter 267 of the Florida Statutes and Rule Chapter 1A-46, Florida Administrative Code.

The CRAS serves as an addendum to the previous report titled *Cultural Resource Assessment Survey, Interstate 4 Section 2 Project Development and Environment Study from Bee Line Expressway (S.R. 528) to S.R. 472 Interchange, Orange, Seminole, and Volusia Counties, Florida* [Florida Master Site File (FMSF) Survey No. 5707] (ACI and Janus Research 1999). The regional prehistory and history of the current project area are consistent with those described in the previous report and were not repeated in the current CRAS. The purpose of this survey is to update the previous I-4 corridor studies, which involves locating, identifying, and bounding archaeological resources within proposed pond locations and updating the inventory of historic structures and potential districts within the project Area of Potential Effect (APE). Previously undocumented resources identified in the APE were assessed for their potential for listing in the National Register of Historic Places (NRHP). The APE is

defined as the area within which the roadway improvements and subsequent maintenance may have physical, visual, audible, or atmospheric effects on historic properties. The APE as defined for this project includes the existing ROW along I-4 and was extended to the back or side property lines of parcels adjacent to the corridor, limited to a distance of no more than 100 meters (330 feet) from the proposed ROW. The APE also includes the proposed pond footprints plus a 100-foot buffer. Archaeological surveys were conducted within the proposed pond footprints, and the architectural study included the entire APE.

Field investigations consisted of pedestrian surface inspection and the excavation of 135 shovel tests within the footprints of the proposed ponds. No artifacts were recovered from any of the 135 shovel tests, and no archaeological sites or occurrences were identified. No further archaeological survey is recommended for the proposed ponds. Table 5.9 provides a summary of the results of the archeological survey.

The architectural survey resulted in the identification of 30 historic resources constructed before 1971 located within the I-4 Segment 3 APE, as illustrated in Figure 5.22 through Figure 5.26. Fifteen resources were previously recorded and 15 resources are newly recorded. Of these, two (CSX Railroad-Resource No. 8SE02138 and Atlantic Coast Line Railroad Bridge over the St. Johns River-Resource No. 8SE02823) are recommended eligible for NRHP inclusion.

Table 5.9: Results of Phase I Archaeological Survey of Proposed Ponds for I-4 Segment 3 APE

Pond	Acreage	Number of Shovel Tests	Comment/ Condition	Results
II*	0.37	4	North of SR 434	No archaeological sites or cultural material
II South*	0.55	5	North of SR 434	No archaeological sites or cultural material
II North*	0.74	6	North of SR 434	No archaeological sites or cultural material
HH	2.43	14	North of SR 434	No archaeological sites or cultural material
300	4.50	9	North of E. E. Williamson Road	No archaeological sites or cultural material
FPC 300-A	0.68	4	North of E. E. Williamson Road	No archaeological sites or cultural material
FPC 300-B	0.83	3	North of E. E. Williamson Road	No archaeological sites or cultural material
301	2.03	3	Minor expansion of existing pond	No archaeological sites or cultural material
302	2.02	2	Minor expansion of existing pond	No archaeological sites or cultural material
303-A1	5.41	13	West of Skyline Drive; disturbance noted	No archaeological sites or cultural material
303-A2	1.80	1	Minor expansion of existing pond	No archaeological sites or cultural material
303-B2	1.46	7	West of Skyline Drive; disturbance noted	No archaeological sites or cultural material
304	3.20	2	Minor expansion of existing pond	No archaeological sites or cultural material
305	6.96	-	Existing pond	No archaeological sites or cultural material
305A	10.48	-	Existing pond	No archaeological sites or cultural material
306	7.91	3	Within the interchange of I-4 and Lake Mary Blvd	No archaeological sites or cultural material
307	1.80	-	Existing pond	No archaeological sites or cultural material
308	8.67	21	Expansion of existing pond	No archaeological sites or cultural material
309	13.54	5	Minor expansion of existing pond	No archaeological sites or cultural material
310	6.23	-	Existing pond	No archaeological sites or cultural material

Table 5.9: Results of Phase I Archaeological Survey of Proposed Ponds for I-4 Segment 3 APE

Pond	Acreage	Number of Shovel Tests	Comment/ Condition	Results
311	2.65	-	Existing pond	No archaeological sites or cultural material
312	6.38	-	Existing pond	No archaeological sites or cultural material
Swale 313A	1.80	9	South of N. Towne Road	No archaeological sites or cultural material
313	3.78	-	Existing pond	No archaeological sites or cultural material
313A	1.44	-	Existing pond	No archaeological sites or cultural material
314	9.89	-	Existing pond	No archaeological sites or cultural material
315	4.51	-	Existing pond	No archaeological sites or cultural material
316	10.08	-	Existing pond	No archaeological sites or cultural material
317A	8.07	6	Expansion of existing pond	No archaeological sites or cultural material
317B	2.02	5	Minor expansion of existing pond	No archaeological sites or cultural material
317C	1.65	8	North of Orange Boulevard	No archaeological sites or cultural material
318A	2.04	0	Minor expansion of existing pond	No archaeological sites or cultural material
318B	2.26	5	East of Monroe Road	No archaeological sites or cultural material
Existing Pond	1.13	-	Existing pond	No archaeological sites or cultural material
Existing Pond	0.12	-	Existing pond	No archaeological sites or cultural material
Total	139.5	135		

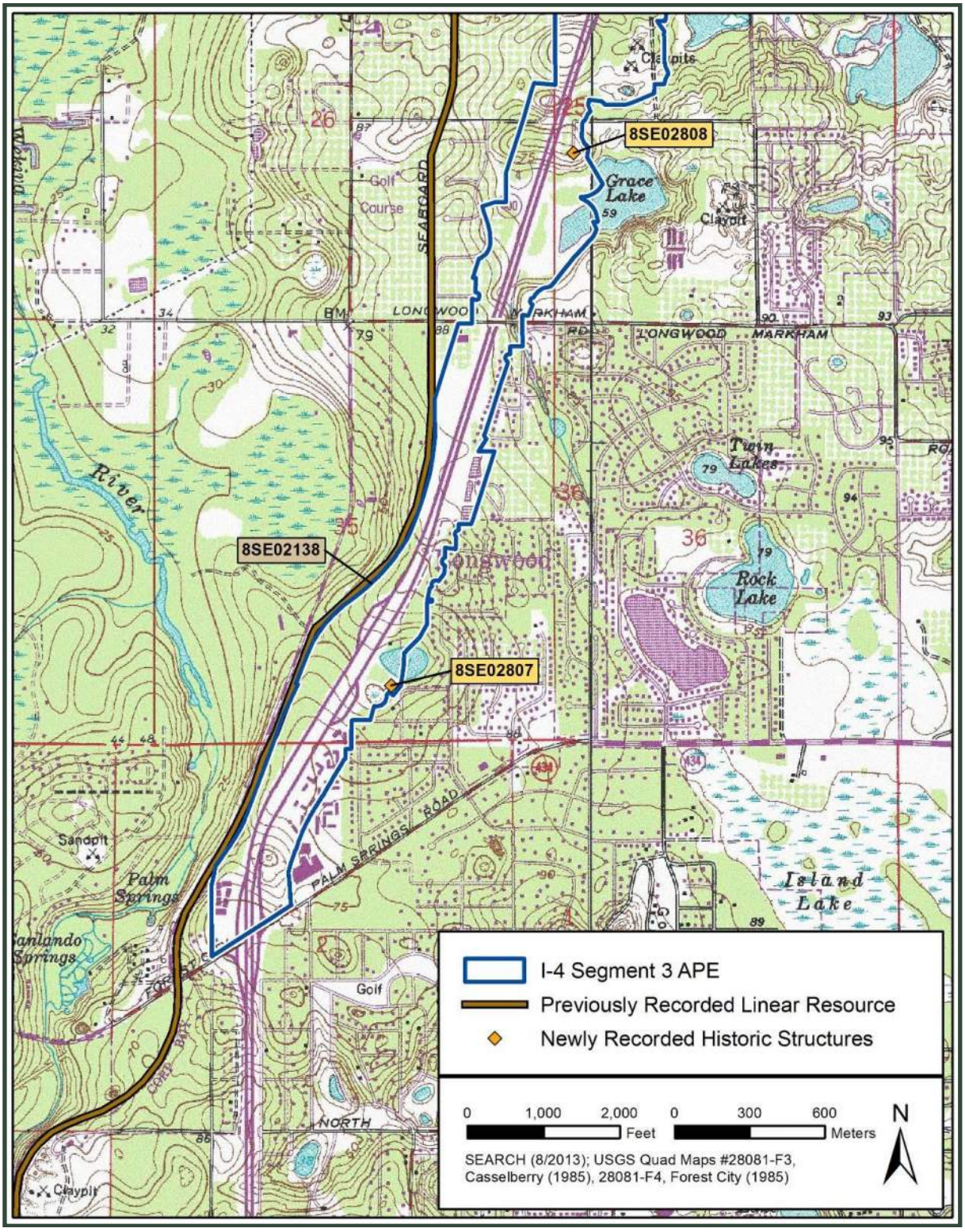


Figure 5.22 – Recorded Historic Resources within I-4 Segment 3APE (Sheet 1 of 5)

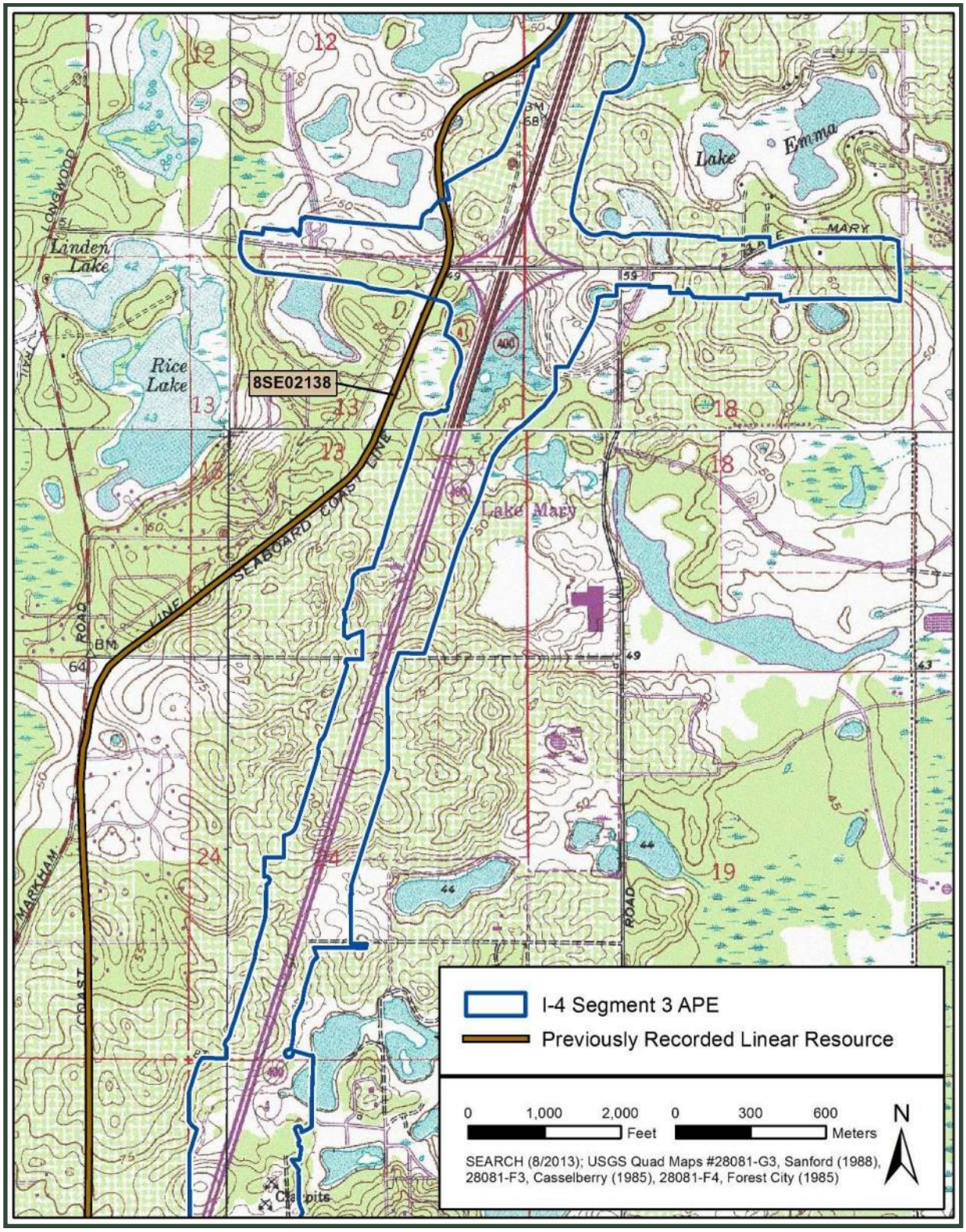


Figure 5.23 – Recorded Historic Resources within I-4 Segment 3 APE (Sheet 2 of 5)

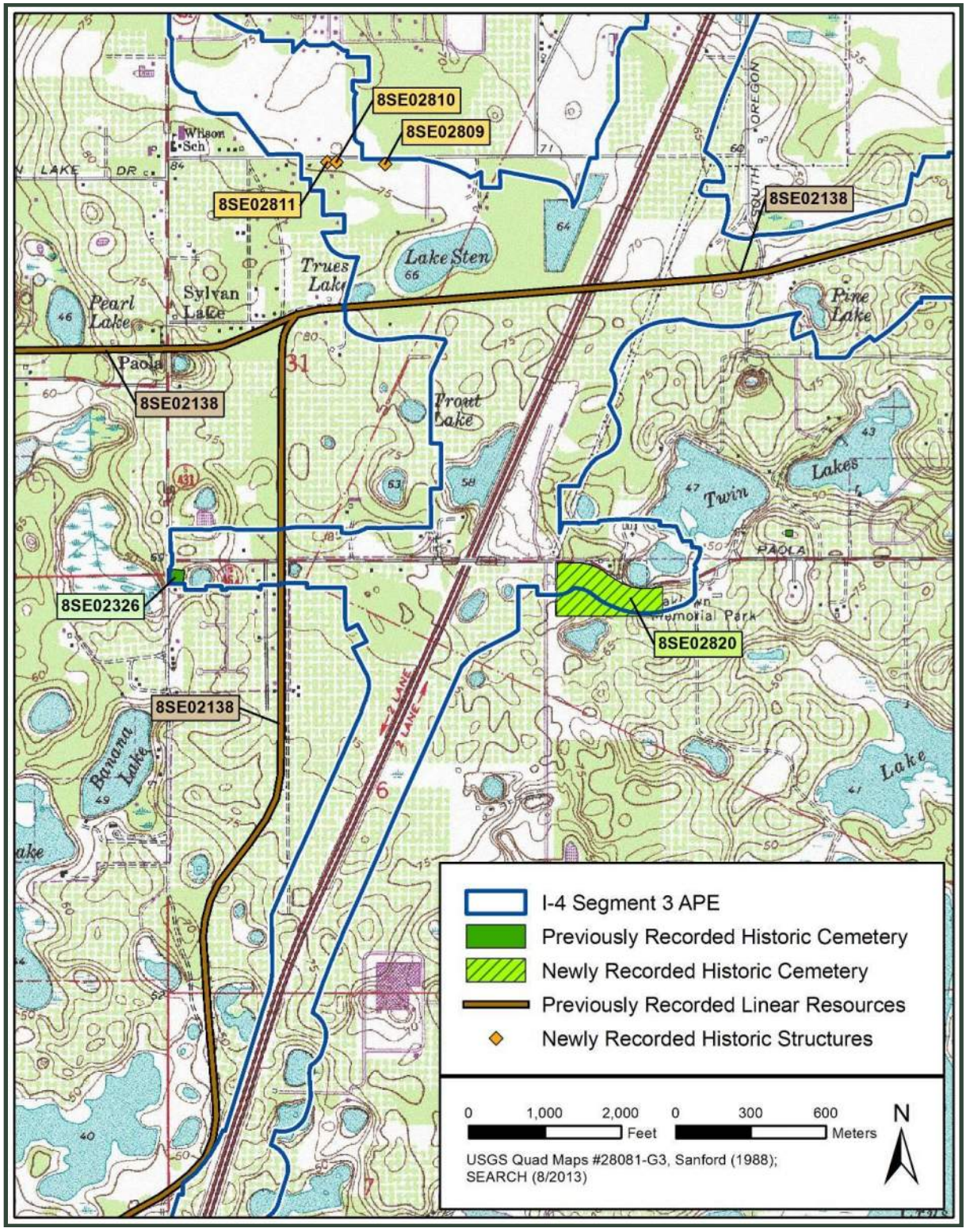


Figure 5.24 – Recorded Historic Resources within I-4 Segment 3 APE (Sheet 3 of 5)

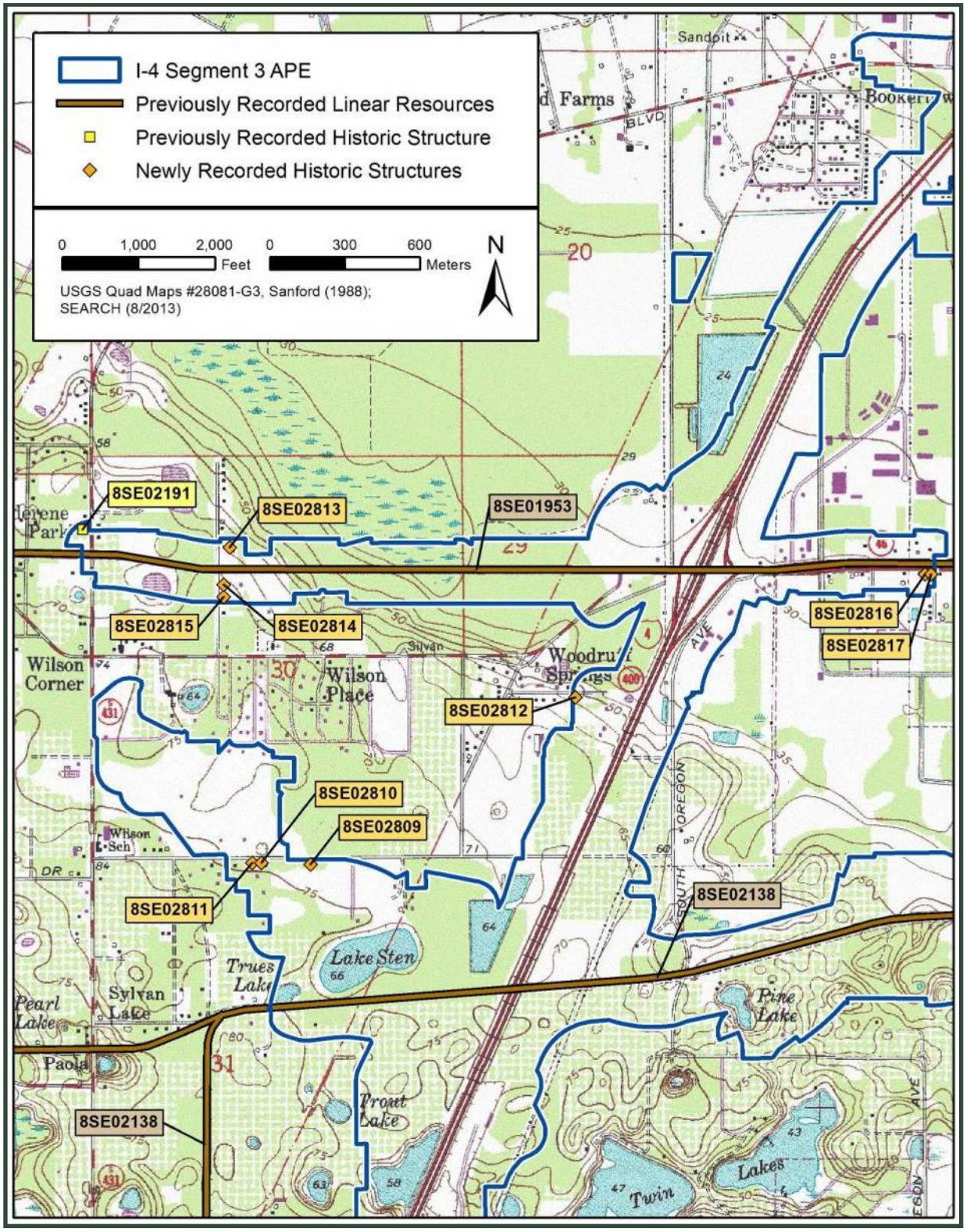


Figure 5.25 – Recorded Historic Resources within I-4 Segment 3 APE (Sheet 4 of 5)

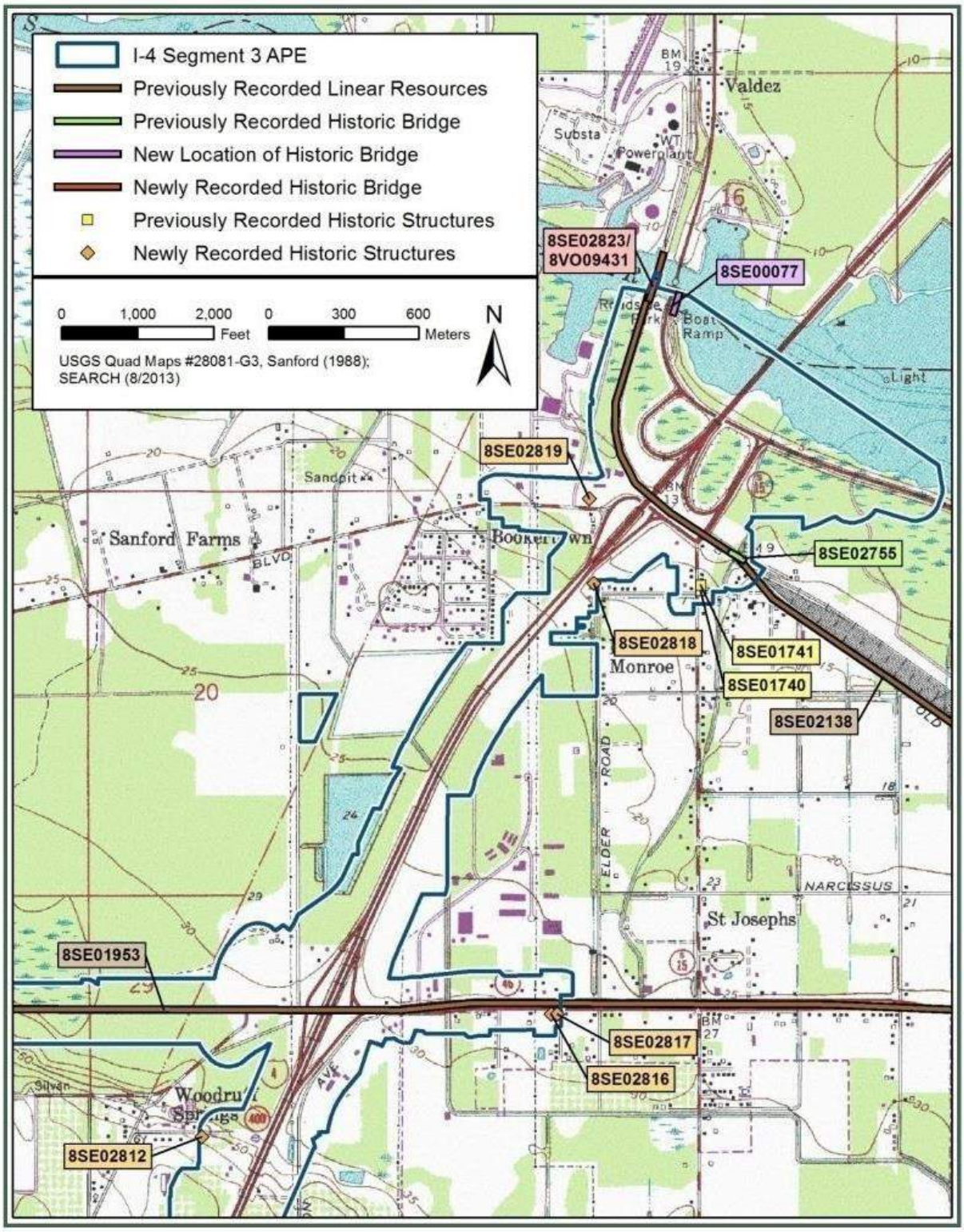


Figure 5.26 – Recorded Historic Resources within I-4 Segment 3 APE (Sheet 5 of 5)

One additional resource (Paola Church Cemetery-Resource No. 8SE02326) presents insufficient information to make an eligibility determination, and another (Lake Monroe Bridge-Resource No. 8SE00077) was previously determined eligible but has since been altered. Based on the findings in the current CRAS, the Lake Monroe Bridge still conveys its engineering significance and is still eligible for the NRHP.

In addition to the aforementioned historic resources constructed prior to 1971, the Seminole County Property Appraiser's records were examined, which indicated that 334 structures are located within the APE that date from 1971 to 1974. Depending on the progression of the project (i.e., depending on how much time elapses between the current study and the eventual design/construction of the project), it may become necessary to inventory and assess these resources.

Detailed evaluation of the cultural resources within the study area, including survey methodology, previously recorded resources and FMSF documentation are provided in the supplementary reports titled *Technical Memorandum: Cultural Resource Assessment Survey of Proposed Improvements to Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (December 2015)* and *Addendum: Cultural Resource Assessment Survey of Proposed Improvements to Segment 3- Lake Emma Road Access Connection within the I-4 & Lake Mary Boulevard Interchange (May 2017)*, prepared for this project.

5.7.5 Contamination

A *Contamination Screening Evaluation Report (July 2016)* has been completed for the I-4 Segment 3 corridor and proposed pond sites to determine the likelihood of petroleum or other hazardous substance impacts to the project. This CSER, completed in accordance with Part 2, Chapter 22 (January 17, 2008 revision) of the PD&E Manual contains results from a physical site investigation of the project corridor, a limited investigation of properties along the corridor adjacent to the ROW as viewed from areas of public access, a review of Florida Department of Environmental Protection (FDEP) files, Seminole County records and available environmental databases.

As part of the CSER, a review of the Florida Department of Environmental Protection (FDEP) Oculus Database was conducted to determine locations of contaminated sites followed by visual inspection of properties adjacent to the corridor and properties within ½ a mile of the roadway. Known contamination sites and properties with potential contamination were identified and assigned a risk rating based on the degree of concern for potential contamination problems. A total of 294 sites or properties within 0.5 mile of the current I-4 right-of-way were identified by searches in the FDEP contamination database or by field inspections. Of these sites, two had a high risk rating, 14 had a medium risk rating and two had a Low/Medium risk rating. The remaining 276 sites identified received a no risk or low risk rating. It is recommended that any excavation, demolition or dewatering activities within or adjacent to any of the identified medium risk sites should require soil

and groundwater testing before construction. The 294 identified sites/properties within 1/2 mile of the existing I-4 right-of-way and the proposed pond sites and their corresponding risk rating are shown on Figure 5.27 through Figure 5.32.

Pond sites were inspected via pedestrian transects and rated for their potential to have contamination. Out of the 31 potential stormwater management facilities (recommended and alternative pond sites), four were given a medium risk rating (Pond 300, FPC 300A, FPC 300B (Alternative) and Swale 313A), two were given a high risk rating (Ponds 307 and 308) and the remaining 25 were given a low risk rating. Three sites were identified as groundwater contamination plumes of ethylene dibromide (EDB) and encompass 33 other listed contamination sites, in addition to pond sites 300 and 300B. Pond Site 300A is located adjacent to a delineated groundwater contamination plume, and all three were given a medium risk rating. In addition to the contamination plume, discarded debris such as labeled and unlabeled bottles and canisters were discovered at the pond site in the southeast quadrant of the interchange at Lake Mary Boulevard, which was also given a medium risk rating. Pond sites 308 and 309 were given high risk ratings based on their location near a listed contamination site and the potential for heavy metal contamination. Swale 313A was given a medium risk rating based on its proximity to three listed sites that are known contamination sites which may not have been cleaned up.

A Level 2 *Contamination Impact Assessment Report (February 2015)* was prepared for the medium/high risk ponds sites warranting further investigation. The level 2 analysis included soil and groundwater sampling activities to verify the potential presence of chemical contaminants. Based on the results of the Level 2 Assessment, it appears that the soil and groundwater at pond sites 300, 300A, 300B, 307 and 308 have not been impacted at this time and would not require special handling, characterization, and disposal provisions. No further contamination assessments are recommended at these locations. It is recommended that the Florida Department of Environmental Protection be included in the discussions regarding pond sites 307 and 308 due to the nearby contamination plume on the former Siemens facility and Crescent Property. Dewatering activities and stormwater infiltration may impact the nearby groundwater contamination plume.

Based on historic aerials, land use in the area before the construction of I-4 consisted of rural citrus groves, row crop farms, and pasture land. Potential contamination impacts from these activities include additional EDB contamination from the citrus groves, pesticide/herbicide/fertilizer contamination from the farms, and arsenic contamination from potential cattle dips associated with the pastures. However, the existence, exact location, and severity of these potential sources of contamination are mostly unknown.

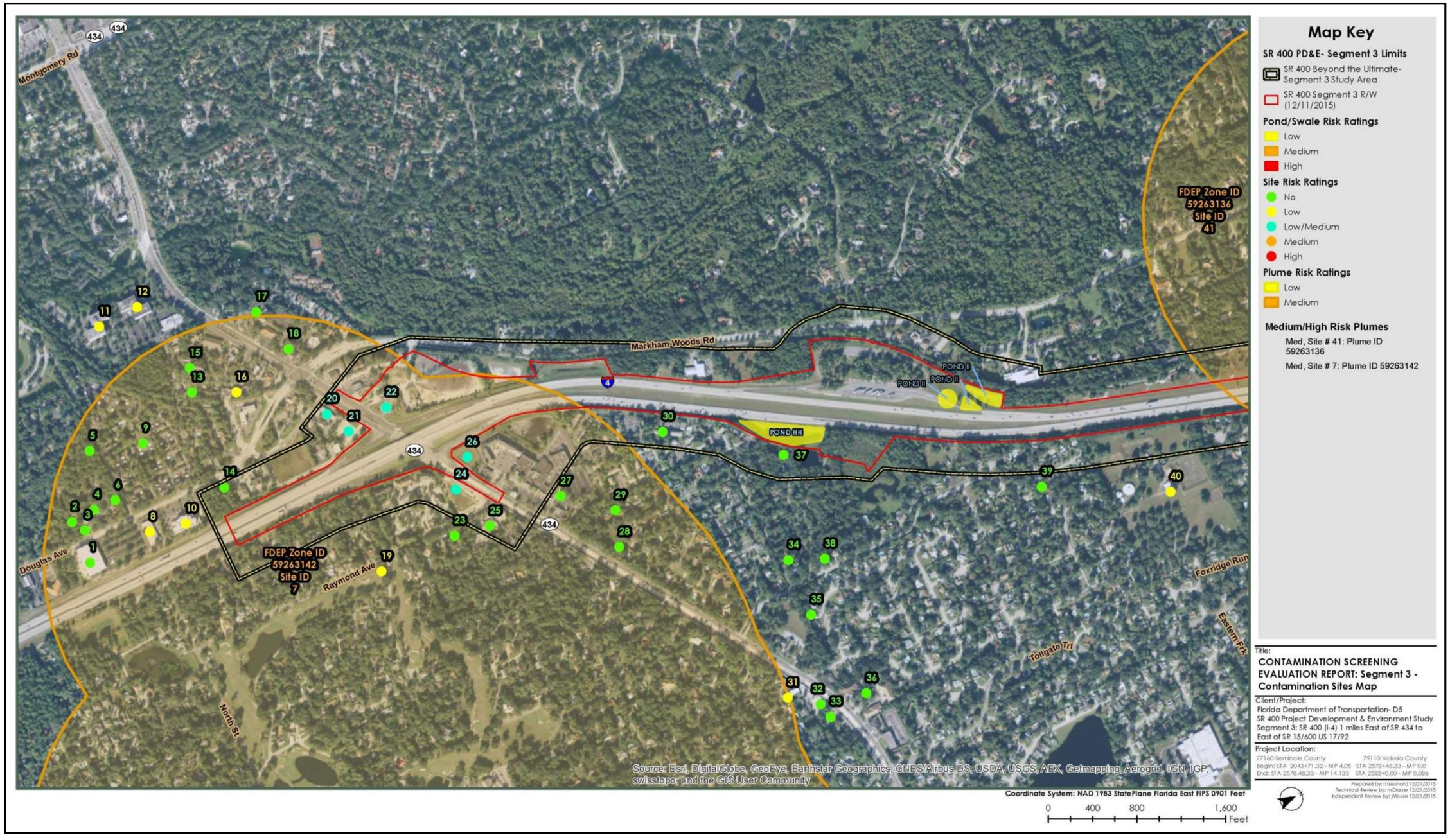


Figure 5.27 – Potential Contamination Sites (Sheet 1 of 6)

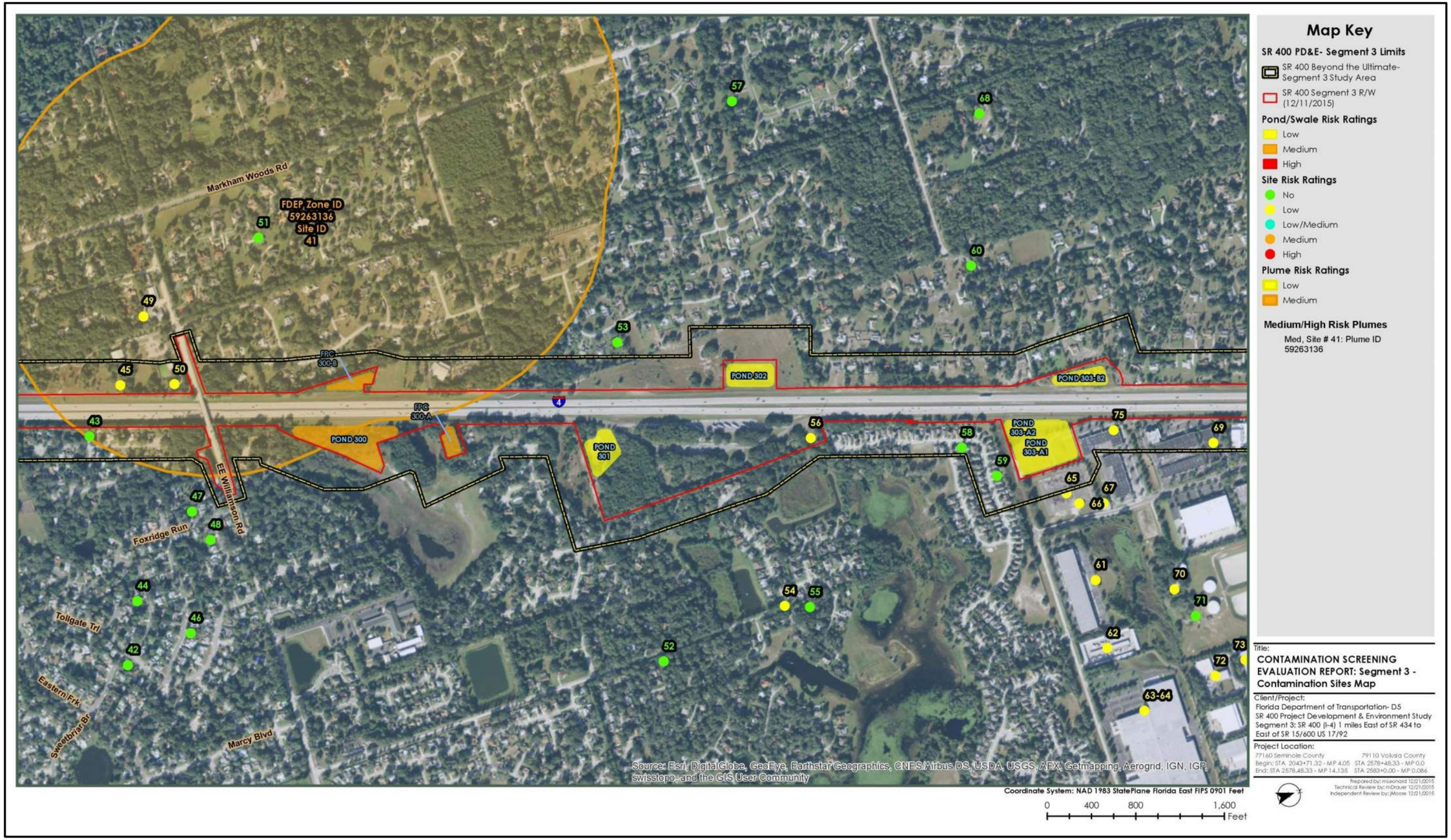


Figure 5.28 – Potential Contamination Sites (Sheet 2 of 6)

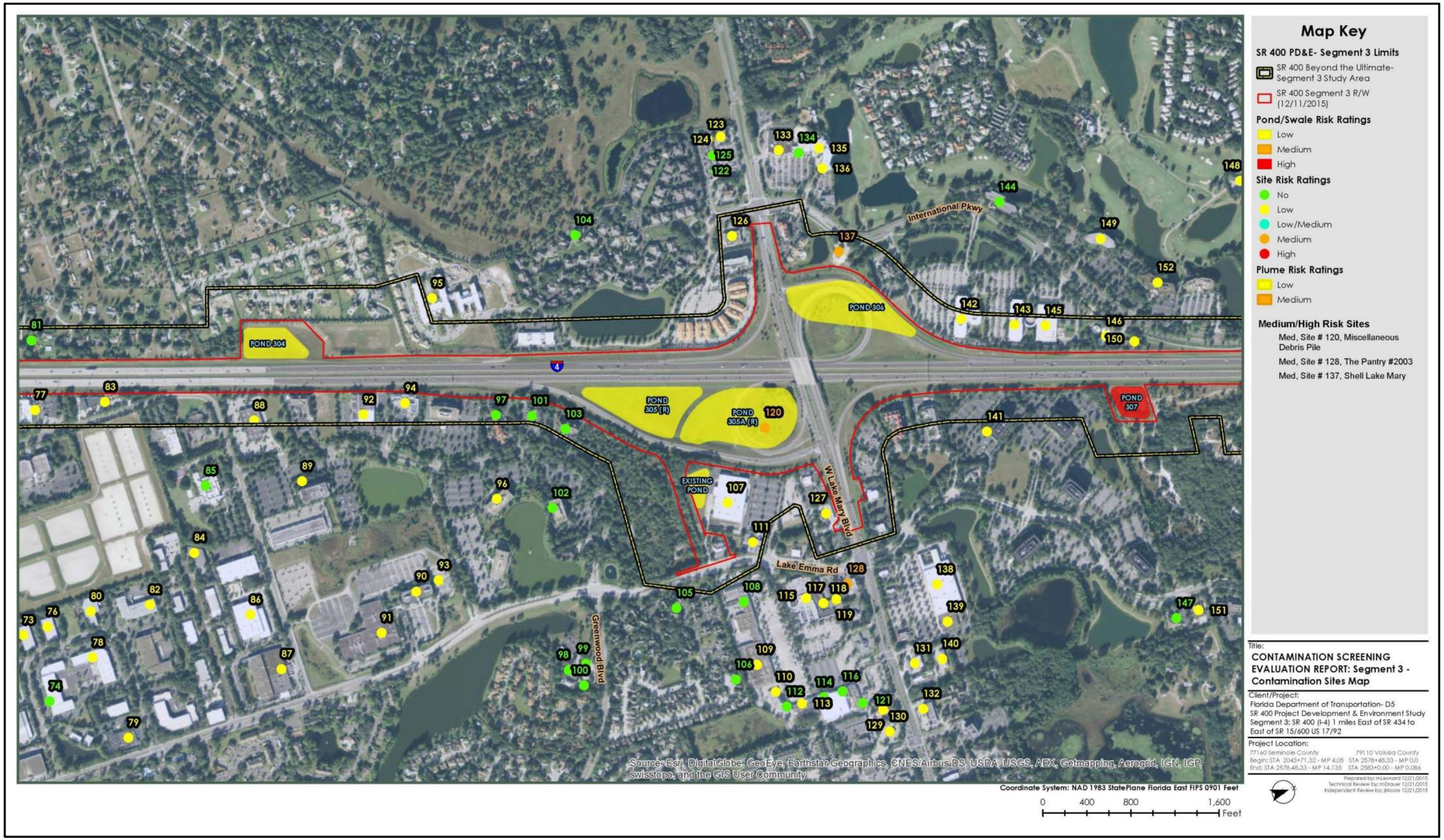


Figure 5.29 – Potential Contamination Sites (Sheet 3 of 6)

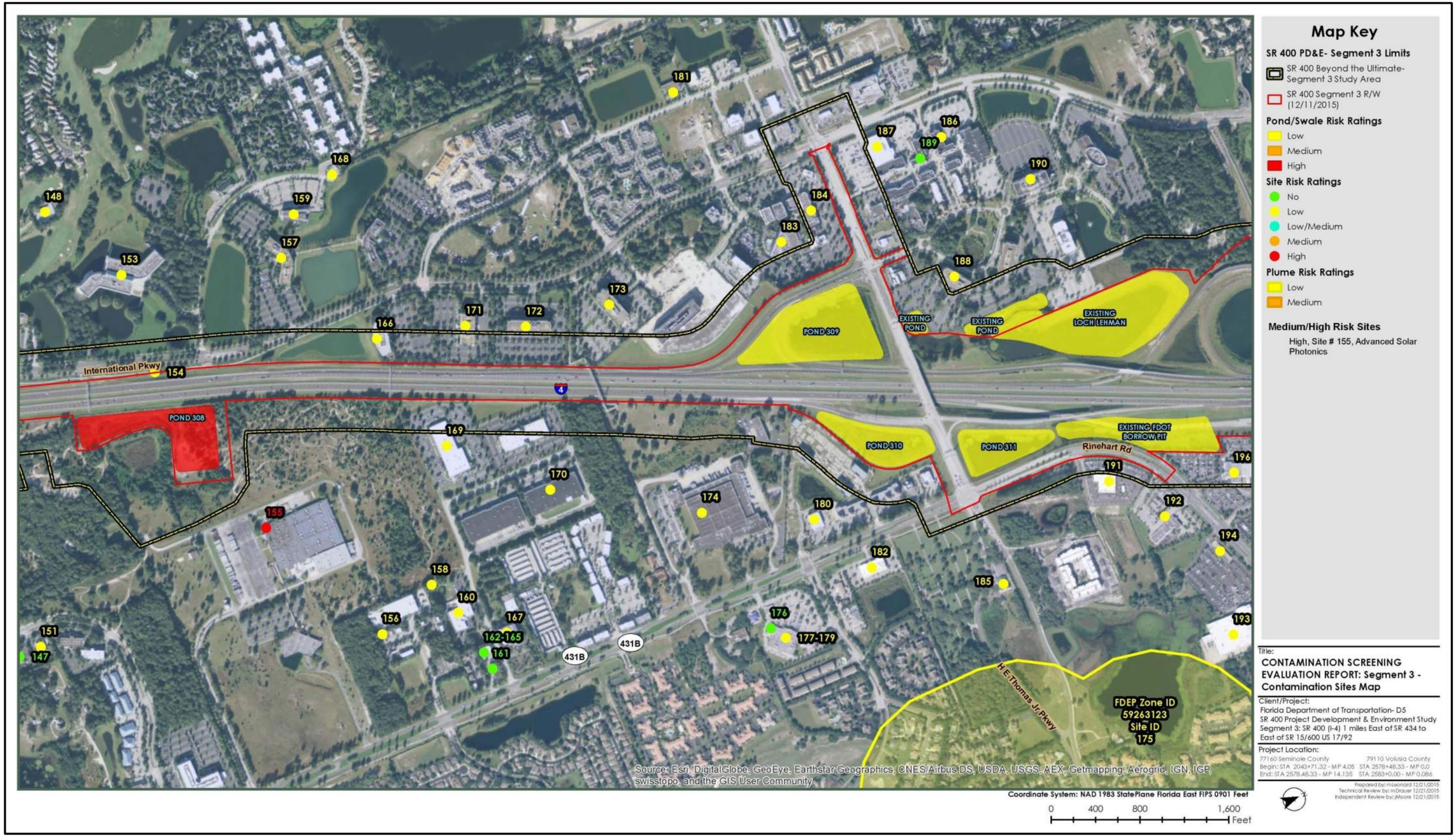


Figure 5.30 – Potential Contamination Sites (Sheet 4 of 6)

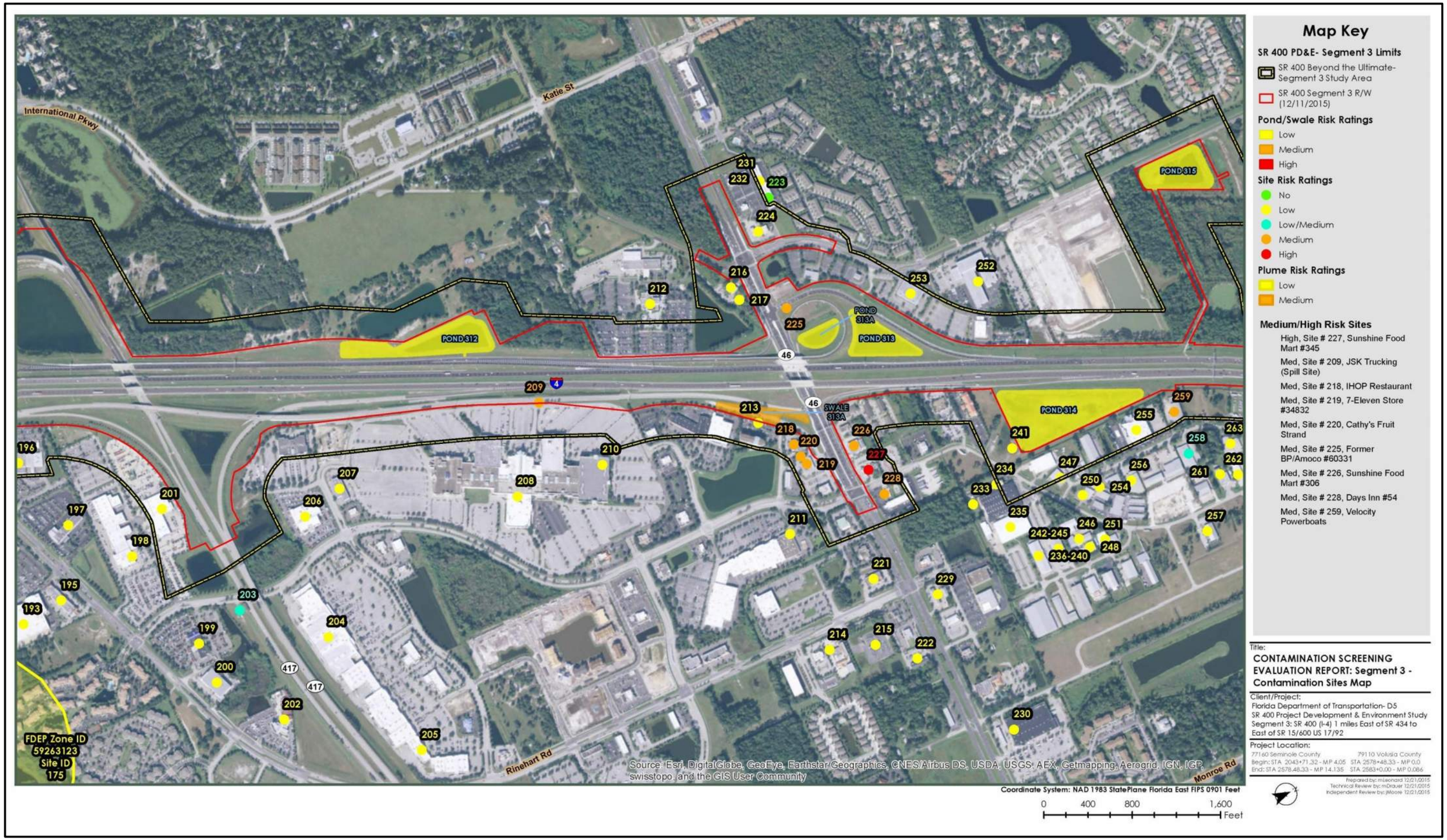


Figure 5.31 – Potential Contamination Sites (Sheet 5 of 6)

Figure 5.32 – Potential Contamination Sites (Sheet 6 of 6)

All bridges and other structures which will require possible demolition or retrofit should be tested for asbestos containing materials, lead-based paint, or any other hazardous materials prior to construction.

Should any parcels containing medical facilities, doctor offices, hospitals, or drug stores be acquired, they should be tested for asbestos, lead-based paint, x-ray equipment, lead-lined walls, chemicals, and pharmaceuticals prior to demolition.

5.7.6 Noise

A *Noise Study Report (July 2016)* was completed for I-4 Segment 3 based on procedures established in Part 2, Chapter 17 "Noise," of the FDOT PD&E Manual. The NSR was prepared to document predicted noise levels associated with the I-4 Segment 3 improvements and to determine if noise levels will be likely to increase, if noise-sensitive receivers are (or will be) within the project area and if noise impacts will occur. The noise analysis guidance is based on regulatory material found in 23 Code of Federal Regulations (CFR), Part 772, and titled "Procedures for Abatement of Highway Traffic Noise and Construction Noise" for FDOT noise assessments, regardless of funding. This regulation, pursuant to Rule Chapter 335.17, Florida Statutes (F.S.), is available from the FHWA and FDOT. If future design-year noise levels at noise sensitive sites approach, meet or exceed the Noise Abatement Criteria established by FHWA in 23 CFR 772 or increase 15 dB(A) over existing noise levels as a direct result of the transportation improvement project, noise abatement must be considered. The FHWA's *Traffic Noise Modeling (TNM) Version 2.5* computer program was used to determine if noise abatement was warranted, and if so, considered reasonable and feasible for any noise-sensitive sites.

Fifteen noise sensitive areas (NSA) that have the potential to be impacted by the project were identified within the study corridor as shown in Figure 5.33. One hundred thirty potentially impacted noise-sensitive sites were identified for the study segment, and consist of: single family residences, hotels, multi-family residences, churches, television broadcast studios, medical offices, recreation areas and county trails. The TNM analysis of noise sensitive areas predicted no sites to be impacted within NSA I, NSA J, NSA K, NSA M or NSA N.

The results of the noise barrier analysis indicate that one noise barrier will provide the best noise abatement and meet the requirements as reasonable and feasible. The recommended barriers for the Pine Bay Drive Subdivision within NSA D include either:

- a 12-foot tall, 1,802-foot long ground-mounted barrier (estimated cost $648,709), or
- a 10-foot tall, 1,746-foot long barrier-mounted barrier (estimated cost $523,857)

The barrier analysis also indicated that no reasonable or feasible measures are achievable for the remaining impacted sites within the impacted NSAs.

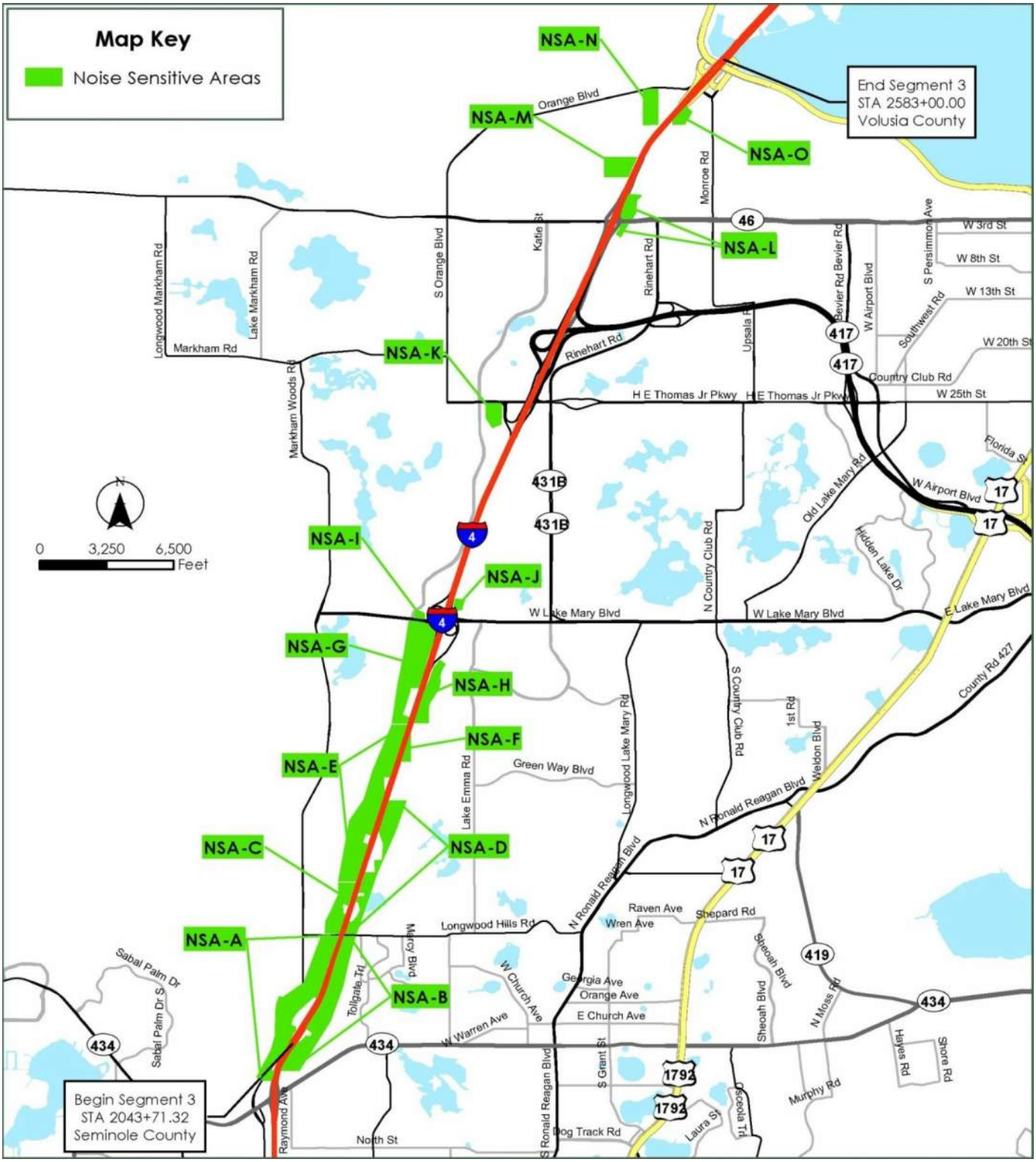


Figure 5.33 – Noise Sensitive Areas Map

5.7.7 Air Quality

The proposed project was reviewed for air quality impacts consistent with the guidance provided by the FHWA. Seminole County is an area currently designated as being *attainment* for the following air pollutants: *ozone, nitrogen dioxide, particulate matter (2.5 microns in size and 10 microns in size), sulfur dioxide, carbon monoxide and lead.*

The project was subjected to a carbon monoxide (CO) screening model that makes various conservative worst-case assumptions related to site conditions, meteorology and traffic. The FDOT's screening model, CO Florida 2012 (released March 12, 2012) uses the latest United States Environmental Protection Agency (USEPA) – approved software (*MOVES 2010a and CAL3QHC2*) to produce estimates of one-hour and eight-hour CO at default air quality receptor locations. The one-hour and eight-hour estimates can be directly compared to the one-hour and eight-hour *National Ambient Air Quality Standards (NAAQS)* for CO that are 35 parts per million (ppm) and 9 parts per million (ppm), respectively.

The roadway intersection forecast to have the highest total approach traffic volume (for both the Build and No-Build scenarios) is the intersection of Lake Mary Boulevard and Lake Emma Road/Primera Boulevard. The Build and No-Build scenarios for the opening year (2020) and the design year (2040) were evaluated (for design hour volumes). Estimates of CO were predicted for the default receptors which are located 10 feet to 150 feet from the edge of the roadway. Based on the results from the screening model, the highest project-related CO one-hour and eight-hour levels are not predicted to meet or exceed the one-hour or eight-hour *National Ambient Air Quality Standards (NAAQS)* for this pollutant with either the Build or No-Build alternatives. As such, the project "passes" the screening model.

The project is located in an area which is designated attainment for all of the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project. Detailed data and analysis are provided in the supplemental report: *Air Quality Analysis Technical Memorandum Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (July 2016).*

5.8 Public Involvement Program

A comprehensive Public Involvement Program (PIP) was initiated as part of this PD&E Study. This program is in compliance with Part 1, Chapter 11 of the FDOT PD&E Manual which details various federal, state and local regulations including Section 339.155, Florida Statutes; Council of Environmental Quality (CEQ) Regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and 23 Code of Federal Regulations (CFR) 771. The public involvement program for I-4 Segment 3 included the publication of newsletters, meetings with government agencies, community outreach meetings and an Alternatives Public Workshop. A

project website, www.i4express.com, was also developed to disseminate updated information about the project and allow the public to communicate with the project team and/or provide comments.

Alternatives Public Workshop

The Alternatives Public Workshop was held on Thursday, March 20, 2014, from 5:30 p.m. to 7:30 p.m. at Hyatt Place, 1255 S. International Parkway, Lake Mary. An invitational letter was mailed to property owners located within at least 300 feet on either side of the current project corridor and, to public officials, organizations and individuals interested in the project. An advertisement was placed in the Orlando Sentinel (full circulation) and a press release was distributed by FDOT to local media outlets. The Alternatives Public Workshop was held in an open house format with project display boards and an automated presentation which gave an overview of the proposed project, including a summary of the engineering and environmental considerations in development of the proposed alternatives. Forty-three citizens and 15 project team members signed in at the public meeting. Project team attendees included the FDOT Project Manager, staff from FDOT Right-of-Way, Consultant Project Management and Environmental Management Offices and the project consultants. Public comment forms were made available to attendees; three written comments were received during or after the meeting. These comments consisted of one comment in favor of the express lane connection to EE Williamson Boulevard, one comment requesting noise walls and once comment opposed to the express lane connection at EE Williamson Boulevard and opposed to the location of pond 300B.

Several additional meetings were held to discuss the proposed project improvements and PD&E study, as follows.

Meetings with Seminole County:

- Meeting with Seminole County staff (Brett Blackadar and Shad Smith) to discuss coordination with County projects along I-4 (June 6, 2013)
- Meeting with Seminole County staff to present proposed alternative improvements prior to Public Workshop (February 13, 2014)
- Meeting with Seminole County staff to discuss the results of the EE Williamson direct connect analysis (July 14, 2014)
- Coordination meeting with Seminole County staff to present recommended alternative concepts along Segment 3 (March 3, 2015)
- Workshop with Seminole County Board of County Commissioners to present interchange concepts, traffic, and schedule (February 9, 2016)
- Workshop and presentation to Seminole County Board of County Commissioners to present updated interchange concepts, Lake Emma direct ramp, and U-turns (January 24, 2017)

Meetings with Florida's Turnpike Enterprise (FTE):

- FTE Coordination Meeting (May 1, 2015) – Review the proposed I-4/SR 417/Wekiva Parkway interchange.

Other Meetings:

- Attended and presented the potential EE Williamson direct connect concept to the Markham Woods HOA group (May 6, 2014)
- Coordination meeting with Duke Energy staff to discuss potential utility impacts on the I-4 alignments (October 27, 2014)
- Coordination meeting with Florida Gas Transmission staff to discuss potential utility impacts on the I-4 alignments (October 30, 2014)
- Coordination meeting with City of Lake Mary staff to present recommended alternative concepts along Segment 3 (March 20, 2015)

Public Hearing

A formal public hearing was conducted on November 14, 2016 to seek input on the Recommended Alternative. The hearing provided an overview of the Recommended Alternative and impacts, the study schedule and summary of the remaining steps in the study process. The hearing was held at Lake Mary City Hall, 100 North Country Club Road, Lake Mary, FL 32746. The draft environmental and engineering reports were available for public review from September 14, 2016 through November 25, 2016 on the project website (www.i4express.com) and at the Seminole County Public Library, Northwest Branch, located at 580 Greenway Boulevard, Lake Mary, FL 32746.

A half-hour open house preceded the formal portion of the hearing. The public was given the opportunity to ask questions and provide comments to the FDOT representatives in a one-on-one setting. A court reporter was present to receive oral comments from the public, and written comments were also accepted. The Recommended Alternative for the overall I-4 corridor and each interchange was displayed on aerial photography of the study area. A matrix with potential environmental impacts and cost estimates was presented. An audiovisual presentation describing the engineering and environmental components of the Recommended Alternative was given. After the presentation, the public was given an opportunity to offer oral comments to the hearing moderator.

Per Chapter 11 of the PD&E Manual, all property owners within at least 300 feet of either side of the centerline of the Recommended Alternative were notified of the hearing by newsletter. Forty-seven (47) citizens and twenty-one (21) project team members signed in at the public hearing. Project team attendees included the FDOT PD&E and Design Project Managers and staff from FDOT Public Information, Right-of-way and Environmental Management Offices. One public comment form was

received at the hearing. One additional written comment was received via email during the 10-day comment period following the hearing. Four public comments were provided during the oral comment period of the hearing. The public comments from the hearing are summarized as follows:

Written Comments

- A resident of Northridge subdivision expressed concerns about water and air quality and a desire to keep the natural tree buffer around Grace Lake.
- A citizen stated she was pleased to see Pond 300-B is no longer the recommended pond site and the express lane entry/exit ramps accessing I-4 at EE Williamson Road have been removed from the Concept Plans. Additional comments from this citizen included: a request for FDOT to re-evaluate the noise impacts and need for sound barrier near her home, evaluation of an alternative that includes non-tolled express lanes, suggestion that segments of the I-4 BtU not be approved for toll lanes until the I-4 Ultimate section is constructed and the effectiveness of toll lanes in the Orlando area can be proved, and questioning the safety of merging traffic at the slip ramp locations of the express lanes.

Oral Comments

- A resident of Northridge Subdivision requested FDOT look for stormwater alternatives that don't impact the lake and existing tree buffer between the homes and interstate.
- A resident of Huntington Point Subdivision requested more details regarding the homes impacted by the project (whether they are in this subdivision), and also requested more information on the proposed sound barriers.
- A County Commissioner commented on FDOT's efforts on this project and asked for details regarding the funding of construction and impacts to businesses as a result of sidestreet improvements. She asked for further discussion between the County and FDOT before getting too far into the plans and asked if the sidestreet improvements can be held off until the Interstate widening is completed. She specifically mentioned the CR 46A at Rinehart Road intersection.
- A County Commissioner questioned access of pedestrians and bicycles crossing I-4 on existing roadways. He also inquired about the scheduling of the I-4 BtU segments, specifically asking how the northern segments will be scheduled.

Oral and written comments from the public were either directly addressed by project team members during the public hearing or through follow-up letter/email responses provided by the FDOT Project Manager. The public involvement documentation for I-4 Segment 3, including official public hearing transcripts and public input comments with responses, are provided in Appendix B of this report.

Post Public Hearing Coordination

No written comments were received during the 10-day post-hearing comment period. The oral comments from the public hearing were either directly addressed by project team members during the public hearing or through follow-up letter/email responses provided by the FDOT Project Manager. The public involvement documentation for I-4 Segment 3, including official public hearing transcripts and public input comments with responses, are provided in Appendix B of this report.

5.9 Value Engineering (VE)

Value Engineering (VE) for the proposed improvements was conducted after the alternatives public workshop meeting in 2014. The VE study was held March 31 to April 4, 2014; the VE team consisted of representatives from the FDOT D5 office in the Traffic Operations, Roadway Design, Right-of-way, Construction, Structures, Geotechnical, Maintenance, Project Management and Drainage departments. The VE team reviewed the preliminary concept plans and made recommendations based on overall value added to the project. The VE team made seventeen recommendations that would result in cost savings or added value to the project. The detailed recommendations are provided in *the Value Engineering for Transportation Improvements, Interstate 4 from East of State Road 434 to East of US 17-92, Value Engineering Study Draft Report (March 2014)*. The VE recommendations from the March 2014 report, and corresponding dispositions from April 2015 are summarized as follows.

a. Recommendation 1: Provide an additional floodplain compensation alternative in Basin 300 as FPC 300-A is impacted by a billboard. *Not Accepted. The third floodplain compensation alternative in Basin 300 is FPC 300-C. FPC 300-C is an option that was recommended by the Value Engineering Study due to the impacts to an existing billboard within the FPC 300-A parcel. The potential pond site is located within the floodplain of Lake Grace, just east of Pond 300. After receiving additional topographic survey for the site, it was determined that it is not a feasible option. The existing ground elevation for the majority of the potential site is lower than the floodplain elevation of 67.00 ft NAVD. After this alternative was eliminated, FPC 300-A was reconfigured around the existing billboard as not to impact it*.

b. Recommendation 2: Increase the size of the Pond 303-A1 and incorporate the entire lot that is for sale. *Not Accepted. This pond site can be shown to take the entire property that is for sale, which would result in a joint use pond or two ponds under FDOT control. This pond alternative (Pond 303-A1) could be the preferred option if the billboard cannot be relocated on the other pond alternative site (Pond 303-B2).*

c. Recommendation 3: Make Pond 303-B2 the preferred pond by relocating the billboard within the site. *Accepted. Currently, central office is evaluating the billboard on this site for relocation. If the billboard can be relocated on this site, this pond will be the preferred alternative (Pond 303-B2).*

d. Recommendation 4: Maintain the design variation in the Ultimate section though the entire corridor. *Accepted. The design variation will be used throughout the section*.

e. Recommendation 5: Consider concrete express lanes. *Accepted. The use of concrete pavement will be considered for the construction of the express lanes*.

f. Recommendation 6: Relocate the sidewalk off of back of curb at the BB&T Bank on Lake Mary Blvd. by purchasing an easement or right-of-way to avoid utility relocations. *Accepted. Costly utility relocation could be avoided by moving the sidewalk back outside of the right-of-way*.

g. Recommendation 7: Don't build the 6-ft. sidewalk on the south side of the bridge at EE Williamson Road. *Not Accepted. The EE Williamson Road Bridge will be replaced and sidewalks will be provided on both sides to maintain consistency with the approaches on each side of the bridge*.

h. Recommendation 8: Add direct connect ramps to the express lanes at EE Williamson. Not *Accepted. Coordination with Seminole County occurred, as well as a public meeting to local residents, and this idea was dismissed due to significant opposition. A traffic study was also performed to evaluate the operations, and the results were there was little benefit to the operations of I-4*.

i. Recommendation 9: Modify the eastbound Lake Mary Blvd. to eastbound I-4 ramp to begin before the interchange signal on the west side of I-4. *Not Accepted. Concerned that everyone heading for I-4 will have limited room or distance to get to the ramp*.

j. Recommendation 11: Provide a grade separated intersection at Lake Mary Blvd & Primera Blvd/Lake Emma Rd. *Not Accepted. A grade separated intersection at this location would cause numerous access issues to the east of the intersection. In the current year and the future design year, traffic does not back up onto the I-4 mainline*.

k. Recommendation 12: Corridor improvements on Lake Mary Blvd. from the I-4 interchange to Rinehart Rd. *Accepted. The traffic modelers are looking at what kind of improvements can be made throughout the corridor*.

l. Recommendation 14: Construct a pedestrian tunnel under ramps and bridge over the mainline on the north side of Lake Mary Blvd. *Not accepted. It may be possible to tunnel under the ramps, but then the sidewalk would need to get up and over I-4 all while still meeting ADA requirements*.

m. Recommendation 17: Eliminate the right turn lane at International Parkway and CR 46A because the outside lane becomes a right turn lane at the intersection. *Accepted. The additional right turn lane at International Parkway will be removed.*

n. Recommendation 18: Start the second eastbound left to eastbound I-4 after the westbound I-4 on ramp so the shift is under and before the overpass. *Accepted. We will revise the amount of turn lane storage and model it to make sure there are no issues.*

o. Recommendation 21: Modify the 17-92 Alternative 1 to better accommodate traffic by modifying Alt 1 to taper the US 17-92 SB to I-4 WB to eliminate the hard right and to add a third lane to Monroe Blvd and to add dual rights with stop control. *Accepted. The addition of the SB free flow ramp to WB I-4 provide some relief to SB 17/92, and the addition of the third lane and stop control at the intersection of Monroe Rd will add relief to motorist heading WB on 17/92 as head south on Monroe Rd to get to I-4 EB.*

p. Recommendation 22: Consider a skewed 4-leg Orange Ave. intersection that eliminates the left turn off of Monroe Road as a straight movement through the skewed intersection. *Not accepted. This was modeled to evaluate the operations, and because of the additional leg added to the intersection, at an at-grade railroad crossing, it was determined that there would not be an operational benefit.*

q. Recommendation 30: Construct a tight urban diamond interchange at the US 17-92 & I-4 Interchange. *Accepted. The US 17-92 interchange will be modified to be a TUDI.*

The VE study recommendations and dispositions are an integral part of the engineering design process. As the project proceeds through various phases of preliminary design, the design concepts are modified to reflect all aspects of engineering and environmental analyses. As such, some of the dispositions previously stated may have been modified during design and development of the Concept Plans.

5.10 Comparative Evaluation/Recommended Alternative

The proposed improvements follow the existing alignment of I-4 and the typical section for the I-4 BtU corridor will be consistent with the I-4 Ultimate mainline typical section (three general use lanes and two express lanes in each direction for the majority of the Segment 3 corridor). Thus, the alternatives analysis focused on the interchange design.

5.10.1 Evaluation Criteria

Each of the viable alternatives was evaluated based on several criteria, including: right-of-way impacts, natural and physical environment, social impacts, traffic analysis, engineering design considerations and estimated project construction costs. The recommended alternatives were

based on the results of the engineering and environmental analysis and input from the public involvement program. The following provides a description of the evaluation criteria.

Community Impacts/Relocations

Community impacts anticipated from the proposed improvements may include adverse effects on neighborhoods and community cohesion. Potential relocations of residences and businesses that will be directly impacted are identified and quantified.

Environmental Impacts

Environmental impacts include identifying and quantifying, through literature research, field surveys and investigations, the archeological, historical and contamination sites impacted, as well as endangered species impacts. A cultural resources survey was conducted to identify historic sites in the study corridor and archaeological resources within proposed pond locations. The architectural study further assesses historic sites for their potential for listing in the NRHP. The contamination screening evaluation was completed to identify the number, location and risk potential of known or potential hazardous waste sites along the corridor. The endangered species biological assessment was completed to document the potential occurrence of natural habitats and wildlife within the proposed project corridor and recommend actions to avoid and/or minimize impacts to the greatest practicable extend.

Additional environmental impacts include identifying noise sensitive areas, air quality, wetlands and floodplain impacts along the project corridor. The noise study report evaluates future design traffic to determine if noise-sensitive receivers are within the project area, if noise levels are likely to increase and if noise impacts are anticipated to occur. Noise abatement measures are evaluated based on the analysis. Air pollutant quantities are estimated and compared to nationally-established air quality standards to determine impacts from traffic for the project design year. Encroachment into existing wetlands or floodplains may result from the proposed improvements. The wetlands evaluation report identifies existing wetlands and surface water communities based on the USFWS Classification and functionality. Impacts due to the proposed construction and improvements are addressed by the use of mitigation banks and/or other mitigation options that satisfy state and federal requirements. Impacts to the 100-year floodplain from the proposed improvements will be mitigated by floodplain compensation ponds.

Project Costs

Project costs include construction and right-of-way costs. Construction cost estimates include roadway, structures, retaining walls, utility relocation, drainage improvements, maintenance of traffic and engineering design cost. Construction engineering and inspection is assumed to be 12% of total construction cost. Additionally, the project costs include right-of-way costs (to be provided by FDOT) for additional right-of-way necessary for each alternative to accommodate roadway and

interchange improvements and stormwater management. Right-of-way costs also include residential and business relocations.

Public Involvement

A comprehensive public involvement program (PIP), as described in Section 5.8 of this report, including a series of meetings, workshops and other outreach activities was initiated as part of the I-4 BtU PD&E Reevaluation Study. As part of the PIP, an Alternatives Public Workshop was held on January 30, 2014 to present project information, to property owners, public officials, organizations and individuals interested in the project. The workshop was intended to provide details on the proposed design concepts and receive input from the public. Subsequently, a formal public hearing was conducted on November 14, 2016 to seek input on the Recommended Alternative.

5.10.2 Evaluation Matrix

A summary of the estimated impacts resulting from the comparative evaluation of the alternatives considered is provided in Table 5.10. The table illustrates impacts from the proposed improvements to the I-4 mainline for the build alternative and comparatively shows any additional impacts from the various interchange alternative options.

