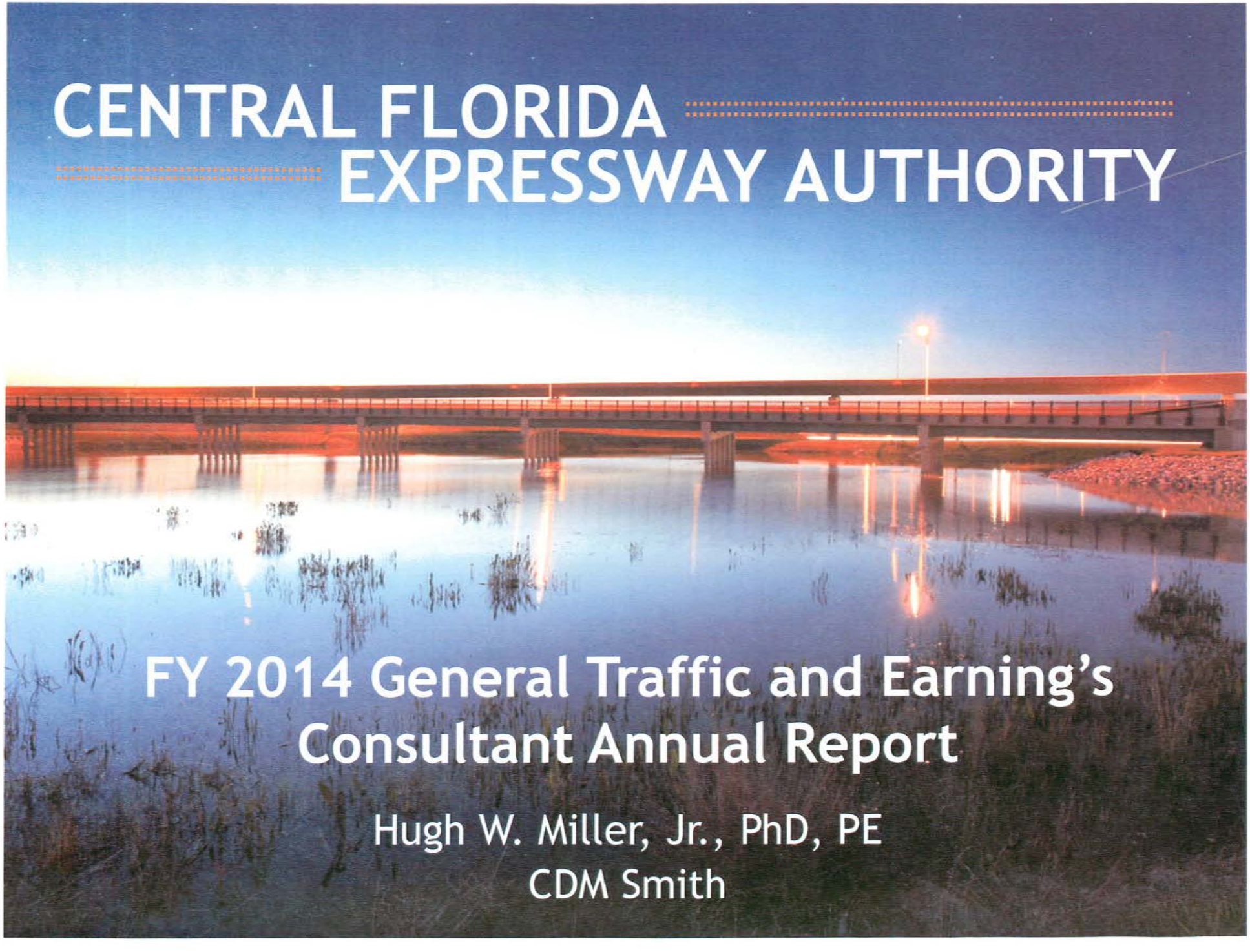

CENTRAL FLORIDA
EXPRESSWAY AUTHORITY
FY 2014 General Traffic and Earning's
Consultant Annual Report
Hugh W. Miller, Jr., PhD, PE
CDM Smith

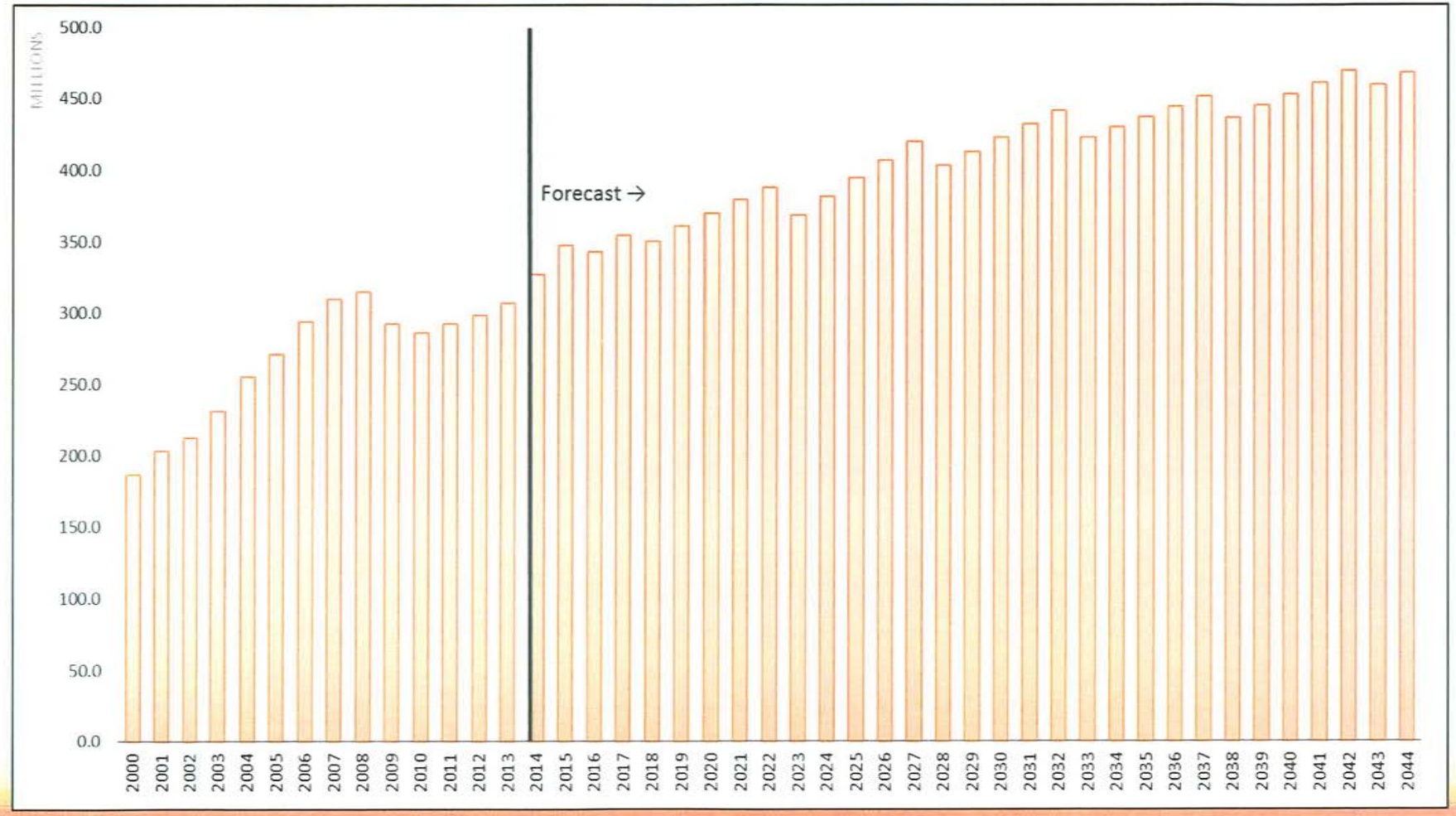
FY 2014 GENERAL TRAFFIC AND EARNING'S CONSULTANT ANNUAL REPORT

- Annual activity
  - Required by bond covenants
  - Performed by an "Independent Consultant"
- Results used in
  - Financial disclosure to investors
  - Financial planning and bond sales
  - Work Program and Master Plan

BASIC ASSUMPTIONS

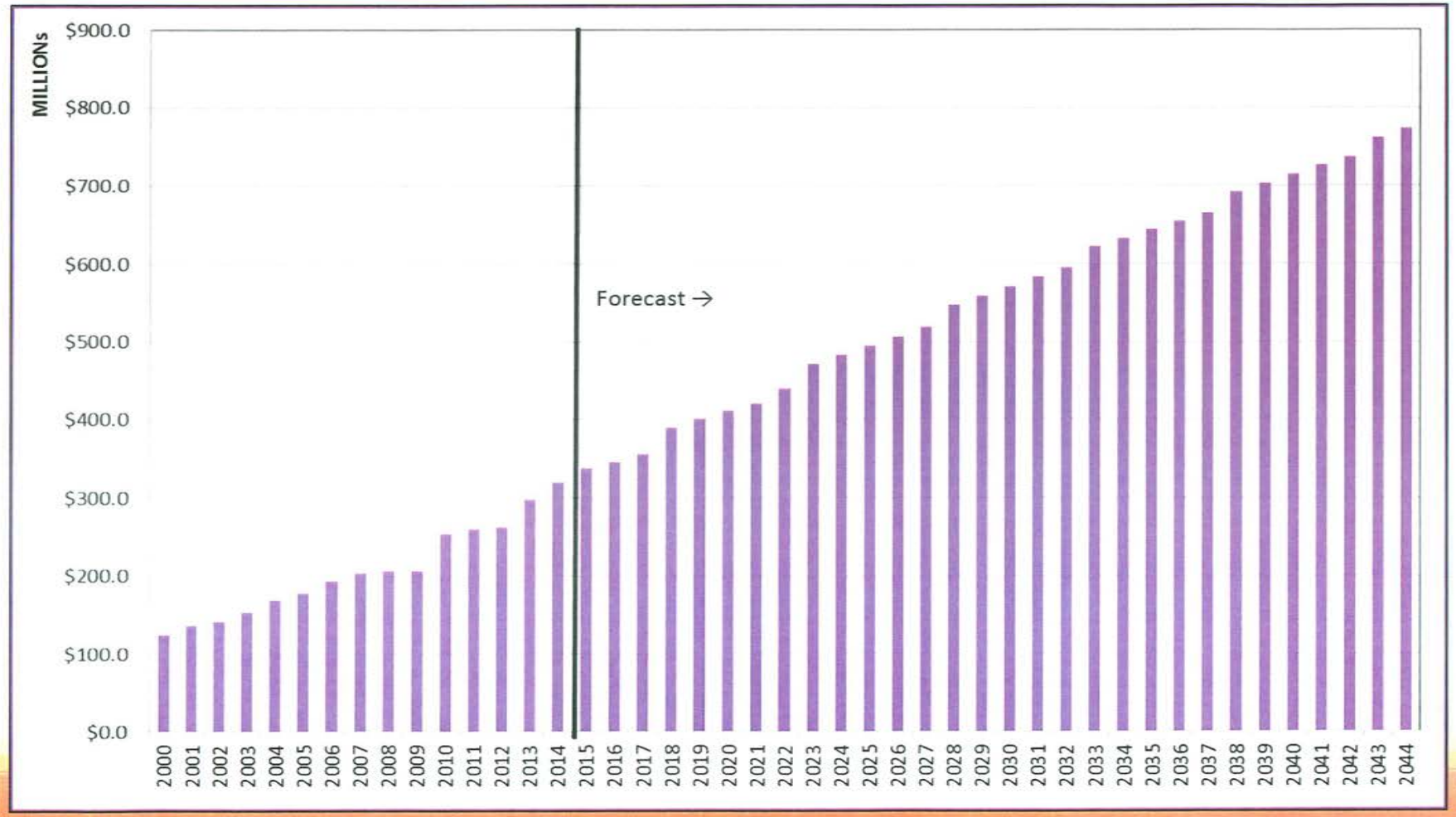
- Pattern of socio-economic growth according to MPOs, controlled to BEBR forecasts by County
- Transportation networks based on cost-feasible plans from the MPOs, including CFX Work Program and Master Plan
- Adopted toll rate policies by agency (current toll rate, future toll rate adjustments and discount programs)

ANNUAL TRANSACTIONS



Prior to adjustments due to Revenue Recaptured from UTN and Discount Programs

ANNUAL TOLL REVENUE



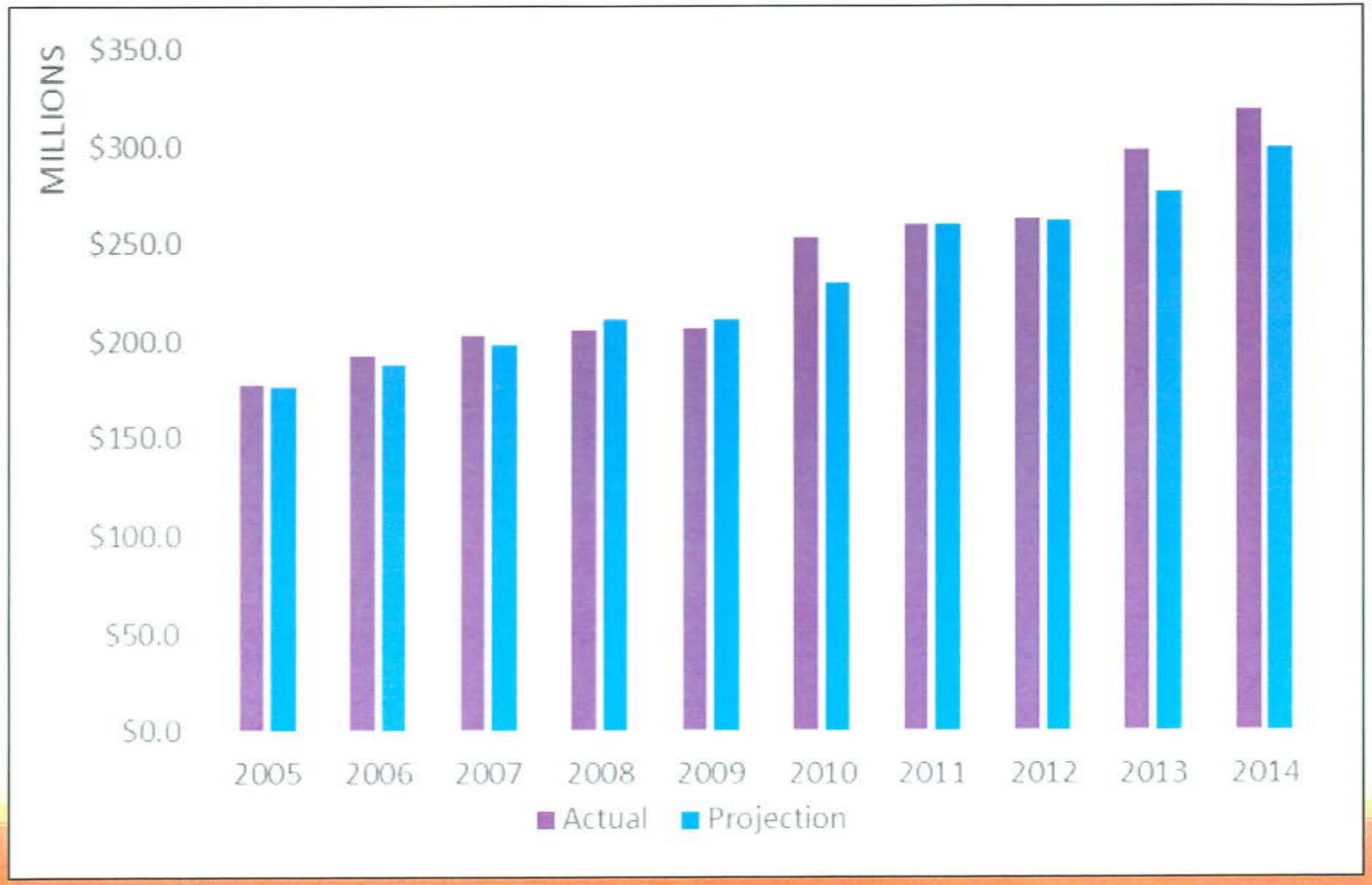
After adjustments for Revenue Recaptured from UTN and Discount Programs

TRANSACTION AND REVENUE GROWTH

Fiscal Years	CAAGR*	
	Transactions	Available Revenue
2000 to 2008	6.8%	6.4%
2008 to 2014	0.6%	7.6%
2014 to 2020	2.1%	4.3%
2020 to 2030	1.3%	3.4%
2030 to 2040	0.7%	2.3%

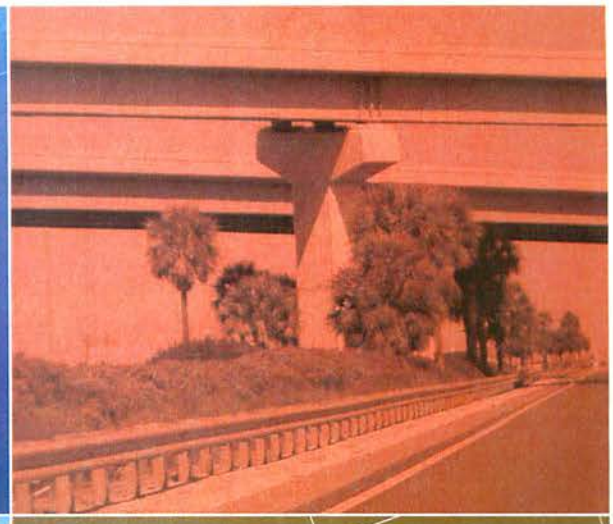
*CAAGR - Compound Average Annual Growth Rate

TOLL REVENUES: ACTUAL VS. PROJECTION

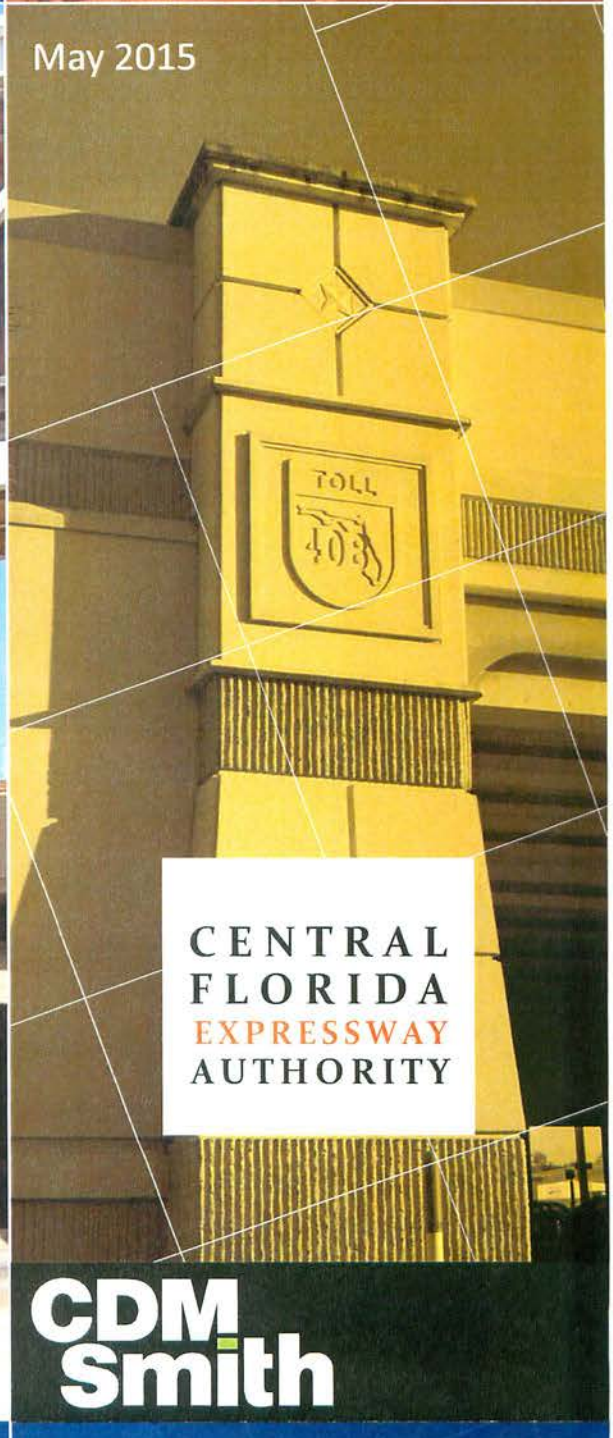


Central Florida Expressway Authority

FY 2014
General Traffic and Earnings Consultant's Annual Report



May 2015



CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

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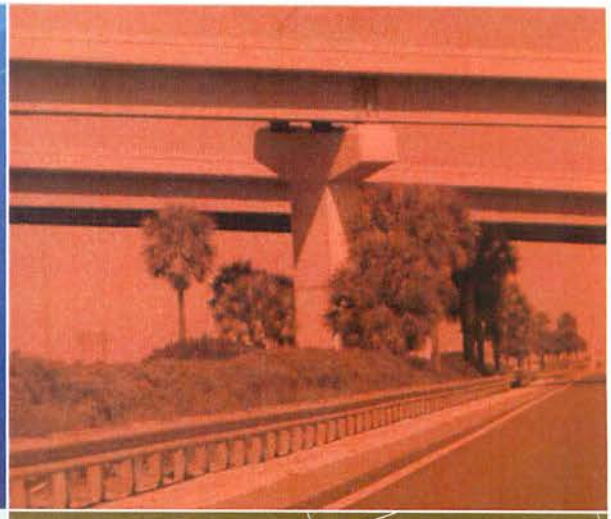
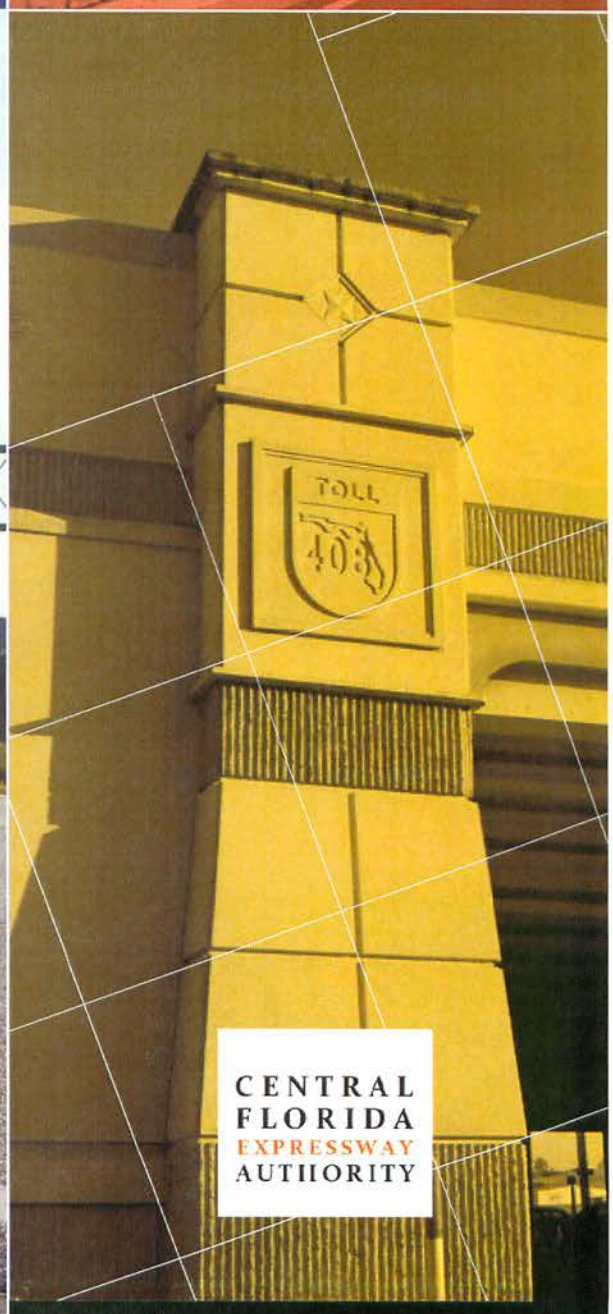




CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

INTRODUCTION AND SYSTEM OVERVIEW

1.1 Introduction

This Annual Report prepared for the Central Florida Expressway Authority (CFX), contains a summary of the Fiscal Year (FY) 2014 traffic and revenue (T&R) performance characteristics and 30-year forecasts of T&R for the six toll facilities that constitute the CFX System (the "System"). This report also includes a brief discussion of the external factors that influence future T&R. Any changes in sources or methodologies that have occurred since the last report are noted in the text.

The purpose of this report is to describe current T&R trends for the System, to summarize the forecasting methodology used to develop the projections and to provide both a short-term and long-term T&R projection for the System. This report contains a description of the historical T&R from FY 1995 through FY 2014. This report also documents the projected annual T&R for FY 2015 through FY 2044. CFX's fiscal year ends on June 30th and begins on July 1st of the preceding calendar year. Future year traffic projections are also presented as Annual Average Daily Traffic (AADT), but on a calendar year basis.

This chapter is an overview of the CFX System, a description of the previous and current toll rate schedules, a comparison of CFX toll rates with other toll facilities across the nation, a summary of historical annual transactions and revenue for the System with percentages by facility, System monthly transactions and revenue, System historical E-PASS usage and T&R forecasts for the System.

Chapter 2 contains a presentation of historical trends and current socioeconomic conditions. While economic conditions are always an important driver of T&R performance, the Great Recession from 2007 through 2009 and recent recovery deserve special attention. Florida, particularly the Orlando Metropolitan Area, was amongst the hardest hit in the nation, especially with respect to the real estate market and unemployment. The ongoing recovery and the speed and strength with which it progresses will continue to play a major role in the performance of the CFX toll facilities. Chapters 3 through 8 contain summaries of T&R performance and forecasts for each of CFX's toll facilities.

1.2 System Description

The current CFX System consists of five toll facilities:

- S.R. 528 – Martin B. Andersen Beachline Expressway
- S.R. 408 – Spessard Lindsay Holland East-West Expressway
- S.R. 417 – Central Florida Greeneway

- S.R. 429/S.R. 451 – Daniel Webster Western Beltway
- S.R. 414 – John Land Apopka Expressway

A location map of the five facilities and the region they serve can be found in **Figure 1-1**, Central Florida Expressway System. S.R. 451 is the Western Beltway Connector Road. S.R. 453 will be a new part of the System, constructed as part of the Wekiva Parkway.

The System as it exists today is the result of many individual projects, constructed over the 51 year period between 1963 and 2014. The first facility was the 23-mile S.R. 528 Beachline Expressway, which opened to traffic in 1967. The facility extends from the S.R. 482/Sand Lake Road/Boggy Creek Road interchange on the west end to S.R. 520 on the eastern end, connecting Orlando to the Space Coast. It has three mainline toll plazas: the Airport Main, the Beachline Main and the Dallas Main, and two pairs of ramp plazas. Florida's Turnpike Enterprise (FTE) owns and operates the western 8 miles of S.R. 528 from Boggy Creek Road to Interstate 4 (I-4) and the eastern end from S.R. 520 to S.R. 407 and U.S. 1 in Brevard County.

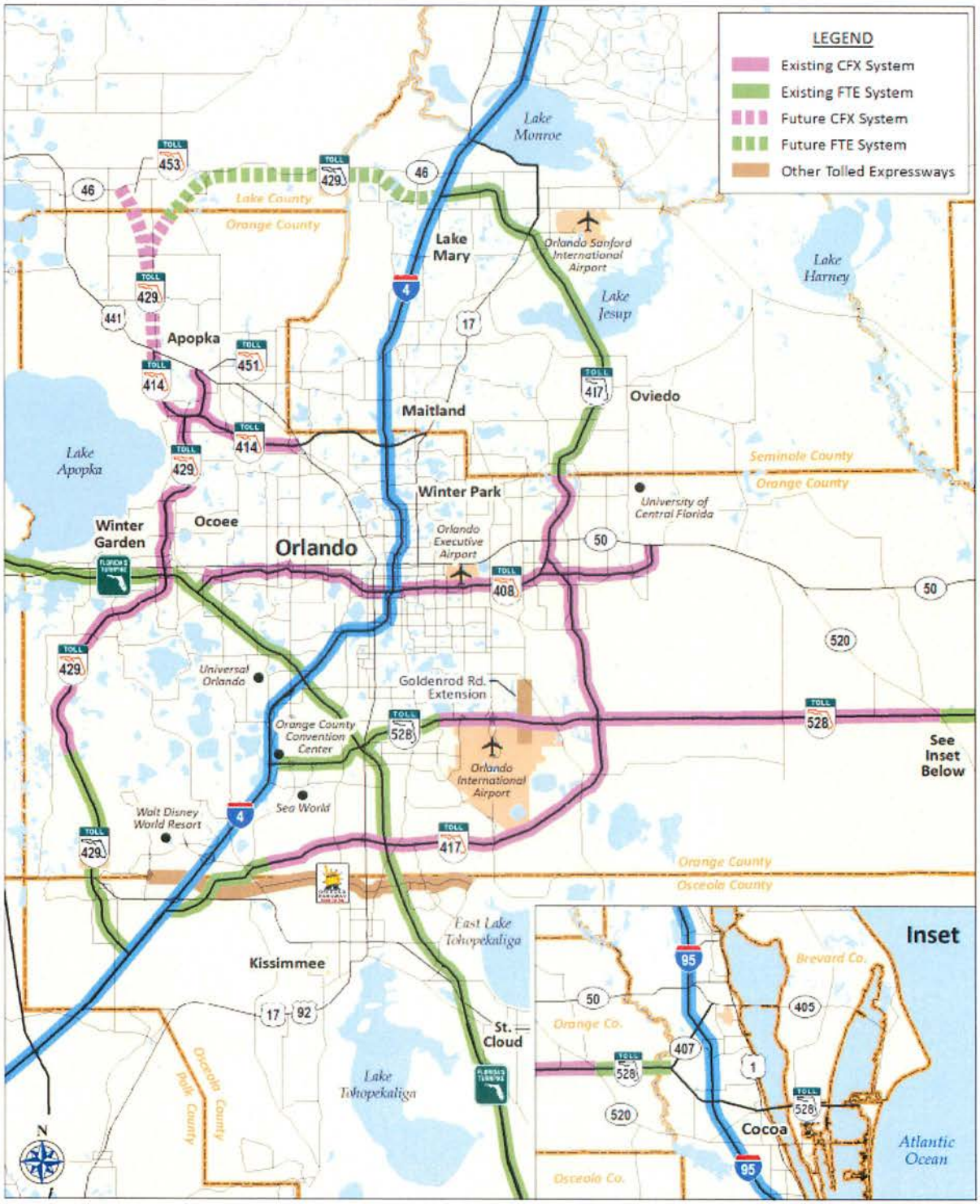
The second facility was the 22-mile S.R. 408 East-West Expressway, which first opened to traffic in 1973. This facility runs from the Florida's Turnpike/Old Winter Garden Road overpass on the western end to the S.R. 50/East Colonial Drive interchange on the eastern end. S.R. 50 is another main parallel highway. S.R. 408 has four mainline toll plazas: Hiawassee Main, Pine Hills Main, Conway Main, and Dean Main, along with 10 pairs of ramp plazas plus two single ramp plazas.

The next facility was the 33-mile S.R. 417 Central Florida Greeneway, which first opened to traffic in 1988. S.R. 417 is the eastern beltway around Orlando with the CFX portion extending from International Drive on the southern end to the Aloma Avenue/Seminole County Line on the northern end. It has four mainline plazas: John Young Main, Boggy Creek Main, Curry Ford Main, and University Main, along with 12 pairs of ramp plazas. FTE owns and operates toll facilities on S.R. 417 on either side of the CFX toll facility completing the beltway.

The fourth facility was the 23-mile S.R. 429 Western Beltway, which as its name suggests is the western beltway around Orlando. S.R. 429 first opened to traffic in 2000. The CFX portion of S.R. 429 extends from Seidel Road in west Orange County on the southern end to U.S. 441 in the City of Apopka on the northern end. It has two mainline toll plazas: Forest Lake Main and Independence Main, along with five pairs of ramp plazas. The 2-mile Western Beltway Connector Road (S.R. 451) is the former S.R. 429 connection to U.S. 441 extending from the Apopka Expressway on the southern end to U.S. 441 on the northern end. FTE owns and operates the toll facility on S.R. 429 from Seidel Road to I-4 in Osceola County.

The fifth facility, which opened to traffic in 2009, was the 6-mile S.R. 414 John Land Apopka Expressway. S.R. 414 extends Maitland Boulevard from U.S. 441 easterly to S.R. 429/Western Beltway, to relieve congestion on U.S. 441. The Apopka Expressway has one mainline plaza at Coral Hills Main and two pairs of ramp plazas.

Figure 1-1
Central Florida Expressway System



Goldenrod Road Extension is a 2-mile toll facility built and operated by CFX, but not part of the CFX System. Opened to traffic in 2003, this toll facility extends Goldenrod Road from S.R. 15/Narcoosee Road southerly to Heintzelman Boulevard, and serves as a reliever to S.R. 15/Narcoosee Road. The facility has an interchange with S.R. 528 and one mainline toll plaza, the Goldenrod Main.

CFX System facilities with the corresponding lengths and opening years are presented in **Table 1-1**.

Table 1-1
CFX System Facilities

CFX System	Length (miles)	Year
S.R. 528 - Martin Andersen Beachline Expressway	23	1967
S.R. 408 - Spessard Holland East West Expressway	22	1973
S.R. 417 - Central Florida Greeneway	33	1988
S.R. 429 - Daniel Webster Western Beltway	23	2000
S.R. 414 - John Land Apopka Expressway	6	2009
S.R. 451 - Western Beltway Connector Road	2	2012
Total	109	
CFX Non-System		
Goldenrod Road Extension	2	2003

1.2.1 WEKIVA PARKWAY PROJECT

The Wekiva Parkway will be an extension of the existing S.R. 429 which currently terminates just north of U.S. 441 near Apopka. The new 27-mile facility would ultimately connect to S.R. 417 at I-4 near Sanford, thus completing the beltway around northwest metropolitan Orlando.

1.2.1.1 Project Background

CFX and the Florida Department of Transportation (FDOT) collaborated on a Project Development and Environment (PD&E) Study for the Wekiva Parkway beginning in January 2005. Approved in May of 2012 by the Federal Highway Administration (FHWA), the PD&E study engaged state and local agencies and community members in developing and evaluating alternatives that meet the region's transportation needs, while also seeking to minimize public and environmental impacts. The FHWA approval allowed the design projects to start moving forward.

While providing alternatives to U.S. 441, S.R. 46 and many local roads in the greater Apopka, Mount Dora and Sanford areas, the Wekiva Parkway provides a much needed connection through the Wekiva River protection areas. The Wekiva Parkway project is depicted in Figure 1-2 with the proposed opening CFX toll rates for E-PASS and video transactions at the mainline gantries. The CFX section of the Wekiva Parkway includes three mainline toll gantries in an open road, all-electronic toll (AET) collection facility, with interchanges at U.S. 441, Kelly Park Road, and S.R. 46 in Lake County.

Previously, traffic and revenue from the Wekiva Parkway had not been included in System totals, as it was only a planned project. The design sections for the entire Wekiva Parkway are shown in **Figure 1-2**. The two new mainline plazas that will be reported with S.R. 429 are:

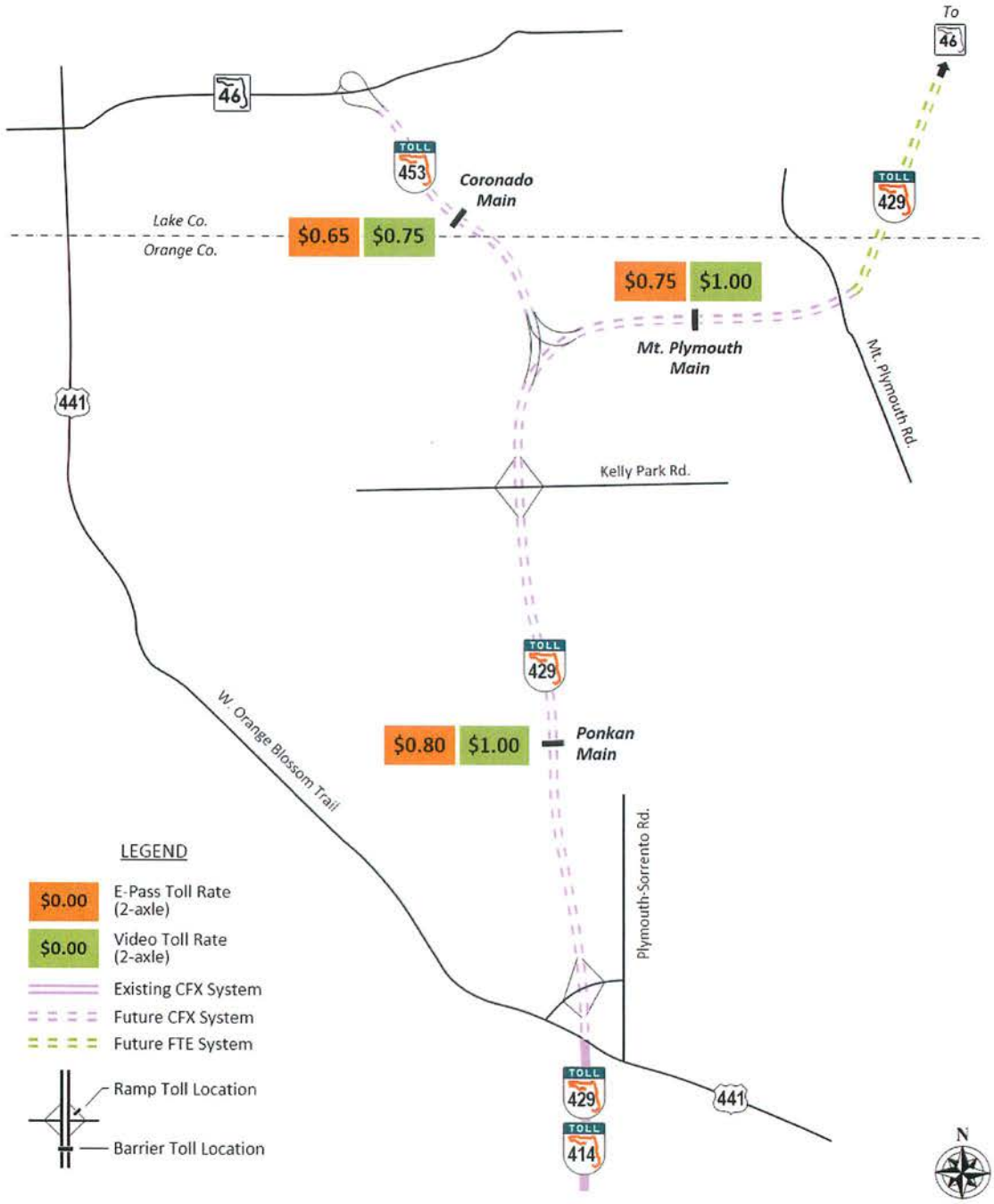
- Ponkan Main Plaza, opening July 1, 2017 (FY 2018)
- Mount Plymouth Main Plaza, opening January 1, 2018 (FY 2018)

The other new mainline plaza will be reported with S.R. 453,

- Coronado Main Plaza, opening January 1, 2018 (FY 2018)

Toll collection on the Wekiva Parkway is planned to be AET, i.e., customers will not be able to pay cash on the roadway as there will be no toll plazas. On the CFX portion of the Wekiva Parkway, customers will either pay with E-PASS/SunPass or by video billing. Video billing customers will pay a higher toll amount (equivalent of the cash toll elsewhere) plus an increment on each transaction designed to cover the entire cost of video billing. Customers on the FDOT portion of the Wekiva Parkway will pay either with E-PASS/SunPass or through TOLL-BY-PLATE, the video tolling system operated by FTE. Future tolls include toll rate increases based on the toll rate indexing policy of each agency (CFX and FDOT).

Figure 1-2
Wekiva Parkway Facilities and Toll Rates Map



1.2.1.2 Project Phases and Schedule

The 27-mile Wekiva Parkway has been broken into fourteen design sections, which allows for more manageable design and construction sections. The design sections are shown in **Figure 1-3**. The Wekiva Parkway is a partnership project, with a portion being constructed by CFX and FDOT with the FDOT toll portions being operated by FTE. CFX's sections starting from the current terminus near S.R. 429 at U.S. 441, shown in purple, include:

- Section 1A from S.R. 429 to Ponkan Road
- Section 1B from Ponkan Road to North of Kelly Park Road
- Section 2B from North of Kelly Park Road to East of C.R. 437 (Plymouth Sorrento Road) and north to the boundary of Lake County
- Section 2A from East of C.R. 437 to C.R. 435 (Mt. Plymouth Road)
- Section 2C from boundary of Lake County to S.R. 46

The FDOT sections include tolled and non-tolled sections. The mainline sections that will be tolled include sections 4A, 4B, 6, 7A and 8. The non-tolled sections include improvements to existing sections of S.R. 46 on the eastern and western ends of the project and the realignment of C.R. 46A. The FDOT sections, shown in blue and green, include (from west to east):

- Sections 3A and 3B – the improvements to S.R. 46 from Round Lake Road to U.S. 441 including improvements to the U.S. 441/S.R. 46 interchange (non-tolled)
- Sections 4A and 4B the construction of S.R. 429 from Mt. Plymouth Road (C.R. 435) to the intersection of C.R. 46A and S.R. 46
- Section 5 – the realignment of C.R. 46A
- Section 6 the construction of S.R. 429 from C.R. 46A to east of the Wekiva River Bridge
- Section 7A the construction of S.R. 429 from east of the Wekiva River Bridge to Orange Boulevard (C.R. 431)
- Section 7B – the improvement of S.R. 46 from Orange Boulevard to I-4 (non-tolled)
- Section 8 the construction of S.R. 429 from Orange Boulevard to I-4, including the I-4 interchange and improvements along I-4

The schedule for design and construction activities is shown in **Table 1-2**, with the first sections of the Wekiva Parkway scheduled to open in early 2017. Sections 1A and 1B, from U.S. 441 north to Kelly Park Road, will be the first to open. Construction of these two sections is expected to start in the fall of 2015.

For reporting purposes, toll plazas for the CFX sections of the Wekiva Parkway will have corresponding traffic and revenue reported in the respective chapters; Chapter 6 for S.R. 429 Western Beltway and Chapter 8 for S.R. 453.

Figure 1-3
Wekiva Parkway Design Sections

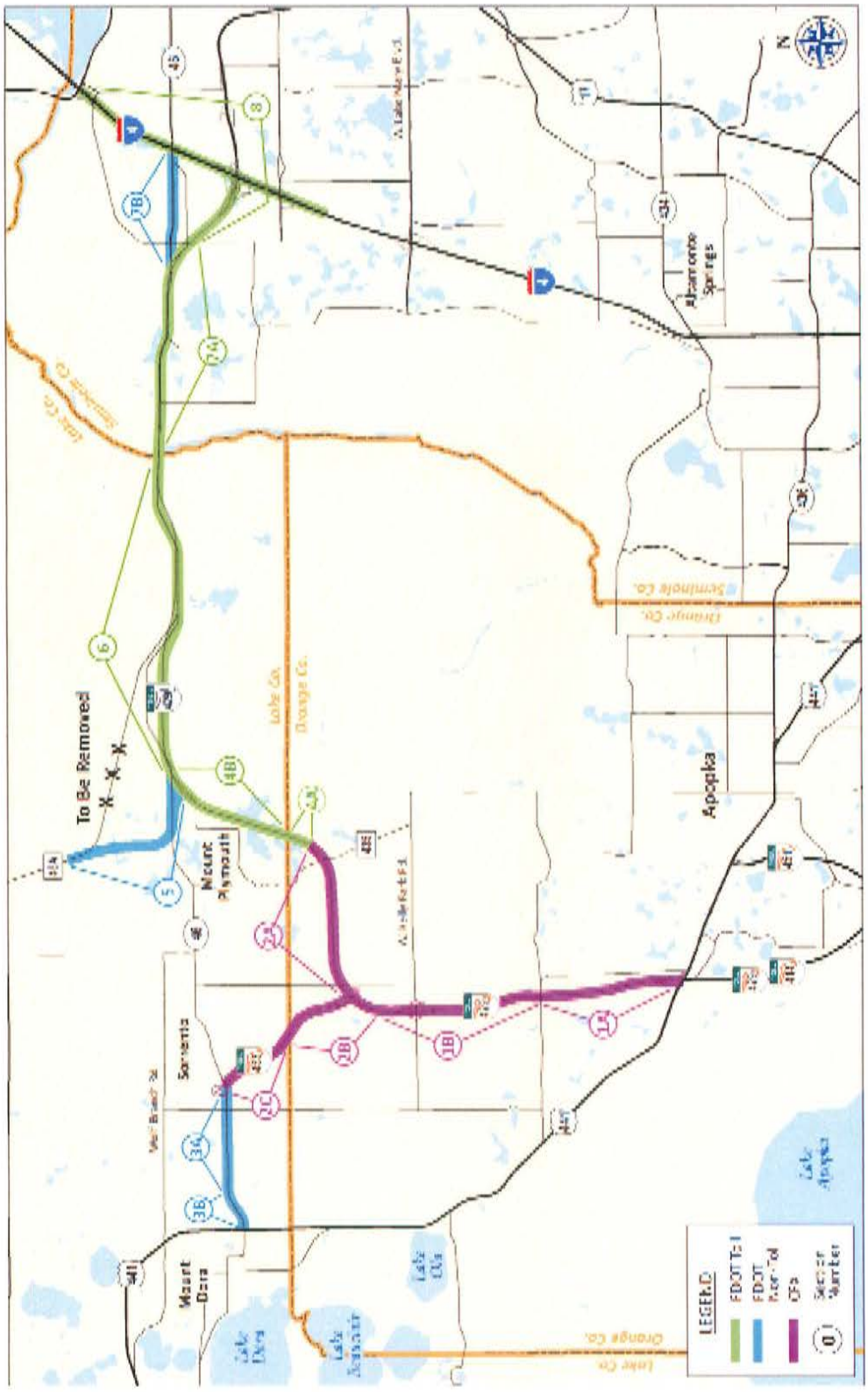
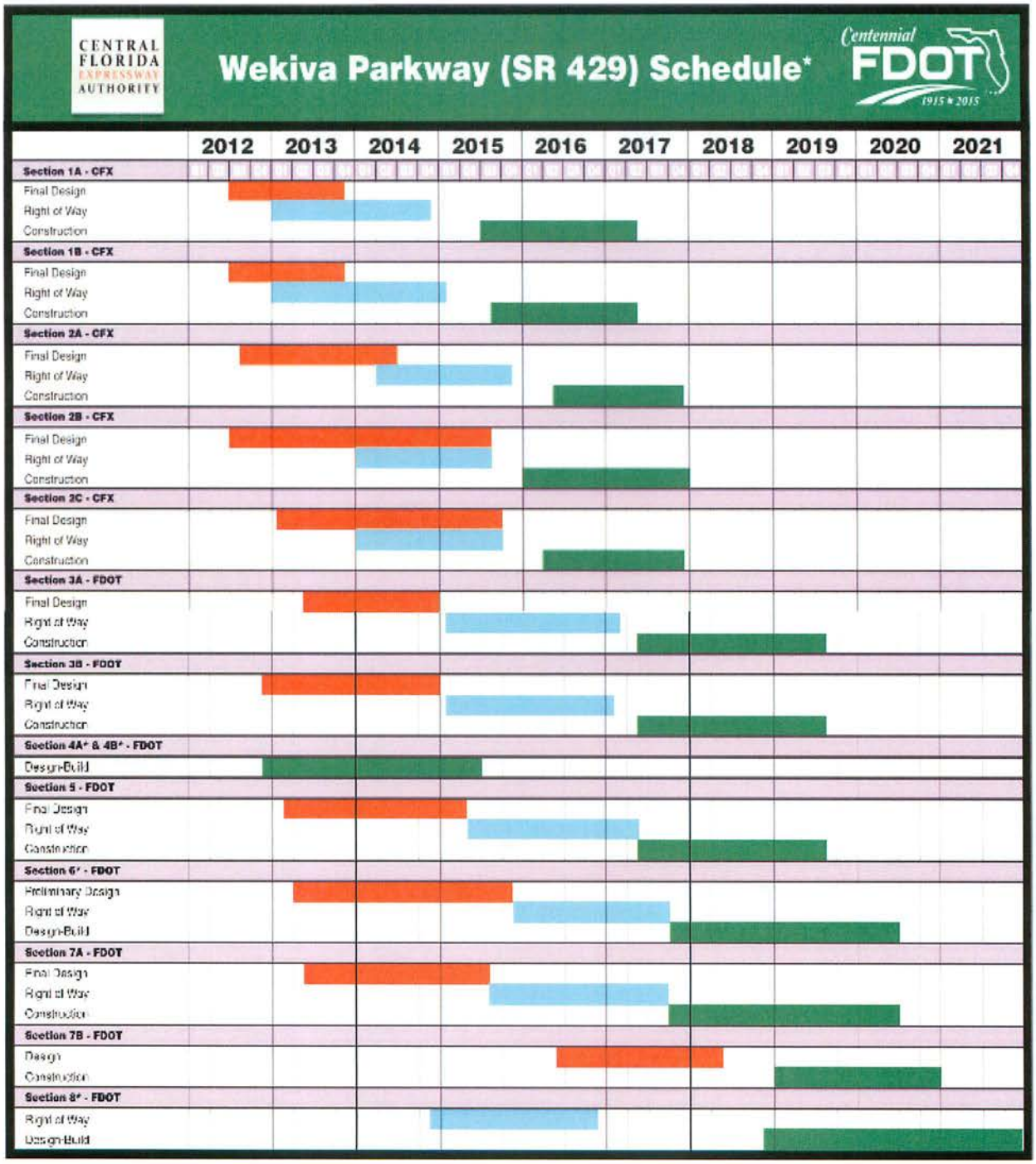


Table 1-2
Wekiva Parkway Development Schedule



Schedule Subject to Change
For more information, visit www.wekivaparkway.com

1.3 TOLL RATES

On February 26, 2009, the CFX Board approved a series of System wide toll rate adjustments. The toll rate policy included a one-time adjustment and a series of increases to keep pace with inflation. The one-time adjustment occurred on April 5, 2009, in which toll rates at all fully open mainline plazas (except Coral Hills) and most toll ramp locations increased by $0.25. The purpose of the rate increase was to counterbalance declining System revenues, to stabilize the fiscal integrity of CFX, and to fortify the ability to improve and expand the System in the future. The toll rates presented in **Table 1-3** reflect the rates adopted in 2009. Since 2009 there have been several changes to the tolls collected at main and ramp plazas, including the addition of the Dallas Main plaza and Dallas ramp plazas, the addition of C.R. 437A ramp plazas, and the removal of the Valencia College Lane ramp plazas.

