

2. Purpose and Need

2. Purpose and Need

The purpose and need for completion of the Western Beltway was originally documented in the October, 1989 State-level EIS prepared by FDOT for the Northwest Beltway Study, Part B, State Project Number 77000.1517, Work Program Number 5117663. In November, 2002 the FDOT again documented the purpose and need for the northwest portion of the Western Beltway in a presentation to the Wekiva Basin Area Task Force. Opportunity for public input on the project purpose and need was provided during the deliberations of the Wekiva Basin Area Task Force, the Wekiva River Basin Coordinating Committee, and during the public meetings held during the PD&E Study. The proposed action will provide system continuity, alleviate traffic congestion, and correct safety and roadway deficiencies. The following sections present an updated summary of the purpose and need for the project.

2.1 Purpose

The purpose of the proposed Wekiva Parkway (SR 429)/SR 46 Realignment project is to complete the Western Beltway while protecting the rural character of the study area and the unique resources of the Wekiva River Basin. The proposed project will provide needed transportation improvements in an environmentally sensitive manner consistent with the requirements of the *Wekiva Parkway and Protection Act*, Chapter 369, Part III, F.S.

The need for a beltway around metropolitan Orlando has been recognized for more than thirty years. The “Central Florida Beltway” appeared on the first Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP) in 1970. The corridor was gradually pushed outward as the metropolitan area grew. Currently, the SR 417 Eastern Beltway is complete and the SR 429 Western Beltway is almost complete with the exception of the northwest segment which includes Phase II of the SR 429/SR 414 John Land Apopka Expressway and the Wekiva Parkway (SR 429)/SR 46 Realignment projects.

Previous plans to complete the northwest portion (Part B) of the Western Beltway were deferred in response to both environmental and community concerns. Alternate plans to address the needed connector, including widening SR 46 and building a northwest arterial to provide connectivity between northwest Orange County and northeast Lake County, have been studied but also stalled due to environmental and community concerns. Traffic studies previously conducted by FDOT determined that the existing roadway network is inadequate to serve the travel demand and traditional widening of SR 46 will not accommodate projected demand.

The need to complete the beltway, coupled with development pressures on the ecologically sensitive Wekiva River Basin prompted then Governor Jeb Bush to create the Wekiva Basin Area Task Force in September 2002. The task force was asked to evaluate and make recommendations on the most appropriate location for an expressway through the basin in addition to evaluating and recommending a transportation plan that would incorporate elements to ensure protection and preservation of the Wekiva River and springshed.

In addition to determining the most appropriate study area within which to evaluate alignment alternatives for the expressway, the Wekiva Basin Area Task Force created the SR 429 Northwest Extension Working Group to study a limited access expressway linking the proposed “Wekiva Parkway”, as the missing segment of the beltway is now named, to US

441 in Mount Dora. With input from Lake County, Mount Dora, and the communities of Sorrento and Mount Plymouth, the Wekiva Parkway study area was modified to include a realignment of SR 46 to connect with Wekiva Parkway and improvements to SR 46 between US 441 and the SR 46 realignment. The SR 46 “Connector” would serve a dual purpose of providing a toll-free facility for SR 46 traffic while serving as a limited access feeder to the SR 429 expressway system.

The recommendations of the Wekiva Basin Area Task Force and the SR 429 Working Group were further evaluated and refined by the Wekiva River Basin Coordinating Committee, also created by Governor Bush in July 2003. The recommendations presented in the *Wekiva River Basin Coordinating Committee Final Report: Recommendation for Enhanced Land Use Planning Strategies and Development Standards to Protect Water Resources of the Wekiva River Basin*, March 16, 2004, reflected consensus among state and regional agencies, county and municipal representatives within the Wekiva Study Area to citizens groups, the agricultural community, property owners, and environmental organizations. The recommendations were signed into law on June 29, 2004 as the *Wekiva Parkway and Protection Act*.

The *Wekiva Parkway and Protection Act*, Chapter 369, Part III, F.S., allows for building the Wekiva Parkway while protecting the natural resources of the Wekiva River Basin. Chapter 369.321 (1) legislates that “local governments within which the Wekiva Parkway is planned shall amend their local government comprehensive plan to include the Wekiva Parkway.” In addition, local governments hosting an interchange on the Wekiva Parkway must adopt an interchange land use plan to address appropriate land uses and compatible development. The legislation also directs local governments to amend their comprehensive plans to optimize open space and promote development patterns that protect the Most Effective Recharge Areas, karst features, and sensitive natural habitats.

2.2 Need

The priority needs are:

- **Complete the Western Beltway (SR 429) around metropolitan Orlando**

The Wekiva Parkway will complete the Western Beltway (SR 429) from Interstate 4 (I-4) in Osceola County to I-4 in Seminole County. SR 429 currently terminates at US 441 in Apopka. The Wekiva Parkway will provide a system to system connection for regional mobility between the Eastern Beltway (SR 417), the Western Beltway (SR 429), and I-4.

The Wekiva Parkway is a planned addition to Florida’s Strategic Intermodal System (SIS). Florida’s SIS is an integrated transportation network consisting of statewide and regionally significant transportation facilities, services, modes of transportation and linkages. The SIS was established to focus limited state resources on transportation facilities that are critical to Florida’s economy and quality of life.

The regional transportation network in the metropolitan Orlando area currently consists of I-4 (SR 400), Florida’s Turnpike, SR 408 (East-West Expressway), SR 528 (Beachline Expressway), SR 417 (Eastern Beltway), and completed portions of the Western Beltway (SR 429), all of which are heavily traveled SIS facilities. The Regional Transportation Network with the current and future heavily congested SIS corridors, based on 2008 Traffic Data by the FDOT Transportation Statistics Office, is shown in **Exhibit 2-1**. Heavy congestion in urban areas is considered bumper to bumper or stop and go traffic movement during peak periods (Level of Service (LOS) “E” or worse). For rural areas, passenger and truck traffic is so heavy during peak periods that changing lanes is very difficult (LOS “D” or worse). The

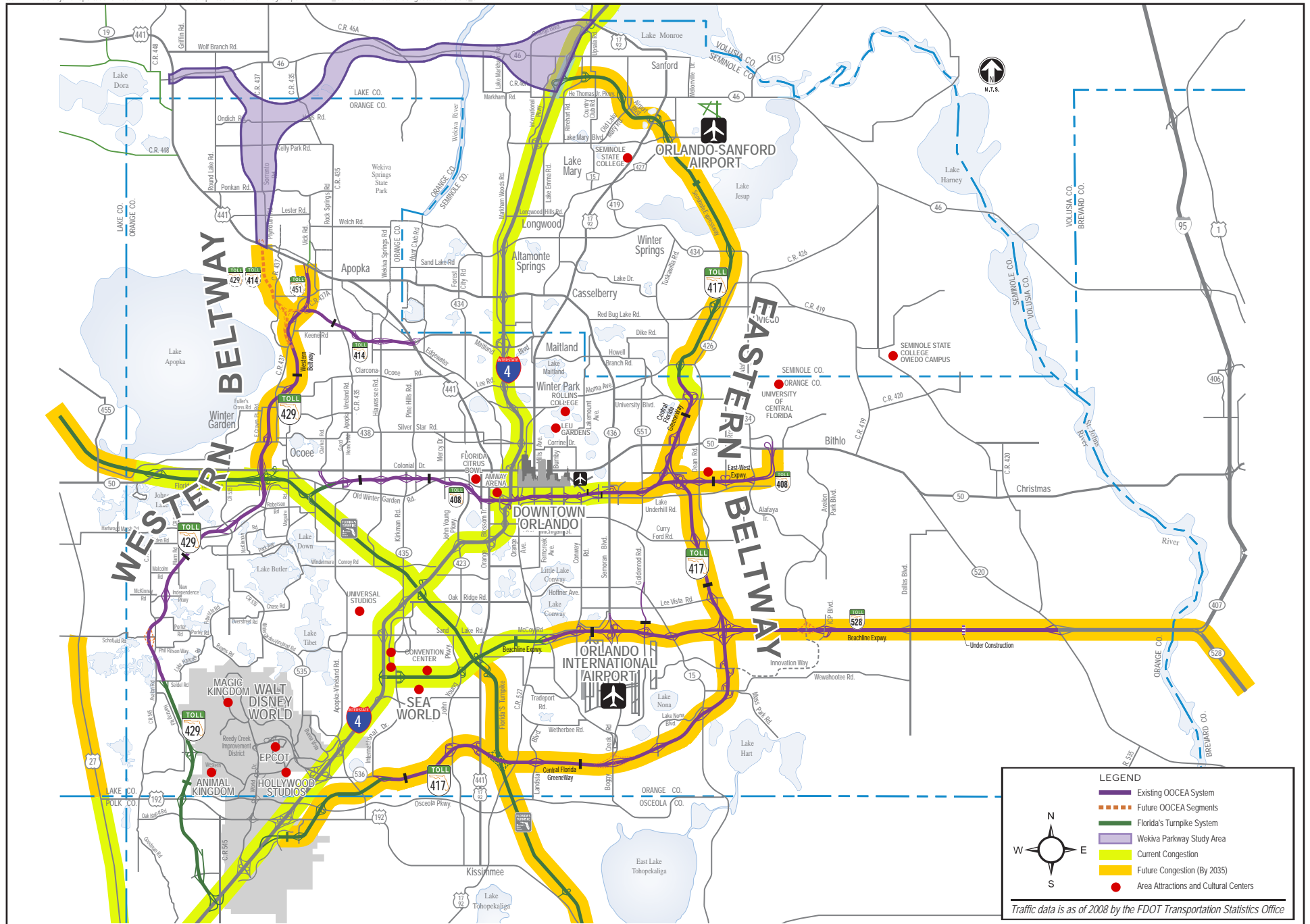


Exhibit 2-1
Regional Transportation Network with Heavily Congested SIS Facilities

future system includes all cost feasible improvements through 2035. All SIS facilities in the metropolitan Orlando area will be heavily congested by 2035, with the exception of portions of SR 429 (Western Beltway). The segments of SR 429 that are not projected to be heavily congested by 2035 include the recently constructed segment between I-4 in Osceola County and Florida's Turnpike in Orange County and the planned Wekiva Parkway.