5.10.3 Recommended Alternative

The FDOT District 5 has selected the recommended alternative based on analyses of potential environmental impacts, projected traffic operations, right-of-way acquisitions, estimated project costs, value engineering study and other engineering considerations. The following alternatives were selected as the recommended alternative to be presented at the Public Hearing:

1. I-4 Mainline Build Alternative (Roadway reconstruction to include six general use lanes, two auxiliary lanes and four express lanes) for section of I-4 from the begin project limits to just south of Lake Mary Boulevard,
2. I-4 Mainline Build Alternative (Roadway reconstruction to include six general use lanes and four express lanes) from Lake Mary Boulevard to end project limits,
3. I-4 Mainline Build Alternative with Eastbound and Westbound C-D system between CR 46A and SR 46,
4. EE Williamson Road Alternative 1 (Overpass),
5. Lake Mary Boulevard Alternative 4 (Diverging Diamond Interchange with Lake Emma Road Access Connection),
6. CR 46A Alternative 3 (Diverging Diamond Interchange),
7. SR 417 (Seminole Expressway)/SR 429 (Systems Interchange),
8. SR 46 Alternative 1 (Partial Cloverleaf Interchange), and
9. US 17-92 Alternative 8 (Tight Urban Diamond Interchange)

Table 5.10: Alternatives Evaluation Matrix

Summary of Impacts[1]	No-Build	I-4 Mainline	Lake Mary Boulevard				CR 46A			SR 46		US 17-92							
			Alt. 1 Base	Alt. 2 SPUI	Alt. 3 GS - DDI	***Alt. 4 DDI w/Lake Emma Road Connector***	Alt. 1 Base Geometry	Alt. 2 CFI	***Alt. 3 DDI***	***Alt. 1 Base w/ Left Turn***	Alt. 2 Ramp Spur from I-4 EB to Roundabout	Alt. 1 Base	Alt. 2 Diamond	Alt. 3 SPUI	Alt. 4 Diamond Loop	Alt. 5 SPUI - T	Alt. 6 Partial Cloverleaf	Alt. 7 GS - DDI	***Alt. 8 Elevated TUDI***
Roadway ROW Area to be acquired (Acres)	0	***2.5***	0	0	0	***4.3***	0	2	***3.1***	***0***	0	0	9.8	9.8	9.8	4.7	13.4	8.4	***7.8***
Pond ROW Area to be acquired (Acres)[2]	0	***15.60***	n/a	n/a	n/a	***0***	n/a	n/a	***0***	***0***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	***7.84***
Wetland Impacts (Acres)	0	***0.07 - Wetlands*** / ***6.75 – Surface Waters***	0	0	0	***0***	0	0	***0***	***0***	0	4.47	6.17	6.28	6.25	4.05	3.59	4.60	***11.79 (7.33 Wetlands, 4.46 Pond 317A)***
Floodplain Impacts	0	***6.43 ac-ft.***	n/a	n/a	n/a	***0***	n/a	0	***0***	***0***	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	***0***
Impacted Noise Sensitive Sites	0	***140 Noise Sensitive Sites***	0	0	0		0	0	***0***	***0***	0	0	0	0	0	0	0	0	***0***
Section 4(f) Properties	0	***One park, two trails and 4 historic resources (3 NRHP eligible)***	0	0	0	***0***	0	0	***0***	***0***	0	0	0	0	0	0	0	0	***0***
Potential Historic Sites	0	***30 historic structures constructed before 1971 within APE[3], of which 3 are NRHP eligible***	0	0	0	***0***	0	0	***0***	***0***	0	0	0	0	0	0	0	0	***0***
Potential Contamination Sites & Risk Rating	0	***19 - Low*** / ***2 - Med*** / ***1 - High***	2 – Low / 3 – Med	2 – Low / 3 – Med	2 – Low / 3 – Med	***4 – Low*** / ***3 – Med***	2 – Low	2 – Low	***2 – Low***	***4 – Low*** / ***7 – Med*** / ***1 – High***	4 – Low / 7 – Med / 1 – High	1 – Low	1 – Low	1 – Low	1 – Low	2 – Low / 1 – Med	6 – Low / 2 – Med	4 – Low / 2 – Med	***3 – Low*** / ***1 – Med***

Table 5.10: Alternatives Evaluation Matrix

Summary of Impacts[1]	No-Build	I-4 Mainline	Lake Mary Boulevard				CR 46A			SR 46		US 17-92							
			Alt. 1 Base	Alt. 2 SPUI	Alt. 3 GS - DDI	***Alt. 4 DDI w/Lake Emma Road Connector***	Alt. 1 Base Geometry	Alt. 2 CFI	***Alt. 3 DDI***	***Alt. 1 Base w/ Left Turn***	Alt. 2 Ramp Spur from I-4 EB to Roundabout	Alt. 1 Base	Alt. 2 Diamond	Alt. 3 SPUI	Alt. 4 Diamond Loop	Alt. 5 SPUI - T	Alt. 6 Partial Cloverleaf	Alt. 7 GS - DDI	***Alt. 8 Elevated TUDI***
Potential Contamination Ponds & Risk Rating		***Pond 300[4], FPC 300-A[4], FPC 300-B[4] & Swale 313A - Med***	0	0	0	***0***	0	0	***0***	***0***	0	0	0	0	0	0	0	0	***0***
		Pond 307[5], 308[5] - High																	
Potential to Improve Traffic Operations[6]	Low	***High***	Low	Medium	-[6]	***High***	Low	High	***High***	***High***	High	Low	-[6]	-[6]	-[6]	-[6]	High	High	***High***
Pedestrian Accommodations	Some Areas	***No***	Yes	Yes	Yes	***Yes***	Yes	Yes	***Yes***	***Yes***	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	***Yes***
Bicycle Accommodations	No[7]	***No***	Yes	Yes	Yes	***Yes***	Yes	Yes	***Yes***	***Yes***	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	***Yes***
Parcels Impacted	0	***20***	0	0	0	***5***	0	13	***10***	***0***	0	0	7	7	7	7	19	11	***10***
Relocations	0	***1***	0	0	0	***1***	0	0	***0***	***0***	0	0	0	0	0	0	4	2	***2***
Constructability		***High***	High	High	Low	***High***	High	High	***High***	***High***	High	High	High	High	High	High	High	Low	***High***
Bridges Area (SF)	0	***113,013***	86,471	52,000	71,273	***67,340***	47,084	133,116	***135,990***	***17,818***	17,818	65,039	97,930	169,106	149,458	176,641	340,059	548,164	***367,330***
Construction Cost[8]	None	***$229 M***	$31 M	$26 M	$35 M	***$47 M***	$26 M	$59 M	***$59 M***	***$10 M***	$11 M	$23 M	$42 M	$63 M	$59 M	$67 M	$125 M	$183 M	***$131 M***

Notes:
Abbreviations: CFI - Continuous Flow Intersection, DDI - Diverging Diamond Interchange, GS DDI - Grade Separated Diverging Diamond Interchange, SPUI - Single Point Urban Interchange, TUDI- Tight Urban Diamond Interchange, APE – Area of Potential Effect, NRHP - National Register of Historic Places.
Alt. # - Designates the recommended alternative.
[1]Table illustrates impacts from the proposed improvements to I-4 for the build alternative and comparatively shows any additional impacts from the various interchange alternative options.
[2]Recommended pond sites as determined in the *Pond Siting Report, November 2016*.
[3]APE includes area within existing ROW along I-4, within 330' from proposed ROW and proposed pond footprints plus 100' buffer.
[4]Within or near Ground Water Contamination Plume.
[5]Proximity to known Contamination Site #155 which involves heavy metals.
[6]Traffic operational analyses were not completed for alternatives that were dismissed from further consideration due to geometric/design constraints, operational deficiencies, inter-agency coordination indicating other preferences and/or being cost-prohibitive.
[7]Existing conditions provide paved shoulders/unmarked bicycle lanes in some locations.
[8]Construction costs are preliminary as determined by the Engineer's Estimate included in Appendix D; shown in millions of dollars.

6.0 Design Details of Recommended Alternative

Based on the preceding analysis, a recommended build alternative was identified and selected to meet the purpose and need for the I-4 BtU Segment 3 corridor. The Concept Plans for this project, included in Appendix A, are provided for all of the alternatives evaluated in this report. Design concept details and further analysis of the recommended build alternative are discussed in the following section of the report.

6.1 Typical Section

The proposed typical sections for Segment 3 were previously shown in Figure 1.2. A typical section package for the entire I-4 BtU corridor has been prepared and submitted under separate cover to FDOT. The concept design proposes the addition of two new express lanes in each direction, resulting in a total of ten dedicated lanes for the majority of the I-4 Segment 3 corridor (6 GUL + 4 EL). The section of I-4 from the begin project limits to just south of Lake Mary Boulevard will have three GUL and one auxiliary lane in each direction, resulting in a 12-lane section (6 GUL + 2 Aux + 4 EL) through this portion of the corridor. Common features of the typical sections include:

- a design speed of 70 mph,
- 12-foot wide travel lanes
- 10-foot inside and 12-foot outside shoulders (general use lanes),
- 4-foot inside and 10-foot outside shoulders (express lanes),
- a 2-foot wide barrier wall between the general use and express lanes and
- a minimum 300-foot right-of-way.

6.2 Alignment

Horizontal Alignment: The proposed horizontal alignment of I-4 closely follows the existing I-4 alignment, therefore there are minimal locations where the horizontal alignment will need to be adjusted. There are three locations along Segment 3 where the horizontal curvature will need to be adjusted. A design speed of 70 mph was used to develop the horizontal alignment for the Concept Plans. Specific cross slopes and superelevation transition limits are not provided in the concepts. These will be further developed during the line and grade phase. The Concept Plans are provided in Appendix A.

Vertical Alignment: The proposed improvements require significant vertical alignment modifications for 19 curves within Segment 3, to meet established criteria for the vertical alignment as outlined in Section 4.0 of this report. A vertical alignment for a design speed of 70 mph will be developed during the line and grade phase. A listing of the known vertical curves and their design speeds can be found in Section 2.6.

6.3 Right-of-way Requirements

The proposed improvements to I-4 Segment 3 will follow the existing alignment and will require right-of-way for the roadway mainline improvements, stormwater management facilities and floodplain compensation sites. The right-of-way impacts and acquisition of parcels at the I-4 and SR 429 (Wekiva Parkway)/SR 417 interchange are being handled as part of the Wekiva Parkway project. The total anticipated right-of-way impacts involve full or partial acquisition of 49 parcels for a total of approximately 41 acres; some parcels may be impacted by both roadway and stormwater acquisitions. The proposed roadway improvements are anticipated to impact 45 parcels, with approximately 18 acres of right-of-way required, as shown in Table 6.1; the parcels impacted are shown on the Concept Plans included in Appendix A.

Table 6.1: Right-of-way Acquisition for Roadway Improvements

Parcel ID	Roadway Alternative	Size (Acres)
06-20-30-300-002G-0000	Mainline	0.001
07-20-30-5MK-0000-0020	Mainline	0.661
07-20-30-300-005D-0000	Mainline	0.188
06-20-30-300-032C-0000	Mainline	0.132
06-20-30-300-0140-0000	Mainline	0.595
06-20-30-300-016D-0000	Mainline	0.201
06-20-30-509-0000-0010	Mainline	0.169
06-20-30-508-0000-01A0	Mainline	0.034
06-20-30-300-002D-0000	Mainline	0.102
06-20-30-300-002B-0000	Mainline	0.091
06-20-30-300-002E-0000	Mainline	0.009
06-20-30-300-002F-0000	Mainline	0.001
29-19-30-300-0060-0000	Mainline	0.030
29-19-30-300-005C-0000	Mainline	0.006
29-19-30-300-007F-0000	Mainline	0.009
29-19-30-300-007E-0000	Mainline	0.055
29-19-30-300-007G-0000	Mainline	0.039
29-19-30-300-007C-0000	Mainline	0.021
16-19-30-5AB-0A00-0010	Mainline	0.127
06-20-30-300-002X-0000	Mainline	0.030
18-20-30-300-002B-0000	Lake Mary Boulevard	0.098
18-20-30-300-012A-0000	Lake Mary Boulevard	0.726
18-20-30-510-0000-0030	Lake Mary Boulevard	1.183
18-20-30-300-0120-0000	Lake Mary Boulevard	1.331
18-20-30-510-0000-0050	Lake Mary Boulevard	0.991
06-20-30-300-032B-0000	CR 46A	0.020
31-19-30-509-0000-0150	CR 46A	0.247
31-19-30-509-0000-0140	CR 46A	0.063
31-19-30-509-0000-0120	CR 46A	0.130

Table 6.1: Right-of-way Acquisition for Roadway Improvements

Parcel ID	Roadway Alternative	Size (Acres)
31-19-30-509-0C00-0000	CR 46A	2.614
32-19-30-301-008E-0000	CR 46A	0.003
31-19-30-509-0000-0020	CR 46A	0.004
31-19-30-509-0000-0010	CR 46A	0.005
31-19-30-507-0000-0030	CR 46A	0.008
31-19-30-510-0000-0020	CR 46A	0.008
16-19-30-300-002A-0000	US 17-92	5.341
21-19-30-502-0700-0000	US 17-92	0.046
21-19-30-502-0300-0000	US 17-92	0.010
21-19-30-502-0400-0000	US 17-92	0.002
16-19-30-5AC-0000-013B	US 17-92	0.136
16-19-30-5AC-0000-025C	US 17-92	1.226
16-19-30-5AC-0000-025B	US 17-92	0.176
16-19-30-5AC-0000-025A	US 17-92	0.193
16-19-30-5AC-0000-0250	US 17-92	0.375
16-19-30-5AC-0000-0240	US 17-92	0.292
Total Right-of-Way Required:		**17.729**

The right-of-way required for stormwater facilities and floodplain compensation (full or partial acquisition), based on the recommended pond sites as determined in the *Pond Siting Report (November 2016),* is approximately 23 acres from 11 parcels, as shown in Table 6.2. Parcels impacted by pond right-of-way acquisitions are identified in the Concept Plans in Appendix A. Details on the proposed drainage system for the recommended alternative are provided in Section 6.6 of this report and the supplemental *Pond Siting Report (November 2016)*.

Table 6.2: Right-of-way Acquisition for Stormwater Facilities

Pond Name	Parcel ID	Size (Acres)
300	25-20-29-503-0A00-0000	3.46
	25-20-29-510-000-0070	0.58
303-B2	24-20-29-300-0090-0000	2.71
308	07-20-30-5MK-0000-0020	7.71
317A	16-19-30-300-002A-0000	3.53
318A	16-19-30-5AC-0000-0250	0.01
	16-19-30-5AC-0000-025A	0.01
	16-19-30-5AC-0000-0240	2.03
318B	16-19-30-5AC-0000-0250	0.02
	16-19-30-5AC-0000-025A	0.24
	16-19-30-5AC-0000-025B	0.40
	16-19-30-5AC-0000-025C	1.60
FPC 300-A	25-20-29-300-0050-0000	1.14
Total Right-of-Way Required:		**23.44**

6.4 Relocations

Right-of-way acquisition for the proposed improvements associated with I-4 Segment 3 involves partial or complete purchase of parcels within the project study area which may result in displacement of residential and non-residential land uses. In order to minimize the unavoidable effects of right-of-way acquisition and displacement of people, FDOT will carry out a Right-of-way and Relocation Program in accordance with state statutes and federal regulations. This includes advance notification to property owners of impending acquisitions, fair market value payment for property rights and financial assistance to relocated individuals or businesses.

The recommended alternative for I-4 Segment 3 is anticipated to impact four parcels which are developed/occupied and may require full or partial acquisitions involving potential displacement of existing residences or commercial businesses. The four parcels total approximately five acres in size, with proposed right-of-way acquisition (full or partial) of approximately three acres, as shown in Table 6.3. The remaining impacted parcels that are developed/occupied are expected to be partial acquisitions involving right-of-way takes of approximately 10% or less of the total parcel. Additional information pertaining to the potentially displaced properties, including resources available to facilitate relocation and socio-economic impacts to the surrounding neighborhoods are identified in the *Conceptual Stage Relocation Plan - Segment 3: SR 400 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (Seminole/Volusia County Line) [January 2017]*, prepared for this project.

Table 6.3: Potential Relocations

Parcel ID	Location	Parcel Size (Acres)	Proposed ROW Acquisition (Acres)
25-20-29-300-0050-0000	1486 Northridge Dr., Longwood, FL 32750	3.37	1.14
16-19-30-5AC-0000-025A	811 Monroe Rd., Sanford, FL 32771	0.44	0.44
16-19-30-5AC-0000-0250	805 Monroe Rd., Sanford, FL 32771	0.40	0.40
18-20-30-510-0000-0050	3700 Lake Emma Rd., Lake Mary, FL 32746	0.99	0.99
	Total:	**5.21**	**2.98**

6.5 Design Exceptions and Variations

From time to time, it may be necessary to deviate from the standard criteria used in the design process. If deemed necessary, two specific deviations may occur: (1) Design Exception or (2) Design Variation. A Design Exception is required when the design criteria applied falls below the minimums established by AASHTO. A Design Variation is required when design criteria applied falls below FDOT established criteria and the deviation is not covered by the Design Exception. Table 6.4 summarizes the 13 design elements and specifies whether AASHTO or FDOT design criteria are satisfied, or if a design exception/variation is required for the specific design element for the proposed improvements. The proposed improvements will require new construction; therefore, as indicated in Table 6.4, no design exceptions are anticipated. A design variation is anticipated for the median

shoulder widths in the express lanes and general use lanes. The proposed median shoulder widths for the express lanes and general use lanes are four feet and ten feet, respectively. These shoulder widths are consistent with the minimum required by AASHTO and will not require a design exception.

Table 6.4: Design Exceptions and Variations

Design Element	Design Exception < AASHTO	Design Variation < FDOT and > AASHTO
1. Design Speed	Satisfied	Satisfied
2. Lane Width	Satisfied	Satisfied
3. Shoulder Width	Satisfied	Required
4. Bridge Width	Satisfied	Satisfied
5. Structural Capacity	Satisfied	Satisfied
6. Vertical Clearance	Satisfied	Satisfied
7. Grade	Satisfied	Satisfied
8. Cross Slope	Satisfied	Satisfied
9. Superelevation	Satisfied	Satisfied
10. Horizontal Alignment	Satisfied	Satisfied
11. Vertical Alignment	Satisfied	Satisfied
12. Stopping Sight Distance	Satisfied	Satisfied
13. Horizontal Clearance	Satisfied	Satisfied

Table 6.5 lists additional design elements that are not addressed by AASHTO but require a design variation by FDOT if the standards are not met.

Table 6.5: Additional Design Elements

Design Element	Design Variation
Border Width	Required
Median Width	Satisfied
Length of Horizontal Curve	Satisfied
Length of Vertical Curve	Satisfied

A border width of 94 feet for freeways and interchange ramps is required by FDOT. In order to minimize impacts to adjacent properties and reduce right-of-way acquisition costs, a 15-foot border width has been used throughout the project limits. When necessary, standard concrete barrier wall will be placed at the edges of the outside shoulders. This will provide protection for motorists from objects that do not meet clear zone requirements and maintain the appropriate border width. The barrier wall will also be placed on top of any necessary retaining walls to provide protection from any drop offs.

6.6 Drainage

This project will make many improvements to the water quality along the roadway corridor. The stormwater runoff from both the new and existing impervious areas will be treated in existing and proposed stormwater facilities. The stormwater runoff will be collected by storm sewer systems and roadside ditches. The water quality treatment and attenuation will be achieved through the expansion and construction of offsite ponds and treatment swales, some of which will require acquisition of additional right-of-way.

The stormwater will be routed to existing and proposed stormwater ponds and treatment swales. There are a total of 22 basins within the project limits. In areas with poor soils and high water table, only wet detention ponds were considered. The ponds were sized based on the assumption that most of the offsite runoff would be drained through separate systems. For a majority of the ponds, the location of where the proposed basins begin and end is the same as the existing condition. The location of the outfall in the proposed condition is the same as the existing. Basins HH to 306 are located within the Wekiva Recharge Protection Basin and the Wekiva River Hydrologic Basin. Basins 316, 317 and 318 outfall to Lake Monroe, which is a nutrient impaired body of water.

The following is a summary of the findings documented in the *Location Hydraulic Report (November 2016)* and the *Pond Siting Report (November 2016).* These documents contain more detailed information regarding the drainage along the project corridor.

6.6.1 Proposed Drainage Patterns

There are nine (9) basins (Basin HH to 306) within the project that ultimately discharge to the Wekiva River Hydrologic Basin. The first two basins have two existing ponds (Ponds HH and II) that do not need to be expanded or regraded. The existing ponds were designed to provide treatment and attenuation for the additional runoff generated by the proposed improvements. Ponds HH and II are located within the FDOT's existing right-of-way; therefore, no additional right-of-way is required.

Basins 300, 301, 302, 303, 304, 305 and 306 require the existing ponds to be expanded and regraded to provide treatment and attenuation for the additional runoff generated by the proposed improvements. Pond 301, 302, 304, 305 and 306 modifications are within the FDOT's existing right-of-way or drainage easement; therefore, no additional right-of-way is required. Pond 300 and 303-B2 modifications require additional right-of-way to provide treatment and attenuation for the additional runoff generated by the proposed improvements. The basin limits for Basin 305 and Basin 306 have been modified from the original basin limits to accommodate for the proposed improvements to Lake Mary Boulevard. The location of the pond outfall is maintained in the proposed condition.

There are two basins (Basins 307 to 308) that ultimately discharge to the Lake Emma basin which is land-locked. Basin 307 does not require any modifications to existing Pond 307 to provide treatment

and attenuation for the additional runoff generated by the proposed improvements. Pond 307 is located within the FDOT's existing right-of-way; therefore, no additional right-of-way is required. Basin 308 limits for the proposed condition will be extended to the north by 1,250 feet and requires the existing pond to be expanded and regraded to provide treatment and attenuation for the additional runoff generated by the proposed improvements. Pond 308 is located within an FDOT drainage easement and the modifications will require additional right-of-way.

Basins 309, 310 and 311 treat runoff from CR 46A and extend to the I-4 and SR 417 interchange. In the proposed condition, Basin 309 will be reduced by 1,250 feet. Basin 309 has two existing ponds (Ponds 309 and 309A) that will be combined into one wet detention pond, Pond 309. The pond modifications are within the FDOT's existing right-of-way; therefore, no additional right-of-way is required. Basins 310 and 311 have two existing ponds (Ponds 310 & 311) that will be expanded and regraded. The pond modifications are within the FDOT's existing right-of-way; therefore, no additional right-of-way is required. Basins 309, 310 and 311 are considered land-locked.

There is one basin (Basin 312) that is within the future I-4 and Wekiva Parkway (SR 429) interchange. The basin includes Pond 312 that was constructed for treatment and attenuation. Although Pond 312 was recently constructed and designed to accommodate the current I-4 Ultimate roadway expansion, the proposed improvements to I-4 and the Wekiva Parkway (SR 429) project will impact this pond; therefore, modifications to this pond will be made by others during the design of the Wekiva Parkway (SR 429) project.

Basin 313A treats runoff from the eastbound ramp to SR 46, the ramp to Towne Road, North Oregon Avenue and a small portion of SR 46 from east of I-4. The basin includes a proposed swale (Swale 313A). Swale 313A is proposed within the existing right-of-way and therefore no additional right-of-way is required. Basin 313A discharges to Lockhart-Smith Canal, which is an open basin.

The next three basins (Basins 313-315) begin at SR 46 and continue north along the I-4 corridor. None of the three basins require any modifications to the existing ponds (Pond 313, 314 and 315) to provide treatment and attenuation for the additional runoff generated by the proposed improvements. All three ponds are located within the FDOT's existing right-of-way; therefore, no additional right-of-way is required. The ponds ultimately discharge to the Lockhart-Smith Canal as in the existing condition.

The final three basins (Basins 316-318), north of SR 46 to the US 17-92 bridge at the St. Johns River, ultimately discharge to Lake Monroe, which is a nutrient impaired water body. Basin 316 does not require any modifications to the existing pond (Pond 316) to provide treatment and attenuation for the additional runoff generated by the proposed improvements. Basin 317 has three existing ponds (Ponds 317A, 317B and 317C); Pond 317A will be expanded (requiring additional right-of-way) and Pond 317C will be reduced and regraded to accommodate the proposed alignment. No modifications

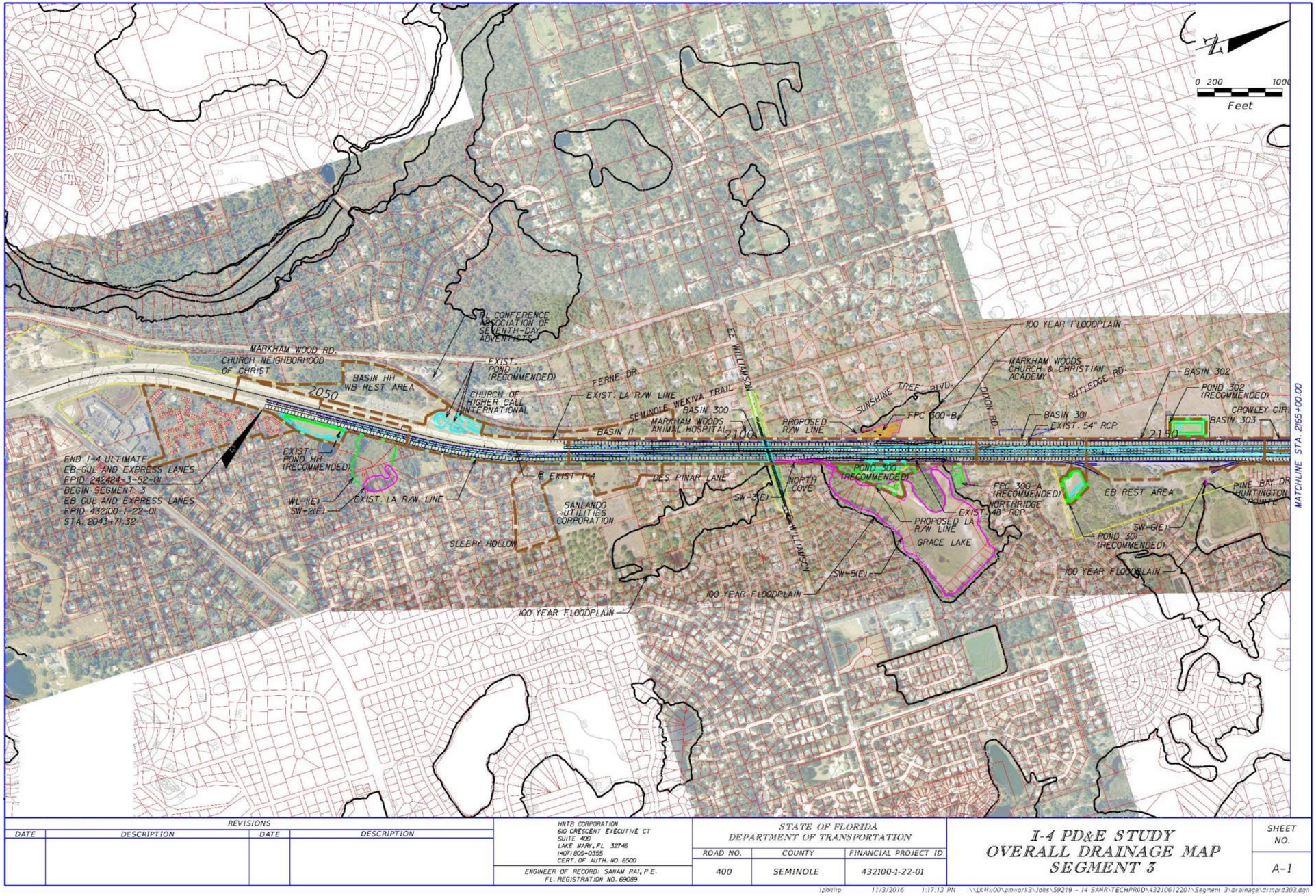
will be necessary for Pond 317B. Pond 317B and 317C are within the FDOT's existing right-of-way; therefore, no additional right-of-way is required. Basin 318 includes School Street, Monroe Road and Orange Boulevard. Basin 318 requires modifications to an existing pond (Pond 318A) and a new proposed pond (Pond 318B) to provide treatment and attenuation for the additional runoff generated by the proposed improvements.

The *Pond Siting Report (November 2016)* evaluated the alternatives and identified the recommended pond sites. Table 6.6 lists the recommended pond alternatives and pond construction costs for I-4 Segment 3. The overall drainage maps for the project are shown in Figure 6.1 through Figure 6.4.

Table 6.6: Summary of Recommended Pond and FPC Sites

Basin Designation	Recommended Alternative	Total Pond Cost*
HH**	Pond HH**	$0.00
II**	Pond II**	$10,022.10
300	Pond 300	$3,006,104.38
301	Pond 301	$147,266.67
302	Pond 302	$125,013.85
303	Pond 303-A2 & Pond 303-B2	$3,345,459.00
304	Pond 304	$83,427.13
305	Pond 305 & Pond 305A	$487,590.53
306	Pond 306	$438,650.15
307	Pond 307	$0.00
308	Pond 308	$4,077,912.13
309	Ponds 309	$447,713.40
310	Pond 310	$11,220.17
311	Pond 311	$100,238.78
312	Ponds 312	$0.00
313	Ponds 313 & 313A	$0.00
313A	Swale 313A	$94,893.26
314	Pond 314	$0.00
315	Pond 315	$0.00
316	Pond 316	$0.00
317	Ponds 317A, 317B & 317C	$2,367,939.87
318	Ponds 318A & 318B	$2,061,693.36
FPC 300	FPC 300-A	$493,518.55
	Total:	**$17,298,663.33**

*Total pond cost, as determined in the *Pond Siting Report (November 2016)*, includes stormwater management facility construction costs, costs associated with wetland impacts and parcel acquisition costs.
**Existing basins and corresponding pond sites; SJRWMD Permit No. 4-117-22434-3.



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: SANAM RAI, P.E.
FL. REGISTRATION NO. 69089

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
OVERALL DRAINAGE MAP
SEGMENT 3

SHEET NO. A-1

Figure 6.1 – Overall Drainage Map (Sheet 1 of 4)

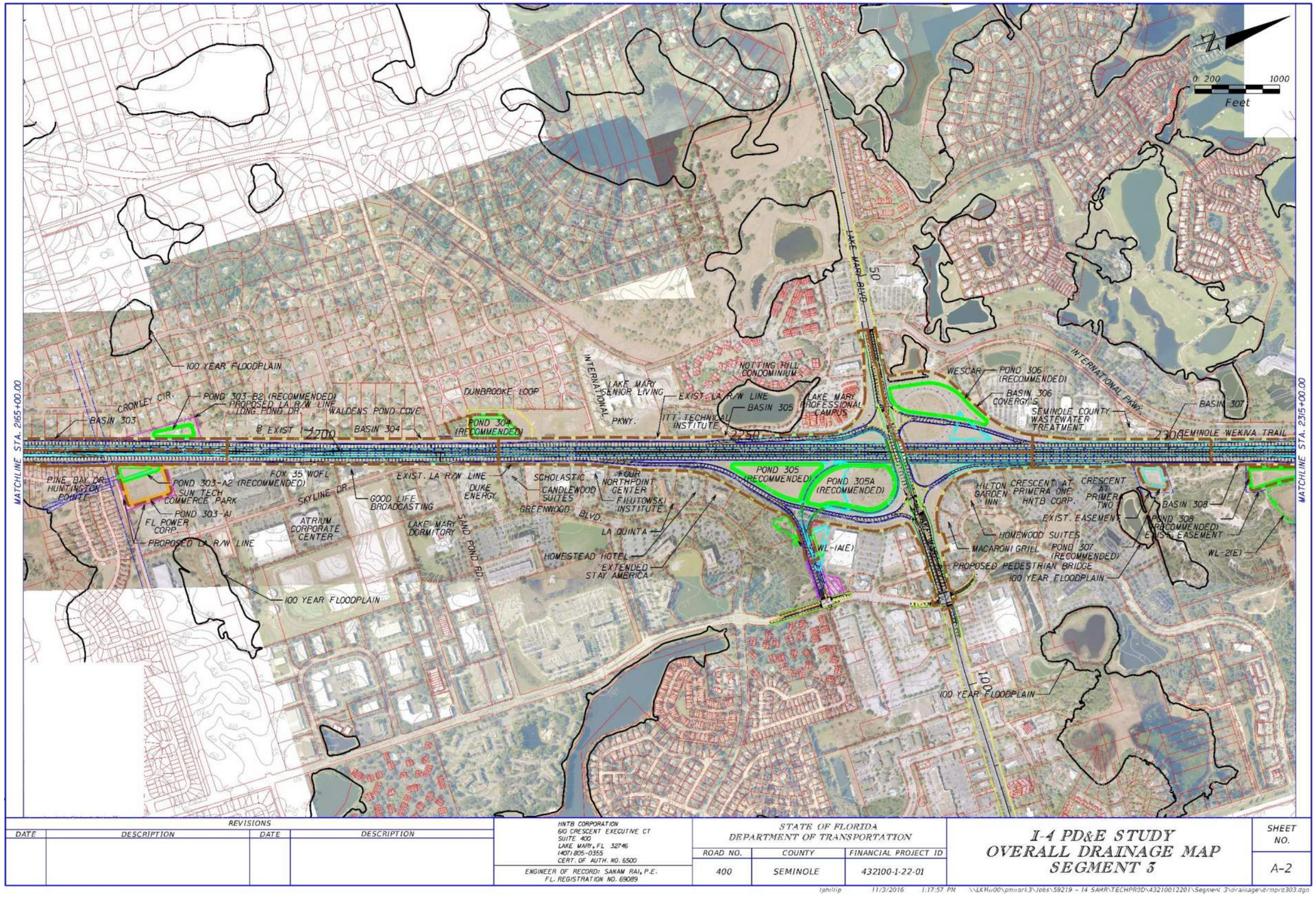
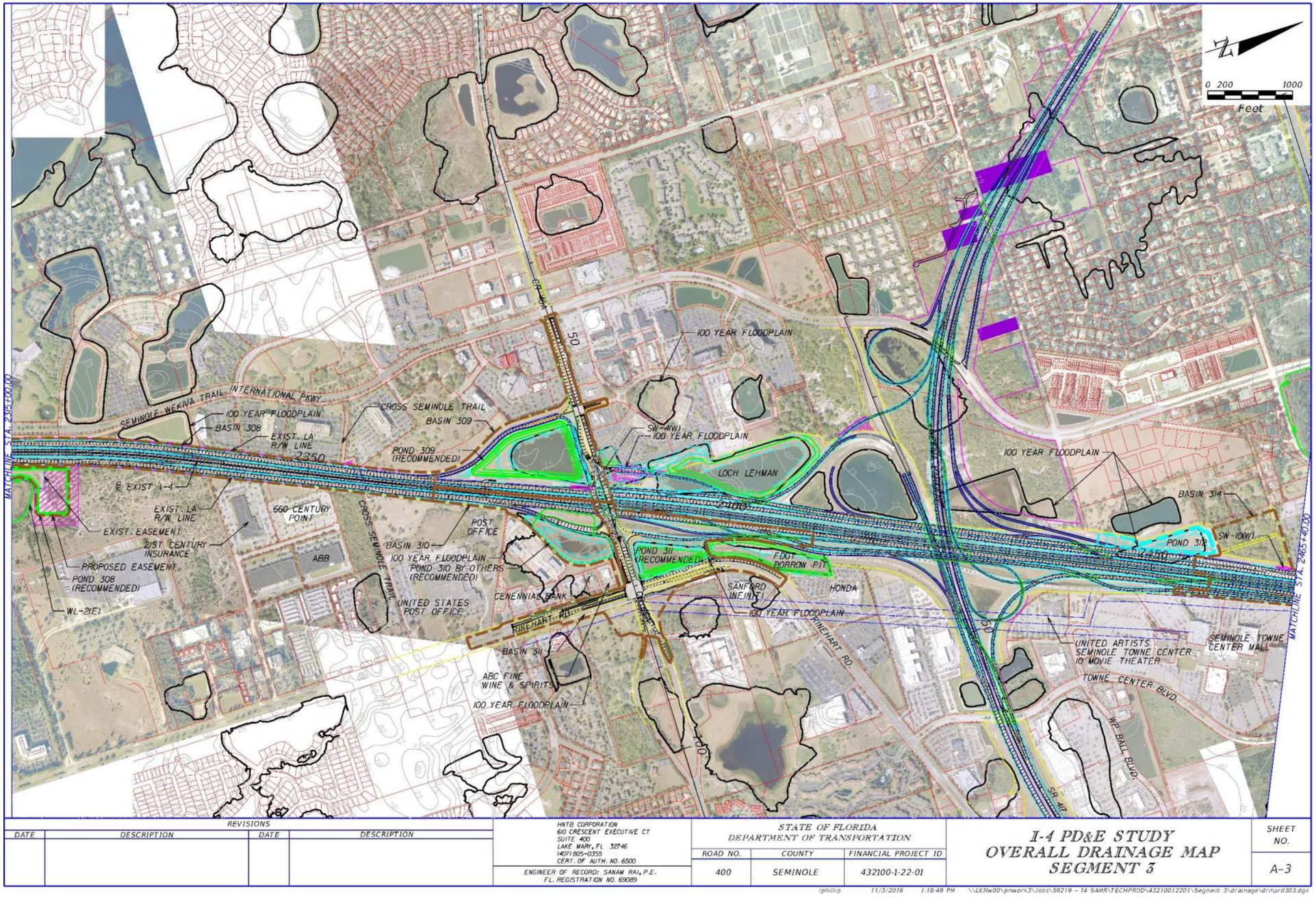


Figure 6.2 – Overall Drainage Map (Sheet 2 of 4)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: SANAM RAI, P.E.
FL. REGISTRATION NO. 69089

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
OVERALL DRAINAGE MAP
SEGMENT 3

SHEET NO. A-3

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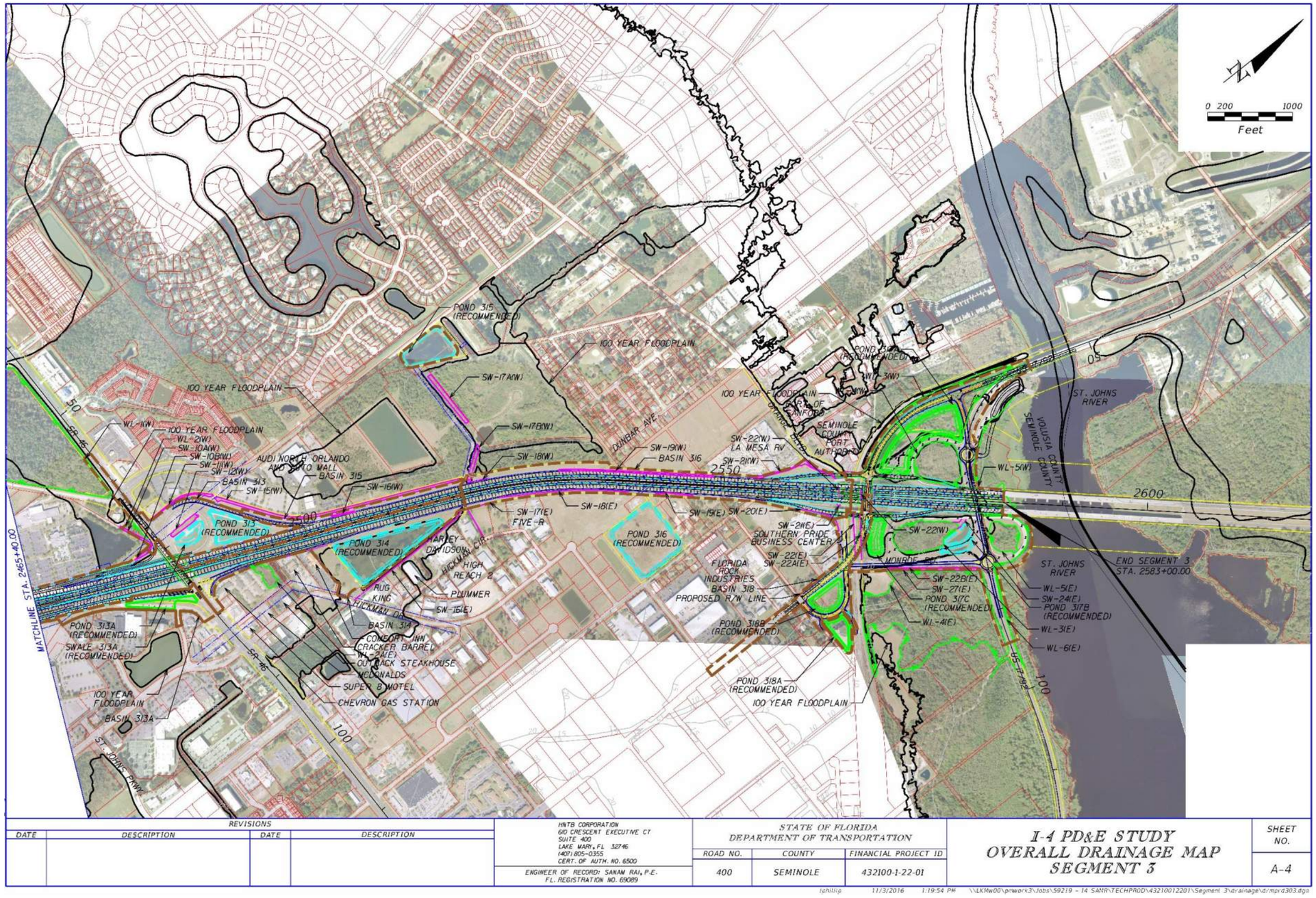
Figure 6.3 – Overall Drainage Map (Sheet 3 of 4)



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: SANAM RAI, P.E.
FL. REGISTRATION NO. 69089

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
OVERALL DRAINAGE MAP
SEGMENT 3

SHEET NO. A-4

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Figure 6.4 – Overall Drainage Map (Sheet 4 of 4)

6.6.2 Proposed Cross Drains

The cross drain located at Milepost 5.471 is located within the 100-year floodplain. Through hydraulic analysis, it was determined that the existing cross drains will not create any adverse impacts; therefore, the cross drains will not require upsizing. The cross drain located at Milepost 5.731 will require a change in slope to function adequately. Table 6.7 depicts the results of the hydraulic analysis; detailed calculations are provided in the supplemental report, *Location Hydraulic Report Segment 4: State Road 400 (SR 400)/Interstate 4 (I-4) from East of SR 15-600/US 17-92 (Seminole/Volusia County Line) to ½ Mile East of SR 472 (November 2016)*, prepared for this project.

Table 6.7: Proposed Cross Drains

Milepost	Station	Count	Span (in)	Rise (in)	Type	Length (Ft)	Elevation (Ft NAVD)	
							Upstream	Downstream
5.471	2120+87	1	48	48	RCP	248	57.80	57.20
5.731	2134+09	1	54	54	RCP	278	52.93	51.47
RCP – Reinforced Concrete Pipe								

6.7 Traffic Operational Analysis

Traffic operational analyses of the Recommended Build Alternative (referred to as Modified Build in the current I-4 SAMR Reevaluation) were completed. The operational analyses included Highway Capacity Analysis using Highway Capacity Software (HCS) 2010 for freeway, weave and ramp operations along the Interstate and Synchro software for arterial intersection operations. Additionally, micro simulation analyses were performed using VISSIM software to analyze the I-4 general and special use lanes and the study area intersections. Detailed analyses, including model runs and computer outputs are provided in *Appendix I [I-4 Systems Access Management Report Re-evaluation North Section - Operational Analysis (August 25, 2016)]* of the supplemental report, *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – from East of SR 434 to East of SR 472 (March 2017)*, prepared for this project; the following sections provide a summary of the traffic operations analyses for the recommended alternative.

Basic Freeway Operations

The results of the operational analyses of the basic freeway segments, as shown in Table 6.8, indicated that all segments (general purpose lanes) within I-4 Segment 3 would operate at LOS D or better during both the AM and PM peak hour for the projected 2040 traffic volumes.

Table 6.8: Basic Freeway Operational Analysis Results – Build 2040

Roadway/Segment		AM Peak Hour			PM Peak Hour		
		Avg Speed (mph)	Density (pc/mi/ln)	LOS	Avg Speed (mph)	Density (pc/mi/ln)	LOS
I-4 Basic Freeway Eastbound							
Study Terminus	SR 434 Off Ramp	71.2	22.2	C	69.0	25.2	C
SR 434 Off Ramp	SR 434 On Ramp	69.5	24.5	C	67.3	27.3	D
SR 434 On Ramp	On Ramp from EL at Lake Mary Blvd	66.1	27.0	D	65.7	27.5	D
On Ramp from EL at Lake Mary Blvd	Lake Mary Blvd Off Ramp	64.4	29.4	D	63.7	30.4	D
Lake Mary Blvd Off Ramp	On Ramp from Lake Mary Blvd	69.0	21.6	C	66.9	25.7	C
On Ramp from Lake Mary Blvd	Off Ramp to EL North of Lake Mary Blvd	69.2	21.1	C	66.4	26.5	D
Off Ramp to EL North of Lake Mary Blvd	CR 46A Off Ramp	69.5	20.3	C	67.1	25.3	C
CR 46A Off Ramp	SR 417 Off Ramp	70.0	13.1	B	70.0	15.7	B
SR 417 Off Ramp	SR 46 Off Ramp	70.0	10.5	A	70.0	13.2	B
SR 46 Off Ramp	On Ramp from CR 46A	70.0	7.8	A	70.0	11.0	A
On Ramp from CR 46A	On Ramp from SR 417	70.0	12.9	B	69.8	19.0	C
On Ramp from SR 417	On Ramp from SR 46	70.0	14.2	B	69.8	19.1	C
On Ramp from SR 46	US 17-92 Off Ramp	69.7	19.3	C	66.9	25.6	C
US 17-92 Off Ramp	On Ramp from US 17-92	68.8	22.1	C	66.2	26.8	D
I-4 Basic Freeway Westbound							
US 17-92 Off Ramp	On Ramp from US 17-92	65.9	28.9	D	71.1	22.3	C
On Ramp from US 17-92	SR 46 Off Ramp	67.7	26.8	D	73.2	19.2	C
SR 46 Off Ramp	SR 417-CR 46A Off Ramp	73.0	19.6	C	75.0	13.9	B
SR 417-CR 46A Off Ramp	On Ramp from SR 417	70.0	14.5	B	70.0	7.2	A
On Ramp from SR 417	On Ramp from SR 46	69.7	19.7	C	70.0	12.0	B
On Ramp from SR 46	On Ramp from CR 46A	67.4	24.8	C	70.0	18.0	B
On Ramp from CR 46A	On Ramp from EL North of Lake Mary Blvd	65.1	28.4	D	69.3	20.9	C
On Ramp from EL North of Lake Mary Blvd	Lake Mary Blvd Off Ramp	64.2	29.8	D	69.0	21.7	C
Lake Mary Blvd Off Ramp	On Ramp from Lake Mary Blvd	61.4	33.6	D	68.6	22.5	C
On Ramp from Lake Mary Blvd	Off Ramp to EL South of Lake Mary Blvd	63.3	32.1	D	65.8	29.1	D
Off Ramp to EL South of Lake Mary Blvd	SR 434 Off Ramp	65.7	27.5	D	66.8	25.8	C
SR 434 Off Ramp	On Ramp from SR 434 WB	65.3	28.1	D	67.9	23.9	C
On Ramp from SR 434 WB	On Ramp from SR 434 EB	68.6	22.6	C	69.6	19.8	C
On Ramp from SR 434 EB	Study Terminus	66.7	26.1	D	68.8	22.2	C
I-4 EL Eastbound							
Study Terminus	Off Ramp from I-4 South of Lake Mary Blvd	75.0	10.7	A	75.0	13.2	B
Off Ramp from I-4 South of Lake Mary Blvd	On Ramp from I-4 North of Lake Mary Blvd	75.0	7.8	A	75.0	9.7	A
On Ramp from I-4 North of Lake Mary Blvd	SR 417 Off Ramp	75.0	9.2	A	75.0	11.3	B
SR 417 Off Ramp	On Ramp from SR 417	75.0	7.1	A	75.0	8.9	A
On Ramp from SR 417	Off Ramp to I-4 South of Dirksen Dr	75.0	10.2	A	75.0	12.5	B
I-4 EL Westbound							
On Ramp from I-4 South of Dirksen Dr	SR 417 Off Ramp	75.0	12.5	B	75.0	10.2	A
SR 417 Off Ramp	Off Ramp to I-4 North of Lake Mary Blvd	75.0	8.9	A	75.0	7.1	A
Off Ramp to I-4 North of Lake Mary Blvd	On Ramp from I-4 South of Lake Mary Blvd	75.0	7.3	A	75.0	5.7	A
On Ramp from I-4 South of Lake Mary Blvd	Study Terminus	75.0	13.2	B	75.0	10.7	A

Intersection Operations

The results of the operational analyses, as shown in Table 6.9, indicated that the majority of study intersections within the project area are projected to operate at LOS D or better during both peak hours for the projected 2040 traffic volumes. Three of the 18 intersections would operate at LOS E during either the AM or PM peak hour.

Table 6.9: Intersection Operational Analysis Results – Build 2040

Primary Road	Secondary Road	AM Peak-Hour 2040		PM Peak-Hour 2040	
		Delay (sec)	LOS	Delay (sec)	LOS
Lake Mary Blvd	International Pkwy	32.7	C	75.0	E
	WB Ramps	30.5	C	38.4	D
	EB Ramps	24.5	C	38.6	D
	Lake Emma Rd	43.6	D	54.8	D
CR 46A	International Pkwy	63.1	E	62.8	E
	WB Ramps	26.3	C	34.2	C
	EB Ramps	24.1	C	26.2	C
	Rinehart Rd	59.0	E	68.7	E
Wekiva Pkwy	WB Ramps	4.5	A	5.0	A
	EB Ramps	10.9	B	14.7	B
SR 46	Oregon St	27.8	C	26.0	C
	WB Ramps	27.1	C	13.0	B
	EB Ramps	24.0	C	43.5	D
	Towne Center Blvd	23.0	C	36.3	D
US 17-92	Orange Blvd	26.6	C	36.7	D
	WB Ramps	19.5	B	40.8	D
	EB Ramps	51.4	D	40.5	D
	Old US 17-92	11.3	B	20.7	C

Intersections operating at LOS E.

6.8 Bridge Analysis

An analysis of the existing bridge conditions and proposed improvements for each bridge structure was conducted as part of this PD&E study. There are 18 existing bridge structures along the I-4 Segment 3 mainline. As part of this study, each bridge was evaluated to determine if widening or replacement of the bridges is required or if the bridge may remain in place. Where practical, widening or retrofitting the existing structure is recommended. However, due to the proposed roadway geometrics and alignment, there are several structures which will require replacement. Based on the bridge analysis, ten new bridge structures are recommended; the proposed improvements are summarized in Table 6.10. Vertical clearance requirements for bridges over CSX rail road are based on minimum vertical clearance to the rail of a future transit corridor.

Table 6.10: Proposed Bridge Improvements

Facility	Bridge No.	Proposed Improvements	Proposed Bridge Width (ft)	Proposed Bridge Length (ft)	Proposed Minimum Vertical Clearance (ft.)	Depth of Structure (ft)	Super-structure Type	No. Spans	Max Span Length	Comments
EE Williamson Road Over I-4	770018	Replace	53	270.2	16.5	5	Prestressed Concrete Beam	2	135.8	Bridges 700018 & 774051 to be replaced with a single bridge carrying highway pedestrian traffic.
EE Williamson Pedestrian Over I-4	774051	Demolish	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Bridges 700018 & 774051 to be replaced with a single bridge carrying highway pedestrian traffic.
Pedestrian Bridge Over I-4	New Bridge	New Bridge	19	1477	16.5	5	Prestressed Concrete Beam	10	150	
Lake Mary Blvd EB Over I-4	770040	Replace	161	300	16.5	6	Prestressed Concrete Beam	2	150	Bridges 770040 & 770039 to be replaced with a single bridge.
Lake Mary Blvd WB Over I-4	770039	Replace	174.9	334	16.5	6	Prestressed Concrete Beam	2	167	Bridges 770040 & 770039 to be replaced with a single bridge.
Lake Emma Rd to I-4 EB Ramp Over I-4 EB Off-Ramp	New Bridge	New Bridge	31	138	16.5	6	Prestressed Concrete Beam	1	138	
Lake Emma Rd to I-4 WB Ramp Over I-4 EB Off-Ramp	New Bridge	New Bridge	31	180	16.5	6	Steel Girder	1	180	
Lake Emma Rd to I-4 WB Over I-4	New Bridge	New Bridge	31	300	16.5	6	Prestressed Concrete Beam	2	150	
Pedestrian Bridge Over I-4	774049	Remain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
CR-46A EB Over I-4	770077	Replace	95	455	16.5	6	Prestressed Concrete Beam	4	140	Replace single bridge with 2 bridges to accommodate new interchange geometry
CR-46A WB Over I-4	New Bridge	New Bridge	123	406	16.5	6	Prestressed Concrete Beam	4	125	Replace single bridge with 2 bridges to accommodate new interchange geometry
I-4EB GUL Ramp to CR-46 Ramp to	New Bridge	New Bridge	80	700	16.5	6	Prestressed Concrete Beam	5	140	
I-4 WB over SR-417	770008	Remain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
I-4 EB over SR-417	770910	Remain	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
I-4 EB & WB EL Over SR-417	New Bridge	New Bridge	86	396	16.5	4	Prestressed Concrete Beam	4	106	

Table 6.10: Proposed Bridge Improvements

Facility	Bridge No.	Proposed Improvements	Proposed Bridge Width (ft)	Proposed Bridge Length (ft)	Proposed Minimum Vertical Clearance (ft.)	Depth of Structure (ft)	Super-structure Type	No. Spans	Max Span Length	Comments
SR-417 NB Ramp Over I-4 EB GUL to I-4 EB EL	New Bridge	New Bridge	31	744.4	16.5	10	Steel Girder	3	245	
I-4 WB Over SR-46	770084	Widen	35	204	16.5	8	Steel Girder	1	204	
I-4 EB Over SR-46	770085	Widen	45 int. 17 ext.	204	16.5	8	Steel Girder	1	204	
I-4 Over Outfall Ditch	770029	Extend	0	0	0	0	0	0	0	
I-4 WB Over Orange Blvd &CSX RR	770086	Widen	43	280	23.5	6	Steel Girder	2	140	
I-4 EB Over Orange Blvd &CSX RR	770087	Widen	43	245.5	23.5	6	Steel Girder	2	122.8	
I-4 WB Ramp Over Orange Blvd & CSX RR	770088	Replace	48	415	16.5	5	Prestressed Concrete Beam	4	130	Ramp requires replacement for proposed interchange with US 17-92
US 17-92 Over I-4	New Bridge	New Bridge	108	1907	16.5	6	Prestressed Concrete Beam	14	160	
I-4 EB Ramp B1 Over Orange Blvd & CSX RR	770089	Replace	60	290	16.5	5	Prestressed Concrete Beam	2	145	Ramp requires replacement for proposed interchange with US 17-92
US 17-92 Ramp to I-4 EB GUL	New Bridge	New Bridge	48	434.1	17.5	4.5	Prestressed Concrete Beam	4	121	
I-4 WB GUL Ramp to US 17-92	New Bridge	New Bridge	60	616	18.5	4.5	Prestressed Concrete Beam	5	123.2	
US 17-92 Over St. Johns River	770070	Reconstruct Spans 1 through 6	97	722	16.5	7	Prestressed Concrete Beam	5	145	Revise horizontal alignment to accommodate proposed US 17-92 interchange
I-4 WB Over US-17-92 and St. Johns River	790196	Widen with substructure retrofit	44	2566.3	45	7	Prestressed Concrete Beam	20	142.3	
I-4 EB Over US 17-92 and St. Johns River	790197	Widen with substructure retrofit	44	2566.3	45	7	Prestressed Concrete Beam	20	142.3	

6.9 Conceptual Signing Plan

A conceptual signing plan for the recommended alternatives was developed for the I-4 BtU improvements. A critical aspect in development of the signing concepts is distinguishing between the general use and special use (express) lanes. This is achieved by employing the designated sign panel colors to distinguish between the two lane facility types. The conceptual signing plan includes static and dynamic message signs (DMS) which show entry/exit access points between the general use and express lanes, as well as vehicle eligibility restrictions and toll pricing amounts. The conceptual signing plan for Segment 3 is provided in Appendix B.

6.10 Lighting

Based on the lighting warrant criteria specified in AASHTO's Roadway Lighting Design Guide (October 2005) and as determined in the *SR 400 (I-4) Project Development and Environment (PD&E) Study Lighting Justification Report – Segments 3 & 4: East of SR 434 to East of SR 472 (June 2014)*, continuous freeway lighting is recommended along all of Segment 3.

6.11 Utilities

Numerous utility companies have utilities located within the project corridor, as previously identified in Section 2.16 of this report. Utility impacts were carefully evaluated when considering the proposed roadway improvements and stormwater pond locations. The location of overhead utilities, existing power poles and access issues were also evaluated to minimize impacts. However, smaller gas lines and other buried utilities may involve relocation. Most utility companies have the capability to adjust their services without causing major inconveniences to the customers. As a result, mitigation measures, to the maximum extent feasible, will include the following:

- Maintaining utility connections in temporary locations;
- Minimizing the time without service;
- Installing alternative or new service before disconnecting the existing service; and
- Allowing service disruption only during periods of non-usage or minimum usage.

A *Utility Impact Assessment (April 2016)* report has been prepared and submitted under separate cover. Table 6.11 provides a summary of potential utility impacts associated with the proposed improvements for the recommended alternative in the I-4 Segment 3 corridor. Exact locations of existing utilities will be determined in the final design of the proposed improvements. Coordination with the known utility companies during the final design phase will assist in minimizing relocation adjustments and disruptions of service to the public.

Table 6.11: Proposed Utility Impacts

Type of Utility	Utility Owner	Type of Facility	Limits	Offset / Side	Begin Station	End Station	Relocation Required
Communications	ATT	9-4" PVC Duct Bank	From intersection of I-4 east bound ramp to Lake Mary Blvd east to intersection of Lake Emma Rd & Lake Mary Blvd	South side of road	77+98	88+48	Yes, adjust to run parallel to road
Communications	CenturyLink	Underground Copper Cable	From 13720-ft to 11030-ft south of Lake Mary, I-4 overpass	East side of road	2132+14	2158+62	Yes, adjust to run parallel to road
Communications	TW Telecom	Fiber Optic Cable	Crossing at intersection of I-4 eastbound ramp to CR 46A & CR 46A	East side of intersection	72+32	73+61	Yes, adjust to run parallel to road
Communications	TW Telecom	Fiber Optic Cable	From intersection of I-4 west bound ramp to CR 46A & CR 46A to intersection of Rinehart Rd & CR 46A	South side of road	58+68	79+99	Yes, adjust to run parallel to road
Communications	TW Telecom	Fiber Optic Cable	Crossing at CR 46A overpass of I-4	South side of overpass	66+90	71+45	Yes, adjust for bridge improvements
Electricity	Duke Energy Distribution	7.2 KV Aerial Electric	From 1500-ft to 5000-ft east of E.E. Williamson Overpass on I-4 Corridor	West side of road	2118+29	2157+66	Yes, adjust to run parallel to road
Electricity	Duke Energy Distribution	13 KV Underground Electric	Crossing at entrance of 7-11 on Lake Mary Blvd	North side of road	120+10	121+30	Yes, relocation of poles required
Electricity	Duke Energy Distribution	13 KV Underground Electric	Two lines from Lake Mary Overpass to 2760-ft east of Lake Mary, I-4 Overpass on I-4 Corridor	West side of road	2295+16	2266+33	Yes, adjust to run parallel to road
Electricity	Duke Energy Distribution	7.2 KV Underground Electric	From 160-ft east of intersection of International Pkwy & Lake Mary Blvd to 150-ft west of intersection of I-4 westbound ramp to Lake Mary Blvd & Lake Mary Blvd	North side of road	57+27	62+17	Yes, adjust to run parallel to road
Electricity	Duke Energy Transmission	230 KV Aerial Electric	Diagonal Crossing of I-4 Corridor, from 1560-ft west of to 730-ft east of SR 46, I-4 Underpass	Diagonally across road	2469+34	2490+52	Yes, relocation of poles required
Electricity	Florida Power and Light	13 KV Aerial Electric	Crossing at intersection of International Pkwy & Wekiva Pkwy	East side of intersection	10+94	11+81	Yes, relocation of poles required
Electricity	Florida Power and Light	115 KV Aerial Electric	Crossing at the intersection of Orange Blvd and Monroe Road	West side of intersection	2564+07	2565+19	Yes, adjust poles to be outside of proposed roadway
Natural Gas	Florida Public Utilities	2" Natural Gas Main	From 190-ft west of intersection of Colonial Center Pkwy & CR 46A to intersection of Rinehart Rd & CR 46A	South side of road	55+70	79+53	Yes, adjust for bridge improvements
Natural Gas	Florida Public Utilities	1.25" Natural Gas Main	From Towne Center Blvd, SR 417 underpass east to 500-ft east of Towne Center Blvd	North side of road	60+63	65+64	Yes, adjust to run parallel to road
Television	Bright House Networks	Unknown Size Underground CATV	From intersection of Wayside Dr. & SR 46 to intersection of Upsala Rd & SR 46	South side of road	61+96	120+99	Yes, adjust for bridge improvements
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Crossing of I-4 Corridor 2040-ft west of SR 417 underpass	N/A	2403+97	2404+19	Yes, extend across proposed I-4 Corridor
Wastewater/ Storm Water	Seminole County Utilities	Unknown Size Sanitary Water Main	Two Crossings of I-4 Corridor at Orange Blvd & US 17-92 underpasses	Center/east side of underpass	2564+91	2564+96	Yes, extend across proposed I-4 Corridor
Water	Lake Mary Utilities	12" Water Main	From 5420-ft west of to 5200-ft west of Lake Mary Blvd, I-4 corridor	East side of road	2211+10	2213+00	Yes, adjust to be parallel to proposed road

6.12 Section 4(f) Lands

In accordance with Section 4(f) of the Department of Transportation (DOT) Act of 1966 [Title 49, USC, Section 1653(f)] amended and codified in Title 49, USC, Section 303, the project was evaluated for potential Section 4(f) resources. Section 4(f) properties include publicly owned public parks, recreation areas, and wildlife or waterfowl refuges, or any publicly or privately owned historic site listed or eligible for listing on the National Register of Historic Places (NRHP). Publicly owned lands have been identified along the project study area corridor, near the end of I-4 Segment 3. The corridor is located in the environmentally sensitive area adjacent to both sides of I-4 near Lake Monroe. However, neither the improvements nor the acquisitions are anticipated to impact publicly owned lands. One park, two trails and three historic resources (either newly or previously recorded) have been identified as Section 4(f) properties within the I-4 Segment 3 corridor study area. No potential NRHP districts were identified due to the lack of concentration of historic structures. Table 6.12 provides a summary of the potential Section 4(f) properties. The project is not anticipated to impact these properties; there will be no change in access, visual impacts, noise, or other from the project.

Table 6.12: Potential Section 4(f) Sites

Site/Name	Location	Section 4(f) Property Type
Lake Monroe Wayside Park	North side of the existing US 17-92 alignment, west of I-4	Park or Recreational Facility
Cross Seminole Trail*	Follows an east/west alignment, crossing over I-4 approximately 1/2 mile south of CR 46A; extends east approximately 0.4 mile from the Seminole-Wekiva Trail over I-4, to Rinehart Road.	Park or Recreational Facility
Seminole-Wekiva Trail*	Follows a north/south alignment west of the Interstate; extends approximately 7.7 miles between the CR 46A & International Parkway and the SR 434 & Markham Woods Road intersections	Park or Recreational Facility
FMSF No. 8SE00077/ 8VO07174	Lake Monroe Bridge	NRHP-eligible swing through-truss bridge
FMSF No. 8SE02138	CSX Railroad (Northern segment near Monroe Road and crossing under I-4)	NRHP Eligible
FMSF No. 8SE02823/ 8VO09431	ACL Railroad Bridge over St. Johns River	NRHP-eligible rolling-lift bascule bridge

Table 6.12: Potential Section 4(f) Sites

Site/Name	Location	Section 4(f) Property Type
FMSF No. 8SE02326	Paola Church Cemetery (also called Banana Lake Cemetery)	Insufficient information for NRHP eligibility

Abbreviations/Notes:
FMSF – Florida Master Site File
NRHP – National Register of Historic Places
ACL- Atlantic Coast Line
*Portions of trail within study area are designated as part of the Florida Natural Scenic Trail.

6.13 Access Management

Access management is the practice of controlling vehicular access to a roadway in order to increase roadway efficiency and improve travel safety by reducing the number of traffic conflicts encountered by roadway users. The State Highway System Access Management Act (F.S. 335.18) mandates the implementation of access management standards based on the Access Management Classification System developed in Administrative Rule 14-97. Property access impacts were evaluated to determine whether access can be maintained in interchange areas via the local roadway network. Meetings were conducted with some property owners regarding property access.

I-4 has been identified as Access Management Class 1 under this system. Access Class 1 consists of limited access facilities (roadways which do not provide direct property connections).

Lake Mary Boulevard is a County road which has a future classification as a collector roadway west of I-4 and a principal arterial east of I-4. The study area along Lake Mary Boulevard starts at International Parkway and continues east to Lake Emma Road/Primera Boulevard. There are many commercial driveways along both sides of Lake Mary Boulevard, on either side of I-4. The recommended alternative adds an additional dedicated right turn lane from eastbound Lake Mary Boulevard to southbound Lake Emma Road. The recommended alternative also includes a concrete traffic separator between the eastbound dual left turn lanes and the through lanes to prohibit traffic exiting the existing convenience store/gas station from traversing across three through lanes to access the eastbound dual left turn lanes from Lake Mary Boulevard to Primera Boulevard.

CR 46A is a County road which has a future classification as an arterial roadway in the project study area. The study area along CR 46A starts at International Parkway and continues east to Rinehart Road. There are many commercial driveways along both sides of CR 46A, west of I-4. To the east of the interchange, CR 46A forms a major intersection with Rinehart Road, with a cemetery located in the southeast corner of the intersection. The recommended alternative adds an additional through lane in each direction for the entire length of the study area.

SR 46 is currently a Class 3 Access Management roadway between East of River Oaks Circle (MP 0.000) and SR 15-600 (MP 8.929). It is a principal arterial that has many businesses and driveways along the study area between International Parkway and Rinehart Road. The recommended alternative for SR 46 maintains the existing driveways along SR 46 within the right-of-way.

SR 15-600/US 17-92 is currently a Class 3 Access Management roadway between Seminole Boulevard (MP 13.655) and SR 400/I-4 (MP 16.929) and also between SR 400/I-4 (MP 0.00) and the Volusia County Line (MP 0.521). It is a principal arterial that has many businesses and driveways along the study area between Lake Monroe Park Circle and Walnut Crest Run. The recommended alternative for US 17-92 realigns and connects US 17-92 with Monroe Road. The shared driveway/entrance for Southern Pride Business Center and the Kangaroo gas station along Monroe Road will be removed and all access will be provided at the shared driveway on Orange Boulevard. Two residential driveways/properties will be acquired at the northeast corner of Monroe Road and School Street.

6.14 Project Cost Estimates

The total estimated cost of construction including Maintenance of Traffic (MOT) and contingency is $451.2 Million. Estimated Engineering Design-Build and Construction Engineering and Inspection (CEI) costs are expected to be an additional 7% and 8% each, respectively, of the total construction cost. The complete Long Range Estimates (LRE) for Segment 3 are included in Appendix C. The total estimated cost for I-4 Segment 3 is $518.9 Million; Table 6.13 shows the breakdown of estimated project costs for I-4 Segment 3.

Table 6.13: Estimated Project Costs for I-4 Segment 3

Item	Cost
LRE	$338,864,256
MOT (10%)	$33,886,426
Mobilization (10%)	$37,275,068
Project Unknowns (10%)	$41,002,575
Project Non-Bid Subtotal	$150,000
Construction Subtotal	**$451,178,325**
Design-Build (7%)	$31,582,483
CEI (8%)	$36,094,266
Total	**$518,855,074**

6.15 Production Schedule

The PD&E re-evaluation for Segment 3 is scheduled to be completed Summer of 2017. The preliminary design began in September 2015. The segment is projected to be procured as a Design-Build project and is funded for right-of-way in FY 2022-FY 2025; however, it is not funded for construction.

7.0 Supplemental Technical Reports

A series of supporting documents including Technical Reports and Memorandums were prepared as part of the PD&E study for this project. Information from these reports was used to evaluate and develop the alternatives and design recommendations in this PER. These documents are listed here for reference.