Then on July 1, 2012 (the beginning of FY 2013), CFX implemented a rate differential for the first time for cash and electronic customers. Customers who pay tolls with E-Pass now pay a lower toll rate than cash customers. The rate differential encourages electronic participation, thereby helping CFX maintain lower toll collection costs. The FY 2013 toll rates are presented in **Table 1-4**. The rates shown in this table continue to represent the current tolling schedule for FY 2014. In accordance with CFX's Toll Policy, the next toll rate increase is scheduled for July 1, 2017 (FY 2018).

Table 1-3
CFX System Toll Rates, FY 2009

Roadway	Toll Schedule				
	2 Axles [A]	3 Axles	4 Axles	5 Axles	6 Axles
S.R. 528					
Airport Plaza	$1.00	$1.50	$1.75	$2.25	$2.25
Beachline Main Plaza	$0.75	$1.50	$1.75	$2.25	$2.25
International Corporate Park	$0.50	$0.50	$0.50	$0.50	$0.50
S.R. 408					
Good Homes Road	$0.25	$0.25	$0.25	$0.25	$0.25
Hiawassee Main Plaza	$0.75	$1.50	$1.75	$2.25	$2.25
Hiawassee Road	$0.50	$0.50	$0.50	$0.50	$0.50
Pine Hills Main Plaza	$1.00	$1.50	$1.75	$2.25	$2.25
Old Winter Garden Road	$0.75	$0.75	$0.75	$0.75	$0.75
John Young Parkway (S.R. 423)	$0.75	$0.75	$0.75	$0.75	$0.75
Orange Blossom Trail	$0.50	$0.50	$0.50	$0.50	$0.50
Mills Avenue	$0.50	$0.50	$0.50	$0.50	$0.50
Bumby Avenue	$0.50	$0.50	$0.50	$0.50	$0.50
Conway Road	$0.75	$0.75	$0.75	$0.75	$0.75
Andes/Semoran Blvd.	$1.00	$1.00	$1.00	$1.00	$1.00
Conway Main Plaza	$1.00	$1.50	$1.75	$2.25	$2.25
Semoran Blvd. (S.R. 436)	$0.75	$0.75	$0.75	$0.75	$0.75
Dean Road	$0.50	$0.50	$0.50	$0.50	$0.50
Dean Main Plaza	$0.75	$1.50	$1.75	$2.25	$2.25
Rouse Road	$0.50	$0.50	$0.50	$0.50	$0.50
S.R. 417					
John Young Main Plaza	$1.25	$1.75	$2.25	$2.75	$2.75
John Young Parkway (S.R. 423)	$0.75	$0.75	$0.75	$0.75	$0.75
Orange Blossom Trail	$0.50	$0.50	$0.50	$0.50	$0.50
Landstar Blvd.	$0.50	$0.50	$0.50	$0.50	$0.50
Boggy Creek Main Plaza	$1.25	$1.75	$2.25	$2.75	$2.75
Boggy Creek Road	$1.00	$1.00	$1.00	$1.00	$1.00
Lake Nona Blvd.	$0.75	$0.75	$0.75	$0.75	$0.75
Narcoossee Road	$0.75	$0.75	$0.75	$0.75	$0.75
Moss Park Road	$0.50	$0.50	$0.50	$0.50	$0.50
Innovation Way	$0.50	$0.50	$0.50	$0.50	$0.50
Lee Vista Blvd.	$0.50	$0.50	$0.50	$0.50	$0.50
Curry Ford Main Plaza	$0.75	$1.50	$1.75	$2.25	$2.25
Curry Ford Road (S.R. 552)	$0.50	$0.50	$0.50	$0.50	$0.50
Colonial Drive (S.R. 50)	$0.50	$0.50	$0.50	$0.50	$0.50
University Main Plaza	$0.75	$1.50	$1.75	$2.25	$2.25
University Blvd.	$0.50	$0.50	$0.50	$0.50	$0.50
S.R. 429					
New Independence Parkway	$0.75	$0.75	$75.00	$0.75	$0.75
Independence Main Plaza	$1.25	$1.75	$2.25	$2.75	$2.75
C.R. 535	$0.50	$0.50	$0.50	$0.50	$0.50
S.R. 438	$0.25	$0.25	$0.25	$0.25	$0.25
West Road	$0.75	$0.75	$0.75	$0.75	$0.75
Forest Lake Main Plaza	$1.25	$1.75	$2.25	$2.75	$2.75
S.R. 414					
Coral Hills Main Plaza	$1.00	$1.50	$2.00	$2.50	$2.50
Keene Road	$0.50	$0.50	$0.50	$0.50	$0.50
Hiawassee Road	$0.25	$0.25	$0.25	$0.25	$0.25

Notes:

A - Includes motorcycles.

B - The toll listed for this plaza is the amount collected by the Authority. In addition, customers also pay a toll based on a per axle toll rate of $0.25 (for each axle above the first axle), which is allocated to FDOT and, therefore, is not listed in the table.

Table 1-4
CFX System Toll Rates, FY 2013

Roadway	Electronic Toll Schedule					Cash Toll Schedule				
	2 Axles [A]	3 Axles	4 Axles	5 Axles	6 Axles	2 Axles [A]	3 Axles	4 Axles	5 Axles	6 Axles
S.R. 528										
Airport Plaza	$1.09	$1.64	$1.91	$2.46	$2.46	$1.25	$1.75	$2.00	$2.50	$2.50
Beachline Main Plaza	$0.87	$1.71	$2.00	$2.55	$2.55	$1.00	$1.75	$2.00	$2.75	$2.75
International Corporate Park	$0.59	$0.59	$0.59	$0.59	$0.59	$0.75	$0.75	$0.75	$0.75	$0.75
Dallas Blvd.	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50
Dallas Main Plaza [B]	$0.75	$1.00	$1.25	$1.25	$1.25	$1.00	$1.25	$1.50	$1.50	$1.50
S.R. 408										
Good Homes Road	$0.28	$0.28	$0.28	$0.28	$0.28	$0.50	$0.50	$0.50	$0.50	$0.50
Hiawassee Main Plaza	$0.82	$1.64	$1.91	$2.46	$2.46	$1.00	$1.75	$2.00	$2.50	$2.50
Hiawassee Road	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Pine Hills Main Plaza	$1.09	$1.64	$1.91	$2.46	$2.46	$1.25	$1.75	$2.00	$2.50	$2.50
Old Winter Garden Road	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
John Young Parkway (S.R. 423)	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Orange Blossom Trail	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Mills Avenue	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Bumby Avenue	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Conway Road	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Andes/Semoran Blvd.	$1.09	$1.09	$1.09	$1.09	$1.09	$1.25	$1.25	$1.25	$1.25	$1.25
Conway Main Plaza	$1.09	$1.64	$1.91	$2.46	$2.46	$1.25	$1.75	$2.00	$2.50	$2.50
Semoran Blvd. (S.R. 436)	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Dean Road	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Dean Main Plaza	$0.82	$1.64	$1.91	$2.46	$2.46	$1.00	$1.75	$2.00	$2.50	$2.50
Rouse Road	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
S.R. 417										
John Young Main Plaza	$1.37	$1.91	$2.46	$3.00	$3.00	$1.50	$2.00	$2.50	$3.00	$3.00
John Young Parkway (S.R. 423)	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Orange Blossom Trail	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Landstar Blvd.	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50	$0.50
Boggy Creek Main Plaza	$1.37	$1.91	$2.46	$3.00	$3.00	$1.50	$2.00	$2.50	$3.00	$3.00
Boggy Creek Road	$1.09	$1.09	$1.09	$1.09	$1.09	$1.25	$1.25	$1.25	$1.25	$1.25
Lake Nona Blvd.	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Narcoossee Road	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Moss Park Road	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Innovation Way	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Lee Vista Blvd.	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Curry Ford Main Plaza	$0.82	$1.64	$1.91	$2.46	$2.46	$1.00	$1.75	$2.00	$2.50	$2.50
Curry Ford Road (S.R. 552)	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Colonial Drive (S.R. 50)	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
University Main Plaza	$0.82	$1.64	$1.91	$2.46	$2.46	$1.00	$1.75	$2.00	$2.50	$2.50
University Blvd.	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
S.R. 429										
New Independence Parkway	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Independence Main Plaza	$1.37	$1.91	$2.46	$3.00	$3.00	$1.50	$2.00	$2.50	$3.00	$3.00
C.R. 535	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
S.R. 438	$0.28	$0.28	$0.28	$0.28	$0.28	$0.50	$0.50	$0.50	$0.50	$0.50
West Road	$0.82	$0.82	$0.82	$0.82	$0.82	$1.00	$1.00	$1.00	$1.00	$1.00
Forest Lake Main Plaza	$1.37	$1.91	$2.46	$3.00	$3.00	$1.50	$2.00	$2.50	$3.00	$3.00
C.R. 437A	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
S.R. 414										
Coral Hills Main Plaza	$1.09	$1.64	$2.18	$2.73	$2.73	$1.25	$1.75	$2.25	$2.75	$2.75
Keene Road	$0.55	$0.55	$0.55	$0.55	$0.55	$0.75	$0.75	$0.75	$0.75	$0.75
Hiawassee Road	$0.28	$0.28	$0.28	$0.28	$0.28	$0.50	$0.50	$0.50	$0.50	$0.50

Notes:
A - Includes motorcycles.
B - The toll listed for this plaza includes the toll collected for FDOT, which is $0.25 for transponder transactions or $0.50 for cash transactions regardless of the number of axles.

1.3.1 DISCOUNT PROGRAMS

In 1998, CFX began a frequent-user discount program for customers who utilize E-PASS transponders. The discount program has helped CFX with a Florida Transportation Commission (FTC) performance measure that requires 75 percent of the total transactions to be completed utilizing E-PASS transponders. This performance measure was instituted by the FTC in 2007. The E-PASS discount program offers a five percent rebate to E-PASS customers with 40 or more CFX electronic transactions per month and a ten percent rebate to customers with 80 or more CFX electronic transactions per month. While E-PASS is compatible with SunPass (FDOT/Turnpike) and LeeWay (Lee County) Electronic Toll Collection (ETC) systems, transactions on these systems do not apply toward CFX's discount program. Only E-PASS transactions on CFX facilities count toward this discount program.

In the first fiscal year of implementation, the rebates totaled approximately $0.7 million, or approximately 0.7 percent of the total System revenues. In FY 2014, the discount program has grown to $11.7 million, or 3.6 percent of the total System revenues. This growth is indicative of the significant increase in transponder usage overall and the frequency of trips made by electronic toll customers. In FY 2014 the E-PASS participation rate reached 78.9 percent, exceeding the 75 percent goal.

Beginning in FY 2016, CFX will implement the I-4 Commuter Discount Program. This discount program will be offered for a six-year period to provide options for customers during the planned construction activities on I-4. The program provides an additional 5.0 percent discount to customers with 20 or more transactions in a month on the CFX "beltway" facilities, which include S.R. 417, S.R. 429 and S.R. 414. The discount will only be offered in months when actual toll revenue exceeds the revenue projections by more than 2.0 percent.

1.3.2 TOLL RATE COMPARISON TO OTHER US TOLL FACILITIES

As shown in **Table 1-5**, the FY 2014 average toll rates per mile on CFX's five facilities are comparable to the average toll rates on other toll facilities across the United States. Even with the FY 2013 toll rate adjustment, the average toll rates are still comparable to average rates per mile for other similar toll roads. The average rates per mile for CFX's facilities are between 12.0 and 20.8 cents per mile for cash rates, and 10.7 and 18.2 cents per mile for electronic toll rates. The average cash rate for the CFX System is 15.3 cents per mile and the average electronic toll rate is 13.4 cents per mile.

Table 1-5
Toll Rate Comparison with Other U.S. Toll Facilities

	Toll Facility	Initial Opening Year	Most Recent Toll Increase	Facility Type	Length (miles)	Passenger Cars			
						Toll Rates		Rate-Per-Mile (cents)	
						Base (Cash/Video)	Electronic	Base (Cash/Video)	Electronic
TX	TX DOT, Grand Parkway	2011	14-Feb	U	22	-	$4.10	-	19.0
TX	Harris County Toll Road Authority - Westpark Tollway	2004	Sep-13	U	13	-	$2.90	-	22.3
CA	San Joaquin Hills Corridor (SR 73)	1996	Jul-13	R/U	15	$6.75	$6.05	45.0	40.3
CO	Northwest Parkway	2003	Jan-14	U	10	$3.70	$3.50	38.9	36.8
CA	Eastern Toll Road (SR 241)	1998	Jul-13	R/U	24	$9.00	$6.45	37.5	26.9
VA	Chesapeake Expressway (Route 168)	2001	May-11	R	16	$6.00	$6.00	37.5	37.5
FL	Miami Dade Expressway, Gratigny Parkway, SR 924	1992	Jul-13	U	5	$2.00	$1.00	37.0	18.5
DE	Delaware Turnpike (I-95)	1963	Oct-07	R/U	11	$4.00	$4.00	35.7	35.7
CO	E-470	1991	Jan-14	R/U	47	$16.65	$13.25	35.7	28.4
CA	South Bay Expressway	2007	Jun-12	C	10	$3.50	$2.75	35.0	27.5
VA	Dulles Greenway	1995	Jan-13	R/U	14	$4.90	$4.90	35.0	35.0
MD	Maryland Inter County Connector	2011	Dec-11	P	18	$6.00	$4.00	33.5	22.3
FL	Miami Dade Expressway, Don Shula Expressway (SR 874)	1971	Jul-13	U	7	$2.00	$1.00	28.6	14.3
VA	Dulles Toll Road	1984	Jan-14	C	13	$3.50	$3.50	26.1	26.1
IL	Veterans Memorial Tollway	1989	Jan-12	R/U	30	$7.60	$3.80	25.5	12.7
TX	North Texas Tollway Authority - President George Bush TPK	1998	Jul-13	U	40	$9.68	$6.44	24.4	16.2
TX	North Texas Tollway Authority - Sam Rayburn Tollway	2006	Jul-13	U	24	$5.74	$3.82	24.4	16.2
TX	North Texas Tollway Authority - Dallas North Tollway	1968	Jul-13	U	30	$7.34	$4.89	24.4	16.3
FL	Miami Dade Expressway, Airport Expressway, SR 112	1961	Jul-13	U	4	$1.00	$0.50	23.8	11.9
FL	Lee Roy Selmon Crosstown Expressway (SR 618)	1976	Jul-14	U	14	$3.20	$2.70	22.9	19.3
FL	Miami Dade Expressway Authority - Dolphin Expressway (SR 836)	1965	Jul-13	U	14	$3.00	$1.50	21.4	10.7
FL	CFX S.R. 414 (Apopka Expressway)	2009	Jul-12	R/U	6	$1.25	$1.09	20.8	18.2
FL	CFX S.R. 408 (East-West Expressway)	1973	Jul-12	U	22	$4.50	$3.82	20.3	17.3
SC	Greenville Southern Connector	2001	Jan-12	R/U	16	$3.00	$2.70	18.8	16.9
TX	Harris County Toll Road Authority - Sam Houston Tollway	1987	Sep-13	U	70	$11.65	$11.65	16.6	16.6
TX	Harris County Toll Road Authority - Hardy Toll Road	1988	Sep-13	U	21	$3.50	$2.90	16.6	13.7
FL	CFX S.R. 417 (Central Florida Greeneway)	1988	Jul-12	R/U	33	$5.00	$4.38	15.3	13.4
FL	CFX System (All Five Facilities)	-	Jul-12	R/U	108	$16.50	$14.49	15.3	13.4
FL	Florida's Turnpike, Polk Parkway	1998	Jul-14	U	25	$3.75	$3.12	15.0	12.5
FL	Florida's Turnpike, Veterans Expressway	1994	Jul-14	U	15	$2.25	$1.82	15.0	12.1
FL	Osceola Parkway (S.R. 522)	1995	Apr-09	U	12	$1.75	$1.75	14.1	14.1
FL	CFX S.R. 429 (Western Beltway)	2000	Jul-12	R/U	22	$3.00	$2.74	13.6	12.5
NH	Blue Star Turnpike	1950	Jul-09	R	16	$2.00	$1.40	12.3	8.6
FL	Florida's Turnpike, Beachline West	1973	Jul-14	U	8	$1.00	$0.78	12.3	9.6
FL	CFX S.R. 528 (Beachline Expressway)	1967	Jul-12	R/U	23	$2.75	$2.46	12.0	10.7
NJ	New Jersey Turnpike	1951	Jan-12	R/U	118	$13.85	$13.85	11.7	11.7
IL	Tri-State Tollway	1958	Jan-12	U	77	$9.00	$4.50	11.6	5.8
PA	Pennsylvania Turnpike	1940	Jan-14	R	360	$40.95	$29.31	11.4	8.1
FL	Florida's Turnpike, Western Beltway	2005	Jul-14	R/U	11	$1.25	$1.04	11.4	9.5
FL	Florida's Turnpike, Sawgrass Expressway	1990	Jul-14	U	23	$2.50	$2.08	10.9	9.0
IL	Reagan Memorial Tollway	1958	Jan-12	C	96	$10.20	$5.10	10.6	5.3
FL	Florida's Turnpike, Homestead Extension	1974	Jul-14	U	47	$4.94	$3.90	10.5	8.3
IL	Jane Addams Memorial Tollway	1958	Jan-12	C	79	$7.90	$3.95	10.1	5.0
FL	Florida's Turnpike, Suncoast Parkway	2001	Jul-14	U	42	$3.75	$3.12	8.9	7.4
FL	Florida's Turnpike, Ticket System	1957	Jul-14	R	155	$12.90	$9.93	8.3	6.4
FL	Florida's Turnpike, Southern Coin System	1957	Jul-14	U	43	$3.50	$2.87	8.1	6.7
DE	Korean War Veterans Memorial Highway (SR 1)	1991	Oct-07	R/U	51	$4.00	$4.00	7.8	7.8
OH	Ohio Turnpike	1954	Jan-14	R	241	$17.00	$11.50	7.0	4.8
WV	West Virginia Turnpike	1954	Aug-09	R	88	$6.00	$3.90	6.8	4.4
FL	Florida's Turnpike, Northern Coin System	1957	Jul-14	U	67	$4.50	$4.16	6.7	6.2
ME	Maine Turnpike	1947	Nov-12	R	109	$7.00	$6.45	6.4	5.9
IN	Indiana Toll Road	1956	Jul-13	R	157	$9.70	$4.65	6.2	3.0
NY	New York State Thruway	1954	Jan-10	R/U	496	$25.25	$23.99	5.1	4.8
KS	Kansas Turnpike	1956	Feb-13	R	236	$12.00	$9.75	5.1	4.1
NJ	Garden State Parkway [A]	1954	Jan-12	R/U	173	$8.25	$8.25	4.8	4.8
NH	Spaulding Turnpike	1957	Jul-09	R	33	$1.50	$1.06	4.5	3.2
FL	FDOT, Alligator Alley	1969	Jul-14	R	78	$3.00	$2.85	3.8	3.7
MA	Massachusetts Turnpike [B]	1957	Oct-13	C	123	$4.70	$4.70	3.8	3.8

R:Rural, U:Urban, C:Commuter

Notes:

A - Commuter rate of $1.50 available with minimum purchase of 25 trips good for 45 days.

B - For passenger cars, no toll charged for 48-mile portion between interchanges 1 and 6.

1.3.3 ELASTICITY

The effect of a change in toll rates on T&R can be analyzed with the microeconomic concept of elasticity. Elasticity represents the relative change in traffic (or revenue) as a result of a relative change in toll rate with other factors held constant. Generally, a number of factors can affect elasticity, including diversion to competing facilities, changes in travel modes, trip consolidation/trip chaining, or adjustment in timeframe of travel. The effects of changes in toll rate on the various facilities of the CFX System depend on the availability of alternative parallel highways, local driver's knowledge of alternative/substitute routes, and the level of congestion. Evaluating the degree of elasticity of a historic toll rate increase on the CFX facilities provides guidance in forecasting the elasticity of future toll rate increases.

Elasticity is calculated as the percentage change in traffic (or revenue) divided by the percentage change in toll rate. Traffic elasticity typically (and logically) has a negative algebraic sign, in that a reduction in traffic is expected from an increase in toll. For traffic, the higher the absolute value of elasticity the greater the decline in traffic. Typically, but with limitations, revenue elasticity has a positive algebraic sign. An elasticity value of 1.0 would represent a case in which the response to a change in toll was unitary (perfectly elastic) – e.g., percent change in toll rate results in an equivalent percent change in revenue. That is, the relative change in revenue would be the same as the change in toll rate. Expected elasticity values are lower than 1.0, or relatively inelastic, which would yield smaller percentage decreases in traffic, and consequently smaller revenue increases.

The effect of the July 2012 toll rate increase on traffic was not profound for several reasons. This rate increase created a toll differential for the first time on CFX facilities. Electronic toll rates were increased by 9.0 percent, which equates to between $0.03 and $0.12 depending on the location. Cash toll rates were increased by $0.25 at most locations, based on the policy to round the cash rate up to the next quarter. There was a shift in the method of payment from cash to E-PASS as a result of the rate increase. Customers wanted to take advantage of the toll rate differential. To determine elasticity of the FY 2013 toll rate increase, T&R from four months (July – October) in FY 2012 was compared against the T&R for the same four months in FY 2013. Comparing the traffic from the same timeframe of the prior year avoided seasonality issues, but involved issues of growth in traffic. The impacts from the July 1, 2012 toll rate adjustment on T&R, including the calculated elasticity for a four month period (July through October) are presented in **Table 1-6**.

Table 1-6
Elasticity of July 2012 Toll Rate Increase

Facility	Toll Increase	Traffic		Revenue	
		Impact	Elasticity	Impact	Elasticity
S.R. 528	11%	1.3%	N/A	12.5%	N/A
S.R. 408	13%	-1.8%	-0.14	10.8%	0.83
S.R. 417	14%	-1.9%	-0.14	12.1%	0.86
S.R. 429	15%	0.7%	N/A	15.3%	N/A
S.R. 414	17%	13.7%	N/A	33.6%	N/A

The traffic elasticity on both S.R. 408 and S.R. 417 were -0.14, with a very minor impact to the traffic. This elasticity is comparable to Florida's Turnpike Southern Connector Extension elasticity of -0.07 and Seminole Expressway elasticity of -0.21[1] for the toll rate adjustment that occurred in June of 2012. S.R. 528 was excluded from the elasticity calculation due to the recent opening of Dallas Boulevard Main Plaza and the reduction of the $1.50 toll rate to $0.75 at Beachline Main Plaza. S.R. 429 and S.R. 414 were excluded from the elasticity calculation since these facilities experienced increases in traffic over the period. Both facilities are newer with higher initial annual growth rates and have influences beyond the toll rate change. These facilities also serve areas that are still experiencing development growth, as compared to S.R 408 and S.R. 417 that serve developed urban areas of Orlando.

S.R. 408 and S.R. 417 show revenue elasticity of 0.83 and 0.86, respectively. This means that some customers responded to the toll rate increase by using alternative routes or switching from cash to E-PASS. For the entire CFX System, E-PASS participation increased approximately 4.0 percent over the prior year (July – October). The 4.0 percent increase is not entirely a result of the conversion of cash customers to E-PASS because normal growth is embedded in the T&R calculations and it is difficult to identify and remove.

1.4 System Historical Toll Transactions and Revenue

1.4.1 Historical Annual Toll Transactions and Revenue

The annual historical transactions and revenue for the five facilities from FY 1995 to FY 2014 are presented in **Table 1-7**. The annual data is based on the CFX Monthly Statistical Reports and is not reconciled to the Unpaid Toll Notice Allowance Report and the fiscal year end. For these reasons, the information presented in this section may differ slightly from the data presented in the FY 2014 Comprehensive Annual Financial Report (CAFR) and other information in this report. S.R. 408 has the largest number of annual transactions with 129.7 million and the greatest amount of toll revenue with $125.2 million in FY 2014. In FY 2014 S.R. 417 had 97.2 million transactions and $98.3 million in toll revenue, and S.R. 528 had 59.7 million transactions and $56.3 million in toll revenue. With the northern section of S.R. 429 opened in 2000 and the southern section opened in 2006, transactions and revenue have steadily grown on S.R. 429 to 30.7 million transactions and $33.5 million in toll revenue for FY 2014. S.R. 414, being the newest facility on the CFX System, has been open to traffic for just five full years and is still in "ramp-up" with 9.5 million transactions and $9.1 million in toll revenue for FY 2014.

As shown in the table, total System transactions in FY 2014 have increased by 19.9 million transactions or 6.5 percent over FY 2013. All plaza groups experienced growth in transactions in FY 2014 compared to FY 2013. Total System revenues in FY 2014 increased $20.3 million or 6.7 percent over FY 2013. All plaza groups had increases in revenue.

[1] October 2012 Traffic and Earnings Report for Florida's Turnpike System

Table 1-7
System Totals – Historical Transactions and Toll Revenues
FY 1995 – FY 2014

Fiscal Year Ending	S.R. 528	S.R. 408	S.R. 417	S.R. 429	S.R. 414	TOTAL	Percent Change
TRANSACTIONS (millions)							
1995	20.2	56.4	30.0			106.6	
1996	22.0	63.4	34.3			119.7	12.3%
1997	23.7	70.3	40.3			134.3	12.2%
1998	25.2	79.4	45.1			149.7	11.5%
1999	27.3	88.2	50.9			166.4	11.2%
2000	30.8	97.6	57.9			186.3	12.0%
2001 [A]	32.4	104.4	62.3	3.5		202.6	8.7%
2002 [B,C]	31.6	110.1	64.9	5.8		212.4	4.8%
2003	33.7	116.1	71.3	9.5		230.6	8.6%
2004 [D]	37.5	124.7	79.6	13.8		255.6	10.8%
2005 [E,F]	39.7	127.8	87.2	16.4		271.1	6.1%
2006 [G]	42.4	135.4	96.2	20.2		294.2	8.5%
2007 [H]	44.5	138.3	102.4	24.4		309.6	5.2%
2008 [I,J]	44.8	139.0	104.5	26.6		314.9	1.7%
2009 [K,L]	40.7	131.3	94.8	25.1	0.6	292.5	-7.1%
2010 [K]	40.9	126.0	89.3	25.0	5.3	286.5	-2.1%
2011	42.5	126.7	90.9	25.9	6.5	292.5	2.1%
2012 [M]	47.5	126.2	90.7	26.4	7.3	298.1	1.9%
2013 [N]	57.6	123.5	90.3	27.2	8.3	306.9	3.0%
2014	59.7	129.7	97.2	30.7	9.5	326.8	6.5%
TOLL REVENUES (millions)							
1994	$17.4	$34.0	$13.2			$64.6	
1995	$18.1	$36.7	$18.8			$73.6	13.9%
1996	$19.7	$41.1	$21.8			$82.6	12.2%
1997	$21.2	$45.5	$26.4			$93.1	12.7%
1998	$22.6	$51.3	$30.0			$103.9	11.6%
1999	$24.6	$56.6	$33.4			$114.6	10.3%
2000	$27.7	$62.3	$38.3			$128.3	12.0%
2001 [A]	$29.2	$66.2	$41.3	$3.3		$140.0	9.1%
2002 [B,C]	$28.7	$69.7	$42.6	$5.1		$146.1	4.4%
2003	$30.6	$73.2	$46.5	$7.2		$157.5	7.8%
2004 [D]	$34.3	$78.7	$51.6	$9.2		$173.8	10.3%
2005 [E,F]	$36.1	$80.4	$56.7	$10.5		$183.7	5.7%
2006 [G]	$38.4	$85.1	$62.6	$13.5		$199.6	8.7%
2007 [H]	$40.0	$86.5	$66.9	$17.4		$210.8	5.6%
2008 [I,J]	$40.1	$86.1	$68.5	$19.0		$213.7	1.4%
2009 [K,L]	$38.5	$88.3	$66.8	$19.0	$0.6	$213.2	-0.2%
2010 [K]	$46.6	$107.7	$79.0	$23.5	$4.2	$261.0	22.4%
2011	$48.4	$108.3	$80.1	$24.4	$5.1	$266.3	2.0%
2012 [M]	$48.7	$107.7	$80.5	$24.9	$5.7	$267.5	0.5%
2013 [N]	$54.5	$119.3	$91.2	$29.4	$7.7	$302.1	12.9%
2014	$56.3	$125.2	$98.3	$33.5	$9.1	$322.4	6.7%

Notes:
A - Forest Lake Plaza on S.R. 429 opened in 2000.
B - C.R. 535 ramps on S.R. 429 opened in 2002.
C - Effects of the events on September 11, 2001.
D - Express lanes opened at University Main plaza.
E - Express lanes opened at Curry Ford and Dean Main plazas.
F - Effects from 2004 hurricane season (4 storms with toll suspensions).
G - Express lanes opened at Boggy Creek, John Young Parkway, and Hiawassee Main Plazas.
H - Express lanes opened at Pine Hills main plaza.
I - Express lanes opened at Conway Main plaza.
J - First effects of national economic recession.
K - Tolls increased Systemwide in April 2009.
L - Coral Hills Plaza opened 2009.
M - Dallas Main Plaza opened to traffic on March 19, 2012.
N - Tolls increased Systemwide in July 2012.

Historical System transactions with annual growth since FY 2000 are displayed in **Figure 1-4**. The green line represents the number of transactions and shows how overall transactions have increased over the last 14 years. The blue bars represent the annual growth (percent change) of transactions. The same information for toll revenues is depicted in **Figure 1-5**. Transaction and toll revenue growth patterns exhibited on the System roughly follow the same growth patterns historically. This pattern does shift in times of toll rate increases, as shown in the revenue growth in FY 2010 and FY 2013.

Transaction and revenue growth on the System was consistently strong from FY 2000 through FY 2007. Transactions and revenue exhibited double-digit growth from FY 1996 through FY 2000 and in FY 2004. The growth in transactions and revenue fell to below 5 percent in FY 2002, the first time annual growth rates fell below 5 percent since FY 1992. The downturn in growth was primarily due to a national economic slowdown in the first half of FY 2002, accompanied with the national slowdown of travel following the events of September 11, 2001. In FY 2005, System transaction and revenue growth was over 5 percent even though the State of Florida was impacted by four hurricanes that resulted in toll suspensions on all CFX plazas for 21 days in August and September of 2004. In FY 2008 the first signs of the most recent recession appeared with transaction and revenue growth slowing down as the housing and construction industry across the State of Florida slowed down.

FY 2007 started the trend of four consecutive years of declines in the transaction growth rate on the System. In FY 2009, transactions actually decreased by 7.1 percent, which can be attributed to the economic recession and the Systemwide toll rate increase. Revenues only dipped into negative growth in FY 2009. The April 2009 toll rate increase slowed the negative growth in FY 2009 to only -0.2 percent growth. The negative growth would have been worse without the toll rate increase, which included the last three months of FY 2009. The first nine months of FY 2010 were also impacted by the toll rate increase with revenues increasing 22.3 percent in FY 2010, while transactions still experienced a negative 2.1 percent annual growth. Also during FY 2009, transactions were negatively impacted by two days of toll suspensions during Tropical Storm Fay. FY 2011 through FY 2014 has shown stable transaction growth with each year increasing 2 to 6 percent despite the toll rate increase at the beginning of FY 2013. Revenues have climbed to over $322 million in FY 2014 in part due to the toll rate adjustment.

Figure 1-4
CFX System Historical Transactions and Annual Growth

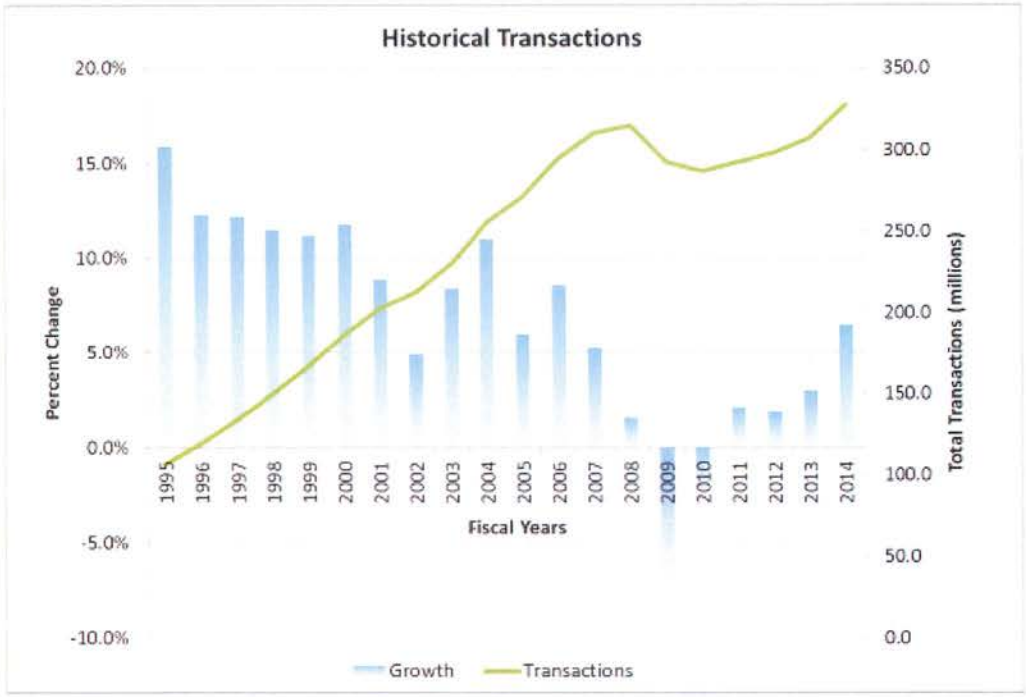
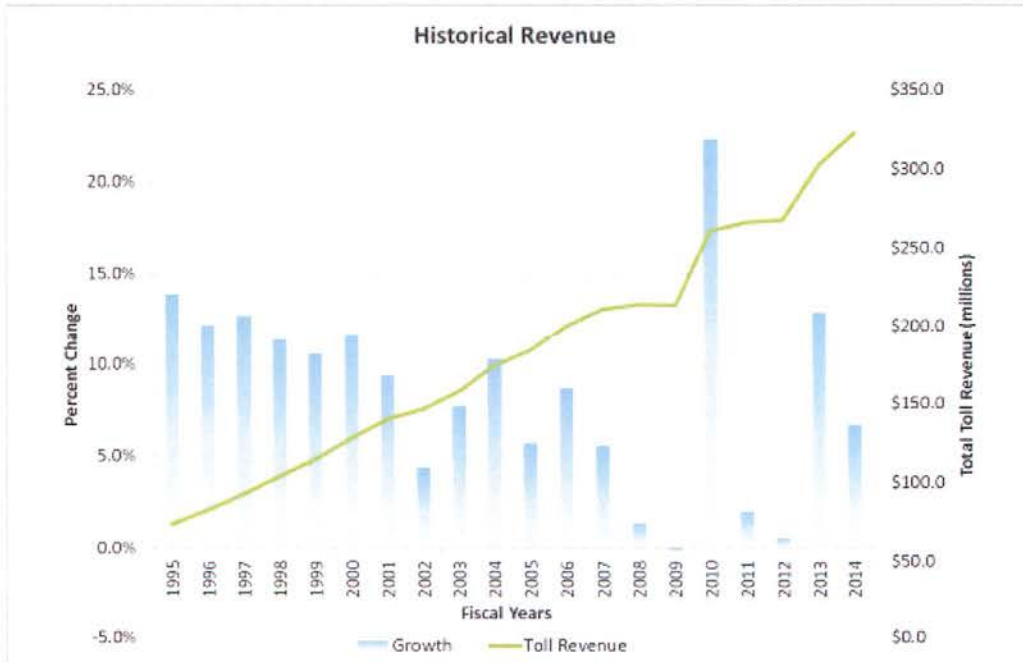


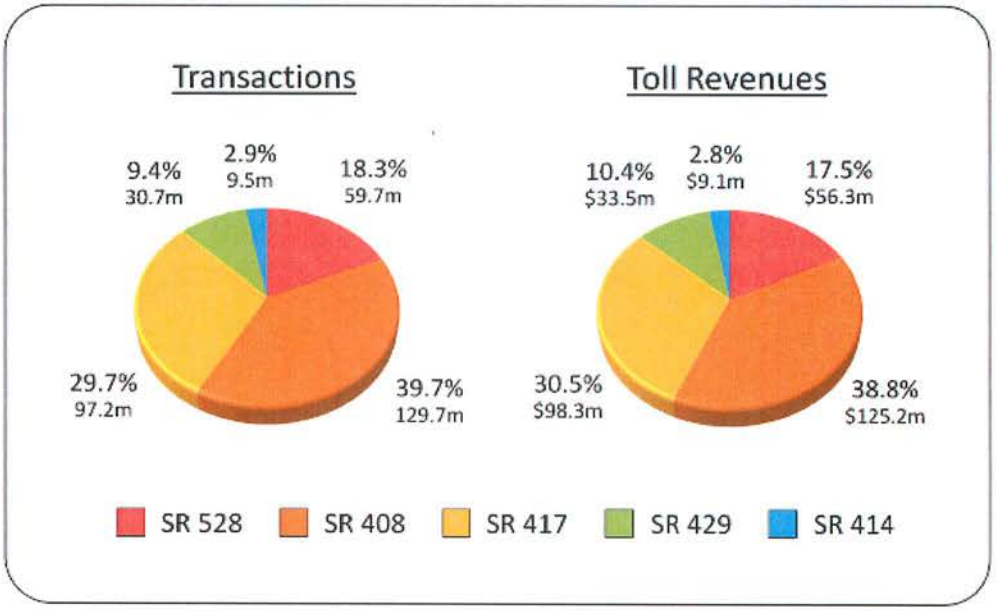
Figure 1-5
CFX System Historical Toll Revenue and Annual Growth



1.4.2 ANNUAL TRANSACTIONS AND TOLL REVENUE BY FACILITY

Figure 1-6 contains a summary of the FY 2014 transactions and toll revenues by facility, both the number and as a percentage of the System. The largest portion of the transactions and revenue were reported on S.R. 408, with 39.7 percent, or 129.7 million of the transactions and 38.8 percent, or $125.2 million of the revenues. Transactions and revenue on S.R. 417 are both approximately 30 percent of the System, 97.2 million and $98.3 million, respectively. S.R. 528 comprises 18.3 percent, or 59.7 million of the transactions and 17.5 percent, or $56.3 million of the revenues. S.R. 429 transactions represent 9.4 percent, or 30.7 million of the System transactions and 10.4 percent, or $33.5 million of the System revenues. S.R. 414 transactions were reported at 9.5 million or nearly 3 percent, while revenues were reported at $9.1 million or 2.8 percent of the System revenues for FY 2014.

Figure 1-6
CFX System Annual Transactions and Toll Revenues by Facility
FY 2014



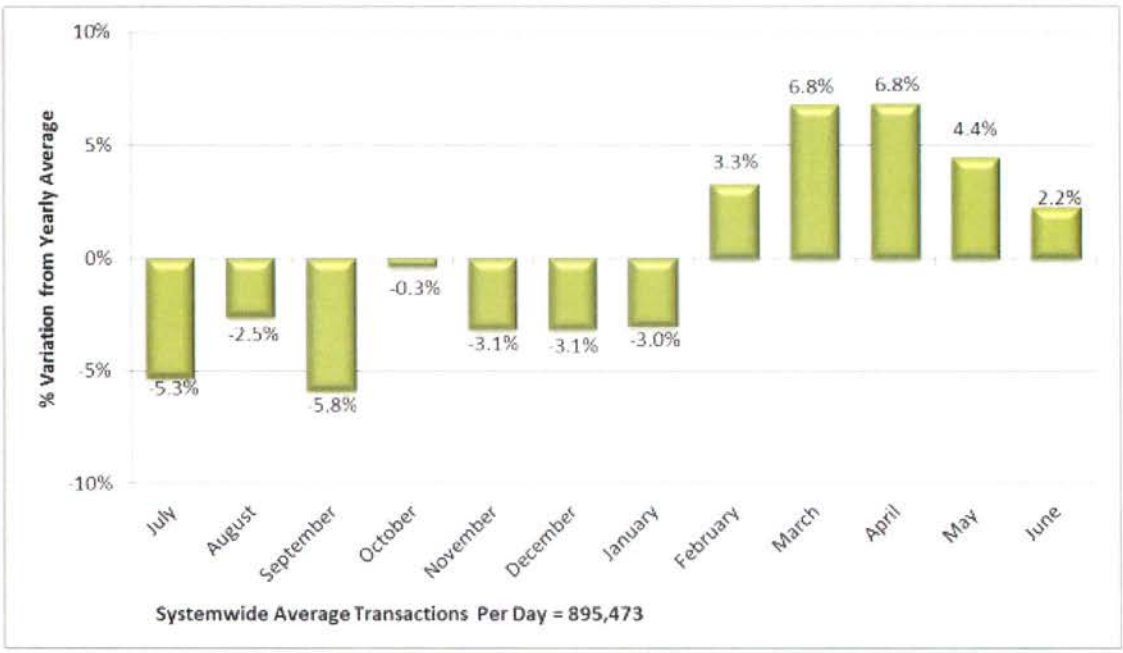
1.4.3 MONTHLY TRANSACTION SEASONAL VARIATION

The seasonal variation in transactions is presented in **Table 1-8**. The average number of transactions per day on the System in FY 2014 ranged from a high of 956,584 in April 2014 to a low of 843,116 in September of 2013. This data is presented in a graphical format in **Figure 1-7**. Each month's average transactions per day appear as a percentage of the average for the fiscal year. As shown in the figure, April transactions were 6.8 percent above average and September transactions were 5.8 percent below the average. For FY 2014, the transactions were lower than average for the first half of the year and higher than average for the second half of the year. This is a normal pattern for seasonal variation, with the spring months being the peak season, due to an extra number of tourists and seasonal residents in the area. The seasonality varies on different facilities, with the Beachline Expressway having the strongest seasonal variation due to its proximity to the Orlando International Airport (OIA) and the tourist attractions.