Completion of the Western Beltway will allow regional traffic to bypass the most heavily congested segment of I-4 (from south of the Osceola/Orange County line to south of the Seminole/Volusia County line) which travels through the City of Orlando and is the main thoroughfare providing access to Walt Disney World, Sea World, Universal Studios, and other area attractions. In addition to providing relief to regional motorists, the completed Western Beltway will ease congestion on local roadways and provide a needed expressway connection between northwest Orange, eastern Lake, and western Seminole Counties.

- **Provide a higher capacity east-west travel facility in east Lake County and west Seminole County**

Most of the existing roadways within the study area consist primarily of local and collector roads. SR 46 is the only east-west connection between Lake County and Seminole County within the study area. For the most part, SR 46 is a two-lane rural roadway which was constructed prior to current design standards. The majority of SR 46 through Lake and Seminole Counties consists of two 12-foot travel lanes with varying shoulder widths.

A safer, higher capacity east-west travel facility is needed. Many roads in the study area are currently operating at conditions below LOS "C". However, for SR 46 in east Lake County and west Seminole County, the existing LOS is "F", with annual average daily traffic of 23,700.

These LOS conditions, especially for SR 46, are projected to worsen considerably under the No-Build scenario. Growth in residential population and employment opportunities has contributed to an increasing travel demand in northwest Orange County, northern Lake County, and western Seminole County. Population and employment projections indicate that travel demand will continue to increase in the area for the foreseeable future. In the 2032 design year for the proposed project, the projected No-Build condition for SR 46 in east Lake County and west Seminole County is a further deteriorated LOS "F", with annual average daily traffic of 37,440. That would be a 58% increase in traffic on a facility that is currently operating at LOS "F".

The proposed project is a needed link between urbanized areas. Modes of transportation within the Wekiva Parkway study area are generally limited to personal vehicles and vehicles for hire. There are currently no public bus service routes within the study area.

Much of the study area traverses rural residential and conservation lands; however, the corridor connects the urbanized areas of Apopka in Orange County, Mount Dora in Lake County, and Sanford in Seminole County. The proposed Wekiva Parkway project would meet increased travel demand from population growth in an environmentally sensitive and compatible manner.

- **Improve safety to reduce vehicle crash fatalities**

Many of the study area roadways are two-lane roads that do not meet the current design standards for safety and capacity. That is a major contributing factor in the high crash and fatality rates, especially for SR 46 through Lake and Seminole Counties. According to FDOT Crash Data Reports from 2000 to 2004, there were 27 fatalities resulting from vehicle crashes on the 18.5 mile segment of SR 46 from US 441 near Mount Dora in Lake County to I-4 near

Sanford in Seminole County. FDOT data indicates that in 2004 alone there were 11 fatalities and 117 injuries resulting from 95 vehicle crashes on that section of SR 46.

Public awareness of this safety issue has been raised through media attention, such as an *Orlando Sentinel* article on September 28, 2005 which described SR 46 in Lake County as “Central Florida’s Deadliest Road”. The *Sentinel* stated that, according to their analysis of regional crash data from FDOT and the Florida Highway Patrol, on a per mile basis the section of SR 46 through Lake County is the most dangerous roadway in Central Florida, and the section of SR 46 through Seminole County was described as the region’s second most dangerous roadway. While such media reports are not the basis for decision-making, they have heightened public interest in the need for a safer travel facility in east Lake County and west Seminole County.

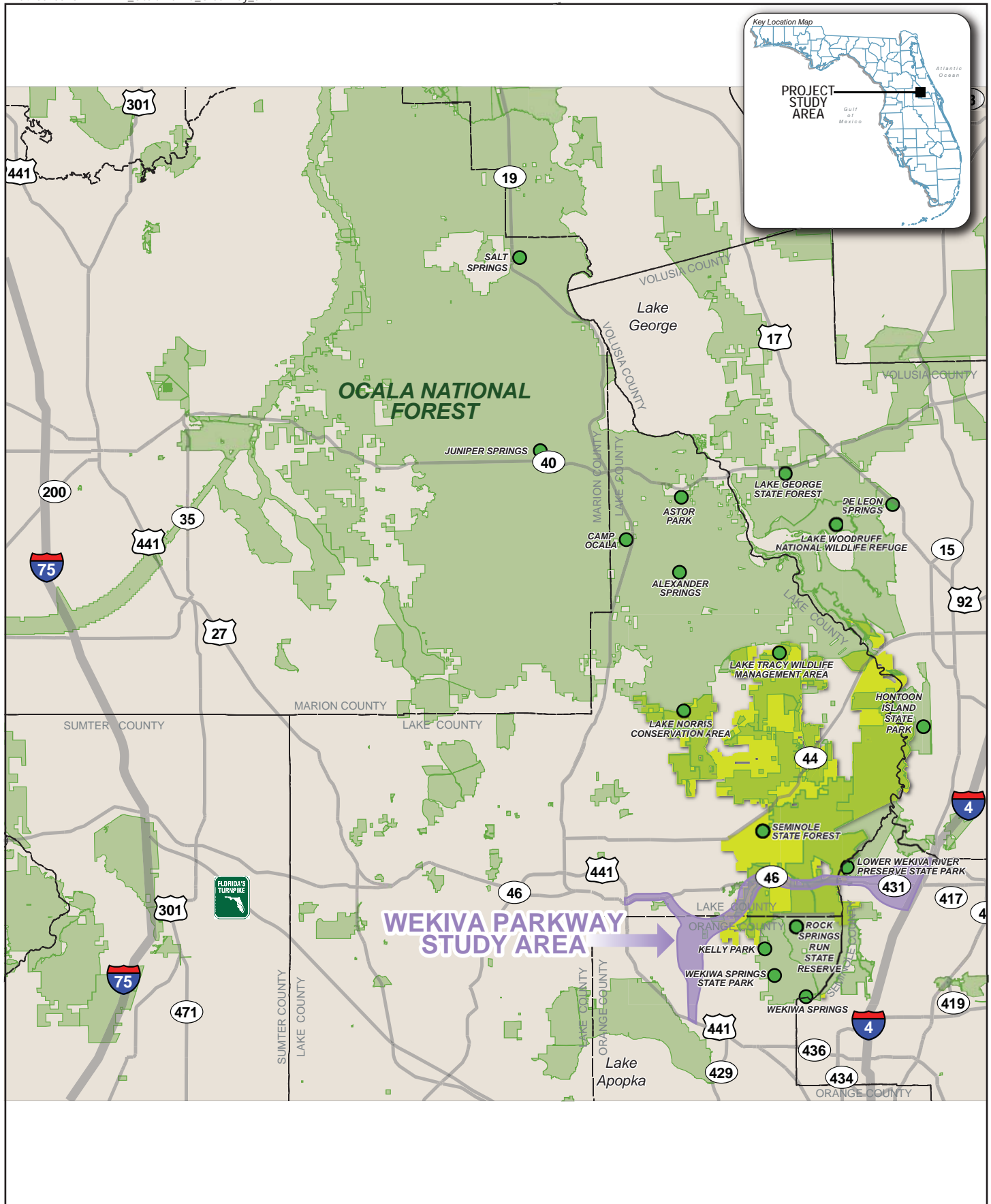
As traffic volumes grow on these unimproved local roadways, it is reasonable to expect that a similar increase in traffic incidents would continue to occur. The proposed Wekiva Parkway and the widened and realigned sections of SR 46 would be designed and constructed in accordance with current standards and would be available to those regional motorists desiring to bypass local traffic. A modern facility, coupled with the opportunity for segregation of trip types, would help to reduce the potential for traffic incidents and fatalities when compared to existing conditions.