1. *Air Quality Analysis Technical Memorandum - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [July 2016]

2. *Concept of Operations - SR 400 (I-4) from West of SR 25/US 27 to East of SR 472* [June 2016]

3. *Conceptual Stage Relocation Plan - Segment 3: SR 400 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92 (Seminole/Volusia County Line)* [January 2017]

4. *Contamination Screening Evaluation Report - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [July 2016]

5. *Endangered Species Biological Assessment - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [July 2016]

6. E*valuation and Assessment of the I-4 Ultimate and Beyond the Ultimate 2002 FEIS and RODs (2002 and 2005) [May 2017]*

7. *I-4 Beyond the Ultimate Systems Access Modification Report (SAMR) Re-Evaluation: I-4 Beyond the Ultimate Project North Section – from East of SR 434 to East of SR 472* [March 2017]

8. *Interstate 4 from 1 Mile East of State Road 434 to Volusia County Line Value Engineering Study Recommendation Dispositions* [April 2015]

9. *Level 2 Contamination Impact Assessment Report: SR 400 (I-4) Project Development and Environment (PD&E) Study Segment 3 Ponds 300, 300A, 300B, 307 and 308* [February 2015]

10. *Lighting Justification Report - Segments 3 & 4 East of SR 434 to East of SR 472* [June 2014]

11. *Location Hydraulic Report - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [November 2016]

12. *Noise Study Report - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [July 2016]

13. *Pavement Type Selection Report - Segment 3: East of SR 434 to East of US 17-92 – Seminole County, Florida* [April 2014]

14. *Pond Siting Report - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [November 2016]

15. *Report of Preliminary Geotechnical Engineering Investigation for Ponds - Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [December 2015]

16. *Reversible Express Lanes Evaluation - Segment 3 (1 Mile East of SR 434 to East of US 17-92) in Seminole County and Segment 4 (East of SR 15/600-US 17-92 to ½ mile East of SR 472) in Volusia County* [November 2014]

17. *SR 400(I-4) Over US 17-92 and St. Johns River Structural Evaluation Study* [September 2014]

18. *St. Johns River Multi-Use Bridge Concept Report - Segments 3 & 4: Seminole & Volusia Counties, Florida* [November 2014]

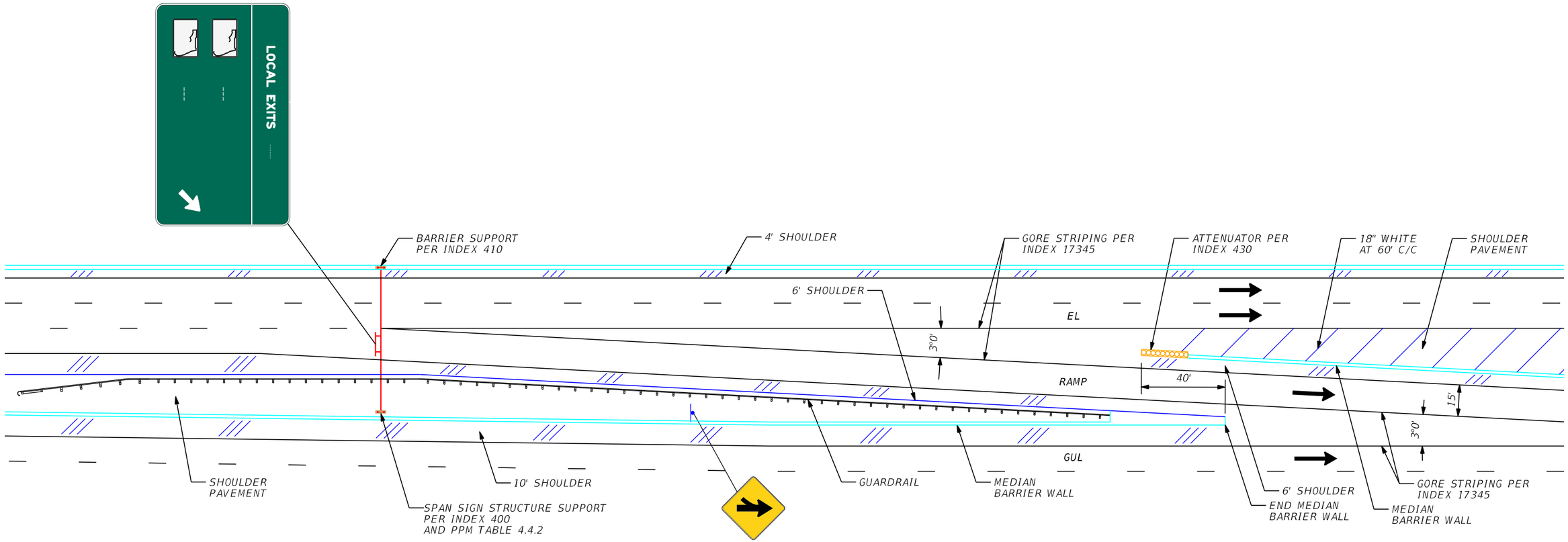
19. *Technical Memorandum: Cultural Resource Assessment Survey of Proposed Improvements to Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [December 2015]

20. *Technical Memorandum Addendum: Cultural Resource Assessment Survey of Proposed Improvements to Segment 3: Lake Emma Road Access Connection within the I-4 & Lake Mary Boulevard Interchange* [May 2017]

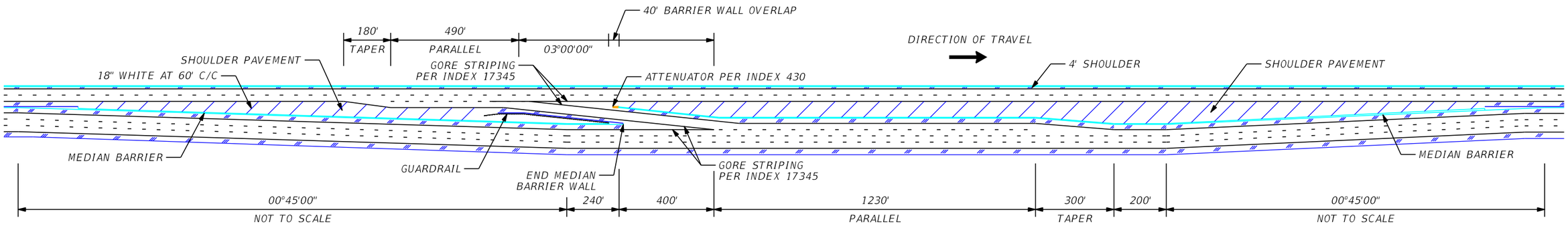
21. *Utility Impact Report Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92)* [April 2016]

22. *Wetland Evaluation Report (WER) Segment 3: State Road 400 (SR 400)/Interstate 4 (I-4) from One Mile East of SR 434 to East of SR 15-600/US 17-92* [July 2016]

Appendix A - **Concept Plans**



SLIP RAMP DETAIL EGRESS FROM EXPRESS LANES



SLIP RAMP DETAIL EGRESS FROM EXPRESS LANES

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SEGMENT 3

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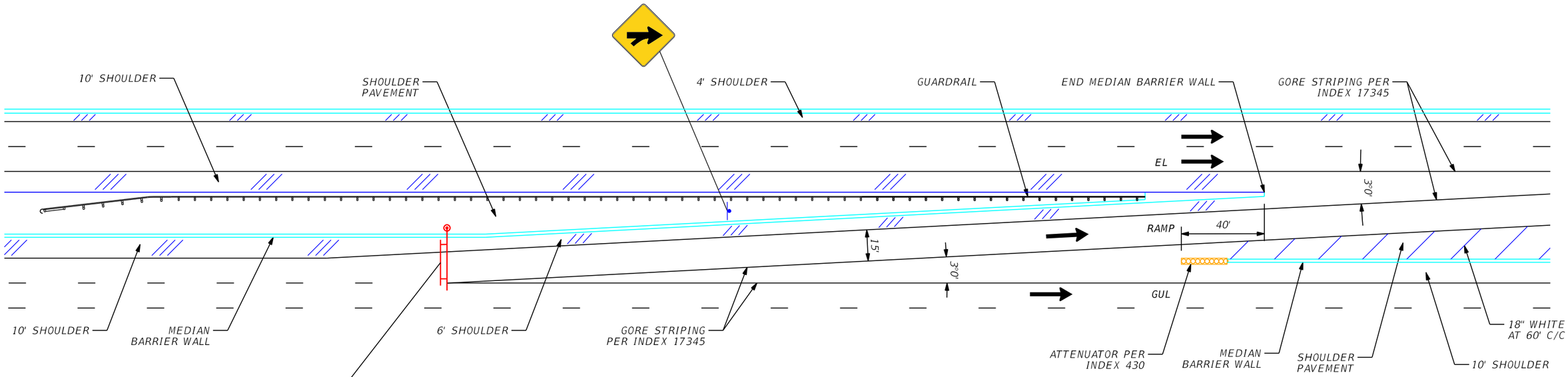

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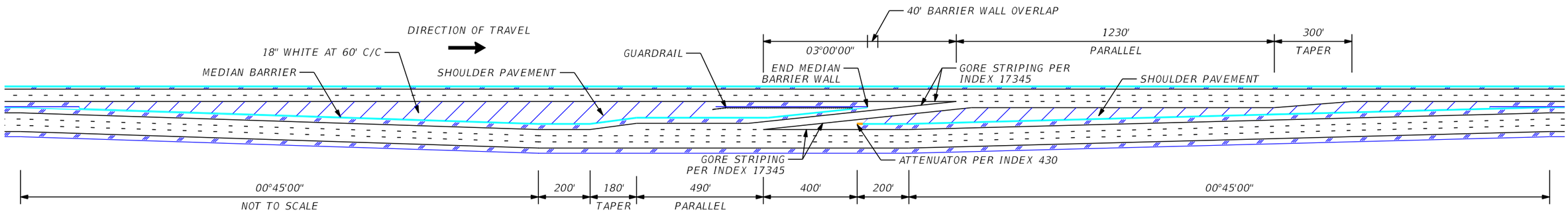

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ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SEGMENT 3

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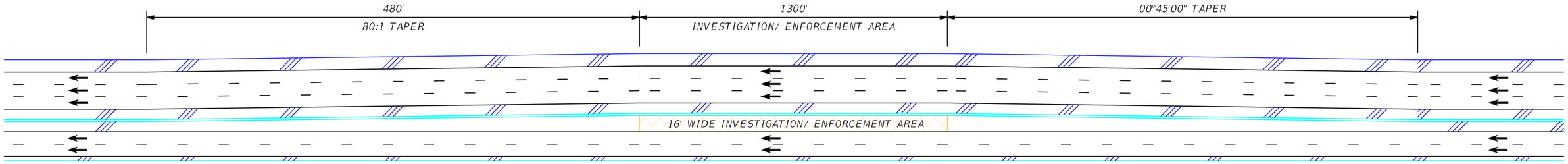
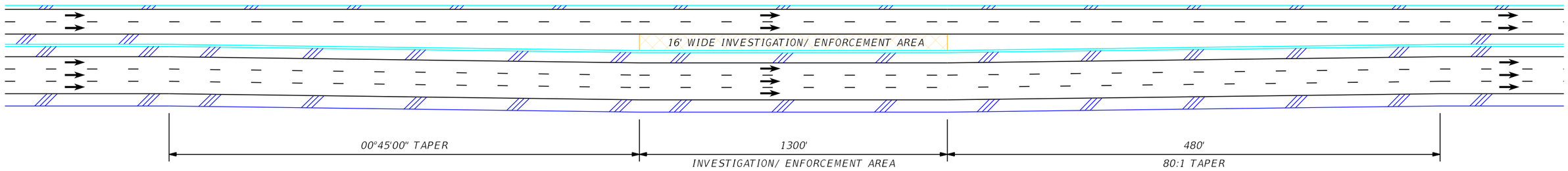


WESTBOUND INVESTIGATION/ ENFORCEMENT AREA DETAILS



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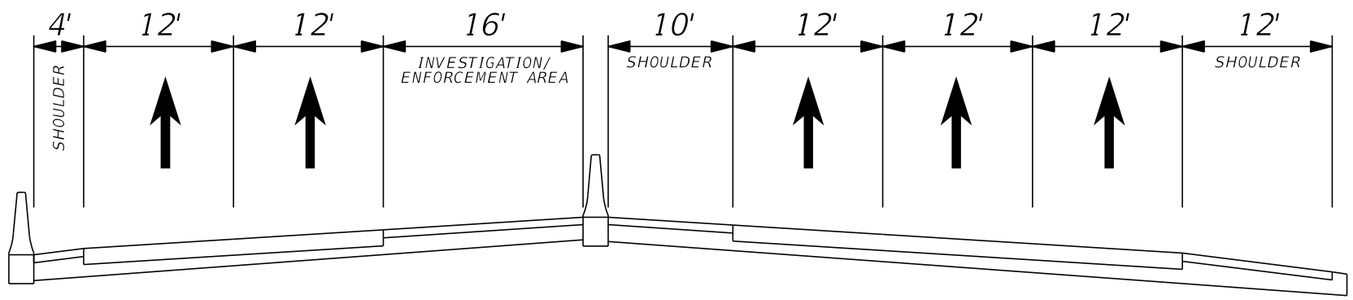

INVESTIGATION/ ENFORCEMENT AREA TYPICAL SECTION

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610 CRESCENT EXECUTIVE CT
SUITE 400
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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SEGMENT 3

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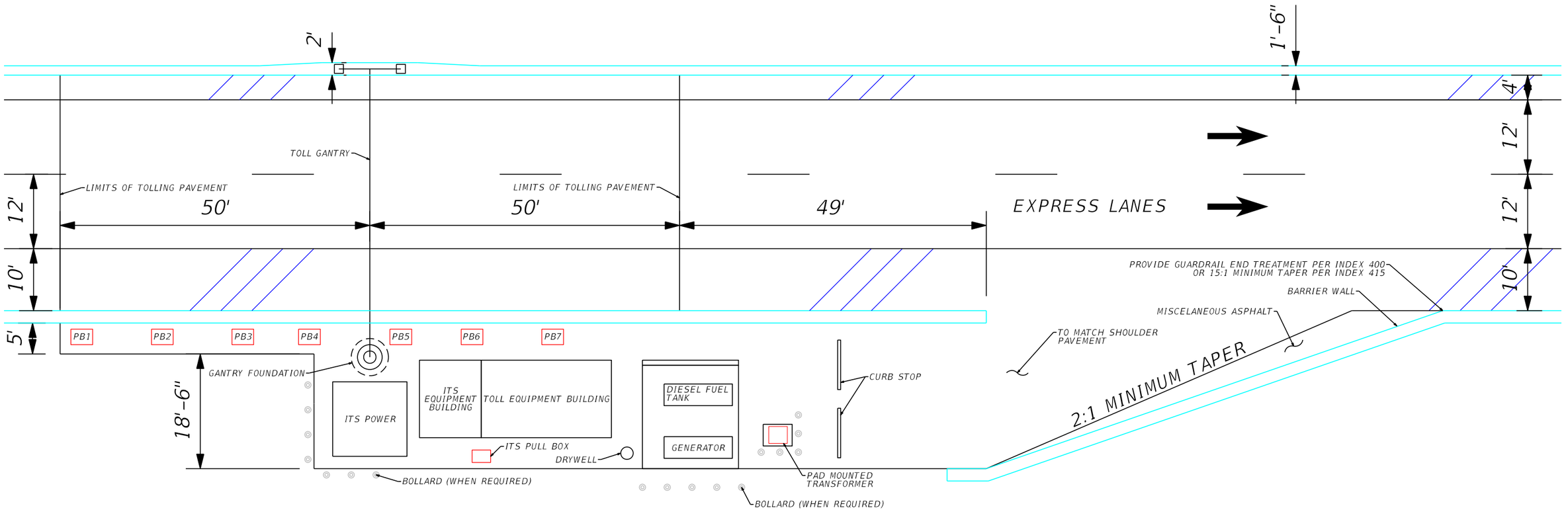

TYPICAL TOLL EQUIPMENT SITE BETWEEN ROADWAYS

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610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
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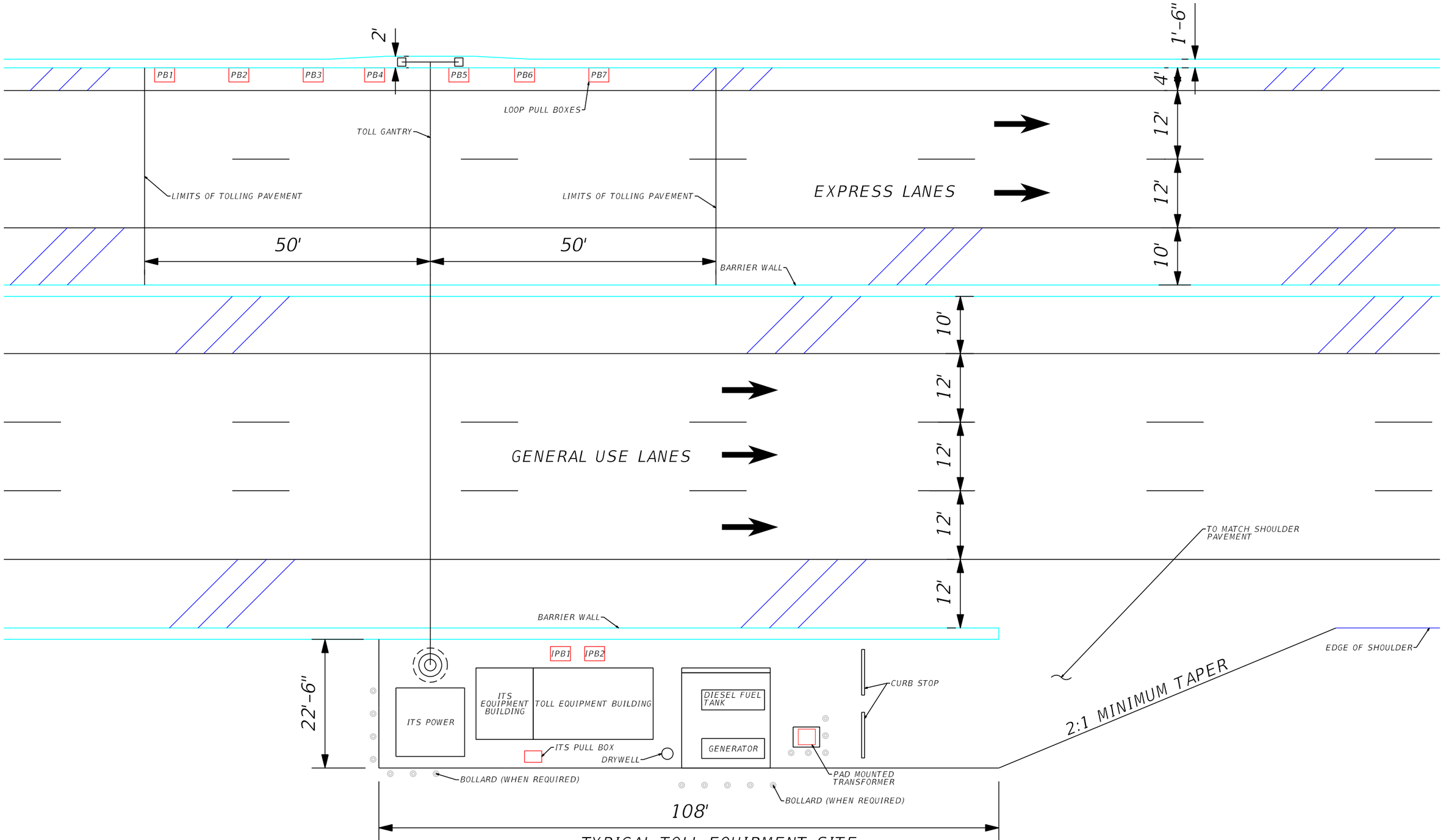

TYPICAL TOLL EQUIPMENT SITE
ON OUTSIDE OF ROADWAY
(EXTENDED GANTRY)

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SEGMENT 3

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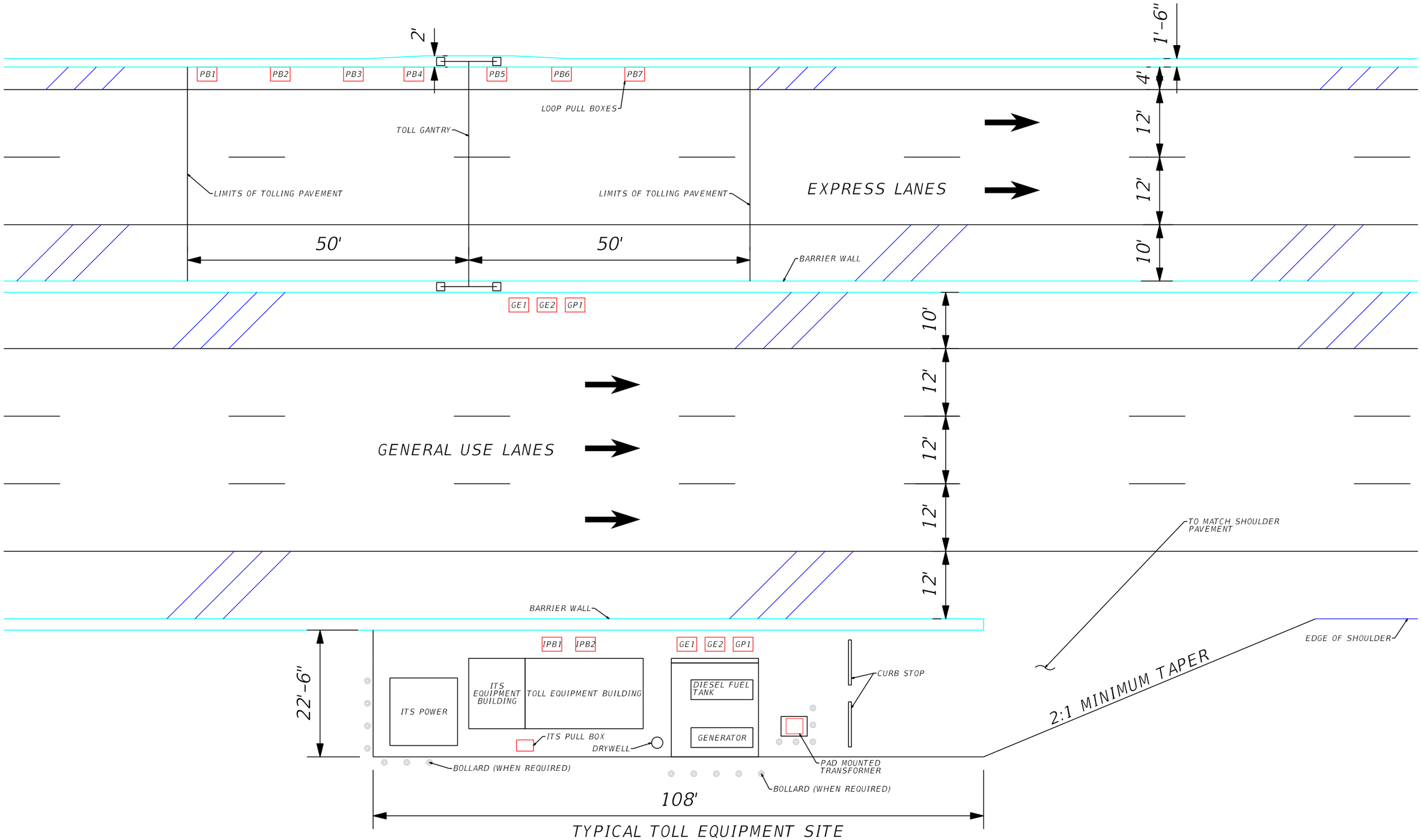

TYPICAL TOLL EQUIPMENT SITE ON OUTSIDE OF ROADWAY (ISOLATED GANTRY)

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SEGMENT 3

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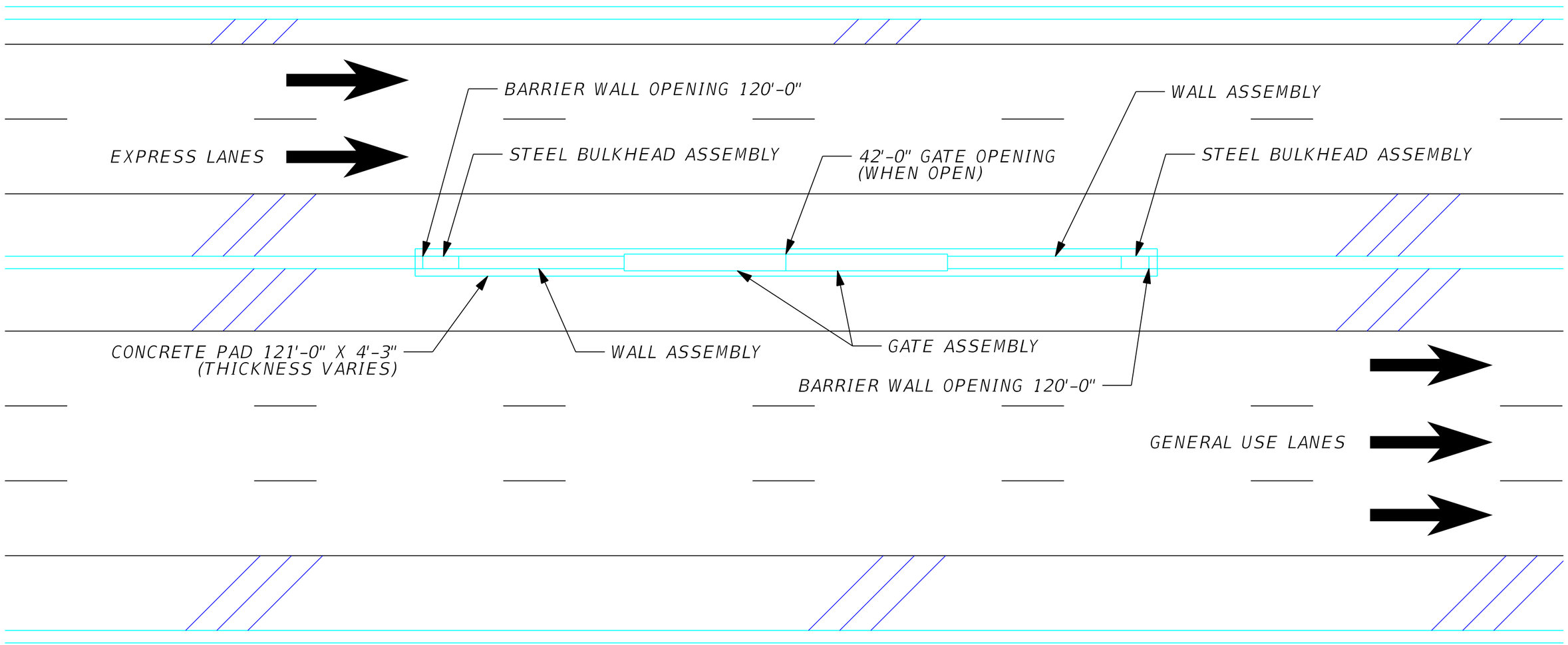

TYPICAL EMERGENCY ACCESS GATE DETAILS

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SUITE 400
LAKE MARY, FL 32746
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SEGMENT 3

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MARKHAM WOOD RD.

SEMINOLE WEKIVA TRAIL

100 YEAR FLOODPLAIN

NEIGHBORHOOD ALLIANCE CHRUCH

EXIST. LA R/W LINE

WB REST AREA TO BE REALIGNED PER FPID 432193-I-52-10 CONSTRUCTION EXPECTED FY 2015

2030 2035 2040 2045 2050 2055

I-4 EB EXPRESS LANES

I-4 EB GUL

℄ EXIST I-4

EXISTING POND HH (RECOMMENDED)

END I-4 ULTIMATE
EB-GUL AND EXPRESS LANES
FPID 432193-I-52-01
BEGIN SEGMENT 3
EB-GUL AND EXPRESS LANES
FPID 432100-I-22-01
STA. 2043+71.32

EXIST. LA R/W LINE

WL-I(E)

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EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

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FL CONFERENCE ASSOCIATION OF SEVENTH-DAY ADVENTISTS

SEMINOLE WEKIVA TRAIL

WB REST AREA TO BE REALIGNED PER FPID 432193-1-52-10 CONSTRUCTION EXPECTED FY 2015

MATCHLINE STA. 2057+00.00

CHURCH OF HIGHER CALL INTERNATIONAL

EXISTING POND 11 (RECOMMENDED)

FERNE DR.

N

0 50 200
Feet

END I-4 ULTIMATE - RICHEY GREEN REST AREA MODIFICATIONS
WB-SUL AND EXPRESS LANES
FPID 432193-1-52-01

BEGIN SEGMENT 3
WB GUL AND EXPRESS LANES
FPID 432100-1-22-01
STA. 2079+37.30

SEMINOLE WEKIVA TRAIL

EXIST. LA R/W LINE

2060 2065 2070 2075 2080 2085

I-4 WB GUL
I-4 WB EXPRESS LANES
I-4 EB EXPRESS LANES
I-4 EB GUL

EXIST LA R/W LINE

℄ EXIST I-4

WL-1(E)

SW-2(E)

SLEEPY HOLLOW

SANLANDO UTILITIES CORPORATION

MATCHLINE STA. 2086+00.00

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EXISTING R/W		EXISTING BRIDGE	
PROPOSED FDOT R/W		PROPOSED BRIDGE	
PARCEL LINES		BARRIER WALL	
FUTURE EXISTING CONDITION	(xx)	PARCEL NUMBERS	

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

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MATCHLINE STA. 2116+00.00

SEMINOLE WEKIVA TRAIL

EE WILLIAMSON

SUNSHINE TREE BLVD.

0 50 200
Feet

100 YEAR FLOODPLAIN

PARCEL ID: 26-20-29-300-0010-0000
AREA TAKEN: 74,021 SF

PROPOSED R/W LINE

FPC 300-B
(ALTERNATIVE)

EXIST. LA R/W LINE

MARKHAM WOODS
ANIMAL HOSPITAL

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

2090 2095 2100 2105 2110 2115

℄ EXIST I-4

DES PINAR LANE

TOULA AVE

HICKORY TREE AVE

HICKORY TREE RD

PENELOPE DR

100 YEAR FLOODPLAIN

SW-3(E)

POND 300
(RECOMMENDED)

EXISTING R/W

SW-5(E)

PARCEL ID: 25-20-29-503-0A00-0000
AREA TAKEN: 150,683 SF

PROPOSED LA R/W LINE

NORTH COVE

NORTH RIDGE CT

GRACE LAKE C/R

NORTH COVE BLVD

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **10**

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MODEL: planrd04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2116+00.00

SUNSHINE TREE BLVD.

DIXON RD.

RUTLEDGE RD.

0 50 200
Feet

100 YEAR FLOODPLAIN

PROPOSED R/W LINE

MARKHAM WOODS
CHURCH & CHRISTIAN ACADEMY

PARCEL ID: 26-20-29-300-0010-0000
AREA TAKEN: 74,021 SF

10

FPC 300-B
(ALTERNATIVE)

EXIST. LA R/W LINE

EXIST. 48" RCP

100 FT. ACCESS EASEMENT

15

15 FT. NON-EXCLUSIVE ACCESS EASEMENT

DIXON RD.

EXIST. 54" RCP

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

2120 2125 2130 2135 2140 2145

B EXIST I-4

EXIST. LA R/W LINE

12

13

14

I-4 EB GUL TO
REST AREA

EB REST AREA

POND 300
(RECOMMENDED)

FPC 300-A
(RECOMMENDED)

PROPOSED LA R/W LINE

NORTHRIDGE DR.

POND 301
(RECOMMENDED)

8

PARCEL ID: 25-20-29-503-0A00-0000
AREA TAKEN: 150,683 SF

PROPOSED LA R/W LINE

PROPOSED LA R/W LINE

11

PARCEL ID: 25-20-29-300-0050-0000
AREA TAKEN: 49,585 SF

NORTHRIDGE

PARCEL ID: 25-20-29-510-0000-0070
AREA TAKEN: 25,298 SF

SW-5(E)

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN

GRACE LAKE

SW-5(E)

MATCHLINE STA. 2146+00.00

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 11

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MODEL: planrd05
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2146+00.00

MATCHLINE STA. 2176+00.00

N

0 50 200
Feet

15 FT. NON-EXCLUSIVE ACCESS EASEMENT

EXIST. LA R/W LINE

POND 302
(RECOMMENDED)

CROWLEY CIR.

16 15 17 22 23 31 32 33 38 39 40 45 46 47

I-4 WB GUL

2150 2155 2160 2165 2170 2175

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

℄ EXIST I-4

REST AREA TO
I-4 EB GUL

EB REST AREA

BEGIN SHOULDER CONCRETE BARRIER
WALL, F SHAPED, WITH 10' NOISE WALL
STA. 2157+63.05

SW-6(E)

100 YEAR FLOODPLAIN

18 19 20 21 24 25 26 27 28 29 30 34 35 36 37

EXIST. LA R/W LINE

PINE BAY DR

END SHOULDER CONCRETE BARRIER
WALL, F SHAPED, WITH 10' NOISE WALL
STA. 2175+05.40

43 44

HUNTINGTON POINTE

PERPETUAL EASEMENT

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 12

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MODEL: planrd06
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2176+00.00

MATCHLINE STA. 2206+00.00

CROWLEY CIR.

LONG POND DR.

WALDENS POND COVE

0 50 200
Feet

PARCEL ID: 24-20-29-300-0090-0000
AREA TAKEN: 18,19 SF

PROPOSED LA R/W LINE

PROPOSED LA R/W LINE

POND 303-B2
(RECOMMENDED)

EXIST. LA R/W LINE

47 48 51 52 53 54 55 56 58 59 60 61 62 64 65

B EXIST I-4

I-4 WB GUL

2180 2185 2190 2195 2200 2205

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

EXIST. LA R/W LINE

POND 303-A2
(RECOMMENDED)

SKYLINE DR

49A 50 57 63

FOX 35 WOFL

GOOD LIFE BROADCASTING

PROPOSED LA R/W LINE

POND 303-A1
(ALTERNATIVE)

49B

SUN TECH COMMERCE PARK

SKYLINE DR.

PROPOSED LA R/W LINE

PARCEL ID: 24-20-29-512-0000-0020
AREA TAKEN: 191,299 SF

FL POWER CORP

ATRIUM CORPORATE CENTER

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkw.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **13**

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MODEL: planrd07
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2206+00.00

MATCHLINE STA. 2236+00.00

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 14

A-14

Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

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MODEL: planrd08
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2236+00.00

MATCHLINE STA. 2266+00.00

LAKE MARY SENIOR LIVING

INTERNATIONAL PKWY.

NOTTING HILL CONDOMINIUM

ITT TECHNICAL INSTITUTE

EXIST. LA R/W LINE

100 YEAR FLOODPLAIN

INTERNATIONAL PKWY.

LAKE MARY PROFESSIONAL CAMPUS

LAKE MARY WB TO I-4 WB GUL

0 50 200
Feet

I-4 WB GUL

2240 2245 2250 2255 2260 2265

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

I-4 EB GUL TO LAKE MARY BLVD

℄ EXIST I-4

POND 305 (RECOMMENDED)

I-4 EB GUL TO LAKE MARY BLVD

FOUR NORTHPOINT CENTER

LA QUINTA

HOMESTEAD HOTEL

EXTENDED STAY AMERICA

LAKE EMMA TO I-4 WB GUL

EXISTING POND

POND 305A (RECOMMENDED)

EXIST. LA R/W LINE

GREENWOOD BLVD.

PROPOSED LA R/W LINE

WL-1A(E)

I-4 EB GUL TO LAKE EMMA

(LAKE MARY BLVD ALTERNATE 4 SHOWN)

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
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ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 15

PRINT DRIVER: C:\dot_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-sjkw.tbl

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MODEL: planrd09
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2266+00.00

MATCHLINE STA. 2296+00.00

WESCAR

EXIST. LA R/W LINE

100-YEAR FLOODPLAIN

POND 306 (RECOMMENDED)

I-4 WB GUL TO LAKE MARY BLVD

EXISTING POND TO BE REMOVED

0 50 200
Feet

INTERNATIONAL PKWY.

CONVERGYS

NETCRACKER TECHNOLOGY SOLUTIONS

NETCRACKER TECHNOLOGY SOLUTIONS

77

NETCRACKER TECHNOLOGY SOLUTIONS

SEMINOLE COUNTY WASTEWATER TREATMENT

80

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

2270 2275 2280 2285 2290 2295

LAKE EMMA TO I-4 EB GUL

B EXIST I-4

EXIST. LA R/W LINE

LAKE MARY TO I-4 EB GUL

LAKE MARY BLVD

HILTON GARDEN INN

HOMEWOOD SUITES

CRESCENT AT PRIMERA ONE

HNTB CORPORATION

CRESCENT AT PRIMERA TWO

78

100 YEAR FLOODPLAIN

REMAX LAKE

202

(LAKE MARY BLVD ALTERNATE 4 SHOWN)

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS		

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 16

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MODEL: planrd10
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2296+00.00

MATCHLINE STA. 2326+00.00

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN

N

0 50 200

Feet

PARCEL ID: 07-20-30-300-005D-0000
AREA TAKEN: 8,185 SF

PARCEL ID: 06-20-30-300-0320-0000
AREA TAKEN: 5,732 SF

PARCEL ID: 06-20-30-300-0140-0000
AREA TAKEN: 25,938 SF

SEMINOLE COUNTY WASTEWATER TREATMENT

80

EXIST. LA R/W LINE

81

INTERNATIONAL PKWY.

SEMINOLE WEKIVA TRAIL

82

I-4 WB GUL

2300

2305

2310

2315

2320

2325

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

℄ EXIST I-4

EXIST. LA R/W LINE

POND 308
(RECOMMENDED)

79

POND 307
(RECOMMENDED)

EXIST. EASEMENT

EXIST. EASEMENT

WL-2(E)

100 YEAR FLOODPLAIN

79

PROPOSED EASEMENT

PARCEL ID: 07-20-30-5MK-0000-0020
AREA TAKEN: 28,813 SF

PARCEL ID: 07-20-30-5MK-0000-0020
AREA TAKEN: 335,708 SF

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W		GENERAL USE LANES	
PROPOSED LA R/W		EXPRESS LANES	
EXISTING R/W		EXISTING BRIDGE	
PROPOSED FDOT R/W		PROPOSED BRIDGE	
PARCEL LINES		BARRIER WALL	
FUTURE EXISTING CONDITION	(XX)	PARCEL NUMBERS	

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
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ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 17

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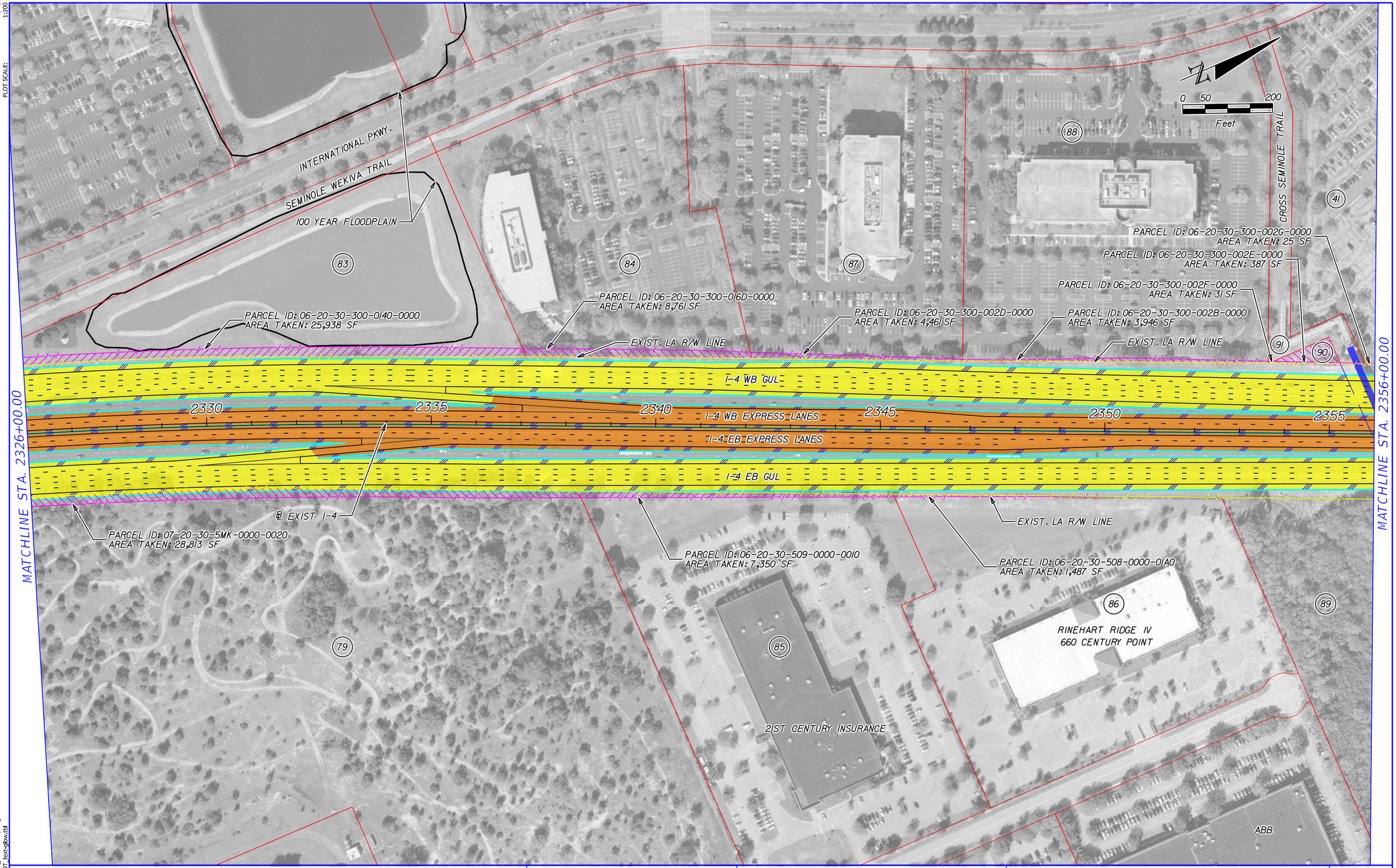

PRINT DRIVER: C:\dot_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-sjkw.tbl

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS		

HNTB CORPORATION
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FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 18

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MODEL: planrd12
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2356+00.00

MATCHLINE STA. 2386+00.00

0 50 200
Feet

92B

41

92A

PARCEL ID: 06-20-30-300-002G-0000
AREA TAKEN: 25 SF

CR 46A GUL RAMP TO I-4 WB GUL

SR 417 GUL RAMP TO I-4 WB GUL

EXIST. LA R/W LINE

AIRSPACE AGREEMENT

PARCEL ID: 06-20-30-300-002X-0000
AREA TAKEN: 1,325 SF

I-4 WB GUL

2360

I-4 WB EXPRESS LANES

2365

2370

2375

2380

2385

I-4 EB EXPRESS LANES

I-4 EB GUL

EXISTING BRIDGE TO REMAIN

EB EXIST I-4

89

CROSS SEMINOLE TRAIL

93

POST OFFICE

UNITED STATES POST OFFICE

PARCEL ID: 31-19-30-509-0000-0140
AREA TAKEN: 2,747 SF

186

PARCEL ID: 31-19-30-509-0000-0120
AREA TAKEN: 658 SF

EXIST. LA R/W LINE

100 YEAR FLOODPLAIN

187

GR 46A

POND 309
(RECOMMENDED)

100 YEAR FLOODPLAIN

PARCEL ID: 31-19-30-509-0C00-0000
AREA TAKEN: 117,324 SF

SW-4(W)

I-4 EB GUL RAMP TO CR 46A GUL

EXIST. LA R/W LINE

94B

94A

POND 310 (RECOMMENDED)
BY OTHERS

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN

CENTENNIAL BANK

(CR 46A ALTERNATE 3 SHOWN)

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qbw.tbl

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS		

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
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FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 19

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MODEL: planrd13
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2386+00.00

MATCHLINE STA. 2416+00.00

AREA SHADED IN GRAY TO BE CONSTRUCTED AS PART OF THE WEKIVA PARKWAY PROJECT.
FM 240200-4-52-01

0 50 200
Feet

PARCEL ID: 31-19-30-509-0000-0000
AREA TAKEN: 117,324 SF

PARCEL ID: 31-19-30-509-0000-0120
AREA TAKEN: 5,698 SF

100 YEAR FLOODPLAIN

EXIST. LA R/W LINE

SR 417 GUL RAMP TO I-4 WB GUL

SR 429 RAMP TO I-4 WB GUL

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN

I-4 WB GUL RAMP TO SR 417 SB

100 YEAR FLOODPLAIN

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

2390 2395 2400 2405 2410 2415

I-4 EB GUL

I-4 EB GUL RAMP TO SR 417 GUL

CR 46A RAMP TO I-4 EB GUL

I-4 EB EXPRESS LANES RAMP TO SR 417 GUL

100 YEAR FLOODPLAIN

℄ EXIST I-4

100 YEAR FLOODPLAIN

FDOT BORROW PIT

POND 310 (RECOMMENDED BY OTHERS

POND 311 (RECOMMENDED)

75

CR 46A

EXIST. LA R/W LINE

RINEHART RD.

100 YEAR FLOODPLAIN

SANFORD INFINITI

DON MEALEY IMPORTS

HONDA

ABC FINE WINE & SPIRITS

(CR 46A ALTERNATE 3 SHOWN)

80

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS		

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 20

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MODEL: planrd14
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2416+00.00

MATCHLINE STA. 2446+00.00

AREA SHADED IN GRAY TO BE CONSTRUCTED AS PART OF THE WEKIVA PARKWAY PROJECT. FM 240200-4-52-01

100 YEAR FLOODPLAIN

WEKIVA PARKWAY

WILSON RD

0 50 200
Feet

182

179

181

30

35

40

45

50

SR 417 NB RAMP TO I-4 WB GUL

100 YEAR FLOODPLAIN

I-4 WB GUL RAMP TO SR 417 SB

I-4 GUL RAMP TO SR 429 SB

I-4 EXPRESS LANES RAMP TO SR 429 SB

EXIST. LA R/W LINE

I-4 WB GUL RAMP TO SR 417 SB

EXIST. R/W LINE

POND 312

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

2420

2425

2430

2435

2440

2445

I-4 EB GUL

EXIST I-4

I-4 EB GUL RAMP TO SR 417 SB

SR 429 NB RAMP TO I-4 EB

SR 417

SR 417 NB RAMP TO I-4 EB

I-4 EB GUL RAMP TO SR 429 SB

EXIST. LA R/W LINE

132W

UNITED ARTISTS SEMINOLE TOWNE CENTER IO MOVIE THEATER

TOWNE CENTER CIR.

EXIST. R/W LINE

SOUTH MALL ENTRANCE

134W

SEMINOLE TOWNE CENTER

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 21

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MODEL: planrd15
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2446+00.00

MATCHLINE STA. 2476+00.00

100 YEAR FLOODPLAIN

EXISTING POND

EXIST. LA R/W LINE

POND 312

180

9

AREA SHADED IN GRAY TO BE CONSTRUCTED AS PART OF THE WEKIVA PARKWAY PROJECT. FM 240200-4-52-01

SW-10(W)

EXIST. PERP. EASEMENT

I-4 WB GUL

2450 2455 2460 I-4 WB EXPRESS LANES 2465 2470 2475

I-4 EB EXPRESS LANES

I-4 EB GUL

TOWNE CENTER CIR.

℄ EXIST I-4

177

178

176

SR 417 RAMP TO I-4 EB

I-4 GUL RAMP TO SR 46

EXIST. LA R/W LINE

PROPOSED LA R/W LINE

TOWNE CENTER PLAZA

MILLER'S ALE HOUSE RESTAURANT

SEMINOLE TOWNE CENTER

N. MALL ENTRANCE RD.

STEAK'N SHAKE

SEMINOLE TOWNE CENTER MALL

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS		

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 22

A-22

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

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MODEL: planrd16
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2476+00.00

MATCHLINE STA. 2506+00.00

SW-11(W)

SW-15(W)

EXIST. LA R/W LINE

AUDI NORTH ORLANDO AND AUTO MALL

0 50 200
Feet

AREA SHADED IN GRAY TO BE CONSTRUCTED AS PART OF THE WEKIVA PARKWAY PROJECT.
FM 240200-4-52-01

65

SR 46

100 YEAR FLOODPLAIN

SW-10A(W)

WL-2(W)

SW-12(W)

SR 46 GUL RAMP TO I-4 WB GUL

SR 46 EB RAMP TO I-4 WB GUL

SW-10B(W)

EXIST. LA R/W LINE

EXIST. PERP. EASEMENT

70

POND 313A (RECOMMENDED)

POND 313 (RECOMMENDED)

I-4 WB GUL RAMP TO SR 46

100 YEAR FLOODPLAIN

AUDI NORTH ORLANDO

SW-16(W)

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

2480 2485 2490 2495 2500 2505

℄ EXIST I-4

75

SR 46

80

SR 46 RAMP TO I-4 EB GUL

99

ROYAL INN & SUITES
PARCEL ID: 29-19-30-300-0060-0000
AREA TAKEN: 1,319 SF

WL-2A(E)

101

100

CRACKER BARREL

102

COMFORT INN

PARCEL ID: 29-19-30-300-007C-0000
AREA TAKEN: 92 SF

POND 314 (RECOMMENDED)

192

PARCEL ID: 29-19-30-300-007G-0000
AREA TAKEN: 1,720 SF

PARCEL ID: 29-19-30-300-007E-0000
AREA TAKEN: 2,392 SF

PARCEL ID: 29-19-30-300-007F-0000
AREA TAKEN: 377 SF

PARCEL ID: 29-19-30-300-005C-0000
AREA TAKEN: 277 SF

103

EXIST. LA R/W LINE

EXIST. LA R/W LINE

PROPOSED LA R/W LINE

SWALE 313A (RECOMMENDED)

TOWNE CENTER PLAZA

I-4 GUL RAMP TO TOWNE ROAD

I-4 GUL RAMP TO SR 46

SPRINGHILL SUITES

191

IHOP RESTAURANT

S. OREGON AVE.

SUNOCO GAS STATION

OUTBACK STEAKHOUSE

HICKMAN DR.

EXIST. LA R/W LINE

100 YEAR FLOODPLAIN

TOWNE RD.

MOBIL GAS STATION

MCDONALDS

7-11 GAS STATION

100 YEAR FLOODPLAIN
(SR 46 ALTERNATE I SHOWN)

SW-16(E)

MATRESS GIANT

Color_FDOTPDF.ptcfg
FDOT_text-glow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
PARCEL NUMBERS (xx)

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **23**

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MODEL: planrd17
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2506+00.00

MATCHLINE STA. 2536+00.00

SW-17A(W)

100 YEAR FLOODPLAIN

100 YEAR FLOODPLAIN

0 50 200
Feet

50 FT. EASEMENT
TO POND 315

SW-17B(W)

EXIST. LA R/W LINE

SW-15(W)

SW-18(W)

SW-19(W)

I-4 WB GUL
I-4 WB EXPRESS LANES
I-4 EB EXPRESS LANES
I-4 EB GUL

2510
2515
2520
2525
2530
2535

℄ EXIST I-4

SW-17(E)

SW-18(E)

EXIST. LA R/W LINE

100 YEAR FLOODPLAIN

POND 314
(RECOMMENDED)

104
105
106
107

SW-16(E)

HARLEY-DAVIDSON

100 YEAR FLOODPLAIN

FIVE-R

HICKMAN CIR.

PLUMMER

FASTERER CORP

GO ELECTRONICS

HICKMAN DR.

HIGH REACH 2

RUG KING

GUARDIAN EQUIPMENT

EWING

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qblow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 24

amourad 11/2/2016 4:49:32 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd301-PREFERRED.dgn

MODEL: planrd18
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2536+00.00

MATCHLINE STA. 2566+00.00

100 YEAR FLOODPLAIN

(US 17/92 ALTERNATE I SHOWN)

PORT OF SANFORD

ORANGE BLVD.

0 50 200
Feet

SEMINOLE COUNTY PORT AUTHORITY

DUNBAR AVE.

CHESTNUT ST.

LA MESA RV

PARCEL ID: 16-19-30-5AB-0A00-0010
AREA TAKEN: 5,525 SF

214

110

116

US 17/92 GUL RAMP TO I-4 WB GUL

110 FT. DUKE ENERGY EASEMENT

110 FT. FPL EASEMENT

EXIST. LA R/W LINE
SW-19(W)

109

115

SW-21(W)

I-4 WB GUL

2540 2545 2550 2555 2560 2565

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

SW-22(W)

SW-2(E)

SW-18(E)

EXIST. LA R/W LINE

112

SW-19(E)

℄ EXIST I-4

113

114

117

201

I-4 EB GUL RAMP TO US 17/92

108

107

118

SW-20(E)

ORANGE BLVD.

SCHOOL ST.

ELDER RD.

SOUTHERN PRIDE BUSINESS CENTER

POND 316
(RECOMMENDED)

202

203

206

PARCEL ID: 21-19-30-502-0400-0000
AREA TAKEN: 107 SF

SW-22(E)

204

FLORIDA ROCK INDUSTRIES

207

205

PARCEL ID: 16-19-30-5AC-0000-013B
AREA TAKEN: 5,924 SF

208

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 25

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

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MODEL: planrd19
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:200

MATCHLINE STA. 2566+00.00

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 153,639 SF

150

100 YEAR FLOODPLAIN

WL-3(W)

EXIST. LA R/W LINE

POND 317A
(RECOMMENDED)

WL-4(W)

MULTIUSE TRAIL

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 232,651 SF

100 YEAR FLOODPLAIN

US 17/92

I-4 WB GUL RAMP TO
US 17/92 GUL

151

PARCEL ID: 16-19-30-300-0020-0000
AREA TAKEN: 1,085 SF

EXIST. LA R/W LINE

END SEGMENT 3
STA. 2583+00.00

ST. JOHNS RIVER

0 50 200
Feet

I-4 WB GUL

2570 I-4 WB EXPRESS LANES 2575 2580 2585 2590 2595

I-4 EB EXPRESS LANES

I-4 EB GUL

SW-23(W)

℄ EXIST I-4

SW-24(E)

MONROE RD GUL RAMP TO
I-4 EB GUL

EXISTING BRIDGES
TO REMAIN

WL-5(E)

EXIST. R/W LINE

POND 317B
(RECOMMENDED)

MULTIUSE TRAIL

POND 317C
(RECOMMENDED)

100 YEAR FLOODPLAIN

WL-3(E)

100 YEAR FLOODPLAIN

MULTIUSE TRAIL

SW-22A(E)

MONROE RD

WL-6(E)

SW-22B(E)

SW-27(E)

WL-4(E)

132

134

ST JOHNS RIVER

VOLUSIA COUNTY
SEMINOLE COUNTY

(US 17/92 ALTERNATE B SHOWN)

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS		

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE VOLUSIA	432100-1-22-01

I-4 PD&E STUDY
I-4 MAINLINE
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 26

A-26

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

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MODEL: EEWILLIAMSON-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

BEGIN PD&E STUDY LIMIT
EE WILLIAMSON RD.
STA. 105+00.00

℄ EXIST EE WILLIAMSON RD.

100

105

PROPOSED
10 FT CONCRETE
MULTI-USE TRAIL

MATCH TO EXISTING
6-FT CONCRETE SIDEWALK

6-FT CONCRETE
SIDEWALK

N

0 20 100
Feet

169 170 168 167 165 166 160 161 163 164 162

MATCHLINE STA. 110+00.00

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
EE WILLIAMSON RD. ALT 1 (1 OF 2)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 27

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

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MODEL: EEWILLIAMSON402
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 110+00.00

LA R/W LINE

PROPOSED 10 FT CONCRETE MULTI-USE TRAIL

PROPOSED 10 FT CONCRETE MULTI-USE TRAIL

MATCH TO EXISTING 8-FT CONCRETE SIDEWALK

℄ EXIST EE WILLIAMSON RD.

MATCH TO EXISTING CURB AND GUTTER

END PD&E STUDY LIMIT
℄ EE WILLIAMSON RD.
STA. 123+00.00

6-FT CONCRETE SIDEWALK

6-FT CONCRETE SIDEWALK

TYPE F CURB & GUTTER

LA R/W LINE

210'

210'

120

N

0 20 100
Feet

1 2 3 4 6 180 181 182 183 184 185 186 188 189

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	XX PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
EE WILLIAMSON RD. ALT 1 (2 OF 2) (RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. 28

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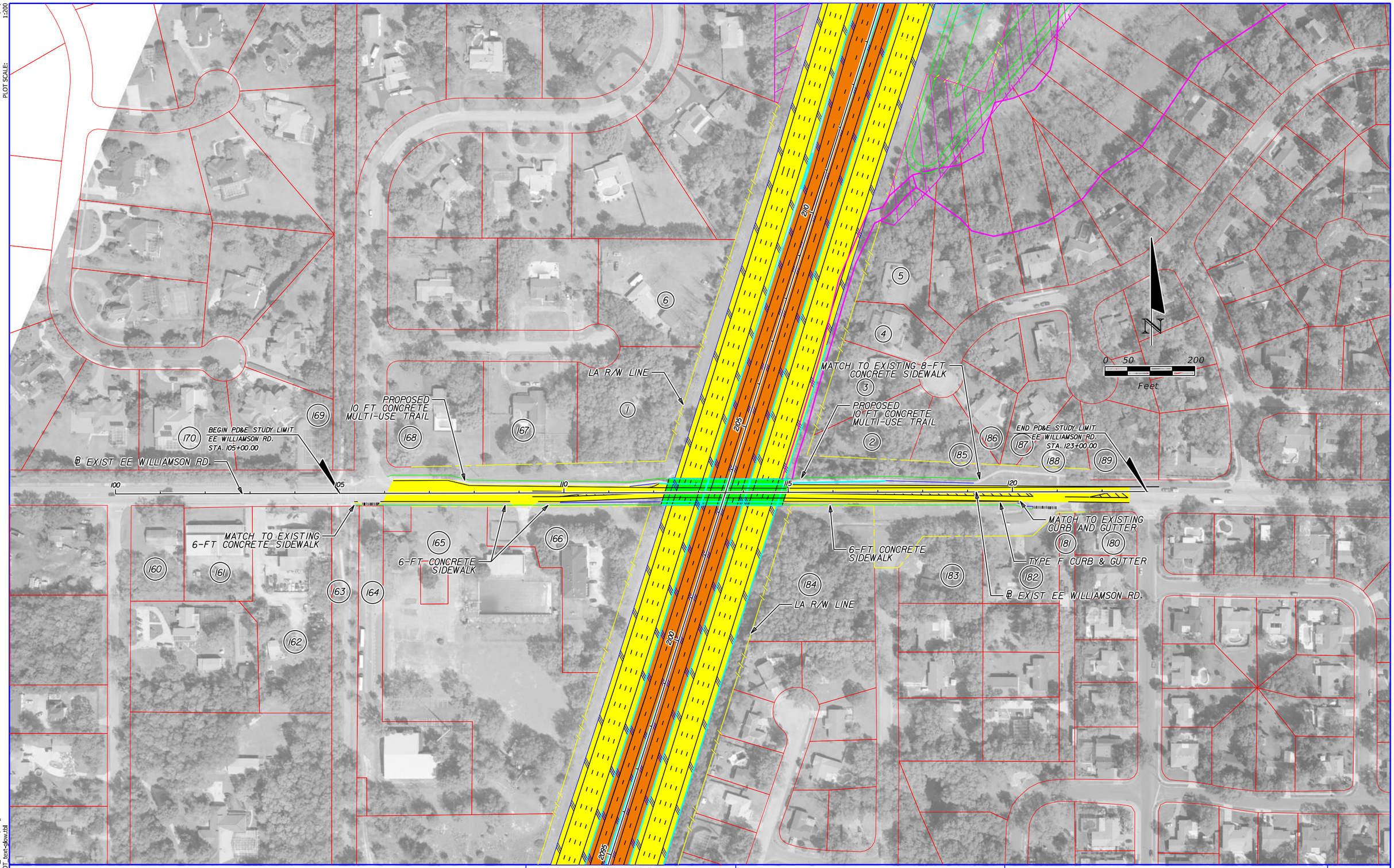
MODEL:
SHEET SIZE: 200 SCALE 16.5x10.6 (in.)
PLOT SCALE: 1:200



Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
EE WILLIAMSON RD. ALT 1 (RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. 29

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MODEL: EEWILLIAMSON-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

N

0 20 100
Feet

BEGIN PD&E STUDY LIMIT
EE WILLIAMSON RD.
STA. 105+00.00

℄ EXIST EE WILLIAMSON RD.

100

105

MATCHLINE STA. 110+00.00

169 170 168 167 165 166 160 161 163 164 162

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
EE WILLIAMSON RD. ALT 2 (1 OF 2)
SEGMENT 3

SHEET NO. **30**

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MODEL: EEWILLIAMSON-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 110+00.00

LA R/W LINE

205

200

0 115 120

END PD&E STUDY LIMIT
@ EE WILLIAMSON RD.
STA. 123+00.00

℄ EXIST EE WILLIAMSON RD.

N

0 20 100
Feet

1 2 3 4 6 180 181 182 183 184 185 186 188 189

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION
GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
EE WILLIAMSON RD. ALT 2 (2 OF 2)
SEGMENT 3

SHEET NO. **31**

A-31

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 4:51:23 PM\\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd307-EEWilliamson - Alt-2.dgn

MODEL:
SHEET SIZE: 200 SCALE 16.5x10.6 (in.)
PLOT SCALE: 1:200

LA R/W LINE

BEGIN PD&E STUDY LIMIT
EE WILLIAMSON RD.
STA. 105+00.00

℄ EXIST EE WILLIAMSON RD.

END PD&E STUDY LIMIT
EE WILLIAMSON RD.
STA. 123+00.00

N

0 50 200
Feet

100 105 110 115 120

205 210 200 205

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

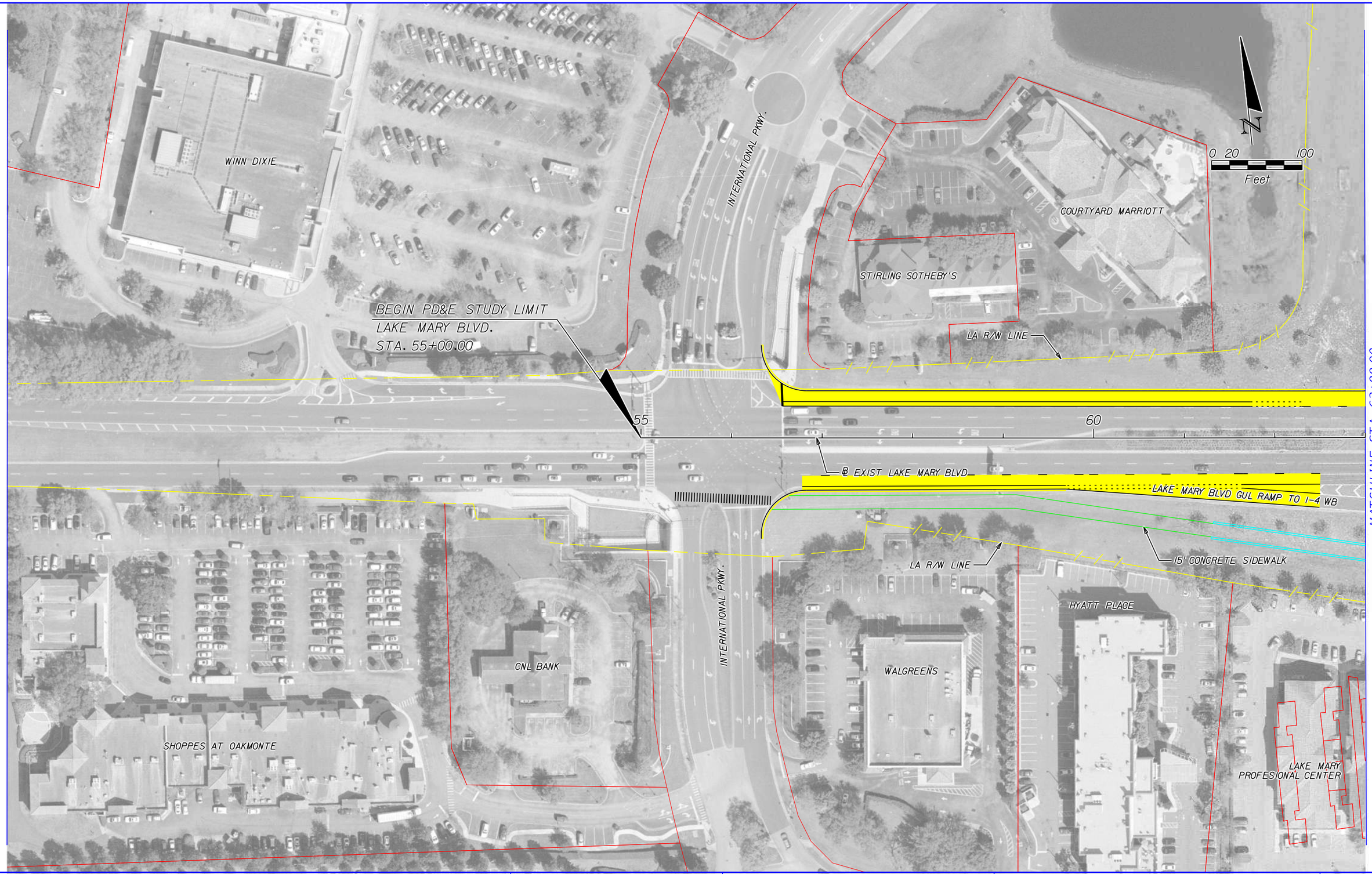
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
EE WILLIAMSON RD. ALT 2
SEGMENT 3

SHEET NO. 32

amourad 11/2/2016 4:51:31 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd307-EEWilliamson - Alt-2.dgn

MODEL: LAKE-MARY-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

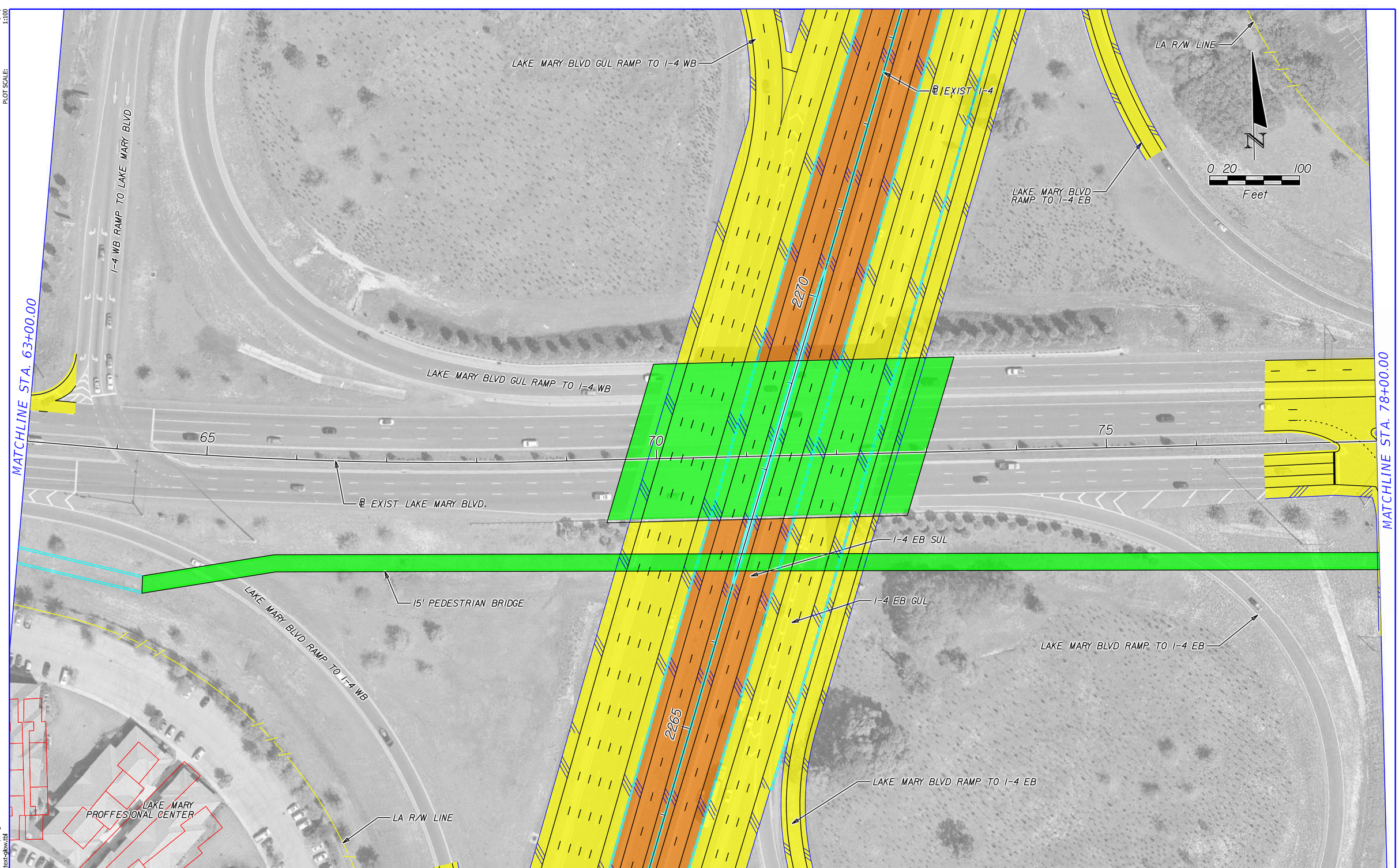
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 1 (1 OF 3)
SEGMENT 3

SHEET NO. 33

amourad 11/2/2016 4:51:49 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302.dgn

MODEL: LAKE-MARY-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



Color_FDOTPDF.ptcfg
FDOT_text-qlow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 1 (2 OF 3)
SEGMENT 3

SHEET NO. **34**

amourad 11/2/2016 4:51:58 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302.dgn

MODEL: LAKE-MARY-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 78+00.00

MACARONI GRILL

UNITED FINANCIAL BANK

TILTED KILT RESTAURANT

PRIMERA BLVD.

HOME DEPOT

N

0 20 100

Feet

LA R/W LINE

ARBY'S

DUNKIN DONUTS

END PD&E STUDY LIMIT
LAKE MARY BLVD.
STA. 90+00.00

LAKE MARY BLVD TO I-4 EB RAMP

80

85

90

B EXIST. LAKE MARY BLVD

15' PEDESTRIAN BRIDGE

I-4 EB RAMP TO LAKE MARY BLVD

LA R/W LINE

202

BOB EVANS RESTAURANT

WENDY'S

201

7-11

PARCEL ID: 18-20-30-300-002B-0000
AREA TAKEN: 4,267 SF

BB&T CREDIT UNION

200

KFC

LAKE EMMA RD.

KANGAROO GAS STATION

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 1 (3 OF 3)
SEGMENT 3

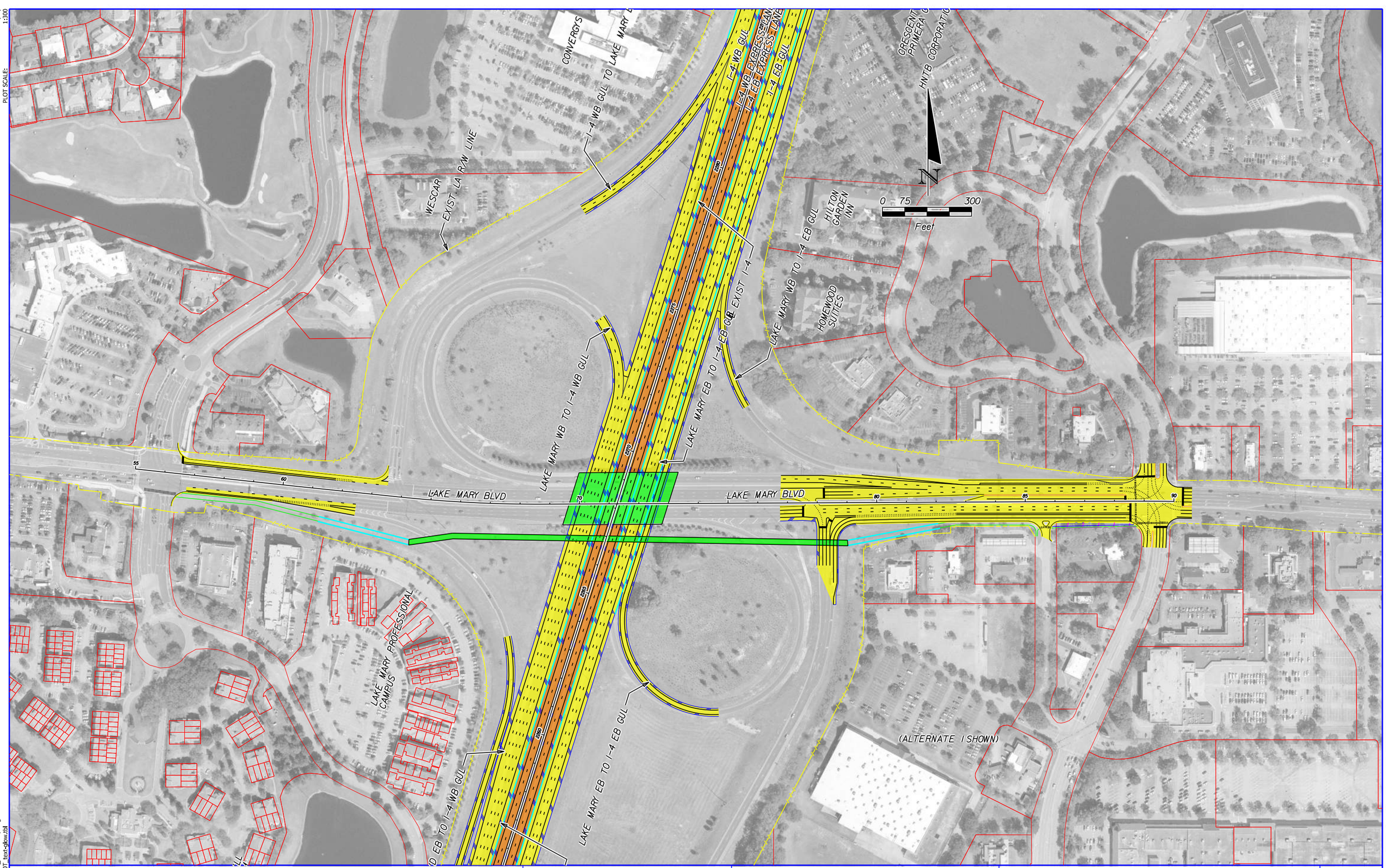
SHEET NO. 35

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 4:52:05 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302.dgn

PLAN-300
16.5x10.6 (in.)
1:300

MODEL:
SHEET SIZE:
PLOT SCALE:



EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT. 1
SEGMENT 3

SHEET NO. 36

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-xlow.tbl

amourad 11/2/2016 4:52:14 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302.dgn

MODEL: LAKE-MARY-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407)805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 2 (1 OF 3)
SEGMENT 3

SHEET NO. 37

amourad 11/2/2016 4:52:32 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd302 LKM SPUI.dgn

MODEL: LAKE-MARY-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 63+00.00

MATCHLINE STA. 78+00.00

I-4 WB RAMP TO LAKE MARY BLVD

℄ EXIST I-4

LAKE MARY BLVD RAMP TO I-4 EB

LA R/W LINE

N

0 20 100

Feet

2270

5' CONCRETE SIDEWALK

65

70

75

℄ EXIST LAKE MARY BLVD

5' CONCRETE SIDEWALK

I-4 EB SUL

I-4 EB GUL

LAKE MARY BLVD GUL RAMP TO I-4 WB

I-4 EB RAMP TO LAKE MARY BLVD

2265

LAKE MARY PROFFESIONAL CENTER

LA R/W LINE

Color_FDOTPDF.pltcfg
FDOT_text-qkw.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 2 (2 OF 3)
SEGMENT 3

SHEET NO. 38

amourad 11/2/2016 4:52:37 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM SPUI.dgn

MODEL: LAKE-MARY-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 78+00.00

MACARONI GRILL

UNITED FINANCIAL BANK

PRIMERA BLVD.

HOME DEPOT

N

0 20 100

Feet

LA R/W LINE

TILTED KILT RESTAURANT

5' CONCRETE SIDEWALK

ARBY'S

DUNKIN DONUTS

END PD&E STUDY LIMIT
LAKE MARY BLVD.
STA. 90+00.00

80

85

90

℄ EXIST LAKE MARY BLVD.

5' CONCRETE SIDEWALK

LA R/W LINE

WENDY'S

BOB EVANS RESTAURANT

7-11

BB&T CREDIT UNION

KFC

LAKE EMMA RD.

KANGAROO GAS STATION

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 2 (3 OF 3)
SEGMENT 3

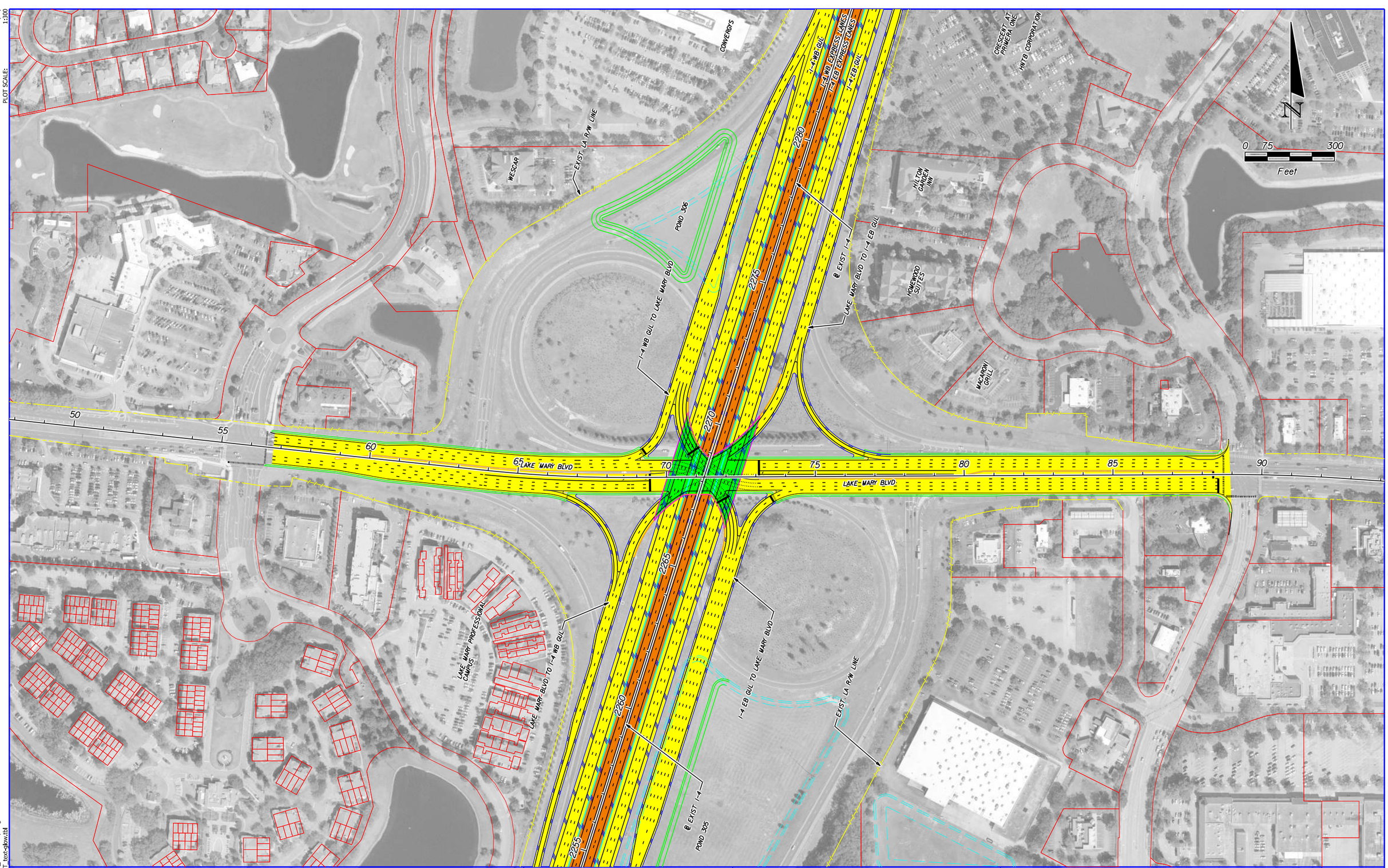
SHEET NO. 39

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

amourad 11/2/2016 4:52:42 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM SPUI.dgn

PLAN-300
16.5x10.6 (in.)
1:300

MODEL:
SHEET SIZE:
PLOT SCALE:



EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 2
SEGMENT 3

SHEET NO.
40

A-40

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

MODEL: LAKE-MARY-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 3 (1 OF 3)
SEGMENT 3

SHEET NO. **41**

amourad 11/2/2016 4:53:03 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM DDI.dgn

MODEL:
SHEET SIZE: LAKE-MARY-02
PLOT SCALE: 16.5x10.6 (in.) 1:100

MATCHLINE STA. 63+00.00

MATCHLINE STA. 78+00.00

I-4 WB RAMP TO LAKE MARY BLVD WB

I-4 WB RAMP TO LAKE MARY BLVD EB

℄ EXIST I-4

LA R/W LINE

0 20 100
Feet

EB LAKE MARY BLVD RAMP TO I-4 EB

WB LAKE MARY BLVD RAMP TO I-4 EB

EB LAKE MARY BOULEVARD

2270

65

70

75

WB LAKE MARY BOULEVARD

℄ EXIST LAKE MARY BLVD.