Table 1-8
CFX System - Monthly Seasonal Variation in Toll-Paying Traffic
FY 2014

Month	Number of Days in Month	Total Toll Paying Transactions	Average Transactions Per Day	Seasonal Factor
July	31	26,292,307	848,139	0.947
August	31	27,052,375	872,657	0.975
September	30	25,293,489	843,116	0.942
October	31	27,668,301	892,526	0.997
November	30	26,026,193	867,540	0.969
December	31	26,892,339	867,495	0.969
January	31	26,935,492	868,887	0.970
February	28	25,891,724	924,704	1.033
March	31	29,646,030	956,324	1.068
April	30	28,697,520	956,584	1.068
May	31	28,985,791	935,026	1.044
June	30	27,466,106	915,537	1.022
Average		***27,237,306***	***895,473***	***1.000***
Total Year	**365**	**326,847,667**		

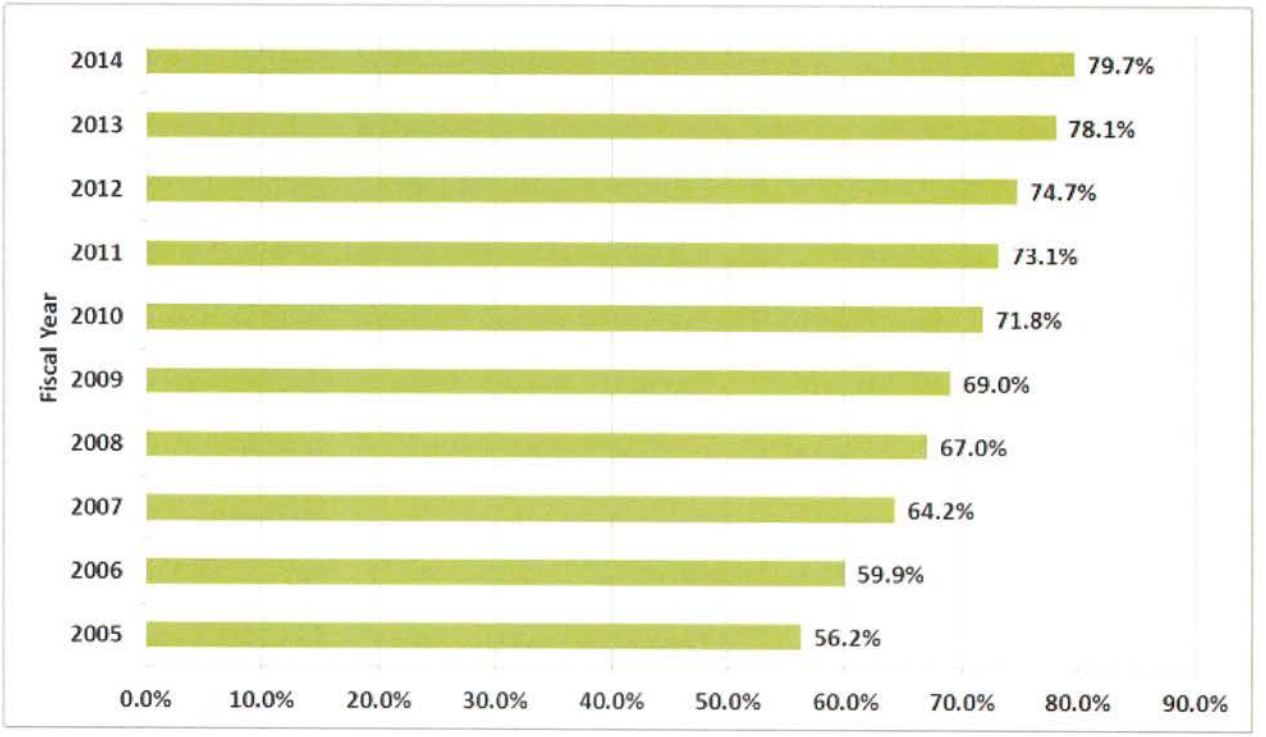
Figure 1-7
CFX System Variation in Transactions Per Day, By Month
FY 2014



1.5 Historical E-PASS Usage (Revenue)

In 1994, CFX introduced its E-PASS electronic toll collection (ETC) program. During that year there were approximately 2,300 E-PASS transponders in use on the System. As of FY 2013 the number has grown to 532,332 transponders and approximately 287,400 active E-PASS accounts. As shown in **Figure 1-8**, revenues collected through E-PASS during FY 2014 account for 79.7 percent of the total System revenues. The percent of toll revenues from E-PASS has grown steadily for the past 10 years, from only 56.2 percent in FY 2005. E-PASS transactions account for over 80% of daily revenue at the University, Curry Ford, Dean, Hiawassee and Forest Lake Mainline plazas. The percentage of revenues collected through E-PASS is over 70 percent at the remainder of the mainline toll plazas. Many customers purchased E-PASS in FY 2014 to take advantage of the lower electronic toll rate. In FY 2013, CFX became interoperable with North Carolina Quick Pass. This means that Quick Pass transponders are accepted on CFX facilities and E-PASS transponders are accepted on the North Carolina Turnpike facilities.

Figure 1-8
CFX System Percent of Toll Revenue from Electronic Transactions



1.6 Forecasting Methodology

The estimates of future annual T&R for the CFX System, contained in this annual report, were derived from a traditional four-step, travel demand model and a T&R model both designed specifically for this purpose. The new travel demand model, known as the CFX Model 2.0, was completed in December 2014 by updating and improving the prior model. At the risk of over simplification, the forecasts of future toll revenue were estimated as the sum of the product of the traffic forecasts (converted to the number of annual transactions) and the toll rate at each

tolling point on the CFX System. This section of the report provides an overview of the forecasting methodology and general approach used to estimate T&R.

1.6.1 TRAVEL DEMAND MODEL

In general, the earlier version of the travel demand model was reviewed and updated with information from the recently-released 2009 Orlando Urban Area Transportation Study (OUATS) Model, developed by MetroPlan Orlando. Model features outside of the MetroPlan Orlando area (Orange, Seminole and Osceola Counties) are based on the 2005 Central Florida Regional Planning Model (CFRPM) produced by Florida Department of Transportation, District 5.

The CFX Model 2.0 was calibrated to 2010 conditions, including socioeconomic (SE) data from the US Census and Woods and Poole data in the new OUATS and traditional CFRPM zone systems. The calibration was based on the transportation networks taken from the two operational models. The networks and associated counts were reviewed using 2010 aerial photography and updated as necessary. Data from the National Highway Travel Survey (NHTS) Florida was acquired and used to calibrate the trip length distributions for five trip purposes (home-based work, home-based shopping, home-based social recreation, home-based other and non-home-based trips). The treatment of external trips was also carefully reviewed and improved, as was the use of time penalties and turn prohibitions.

In order to make the model more sensitive to network and tolling considerations, the CFX Model 2.0 was calibrated to match historical traffic counts on mainline and ramp segments on the CFX System. The calibration process utilized an approach called Origin-Destination Matrix Estimation (ODME) to enhance the replication of observed traffic patterns, especially on the CFX System. Technical documentation of the model development process is available under separate cover. At the conclusion, the CFX Model 2.0 provided a very close fit to travel patterns in general and especially close to travel on the CFX System.

Turning to the production of traffic forecasts, SE data forecasts were developed for the CFX Model 2.0 in six planning horizon years (2018, 2023, 2028, 2033, 2038 and 2043) corresponding to the planned future year toll rate adjustments. The SE data forecasts were developed from a combination of growth rates by county and the spatial pattern of development from the MPO plans. Population growth rates were developed from the Medium level population projections by county from the most recent publication by the Bureau of Economic and Business Research (BEBR), College of Business Administration at the University of Florida. Forecasts of employment were based on estimates of future employment by county produced by Woods and Poole. Control totals for each county by data set were developed and applied to the spatial distribution of growth by zone as adopted by the MPOs.

Future year transportation networks were created for each of the planning horizon years. The future year networks were updated to include the latest network improvements from the Long-Range Transportation Plans (LRTPs) and Transportation Improvement Programs (TIPs) for all MPOs covered by the CFX Model 2.0. These include MetroPlan Orlando, Lake-Sumter MPO, Space Coast TPO, River to Sea TPO and Polk County TPO. The future networks also include all network improvements identified in the CFX FY 2013 - 2017 Five-Year Work Plan and related 10-Year

Outlook – Planned Alternative, as well as the adopted 2030 Expressway Master Plan. The future year networks also included improvement projects identified in the Florida DOT Strategic Intermodal System's (SIS) 1st and 2nd 5-year plans, and SIS Cost Feasible 2040 Plan, as well as Florida Turnpike Enterprise's 5-Year Work Program along with the 2010 Update of Florida's Turnpike Enterprise Master Plan.

Two toll conditions were modeled in each of the future years: toll amounts before the planned toll rate increase and the toll amounts with the planned toll rate increase. In this way, the CFX Model 2.0 provides direct estimates of the effect of the future toll rate increases on CFX System traffic.

1.6.2 T&R MODEL

The T&R Model starts with a series of factors that make the base-year traffic forecasts from the CFX Model 2.0 equal to the annual average daily traffic (AADT) at each toll location and another series of factors that adjust the calculated toll revenue to match the actual toll revenue by plaza group. In effect, the T&R Model includes a set of factors so that model predicted transactions in the base year match actual transactions by toll location and model predicted toll revenue match actual toll revenue by plaza group. These factors are applied in all future years. The base-year T&R data used in this process includes the effect of violations in transactions and revenue, which means that the effects of violations are included in the factored forecast results and do not have to be estimated separately. As reported by CFX, revenue recovered from the Unpaid Toll Notices (UTNs) are estimated separately, as are the effect of the discount programs.

The effect of the combination of travel demand model and T&R model is such that the transaction and toll revenue estimates are controlled to match the details in base year values. The growth in transactions and toll revenue are primarily determined by changes from the travel demand model. This includes the effects of changes in the spatial pattern of SE activity, changes in transportation network and changes in toll rate.

1.6.3 FORECASTING ASSUMPTIONS

T&R estimates for the CFX System are predicated on the following basic assumptions, all of which are considered reasonable for the purposes of this T&R study:

- Toll rates on the facility are in nominal or future year dollars and are set forth according to the toll rate policy adopted by the CFX Board. Toll rate increments (indexed tolls) will be applied every fifth year based on net change of a minimum adjustment rate of 3.0 percent per year (linear) with calculations beginning in FY 2009.
- Inflation is assumed to be 2.5% annually which includes the adjustment for real income growth.
- Future transportation projects were assumed as defined in the locally adopted plans. The projects listed in the locally adopted Transportation Improvement Programs (TIP) and the 2040 Long Range Transportation Plans (LRTP) were reviewed and compared with the OUATS and CFRPM network coding. The majority of the TIP projects were assumed to be built by FY 2018, but some occur later depending on TIP horizon year. The Cost Feasible LRTP projects were reviewed and included in the corresponding future year networks. CFX

improvements were assumed and included based on projects identified in the 2030 Master Plan. Details on future projects that impact specific system components are provided in each chapter.

- The Wekiva Parkway was included in the CFX Model by the horizon year of 2023. T&R from the Wekiva Parkway are included in the System totals reported in this annual report. The new toll facility is reported as part of S.R. 429 and the new facility S.R. 453.
- The I-4 Ultimate project was included in the CFX Model by the horizon year of 2023.
- No local, regional or national emergency will arise which would abnormally restrict the use of motor vehicles, or substantially alter economic activity or freedom of mobility.
- Motor fuel will remain in adequate supply, and long-term increases in price will not significantly exceed the overall rate of inflation throughout the forecast period.
- The CFX System will be well-maintained, efficiently operated and effectively signed and promoted to encourage maximum usage.
- The forecasted traffic is revenue traffic and forecasted revenues are indicated toll revenues. The forecasts include variance due to toll violations as reflected in the T&R model. Allowances for the discount programs and revenue recaptured from Unpaid Toll Notices (UTN) are included separately on a System-wide basis.

Any significant departure from the above basic assumptions could materially affect estimated traffic and toll revenues for the CFX System.

1.7 System Forecasts

1.7.1 System Transaction and Toll Revenue Forecasts

The total transactions and toll revenue by facility and for the System as a whole are summarized in **Table 1-9** and **Table 1-10**. This information is presented for historical transactions and toll revenue since FY 2000 and estimates in a 30-year forecast. The forecasts were produced by mainline plaza groups, aggregated to and reported by toll facility and then to the CFX System.

Table 1-9
CFX System Transaction Forecast (Millions)

Fiscal	S.R. 528		S.R. 408		S.R. 417		S.R. 429		S.R. 414		S.R. 453		TOTAL		Percent Annual
Year	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual	Projected	Actual [A]	Projected	Change
2000	30.8		97.6		57.9								186.3		11.9%
2001	32.4		104.4		62.3		3.5						202.6		8.7%
2002 [B]	31.6		110.1		64.9		5.8						212.4		4.8%
2003	33.7		116.1		71.3		9.5						230.6		8.6%
2004	37.5		124.7		79.6		13.8						255.6		10.8%
2005 [C]	39.7		127.8		87.2		16.4						271.1		6.1%
2006	42.4		135.4		96.2		20.2						294.2		8.5%
2007	44.5		138.3		102.4		24.4						309.6		5.2%
2008 [D]	44.8		139.0		104.5		26.6						314.9		1.7%
2009 [E]	40.7		131.3		94.8		25.1		0.6				292.5		-7.1%
2010	40.9		126.0		89.3		25.0		5.3				286.5		-2.1%
2011	42.5		126.7		90.9		25.9		6.5				292.5		2.1%
2012	47.5		126.2		90.7		26.4		7.3				298.1		1.9%
2013 [E]	57.6		123.5		90.3		27.2		8.3				306.9		3.0%
2014	59.7		129.7		97.2		30.7		9.5				326.8		6.5%
2015		60.7		135.6		106.0		34.3		10.5				347.1	6.2%
2016 [F]		46.3		139.4		110.2		36.0		11.0				342.9	-1.2%
2017		47.6		143.2		114.3		37.7		11.6				354.4	3.4%
2018 [E,G]		46.4		139.4		111.6		40.2		11.7		0.8		350.2	-1.2%
2019		47.4		142.2		114.3		43.1		12.1		1.9		360.9	3.1%
2020		48.4		144.9		116.9		45.2		12.4		2.1		370.0	2.5%
2021		49.4		147.6		119.6		47.3		12.8		2.4		379.1	2.5%
2022		50.4		150.4		122.3		49.4		13.2		2.6		388.2	2.4%
2023 [E]		47.4		141.5		116.2		47.9		12.7		2.9		368.6	-5.1%
2024		48.8		144.9		121.5		50.0		13.0		3.1		381.4	3.5%
2025		50.1		148.2		126.9		52.2		13.3		3.4		394.1	3.4%
2026		51.5		151.6		132.3		54.3		13.7		3.6		406.9	3.2%
2027		52.8		154.9		137.7		56.4		14.0		3.9		419.7	3.1%
2028 [E]		50.1		148.4		133.9		54.0		13.3		3.7		403.3	-3.9%
2029		51.1		150.2		138.7		55.5		13.4		3.8		412.7	2.3%
2030		52.0		151.9		143.5		57.1		13.6		4.0		422.1	2.3%
2031		52.9		153.7		148.2		58.7		13.8		4.2		431.5	2.2%
2032		53.9		155.5		153.0		60.2		13.9		4.4		440.9	2.2%
2033 [E]		50.4		149.3		147.3		58.1		13.4		4.3		422.8	-4.1%
2034		51.4		150.7		150.6		59.1		13.6		4.5		429.9	1.7%
2035		52.3		152.2		153.9		60.1		13.8		4.7		437.0	1.7%
2036		53.3		153.7		157.2		61.0		14.0		5.0		444.2	1.6%
2037		54.3		155.2		160.5		62.0		14.2		5.2		451.3	1.6%
2038 [E]		51.0		149.9		157.2		59.8		13.3		5.0		436.4	-3.3%
2039		52.1		151.9		160.8		60.8		13.5		5.3		444.5	1.9%
2040		53.2		153.9		164.5		61.8		13.8		5.5		452.6	1.8%
2041		54.3		155.9		168.1		62.8		14.0		5.7		460.7	1.8%
2042		55.3		157.8		171.7		63.8		14.2		6.0		468.9	1.8%
2043 [E]		53.1		154.1		170.0		62.9		13.7		5.5		459.2	-2.1%
2044		54.2		156.1		173.6		63.9		13.9		5.7		467.3	1.8%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)							
2000 - 2008	4.8%	4.5%	7.7%				6.8%	
2008 - 2014	4.9%	-1.1%	-1.2%	2.4%			0.6%	
2014 - 2020	-3.4%	1.9%	3.1%	6.7%	4.6%		2.1%	
2020 - 2030	0.7%	0.5%	2.1%	2.4%	0.9%	6.6%	1.3%	
2030 - 2040	0.2%	0.1%	1.4%	0.8%	0.1%	3.2%	0.7%	

Notes:

A - Actual transaction data provided by CFX from Monthly Statistical Reports, which are unaudited.

B - Effects of the events of September 11, 2001.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - First effects of national economic recession.

E - Systemwide toll rate increase.

F - Airport Main Plaza closes, new ramp plazas open at beginning of FY 2016. Transactions for tolls collected at the Turnpike plaza not included.

G - Ponkan Main plaza scheduled to open on July 1, 2017 and Mount Plymouth Main scheduled to open on January 1, 2018 (S.R. 429). Coronado Main plaza scheduled to open on January 1, 2018 (S.R. 453).

Table 1-10
CFX System Toll Revenue Forecast - Before Discounts and UTN Collections (Millions)

Fiscal Year	S.R. 528		S.R. 408		S.R. 417		S.R. 429		S.R. 414		S.R. 453		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual	Projected	Actual [A]	Projected	
2000	$27.7		$62.3		$38.3								$128.3		11.9%
2001	$29.2		$66.2		$41.3		$3.3						$140.0		9.1%
2002 [B]	$28.7		$69.7		$42.6		$5.1						$146.1		4.4%
2003	$30.6		$73.2		$46.5		$7.2						$157.5		7.8%
2004	$34.3		$78.7		$51.6		$9.2						$173.8		10.3%
2005 [C]	$36.1		$80.4		$56.7		$10.5						$183.7		5.7%
2006	$38.4		$85.1		$62.6		$13.5						$199.6		8.7%
2007	$40.0		$86.5		$66.9		$17.4						$210.8		5.6%
2008 [D]	$40.1		$86.1		$68.5		$19.0						$213.7		1.4%
2009 [E]	$38.5		$88.3		$66.8		$19.0		$0.6				$213.2		-0.2%
2010	$46.6		$107.7		$79.0		$23.5		$4.2				$261.0		22.4%
2011	$48.4		$108.3		$80.1		$24.4		$5.1				$266.3		2.0%
2012	$48.7		$107.7		$80.5		$24.9		$5.7				$267.5		0.5%
2013 [E]	$54.5		$119.3		$91.2		$29.4		$7.7				$302.1		12.9%
2014	$56.3		$125.2		$98.3		$33.5		$9.1				$322.4		6.7%
2015		$58.9		$129.6		$106.3		$37.8		$10.2				$342.8	6.3%
2016 [F]		63.2		133.8		109.9		39.4		10.3				356.6	4.0%
2017		64.9		138.0		113.4		41.1		10.4				367.7	3.1%
2018 [E,G]		71.2		149.7		124.0		47.3		10.8		$0.5		403.4	9.7%
2019		73.6		152.3		126.3		51.0		11.3		1.2		415.7	3.0%
2020		76.0		154.9		128.5		54.2		11.8		1.4		426.9	2.7%
2021		78.4		157.6		130.8		57.4		12.3		1.6		438.1	2.6%
2022		80.8		160.2		133.1		60.6		12.8		1.8		449.4	2.6%
2023 [E]		86.2		172.1		142.0		66.6		13.7		2.2		482.9	7.5%
2024		87.2		175.4		147.4		69.0		14.3		2.4		495.6	2.6%
2025		88.2		178.6		152.8		71.3		14.8		2.6		508.3	2.6%
2026		89.1		181.8		158.2		73.6		15.3		2.8		521.0	2.5%
2027		90.1		185.1		163.6		76.0		15.9		3.0		533.7	2.4%
2028 [E]		93.6		195.4		174.8		80.4		17.0		3.3		564.4	5.8%
2029		96.2		197.6		180.4		82.2		17.3		3.5		577.2	2.3%
2030		98.8		199.9		185.9		84.0		17.6		3.6		589.9	2.2%
2031		101.4		202.1		191.5		85.9		17.9		3.8		602.6	2.2%
2032		104.0		204.4		197.1		87.7		18.2		3.9		615.4	2.1%
2033 [E]		108.9		213.2		207.9		91.6		19.0		4.2		644.8	4.8%
2034		110.9		216.0		212.2		93.8		19.3		4.5		656.6	1.8%
2035		112.9		218.8		216.6		96.0		19.5		4.7		668.5	1.8%
2036		114.9		221.7		220.9		98.2		19.8		4.9		680.3	1.8%
2037		117.0		224.5		225.3		100.4		20.0		5.1		692.2	1.7%
2038 [E]		120.8		233.9		235.0		105.3		20.9		5.6		721.5	4.2%
2039		122.9		237.4		239.7		107.3		21.1		5.9		734.2	1.8%
2040		125.0		240.8		244.3		109.3		21.4		6.1		746.9	1.7%
2041		127.1		244.2		248.9		111.3		21.7		6.4		759.6	1.7%
2042		129.2		247.7		253.5		113.3		22.0		6.6		772.3	1.7%
2043 [E]		134.0		251.2		264.1		118.3		23.0		6.9		797.3	3.2%
2044		136.1		254.6		268.7		120.3		23.2		7.1		810.0	1.6%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)							
2000 - 2008	4.7%	4.1%	7.5%				6.6%	
2008 - 2014	5.8%	6.4%	6.2%	9.9%			7.1%	
2014 - 2020	5.1%	3.6%	4.6%	8.4%	4.4%		4.8%	
2020 - 2030	2.7%	2.6%	3.8%	4.5%	4.1%	9.9%	3.3%	
2030 - 2040	2.4%	1.9%	2.8%	2.7%	2.0%	5.4%	2.4%	

Notes:

A - Actual transaction data provided by CFX from Monthly Statistical Reports, which are unaudited.

B - Effects of the events of September 11, 2001.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - First effects of national economic recession.

E - Systemwide toll rate increase.

F - Airport Main Plaza closes, new ramp plazas open at beginning of FY 2016. Transactions for tolls collected at the Turnpike plaza not included.

G - Ponkan Main plaza scheduled to open on July 1, 2017 and Mount Plymouth Main scheduled to open on January 1, 2018 (S.R. 429). Coronado Main plaza scheduled to open on January 1, 2018 (S.R. 453).

1.7.2 AVAILABLE SYSTEM TOLL REVENUES

The total System revenue less the discounts is summarized in **Table 1-11**. The total System toll revenue plus the revenue recaptured from UTN's is expected to increase from the actual of $330.9 million in FY 2014 to $506.8 million in FY 2024, $670.5 million in FY 2034 and $825.7 million in FY 2044.

The System currently experiences a relatively low violation rate. In FY 2014, the unadjusted violations of all System transactions recorded as violations were 2.49 percent. This low violation rate is experienced despite providing open road tolling at all System mainline plazas except S.R. 528 Airport Plaza. The System revenue forecasts assume a violation rate of approximately 2.0 percent.

The System toll revenue forecasts in Table 1-10 do not include any of the recaptured toll revenue from these violations. Historically, the recaptured toll revenue from these violations was relatively minor. However, in recent years, changes in CFX's toll collection policy concerning violators have resulted in an increased recapture rate of the toll revenues. CFX instituted a more convenient method of payment for toll violations using unpaid toll notices (UTN) in June 2009. CFX's toll collection policy was also modified to require all violations be paid in order for a customer to renew their Florida vehicle registration. A document fee of $3.00 was added to the Unpaid Toll Notice (UTN) in addition to a $0.10 charge for each photograph (violation) on the monthly UTN. In August 2010, CFX approved a change to the violation threshold for issuance of the unpaid toll notices from three or more violations within a calendar month to two or more violations within a calendar month.

In addition to the System toll revenues, Table 1-11 also shows the additional revenue recaptured from the unpaid toll notices less the discounts during the fiscal year. The resulting total available System revenue can be used by CFX for their operating and maintenance budget and debt service. The total available System toll revenues are projected to increase from the actual $319.1 million in FY 2014 to estimated amounts of $483.5 million in FY 2024, $633.1 million in FY 2034 and $773.0 million in FY 2044.

Table 1-11
CFX System Toll Revenues Available (Millions)

Fiscal Year	System Toll Revenues	Revenue Recaptured from UTN [C]	Total System Toll Revenues	Discount Programs [D]	System Revenues Available	Percent Annual Change
2000 [B]	$128.1		$128.1	$2.6	$125.5	11.7%
2001 [B]	140.1		140.1	3.2	136.9	9.1%
2002 [B]	146.2		146.2	3.9	142.3	3.9%
2003 [B]	157.5		157.5	4.2	153.3	7.7%
2004 [B]	173.7		173.7	4.9	168.8	10.1%
2005 [B]	183.6		183.6	5.9	177.7	5.3%
2006 [B]	199.7		199.7	6.7	193.0	8.6%
2007 [B]	210.8		210.8	7.35	203.5	5.4%
2008 [B]	213.8		213.8	7.9	205.9	1.2%
2009 [A,B]	213.2		213.2	6.8	206.4	0.2%
2010	262.0	1.1	263.1	$9.4	253.6	22.9%
2011	266.5	3.0	269.5	9.5	260.0	2.5%
2012	267.9	4.3	272.2	9.6	262.6	1.0%
2013 [A]	302.7	6.3	309.0	10.8	298.2	13.5%
2014	322.8	8.1	330.9	11.7	319.1	7.0%
2015	342.8	8.2	351.0	13.0	338.0	5.9%
2016	356.6	8.5	365.1	19.3	345.8	2.3%
2017	367.7	8.7	376.4	20.4	356.0	2.9%
2018 [A]	403.4	9.5	412.9	23.5	389.4	9.4%
2019	415.7	9.7	425.4	24.9	400.5	2.9%
2020	426.9	9.9	436.8	26.2	410.6	2.5%
2021	438.1	10.1	448.2	27.6	420.6	2.4%
2022	449.4	10.3	459.7	20.2	439.5	4.5%
2023 [A]	482.9	11.0	493.9	22.2	471.7	7.3%
2024	495.6	11.2	506.8	23.3	483.5	2.5%
2025	508.3	11.4	519.7	24.4	495.3	2.4%
2026	521.0	11.6	532.6	25.5	507.1	2.4%
2027	533.7	11.9	545.6	26.7	518.9	2.3%
2028 [A]	564.4	12.4	576.8	28.8	548.0	5.6%
2029	577.2	12.6	589.8	30.0	559.8	2.2%
2030	589.9	12.8	602.7	31.3	571.4	2.1%
2031	602.6	13.0	615.6	32.5	583.1	2.0%
2032	615.4	13.2	628.6	33.8	594.8	2.0%
2033 [A]	644.8	13.7	658.5	36.1	622.4	4.6%
2034	656.6	13.9	670.5	37.4	633.1	1.7%
2035	668.5	14.0	682.5	38.8	643.7	1.7%
2036	680.3	14.2	694.5	40.1	654.4	1.7%
2037	692.2	14.3	706.5	41.5	665.0	1.6%
2038 [A]	721.5	14.8	736.3	44.0	692.3	4.1%
2039	734.2	15.0	749.2	45.5	703.7	1.6%
2040	746.9	15.1	762.0	47.1	714.9	1.6%
2041	759.6	15.3	774.9	48.6	726.3	1.6%
2042	772.3	15.4	787.7	50.2	737.5	1.5%
2043 [A]	797.3	15.8	813.1	51.8	761.3	3.2%
2044	810.0	15.7	825.7	52.7	773.0	1.5%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)					
2000 - 2008	6.6%		6.6%		6.4%	
2008 - 2014	7.1%		7.5%	6.9%	7.6%	
2014 - 2020	4.8%	3.5%	4.7%	14.3%	4.3%	
2020 - 2030	3.3%	2.6%	3.3%	1.8%	3.4%	
2030 - 2040	2.4%	1.7%	2.4%	4.2%	2.3%	

Notes:

A - Systemwide toll rate increase.

B - Actual FY system toll revenues provided by the Authority and are audited. System toll revenues will not equal the sum of the system plaza group revenues presented in Table 1-9 due to recovered revenues from toll violations and account adjustments. These adjustments occur periodically thorughout the FY but are not tied to the collected revenue at a particular plaza group. Since FY 2010 the recovered reverues have been reported separately.

C - Unpaid Toll Notice. The revenue recaptured from the UTNs comprised 2.1 percent and 2.5 percent of the System Revenues less E-PASS discount in FY 2013 and FY 2014, respectively. From FY 2015 through FY 2044, the estimated revenue recaptured from the UTNs is assumed to comprise 2.4 percent declining to 1.94 percent of the System Toll Revenues Less the E-PASS Discount. Historical information comes from the 2014 CAFR.

D - Discount Programs. The E-PASS Discount Program, created to increase ETC participation, provides a 5% discount to customers with at least 40 transactions in a month and a 10% discount to customers with at least 80 transactions per month. The I-4 Ultimate Commuter Discount Program, instituted for a six-year period beginning in FY 2016, will provide an additional 5% discount to customers with 20 or more transactions per month on the CFX "beltway" facilities (SR 417, SR 429 and SR 414). This discount will only be offered during months when actual total revenue exceeds the current revenue projections by more than 2.0 percent. Historical information on the E-PASS discount comes from the 2014 CAFR.

1.7.3 NON-SYSTEM REVENUES

The Goldenrod Road Extension is a toll facility operated by CFX. It was constructed as an extension of the existing Goldenrod Road (S.R. 551) to provide an additional north-south facility operated by CFX as a Non-System project in the vicinity of the OIA. The existing Goldenrod Road is a four-lane state-maintained facility that currently terminates at Narcoosee Road. The Goldenrod Road Extension continues the roadway south from the current terminus at Narcoosee Road to Cargo Road on the airport property. There is one interchange on the facility at S.R. 528, just east of the airport. The Greater Orlando Aviation Authority (GOAA) constructed Heintzelman Boulevard, a four-lane facility that connects with the Goldenrod Road Extension at Cargo Road and then extends south through the OIA. South of the existing terminal building, Heintzelman Boulevard interchanges with the Airport South Access Road. Heintzelman Boulevard is not currently signed for use by the general public, and serves as an access road for airport employees. Construction of the Goldenrod Road Extension began in January 2001, and was opened to traffic in March 2003. This project was jointly funded by CFX, Orange County, the City of Orlando, GOAA and private developers, with CFX serving as the lead agency on the project. The Goldenrod Road Extension is tolled at one location. A mainline plaza, with a toll of $0.50 is located north of the interchange with S.R. 528. Revenues generated by the toll on the Goldenrod Road Extension are not included as part of CFX's System revenues. Revenues generated by this non-System roadway are pledged as part of the System revenues available for debt service. Such revenues will be used to repay funds used by the partners for the construction of the roadway as well as the continued operations and maintenance expenses. According to the agreements between the project's partners, once toll revenues have paid for project costs (including toll operations and maintenance), the toll plaza will be removed and the City of Orlando will assume ownership of the roadway.

1.8 Disclaimer

CDM Smith used currently-accepted professional practices and procedures in the development of these traffic and revenue estimates. However, as with any forecast, it should be understood that differences between forecasted and actual results may occur, as caused by events and circumstances beyond the control of the forecasters. In formulating the estimates, CDM Smith reasonably relied upon the accuracy and completeness of information provided (both written and oral) by CFX. CDM Smith also relied upon the reasonable assurances of independent parties and is not aware of any material facts that would make such information misleading.

CDM Smith made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue estimates that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit of partial information extracted from this report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including CFX. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the estimates or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projection contained within this report.

While CDM Smith believes that the projections and other forward-looking statements contained within the report are based on reasonable assumptions as of the date of the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to CFX and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to CFX with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to CFX. CFX should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.

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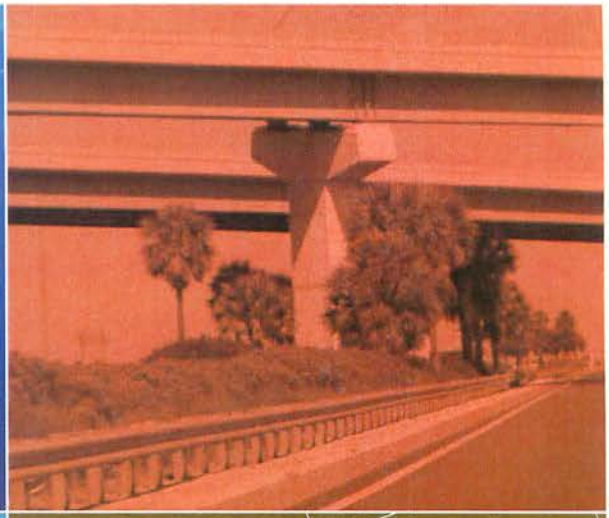
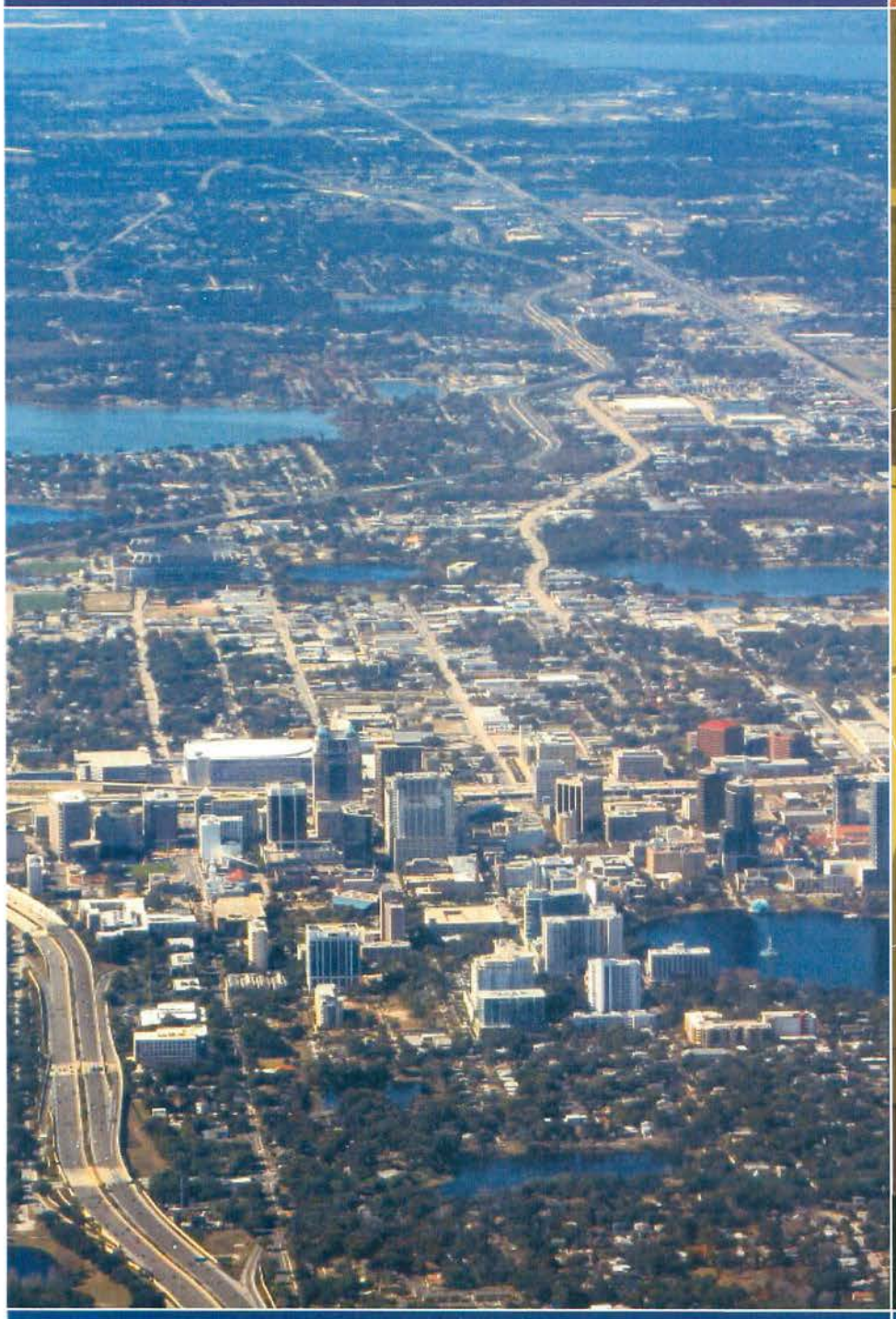
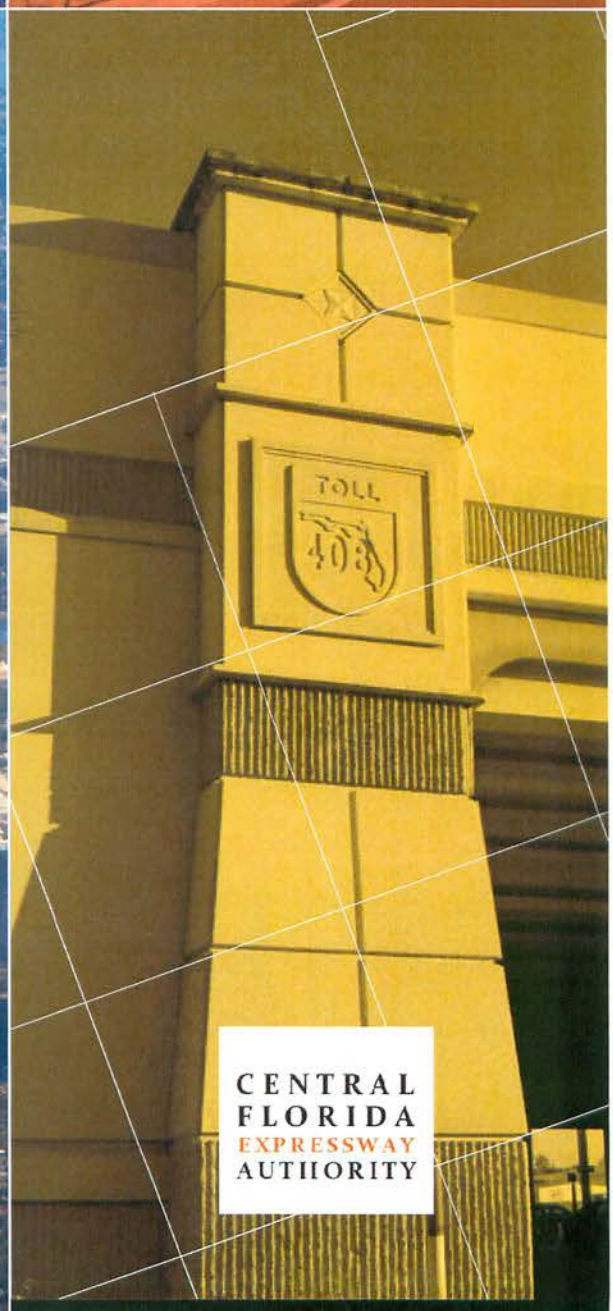
Chapter 2

Economic Indicators







CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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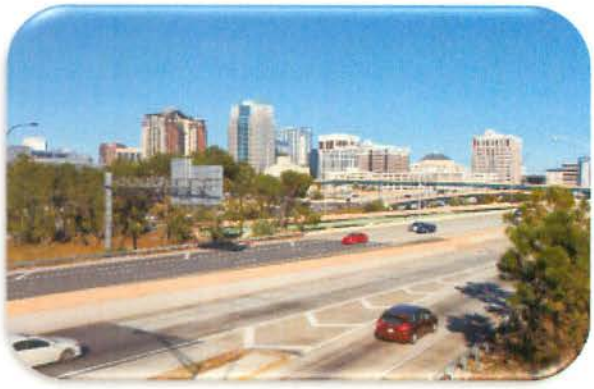
ECONOMIC INDICATORS



Regional travel demand is driven by the levels, growth rates and location of socioeconomic activity, such as population, housing and employment. Economic activity is also reflected in measures of retail sales, tourism and the housing market. Socioeconomic growth is a major factor in determining future utilization of toll roads and bridges. Other important growth factors specific to the Central Florida area include enplanement activity at the Orlando International Airport (OIA), enrollment statistics at the University of Central Florida (UCF) and area attraction attendance. These factors can all be fundamentally traced to underlying socioeconomic variables, so it is important to understand the socioeconomic conditions in which the CFX facilities have operated. This chapter contains a review of the socioeconomic factors relevant to CFX and comparative data (historical and forecast) for the counties within the study area and the State of Florida.

2.1 Population

2.1.1 HISTORICAL TRENDS

The historical population trend for the seven counties in the study area as well as for the State of Florida from 1990 through 2013 is included in **Table 2-1**. The corresponding population compound average annual growth rates (CAAGR) for the same years are included in **Table 2-2**. As shown, the population in the study area has more than doubled since 1980 from approximately 1.7 million to over 3.9 million in 2013, or equivalent to a compound average annual growth rate of 2.7 percent per year. Over the years, the long-term historical population growth has decelerated from 3.8 percent per year in the 1980s to 2.2 percent per year between 2000 and 2010. Since 1980, Osceola County has been the fastest growing county in the study area, with average growth of 5.6 percent per year. Polk County has experienced the slowest relative growth of 2.0 percent per year from 1980 to 2013. Nearly one third of the total study area population is located in Orange County, which is home to over 1.2 million residents. The State's total population has grown from 9.7 million in 1980 to 19.5 million in 2013, or an increase of 2.1 percent per year on average. The State of Florida is still recovering from the recent recession, but is expected to gradually return to normal levels of growth over the next few years. Historically, population growth in the study area has outpaced the State of Florida over the last three decades.

Table 2-1
Population – Historical Trend
1980 – 2013

Area	1980	1990	2000	2010	2013
Brevard County	272,959	398,978	476,230	543,376	550,823
Lake County	104,870	152,104	210,527	297,052	308,034
Orange County	470,865	677,491	896,344	1,145,956	1,225,267
Osceola County	49,287	107,728	172,493	268,685	298,504
Polk County	321,652	405,382	483,924	602,095	623,009
Seminole County	179,752	287,521	365,199	422,718	436,041
Volusia County	258,762	370,737	443,343	494,593	500,800
Area Total	1,658,147	2,399,941	3,048,060	3,774,475	3,942,478
Florida (Statewide)	9,746,959	12,938,071	15,982,378	18,801,310	19,552,860

Source: U.S. Census Bureau

Table 2-2
Population – Historical Growth Rates (CAAGR)
1980 – 2013

Area	1980 - 1990	1990 - 2000	2000 - 2010	2010 - 2013	1980 - 2013
Brevard County	3.9%	1.8%	1.3%	0.7%	2.2%
Lake County	3.8%	3.3%	3.5%	1.8%	3.3%
Orange County	3.7%	2.8%	2.5%	3.4%	2.9%
Osceola County	8.1%	4.8%	4.5%	5.4%	5.6%
Polk County	2.3%	1.8%	2.2%	1.7%	2.0%
Seminole County	4.8%	2.4%	1.5%	1.6%	2.7%
Volusia County	3.7%	1.8%	1.1%	0.6%	2.0%
Area Total	3.8%	2.4%	2.2%	2.2%	2.7%
Florida (Statewide)	2.9%	2.1%	1.6%	0.4%	2.1%

Source: U.S. Census Bureau

Regional school population and enrollment are additional indicators of activity in Central Florida. **Table 2-3** summarizes the school population by year and by county in the study area, including the total percent change and CAAGR by county and total area. As shown, school population in Osceola County has experienced the most overall growth since 2004 at an average pace of 2.3 percent annually. School population has declined in Brevard, Seminole and Volusia Counties between 0.5 percent, 0.3 percent, and 0.7 percent per year, respectively over the nine year period. Overall, school population in the study area has grown 0.7 percent per year on average since 2004. These numbers are not directly comparable to total population due to the number of families in the study area without school-age children.

Table 2-3
Historical School Population by County
2004 – 2013

County	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004 - 2013 Total % Change	2004 - 2013 CAAGR
Brevard	74,345	75,160	74,791	74,364	73,076	72,402	71,866	71,786	71,217	71,224	-4.2%	-0.5%
Lake	35,949	38,052	39,566	40,708	40,996	41,099	41,110	41,315	41,478	41,801	16.3%	1.7%
Orange	172,357	175,307	175,155	174,033	172,028	173,021	175,986	179,989	183,021	187,092	8.5%	0.9%
Osceola	47,325	49,779	51,881	52,752	51,955	52,142	53,466	54,776	56,369	58,147	22.9%	2.3%
Polk	86,057	89,483	92,873	94,165	94,716	94,577	95,178	96,034	96,943	97,971	13.8%	1.5%
Seminole	66,336	67,473	66,349	65,390	64,933	64,460	64,228	64,335	64,368	64,831	-2.3%	-0.3%
Volusia	65,011	65,599	65,867	64,570	63,065	62,329	61,559	61,524	61,054	61,226	-5.8%	-0.7%
Area Total	547,380	560,853	566,482	565,982	560,769	560,030	563,393	569,759	574,450	582,292	6.4%	0.7%

Source: Florida Department of Education

The University of Central Florida (UCF) opened in 1968 with less than 2,000 enrolled students. As shown in **Table 2-4,** annual enrollment has continued to increase over the years to become a large-scale university with over 60 thousand students in 2014. In fact, long-term annual growth has averaged 4.7 percent per year from 1980 to 2014. This continued growth is due to opening of new programs, campus facilities and the increasing number of transfer students. Annual enrollment is expected to increase by 1.8 percent per year through 2040. While the enrollment numbers are significant, many students only attend part-time. Part-time students typically attend classes on-line and do not travel to the main campus in Orlando. The increasing popularity of on-line classes and on-line degrees may have an impact on CFX facilities.

Table 2-4
Historical UCF Enrollment
1980 – 2014

Area	Levels				
	1980	1990	2000	2010	2014
UCF Enrollment	12,820	21,376	33,453	56,337	60,810

Source: UCF

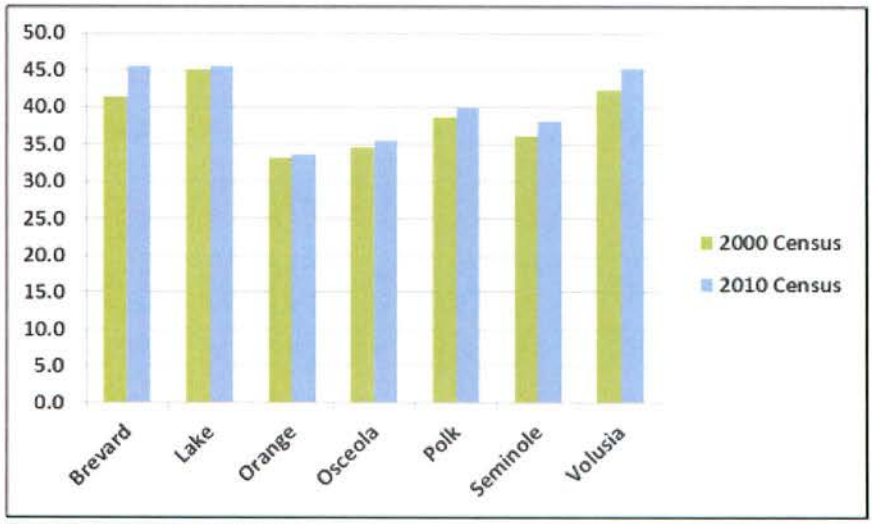
The age distribution comparison of the study area for 2000 and 2010 is shown in **Table 2-5**. A majority of the 2010 population (59 percent) is made up of the working age group, ages 20 to 64, who typically make the majority of commuter and business-related trips. The 2000 population data reflects the same overall age group trends. The median ages for the study area counties in years 2010 and 2000 are shown in **Figure 2-1**. Lake County has the highest median age in both years reflecting the presence of the retirement communities located there. Brevard and Volusia Counties both have had significant increases in median ages. All counties had higher median age in 2010 than in 2000.

Table 2-5
Historical Population by Age
2010 vs. 2000

Age Group	2010 Census		2000 Census	
	Total	Percent	Total	Percent
0-4	221,562	5.9%	184,700	6.1%
5-19	732,041	19.4%	615,697	20.2%
20-24	264,847	7.0%	185,459	6.1%
25-34	473,023	12.5%	405,961	13.3%
35-44	490,323	13.0%	486,110	15.9%
45-54	552,868	14.6%	395,565	13.0%
55-64	453,437	12.0%	289,212	9.5%
65-74	318,580	8.4%	262,234	8.6%
75+	267,794	7.1%	223,120	7.3%
Total Study Area Population	**3,774,475**	**100.0%**	**3,048,058**	**100.0%**

Source: U.S. Census Bureau

Figure 2-1
Median Age by County
2010 vs. 2000



Source: U.S. Census Bureau

2.1.2 PROJECTIONS

University of Florida's Bureau of Economic and Business Research (BEBR) annually prepares forecasts of population within Florida. These population forecasts are presented as three scenarios: low, medium, and high projections. Medium-level BEBR population projections are typically used as a base point in the development of county-wide control totals. **Table 2-6** summarizes the 2014 BEBR medium forecasts. Future long-term population growth for the study area is projected to average 1.3 percent, which is higher than the 1.0 percent projected growth for the State of Florida. Over the forecast period from 2013 through 2040, Osceola County is projected to experience the fastest population growth rate of 2.2 percent per year. Volusia County is expected to have the lowest growth rate of only 0.6 percent through the forecast period.