- **Develop a transportation facility that minimizes impacts to the Wekiva Basin Area resources and that specifically improves wildlife habitat connectivity between conservation lands and reduces vehicle-wildlife conflicts**

The proposed project traverses the Wekiva River Basin, recognized as one of Florida’s most valuable resources. The Wekiva River and its tributaries have been designated an Outstanding Florida Water, a National Wild and Scenic River, a State Wild and Scenic River, and a Florida Aquatic Preserve. In 1988, the Wekiva River Protection Act, Chapter 369, Part III, F.S. was enacted to protect the resources of the basin. In 1994, four Florida Forever projects were combined and renamed the Wekiva-Ocala Greenway Project. State acquisition of lands in Lake, Orange, Seminole, and Volusia Counties with Florida Forever funds is intended to preserve an important natural corridor linking the Ocala National Forest and the extensive state holdings along the Wekiva River, including Seminole State Forest, Rock Springs Run State Reserve, and Lower Wekiva River Preserve State Park within the study area for the Wekiva Parkway. The corridor provides habitat for many rare species, including the Florida Black Bear, and includes a large number of springs with direct connection to the Floridan Aquifer. The location of the Wekiva Parkway Study Area within the Wekiva-Ocala Greenway is shown in **Exhibit 2-2**.

The recognition of the importance of the Wekiva River Basin, its habitat, wildlife, conservation and recreation values, the associated spring systems, and the connection to the Ocala National Forest elevates the protection of this resource to a primary component of the purpose and need for the Wekiva Parkway. Vast areas of floodplains and wetlands, including the Wekiva Swamp south of SR 46 and the Seminole Swamp north of SR 46, are located west of the Wekiva River. The natural environment includes the Wekiva River Basin ecosystem, springshed, and an expansive wildlife habitat area that connects to the Ocala National Forest.

An additional safety concern in the study area is vehicle-wildlife conflict. Since much of the study area consists of sparsely populated rural residential areas and large tracts of state conservation land, there have historically been many conflicts between vehicles and wildlife on roadways, particularly SR 46 in east Lake County. Over the past 20 years, more than 50



LEGEND

- Wekiva-Ocala Greenway
- Planned Public Lands
- Other Public Lands
- Wekiva Parkway Study Area

Exhibit 2-2 Wekiva-Ocala Greenway

Florida Black Bears, a state-listed threatened species, have been killed by collisions with vehicles on a six mile segment of SR 46 adjacent to the state conservation lands. From 1994 to 2005 on that same section of SR 46, 23 bears were killed by vehicles. Two wildlife crossings were constructed along SR 46 (in 1994 and 2004) through the Wekiva River Protection Area in an effort to reduce the high occurrences of vehicle-bear collisions and the bear mortality rate.

The proposed project will improve the connectivity of the existing wildlife corridor by providing enhanced wildlife bridging and by leaving open only those sections of SR 46 and CR 46A needed for local access as recommended by the Wekiva Basin Area Task Force and incorporated into the *Wekiva Parkway and Protection Act*. CR 46A will be realigned to connect with SR 46 west of the interchange with Wekiva Parkway on the Neighborhood Lakes property. Both the proposed Wekiva Parkway and a parallel service road in Lake County East incorporate three wildlife bridges to enhance wildlife habitat connectivity between state conservation lands, which will greatly reduce the number of vehicle-wildlife conflicts.

2.3 System Linkage

The major highways within the Orlando Metropolitan region currently consist of I-4 (SR 400), Florida's Turnpike, SR 408 (East-West Expressway), SR 528 (Beachline), SR 417 (Eastern Beltway) and completed portions of SR 429 (Western Beltway), all of which are heavily traveled SIS facilities. Improvements to these facilities are identified in the FDOT *Strategic Intermodal System 2030 Unfunded Needs Plan* for highway Improvements needed by 2015 and 2030. Advanced right-of-way acquisition for expanding I-4 to ten lanes from the Osceola County line to the Volusia County line is currently funded for the years 2006 through 2011. The Wekiva Parkway (SR 429) is a planned addition to Florida's SIS.

Construction of the Wekiva Parkway (SR 429) will complete the SR 429 Western Beltway from I-4 in Osceola County to I-4 in Seminole County. SR 429 currently terminates at US 441 (SR 500), east of CR 437 in Apopka. As part of the SR 429/SR 414 John Land Apopka Expressway project (formerly known as SR 429/SR 414 Maitland Boulevard Extension), SR 429 will be realigned to the west from CR 435A to US 441, west of CR 437. The proposed Wekiva Parkway (SR 429) will begin at the SR 429/SR 414 John Land Apopka Expressway/US 441 Interchange.

The realigned segment of the SR 429 Western Beltway is Phase II of the SR 429/ SR 414 John Land Apopka Expressway project. This segment will be designated SR 429/414 from the proposed SR 429/SR 414 systems interchange north to US 441. The existing section (to remain) of SR 429 from SR 414 north to US 441 (SR 500) will be designated SR 451 (refer to Exhibit 2-1).

The SR 429/SR 414 John Land Apopka Expressway was originally planned as a controlled access facility known as the Apopka (US 441) Bypass, and received a Finding of No Significant Impact by FHWA in December 1998. Due to lack of prospective tax funding, the Expressway Authority took over the project from FDOT in 2004 as a limited access expressway. Phase I of the SR 429/SR 414 John Land Apopka Expressway project, extending Maitland Boulevard (SR 414) from US 441 south of Apopka to the existing alignment of SR 429, opened to traffic in May 2009. Phase II is now under construction and will extend the project west to the planned SR 429/SR 414 systems interchange, and north on a new alignment to US 441 (SR 500), where Wekiva Parkway (SR 429) will begin. Construction of Phase II is scheduled to be completed in late summer of 2012. The project will relieve traffic on heavily congested US 441 (SR 500) through Apopka.

Extending Maitland Boulevard to connect with the Western Beltway (Phase I) provides direct access from I-4 (SR 400) in Maitland, just north of Orlando, to the SR 429 Western Beltway. Completion of Phase II and Wekiva Parkway (SR 429) will further reduce traffic on US 441 (SR 500) by providing an expressway alternative to Lake County.

2.4 Study Area Transportation Needs

2.4.1 Roadway Deficiencies

The project study area is generally bounded by US 441 (SR 500) in Apopka, in northwest Orange County; by US 441 (SR 500) in Mount Dora, Lake County; and by I-4 (SR 400) in Sanford, Seminole County. Development within the study area is more concentrated at the project boundaries, particularly in Seminole County. Most of the existing roadways within the study area consist primarily of two-lane local and collector roads. SR 46 is the only east-west connection between Lake County and Seminole County within the study area. A safer, higher capacity east-west travel facility is needed.

Many of the existing roadways within the study area have not been substantially upgraded since their initial construction and do not meet current design standards. In addition, many of these roads only extend finite distances from one “T” intersection to another. Motorists desiring to travel through the study area are forced to make a series of turns to reach their final destination. As the travel demand grows in this area, consistent with the region’s growth management plans, the substandard local roadways and disjointed network will not be able to adequately serve the local regional needs. This project would provide a high capacity regional alternative through the area that could serve a substantial portion of the future traffic demand and help to segregate the longer, regional trips from the shorter local trips. **Exhibit 2-3** presents the existing roadway network within and adjacent to the project study area and the number of lanes on the major roads.

2.4.2 Capacity

SR 46 is currently a two-lane, undivided roadway from Mount Dora in Lake County to Orange Boulevard in Seminole County. The section from Orange Boulevard to I-4 (SR 400) is a four-lane, divided roadway. The most recent LOS data from FDOT shows that SR 46 is over capacity from CR 437 in Lake County to Orange Boulevard/CR 431 in Seminole County. Several new subdivisions within and adjacent to the study area are currently in various stages of planning and construction, and will add to the demand on the area roadways. The Wekiva Parkway (SR 429) is expected to address the increased travel demands, both locally and regionally.

As shown in **Table 2-1** (Lake County), **Table 2-2** (Orange County) and **Table 2-3** (Seminole County), many roads in the study area are currently operating at conditions below Level of Service “C”. These level of service conditions, especially for SR 46, are projected to worsen considerably under the No-Build scenario which is described in *Section 3*. **Exhibit 2-4** (Lake and Orange Counties) and **Exhibit 2-5** (Seminole County) present a graphical depiction of the existing (2005) level of service conditions and directional design hourly volumes for the collector and arterial roadways within the study corridor.