EB LAKE MARY BLVD RAMP TO I-4 WB

WB LAKE MARY BLVD RAMP TO I-4 WB

I-4 EB SUL

I-4 EB RAMP TO LAKE MARY BLVD WB

I-4 EB RAMP TO LAKE MARY BLVD EB

I-4 EB GUL

2265

LA R/W LINE

LAKE MARY
PROFFESIONAL CENTER

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkw.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 3 (2 OF 3)
SEGMENT 3

SHEET NO. 42

amourad 11/2/2016 4:53:09 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\plandrd302 LKM DDI.dgn

MODEL: LAKE-MARY-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 78+00.00

MACARONI GRILL
UNITED FINANCIAL BANK
PRIMERA BLVD.
HOME DEPOT
LA R/W LINE
WB LAKE MARY BLVD RAMP TO I-4 EB
TILTED KILT RESTAURANT
ARBY'S
DUNKIN DONUTS
℄ EXIST LAKE MARY BLVD.
END PD&E STUDY LIMIT
LAKE MARY BLVD.
STA. 90+00.00
WB LAKE MARY BOULEVARD
80
85
90
EB LAKE MARY BOULEVARD
I-4 EB RAMP TO LAKE MARY BLVD EB
LA R/W LINE
WENDY'S
BOB EVANS RESTAURANT
7-11
BB&T CREDIT UNION
LAKE EMMA RD.
KFC
KANGAROO GAS STATION

N
0 20 100
Feet

Color_FDOTPDF.ptc
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

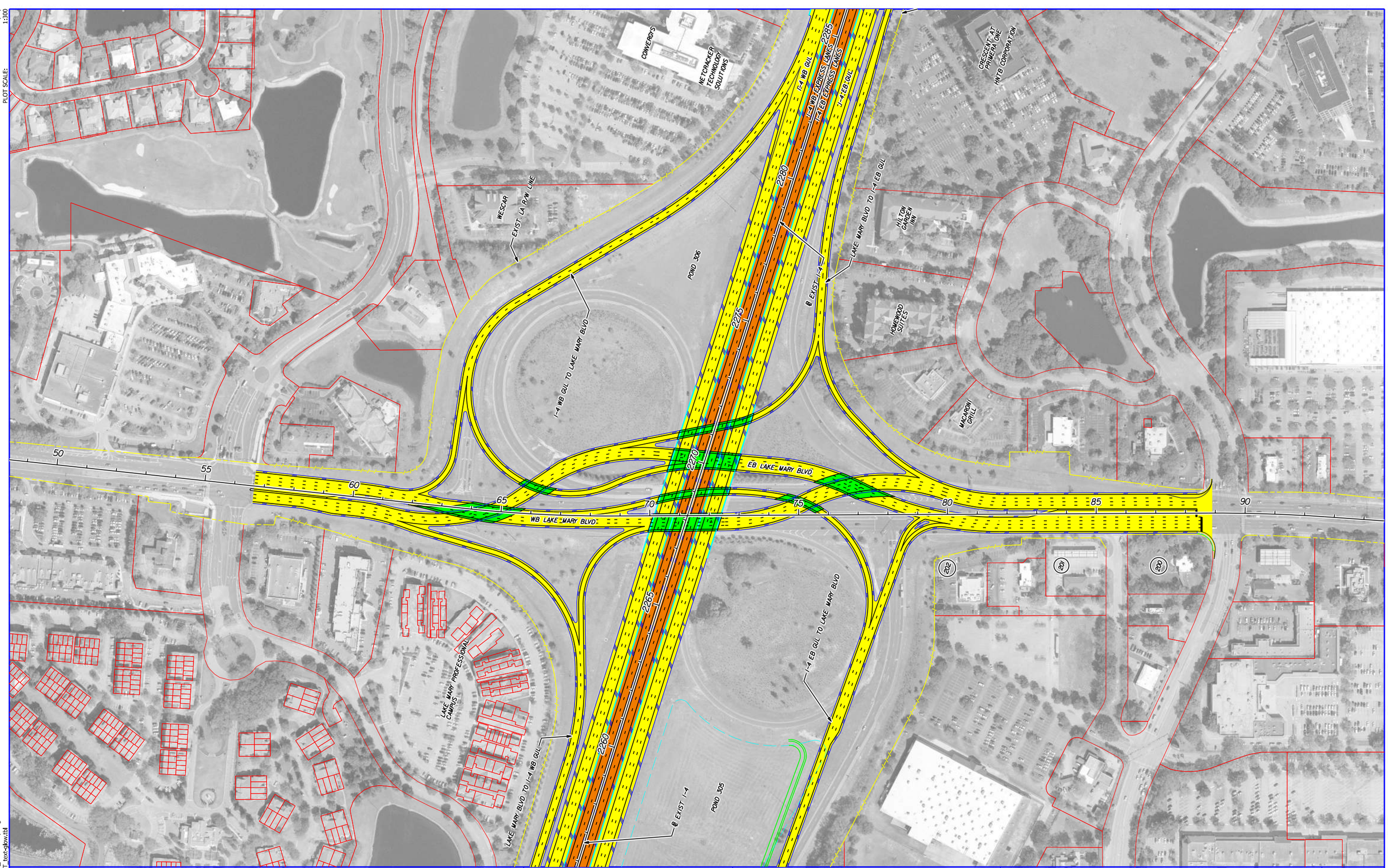
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 3 (3 OF 3)
SEGMENT 3

SHEET NO. 43

amourad 11/2/2016 4:53:14 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM DDI.dgn

MODEL: PLAN-300
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:300



EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

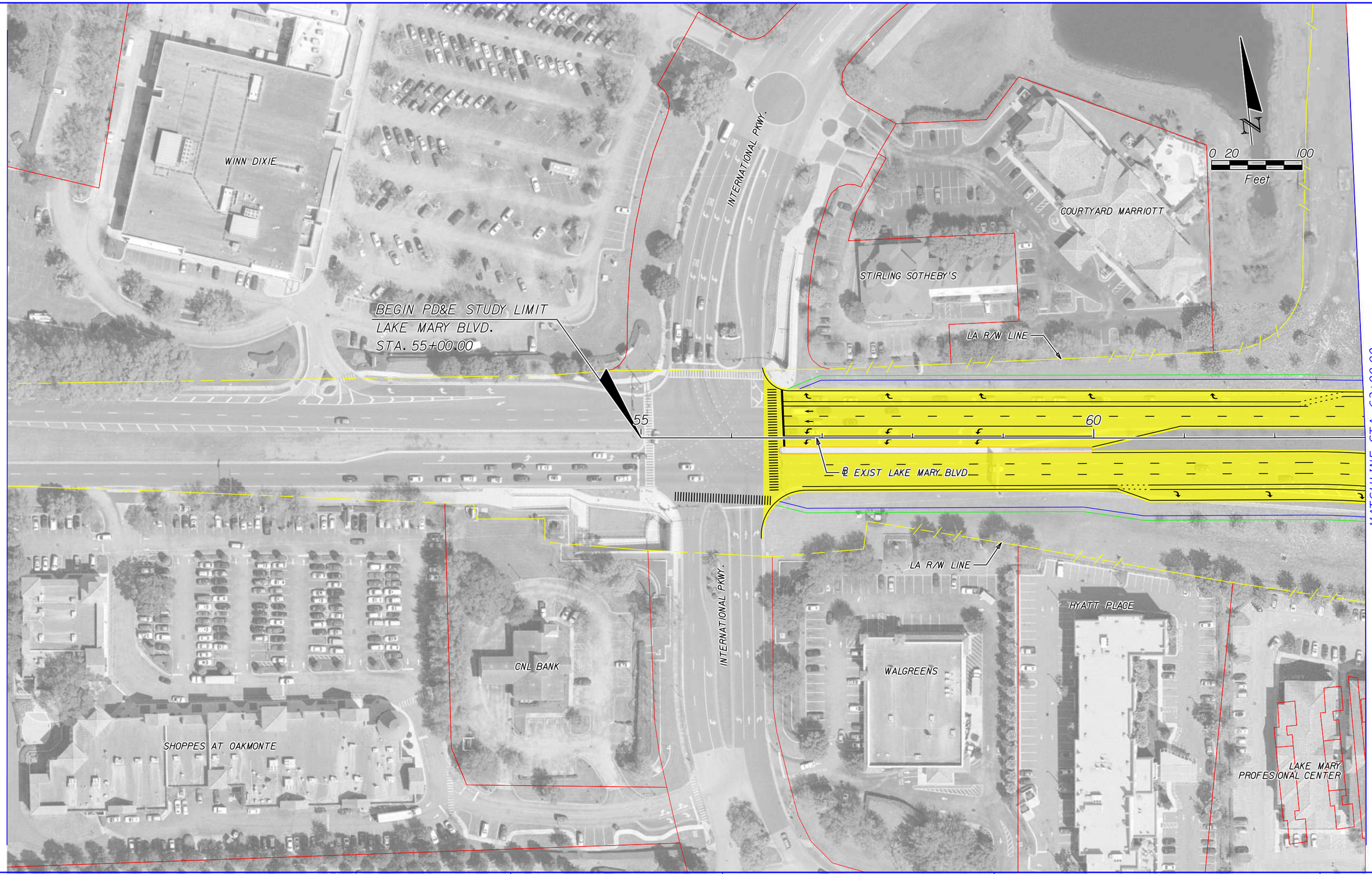
I-4 PD&E STUDY
LAKE MARY BLVD ALT 3
SEGMENT 3

SHEET NO. **44**

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl
PRINT DRIVER:
PEN TABLE:

amourad 11/2/2016 4:53:18 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM DDI.dgn

MODEL: LAKE-MARY-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

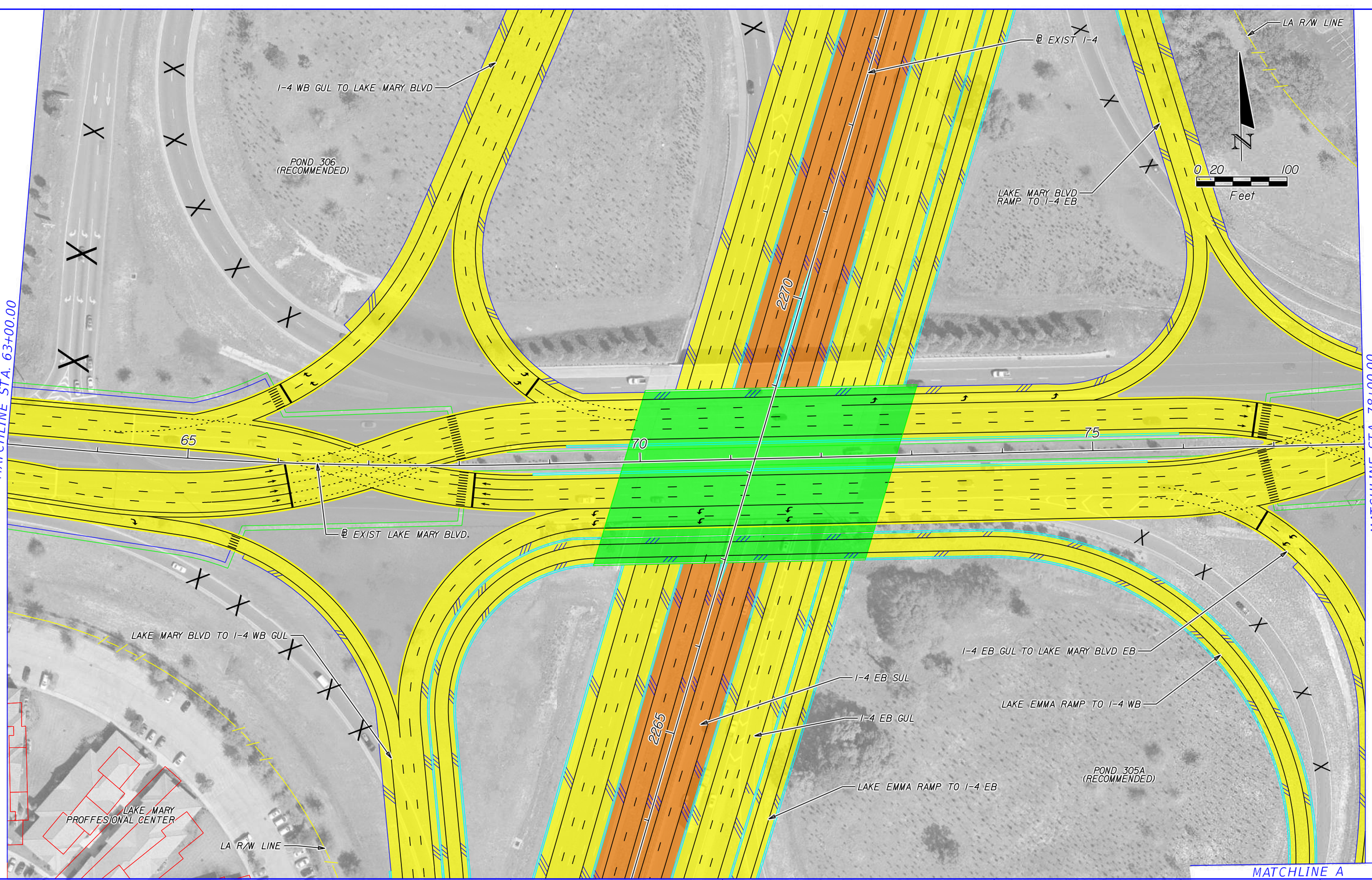
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (1 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 45

amourad 11/2/2016 4:53:38 P:\NLKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

MODEL: LAKE-MARY-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (2 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 46

amourad 11/2/2016 4:53:45 PM\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

MODEL: LAKE-MARY-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 78+00.00

FRED'S MARKET

UNITED FINANCIAL BANK

LA R/W LINE

℄ EXIST LAKE MARY BLVD.

PRIMERA BLVD.

HOME DEPOT

N

0 20 100

Feet

ARBY'S

DUNKIN DONUTS

END PD&E STUDY LIMIT
LAKE MARY BLVD.
STA. 90+00.00

80

85

90

PARCEL ID: 18-20-30-300-002B-0000
AREA TAKEN: 4,267 SF

BB&T CREDIT UNION

200

LAKE EMMA RD.

KANGAROO GAS STATION

LA R/W LINE

202

WENDY'S

201

7-11

BOB EVANS RESTAURANT

I-4 EB GUL TO LAKE MARY BLVD EB

KFC

MATCHLINE A

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (3 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 47

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-sglow.tbl

amourad 11/2/2016 4:53:49 PM\\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

MODEL: LAKE-MARY-04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 78+00.00

HOME DEPOT
PETSMART
GOOD YEAR AUTOMOTIVE
HOLY CROSS CHURCH
CHIK-FIL-A
CIRCLE K GAS STATION
KRYSTAL
LAKE MARY COMMONS
N SUN DR.
℄ EXIST LAKE MARY BLVD.
CHILI'S RESTAURANT
BANK OF AMERICA
BURGER KING
TIRES PLUS
CHEVRON
S SUN DR.
CHECKERS
PANERA'S BREAD

N

0 20 100
Feet

Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W		GENERAL USE LANES	
PROPOSED LA R/W		EXPRESS LANES	
EXISTING R/W		EXISTING BRIDGE	
PROPOSED FDOT R/W		PROPOSED BRIDGE	
PARCEL LINES		BARRIER WALL	
FUTURE EXISTING CONDITION	(xx)	PARCEL NUMBERS	

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (4 OF 6) (RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. 48

amourad 11/2/2016 4:53:56 PM\\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

MODEL: LAKE-MARY-05
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

POND 305
(RECOMMENDED)

LAKE EMMA RAMP TO I-4 EB

POND 305A
(RECOMMENDED)

LAKE EMMA RAMP TO I-4 WB

I-4 EB GUL TO LAKE MARY BLVD

MATCHLINE A

0 20 100
Feet

I-4 EB GUL TO LAKE EMMA RD

PARCEL ID: 18-20-30-300-012A-0000
AREA TAKEN: 31,636 SF

217

PROPOSED R/W LINE

PARCEL ID: 18-20-30-300-0120-0000
AREA TAKEN: 57,984 SF

219

218

PROPOSED R/W LINE

GANDER MOUNTAIN

PARCEL ID: 18-20-30-510-0000-0030
AREA TAKEN: 51,512 SF

MATCHLINE B

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (5 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 49

amourad 11/2/2016 4:54:03 PM\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122201\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

MODEL:
SHEET SIZE: LAKE-MARY-06 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE B

I-4 EB GUL TO LAKE EMMA RD

219

PROPOSED R/W LINE

PARCEL ID: 18-20-30-300-0120-0000
AREA TAKEN: 57,984 SF

LAKE EMMA RAMP TO I-4 GUL

PROPOSED R/W LINE

218

GANDER MOUNTAIN

PARCEL ID: 18-20-30-510-0000-0030
AREA TAKEN: 51,512 SF

220

LONGHORN STEAKHOUSE

PARCEL ID: 18-20-30-510-0000-0050
AREA TAKEN: 43,168 SF

END LA R/W LIMIT

LAKE MARY CAR WASH & OIL CHANGE

END LA R/W LIMIT

LAKE EMMA RD

N

0 20 100
Feet

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

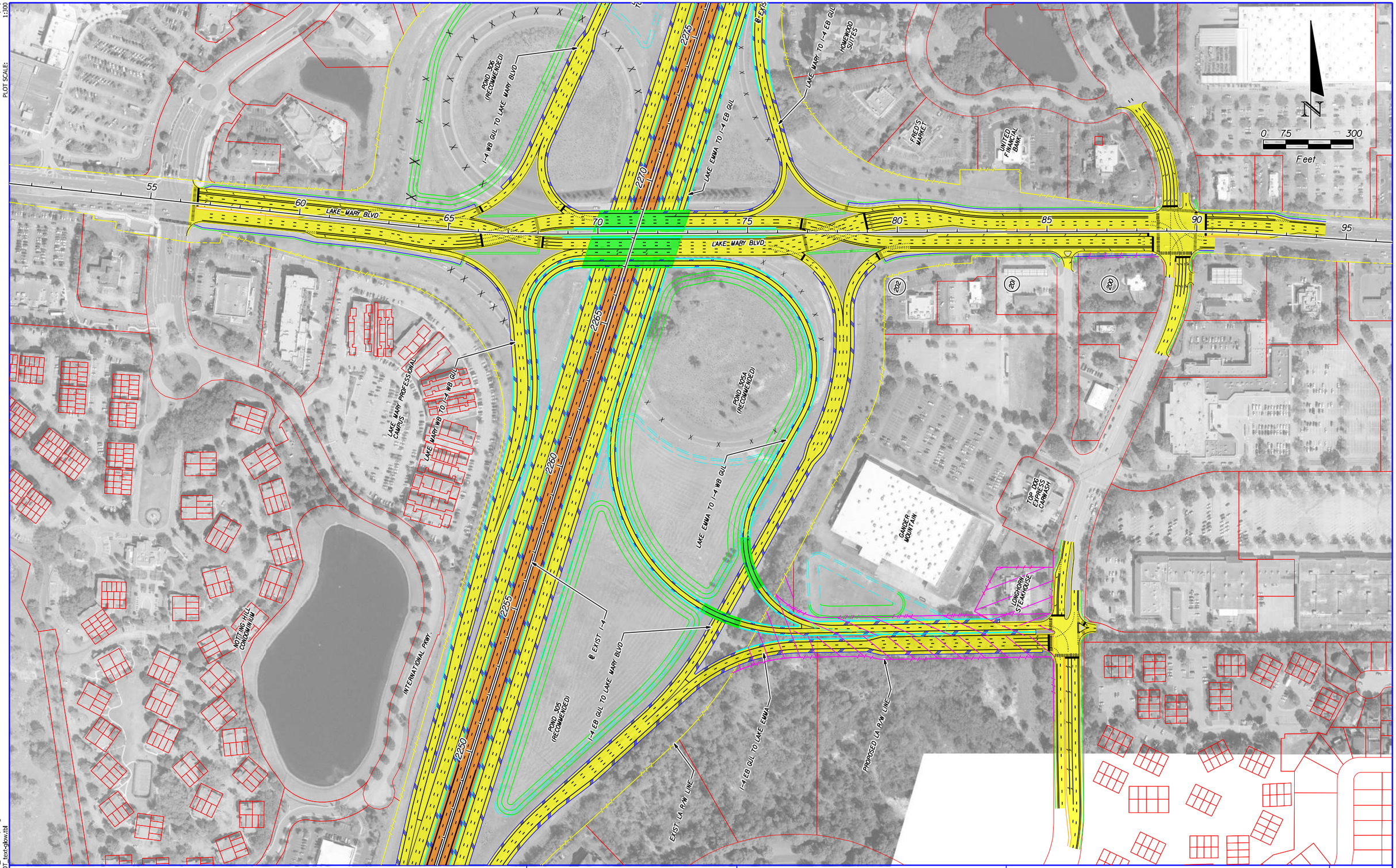
I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (6 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **50**

amourad 11/2/2016 4:54:10 PM\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

PLAN-300
16.5x10.6 (in.)
1:300

MODEL:
SHEET SIZE:
PLOT SCALE:



Color_FDOTPDF.pltcfg
FDOT_text-gllow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

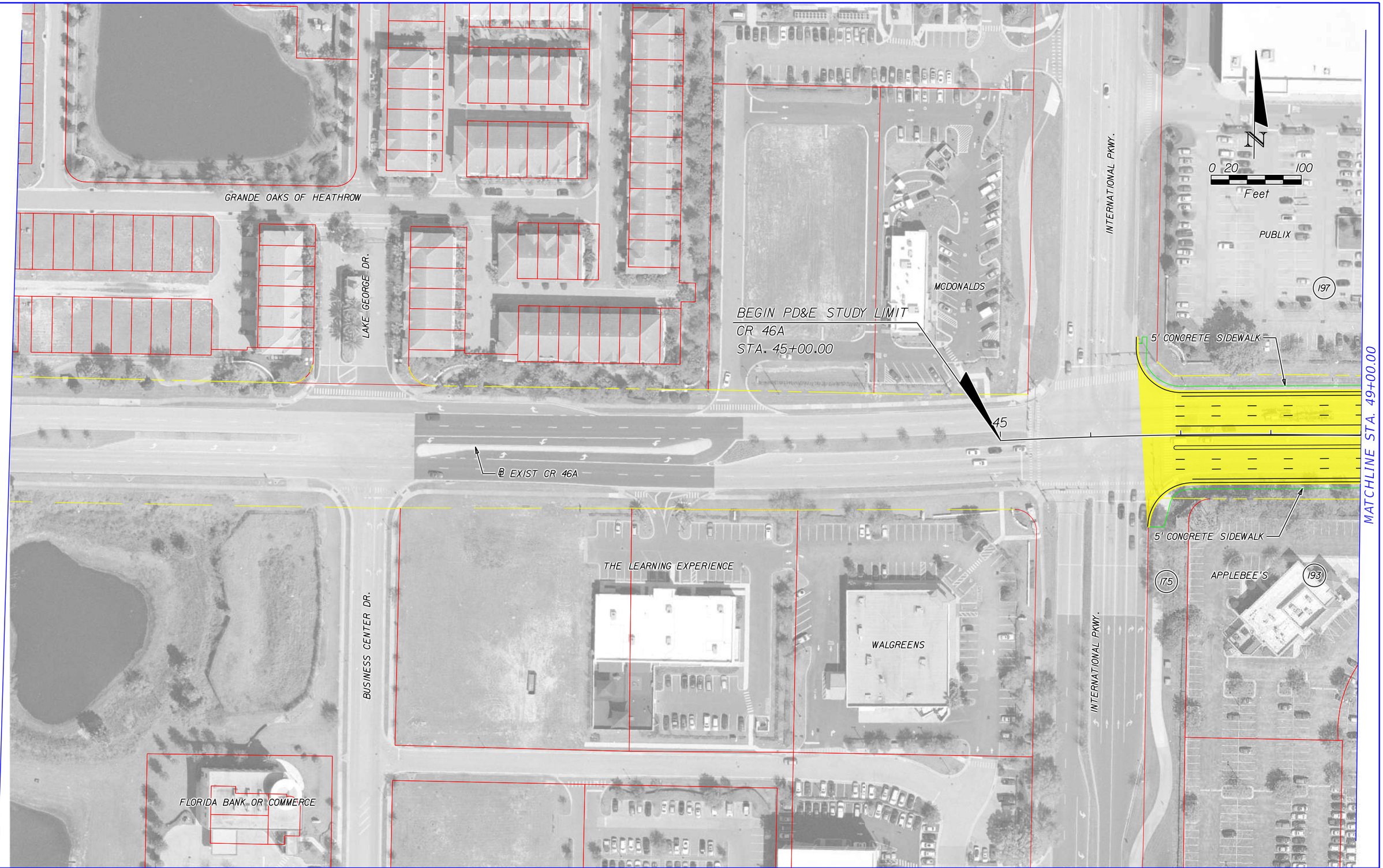
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
LAKE MARY BLVD ALT 4 (RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO.
51

amourad 11/2/2016 4:54:16 PM\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd302 LKM LAKE EMMA DDI.dgn

MODEL: CR46A-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION
GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 1 (1 OF 4)
SEGMENT 3

SHEET NO. 52

amourad 11/2/2016 4:54:38 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303.dgn

MODEL: CR46A-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

PUBLIX
TOWNPARK AVE.
SUNTRUST
JP MORGAN CHASE BANK
COLONIAL CENTER PKWY.
RUTH'S CHRIS STEAK HOUSE
198
199
183
184
185
186
5' CONCRETE SIDEWALK
LA R/W LINE
50
55
60
℄ EXIST CR 46A
194
195
196
PARK PLACE
CR 46A RAMP TO I-4 WB
I-4 WB RAMP TO CR 46A
MATCHLINE STA. 49+00.00
MATCHLINE STA. 64+00.00
N
0 20 100
Feet

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION
GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
xx PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 1 (2 OF 4)
SEGMENT 3

SHEET NO. 53

PRINT DRIVER: C:\dot_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-sjkw.tbl

amourad 11/2/2016 4:54:48 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303.dgn

MODEL: CR46A-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 64+00.00

MATCHLINE STA. 79+00.00

I-4 EB GUL RAMP TO SR 417 GUL

CR 46A RAMP TO I-4 EB

℄ EXIST I-4

2390

N

0 20 100
Feet

187

5' CONCRETE SIDEWALK

LA R/W LINE

65

70

75

℄ EXIST CR 46A

I-4 EB SUL

I-4 WB GUL

2385

5' CONCRETE SIDEWALK

5' CONCRETE SIDEWALK

LA R/W LINE

ABC FINE WINE & SPIRITS

I-4 WB RAMP TO CR 46A

I-4 EB GUL

I-4 EB SUL

I-4-EB-RAMP-TO-CR-46A

CENTENNIAL BANK

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 1 (3 OF 4)
SEGMENT 3

SHEET NO. 54

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 4:54:56 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303.dgn

MODEL: CR46A-04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 1 (4 OF 4)
SEGMENT 3

SHEET NO.
55

amourad 11/2/2016 4:55:03 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303.dgn

MODEL:
SHEET SIZE: PLAN-300
PLOT SCALE: 16.5x10.6 (in.) 1:300

BEGIN PDE STUDY LIMIT
CR 46A
STA. 45+00.00

END PDE STUDY LIMIT
CR 46A
STA. 85+00.00

INTERNATIONAL PKWY
TRADEPARK AVE
CORPORATE CENTER PKWY
PARKWAY RD
PUBLIX
SUNTRUST
JP MORGAN CHASE BANK
RUTH'S CHRIS STEAK HOUSE
WOODWORKS
THE LEARNING EXPERIENCE
BALSPEERS
APPLEBEE'S
PARK PLACE
ABC FINE WINE & SPIRITS
CENTENNIAL BANK

5' CONCRETE SIDEWALK
LA R/W LINE
8 EXIST CR 46A
I-4 EB OUL RAMP TO SR 417 OUL
I-4 EB OUL
I-4 WB OUL
CR 46A RAMP TO I-4 WB
I-4 WB RAMP TO CR 46A
I-4 EB RAMP TO SR 417
I-4 WB RAMP TO SR 417
I-4 EB RAMP TO CR 46A
I-4 WB RAMP TO CR 46A
SR 417

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 1
SEGMENT 3

SHEET NO. **56**

amourad 11/2/2016 4:55:09 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303.dgn

MODEL: CR46A-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

GRANDE OAKS OF HEATHROW

LAKE GEORGE DR.

BEGIN PD&E STUDY LIMIT
CR 46A
STA. 45+00.00

45

MCDONALDS

INTERNATIONAL PKWY.

N

0 20 100
Feet

PUBLIX

197

TOWNPARK RETAIL ORLANDO LLC
31-19-30-509-0000-0020

PROP. R/W LINE

PARCEL ID: 06-20-30-300-032B-0000
AREA TAKEN: 869 SF

PROP. R/W LINE

MATCHLINE STA. 49+00.00

THE LEARNING EXPERIENCE

WALGREENS

BUSINESS CENTER DR.

INTERNATIONAL PKWY.

175

APPLEBEE'S

193

FLORIDA BANK OR COMMERCE

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION (xx)	PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 2 (1 OF 5)
SEGMENT 3

SHEET NO. 57

PRINT DRIVER: C:\dor_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkw.tbl

amourad 11/2/2016 4:55:28 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303-cfi.dgn

PUBLIX

TOWNPARK AVE.

SUNTRUST

JP MORGAN CHASE BANK

COLONIAL CENTER PKWY.

RUTH'S CHRIS STEAK HOUSE

PARK PLACE

198

199

183

184

185

186

195

196

194

TOWNPARK RETAIL ORLANDO LLC
31-19-30-509-0000-0010

PROP. R/W LINE

PARCEL ID: 31-19-30-507-0000-0030
AREA TAKEN: 185 SF

PARCEL ID: 31-19-30-509-0000-0150
AREA TAKEN: 7,884 SF

PARCEL ID: 31-19-30-509-0000-0140
AREA TAKEN: 2,432 SF

PROP. LA R/W LINE

LA R/W LINE

PARCEL ID: 31-19-30-509-0C00-0000
AREA TAKEN: 45,840 SF

PARCEL ID: 31-19-30-509-0000-0120
AREA TAKEN: 1,514 SF

PROP. LA R/W LINE

50

55

60

℄ EXIST CR 46A

LA R/W LINE

PARCEL ID: 06-20-30-300-002Q-0000
AREA TAKEN: 162 SF

PARCEL ID: 06-20-30-300-002L-0000
AREA TAKEN: 33 SF

PROP. LA R/W LINE

PARCEL ID: 06-20-30-300-002R-0000
AREA TAKEN: 424 SF

CR 46A EB RAMP TO I-4 WB

CR 46A WB RAMP
TO I-4 WB

I-4 WB RAMP
TO CR 46A EB

N

0 20 100
Feet

MATCHLINE STA. 49+00.00

MATCHLINE STA. 64+00.00

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 2 (2 OF 5)
SEGMENT 3

SHEET NO. 58

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 4:55:32 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd303-cfi.dgn

MODEL: CR46A-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE A SEE SHEET 5

I-4 WB RAMP TO CR 46A WB

I-4 EB GUL RAMP TO SR 417

CR-46A RAMP TO I-4 EB

2390

℄ EXIST I-4

N

0 20 100
Feet

PARCEL ID: 31-19-30-509-0C00-0000
AREA TAKEN: 45,840 SF

PROP. LA R/W LINE

187

LA R/W LINE

65

70

75

MATCHLINE STA. 64+00.00

MATCHLINE STA. 79+00.00

℄ EXIST CR 46A

CR 46A WB RAMP TO I-4 WB

2385

I-4 EB EXPRESS LANES

I-4 EB GUL

I-4 WB RAMP TO CR 46A EB

I-4 WB C/D ROADWAY

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB RAMP TO CR 46A

LA R/W LINE

ABC FINE WINE & SPIRITS

CENTENNIAL BANK

Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 2 (3 OF 5)
SEGMENT 3

SHEET NO. 59

amourad 11/2/2016 4:55:36 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100012201\Segment 3\roadway\planrd303-cfi.dgn

MODEL: CR46A-04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE A SEE SHEET 5

RINEHART RD

R/W LINE

PARCEL ID: 32-19-30-301-008B-0000
AREA TAKEN: 3,730 SF

189

CHERRY LAUREL DR.

PARCEL ID: 32-19-30-301-008E-0000
AREA TAKEN: 4,225 SF

188

190

PARCEL ID: 32-19-30-301-008F-0000
AREA TAKEN: 4,743 SF

PROP. R/W LINE

PROP. R/W LINE

END PD&E STUDY LIMIT
CR 46A
STA. 85+00.00

H E THOMAS JR PKWY.

N

0 20 100
Feet

80

85

℄ EXIST CR 46A

BALDWIN FAIRCHILD

MATCHLINE STA. 79+00.00

LA R/W LINE

RINEHART RD.

H E THOMAS JR PKWY.

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 2 (4 OF 5)
SEGMENT 3

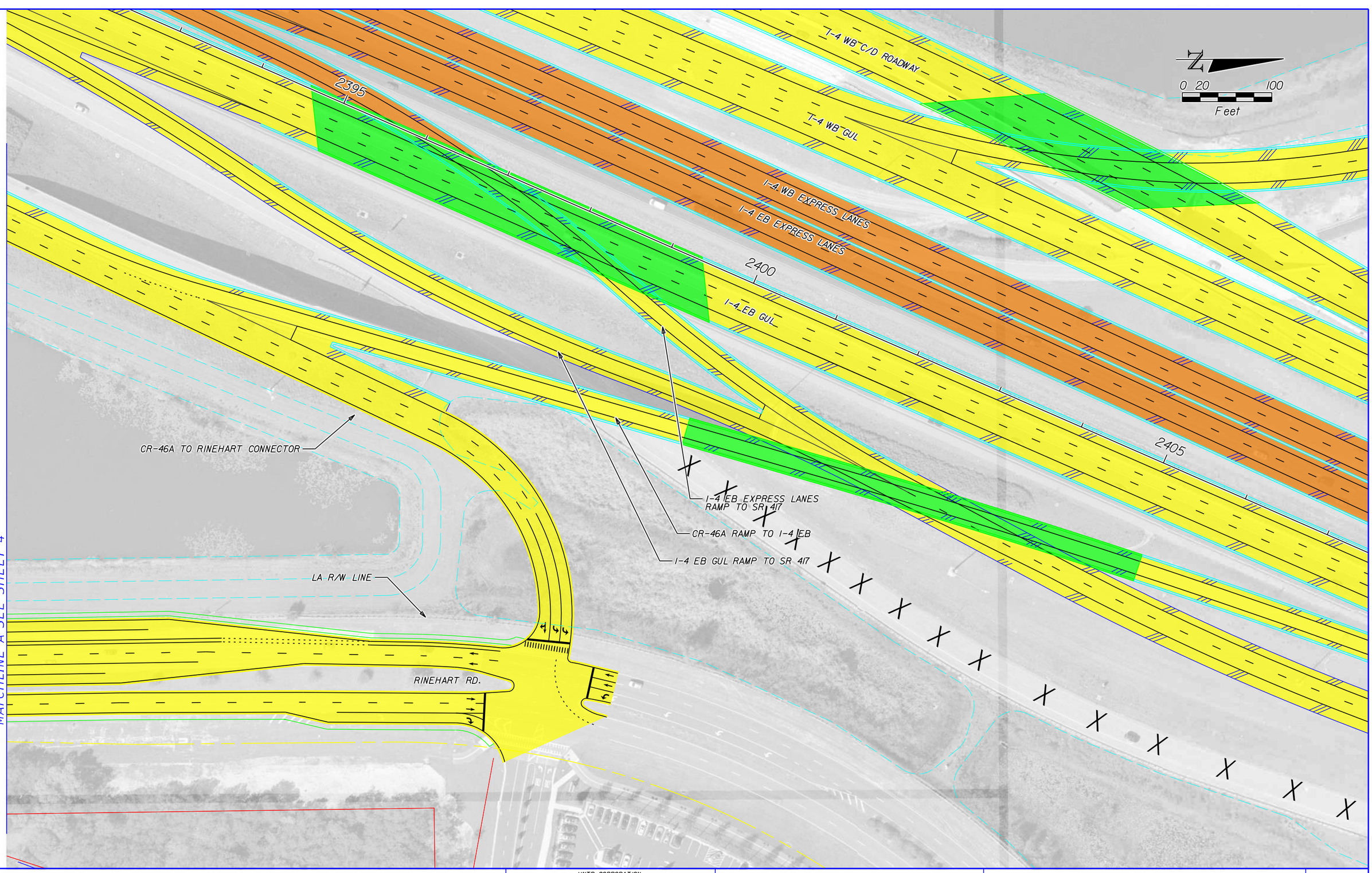
SHEET NO. 60

Color FDOTPDF.pltcfg
FDOT_text-qlow.tbl
PRINT DRIVER:
PEN TABLE:

amourad 11/2/2016 4:55:40 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303-cfi.dgn

CR46A-05
16.5x10.6 (in.)
1:100

MODEL:
SHEET SIZE:
PLOT SCALE:



MATCHLINE A SEE SHEET 4

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 2 (5 OF 5)
SEGMENT 3

SHEET NO. **61**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkw.tbl

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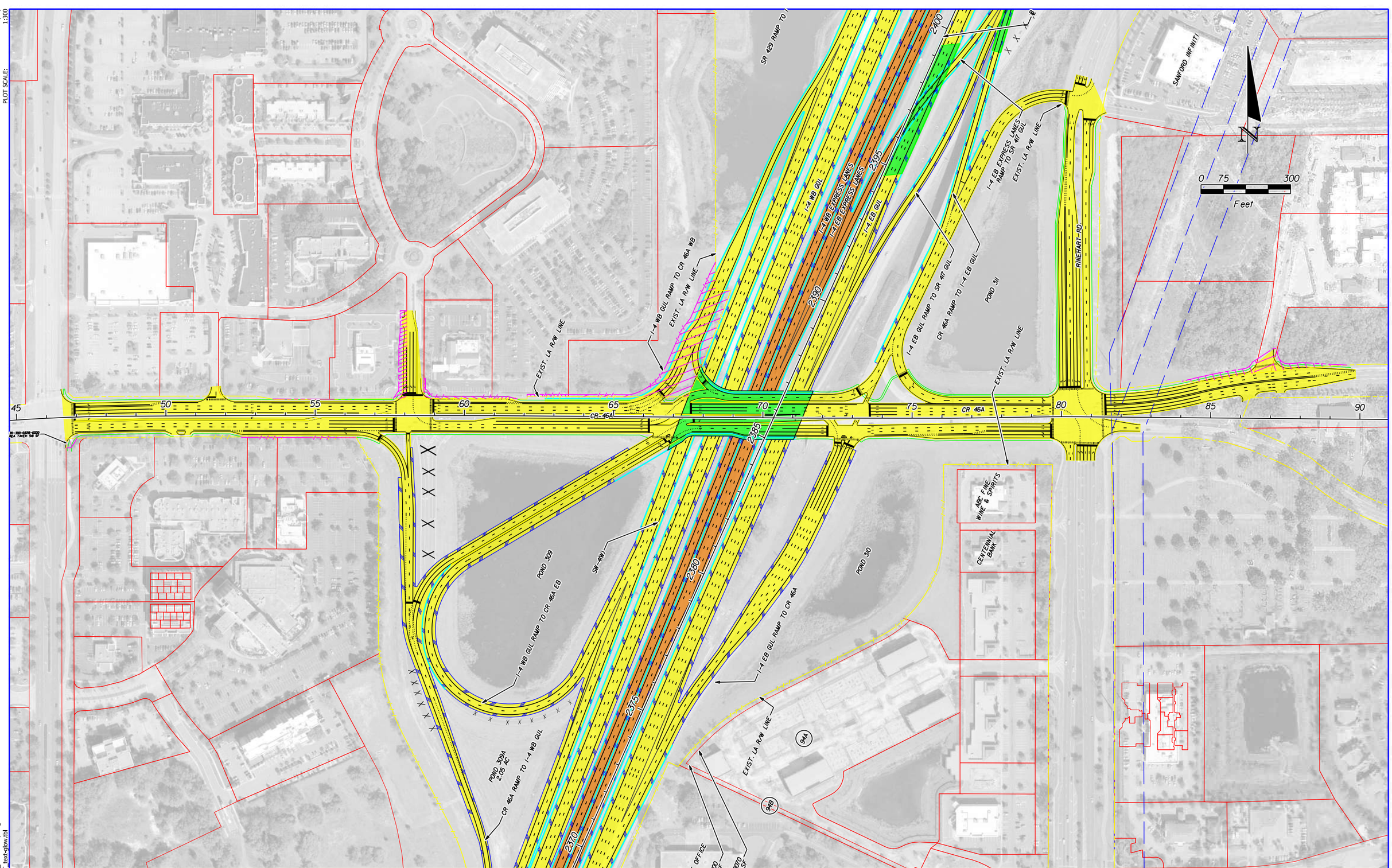
PLAN-300
16.5x10.6 (in.)
1:300

MODEL:
SHEET SIZE:
PLOT SCALE:



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 2
SEGMENT 3

SHEET NO. **62**

amourad 11/2/2016 4:55:48 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100I2201\Segment 3\roadway\planrd303-cfi.dgn

MODEL: CR46A-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

GRANDE OAKS OF HEATHROW

LAKE GEORGE DR.

BEGIN PD&E STUDY LIMIT
CR 46A
STA. 40+00.00

40

45

INTERNATIONAL PKWY.

N

0 20 100
Feet

PUBLIX

PARCEL ID: 31-19-30-510-0000-0020
AREA TAKEN: 334 SF

216

MCDONALDS

215

PARCEL ID: 31-19-30-509-0000-0020
AREA TAKEN: 173 SF

197

PARCE

PARCEL ID: 06-20-30-300-032B-0000
AREA TAKEN: 869 SF

PROP. R/W LINE

MATCHLINE STA. 49+00.00

THE LEARNING EXPERIENCE

WALGREENS

BUSINESS CENTER DR.

INTERNATIONAL PKWY.

175

APPLEBEE'S

193

FLORIDA BANK OR COMMERCE

Color_FDOTPDF.pltctg
FDOT_text-xglow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS		

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 3 (1 OF 6)
(RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. 63

amourad 11/2/2016 4:56:07 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd303-DDI.dgn

CR46A-02
16.5x10.6 (in.)
1:100
MODEL:
SHEET SIZE:
PLOT SCALE:

PUBLIX

TOWNPARK AVE.

SUNTRUST

JP MORGAN CHASE BANK

COLONIAL CENTER PKWY.

RUTH'S CHRIS STEAK HOUSE

N

0 20 100
Feet

198

199

183

184

185

186

L ID: 31-19-30-509-0000-0010
AREA TAKEN: 206 SF

PARCEL ID: 31-19-30-507-0000-0030
AREA TAKEN: 337 SF

PARCEL ID: 31-19-30-509-0000-0150
AREA TAKEN: 10,738 SF

PARCEL ID: 31-19-30-509-0000-0140
AREA TAKEN: 2,747 SF

PARCEL ID: 31-19-30-509-0000-0120
AREA TAKEN: 658 SF

LA R/W LINE

LA R/W LINE

MATCHLINE STA. 49+00.00

50

55

60

℄ EXIST CR 46A

196

194

195

CR 46A WB RAMP
TO I-4 WB

PARK PLACE

CR 46A EB RAMP TO I-4 WB

POND 309
(RECOMMENDED)

MATCHLINE STA. 64+00.00

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 3 (2 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **64**

amourad 11/2/2016 4:56:13 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122201\Segment 3\roadway\planrd303-DDI.dgn

CR46A-03
16.5x10.6 (in.)
1:100

MODEL:
SHEET SIZE:
PLOT SCALE:

MATCHLINE STA. 64+00.00

MATCHLINE STA. 79+00.00

I-4 WB RAMP TO CR 46A

PARCEL ID: 31-19-30-509-0000-0120
AREA TAKEN: 5,698 SF

PARCEL ID: 31-19-30-509-0C00-0000
AREA TAKEN: 117,324 SF

PROP. LA R/W LINE

187
LA R/W LINE

℄ EXIST I-4

2390

I-4 EB GUL RAMP
TO SR 417

CR-46A RAMP TO I-4 EB

N

0 20 100
Feet

POND 311
(RECOMMENDED)

65

70

75

℄ EXIST CR 46A

2385

CR 46A WB RAMP
TO I-4 WB

I-4 EB EXPRESS LANES

I-4 EB GUL

POND 310 (RECOMMENDED)
BY OTHERS

I-4 EB RAMP TO CR 46A

LA R/W LINE

ABC FINE WINE & SPIRITS

CENTENNIAL BANK

I-4 WB C/D ROADWAY

I-4 WB GUL

I-4 WB EXPRESS LANES

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

Color_FDOTPDF.pltcfg
FDOT_text-xlow.tbl

PRINT DRIVER:
PEN TABLE:

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 3 (3 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 65

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MODEL: CR46A-04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE A SEE SHEET 5

RINEHART RD.

R/W LINE

188

189

CHERRY LAUREL DR.

190

PARCEL ID: 32-19-30-301-008E-0000
AREA TAKEN: 143 SF

PROP. R/W LINE

H E THOMAS JR PKWY.

END PD&E STUDY LIMIT
CR 46A
STA. 90+00.00

N

0 20 100
Feet

80

85

90

BALDWIN FAIRCHILD

MATCHLINE STA. 79+00.00

℄ EXIST CR 46A

LA R/W LINE

RINEHART RD.

H E THOMAS JR PKWY.

MATCHLINE B SEE SHEET 6

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkbw.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 3 (4 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 66

amourad 11/2/2016 4:56:23 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303-DDI.dgn

MATCHLINE A SEE SHEET 4

I-4 EB GUL

I-4 EB GUL RAMP TO SR 417

CR-46A RAMP TO I-4 EB

I-4 EB EXPRESS LANES
RAMP TO SR 417

2405

RINEHART RD.

R/W LINE

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CR 46A ALT 3 (5 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **67**

MODEL:
SHEET SIZE: CR46A-06
PLOT SCALE: 16.5x10.6 (in.)
1:100.002

R/W LINE

RINEHART RD.

R/W LINE

MATCHLINE B SEE SHEET 4

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

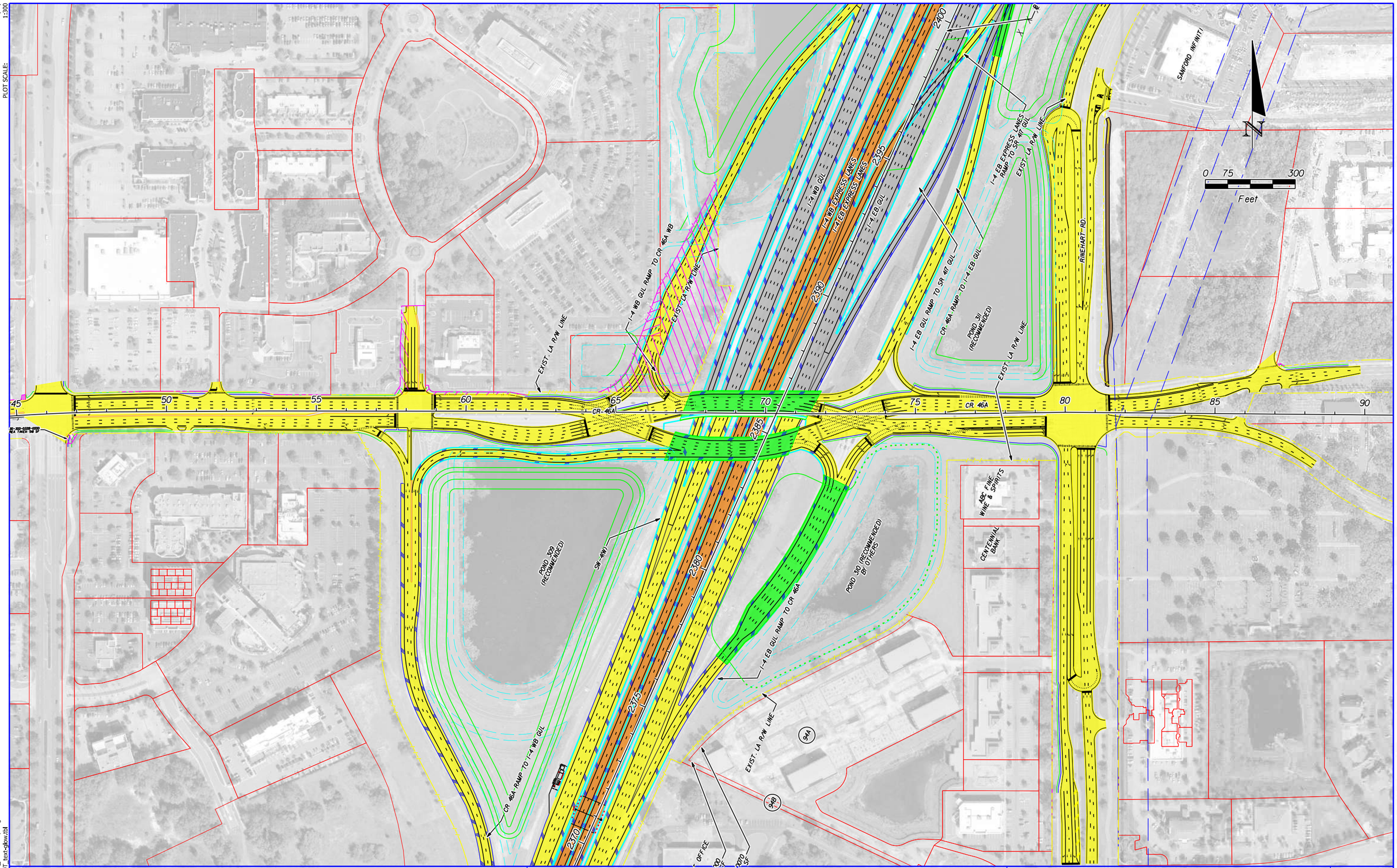
I-4 PD&E STUDY
CR 46A ALT 3 (6 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **68**

amourad 11/2/2016 4:56:32 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303-DDI.dgn

PLAN-300
16.5x10.6 (in.)
1:300

MODEL:
SHEET SIZE:
PLOT SCALE:



EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

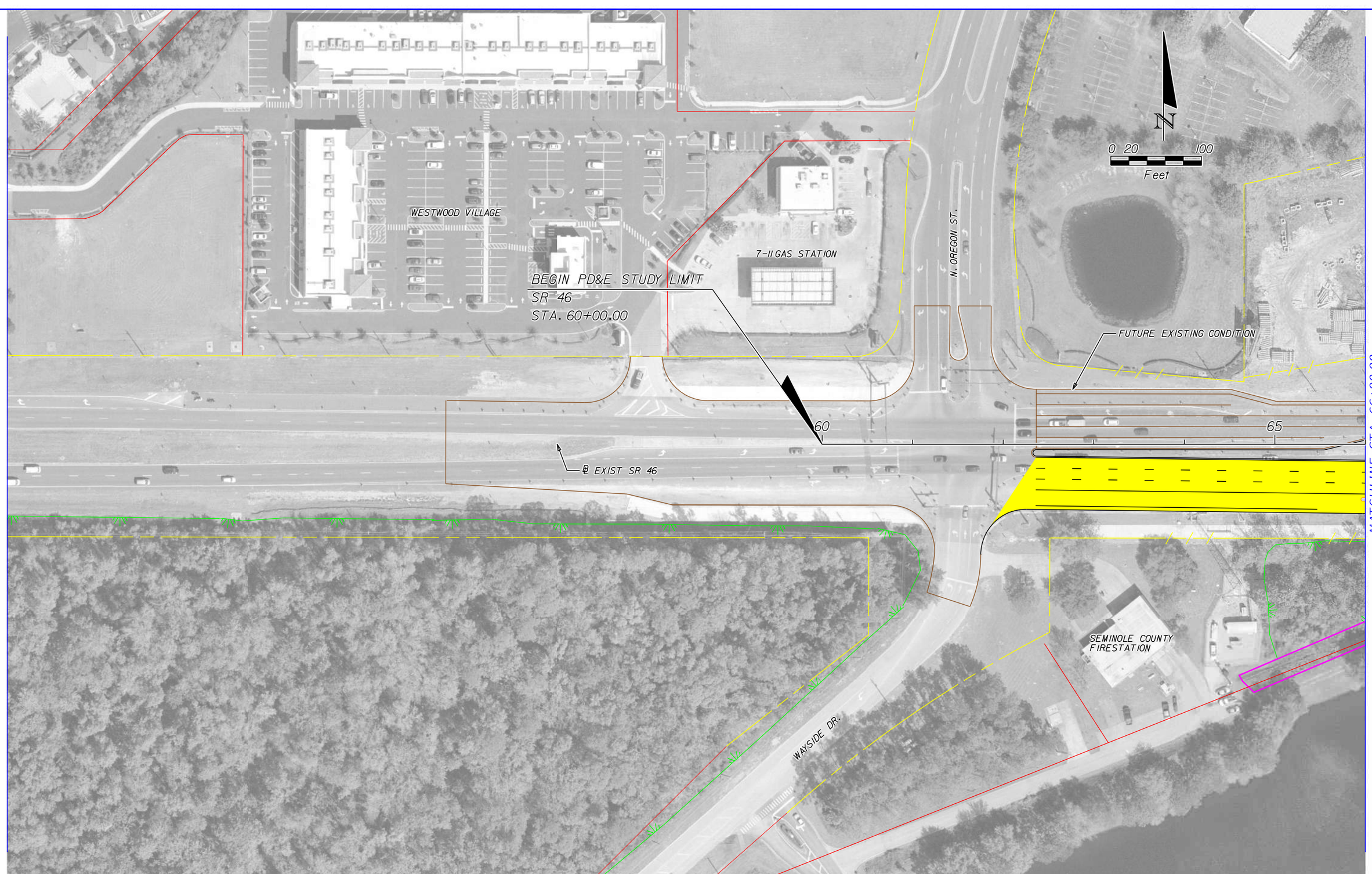
I-4 PD&E STUDY
CR 46A ALTERNATE 3 (RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. **69**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 4:56:38 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd303-DDI.dgn

MODEL: SR46-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 1 (1 OF 3)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **70**

amourad 11/2/2016 4:57:00 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd305.dgn

MODEL:
SHEET SIZE: SR46-02 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 66+00.00

MATCHLINE STA. 81+00.00

SR 46 RAMP TO I-4 WB

I-4 WB RAMP TO SR 46

POND 313A (RECOMMENDED)

FUTURE RAMP BY OTHERS

SR 46 GUL RAMP TO I-4 WB GUL

I-4 WB SUL

I-4 WB GUL

℄ EXIST I-4

SR 46 RAMP TO I-4 EB

SUPER 8 MOTEL

SUNOCO GAS STATION

I-4 EB SUL

I-4 EB GUL

FUTURE EXISTING CONDITION

70

75

80

℄ EXIST SR 46

2485

2480

I-4 EB RAMP TO SR-46

SWALE 313A (RECOMMENDED)

S ORANGE AVE.

N TOWNE RD.

191

HOPS RESTAURANT

MOBIL GAS STATION

N

0 20 100

Feet

EXISTING LA R/W		GENERAL USE LANES	
PROPOSED LA R/W		EXPRESS LANES	
EXISTING R/W		EXISTING BRIDGE	
PROPOSED FDOT R/W		PROPOSED BRIDGE	
PARCEL LINES		BARRIER WALL	
FUTURE EXISTING CONDITION	(xx)	PARCEL NUMBERS	

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkw.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 1 (2 OF 3)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 71

amourad 11/2/2016 4:57:10 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd305.dgn

MODEL: SR46-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 81+00.00

MCDONALDS
HICKMAN DR.
HOLIDAY INN
7-11 GAS STATION
DENNY'S
SUNOCO GAS STATION
FUTURE EXISTING CONDITION
END PD&E STUDY LIMIT
SR 46
STA. 85+00.00
85
℄ EXIST SR 46
N
0 20 100
Feet
BOJANGLES
RINEHART RD.
DON PABLOS
TOWNE CENTER BLVD.
JOE'S CRAB SHACK
LOGAN'S ROADHOUSE
CVS PHARMACY
RINEHART RD.

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION
GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 1 (3 OF 3)
(RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. 72

amourad 11/2/2016 4:57:18 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd305.dgn

MODEL:
SHEET SIZE:
PLOT SCALE: 300 SCALE 16.5x10.6 (in.) 1:300

AREA SHADED IN GRAY TO BE CONSTRUCTED AS PART OF THE WEKIVA PARKWAY PROJECT. FM 240200-4-52-01

SR 46

0 50 200 Feet

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION
GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
XX PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

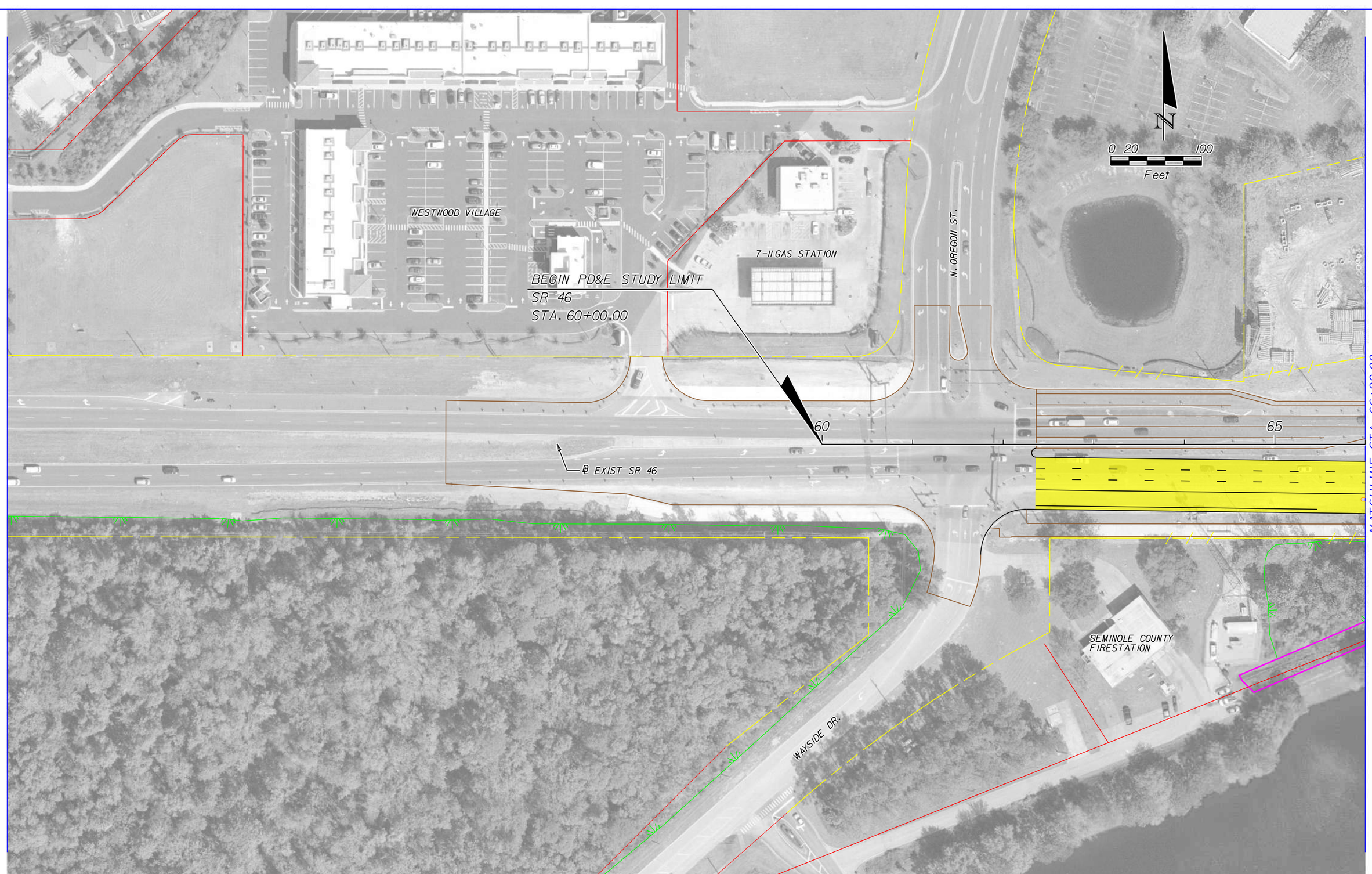
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 1 INTERCHANGE (RECOMMENDED ALTERNATIVE) SEGMENT 3

SHEET NO. 73

amourad 11/2/2016 4:57:24 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd305.dgn

MODEL:
SHEET SIZE: SR46-01
PLOT SCALE: 16.5x10.6 (in.) 1:100



Color_FDOTPDF.ptcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W		GENERAL USE LANES	
PROPOSED LA R/W		EXPRESS LANES	
EXISTING R/W		EXISTING BRIDGE	
PROPOSED FDOT R/W		PROPOSED BRIDGE	
PARCEL LINES		BARRIER WALL	
FUTURE EXISTING CONDITION		PARCEL NUMBERS	(xx)

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 2 (1 OF 3)
SEGMENT 3

SHEET NO. **74**

amourad 11/2/2016 4:57:58 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd305-ROUNDABOUT.dgn

MODEL: SR46-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

I-4 WB SUL
I-4 WB GUL
I-4 EB SUL
I-4 EB GUL
SR 46 WB RAMP TO I-4 WB
SR 46 WB RAMP TO I-4 WB
SR 46 RAMP TO I-4 EB
℄ EXIST I-4
I-4 WB RAMP TO SR 46
SUPER 8 MOTEL
N
0 20 100
Feet
SUNOCO GAS STATION
MATCHLINE STA. 66+00.00
70
75
80
2485
℄ EXIST SR 46
MATCHLINE STA. 81+00.00
SR 46 EB RAMP TO I-4 WB
I-4 EB RAMP TO SR 46
S ORANGE AVE.
191
IHOP RESTAURANT
MOBIL GAS STATION
PARCEL ID: 29-19-30-504-0000-0030
AREA TAKEN: 886 SF
N TOWNE RD.
2480
I-4 GUL RAMP TO TOWNE ROAD
PROPOSED LA R/W
MATCHLINE 1

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkvw.tbl

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 2 (2 OF 3)
SEGMENT 3

SHEET NO. **75**

amourad 11/2/2016 4:58:03 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\plan\r305-ROUNDABOUT.dgn

SR46-03
16.5x10.6 (in.)
1:100

MODEL:
SHEET SIZE:
PLOT SCALE:

SR 46 RAMP TO I-4 WB C/D ROADWAY

I-4 WB GUL

2470

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

2475

I-4 EB GUL

I-4 EB RAMP TO SR 46

I-4 EB RAMP TO N. TOWNE ROAD

PROP. LA R/W LINE

LA R/W LINE

MATCHLINE 1

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407)805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
SR 46 ALT 2 (3 OF 3)
SEGMENT 3

SHEET NO. **76**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 4:58:09 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd305-ROUNDABOUT.dgn

MODEL:
SHEET SIZE: plan=200
PLOT SCALE: 16.5x10.6 (in.) 1:300

SEMINOLE FORD
60
65
SR 46
SW-11(W)
SW-15(W)
EXIST. LA R/W LINE
AUDI NORTH ORLANDO AND AUTO MALL
0 50 200
Feet
SW-12(W)
SW-10A(W)
WL-2(W)
SR 46 GUL RAMP TO I-4 WB GUL
SR 46 EB RAMP TO I-4 WB GUL
SW-10B(W)
EXIST. LA R/W LINE
EXIST. PERP. EASEMENT
SW-10(W)
EXIST. PERP. EASEMENT
I-4 WB GUL RAMP TO SR 46
AUDI NORTH ORLANDO
SW-16(W)
70
I-4 WB GUL
I-4 WB EXPRESS LANES
I-4 EB EXPRESS LANES
I-4 EB GUL
2465
2470
2475
2480
2485
2490
2495
2500
2505
EXIST I-4
EXIST. LA R/W LINE
75
TOWNE CENTER CIR.
178
I-4 GUL RAMP TO SR 46
SR 46 RAMP TO I-4 EB GUL
99
100
101
102
103
CRACKER BARREL
COMFORT INN
EXIST. LA R/W LINE
POND 314
SUPER 8 MOTEL
WL-2A(E)
TOWNE CENTER PLAZA
PROP. LA R/W LINE
TOWNE CENTER PLAZA
MILLER'S ALE HOUSE RESTAURANT
SPRINGHILL SUITES
TOWNE RD.
OREGON AVE.
HOPS RESTAURANT
SR 46
80
SUNOCO GAS STATION
OUTBACK STEAKHOUSE
HICKMAN DR.
N. MALL ENTRANCE RD.
STEAK'N SHAKE
MOBIL GAS STATION
MCDONALDS
7-11 GAS STATION
RUG KING
MATRESS GIANT
85
SW-16(E)

EL ID: 29-19-30-5LW-0300-0000
TAKEN: 1,774 SF

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

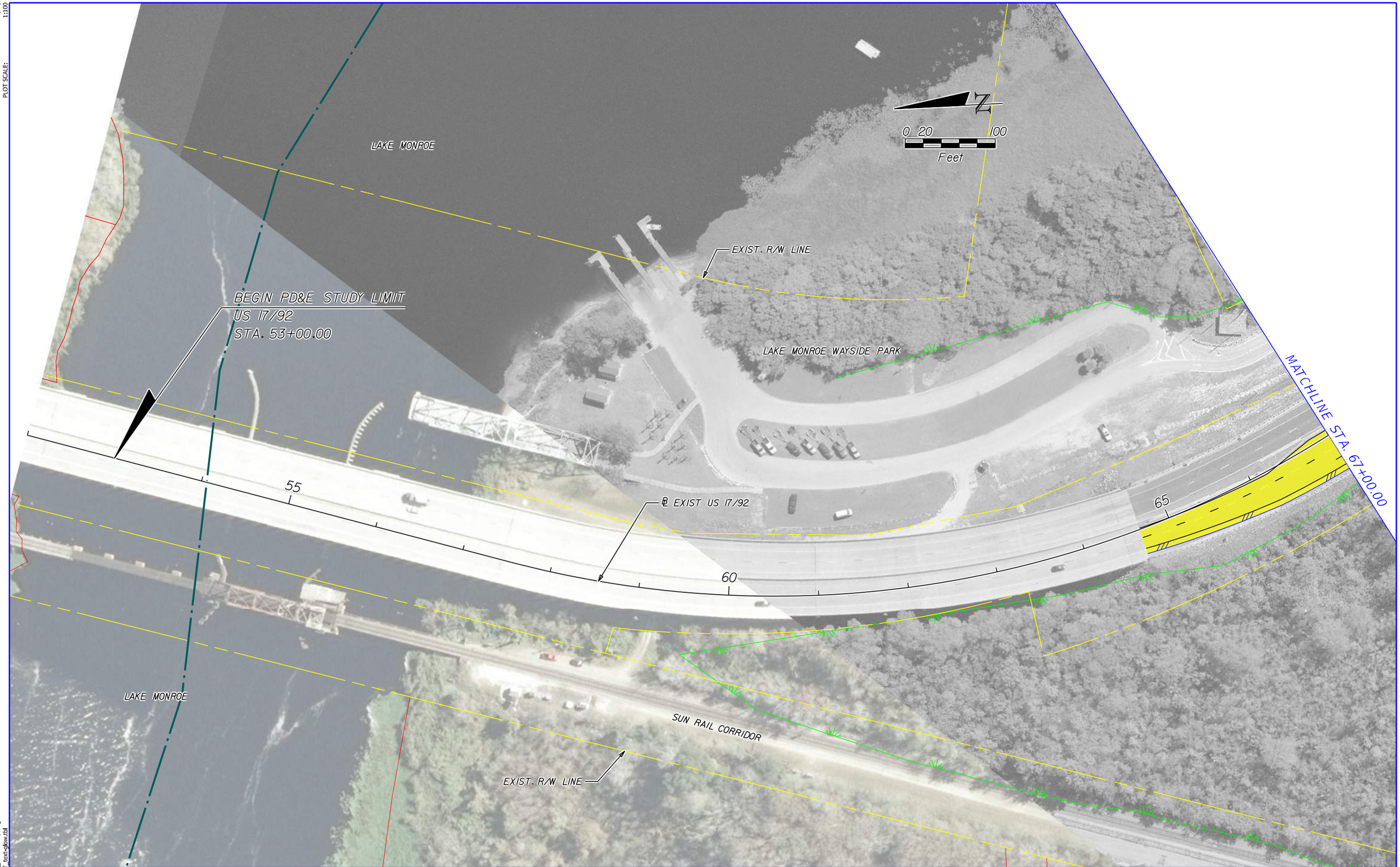
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4/SR 46 ALTERNATIVE 2
SEGMENT 3

SHEET NO. 77

amourad 11/2/2016 4:58:14 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\plandr305-ROUNDABOUT.dgn

MODEL: US17-92-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



Color_FDOTPDF.pltcfg
FDOT_text-plow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 1 (1 OF 3)
SEGMENT 3

SHEET NO.
78

amourad 11/2/2016 4:58:38 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-ALT-1.dgn

MODEL: US17-92-02
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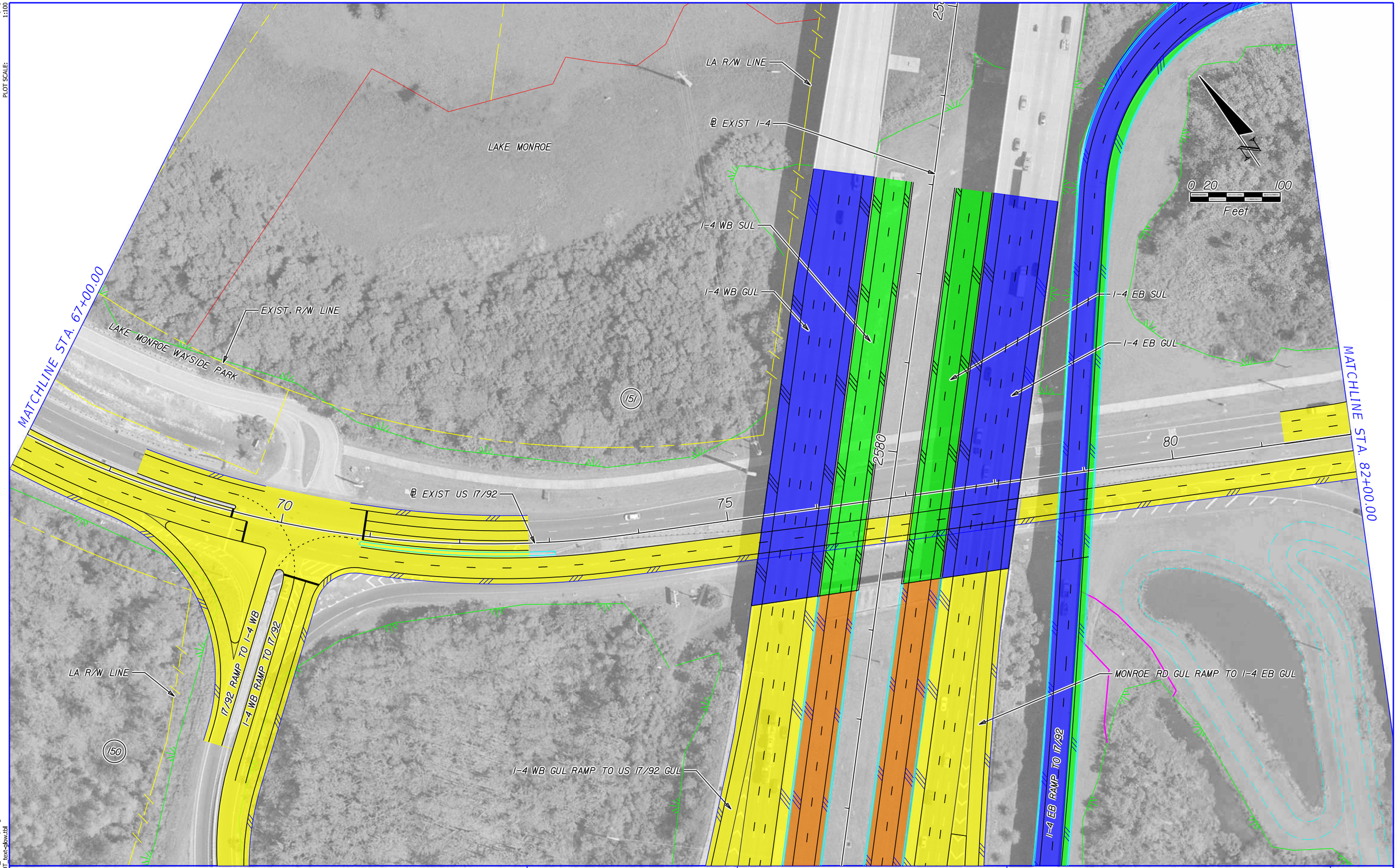
PLOT SCALE: 1:100



Color_FDOTPDF.pltcfg
FDOT_text-qkw.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 1 (2 OF 3)
SEGMENT 3

SHEET NO. 79

amourad 11/2/2016 4:58:52 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-ALT-1.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

I-4 EB RAMP TO I7/92

EXIST. R/W LINE

LAKE MONROE

N

0 20 100
Feet

134

135

END PD&E STUDY LIMIT
US 17/92
STA. 95+00.00

MATCHLINE STA. 82+00.00

85

℄ EXIST US 17/92

90

95

MONROE RD.