Table 2-6
Population – Projected Growth Rates (CAAGR)
2013 – 2040

Area	Compound Average Annual Growth Rate (Percent)			
	2013 - 2020	2020 - 2030	2030 - 2040	2013 - 2040
Brevard County	1.0%	0.8%	0.6%	0.8%
Lake County	2.1%	1.8%	1.2%	1.7%
Orange County	1.9%	1.6%	1.2%	1.5%
Osceola County	2.7%	2.3%	1.6%	2.2%
Polk County	1.5%	1.4%	1.1%	1.3%
Seminole County	0.9%	0.9%	0.6%	0.8%
Volusia County	0.8%	0.7%	0.5%	0.6%
Area Total	1.5%	1.4%	1.0%	1.3%
Florida (Statewide)	1.1%	1.1%	0.8%	1.0%

Source: BEBR 2014 – Population Studies, Vol. 47, Bulletin 168; and CDM Smith calculations

2.2 Housing Units

2.2.1 HISTORICAL TRENDS

The number of housing units is another key measure used in the travel demand models. As indicated in **Table 2-7**, the number of housing units in the study area has expanded nearly two and a half times from 700 thousand in 1980 to over 1.7 million in 2010. Orange County has the largest concentration of housing units in the seven-county study area with nearly 490 thousand in 2010. The corresponding CAAGRs are shown in **Table 2-8** for the same years. Long-term, the number of housing units grew from 1980 to 2010 by an average of 3.1 percent annually. Historical housing unit growth slowed down from 4.4 percent per year in the 1980s to 2.7 percent per year from 2000 to 2010. This is the same trend seen in long-term population growth rates. Osceola County has experienced the most growth in housing units with an average of 5.8 percent annually while Volusia County has been the slowest with only 2.4 percent annual growth between 1980 and 2010. Overall, the study area historical housing unit growth has outpaced the State of Florida.

Table 2-7
Housing Units – Historical Trend
1980 – 2010

Area	Levels			
	1980	1990	2000	2010
Brevard County	113,900	185,150	222,072	269,864
Lake County	50,511	75,707	102,829	144,996
Orange County	184,701	282,686	361,349	487,839
Osceola County	23,825	47,959	72,293	128,170
Polk County	134,873	186,225	226,376	281,214
Seminole County	68,154	117,841	147,080	181,307
Volusia County	124,427	180,983	211,938	254,226
Area Total	700,391	1,076,551	1,343,937	1,747,616
Florida (Statewide)	4,378,867	6,100,250	7,303,108	8,989,580

Source: U.S. Census Bureau

Table 2-8
Housing Units – Historical Growth Rates (CAAGR)
1980 – 2010

Area	Compound Average Annual Growth Rate (Percent)			
	1980 - '90	1990 - '00	2000 - '10	1980 - 2010
Brevard County	5.0%	1.8%	2.0%	2.9%
Lake County	4.1%	3.1%	3.5%	3.6%
Orange County	4.3%	2.5%	3.0%	3.3%
Osceola County	7.2%	4.2%	5.9%	5.8%
Polk County	3.3%	2.0%	2.2%	2.5%
Seminole County	5.6%	2.2%	2.1%	3.3%
Volusia County	3.8%	1.6%	1.8%	2.4%
Area Total	4.4%	2.2%	2.7%	3.1%
Florida (Statewide)	3.4%	1.8%	2.1%	2.4%

Source: U.S. Census Bureau

2.2.2 PROJECTIONS

Table 2-9 summarizes the long-term housing growth forecasts as published by Moody's Analytics for 2010 through 2040. Future long-term housing growth for the study area is projected to average 1.6 percent annually through 2040. Orange County is forecasted to experience the most growth in housing units with an average rate of 2.2 percent annually while Volusia County is expected to have the slowest growth of 0.9 percent per year. The Moody's forecasts for housing units presented here are not consistent with the BEBR population forecasts for some counties. Due to this discrepancy, the Moody's forecasts were adjusted to line up with the BEBR population forecasts. The BEBR forecasts were used in the development of the future year single-family and multi-family housing unit control totals. Due to local growth management policies, Seminole County growth rates were adjusted down.

Table 2-9
Housing Units – Projected Growth Rates (CAAGR)
2010 – 2040

Area	Compound Average Annual Growth Rate (Percent)			
	2010 - 2020	2020 - 2030	2030 - 2040	2010 - 2040
Brevard County	1.1%	1.7%	1.7%	1.5%
Lake County	0.8%	1.3%	1.3%	1.1%
Orange County	1.9%	2.4%	2.1%	2.2%
Osceola County	1.6%	2.3%	2.1%	2.0%
Polk County	0.9%	1.5%	1.2%	1.2%
Seminole County	1.5%	1.8%	1.6%	1.6%
Volusia County	0.7%	1.1%	0.9%	0.9%
Area Total	1.3%	1.8%	1.7%	1.6%

Source: Moody's Analytics, 2013

2.3 Employment

2.3.1 HISTORICAL TRENDS

The employment numbers reported below are different than numbers reported in the FY 2013 Annual Report, because the Bureau of Economic Analysis (BEA) recently reinstituted the county-level employment data. As a result, the figures presented in **Table 2-10** and **Table 2-11** are from BEA, which due to definitional differences are traditionally higher than the Bureau of Labor Statistics (BLS) data used in the FY 2013 Annual Report. Orange County dominates the regional employment base with over 40 percent of the seven-county total. Table 2-11 presents the CAAGR for the counties in the study area and also for the State of Florida. Long-term employment growth in the study area averaged 2.9 percent per year. This growth was strong between 1990 and 2000 with an area growth of 3.0 percent per year, but decelerated between 2000 and 2010 to only 1.3 percent per year, with strongest growth rates in Osceola and Lake Counties. Since 2010 employment growth has increased to 2.3 percent, with Lake, Orange and Osceola Counties averaging over two percent per year. Historically, the study area employment base growth outpaced the State of Florida by an average of approximately 0.4 percent per year.

Table 2-10
Total Employment – Historical Trend
1990 – 2013

Area	1980	1990	2000	2010	2013
Brevard County	129,188	202,232	243,415	262,185	265,395
Lake County	46,281	58,326	86,724	117,141	125,431
Orange County	291,166	516,943	737,821	819,702	906,772
Osceola County	19,483	43,173	63,938	93,203	103,290
Polk County	156,846	194,693	235,518	255,893	267,686
Seminole County	61,621	121,188	186,969	217,916	229,229
Volusia County	105,796	146,833	178,519	197,647	205,185
Area Total	810,381	1,283,388	1,732,904	1,963,687	2,102,988
Florida (Statewide)	4,687,521	6,740,289	8,918,234	9,877,654	10,556,082

Source: Bureau of Economic Analysis

Table 2-11
Total Employment – Historical Growth Rates (CAAGR)
1990 – 2013

Area	Compound Average Annual Growth Rate (Percent)				
	1980 - 1990	1990 - 2000	2000 - 2010	2010 - 2013	1980 - 2013
Brevard County	4.6%	1.9%	0.7%	0.4%	2.2%
Lake County	2.3%	4.0%	3.1%	2.3%	3.1%
Orange County	5.9%	3.6%	1.1%	3.4%	3.5%
Osceola County	8.3%	4.0%	3.8%	3.5%	5.2%
Polk County	2.2%	1.9%	0.8%	1.5%	1.6%
Seminole County	7.0%	4.4%	1.5%	1.7%	4.1%
Volusia County	3.3%	2.0%	1.0%	1.3%	2.0%
Area Total	4.7%	3.0%	1.3%	2.3%	2.9%
Florida (Statewide)	3.7%	2.8%	1.0%	2.2%	2.5%

Source: Bureau of Labor Statistics

2.3.2 PROJECTIONS

Employment in the study area is projected to grow by an average of 1.6 percent per year through 2040 as shown in **Table 2-12**, which on average is about the same as the projected statewide annual growth rate. Osceola County's total employment is forecasted to increase the fastest at 2.5 percent per year while Brevard County is forecasted with the slowest annual growth of only 1.0 percent through 2040.

Table 2-12
Total Employment – Projected Growth Rates (CAAGR)
2010 – 2040

Area	Compound Average Annual Growth Rate (Percent)			
	2010 - 2020	2020 - 2030	2030 - 2040	2010 - 2040
Brevard County	1.0%	1.1%	1.1%	1.0%
Lake County	2.0%	2.0%	1.9%	2.0%
Orange County	1.8%	1.7%	1.6%	1.7%
Osceola County	2.6%	2.5%	2.4%	2.5%
Polk County	1.2%	1.3%	1.3%	1.3%
Seminole County	1.7%	1.9%	1.9%	1.8%
Volusia County	1.1%	1.1%	1.1%	1.1%
Area Total	1.6%	1.6%	1.6%	1.6%
Florida (Statewide)	1.6%	1.6%	1.6%	1.6%

Source: Woods & Poole Economics, Inc.[1], 2014; and CDM Smith calculations

Table 2-13 shows the employment projections by major sector (industrial, commercial and service industries). Future long-term employment growth for the study area is projected to average 1.8 percent annually for the commercial sector, 1.6 percent annually for the service sector and 1.0 percent for the industrial sector through 2040. The growth in jobs in the commercial and service sectors reflects the strength of the Central Florida tourism industry. The industrial sector is expected to experience slower short and long-term growth.

Table 2-13
Employment by Sector – Projected Growth Rates (CAAGR)
2010 – 2040

Area	Compound Average Annual Growth Rate (Percent)			
	2010 - 2020	2020 - 2030	2030 - 2040	2010 - 2040
Industrial **Employment**	0.9%	1.1%	1.1%	1.0%
Commercial **Employment**	1.9%	1.7%	1.7%	1.8%
Service **Employment**	1.6%	1.7%	1.6%	1.6%

Source: Woods & Poole Economics, Inc., 2014; and CDM Smith calculations

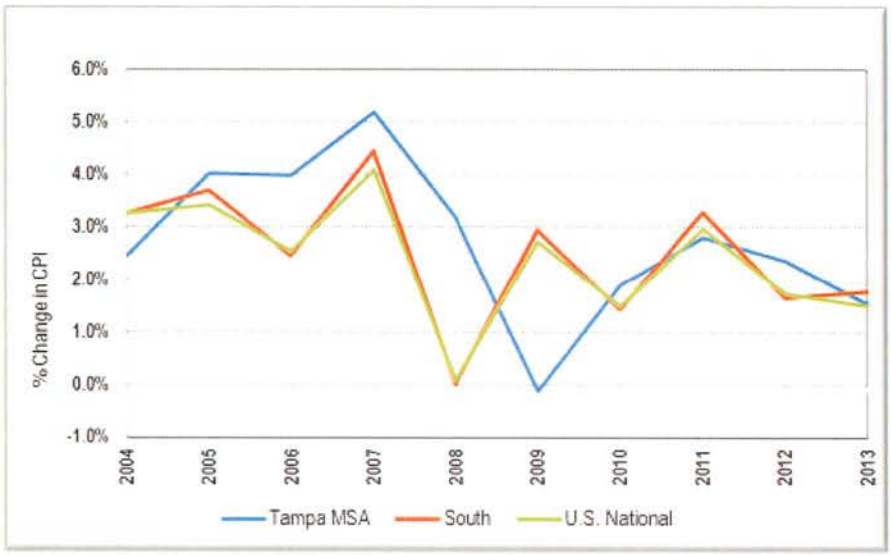
[1] Woods & Poole does not guarantee the accuracy of this data. The use of this data and the conclusions drawn from it are solely the responsibility of the Consulting Team.

2.4 Consumer Price Index and Income

2.4.1 CONSUMER PRICE INDEX

The Consumer Price Index (CPI) is used to measure the change in the cost of an average basket of goods and services compared to a fixed base period. The historical change in the CPI for the United States for 2004 through 2013 is shown in **Figure 2-2**. The relatively sharp increase in CPI in 2007 can be attributed to the high increases in the cost of gasoline prices during the second half of the year. In 2008, the CPI sharply declined for the first time since 1954 due to the start of the severe economic recession. Since 2009, the CPI has increased every year including a 1.5 percent change in 2013 over the prior year. Other indices reported are for the Tampa MSA (note that Orlando MSA is not separately tracked by the BLS) and the South Region (Southeastern U.S. States). CPI for the Tampa MSA showed a 5.2 percent change in 2007, which was over a percentage point higher than the increases at the national and the South region geographies. The South trends mirror the trend for the U.S. since 2004.

Figure 2-2
Change in Consumer Price Index (CPI)



Source: Bureau of Labor Statistics, January 2015

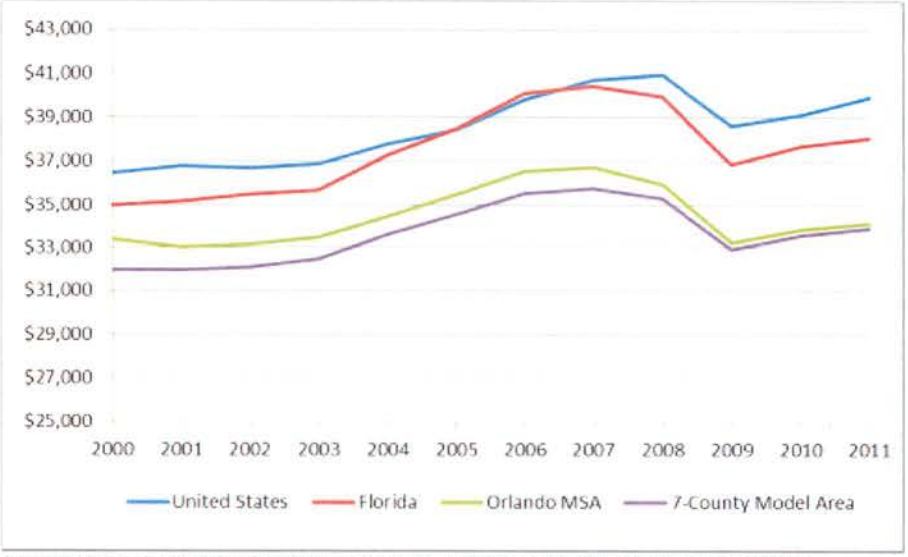
2.4.2 INCOME

Travel demand on a toll facility is sensitive to, among other things, the amount of disposable income available to households. A reliable indicator of an individual's propensity to pay tolls in exchange for travel time savings on other toll-free alternatives is their personal income. This is a key input into the assessment of the value of time, as there are typically relationships between income, value of time and the motorists' willingness to pay tolls.

The historical per capita income trend since 2000 for the U.S., Florida, the Orlando MSA and the seven-county study area are shown in **Figure 2-3**. The levels of real personal income per capita

for all the geographies shown were still below their respective pre-recession levels as of 2011 – the last year of historical data. The core counties of the region – Orange County and Seminole County - have observed very slight increases in the personal per capita income in the period from 2000 through 2011, with CAGRs of only about 0.3. These are the prime counties responsible for generating traffic on the CFX System.

Figure 2-3
Total Real Personal Income Per Capita: 2000 - 2011
(in 2009 Dollars)

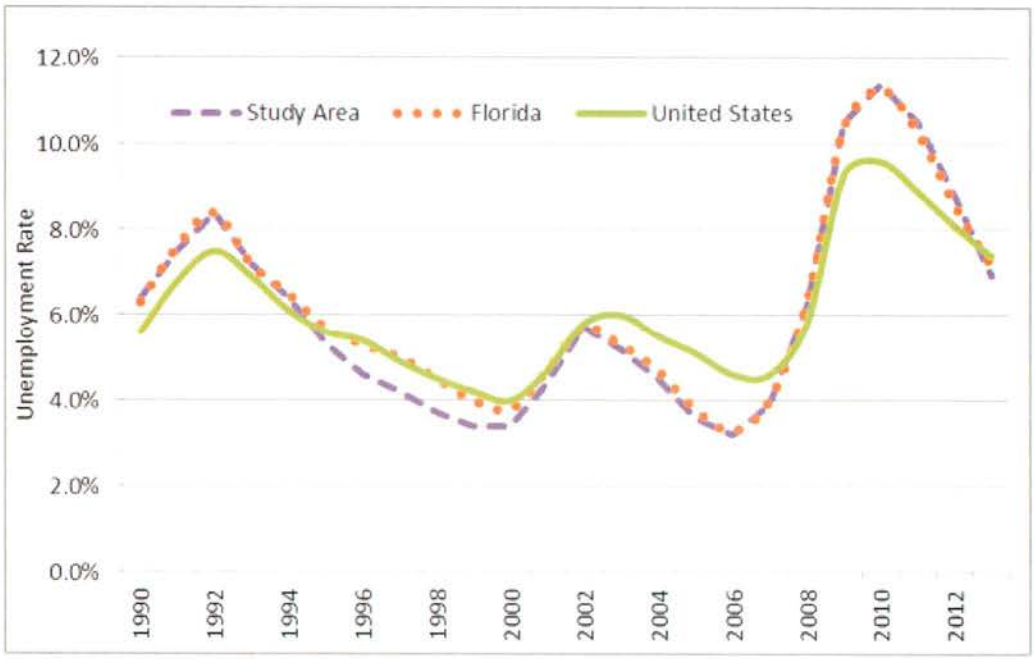


Source: Woods and Poole Economics, Inc., 2014; and CDM Smith calculations

2.5 Unemployment

The unemployment rate in the study area has been lower than in other parts of the State and lower than the national rates since 1994. However, in 2008 the study area had an unemployment rate of 6.2 percent, which was higher than the United States rate for the first time in fifteen years. Between 2009 and 2012, the unemployment rate in the study area exceeded the unemployment rates in both Florida and the United States. **Figure 2-4** shows the historical unemployment rates for the study area, Florida and the United States from 1990 through 2013. The study area's unemployment rate has ranged from a low of 3.2 percent in 2006 to a high of 11.4 percent in 2010. In 2013 the study area unemployment rate decreased again to an average of 6.9 percent, and has dropped below the national average. In fact it has dropped 4.5 percent since the high in 2010. While the study area's unemployment rate has historically been quite close to the Florida average, in 2013 it has performed better than the statewide unemployment rate of 7.2 percent.

Figure 2-4
Historical Unemployment Rate Comparison
1990 – 2013



Source: Bureau of Labor Statistics

2.6 Regional Tourism

As shown in **Table 2-14**, Orlando hosted a record 59.2 million visitors in 2013, which was an increase of 3.5 percent from 57.2 million visitors in 2012. Year 2010 was the first year that the total number of visitors to Orlando topped 50 million. Tourism had stagnated after the September 11th terrorist attacks, but 2010 and 2011 both showed strong increases of 9 percent and 7 percent per year, respectively. Approximately 4.8 million visitors in 2013 were from other countries.

Table 2-14
Tourism – Orlando Visitors (Millions)
2004 – 2013

Visitor Type	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004-2013 CAAGR
Domestic	45.2	46.6	45.1	45.9	45.5	43.3	47.8	51.4	52.9	54.4	2.09%
International	2.6	2.7	2.7	2.8	3.3	3.3	3.7	3.8	4.3	4.8	7.13%
Total	**47.7**	**49.3**	**47.8**	**48.7**	**48.9**	**46.6**	**51.5**	**55.2**	**57.2**	**59.2**	**2.02%**

Source: Visit Orlando – D.K. Shifflet & Associates; U.S. Department of Commerce, Office of Travel and Tourism Industries

In 2013, the Metro Orlando area hotel occupancy rate was 71.0 percent, an increase of 2.2 percent over 2012. Room night demand also increased from 29.3 million in 2012 to 30.1 million in 2013, showing steady growth in tourism. The average daily room rate has increased steadily over the past three years up to $101.53 from its recent low of $90.76 in 2010. This data is shown in **Table 2-15**. The majority of these lodging units are concentrated around Walt Disney World, International Drive (near Universal Studios, SeaWorld, and the Orange County Convention Center), and in the Kissimmee area.

Table 2-15
Metro Orlando Area Lodging
2004 – 2013

Metro Orlando	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Occupancy Rate	70.9%	70.8%	67.7%	67.9%	65.8%	59.5%	63.9%	67.6%	68.8%	71.0%
Average Daily Rate	$86.80	$92.00	$101.65	$105.84	$105.83	$93.34	$90.76	$94.11	$96.88	$101.53
Number of Rooms	112,981	111,564	112,156	111,348	111,551	114,109	115,199	115,413	117,396	116,499
Room Night Demand (in millions)	29.1	29.0	27.5	27.6	26.9	24.3	26.7	28.5	29.3	30.1

Source: Visit Orlando

The Orlando International Airport (OIA) saw an increase of over 6 million enplanements from 1990 to 2000, or an increase of approximately 5.4 percent per year. The enplanements totaled 17.3 million for 2013, or 18.1 percent above the 2000 total. Since 1990, total enplanements at OIA have nearly doubled at 3.1 percent per year. The United States Department of Transportation Federal Aviation Administration (U.S. DOT FAA) has projected that OIA enplanements will grow by an average of 2.0 percent per year through 2040. Enplanements are an indicator of tourism and economic growth. The historical and projected enplanements for OIA are shown in **Table 2-16** and **Table 2-17**.

Table 2-16
Historical OIA Enplanements
1990 – 2013

Area	Levels			
	1990	2000	2010	2013
OIA Enplanements	8,683,491	14,683,594	16,651,359	17,335,004

Source: U.S. DOT FAA TAF, 2014

Table 2-17
Projected OIA Enplanements
2010-2040

Area	Compound Average Annual Growth Rate (Percent)			
	2010 - 2020	2020 - 2030	2030 - 2040	2010 - 2040
OIA Enplanements	1.7%	2.3%	2.1%	2.0%

Source: U.S. DOT FAA TAF, 2014; and CDM Smith calculations

Metropolitan Orlando is home to seven of the ten largest theme parks in the nation, which will continue to contribute to the growth in Central Florida. This growth is due to new and future attractions these theme parks have planned to attract tourists to the area. Universal Studios at Universal Orlando recently opened another Harry Potter themed attraction, Diagon Alley, in the summer of 2014. Downtown Disney is also being transformed with new shopping, dining and entertainment choices to be opened in phases with final completion in 2016. As shown in **Table 2-18**, the Magic Kingdom attracted an estimated 18.6 million visitors in 2013, which had the highest attendance compared to other Orlando area theme parks. Universal Studios at Universal Orlando had the highest growth in 2013 with a 17.5 percent increase in attendance compared to 2011.

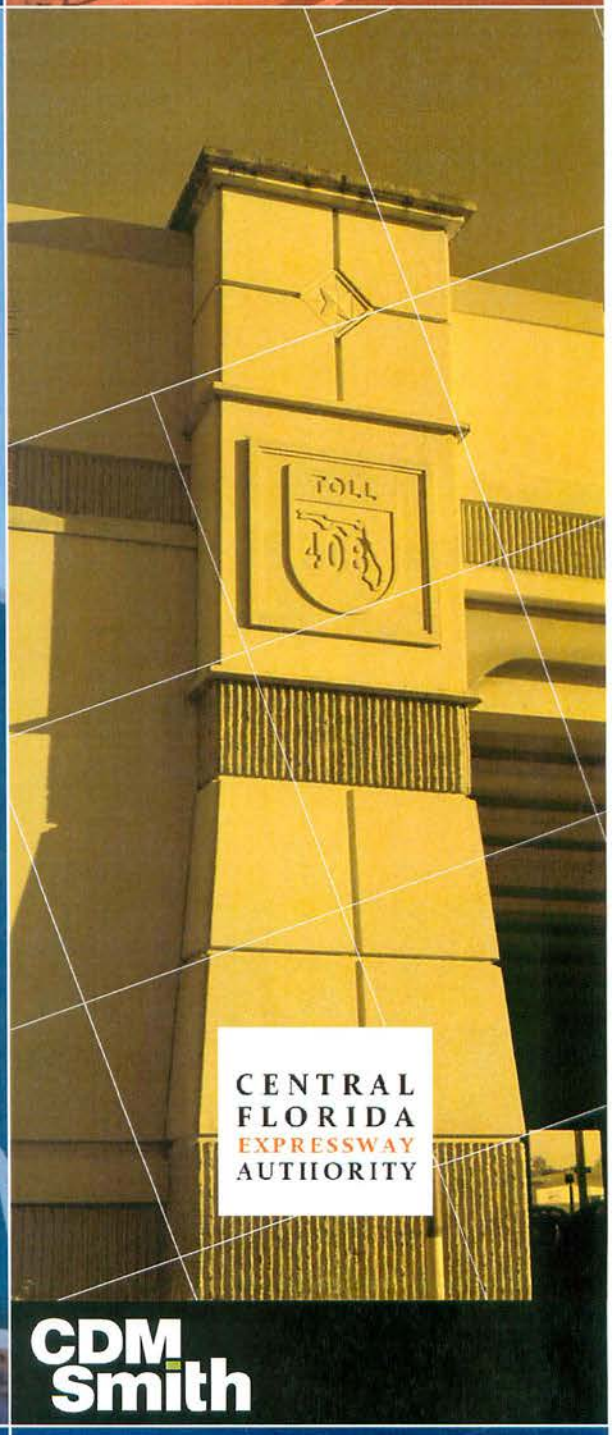
Table 2-18
Central Florida Attraction Attendance
2011- 2013 (Millions)

Theme Parks	2011	2013	Growth
Disney's Magic Kingdom	17.1	18.6	8.5%
Disney's Epcot Center	10.8	11.2	3.5%
Disney's Animal Kingdom	9.8	10.2	4.3%
Disney's Hollywood Studios	9.7	10.1	4.1%
Islands of Adventure at Universal Orlando	7.7	8.1	5.6%
Universal Studios at Universal Orlando	6.0	7.1	17.5%
Seaworld Orlando	5.2	5.1	-2.0%

Source: Visit Orlando – Themed Entertainment Association (TEA) and AECOM.
Note: All figures are estimates.

Chapter 3

S.R. 528
Martin B. Andersen
Beachline Expressway



CDM Smith

S.R. 528 (MARTIN B. ANDERSEN BEACHLINE EXPRESSWAY)

3.1 Facility Description

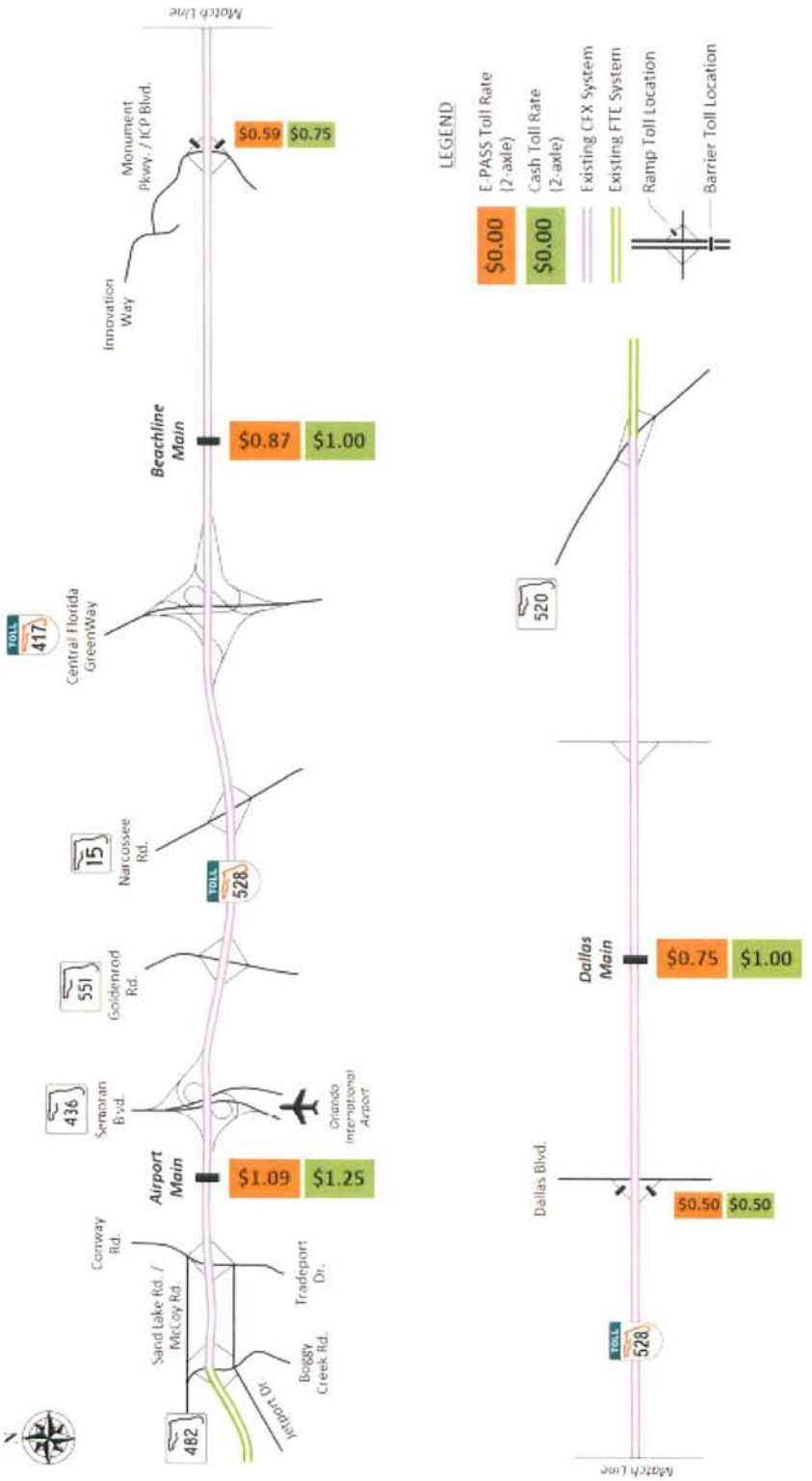
S. R. 528, also known as the Martin B. Andersen Beachline Expressway, is a 41-mile expressway that extends east from Interstate 4 (I-4) in the International Drive resort area to U.S. Highway 1 in the Brevard County coastal area near the Atlantic Ocean. The Beachline Expressway is owned, maintained and operated by two agencies, the CFX and FTE. CFX is responsible for the 23-mile portion of S.R. 528 from Boggy Creek Road/Sand Lake Road east to S.R. 520 with three mainline toll plazas including the Airport Main, Beachline Main and Dallas Main. Ramp tolls are located at the International Corporate Park (ICP) interchange to/from the east and the Dallas Boulevard ramps to/from the west. FTE is responsible for the 8-mile segment of S.R. 528 from I-4 east to Boggy Creek Road known as the Beachline West Expressway with one mainline toll plaza. FTE is also responsible for the 15-mile portion of S.R. 528 from S.R. 520 east to Interstate 95 known as the Beachline East Expressway. A map of the CFX portion of S.R. 528 including the FY 2014 toll rates for the mainline and ramp toll plazas is shown in **Figure 3-1**.

S.R. 528 has three plaza groups: the Airport Main plaza group; the Beachline Main plaza group with ramp plazas in the Monument Parkway/ ICP Boulevard interchange; and the Dallas Main plaza group with ramp plazas in the Dallas Boulevard interchange.

The original segment of S.R. 528 opened in 1967 as the Bee Line Expressway, providing a direct route from Orlando to the Space Coast. In July 1983, the segment of S.R. 528 from McCoy Road to S.R. 436/Semoran Boulevard was upgraded to a limited-access expressway, the Airport Main plaza was added and the Airport interchange was opened to traffic. The Airport interchange connects the Orlando International Airport (OIA) with S.R. 528 and with S.R. 436. This 2.6-mile segment is a six-lane, limited-access expressway with frontage roads extending from an interchange with Boggy Creek Road to the Airport interchange. S.R. 528 remained the only limited-access route into OIA until the south access road at Boggy Creek Road and John Young Parkway sections of S.R. 417 opened in July 1993.

In July 2009, the S.R. 528 Beachline Main plaza was converted to the express lane configuration. The express lanes allow electronic customers to continue through the mainline toll collection

Figure 3-1
S.R. 528 Facilities and Toll Rates Map



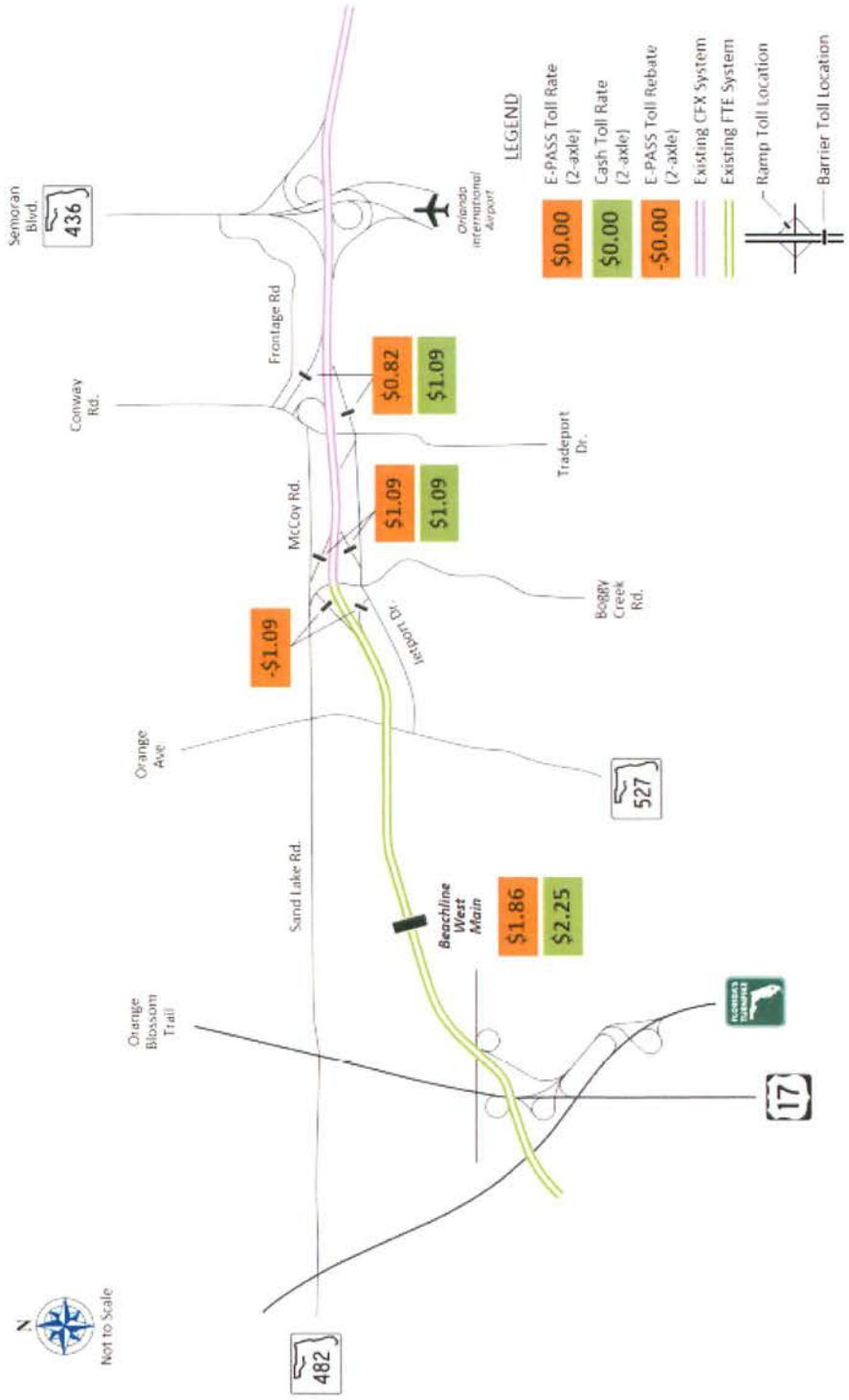
point at highway speeds without having to stop or slow down. This provides a more efficient means of toll collection, greatly reducing delays to customers and increasing throughput at the toll plaza. Automatic coin and manual cash customers are diverted off the roadway to an adjacent traditional toll plaza and are required to merge back into traffic after paying the toll.

In May 2010, a roadway connection called Monument Parkway was completed between the S.R. 528/International Corporate Park (ICP) Interchange and the southern extension of Alafaya Trail/Innovation Way in east Orange County. This connection allowed traffic coming from Innovation Way to access S.R. 528 via the ICP interchange, which reduced travel times to S.R. 528. Previously, traffic on Innovation Way wanting to go south or west had no choice but to access S.R. 417 at the Curry Ford Road interchange and head south. The opening of this connection resulted in traffic diversion from the S.R. 417 Curry Ford plaza group to the S.R. 528 Beachline Main plaza. In March 2012, the Dallas Main plaza and Dallas Boulevard ramp plazas were opened to create toll equity for the traffic movements between S.R. 417 and the ICP interchange resulting from the Monument Parkway connection with Innovation Way.

Starting in FY 2013 and continuing, S.R. 528 was the center of discussions for the alignment of an intercity passenger rail service, known as All Aboard Florida (AAF). In November of 2013 (FY 2014), CFX entered into a contract for the sale and purchase of a 200 foot wide strip of land along the southern boundary of the S.R. 528 right-of-way between S.R. 520 and the S.R. 528/ICP Interchange. This land will be used for the future expansion of S.R. 528, future utility needs and a portion of the south 100 feet potentially granted to AAF as an easement exclusively for intercity passenger rail. The contract of sale and purchase for the right-of-way includes a condition precedent for an agreement on the modification and construction of the S.R. 528/Innovation Way interchange with programming in the draft FY 2014 – 2018 Five-Year Work Program. CFX entered into a contract of sale and purchase of rail line easements with AAF that, if it closes, would require AAF to compensate CFX for the net present value of the estimated reduction in toll revenues for the estimated reduction in ridership over the 99 year term of the easement agreement. The focus is currently on the first phase of the project, which involves rail service from Miami to West Palm Beach.

Starting in November 2014, CFX began removal of the Airport Main Plaza. The removal is due to several factors including on-going concerns that S.R. 528 customers heading west from the Orlando International Airport encounter two mainline toll plazas, one being CFX's Airport Main Plaza and the other being FTE's Beachline West Main Plaza. In addition, the Airport Main Plaza is close in proximity to the S.R. 436 exit which causes operational issues for E-Pass customers having to weave across cash lanes to reach the exit. It was determined that an open road tolling plaza would not be a feasible option with the existing right-of-way at the same location. After all options were considered, CFX and FTE agreed that the best solution is to consolidate toll collection at the Beachline West Main Plaza. The CFX toll will be collected at the FTE plaza, and new ramp plazas will be installed at the Conway Road and Boggy Creek Road Interchanges with tolls collected to and from the east. In addition, ETC customers who use the ramps to and from the west at Boggy Creek Road will receive a rebate for the CFX toll amount as it is collected at the Beachline West Main Plaza. The revised tolling scheme, shown in **Figure 3-2**, will begin once the project is complete. Project completion is currently scheduled for January 2016 (FY 2016).

Figure 3-2
S.R. 528 Future Tolling Scheme (FY 2016)



3.2 Historical Transactions and Toll Revenues

3.2.1 ANNUAL TRANSACTION AND TOLL REVENUE TRENDS

S.R. 528 annual historical transactions at the Beachline Main, Airport Main and Dallas Main plaza groups from FY 1995 to FY 2014 are presented in the top half of **Table 3-1**. Annual historical toll revenues are also summarized and totaled in the bottom half of the table. The S.R. 528 annual transaction and toll revenue trends including annual growth are also presented visually in **Figure 3-3** and **Figure 3-4**. As shown, total transactions on S.R. 528 in FY 2014 increased by 2.1 million, or 3.6 percent, over FY 2013. Toll revenues increased by $1.8 million, or 3.4 percent, during the same period. Facility transactions and toll revenues have increased annually over the past twenty years with the exception of FY 2002 and FY 2009. Annual transaction and toll revenue trends by plaza group are also presented in the table.

Over the past twenty years there have been two prior annual decreases in transactions and revenues on S.R. 528. The FY 2002 decrease in transactions of 4.0 percent at the Airport Main plaza group was caused by the reduction of tourism travel in Florida as a result of the September 11th terrorist attack. Revenues also declined at this plaza group by 3.2 percent. The impact at the Beachline Main plaza group was less with no growth during the year.

In FY 2008, the Beachline Main plaza group experienced a decrease of 0.6 percent in transactions and a decrease of 1.1 percent in revenues. This was the first year of decline since the plaza opened and can be attributed to the start of the economic recession.

In FY 2009, transactions at the Airport Main and Beachline Main plaza groups decreased by 9.2 percent and 9.0 percent, respectively. Revenues also declined by 2.3 percent at the Airport Main plaza group and by 6.1 percent at the Beachline Main plaza group. FY 2009 transactions and revenues were affected by the economic recession and then by the Systemwide toll rate increase. The toll rate increase in April 2009 impacted the last three months of FY 2009. Also in FY 2009, tolls were suspended on the facility for nearly two days in August 2008 due to Tropical Storm Fay.

Transactions continued to decline on the Airport Main plaza group in FY 2010 by 0.8 percent due to the continued impacts of the economic recession and the toll rate increase. In FY 2010, revenues on the Airport Main and Beachline Main plaza groups increased significantly due to the additional revenue collected from the Systemwide toll rate increase. The toll rate increase impacted growth during the first nine months of the fiscal year. Transactions and revenue at the Beachline Main plaza group had a slightly higher growth rate than the Airport Main plaza group, which may be attributable to the opening of the Monument Parkway connection between Innovation Way and S.R. 528/International Corporate Park interchange, which provided a much needed alternative access in this area of east Orange County.

Table 3-1
S.R. 528 Plaza Groups – Historical Transactions and Toll Revenues
FY 1995 – FY 2014

Fiscal Year	Airport Main	Beachline Main	Dallas Main	TOTAL	Airport Main	Beachline Main	Dallas Main	TOTAL
	TRANSACTIONS (millions)				PERCENT CHANGE			
1995	12.2	8.0		20.2				
1996	13.2	8.8		22.0	8.2%	10.0%		8.9%
1997	14.5	9.2		23.7	9.8%	4.5%		7.7%
1998	15.4	9.8		25.2	6.2%	6.5%		6.3%
1999	16.7	10.6		27.3	8.4%	8.2%		8.3%
2000	18.9	11.9		30.8	13.2%	12.3%		12.8%
2001	19.8	12.6		32.4	4.8%	5.9%		5.2%
2002 [A]	19.0	12.6		31.6	-4.0%	0.0%		-2.5%
2003	20.0	13.7		33.7	5.3%	8.7%		6.6%
2004	22.6	14.9		37.5	13.0%	8.8%		11.3%
2005 [B]	24.6	15.1		39.7	8.8%	1.3%		5.9%
2006	26.5	15.9		42.4	7.7%	5.3%		6.8%
2007	27.8	16.7		44.5	4.9%	5.0%		5.0%
2008 [C]	28.2	16.6		44.8	1.4%	-0.6%		0.7%
2009 [D]	25.6	15.1		40.7	-9.2%	-9.0%		-9.2%
2010 [E]	25.4	15.5		40.9	-0.8%	2.6%		0.5%
2011	26.2	16.3		42.5	3.1%	5.2%		3.9%
2012 [F]	26.8	16.4	4.3	47.5	2.3%	0.6%		11.8%
2013 [F,G]	26.4	16.7	14.5	57.6	-1.4%	1.8%	237.2%	21.3%
2014	27.0	17.6	15.1	59.7	2.3%	5.4%	4.1%	3.6%
	TOLL REVENUES (millions)				PERCENT CHANGE			
1995	$9.4	$8.7		$18.1				
1996	$10.3	$9.4		$19.7	9.6%	8.0%		8.8%
1997	$11.4	$9.8		$21.2	10.7%	4.3%		7.6%
1998	$12.1	$10.5		$22.6	6.1%	7.1%		6.6%
1999	$13.1	$11.5		$24.6	8.3%	9.5%		8.8%
2000	$14.8	$12.9		$27.7	13.0%	12.2%		12.6%
2001	$15.5	$13.7		$29.2	4.7%	6.2%		5.4%
2002 [A]	$15.0	$13.7		$28.7	-3.2%	0.0%		-1.7%
2003	$15.7	$14.9		$30.6	4.7%	8.8%		6.6%
2004	$17.9	$16.4		$34.3	14.0%	10.1%		12.1%
2005 [B]	$19.4	$16.7		$36.1	8.4%	1.8%		5.2%
2006	$20.9	$17.5		$38.4	7.7%	4.8%		6.4%
2007	$21.8	$18.2		$40.0	4.3%	4.0%		4.2%
2008 [C]	$22.1	$18.0		$40.1	1.4%	-1.1%		0.3%
2009 [D]	$21.6	$16.9		$38.5	-2.3%	-6.1%		-4.0%
2010 [E]	$26.2	$20.4		$46.6	21.3%	20.7%		21.0%
2011	$27.0	$21.4		$48.4	3.1%	4.9%		3.9%
2012 [F]	$27.5	$19.0	$2.2	$48.7	1.9%	-11.2%		0.6%
2013 [F,G]	$30.9	$16.0	$7.6	$54.5	12.4%	-15.8%	243.9%	11.8%
2014	$31.6	$16.8	$7.9	$56.3	2.3%	5.1%	4.4%	3.4%

Notes:

A - Effects of the events on September 11, 2001.

B - Effects from 2004 hurricane season (4 storms with toll suspensions).

C - First effects of national economic recession.

D - Systemwide toll rate increase in April 2009. Beachline Main plaza converted to open road tolling in July of 2009.

E - Monument Parkway connection to ICP ramps opened to traffic.

F - Dallas Main Plaza opened to traffic on March 19, 2012. Beachline Main plaza toll reduced from $1.50 to $0.75.

G - Systemwide toll rate increase in July 2013. Implementation of cash and electronic toll rate differential.