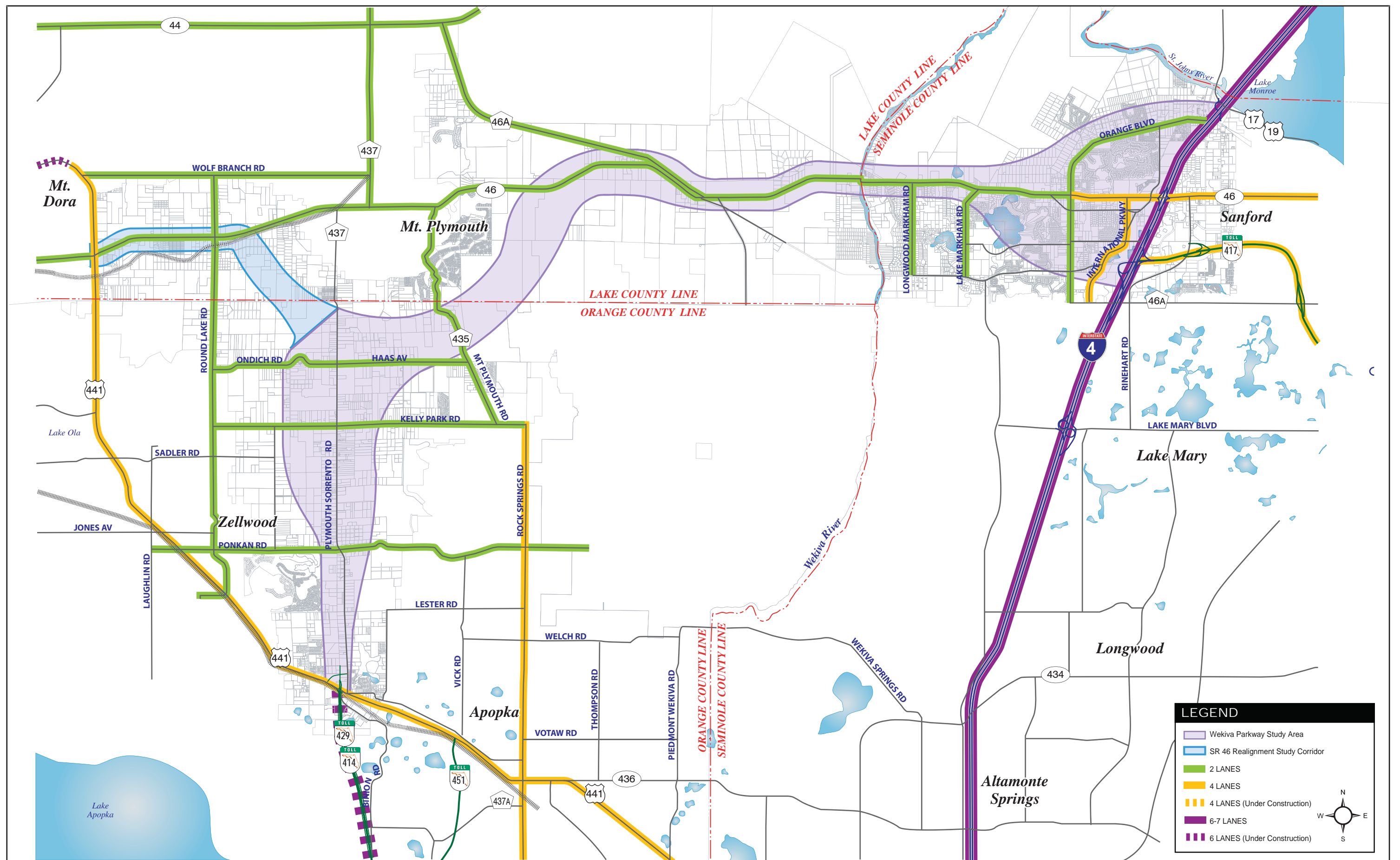


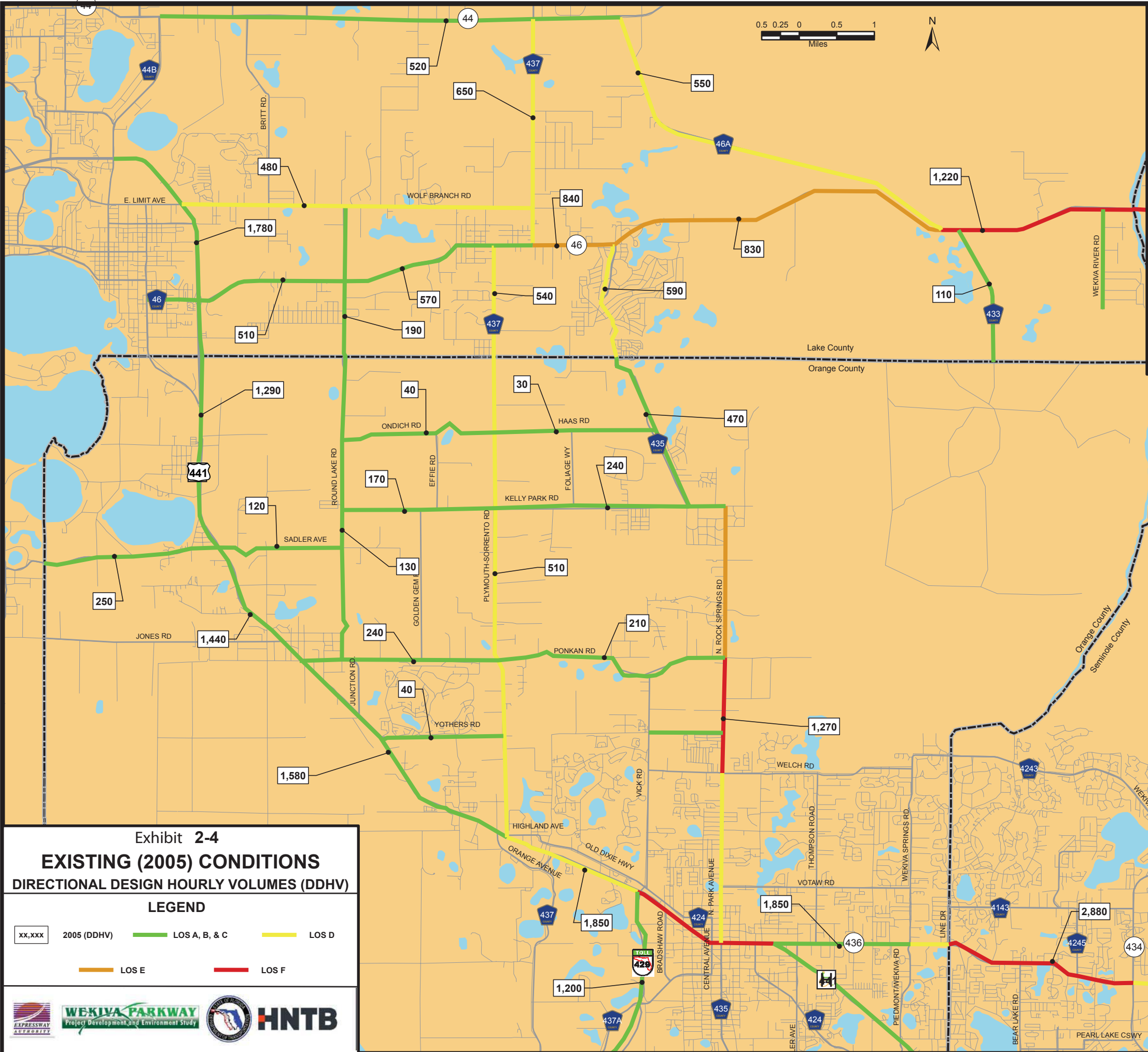
Exhibit 2-3
Existing Roadway Network / Number of Lanes on Existing Roadways

TABLE 2-1
Existing (2005) Roadway Segment LOS Summary – Lake County

Roadway	From	To	LOS
S.R. 46	U.S. 441	Round Lake Rd.	C
	Round Lake Rd.	C.R. 437	C
	C.R. 437	C.R. 435	E
	C.R. 435	C.R. 46A	E
	C.R. 46A	Lake County Line	F
C.R. 437	Lake County Line	S.R. 46	D
	S.R. 46	S.R. 44	D
C.R. 435	Lake County Line	S.R. 46	D
C.R. 46A	S.R. 44	S.R. 46	D
Round Lake Rd.	Lake County Line	S.R. 46	C
	S.R. 46	Wolf Branch Rd.	C
Wolf Branch Rd.	U.S. 441	Round Lake Rd.	D
	Round Lake Rd.	C.R. 437	D

TABLE 2-2
Existing (2005) Roadway Segment LOS Summary – Orange County

Roadway	From	To	LOS
U.S. 441	S.R. 436	C.R. 435	F
	C.R. 435	S.R. 429	F
	S.R. 429	C.R. 437	D
	C.R. 437	Ponkan Rd.	C
	Ponkan Rd.	Sadler Ave.	B
	Sadler Ave.	S.R. 46	B
C.R. 435	U.S. 441	Votaw Rd.	D
	Votaw Rd.	Welch Rd.	D
	Welch Rd.	Ponkan Rd.	F
	Ponkan Rd.	Kelly Park Rd.	E
	Kelly Park Rd.	Lake County Line	C
C.R. 437	U.S. 441	Ponkan Rd.	D
	Ponkan Rd.	Kelly Park Rd.	D
	Kelly Park Rd.	Lake County Line	D
Round Lake Rd.	Ponkan Rd.	Sadler Ave.	C
	Sadler Ave.	Kelly Park Rd.	C
	Kelly Park Rd.	Ondich Rd.	C
	Ondich Rd.	Lake County Line	C
Ponkan Rd.	U.S. 441	Round Lake Rd.	C
	Round Lake Rd.	C.R. 437	C
	C.R. 437	C.R. 435	C
Kelly Park Rd.	Round Lake Rd.	C.R. 437	C
	C.R. 437	C.R. 435	C
Sadler Ave	Lake County Line	U.S. 441	C
	U.S. 441	Round Lake Rd.	C
Ondich Rd.	Round Lake Rd.	C.R. 437	C
Haas Rd.	C.R. 437	C.R. 435	C