EXIST. R/W LINE

133

137

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-sklow.tbl

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

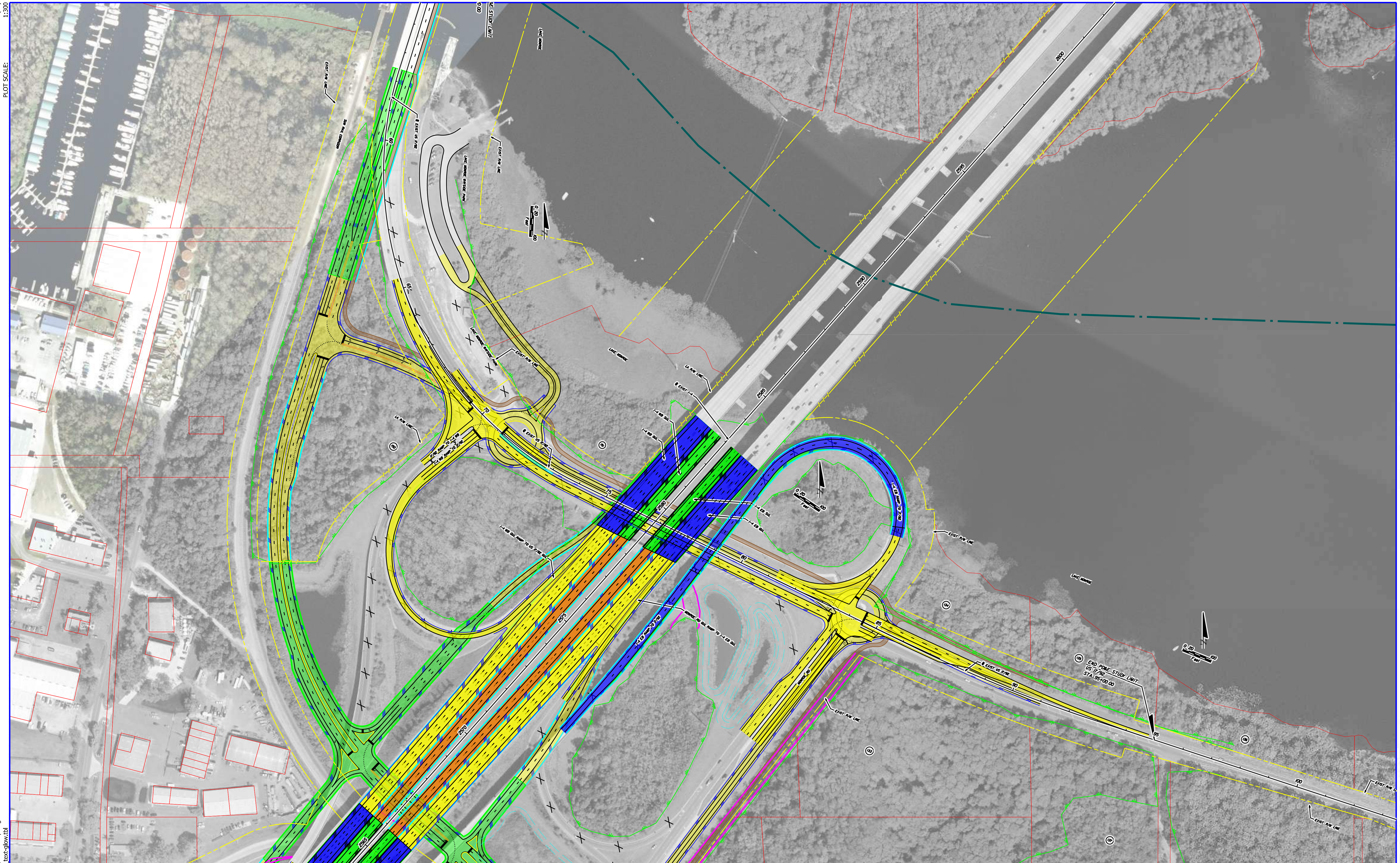
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 1 (3 OF 3)
SEGMENT 3

SHEET NO. **80**

amourad 11/2/2016 4:59:01 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-ALT-1.dgn

MODEL: 300 SCALE
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:300



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4/US 17 / 92 ALT 1
SEGMENT 3

SHEET NO.
81

amourad 11/2/2016 4:59:12 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-ALT-1.dgn

MODEL: US17-92-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

LAKE MONROE

LAKE MONROE WAYSIDE PARK

0 20 100
Feet

65

EXIST. R/W LINE

BEGIN PD&E STUDY LIMIT
US 17/92
STA. 53+00.00

℄ EXIST US 17/92

150

55

60

MATCHLINE STA. 67+00.00

PARCEL ID: 16-19-30-300-002A-0000
TAKING 171,597 SF

PROPOSED US 17/92 ALIGNMENT

SUN RAIL CORRIDOR

EXIST. R/W LINE

LAKE MONROE

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 2 (1 OF 4)
SEGMENT 3

SHEET NO.
82

amourad 11/2/2016 4:59:49 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-DIAMOND-ALT-2.dgn

MODEL: US17-92-02
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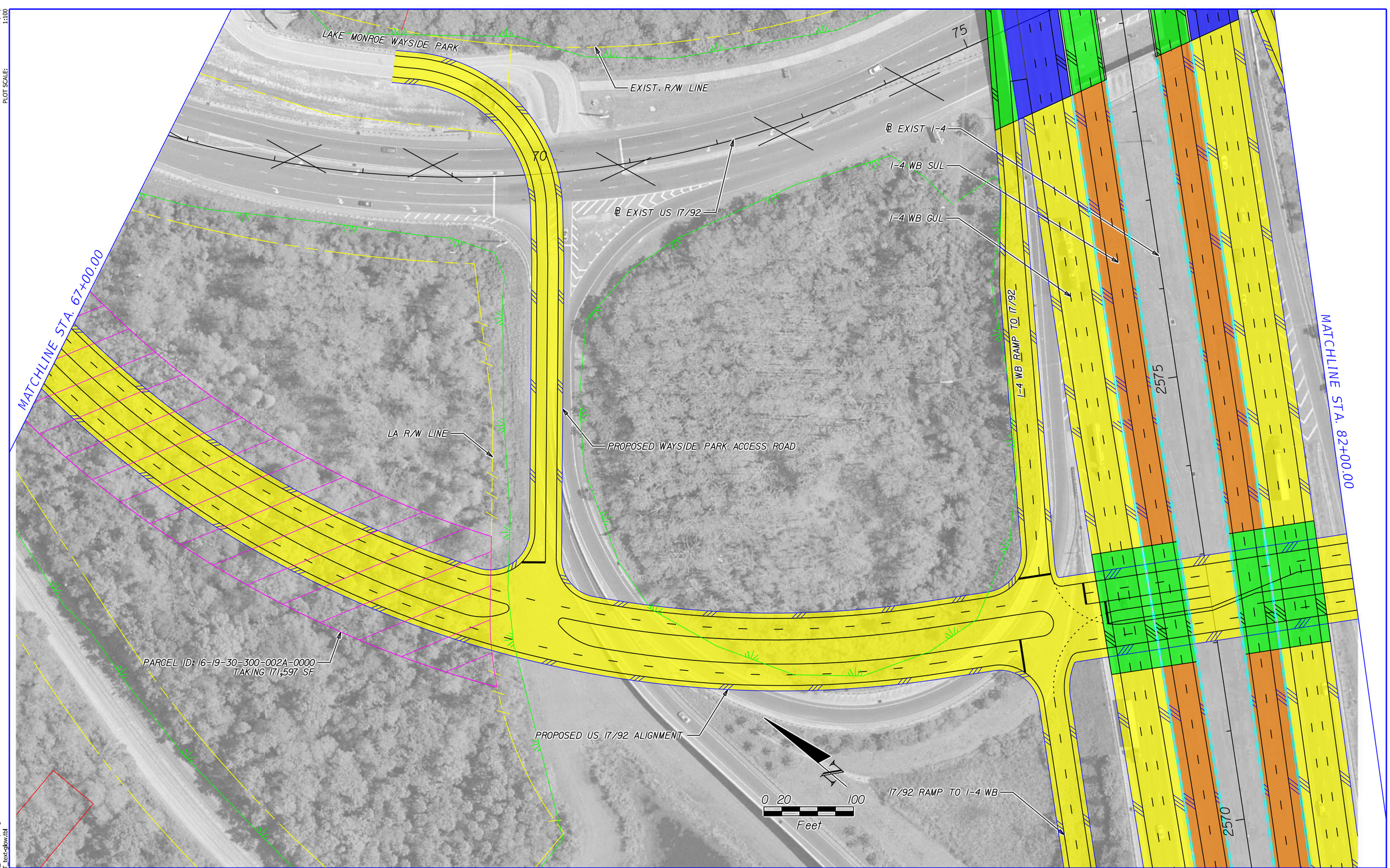
PLOT SCALE: 1:100



Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 2 (2 OF 4)
SEGMENT 3

SHEET NO. **83**

amourad 11/2/2016 4:59:57 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-DIAMOND-ALT-2.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 82+00.00

MATCHLINE STA. 97+00.00

EXIST. R/W LINE

PROPOSED US 17/92 ALIGNMENT

MONROE RD PROPOSED ALIGNMENT

I-4 EB RAMP TO 17/92 NB

I-4 EB RAMP TO 17/92 SB

17/92 RAMP TO I-4 EB

MONROE RD.

PARCEL ID: 16-19-30-5AC-0000-0140
TAKING 142,379 SF.

PARCEL ID: 16-19-30-5AC-0000-0040
TAKING 26 SF.

PARCEL ID: 16-19-30-35AC-0000-0130
TAKING 27,659 SF.

133 132 131 130 139 140

0 20 100
Feet

Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 2 (3 OF 4)
SEGMENT 3

SHEET NO. **84**

amourad 11/2/2016 5:00:06 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-DIAMOND-ALT-2.dgn

US17-92-04
16.5x10.6 (in.)
1:100
MODEL:
SHEET SIZE:
PLOT SCALE:

90

95

136

PARCEL ID: 16-19-5AC-0000-0020
TAKING 63,280 SF.

PARCEL ID: 16-19-5AC-0000-0030
TAKING 944 SF.

EXIST. R/W LINE

100

137

PROPOSED US 17/92 ALIGNMENT

EXIST. R/W LINE

PARCEL ID: 16-19-5AC-0000-0010
TAKING 21,534 SF.

℄ EXIST US 17/92

PROPOSED CENTRAL FLORIDA ZOO ENTRANCE

138

MATCHLINE STA. 97+00.00

LAKE MONRO

0 20 100
Feet

N

Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

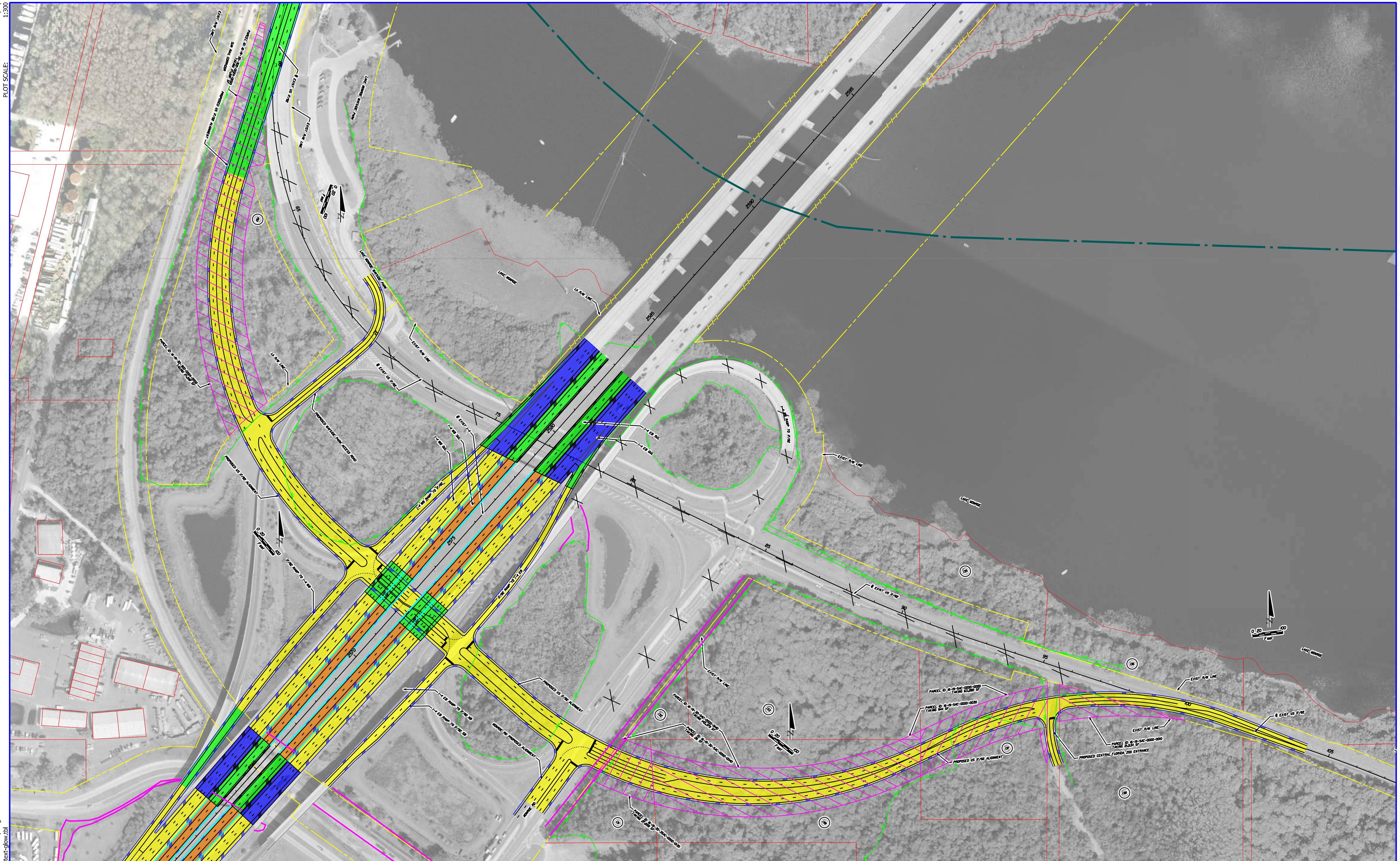
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 2 (4 OF 4)
SEGMENT 3

SHEET NO. 85

amourad 11/2/2016 5:00:12 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\432100122201\Segment 3\roadway\planrd306-DIAMOND-ALT-2.dgn

MODEL:
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:300
300 SCALE



EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

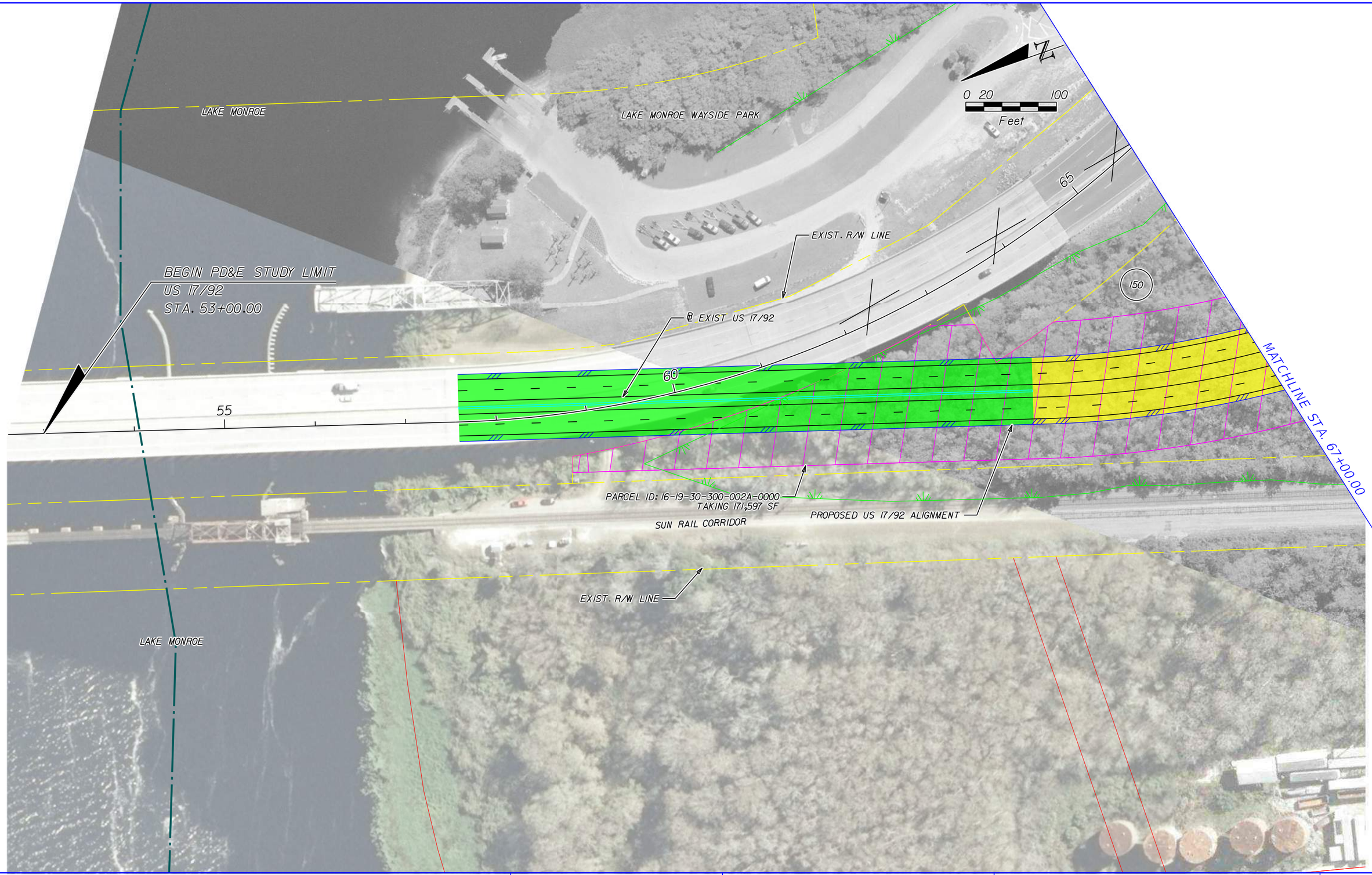
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4/US 17 / 92 ALT 2
SEGMENT 3

SHEET NO. 86

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl
amourad 11/2/2016 5:00:20 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-DIAMOND-ALT-2.dgn



EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 3 (1 OF 4)
SEGMENT 3

SHEET NO. **87**

Color_FDOTPDF.pltcfg
FDOT_text-gkw.tbl
PRINT DRIVER:
PEN TABLE:
amourad 11/2/2016 5:00:51 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-SPUI-ALT-3.dgn

MODEL: US17-92-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES		
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS		

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 3 (2 OF 4)
SEGMENT 3

SHEET NO. **88**

amourad 11/2/2016 5:01:01 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-SPUI-ALT-3.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 97+00.00

MATCHLINE STA. 82+00.00

EXIST. R/W LINE

I-4 EB RAMP TO I7/92

I-4 EB RAMP TO I7/92

I7/92 RAMP TO I-4 EB

PROPOSED US I7/92 ALIGNMENT

MONROE RD PROPOSED ALIGNMENT

MONROE RD.

PARCEL ID: I6-I9-30-5AC-0000-0I40
TAKING I42,379 SF.

PARCEL ID: I6-I9-30-5AC-0000-0040
TAKING 26 SF.

PARCEL ID: I6-I9-30-35AC-0000-0I30
TAKING 27,659 SF.

I33

I32

I39

I40

I3I

I30

0 20 I00
Feet

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
6I0 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 3 (3 OF 4)
SEGMENT 3

SHEET NO. **89**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 5:01:10 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-SPUI-ALT-3.dgn

USI7-92-04
16.5x10.6 (in.)
1:100
MODEL:
SHEET SIZE:
PLOT SCALE:

90

95

100

136

137

138

N

0 20 100
Feet

LAKE MONRO

PARCEL ID: 16-19-5AC-0000-0020
TAKING 63,280 SF.

PARCEL ID: 16-19-5AC-0000-0030
TAKING 944 SF.

EXIST. R/W LINE

EXIST. R/W LINE

PARCEL ID: 16-19-5AC-0000-0010
TAKING 21,534 SF.

℄ EXIST US 17/92

PROPOSED US 17/92 ALIGNMENT

PROPOSED CENTRAL FLORIDA ZOO ENTRANCE

MATCHLINE STA. 97+00.00

Color FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

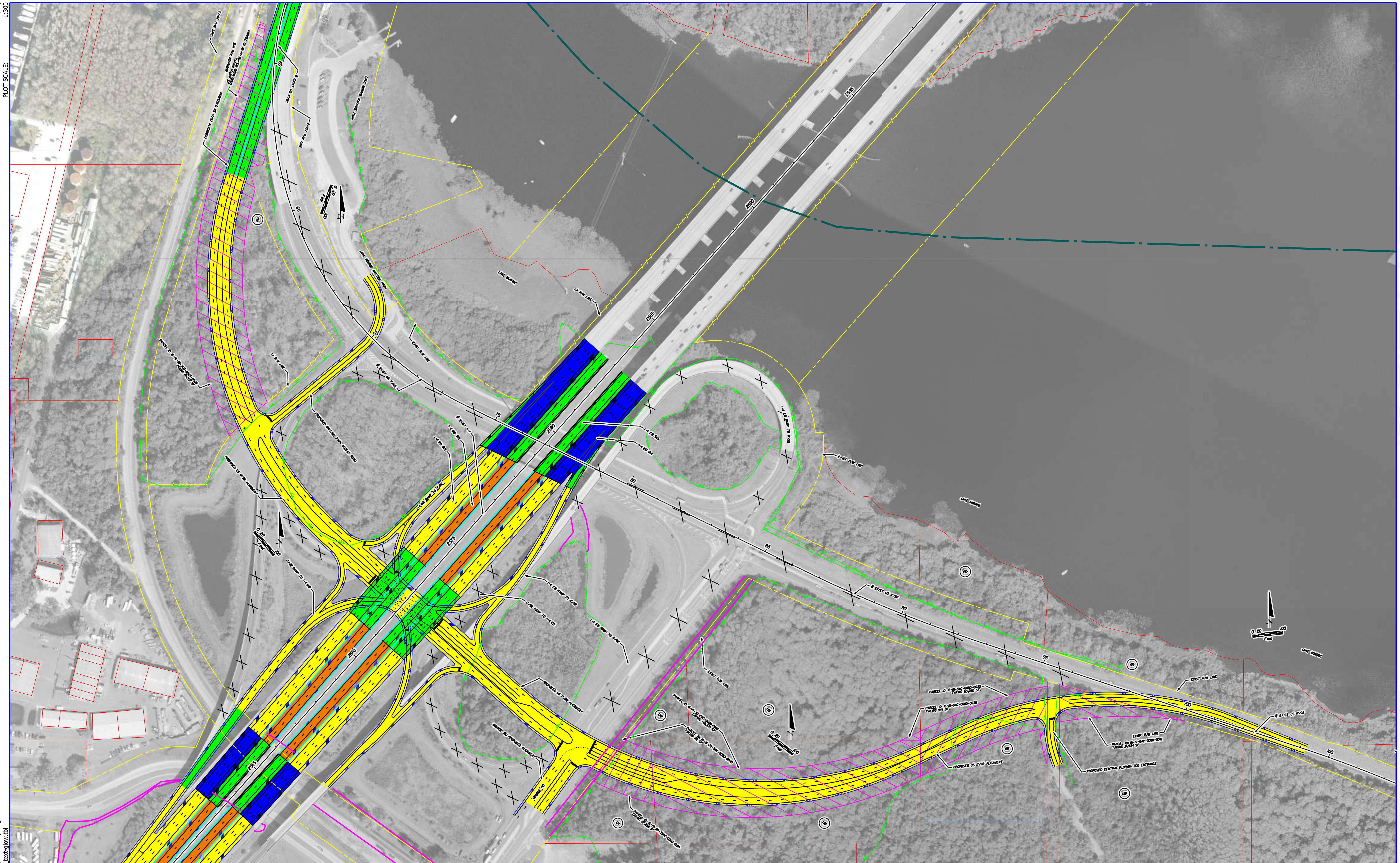
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 3 (4 OF 4)
SEGMENT 3

SHEET NO. **90**

amourad 11/2/2016 5:01:15 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122201\Segment 3\roadway\planrd306-SPUI-ALT-3.dgn

MODEL:
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:300 300 SCALE



	EXISTING LA R/W		GENERAL USE LANES
	PROPOSED LA R/W		EXPRESS LANES
	EXISTING R/W		EXISTING BRIDGE
	PROPOSED FDOT R/W		PROPOSED BRIDGE
	PARCEL LINES		BARRIER WALL
	FUTURE EXISTING CONDITION	(XX)	PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

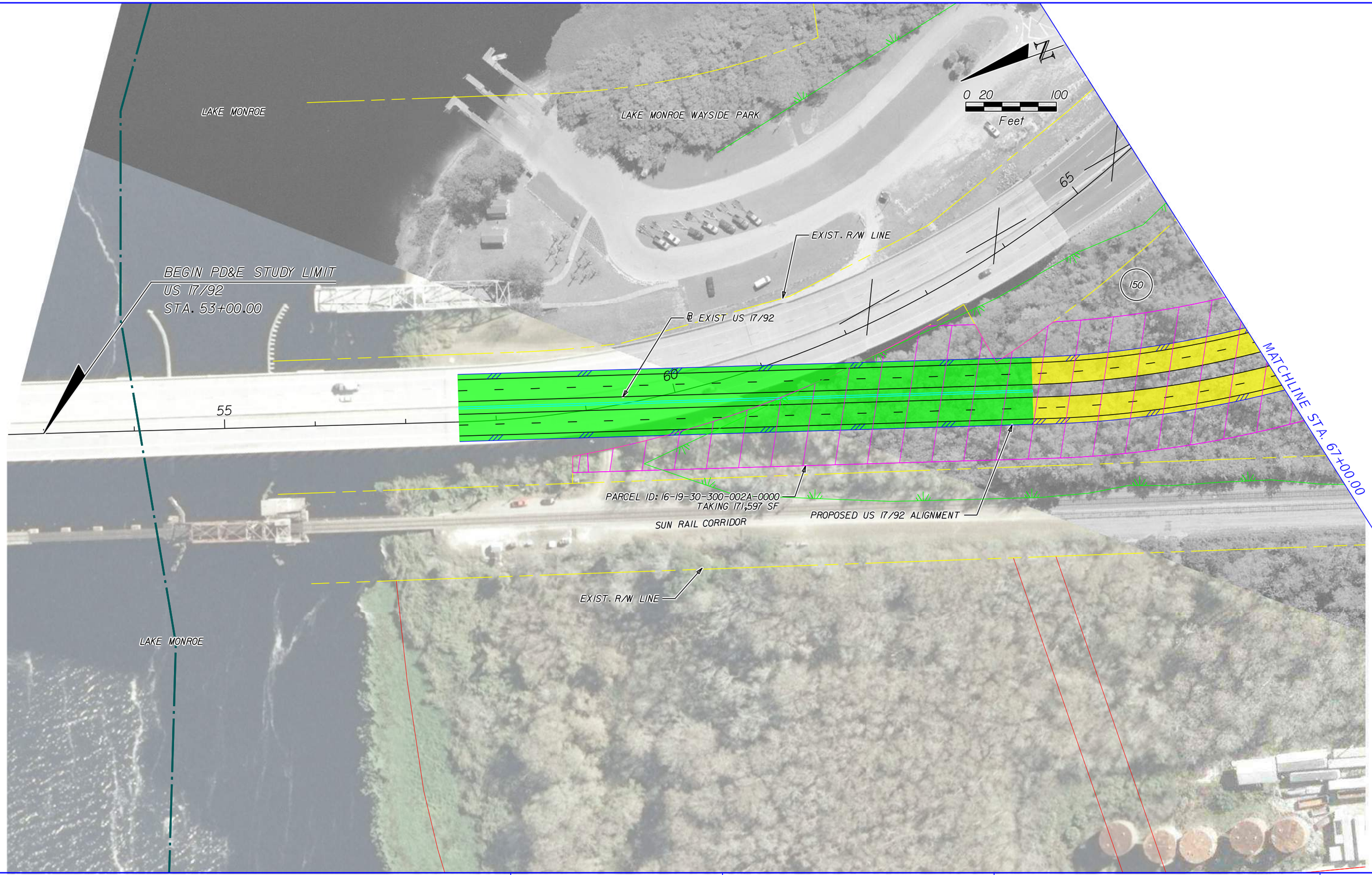
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4/US 17 / 92 ALT 3
SEGMENT 3

SHEET NO.
91

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

amourad 11/2/2016 5:01:23 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-SPUI-ALT-3.dgn



EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 4 (1 OF 4)
SEGMENT 3

SHEET NO. **92**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkw.tbl
amourad 11/2/2016 5:01:56 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-L00P-ALT-4.dgn

MODEL: US17-92-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

Color_FDOTPDF.pltcfg
FDOT_text-glow.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 4 (2 OF 4)
SEGMENT 3

SHEET NO.
93

A-93

amourad 11/2/2016 5:02:05 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-LOOP-ALT-4.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 82+00.00

MATCHLINE STA. 97+00.00

EXIST. R/W LINE

I-4 EB RAMP TO I7/92

I-4 EB RAMP TO I7/92

I7/92 RAMP TO I-4 EB

PROPOSED US I7/92 ALIGNMENT

MONROE RD PROPOSED ALIGNMENT

MONROE RD.

PARCEL ID: I6-I9-30-5AC-0000-0140
TAKING 142,379 SF.

PARCEL ID: I6-I9-30-5AC-0000-0040
TAKING 26 SF.

PARCEL ID: I6-I9-30-35AC-0000-0130
TAKING 27,659 SF.

I33 I39 I32 I40 I3I I30

0 20 100
Feet

N

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

Color_FDOTPDF.pltcfg
FDOT_text-sjkw.tbl
PRINT DRIVER:
PEN TABLE:

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 4 (3 OF 4)
SEGMENT 3

SHEET NO. **94**

amourad 11/2/2016 5:02:15 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-LOOP-ALT-4.dgn

MODEL:
SHEET SIZE: US17-92-04
PLOT SCALE: 16.5x10.6 (in.) 1:100

90
95
100
136
137
138

PARCEL ID: 16-19-5AC-0000-0020
TAKING 63,280 SF.

PARCEL ID: 16-19-5AC-0000-0030
TAKING 944 SF.

EXIST. R/W LINE

EXIST. R/W LINE

PARCEL ID: 16-19-5AC-0000-0010
TAKING 21,534 SF.

℄ EXIST US 17/92

PROPOSED US 17/92 ALIGNMENT

PROPOSED CENTRAL FLORIDA ZOO ENTRANCE

MATCHLINE STA. 97+00.00

N

0 20 100
Feet

LAKE MONRO

10
I

Color_FDOTPDF.pltcfg
FDOT_text-sjkw.tbl
PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W		GENERAL USE LANES	
PROPOSED LA R/W		EXPRESS LANES	
EXISTING R/W		EXISTING BRIDGE	
PROPOSED FDOT R/W		PROPOSED BRIDGE	
PARCEL LINES		BARRIER WALL	
FUTURE EXISTING CONDITION	(xx)	PARCEL NUMBERS	

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

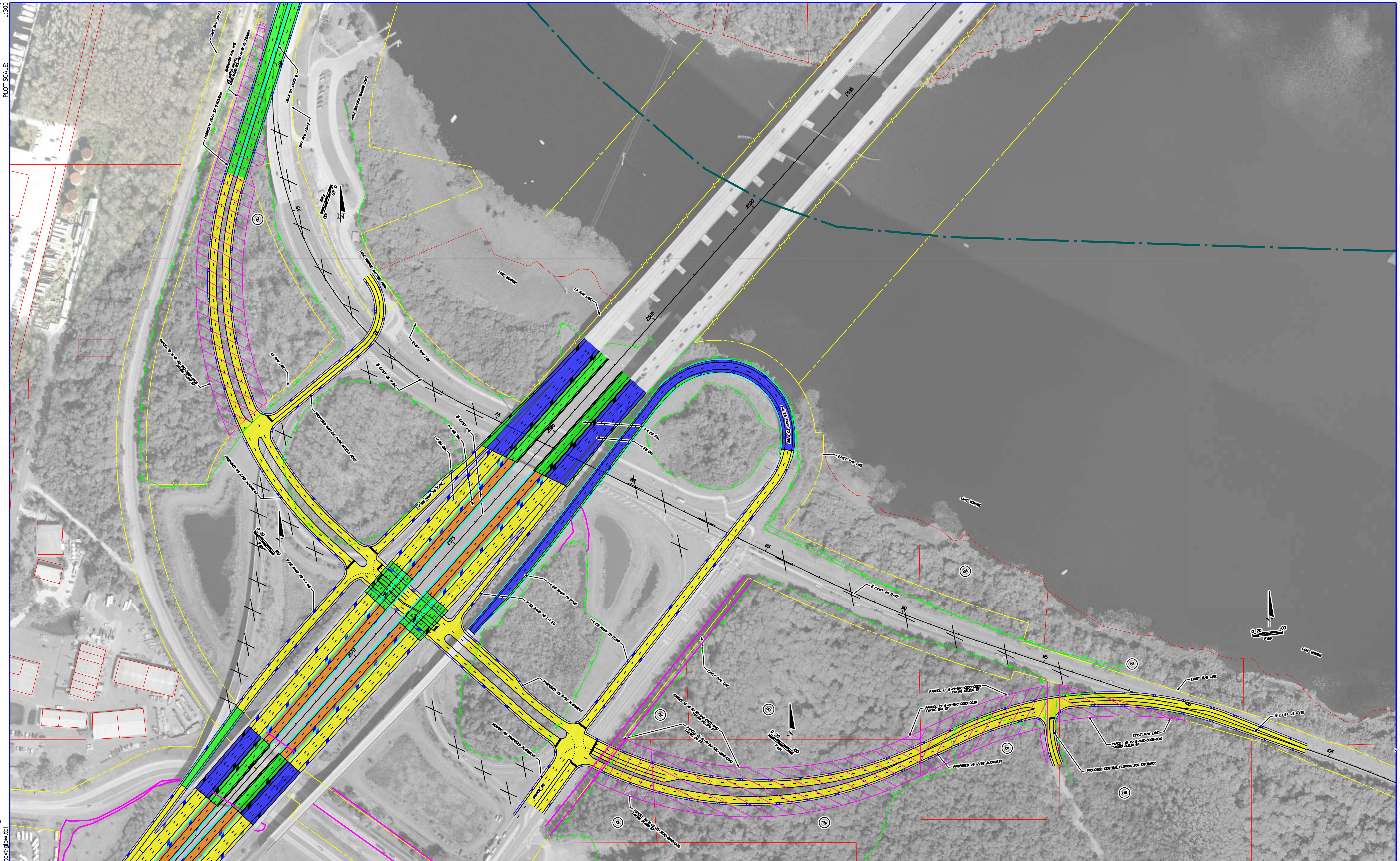
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 4 (4 OF 4)
SEGMENT 3

SHEET NO.
95

amourad 11/2/2016 5:02:21 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-LOOP-ALT-4.dgn

MODEL:
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:300
300 SCALE



(yellow line)	EXISTING LA R/W	(yellow)	GENERAL USE LANES
(magenta line)	PROPOSED LA R/W	(orange)	EXPRESS LANES
(yellow dash-dot)	EXISTING R/W	(blue)	EXISTING BRIDGE
(magenta dash-dot)	PROPOSED FDOT R/W	(green)	PROPOSED BRIDGE
(red line)	PARCEL LINES	(cyan)	BARRIER WALL
(grey line)	FUTURE EXISTING CONDITION	(xx)	PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4/US 17 / 92 ALT 4
SEGMENT 3

SHEET NO.
96

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

amourad 11/2/2016 5:02:29 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-LOOP-ALT-4.dgn

MODEL:
SHEET SIZE: US17-92-01
PLOT SCALE: 16.5x10.6 (in.) 1:100

0 20 100
Feet

LAKE MONROE WAYSIDE PARK

LAKE MONROE WAYSIDE PARK

EXIST. R/W LINE

PROPOSED WAYSIDE PARK ACCESS ROAD

40

EXIST. R/W LINE

℄ EXIST US 17/92

60'

65

LA R/W LINE

SUN RAIL CORRIDOR

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 149,154 SF.

EXIST. R/W LINE

PROPOSED US 17/92 ALIGNMENT

150

MATCHLINE STA. 67+00.00

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 5 (1 OF 4)
SEGMENT 3

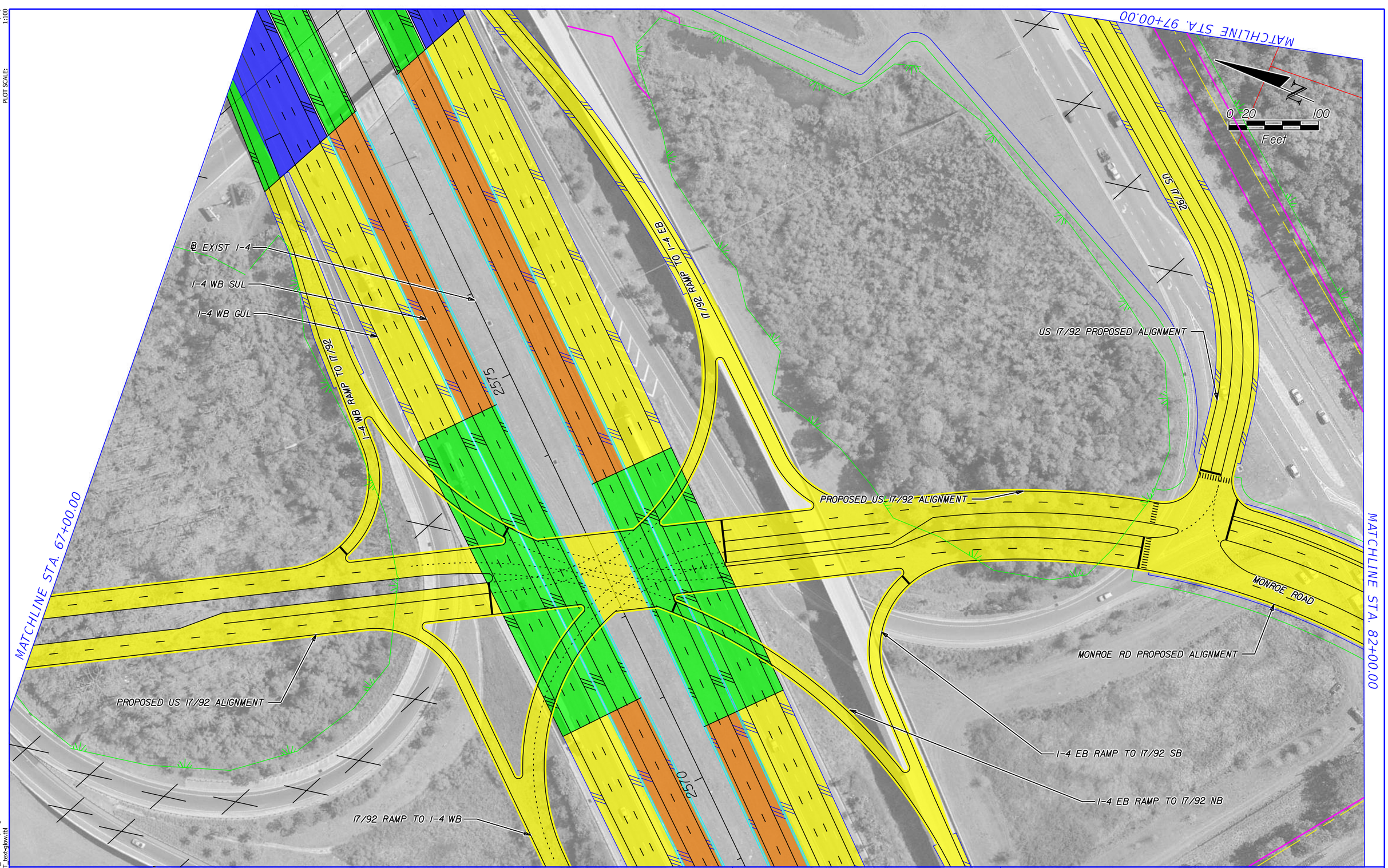
SHEET NO. **97**

A-97

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 5:03:04 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd306-SPUI TEE-ALT-5.dgn

MODEL: US17-92-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 5 (2 OF 4)
SEGMENT 3

SHEET NO. **98**

amourad 11/2/2016 5:03:15 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122201\Segment 3\roadway\planrd306-SPUI TEE-ALT-5.dgn

MODEL:
SHEET SIZE: US17-92-03
PLOT SCALE: 16.5x10.6 (in.) 1:100

0 20 100
Feet

130

131

143

144

145

142

PARCEL ID: 16-19-30-5AC-0000-013A
AREA TAKEN: 161 SF

SUNRAIL DRIVE PROPOSED ALIGNMENT

PARCEL ID: 16-19-30-5AC-0000-013B
AREA TAKEN: 4,616 SF

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 30,481 SF

PARCEL ID: 16-19-30-5AC-0000-025B
AREA TAKEN: 1,390 SF

PARCEL ID: 16-19-30-5AC-0000-025A
AREA TAKEN: 106 SF

MONROE ROAD

MATCHLINE STA. 82+00.00

EXISTING R/W LINE

ORANGE BLVD.
PROPOSED ALIGNMENT

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 5 (3 OF 4)
SEGMENT 3

SHEET NO. 99

amourad 11/2/2016 5:03:23 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122201\Segment 3\roadway\planrd306-SPUI TEE-ALT-5.dgn

MODEL:
SHEET SIZE: US17-92-04 16.5x10.6 (in.)
PLOT SCALE: 1:100

EXIST. R/W LINE

LAKE MONROE

N

0 20 100
Feet

80

85

@ EXIST US 17/92

135

EXIST. R/W LINE

90

PROPOSED US 17/92 ALIGNMENT

US 17/92

PROPOSED R/W LINE

PARCEL ID: 16-19-30-5AC-0000-0030
AREA TAKEN: 20,134 SF.

US 17/92

95

MATCHLINE STA. 97+00.00

EXIST. R/W LINE

EXIST. R/W LINE

132

133

137

Color_FDOTPDF.pltctg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 5 (4 OF 4)
SEGMENT 3

SHEET NO.
100

A-100

amourad 11/2/2016 5:03:30 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-SPUI TEE-ALT-5.dgn

MODEL:
SHEET SIZE: 300 SCALE
PLOT SCALE: 16.5x10.6 (in.) 1:300

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkw.tbl

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
I-4/US 17 / 92 ALT 5
SEGMENT 3

SHEET NO. **101**

A-101

amourad 11/2/2016 5:04:01 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-SPUI TEE-ALT-5.dgn

MODEL: US17-92-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

LAKE MONROE

N

0 20 100
Feet

EXIST. R/W LINE

BEGIN PD&E STUDY LIMIT
US 17/92
STA. 53+00.00

LAKE MONROE WAYSIDE PARK

MATCHLINE STA. 67+00.00

55

℄ EXIST US 17/92

60

65

150

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 148,274 SF

LAKE MONROE

EXIST. R/W LINE

SUN RAIL CORRIDOR

EXIST. R/W LINE

MATCHLINE SHEET 2 OF 6

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkw.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (1 OF 6)
SEGMENT 3

SHEET NO. 102

amourad 11/2/2016 5:04:44 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL:
SHEET SIZE: US17-92-02 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 67+00.00

LAKE MONROE

LA R/W LINE

℄ EXIST I-4

I-4 WB EXPRESS LANES

I-4 WB GUL

EXIST. R/W LINE

LAKE MONROE WAYSIDE PARK

151

MULTI-USE TRAIL

℄ EXIST US 17/92

70

75

2580

2580

80

I-4 EB EXPRESS LANES

I-4 EB GUL

SW-24(E)

0 20 40
Feet

MATCHLINE STA. 82+00.00

EXIST. R/W LINE

I-4 WB GUL RAMP TO US 17/92 GUL

LA R/W LINE

150

MULTI-USE TRAIL

US 17/92 TO I-4 EB GUL

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (2 OF 6)
SEGMENT 3

SHEET NO.
103

A-103

amourad 11/2/2016 5:04:54 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 82+00.00

MULTI-USE TRAIL

EXIST. R/W LINE

WL-6(E)

LAKE MONROE

0 20 100
Feet

134

135

END PD&E STUDY LIMIT
US 17/92
STA. 92+00.00

℄ EXIST US 17/92

85

90

95

PARCEL ID: 16-19-30-5AC-0000-0030
AREA TAKEN: 2,964 SF

MONROE RD

EXIST. R/W LINE

133

137

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (3 OF 6)
SEGMENT 3

SHEET NO. 104

A-104

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkw.tbl

amourad 11/2/2016 5:05:04 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPR0D\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL: US17-92-04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE SHEET 1 OF 7

MATCHLINE SHEET 5 OF 6

EXIST. R/W LINE

LA R/W LINE

70

150

WL-4(W)

LA R/W LINE

WL-3(W)

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 148,274 SF

MULTI-USE TRAIL

PROPOSED US 17/92 REALIGNMENT

PARCEL ID: 16-19-30-5AB-0A00-0010
AREA TAKEN: 9,154 SF

PROPOSED US 17/92 REALIGNMENT

R/W LINE

SUN RAIL CORRIDOR

R/W LINE

SUN RAIL CORRIDOR

R/W LINE

214

I-4 WB GUL TO US 17/92

I-4 WB GUL

I-4 WB EXPRESS LANES

2570

I-4 EB EXPRESS LANES

I-4 EB GUL

I-4 EB GUL

(N)2

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (4 OF 6)
SEGMENT 3

SHEET NO. 105

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

amourad 11/2/2016 5:05:10 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL: US17-92-05
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MONROE RD.

131

130

213

209

208

210

207

206

205

WL-2B(E)

R/W LINE

WL-3(E)

SUN RAIL CORRIDOR

PARCEL ID: 16-19-30-5AC-0000-0240
AREA TAKEN: 27,655 SF

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 45,921 SF

PARCEL ID: 16-19-30-5AC-0000-013B
AREA TAKEN: 5,924 SF

PARCEL ID: 16-19-30-5AC-0000-025B
AREA TAKEN: 8,510 SF

PARCEL ID: 21-19-30-502-0400-0000
AREA TAKEN: 977 SF

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 53,346 SF

MULTI-USE TRAIL

SW-22(E)

US 17/92

SW-21(E)

ORANGE BLVD.

R/W LINE

PROPOSED R/W LINE

PARCEL ID: 21-19-30-502-0300-0000
AREA TAKEN: 574 SF

PARCEL ID: 21-19-30-502-0700-0000
AREA TAKEN: 29,805 SF

MATCHLINE SHEET 4 OF 7

MATCHLINE SHEET 6 OF 7

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (5 OF 7)
SEGMENT 3

SHEET NO. 106

A-106

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 5:05:17 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL: US17-92-06
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

PARCEL ID: 16-19-30-5AC-0000-025A
AREA TAKEN: 11,847 SF

PARCEL ID: 16-19-30-5AC-0000-0250
AREA TAKEN: 16,825 SF

211

212

R/W LINE

205

PARCEL ID: 21-19-30-502-0700-0000
AREA TAKEN: 29,805 SF

PARCEL ID:
AREA TAKEN: 70,874 SF

MATCHLINE SHEET 5 OF 7

MATCHLINE SHEET 7 OF 7

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (6 OF 7)
SEGMENT 3

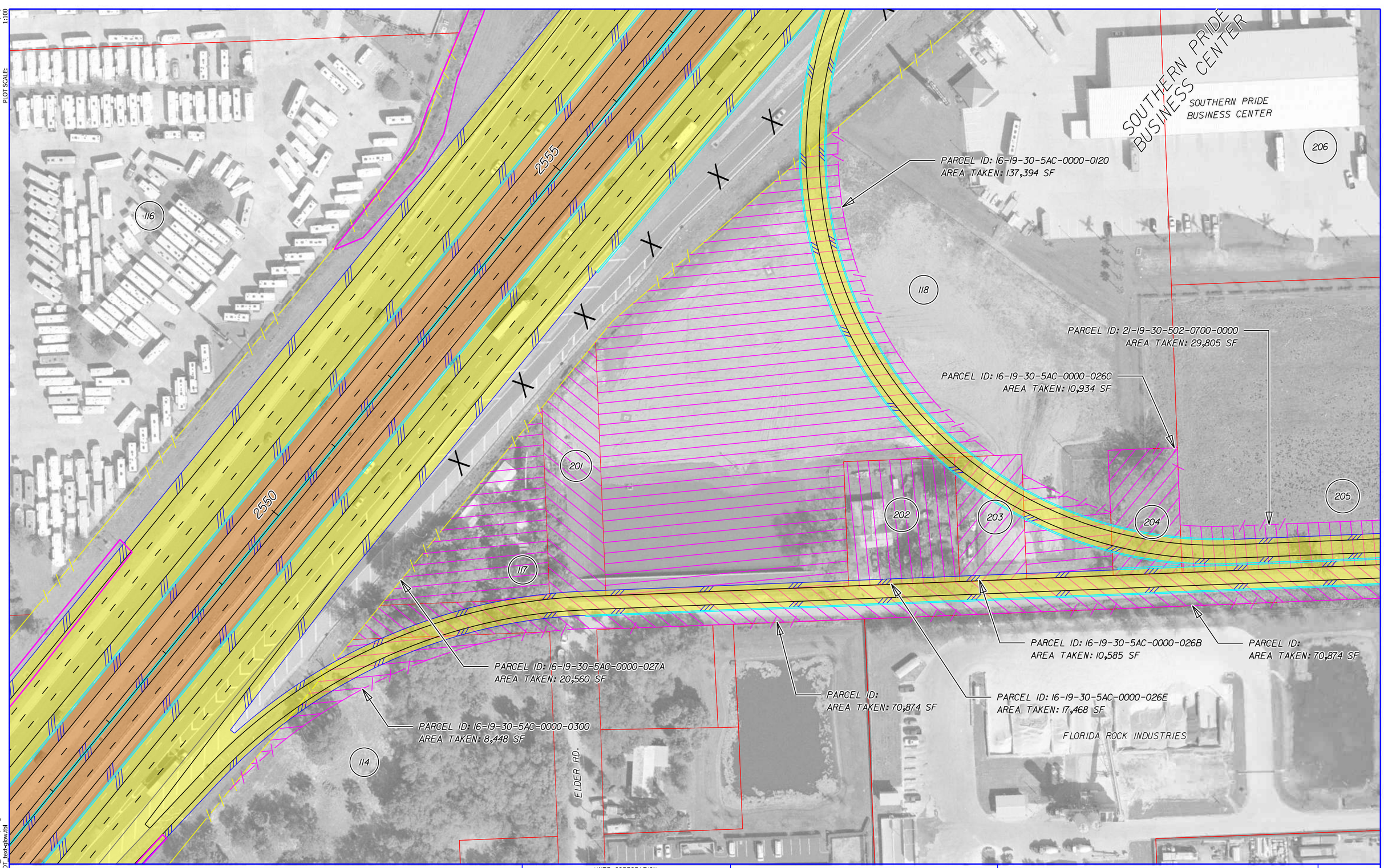
SHEET NO. 107

A-107

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 5:05:22 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL: US17-92-07
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100



MATCHLINE SHEET 6 OF 7

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6 (7 OF 7)
SEGMENT 3

SHEET NO. **108**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkw.tbl

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MODEL:
SHEET SIZE: 300 SCALE 16.5x10.6 (in.)
PLOT SCALE: 1:300

0 60 300
Feet

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 6
SEGMENT 3

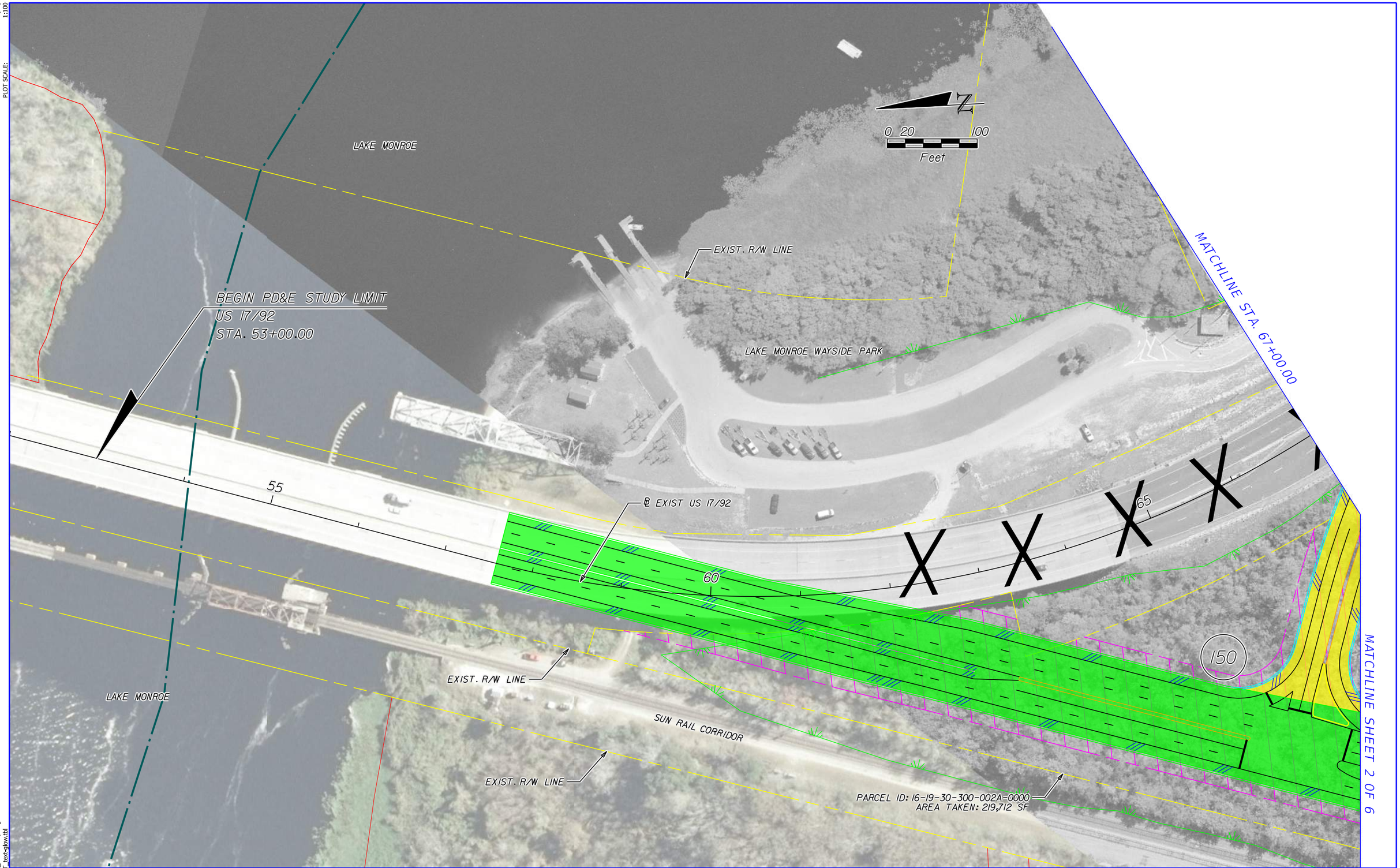
SHEET NO. **109**

A-109

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

amourad 11/2/2016 5:05:32 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-PARCL0-ALT-6.dgn

MODEL:
SHEET SIZE: US17-92-01
PLOT SCALE: 16.5x10.6 (in.) 1:100



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qkw.tbl

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7 (1 OF 6)
SEGMENT 3

SHEET NO. **110**

amourad 11/2/2016 5:06:00 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL: US17-92-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 67+00.00

LAKE MONROE

LA R/W LINE

℄ EXIST I-4

I-4 WB EXPRESS LANES

I-4 WB GUL

EXIST. R/W LINE

LAKE MONROE WAYSIDE PARK

151

MULTI-USE TRAIL

℄ EXIST US 17/92

70

75

80

2580

I-4 EB EXPRESS LANES

I-4 EB GUL

MATCHLINE STA. 82+00.00

SW-24(E)

0 20 40
Feet

SW-5(E)

EXIST. R/W LINE

LA R/W LINE

150

I-4 WB GUL RAMP TO US 17/92 GUL

MULTI-USE TRAIL

US 17/92 TO I-4 EB GUL

Color_FDOTPDF.pltcfg
FDOT_text-qkw.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7 (2 OF 6)
SEGMENT 3

SHEET NO. 111

amourad 11/2/2016 5:06:09 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 82+00.00

MULTI-USE TRAIL

WL-19(E)

EXIST. R/W LINE

LAKE MONROE

0 20 100
Feet

134

135

END PD&E STUDY LIMIT
US 17/92
STA. 92+00.00

℄ EXIST US 17/92

85

90

95

MONROE RD.

EXIST. R/W LINE

137

133

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7 (3 OF 6)
SEGMENT 3

SHEET NO. 112

A-112

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gkw.tbl

amourad 11/2/2016 5:06:18 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPR0D\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL: US17-92-04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE SHEET 1 OF 6

MATCHLINE SHEET 5 OF 6

70

EXIST. R/W LINE

LA R/W LINE

150

WL-4(W)

LA R/W LINE

WL-3(W)

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 219,712 SF

I-4 EB GUL

I-4 EB EXPRESS LANES

I-4 WB GUL

I-4 WB EXPRESS LANES

2570

(N)

PARCEL ID: 16-19-30-5AB-0A00-0010
AREA TAKEN: 12,021 SF

R/W LINE

SUN RAIL CORRIDOR

R/W LINE

SUN RAIL CORRIDOR

R/W LINE

214

Color_FDOTPDF.pltcfg
FDOT_text-qlow.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7 (4 OF 6)
SEGMENT 3

SHEET NO. 113

amourad 11/2/2016 5:06:24 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL:
SHEET SIZE: US17-92-05
PLOT SCALE: 16.5x10.6 (in.) 1:100

MONROE RD

131

130

WL-2B(E)

R/W LINE

WL-3(E)

SUN RAIL CORRIDOR

PARCEL ID: 16-19-30-5AC-0000-0240
AREA TAKEN: 28,522 SF

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 63,299 SF

PARCEL ID: 16-19-30-5AC-0000-013B
AREA TAKEN: 5,924 SF

PARCEL ID: 16-19-30-5AC-0000-025B
AREA TAKEN: 7,742 SF

PARCEL ID: 16-19-30-5AC-0000-025B
AREA TAKEN: 9,319 SF

213

209

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 53,346 SF

PARCEL ID: 21-19-30-502-0400-0000
AREA TAKEN: 941 SF

208

210

SW-22(E)

207

R/W LINE

206

205

SW-21(E)

ORANGE BLVD.

PARCEL ID: 21-19-30-502-0300-0000
AREA TAKEN: 574 SF

PROPOSED R/W LINE

PARCEL ID: 21-19-30-502-0700-0000
AREA TAKEN: 2,628 SF

MATCHLINE SHEET 4 OF 6

MATCHLINE SHEET 6 OF 6

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

PRINT DRIVER: C:\dot_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-sjkw.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7 (5 OF 6)
SEGMENT 3

SHEET NO. 114

amourad 11/2/2016 5:06:30 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL: US17-92-06
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

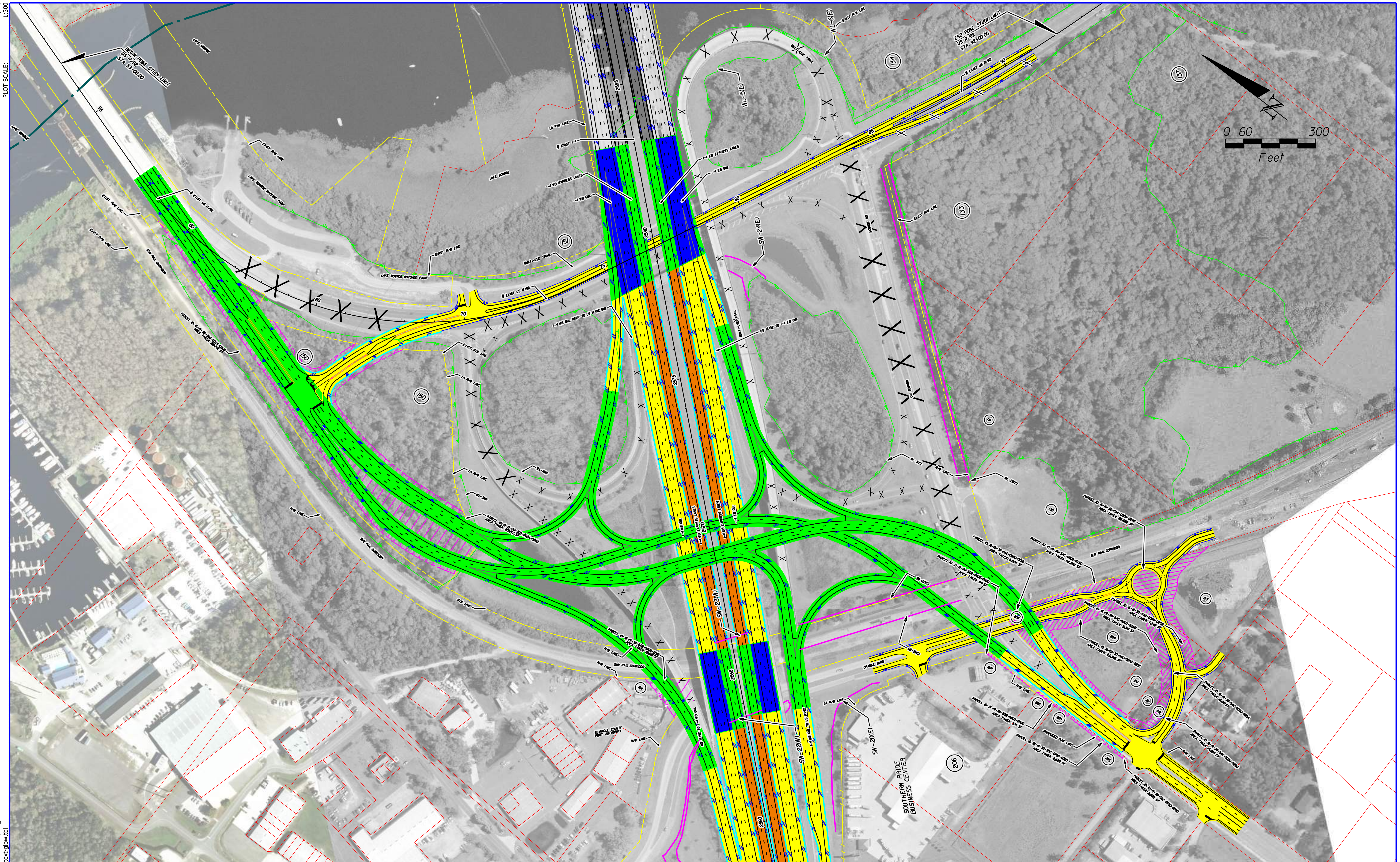
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7 (6 OF 6)
SEGMENT 3

SHEET NO. 115

amourad 11/2/2016 5:06:35 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL:
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 300 SCALE 1:300



EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 7
SEGMENT 3

SHEET NO.
116

A-116

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

amourad 11/2/2016 5:06:39 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-GS-DDI-ALT-7.dgn

MODEL: US17-92-01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

LAKE MONROE

N

0 20 100
Feet

EXIST. R/W LINE

BEGIN PD&E STUDY LIMIT
US 17/92
STA. 53+00.00

LAKE MONROE WAYSIDE PARK

MATCHLINE STA. 67+00.00

MULTI-USE TRAIL

55

℄ EXIST US 17/92

60

65

150

LAKE MONROE

EXIST. R/W LINE

SUN RAIL CORRIDOR

EXIST. R/W LINE

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 232,651 SF

MATCHLINE SHEET 2 OF 7

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8 (1 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 117

Color_FDOTPDF.pltcfg
FDOT_text-gBW.tbl
PRINT DRIVER:
PEN TABLE:

amourad 11/2/2016 5:07:06 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100I2201\Segment 3\roadway\planrd306-ELEV-TUDI-ALT-8.dgn

MODEL: US17-92-02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE STA. 67+00.00

LAKE MONROE

LA R/W LINE

℄ EXIST I-4

I-4 WB EXPRESS LANES

I-4 WB GUL

PARCEL ID: 16-19-30-300-0020-0000
AREA TAKEN: 1,085 SF

I-4 EB EXPRESS LANES

I-4 EB GUL

EXIST. R/W LINE

LAKE MONROE WAYSIDE PARK

151

MULTI-USE TRAIL

℄ EXIST US 17/92

70

75

80

2580

2580

0 20 100
Feet

MATCHLINE STA. 82+00.00

EXIST. R/W LINE

POND 317A
(RECOMMENDED)

LA R/W LINE

150

PARCEL ID: 16-19-30-300-002A-0000
AREA TAKEN: 153,639 SF

I-4 WB GUL RAMP TO US 17/92 GUL

SW-24(E)

POND 317B
(RECOMMENDED)

US 17/92 TO I-4 EB GUL

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8 (2 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 118

amourad 11/2/2016 5:07:16 PM \\LKMw00\pmwork3\Jobs\59219 - 14 SAMR\TECHPROD\432100122O1\Segment 3\roadway\planrd306-ELEV-TUDI-ALT-8.dgn

MODEL: US17-92-03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

LAKE MONROE

EXIST. R/W LINE

WL-5(E)

WL-6(E)

MATCHLINE STA. 82+00.00

MULTI-USE TRAIL

134

135

END PD&E STUDY LIMIT
US 17/92
STA. 92+00.00

℄ EXIST US 17/92

85

90

95

N

0 20 100
Feet

POND 37B
(RECOMMENDED)

MONROE RD

EXIST. R/W LINE

133

137

Color_FDOTPDF.pltcfg
FDOT_text-gkw.tbl

PRINT DRIVER:
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8 (3 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **119**

amourad 11/2/2016 5:07:24 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\43210012201\Segment 3\roadway\planrd306-ELEV-TUDI-ALT-8.dgn

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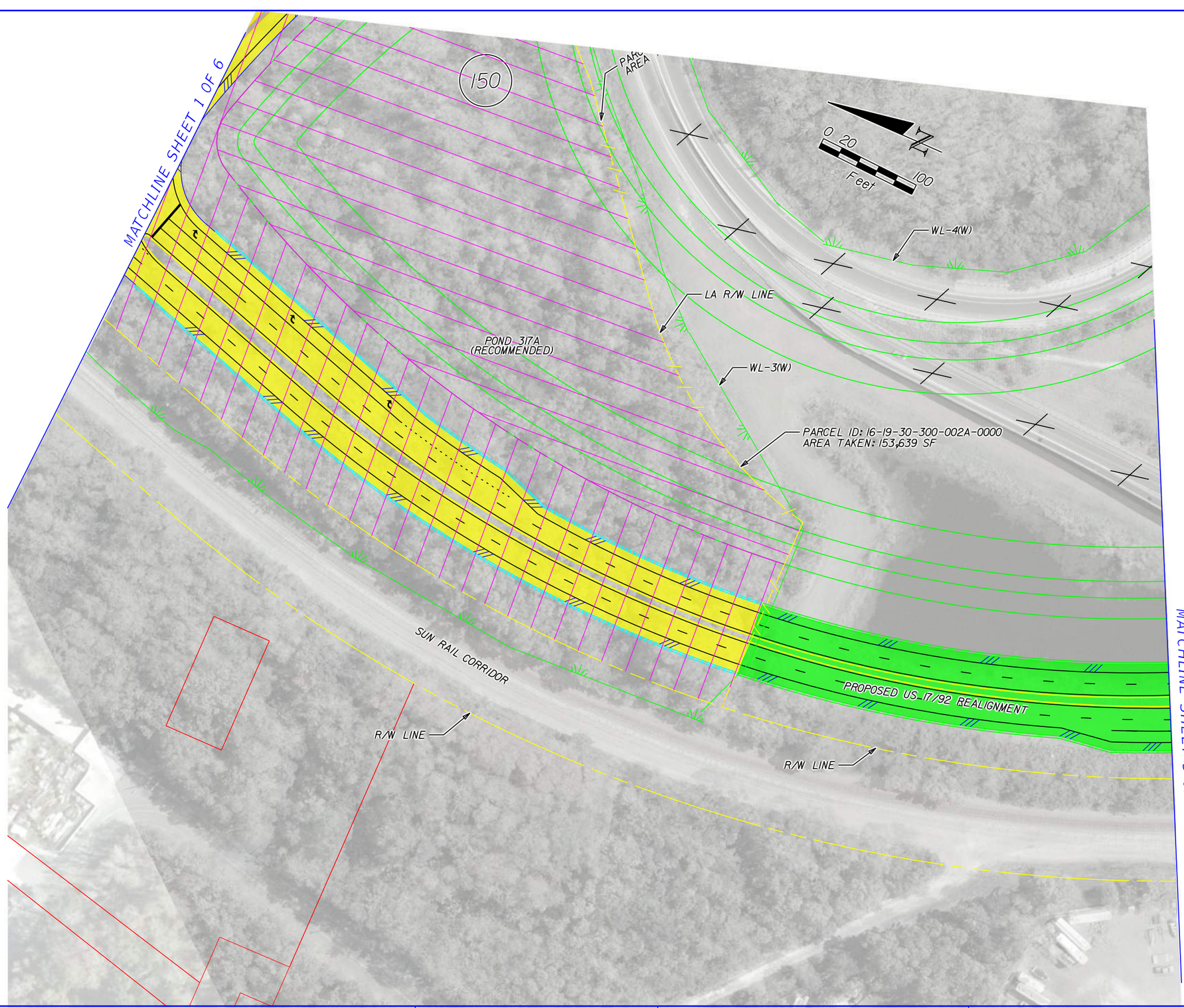

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8 (4 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. **120**

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

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MODEL: US17-92-05
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:100

MATCHLINE SHEET 4 OF 6

POND 317A (RECOMMENDED)

I-4 WB GUL TO US 17/92

I-4 WB GUL

I-4 WB EXPRESS LANES

I-4 EB EXPRESS LANES

I-4 EB GUL

US 17/92 TO I-4 EB GUL

0 20 Feet 100

N

R/W LINE

WL-2B(E)

POND 317C (RECOMMENDED)

SW-22B(E)

PROPOSED US 17/92 REALIGNMENT

SW-23(W)

SW-22A(E)

R/W LINE

SUN RAIL CORRIDOR

SW-22(E)

R/W LINE

PARCEL ID: 16-19-30-5AB-0A00-0010
AREA TAKEN: 5,525 SF

2570

2565

ORANGE BLVD.

SEMINOLE COUNTY PORT AUTHORITY

214

R/W LINE

US 17/92 TO I-4 WB GUL

22(W)

I-4 WB GUL TO US 17/92

LA R/W LINE

SW-20(E)

MATCHLINE SHEET 6 OF 6

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-qlow.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8 (5 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 121

A-121

amourad 11/2/2016 5:07:36 PM \\LKMw00\pmwork3\Jobs\59219 - I4 SAMR\TECHPROD\432100122O1\Segment 3\roadway\plandr306-ELEV-TUDI-ALT-8.dgn

PARCEL ID: 16-19-30-5AC-0000-0240
AREA TAKEN: 88,223 SF

N

0 20 100
Feet

213

POND 318A
(RECOMMENDED)

PARCEL ID: 16-19-30-5AC-0000-0240
AREA TAKEN: 12,702 SF

PARCEL ID: 16-19-30-5AC-0000-025A
AREA TAKEN: 451 SF

PARCEL ID: 16-19-30-5AC-0000-0250
AREA TAKEN: 296 SF

PARCEL ID: 16-19-30-5AC-0000-025B
AREA TAKEN: 7,686 SF

PARCEL ID: 16-19-30-5AC-0000-025A
AREA TAKEN: 8,428 SF

PARCEL ID: 16-19-30-5AC-0000-025B
AREA TAKEN: 17,492 SF

PARCEL ID: 16-19-30-5AC-0000-025A
AREA TAKEN: 10,505 SF

PARCEL ID: 16-19-30-5AC-0000-0250
AREA TAKEN: 16,336 SF

PARCEL ID: 16-19-30-5AC-0000-0250
AREA TAKEN: 966 SF

R/W LINE

130

SUN RAIL CORRIDOR

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 53,403 SF

PARCEL ID: 16-19-30-5AC-0000-013B
AREA TAKEN: 5,924 SF

PARCEL ID: 16-19-30-5AC-0000-025C
AREA TAKEN: 69,828 SF

209

POND 318B
(RECOMMENDED)

210

211

212

208

MATCHLINE SHEET 5 OF 6

PARCEL ID: 21-19-30-502-0400-0000
AREA TAKEN: 107 SF

PARCEL ID: 21-19-30-502-0300-0000
AREA TAKEN: 420 SF

207

R/W LINE

206

205

PROPOSED R/W LINE

MULTI-USE TRAIL

PARCEL ID: 21-19-30-502-0700-0000
AREA TAKEN: 2,017 SF

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8 (6 OF 6)
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO. 122

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-gdlw.tbl

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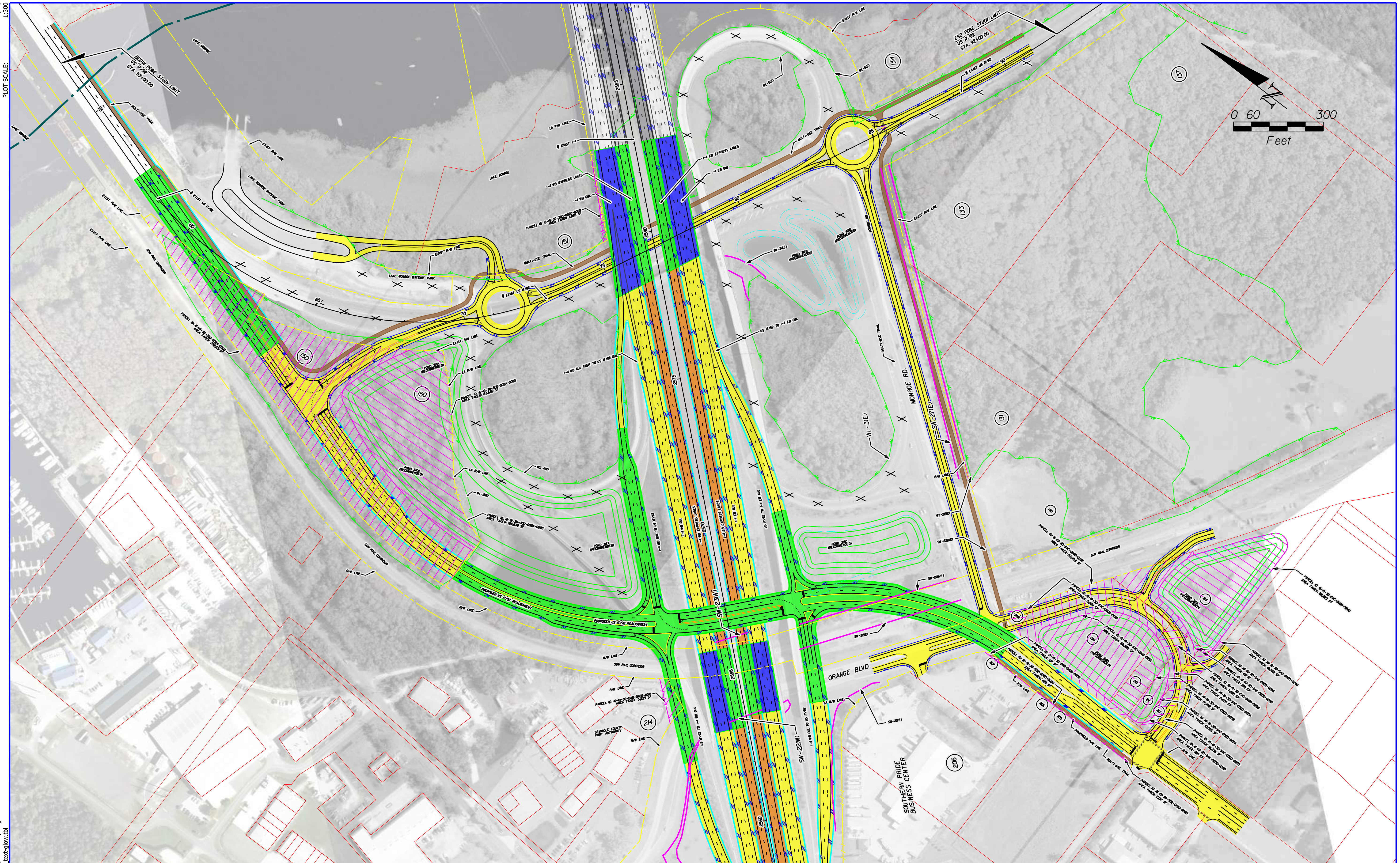
MODEL:
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:300
300 SCALE



	EXISTING LA R/W		GENERAL USE LANES
	PROPOSED LA R/W		EXPRESS LANES
	EXISTING R/W		EXISTING BRIDGE
	PROPOSED FDOT R/W		PROPOSED BRIDGE
	PARCEL LINES		BARRIER WALL
	FUTURE EXISTING CONDITION	(XX)	PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
US 17 / 92 ALT 8
(RECOMMENDED ALTERNATIVE)
SEGMENT 3

SHEET NO.
123

A-123

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT_text-glow.tbl

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Appendix B - **Public Involvement Documentation**

NOTICE OF PUBLIC HEARING:

This notice has nothing to do with any rule or rulemaking process.