Figure 3-3
S.R. 528 Historical Transactions and Annual Growth
FY 1995 – FY 2014

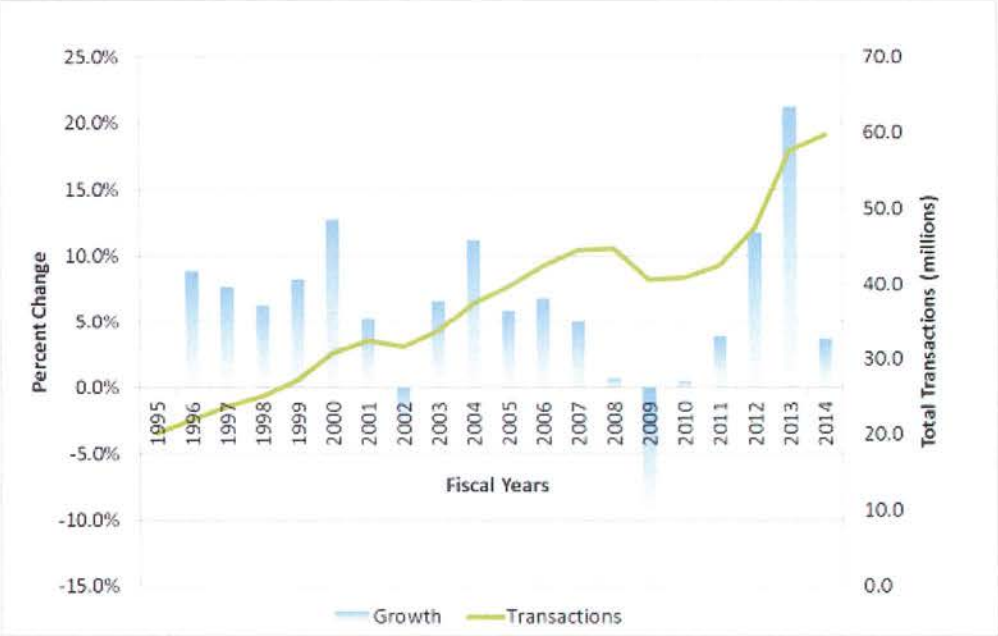
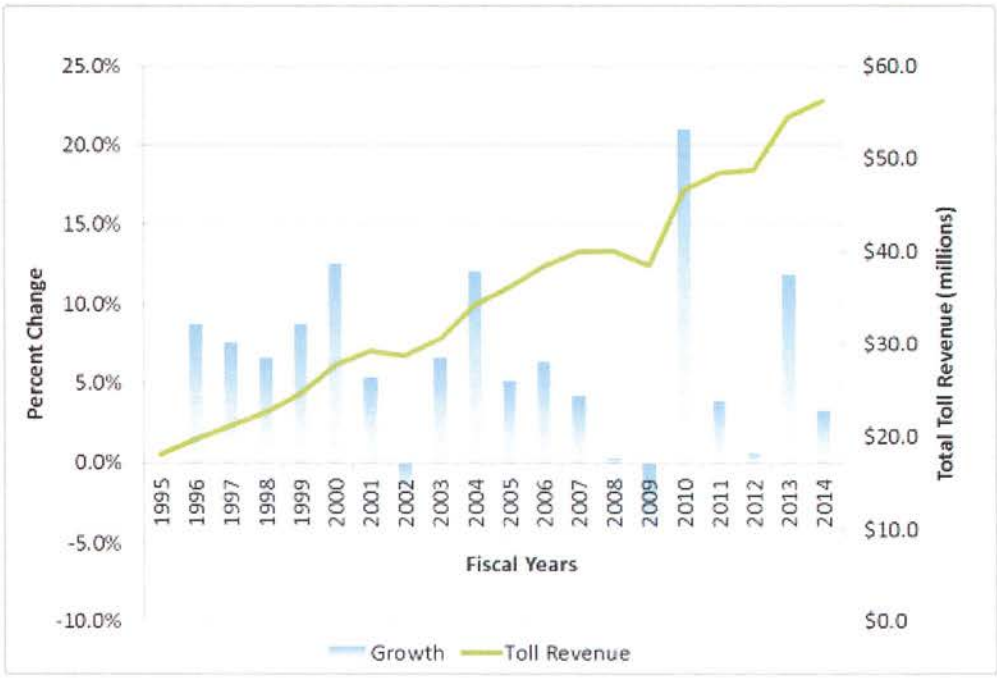


Figure 3-4
S.R. 528 Historical Toll Revenue and Annual Growth
FY 1995 – FY 2014



In FY 2011 and FY 2012, transactions at both the Airport Main and Beachline Main plaza group increased compared to the prior year. In FY 2012, the Dallas Main plaza opened to traffic to create toll equity for customers on S.R. 528. At this time, tolls for 2-axle vehicles at the Beachline Main plaza were reduced from $1.50 to $0.75. The decrease in tolls resulted in a revenue decline of 11.2 percent on the Beachline Main plaza group compared to the prior year. Revenues also declined in FY 2013 due to the decrease in tolls. The toll previously collected on behalf of FDOT at the Beachline Main plaza also shifted to the Dallas Main plaza. The Dallas Main plaza, which opened in March 2012, collected $2.2 million in revenues and reported 4.3 million transactions during its first three months of operation in FY 2012. Overall, S.R. 528 transactions would have been relatively flat in FY 2012 compared to FY 2011 without the additional transactions from this new plaza.

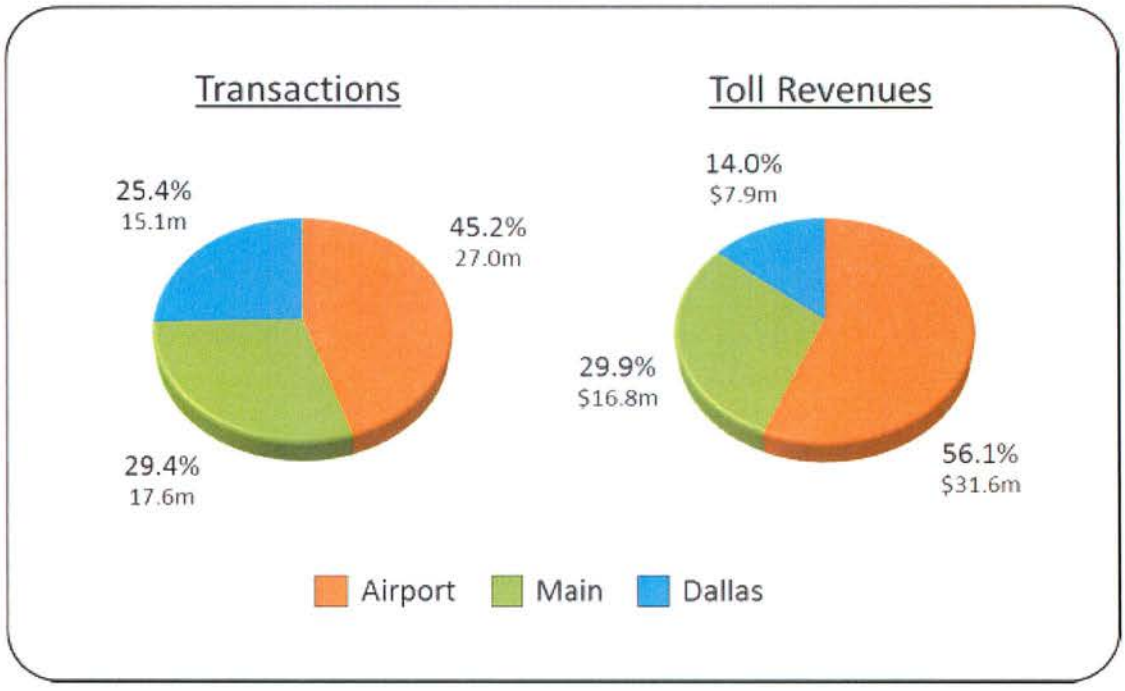
In FY 2013, transactions at the Airport Main plaza group declined by 1.4 percent, while revenues increased by 12.4 percent over FY 2012. This was expected due to the recent systemwide toll rate increase that went into effect on July 1, 2012 (FY 2013). The Beachline Main plaza group experienced an increase of 1.8 percent in traffic and decrease of 15.8 percent in revenues in FY 2013. As previously mentioned, tolls at the Beachline Main plaza were reduced in March 2012 along with the opening of the Dallas Main plaza. The Beachline Main plaza was also included in the FY 2013 systemwide toll rate increase. In FY 2013, transactions at the Dallas Main plaza increased by 237.4 percent and revenues increased by 243.9 percent compared to FY 2012. This can be attributed to the first full year of toll collection at this new plaza.

In FY 2014, transactions at the Airport Main plaza group increased by 2.2 percent and toll revenues increased by 2.3 percent compared to FY 2013. The Beachline Main plaza group transactions increased by 5.4 percent and toll revenues increased by 5.1 percent over FY 2013. In FY 2014, Dallas Main plaza group transactions increased by 4.1 percent and toll revenues increased by 4.4 percent compared to FY 2013. This growth rate is significantly reduced compared to the growth observed in FY 2013, primarily due to the fact that FY 2013 was the first full year of transactions and toll revenues at the Dallas Main plaza group.

The transactions and toll revenues by plaza group and as a percentage of total S.R. 528 transactions and toll revenues for FY 2014 are shown in **Figure 3-5**. The Airport Main plaza group represented 27.0 million transactions or 45.2 percent of total S.R. 528 transactions. The Beachline Main plaza group carried 17.6 million or 29.4 percent of total transactions on the facility. Finally, the Dallas Main plaza group represented 15.1 million or 25.4 percent of total S.R. 528 transactions in FY 2014 during its second full year of operation.

The annual totals and percentages for toll revenues differ from those reported for annual transactions because of differences in toll rates. As shown, the Airport Main plaza group represented $31.6 million in toll revenues or 56.1 percent of total S.R. 528 toll revenues. The Beachline Main plaza group carried $16.8 million or 29.9 percent of toll revenues on the facility. Finally, because of the lower toll, the Dallas Main plaza group represented $7.9 million or 14.0 percent of total S.R. 528 transactions in FY 2014 during its second full year of operation.

Figure 3-5
S.R. 528 Transactions and Toll Revenues by Plaza Group
FY 2014



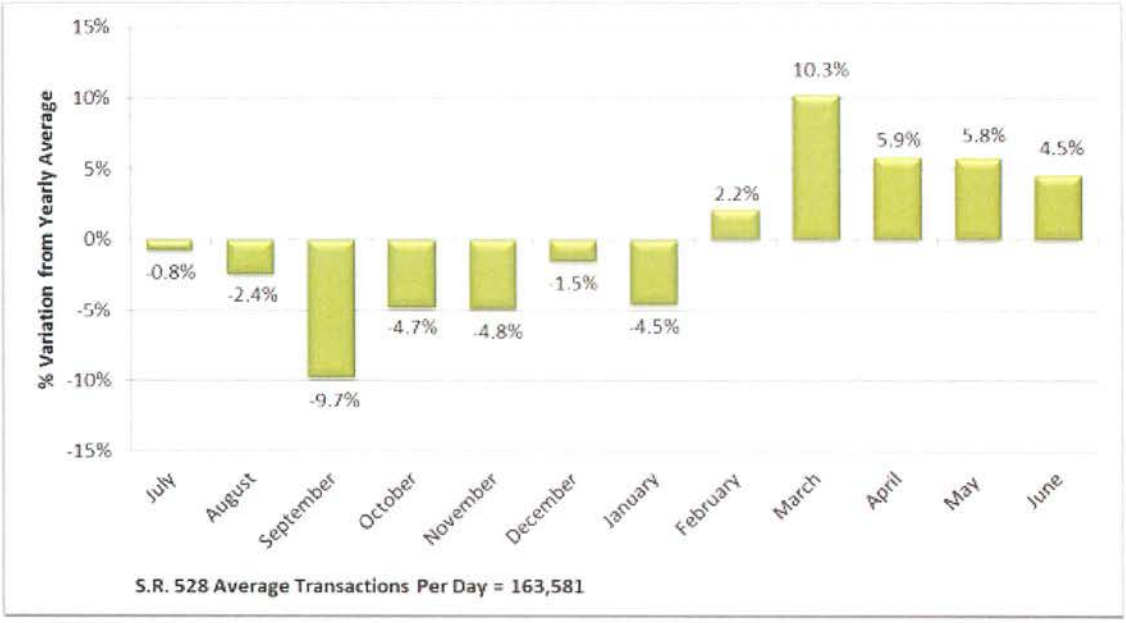
3.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

In **Table 3-2**, monthly total traffic volumes are normalized to average number of transactions per day in each month. Using average number of transactions per day allows for an easy comparison of the variations in relative travel demand over the year. The pattern of seasonal usage changes slightly from year to year, based on the number of weekdays in a given month. As presented in Table 3-2, average transactions per day in FY 2014 on S.R. 528 ranged from a high of 180,371 in March 2014 to a low of 147,675 in September 2013. March is typically the month with the highest average number of transactions per day due to a large number of tourists in the area during the spring peak season. Historically, September has been the month with the lowest average number of transactions per day. This data is presented in a graphical format in **Figure 3-6**. The transactions for each month appear as a percentage of the average for the fiscal year. March transactions were 10.3 percent above average and September transactions were 9.7 percent below average for the facility. The increase in transactions during the spring and early summer months is due to the tourists in the area.

Table 3-2
S.R. 528 – Monthly Seasonal Variation in Toll-Paying Traffic
FY 2014

Month	Number of Days in Month	Total Toll Paying Transactions	Average Transactions/day	Seasonal Factor
July	31	5,030,541	162,276	0.992
August	31	4,949,368	159,657	0.976
September	30	4,430,248	147,675	0.903
October	31	4,830,473	155,822	0.953
November	30	4,670,910	155,697	0.952
December	31	4,992,817	161,059	0.985
January	31	4,841,053	156,163	0.955
February	28	4,680,884	167,174	1.022
March	31	5,591,505	180,371	1.103
April	30	5,195,936	173,198	1.059
May	31	5,362,771	172,993	1.058
June	30	5,130,700	171,023	1.045
Average		***4,975,601***	***163,581***	***1.000***
Total Year	**365**	**59,707,206**		

Figure 3-6
S.R. 528 Variation in Transactions Per Day, By Month
FY 2014



3.2.3 TRANSACTIONS BY VEHICLE CLASS

The distribution of transactions at each of the S.R. 528 plaza groups by vehicle class (number of axles) for FY 2014 is shown in **Table 3-3**. Overall, 98.4 percent of all transactions on S.R. 528 were made by 2-axle vehicles, with little variation among the three plaza groups. The next most frequent vehicle class was the 3-axle classification, which typically includes delivery and service vehicles. These vehicles accounted for 1.0 percent of all transactions on the facility. Four-axle vehicles represented the smallest category with only 0.2 percent of facility transactions. Trucks with five or more axles represented 0.4 percent of total transactions.

TABLE 3-3
S.R. 528 PERCENT OF TOTAL TRANSACTIONS BY VEHICLE CLASS
FY 2014

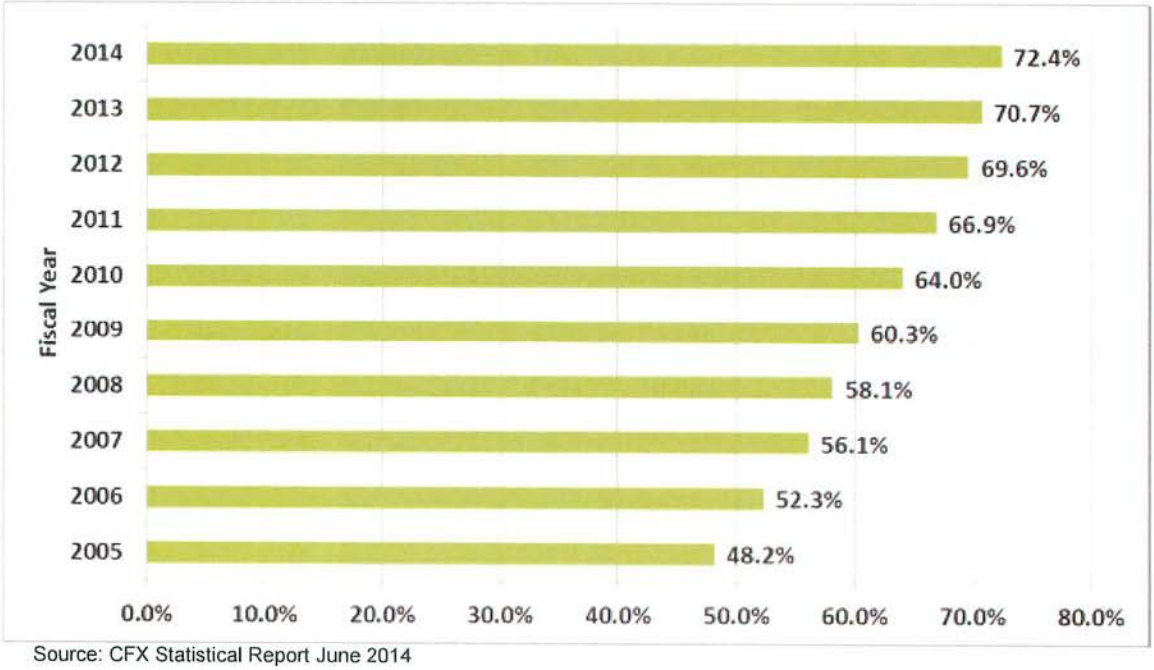
Vehicle Class	Airport Main	Beachline Main	Dallas Main	S.R. 528 Total
2-Axle	98.7%	98.1%	98.0%	98.4%
3-Axle	0.8%	1.2%	1.2%	1.0%
4-Axle	0.2%	0.2%	0.2%	0.2%
5 or More Axles	0.3%	0.5%	0.6%	0.4%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Unaudited lane transaction data – January 2014

3.3 E-PASS Usage

The percent of revenues generated from electronic transactions over the past ten fiscal years on S.R. 528 are shown in **Figure 3-7**. E-PASS revenues have steadily increased on the facility since FY 2005. In FY 2005, E-PASS revenues represented 48.2 percent of total revenues on the facility. By the end of FY 2014, E-PASS revenues reached over 72.0 percent. The increase in the participation rate observed in FY 2014 is due in part to the implementation of the toll rate differential favoring E-PASS customers. The usage of E-PASS will continue to increase as customers shift from cash to E-PASS to take advantage of the lower ETC toll rate and the convenience of paying tolls electronically.

Figure 3-7
S.R. 528 Percent of Toll Revenue from Electronic Transactions
FY 2005 – FY 2014



Source: CFX Statistical Report June 2014

3.4 Forecasted Transactions and Toll Revenues

Future transportation improvements that could influence the T&R forecasts for S.R. 528 include the projects listed in **Table 3-4**, assumed completed in each model horizon year.

Facility improvements, such as the widening from S.R. 417 Curry Ford Road to Lake Underhill Road, positively impact the T&R growth on S.R. 528 in the near term. The removal of the Airport Main toll plaza and changes in toll plan in FY 2015 will have a positive impact on toll revenues. The assumed completion of All Aboard Florida intercity passenger rail service in FY 2017 has a minor impact on S.R. 528 T&R forecasts.

Table 3-4
S.R. 528 - Key Transportation Improvements

Facility	From	To	Model Horizon Year	Jurisdiction	Improvement
S.R. 417/Greeneway	Curry Ford Rd.	Lake Underhill Rd.	2018	CFX	Widen 4-6 lanes
Innovation Way Interchange			2018	CFX	Modified Interchange
S.R. 528/Beachline Expressway	Airport Plaza		2023	CFX	Plaza Demoltion
S.R. 528/Beachline Expressway	I-4	Florida's Turnpike	2023	CFX	Widen 6-8 lanes
Conway Road	McCoy Road	Judge Road	2043	Orange County	Widen 4-6 lanes
Conway Road	Judge Road	Hoffner Avenue	2033	Orange County	Widen 4-6 lanes
Hoffner Ave.	Lee Vista Blvd.	Conway Road	2033	Orange County	Widen 2-4 lanes
Sand Lake Road	John Young Parkway	Turkey Lake Road	2033	Orange County	Widen 4-6 lanes
Central Florida Parkway	International Drive	John Young Parkway	2023	Orange County	Widen 4-6 lanes
International Drive	Hawaiian Court	SR 482 (Sand Lake Rd.)	2023	Orange County	Widen 4-6 lanes
I-4	Polk/Osceola CL	Seminole/Volusia CL	2043	FDOT	Managed Lanes Ult.

Competing road improvements, such as the construction of Innovation Way, have negative impacts to forecasted T&R. The planned S.R. 528 improvement from Interstate 4 to Florida's Turnpike positively impacted traffic growth and revenue in the forecast year between FY 2019 and FY 2023 with growth rates above the 2.5% mark. The growth rates for the remainder of the forecast period are moderate and steady.

Total transactions on S.R. 528 are projected to decrease during the forecast period from the actual of 59.7 million in FY 2014 to 54.2 million in FY 2044. During the FY 2015 through FY 2044 forecast period, S.R. 528 is expected to be the third-largest contributor to total revenues of the five existing expressways. Total revenues on S.R. 528 are projected to increase during the forecast period from the actual $56.3 million in FY 2014 to $136.1 million in FY 2044. Transactions are forecasted to decrease an average of 3.4 percent per year from FY 2014 to FY 2020 due to the closing of the Airport Main plaza and opening of the new ramp plazas in FY 2016. Tolls will be collected for CFX at the Turnpike plaza upon closing of the Airport Main plaza, however the associated transactions are not included in the forecast. Revenues during the same period are forecasted to increase an average of 5.1 percent per year. Transactions and revenues are forecasted to increase an average of 0.7 and 2.7 percent per year from FY 2020 to FY 2030, and 0.2 and 2.4 percent per year from FY 2030 to FY 2040, respectively.

Historical and projected transactions and toll revenues for each of the S.R. 528 plaza groups and for all of S.R. 528 are summarized in **Table 3-5** and Table **3-6**. The forecasts assume toll rate indexing at 3% per year, implemented every fifth year. Due to the toll rate adjustments every fifth year, there are noticeable decreases in transactions and increases in revenues every fifth year.

Table 3-5
S.R. 528 Plaza Groups – Transaction Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Airport Main		Beachline Main		Dallas Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2000	18.9		11.9				30.8		11.7%
2001	19.8		12.6				32.4		5.2%
2002 [B]	19.0		12.6				31.6		-2.5%
2003	20.0		13.7				33.7		6.6%
2004	22.6		14.9				37.5		11.3%
2005 [C]	24.6		15.1				39.7		5.9%
2006	26.5		15.9				42.4		6.8%
2007	27.8		16.7				44.5		5.0%
2008 [D]	28.2		16.6				44.8		0.7%
2009 [E]	25.6		15.1				40.7		-9.2%
2010	25.4		15.5				40.9		0.5%
2011	26.2		16.3				42.5		3.9%
2012 [F]	26.8		16.4		4.3		47.5		11.8%
2013 [F,E]	26.4		16.7		14.5		57.6		21.3%
2014	27.0		17.6		15.1		59.7		3.6%
2015		26.1		18.5		16.0		60.7	1.7%
2016 [G]		10.6		19.1		16.7		46.3	-23.7%
2017		10.8		19.6		17.3		47.6	2.9%
2018 [E]		10.7		18.9		16.8		46.4	-2.7%
2019		11.0		19.2		17.2		47.4	2.1%
2020		11.3		19.5		17.6		48.4	2.1%
2021		11.6		19.9		17.9		49.4	2.1%
2022		11.9		20.2		18.3		50.4	2.0%
2023 [E]		10.8		19.2		17.4		47.4	-5.8%
2024		11.4		19.6		17.8		48.8	2.8%
2025		12.0		20.1		18.1		50.1	2.8%
2026		12.5		20.5		18.5		51.5	2.7%
2027		13.1		20.9		18.8		52.8	2.6%
2028 [E]		12.6		19.6		18.0		50.1	-5.1%
2029		12.8		20.1		18.2		51.1	1.8%
2030		12.9		20.6		18.4		52.0	1.8%
2031		13.1		21.2		18.6		52.9	1.8%
2032		13.3		21.7		18.9		53.9	1.7%
2033 [E]		12.0		20.7		17.7		50.4	-6.4%
2034		12.3		21.0		18.1		51.4	1.9%
2035		12.6		21.3		18.4		52.3	1.9%
2036		12.9		21.6		18.8		53.3	1.8%
2037		13.2		21.9		19.2		54.3	1.8%
2038 [E]		12.4		20.5		18.1		51.0	-6.0%
2039		12.8		20.9		18.4		52.1	2.1%
2040		13.2		21.4		18.6		53.2	2.1%
2041		13.5		21.9		18.8		54.3	2.0%
2042		13.9		22.4		19.1		55.3	2.0%
2043 [E]		12.9		21.9		18.3		53.1	-4.0%
2044		13.3		22.3		18.6		54.2	2.0%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)				
2000 - 2008	5.1%	4.2%		4.8%	
2008 - 2014	-0.7%	1.0%		4.9%	
2014 - 2020	-13.5%	1.7%	2.6%	-3.4%	
2020 - 2030	1.4%	0.6%	0.5%	0.7%	
2030 - 2040	0.2%	0.4%	0.1%	0.2%	

Notes:

A - Actual revenue data provided by CFX from Monthly Statistical Reports.

B - Effects of the events on September 11, 2001.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - First effects of national economic recession.

E - Systemwide toll rate increase.

F - Dallas Main plaza opened to traffic on March 19, 2012.

G - Airport Main Plaza closes, new ramp plazas open at beginning of FY 2016.

Table 3-6
S.R. 528 Plaza Groups – Toll Revenue Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Airport Main		Beachline Main		Dallas Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2000	$14.8		$12.9				$27.7		11.7%
2001	15.5		13.7				29.2		5.4%
2002 [B]	15.0		13.7				28.7		-1.7%
2003	15.7		14.9				30.6		6.6%
2004	17.9		16.4				34.3		12.1%
2005 [C]	19.4		16.7				36.1		5.2%
2006	20.9		17.5				38.4		6.4%
2007	21.8		18.2				40.0		4.2%
2008 [D]	22.1		18.0				40.1		0.3%
2009 [E]	21.6		16.9				38.5		-4.0%
2010	26.2		20.4				46.6		21.0%
2011	27.0		21.4				48.4		3.9%
2012 [F]	27.5		19.0		$2.2		48.7		0.6%
2013 [F,E]	30.9		16.0		7.6		54.5		11.9%
2014	31.6		16.8		7.9		56.3		3.3%
2015		$33.0		$17.6		$8.3		$58.9	4.6%
2016 [G]		36.8		17.8		8.6		63.2	7.3%
2017		37.9		18.0		8.9		64.9	2.6%
2018 [E]		40.6		19.9		10.7		71.2	9.7%
2019		42.4		20.2		11.0		73.6	3.4%
2020		44.2		20.6		11.2		76.0	3.3%
2021		46.1		20.9		11.4		78.4	3.2%
2022		47.9		21.2		11.7		80.8	3.1%
2023 [E]		51.8		22.3		12.1		86.2	6.7%
2024		52.0		22.8		12.4		87.2	1.1%
2025		52.3		23.3		12.6		88.2	1.1%
2026		52.5		23.8		12.8		89.1	1.1%
2027		52.7		24.3		13.1		90.1	1.1%
2028 [E]		54.4		25.7		13.5		93.6	3.9%
2029		56.1		26.4		13.7		96.2	2.8%
2030		57.8		27.1		13.9		98.8	2.7%
2031		59.5		27.8		14.1		101.4	2.6%
2032		61.2		28.6		14.2		104.0	2.6%
2033 [E]		64.0		29.4		15.5		108.9	4.7%
2034		65.3		29.8		15.8		110.9	1.9%
2035		66.6		30.2		16.1		112.9	1.8%
2036		67.8		30.6		16.5		114.9	1.8%
2037		69.1		31.1		16.8		117.0	1.8%
2038 [E]		71.6		32.2		16.9		120.8	3.3%
2039		73.4		32.4		17.1		122.9	1.7%
2040		75.2		32.5		17.3		125.0	1.7%
2041		76.9		32.7		17.5		127.1	1.7%
2042		78.7		32.9		17.6		129.2	1.7%
2043 [E]		81.2		34.7		18.0		134.0	3.7%
2044		83.0		34.9		18.2		136.1	1.6%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)				
2000 - 2008	5.1%	4.3%		4.7%	
2008 - 2014	6.1%	-1.1%		5.8%	
2014 - 2020	5.8%	3.4%	6.0%	5.1%	
2020 - 2030	2.7%	2.8%	2.2%	2.7%	
2030 - 2040	2.7%	1.8%	2.2%	2.4%	

Notes:

A - Actual revenue data provided by CFX from Monthly Statistical Reports.

B - Effects of the events on September 11, 2001.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - First effects of national economic recession.

E - Systemwide toll rate increase.

F - Dallas Main plaza opened to traffic on March 19, 2012.

G - Airport Main Plaza closes, new ramp plazas open at beginning of FY 2016.

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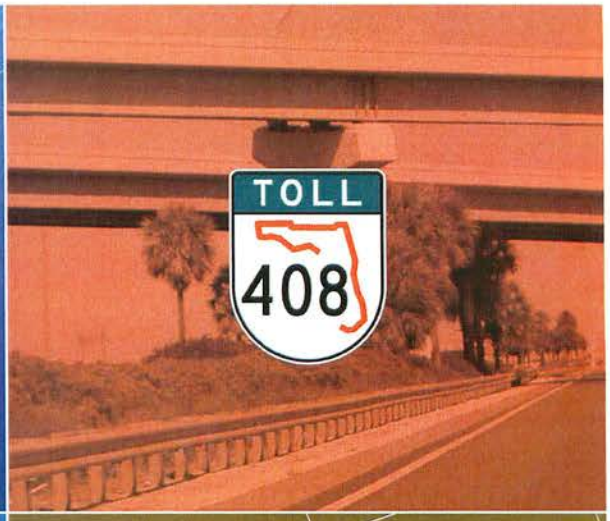
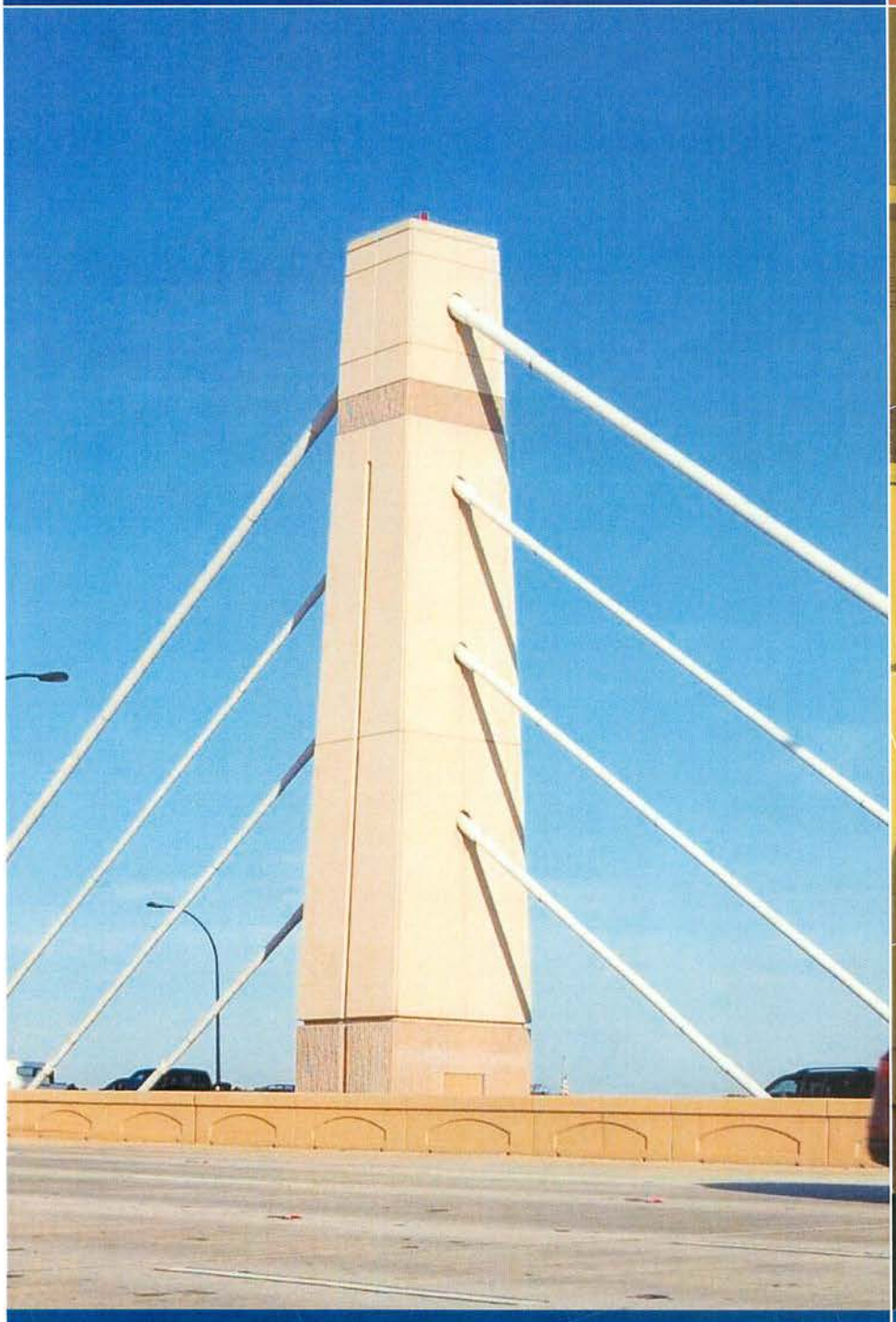
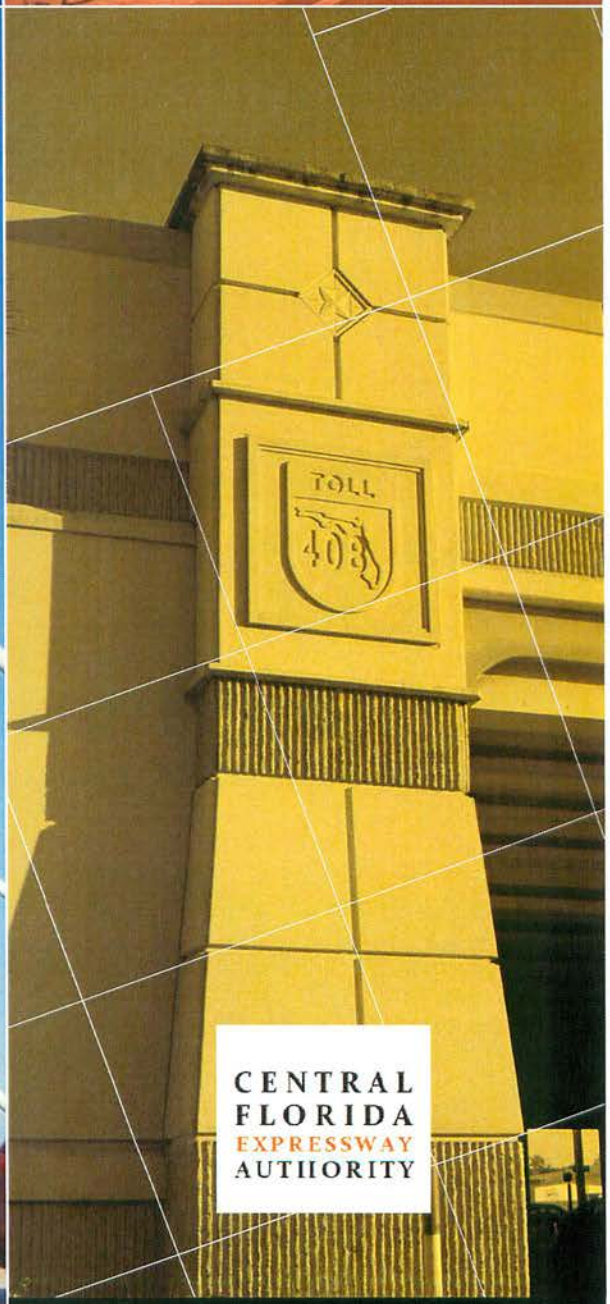
Chapter 4

S.R. 408
Spessard Lindsay Holland East-West Expressway







CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

S.R. 408 (SPESSARD LINDSAY HOLLAND EAST-WEST EXPRESSWAY)

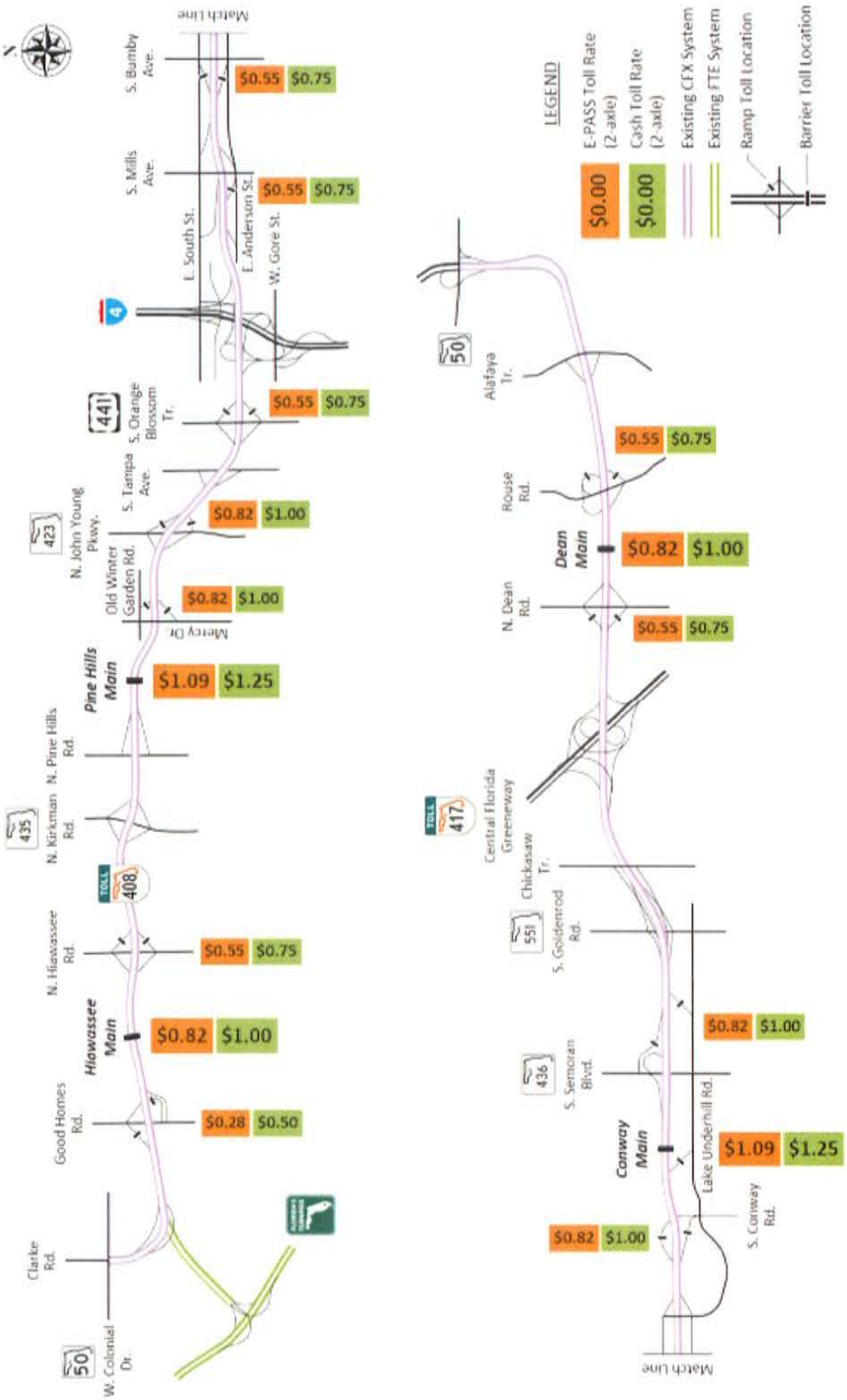
4.1 Facility Description

S.R. 408, also known as the Spessard Lindsay Holland East-West Expressway, is a 22-mile expressway that serves the east-west commuter traffic across the Orlando urban area and provides fast and efficient access to and from the Orlando central business district. The East-West Expressway provides direct access to Interstate 4 (I-4) with an interchange that provides customers with a direct route to other major employment centers in the Metro Orlando area. A map of S.R. 408 including the FY 2013 CFX toll rates for the mainline and ramp toll plazas is shown in **Figure 4-1**. S.R. 408 has four plaza groups: the Hiawassee Main plaza group (including tolled interchanges at Good Homes Road and Hiawassee Road); the Pine Hills Main plaza group (including tolled interchanges at Old Winter Garden Road, John Young Parkway, U.S. 92/441 and Mills Avenue); the Conway Main plaza group (including tolled interchanges at Bumby Avenue, Conway Road and Semoran Boulevard); and the Dean Main plaza group (including tolled interchanges at Dean Road and Rouse Road).

The original 13.8-mile section of S.R. 408 opened to traffic in 1973, beginning on the west side of Orlando at an intersection with S.R. 50, west of Kirkman Road, and ending at S.R. 50 west of Dean Road. This included the Holland West Main plaza (relocated and renamed Pine Hills in 2006) and Holland East Main plaza (renamed Conway in 2008).

CFX completed a major expansion project in 1989 that extended S.R. 408 six miles eastward from its existing terminus near S.R. 551 to a new interchange with S.R. 50, east of S.R. 434. The expansion also included interchanges at Dean Road, Rouse Road and Alafaya Trail. The Dean Mainline plaza was also added, which is located between Dean Road and Rouse Road. In 1990, CFX completed another expansion that extended the S.R. 408 westward five miles from its original western terminus to an interchange with Florida's Turnpike. A new connection with S.R. 50 was provided west of Good Homes Road at Clarke Road. This expansion included interchanges at Hiawassee Road, Good Homes Road and S.R. 50/Clarke Road. The Hiawassee Mainline plaza was added and located between Hiawassee Road and Good Homes Road. S.R. 408 currently extends from Florida's Turnpike on the west to S.R. 50 (east of S.R. 434) on the east.

Figure 4-1
S.R. 408 Facilities and Toll Rates Map



The S.R. 408 mainline plazas have all been converted to the express lane configuration. In 2005 and 2006, the Hiawassee, Pine Hills and Dean Mainline plazas were converted. The Conway Mainline plaza was converted and two express lanes were opened in each direction in 2008, with an additional lane added in each direction in 2009.

In FY 2011, the widening of S.R. 408 began between Oxalis Avenue and S.R. 417 as well as the reconfiguration of the S.R. 408/S.R. 417 Systems interchange. This widening was completed in March 2013. In January 2013, CFX completed the widening of S.R. 408 between Goldenrod Road and Chickasaw Trail from four to five lanes in each direction. This project also included new ramps at Chickasaw Trail for travel to and from downtown Orlando. In January 2013, a new frontage road was completed to improve access to and from downtown Orlando for the communities in the area of Valencia College Lane and Econlockhatchee Trail.

4.2 Historical Transactions and Toll Revenues

4.2.1 Annual Transaction And Toll Revenue Trends

A comprehensive historical record of facility transactions and toll revenues on S.R. 408 at the Hiawassee Main, Pine Hills Main, Conway Main and Dean Main plaza groups from FY 1995 to FY 2014 is presented in **Table 4-1**. The facility data and annual growth are also presented visually in **Figures 4-2** and **4-3**. As shown, total transactions on S.R. 408 in FY 2014 increased by approximately 6.2 million, or 5.0 percent, compared to FY 2013. FY 2014 total toll revenues increased by 4.9 percent compared to FY 2013. The total transaction growth recorded for S.R. 408 in FY 2014 is the highest observed since FY 2006. Annual transaction and toll revenue trends by plaza group are also presented in the table.

FY 2007 was the first year with a revenue decline at any plaza group on S.R. 408. The decline of 0.4 percent at the Pine Hills Main plaza group can be attributed to construction at the mainline plaza when it was being relocated to its current location. The new plaza opened in November 2006 and included express lanes for E-PASS customers. Due to the relocation of the Pine Hills mainline plaza, the John Young Parkway ramp plazas to/from the west were demolished and new ramp plazas were constructed to/from the east. New ramp plazas were also constructed at the westbound Old Winter Garden Road exit ramp and at the eastbound Mercy Drive entrance ramp.

In FY 2008, transactions decreased at the Conway Main plaza group by 2.3 percent and revenues decreased by 2.4 percent. Transactions also decreased at the Dean Main plaza group by 2.8 percent while revenues decreased by 2.3 percent. These declines can be attributed to the beginning of the economic recession, and to construction and widening of the facility which included the addition of express lanes at the Conway mainline plaza. Transactions declined at all four S.R. 408 plaza groups in FY 2009 as a result of the continuing impacts of the economic recession and the implementation of a Systemwide toll rate increase. The toll rate increase impacted growth during the last three months of FY 2009. The largest transaction decline was seen at the Pine Hills Main plaza group which was 8.3 percent lower than the prior year with a corresponding revenue decline of 1.3 percent.

Table 4-1
S.R. 408 Plaza Groups – Historical Transactions and Toll Revenues
FY 1995 – FY 2014

Fiscal Year	Hiawassee Main	Pine Hills Main	Conway Main	Dean Main	TOTAL	Hiawassee Main	Pine Hills Main	Conway Main	Dean Main	TOTAL
	TRANSACTIONS (millions)					PERCENT CHANGE				
1995	7.1	14.0	27.5	7.8	56.4					
1996	8.4	15.6	30.4	9.0	63.4	18.3%	11.4%	10.5%	15.4%	12.4%
1997	10.0	17.5	32.6	10.2	70.3	19.0%	12.2%	7.2%	13.3%	10.9%
1998	11.8	20.2	35.5	11.9	79.4	18.0%	15.4%	8.9%	16.7%	12.9%
1999	13.7	22.5	38.2	13.8	88.2	16.1%	11.4%	7.6%	16.0%	11.1%
2000	15.5	24.4	41.0	16.7	97.6	13.1%	8.4%	7.3%	21.0%	10.7%
2001	17.1	25.7	42.5	19.1	104.4	10.3%	5.3%	3.7%	14.4%	7.0%
2002 [A]	18.7	26.7	43.8	20.9	110.1	9.4%	3.9%	3.1%	9.4%	5.5%
2003	20.2	28.0	45.5	22.4	116.1	8.0%	4.9%	3.9%	7.2%	5.4%
2004	22.0	29.9	48.5	24.3	124.7	8.9%	6.8%	6.6%	8.5%	7.4%
2005 [B]	22.7	30.8	49.1	25.2	127.8	3.2%	3.0%	1.2%	3.7%	2.5%
2006 [C]	24.1	32.2	51.8	27.3	135.4	6.2%	4.5%	5.5%	8.3%	5.9%
2007 [D]	25.7	32.5	51.9	28.2	138.3	6.6%	0.9%	0.2%	3.3%	2.1%
2008 [E]	27.2	33.7	50.7	27.4	139.0	5.8%	3.7%	-2.3%	-2.8%	0.5%
2009 [F]	25.2	30.9	49.3	25.9	131.3	-7.4%	-8.3%	-2.8%	-5.5%	-5.5%
2010 [F]	23.3	28.4	49.0	25.3	126.0	-7.5%	-8.1%	-0.6%	-2.3%	-4.0%
2011	23.2	28.4	50.0	25.1	126.7	-0.4%	0.0%	2.0%	-0.8%	0.6%
2012	23.1	28.4	50.1	24.6	126.2	-0.4%	0.0%	0.2%	-2.0%	-0.4%
2013 [F]	22.5	27.6	48.9	24.5	123.5	-2.5%	-3.0%	-2.3%	-0.5%	-2.1%
2014	24.1	29.2	51.1	25.3	129.7	7.0%	6.0%	4.4%	3.3%	5.0%
	TOLL REVENUES (millions)					PERCENT CHANGE				
1995	$3.3	$10.4	$19.6	$3.4	$36.7					
1996	$3.9	$11.6	$21.6	$4.0	$41.1	18.2%	11.5%	10.2%	17.6%	12.0%
1997	$4.7	$13.0	$23.2	$4.6	$45.5	20.5%	12.1%	7.4%	15.0%	10.7%
1998	$5.6	$14.8	$25.4	$5.5	$51.3	19.1%	13.8%	9.5%	19.6%	12.7%
1999	$6.5	$16.4	$27.3	$6.4	$56.6	16.1%	10.8%	7.5%	16.4%	10.3%
2000	$7.4	$17.8	$29.3	$7.8	$62.3	13.8%	8.5%	7.3%	21.9%	10.1%
2001	$8.2	$18.7	$30.4	$8.9	$66.2	10.8%	5.1%	3.8%	14.1%	6.3%
2002 [A]	$9.1	$19.5	$31.3	$9.8	$69.7	11.0%	4.3%	3.0%	10.1%	5.3%
2003	$9.9	$20.3	$32.5	$10.5	$73.2	8.8%	4.1%	3.8%	7.1%	5.0%
2004	$10.8	$21.8	$34.7	$11.4	$78.7	9.1%	7.4%	6.8%	8.6%	7.5%
2005 [B]	$11.2	$22.5	$35.0	$11.7	$80.4	3.7%	3.2%	0.9%	2.6%	2.2%
2006 [C]	$11.8	$23.6	$36.9	$12.8	$85.1	5.4%	4.9%	5.4%	9.4%	5.8%
2007 [D]	$12.7	$23.5	$37.0	$13.3	$86.5	7.6%	-0.4%	0.3%	3.9%	1.6%
2008 [E]	$13.0	$24.0	$36.1	$13.0	$86.1	2.4%	2.1%	-2.4%	-2.3%	-0.5%
2009 [F]	$13.3	$23.7	$37.6	$13.7	$88.3	2.3%	-1.3%	4.2%	5.4%	2.6%
2010 [F]	$16.4	$26.8	$46.1	$18.4	$107.7	23.3%	13.1%	22.6%	34.3%	22.0%
2011	$16.2	$26.8	$47.1	$18.2	$108.3	-1.2%	0.0%	2.2%	-1.1%	0.6%
2012	$16.0	$26.7	$47.2	$17.8	$107.7	-1.2%	-0.4%	0.2%	-2.2%	-0.6%
2013 [F]	$18.0	$29.3	$51.9	$20.1	$119.3	12.4%	9.6%	10.0%	13.2%	10.8%
2014	$19.2	$31.0	$54.2	$20.8	$125.2	6.7%	5.9%	4.4%	3.3%	4.9%

Notes:

A - Effects of the events on September 11, 2001.