SEE EXHIBIT 2-5
FOR
SEMINOLE COUNTY

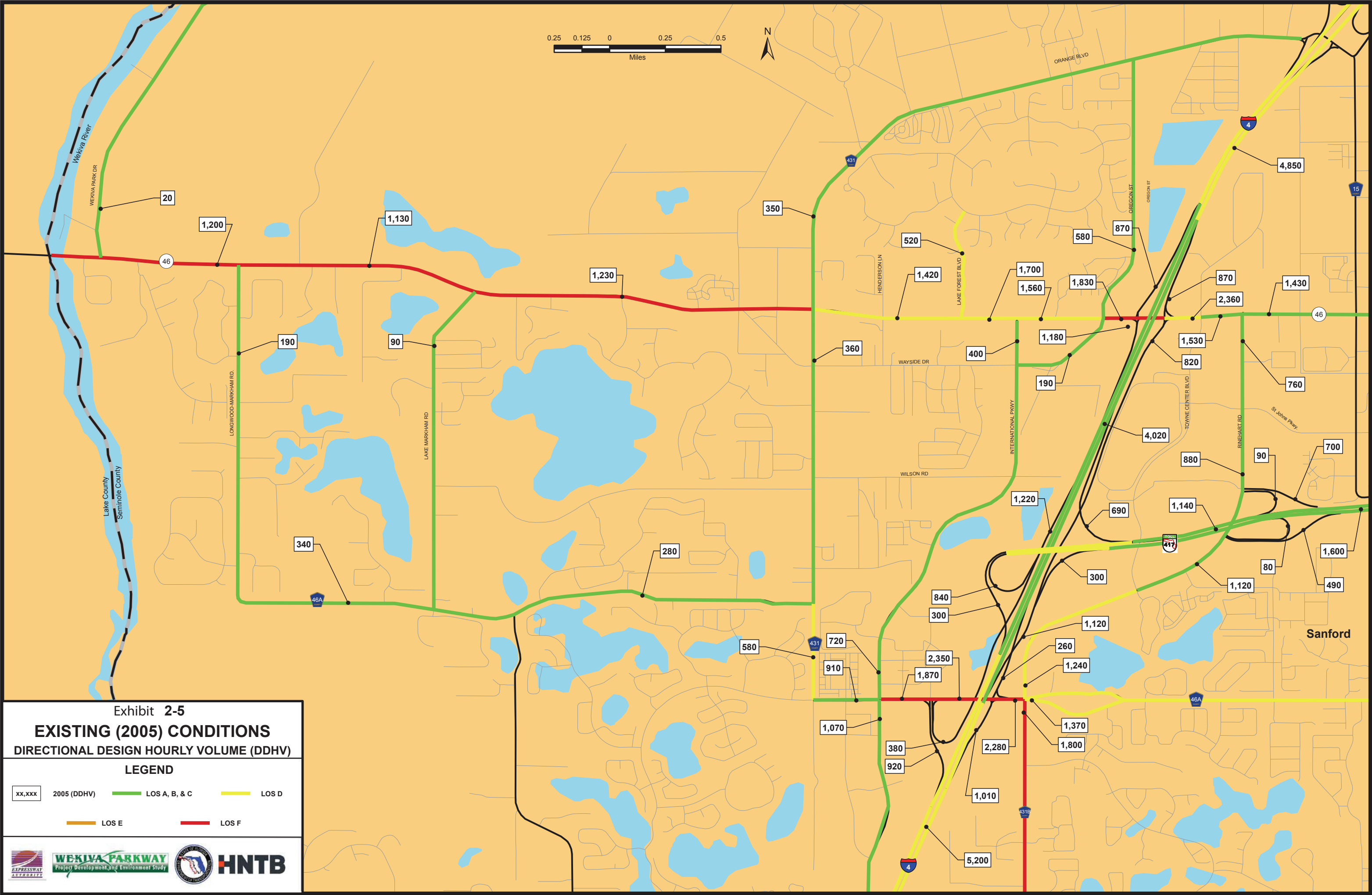


TABLE 2-3
Existing (2005) Roadway Segment LOS Summary – Seminole County

Roadway	From	To	LOS
Interstate 4	S.R. 436	S.R. 434	E
	S.R. 434	Lake Mary Blvd.	E
	Lake Mary Blvd.	C.R. 46A / S.R. 417	D
	C.R. 46A / S.R. 417	S.R. 46	C
	S.R. 46	U.S. 17/92	D
S.R. 46	Lake County Line	Longwood Markham Rd.	F
	Longwood-Markham Rd.	Lake Markham Rd.	F
	Lake Markham Rd.	C.R. 431	F
	C.R. 431	Lake Forest Blvd.	D
	Lake Forest Blvd.	International Pkwy.	D
	International Pkwy.	Oregon St/Wayside Dr	D
	Oregon St/Wayside Dr	Interstate 4	F
	Interstate 4	Town Center Blvd	D
C.R. 46A	Orange Blvd.	International Pkwy.	C
	International Pkwy.	Colonial Center Pkwy.	F
	Colonial Center Pkwy.	I-4	F
	I-4	Rinehart Rd	F
	Rinehart Rd	C.R. 15	D
C.R. 431	C.R. 46A	Wayside Dr.	D
	Wayside Dr.	S.R. 46	C
	S.R. 46	I-4	C
Rinehart Rd	Anderson Lane	CR 46A	F
	CR 46A	Town Center Blvd	D
	Town Center Blvd	SR 417	C

2.4.3 Safety

Many of the study area roadways are two-lane local and arterial roads that do not meet the current design standards for safety and capacity. In 2004, 20 people died on SR 46 through Lake and Seminole Counties. Eleven of the 20 fatalities on SR 46 occurred within the Wekiva Parkway study area, with seven in Lake County and four in Seminole County. On a per mile basis, the section of SR 46 through Lake County is the most dangerous roadway in Central Florida, according to an *Orlando Sentinel* analysis of 2004 state and federal crash data. The section of SR 46 through Seminole County is the region's second most dangerous stretch of road.

Over a three-year period (Year 2002 to 2004), 18 fatalities were reported on SR 46 from US 441 (SR 500) in Lake County to I-4 (SR 400) in Seminole County. For the same period, 128 crashes with one fatality were recorded on Orange County roadways within or near the study corridor, and an additional 33 crashes on three of those roadways that extend into the Lake County portion of the study corridor.

Two major arterials, US 441 (SR 500) in Orange and Lake Counties and I-4 (SR 400) in Seminole County, bound the study corridor. Fourteen fatalities occurred on US 441 (SR 500) from CR 437 in Orange County to Wolf Branch Road in Lake County over the three-year period. Twelve fatalities occurred on I-4 (SR 400) from the CR 46A ramp to US 17-92.

Overall, the state and county crash data records for roadways within or adjacent to the study corridor indicate that several roadway segments have safety ratios that exceed the 1.0 significance level, which is based on crash history of similar roadway facilities.

As traffic volumes grow on the unimproved local roadways, it is reasonable to assume that a similar increase in traffic incidents would continue to occur. Wekiva Parkway (SR 429) and the widened and realigned sections of SR 46 would be designed and constructed in accordance with all current standards and would be available to those regional motorists desiring to bypass local traffic. A modern facility, coupled with the opportunity for segregation of trip types, would help to minimize the potential for traffic incidents and fatalities.

An additional safety concern in the study corridor is vehicle-wildlife conflict. Since much of the corridor consists of sparsely populated rural residential areas and large tracts of conservation land, there have historically been many conflicts between vehicles and wildlife on roadways, particularly SR 46 in east Lake County. Over the past six years there have been over 30 black bears killed by collisions with vehicles. The proposed Wekiva Parkway (SR 429) project incorporates wildlife bridges at three locations to enhance wildlife habitat connectivity between conservation lands and greatly reduce the number of vehicle-wildlife conflicts. Refer to *Section 4.3.13.3* for more information on the proposed wildlife structures.

2.5 Transportation Demand

This project is being developed with local input and is consistent with local and state goal attainment policies. The project is acceptable to METROPLAN Orlando and the Lake-Sumter MPO.

The Wekiva Parkway (SR 429) study corridor is within the jurisdictions of Orange, Lake, and Seminole Counties, the City of Apopka, and the City of Mount Dora. The Lake County portion of the project falls within the Lake-Sumter MPO boundary. Orange and Seminole Counties are within the METROPLAN Orlando boundary. The FDOT is the lead agency for the Lake and Seminole County portions of the project, and the Orlando-Orange County Expressway Authority is the lead agency for the Orange County portion.

2.5.1 Population and Employment

Growth in residential population and employment opportunities has contributed to an increasing travel demand in northwest Orange County, northern Lake County, and western Seminole County. Population and employment projections indicate that travel demand will continue to increase in the area in the foreseeable future. The proposed project is a needed link between these urbanized areas.