The Florida Department of Transportation (FDOT), District Five announces a public hearing to which all persons are invited.

DATE:	Monday, November 14, 2016
TIME:	5:30 p.m. to 7:30 p.m.
Formal Presentation:	6:00 p.m.
PLACE:	Lake Mary City Hall, Commission Chambers 100 North Country Club Road Lake Mary, FL 32746

GENERAL SUBJECT MATTER TO BE CONSIDERED:

Financial Project I.D.:	432100-1-22-01
Design Project ID Number:	242592-4-32-01
Federal Aid Project No:	0041-227-I
Project Description:	"I-4 Beyond the Ultimate", from East of SR 434 to East of US 17/92 in Seminole County

The Florida Department of Transportation (FDOT) is conducting a public hearing for the "I-4 Beyond the Ultimate" PD&E Study. We will present the recommended design alternative for adding express lanes on the segment of Interstate 4 (I-4) from East of State Road (SR) 434 to East of US 17/92 in Seminole County. This hearing is being conducted to give interested persons an opportunity to express their views concerning the location, conceptual design, and social, economic, and environmental effects of the proposed improvements.

The hearing will be Monday, November 14, 2016, from 5:30 p.m. to 7:30 p.m. at Lake Mary City Hall, Commission Chambers, located at 100 North Country Club Road, Lake Mary, FL 32746. It will begin as an open house at 5:30 p.m. with a formal presentation at 6:00 p.m., followed by a public comment period. At the conclusion of the presentation, attendees who complete a speaker's card will be given the opportunity to make an oral statement that will become part of the public hearing record.

Persons wishing to submit written statements, in place of or in addition to oral statements, may do so at the hearing or by sending them to Beata Stys-Palasz, P.E., at 719 South Woodland Boulevard, DeLand, Florida 32720, by phone 386-943-5418, or by email to beata.stys-palasz@dot.state.fl.us. All statements postmarked no later than November 25, 2016 will become a part of the public hearing record.

The draft environmental and engineering reports developed by the Department will be available for public review starting on September 14, 2016 through November 25, 2016 at the Seminole County Public Library, Northwest Branch, located at 580 Green Way Boulevard, Lake Mary, FL 32746. The documents are also available for download on the study website, www.i4express.com, and will be available at the public hearing.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this hearing is asked to advise the agency at least seven (7) days before the hearing by contacting Ms. Beata Stys-Palasz, PE at 386-943-5418.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting Jennifer Smith, FDOT District Five Title VI Coordinator by phone at (386) 943-5367, or via email at jennifer.smith2@dot.state.fl.us. Persons who require translation services (free of charge) should contact Ms. Beata Stys-Palasz, PE, at 386-943-5418 at least seven (7) days before the hearing.

A copy of the agenda may be obtained by contacting Ms. Beata Stys-Palasz, P.E., at 386-943-5418 or by email at beata.stys-palasz@dot.state.fl.us.

If you are hearing or speech impaired, please contact the agency using the Florida Relay Services, 1(800) 955-8771 (TDD) or 1(800) 955-8770 (Voice).

FOR MORE INFORMATION, YOU MAY CONTACT: Ms. Beata Stys-Palasz, P.E., FDOT Project Manager, at 386-943-5418 or email beata.stys-palasz@dot.state.fl.us.

Upcoming FDOT Public Hearing I-4 BtU, Segment 3 (rescheduled)

Sirmans, Amy [Amy.Sirmans@dot.state.fl.us]

Sent: Thursday, October 20, 2016 11:27 AM

To: nguillet@seminolecountyfl.gov; bmcmenemy@seminolecountyfl.gov; CAOAdmin@seminolecountyfl.gov; jjreij@seminolecountyfl.gov; twilliamson@seminolecountyfl.gov; ssmith@seminolecountyfl.gov; ttouchton@seminolecountyfl.gov; jwilliams@longwoodfl.org; mlongo@longwoodfl.org; ckintner@longwoodfl.org; drenfro@longwoodfl.org; pross@longwoodfl.org; ddowda@longwoodfl.org; jsova@lakemaryfl.com; cfoster@lakemaryfl.com; bpaster@lakemaryfl.com; dkoury@lakemaryfl.com; jomana@lakemaryfl.com; snoto@lakemaryfl.com; fcornier@lakemaryfl.com; sbracknell@lakemaryfl.com; Norton.Bonaparte@Sanfordfl.gov; porterc@sanfordfl.gov; cynthia.porter@sanfordfl.gov; Bilal.Iftikhar@sanfordfl.gov; iftikhab@sanfordfl.gov; Russell.Gibson@sanfordfl.gov; cecil.smith@sanfordfl.gov; Craig.Radzak@sanfordfl.gov

Cc: Stys-Palasz, Beata [Beata.Stys-Palasz@dot.state.fl.us]; Jarrell, Colleen [Colleen.Jarrell@dot.state.fl.us]

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

October 20, 2016

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Government Partner,

On behalf of the Florida Department of Transportation (FDOT), I invite you to attend the rescheduled public hearing for the "I-4 Beyond the Ultimate" PD&E Study. This study focuses on the concept of adding express lanes on Interstate 4 (I-4), from west of US 27 to west of Kirkman Road/State Road (SR) 435 to the west, and from east of SR 434 to east of SR 472 to the east; a distance of approximately 40 miles. At this hearing we will present the recommended design alternative for adding express lanes on the segment of I-4 from **East of SR 434 to East of US 17/92** in Seminole County. This hearing is being conducted to give interested persons an opportunity to express their views concerning the location, conceptual design, and social, economic, and environmental effects of the proposed improvements.

The hearing will be Monday, November 14, 2016, from 5:30 p.m. to 7:30 p.m. at Lake Mary City Hall, Commission Chambers, located at 100 North Country Club Road, Lake Mary, FL 32746. It will begin as an open house at 5:30 p.m. with a formal presentation at 6:00 p.m., followed by a public comment period.

Persons wishing to submit written statements, in place of or in addition to oral statements, may do so at the hearing or by sending them to Beata Stys-Palasz, P.E. at 719 South Woodland Boulevard, DeLand, Florida 32720, by phone 386-943-5418, or by email to beata.stys-palasz@dot.state.fl.us. All statements postmarked no later than November 25, 2016 will become a part of the public hearing record.

The draft environmental and engineering reports developed by the Department will be available for public review from September 14, 2016 through November 25, 2016 at the following locations:

1. The Seminole County Public Library, Northwest Branch, located at 580 Green Way Boulevard, Lake

Mary, FL 32746

2. The study website - www.i4express.com

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting Jennifer Smith, FDOT District Five Title VI Coordinator by phone at 386-943-5367, or via email at jennifer.smith2@dot.state.fl.us.

Persons with disabilities who require special accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact Beata Stys-Palasz, P.E., by phone at 386-943-5418, or via email at beata.stys-palasz@dot.state.fl.us at least seven (7) days prior to the hearing. If you are hearing or speech impaired, please contact us by using the Florida Relay Service, 1-800-955-8771 (TDD) or 1-800-955-8770 (Voice).

For information pertaining to this project, please contact Beata Stys-Palasz, P.E., FDOT Project Manager, by phone at 386-943-5418, or via email at beata.stys-palasz@dot.state.fl.us.

Sincerely,

Amy Sirmans, P.E.
Project Development Manager

FDOT Public Information Meeting

Bass, Crystal [Crystal.Bass@dot.state.fl.us] on behalf of Downs, Noranne [Noranne.Downs@dot.state.fl.us]
Sent: Thursday, October 20, 2016 10:55 AM

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, Florida 32720-6834

JIM BOXOLD
SECRETARY

October 20, 2016

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92, Seminole County
Financial Project ID Number: 432100-1-22-01; Design Project ID Number: 242592-4-32-01;
Federal Aid Project Number: 0041-227-I

Dear Elected Official,

On behalf of the Florida Department of Transportation (FDOT), I invite you to attend the rescheduled public hearing for the "I-4 Beyond the Ultimate" PD&E Study. This study focuses on the concept of adding express lanes on Interstate 4 (I-4), from west of US 27 to west of Kirkman Road/State Road (SR) 435 to the west, and from east of SR 434 to east of SR 472 to the east; a distance of approximately 40 miles. At this hearing we will present the recommended design alternative for adding express lanes on the segment of I-4 from East of SR 434 to East of US 17/92 in Seminole County. This hearing is being conducted to give interested persons an opportunity to express their views concerning the location, conceptual design, and social, economic, and environmental effects of the proposed improvements.

The hearing will be Monday, November 14, 2016, from 5:30 p.m. to 7:30 p.m. at Lake Mary City Hall, Commission Chambers, located at 100 North Country Club Road, Lake Mary, FL 32746. It will begin as an open house at 5:30 p.m. with a formal presentation at 6:00 p.m., followed by a public comment period.

Persons wishing to submit written statements, in place of or in addition to oral statements, may do so at the hearing or by sending them to Beata Stys-Palasz, P.E. at 719 South Woodland Boulevard, DeLand, Florida 32720, by phone 386-943-5418, or by email to beata.stys-palasz@dot.state.fl.us. All statements postmarked no later than November 25, 2016 will become a part of the public hearing record.

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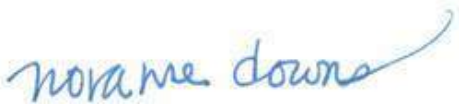
2. The study website - www.i4express.com

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting Jennifer Smith, FDOT District Five Title VI Coordinator by phone at 386-943-5367, or via email at jennifer.smith2@dot.state.fl.us.

Persons with disabilities who require special accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact Beata Stys-Palasz, P.E., by phone at 386-943-5418, or via email at beata.stys-palasz@dot.state.fl.us at least seven (7) days prior to the hearing. If you are hearing or speech impaired, please contact us by using the Florida Relay Service, 1-800-955-8771 (TDD) or 1-800-955-8770 (Voice).
For information pertaining to this project, please contact Beata Stys-Palasz, P.E., FDOT Project Manager, by phone at 386-943-5418, or via email at beata.stys-palasz@dot.state.fl.us.

Sincerely,



Noranne Downs, P.E.
District Five Secretary

"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

Monday, November 16, 2016

Open House - 5:30 p.m. Formal Presentation - 6:00 p.m.

FPID: 432100-1-22-01

PROJECT TEAM MEMBERS

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"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

Monday, November 16, 2016

Open House - 5:30 p.m. Formal Presentation - 6:00 p.m.

FPID: 432100-1-22-01

PROJECT TEAM MEMBERS

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"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

Monday, November 16, 2016

Open House - 5:30 p.m. Formal Presentation - 6:00 p.m.

FPID: 432100-1-22-01

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"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

Monday, November 16, 2016

Open House - 5:30 p.m. Formal Presentation - 6:00 p.m.

FPID: 432100-1-22-01

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Public Hearing **Lake Mary City Hall, 100 North Country Club Road, Lake Mary, FL**

"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

Monday, November 16, 2016

Open House - 5:30 p.m. Formal Presentation - 6:00 p.m.

FPID: 432100-1-22-01

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"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

Monday, November 16, 2016

Open House - 5:30 p.m. Formal Presentation - 6:00 p.m.

FPID: 432100-1-22-01

Name (PLEASE PRINT)	Mailing Address (PLEASE PRINT)	E-mail or Phone Number
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NICK TRYNCONE	830 WOODLAND BLVD, DELAND FL.	Nick@fpc.group.com
Quentin (Bob) Beitel	4 QUAIL RUN Longwood, FL 32779	QBEITEL@BellSouth.Net
MICHAEL DINNEN	1924 CALADIUM PLACE, LONGWOOD, FL 32750	mdinnen@cfl.rr.com

Public Hearing **Lake Mary City Hall, 100 North Country Club Road, Lake Mary, FL**

SPEAKER REQUEST CARD

To be completed prior to making a recorded statement

PUBLIC HEARING – NOVEMBER 14, 2016

I-4 BEYOND THE ULTIMATE PD&E STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

FPID NO.: 432100-1-22-01

1

PLEASE PRINT

Name: Harry Jaeger

Address: 1215 Baypoint Ct.

Longwood FL 32750

City State Zip

Affiliation:

Note: In order to allow all persons the opportunity to speak, please limit your comments to 3 minutes. Public Participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. All verbal or written comments provided become part of the study's project file. This information may be provided to other individuals who make a public records request.

SPEAKER REQUEST CARD

To be completed prior to making a recorded statement

PUBLIC HEARING – NOVEMBER 14, 2016

I-4 BEYOND THE ULTIMATE PD&E STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

FPID NO.: 432100-1-22-01

2

PLEASE PRINT

Name: HUGO GUMBS

Address: 446 PALM CREST LANE

LAKE MARY FL 32746

City State Zip

Affiliation: HOME OWNER

Note: In order to allow all persons the opportunity to speak, please limit your comments to 3 minutes. Public Participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. All verbal or written comments provided become part of the study's project file. This information may be provided to other individuals who make a public records request.

SPEAKER REQUEST CARD

To be completed prior to making a recorded statement

PUBLIC HEARING – NOVEMBER 14, 2016

I-4 BEYOND THE ULTIMATE PD&E STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

FPID NO.: 432100-1-22-01

3

PLEASE PRINT

Name: BRENDA CAREY

Address: 16 Old Post Rd

Longwood FL 32771

City State Zip

Affiliation: Seminole County Commissioner

Note: In order to allow all persons the opportunity to speak, please limit your comments to 3 minutes. Public Participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. All verbal or written comments provided become part of the study's project file. This information may be provided to other individuals who make a public records request.

SPEAKER REQUEST CARD

To be completed prior to making a recorded statement

PUBLIC HEARING – NOVEMBER 14, 2016

I-4 BEYOND THE ULTIMATE PD&E STUDY

FROM EAST OF SR 434 TO EAST OF US 17/92

FPID NO.: 432100-1-22-01

4

PLEASE PRINT

Name: BS Dallas

Address: 1st Street

Sanford FL

City State Zip

Affiliation: County Commission (Seminole)

Note: In order to allow all persons the opportunity to speak, please limit your comments to 3 minutes. Public Participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status. All verbal or written comments provided become part of the study's project file. This information may be provided to other individuals who make a public records request.

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I-4 BEYOND THE ULTIMATE

PD&E REEVALUATION STUDY

SEGMENT 3: FROM EAST OF SR 434 TO EAST OF US 17/92

FDOT PROJECT NUMBER: 432100-1-22-01

_____/

PUBLIC HEARING

DATE: NOVEMBER 14, 2016

REPORTER: KAYLYN REINHOLD

PLACE: LAKE MARY CITY HALL
100 NORTH COUNTRY CLUB ROAD
LAKE MARY, FLORIDA 32746

2

APPEARANCES

BEATA STYS-PALASZ, P.E.,
FLORIDA DEPARTMENT OF TRANSPORTATION

COLLEEN JARRELL,
HNTB CORPORATION

HARRY JAEGER

HUGO GUMBS

BRENDA CAREY,
SEMINOLE COUNTY COMMISSIONER

BOB DALLARI,
SEMINOLE COUNTY COMMISSIONER

3

STIPULATION

THE PUBLIC HEARING HELD AT LAKE MARY CITY HALL, 100 NORTH COUNTRY CLUB ROAD, LAKE MARY, FLORIDA 32746 ON MONDAY THE 14TH DAY OF NOVEMBER, 2016 AT APPROXIMATELY **6:03 P.M., WAS TAKEN PURSUANT TO THE FLORIDA RULES OF** CIVIL PROCEDURE.

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PROCEEDINGS

MS. STYS-PALASZ: Good evening. The Florida Department of Transportation would like to welcome you to the public hearing for the Interstate 4, Beyond the Ultimate Project Development and Environment Study. My name is Beata Stys-Palasz, and I am the project manager for the Department of Transportation for the Beyond the Ultimate, BTU, Project. This project -- this public hearing is relative to Financial Project Number 432100- 1-22-01 and Federal Aid Project Number 0041-227-I. The proposed improvement involves widening I-4 from the existing six lanes to ten lanes. It would be three general use lanes and two express lanes in each direction. This public hearing is, specifically, for the section in Seminole County that is east of State Road 434, what is the end of the project I-4 Ultimate, being constructed right now; two, is of US 17/92, particularly, to Lake Monroe Bridge. Here with me tonight is Luis Diaz, the consultant project manager behind you. We have, also, representative of the design field, who is under design. The project manager is Abhay Thorat. We also have a representative from FHWA, Marvin -- thank you. At this time, of course, I have a representative from

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FDOT, me, Beata Stys-Palasz. We have the design project manager, Catalina Chacon. We have a representative from Right-of-Way who can (coughs) -- I'm sorry -- who can help you if you have any question with relocation or right-of-way acquisition. And at this time, I would like to recognize any state, county or city official -- elected appointed official tonight. Could you please stand up to be recognized? Thank you.

MR. DALLARI: My name is Bob Dallari. Nice to meet you, Seminole County Commissioner.

MS. STYS-PALASZ: Now, we would like to begin the official presentation. Thank you.

(VIDEO)

RECORDING: The State of Florida Department of Transportation, also known as FDOT, would like to welcome you to the public hearing for the Interstate 4, Beyond the Ultimate Project Development and Environment Study. This public hearing is being held relative to FDOT Financial Project ID Number 432100-1-22-01 and Federal Aid Project Number 0041-227-I. This public hearing was advertised consistent with federal and state requirements, and is being conducted consistent with the Americans with Disabilities Act of 1990. Advertisements for

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this public hearing included letters to elected and agency officials, letters to property owners, newspaper ads, notifying local media, and advertising in the Florida Administrative Register. The Florida Department of Transportation is required to comply with various nondiscrimination laws and regulations, including Title VI of the Civil Rights Act of 1964. This hearing is being held to give all interested persons the right to understand the project and comment on their concerns to the department. Public participation at this hearing is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons wishing to express their concerns about Title VI may do so by contacting the individuals listed on the slide which is also provided in the project newsletter and on a board displayed at this hearing. The proposed improvement involves adding express lanes on I-4, from US 27 to Kirkman Road to the west and from State Road 434 to State Road 472 to the east. The purpose of this public hearing is to share information with the general public about the alternatives under consideration, the proposed improvements, and their potential environmental impacts. This public

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hearing also serves as an official forum providing an opportunity to the public to express their opinions and concerns regarding the location, conceptual design, and potential social, economic, and environmental effects of the proposed improvement on the community. There is a court reporter present at this hearing and tonight's proceedings are being recorded. An official transcript of the hearing will be produced. Following this presentation, the floor will be open for public comments. All written material received at this public hearing and at the Florida Department of Transportation office, postmarked no later than November 25, 2016 or through the project website, will become a part of the public record for this hearing. The Project Development and Environment Study, or PD&E, is the second step of the project development process that the Florida Department of Transportation follows to evaluate social, cultural, economic, and environmental impacts associated with a planned transportation improvement project. The PD&E process was established by the FDOT as the state's procedure for complying with the National Environmental Policy Act, or NEPA, of 1969 and Florida's statutes. NEPA is a United States

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environmental law that requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. This phase involves the preparation of all preliminary engineering and environmental documentation required for study approval and subsequent funding. During a PD&E study, several alternatives are developed to meet the purpose and need for the project. These alternatives are developed with input from the public, local government, and environmental agencies throughout the study process. Keeping the public involved and informed throughout the study is paramount to the success of a PD&E study. This study is a reevaluation of PD&E studies that were previously done 14 to 17 years ago. The section from State Road 435, Kirkman Road, to State Road 434 in Orange and Seminole counties received approval from the Federal Highway Administration and are currently under construction to include the addition of express lanes. The study limits are along Interstate 4 from east of State Road 434 to east of US 17/92. This study proposes to widen the Interstate 4 to ten lanes. This includes six general use lanes and four express lanes. The MetroPlan Orlando Metropolitan Planning Organization works

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with the Florida Department of Transportation and local governments to fund and implement projects identified through various plans developed by the MPO. It should be noted that the I-4 Beyond the Ultimate segment three, was number two on the MetroPlan Orlando priority list, adopted September 14, 2016. This project segment is identified on the MetroPlan Orlando, 2040 Long Range Transportation Plan. The project is consistent with the MetroPlan Orlando Transportation Improvement Program and the Transportation Element of the Seminole County and City of Stanford Comprehensive Plans. The purpose of this study is to accommodate future traffic needs based on anticipated population and employment growth, and enhance safety and mobility along the study corridor. The original PD&E study included high occupancy vehicle, or HOV, lanes in the median. This reevaluation includes six general use lanes, three in each direction; and four express lanes, two in each direction. The widening of I-4 is proposed to meet the design year 2040 projected traffic volumes. The goal of the project is to maintain acceptable levels of service along the corridor for the design year 2040. Levels of service are measured on an "A" through "F" grading scale with

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"A" being the best and "F" failing. Drivers will experience levels of service "E" and "F" under the "Original Build" condition in the design year 2040 along some portions of the corridor. Levels of service can be improved to "D" or better with the express lanes widening improvements of the recommended "build" alternative. Typical sections are detailed cross section depictions of a roadway's principal elements that are standard between certain segment limits and show typical conditions only. The existing typical section consists of three 12-foot travel lanes in each direction with 12-foot inside and outside shoulders. Guardrail is provided on the inside shoulder of the eastbound lanes. The existing right-of- way varies from 300 to 350 feet. The following is a summary of meetings and presentations held with local agencies and stakeholders to discuss the study which includes the cities of Sanford and Lake Mary, Seminole County, MetroPlan Orlando, Florida's Turnpike Enterprise, utility companies, St. Johns River Water Management District, and Markham Woods Homeowners Association. A website, www.I4express.com, was developed to allow the public to communicate with the study team and provide comments. An alternative public meeting was

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held on March 20, 2014. 58 members of the public attended this meeting and three written comments were received. Public input from these meetings has factored into the study decision-making process. Today's hearing will provide the public with another opportunity to comment on the proposed improvements under consideration. A "No Build" and "Build" alternative, are being considered as part of this PD&E study. The "No Build" alternative maintains the existing facility, as-is. No improvements are made and there is no congestion relief along the corridor. The "No Build" alternative is also evaluated as a baseline for comparison with the "Build" alternative. We will now discuss the recommended "Build" alternative which proposes to widen Interstate 4 to ten lanes with five lanes in each direction, three general use lanes, and two express lanes. An evaluation matrix comparing the "No Build" alternative with the recommended roadway "Build" alternative is on display here tonight. The proposed typical section consist of two 12-foot wide express lanes with 4-foot inside and 10-foot outside shoulders, and three 12-foot wide general use lanes with 10-foot inside, and 12-foot outside shoulders in each direction. A 2-foot wide barrier wall

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separates the general use from the express lanes. The minimum right- of-way width required to accommodate this typical section is 300 feet. The proposed horizontal alignment of I-4 segment three closely follows the existing I-4 alignment. Right-of-way will be required for the roadway mainline improvements, stormwater management facilities, and floodplain compensation sites. The total anticipated right-of-way impacts involved full or partial acquisition of 49 parcels for a total of, approximately, 43 acres. The recommended alternative for the EE Williamson Road overpass proposes a new, single bridge that will carry both vehicular and pedestrian traffic. The proposed bridge will accommodate one 11-foot travel lane in each direction with a 14-foot two-way left turn lane. In addition, 6- foot and 10-foot wide sidewalks are proposed on the south and north side of the road, respectively. The recommended alternative for Lake Mary Boulevard proposes modifying the existing partial cloverleaf interchange to a diverging diamond interchange, also known as a DDI. A DDI is designed so that each direction of traffic is split and crosses over itself. The traffic will temporarily drive on the

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opposite side of the roadway and cross back over on the other side of the interchange. In order to avoid wrong-way movements through this type of interchange, the opposite directions of the roadway are intersected at an angle that is large enough to appear to the driver as if they are making a through movement and that the other side of the roadway is an intersecting street. A new ramp connection will be provided between I-4 Eastbound and Lake Emma Road. This will provide relief to the congestion intersection of Lake Mary Boulevard and Lake Emma Road. The recommended alternative for County Road 46A proposes a DDI, similar to Lake Mary Boulevard. County Road 46A will also be widened to three through lanes in each direction from International Parkway to the east of Rinehart Road. The recommended alternative for State Road 46 proposes to leave the existing interchange as it is with widening an eastbound State Road 46 for an additional left turn lane from eastbound State Road 46 to eastbound I-4. The existing two-lane eastbound ramp between County Road 46A, State Road 417, and State Road 46 will be modified through the new Wekiva Parkway interchange. The recommended alternative for 17/92, proposes a tight urban

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diamond interchange that realigns US 17/92 directly with Monroe Road. The existing US 17/92 roadway that travels to downtown Sanford will be renamed and will "T" into the new US 17/92 alignment, west of I-4. Two single-lane roundabouts are proposed with this alternative, east and west of I-4. The new alignment of US 17/92 will provide grade separation between US 17/92 and SunRail. The existing at-grade crossing of Monroe Road and SunRail will remain in this alternative; however, Monroe Road will be a two-lane roadway north of Orange Boulevard instead of the current four-lane section, reducing the rail crossing width. A new road will be added to connect Orange Boulevard and School Street to the east of new US 17/92 and existing Monroe Road alignments. The existing drainage systems will be enhanced to accommodate stormwater runoff from the proposed roadway improvements. The stormwater management systems, proposed by this study, have been designed to meet the current requirements of the St. Johns River Water Management District and the Florida Department of Transportation. Stormwater treatment will be provided in dry swales, wet or dry retention ponds, and wet detention ponds located on or off-site. The treatment facilities and locations are on

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exhibit here this evening, as well as in the documents on display. In accordance with the current FDOT standards for road and bridge construction, all best management practices for erosion control and water quality considerations will be adhered to during the construction phase of the project. Pond siting evaluation criteria were developed to screen the various potential pond sites. Each of the criteria are evaluated for impacts which are then used for comparison, in order to identify overall suitability and select recommended ponds. Design criteria as set forth by the St. Johns River Water Management District and FDOT was used to determine pond sizing. The recommended pond sites for this study are labeled and illustrated on the design concept boards on display. To comply with various executive orders and other federal and state requirements, engineering and environmental information was reviewed and evaluated to determine if there were any substantial impacts to social and economic, cultural, physical, and natural resources that may result from construction of the proposed improvements. The project improvements will have positive socioeconomic impacts on the study area as

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it improves mobility and relieves congestion. An archaeological survey was performed within the existing and proposed right-of-way. The results indicate that there are no archaeological sites or artifact occurrences within the study limits. There are 30 historic resources constructed before 1971 within the study area. Three historic resources are recommended eligible for the national register of historic places. No adverse effects to cultural resources are anticipated. The project was evaluated in accordance with the Executive Order 11990, entitled "Protection of Wetlands." There are, approximately, 11.86 and 6.75 acres of direct and secondary wetland impacts, respectively, associated with the recommended alternative. This project was evaluated for impacts to wildlife and habitat resources, including protected species, in accordance with Title 50 Code of Federal Regulation, Part 402, of the Endangered Species Act of 1973, as amended. It was determined that the project has either a "No effect," or "May affect, but not likely to adversely affect" determination for all federally or state listed species that may be impacted by the project. To avoid and/or minimize impacts to wildlife, FDOT will continue to coordinate with the

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U.S. Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission. FDOT will also conduct monitoring and assessment for specific species during the design and the construction phases. The proposed stormwater facilities will be designed to meet the current requirements of the St. Johns River Water Management District. Stormwater treatment will be provided by a combination of dry swales, wet or dry retention ponds, and wet detention ponds located on or off-site. The pond locations are on exhibit here this evening, as well is in the document that is on display. In accordance with Executive Order 11988, entitled "Floodplain Management," a floodplain analysis was performed. It was determined that, approximately, 6.43 acre feet of floodplain impacts are anticipated. Traffic noise impacts were evaluated in accordance with the Code of Federal Regulation, Part 772. Based on the results of a noise barrier evaluation, a noise barrier appears to be a reasonable and cost feasible noise abatement method for the east side of I-4, adjacent to the Pine Bay Drive Subdivision. Potentially contaminated sites in the vicinity of the project corridor were identified and evaluated to determine if impacts would occur as a result of

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the proposed improvements. 294 potential contamination sites have been identified. Two sites are ranked as high risk, 14 as medium risk, two as low/medium risk, and 276 as no risk or low risk of potential contamination. And air quality analysis was performed on the project. The analysis was conducted using the established FDOT Air Quality Screening Model. Air quality impacts are not expected to occur as a result of this project. Right- of-way acquisition is anticipated for the recommended alternative for roadway and drainage improvements. Approximately, 18 acres of additional right-of-way is anticipated for roadway improvements and, approximately, 23 acres of additional right-of-way is anticipated for off-site ponds. In addition, there is a potential for four residential and/or business relocations. These anticipated relocations are displayed on the aerials available at tonight's hearing. All right-of-way acquisition will be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Act of 1970 and FDOT Real Estate Acquisition Process. Right-of-way requirements for the project are on display here tonight. One of the unavoidable consequences on a project, such as this, is the

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necessary relocation of families or businesses. On this project, we anticipate the relocation of three families and one business. All right-of-way acquisition will be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, commonly known as the Uniform Act. If you are required to make any type of move as a result of the Department of Transportation project, you can expect to be treated in a fair and helpful manner, and in compliance with the Uniform Relocation Assistance Act. If a move is required, you will be contacted by an appraiser who will inspect your property. We encourage you to be present during the inspection and provide information about the value of your property. You may also be eligible for relocation advisory services and payment benefits. If you are being moved and you are unsatisfied with the departments determination of your eligibility for payment or the amount of that payment, you may appeal that determination. A special word of caution -- if you move before you receive notification of the relocation benefits that you might be entitled to, your benefits may be jeopardized. The relocation specialists who are

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supervising this program are here tonight. They will be happy to answer your questions and will also furnish you with copies of relocation assistant brochures. The estimated total cost for the recommended alternative will be, approximately, $504.4 million. This includes $405 million for construction and utility relocations, $35.2 million for right-of-way acquisition for roadway and pond improvements, and $64.2 million for final design and construction engineering and inspection. Over the next several months, FDOT will continue to finalize the analysis and will seek to approve the documents and improvements presented here at tonight's public hearing. Following approval, FDOT will continue with the design, right-of-way acquisition, and construction phases. Currently, there is no funding available for the construction phases. The study is anticipated to be completed in November 2016. Design is fully funded for this segment of I-4. Draft documents for this public hearing were available for review starting September 14, 2016, and will remain on display until November 25, 2016, at the Seminole County Public Library, Northwest Branch, and also on the study website, www.I4express.com. These documents are also on

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display here tonight. No final decisions will be made until after we review your comments. You may provide your comments in several ways. You may provide an oral statement to the court reporter present here tonight. Complete a speaker card and make an oral statement at the microphone during the public comment period. Complete a common form and drop it in the comment box provided here at the hearing or mail your comments to the FDOT project manager at the address shown on the comment form. You may e-mail your comments to the FDOT at the address shown on the comment form or visit the project website and submit comments electronically. There is a dedicated page on the website for comments. All written material received at this public hearing and at the Florida Department of Transportation office, postmarked no later than ten days following the date of this public hearing or through the project website, will become a part of the public record for this hearing. This concludes our presentation. Thank you.

MS. JARRELL: Okay. So as the presentation indicated, there are several ways for you to make comments tonight. You can do it with your comment form and leave it with us. You can e-mail or mail

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that comment form in. You can give a verbal statement up here at the microphone. I need you to fill out a speaker card if you want to do that. Or you could speak directly to the court reporter on the side. So I'll give a few minutes. If anybody wants a speaker card, I have one. If anybody else wants to come up and give a public statement, you're welcome to do so. Just let me know, and I'll give you a speaker card. All right. We'll go ahead and get started. The first card I have is from Mr. Jaeger. Do you want to come up to the microphone and you can --

MR. JAEGER: Do I speak to the --

MS. JARRELL: You can come to this one, if you would like.

MR. JAEGER: Okay. My name is Harry Jaeger and I live at North Ridge Subdivision in Longwood. And we --

UNIDENTIFIED SPEAKER: We can't hear you. We can't hear you back here. I'm sorry.

MR. JAEGER: I live in Northridge Subdivision in Longwood. And we're unfortunate enough to share about 200 or 300 yards of fence line with the interstate. And the reason I'm speaking is because there's apparently a plan for FDOT to purchase land

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that is part of the lake that we have as part of our subdivision, and turn that piece of land into a retention pond, and I'm -- it really upsets us. And I'd like to just say that about 20 years ago, when the last widening took place, we worked with FDOT to minimize the amount of green buffer area that was taken down, and they put in some long narrow ponds. And about now, about 20 years later, we finally have these nice trees to keep us from staring at the road bed. And according to what shown as one of the alternative plans for a new retention pond, right in the lake itself, is the acquisition of land in that lake and to turn it into a retention pond, which I'm sure would mean the destruction of whatever greenbelt we have there now. And I strongly urge FDOT to look for alternatives so that they can find other places to put the stormwater, other than building up part of our lake and destroying what we have; what little we have left, really, to keep us from having the roadway rights in our faces. Thank you.

MS. JARRELL: Thank you, Mr. Jaeger. The next person I have is Mr. Gumbs.

MR. GUMBS: Good evening. Thank you for the opportunity. My name is Hugo Gumbs and I reside in

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Huntington Point Subdivision. And I have three of my -- three or four of my neighbors here with me. We live in a very nice subdivision area and we are concerned now. The two questions I have is, as indicated on the presentation, that there will be three homes that are going to be affected. And I would like to know, certain of you, that the three homes -- are they going to be on Pine Bay? Is it our subdivision that is going to be affected by these three homes? And also, the 12-foot wall -- if someone could address the concerns of how that wall is going to be. Is that going to be parallel to -- to the I-4 at this current time? And how far into the -- the present home's alignment, the barrier -- will that barrier be? Thank you.

MS. JARRELL: Thank you. And then we have Commissioner Carey.

MS. CAREY: Thank you. I'm County Commissioner Brenda Carey; 1011 East 1st Street, Sanford, Florida. You know, we've been talking about this for a while. And I know we've made a lot of changes, and DOT has worked hard to try to deal with some of the more complicated areas of this, particularly, the 46A interchange and Rinehart Road. We are still a little concerned about what's being

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proposed. And my first question is: Other than the PD&E that's going on right now, where are you at in the funding for this? Because with the changes that are happening right now, I'm not sure this will ever be funded. And then, you know, how is this going to, again, the impact some of our residents? And particularly at the intersections, we've got a number of businesses that are going to be completely impacted by their legal access -- that the Board County Commission has granted them as their legal access. And so, just got -- still got some concerns. And I would still like to have some further discussion from DOT with the County regarding this before you get too far into the plans. I know I asked some of the technicians to look at lights with flashing left turns lanes. Does that clear the intersections? Does that help us put this off for awhile so we can maybe wait and see how the expansion goes before we jump in to doing all the side roads and the access? I know that the City of Lake Mary has asked you to look at taking the 46A and Rinehart Road project forward quicker. And again, I have some serious concerns about those Texas U-turns. Thank you.

MS. JARRELL: Thank you, Commissioner. We have Commissioner Bob Dallari.

MR. DALLARI: Thank you. For the record, my

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name is Bob Dallari, County Commissioner in Seminole County. My office is in Sanford. For the past year- and-a-half, almost two years, both in MetroPlan and Board of County Commissioners meeting, I've asked the same basic questions I'm asking here tonight. I'd like to better understand cross access when it comes to pedestrians crossing I-4 on existing roads. I've not yet heard anything. I'd also like to better understand that with bicyclist. I've not heard anything yet. I'd also like to understand how emergency management vehicles access I-4, as well as the limited access through lanes. These are the same questions I've been asking the past year-and-a-half to two years. You-all know where my office is. I'm available for meetings. I'd just like to better understand this. I'd also like to understand because you also have segments -- what is it? Hold on a minute. Two, one, and five -- two, one, and five. I believe, two, one, and five is going to be scheduled first before the northern section. I'd like to know how all of this is going to be scheduled. And look forward to hearing your comments. And I'll be addressing it again tomorrow on the Board of County Commissioners meeting.

MS. JARRELL: Thank you. Do we have anyone

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else who wants to make a public statement for the record, here tonight? Okay. Seeing none, we'll close this portion of the public hearing. We've got plenty of project teams, both from the PD&E side and the design team. If anybody has additional questions to take up at the display boards, we'll be here for awhile to address any questions. Thank you.

(PUBLIC HEARING CONCLUDED AT 6:40 P.M.)

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C E R T I F I C A T E

STATE OF FLORIDA)
COUNTY OF ORANGE)

I, KAYLYN REINHOLD , Court Reporter and Notary Public for the State of Florida at Large, do hereby certify that I was authorized to and did report the foregoing proceeding, and that said transcript is a true record of the testimony given by the witness.

I FURTHER CERTIFY that I am not of counsel for, related to, or employed by any of the parties or attorneys involved herein, nor am I financially interested in said action.

Submitted on: November 14, 2016

_____
KAYLYN REINHOLD
Court Reporter, Notary Public

B

Comments for Public Record – Beyond I-4 Ultimate PD&E Study – Public Hearing
East of SR 434 to East of US 17/92 – Segment 3
Meeting – November 14, 2016

Judy M. Woodward
1218 Sunshine Tree Blvd.
Longwood, Fl. 32779
407-682-5602
valleomccue@netzero.net

My name is Judy M. Woodward and I am the property owner (for 30 years) of Mandarin Lot 31, Section 1, address being 1218 Sunshine Tree Blvd., Longwood, Fl. 32779. My comments are regarding:

1. ***Disposition of FPC Pond 300-B (currently listed as the "second alternative" flood plain compensation pond for Basin 300)***
2. ***Disposition of entry/exit ramps to/from I-4 at EE Williamson Rd.***
3. ***Need for sight/sound barriers***
4. ***Proposed tolls on the new I-4 express lanes***
5. ***"Proving" the effectiveness of the new "express lane tolls"***
6. ***Slip Ramps: Location, Safety, and Congestion***

1. Disposition of FPC Pond 300-B (currently listed as the "second alternative" flood plain compensation pond for Basin 300)

First I want to state that **I am extremely pleased to see that FPC Pond 300-A is now the currently recommended alternative for the Basin 300 pond.**

However, I feel that it is important to once again reinforce the fact that I am strongly opposed to the establishment of a pond on site 300-B which would lye east, to the rear, and adjacent to my property, along with the properties at 1216 and 1214 Sunshine Tree Blvd. It would mean the removal of those beautiful trees that buffer the view of I-4 from the backside of our homes. This would be devastating to the ambiance, privacy, and values of our properties.

Let me once again reinforce my reasons for opposing a pond on site 300-B:

1. We would lose our natural treed barrier between our homes and I-4 significantly increasing traffic visibility and the perception of noise for the effected residents.

2. The unsightliness of 10 lanes of traffic roaring up and down I-4 would significantly impact the aesthetic rural setting of this section of Mandarin and negatively impact our property values and the attractiveness of our area.

3. This natural area (although it may seem small in the grand scheme of things) has been and continues to be habitat to many of nature's creatures; bear, deer, fox, squirrel, armadillo, opossum, raccoon, hawks, and many varieties of song birds, which add to the ambiance of the area.

4. The pond could cause significant problems with insects, snakes, algae, bacteria, and possible smells which could come from standing stagnate water, all of which would be highly undesirable to homeowners.

5. Concern that depending on how the land would be excavated for this pond, there could be negative impacts on the drainage already established within Mandarin which could affect the properties in close proximity to the pond.

6. Concern about possible overflow or spillage from the pond directly effecting adjoining properties.

7. Even though the pond would most likely be enclosed by fence, there is always concern for the safety of children near residential pond areas.

2. Disposition of Entry/Exit Ramps to/from I-4 at EE Williamson Rd.

First I want to state that **I am extremely pleased to see that this alternative has been removed from the project plans.**

However, I feel that it is important to once again reinforce the fact I am strongly opposed to the addition of entry/exit ramps to/from I-4 at EE Williamson Rd.

Let me once again reinforce my reasons for opposing the entry/exit ramps to/from I-4 at EE Williamson Rd:

1. There would be significant impact on the quiet rural setting of this area.
2. This would create unbearable traffic volume and congestion (especially during rush hours) on EE Williamson Rd.
3. The close proximity of the Woodlands Elementary school to increased traffic.
4. The close proximity of the Seminole Wekiva Trail (which crosses EE Williamson Rd. very near to I-4) to increased traffic.
5. Increased difficulty (especially during rush hours) when attempting to enter into or exit from the Mandarin sub-division at the EE Williamson Rd. entrance.

3. Need for sight/sound barriers

With this expansion going from 6 lanes of traffic to 10, there will be a significant increase in noise, and the traffic lanes will be moved closer to residential areas along this stretch of I-4, which will significantly impact the quality of life of many homeowners along the route, many of them being in my subdivision, Mandarin.

I have already had a discussion with 2 sound experts from Stantec regarding this issue. I do now understand all of the factors that play into the decision on whether or not sound barriers are “feasible”, regardless of whether or not they are “recommended”. I understand that they were “recommended for Mandarin”, however, they are not “cost effective” due to the low density of our homes (being on acre plus lots), and therefore are not currently in the plan. And I understand that the “rules” and “constraints” for “cost” are set by the state, and that those constraints govern the entire state and all FDOT projects within the state.

However, I still feel strongly compelled to voice my opinion regarding “the need” for sight/sound barriers for Mandarin, and many other homes along this section of I-4:

1. Whether residents live in high density mobile home communities or low density rural communities, the effect of “highway noise” is the same on their “hearing” and their “quality of life”.
2. Everyone has the right to be able to enjoy their home and enjoy being outside their home without experiencing unbearable noise.
3. Everyone has the right to be free from worry about whether long term exposure to the noise will adversely affect their hearing and their quality of life.
4. When I-4 was expanded from 4 lanes to 6 lanes back in the late 1990’s, sight/sound barriers were denied for the same reasons, and as such we have been exposed to increased noise levels since that time.
5. **I am making a plea to the FDOT to re-visit these restrictions with the governing state entities that set these rules, to see if any changes or exceptions are possible.**

4. Proposed Tolls for the new I-4 express lanes

I understand that "toll lanes" have already been approved for the first phase of the I-4 Ultimate expansion from Kirkman Rd. to SR 434. I also realize that these projects are not "funded" by the government, and as such the "tolls" are supposed to "pay for the projects". **However, I feel that it is important once again to reiterate my opinion regarding "toll lanes" in general in the Orlando area**, with the hope that it may still have some small impact on this additional I-4 segment and/or future toll road considerations in the Orlando area.

I do not feel that having tolls on every possible I-4 alternative is the right thing to do.

We have the 417 that can get vehicles from Sanford to the west side of Disney…..but it is a toll road, which deters many motorists from using it.

We have the 429 which currently can be accessed via Maitland Blvd. (414) and can get vehicles from the Maitland exit to the west side of Disney….but they are both toll roads, which again deters many motorists from using them.

And construction is underway for the Wekiva Parkway to allow access to the 429 in Sanford to get vehicles to the west side of Disney….but guess what….more tolls.

Now we are proposing 4 new express lanes on I-4, and what are we doing? We want to make them toll lanes, guess what that will do….deter many motorists from using them.

I am a simple person, one in a million, but I have driven the Orlando thoroughfares regularly, and I know what the congestion is all about. I have also driven beltways around Atlanta, Jacksonville, Richmond, Washington, and Baltimore….and experienced express lanes on I-81 in Pennsylvania….and not one of them has a toll (at least not at the time I drove on them, which for some is in the last 6 months), imagine that. It seems to me that if our existing alternatives were not toll roads, we might not have to keep spending more money on additional "toll" alternatives, seems like a vicious cycle to me. I for one would be thrilled to use our beltways if they were NOT toll roads, but currently I avoid them, and I do not think I am alone.

How is it that other cities/states seem to be able to build roads and not assess "tolls"? How do they get the funding they need? Could it be poor planning over the years that has put us into this vicious cycle? I wish I had the answer, but I do not. It seems that the persons with the training to plan and manage our highways could find a better way?

The comment was made to me at the FDOT meeting on March 20, 2014 that our alternatives to I-4, the 417 and 429, do not have any "easy access" to downtown. I guess I would have to agree with that. Did anyone ever consider improving this access as an option, then lifting the "tolls" from our alternatives and see what happened? Are these "tolls" still needed to pay for loans used to build those alternatives in the first place…I do not know the answer to that? The only major highway alternative access from our beltways to I-4, the 408 and the 528 are also toll roads, **we are already inundated with toll roads**.

Based on my own travels, and my being a part of "through traffic" in several major cities, and having the choice of using "non-toll" beltways as an alternative, the beltways have been my choice even though the "miles traveled" on those beltways is greater than traveling directly through the city. I firmly believe that if the 417 and the 429 were not toll roads, that a much larger percentage of Orlando "through traffic" would use those alternatives, and thus relieve traffic and congestion through the city.

And if the tolls on the new I-4 express lanes will require a "sun pass like" transponder (no cash), how can we expect that "through traffic" vehicles from outside the area will be able to use them?

If what we are looking to do is alleviate the traffic congestion on I-4, it does not seem to me that more "toll lanes" are the answer.

5. "Proving" the effectiveness of new "express lane tolls"

I would also like to reiterate my opinion regarding "proving" the effectiveness of the "toll lane concept" in "reducing I-4 traffic congestion" along the Kirkman Rd to 434 stretch of I-4 before it is carried forward into any additional stretches of I-4.

I feel that the "already approved" I-4 Ultimate project from Kirkman Rd. to SR 434 should be completed and the concept evaluated and proven for Orlando before this I-4 "toll" concept is taken any further.

I feel that the Beyond I-4 Ultimate segment 3 from east of SR 434 to US 17/92 should not be approved or implemented until it is a **"proven concept" for the Orlando area**, meaning that these "express toll lanes" achieve their intended goal of reducing congestion and improving throughput on I-4 through downtown.

This will only be a success if public acceptance and widespread use of these toll lanes is proven. The Orlando area already has enough toll roads that are not widely used. The cost, economic impact, and environmental impact for this project are staggering. We need a traffic solution, but it must be a proven solution that will work here in the greater Orlando area.

I was told at the FDOT meeting back in 2014 that this "toll" lane concept is in place in Miami, and was given an example of the **"toll" cost being $9.00 to go 10 miles during peak hours**. If a commuter needed to pay that in **two directions 5 days a week, that would cost $90.00 a week, $4,680.00 a year**, tell me how many commuters want to pay that kind of fee? It may work in Miami, but Orlando is not Miami, and I am not convinced that will work here.

6. Slip Ramps: Location, Safety, and Congestion

I have reviewed the Segment 3 display board posted on the website, and it appears that there will be 2 "slip ramps" along the stretch of I-4 west of Lake Mary Blvd. to state road 434, one entering the express lanes west bound, and one exiting the express lanes east bound.

I can see other "slip ramps" between Lake Mary Blvd. and 17/92. There appear to be 2 allowing access to and from the express lanes just east of Lake Mary Blvd. and 2 allowing access to and from the express lanes at the Wekiva Parkway.

I have given much thought to the impact of the "slip ramps" that will merge traffic from the "express lanes" directly back into the "general use lanes" of I-4, **particularly since this will be merging back into the "fastest moving" general use lanes**. Using the east bound "slip ramp" that is just west of Lake Mary Blvd. as an example, I have concerns about the "congestion" that will be created by that merge of traffic directly back into the general use lanes from the express lanes, due to the volume of traffic that uses the Lake Mary exit. In today's world, traffic has ample time to move to the correct right hand lanes for exiting at Lake Mary. Now there is a potential for a large volume of traffic to exit the express lanes via the "slip ramps" thus having to get themselves over to the right hand lanes for exiting at Lake Mary. It seems to me that we may possibly reduce a little congestion in some areas, and **create nasty bottlenecks in other areas.**

Historically from my experience, "merging traffic" always causes congestion.

Is it believed that this will not be an issue?

Leaves me wondering how much this will increase the risk of collisions?

From:	Judy Woodward
To:	Colleen Jarrell
Cc:	valleomccue@netzero.net
Subject:	I-4 Beyond the Ultimate - Comment letter for meeting of 11/14/2016
Date:	Tuesday, November 15, 2016 11:35:53 AM
Attachments:	I-4 Comments for Public Record 20161114.doc

Hello Colleen,

Please find attached my comments for the meeting last night.

I know it sounds like the design phase tries to stay as close to your recommendations as possible, but I still felt compelled in my comments to "reinforce" my reasons that I had before, and state the fact that I am "very pleased" that the pond 300-B that was to be by my house is no longer the "recommended" site, and the entry/exit ramps at EE Williamson were removed from the plan.

I did feel for that one man who got up and spoke, said he had 5 other neighbors with him, talking about a pond by the Northridge subdivision (just east of us) and losing their buffer of trees, etc. I wondered if they spoke out back 2 years ago? I wonder if that is pond 304 they are talking about...it is the only one I see by Northridge? If so, I don't see any alternative for it. I fear it may be too late in the game for them, but I do hope someone will at least look into it and respond to him. It really hit home with me and my pond issue.

I was talking to a young man last night just before I left, sorry I cannot remember what his name was, and we got talking about the tolls. I had thought I understood that the tolls would change based on peak "hours" (like from 5:00 to 6:00 for instance), but he seemed to think it changes based on "actual traffic flow" somehow? Is there someone who can explain to me exactly how the "variable" tolls will be controlled, and an idea of what they expect them to be? Is there any document out there that talks about that? I just feel that the "toll aspect" of this has really been downplayed somehow, if I had not gotten into a discussion about it with Beata at the 2014 meeting, I surely would not know much about it. I sure would like to know exactly how it is going to work.

Maybe I need to ask these questions of the design team....but thought I would throw them at you first.....

- Do you know when this project will be presented for "final approval" by the Federal Highway Administration?

- Do you know if there will be a public meeting in the future for the design phase?

- Do you have any idea how long the design phase is expected to last?

I want to thank you so much for introducing me to the design people last night. And thank you so much for being so helpful and patiently working with me over these past 2 years. I always

felt I could get with you about any issue I had and knew you would help me get to the right place. I hope I will not need to bother you beyond this point, but so appreciate your offering to continue to direct me if necessary. Hopefully I will see an additional group of documents appear on the website from the "design phase" that I can reference to keep track of progress.

It has been a pleasure working with you!
Take care!
Judy Woodward
407-682-5602

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

February 3, 2017

Ms. Judy Woodward
1218 Sunshine Tree Boulevard
Longwood, FL 32779

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Ms. Woodward

On behalf of the Florida Department of Transportation (FDOT), District Five, we would like to thank you for your involvement in the "I-4 Beyond the Ultimate" PD&E Study. The FDOT values your input and considers interaction with the public to be an essential component of transportation improvements.

We are writing you to thank you for the comment letter you submitted after the public hearing. You had several comments in the letter, to include your disposition on FPC Pond 300-B, disposition of the entry/exit ramps to/from EE Williamson Road, noise barriers, tolls on the future express lanes, the safety of express lanes and slip ramps.

A preliminary drainage analysis is performed during the PD&E study phase and FPC Pond 300-A is the recommended alternative for Basin 300. FPC Pond 300-B remained an alternative into the design phase for this basin. The design team has been informed of your opposition for FPC Pond 300-B to be considered. The Department is reviewing the other options for this pond location. If you'd like to check the progress of the design plans the design Project Manager is Catalina Chacon, PE and she can be reached at 386-943-5039 or via email at catalina.chacon@dot.state.fl.us.

As noted in your comment letter, the entry/exit ramps to/from EE Williamson have been removed from the recommended alternative and will not be included in the design phase.

With respect to the noise barrier, several barrier types (barrier and ground mounted) and options (various heights mounted on the shoulder and at the ROW) were modelled. The most cost reasonable option for Noise Sensitive Area C (adjacent to your property) was a 14-foot barrier mounted wall on the I-4 westbound shoulder. This wall costs $1,116,866 and provides a noise reduction of at least 5 dBA's to a total of nine (9) benefitted receivers. The average cost per benefitted receiver is $124,096. Since this cost well exceeds the FDOT threshold of $42,000 (by $82,096 per benefitted receiver), the wall was determined to not be cost reasonable. As stated in your letter, the density of the homes along the west side of the interstate is low and therefore results in higher cost per home. The $42,000 threshold for a noise barrier to be considered cost reasonable has been set by FHWA and is used statewide when determining the cost reasonableness of noise barriers.

You stated you disagree with putting tolls on I-4. Florida Statue FS 338.151 outlines where tolls may be implemented. Except where otherwise authorized by law, the Department may not establish tolls on lanes of limited access roadways on the state highway system that existed on July 1, 2012, unless tolls were already established by that date. However, the Department may establish tolls on new limited access facilities, lanes added to existing limited access facilities, and on new or replacement major bridges on the SHS constructed after that date. On August 30, 2013 the statewide directive 525-030-020a: Tolling for New and Existing Facilities on the State Highway System was published, outlining FDOT's direction on the State Highway System (SHS). The directive established where and how tolls may be implemented along the SHS. It states that all additional capacity (new lanes) on interstate highways within Florida shall be express lanes. It also states that all additional capacity on non-interstate limited access facilities in Florida shall be express lanes, where deemed appropriate through the transportation planning process. While not required or defined in the directive, express lanes are also being considered and deployed on tolled facilities in the state where deemed necessary and appropriate.

The statewide directive defines express lanes as "a type of managed travel lane physically separated from a general use lane or general toll lane within a roadway corridor. Express lanes use dynamic pricing through electronic tolling in which toll amounts are set based on traffic conditions." Express lanes can provide a high degree of operational flexibility, which enables them to be actively managed to respond to changing traffic demands. Express lanes can be located within tolled or non-tolled facilities, include congestion pricing, have vehicle restrictions, and may be operated as reversible flow or bi-directional facilities to best meet peak demands. Express lane facilities can be adjusted at any time to better match local and regional objectives. These adjustments allow FDOT to offer Florida drivers new and reliable mobility choices.

You commented on the effectiveness of express lanes and referenced the cost of the tolls to the Orlando area commuters. Express lanes will be constructed in addition to the general use (or free) lanes. Drivers will be provided the choice of either utilizing the express lanes or remaining in the general use lane.

You questioned the safety of the slip ramps that provide access between the general use and express lanes. There are several things to consider when determining the slip ramp locations, with safety being of utmost importance. The slip ramp locations have been strategically placed to allow access, while still providing sufficient distance for drivers to merge back into traffic when exiting the express lanes. The slip ramp design will allow for deceleration and acceleration lanes, similar to standard ramp design.

Again, we sincerely appreciate your participation and input into this project. If you have additional questions or comments, please do not hesitate to contact me at 386-943-5418 or beata.stys-palasz@dot.state.fl.us.

Sincerely,

Beata Stys-Palasz, P.E.
FDOT Project Manager

MR. GUMBS: Good evening. Thank you for the opportunity. My name is Hugo Gumbs and I reside in Huntington Point Subdivision. And I have three of my -- three or four of my neighbors here with me. We live in a very nice subdivision area and we are concerned now. The two questions I have is, as indicated on the presentation, that there will be three homes that are going to be affected. And I would like to know, certain of you, that the three homes -- are they going to be on Pine Bay? Is it our subdivision that is going to be affected by these three homes? And also, the 12-foot wall -- if someone could address the concerns of how that wall is going to be. Is that going to be parallel to the I-4 at this current time? And how far into the -- the present home's alignment, the barrier -- will that barrier be? Thank you.

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

January 30, 2017

Mr. Hugo Gumbs
446 Palm Crest Lane
Lake Mary, FL 32746

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Mr. Gumbs:

On behalf of the Florida Department of Transportation (FDOT), District Five, we would like to thank you for your involvement in the "I-4 Beyond the Ultimate" PD&E Study. The FDOT values your input and considers interaction with the public to be an essential component of transportation improvements.

We are writing you to thank you for the verbal comments you made during the public hearing. You asked if any of the proposed residential impacts where within the Huntington Pointe Subdivision and requested additional details on the potential noise barrier.

There are no anticipated right-of-way impacts to the Huntington Pointe Subdivision as a result of the recommended improvements to I-4. FDOT has conducted multiple noise studies along the study segment to determine locations where a noise barrier could help reduce sound between the interstate and adjacent neighborhoods. Based upon the completed noise studies a noise barrier along the east side of I-4, from the rest area to Emma Oaks Drive (adjacent to the Huntington Pointe Subdivision) was determined to be feasible and cost reasonable. Two different sized barriers were evaluated, a 12-foot and a 10-foot barrier. Due to the residential areas being at a lower level than the adjacent roadway, it was determined the 10-foot tall barrier would provide adequate sound abatement. Additional analyses will be completed during the design phase of the I-4 widening project. The design team will coordinate with residents of Huntington Pointe Subdivision in order to coordinate the aesthetics (color and design pattern) of the barrier.

Again, we sincerely appreciate your participation and input into this project. If you have additional questions or comments, please do not hesitate to contact me at 386-943-5418 or beata.stys-palasz@dot.state.fl.us.

Sincerely,

Beata Stys-Palasz, P.E.
FDOT Project Manager

MR. DALLARI: Thank you. For the record, my name is Bob Dallari, County Commissioner in Seminole County. My office is in Sanford. For the past year- and-a-half, almost two years, both in MetroPlan and Board of County Commissioners meeting, I've asked the same basic questions I'm asking here tonight. I'd like to better understand cross access when it comes to pedestrians crossing I-4 on existing roads. I've not yet heard anything. I'd also like to better understand that with bicyclist. I've not heard anything yet. I'd also like to understand how emergency management vehicles access I-4, as well as the limited access through lanes. These are the same questions I've been asking the past year-and-a-half to two years. You-all know where my office is. I'm available for meetings. I'd just like to better understand this. I'd also like to understand because you also have segments -- what is it? Hold on a minute. Two, one, and five -- two, one, and five. I believe, two, one, and five is going to be scheduled first before the northern section. I'd like to know how all of this is going to be scheduled. And look forward to hearing your comments. And I'll be addressing it again tomorrow on the Board of County Commissioners meeting.

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

January 30, 2017

The Honorable Bob Dallari
1011 East 1st Street
Sanford, FL 32771

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Commissioner Dallari:

On behalf of the Florida Department of Transportation (FDOT), District Five, we would like to thank you for your involvement in the "I-4 Beyond the Ultimate" PD&E Study. The FDOT values your input and considers interaction with the public to be an essential component of transportation improvements.

We are writing you to thank you for the verbal comments you made during the public hearing. You asked about pedestrian and bicycle access crossing I-4 on existing roads and emergency management vehicles accessing I-4 and the express lanes. You also asked about the funding status for this segment of the I-4 BtU Project.

We appreciate your concerns for pedestrian and bicycle access, specifically at the interchanges. We recognized some of the existing interchanges within Segment 3 accommodate pedestrians and bicycles to the greatest extent and this was a priority for the Department when developing the concept alternatives for this project. The recommended concepts at each interchange do take into consideration pedestrian and bicycles and provide bike lanes, sidewalks and crosswalks to accommodate them.

Emergency vehicles will have access to the express lanes within Segment 3 at several locations along the I-4 corridor. The Department is currently scheduling meetings with the first responders to coordinate and evaluate the potential location for these access points. The location of removable barriers, required spacing and types of the removable barriers will be topics of discussion at these meetings. In addition to the emergency access locations along the corridor, the express lanes are being designed with incident investigation sites that will provide safe stopping areas for the first responders. These sites will be located approximately every two miles and will provide additional shoulder width where vehicles can safely stop.

With regards to funding of Segment 3, the project is currently in the preliminary design phase with right-of-way acquisition funded in fiscal years 2022 through 2025. Construction of improvements are not currently funded at this time. As you're aware, this can change and there is the potential of funding becoming available and projects moving forward as priorities within MetroPlan are updated.

Again, we sincerely appreciate your participation and input into this project. If you have additional questions or comments or would like to meet to discuss specific details, please do not hesitate to contact me at 386-943-5418 or beata.stys-palasz@dot.state.fl.us.

Sincerely,

Beata Stys-Palasz, P.E.
FDOT Project Manager

MS. CAREY: Thank you. I'm County Commissioner Brenda Carey; 1011 East 1st Street, Sanford, Florida. You know, we've been talking about this for a while. And I know we've made a lot of changes, and DOT has worked hard to try to deal with some of the more complicated areas of this, particularly, the 46A interchange and Rinehart Road. We are still a little concerned about what's being proposed. And my first question is: Other than the PD&E that's going on right now, where are you at in the funding for this? Because with the changes that are happening right now, I'm not sure this will ever be funded. And then, you know, how is this going to, again, the impact some of our residents? And particularly at the intersections, we've got a number of businesses that are going to be completely impacted by their legal access -- that the Board County Commission has granted them as their legal access. And so, just got -- still got some concerns. And I would still like to have some further discussion from DOT with the County regarding this before you get too far into the plans. I know I asked some of the technicians to look at lights with flashing left turns lanes. Does that clear the intersections? Does that help us put this off for a while so we can maybe wait and see how the expansion goes before we jump in to doing all the side roads and the access? I know that the City of Lake Mary has asked you to look at taking the 46A and Rinehart Road project forward quicker. And again, I have some serious concerns about those Texas U-turns. Thank you.

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

January 30, 2017

The Honorable Brenda Carey
16 Old Post Road
Longwood, FL 32779

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Commissioner Carey:

On behalf of the Florida Department of Transportation (FDOT), District Five, we would like to thank you for your involvement in the "I-4 Beyond the Ultimate" PD&E Study. The FDOT values your input and considers interaction with the public to be an essential component of transportation improvements.

We are writing you to thank you for the verbal comments you made during the public hearing. You expressed concerns regarding the recommended concept for CR 46A at Rinehart Road, specifically with regards to access impacts to surrounding businesses and vehicle turning movements. You also asked about the funding status for this segment of the I-4 BtU Project.

We understand and appreciate your concerns for surrounding property owners and proposed traffic changes as a result of the recommended concepts. The Department has completed detailed traffic simulations of several alternatives (for all interchanges within Segment 3) and through our extensive coordination efforts with Seminole County Commissioners, Seminole County staff (planning and engineering) as well as the Cities of Sanford and Lake Mary, we have gained consensus from all regarding the recommended alternative. The close proximity of the I-4 eastbound interchange ramps to the intersection of CR 46A at Rinehart Road creates a challenge in maintaining access while improving safety for all users. Fortunately, the County and Cities have been considerate of access management with new developments along both Rinehart Road and CR 46A and the recommended alternative does not prohibit any of the properties from maintaining their current access to these roadways. The existing full median opening on Rinehart Road (approximately 1,000 feet north of CR 46A) is recommended to be modified to be a directional opening as part of the recommended concept. This median opening currently serves Sanford Infiniti and the closure of the median opening will result in driver's who want to travel south on Rinehart Road having to turn right from the driveway and travel approximately 1,100 feet to complete a U-turn to continue south. There is also the potential that the currently undeveloped properties adjacent to Sanford Infiniti could develop and complete the connection to Cherry Laurel Drive which would allow drivers access to CR 46A.

With regards to funding of Segment 3, the project is currently in the preliminary design phase with right-of-way acquisition funded in fiscal years 2022 through 2025. Construction of improvements are not currently funded at this time. As you're aware, this can change and there is the potential of funding becoming available and projects moving forward as priorities within MetroPlan are updated.

Again, we sincerely appreciate your participation and input into this project. If you have additional questions or comments or would like to meet to discuss specific details, please do not hesitate to contact me at 386-943-5418 or beata.stys-palasz@dot.state.fl.us.

Sincerely,

Beata Stys-Palasz, P.E.
FDOT Project Manager

MR. JAEGER: I live in Northridge Subdivision in Longwood. And we're unfortunate enough to share about 200 or 300 yards of fence line with the interstate. And the reason I'm speaking is because there's apparently a plan for FDOT to purchase land that is part of the lake that we have as part of our subdivision, and turn that piece of land into a retention pond, and I'm -- it really upsets us. And I'd like to just say that about 20 years ago, when the last widening took place, we worked with FDOT to minimize the amount of green buffer area that was taken down, and they put in some long narrow ponds. And about now, about 20 years later, we finally have these nice trees to keep us from staring at the road bed. And according to what shown as one of the alternative plans for a new retention pond, right in the lake itself, is the acquisition of land in that lake and to turn it into a retention pond, which I'm sure would mean the destruction of whatever greenbelt we have there now. And I strongly urge FDOT to look for alternatives so that they can find other places to put the stormwater, other than building up part of our lake and destroying what we have; what little we have left, really, to keep us from having the roadway rights in our faces. Thank you.

From: Luis Diaz
To: Colleen Jarrell
Subject: Fwd: Beyond the Ultimate I-4 - Segment 3
Date: Tuesday, November 29, 2016 1:00:47 PM

Begin forwarded message:

From: "Stys-Palasz, Beata" <Beata.Stys-Palasz@dot.state.fl.us>
Date: November 29, 2016 at 12:44:19 PM EST
To: "Diaz, Luis" <ldiaz@hntb.com>
Subject: FW: Beyond the Ultimate I-4 - Segment 3

Beata Stys-Palasz, P.E.
Senior Project Manager
State of Florida Department of Transportation
719 South Woodland Boulevard
Mail Station 542
Deland, Florida 32720
☎ **Phone (386) 943-5418**
Fax: (386) 736-5153
✉ **Email: beata.stys-palasz@dot.state.fl.us**

Your source for information on roadway projects in Central Florida: CFLRoads.com , i4express.com , i4ultimate.com

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From: Chacon, Catalina
Sent: Tuesday, November 22, 2016 3:03 PM
To: Harry Jaeger
Cc: bdallari@seminolecountyfl.gov; Judy Parr; Mark Kamrath; Stys-Palasz, Beata
Subject: RE: Beyond the Ultimate I-4 - Segment 3

Mr. Jaeger,

Likewise, it was very nice meeting you last week at the public hearing. We are actively looking into a potential alternative to the location of pond 300. At this point I do not have a design that I can share with you but believe me, this is a big priority for this project right now.

As for keeping you abreast of the changes we make, I can offer that once we have a better idea of what alternatives we have, I will reach out to you as well the local

governments for input. My estimate is that within a couple of weeks, perhaps maybe 3, we will have a better idea of the potential new design.

Finally, the right of way phase for this project is currently funded for Fiscal Years 2022-2025.

I hope this information if useful to you. Do not hesitate to contact me if you have any further questions.

Thank you,

Catalina Chacon, P.E.
Consultant Project Manager Supervisor
Florida Department of Transportation, D5
719 South Woodland Blvd.
Deland, Florida 32720
☎ Phone: (386) 943-5039

From: Harry Jaeger [mailto:hjaeger@cfl.rr.com]
Sent: Tuesday, November 22, 2016 1:05 PM
To: Chacon, Catalina
Cc: bdallari@seminolecountyfl.gov; Judy Parr; Mark Kamrath
Subject: Beyond the Ultimate I-4 - Segment 3

Dear Ms. Chacon,

It was my pleasure to meet you at the FDOT Public Hearing in Lake Mary last week. As you may have seen from the email that I have sent to Ms. Beata Stys-Palasz, I represent a group of concerned residents who live near to Grace Lake, just north of E.E. Williamson Road in Longwood. In those emails I expressed our concern over plans to acquire land to be used for retention ponds along the FDOT right of way in that area, especially that shown as pond no. 300 to be located within Grace Lake itself, and the FPC pond also in that area.

In her reply to my email, Ms. Stys-Palasz indicated that the design will be reevaluated and that she would respond. She gave me no idea of the timing of the reevaluation process, nor of her response.

As Project Manager of this part of the project, could you please tell me how we may be kept apprised of the design reevaluation process and the revisions being made to the design? We have become very anxious over the potential damage to be done to the environment around Grace Lake and to the quality of life of those residents who would be affected. Please let me know how we can stay close to the process and to continue to provide our input.

Also, could you please confirm whether or not there is already funding to implement the land acquisition planned for the Segment 3 project?

Thank you.

Harry Jaeger
Northridge Subdivision
Longwood, FL

From:	Luis Diaz
To:	Colleen Jarrell
Subject:	FW: Added comment on I-4 Beyond the Ultimate - Segment 3
Date:	Monday, November 21, 2016 6:17:50 PM

From: Harry Jaeger [mailto:hjaeger@cfl.rr.com]
Sent: Monday, November 21, 2016 6:12 PM
To: Beata.Stys-Palasz@dot.state.fl.us
Cc: catalina.chacon@dot.state.fl.us; 'Judy Parr' <parrjx@hotmail.com>; 'Mark Peebles' <NOSUBT2@aol.com>; bdallari@seminolecountyfl.gov; BCarey@seminolecountyfl.gov; 'Lee Constantine' <lee.constantine22@yahoo.com>; tjack1397@gmail.com; frank.odea@dot.state.fl.us; 'Bill' <bill4216@usa.net>; 'Downs, Noranne' <Noranne.Downs@dot.state.fl.us>; jhoran@seminolecountyfl.gov; Carlton Henley <chenley@seminolecountyfl.gov>; Mark Kamrath <markamrath@gmail.com>; Roberta Policard <rleepolicard@hotmail.com>; Bob Katz <bobkatz@digido.com>; marykent@digido.com; 'Thorat, Abhay P.' <thorat@pbworld.com>; Luis Diaz <ldiaz@HNTB.com>
Subject: RE: Added comment on I-4 Beyond the Ultimate - Segment 3

Dear Ms. Stys-Palasz,

Thank you for your prompt reply to my email of November 14, 2016 concerning the proposed design of the retention pond (pond #300) to be located in Grace Lake in Longwood.
As a concerned resident of Northridge subdivision, which is located on Grace Lake, I am cautiously encouraged that you say that you will “reevaluate the design”.
May I ask that you please keep us informed concerning this reevaluation, and please provide your assurance to us that FDOT will not proceed with any of the proposed land that affects Grace Lake and also with respect to Flood Plain Compensation (FPC) area #300-A, (a parcel of land that adjoins Northridge Drive in Northridge Subdivision) without further input from the public.

Please take note that I am copying the Seminole County Board of Commissioners on this email with hope that they will continue to monitor the situation and help us prevent such land acquisition and destruction of the beautiful green-belt buffer between Northridge and the interstate roadway.

I look forward to learning about your design reevaluation in the near future.

Respectfully,

Harry Jaeger
Longwood, FL

From: Harry Jaeger [mailto:hjaeger@cfl.rr.com]
Sent: Monday, November 14, 2016 11:58 PM
To: beata.Stys.Palasz@dot.state.fl.us

Cc: catalina.chacon@dot.state.fl.us; Judy Parr; Mark Peebles; bdallari@seminolecountyfl.gov; BCarey@seminolecountyfl.gov; Lee Constantine; tjack1397@gmail.com; Roberta Policard; frank.odea@dot.state.fl.us; Brian Sweeney; Ralph Greene; Mark Kamrath; Melissa; Bill
Subject: Added comment on I-4 Beyond the Ultimate - Segment 3

Dear Ms. Stys.Palasz,

It was my pleasure to meet you and your staff at the public hearing in Lake Mary this evening. Thank you for the opportunity to learn about the Segment 3 project, and to speak and provide comment.

I want to clarify my spoken comments to ensure that it is understood that I was urging FDOT not to install a new retention pond in GRACE LAKE, just north of the E.E. Williamson bridge. I believe that the proposed retention pond in question was labeled as #300 on the drawing, and would be located partially on land located in Grace Lake east of the current right of way. As a resident of Northridge subdivision, which is located on Grace Lake, I strongly object to the proposal since it would mean destruction of the stand of trees that currently occupies that land and, thereby, would result in the removal the remaining greenbelt buffer between residents of Northridge (and North Cove subdivision, as well) and the I-4 roadway.

As I mentioned in my comments, the small amount of buffer that we now enjoy is growth that has grown back after the last time that I-4 was widened, some 20 years ago, when many trees were removed to install several small retention ponds. The new proposal, as I understand, would be to greatly expand those ponds into one large pond, which would physically place it within Grace Lake itself. We respectfully ask that this be avoided.

Finally, since Grace Lake is now full of water, and had recently reached flood levels after the heavy rainfall associated with Hurricane Matthew, is it really reasonable for FDOT to consider using part of Grace Lake as a retention pond? It is my understanding from talking with FDOT engineers and consultants at the meeting that existing wet lands are not suitable sites for retention ponds. Is that not so? It is also my understanding that the current study and recommendations were based on obsolete data obtained when the Grace Lake was dry. Since that time Grace Lake has returned to its natural condition and has been full for more than one year. Moreover, Seminole County officials have told us to expect it to remain stable for the foreseeable future.

Thank you.

Respectfully,

Harry Jaeger
1215 Baypoint Court
Longwood, FL

From: Luis Diaz
To: Colleen Jarrell
Subject: Fwd: Added comment on I-4 Beyond the Ultimate - Segment 3
Date: Tuesday, November 29, 2016 1:00:07 PM

Begin forwarded message:

From: "Stys-Palasz, Beata" <Beata.Stys-Palasz@dot.state.fl.us>
Date: November 29, 2016 at 12:43:56 PM EST
To: "Diaz, Luis" <ldiaz@hntb.com>
Subject: FW: Added comment on I-4 Beyond the Ultimate - Segment 3

Beata Stys-Palasz, P.E.
Senior Project Manager
State of Florida Department of Transportation
719 South Woodland Boulevard
Mail Station 542
Deland, Florida 32720
☎ **Phone (386) 943-5418**
Fax: (386) 736-5153
Email: beata.stys-palasz@dot.state.fl.us

Your source for information on roadway projects in Central Florida: CFLRoads.com , i4express.com , i4ultimate.com

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From: Chacon, Catalina
Sent: Tuesday, November 22, 2016 2:34 PM
To: Harry Jaeger; Stys-Palasz, Beata
Cc: 'Judy Parr'; 'Mark Peebles'; bdallari@seminolecountyfl.gov; BCarey@seminolecountyfl.gov; 'Lee Constantine'; tjack1397@gmail.com; O'Dea, Frank; 'Bill'; Downs, Noranne; jhoran@seminolecountyfl.gov; Carlton Henley; Mark Kamrath; Roberta Policard; Bob Katz; marykent@digido.com; 'Thorat, Abhay P.'; Diaz, Luis; Phillips, Suzanne; Olson, Steve; Ottaviano, Jessica
Subject: RE: Added comment on I-4 Beyond the Ultimate - Segment 3

Mr. Jaeger,

Thank you for your email. We are reevaluating the design as we speak. I will make sure we keep you posted as we come up with an alternate design. Do not hesitate to contact me if you have any further questions.