B - Effects from 2004 hurricane season (4 storms with toll suspensions).

C - Mills Avenue on-ramp to westbound S.R. 408 permanently closed. Dean Main plaza converted to open road tolling in August 2005.

D - Holland West plaza relocated to Pine Hills plaza on November 10, 2006. Hiawassee and Pine Hills Main plazas converted to open road tolling in FY 2006.

E - First effects of national economic recession.

F - Systemwide toll rate increase. Conway Main plaza converted to open road tolling in Nov 2008.

Figure 4-2
S.R. 408 Historical Transactions and Annual Growth
FY 1995 – FY 2014

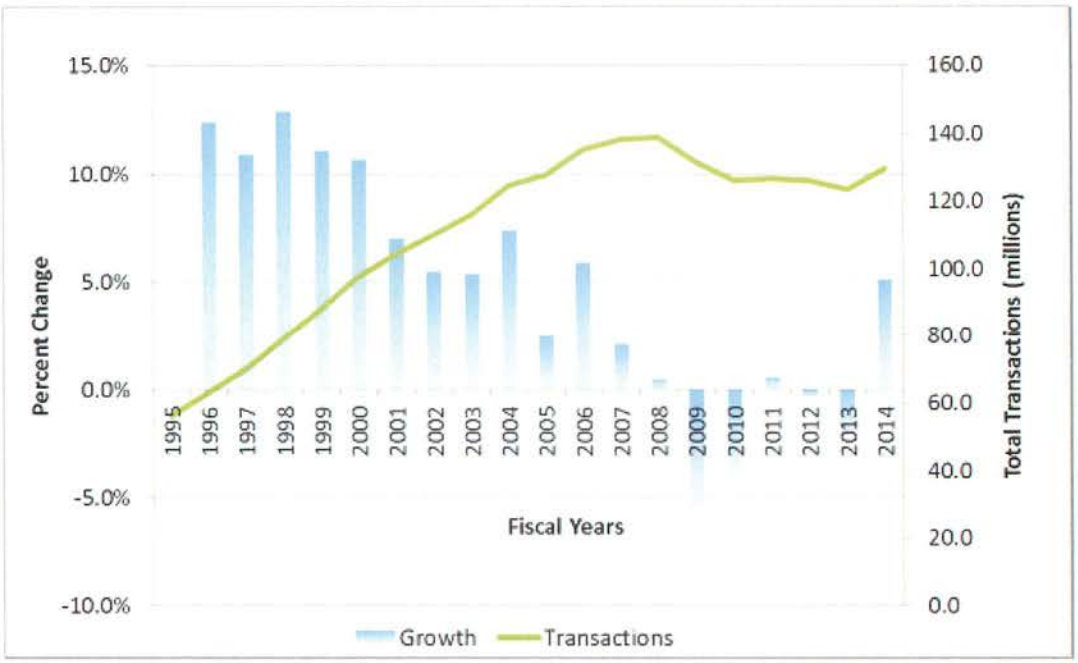
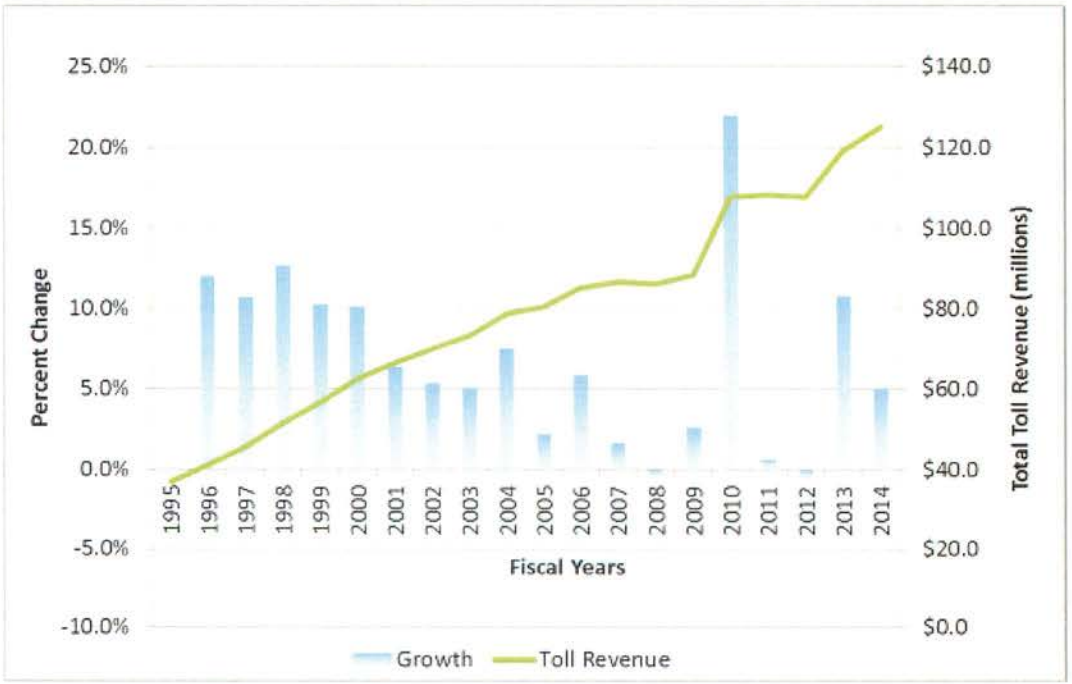


FIGURE 4-3
S.R. 408 HISTORICAL TOLL REVENUE AND ANNUAL GROWTH
FY 1995 – FY 2014



In FY 2010, annual transactions declined at all four plaza groups. Despite the decrease in transactions, revenues significantly increased at all plazas as a result of the first full year of revenue collection after the Systemwide toll rate increase, which impacted growth during the first nine months.

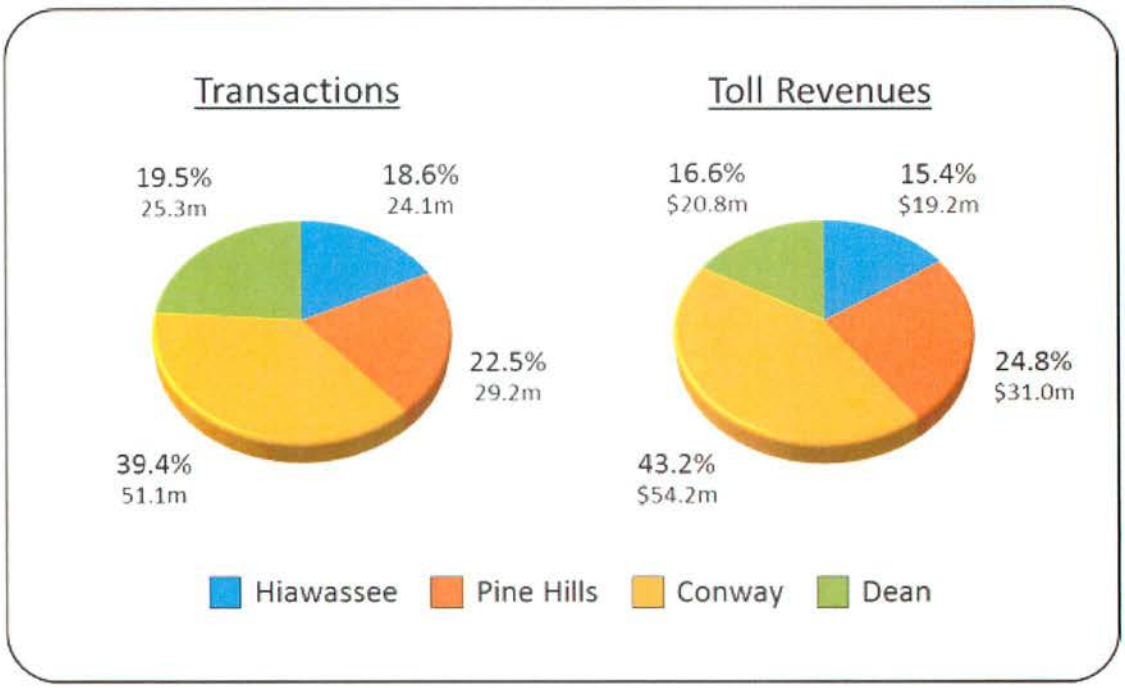
FY 2011 transactions decreased at the Hiawassee Main plaza group by 0.4 percent and at the Dean Main plaza group by 0.8 percent due to construction on S.R. 408. Revenues also declined at both facilities by approximately 1.0 percent. Transactions and revenues at the Pine Hills Main plaza group remained unchanged while the Conway Main plaza group showed very little growth compared to FY 2010. This slow growth continued in FY 2012 with all plaza groups experiencing transaction and revenue declines or no growth compared to the prior year.

Transactions declined while revenues increased at all four plaza groups in FY 2013, due to the toll rate increase that went into effect on July 1, 2012. In FY 2014, transactions and toll revenues increased at all four plaza groups. The increase in transactions in FY 2014 was expected after the decline occurred in FY 2013 due to the toll rate increase, which impacted traffic for a short period.

The transactions and toll revenues by plaza groups and as a percentage of total S.R. 408 transactions and toll revenues for FY 2014 are presented in **Figure 4-4**. The majority of the transactions on S.R. 408 during FY 2014 were reported at the Conway Main plaza group, with 51.1 million or 39.4 percent. The Pine Hills Main, Dean Main and Hiawassee Main plaza groups reported 29.2, 25.3 and 24.1 million transactions and each contributed approximately 20 percent of total S.R. 408 transactions for FY 2014.

The annual totals and percentages for toll revenues are similar to the trends reported for annual transactions. As shown, the Conway Main plaza group represented $54.2 million in toll revenues or 43.2 percent of total S.R. 408 toll revenues. The Pine Hills Main plaza group represented $31.0 million or 24.8 percent of total revenues on the facility. The Dean Main plaza group was the next highest with $20.8 million or 16.6 percent of the total and the Hiawassee Main plaza group represented $19.2 million or 15.4 percent in FY 2014. The tolls are lower at the Dean and Hiawassee mainline toll plazas.

Figure 4-4
S.R. 408 Transactions and Toll Revenues by Plaza Group
FY 2014



4.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

In **Table 4-2**, monthly total traffic volumes are normalized to the average number of transactions per day in each month. Using average number of transactions per day allows for an easy comparison of the variations in relative travel demand over the year. The seasonal pattern of usage changes slightly from year to year based on the number of weekdays in a given month.

The average number of transactions per day in FY 2014 on S.R. 408 ranged from a high of 376,985 in April 2014 to a low of 332,766 in July 2013. Historically, the winter months (December and January) have been the months with the lowest average number of transactions per day. This data is presented in a graphical format in **Figure 3-5**. The transactions for each month appear as a percentage of the average for the fiscal year. As shown in the figure, April transactions were 6.1 percent above average and July transactions were 6.4 percent below average for the facility. S.R. 408 volumes do not fluctuate as much as other facilities due to the usage of the highway as a commuter facility with little use by tourists and the higher monthly volume. The transactions only deviate 5 to 6 percent from the annual average.

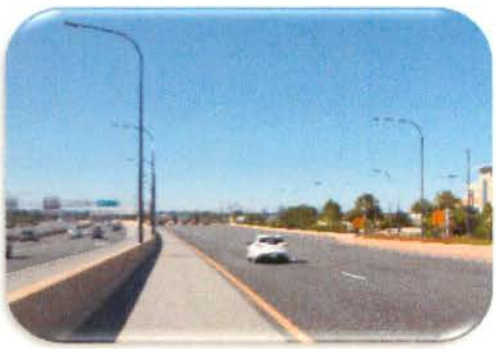
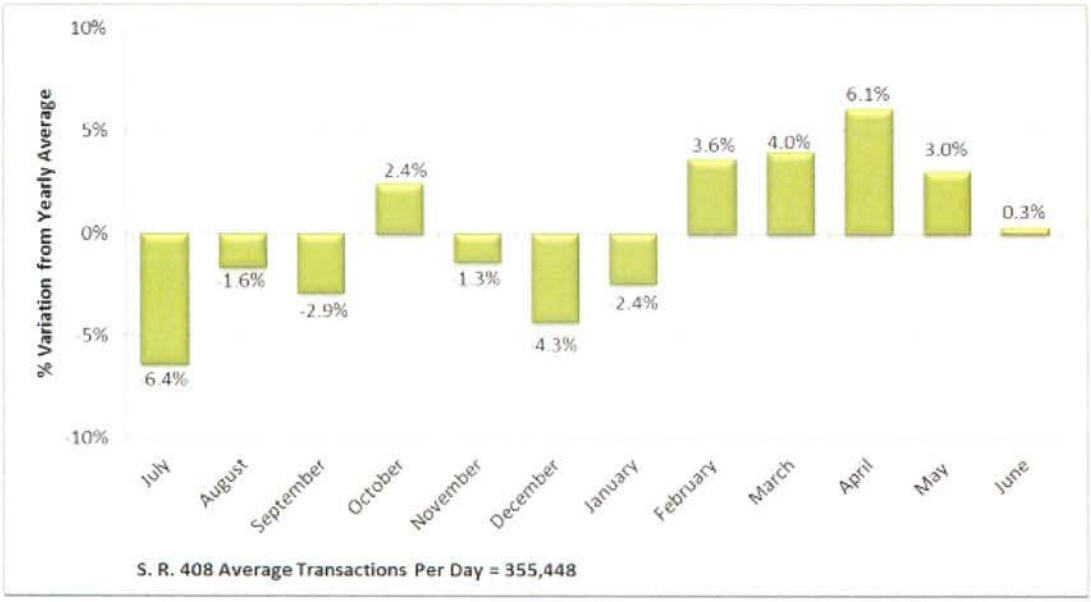


Table 4-2
S.R. 408 – Monthly Seasonal Variation in Toll-Paying Traffic
FY 2014

Month	Number of Days in Month	Total Toll Paying Transactions	Average Transactions/day	Seasonal Factor
July	31	10,315,737	332,766	0.936
August	31	10,839,756	349,670	0.984
September	30	10,359,397	345,313	0.971
October	31	11,284,655	364,021	1.024
November	30	10,520,254	350,675	0.987
December	31	10,543,701	340,119	0.957
January	31	10,751,118	346,810	0.976
February	28	10,312,861	368,316	1.036
March	31	11,456,301	369,558	1.040
April	30	11,309,550	376,985	1.061
May	31	11,349,423	366,110	1.030
June	30	10,695,648	356,522	1.003
Average		***10,811,533***	***355,448***	***1.000***
Total Year	**365**	**129,738,401**		

Figure 4-5
S.R. 408 Variation in Transactions per Day, by Month
FY 2014



4.2.3 TRANSACTIONS BY VEHICLE CLASS

The distribution of transactions at each of the S.R. 408 plaza groups by vehicle class (number of axles) for FY 2014 is presented in **Table 4-3**. Overall, 99.1 percent of all transactions on S.R. 408 were made by 2-axle passenger vehicles, with little variation among the three plaza groups. The next most frequent vehicle class was the 3-axle classification, which typically includes delivery and service vehicles. These vehicles accounted for 0.5 percent of all transactions on the facility. Four-axle vehicles and trucks with five or more axles represented the smallest categories with only 0.1 and 0.3 percent of facility transactions.

Table 4-3
S.R. 408 Percent of Total Transactions by Vehicle Class
FY 2014

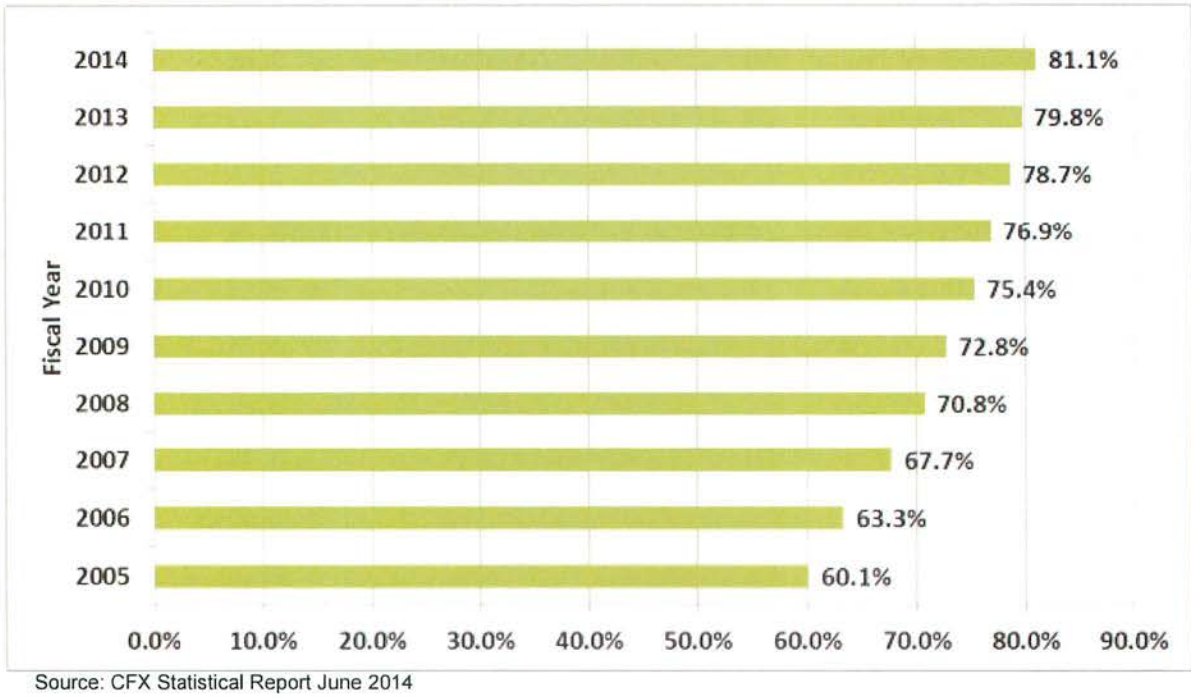
Vehicle Class	Hiawassee Main	Pine Hills Main	Conway Main	Dean Main	S.R. 408 Total
2-Axle	98.8%	98.8%	99.3%	99.4%	99.1%
3-Axle	0.6%	0.7%	0.4%	0.4%	0.5%
4-Axle	0.1%	0.1%	0.1%	0.1%	0.1%
5 or More Axles	0.5%	0.4%	0.2%	0.1%	0.3%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Unaudited lane transaction data – January 2014

4.3 E-PASS Usage

The percent of revenues generated from electronic transactions over the past ten fiscal years on S.R. 408 is shown in **Figure 4-6**. The share of toll revenue collected through E-PASS has steadily increased on the facility since FY 2005. In FY 2005, E-PASS revenues totaled 60.1 percent of total revenues on the facility. By the end of FY 2014, E-PASS revenues reached over 81.0 percent. The usage of E-PASS will continue to increase as customers shift from cash to E-PASS to take advantage of the lower toll rate and convenience of paying tolls electronically. The increase in E-PASS participation due to the implementation of the toll rate differential was not as great as on other System facilities because the S.R. 408 customers are primarily commuters who already understand the benefits of E-PASS.

Figure 4-6
S.R. 408 Percent of Toll Revenue from Electronic Transactions
FY 2005 – FY 2014



Source: CFX Statistical Report June 2014

4.4 Forecasted Transactions and Toll Revenues

Future transportation improvements that influence the T&R forecasts for S.R. 408 include the projects listed in **Table 4-4**, assumed completed in each model horizon year.

Even with major improvements to competing facilities, such as S.R. 50 in east and west Orange County, and Lake Underhill Road, growth rates in the near term are above 2.8% per year. System improvements, such as the S.R. 408 widening from S.R. 417 to Alafaya Trail, through the Hiawassee Road Interchange, and S.R. 417 widening from S.R. 408 to Curry Ford Road, as well as feeder road improvements, such as Alafaya Trail and John Young Parkway, positively impact the T&R growth on S.R. 408 throughout the forecast horizon.

Table 4-4
S.R. 408 - Key Transportation Improvements

Facility	From	To	Model Horizon Year	Jurisdiction	Improvement
S.R. 417/Greeneway	Curry Ford	SR 408	2018	CFX	Widen 4-6 lanes
Lake Underhill Road	Goldenrod Road	Chickasaw Trail	2018	Orange County	Widen 2-4 lanes
S.R. 50	Dean Road	E. Old Cheney Hwy	2018	FDOT	Widen 4-6 lanes
S.R. 50	E Ramps of Florida's Turnpike	Avalon Road	2018	FDOT	Widen 4-6 lanes
S.R. 50	SR 429/Western Expressway	E of West Oaks Mall	2018	FDOT	Widen 4-6 lanes
S.R. 50	Lake/Orange Co. Line	Tubb St.	2018	FDOT	Widen 4-6 lanes
SR 408	@SR 417		2018	CFX	Interchange Modification
Alafaya Trail	Mark Twain Blvd.	Innovation Way	2018	Orange County	Widen 2-4 lanes
John Young Parkway	SR 50	Shader Rd.	2023	Orange County	Widen 4-6 lanes
S.R. 408/East-West Expressway	S.R. 417	Alafaya Trail	2023	CFX	Widen 4-6 lanes
S.R. 408/East-West Expressway	Good Homes	Hiawassee	2023	CFX	Widen 4-6 lanes
Interstate 4	at S.R. 408		2023	FDOT	Ultimate Interchange Improvement
Interstate 4	Kirkman Rd.	N of S.R. 434	2023	FDOT	Managed Lanes Ultimate
US 441	SR 50	John Young Parkway	2028	Orange County	Widen 4-6 Lanes
Alafaya Trail	Huckleberry Finn Drive	Lake Underhill Road	2033	Orange County	Widen 4-6 Lanes

Historical and projected transactions and toll revenues for each of the S.R. 408 plaza groups and for all of S.R. 408 are shown in Tables **4-5** and **4-6**. The forecasts assume toll rate indexing at 3% per year, implemented every fifth year. Due to the toll rate adjustments every fifth year, there are decreases in transactions and increases in revenues.

The forecasts are based on the completion of the ultimate improvements to Interstate 4, especially the completion of the I-4/S.R. 408 Interchange improvements. While these improvements provide congestion relief on I-4, there are only moderate impacts to S.R. 408 T&R forecasts. The growth rates for the remainder of the forecast period are also moderate but steady. Transactions on S.R. 408 are expected to grow 1.9 percent per year through FY 2020, 0.5 percent per year between FY 2020 and FY 2030 and 0.1 percent per year from FY 2030 and FY 2040. Total revenues on S.R. 408 are projected to increase significantly over the forecast period, from the FY 2014 actual of $125.2 million to $254.6 million in FY 2044. Currently the largest contributor to System revenue, S.R. 408 revenues are forecasted to increase an average of 3.6 percent per year through FY 2020, 2.6 percent per year from FY 2020 to FY 2030, and 1.9 percent per year from FY 2030 to FY 2040.

Table 4-5
S.R. 408 Plaza Groups – Transaction Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Hiawassee Main		Pine Hills Main		Conway Main		Dean Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2000	15.5		24.4		41.0		16.7		97.6		11.7%
2001	17.1		25.7		42.5		19.1		104.4		7.0%
2002 [B]	18.7		26.7		43.8		20.9		110.1		5.5%
2003	20.2		28.0		45.5		22.4		116.1		5.4%
2004	22.0		29.9		48.5		24.3		124.7		7.4%
2005 [C]	22.7		30.8		49.1		25.2		127.8		2.5%
2006 [D]	24.1		32.2		51.8		27.3		135.4		5.9%
2007 [E]	25.7		32.5		51.9		28.2		138.3		2.1%
2008 [F]	27.2		33.7		50.7		27.4		139.0		0.5%
2009 [G]	25.2		30.9		49.3		25.9		131.3		-5.5%
2010	23.3		28.4		49.0		25.3		126.0		-4.0%
2011	23.2		28.4		50.0		25.1		126.7		0.6%
2012	23.1		28.4		50.1		24.6		126.2		-0.4%
2013 [G]	22.5		27.6		48.9		24.5		123.5		-2.1%
2014	24.1		29.2		51.1		25.3		129.7		5.0%
2015		25.8		30.8		53.1		25.9		135.6	4.6%
2016		26.8		31.8		54.3		26.5		139.4	2.8%
2017		27.8		32.8		55.5		27.0		143.2	2.7%
2018 [G]		26.6		31.8		54.4		26.6		139.4	-2.6%
2019		27.3		32.6		55.2		27.0		142.2	2.0%
2020		28.1		33.5		56.0		27.4		144.9	1.9%
2021		28.8		34.3		56.8		27.7		147.6	1.9%
2022		29.5		35.2		57.6		28.1		150.4	1.9%
2023 [G]		27.2		32.2		55.0		27.0		141.5	-5.9%
2024		27.9		32.8		56.3		27.9		144.9	2.4%
2025		28.5		33.5		57.5		28.7		148.2	2.3%
2026		29.1		34.1		58.7		29.6		151.6	2.3%
2027		29.7		34.7		60.0		30.5		154.9	2.2%
2028 [G]		28.7		34.2		57.3		28.1		148.4	-4.2%
2029		29.1		34.4		58.0		28.7		150.2	1.2%
2030		29.4		34.6		58.7		29.2		151.9	1.2%
2031		29.8		34.8		59.4		29.8		153.7	1.2%
2032		30.1		35.0		60.1		30.3		155.5	1.2%
2033 [G]		29.2		34.6		57.4		28.2		149.3	-4.0%
2034		29.3		34.8		58.0		28.6		150.7	1.0%
2035		29.4		35.1		58.7		29.1		152.2	1.0%
2036		29.5		35.3		59.3		29.5		153.7	1.0%
2037		29.7		35.6		60.0		29.9		155.2	1.0%
2038 [G]		29.2		35.7		57.0		28.1		149.9	-3.4%
2039		29.4		36.0		57.9		28.7		151.9	1.3%
2040		29.5		36.3		58.8		29.2		153.9	1.3%
2041		29.7		36.6		59.7		29.8		155.9	1.3%
2042		29.9		36.9		60.5		30.4		157.8	1.3%
2043 [G]		30.2		36.8		58.6		28.5		154.1	-2.4%
2044		30.4		37.1		59.4		29.1		156.1	1.3%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)					
2000 - 2008	7.3%	4.1%	2.7%	6.4%	4.5%	
2008 - 2014	-2.0%	-2.4%	0.1%	-1.3%	-1.1%	
2014 - 2020	2.6%	2.3%	1.5%	1.3%	1.9%	
2020 - 2030	0.5%	0.3%	0.5%	0.7%	0.5%	
2030 - 2040	0.0%	0.5%	0.0%	0.0%	0.1%	

Notes:

A - Actual transaction data provided by CFX from Monthly Statistical Reports.

B - Effects of the events on September 11, 2001.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - Mills Avenue on-ramp to westbound S.R. 408 permanently closed.

E - Holland West plaza was relocated and named Pine Hills plaza on November 10, 2006.

F - First effects of national economic recession.

G - Systemwide toll rate increase.

Table 4-6
S.R. 408 Plaza Groups – Toll Revenue Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Hiawassee Main		Pine Hills Main		Conway Main		Dean Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2000	$7.4		$17.8		$29.3		$7.8		$62.3		11.7%
2001	8.2		18.7		30.4		8.9		66.2		6.3%
2002 [B]	9.1		19.5		31.3		9.8		69.7		5.3%
2003	9.9		20.3		32.5		10.5		73.2		5.0%
2004	10.8		21.8		34.7		11.4		78.7		7.5%
2005 [C]	11.2		22.5		35.0		11.7		80.4		2.2%
2006 [D]	11.8		23.6		36.9		12.8		85.1		5.8%
2007 [E]	12.7		23.5		37.0		13.3		86.5		1.6%
2008 [F]	13.0		24.0		36.1		13.0		86.1		-0.5%
2009 [G]	13.3		23.7		37.6		13.7		88.3		2.6%
2010	16.4		26.8		46.1		18.4		107.7		22.0%
2011	16.2		26.8		47.1		18.2		108.3		0.6%
2012	16.0		26.7		47.2		17.8		107.7		-0.6%
2013 [G]	18.0		29.3		51.9		20.1		119.3		10.8%
2014	19.2		31.0		54.2		20.8		125.2		4.9%
2015		$20.4		$32.4		$55.6		$21.2		$129.6	3.5%
2016		21.3		33.6		57.1		21.8		133.8	3.2%
2017		22.2		34.7		58.7		22.4		138.0	3.1%
2018 [G]		23.6		37.4		64.2		24.5		149.7	8.5%
2019		24.3		38.4		65.0		24.7		152.3	1.8%
2020		25.0		39.3		65.8		24.8		154.9	1.7%
2021		25.7		40.3		66.6		25.0		157.6	1.7%
2022		26.4		41.2		67.4		25.2		160.2	1.7%
2023 [G]		27.6		43.5		73.6		27.4		172.1	7.5%
2024		28.2		43.8		74.8		28.5		175.4	1.9%
2025		28.7		44.2		76.1		29.6		178.6	1.8%
2026		29.2		44.5		77.4		30.7		181.8	1.8%
2027		29.7		44.9		78.6		31.8		185.1	1.8%
2028 [G]		30.9		48.4		83.7		32.3		195.4	5.6%
2029		31.5		48.6		84.6		32.9		197.6	1.2%
2030		32.0		48.8		85.5		33.5		199.9	1.1%
2031		32.5		49.1		86.4		34.1		202.1	1.1%
2032		33.0		49.3		87.4		34.8		204.4	1.1%
2033 [G]		34.9		52.1		90.6		35.6		213.2	4.3%
2034		35.2		52.9		91.7		36.2		216.0	1.3%
2035		35.5		53.7		92.8		36.8		218.8	1.3%
2036		35.9		54.5		93.9		37.4		221.7	1.3%
2037		36.2		55.3		95.0		38.1		224.5	1.3%
2038 [G]		37.7		59.5		98.5		38.1		233.9	4.2%
2039		38.1		60.2		100.0		39.0		237.4	1.5%
2040		38.5		60.9		101.5		39.8		240.8	1.4%
2041		38.8		61.7		103.0		40.7		244.2	1.4%
2042		39.2		62.4		104.6		41.5		247.7	1.4%
2043 [G]		39.1		63.2		107.3		41.5		251.2	1.4%
2044		39.5		64.0		108.8		42.3		254.6	1.4%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)					
2000 - 2008	7.3%	3.8%	2.6%	6.6%	4.1%	
2008 - 2014	6.7%	4.4%	7.0%	8.1%	6.4%	
2014 - 2020	4.5%	4.0%	3.3%	3.0%	3.6%	
2020 - 2030	2.5%	2.2%	2.7%	3.0%	2.6%	
2030 - 2040	1.9%	2.2%	1.7%	1.7%	1.9%	

Notes:

A - Actual revenue data provided by CFX from Monthly Statistical Reports.

B - Effects of the events on September 11, 2001.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - Mills Avenue on-ramp to westbound S.R. 408 permanently closed.

E - Holland West plaza was relocated and named Pine Hills plaza on November 10, 2006.

F - First effects of national economic recession.

G - Systemwide toll rate increase.

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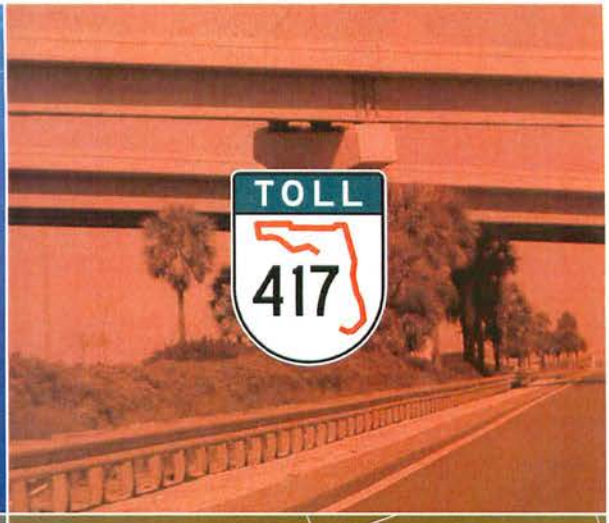
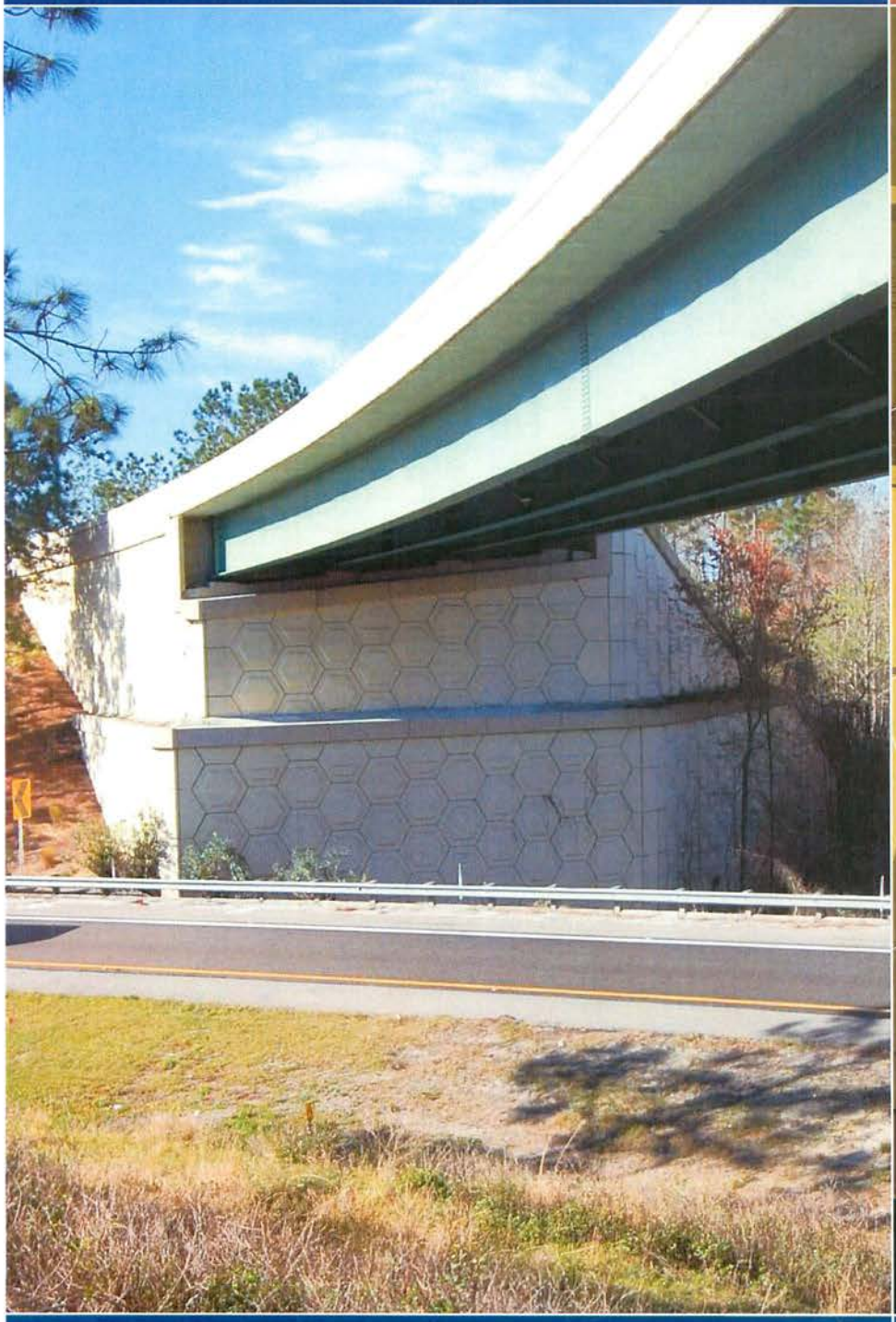
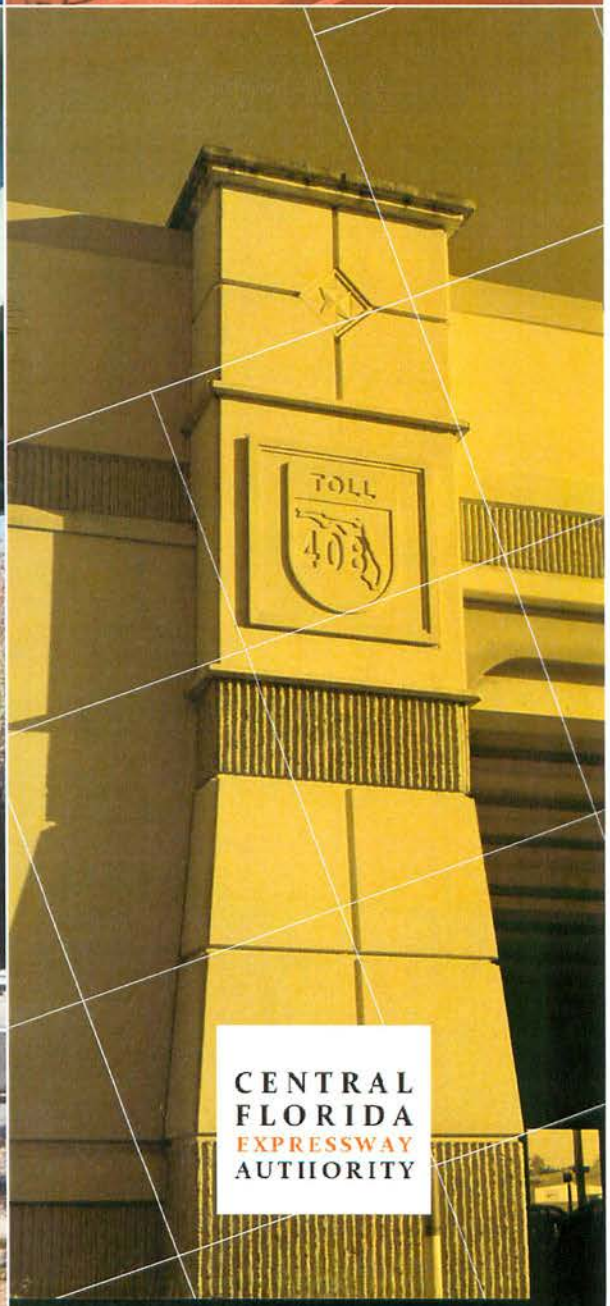
Chapter 5

S.R. 417
Central Florida GreeneWay







CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

S.R. 417 (CENTRAL FLORIDA GREENEWAY)

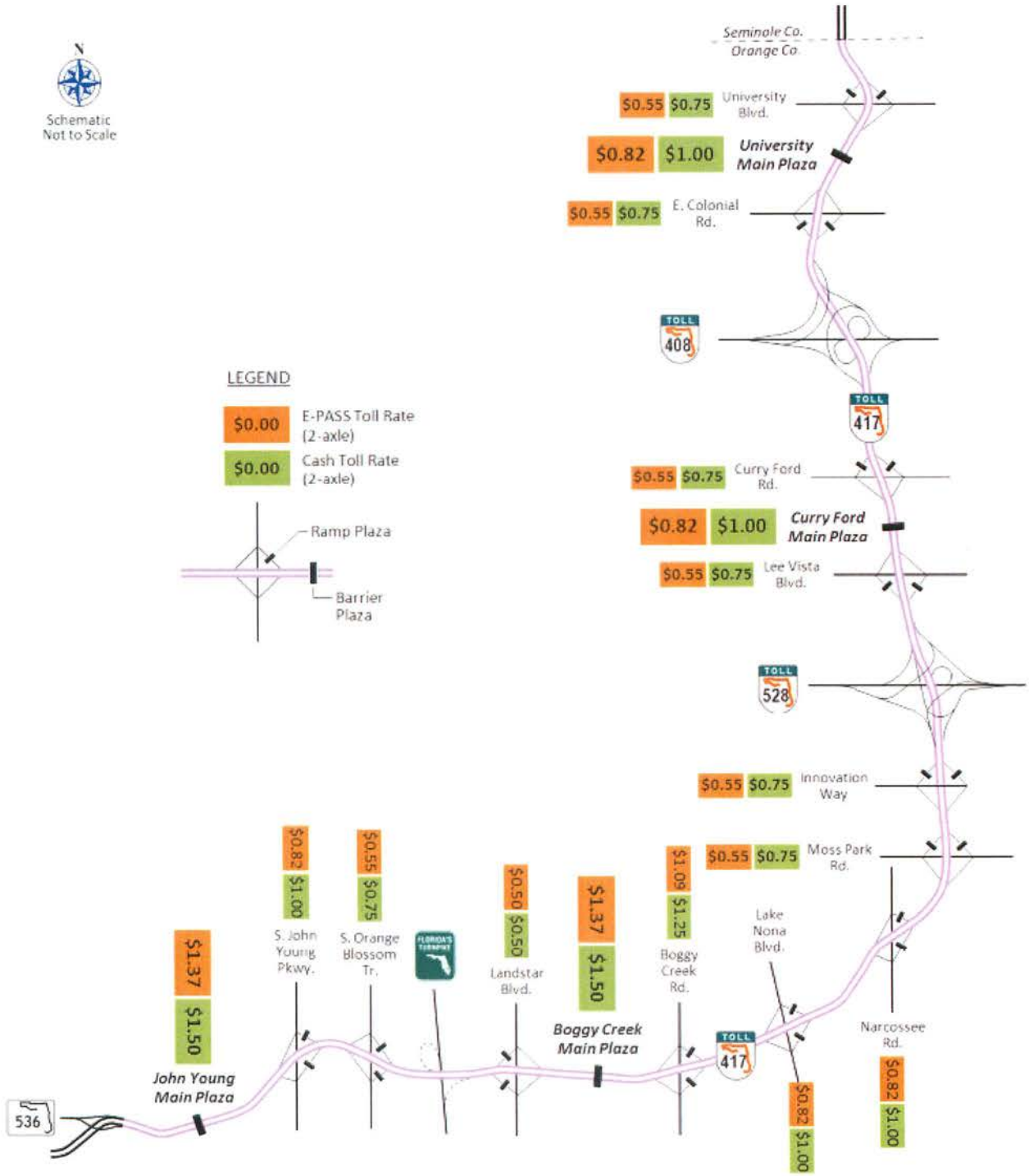
5.1 Facility Description

S. R. 417, also known as the Central Florida Greeneway, is a 55-mile expressway that serves as an eastern beltway around Orlando and provides a connection from the residential areas northeast, east and southeast of Orlando in Orange, Seminole and Osceola Counties to S.R. 408 and downtown Orlando. It also significantly enhances access to the Orlando International Airport (OIA) as an alternative to S.R. 528 and S.R. 436. CFX owns and operates the largest portion of S.R. 417 (33 miles) extending east and north from International Drive to the Orange-Seminole County line. FTE extended S.R. 417 north and west from the Orange-Seminole County line to I-4. FTE also extended S.R. 417 in a westerly direction from International Drive to provide a connection to I-4 in the vicinity of the attractions. A map of CFX's portion of S.R. 417 including the FY 2013 CFX toll rates for the mainline and ramp toll plazas is shown in **Figure 5-1**.

The first section of S.R. 417 to be constructed by CFX was from S.R. 408 to the Orange-Seminole County line including the University Mainline plaza. This section opened to traffic in December 1988 and toll collection began at the plaza in January 1989. The University Main plaza group included interchanges at S.R. 408, Valencia College Lane, S.R. 50 and University Boulevard. The next section extended from S.R. 528 to S.R. 408, was completed in June 1990 and toll collection began in July 1990. The interchanges associated with the Curry Ford Main plaza group are S.R. 528, Lee Vista Boulevard and Curry Ford Road. The Boggy Creek and John Young Mainline plaza sections of S.R. 417, extending from International Drive to S.R. 528 and opened to traffic with toll collection in July 1993. The Boggy Creek Main plaza group includes interchanges at Boggy Creek Road, Lake Nona Boulevard, Narcoossee Road, Moss Park Road and Innovation Way. The John Young Main plaza group includes interchanges at John Young Parkway, U.S. 441/Orange Blossom Trail and Landstar Boulevard. FTE opened the section of the limited-access expressway between International Drive and I-4 in June 1996 and the S.R. 417 connection to U.S. 17-92 in Seminole County in 1994 and from U.S. 17-92 to I-4 in Seminole County in September 2002.

In July 2003, the University Mainline toll plaza was the first plaza in Florida to be converted from conventional toll lanes to express lanes. CFX chose this plaza for the first conversion due to its heavy traffic and extensive E-PASS usage. Conversions followed at the Curry Ford Mainline plaza in July 2005 and the Boggy Creek and John Young Mainline plazas in March 2007.

Figure 5-1
S.R. 417 Facilities and Toll Rates Map



In January 2012, CFX completed the widening of S.R. 417 from four to six lanes between S.R. 528 and Curry Ford Road to help reduce traffic congestion during peak travel times. Also, in January 2013, CFX completed work on the modified S.R. 408/S.R. 417 Interchange project. As part of the interchange improvement project, Valencia College Lane ramps to and from the north were closed and ramps to and from the south were rerouted to a new access point at Chickasaw Trail on S.R. 408. This new interchange improves access and mobility to those working in east Orange County.

In January 2015, CFX opened a new partial interchange between S.R. 417 and Florida's Turnpike. The project includes new ramps from southbound S.R. 417 to southbound Florida's Turnpike and from northbound Florida's Turnpike to northbound S.R. 417.

In addition to completed projects, CFX has other projects that are planned or currently underway including:

- S.R. 417/Boggy Creek Road interchange improvement – the $71 million improvement, started in February 2013, provides better access to and from OIA for customers in South Orange and Osceola Counties.