Based on US Census Bureau population estimations (using base data from the 2000 US Census), the population of Orange County was approximately 1,023,000 persons in 2005. It is anticipated that the population of Orange County will grow to 1,411,900 persons, a 38 percent increase, by 2025. The population of Lake County was approximately 277,000 persons in 2005. It is anticipated that the population of Lake County will grow to 463,500 persons, a 67 percent increase, by 2025. The population of Seminole County was approximately 401,600 persons in 2005. It is anticipated that the population of Seminole County will grow to 475,500 persons, an 18 percent increase, by 2025. Projected (2025) population data was obtained from METROPLAN Orlando and the Lake-Sumter MPO. Employment is expected to increase 41 percent in Orange County from the year 2005 (816,300 jobs) to 2025 (1,151,000 jobs). Approximately 68 percent of the jobs in Orange County are expected to be in the service industry in 2025. Employment is expected to increase 62 percent in Lake County from the year 2005 (114,900 jobs) to 2025 (185,600 jobs). In the same period, employment is expected to increase 57 percent in Seminole County from

the year 2005 (205,100 jobs) to 2025 (321,100 jobs). Approximately 55 and 58 percent of the jobs in Lake and Seminole Counties, respectively, are expected to be in the service industry in 2025. Projected (2025) employment data was determined using traffic analysis zones from METROPLAN Orlando and from the Lake-Sumter MPO.

METROPLAN Orlando's *Tracking the Trends 2008* reports the following findings:

- From 2004 to 2008, the population of the Orlando Metropolitan Area (Orange, Osceola, and Seminole Counties) increased by 10.5%;
- From 2003 to 2007, the number of vehicle miles traveled in the Orlando Metropolitan Area increased by 15.0%;
- From 2003 to 2007, the number of traffic crashes in the area increased by 22.4%, the number of injuries increased by 5.0%, and the number of fatalities increased by 14.9%.

The research of trends within Central Florida provides the information necessary to develop the LRTP, Transportation Improvement Program (TIP) and the Prioritized Project List to meet the region's current and future transportation demands.

2.5.2 Consistency with Transportation Plans

The FDOT transportation plan provides the basis for the development of a statewide transportation system by prioritizing state projects listed in the LRTPs of regional and local jurisdictions. The Lake-Sumter MPO and METROPLAN Orlando are responsible for developing and updating their LRTPs and for addressing all the transportation needs of this region. All local government comprehensive plans must be consistent with the Lake-Sumter MPO LRTP and the METROPLAN Orlando LRTP. Projects in the comprehensive plans of the local governments are compiled in the regional MPO planning documents. The LRTP includes federal, state, and local highway projects considered financially feasible.

Wekiva Parkway (SR 429) has been added to the Florida Intrastate Highway System (FIHS), a network of interconnected limited and controlled access highways that provides for high-speed and high volume traffic movements within the state. Addition to the FIHS is a prerequisite to being added to the SIS. Wekiva Parkway (SR 429) is a planned addition to the SIS. The Wekiva Parkway (SR 429)/SR 46 Realignment project has been added to the METROPLAN Orlando 2030 LRTP and the Lake-Sumter MPO 2035 LRTP.

Many of the local roadways in the vicinity of the proposed project are two-lane roadways serving mostly rural farmland and agricultural residential land uses. Based on information collected during speed studies conducted by Orange County, inconsistent speed limits, lack of turn lanes, pavement rutting due to heavy truck traffic, winding roads, reverse curves, insufficient sight distance, lack of street lighting, and over-capacity conditions are some of the characteristics that contribute to high crash rates reported on these roadways.

The METROPLAN Orlando 2030 LRTP identified the need to widen Plymouth-Sorrento Road to 4 lanes from US 441 (SR 500) in Apopka to the Orange/Lake County line; however, Orange County removed the project from the 2030 LRTP amendment due to lack of funding. An abridged version of the widening project, from US 441 to Ponkan Road, is included in the amended 2030 LRTP in phases through 2020 as a Planned County Partnership, but is currently unfunded. Plymouth Sorrento Road runs parallel to the east of the proposed Wekiva Parkway (SR 429), and is the only direct route between US 441 (SR 500) and SR 46 in Lake County (Plymouth-Sorrento Road becomes CR 437 at the Lake County line.) Widening

of Mt. Plymouth Road (CR 435) from Kelly Park Road to the Lake County Line has also been added to the 2030 LRTP and CIP as a Planned County Partnership, but is also currently unfunded. Mt. Plymouth Road, together with Kelly Park Road and Rock Springs Road (CR 435) provide a less direct route between US 441 and SR 46. Construction was recently completed on Rock Springs Road to widen the remaining two lane segment between Ponkan Road and Kelly Park Road to a four and five lane facility. Wekiva Parkway (SR 429) is expected to alleviate congestion on these arterials and local roads, and will divert through traffic off the local roads.

As previously discussed in *Section 2.3*, Phase I of the SR 429/SR 414 John Land Apopka Expressway opened to traffic in May 2009. Construction of Phase II is scheduled to be completed in late summer of 2012. Wekiva Parkway (SR 429) will begin at the terminus of the SR 429/SR 414 John Land Apopka Expressway at the interchange with US 441 in Apopka.

The following currently adopted planning documents of the Lake-Sumter MPO and METROPLAN Orlando, which contain a compilation of all planned and programmed local, state, and federal projects, were reviewed to determine their consistency with the proposed improvements:

- METROPLAN Orlando *2030 Long Range Transportation Plan* (amendment adopted July 20, 2011). Wekiva Parkway project segments are shown in the LRTP on page 25 and page 28. Major planned improvements of the surrounding roadway network in the vicinity of the project study area are presented in **Exhibit 2-6** and listed in **Table 2-4**.
- METROPLAN Orlando *Transportation Improvement Program FY 2011/12 – 2015/16* (updated May 9, 2012). Wekiva Parkway project segments are shown in the TIP on page III-18 and page V-8. Major roadway improvements in the vicinity of the study area are presented in **Exhibit 2-6** and listed in **Table 2-5**.
- *Lake-Sumter MPO 2035 Long Range Transportation Plan* (adopted December 8, 2010). Wekiva Parkway project segments are shown in the LRTP on page 57, Table 5. Major roadway improvements in the vicinity of the study area are presented in **Exhibit 2-6** and listed in **Table 2-6**.
- *Lake-Sumter MPO Transportation Improvement Program FY 2011/12 – 2015/16* (approved June 22, 2011; amended January 25, 2012). Wekiva Parkway project segments are shown in the TIP on page 1, Table 1 and Table 2. Major roadway improvements in the vicinity of the study area are presented in **Exhibit 2-6** and listed in **Table 2-7**.

2.5.3 Project Costs, Funding Sources and Implementation

Design, right-of-way acquisition, and construction of the Wekiva Parkway (SR 429)/SR 46 Realignment project will be implemented in sections by FDOT and the Expressway Authority. The sections are described below and are depicted in **Exhibit 2-7**.

- **Section 1A in Orange County (FM # 431163-1 Expressway Authority)**
Wekiva Parkway (SR 429) from the SR 429/SR 414 interchange with US 441 to north of Ponkan Road.
- **Section 1B in Orange County (FM # 431163-2 Expressway Authority)**
Wekiva Parkway (SR 429) from north of Ponkan Road to north of Kelly Park Road.