Thank you,

Catalina Chacon, P.E.
Consultant Project Manager Supervisor
Florida Department of Transportation, D5
719 South Woodland Blvd.
Deland, Florida 32720
☎ Phone: (386) 943-5039

From: Harry Jaeger [mailto:hjaeger@cfl.rr.com]
Sent: Monday, November 21, 2016 6:12 PM
To: Stys-Palasz, Beata
Cc: Chacon, Catalina; 'Judy Parr'; 'Mark Peebles'; bdallari@seminolecountyfl.gov; BCarey@seminolecountyfl.gov; 'Lee Constantine'; tjack1397@gmail.com; O'Dea, Frank; 'Bill'; Downs, Noranne; jhoran@seminolecountyfl.gov; Carlton Henley; Mark Kamrath; Roberta Policard; Bob Katz; marykent@digido.com; 'Thorat, Abhay P.'; Diaz, Luis
Subject: RE: Added comment on I-4 Beyond the Ultimate - Segment 3

Dear Ms. Stys-Palasz,

Thank you for your prompt reply to my email of November 14, 2016 concerning the proposed design of the retention pond (pond #300) to be located in Grace Lake in Longwood.
As a concerned resident of Northridge subdivision, which is located on Grace Lake, I am cautiously encouraged that you say that you will “reevaluate the design”.
May I ask that you please keep us informed concerning this reevaluation, and please provide your assurance to us that FDOT will not proceed with any of the proposed land that affects Grace Lake and also with respect to Flood Plain Compensation (FPC) area #300-A, (a parcel of land that adjoins Northridge Drive in Northridge Subdivision) without further input from the public.

Please take note that I am copying the Seminole County Board of Commissioners on this email with hope that they will continue to monitor the situation and help us prevent such land acquisition and destruction of the beautiful green-belt buffer between Northridge and the interstate roadway.

I look forward to learning about your design reevaluation in the near future.

Respectfully,

Harry Jaeger
Longwood, FL

From: Harry Jaeger [mailto:hjaeger@cfl.rr.com]
Sent: Monday, November 14, 2016 11:58 PM
To: beata.Stys.Palasz@dot.state.fl.us
Cc: catalina.chacon@dot.state.fl.us; Judy Parr; Mark Peebles; bdallari@seminolecountyfl.gov; BCarey@seminolecountyfl.gov; Lee Constantine; tjack1397@gmail.com; Roberta Policard; frank.odea@dot.state.fl.us; Brian Sweeney; Ralph Greene; Mark Kamrath; Melissa; Bill
Subject: Added comment on I-4 Beyond the Ultimate - Segment 3

Dear Ms. Stys.Palasz,

It was my pleasure to meet you and your staff at the public hearing in Lake Mary this evening. Thank you for the opportunity to learn about the Segment 3 project, and to speak and provide comment.
I want to clarify my spoken comments to ensure that it is understood that I was urging FDOT not to install a new retention pond in GRACE LAKE, just north of the E.E. Williamson bridge. I believe that the proposed retention pond in question was labeled as #300 on the drawing, and would be located partially on land located in Grace Lake east of the current right of way. As a resident of Northridge subdivision, which is located on Grace Lake, I strongly object to the proposal since it would mean destruction of the stand of trees that currently occupies that land and, thereby, would result in the removal the remaining greenbelt buffer between residents of Northridge (and North Cove subdivision, as well) and the I-4 roadway.
As I mentioned in my comments, the small amount of buffer that we now enjoy is growth that has grown back after the last time that I-4 was widened, some 20 years ago, when many trees were removed to install several small retention ponds. The new proposal, as I understand, would be to greatly expand those ponds into one large pond, which would physically place it within Grace Lake itself. We respectfully ask that this be avoided.

Finally, since Grace Lake is now full of water, and had recently reached flood levels after the heavy rainfall associated with Hurricane Matthew, is it really reasonable for FDOT to consider using part of Grace Lake as a retention pond? It is my understanding from talking with FDOT engineers and consultants at the meeting that existing wet lands are not suitable sites for retention ponds. Is that not so? It is also my understanding that the current study and recommendations were based on obsolete data obtained when the Grace Lake was dry. Since that time Grace Lake has returned to its natural condition and has been full for more than one year. Moreover, Seminole County officials have told us to expect it to remain stable for the foreseeable future.

Thank you.

Respectfully,

Harry Jaeger
1215 Baypoint Court
Longwood, FL

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

January 30, 2017

Mr. Harry Jaeger
1215 Baypoint Court
Longwood, FL 32750

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Mr. Jaeger:

On behalf of the Florida Department of Transportation (FDOT), District Five, we would like to thank you for your involvement in the "I-4 Beyond the Ultimate" PD&E Study. The FDOT values your input and considers interaction with the public to be an essential component of transportation improvements.

We are writing you to thank you for the verbal comments you made during the public hearing. You expressed concerns regarding potential impacts to Grace Lake and the natural tree buffer as a result of the expansion of the existing drainage pond (Pond 300).

Since the public hearing we have communicated via email and as I've stated, the Department is currently reevaluating the drainage design in an effort to develop an alternate design. Once alternatives are identified, FDOT will reach out to those who have expressed concern and local governments and for input. I look forward to continuing communications with you with regards to the drainage design.

Again, we sincerely appreciate your participation and input into this project. If you have additional questions or comments, please do not hesitate to contact me at 386-943-5418 or beata.stys-palasz@dot.state.fl.us.

Sincerely,

Beata Stys-Palasz, P.E.
FDOT Project Manager

"BEYOND I-4 ULTIMATE" PD&E REEVALUATION STUDY

FROM EAST OF SR 434 TO EAST OF US 17-92

FPID: 432100-1-22-01

Please provide your comments below. If more space is needed, please use an additional sheet of paper. You may place your comments in the "Comment Box" provided at the meeting, or send to the address below. Comments are also acceptable through the project website. Written comments, exhibits and/or statements must be postmarked or e-mailed no later than November 25, 2016.

Note: Grace Lake (between 434 & Lake Mary Blvd) is a full lake. Water studies were most likely done prior to 2016 and show Grace Lake as a dry lake bed.

We, the residents of Northridge Subdivision would like to retain the natural tree buffer for our lake as we are concerned with water and air quality.

PLEASE RETURN COMMENTS TO:

Beata Styś-Pałasz, P.E., Project Manager
Florida Department of Transportation – District Five

Florida Department of Transportation
719 S. Woodland Boulevard
DeLand, Florida 32720

(386) 943-5418
Toll Free: 1-800-780-7102

Beata.Stys-Palasz@dot.state.fl.us

www.i4express.com

Name Marianne King

Address 1339 Grace View Ct
Longwood, FL 32750

Phone Number 407-620-24

Email

Florida Department of Transportation

RICK SCOTT
GOVERNOR

719 S. Woodland Boulevard
DeLand, FL 32720-6834

JIM BOXOLD
SECRETARY

January 30, 2017

Ms. Marianne King
1339 Grace View Court
Longwood, FL 32750

Subject: "I-4 Beyond the Ultimate" Project Development and Environment (PD&E) Reevaluation Study
From East of State Road (SR) 434 to East of US 17/92
Seminole County
Financial Project ID Number: 432100-1-22-01
Design Project ID Number: 242592-4-32-01
Federal Aid Project Number: 0041-227-I

Dear Ms. King:

On behalf of the Florida Department of Transportation (FDOT), District Five, we would like to thank you for your involvement in the "I-4 Beyond the Ultimate" PD&E Study. The FDOT values your input and considers interaction with the public to be an essential component of transportation improvements.

We are writing you to thank you for the comment you submitted at the public hearing. You stated, as a resident of Northridge Subdivision, you would prefer to maintain the natural tree buffer around Grace Lake. You also expressed concerned for water and air quality as a result of any potential impacts from the recommended alternative.

A preliminary drainage analysis is performed during the PD&E study phase. Based on this analysis, expansion of the existing FDOT pond (located adjacent to I-4) was recommended in order to accommodate the widening of I-4. Based on your comment and additional comments received from residents within the Northridge subdivision, the Department is currently reevaluating the drainage design in an effort to develop an alternate design. Once alternatives are identified, FDOT will reach out to those who have expressed concern and local governments and for input.

Again, we sincerely appreciate your participation and input into this project. If you have additional questions or comments, please do not hesitate to contact me at 386-943-5418 or beata.stys-palasz@dot.state.fl.us.

Sincerely,

Beata Stys-Palasz, P.E.
FDOT Project Manager

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Appendix C - **Conceptual Signing Plan**

MODEL: plansp01
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:500

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION

GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

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MODEL: plansp02
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:500

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

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MODEL: planssp03
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:500

MATCHLINE STA. 2130+00.00

MATCHLINE STA. 2205+00.00

0 100 500
Feet

LEFT
NO TRUCKS
ONLY
EXPRESS LANES ENTRANCE
XXXXXXXXXXXXXX

EXPRESS LANES
ONLY
TO 423 Lee Rd
$ XXXX
$25 PLUS TOLL FOR TOLL VIOLATION

LEFT
NO TRUCKS
ONLY
EXPRESS LANES ENTRANCE ½ MILE
XXXXXXXXXXXXXX

EXPRESS LANES
TWO-AXLE VEHICLES ONLY
BUSES ALLOWED

EXPRESS LANES
ONLY
TO 423 Lee Rd
$ XXXX
$25 PLUS TOLL FOR TOLL VIOLATION

LEFT
NO TRUCKS
ONLY
EXPRESS LANES ENTRANCE 1 MILE
XXXXXXXXXXXXXX

TO 429
TO DeBary/Deltona 417
ONLY
$ XXXX
EXPRESS LANES

REST AREA

LOCAL EXITS 98 THRU 104
Lake Mary Blvd
46 417 92 434
½ MILE

EXPRESS LANES
Use 417 SOUTH
Orlando-Sanford Intl Airport

LOCAL EXITS
Sanford
Heathrow
Seminole State College
NEXT RIGHT

TO 429
TO DeBary/Deltona 417
ONLY
$ XXXX
EXPRESS LANES

LOCAL EXITS 98 THRU 104
Lake Mary Blvd
46 417 92 434

EXIT 98
Lake Mary
Heathrow
1 MILE

Sanford
NEXT EXITS

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

PRINT DRIVER: C:\dor_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

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MODEL: plansp04
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:500

MATCHLINE STA. 2205+00.00

MATCHLINE STA. 2280+00.00

0 100 500
Feet

Lake Mary Blvd

Lake Mary Heathrow 1/2 MILE EXIT 98

Seminole State College Orlando-Sanford Int'l Airport EXIT 49 TOURIST INFO CENTER

Lake Mary Heathrow EXIT ONLY EXIT 98

Lake Emma Rd KEEP RIGHT

Lake Mary Heathrow

Lake Emma Road

EAST 4 Daytona Bch

WEST 4 Orlando

EAST 4 Daytona Bch KEEP LEFT

WEST 4 Orlando KEEP RIGHT

EAST 4 Daytona Bch

WEST 4 Orlando

EAST 4 Daytona Bch

Heathrow

Lake Mary

Lake Mary 4 Sanford 9 Heathrow 1

Seminole State College 4 Sanford Airport 8

WEST 4 Orlando

Heathrow 1 3 9

Seminole State College Orlando-Sanford Int'l Airport 4 8

Heathrow

Primera Blvd

Lake Mary Blvd

EAST 4 Daytona Bch RAMP ONLY

WEST 4 Orlando RAMP ONLY

WEST 4 Orlando KEEP LEFT

EAST 4 Daytona Bch RAMP ONLY

Lake Emma

Lake Mary 4 MILES

Primera Blvd KEEP LEFT

WEST 4 Orlando

Heathrow 1 MILE

EAST 4 Daytona Bch RAMP ONLY

Color_FDOTPDF.pltcfg
PRINT DRIVER: FDOT.tbl
PEN TABLE:

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

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MODEL:
SHEET SIZE: planssp05
PLOT SCALE: 16.5x10.6 (in.) 1:500

MATCHLINE STA. 2280+00.00

MATCHLINE STA. 2355+00.00

0 100 500
Feet

Int'l Pkwy

Lake Emma Rd
KEEP LEFT

EXIT 98
Lake Mary Heathrow
EXIT ONLY

Seminole State College
EXIT 98
TOURIST INFO CENTER

PROPOSED FDOT DMS

EXIT 98
Lake Mary Heathrow
1/2 MILE
EXIT ONLY

EXIT 98
Lake Mary Heathrow
1 MILE

LOCAL EXITS 98 THRU 88
Lake Mary Blvd
434 436 414

EXPRESS LANES ENTRANCE
1 MILE
XXXXXXXXXXXXXXX
LEFT
NO TRUCKS
ONLY

Sanford
Mount Dora
2 MILES
EXIT 101B

TO
TO DeBary/Deltona
$25 PLUS TOLL FOR TOLL VIOLATION
$ XXXX
EXPRESS LANES
ONLY

Sanford
NEXT 3 EXITS
Seminole Towne Center Mall
EXIT 101C

EXPRESS LANES
TWO-AXLE VEHICLES ONLY
BUSES ALLOWED

FDOT FULL COLOR FULL MATRIX INCIDENT MANAT DMS

EXPRESS LANES ENTRANCE
1/2 MILE
XXXXXXXXXXXXXXX
LEFT
NO TRUCKS
ONLY

Sanford
Historical District
AMTRAK
Auto Train
EXIT 101C

FULL COLOR FULL MATRIX INCIDENT MANAT DMS

TO
TO DeBary/Deltona
$25 PLUS TOLL FOR TOLL VIOLATION
$ XXXX
EXPRESS LANES
ONLY

Sanford
Heathrow
1 MILE
EXIT 101A

Sanford
Mount Dora
1 MILE
EXPRESS EXIT

EXPRESS LANES ENTRANCE
XXXXXXXXXXXXXXX
NO TRUCKS
ONLY

Sanford
Mount Dora
1 MILE
EXIT 101B

Sanford
Historic District
Mount Dora
1 MILE
EXIT 101C

Sanford
Heathrow
1/2 MILE
EXIT 101A

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

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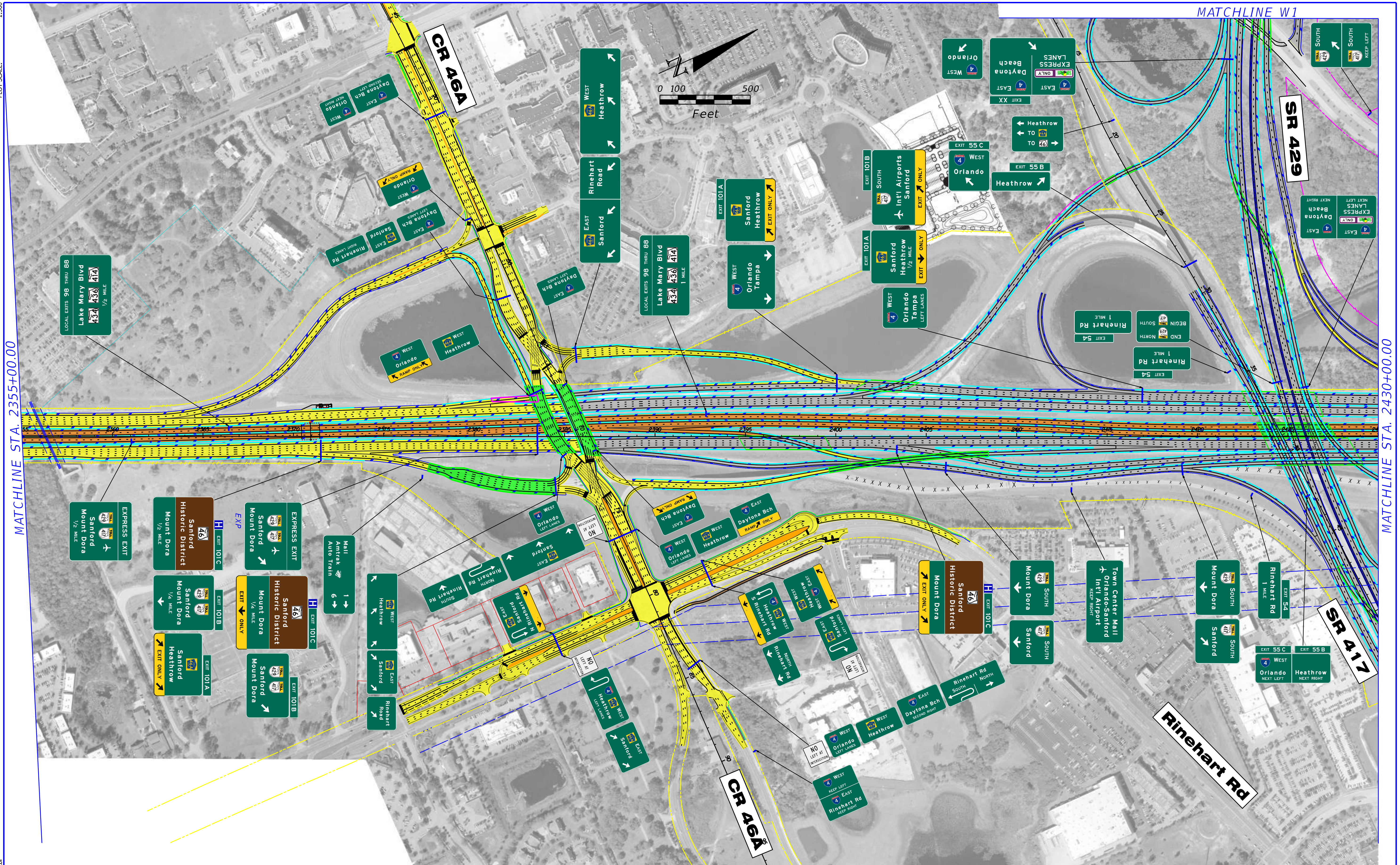
PLOT SCALE: 1:500



Line	Description	Line	Description
	EXISTING LA R/W		GENERAL USE LANES
	PROPOSED LA R/W		EXPRESS LANES
	EXISTING R/W		EXISTING BRIDGE
	PROPOSED FDOT R/W		PROPOSED BRIDGE
	PARCEL LINES		BARRIER WALL
	FUTURE EXISTING CONDITION	(XX)	PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY CONCEPTUAL SIGNING PLAN SEGMENT 3

SHEET NO.

C-6

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FDOT.tbl
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PEN TABLE:

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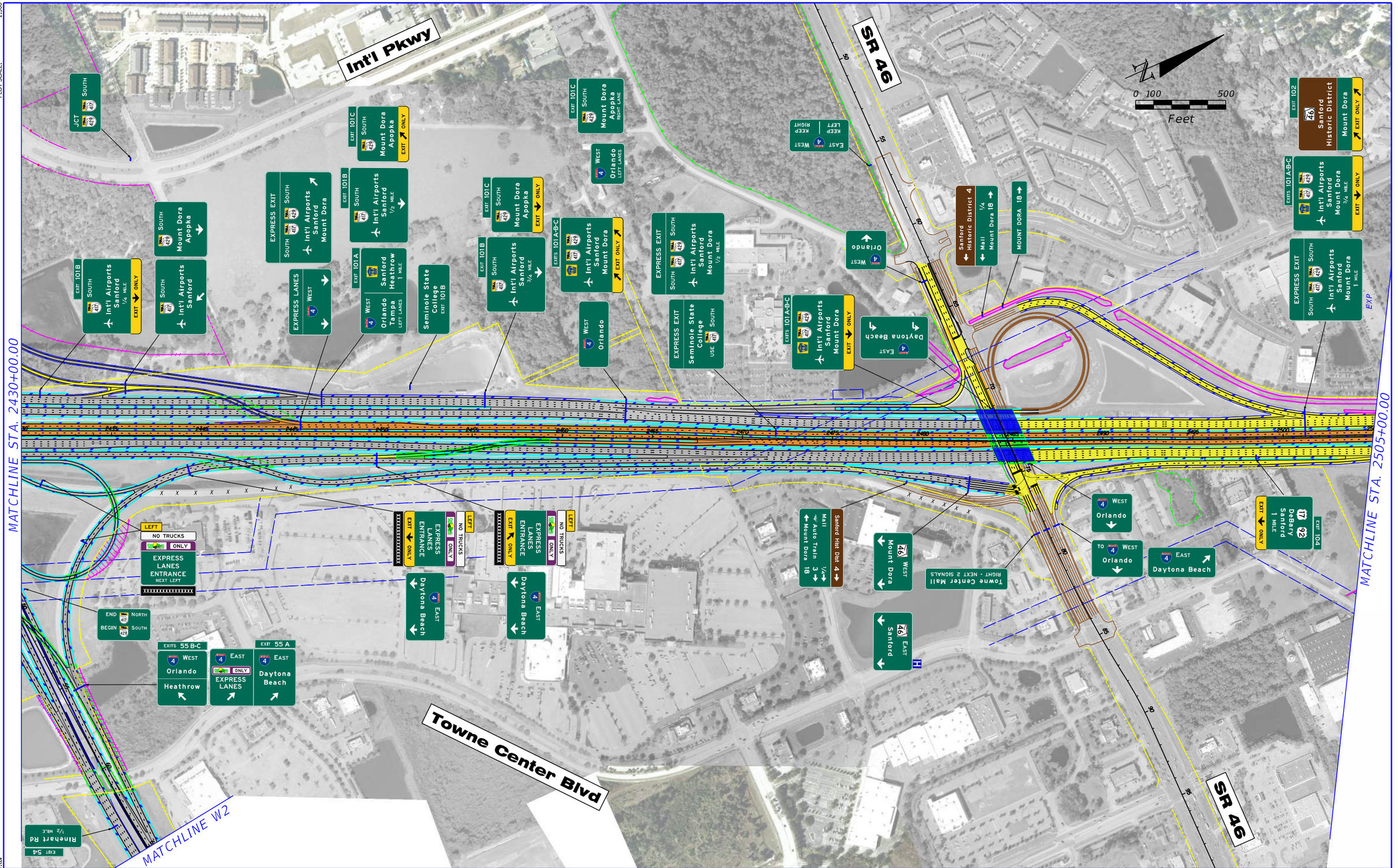
PLOT SCALE: 1:500



EXISTING LA R/W
PROPOSED LA R/W
EXISTING R/W
PROPOSED FDOT R/W
PARCEL LINES
FUTURE EXISTING CONDITION
GENERAL USE LANES
EXPRESS LANES
EXISTING BRIDGE
PROPOSED BRIDGE
BARRIER WALL
(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

C-7

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

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MODEL: plansp08
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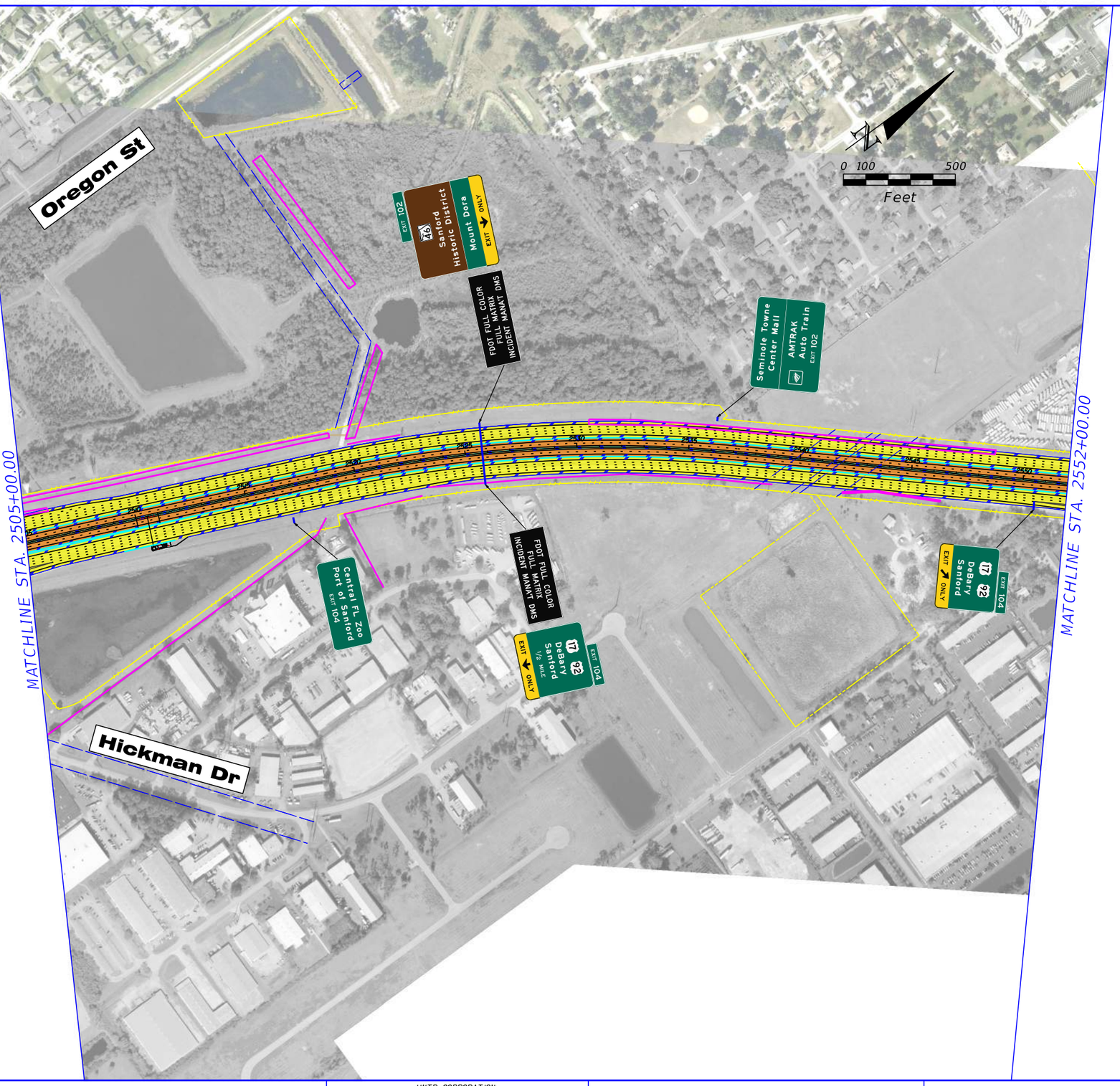
PLOT SCALE: 1:500



PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

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MODEL: plansp09
SHEET SIZE: 16.5x10.6 (in.)
PLOT SCALE: 1:500

MATCHLINE STA. 2552+00.00

US 17/92

SunRail

Orange Blvd

Monroe Rd

St Johns River

US 17/92

0 100 500
Feet

END SEGMENT 3
MATCH SEGMENT 4
STA. 2583+00.00

EXIT 102
Sanford Historic District
Mount Dora 1¼ MILE

EXITS 101 A-B-C
Int'l Airports
Sanford
Mount Dora 2 MILES

Orlando WEST

Central FL Zoo
Port of Sanford

EAST KEEP LEFT
WEST KEEP RIGHT

Debary 4
Orange City 9

Sanford 4
Debary 4
Orange City 9

Port of Sanford 1
Central FL Zoo 1

EXIT 104
17 92 Sanford

ENTERING Seminole COUNTY
St. Johns River

EXIT 104
17 92 Sanford
½ MILE

Central FL Zoo
Port Of Sanford
EXIT 104

Sanford 4
Debary 4
Orange City 9

Port of Sanford 1
Central FL Zoo 1

Daytona Beach EAST

WEST Orlando

St. Johns River

ENTERING Volusia COUNTY

EAST Daytona Beach

WEST KEEP LEFT
EAST KEEP RIGHT

Sanford
Port of Sanford

Central FL Zoo

Central FL Zoo
Port of Sanford

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(XX) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407)805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

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SR 429

BEGIN SOUTH 2 MILES

4 EAST EXPRESS LANES ONLY
TO DeBary/Deltona
$25 PLUS TOLL FOR TOLL VIOLATION
$ XXXX

EXPRESS LANES
TWO-AXLE VEHICLES ONLY
BUSES ALLOWED

4 EAST EXPRESS LANES ONLY
4 EAST Daytona Beach 3/4 MILE
4 WEST Orlando
EXIT XX

Heathrow 1 MILE
EXIT XX

Heathrow 1/2 MILE
EXIT XX

4 EAST EXPRESS LANES ONLY
TO DeBary/Deltona
$25 PLUS TOLL FOR TOLL VIOLATION
$ XXXX

International Pkwy
EXIT XX

BEGIN SOUTH
Int'l Airports Sanford 1 MILE

4 EAST EXPRESS LANES ONLY
4 EAST Daytona Beach 1/4 MILE
4 WEST Orlando
EXIT XX

Heathrow
TO 417 TO 429
EXIT XX

SOUTH 417

SOUTH 429

BEGIN SOUTH
Int'l Airports Sanford 1/2 MILE

4 EAST EXPRESS LANES ONLY
4 EAST Daytona Beach
4 WEST Orlando
EXIT XX

SOUTH 417

SOUTH 429
KEEP LEFT

JCT SOUTH 429 TOLL 417

0 100 500 Feet

MATCHLINE W1

EXISTING LA R/W	GENERAL USE LANES
PROPOSED LA R/W	EXPRESS LANES
EXISTING R/W	EXISTING BRIDGE
PROPOSED FDOT R/W	PROPOSED BRIDGE
PARCEL LINES	BARRIER WALL
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS

HNTB CORPORATION
610 CRESCENT EXECUTIVE CT
SUITE 400
LAKE MARY, FL 32746
(407) 805-0355
CERT. OF AUTH. NO. 6500

ENGINEER OF RECORD: ROBERT M. DENNEY, P.E.
FL. REGISTRATION NO. 58593

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

PRINT DRIVER: Color_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl
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MODEL:
SHEET SIZE: planssp11
PLOT SCALE: 16.5x10.6 (in.) 1:500

Towne Center Blvd

Rinehart Rd

SR 417

SR 417

MATCHLINE W2

EXIT ONLY

EXPRESS LANES ONLY

TO DeBary/Deltona

$25 PLUS TOLL FOR TOLL VIOLATION

EXPRESS LANES TWO-AXLE VEHICLES ONLY BUSES ALLOWED

BEGIN SOUTH SR 429 Mount Dora Apopka ½ MILE

BEGIN SOUTH SR 429 Mount Dora Apopka 1 MILE

BEGIN SOUTH SR 429 2 MILES

International Pkwy EXIT 55 C

Seminole Towne Center Mall EXIT 54

Rinehart Rd EXIT 54

Rinehart Rd ½ MILE

Rinehart Rd 1 MILE

Rinehart Rd 1¼ MILE

Rinehart Rd ¾ MILE

0 100 500
Feet

N

EXISTING LA R/W	GENERAL USE LANES	HNTB CORPORATION 610 CRESCENT EXECUTIVE CT SUITE 400 LAKE MARY, FL 32746 (407) 805-0355 CERT. OF AUTH. NO. 6500	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
PROPOSED LA R/W	EXPRESS LANES		
EXISTING R/W	EXISTING BRIDGE		
PROPOSED FDOT R/W	PROPOSED BRIDGE		
PARCEL LINES	BARRIER WALL		
FUTURE EXISTING CONDITION	(xx) PARCEL NUMBERS	ENGINEER OF RECORD: ROBERT M. DENNEY, P.E. FL. REGISTRATION NO. 58593	

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
400	SEMINOLE	432100-1-22-01

I-4 PD&E STUDY
CONCEPTUAL SIGNING PLAN
SEGMENT 3

SHEET NO.

PRINT DRIVER: C:\dor_FDOTPDF.pltcfg
PEN TABLE: FDOT.tbl

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Appendix D - **Long Range Estimates (LRE)**

Date: 1/25/2017 2:05:16 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 242592-4-52-01 **Letting Date:** 01/2099

Description: SR 400 (I-4) from 1 mile east of SR 434 to East of SR 15/600 US 17/92 (Seminole / Volusia County line) Seminole County (77160).

District: 05 **County:** 77 SEMINOLE **Market Area:** 08 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 10.210 MI

Project Manager: HJJ

Version 25 Project Grand Total **$482,750,307.73**

Description: I-4 (SR 400) ULTIMATE PROJECT FROM 1 MI E OF SR 434 TO WEST END OF ST. JOHNS RIVER BRIDGE (STA. 2043+70 TO 2578+48) - HNTB August 2016 Update: Express Lanes with Asphalt Pavement

Sequence: 1 NDR - New Construction, Divided, Rural **Net Length:** 2.576 MI 13,600 LF

Description: Construct 4 GUL in each direction from station 2285+00 to 2352+00 and 2485+00 to 2554+00 for a total distance of 13600'.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	150.00 / 150.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.600
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	1 to 1 / 1 to 1
Median Slope L/R	1 to 1 / 1 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	93.67	AC	$10,000.00	$936,700.00
120-6	EMBANKMENT	97,967.08	CY	$9.50	$930,687.26
	Earthwork Component Total				$1,867,387.26

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	8
Roadway Pavement Width L/R	48.00 / 48.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	217,603.58	SY	$3.25	$707,211.64
285-711	OPTIONAL BASE,BASE GROUP 11	147,063.76	SY	$38.58	$5,673,719.86
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	39,893.99	TN	$109.37	$4,363,205.69
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	5,802.76	TN	$140.00	$812,386.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-1	CONC TRAF RAIL BAR, JCT SLAB,32"F SHAPE **Comment:** I-4 Mainline	70,244.00	LF	$240.44	$16,889,467.36

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	2,434.00	EA	$3.74	$9,103.16
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	10.30	NM	$908.42	$9,356.73
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	15.45	GM	$383.54	$5,925.69
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	10.30	NM	$3,138.35	$32,325.00
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	15.45	GM	$1,027.15	$15,869.47

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	1,802.00
Noise Barrier Wall Begin Height	12.00
Noise Barrier Wall End Height	12.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	51.33	TN	$232.34	$11,926.01
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	21,624.00	SF	$23.58	$509,893.92
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,500.00	LF	$17.75	$26,625.00
536-85-22	GUARDRAIL END ANCH ASSY/END TREA- FLARED	4.00	EA	$1,600.00	$6,400.00
544-75-1	CRASH CUSHION	3.00	EA	$15,521.81	$46,565.43

550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	27,200.00 LF	$12.11	$329,392.00

Roadway Component Total $29,449,373.37

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-705	OPTIONAL BASE,BASE GROUP 05	37,264.61	SY	$22.52	$839,199.02
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	5,984.10	TN	$105.00	$628,330.50
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	5.15	PM	$1,428.02	$7,354.30

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-2	PERFORMANCE TURF, SOD	147,511.00	SY	$2.25	$331,899.75
	Comment: 20' each side of road x sequence length				

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	35,360.58	LF	$1.25	$44,200.72
104-11	FLOATING TURBIDITY BARRIER	643.95	LF	$9.63	$6,201.24
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	643.95	LF	$4.69	$3,020.13
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,215.78	$6,647.34
104-18	INLET PROTECTION SYSTEM	16.00	EA	$94.06	$1,504.96
107-1	LITTER REMOVAL	62.44	AC	$35.63	$2,224.74
107-2	MOWING	62.44	AC	$55.77	$3,482.28

Shoulder Component Total $1,874,064.99

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	24.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	12.00 / 12.00
Paved Median Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	37,264.61	SY	$16.00	$596,233.76
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	5,984.10	TN	$105.00	$628,330.50
521-1-1	MEDIAN BARRIER WALL CONC, PRECAST	15,129.00	LF	$111.97	$1,693,994.13
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	5.00	PM	$1,428.02	$7,140.10
	Median Component Total				$2,925,698.49

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-901	INLETS, SPECIAL, <10'	90.00	EA	$4,822.27	$434,004.30
	Comment: (TOTAL DIST/300' INTERVAL)X 2				
430-174-154	PIPE CULV, OPT MATL, ROUND,54"SD	280.00	LF	$272.63	$76,336.40
430-982-141	MITERED END SECT, OPTIONAL RD, 48" CD	2.00	EA	$3,424.94	$6,849.88
430-982-142	MITERED END SECT, OPTIONAL RD, 54" CD	2.00	EA	$5,219.90	$10,439.80

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	24" RCP SD	10.00	MI	$300,000.00	$3,000,000.00
	Comment: TRUNK LINE. $300000 PER MILE.				

Retention Basin 1

Description	Value
Size	2 AC
Multiplier	2
Depth	6.00
Description	POND 300

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	4.00	AC	$10,000.00	$40,000.00
120-1	REGULAR EXCAVATION	38,720.00	CY	$5.50	$212,960.00
400-2-2	CONC CLASS II, ENDWALLS	36.00	CY	$1,301.59	$46,857.24
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00	EA	$3,512.69	$7,025.38
425-2-71	MANHOLES, J-7, <10'	2.00	EA	$5,745.70	$11,491.40
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	112.00	LF	$133.10	$14,907.20
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	$216.88	$86,752.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,360.00	LF	$12.11	$28,579.60
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00	EA	$2,128.82	$4,257.64
570-1-1	PERFORMANCE TURF	19,360.00	SY	$1.25	$24,200.00

Retention Basin 2

Description		Value
Size		2 AC
Multiplier		1
Depth		8.00
Description	POND 301	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$10,000.00	$20,000.00
120-1	REGULAR EXCAVATION	25,813.33	CY	$5.50	$141,973.32
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,301.59	$23,428.62
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,512.69	$3,512.69
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$5,745.70	$5,745.70
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$133.10	$7,453.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$216.88	$43,376.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	$12.11	$14,289.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,128.82	$2,128.82
570-1-1	PERFORMANCE TURF	9,680.00	SY	$1.25	$12,100.00

Retention Basin 3

Description		Value
Size		2 AC
Multiplier		1
Depth		8.00
Description	POND 302	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00	AC	$10,000.00	$20,000.00
120-1	REGULAR EXCAVATION	25,813.33	CY	$5.50	$141,973.32
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,301.59	$23,428.62
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00	EA	$3,512.69	$3,512.69
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$5,745.70	$5,745.70
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$133.10	$7,453.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$216.88	$43,376.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00	LF	$12.11	$14,289.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,128.82	$2,128.82
570-1-1	PERFORMANCE TURF	9,680.00	SY	$1.25	$12,100.00

Retention Basin 4

Description		Value
Size		2 AC
Multiplier		2
Depth		8.00
Description	POND 303A1	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	4.00	AC	$10,000.00	$40,000.00

120-1	REGULAR EXCAVATION	51,626.66	CY	$5.50	$283,946.63
400-2-2	CONC CLASS II, ENDWALLS	36.00	CY	$1,301.59	$46,857.24
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00	EA	$3,512.69	$7,025.38
425-2-71	MANHOLES, J-7, <10'	2.00	EA	$5,745.70	$11,491.40
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	112.00	LF	$133.10	$14,907.20
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	$216.88	$86,752.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,360.00	LF	$12.11	$28,579.60
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00	EA	$2,128.82	$4,257.64
570-1-1	PERFORMANCE TURF	19,360.00	SY	$1.25	$24,200.00

Retention Basin 5

Description	Value
Size	2.5 AC
Multiplier	1
Depth	8.00
Description	POND 304

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.50	AC	$10,000.00	$25,000.00
120-1	REGULAR EXCAVATION	32,266.67	CY	$5.50	$177,466.68
400-2-2	CONC CLASS II, ENDWALLS	18.00	CY	$1,301.59	$23,428.62
425-1-361	INLETS, CURB, TYPE P-6, <10'	1.00	EA	$5,040.98	$5,040.98
425-2-71	MANHOLES, J-7, <10'	1.00	EA	$5,745.70	$5,745.70
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00	LF	$133.10	$7,453.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00	LF	$216.88	$43,376.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,335.00	LF	$12.11	$16,166.85
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00	EA	$2,128.82	$2,128.82
570-1-1	PERFORMANCE TURF	12,100.00	SY	$1.25	$15,125.00

Retention Basin 6

Description	Value
Size	1.5 AC
Multiplier	2
Depth	8.00
Description	POND 306

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.00	AC	$10,000.00	$30,000.00
120-1	REGULAR EXCAVATION	38,720.00	CY	$5.50	$212,960.00
400-2-2	CONC CLASS II, ENDWALLS	36.00	CY	$1,301.59	$46,857.24
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00	EA	$3,512.69	$7,025.38
425-2-71	MANHOLES, J-7, <10'	2.00	EA	$5,745.70	$11,491.40
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	112.00	LF	$133.10	$14,907.20
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	$216.88	$86,752.00
	FENCING, TYPE B, 5.1-6.0',				

550-10-220	STANDARD	2,050.00	LF	$12.11	$24,825.50
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00	EA	$2,128.82	$4,257.64
570-1-1	PERFORMANCE TURF	14,520.00	SY	$1.25	$18,150.00

Retention Basin 7

Description	Value
Size	10 AC
Multiplier	1
Depth	8.00
Description	POND 308

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.00	AC	$10,000.00	$100,000.00
120-1	REGULAR EXCAVATION	129,066.67	CY	$5.50	$709,866.68
400-2-2	CONC CLASS II, ENDWALLS	36.00	CY	$1,301.59	$46,857.24
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00	EA	$3,512.69	$7,025.38
425-2-71	MANHOLES, J-7, <10'	2.00	EA	$5,745.70	$11,491.40
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	104.00	LF	$133.10	$13,842.40
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00	LF	$216.88	$86,752.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,780.00	LF	$12.11	$33,665.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	3.00	EA	$2,128.82	$6,386.46
570-1-1	PERFORMANCE TURF	48,400.00	SY	$1.25	$60,500.00

Retention Basin 8

Description	Value
Size	2 AC
Multiplier	6
Depth	8.00
Description	POND 309 & 309A

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	12.00	AC	$10,000.00	$120,000.00
120-1	REGULAR EXCAVATION	154,879.98	CY	$5.50	$851,839.89
400-2-2	CONC CLASS II, ENDWALLS	108.00	CY	$1,301.59	$140,571.72
425-1-541	INLETS, DT BOT, TYPE D, <10'	6.00	EA	$3,512.69	$21,076.14
425-2-71	MANHOLES, J-7, <10'	6.00	EA	$5,745.70	$34,474.20
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	336.00	LF	$133.10	$44,721.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	1,200.00	LF	$216.88	$260,256.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	7,080.00	LF	$12.11	$85,738.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	6.00	EA	$2,128.82	$12,772.92
570-1-1	PERFORMANCE TURF	58,080.00	SY	$1.25	$72,600.00

Retention Basin 9

Description	Value
Size	2 AC

Multiplier	3
Depth	8.00
Description	POND 310

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	6.00	AC	$10,000.00	$60,000.00
120-1	REGULAR EXCAVATION	77,439.99	CY	$5.50	$425,919.94
400-2-2	CONC CLASS II, ENDWALLS	54.00	CY	$1,301.59	$70,285.86
425-1-541	INLETS, DT BOT, TYPE D, <10'	3.00	EA	$3,512.69	$10,538.07
425-2-71	MANHOLES, J-7, <10'	3.00	EA	$5,745.70	$17,237.10
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	168.00	LF	$133.10	$22,360.80
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	600.00	LF	$216.88	$130,128.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	3,540.00	LF	$12.11	$42,869.40
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	3.00	EA	$2,128.82	$6,386.46
570-1-1	PERFORMANCE TURF	29,040.00	SY	$1.25	$36,300.00
	Drainage Component Total				$9,421,317.93

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	6.00	AS	$321.52	$1,929.12
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	62.00	AS	$1,053.87	$65,339.94
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	6.00	AS	$4,188.78	$25,132.68
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	16.00	AS	$5,697.97	$91,167.52
	Signing Component Total				$183,569.26

INTELLIGENT TRAFFIC SYSTEM (ITS) COMPONENT

Description of Work

$750,000 per mile from FDOT. ITS FOR Entire Project. Per mile cost from FDOT.

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
ITS	ITS - ALL ITEMS	10.20	MI	$108,600.00	$1,107,720.00
	Comment: Per mile cost from FDOT				
	Intelligent Traffic System (ITS) Component Total				$1,107,720.00

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	334

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	200,400.00	LF	$2.15	$430,860.00
715-2-11	LIGHTING-CONDUIT, F&I, UNDERGROUND	66,800.00	LF	$4.29	$286,572.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	334.00	EA	$4,688.07	$1,565,815.38
715-14-11	LIGHTING - PULL BOX,F&I,ROADSIDE-MOULDED	334.00	EA	$330.70	$110,453.80
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	334.00	EA	$553.54	$184,882.36
	Subcomponent Total				$2,578,583.54
	Lighting Component Total				$2,578,583.54

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

	Landscaping Component Total	$1,865,855.13

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-1	CONC TRAF RAIL BAR, JCT SLAB,32"F SHAPE	27,200.00	LF	$240.44	$6,539,968.00

Retaining Wall 1

Description	Value
Length	27,200.00
Begin height	3.00
End Height	3.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	163,200.00	SF	$29.09	$4,747,488.00
	Retaining Walls Component Total				$11,287,456.00

ARCHITECTURAL COMPONENT

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
1	TOLL GANTRY, 80'	3.00	EA	$500,000.00	$1,500,000.00
	Comment: THREE 40' SPAN TOLL GANTRYS				
	Architectural Component Total				$1,500,000.00

Sequence 1 Total $64,061,025.97

Sequence: 2 NDR - New Construction, Divided, Rural **Net Length:** 0.560 MI 2,957 LF

Description: Mainline 3 GUL in each direction from 2554+00.00 to 2583+00.00.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	150.00 / 150.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.560
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	1 to 1 / 1 to 1
Median Slope L/R	1 to 1 / 1 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	20.36	AC	$10,000.00	$203,600.00
120-6	EMBANKMENT	19,284.91	CY	$9.50	$183,206.64
	Earthwork Component Total				$386,806.65

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	36.00 / 36.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	38,109.87	SY	$3.25	$123,857.08
285-711	OPTIONAL BASE,BASE GROUP 11	24,088.06	SY	$38.58	$929,317.35
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	6,504.96	TN	$109.37	$711,447.48
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	946.18	TN	$140.00	$132,465.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	378.00	EA	$3.74	$1,413.72
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.24	NM	$908.42	$2,034.86
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.24	GM	$383.54	$859.13
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	2.24	NM	$3,138.35	$7,029.90
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	2.24	GM	$1,027.15	$2,300.82

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	1,746.00
Noise Barrier Wall Begin Height	10.00
Noise Barrier Wall End Height	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
534-72-101	SOUND/NOISE BARRIER-INC FOUNDATION, PERM	17,460.00	SF	$23.58	$411,706.80
544-75-1	CRASH CUSHION	10.00	EA	$15,521.81	$155,218.10
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	53,726.00	LF	$12.11	$650,621.86
	Roadway Component Total				$3,128,272.30

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-705	OPTIONAL BASE,BASE GROUP 05	8,101.63	SY	$22.52	$182,448.71
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,300.99	TN	$105.00	$136,603.95
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.12	PM	$1,428.02	$1,599.38

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-2	PERFORMANCE TURF, SOD	21,026.00	SY	$2.25	$47,308.50
	Comment: 32' each side of road x sequence length				

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	7,687.68	LF	$1.25	$9,609.60
104-11	FLOATING TURBIDITY BARRIER	140.00	LF	$9.63	$1,348.20
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	140.00	LF	$4.69	$656.60
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	4.00	EA	$94.06	$376.24
107-1	LITTER REMOVAL	13.57	AC	$35.63	$483.50
107-2	MOWING	13.57	AC	$55.77	$756.80
	Shoulder Component Total				$383,407.26

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	20.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	10.00 / 10.00
Paved Median Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	4,159.23	SY	$16.00	$66,547.68
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	650.50	TN	$105.00	$68,302.50
521-1-1	MEDIAN BARRIER WALL CONC, PRECAST	46,393.00	LF	$111.97	$5,194,624.21
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.00	PM	$1,428.02	$1,428.02
	Median Component Total				$5,330,902.41

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	10.08	CY	$1,301.59	$13,120.03
425-1-551	INLETS, DT BOT, TYPE E, <10'	4.00	EA	$3,814.23	$15,256.92
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	448.00	LF	$72.48	$32,471.04
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	192.00	LF	$75.40	$14,476.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	168.00	LF	$111.27	$18,693.36
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	6.00	EA	$1,198.82	$7,192.92
524-1-1	CONCRETE DITCH PAVT, NR, 3"	1,120.00	SY	$51.90	$58,128.00
570-1-1	PERFORMANCE TURF	394.24	SY	$1.25	$492.80
	Drainage Component Total				$159,831.87

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	$321.52	$643.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	14.00	AS	$1,053.87	$14,754.18
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,188.78	$8,377.56
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	4.00	AS	$5,697.97	$22,791.88
	Signing Component Total				$46,566.66

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total $721,499.14

BRIDGES COMPONENT

Bridge 0086

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	248.00
Width (LF)	84.00
Type	Medium Level, Widen
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$145.00
Factored Cost per SF	$181.25
Final Cost per SF	**$186.12**
Basic Bridge Cost	**$3,775,800.00**
Description	ORANGE BLVD INSIDE WIDENING FOR 4 EXPRESS LANES.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	186.67	CY	$379.38	$70,818.86
415-1-9	REINF STEEL- APPROACH SLABS	32,667.25	LB	$0.94	$30,707.22
	Bridge 0086 Total				$3,877,326.08

Bridge 0196

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	491.00
Width (LF)	84.00

Type	Medium Level, Widen
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$145.00
Factored Cost per SF	$181.25
Final Cost per SF	**$183.71**
Basic Bridge Cost	**$7,475,475.00**
Description	US 17/92 INSIDE WIDENING FOR 4 EXPRESS LANES.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	186.67	CY	$379.38	$70,818.86
415-1-9	REINF STEEL- APPROACH SLABS	32,667.25	LB	$0.94	$30,707.22
	Bridge 0196 Total				$7,577,001.08
	Bridges Component Total				$11,454,327.16

RETAINING WALLS COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-1	CONC TRAF RAIL BAR, JCT SLAB,32"F SHAPE	5,914.00	LF	$240.44	$1,421,962.16

Retaining Wall 1

Description	Value
Length	5,914.00
Begin height	3.00
End Height	3.00
Multiplier	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	17,742.00	SF	$29.09	$516,114.78

Retaining Wall 2

Description	Value
Length	800.00
Begin height	1.00
End Height	16.50
Multiplier	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	42,000.00	SF	$29.09	$1,221,780.00
	Retaining Walls Component Total				$3,159,856.94

Sequence 2 Total $24,771,470.39

Sequence: 3 NDR - New Construction, Divided, Rural **Net Length:** 32.500 MI
171,600 LF

Description: Mainline auxiliary lanes only

Special Conditions: This is pavement for GUL aux. lanes

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	32.500
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	119,611.56	CY	$9.50	$1,136,309.82
	Earthwork Component Total				$1,136,309.82

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	6.00 / 6.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	228,800.00	SY	$3.25	$743,600.00
285-711	OPTIONAL BASE,BASE GROUP 11	253,968.00	SY	$38.58	$9,798,085.44
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	62,920.00	TN	$109.37	$6,881,560.40
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	9,152.00	TN	$140.00	$1,281,280.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	0
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

	Roadway Component Total	$18,704,525.84

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	446,160.00	LF	$1.25	$557,700.00
104-11	FLOATING TURBIDITY BARRIER	8,125.00	LF	$9.63	$78,243.75
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	8,125.00	LF	$4.69	$38,106.25
104-15	SOIL TRACKING PREVENTION DEVICE	33.00	EA	$2,215.78	$73,120.74
104-18	INLET PROTECTION SYSTEM	195.00	EA	$94.06	$18,341.70
107-1	LITTER REMOVAL	787.80	AC	$35.63	$28,069.31
107-2	MOWING	787.80	AC	$55.77	$43,935.61
	Shoulder Component Total				$837,517.36

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	585.00	CY	$1,301.59	$761,430.15
425-1-551	INLETS, DT BOT, TYPE E, <10'	195.00	EA	$3,814.23	$743,774.85
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	26,000.00	LF	$72.48	$1,884,480.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	11,184.00	LF	$75.40	$843,273.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	9,624.00	LF	$111.27	$1,070,862.48
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	1,300.00	EA	$1,198.82	$1,558,466.00
524-1-1	CONCRETE DITCH PAVT, NR, 3"	65,000.00	SY	$51.90	$3,373,500.00
570-1-1	PERFORMANCE TURF	22,880.00	SY	$1.25	$28,600.00
	Drainage Component Total				$10,264,387.08

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
	SINGLE POST SIGN, F&I GM, <12				

700-1-11	SF	65.00	AS	$321.52	$20,898.80
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	780.00	AS	$1,053.87	$822,018.60
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	65.00	AS	$4,188.78	$272,270.70
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	195.00	AS	$5,697.97	$1,111,104.15
	Signing Component Total				$2,226,292.25

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total $995,070.97

Sequence 3 Total $34,164,103.32

Sequence: 4 NUR - New Construction, Undivided, Rural **Net Length:** 0.246 MI 1,300 LF

Description: Reconstruct E E Williamson Rd. bridge

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.246
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.98	AC	$10,000.00	$29,800.00
120-6	EMBANKMENT	10,908.67	CY	$9.50	$103,632.36
	Earthwork Component Total				$133,432.37

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	275

Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,466.50	SY	$3.25	$11,266.12
285-712	OPTIONAL BASE,BASE GROUP 12	3,561.82	SY	$20.00	$71,236.40
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	476.64	TN	$97.88	$46,653.52
337-7-33	ASPH CONC FC,TRAFFIC C,FC-12.5,RUBBER	285.99	TN	$96.92	$27,718.15

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	33.00	EA	$3.74	$123.42
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.49	NM	$908.42	$445.13
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.25	GM	$383.54	$95.88
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	0.49	NM	$3,138.35	$1,537.79
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	0.25	GM	$1,027.15	$256.79

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	34.67	TN	$232.34	$8,055.23
521-72-3	SHLDR CONC BARRIER WALL, RIGID-SHLDR	610.00	LF	$186.18	$113,569.80
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,000.00	LF	$17.75	$17,750.00
536-8	GUARDRAIL- BRIDGE ANCHORAGE ASSEM, F&I	4.00	EA	$2,292.42	$9,169.68
	Roadway Component Total				$307,877.93

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	165
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-6	SHOULDER GUTTER- CONCRETE	2,400.00	LF	$21.35	$51,240.00
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	805.00	SY	$41.59	$33,479.95

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,379.83	LF	$1.25	$4,224.79
104-11	FLOATING TURBIDITY BARRIER	61.55	LF	$9.63	$592.73
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	61.55	LF	$4.69	$288.67
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	0.30	AC	$35.63	$10.69
107-2	MOWING	0.30	AC	$55.77	$16.73
	Shoulder Component Total				$92,069.34

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	200.00	LF	$72.48	$14,496.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00	LF	$111.27	$5,340.96
	Drainage Component Total				$19,836.96

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$321.52	$321.52
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,053.87	$5,269.35
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,188.78	$4,188.78
	Signing Component Total				$9,779.65

LANDSCAPING COMPONENT

User Input Data

Description	Value

Cost %	3.00
Component Detail	N

Landscaping Component Total $95,198.64

BRIDGES COMPONENT

Bridge EEWILL

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	280.00
Width (LF)	51.00
Type	Overpass Bridge
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	9,993.00
Default Cost per SF	$120.00
Factored Cost per SF	$150.00
Final Cost per SF	**$165.03**
Basic Bridge Cost	**$2,142,000.00**
Description	REPLACE E E WILLIAMSON OVER I-4

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	9,993.00	SF	$20.00	$199,860.00
400-2-10	CONC CLASS II, APPROACH SLABS	113.33	CY	$379.38	$42,995.14
415-1-9	REINF STEEL- APPROACH SLABS	19,832.75	LB	$0.94	$18,642.78

Bridge X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
506-2	BRIDGE DRAINAGE PIPE	1,320.00	LF	$105.39	$139,114.80
506-3	BRIDGE DRAINS	5.00	EA	$2,784.16	$13,920.80

Bridge EEWILL Total $2,556,533.53

Bridges Component Total $2,556,533.53

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	56.00
Begin height	16.50
End Height	16.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,848.00	SF	$29.09	$53,758.32

Retaining Walls Component Total $53,758.32

Sequence 4 Total $3,268,486.74

Sequence: 5 NUR - New Construction, Undivided, Rural **Net Length:** 0.241 MI 1,270 LF

Description: One-lane ramps - Rest Area Access

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.240
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.91	AC	$10,000.00	$29,100.00
120-6	EMBANKMENT	4,105.73	CY	$9.50	$39,004.44
	Earthwork Component Total				$68,104.44

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	7.50 / 7.50
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,809.52	SY	$3.25	$12,380.94
285-712	OPTIONAL BASE,BASE GROUP 12	2,209.52	SY	$20.00	$44,190.40
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	523.81	TN	$97.88	$51,270.52
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	84.66	TN	$140.00	$11,852.40

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.48	NM	$908.42	$436.04
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	0.48	NM	$3,138.35	$1,506.41
	Roadway Component Total				$121,636.71

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	1,786.24	SY	$16.00	$28,579.84
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	186.24	TN	$105.00	$19,555.20

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,301.58	LF	$1.25	$4,126.98
104-11	FLOATING TURBIDITY BARRIER	60.12	LF	$9.63	$578.96
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	60.12	LF	$4.69	$281.96
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	2.91	AC	$35.63	$103.68
107-2	MOWING	2.91	AC	$55.77	$162.29
	Shoulder Component Total				$55,604.69

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	4.33	CY	$1,301.59	$5,635.88
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	200.00	LF	$72.48	$14,496.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	48.00	LF	$111.27	$5,340.96
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	10.00	EA	$1,198.82	$11,988.20
570-1-1	PERFORMANCE TURF	169.31	SY	$1.25	$211.64
	Drainage Component Total				$37,672.68

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$321.52	$321.52
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,053.87	$5,269.35
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,188.78	$4,188.78
	Signing Component Total				$9,779.65

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	5

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	3,000.00	LF	$2.15	$6,450.00
715-2-11	LIGHTING-CONDUIT, F&I, UNDERGROUND	1,000.00	LF	$4.29	$4,290.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	5.00	EA	$4,688.07	$23,440.35
715-14-11	LIGHTING - PULL BOX,F&I,ROADSIDE-MOULDED	5.00	EA	$330.70	$1,653.50
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	5.00	EA	$553.54	$2,767.70
	Subcomponent Total				$38,601.55
	Lighting Component Total				$38,601.55

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$9,941.99

Sequence 5 Total $341,341.71

Sequence: 6 NUR - New Construction, Undivided, Rural **Net Length:** 0.227 MI 1,200 LF

Description: One-lane ramps - HOV In-Out Ramps W of Lk. Mary Blvd.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1

Distance	0.230
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	2,261.48	CY	$9.50	$21,484.06
	Earthwork Component Total				$21,484.06

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	7.50 / 7.50
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	3,600.43	SY	$3.25	$11,701.40
285-712	OPTIONAL BASE,BASE GROUP 12	2,088.25	SY	$20.00	$41,765.00
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	495.06	TN	$97.88	$48,456.47
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	80.01	TN	$140.00	$11,201.40

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.45	NM	$908.42	$408.79
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	0.45	NM	$3,138.35	$1,412.26
	Roadway Component Total				$114,945.32

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	1,688.20	SY	$16.00	$27,011.20
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	176.02	TN	$97.88	$17,228.84
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	7.04	TN	$140.00	$985.60

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,120.37	LF	$1.25	$3,900.46
104-11	FLOATING TURBIDITY BARRIER	56.82	LF	$9.63	$547.18
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	56.82	LF	$4.69	$266.49
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	2.75	AC	$35.63	$97.98
107-2	MOWING	2.75	AC	$55.77	$153.37
	Shoulder Component Total				$52,406.90

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	184.00	LF	$72.48	$13,336.32
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	$111.27	$4,450.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-901	INLETS, SPECIAL, <10' **Comment:** TOTAL DIST/300' INTERVAL	4.00	EA	$4,822.27	$19,289.08
	Drainage Component Total				$37,076.20

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total	$6,777.37

Sequence 6 Total	$232,689.85

Sequence: 7 NDU - New Construction, Divided, Urban **Net Length:** 0.633 MI 3,340 LF

Description: Lake Mary Blvd. DDI bridge and approach roadway.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	105.00 / 105.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.000
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	16.11	AC	$10,000.00	$161,100.00
	Earthwork Component Total				$161,100.00

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	8
Roadway Pavement Width L/R	48.00 / 48.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	39,458.05	SY	$3.25	$128,238.66
285-712	OPTIONAL BASE,BASE GROUP 12	35,628.03	SY	$20.00	$712,560.60
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	5,878.63	TN	$97.88	$575,400.30
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	1,425.12	TN	$140.00	$199,516.80

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1

Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	6

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	598.00	EA	$3.74	$2,236.52
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.53	NM	$908.42	$2,298.30
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	3.80	GM	$383.54	$1,457.45
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	2.53	NM	$3,138.35	$7,940.03
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	3.80	GM	$1,027.15	$3,903.17

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	34.67	TN	$232.34	$8,055.23
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,000.00	LF	$17.75	$17,750.00
536-8	GUARDRAIL- BRIDGE ANCHORAGE ASSEM, F&I	4.00	EA	$2,292.42	$9,169.68
	Roadway Component Total				$1,668,526.74

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.25 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	5.00 / 5.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	3,340.13	LF	$19.00	$63,462.47
520-1-10	CONCRETE CURB & GUTTER, TYPE F	3,340.13	LF	$19.00	$63,462.47
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	3,711.25	SY	$41.59	$154,350.89
570-1-2	PERFORMANCE TURF, SOD	3,711.25	SY	$2.25	$8,350.31

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,680.26	LF	$1.25	$8,350.33
104-11	FLOATING TURBIDITY BARRIER	158.15	LF	$9.63	$1,522.98
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	158.15	LF	$4.69	$741.72
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	33.00	EA	$94.06	$3,103.98
107-1	LITTER REMOVAL	16.10	AC	$35.63	$573.64
107-2	MOWING	16.10	AC	$55.77	$897.90
	Shoulder Component Total				$307,032.47

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	4.00
Performance Turf Width	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	6,680.26	LF	$17.00	$113,564.42
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	2,541.00	LF	$36.25	$92,111.25

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	440.00	LF	$67.14	$29,541.60
	Median Component Total				$235,217.27

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	11.39	CY	$1,301.59	$14,825.11
425-1-351	INLETS, CURB, TYPE P-5, <10'	23.00	EA	$4,578.47	$105,304.81
425-1-451	INLETS, CURB, TYPE J-5, <10'	7.00	EA	$6,642.37	$46,496.59
425-1-521	INLETS, DT BOT, TYPE C, <10'	4.00	EA	$2,939.36	$11,757.44
425-2-41	MANHOLES, P-7, <10'	4.00	EA	$3,683.62	$14,734.48
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,680.00	LF	$75.40	$126,672.00
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	152.00	LF	$111.27	$16,913.04
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	3,168.00	LF	$160.29	$507,798.72
570-1-1	PERFORMANCE TURF	192.31	SY	$1.25	$240.39
	Drainage Component Total				$844,742.58

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	16.00 AS	$321.52	$5,144.32
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00 AS	$1,053.87	$2,107.74
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00 AS	$5,697.97	$11,395.94
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00 AS	$8,881.39	$17,762.78
	Signing Component Total			$36,410.78

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	WB Off-ramp at Lk. Mary Blvd.

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	$6.43	$4,501.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	$17.13	$5,139.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,446.59	$4,446.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	$535.14	$11,773.08
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$1,774.62	$1,774.62
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.30	$198.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	$959.88	$959.88
649-1-10	STEEL STRAIN POLE, F&I, PEDESTAL	1.00	EA	$1,011.11	$1,011.11
649-31-105	M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-78	4.00	EA	$39,714.16	$158,856.64
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	20.00	AS	$931.67	$18,633.40
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	8.00	AS	$595.51	$4,764.08
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	$179.15	$3,583.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	$851.32	$17,026.40
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$196.31	$1,570.48
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$23,075.08	$23,075.08
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$209.21	$836.84

Signalization 2

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	EB I4 Signalization interchange

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	$6.43	$4,501.00

630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	$17.13	$5,139.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,446.59	$4,446.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	$535.14	$11,773.08
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$1,774.62	$1,774.62
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.30	$198.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	$959.88	$959.88
649-1-10	STEEL STRAIN POLE, F&I, PEDESTAL	1.00	EA	$1,011.11	$1,011.11
649-31-105	M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-78	4.00	EA	$39,714.16	$158,856.64
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	20.00	AS	$931.67	$18,633.40
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	8.00	AS	$595.51	$4,764.08
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	$179.15	$3,583.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	$851.32	$17,026.40
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$196.31	$1,570.48
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$23,075.08	$23,075.08
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$209.21	$836.84
	Signalizations Component Total				$516,298.40

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	3,340.13	LF	$6.43	$21,477.04
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	662.96	LF	$17.13	$11,356.50
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	23.00	EA	$535.14	$12,308.22
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	12,199.06	LF	$2.15	$26,227.98
715-4-111	LIGHT POLE COMP, F&I, WS150, 40'	23.00	EA	$4,662.25	$107,231.75
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	23.00	EA	$553.54	$12,731.42
	Subcomponent Total				$191,332.91
	Lighting Component Total				$191,332.91

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$462,749.24

BRIDGES COMPONENT

Bridge LKMARY

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		300.00
Width (LF)		193.00
Type		Overpass Bridge
Cost Factor		1.25
Structure No.		
Removal of Existing Structures area		39,242.00
Default Cost per SF		$120.00
Factored Cost per SF		$150.00
Final Cost per SF		**$154.03**
Basic Bridge Cost		**$8,685,000.00**
Description	LK. MARY BLVD. OVER I-4	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	39,242.00	SF	$20.00	$784,840.00
400-2-10	CONC CLASS II, APPROACH SLABS	428.89	CY	$379.38	$162,712.29
415-1-9	REINF STEEL- APPROACH SLABS	75,055.75	LB	$0.94	$70,552.40
	Bridge LKMARY Total				$9,703,104.70

Bridge LKM1

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		168.00
Width (LF)		32.50
Type		Overpass Bridge
Cost Factor		1.25
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$120.00
Factored Cost per SF		$150.00
Final Cost per SF		**$157.19**
Basic Bridge Cost		**$819,000.00**
Description	LAKE EMMA BRIDGE TO I-4 WB	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	72.22	CY	$379.38	$27,398.82
415-1-9	REINF STEEL- APPROACH SLABS	12,638.50	LB	$0.94	$11,880.19
	Bridge LKM1 Total				$858,279.01

Bridge LKM2

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES

Length (LF)	132.00
Width (LF)	32.00
Type	Overpass Bridge
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$120.00
Factored Cost per SF	$150.00
Final Cost per SF	**$159.16**
Basic Bridge Cost	**$633,600.00**
Description	LAKE EMMA BRIDGE TO I-4 EB

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	71.11	CY	$379.38	$26,977.71
415-1-9	REINF STEEL- APPROACH SLABS	12,444.25	LB	$0.94	$11,697.60
	Bridge LKM2 Total				$672,275.31
	Bridges Component Total				$11,233,659.02

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	183.00
Begin height	16.50
End Height	16.50
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	6,039.00	SF	$29.09	$175,674.51

Retaining Wall 2

Description	Value
Length	54.00
Begin height	1.00
End Height	16.50
Multiplier	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	1,890.00	SF	$29.09	$54,980.10
	Retaining Walls Component Total				$230,654.64

Sequence 7 Total $15,887,724.05

Sequence: 8 NUR - New Construction, Undivided, Rural **Net Length:** 1.136 MI 6,000 LF

Description: One-lane ramps - Lk. Mary Blvd.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.136
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	13.77	AC	$10,000.00	$137,700.00
120-6	EMBANKMENT	70,559.64	CY	$9.50	$670,316.58
	Earthwork Component Total				$808,016.58

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	40,001.28	SY	$3.25	$130,004.16
285-712	OPTIONAL BASE,BASE GROUP 12	32,441.04	SY	$20.00	$648,820.80
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	7,920.25	TN	$97.88	$775,234.07
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	1,280.04	TN	$140.00	$179,205.60

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.27	NM	$908.42	$2,062.11
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	2.27	NM	$3,138.35	$7,124.05

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	34.00	TN	$232.34	$7,899.56
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	1,000.00	LF	$17.75	$17,750.00
536-85-22	GUARDRAIL END ANCH ASSY/END TREA- FLARED	2.00	EA	$1,600.00	$3,200.00
	Roadway Component Total				$1,771,300.35

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	8,440.27	SY	$16.00	$135,044.32
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	880.03	TN	$105.00	$92,403.15
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	35.20	TN	$140.00	$4,928.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	15,600.50	LF	$1.25	$19,500.62
104-11	FLOATING TURBIDITY BARRIER	284.10	LF	$9.63	$2,735.88
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	284.10	LF	$4.69	$1,332.43
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,215.78	$4,431.56
107-1	LITTER REMOVAL	13.77	AC	$35.63	$490.63
107-2	MOWING	13.77	AC	$55.77	$767.95
	Shoulder Component Total				$261,634.55

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	20.46	CY	$1,301.59	$26,630.53
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	912.00	LF	$72.48	$66,101.76
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	192.00	LF	$111.27	$21,363.84
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	46.00	EA	$1,198.82	$55,145.72
570-1-1	PERFORMANCE TURF	800.03	SY	$1.25	$1,000.04
	Drainage Component Total				$170,241.89

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	$321.52	$964.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	23.00	AS	$1,053.87	$24,239.01
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	$4,188.78	$12,566.34
	Signing Component Total				$37,769.91

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	400.00	LF	$6.43	$2,572.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	2.00	EA	$535.14	$1,070.28
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,200.00	LF	$2.15	$2,580.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	2.00	EA	$4,688.07	$9,376.14
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	2.00	EA	$553.54	$1,107.08
	Subcomponent Total				$16,705.50
	Lighting Component Total				$16,705.50

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$91,970.06

Sequence 8 Total $3,157,638.84

Sequence: 9 NUR - New Construction, Undivided, Rural **Net Length:** 1.136 MI 6,000 LF

Description: Two-lane ramps - Lk. Mary Blvd.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.136
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	13.77	AC	$10,000.00	$137,700.00
120-6	EMBANKMENT	74,214.02	CY	$9.50	$705,033.19
	Earthwork Component Total				$842,733.19

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	45,334.78	SY	$3.25	$147,338.04
285-712	OPTIONAL BASE,BASE GROUP 12	32,441.04	SY	$20.00	$648,820.80
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	7,920.25	TN	$97.88	$775,234.07
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	1,280.04	TN	$140.00	$179,205.60

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
	RETRO-REFLECTIVE PAVEMENT				

706-3	MARKERS	153.00	EA	$3.74	$572.22
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.27	NM	$908.42	$2,062.11
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.14	GM	$383.54	$437.24
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	2.27	NM	$3,138.35	$7,124.05
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	1.14	GM	$1,027.15	$1,170.95

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	68.00	TN	$232.34	$15,799.12
536-1-1	GUARDRAIL- ROADWAY, GEN TL-3	2,000.00	LF	$17.75	$35,500.00
536-85-22	GUARDRAIL END ANCH ASSY/END TREA- FLARED	4.00	EA	$1,600.00	$6,400.00
	Roadway Component Total				$1,819,664.20

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	8.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	13,773.77	SY	$16.00	$220,380.32
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	1,466.71	TN	$105.00	$154,004.55

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	15,600.50	LF	$1.25	$19,500.62
104-11	FLOATING TURBIDITY BARRIER	284.10	LF	$9.63	$2,735.88
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	284.10	LF	$4.69	$1,332.43
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,215.78	$4,431.56
107-1	LITTER REMOVAL	13.77	AC	$35.63	$490.63

107-2	MOWING	13.77	AC	$55.77	$767.95
	Shoulder Component Total				$403,643.95

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	20.46	CY	$1,301.59	$26,630.53
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	912.00	LF	$72.48	$66,101.76
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	192.00	LF	$111.27	$21,363.84
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	46.00	EA	$1,198.82	$55,145.72
570-1-1	PERFORMANCE TURF	800.03	SY	$1.25	$1,000.04
	Drainage Component Total				$170,241.89

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	$321.52	$964.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	23.00	AS	$1,053.87	$24,239.01
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	$4,188.78	$12,566.34
	Signing Component Total				$37,769.91

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	400.00	LF	$6.43	$2,572.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	2.00	EA	$535.14	$1,070.28
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	1,200.00	LF	$2.15	$2,580.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	2.00	EA	$4,688.07	$9,376.14
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	2.00	EA	$553.54	$1,107.08
	Subcomponent Total				$16,705.50
	Lighting Component Total				$16,705.50

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00

Component Detail	N

Landscaping Component Total $98,722.76

Sequence 9 Total $3,389,481.40

Sequence: 10 NUR - New Construction, Undivided, Rural **Net Length:** 0.388 MI 2,050 LF

Description: One-lane ramps - HOV In-Out Ramps E of Lk. Mary Blvd.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.388
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	3,815.02	CY	$9.50	$36,242.69
	Earthwork Component Total				$36,242.69

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	7.50 / 7.50
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,150.67	SY	$3.25	$19,989.68
285-712	OPTIONAL BASE,BASE GROUP 12	3,567.39	SY	$20.00	$71,347.80
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	845.72	TN	$97.88	$82,779.07
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	136.68	TN	$140.00	$19,135.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1

Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.78	NM	$908.42	$708.57
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	0.78	NM	$3,138.35	$2,447.91
	Roadway Component Total				$196,408.23

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	2,883.98	SY	$16.00	$46,143.68
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	300.70	TN	$105.00	$31,573.50
	Shoulder Component Total				$77,717.18

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	1.00	AS	$241.18	$241.18
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	8.00	AS	$640.62	$5,124.96
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	1.00	AS	$2,749.17	$2,749.17

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-22-154	OHD TRUSS SPAN SGN,F&I,T>200,S>700	2.00	AS	$278,281.34	$556,562.68
700-23-144	OHD TRUSS CANT SGN,F&I,T>50,S>300	2.00	AS	$70,000.67	$140,001.34
	Signing Component Total				$704,679.33

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00

Component Detail	N

Landscaping Component Total $30,451.42

Sequence 10 Total $1,045,498.85

Sequence: 11 NUR - New Construction, Undivided, Rural **Net Length:** 1.240 MI 6,547 LF

Description: One-lane ramps - SR46A/46 interchange. Wekiva and SR 417 ramps not included.