- S.R. 417 widening from Curry Ford Road to Lake Underhill Drive – This $10.3 million project will improve this section of S.R. 417 from four to six lanes and includes improvements to the southbound off ramp to Curry Ford Road and the Curry Ford Road on ramp to northbound S.R. 417.

5.2 Historical Transactions and Toll Revenues

5.2.1 ANNUAL TRANSACTION AND TOLL REVENUE TRENDS

S.R. 417 annual historical transactions at the John Young Main, Boggy Creek Main, Curry Ford Main and University Main plaza groups from FY 1995 to FY 2014 are presented in the top half of **Table 5-1**. Annual historical toll revenues are also summarized and totaled in the bottom half of the table. The facility data and annual growth are also presented visually in **Figure 5-2** and **Figure 5-3**. Annual transaction and toll revenue trends by plaza group are presented in the table.

With the decreasing transactions and revenues across the System in FY 2008 and 2009, and the threat of an economic recession, CFX instituted a Systemwide toll rate increase. Transactions decreased at all four plaza groups in FY 2009 due to both the Systemwide toll rate increase and the economic downturn. The April 2009 toll rate increase impacted the last three months of FY 2009. During the same year, revenues at the John Young Main plaza group and Boggy Creek Main plaza group decreased by 3.6 and 5.7 percent, respectively. Revenues at the Curry Ford Main and University Main plaza groups remained relatively unchanged from FY 2008. FY 2009 transactions and revenues were also impacted by Tropical Storm Fay in August 2008.

FY 2010 transactions continued to decline at all four plaza groups as a result of the toll rate increase, which impacted the first nine months of the fiscal year, and the continued economic downturn. However, toll revenues increased significantly at all plaza groups due to the higher toll rates. The University Main plaza group reported the largest increase on S.R. 417 in revenues of 29.1 percent, or $4.6 million and Curry Ford Main plaza group's revenue increased by 27.3 percent, or $3.8 million.

As shown, Curry Ford Main was the only plaza group with a decline in transactions and revenues in FY 2011. The losses in transactions and revenues can be attributed to the S.R. 417 widening activities between Curry Ford and S.R. 528. This trend continued at the Curry Ford Main plaza group in FY 2012 with a decrease of 0.4 percent in transactions and no growth in revenues. Construction of the widening project was completed in FY 2013. Also in FY 2012, the University Main plaza group experienced a decline of 2.8 percent in transactions and a decline of 1.5 percent in revenues. This plaza group was impacted by the construction of the S.R. 408/S.R. 417 systems interchange. FY 2012 was also the first full year that the Valencia College Lane ramps had been permanently closed.

Again in FY 2013, University Main plaza group experienced a decline in transactions, a decrease of 7 percent as compared to FY 2012. All other plaza groups experienced an increase in transactions. Revenues increased at all plaza groups in FY 2013 due to the July 2013 toll rate increase.

Table 5-1
S.R. 417 Plaza Groups – Historical Transactions and Toll Revenues
FY 1995 – FY 2014

Fiscal Year	John Young Main	Boggy Creek Main	Curry Ford Main	University Main	TOTAL	John Young Main	Boggy Creek Main	Curry Ford Main	University Main	TOTAL
	TRANSACTIONS (millions)					PERCENT CHANGE				
1995	7.0	4.8	6.5	11.7	30.0					
1996	7.4	5.6	7.6	13.7	34.3	5.7%	16.7%	16.9%	17.1%	14.3%
1997	9.0	7.1	9.0	15.2	40.3	21.6%	26.8%	18.4%	10.9%	17.5%
1998	10.4	8.0	10.1	16.6	45.1	15.6%	12.7%	12.2%	9.2%	11.9%
1999	11.6	8.9	11.7	18.7	50.9	11.5%	11.3%	15.8%	12.7%	12.9%
2000	13.4	10.1	13.6	20.8	57.9	15.5%	13.5%	16.2%	11.2%	13.8%
2001	14.5	10.8	14.8	22.2	62.3	8.2%	6.9%	8.8%	6.7%	7.6%
2002 [A]	14.5	11.0	15.7	23.7	64.9	0.0%	1.9%	6.1%	6.8%	4.2%
2003	15.7	12.3	17.9	25.4	71.3	8.3%	11.8%	14.0%	7.2%	9.9%
2004 [B]	17.1	13.5	20.4	28.6	79.6	8.9%	9.8%	14.0%	12.6%	11.6%
2005 [C]	18.9	15.2	22.9	30.2	87.2	10.5%	12.6%	12.3%	5.6%	9.5%
2006 [D]	20.8	17.3	25.7	32.4	96.2	10.1%	13.8%	12.2%	7.3%	10.3%
2007 [E]	22.3	19.1	27.5	33.5	102.4	7.2%	10.4%	7.0%	3.4%	6.4%
2008	23.6	20.3	27.6	33.0	104.5	5.8%	6.3%	0.4%	-1.5%	2.1%
2009 [F]	21.5	18.4	24.9	30.0	94.8	-8.9%	-9.4%	-9.8%	-9.1%	-9.3%
2010 [F]	19.6	17.5	23.6	28.6	89.3	-8.8%	-4.9%	-5.2%	-4.7%	-5.8%
2011	20.1	18.6	23.2	29.0	90.9	2.6%	6.3%	-1.7%	1.4%	1.8%
2012 [G]	20.6	18.8	23.1	28.2	90.7	2.5%	1.1%	-0.4%	-2.8%	-0.2%
2013 [H]	21.0	19.7	23.4	26.2	90.3	1.8%	4.6%	1.3%	-7.0%	-0.5%
2014	22.6	21.9	25.2	27.5	97.2	7.6%	11.2%	7.7%	5.0%	7.6%
	TOLL REVENUE (millions)					PERCENT CHANGE				
1995	$5.8	$4.6	$3.3	$5.1	$18.8					
1996	$6.3	$5.5	$3.9	$6.1	$21.8	8.6%	19.6%	18.2%	19.6%	16.0%
1997	$7.8	$7.0	$4.7	$6.9	$26.4	23.8%	27.3%	20.5%	13.1%	21.1%
1998	$9.1	$7.9	$5.3	$7.7	$30.0	16.7%	12.9%	12.8%	11.6%	13.6%
1999	$10.0	$8.7	$6.1	$8.6	$33.4	9.9%	10.1%	15.1%	11.7%	11.3%
2000	$11.6	$9.9	$7.1	$9.7	$38.3	16.0%	13.8%	16.4%	12.8%	14.7%
2001	$12.7	$10.6	$7.7	$10.3	$41.3	9.5%	7.1%	8.5%	6.2%	7.8%
2002 [A]	$12.7	$10.8	$8.1	$11.0	$42.6	0.0%	1.9%	5.2%	6.8%	3.1%
2003	$13.6	$12.0	$9.2	$11.7	$46.5	7.1%	11.1%	13.6%	6.4%	9.2%
2004 [B]	$14.6	$13.1	$10.5	$13.4	$51.6	7.4%	9.2%	14.1%	14.5%	11.0%
2005 [C]	$16.0	$14.7	$11.7	$14.3	$56.7	9.6%	12.2%	11.4%	6.7%	9.9%
2006 [D]	$17.4	$16.6	$13.2	$15.4	$62.6	8.7%	12.9%	12.8%	7.7%	10.4%
2007 [E]	$18.7	$18.2	$14.0	$16.0	$66.9	7.5%	9.6%	6.1%	3.9%	6.9%
2008	$19.7	$19.2	$13.9	$15.7	$68.5	5.3%	5.5%	-0.7%	-1.9%	2.4%
2009 [F]	$19.0	$18.1	$13.9	$15.8	$66.8	-3.6%	-5.7%	0.0%	0.6%	-2.5%
2010 [F]	$21.0	$19.9	$17.7	$20.4	$79.0	10.5%	9.9%	27.3%	29.1%	18.3%
2011	$21.6	$20.6	$17.3	$20.6	$80.1	2.9%	3.5%	-2.3%	1.0%	1.4%
2012 [G]	$22.1	$20.8	$17.3	$20.3	$80.5	2.3%	1.0%	0.0%	-1.5%	0.5%
2013 [H]	$25.3	$24.3	$19.8	$21.8	$91.2	14.3%	16.9%	14.5%	7.5%	13.3%
2014	$27.2	$26.9	$21.3	$22.9	$98.3	7.7%	10.7%	7.5%	5.0%	7.8%

Notes:

A - Effects of the events on September 11, 2001.

B - University Main plaza converted to open road tolling plaza in July 2003.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - Curry Ford Main plaza converted to open road tolling plaza in July 2005.

E - Boggy Creek Main and John Young Main plazas converted to open road tolling plazas in March 2007.

F - Systemwide toll rate increase in April 2009.

G - Widening of S.R. 417 between S.R. 408 and S.R. 528. Valencia College Lane ramps closed.

H - Systemwide toll rate increase in July 2013. Implementation of cash and electronic toll rate differential.

Figure 5-2
S.R. 417 Historical Transactions and Annual Growth
FY 1995 – FY 2014

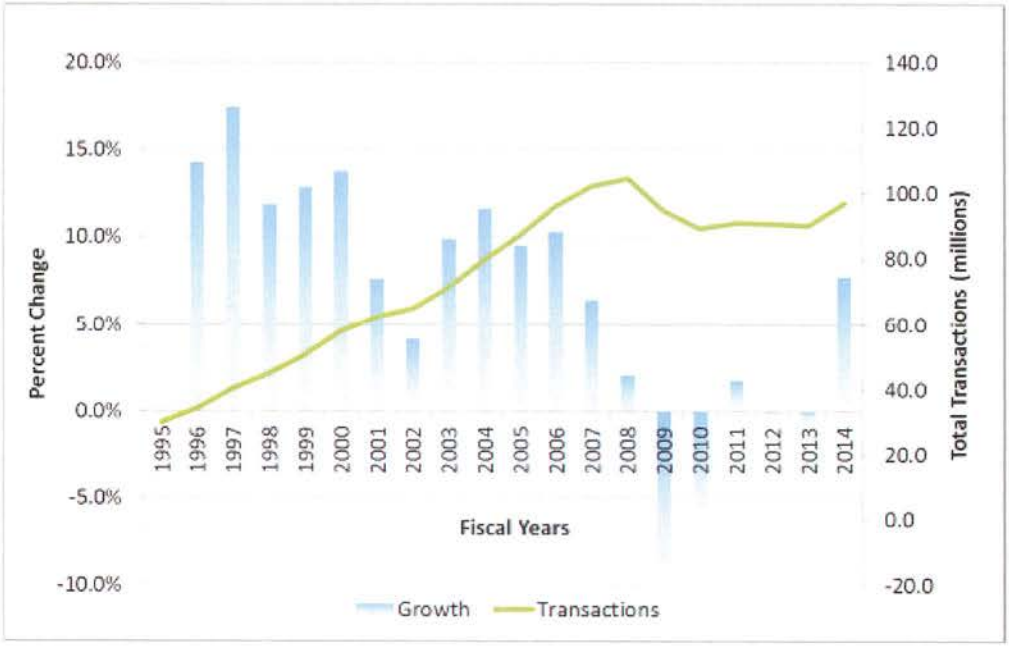
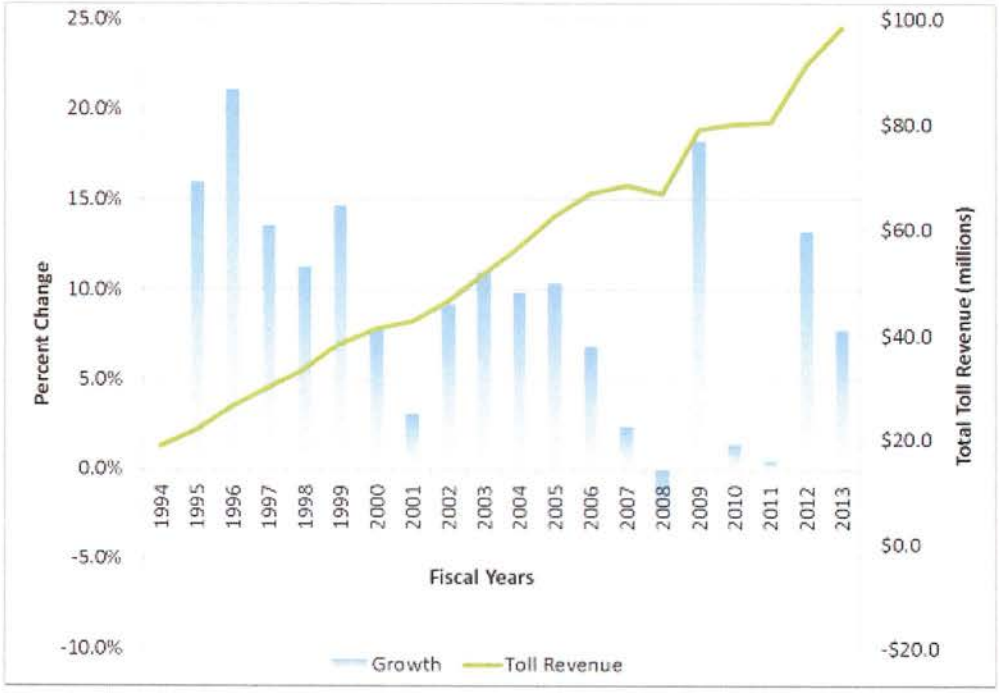


Figure 5-3
S.R. 417 Historical toll revenue and Annual Growth
FY 1995 – FY 2014

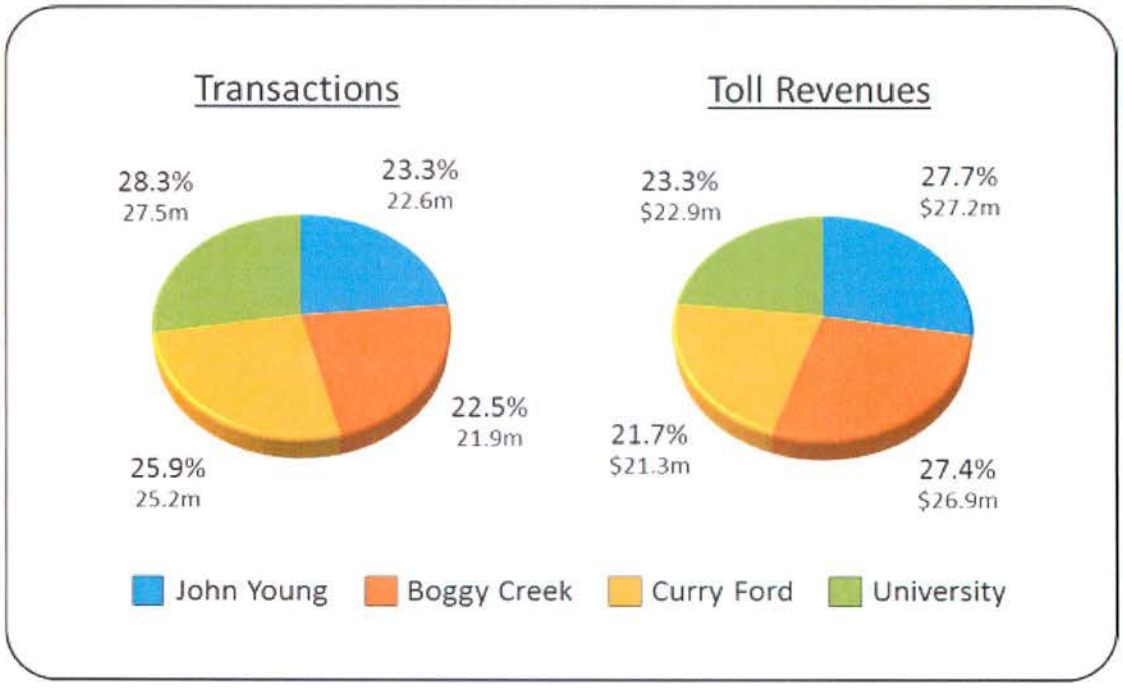


In FY 2014, all plaza groups experienced growth in transactions and toll revenues. Overall, S.R. 417 transactions increased 7.7 percent and toll revenues increased 7.8 percent over FY 2013. Boggy Creek Main, John Young Main and Curry Ford Main plaza groups' continued transaction and revenue growth can be attributed to Medical City and Lake Nona developments along these sections of S.R. 417.

The transactions and toll revenues by plaza group and as a percentage of total S.R. 417 transactions and toll revenues for FY 2014 are presented in **Figure 5-4**. As shown, the University Main plaza group represented 27.5 million transactions or 28.3 percent of total S.R. 417 transactions. The Curry Ford Main plaza group had the second highest amount of transactions at 25.2 million or 25.9 percent. The John Young Main and Boggy Creek Main plaza groups followed with 22.6 and 21.9 million transactions, respectively.

The annual totals and percentages for toll revenues are also presented below. The John Young Main and Boggy Creek Main plaza groups had the highest amounts of revenue despite the lower transaction totals. This is due to the fact that these two plaza groups have longer distances between plazas resulting in higher toll amounts. The John Young Main plaza group reported the highest revenues of $27.2 million or 27.7 percent of total S.R. 417 revenues. The Curry Ford Main plaza group represented the lowest amount of revenues on S.R. 417 with $21.3 million or 21.7 percent of total revenues.

Figure 5-4
S.R. 417 Transactions and Toll Revenues by Plaza Group
FY 2014



5.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

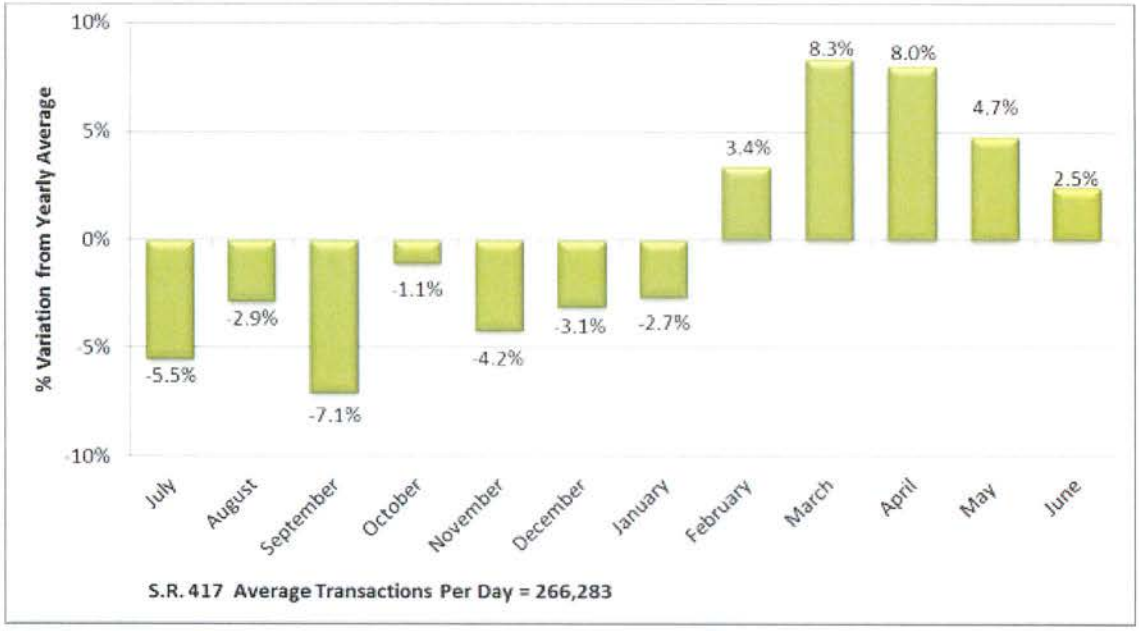
In **Table 5-2**, monthly total traffic volumes are normalized to average number of transactions per day in each month. Using average number of transactions per day allows for an easy comparison of the variations in relative travel demand over the year. The seasonal pattern of usage will change from year to year based on the number of weekdays in a given month.

Average number of transactions per day in FY 2014 on S.R. 417 ranged from a high of 288,418 in March 2014 to a low of 247,476 in September 2013. Historically, the winter months have been the months with the lowest average number of transactions per day. This data is presented in a graphical format in **Figure 5-5**. The transactions for each month appear as a percentage of the average for the fiscal year. March transactions were 8.3 percent above average and September transactions were 7.1 percent below average for the facility. The S.R. 417 transactions remained flat and below the average for the first two quarters of FY 2014 through January. February through June the transactions were above average for the facility.

Table 5-2
S.R. 417 – Monthly Seasonal Variation in Toll-Paying Traffic
FY 2014

Month	Number of Days in Month	Total Toll Paying Transactions	Average Transactions/day	Seasonal Factor
July	31	7,799,399	251,594	0.945
August	31	8,017,442	258,627	0.971
September	30	7,424,275	247,476	0.929
October	31	8,162,443	263,305	0.989
November	30	7,650,657	255,022	0.958
December	31	7,997,857	257,995	0.969
January	31	8,033,691	259,151	0.973
February	28	7,707,743	275,277	1.034
March	31	8,940,958	288,418	1.083
April	30	8,628,019	287,601	1.080
May	31	8,645,079	278,874	1.047
June	30	8,185,669	272,856	1.025
Average		***8,099,436***	***266,283***	***1.000***
Total Year	**365**	**97,193,232**		

Figure 5-5
S.R. 417 Variation in Transactions Per Day, By Month
FY 2014



5.2.3 TRANSACTIONS BY VEHICLE CLASS

The distribution of transactions at each of the S.R. 417 plaza groups by vehicle class (number of axles) for FY 2014 is presented in **Table 5-3**. Facility-wide, 98.8 percent of all transactions were made by 2-axle passenger vehicles, with little variation among the three plaza groups. The next most frequent vehicle class was the 3-axle classification, which typically includes delivery and service vehicles. These vehicles accounted for 0.9 percent of all transactions on the facility. Four-axle vehicles represented the smallest category with only 0.1 percent of facility transactions. Trucks with five or more axles represented 0.2 percent of total transactions.

Table 5-3
S.R. 417 Percent of Total Transactions by Vehicle Class
FY 2014

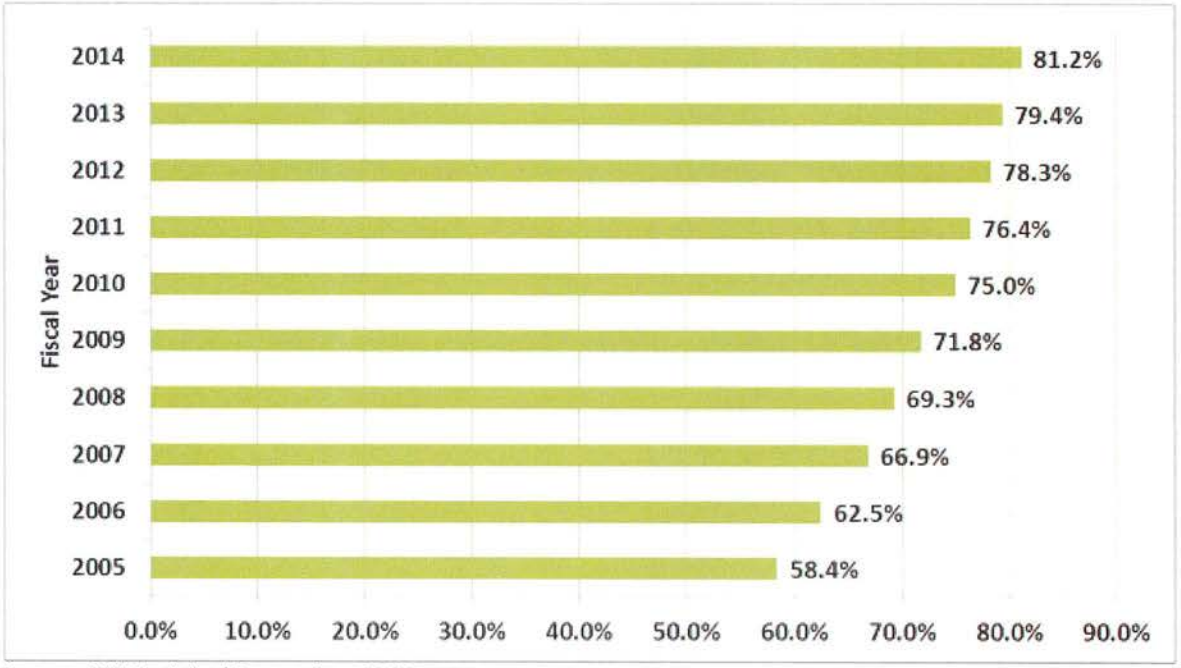
Vehicle Class	John Young Main	Boggy Creek Main	Curry Ford Main	University Main	S.R. 417 Total
2-Axle	98.7%	98.6%	98.6%	99.2%	98.8%
3-Axle	1.0%	1.2%	0.9%	0.5%	0.9%
4-Axle	0.1%	0.1%	0.1%	0.1%	0.1%
5 or More Axles	0.2%	0.1%	0.4%	0.2%	0.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Unaudited lane transaction data – January 2014

5.3 E-PASS Usage

The percent of revenues generated from electronic transactions over the past ten fiscal years on S.R. 417 is shown in **Figure 5-6**. Over this time, E-PASS revenues have steadily increased on the facility. In FY 2005, E-PASS revenues totaled 58.4 percent of total revenues on the facility. In FY 2014, E-PASS revenues reached 81.2 percent. E-PASS usage will continue to increase as customers shift from cash to E-PASS to take advantage of the lower ETC toll rate and the convenience of paying tolls electronically.

Figure 5-6
S.R. 417 Percent of Toll Revenue from Electronic Transactions
FY 2005 – FY 2014



Source: CFX Statistical Report June 2014

5.4 Forecasted Transactions and Toll Revenues

Future transportation improvements that influence the T&R forecasts for S.R. 417 include the projects listed in **Table 5-4**, assumed completed in each model horizon year. In the near term, major improvements to S.R. 417 (including the widening from S.R. 408 to Curry Ford Road and from Curry Ford Road to S.R. 528) contribute greatly to the growth in transactions and revenue. Even with improvements to competing facilities, such as Econlockhatchee Trail, growth rates remain high on S.R. 417. Growth rates remain above 2% per year through 2022 due to additional system improvements on S.R. 417 between Econlockhatchee Trail and the Seminole County Line and modifications to the interchange with Boggy Creek Rd.

Table 5-4
S.R. 417 - Key Transportation Improvements

Facility	From	To	Model Horizon Year	Jurisdiction	Improvement
S.R. 417/Greeneway	Curry Ford	S.R. 408	2018	CFX	Widen 4-6 lanes
S.R. 417/Greeneway	At Florida's Turnpike		2018	CFX	New Partial Interchange
Boggy Creek Road	Osceola Pkwy	E Boggy Creek Road	2018	Osceola County	Widen 2-4 lanes
Boggy Creek Road	Orange County Line	Narcoossee Rd.	2018	Osceola County	Widen 2-4 lanes
Econlockhatchee Trail	SR 408	S.R. 50	2018	Orange County	Widen 2-4 lanes
Apopka Vineland Rd.	Osceola County Line	SR 536	2023	Orange County	Widen 4-6 lanes
Apopka Vineland Rd.	SR 536	Interstate 4	2023	Orange County	Widen 6-8 lanes
S.R. 417/Greeneway	Aloma Ave	SR 434	2028	FTE	Widen 4-6 lanes
Landstar Boulevard	Osceola County Line	SR 417	2028	Orange County	Widen 4-6 lanes
International Drive South	Osceola County Line	S.R. 535/Vineland Road	2028	Orange County	Widen 6-8 lanes
Osceola Parkway	Interstate 4	S.R. 417/ Greenway	2028	Osceola County	Widen 6-8 lanes
Osceola Parkway (toll)	S.R. 417/Greeneway	John Young Parkway	2028	Osceola County	Widen 4-6 lanes
Osceola Parkway	John Young Parkway	U.S. 441/Orange Blossom Trail	2028	Osceola County	Widen 6-8 lanes
Boggy Creek Road/C.R. 530	Osceola Parkway	Orange County Line	2033	Osceola County	Widen 4-6 lanes
Boggy Creek Road/C.R. 530	Orange County Line	Narcoossee Road	2033	Osceola County	Widen 2-4 lanes
Tuskawilla Road	Red Bug Lake Rd	Eagle Blvd	2043	Seminole County	Widen 4-6 lanes
Tuskawilla Road	Eagle Blvd	Lake Dr	2043	Seminole County	Widen 4-6 lanes

Transaction and toll revenue projections for each toll plaza group and for all of S.R. 417 are summarized in **Table 5-5** and **Table 5-6**. The forecasts assume toll rate indexing at 3% per year, implemented every fifth year. Due to the toll rate adjustments every fifth year, there are decreases in transactions and increases in revenues.

Feeder road improvements, such as Landstar Boulevard, also positively impact the forecasted T&R growth on S.R. 417 through 2028. The growth rates for the remainder of the forecast period are moderate and steady. Continued investment and growth in the Medical City area and Lee Vista DRI area lead to positive transaction and revenue growth on S.R. 417.

Total transactions on S.R. 417 are projected to increase during the forecast period from the actual of 97.2 million in FY 2014 to 173.6 million in FY 2044. Total revenues on S.R. 417 are projected to increase during the forecast period from the actual $98.3 million in FY 2014 to $268.7 million in FY 2044. Transactions and revenues are forecasted to increase an average of 3.1 and 4.6 percent per year through FY 2020, 2.1 and 3.8 percent per year from FY 2020 to FY 2030, and 1.4 and 2.8 percent per year from FY 2030 to FY 2040, respectively.

Table 5-5
S.R. 417 Plaza Groups – Transaction Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	John Young Main		Boggy Creek Main		Curry Ford Main		University Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2000	13.4		10.1		13.6		20.8		57.9		11.7%
2001	14.5		10.8		14.8		22.2		62.3		7.6%
2002 [B]	14.5		11.0		15.7		23.7		64.9		4.2%
2003	15.7		12.3		17.9		25.4		71.3		9.9%
2004	17.1		13.5		20.4		28.6		79.6		11.6%
2005 [C]	18.9		15.2		22.9		30.2		87.2		9.5%
2006	20.8		17.3		25.7		32.4		96.2		10.3%
2007	22.3		19.1		27.5		33.5		102.4		6.4%
2008	23.6		20.3		27.6		33.0		104.5		2.1%
2009 [D]	21.5		18.4		24.9		30.0		94.8		-9.3%
2010 [D]	19.6		17.5		23.6		28.6		89.3		-5.8%
2011	20.1		18.6		23.2		29.0		90.9		1.8%
2012 [E]	20.6		18.8		23.1		28.2		90.7		-0.2%
2013 [D]	21.0		19.7		23.4		26.2		90.3		-0.4%
2014	22.6		21.9		25.2		27.5		97.2		7.6%
2015		24.8		24.5		27.4		29.2		106.0	9.1%
2016		25.9		25.3		28.5		30.4		110.2	3.9%
2017		27.0		26.1		29.6		31.7		114.3	3.8%
2018 [D]		25.9		25.6		29.4		30.8		111.6	-2.4%
2019		26.4		26.4		30.0		31.4		114.3	2.4%
2020		27.0		27.3		30.7		32.0		116.9	2.3%
2021		27.5		28.1		31.3		32.6		119.6	2.3%
2022		28.1		28.9		32.0		33.3		122.3	2.2%
2023 [D]		26.4		28.3		30.2		31.3		116.2	-5.0%
2024		27.3		30.7		31.6		32.0		121.5	4.6%
2025		28.1		33.1		32.9		32.7		126.9	4.4%
2026		29.0		35.6		34.3		33.4		132.3	4.2%
2027		29.8		38.0		35.7		34.1		137.7	4.1%
2028 [D]		29.2		37.5		34.7		32.5		133.9	-2.7%
2029		29.6		39.9		36.0		33.1		138.7	3.6%
2030		30.0		42.4		37.3		33.8		143.5	3.4%
2031		30.3		44.8		38.6		34.5		148.2	3.3%
2032		30.7		47.3		39.9		35.1		153.0	3.2%
2033 [D]		29.4		45.6		39.5		32.7		147.3	-3.8%
2034		29.5		47.2		40.7		33.2		150.6	2.3%
2035		29.6		48.7		41.8		33.7		153.9	2.2%
2036		29.8		50.2		43.0		34.3		157.2	2.2%
2037		29.9		51.7		44.1		34.8		160.5	2.1%
2038 [D]		29.5		50.1		45.1		32.6		157.2	-2.1%
2039		29.6		51.6		46.6		33.1		160.8	2.3%
2040		29.7		53.1		48.1		33.6		164.5	2.3%
2041		29.8		54.6		49.6		34.1		168.1	2.2%
2042		30.0		56.2		51.1		34.5		171.7	2.2%
2043 [D]		29.6		55.0		52.6		32.7		170.0	-1.0%
2044		29.7		56.6		54.1		33.2		173.6	2.1%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)					
2000 - 2008	7.3%	9.1%	9.2%	5.9%	7.7%	
2008 - 2014	-0.7%	1.3%	-1.5%	-3.0%	-1.2%	
2014 - 2020	3.0%	3.7%	3.3%	2.6%	3.1%	
2020 - 2030	1.1%	4.5%	2.0%	0.5%	2.1%	
2030 - 2040	-0.1%	2.3%	2.6%	-0.1%	1.4%	

Notes:

A - Actual transaction data provided by CFX from Monthly Statistical Report.

B - Effects of the events on September 11, 2011.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - Systemwide toll rate increase.

E - Widening of S.R. 417 between S.R. 408 and S.R. 528. Valencia College Lane ramps closed.

Table 5-6
S.R. 417 Plaza Groups – Toll Revenue Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	John Young Main		Boggy Creek Main		Curry Ford Main		University Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2000	$11.6		$9.9		$7.1		$9.7		$38.3		11.7%
2001	12.7		10.6		7.7		10.3		41.3		7.8%
2002 [B]	12.7		10.8		8.1		11.0		42.6		3.1%
2003	13.6		12.0		9.2		11.7		46.5		9.2%
2004	14.6		13.1		10.5		13.4		51.6		11.0%
2005 [C]	16.0		14.7		11.7		14.3		56.7		9.9%
2006	17.4		16.6		13.2		15.4		62.6		10.4%
2007	18.7		18.2		14.0		16.0		66.9		6.9%
2008	19.7		19.2		13.9		15.7		68.5		2.4%
2009 [D]	19.0		18.1		13.9		15.8		66.8		-2.5%
2010	21.0		19.9		17.7		20.4		79.0		18.3%
2011	21.6		20.6		17.3		20.6		80.1		1.4%
2012 [E]	22.1		20.8		17.3		20.3		80.5		0.5%
2013 [D]	25.3		24.3		19.8		21.8		91.2		13.3%
2014	27.2		26.9		21.3		22.9		98.3		7.8%
2015		$29.5		$29.6		$23.1		$24.2		$106.3	8.1%
2016		29.9		30.5		24.0		25.4		109.9	3.3%
2017		30.4		31.3		25.0		26.7		113.4	3.2%
2018 [D]		32.8		34.8		27.5		29.0		124.0	9.3%
2019		33.3		35.5		28.1		29.5		126.3	1.9%
2020		33.8		36.2		28.7		30.0		128.5	1.8%
2021		34.3		36.8		29.2		30.5		130.8	1.8%
2022		34.8		37.5		29.8		31.0		133.1	1.8%
2023 [D]		35.9		40.4		32.3		33.3		142.0	6.6%
2024		36.7		43.0		33.7		34.0		147.4	3.8%
2025		37.4		45.7		35.1		34.7		152.8	3.7%
2026		38.1		48.3		36.4		35.3		158.2	3.5%
2027		38.9		51.0		37.8		36.0		163.6	3.4%
2028 [D]		41.8		55.7		39.9		37.4		174.8	6.8%
2029		42.3		58.7		41.3		38.1		180.4	3.2%
2030		42.8		61.7		42.6		38.8		185.9	3.1%
2031		43.3		64.7		43.9		39.6		191.5	3.0%
2032		43.8		67.7		45.2		40.3		197.1	2.9%
2033 [D]		46.1		71.1		48.8		41.8		207.9	5.5%
2034		46.5		73.1		50.1		42.5		212.2	2.1%
2035		46.9		75.1		51.4		43.1		216.6	2.0%
2036		47.4		77.1		52.7		43.8		220.9	2.0%
2037		47.8		79.1		54.0		44.4		225.3	2.0%
2038 [D]		50.8		82.1		57.6		44.5		235.0	4.3%
2039		51.1		84.2		59.2		45.1		239.7	2.0%
2040		51.5		86.3		60.8		45.7		244.3	1.9%
2041		51.8		88.5		62.3		46.2		248.9	1.9%
2042		52.2		90.6		63.9		46.8		253.5	1.9%
2043 [D]		54.7		93.5		68.7		47.2		264.1	4.2%
2044		55.0		95.6		70.3		47.8		268.7	1.7%

Fiscal Year	Compound Annual Average Growth Rate (CAAGR)					
2000 - 2008	6.8%	8.6%	8.8%	6.2%	7.5%	
2008 - 2014	5.5%	5.8%	7.4%	6.5%	6.2%	
2014 - 2020	3.7%	5.1%	5.1%	4.6%	4.6%	
2020 - 2030	2.4%	5.5%	4.0%	2.6%	3.8%	
2030 - 2040	1.9%	3.4%	3.6%	1.6%	2.8%	

Notes:

A - Actual revenue data provided by CFX from Monthly Statistical Report.

B - Effects of the events on September 11, 2011.

C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - Systemwide toll rate increase.

E - Widening of S.R. 417 between S.R. 408 and S.R. 528. Valencia College Lane ramps closed.

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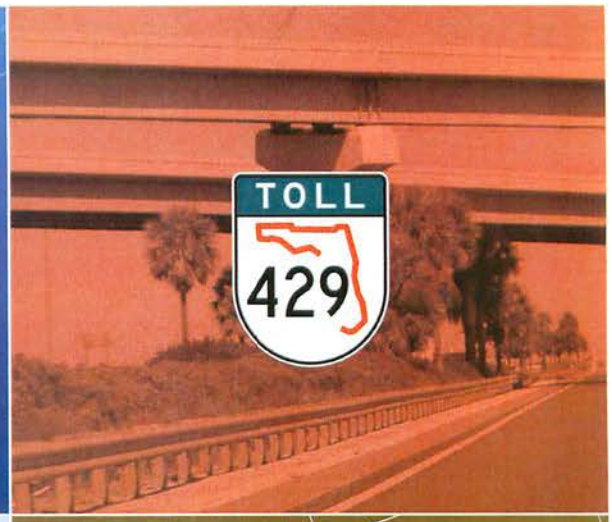
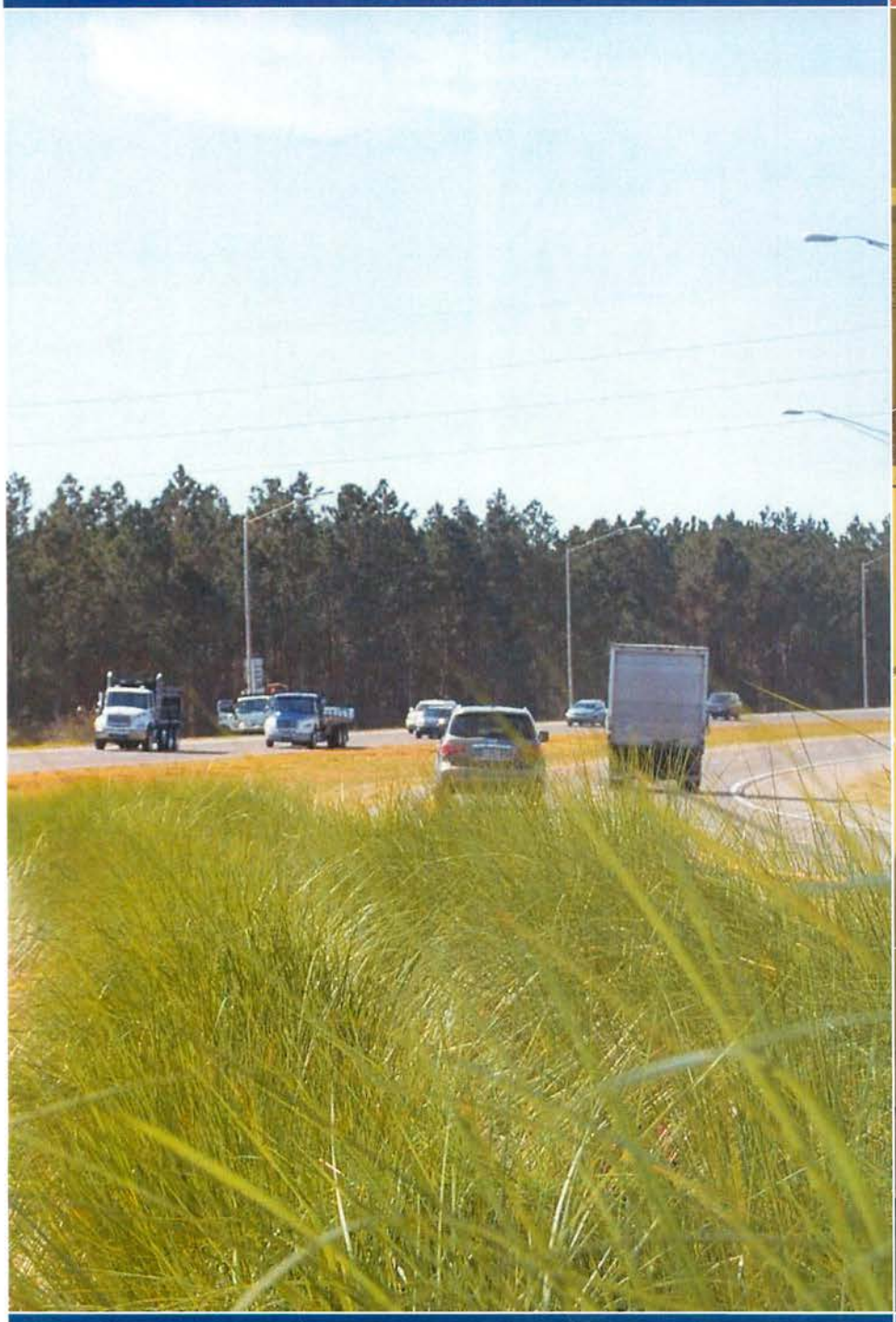
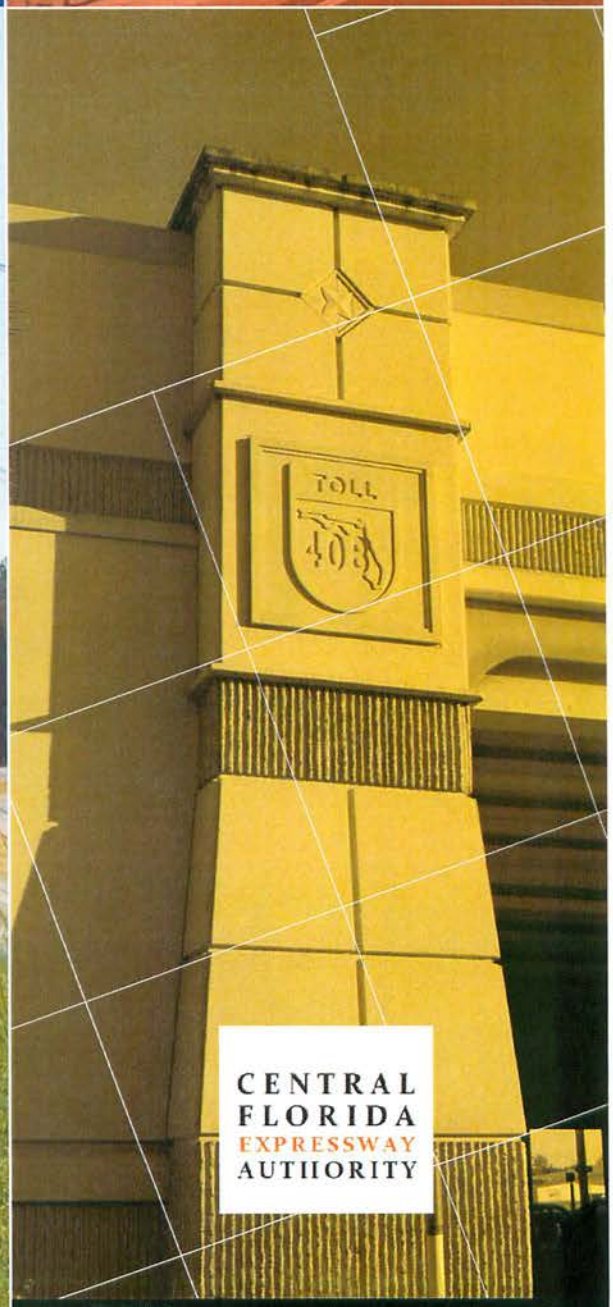
Chapter 6

S.R. 429 Daniel Webster Western Beltway







CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

S.R. 429 (DANIEL WEBSTER WESTERN BELTWAY)

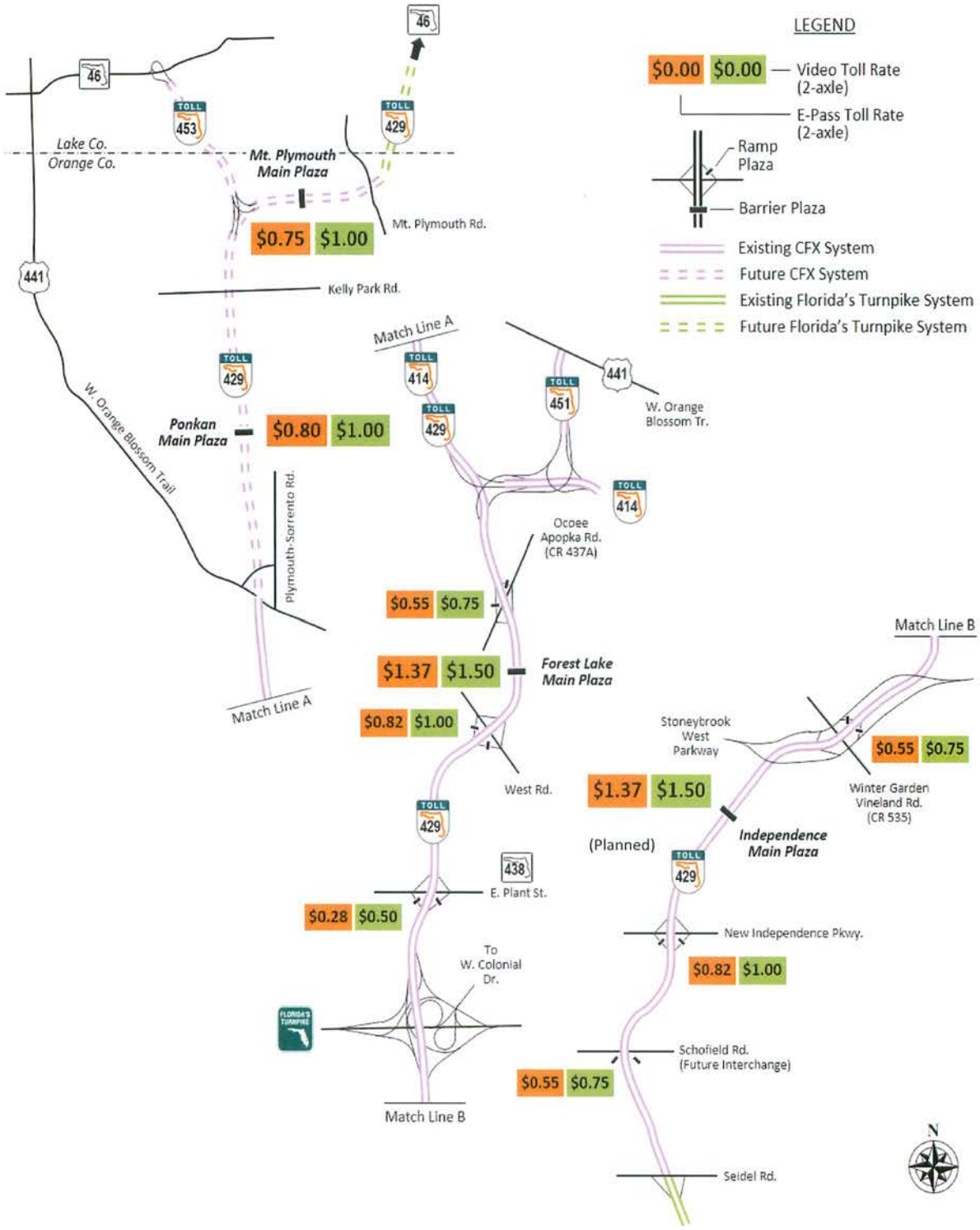
6.1 Facility Description

S.R. 429, also known as the Daniel Webster Western Beltway, is a 34-mile expressway that extends east from I-4 in Osceola County to U.S. Highway 441 in Apopka. As its name suggests, it comprises a majority of the western beltway around Orlando. The Western Beltway is owned and operated by two agencies, CFX and FTE. CFX is responsible for the 23-mile portion of S.R. 429 from Seidel Road to U.S. 441 and FTE is responsible for the 11-mile segment of S.R. 429 from I-4 north to Seidel Road. On the CFX portion there are two mainline toll plazas: the Independence Main Plaza and the Forest Lake Main Plaza. Ramp toll plazas associated with the Independence Main plaza group are located at the New Independence Parkway and the Winter Garden Vineland Road interchanges. Ramp toll plazas associated with the Forest Lake Main plaza group are located at the East Plant Street (S.R. 438), the West Road and the Ocoee-Apopka Road interchanges. A map of CFX's portion of S.R. 429 including the FY 2014 CFX toll rates for the mainline and ramp toll plazas is shown in **Figure 6-1**.