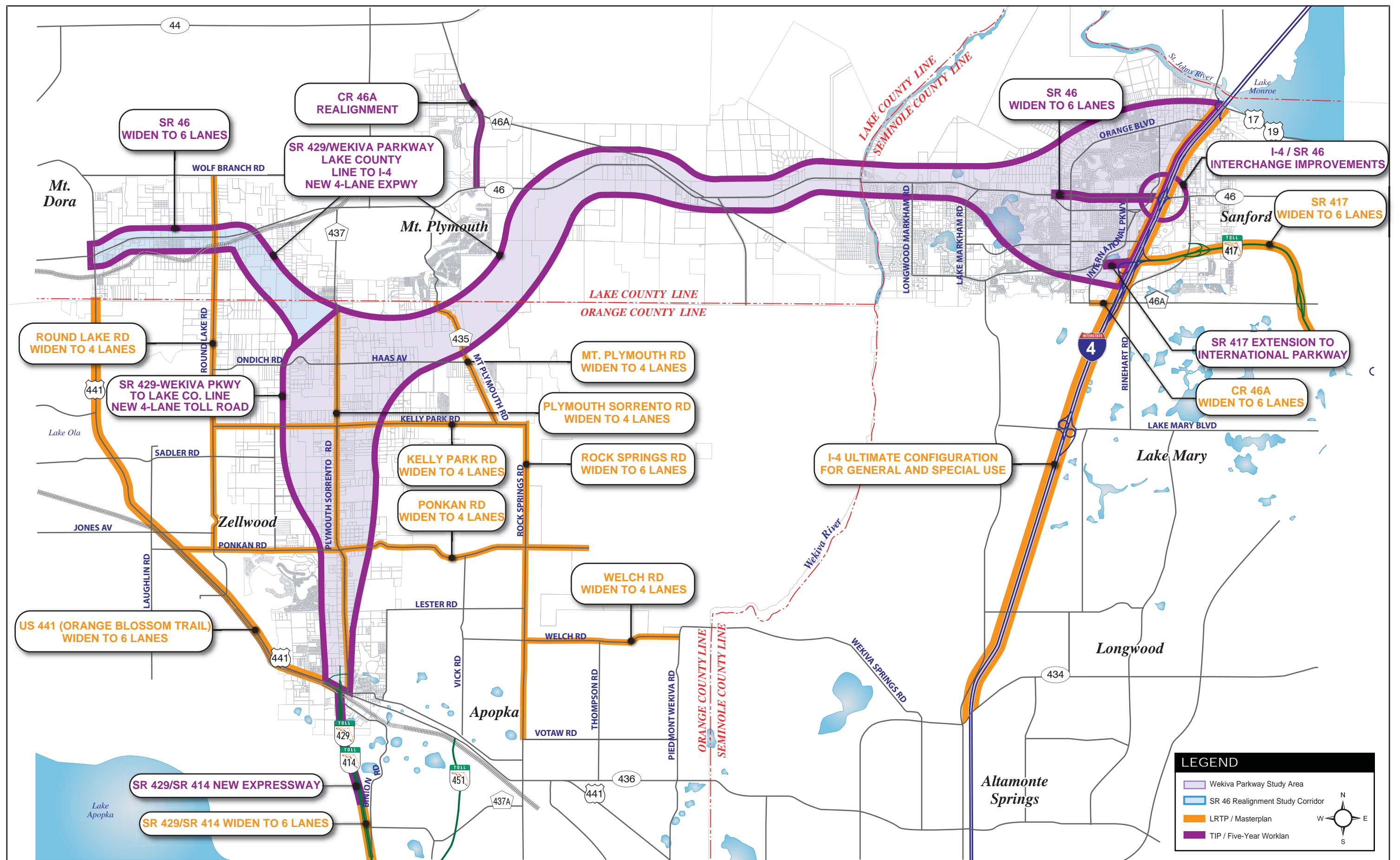


Exhibit 2-6
Projects in the L RTP and the TIP / 5-Year Work Plan

TABLE 2-4
METROPLAN Orlando 2030 LRTP

Project Name	From	To	Work Description
I-4	at SR 46		Improve Interchange
I-4	1 mi. N. of SR 434	Seminole/ Volusia Co. Line	Ultimate Configuration for General and Special Use Lanes
SR 417/ Seminole Expwy	SR 426/ Aloma Ave	I-4	Widen 4-6 Lanes
SR 429/ Wekiva Pkwy	SR 414/ John Land Apopka Expwy	US 441/ Orange Blossom Trail	New 4 lane toll road
SR 429/ Wekiva Pkwy	US 441/ Orange Blossom Trail	Lake County Line	New 4 lane toll road
SR 429/ Wekiva Pkwy	Lake County Line	I-4	New 6 lane toll road
Rock Springs Rd	Welch Rd	Ponkan Rd	Widen 4-6 Lanes
Plymouth-Sorrento Rd	Ponkan Rd	US 441/ Orange Blossom Trail	Widen 2-4 Lanes
Welch Rd	Rock Springs Rd	Thompson Rd	Widen 2-4 Lanes
Plymouth-Sorrento Rd	Kelly Park Rd	Ponkan Rd	Widen 2-4 Lanes
Plymouth-Sorrento Rd	Lake County Line	Kelly Park Rd	Widen 2-4 Lanes
Ponkan Rd	US 441/ Orange Blossom Trail	Plymouth- Sorrento Rd	Widen 2-4 Lanes
Kelly Park Rd	Plymouth-Sorrento Rd	Rock Springs Rd	Widen 2-4 Lanes
Kelly Park Rd	Round Lake Rd	Plymouth- Sorrento Rd	Widen 2-4 Lanes
Round Lake Rd	Kelly Park Rd	Lake County Line	Widen 2-4 Lanes
Welch Rd	Thompson Rd	Wekiwa Springs Rd	Widen 2-4 Lanes
Ponkan Rd	Plymouth-Sorrento Rd	Rock Springs Rd	Widen 2-4 Lanes
Rock Springs Rd/ Park Ave	Votaw Rd	Welch Rd	Widen 4-6 Lanes
Rock Springs Rd	Ponkan Rd	Kelly Park Rd	Widen 4-6 Lanes
Round Lake Rd	Ponkan Rd	Kelly Park Rd	Widen 2-4 Lanes
Mt. Plymouth Rd	Kelly Park Rd	Lake County Line	Widen 2-4 Lanes
US 441 (Orange Blossom Trail)	Plymouth-Sorrento Rd	Ponkan Rd	Widen 4-6 Lanes
US 441 (Orange Blossom Trail)	Ponkan Rd	Sadler Rd	Widen 4-6 Lanes
US 441 (Orange Blossom Trail)	Sadler Rd	Lake County Line	Widen 4-6 Lanes
CR 46 A	International Pkwy	Rinehart Rd	Widen 4-6 Lanes
SR 46	Orange Ave/ Wekiva Pkwy	Orange Blvd	Widen 2-4 Lanes

TABLE 2-5
METROPLAN Orlando TIP FY 2011/12 - 2015/16

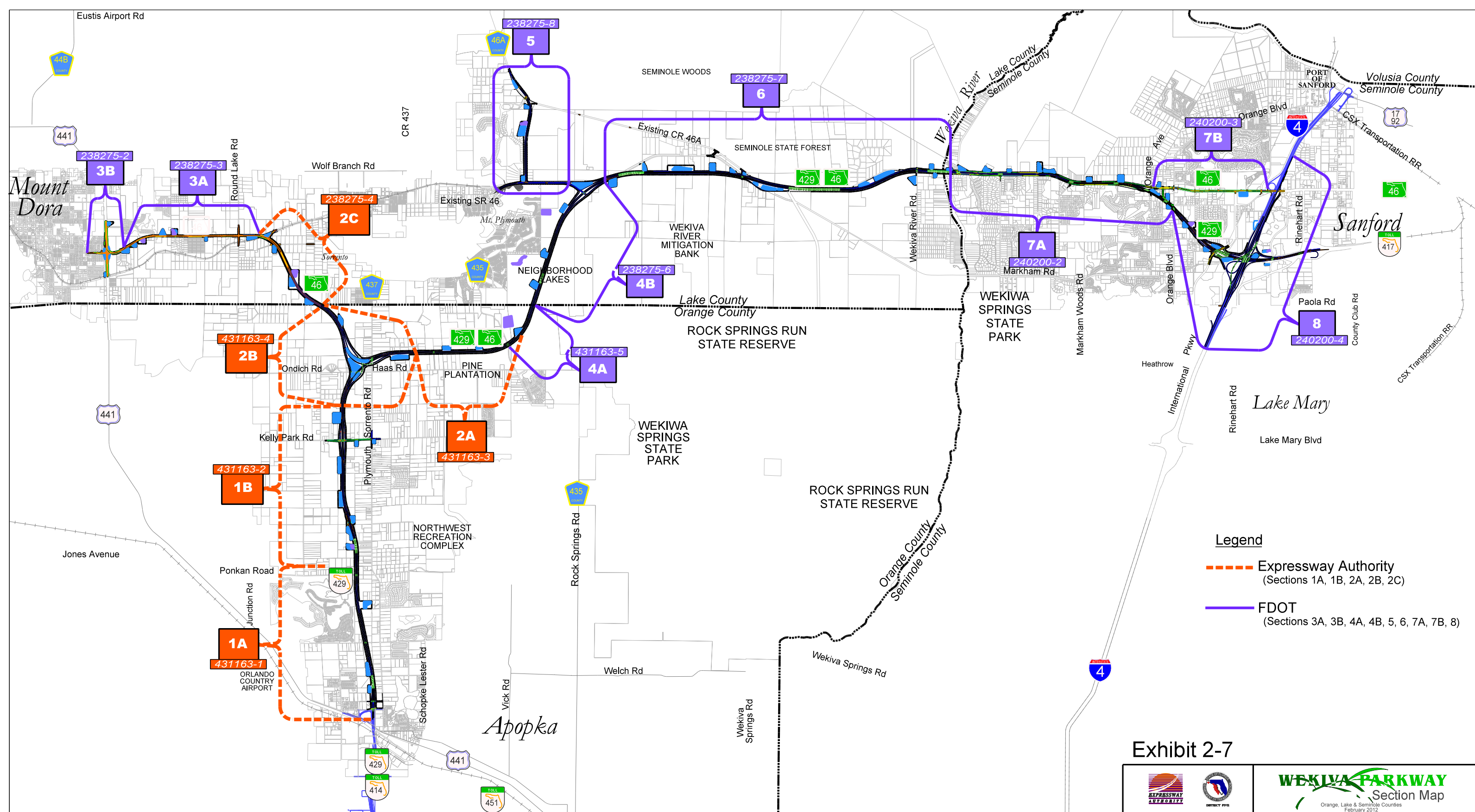
Project Name	From	To	Work Description
I-4	at SR 46		Improve Major Interchange
SR 417 Extension	Existing SR 417	International Pkwy	New Expressway / Ramp
SR 429/SR 414 John Land Apopka Expressway	Boy Scout Road	SR 429	New Expressway
SR 429/SR 414 John Land Apopka Expressway (New CR 437A Interchange)			New Interchange
SR 429/SR 414 John Land Apopka Expressway (Phase II - Vick Road Intersection)			New Interchange
SR 429/SR 414 John Land Apopka Expressway	SR 429	US 441 (east)	New Expressway
SR 429/SR 414 John Land Apopka Expressway	US 441 (west)	Boy Scout Road	New Expressway
SR 429/Wekiva Parkway (Orange County)	US 441	Orange/Lake County Line	New Expressway
SR 429/Wekiva Parkway (SR 46 Bypass – Lake County)	US 441 Interchange	Orange/Lake County Line	Widening /New Expressway
SR 429/Wekiva Parkway (Lake County)	Orange/Lake County Line	Old McDonald Rd.	New Expressway
SR 429/Wekiva Parkway (Lake County)	Old McDonald Rd.	Lake/Seminole County Line	New Expressway
SR 429/Wekiva Parkway (Seminole County)	Lake/Seminole County Line	I-4 Interchange	New Expressway
SR 429/Wekiva Parkway			Advanced ROW Acquisition
SR 429/Wekiva Parkway	US 441	I-4	New Expressway