Special Conditions: Assume reconstruction of 500' of ramp at each I-4 tie-in

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.240
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	15.03	AC	$10,000.00	$150,300.00
120-6	EMBANKMENT	55,302.02	CY	$9.50	$525,369.19

Earthwork Component Total $675,669.19

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	7.50 / 7.50
Structural Spread Rate	275
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	19,641.60	SY	$3.25	$63,835.20
285-708	OPTIONAL BASE,BASE GROUP 08	11,392.13	SY	$16.00	$182,274.08
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	1,500.40	TN	$97.88	$146,859.15
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	436.48	TN	$140.00	$61,107.20

Pavement Marking Subcomponent

Description	Value

Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.96	NM	$908.42	$4,505.76
	Roadway Component Total				$458,581.39

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	9,209.73	SY	$16.00	$147,355.68
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	960.26	TN	$105.00	$100,827.30
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	38.41	TN	$140.00	$5,377.40

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	17,022.72	LF	$1.25	$21,278.40
104-11	FLOATING TURBIDITY BARRIER	310.00	LF	$9.63	$2,985.30
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	310.00	LF	$4.69	$1,453.90
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,215.78	$4,431.56
107-1	LITTER REMOVAL	15.03	AC	$35.63	$535.52
107-2	MOWING	15.03	AC	$55.77	$838.22
	Shoulder Component Total				$285,083.28

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	22.32	CY	$1,301.59	$29,051.49
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	992.00	LF	$72.48	$71,900.16
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	216.00	LF	$111.27	$24,034.32

430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	50.00	EA	$1,198.82	$59,941.00
570-1-1	PERFORMANCE TURF	872.96	SY	$1.25	$1,091.20
	Drainage Component Total				$186,018.17

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	3.00	AS	$321.52	$964.56
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	25.00	AS	$1,053.87	$26,346.75
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	3.00	AS	$4,188.78	$12,566.34
	Signing Component Total				$39,877.65

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,000.00	LF	$6.43	$12,860.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	$535.14	$5,351.40
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	$2.15	$12,900.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	10.00	EA	$4,688.07	$46,880.70
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	$553.54	$5,535.40
	Subcomponent Total				$83,527.50
	Lighting Component Total				$83,527.50

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

	Landscaping Component Total	$51,862.72
Sequence 11 Total		$1,780,619.90

Sequence: 12 NUR - New Construction, Undivided, Rural **Net Length:** 1.563 MI 8,251 LF

Description: Two-lane ramps - SR46A/46 interchange. Wekiva and SR 417 GUL ramps not included.

Special Conditions: Assume reconstruction of 500' of ramp at each I-4 tie-in

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.560
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	18.95	AC	$10,000.00	$189,500.00
120-6	EMBANKMENT	82,084.29	CY	$9.50	$779,800.76
	Earthwork Component Total				$969,300.76

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	40,338.50	SY	$3.25	$131,100.12
285-712	OPTIONAL BASE,BASE GROUP 12	22,607.89	SY	$20.00	$452,157.80
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	5,445.70	TN	$97.88	$533,025.12
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	880.11	TN	$140.00	$123,215.40

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	211.00	EA	$3.74	$789.14
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.13	NM	$908.42	$2,843.35
	PAINTED PAVT				

710-11-131	MARK,STD,WHITE,SKIP, 6"	1.56	GM	$383.54	$598.32
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	3.13	NM	$3,138.35	$9,823.04
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	1.56	GM	$1,027.15	$1,602.35
	Roadway Component Total				$1,255,154.65

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	8.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	18,940.76	SY	$16.00	$303,052.16
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	2,016.92	TN	$105.00	$211,776.60
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	48.41	TN	$140.00	$6,777.40

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	21,452.75	LF	$1.25	$26,815.94
104-11	FLOATING TURBIDITY BARRIER	390.68	LF	$9.63	$3,762.25
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	390.68	LF	$4.69	$1,832.29
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	$2,215.78	$4,431.56
107-1	LITTER REMOVAL	18.94	AC	$35.63	$674.83
107-2	MOWING	18.94	AC	$55.77	$1,056.28
	Shoulder Component Total				$560,179.31

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	28.13	CY	$1,301.59	$36,613.73
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	1,256.00	LF	$72.48	$91,034.88
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	264.00	LF	$111.27	$29,375.28
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	63.00	EA	$1,198.82	$75,525.66
570-1-1	PERFORMANCE TURF	1,100.14	SY	$1.25	$1,375.18
	Drainage Component Total				$233,924.73

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	4.00	AS	$321.52	$1,286.08
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	32.00	AS	$1,053.87	$33,723.84
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	4.00	AS	$4,188.78	$16,755.12
	Signing Component Total				$51,765.04

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	10

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,000.00	LF	$6.43	$12,860.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	10.00	EA	$535.14	$5,351.40
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	6,000.00	LF	$2.15	$12,900.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	10.00	EA	$4,688.07	$46,880.70
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	10.00	EA	$553.54	$5,535.40
	Subcomponent Total				$83,527.50
	Lighting Component Total				$83,527.50

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$94,615.56

Sequence 12 Total $3,248,467.55

Sequence: 13 NUR - New Construction, Undivided, Rural **Net Length:** 0.644 MI 3,400 LF

Description: One-lane ramps - US 17/92. Alt 8-recommended concept.

Special Conditions: I4 not included.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	0.644
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	28,366.23	CY	$9.50	$269,479.18
	Earthwork Component Total				$269,479.19

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	7.50 / 7.50
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	10,199.38	SY	$3.25	$33,147.98
285-712	OPTIONAL BASE,BASE GROUP 12	5,915.64	SY	$20.00	$118,312.80
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	1,402.41	TN	$97.88	$137,267.89
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	226.65	TN	$140.00	$31,731.00

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.29	NM	$908.42	$1,171.86
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	1.29	NM	$3,138.35	$4,048.47
	Roadway Component Total				$325,680.01

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	4,782.37	SY	$16.00	$76,517.92
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	498.64	TN	$105.00	$52,357.20
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	19.95	TN	$140.00	$2,793.00

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	8,839.46	LF	$1.25	$11,049.32
104-11	FLOATING TURBIDITY BARRIER	160.98	LF	$9.63	$1,550.24
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	160.98	LF	$4.69	$755.00
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	7.80	AC	$35.63	$277.91
107-2	MOWING	7.80	AC	$55.77	$435.01
	Shoulder Component Total				$147,951.39

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	11.59	CY	$1,301.59	$15,085.43
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	520.00	LF	$72.48	$37,689.60
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	$111.27	$12,462.24
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	26.00	EA	$1,198.82	$31,169.32
570-1-1	PERFORMANCE TURF	453.31	SY	$1.25	$566.64
	Drainage Component Total				$96,973.23

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	$321.52	$643.04

700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	13.00 AS	$1,053.87	$13,700.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00 AS	$4,188.78	$8,377.56
	Signing Component Total			$22,720.91

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

	Landscaping Component Total	$25,884.14

Sequence 13 Total $888,688.87

Sequence: 14 NUR - New Construction, Undivided, Rural **Net Length:** 0.233 MI 1,230 LF

Description: Two-lane ramps - US 17/92. Alt 8-recommended Concept.

Special Conditions: I4 GUL AND EXPRESS LANES NOT INCLUDED

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.233
Top of Structural Course For Begin Section	125.00
Top of Structural Course For End Section	125.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	2 to 1 / 2 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	100,814.98	CY	$9.50	$957,742.31
	Earthwork Component Total				$957,742.31

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	12.00 / 12.00
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	6,014.51	SY	$3.25	$19,547.16
285-712	OPTIONAL BASE,BASE GROUP 12	3,370.86	SY	$20.00	$67,417.20
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	811.96	TN	$97.88	$79,474.64
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	131.23	TN	$140.00	$18,372.20

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-1	CONC TRAF RAIL BAR, JCT SLAB,32"F SHAPE	2,500.00	LF	$240.44	$601,100.00
	Comment: Length x 2 for barrier on both sides				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	31.00	EA	$3.74	$115.94
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.47	NM	$908.42	$426.96
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.23	GM	$383.54	$88.21
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	0.47	NM	$3,138.35	$1,475.02
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	0.23	GM	$1,027.15	$236.24
	Roadway Component Total				$788,253.57

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	8.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	8.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	2,824.08	SY	$16.00	$45,185.28

334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	300.73 TN	$105.00	$31,576.65
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	7.22 TN	$140.00	$1,010.80

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,198.62	LF	$1.25	$3,998.28
104-11	FLOATING TURBIDITY BARRIER	58.25	LF	$9.63	$560.95
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	58.25	LF	$4.69	$273.19
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	2.82	AC	$35.63	$100.48
107-2	MOWING	2.82	AC	$55.77	$157.27
	Shoulder Component Total				$85,078.68

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	4.19	CY	$1,301.59	$5,453.66
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	192.00	LF	$72.48	$13,916.16
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	$111.27	$4,450.80
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	10.00	EA	$1,198.82	$11,988.20
570-1-1	PERFORMANCE TURF	164.03	SY	$1.25	$205.04
	Drainage Component Total				$36,013.86

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$321.52	$321.52
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,053.87	$5,269.35
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,188.78	$4,188.78
	Signing Component Total				$9,779.65

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

	Landscaping Component Total	$266,336.98

BRIDGES COMPONENT

Bridge A

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	435.00
Width (LF)	48.00
Type	Low Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$171.53**
Basic Bridge Cost	**$3,523,500.00**
Description	US 17-92 TO EB I-4

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	106.67	CY	$379.38	$40,468.46
415-1-9	REINF STEEL- APPROACH SLABS	18,667.25	LB	$0.94	$17,547.22
	Bridge A Total				$3,581,515.68

Bridge B

Description	**Value**
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	415.00
Width (LF)	48.00
Type	Low Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$171.66**
Basic Bridge Cost	**$3,361,500.00**
Description	US 17-92 TO WB I-4

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	106.67	CY	$379.38	$40,468.46
415-1-9	REINF STEEL- APPROACH SLABS	18,667.25	LB	$0.94	$17,547.22
	Bridge B Total				$3,419,515.68
	Bridges Component Total				$7,001,031.36

Sequence 14 Total $9,144,236.41

Sequence: 15 NDR - New Construction, Divided, Rural **Net Length:** 0.174 MI 920 LF

Description: 4 GUL in the EB direction. (STA 2043+70.30 to 2052+90.8

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 150.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.174
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 6 to 1
Median Slope L/R	0 to 1 / 1 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.16	AC	$10,000.00	$31,600.00
120-6	EMBANKMENT	2,471.02	CY	$9.50	$23,474.69
	Earthwork Component Total				$55,074.69

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	0.00 / 48.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	7,358.21	SY	$3.25	$23,914.18
285-711	OPTIONAL BASE,BASE GROUP 11	4,972.92	SY	$38.58	$191,855.25
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	1,349.00	TN	$109.37	$147,540.13
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	196.22	TN	$140.00	$27,470.80

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-72-3	SHLDR CONC BARRIER WALL, RIGID-SHLDR	920.00	LF	$186.18	$171,285.60

Pavement Marking Subcomponent

Description	Value

Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	71.00	EA	$3.74	$265.54
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.39	NM	$908.42	$1,262.70
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.70	GM	$383.54	$268.48
	Roadway Component Total				$563,862.68

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-705	OPTIONAL BASE,BASE GROUP 05	1,260.09	SY	$22.52	$28,377.23
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	67.45	TN	$105.00	$7,082.25

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	2,391.42	LF	$1.25	$2,989.28
104-11	FLOATING TURBIDITY BARRIER	43.55	LF	$9.63	$419.39
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	43.55	LF	$4.69	$204.25
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	2.00	EA	$94.06	$188.12
107-1	LITTER REMOVAL	4.22	AC	$35.63	$150.36
107-2	MOWING	4.22	AC	$55.77	$235.35
	Shoulder Component Total				$41,862.00

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	12.00
Performance Turf Width	0.00

Total Median Shoulder Width L/R	0.00 / 12.00
Paved Median Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	1,260.09	SY	$16.00	$20,161.44
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	67.45	TN	$105.00	$7,082.25
521-1-1	MEDIAN BARRIER WALL CONC, PRECAST	920.00	LF	$111.97	$103,012.40

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
536-1-3	GUARDRAIL- ROADWAY, DOUBLE FACE	920.00	LF	$23.60	$21,712.00

Median Component Total $151,968.09

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,000.00	LF	$75.40	$75,400.00

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-901	INLETS, SPECIAL, <10'	3.00	EA	$4,822.27	$14,466.81

Drainage Component Total $89,866.81

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$321.52	$321.52
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,053.87	$5,269.35
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,188.78	$4,188.78
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$5,697.97	$11,395.94

Signing Component Total $21,175.59

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total	$27,714.30

Sequence 15 Total	$951,524.16

Sequence: 16 NDR - New Construction, Divided, Rural **Net Length:** 0.501 MI 2,646 LF

Description: 3 GUL in the EB direction. (STA 2052+90.8 to 2079+37.1)

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 150.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.500
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 6 to 1
Median Slope L/R	0 to 1 / 1 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	9.11	AC	$10,000.00	$91,100.00
120-6	EMBANKMENT	6,585.33	CY	$9.50	$62,560.64
	Earthwork Component Total				$153,660.64

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	3
Roadway Pavement Width L/R	0.00 / 36.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	17,638.72	SY	$3.25	$57,325.84
285-711	OPTIONAL BASE,BASE GROUP 11	10,777.26	SY	$38.58	$415,786.69
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	2,910.39	TN	$109.37	$318,309.35
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	423.33	TN	$140.00	$59,266.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N

Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	1

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	135.00	EA	$3.74	$504.90
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	4.01	NM	$908.42	$3,642.76
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.00	GM	$383.54	$383.54
	Roadway Component Total				$855,219.28

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-705	OPTIONAL BASE,BASE GROUP 05	3,624.76	SY	$22.52	$81,629.60
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	194.03	TN	$105.00	$20,373.15

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	6,879.10	LF	$1.25	$8,598.88
104-11	FLOATING TURBIDITY BARRIER	125.28	LF	$9.63	$1,206.45
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	125.28	LF	$4.69	$587.56
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	4.00	EA	$94.06	$376.24
107-1	LITTER REMOVAL	12.15	AC	$35.63	$432.90
107-2	MOWING	12.15	AC	$55.77	$677.61
	Shoulder Component Total				$116,098.17

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	12.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 12.00

Paved Median Shoulder Width L/R	0.00 / 12.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	3,624.76	SY	$16.00	$57,996.16
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	194.03	TN	$105.00	$20,373.15
521-1-1	MEDIAN BARRIER WALL CONC, PRECAST	2,531.00	LF	$111.97	$283,396.07
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	1.00	PM	$1,428.02	$1,428.02
	Median Component Total				$363,193.40

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	400.00	LF	$72.48	$28,992.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	176.00	LF	$75.40	$13,270.40
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	152.00	LF	$111.27	$16,913.04

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-901	INLETS, SPECIAL, <10'	9.00	EA	$4,822.27	$43,400.43
	Comment: TOTAL DIST. / 300' INTERVAL				
	Drainage Component Total				$102,575.87

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	$321.52	$643.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	13.00	AS	$1,053.87	$13,700.31
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,188.78	$8,377.56
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	4.00	AS	$5,697.97	$22,791.88
	Signing Component Total				$45,512.79

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total	$49,087.80

Sequence 16 Total	$1,685,347.95

Sequence: 17 NDU - New Construction, Divided, Urban **Net Length:** 0.985 MI 5,200 LF

Description: Reconstruct US 17/92 roadway. Alt 8-recommended concept.

Special Conditions: US 17/92 ONLY

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.980
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.94	AC	$10,000.00	$119,400.00
120-6	EMBANKMENT	28,443.87	CY	$9.50	$270,216.76
	Earthwork Component Total				$389,616.77

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	33,694.34	SY	$3.25	$109,506.60
285-712	OPTIONAL BASE,BASE GROUP 12	27,731.97	SY	$20.00	$554,639.40
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	4,575.77	TN	$97.88	$447,876.37
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	1,109.28	TN	$140.00	$155,299.20

Pavement Marking Subcomponent

Description	Value

Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	399.00	EA	$3.74	$1,492.26
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.94	NM	$908.42	$3,579.17
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.97	GM	$383.54	$755.57
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	3.94	NM	$3,138.35	$12,365.10
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	1.97	GM	$1,027.15	$2,023.49

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Roadway Component Total $1,287,537.17

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	7.25 / 7.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	5.00 / 5.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	5,199.74	LF	$19.00	$98,795.06
520-1-10	CONCRETE CURB & GUTTER, TYPE F	5,199.74	LF	$19.00	$98,795.06
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	5,777.49	SY	$41.59	$240,285.81

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	10,399.49	LF	$1.25	$12,999.36
104-11	FLOATING TURBIDITY BARRIER	246.20	LF	$9.63	$2,370.91
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	246.20	LF	$4.69	$1,154.68
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	51.00	EA	$94.06	$4,797.06

107-1	LITTER REMOVAL	25.06 AC	$35.63	$892.89
107-2	MOWING	25.06 AC	$55.77	$1,397.60
	Shoulder Component Total			$463,704.21

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	26.00
Performance Turf Width	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	10,399.49	LF	$17.00	$176,791.33
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	2,541.00	LF	$36.25	$92,111.25

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	440.00	LF	$67.14	$29,541.60
	Median Component Total				$298,444.18

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	17.73	CY	$1,301.59	$23,077.19
425-1-351	INLETS, CURB, TYPE P-5, <10'	36.00	EA	$4,578.47	$164,824.92
425-1-451	INLETS, CURB, TYPE J-5, <10'	10.00	EA	$6,642.37	$66,423.70
425-1-521	INLETS, DT BOT, TYPE C, <10'	5.00	EA	$2,939.36	$14,696.80
425-2-41	MANHOLES, P-7, <10'	5.00	EA	$3,683.62	$18,418.10
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,608.00	LF	$75.40	$196,643.20
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	240.00	LF	$111.27	$26,704.80
570-1-1	PERFORMANCE TURF	299.38	SY	$1.25	$374.22
	Drainage Component Total				$511,162.94

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	24.00	AS	$321.52	$7,716.48
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,053.87	$2,107.74
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$5,697.97	$11,395.94
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$8,881.39	$17,762.78
	Signing Component Total				$38,982.94

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	17-92 at orange blvd

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$6.43	$5,144.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$17.13	$3,426.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,446.59	$4,446.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$535.14	$6,421.68
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$1,774.62	$1,774.62
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.30	$198.00
649-31-111	M/ARM,F&I, WS-150,DBL ARM,W/0 LU 36-46	4.00	EA	$34,125.08	$136,500.32
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	8.00	AS	$931.67	$7,453.36
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	8.00	AS	$595.51	$4,764.08
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00	EA	$179.15	$1,433.20
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00	AS	$851.32	$6,810.56
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$196.31	$1,570.48
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$23,075.08	$23,075.08
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$209.21	$836.84

Signalization 2

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	EB I4 ramps at us 17-92

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$6.43	$4,822.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$17.13	$4,282.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,446.59	$4,446.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$535.14	$8,562.24
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$1,774.62	$1,774.62
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.30	$198.00
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	4.00	EA	$34,227.85	$136,911.40
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	12.00	AS	$931.67	$11,180.04
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	8.00	AS	$595.51	$4,764.08

660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$179.15	$2,149.80
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$851.32	$10,215.84
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$196.31	$1,570.48
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$23,075.08	$23,075.08
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$209.21	$836.84

Signalization 3

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	WB I-4 RAMPS AT US 17-92

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	$6.43	$4,822.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	$17.13	$4,282.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,446.59	$4,446.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	$535.14	$8,562.24
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$1,774.62	$1,774.62
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.30	$198.00
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	4.00	EA	$34,227.85	$136,911.40
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	12.00	AS	$931.67	$11,180.04
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	8.00	AS	$595.51	$4,764.08
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	$179.15	$2,149.80
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	$851.32	$10,215.84
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	$196.31	$1,570.48
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	$23,075.08	$23,075.08
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	$209.21	$836.84

Signalization 4

Description	Value
Type	2 Lane Mast Arm
Multiplier	1
Description	US 17-92 WITH OLD US 17-92

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	800.00	LF	$6.43	$5,144.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	200.00	LF	$17.13	$3,426.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	$4,446.59	$4,446.59
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	12.00	EA	$535.14	$6,421.68
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	$1,774.62	$1,774.62
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	$3.30	$198.00

649-31-111	M/ARM,F&I, WS-150,DBL ARM,W/0 LU 36-46	4.00 EA	$34,125.08	$136,500.32
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	8.00 AS	$931.67	$7,453.36
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	8.00 AS	$595.51	$4,764.08
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	8.00 EA	$179.15	$1,433.20
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	8.00 AS	$851.32	$6,810.56
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	$196.31	$1,570.48
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	$23,075.08	$23,075.08
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	$209.21	$836.84
	Signalizations Component Total			$837,289.64

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,199.74 LF	$6.43	$33,434.33
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,032.07 LF	$17.13	$17,679.36
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	35.00 EA	$535.14	$18,729.90
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	18,990.88 LF	$2.15	$40,830.39
715-4-111	LIGHT POLE COMP, F&I, WS150, 40'	35.00 EA	$4,662.25	$163,178.75
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	35.00 EA	$553.54	$19,373.90
	Subcomponent Total			$293,226.63
	Lighting Component Total			$293,226.63

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$1,666,043.40

BRIDGES COMPONENT

Bridge 17-92L

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	1,910.00
Width (LF)	119.00
Type	High Level
Cost Factor	1.25

Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$169.38**
Basic Bridge Cost	**$38,355,187.50**
Description	ALT 8-RECOMMENDED US 17-92 REALIGNMENT. RAMP BRIDGES NOT INCLUDED.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	264.44	CY	$379.38	$100,323.25
415-1-9	REINF STEEL- APPROACH SLABS	46,277.00	LB	$0.94	$43,500.38
	Bridge 17-92L Total				$38,499,011.13

Bridge 17-92S

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	720.00
Width (LF)	94.00
Type	Low Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$170.43**
Basic Bridge Cost	**$11,421,000.00**
Description	EXTENSION OF US 17-92 BRIDGE OVER LAKE MONROE.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	208.89	CY	$379.38	$79,248.69
415-1-9	REINF STEEL- APPROACH SLABS	36,555.75	LB	$0.94	$34,362.40
	Bridge 17-92S Total				$11,534,611.10
	Bridges Component Total				$50,033,622.23

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	480.00
Begin height	1.00
End Height	25.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	12,480.00	SF	$29.09	$363,043.20

Retaining Wall 2

Description	Value
Length	700.00
Begin height	25.00
End Height	25.00
Multiplier	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	35,000.00	SF	$29.09	$1,018,150.00
	Retaining Walls Component Total				$1,381,193.20

Sequence 17 Total $57,200,823.31

Sequence: 18 NDU - New Construction, Divided, Urban **Net Length:** 0.871 MI 4,600 LF

Description: Reconstruct US 17/92 side roads roadway. ALT 8-RECOMMENDED

Special Conditions: ALL ROADS Not INCLUDING US 17/92, I-4, AND MONROE FOR ALT 8-RECOMMENED.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.870
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	10.56	AC	$10,000.00	$105,600.00
120-6	EMBANKMENT	45,825.41	CY	$9.50	$435,341.40
	Earthwork Component Total				$540,941.40

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	330
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	29,807.59	SY	$3.25	$96,874.67
285-708	OPTIONAL BASE,BASE GROUP 08	24,532.99	SY	$16.00	$392,527.84
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	4,047.94	TN	$97.88	$396,212.37
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	981.32	TN	$140.00	$137,384.80

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	353.00	EA	$3.74	$1,320.22
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.48	NM	$908.42	$3,161.30
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	1.74	GM	$383.54	$667.36
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	3.48	NM	$3,138.35	$10,921.46
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	1.74	GM	$1,027.15	$1,787.24

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Roadway Component Total $1,040,857.26

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.25 / 19.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	5.00 / 12.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,599.94	LF	$19.00	$87,398.86
520-1-10	CONCRETE CURB & GUTTER, TYPE F	4,599.94	LF	$19.00	$87,398.86
	CONCRETE SIDEWALK AND				

522-1	DRIVEWAYS, 4"	8,688.77	SY	$41.59	$361,365.94
570-1-2	PERFORMANCE TURF, SOD	5,111.04	SY	$2.25	$11,499.84

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,199.87	LF	$1.25	$11,499.84
104-11	FLOATING TURBIDITY BARRIER	217.80	LF	$9.63	$2,097.41
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	217.80	LF	$4.69	$1,021.48
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	45.00	EA	$94.06	$4,232.70
107-1	LITTER REMOVAL	22.17	AC	$35.63	$789.92
107-2	MOWING	22.17	AC	$55.77	$1,236.42
	Shoulder Component Total				$570,757.05

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	10.00
Performance Turf Width	10.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	9,199.87	LF	$17.00	$156,397.79
570-1-2	PERFORMANCE TURF, SOD	5,111.04	SY	$2.25	$11,499.84

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-5-16	TRAF SEP CONC-TYPE I, 8.5' WIDE	440.00	LF	$67.14	$29,541.60
	Median Component Total				$197,439.23

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	15.68	CY	$1,301.59	$20,408.93
425-1-351	INLETS, CURB, TYPE P-5, <10'	32.00	EA	$4,578.47	$146,511.04
425-1-451	INLETS, CURB, TYPE J-5, <10'	9.00	EA	$6,642.37	$59,781.33
425-1-521	INLETS, DT BOT, TYPE C, <10'	5.00	EA	$2,939.36	$14,696.80
425-2-41	MANHOLES, P-7, <10'	5.00	EA	$3,683.62	$18,418.10
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,312.00	LF	$75.40	$174,324.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	208.00	LF	$111.27	$23,144.16
570-1-1	PERFORMANCE TURF	264.84	SY	$1.25	$331.05
	Drainage Component Total				$457,616.21

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	21.00	AS	$321.52	$6,751.92
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00	AS	$1,053.87	$2,107.74
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	2.00	AS	$5,697.97	$11,395.94
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	2.00	AS	$8,881.39	$17,762.78
	Signing Component Total				$38,018.38

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	4,599.94	LF	$6.43	$29,577.61
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	913.02	LF	$17.13	$15,640.03
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	31.00	EA	$535.14	$16,589.34
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	16,800.22	LF	$2.15	$36,120.47
715-4-111	LIGHT POLE COMP, F&I, WS150, 40'	31.00	EA	$4,662.25	$144,529.75
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	31.00	EA	$553.54	$17,159.74
	Subcomponent Total				$259,616.95
	Lighting Component Total				$259,616.94

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$93,157.39

Sequence 18 Total $3,198,403.86

Sequence: 19 NDR - New Construction, Divided, Rural **Net Length:** 9.453 MI 49,911 LF

Description: 2 Express lanes in each direction from station 2079+37.09 to 2578+48.33.

Special Conditions: August 2016 Update: Express Lanes with Asphalt Pavement

EARTHWORK COMPONENT

User Input Data

Description	Value

Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	9.450
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	1 to 1 / 1 to 1
Median Slope L/R	1 to 1 / 1 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	242,198.88	CY	$9.50	$2,300,889.36
	Earthwork Component Total				$2,300,889.36

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	24.00 / 24.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	443,651.41	SY	$3.25	$1,441,867.08
285-711	OPTIONAL BASE,BASE GROUP 11	273,511.10	SY	$38.58	$10,552,058.24
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	73,202.48	TN	$109.37	$8,006,155.24
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	10,647.63	TN	$140.00	$1,490,668.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	3,828.00	EA	$3.74	$14,316.72
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	75.62	NM	$908.42	$68,694.72
	PAINTED PAVT				

710-11-131	MARK,STD,WHITE,SKIP, 6"	37.81	GM	$383.54	$14,501.65

Peripherals Subcomponent

Description	Value
Off Road Bike Path(s)	0
Off Road Bike Path Width L/R	0.00 / 0.00
Bike Path Structural Spread Rate	0
Noise Barrier Wall Length	0.00
Noise Barrier Wall Begin Height	0.00
Noise Barrier Wall End Height	0.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
339-1	MISCELLANEOUS ASPHALT PAVEMENT	66.67	TN	$232.34	$15,490.11
536-1-3	GUARDRAIL- ROADWAY, DOUBLE FACE	2,000.00	LF	$23.60	$47,200.00
	Roadway Component Total				$21,650,951.96

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	10.00 / 10.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-705	OPTIONAL BASE,BASE GROUP 05	114,572.98	SY	$22.52	$2,580,183.51
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	18,300.62	TN	$105.00	$1,921,565.10
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	18.91	PM	$1,428.02	$27,003.86

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	129,768.04	LF	$1.25	$162,210.05
104-11	FLOATING TURBIDITY BARRIER	2,363.20	LF	$9.63	$22,757.62
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	2,363.20	LF	$4.69	$11,083.41
104-15	SOIL TRACKING PREVENTION DEVICE	10.00	EA	$2,215.78	$22,157.80
104-18	INLET PROTECTION SYSTEM	57.00	EA	$94.06	$5,361.42
107-1	LITTER REMOVAL	229.14	AC	$35.63	$8,164.26
107-2	MOWING	229.14	AC	$55.77	$12,779.14
	Shoulder Component Total				$4,773,266.17

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	12.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	6.00 / 6.00
Paved Median Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	70,207.84	SY	$16.00	$1,123,325.44
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	10,980.37	TN	$105.00	$1,152,938.85
521-1-1	MEDIAN BARRIER WALL CONC, PRECAST	30,170.00	LF	$111.97	$3,378,134.90
546-72-51	RUMBLE STRIPS, GROUND-IN, 16" MIN. WIDTH	19.00	PM	$1,428.02	$27,132.38
	Median Component Total				$5,681,531.57

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
446-1-1	EDGEDRAIN DRAINCRETE, STANDARD	99,822.00	LF	$25.36	$2,531,485.92
	Comment: TOTAL DIST. X 2 SIDES				
446-71-1	EDGEDRAIN OUTLET PIPE, 4"	2,000.00	LF	$28.30	$56,600.00
	Comment: TOTAL DIST. X 2 SIDES X 6' PIPE / 300' INTERVAL				
	Drainage Component Total				$2,588,085.92

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	19.00	AS	$321.52	$6,108.88
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	227.00	AS	$1,053.87	$239,228.49
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	19.00	AS	$4,188.78	$79,586.82
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	57.00	AS	$5,697.97	$324,784.29
	Signing Component Total				$649,708.48

LIGHTING COMPONENT

Rural Lighting Subcomponent

Description	Value
Multiplier (Number of Poles)	334

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	66,800.00	LF	$6.43	$429,524.00
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	334.00	EA	$535.14	$178,736.76
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	200,400.00	LF	$2.15	$430,860.00
715-4-122	LIGHT POLE COMP, F&I, WS130, 45'	334.00	EA	$4,688.07	$1,565,815.38
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	334.00	EA	$553.54	$184,882.36
	Subcomponent Total				$2,789,818.50

Lighting Component Total $2,789,818.50

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total $1,213,027.56

Sequence 19 Total $41,647,279.52

Sequence: 20 NDR - New Construction, Divided, Rural **Net Length:** 0.675 MI 3,566 LF

Description: 2 Express Lanes in the EB direction. (STA 2043+70.30 to 2079+37.09

Special Conditions: August 2016 Update: Express Lanes with Asphalt Pavement

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EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.680
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	1 to 1 / 1 to 1
Median Slope L/R	0 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

120-6	EMBANKMENT	7,920.16 CY	$9.50	$75,241.52
	Earthwork Component Total			$75,241.52

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	0.00 / 24.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	15,849.39	SY	$3.25	$51,510.52
285-711	OPTIONAL BASE,BASE GROUP 11	9,771.15	SY	$38.58	$376,970.97
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	2,615.15	TN	$109.37	$286,018.96
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	380.39	TN	$140.00	$53,254.60

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	91.00	EA	$3.74	$340.34
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	5.40	NM	$908.42	$4,905.47
	Roadway Component Total				$773,000.86

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 10.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

285-705	OPTIONAL BASE,BASE GROUP 05	4,093.10 SY	$22.52	$92,176.61
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	217.93 TN	$105.00	$22,882.65

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	9,271.89	LF	$1.25	$11,589.86
104-11	FLOATING TURBIDITY BARRIER	168.85	LF	$9.63	$1,626.03
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	168.85	LF	$4.69	$791.91
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
104-18	INLET PROTECTION SYSTEM	5.00	EA	$94.06	$470.30
107-1	LITTER REMOVAL	16.37	AC	$35.63	$583.26
107-2	MOWING	16.37	AC	$55.77	$912.95
	Shoulder Component Total				$133,249.35

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	6.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 6.00
Paved Median Shoulder Width L/R	0.00 / 6.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	2,508.17	SY	$16.00	$40,130.72
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	130.76	TN	$105.00	$13,729.80
	Median Component Total				$53,860.52

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
446-1-1	EDGEDRAIN DRAINCRETE, STANDARD	3,566.00	LF	$25.36	$90,433.76
	Comment: TOTAL DIST.				
446-71-1	EDGEDRAIN OUTLET PIPE, 4"	72.00	LF	$28.30	$2,037.60
	Comment: TOTAL DIST. X 6' PIPE / 300' INTERVALS				
	Drainage Component Total				$92,471.36

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	$321.52	$643.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	17.00	AS	$1,053.87	$17,915.79
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,188.78	$8,377.56
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00	AS	$5,697.97	$28,489.85
	Signing Component Total				$55,426.24

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

	Landscaping Component Total	$35,497.50

Sequence 20 Total	$1,218,747.35

Sequence: 21 NUR - New Construction, Undivided, Rural **Net Length:** 0.993 MI 5,245 LF

Description: One-lane Express ramps - Wekiva area

Special Conditions: August 2016 Update: Express Lanes with Asphalt Pavement Assume reconstruction of 500' of ramp at each I-4 tie-in

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.240
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	1 to 1 / 1 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	13,506.63	CY	$9.50	$128,312.98
	Earthwork Component Total				$128,312.99

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	7.50 / 7.50
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	15,735.46	SY	$3.25	$51,140.24
285-711	OPTIONAL BASE,BASE GROUP 11	9,126.56	SY	$38.58	$352,102.68
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	2,404.03	TN	$109.37	$262,928.76
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	349.68	TN	$140.00	$48,955.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	3.97	NM	$908.42	$3,606.43
	Roadway Component Total				$718,733.32

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	6.00 / 6.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	6.00 / 6.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-705	OPTIONAL BASE,BASE GROUP 05	7,378.18	SY	$22.52	$166,156.61
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	769.29	TN	$105.00	$80,775.45

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount

104-10-3	SEDIMENT BARRIER	13,637.40 LF	$1.25	$17,046.75
104-11	FLOATING TURBIDITY BARRIER	248.35 LF	$9.63	$2,391.61
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	248.35 LF	$4.69	$1,164.76
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	12.04 AC	$35.63	$428.99
107-2	MOWING	12.04 AC	$55.77	$671.47
	Shoulder Component Total			$270,851.42

DRAINAGE COMPONENT

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
446-1-1	EDGEDRAIN DRAINCRETE, STANDARD	5,245.00	LF	$25.36	$133,013.20
	Comment: TOTAL DIST.				
446-71-1	EDGEDRAIN OUTLET PIPE, 4"	105.00	LF	$28.30	$2,971.50
	Comment: TOTAL DIST. X 6' PIPE / 300' INTERVAL				
	Drainage Component Total				$135,984.70

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00	AS	$321.52	$643.04
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	20.00	AS	$1,053.87	$21,077.40
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	2.00	AS	$4,188.78	$8,377.56
	Signing Component Total				$30,098.00

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$173,825.01

BRIDGES COMPONENT

Bridge EB EXP

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	855.00
Width (LF)	31.00
Type	Low Level

Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$170.16**
Basic Bridge Cost	**$4,472,718.75**
Description	SR 417 & WEKIVA EXPRESS RAMP ONTO EB I-4.

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	68.89	CY	$379.38	$26,135.49
415-1-9	REINF STEEL- APPROACH SLABS	12,055.75	LB	$0.94	$11,332.40
	Bridge EB EXP Total				$4,510,186.65
	Bridges Component Total				$4,510,186.65

Sequence 21 Total $5,967,992.09

Sequence: 22 NDR - New Construction, Divided, Rural **Net Length:** 5.136 MI 27,116 LF

Description: Express auxiliary lanes only

Special Conditions: August 2016 Update: Express Lanes with Asphalt Pavement This is pavement for 12' wide aux. lanes at on / off & Express ramp connections.

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	5.140
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	0 to 1 / 0 to 1
Median Slope L/R	0 to 1 / 0 to 1
Median Shoulder Cross Slope L/R	0.00 % / 0.00 %
Outside Shoulder Cross Slope L/R	0.00 % / 0.00 %
Roadway Cross Slope L/R	0.00 % / 0.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	18,917.03	CY	$9.50	$179,711.78
	Earthwork Component Total				$179,711.79

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	6.00 / 6.00
Structural Spread Rate	550
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	36,154.62	SY	$3.25	$117,502.52
285-711	OPTIONAL BASE,BASE GROUP 11	40,131.63	SY	$38.58	$1,548,278.29
334-1-24	SUPERPAVE ASPH CONC, TRAF D, PG76-22,PMA	9,942.52	TN	$109.37	$1,087,413.41
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	1,446.18	TN	$140.00	$202,465.20

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	0
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	0

Roadway Component Total $2,955,659.42

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	0.00 / 0.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	330
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	70,501.52	LF	$1.25	$88,126.90
104-11	FLOATING TURBIDITY BARRIER	1,283.90	LF	$9.63	$12,363.96
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	1,283.90	LF	$4.69	$6,021.49
104-15	SOIL TRACKING PREVENTION DEVICE	6.00	EA	$2,215.78	$13,294.68
104-18	INLET PROTECTION SYSTEM	31.00	EA	$94.06	$2,915.86
107-1	LITTER REMOVAL	124.49	AC	$35.63	$4,435.58
107-2	MOWING	124.49	AC	$55.77	$6,942.81

Shoulder Component Total $134,101.28

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total $98,084.17

Sequence 22 Total $3,367,556.66

Sequence: 24 MIS - Miscellaneous Construction **Net Length:** 0.474 MI 2,500 LF

Description: 15' wide pedestrian bridge along ST. John's River Bridge

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total $175,200.08

BRIDGES COMPONENT

Bridge PED

Description		Value
Estimate Type		SF Estimate
Primary Estimate		YES
Length (LF)		2,500.00
Width (LF)		15.00
Type		Medium Level
Cost Factor		1.15
Structure No.		
Removal of Existing Structures area		0.00
Default Cost per SF		$135.00
Factored Cost per SF		$155.25
Final Cost per SF		**$155.73**
Basic Bridge Cost		**$5,821,875.00**
Description	PED BRIDGE	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	33.33	CY	$379.38	$12,644.74
415-1-9	REINF STEEL- APPROACH SLABS	5,832.75	LB	$0.94	$5,482.78

Bridge PED Total $5,840,002.53

Bridges Component Total $5,840,002.53

Sequence 24 Total $6,015,202.61

Sequence: 25 NUR - New Construction, Undivided, Rural **Net Length:** 0.233 MI 1,230 LF

Description: Three-lane ramps - US 17/92. Alt 8-recommended Concept.

Special Conditions: I4 GUL AND EXPRESS LANES NOT INCLUDED

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	50.00 / 50.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.233
Top of Structural Course For Begin Section	125.00
Top of Structural Course For End Section	125.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	2 to 1 / 2 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	116,765.27	CY	$9.50	$1,109,270.06
	Earthwork Component Total				$1,109,270.07

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	3
Roadway Pavement Width L/R	18.00 / 18.00
Structural Spread Rate	495
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	8,201.60	SY	$3.25	$26,655.20
285-712	OPTIONAL BASE,BASE GROUP 12	5,011.18	SY	$20.00	$100,223.60
334-1-25	SUPERPAVE ASPH CONC, TRAF E, PG76-22,PMA	1,217.94	TN	$97.88	$119,211.97
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	196.84	TN	$140.00	$27,557.60

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
521-8-1	CONC TRAF RAIL BAR, JCT SLAB,32"F SHAPE	2,000.00	LF	$240.44	$480,880.00
	Comment: Length x 2 for barrier on both sides				

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt

Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	126.00	EA	$3.74	$471.24
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.47	NM	$908.42	$426.96
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.47	GM	$383.54	$180.26
711-11-111	THERMOPLASTIC, STD, WHITE, SOLID, 6"	0.47	NM	$3,138.35	$1,475.02
711-11-131	THERMOPLASTIC, STD, WHITE, SKIP, 6"	0.47	GM	$1,027.15	$482.76
	Roadway Component Total				$757,564.61

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.00 / 12.00
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Paved Outside Shoulder Width L/R	12.00 / 12.00
Structural Spread Rate	220
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	O
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-708	OPTIONAL BASE,BASE GROUP 08	3,370.86	SY	$16.00	$53,933.76
334-1-12	SUPERPAVE ASPHALTIC CONC, TRAFFIC B	360.87	TN	$105.00	$37,891.35
337-7-22	ASPH CONC FC,INC BIT,FC-5,PG76-22,PMA	7.22	TN	$140.00	$1,010.80

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	3,198.62	LF	$1.25	$3,998.28
104-11	FLOATING TURBIDITY BARRIER	58.25	LF	$9.63	$560.95
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	58.25	LF	$4.69	$273.19
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	$2,215.78	$2,215.78
107-1	LITTER REMOVAL	2.82	AC	$35.63	$100.48
107-2	MOWING	2.82	AC	$55.77	$157.27
	Shoulder Component Total				$100,141.86

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	4.19	CY	$1,301.59	$5,453.66
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	192.00	LF	$72.48	$13,916.16
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	40.00	LF	$111.27	$4,450.80
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	10.00	EA	$1,198.82	$11,988.20
570-1-1	PERFORMANCE TURF	164.03	SY	$1.25	$205.04
	Drainage Component Total				$36,013.86

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	$321.52	$321.52
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,053.87	$5,269.35
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	$4,188.78	$4,188.78
	Signing Component Total				$9,779.65

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N

Landscaping Component Total	$309,556.53

BRIDGES COMPONENT

Bridge C

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	510.00
Width (LF)	60.00
Type	Low Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$171.12**
Basic Bridge Cost	**$5,163,750.00**
Description	I-4 WB TO US 17-92

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	133.33	CY	$379.38	$50,582.74
415-1-9	REINF STEEL- APPROACH SLABS	23,332.75	LB	$0.94	$21,932.78
	Bridge C Total				$5,236,265.53

Bridge D

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	296.00
Width (LF)	60.00
Type	Low Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$172.83**
Basic Bridge Cost	**$2,997,000.00**
Description	I-4 EB TO US 17-92

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	133.33	CY	$379.38	$50,582.74
415-1-9	REINF STEEL- APPROACH SLABS	23,332.75	LB	$0.94	$21,932.78
	Bridge D Total				$3,069,515.53
	Bridges Component Total				$8,305,781.06

Sequence 25 Total $10,628,107.64

Sequence: 26 NDU - New Construction, Divided, Urban **Net Length:** 2.367 MI 12,500 LF

Description: CR 46A DDI Interchange

EARTHWORK COMPONENT

User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	105.00 / 105.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	2.367
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %

Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	60.25	AC	$10,000.00	$602,500.00
120-6	EMBANKMENT	292,470.73	CY	$9.50	$2,778,471.94
	Earthwork Component Total				$3,380,971.94

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	32.00 / 48.00
Structural Spread Rate	660
Friction Course Spread Rate	80

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	125,443.16	SY	$3.25	$407,690.27
285-712	OPTIONAL BASE,BASE GROUP 12	111,109.97	SY	$20.00	$2,222,199.40
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	36,666.29	TN	$100.00	$3,666,629.00
337-7-43	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	4,444.40	TN	$116.55	$517,994.82

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	N
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	2
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	2
Skip Stripe No. of Stripes	2

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	959.00	EA	$3.74	$3,586.66
710-11-111	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	18.94	NM	$908.42	$17,205.47
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	9.47	GM	$383.54	$3,632.12
	Roadway Component Total				$6,838,937.74

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	12.25 / 12.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	5.00 / 5.00

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	12,499.87	LF	$19.00	$237,497.53
520-1-10	CONCRETE CURB & GUTTER, TYPE F	12,499.87	LF	$19.00	$237,497.53
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	13,888.75	SY	$41.59	$577,633.11
570-1-1	PERFORMANCE TURF	13,888.75	SY	$1.25	$17,360.94

Erosion Control

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	24,999.74	LF	$1.25	$31,249.68
104-11	FLOATING TURBIDITY BARRIER	591.85	LF	$9.63	$5,699.52
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	591.85	LF	$4.69	$2,775.78
104-15	SOIL TRACKING PREVENTION DEVICE	3.00	EA	$2,215.78	$6,647.34
104-18	INLET PROTECTION SYSTEM	121.00	EA	$94.06	$11,381.26
107-1	LITTER REMOVAL	60.25	AC	$35.63	$2,146.71
107-2	MOWING	60.25	AC	$55.77	$3,360.14
	Shoulder Component Total				$1,133,249.54

MEDIAN COMPONENT

User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	24,999.74	LF	$17.00	$424,995.58
521-1	MEDIAN CONC BARRIER WALL	10,733.00	LF	$151.60	$1,627,122.80
570-1-1	PERFORMANCE TURF	7,416.59	SY	$1.25	$9,270.74
	Median Component Total				$2,061,389.12

DRAINAGE COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	42.61	CY	$1,301.59	$55,460.75
425-1-351	INLETS, CURB, TYPE P-5, <10'	86.00	EA	$4,578.47	$393,748.42
425-1-451	INLETS, CURB, TYPE J-5, <10'	24.00	EA	$6,642.37	$159,416.88
425-1-521	INLETS, DT BOT, TYPE C, <10'	12.00	EA	$2,939.36	$35,272.32
425-2-41	MANHOLES, P-7, <10'	12.00	EA	$3,683.62	$44,203.44
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	6,272.00	LF	$75.40	$472,908.80
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	560.00	LF	$111.27	$62,311.20
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	11,840.00	LF	$160.29	$1,897,833.60
570-1-1	PERFORMANCE TURF	719.69	SY	$1.25	$899.61

	Drainage Component Total	$3,122,055.02

SIGNING COMPONENT

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	57.00	AS	$321.52	$18,326.64
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	5.00	AS	$1,053.87	$5,269.35
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	5.00	AS	$5,697.97	$28,489.85
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	5.00	AS	$8,881.39	$44,406.95
	Signing Component Total				$96,492.79

SIGNALIZATIONS COMPONENT

Signalization 1

Description	Value
Type	6 Lane Mast Arm
Multiplier	14
Description	

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	9,800.00	LF	$6.43	$63,014.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	4,200.00	LF	$17.13	$71,946.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	14.00	PI	$4,446.59	$62,252.26
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	308.00	EA	$535.14	$164,823.12
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	14.00	AS	$1,774.62	$24,844.68
639-2-1	ELECTRICAL SERVICE WIRE, F&I	840.00	LF	$3.30	$2,772.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	14.00	EA	$959.88	$13,438.32
649-1-10	STEEL STRAIN POLE, F&I, PEDESTAL	14.00	EA	$1,011.11	$14,155.54
649-31-105	M/ARM,F&I, WS-150,SINGLE ARM,W/0 LUM-78	56.00	EA	$39,714.16	$2,223,992.96
650-1-311	TRAFFIC SIGNAL,F&I,3 SECT,1 WAY,ALUMINUM	280.00	AS	$931.67	$260,867.60
653-191	PEDESTRIAN SIGNAL, F&I, LED-COUNT DWN, 1	112.00	AS	$595.51	$66,697.12
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	280.00	EA	$179.15	$50,162.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	280.00	AS	$851.32	$238,369.60
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	112.00	EA	$196.31	$21,986.72
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	14.00	AS	$23,075.08	$323,051.12
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	56.00	EA	$209.21	$11,715.76
	Signalizations Component Total				$3,614,088.80

LIGHTING COMPONENT

Conventional Lighting Subcomponent

Description	Value
Spacing	MIN

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	12,499.87	LF	$6.43	$80,374.16
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	2,481.04	LF	$17.13	$42,500.22
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	83.00	EA	$535.14	$44,416.62
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	45,652.94	LF	$2.15	$98,153.82
715-4-111	LIGHT POLE COMP, F&I, WS150, 40'	83.00	EA	$4,662.25	$386,966.75
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	83.00	EA	$553.54	$45,943.82
	Subcomponent Total				$698,355.39
	Lighting Component Total				$698,355.39

LANDSCAPING COMPONENT

User Input Data

Description	Value
Cost %	3.00
Component Detail	N
Landscaping Component Total	$1,211,702.83

BRIDGES COMPONENT

Bridge 46A

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	880.00
Width (LF)	75.00
Type	Medium Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$170.12**
Basic Bridge Cost	**$11,137,500.00**
Description	

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	166.67	CY	$379.38	$63,231.26
415-1-9	REINF STEEL- APPROACH SLABS	29,167.25	LB	$0.94	$27,417.22
	Bridge 46A Total				$11,228,148.48

Bridge RAMP

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	744.00
Width (LF)	60.00
Type	High Level
Cost Factor	1.25
Structure No.	
Removal of Existing Structures area	0.00
Default Cost per SF	$135.00
Factored Cost per SF	$168.75
Final Cost per SF	**$170.37**
Basic Bridge Cost	**$7,533,000.00**
Description	I-4 EB OFF RAMP

Bridge Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II, APPROACH SLABS	133.33	CY	$379.38	$50,582.74
415-1-9	REINF STEEL- APPROACH SLABS	23,332.75	LB	$0.94	$21,932.78
	Bridge RAMP Total				$7,605,515.53
	Bridges Component Total				$18,833,664.01

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	350.00
Begin height	25.00
End Height	5.00
Multiplier	4

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	21,000.00	SF	$29.09	$610,890.00
	Retaining Walls Component Total				$610,890.00

Sequence 26 Total $41,601,797.18

Date: 1/25/2017 2:05:26 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 242592-4-52-01 **Letting Date:** 01/2099

Description: SR 400 (I-4) from 1 mile east of SR 434 to East of SR 15/600 US 17/92 (Seminole / Volusia County line) Seminole County (77160).

District: 05 **County:** 77 SEMINOLE **Market Area:** 08 **Units:** English
Contract Class: 9 **Lump Sum Project:** N **Design/Build:** Y **Project Length:** 10.210 MI

Project Manager: HJJ

Version 25 Project Grand Total **$482,750,307.73**

Description: I-4 (SR 400) ULTIMATE PROJECT FROM 1 MI E OF SR 434 TO WEST END OF ST. JOHNS RIVER BRIDGE (STA. 2043+70 TO 2578+48) - HNTB August 2016 Update: Express Lanes with Asphalt Pavement

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Project Sequences Subtotal			**$338,864,256.18**
102-1	Maintenance of Traffic	10.00 %	$33,886,425.62
101-1	Mobilization	10.00 %	$37,275,068.18
Project Sequences Total			**$410,025,749.98**
Project Unknowns		10.00 %	$41,002,575.00
Design/Build		7.00 %	$31,571,982.75

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	$150,000.00	$150,000.00
Project Non-Bid Subtotal					**$150,000.00**
Version 25 Project Grand Total					**$482,750,307.73**

I-4 Segment 3 - Mainline

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	146	$ 1,127,893	Total Area of mainline section
0110 3	Removal of Existing Structure	SF	$ 24	0	$ -	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	706,777	$ 2,049,653	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	226,595	$ 3,102,092	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	480,181	$ 6,732,144	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	24,925	$ 2,175,498	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	79,230	$ 6,909,643	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	52,820	$ 4,734,781	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	19,807	$ 2,321,437	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
350 1 3	Plain Cement Conc Pavt, 8"	SY	$ 55.00	470,913	$ 25,900,215	
521 1	Barrier Wall	LF	$ 113	235,332	$ 26,592,516	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	145	$ 461,321	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	6	$ 109,966	At gores
	Fencing	LF	$ 10.00	124,994	$ 1,249,940	LA R/W fence
	Embankment	CY	$ 5.94	706,777	$ 4,198,255	Assume 3' over entire roadway area
	MSE wall	SF	$ 34.00	477,178	$ 16,224,053	Roadway raised 3' x length of section x 2 sides
	Bridges	SF	$ 160.00	113,013	$ 18,082,080	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0.23	$ 24,840	Used 25' from edge of shoulder for impacts
	Toll Gantry	EA	$ 500,000.00	3	$ 1,500,000	
	Subtotal Cost	LS			$ 123,496,326	
	Compensable Utility Relocation	LS			$ 6,174,816	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 12,349,633	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 12,349,633	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 6,174,816	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 6,174,816	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 24,699,265	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 6,174,816	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 1,234,963	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 198,829,084	
	Contingency	LS			$ 29,824,363	Assume 15% of Construction Subtotal
	Grand Total				**$ 228,653,447**	

Lake Mary Blvd - Alt. 1 Base

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	13	$ 100,371	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	45,075	$ 1,061,967	Area of existing bridge - Lake Mary Blvd over I-4
160 4	Stabilization Type B LBR 40	SY	$ 2.90	62,896	$ 182,399	Total Area of section (Roadway & Shldr)
285 706	Base optional (base group 6) ML	SY	$ 13.69	14,835	$ 203,096	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	48,061	$ 673,812	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,632	$ 142,431	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	7,930	$ 691,578	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	5,287	$ 473,898	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,983	$ 232,350	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	8,379	$ 108,927	
521 1	Barrier Wall	LF	$ 113	905	$ 102,265	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	2,280	$ 49,937	
	Thermoplastic, White, Striping	NM	$ 3,178	4	$ 12,509	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	2,217	$ 13,167	
	MSE wall	SF	$ 34.00	12,600	$ 428,400	
	Lake Mary Bridge	SF	$ 160	86,471	$ 13,835,360	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 18,349,122	
	Compensable Utility Relocation	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 1,396,339	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 1,396,339	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 2,792,679	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 139,634	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 26,866,792	
	Contingency	LS			$ 4,030,019	Assume 15% of Construction Subtotal
	Grand Total				**$ 30,896,811**	

Lake Mary Blvd - Alt. 2 SPUI

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	17	$ 130,860	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	45,075	$ 1,061,967	Area of existing bridge - Lake Mary Blvd over I-4
160 4	Stabilization Type B LBR 40	SY	$ 2.90	82,002	$ 237,805	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	11,614	$ 159,000	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	70,387	$ 986,829	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,278	$ 111,507	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	11,614	$ 1,012,847	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	7,743	$ 694,046	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	2,903	$ 340,287	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	6,143	$ 79,859	
521 1	Barrier Wall	LF	$ 113	1,729	$ 195,377	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	3,432	$ 75,151	
	Thermoplastic, White, Striping	NM	$ 3,178	11	$ 35,052	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	-	$ -	At gores
	Fencing	LF	$ 10.00	7,700	$ 77,000	LA R/W fence
	Embankment	CY	$ 5.94	39,472	$ 234,462	
	MSE wall	SF	$ 34.00	6,216	$ 211,344	
	Lake Mary Bridge	SF	$ 160	52,000	$ 8,320,000	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 13,963,393	
	Compensable Utility Relocation	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 1,396,339	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 1,396,339	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 2,792,679	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 698,170	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 139,634	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 22,481,063	
	Contingency	LS			$ 3,372,159	Assume 15% of Construction Subtotal
	Grand Total				**$ 25,853,222**	

Lake Mary Blvd - Alt. 3 DDI

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	16	$ 126,458	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	45,075	$ 1,061,967	Area of existing bridge - Lake Mary Blvd over I-4
160 4	Stabilization Type B LBR 40	SY	$ 2.90	79,243	$ 229,805	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	24,799	$ 339,492	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	54,445	$ 763,314	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	2,728	$ 238,086	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	8,983	$ 783,440	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	5,989	$ 536,846	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	2,246	$ 263,213	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	6,143	$ 79,859	
521 1	Barrier Wall	LF	$ 113	4,792	$ 541,496	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	3,432	$ 75,151	
	Thermoplastic, White, Striping	NM	$ 3,178	13	$ 40,937	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	-	$ -	At gores
	Fencing	LF	$ 10.00	4,018	$ 40,180	LA R/W fence
	Embankment	CY	$ 5.94	79,243	$ 470,705	
	MSE wall	SF	$ 34.00	57,504	$ 1,955,136	
	Lake Mary Blvd Bridge	SF	$ 160	71,273	$ 11,403,680	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 18,949,765	
	Compensable Utility Relocation	LS			$ 947,488	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 1,894,977	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 1,894,977	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 947,488	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 947,488	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 3,789,953	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 947,488	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 189,498	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 30,509,122	
	Contingency	LS			$ 4,576,368	Assume 15% of Construction Subtotal
	Grand Total				**$ 35,085,490**	

Lake Mary Blvd - Alt. 4 DDI w/Lake Emma Road Connector

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	27	$ 205,514	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	45,075	$ 1,061,967	Area of existing bridge - Lake Mary Blvd over I-4
160 4	Stabilization Type B LBR 40	SY	$ 2.90	128,782	$ 373,468	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	26,000	$ 355,940	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	102,782	$ 1,441,004	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	2,860	$ 249,621	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	16,959	$ 1,478,997	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	11,306	$ 1,013,472	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	4,240	$ 496,900	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	15,900	$ 206,700	
521 1	Barrier Wall	LF	$ 113	15,164	$ 1,713,476	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	8,400	$ 183,960	
	Thermoplastic, White, Striping	NM	$ 3,178	20	$ 63,868	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	15	$ 274,914	At gores
	Fencing	LF	$ 10.00	8,000	$ 80,000	LA R/W fence
	Embankment	CY	$ 5.94	128,782	$ 764,965	
	MSE wall	SF	$ 34.00	130,000	$ 4,420,000	
	Lake Mary Blvd Bridge	SF	$ 160	67,340	$ 10,774,400	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 25,159,164	
	Compensable Utility Relocation	LS			$ 1,257,958	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 2,515,916	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 2,515,916	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,257,958	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,257,958	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 5,031,833	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,257,958	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 251,592	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 40,506,254	
	Contingency	LS			$ 6,075,938	Assume 15% of Construction Subtotal
	Grand Total				**$ 46,582,192**	

CR 46A ALT 1

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	14	$ 108,889	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	35,741	$ 842,056	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	68,233	$ 197,877	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	11,331	$ 155,118	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	56,903	$ 797,774	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,246	$ 108,785	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	9,389	$ 818,808	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	6,259	$ 561,082	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	2,347	$ 275,095	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	13,687	$ 177,931	
521 1	Barrier Wall	LF	$ 113	15,722	$ 1,776,586	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	3,214		
	Thermoplastic, White, Striping	NM	$ 3,178	17	$ 54,435	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	68,233	$ 405,306	
	MSE wall	SF	$ 34.00	7,029	$ 238,986	
	CR 46A Bridge	SF	$ 160	47,084	$ 7,533,440	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 14,088,822	
	Compensable Utility Relocation	LS			$ 704,441	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 1,408,882	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 1,408,882	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 704,441	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 704,441	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 2,817,764	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 704,441	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 140,888	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 22,683,004	
	Contingency	LS			$ 3,402,451	Assume 15% of Construction Subtotal
	Grand Total				**$ 26,085,455**	

CR 46A ALT 2

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	14	$ 108,889	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	35,741	$ 842,056	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	109,632	$ 317,934	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	19,542	$ 267,533	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	90,090	$ 1,263,065	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	2,150	$ 187,621	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	14,865	$ 1,296,367	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	9,910	$ 888,326	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	3,716	$ 435,541	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	25,630	$ 333,190	
521 1	Barrier Wall	LF	$ 113	11,391	$ 1,287,217	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	5,389	$ 118,019	
	Thermoplastic, White, Striping	NM	$ 3,178	10	$ 32,603	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	4	$ 73,311	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	109,632	$ 651,217	
	MSE wall	SF	$ 34.00	71,272	$ 2,423,240	
	CR 46A Bridge	SF	$ 160	133,116	$ 21,298,560	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 31,824,686	
	Compensable Utility Relocation	LS			$ 1,591,234	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 3,182,469	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 3,182,469	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,591,234	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,591,234	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 6,364,937	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,591,234	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 318,247	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 51,237,745	
	Contingency	LS			$ 7,685,662	Assume 15% of Construction Subtotal
	Grand Total				**$ 58,923,407**	

CR 46A ALT 3

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	14	$ 108,889	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	35,741	$ 842,056	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	121,079	$ 351,130	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	10,687	$ 146,305	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	110,392	$ 1,547,701	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,176	$ 102,604	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	18,215	$ 1,588,507	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	12,143	$ 1,088,513	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	4,554	$ 533,692	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	25,630	$ 333,190	
521 1	Barrier Wall	LF	$ 113	10,733	$ 1,212,829	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	5,389	$ 118,019	
	Thermoplastic, White, Striping	NM	$ 3,178	19	$ 60,189	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	4	$ 73,311	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	121,079	$ 719,211	
	MSE wall	SF	$ 34.00	40,000	$ 1,360,000	
	CR 46A Bridge	SF	$ 160	135,990	$ 21,758,400	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 31,944,544	
	Compensable Utility Relocation	LS			$ 1,597,227	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 3,194,454	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 3,194,454	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,597,227	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,597,227	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 6,388,909	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,597,227	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 319,445	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 51,430,716	
	Contingency	LS			$ 7,714,607	Assume 15% of Construction Subtotal
	Grand Total				**$ 59,145,324**	

SR 46 ALT 1

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	7	$ 53,559	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	-	$ -	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	33,562	$ 97,330	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	10,003	$ 136,943	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	23,559	$ 330,297	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,100	$ 96,038	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	3,887	$ 339,006	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	2,591	$ 232,301	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	972	$ 113,896	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	1,014		
521 1	Barrier Wall	LF	$ 113	7,278	$ 822,414	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	375		
	Thermoplastic, White, Striping	NM	$ 3,178	4	$ 13,422	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	-	$ -	
	MSE wall	SF	$ 34.00	11,055	$ 375,870	
	SR 46 Bridge	SF	$ 160	17,818	$ 2,850,880	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 5,498,611	
	Compensable Utility Relocation	LS			$ 274,931	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 549,861	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 549,861	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 274,931	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 274,931	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 1,099,722	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 274,931	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 54,986	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 8,852,764	
	Contingency	LS			$ 1,327,915	Assume 15% of Construction Subtotal
	Grand Total				**$ 10,180,679**	

SR 46 ALT 2

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	11	$ 83,165	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	-	$ -	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	52,114	$ 151,131	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	16,428	$ 224,898	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	35,686	$ 500,321	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,807	$ 157,721	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	5,888	$ 513,512	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	3,925	$ 351,880	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,472	$ 172,525	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
0520 1 10	Concrete Curb & Gutter, Type F	LF	$ 13.00	3,946		
521 1	Barrier Wall	LF	$ 113	3,900	$ 440,700	Concrete, Double face
0522 1	Sidewalk Conc (4" Thk)	SY	$ 21.90	1,489		
	Thermoplastic, White, Striping	NM	$ 3,178	8	$ 24,058	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	6,430	$ 38,194	
	MSE wall	SF	$ 34.00	11,055	$ 375,870	
	SR 46 Bridge	SF	$ 160	17,818	$ 2,850,880	Concrete
	Wetland Mitigation	AC	$ 108,000.00	0	$ -	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 5,921,510	
	Compensable Utility Relocation	LS			$ 296,076	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 592,151	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 592,151	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 296,076	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 296,076	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 1,184,302	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 296,076	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 59,215	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 9,533,632	
	Contingency	LS			$ 1,430,045	Assume 15% of Construction Subtotal
	Grand Total				**$ 10,963,676**	

US 17/92 - Alt. 1 Base

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	11	$ 82,482	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	-	$ -	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	25,369	$ 73,571	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	5,189	$ 71,033	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	20,181	$ 282,933	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	571	$ 49,815	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	3,330	$ 290,393	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	2,220	$ 198,989	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	832	$ 97,563	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	1,491	$ 168,483	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	6	$ 18,104	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	25,369	$ 150,694	
	MSE wall	SF	$ 34.00	-	$ -	
	Proposed Bridge	SF	$ 160	65,039	$ 10,406,240	Concrete
	Wetland Mitigation	AC	$ 108,000.00	4	$ 482,760	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 12,409,716	
	Compensable Utility Relocation	LS			$ 620,486	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 1,240,972	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 1,240,972	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 620,486	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 620,486	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 2,481,943	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 620,486	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 124,097	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 19,979,643	
	Contingency	LS			$ 2,996,946	Assume 15% of Construction Subtotal
	Grand Total				**$ 22,976,589**	

US 17/92 - Alt. 2 Diamond

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	11	$ 82,482	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	20,388	$ 480,341	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	51,686	$ 149,890	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	19,934	$ 272,890	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	31,753	$ 445,172	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	2,193	$ 191,378	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	5,239	$ 456,910	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	3,493	$ 313,094	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,310	$ 153,508	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	6,745	$ 762,185	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	9	$ 28,218	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	-	$ -	At gores
	Fencing	LF	$ 10.00		$ -	LA R/W fence
	Embankment	CY	$ 5.94	51,686	$ 307,016	
	MSE wall	SF	$ 34.00	80,940	$ 2,751,960	
	Proposed Bridge	SF	$ 160	97,930	$ 15,668,800	Concrete
	Wetland Mitigation	AC	$ 108,000.00	6	$ 666,360	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 22,730,206	
	Compensable Utility Relocation	LS			$ 1,136,510	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 2,273,021	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 2,273,021	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,136,510	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,136,510	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 4,546,041	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,136,510	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 227,302	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 36,595,631	
	Contingency	LS			$ 5,489,345	Assume 15% of Construction Subtotal
	Grand Total				**$ 42,084,976**	

US 17/92 - Alt. 3 SPUI

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	12	$ 90,024	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	20,388	$ 480,341	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	56,412	$ 163,595	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	17,121	$ 234,388	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	39,291	$ 550,860	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,883	$ 164,376	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	6,483	$ 565,384	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	4,322	$ 387,425	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,621	$ 189,952	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	6,040	$ 682,520	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	9	$ 30,157	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00		$ -	LA R/W fence
	Embankment	CY	$ 5.94	56,412	$ 335,088	
	MSE wall	SF	$ 34.00	72,480	$ 2,464,320	
	Proposed Bridge	SF	$ 160	169,106	$ 27,056,960	Concrete
	Wetland Mitigation	AC	$ 108,000.00	6	$ 667,440	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 34,099,486	
	Compensable Utility Relocation	LS			$ 1,704,974	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 3,409,949	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 3,409,949	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,704,974	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,704,974	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 6,819,897	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,704,974	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 340,995	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 54,900,173	
	Contingency	LS			$ 8,235,026	Assume 15% of Construction Subtotal
	Grand Total				**$ 63,135,198**	

US 17/92 - Alt. 4 Diamond Loop

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	11	$ 87,313	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	12,388	$ 291,861	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	54,713	$ 158,669	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	17,063	$ 233,588	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	37,651	$ 527,864	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,877	$ 163,815	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	6,212	$ 541,782	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	4,142	$ 371,252	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,553	$ 182,023	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	8,020	$ 906,260	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	10	$ 32,259	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63		$ -	At gores
	Fencing	LF	$ 10.00		$ -	LA R/W fence
	Embankment	CY	$ 5.94	51,686	$ 307,016	
	MSE wall	SF	$ 34.00	96,240	$ 3,272,160	
	Proposed Bridge	SF	$ 160	149,458	$ 23,913,280	Concrete
	Wetland Mitigation	AC	$ 108,000.00	6	$ 669,600	Used 25' from edge of shoulder for impacts
	Subtotal Cost	LS			$ 31,658,741	
	Compensable Utility Relocation	LS			$ 1,582,937	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 3,165,874	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 3,165,874	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,582,937	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,582,937	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 6,331,748	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,582,937	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 316,587	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 50,970,573	
	Contingency	LS			$ 7,645,586	Assume 15% of Construction Subtotal
	Grand Total				**$ 58,616,159**	

US 17/92 - Alt. 5 SPUI TEE

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	10	$ 80,083	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	40,278	$ 948,950	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	50,183	$ 145,530	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	15,124	$ 207,051	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	35,058	$ 491,519	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,664	$ 145,205	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	5,785	$ 504,479	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	3,856	$ 345,690	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,446	$ 169,490	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	6,238	$ 704,894	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	9	$ 30,184	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00		$ -	LA R/W fence
	Embankment	CY	$ 5.94	50,183	$ 298,085	
	MSE wall	SF	$ 34.00	74,856	$ 2,545,104	
	Proposed Bridge	SF	$ 160	176,641	$ 28,262,560	Concrete
	Wetland Mitigation	AC	$ 108,000.00	4	$ 437,400	Used 25' from edge of shoulder for impacts
	Railroad Crossing	EA	$ 1,000,000.00	1	$ 1,000,000	
	Subtotal Cost	LS			$ 36,352,879	
	Compensable Utility Relocation	LS			$ 1,817,644	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 3,635,288	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 3,635,288	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 1,817,644	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 1,817,644	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 7,270,576	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 1,817,644	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 363,529	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 58,528,135	
	Contingency	LS			$ 8,779,220	Assume 15% of Construction Subtotal
	Grand Total				**$ 67,307,355**	

US 17/92 - Alt. 6 PARCLO

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	13	$ 98,979	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	154,821	$ 3,647,583	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	62,024	$ 179,869	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	21,461	$ 293,797	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	40,563	$ 568,696	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	2,361	$ 206,040	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	6,693	$ 583,691	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	4,462	$ 399,970	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,673	$ 196,103	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	12,371	$ 1,397,923	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	13	$ 40,431	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00		$ -	LA R/W fence
	Embankment	CY	$ 5.94	119,115	$ 707,545	
	MSE wall	SF	$ 34.00	89,530	$ 3,044,020	
	Proposed Bridge	SF	$ 160	340,059	$ 54,409,440	Concrete
	Wetland Mitigation	AC	$ 108,000.00	6	$ 648,000	Used 25' from edge of shoulder for impacts
	Railroad Crossing	EA	$ 1,000,000.00	1	$ 1,000,000	
	Subtotal Cost	LS			$ 67,458,741	
	Compensable Utility Relocation	LS			$ 3,372,937	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 6,745,874	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 6,745,874	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 3,372,937	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 3,372,937	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 13,491,748	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 3,372,937	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 674,587	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 108,608,573	
	Contingency	LS			$ 16,291,286	Assume 15% of Construction Subtotal
	Grand Total				**$ 124,899,859**	

US 17/92 - Alt. 7 GS-DDI

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	9	$ 72,839	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	154,821	$ 3,647,583	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	45,643	$ 132,365	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	15,932	$ 218,115	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	29,711	$ 416,545	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,753	$ 152,964	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	4,902	$ 427,528	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	3,268	$ 292,960	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,226	$ 143,637	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	7,766	$ 877,558	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	14	$ 43,457	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	114,485	$ 680,039	
	MSE wall	SF	$ 34.00	90,958	$ 3,092,572	
	Proposed Bridge	SF	$ 160	548,164	$ 87,706,240	Concrete
	Wetland Mitigation	AC	$ 108,000.00	6	$ 648,000	Used 25' from edge of shoulder for impacts
	Railroad Crossing	EA	$ 1,000,000.00	0	$ -	
	Subtotal Cost	LS			$ 98,589,057	
	Compensable Utility Relocation	LS			$ 4,929,453	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 9,858,906	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 9,858,906	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 4,929,453	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 4,929,453	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 19,717,811	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 4,929,453	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 985,891	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 158,728,382	
	Contingency	LS			$ 23,809,257	Assume 15% of Construction Subtotal
	Grand Total				**$ 182,537,639**	

US 17/92 - Alt. 8 ELEV TUDI

Item	Description	Unit	Unit Cost	Quantity	Total Cost	Remarks
0110 1 1	Clearing & Grubbing	AC	$ 7,724	10	$ 78,098	Total Disturbed Area
0110 3	Removal of Existing Structure	SF	$ 24	154,821	$ 3,647,583	Area of existing bridge
160 4	Stabilization Type B LBR 40	SY	$ 2.90	48,939	$ 141,923	Total Area of mainline section
285 706	Base optional (base group 6) ML	SY	$ 13.69	15,705	$ 214,998	Total Shldr area
285 712	Base optional (base group 12) ML	SY	$ 14.02	33,234	$ 465,944	Total Roadway area
334 1 12	Superpave asphaltic concrete (Traff B)	TN	$ 87.28	1,728	$ 150,778	Used 110 lb /sy*inch lift (2" thk) - Shoulder
334 1 14	Superpave asphaltic concrete (Traff D)	TN	$ 87.21	5,484	$ 478,229	Used 110 lb /sy*inch lift (3" thk) - Roadway
334 1 24	Superpave asphaltic concrete (Traff D-PG 76-22)	TN	$ 89.64	3,656	$ 327,703	Used 110 lb /sy*inch lift (2" thk) - Roadway
337 7 22	Asphaltic Conc friction course (FC-5) (PG 76-22)	TN	$ 117.20	1,371	$ 160,671	Used 110 lb /sy*inch lift (0.75" thk) - Roadway
521 1	Barrier Wall	LF	$ 113	1,458	$ 164,754	Concrete, Double face
	Thermoplastic, White, Striping	NM	$ 3,178	12	$ 38,565	EOP and lane lines
	Vehicle Impact Attenuator	EA	$ 18,327.63	2	$ 36,655	At gores
	Fencing	LF	$ 10.00	-	$ -	LA R/W fence
	Embankment	CY	$ 5.94	164,321	$ 976,064	
	MSE wall	SF	$ 34.00	130,930	$ 4,451,620	
	Proposed Bridge	SF	$ 160	367,330	$ 58,772,800	Concrete
	Wetland Mitigation	AC	$ 108,000.00	6	$ 648,000	Used 25' from edge of shoulder for impacts
	Railroad Crossing	EA	$ 1,000,000.00	0	$ -	
	Subtotal Cost	LS			$ 70,754,386	
	Compensable Utility Relocation	LS			$ 3,537,719	Assume 5% of Construction Subtotal Cost
	Mobilization	LS			$ 7,075,439	Assume 10% of Construction Subtotal Cost
	Maintenance of Traffic (MOT)	LS			$ 7,075,439	Assume 10% of Construction Subtotal Cost
	Lighting	LS			$ 3,537,719	Assume 5% of Construction Subtotal Cost
	Signage	LS			$ 3,537,719	Assume 5% of Construction Subtotal Cost
	Drainage	LS			$ 14,150,877	Assume 20% of Construction Subtotal Cost
	ITS	LS			$ 3,537,719	Assume 5% of Construction Subtotal Cost
	Erosion Control	LS			$ 707,544	Assume 1% of Construction Subtotal Cost
	Construction Subtotal	LS			$ 113,914,561	
	Contingency	LS			$ 17,087,184	Assume 15% of Construction Subtotal
	Grand Total				**$ 131,001,745**	

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