TABLE 2-6
Lake-Sumter MPO 2035 LRTP

Project Name	From	To	Work Description
SR 46	US 441	Orange County Line	Widened to 6 Lanes Divided
Wekiva Parkway	Orange County Line	Seminole County Line	New Expressway
Round Lake Rd	Orange County Line	Wolf Branch Rd	Widen to 4 Lanes Divided

TABLE 2-7
Lake-Sumter MPO TIP FY 2011/12 - 2015/16

Project Name	From	To	Work Description
Wekiva Parkway Line & Grade	Orange County Line	West of Old McDonald Rd.	Preliminary Engineering
Wekiva Parkway Line & Grade	West of Old McDonald Rd.	Seminole County Line	Preliminary Engineering



- **Section 2A in Orange County (FM # 431163-3 Expressway Authority)**
Wekiva Parkway (SR 429) from west of Morris Access Road to east of CR 435.
- **Section 2B in Orange County (FM # 431163-4 Expressway Authority)**
Wekiva Parkway (SR 429)/SR 46 Realignment systems interchange and portions of SR 429 mainline and portion SR 46 Realignment to Orange County/Lake County line.
- **Section 2C in Lake County West (FM # 238275-4 Expressway Authority)**
SR 46 Realignment from SR 46 reconstruction to Lake County/Orange County line.
- **Section 3A in Lake County West (FM # 238275-3 FDOT)**
SR 46 reconstruction from US 441/SR 46 interchange reconstruction to SR 46 Realignment.
- **Section 3B in Lake County West (FM # 238275-2 FDOT)**
US 441/SR 46 interchange reconstruction and portions of US 441 and SR 46.
- **Section 4A in Orange County (FM # 431163-5 FDOT)**
Wekiva Parkway (SR 429) from CR 435 to Orange County/Lake County line.
- **Section 4B in Lake County East (FM # 238275-6 FDOT)**
Wekiva Parkway (SR 429) from Lake County/Orange County line to east of Neighborhood Lakes interchange.
- **Section 5 in Lake County East (FM # 238275-8 FDOT)**
CR 46A Realignment from SR 46 to north of Arundel Way.
- **Section 6 in Lake County East (FM # 238275-7 FDOT)**
Wekiva Parkway (SR 429) and Service Road from east of Neighborhood Lakes interchange to east of Wekiva River.
- **Section 7A in Seminole County (FM # 240200-2 FDOT)**
Wekiva Parkway (SR 429) and Frontage Roads from east of Wekiva River to Orange Boulevard (CR 431).
- **Section 7B in Seminole County (FM # 240200-3 FDOT)**
SR 46 reconstruction from east of Orange Avenue to SR 46/I-4 interchange.
- **Section 8 in Seminole County (FM # 240200-4 FDOT)**
Wekiva Parkway (SR 429) from Orange Boulevard (CR 431) to I-4, including modification of SR 417/I-4 interchange.

Details on the proposed construction schedule, estimated costs and proposed funding sources for each of the sections are provided in **Exhibit 2-8**.

2.5.4 Comprehensive Plan Updates

Section 369.321, *F.S. of the Wekiva Parkway and Protection Act* requires comprehensive plan amendments for all local governments within the Wekiva Study Area. In addition, local governments hosting an interchange on the Wekiva Parkway must adopt an interchange land use plan within their comprehensive plans to address appropriate land use and compatible development.

Wekiva Parkway (SR 429)/SR 46 Realignment Project Sections
Proposed Schedule, Funding Sources and Total Section Cost

EXHIBIT 2-8

SECTION	2011		2012				2013				2014				2015				2016				2017				2018				2019				2020				2021				Funding Source(s)	Total Section Cost
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
Section 1A (FM # 431163-1)																																				OOCEA	\$132,075,918							
Design Services																																												
R/W Services																																												
Construction																																												
Section 1B (FM # 431163-2)																																					OOCEA	\$135,013,678						
Design Services																																												
R/W Services																																												
Construction																																												
Section 2B (FM # 431163-4)																																					OOCEA	\$177,633,967						
Design Services																																												
R/W Services																																												
Construction																																												
Section 2A (FM # 431163-3)																																					OOCEA	\$58,988,016						
Design Services																																												
R/W Services																																												
Construction																																												
Section 2C (FM # 238275-4)																																					OOCEA	\$23,288,421						
Design Services																																												
R/W Services																																												
Construction																																												
Section 3A (FM # 238275-3) & Section 3B (FM # 238275-2)																																					State and OOCEA	\$108,498,230						
Design Services																																												
R/W Services																																												
Construction																																												
Section 4A (FM # 431163-5) & Section 4B (FM # 238275-6)																																					State	\$48,713,844						
Prelim Design Services																																												
R/W Services																																												
DB Procurement																																												
Construction																																												

Sheet 1 of 2

Wekiva Parkway (SR 429)/SR 46 Realignment Project Sections
Proposed Schedule, Funding Sources and Total Section Cost

EXHIBIT 2-8

	2011		2012				2013				2014				2015				2016				2017				2018				2019				2020				2021				Funding Source(s)	Total Section Cost
SECTION	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4										
Section 5 (FM # 238275-8) & Section 6 (FM # 238275-7)																																			Federal, State and OOCEA	\$306,011,878								
Design Services																																												
R/W Services																																												
Construction																																												
Section 7A (FM # 240200-2)																																				Federal, State and OOCEA	\$205,958,880							
Design Services																																												
R/W Services																																												
Construction																																												
Section 7B (FM # 240200-3)																																				State and OOCEA	\$22,781,258							
Prelim Design Services																																												
R/W Services			No R/W Required for this Project																																									
DB Procurement																																												
Construction																																												
Section 8 (FM # 240200-4)																																				Federal, State and OOCEA	\$436,440,275							
Prelim Design Services																																												
R/W Services																																												
DB Procurement																																												
Construction																																												

Legend

Bar graph colors:
Black -- Design Services
Orange -- Right-of-Way Services
Blue -- Construction
Green -- Design-Build Procurement

Acronyms:
FM # is Financial Management Number
Q is Quarter of Year
R/W is Right-of-Way
DB is Design-Build
OOCEA is Orlando-Orange County Expressway Authority

Note:
Sections are depicted in Exhibit 2-7

As of May 31, 2010, 14 of the 15 local governments within the Wekiva Study Area are in compliance with the Land Use Strategies amendments, pursuant to Section 369.321(3), F.S. Eatonville is in the process of responding to DCA for all comprehensive plan amendments pursuant to the *Wekiva Parkway and Protection Act*.

Table 2-8 provides the status of the comprehensive plan amendments, with the exception of the interchange land use plan amendments which will be required after the project public hearing and approval of the final alignment.

TABLE 2-8
Status of Comprehensive Plan Amendments Pursuant to the Wekiva Parkway and Protection Act, Section 369, Part II, F.S.

Local Government	Open Space Policy	Land Use Strategies	Water Supply Facilities Work Plan	Stormwater Amendment	Wastewater Amendment
Orange County	Adopted	Adopted	Adopted	Adopted	Adopted
Apopka	Adopted	Adopted	DCA Objections	Adopted	Incomplete
Eatonville	DCA Objections	DCA Objections	DCA Objections	DCA Objections	DCA Objections
Maitland	Adopted	Adopted	Adopted	Adopted	Adopted
Oakland	Adopted	Adopted	Adopted	Adopted	Adopted
Ocoee	Adopted	Adopted	Not Submitted	Adopted	Not Submitted
Orlando	Adopted	Adopted	Adopted	Incomplete	Adopted
Winter Garden	Adopted	Adopted	Adopted	Adopted	Adopted
Seminole County	Adopted	Adopted	Adopted	Adopted	DCA Objections
Altamonte Springs	Adopted	Adopted	Under Review	Adopted	Adopted
Lake Mary	Adopted	Adopted	Adopted	Adopted	DCA Objections
Longwood	Adopted	Adopted	Adopted	Adopted	Adopted
Lake County	Adopted	Adopted	Under Review	Adopted	Adopted
Eustis	Adopted	Adopted	Incomplete	Adopted	Adopted
Mount Dora	Adopted	Adopted	Adopted	Adopted	Adopted

Source: Department of Community Affairs, July 2010.