The original 10-mile segment of S.R. 429, known as Part A, opened to traffic in July of 2000 from S.R. 50 to U.S. 441, with the connection to Florida's Turnpike opening in November 2001. It was the first expressway on the CFX System to have an open road tolling style toll plaza for E-PASS customers, providing a direct route from the Turnpike to Apopka and much needed access to West Orange County. The next segment, a 4.5 mile segment of S.R. 429, Part C, opened to traffic in December 2002 and connected to Winter Garden Vineland Road. CFX's segment from Winter Garden Vineland to Seidel Road was opened to traffic in December of 2005, in conjunction with FTE's first segment from Seidel Road to U.S. 192. FTE opened its segment of S.R. 429 Part C in December of 2006.

In June of 2010, construction work began on the westward extension of S.R. 414, the Apopka Expressway. The new connection of S.R. 414 and S.R. 429 required that approximately 1 mile of current S.R. 429 roadway be removed and in May of 2012 a new interchange opened from S.R. 429 northbound to S.R. 414 eastbound and from S.R. 414 westbound to S.R. 429 southbound. The old segment of S.R. 429 north of the current S.R. 414 interchange was designated as S.R. 451. The Ocoee-Apopka Interchange was also relocated south of the S.R. 414/S.R. 429 Interchange with new tolled ramps added to and from the north. S.R. 429 serves as an alternative route to I-4 and provides a direct connection from Florida's Turnpike to Walt Disney World and Tampa for travelers from the northern and western portions of the Orlando urban area. CFX is also currently

Figure 6-1
S.R. 429 Facilities and Toll Rates Map



building a new full interchange between S.R. 429 and Schofield Road, scheduled for completion in 2015.The extension of S.R. 429, locally known as the Wekiva Parkway, will be a 27-mile expressway that extends S.R. 429 into northwest Orange, southeast Lake, and east Seminole counties. From a CFX vision in the *Year 2000 Long Range Expressway Plan*, completed in 1983, the Wekiva Parkway – then known as the Western Bypass and later as the Western Beltway, Part B, is under design with CFX starting construction of its first segments in January of 2015. This long-awaited expressway completes the Western Beltway around the Orlando metropolitan region. The project will also add two additional plaza groups to S.R. 429 along the CFX-controlled section: the Ponkan Main Plaza, about 3.2 miles north of the current S.R. 429 terminus which is scheduled to open July 1, 2017 (FY 2018); and the Mt. Plymouth Main Plaza, about 3.6 miles from the Ponkan Main Plaza which is set to open January 1, 2018 (FY 2018). The Wekiva Parkway project also includes construction of S.R. 453, discussed in Chapter 8. Detailed information about the Wekiva Parkway project is included in Chapter 1 of this report.

6.2 Historical Transactions and Toll Revenues

6.2.1 Annual Transaction and Toll Revenue Trends

S.R. 429 annual historical transactions for the Forest Lake Main and the Independence Main plaza groups from opening to FY 2014 are presented in the top half of **Table 6-1**. Annual historical toll revenues are also summarized and totaled in the bottom half of the table. In FY 2014, S. R. 429 transactions increased by 12.9 percent over FY 2013 and revenues increased by 14.0 percent.

Since its opening, S.R. 429 had only two years of negative growth in transactions, which occurred in FY 2009 and 2010 as a result of the recession and the toll rate increase in April 2009. Revenues, on the other hand, have never had a year of negative growth, except for FY 2009 where revenues had a year of no growth. That year, Forest Lake Main plaza group had negative growth of 4.2 percent, but Independence Main plaza group had positive growth of 7 percent. Much of the fluctuations in FY 2009 and FY 2010 can be attributed to the slowdown in the economy and the FY 2009 toll rate increase. The toll rate increase impacted transactions during the last three months of FY 2009 and the first nine months of FY 2010. With the toll rate increase, revenues in FY 2010 recovered with a growth of 23.7 percent, or $4.5 million for the facility, while transactions only decreased by 0.4 percent.

Table 6-1
S.R. 429 Plaza Groups – Historical Transactions and Toll Revenues
FY 2001 – FY 2014

Fiscal Year	Forest Lake Main [A]	Independence Main	TOTAL	Forest Lake Main [A]	Independence Main	TOTAL
	TRANSACTIONS (millions)			PERCENT CHANGE		
2001	3.5		3.5			
2002 [B]	5.8		5.8	65.7%		65.7%
2003 [C]	8.0	1.5	9.5	37.9%		63.8%
2004	9.5	4.3	13.8	18.8%	186.7%	45.3%
2005 [D]	10.8	5.6	16.4	13.7%	30.2%	18.8%
2006 [E]	12.8	7.4	20.2	18.5%	32.1%	23.2%
2007 [F]	14.1	10.3	24.4	10.2%	39.2%	20.8%
2008 [G]	14.2	12.4	26.6	0.7%	20.4%	9.0%
2009 [H]	12.9	12.2	25.1	-9.2%	-1.6%	-5.6%
2010	13.0	12.0	25.0	0.8%	-1.6%	-0.4%
2011	13.4	12.5	25.9	3.1%	4.2%	3.6%
2012	13.6	12.8	26.4	1.5%	2.4%	1.9%
2013 [I]	14.2	13.0	27.2	4.7%	1.6%	3.2%
2014	16.1	14.6	30.7	13.4%	12.3%	12.9%
	TOLL REVENUE (millions)			PERCENT CHANGE		
2001	$3.3		$3.3			
2002 [B]	$5.1		$5.1	54.5%		54.5%
2003 [C]	$6.8	$0.4	$7.2	33.3%		41.2%
2004	$8.1	$1.1	$9.2	19.1%	175.0%	27.8%
2005 [D]	$9.1	$1.4	$10.5	12.3%	27.3%	14.1%
2006 [E]	$10.7	$2.8	$13.5	17.6%	100.0%	28.6%
2007 [F]	$11.8	$5.6	$17.4	10.3%	100.0%	28.9%
2008 [G]	$11.9	$7.1	$19.0	0.8%	26.8%	9.2%
2009 [H]	$11.4	$7.6	$19.0	-4.2%	7.0%	0.0%
2010	$13.7	$9.8	$23.5	20.2%	28.9%	23.7%
2011	$14.1	$10.3	$24.4	2.9%	5.1%	3.8%
2012	$14.2	$10.7	$24.9	0.7%	3.9%	2.0%
2013 [I]	$17.1	$12.3	$29.4	20.6%	14.6%	18.1%
2014	$19.5	$14.0	$33.5	13.8%	14.1%	14.0%

Notes:

A - Opened to traffic on July 8, 2000. Toll collection began one week after facility opened to traffic.

B - Interchange ramps to/from existing S.R. 429 at Florida's Turnpike opened in November 2001.

C - Interchange ramps to/from C.R. 535 opened in December 2002.

D - Effects from 2004 hurricane season (4 storms with toll suspensions).

E - Independence Main plaza opened in December 2005. FTE opened section to U.S. 192.

F - FTE opened section from U.S. 192 to I-4 in December 2006.

G - First effects of national economic recession.

H - Systemwide toll rate increase in April 2009.

I - Systemwide toll rate increase in July 2012. Implementation of cash and electronic toll rate differential.

In FY 2011 and 2012, the growth in transactions and revenue at Independence Main plaza group outpaced those at Forest Lake Main plaza group, with transaction growth at 2.4 percent and revenue growth at 3.9 percent for the Independence Main plaza group. Forest Lake Main plaza group had a slower growth year with only a 1.5 percent increase in transactions and a 0.7 percent increase in revenue. This changed again in FY 2013 with Forest Lake Main transactions increasing by 4.7 percent to Independence Main's increase of 1.7 percent over FY 2012. Annual revenue growth was also higher at Forest Lake Main than at Independence Main with 20.6 percent and 14.6 percent respectively.

In FY 2014, transactions at the Forest Lake Main plaza group increased by 13.4 percent and toll revenues increased by 14.0 percent compared to FY 2013. Transactions during the same period at the Independence Main plaza group by 12.3 percent and toll revenues increased by 13.8 percent.

The facility data and annual growth are also presented visually in **Figure 6-2** and **Figure 6-3**. As shown, transactions and revenue have increased rapidly between FY 2001 and FY 2009, with ramp-up growth rates in the first three years. The economic downturn is also represented with a dip in the annual transactions and revenue, but it also shows that over the last three years the facility has recovered and continues to grow. In Figure 6-3, the total toll revenue chart has the distinct step-up pattern as expected of a toll rate increases.

Figure 6-2
S.R. 429 Historical Transactions and Annual Growth
FY 2001 – FY 2014

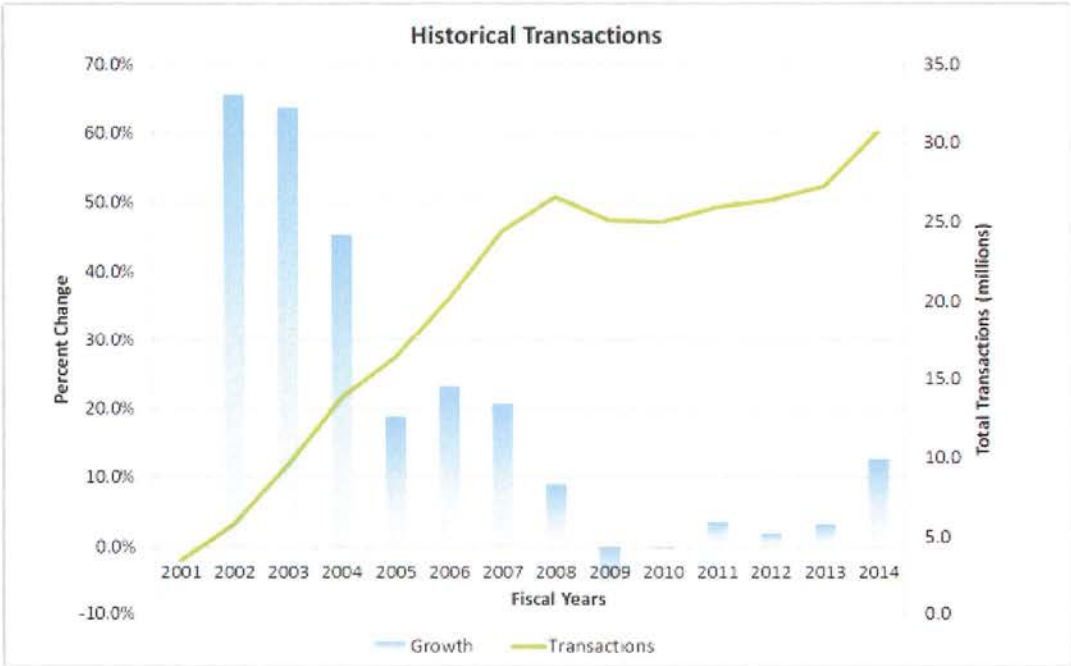
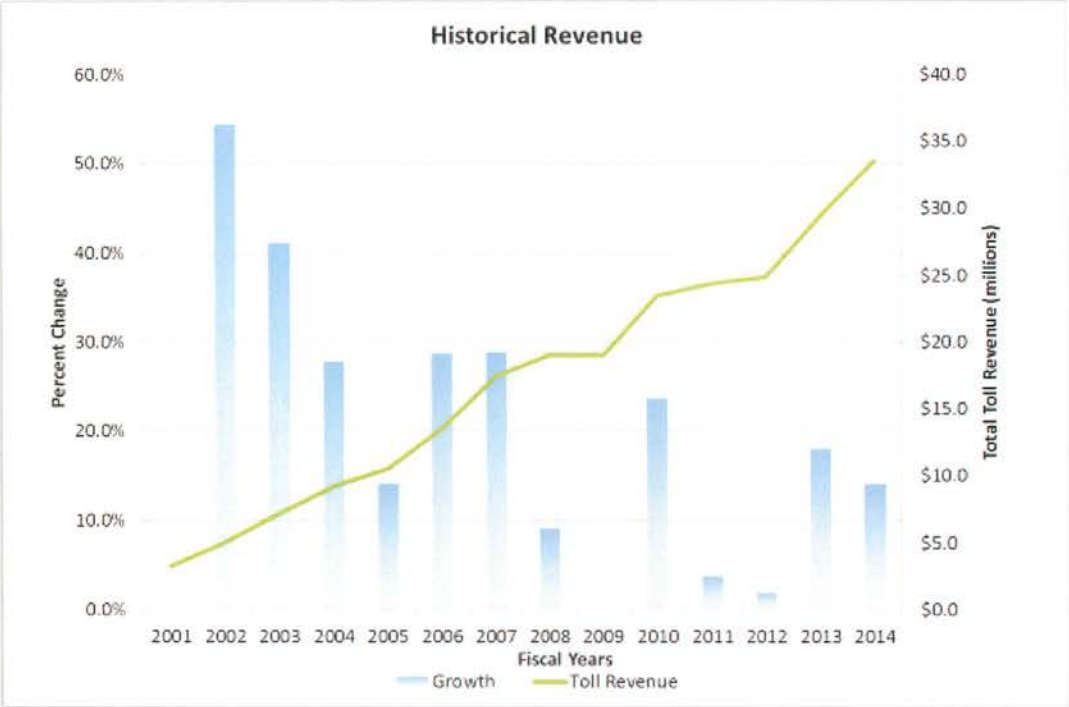


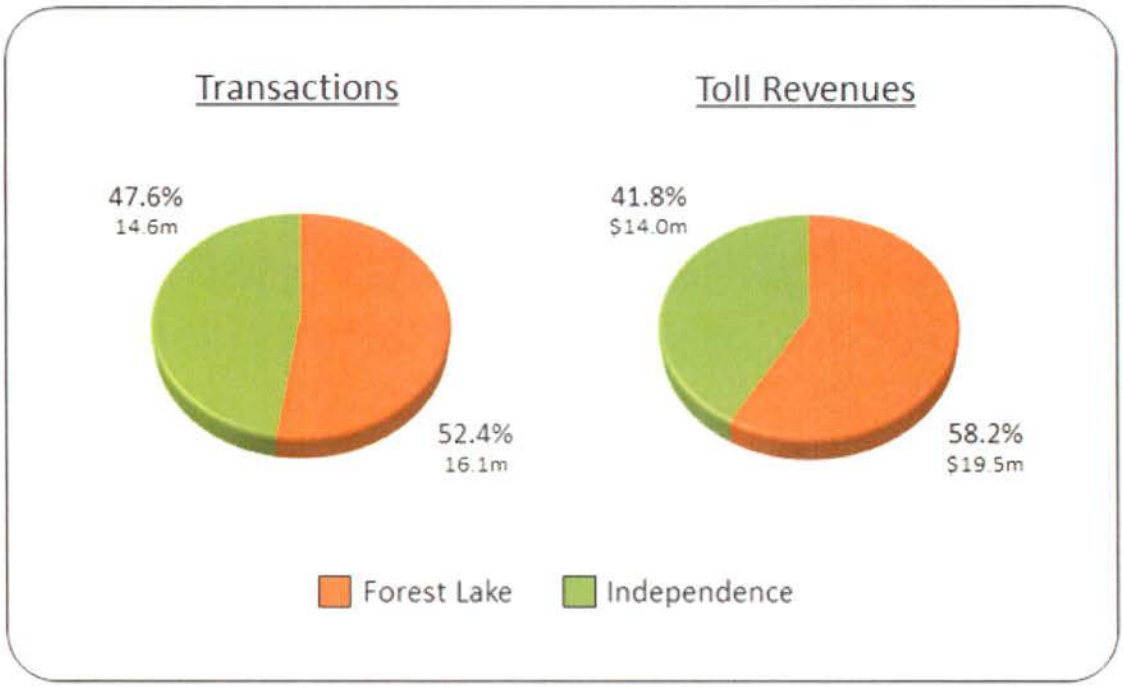
Figure 6-3
S.R. 429 Historical toll revenue and Annual Growth
FY 2001 – FY 2014



The transactions and toll revenues by plaza group and as a percentage of total S.R. 429 transactions and toll revenues for FY 2014 are presented in **Figure 6-4**. As shown, the Forest Lake Main plaza group represented 16.1 million transactions or 52.4 percent of total S.R. 429 transactions. Independence Main plaza group carried the remaining 14.6 million or 47.6 percent of total transactions on the facility.

The annual totals and percentages for toll revenues are similar to the trends reported for annual transactions. Having more ramp toll plazas, the Forest Lake Main plaza group represented $19.5 million in toll revenues or 58.2 percent of total S.R. 429 toll revenues. Independence Main plaza group carried the remaining $14.0 million or 41.8 percent of total revenue on the facility.

Figure 6-4
S.R. 429 Transactions and Toll Revenues by Plaza Group
FY 2014



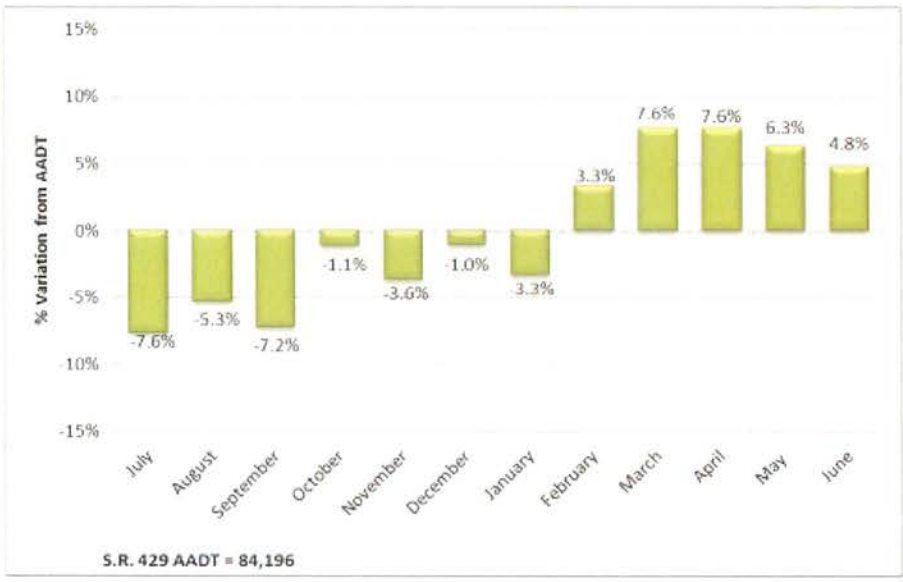
6.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

As presented in **Table 6-2**, average transactions per day in FY 2014 on S.R. 429 ranged from a high of 90,619 in March 2014 to a low of 77,792 in July of 2013. Historically, September has been the month with the lowest average transactions per day. This data is presented in a graphical format in **Figure 6-5**. Each month's average daily transactions appear as a percentage of the average for the fiscal year. Transactions in March were 7.6 percent above average and transactions in July were 7.6 percent below average for the facility. For FY 2014, the transactions were lower than average for the first half of the FY and higher than average for the second half of the FY. This is a normal pattern for seasonal variation, with the spring months being the peak season, due to an extra number of tourists in the area. The seasonal pattern of usage will change slightly from year to year based on the number of weekdays in a given month.

Table 6-2
S.R. 429 – Monthly Seasonal Variation in Toll-Paying Traffic
FY 2014

Month	Number of Days in Month	Total Toll Paying Transactions	Average Transactions/day	Seasonal Factor
July	31	2,411,539	77,792	0.924
August	31	2,470,576	79,696	0.947
September	30	2,343,805	78,127	0.928
October	31	2,581,058	83,260	0.989
November	30	2,434,660	81,155	0.964
December	31	2,583,305	83,332	0.990
January	31	2,524,428	81,433	0.967
February	28	2,435,310	86,975	1.033
March	31	2,809,187	90,619	1.076
April	30	2,717,532	90,584	1.076
May	31	2,774,050	89,485	1.063
June	30	2,646,191	88,206	1.048
Average		***2,560,970***	***84,196***	***1.000***
Total Year	**365**	**30,731,641**		

Figure 6-5
S.R. 429 Variations In Transactions Per Day, By Month
FY 2014



6.2.3 TRANSACTIONS BY VEHICLE CLASS

The distribution of transactions at each of the S.R. 429 plaza groups by vehicle class (number of axles) for FY 2014 is shown in **Table 6-3**. Overall, 98.1 percent of all transactions on S.R. 429 were made by 2-axle passenger vehicles, with little variation among the two plaza groups. The next most frequent vehicle class was the 3-axle classification, which typically includes delivery and service vehicles. These vehicles accounted for 1.2 percent of all transactions on the facility. Four-axle vehicles represented the smallest category with only 0.3 percent of facility transactions. Trucks with five or more axles represented 0.4 percent of total transactions.

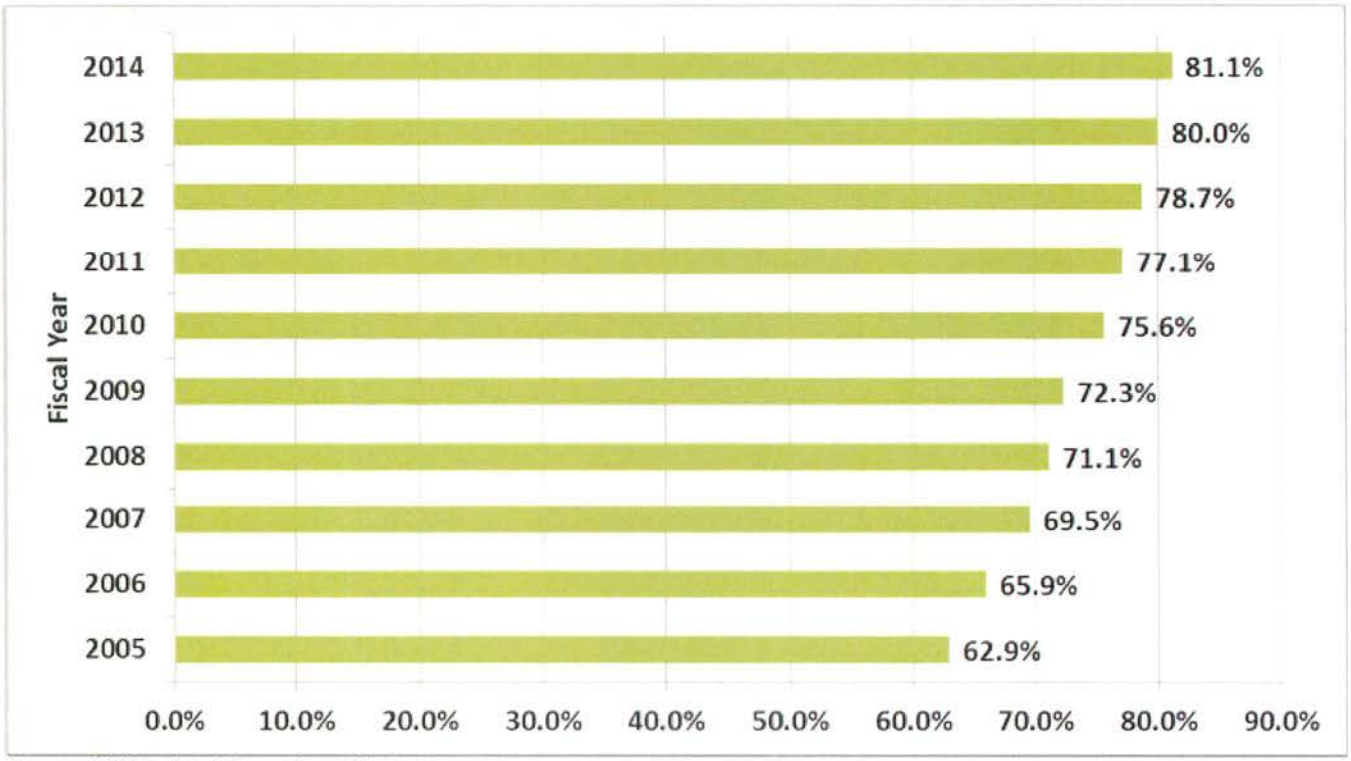
Table 6-3
S.R. 429 Percent of Total Transactions by Vehicle Class
FY 2014

Vehicle Class	Forest Lake Main	Independence Main	S.R. 429 Total
2-Axle	98.0%	98.1%	98.1%
3-Axle	1.3%	1.1%	1.2%
4-Axle	0.3%	0.4%	0.3%
5 or More Axles	0.4%	0.4%	0.4%
Total	**100.0%**	**100.0%**	**100.0%**

6.3 E-PASS Usage

The percent of revenues collected as electronic transactions over the past ten fiscal years on S.R. 429 are shown in **Figure 6-6**. Over this time, E-PASS revenues have steadily increased on the facility. In FY 2005, E-PASS revenues totaled 62.9 percent of total revenues. By the end of FY 2014, E-PASS revenues reached 81.1 percent. The usage of E-PASS will continue to increase as customers shift from cash to E-PASS to take advantage of the lower ETC rate and the convenience of paying tolls electronically.

Figure 6-6
S.R. 429 Percent of Toll Revenue from Electronic Transactions
FY 2005 – FY 2014



Source: CFX Statistical Report June 2014

6.4 Forecasted Transactions and Toll Revenues

Future transportation improvements that could influence the T&R forecasts for S.R. 429 include the projects listed in **Table 6-4**. Completion of these projects was assumed in each model horizon year.

TABLE 6-4
S.R. 429 - KEY TRANSPORTATION IMPROVEMENTS

Facility	From	To	Model Horizon Year	Jurisdiction	Improvement
S.R. 451/U.S. 441	U.S. 441	Vick Road	2018	CFX	Intersection Improvements
Avalon Road/C.R. 545	Tilden Road	S.R. 50/Colonial Drive	2023	Orange County	Widen 2-4 lanes
Avalon Road/C.R. 545	U.S. 192	Tilden Road	2023	Orange County	Widen 2-4 lanes
McCormick Road	Ocoee-Apopka Road	Ingram Road	2023	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	West Road	Binion Road	2023	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	Fullers Cross Road	West Road	2023	Orange County	Widen 4-6 lanes
Plymouth-Sorrento Road/C.R. 437	Kelly Park Road	U.S. 441/Orange Blossom Trail	2023	Orange County	Widen 2-4 lanes
Roberson Road	Windermere Road	Maguire Road	2023	Orange County	Widen 2-4 lanes
S.R. 429/Western Beltway	Schofield Road		2023	CFX	New Interchange
Tilden Road	Avalon Road	Winter Garden-Vineland Road	2023	Orange County	Widen 2-4 lanes
Warrior Road	Windermere Road West	Windermere Road East	2023	Orange County	Widen 2-4 lanes
Windemere Road	Marshall Farms Road	Warrior Road	2023	Orange County	Widen 2-4 lanes
Windermere Road/Tomyn Road	Roberson Road	Maguire Road	2023	Orange County	Widen 2-4 lanes
Binion Road	Ocoee-Apopka Road	Lust Road	2028	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	Binion Road	Bradshaw Road	2028	Orange County	Widen 2-4 lanes
Rock Springs Road/Park Avenue - Apopka	U.S. 441/Orange Blossom Trail	Welch Road	2028	Orange County	Widen 4-6 lanes
Seidel Road	Avalon Road	Lake Hancock Road	2028	Orange County	Widen 2-4 lanes
Clarcona-Ocoee Road	West Road	Adair Street	2033	Orange County	Widen 4-6 lanes
Mt. Plymouth Road	Kelly Park Road	Lake County Line	2033	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	S.R. 438/Silver Star Road	Fullers Cross Road	2033	Orange County	Widen 4-6 lanes

Several important growth areas in the Orlando metropolitan areas are along S.R. 429. Developments in Horizon West in SW Orange County slowed down during the recession, but housing construction activity has picked back up again. Roadway improvements in this area include the 4-lane widening projects to county roads including Avalon Road (C.R. 545), Roberson Road, Warrior Road, Tilden Road, and Windermere Road. Avalon Road is a competing facility, but the other facilities serve as feeder roads and positively impact T&R in the near term. A new interchange at Schofield Road will also contribute positively to the T&R forecasts. Growth in SW Orange County is reflected in the T&R forecast for the Independence Main Plaza Group and the Forest Lake Main Plaza group.

CFX System improvements including the Apopka Expressway extension and S.R. 414/S.R. 429 interchange and the Ocoee-Apopka Road Interchange reconstructions have improved access and the potential for growth in NW Orange County. The growth potential is also demonstrated by the planned improvements to the local street system. Many facilities including Ocoee-Apopka Road, Clarcona-Ocoee Road, Plymouth-Sorrento Road, Rock Springs Road and Binion Road, serve as feeder roads to S.R. 429 and positively impact T&R in the near term and long term forecasts. The construction of the Wekiva Parkway is also a positive sign for the growth potential along S.R. 429 including the opening of the Ponkan Main Plaza and Mount Plymouth Main Plaza, as reflected in the transaction and revenue forecasts.

Transaction and toll revenue forecasts for S.R. 429 are summarized in **Table 6-5** and **Table 6-6**. The forecasts assume toll rate indexing at 3 percent per year, implemented every fifth year. Due to the toll rate adjustments every fifth year, there are decreases in transactions and increases in revenues. Two plazas will be added as part of the Wekiva Parkway project.

Total revenues on S.R. 429 are projected to increase over the forecast period from the FY 2014 actual of $33.5 million to $120.3 million in FY 2044. Of this increase, a total of $0.5 Million in FY 2018 increasing to $3.7 Million in FY 2044 can be attributed to additional traffic generated by the Wekiva Parkway project. Overall revenues are forecasted to increase an average of 8.4 percent per year through FY 2020, 4.5 percent per year from FY 2020 to FY 2030, and 2.7 percent per year from FY 2030 to FY 2040.

Table 6-5
S.R. 429 Plaza Groups – Transaction Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Forest Lake Main		Independence Main		Ponkan Main		Mount Plymouth Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2001 [B]	3.5								3.5		
2002 [C]	5.8								5.8		65.7%
2003 [D]	8.0		1.5						9.5		63.8%
2004	9.5		4.3						13.8		45.3%
2005 [E]	10.8		5.6						16.4		18.8%
2006 [F]	12.8		7.4						20.2		23.2%
2007	14.1		10.3						24.4		20.8%
2008 [G]	14.2		12.4						26.6		9.0%
2009 [H]	12.9		12.2						25.1		-5.6%
2010	13.0		12.0						25.0		-0.4%
2011	13.4		12.5						25.9		3.6%
2012	13.6		12.8						26.4		1.9%
2013 [H]	14.2		13.0						27.2		3.0%
2014	16.1		14.6						30.7		12.9%
2015		17.8		16.5						34.3	11.7%
2016		19.1		16.8						36.0	4.9%
2017		20.5		17.2						37.7	4.7%
2018 [H,I]		19.4		17.8		2.3		0.8		40.2	6.7%
2019		20.1		18.5		2.7		1.8		43.1	7.2%
2020		20.9		19.3		3.1		1.9		45.2	4.9%
2021		21.6		20.0		3.5		2.1		47.3	4.7%
2022		22.3		20.8		4.0		2.3		49.4	4.4%
2023 [H]		22.0		19.5		4.0		2.5		47.9	-3.0%
2024		22.7		20.3		4.4		2.7		50.0	4.4%
2025		23.4		21.1		4.8		2.9		52.2	4.2%
2026		24.2		21.9		5.2		3.1		54.3	4.1%
2027		24.9		22.6		5.6		3.2		56.4	3.9%
2028 [H]		23.7		21.6		5.7		3.0		54.0	-4.3%
2029		24.3		22.0		6.0		3.2		55.5	2.9%
2030		25.0		22.5		6.3		3.4		57.1	2.8%
2031		25.6		22.9		6.6		3.5		58.7	2.7%
2032		26.3		23.4		6.9		3.7		60.2	2.7%
2033 [H]		25.1		23.1		6.4		3.5		58.1	-3.5%
2034		25.5		23.2		6.8		3.6		59.1	1.7%
2035		25.9		23.4		7.1		3.8		60.1	1.7%
2036		26.2		23.5		7.4		3.9		61.0	1.6%
2037		26.6		23.6		7.8		4.0		62.0	1.6%
2038 [H]		25.0		23.6		7.3		4.0		59.8	-3.5%
2039		25.4		23.8		7.5		4.1		60.8	1.7%
2040		25.9		24.0		7.7		4.2		61.8	1.6%
2041		26.3		24.1		8.0		4.4		62.8	1.6%
2042		26.8		24.3		8.2		4.5		63.8	1.6%
2043 [H]		25.8		24.4		8.1		4.6		62.9	-1.5%
2044		26.2		24.5		8.3		4.8		63.9	1.6%

Fiscal Year							
2001 - 2008	22.1%		52.6%			33.6%	
2008 - 2014	2.1%		2.8%		N/A	2.4%	
2014 - 2020	4.4%		4.7%	15.5%	N/A	6.7%	
2020 - 2030	1.8%		1.5%	7.3%	5.2%	2.4%	
2030 - 2040	0.4%		0.6%	2.1%	2.3%	0.8%	

Notes:

A - Actual transaction data provided by CFX from Monthly Statistical Reports.

B - Forest Lake Main plaza opened to traffic on July 8, 2000. Toll collection began one week after facility opened to traffic.

C - Interchange ramps to/from existing S.R. 429 at Florida's Turnpike opened in November 2001.

D - Interchange ramps to/from C.R. 535 opened in December 2002.

E - Effects from 2004 hurricane season (4 storms with toll suspensions).

F - Independence Main plaza opened in December 2005.

G - First effects of national recession.

H - Systemwide toll rate increase.

I - Ponkan Main plaza scheduled to open on July 1, 2017 and Mount Plymouth Main scheduled to open on January 1, 2018.

Table 6-6
S.R. 429 Plaza Groups – Toll Revenue Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Forest Lake Main		Independence Main		Ponkan Main		Mount Plymouth Main		TOTAL		Percent Annual Change
	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	Actual [A]	Projected	
2001 [B]	$3.3								$3.3		
2002 [C]	5.1								5.1		54.5%
2003 [D]	6.8		$0.4						7.2		41.2%
2004	8.1		1.1						9.2		27.8%
2005 [E]	9.1		1.4						10.5		14.1%
2006 [F]	10.7		2.8						13.5		28.6%
2007	11.8		5.6						17.4		28.9%
2008 [G]	11.9		7.1						19.0		9.2%
2009 [H]	11.4		7.6						19.0		0.0%
2010	13.7		9.8						23.5		23.7%
2011	14.1		10.3						24.4		3.8%
2012	14.2		10.7						24.9		2.0%
2013 [H]	17.1		12.3						29.4		18.1%
2014	19.5		14.0						33.5		13.9%
2015		$21.5		$16.3						$37.8	12.9%
2016		23.1		16.4						39.5	4.3%
2017		24.6		16.5						41.1	4.1%
2018 [H,I]		26.2		18.8		1.8		0.5		47.3	15.2%
2019		27.7		20.0		$2.2		1.2		51.0	7.8%
2020		29.1		21.2		2.6		1.4		54.2	6.3%
2021		30.6		22.3		3.0		$1.5		57.4	5.9%
2022		32.1		23.5		3.4		1.7		60.6	5.6%
2023 [H]		35.4		25.2		3.9		2.2		66.6	9.9%
2024		36.4		26.0		4.3		2.3		69.0	3.5%
2025		37.4		26.8		4.7		2.5		71.3	3.4%
2026		38.3		27.5		5.1		2.7		73.6	3.3%
2027		39.3		28.3		5.5		2.8		76.0	3.2%
2028 [H]		41.2		30.0		6.3		2.9		80.4	5.8%
2029		42.3		30.1		6.7		3.1		82.2	2.3%
2030		43.5		30.3		7.0		3.2		84.0	2.2%
2031		44.7		30.5		7.3		3.4		85.9	2.2%
2032		45.8		30.7		7.7		3.5		87.7	2.1%
2033 [H]		47.2		32.8		7.8		3.8		91.6	4.4%
2034		48.4		33.2		8.2		3.9		93.8	2.4%
2035		49.5		33.7		8.6		4.1		96.0	2.3%
2036		50.7		34.2		9.0		4.2		98.2	2.3%
2037		51.8		34.7		9.4		4.4		100.4	2.2%
2038 [H]		52.7		38.1		9.9		4.7		105.3	4.9%
2039		53.9		38.3		10.2		4.8		107.3	1.9%
2040		55.2		38.6		10.5		5.0		109.3	1.9%
2041		56.4		38.9		10.9		5.2		111.3	1.8%
2042		57.6		39.2		11.2		5.3		113.3	1.8%
2043 [H]		58.2		41.8		12.3		5.9		118.3	4.4%
2044		59.5		42.1		12.7		6.1		120.3	1.7%

Fiscal Year						
2001 - 2008	20.1%	77.8%			28.4%	
2008 - 2014	8.6%	12.0%	N/A	N/A	9.9%	
2014 - 2020	6.9%	7.1%	18.7%	N/A	8.4%	
2020 - 2030	4.1%	3.7%	10.4%	8.7%	4.5%	
2030 - 2040	2.4%	2.4%	4.2%	4.6%	2.7%	

Notes:

A - Actual revenue data provided by CFX from Monthly Statistical Reports.

B - Forest Lake Main plaza opened to traffic on July 8, 2000. Toll collection began one week after facility opened to traffic.

C - Interchange ramps to/from existing S.R. 429 at Florida's Turnpike opened in November 2001.

D - Interchange ramps to/from C.R. 535 opened in December 2002.

E - Effects from 2004 hurricane season (4 storms with toll suspensions).

F - Independence Main plaza opened in December 2005.

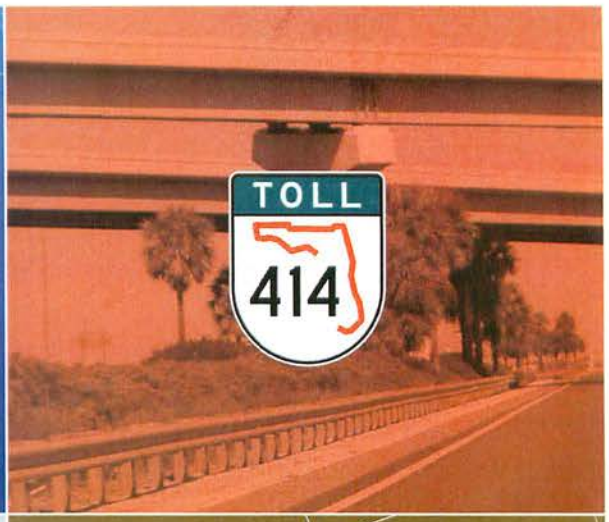
G - First effects of national recession.

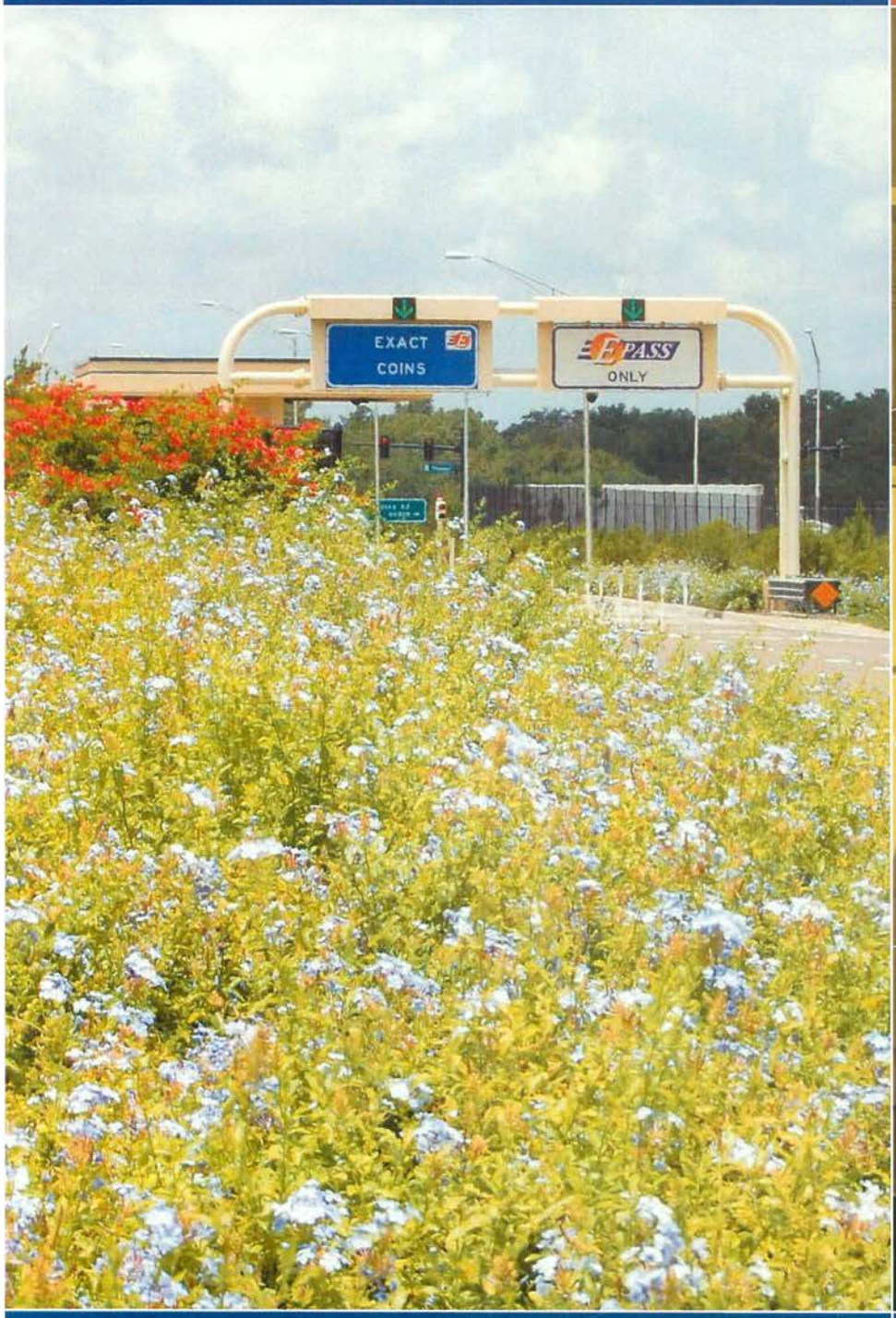
H - Systemwide toll rate increase.

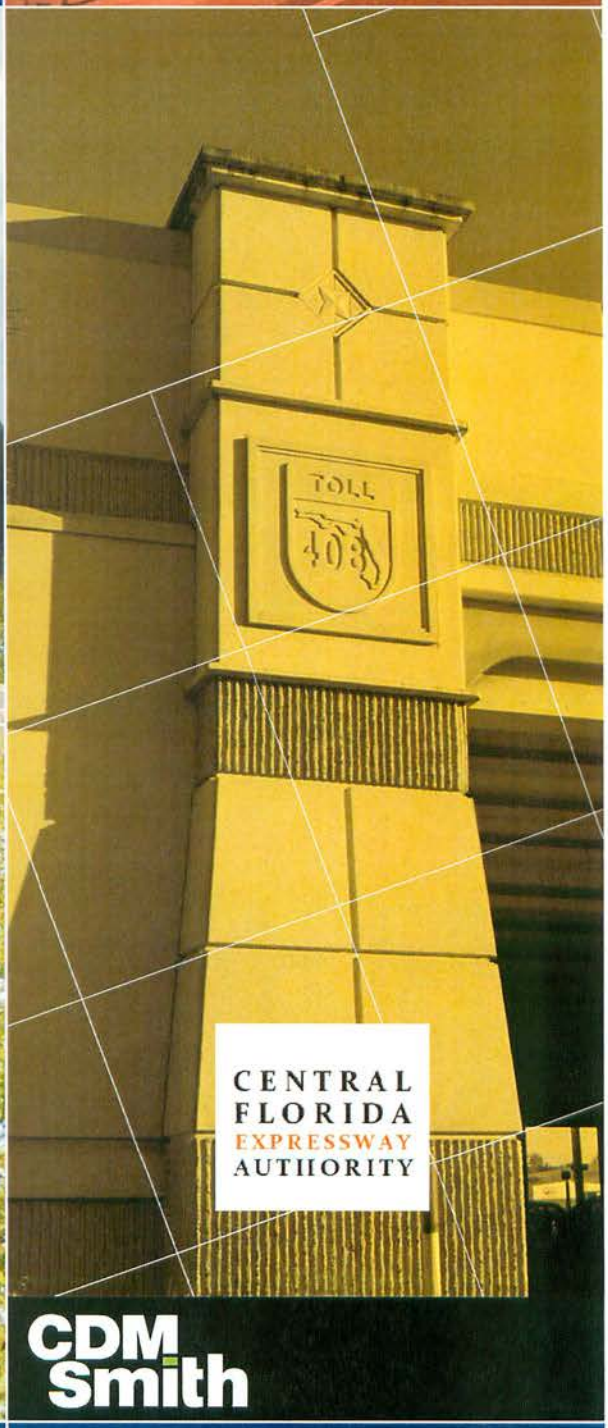
I - Ponkan Main plaza scheduled to open on July 1, 2017 and Mount Plymouth Main scheduled to open on January 1, 2018.

Chapter 7

S.R. 414
John Land
Apopka Expressway







CENTRAL
FLORIDA
EXPRESSWAY
AUTHORITY

CDM Smith

S.R. 414 (JOHN LAND APOPKA EXPRESSWAY)

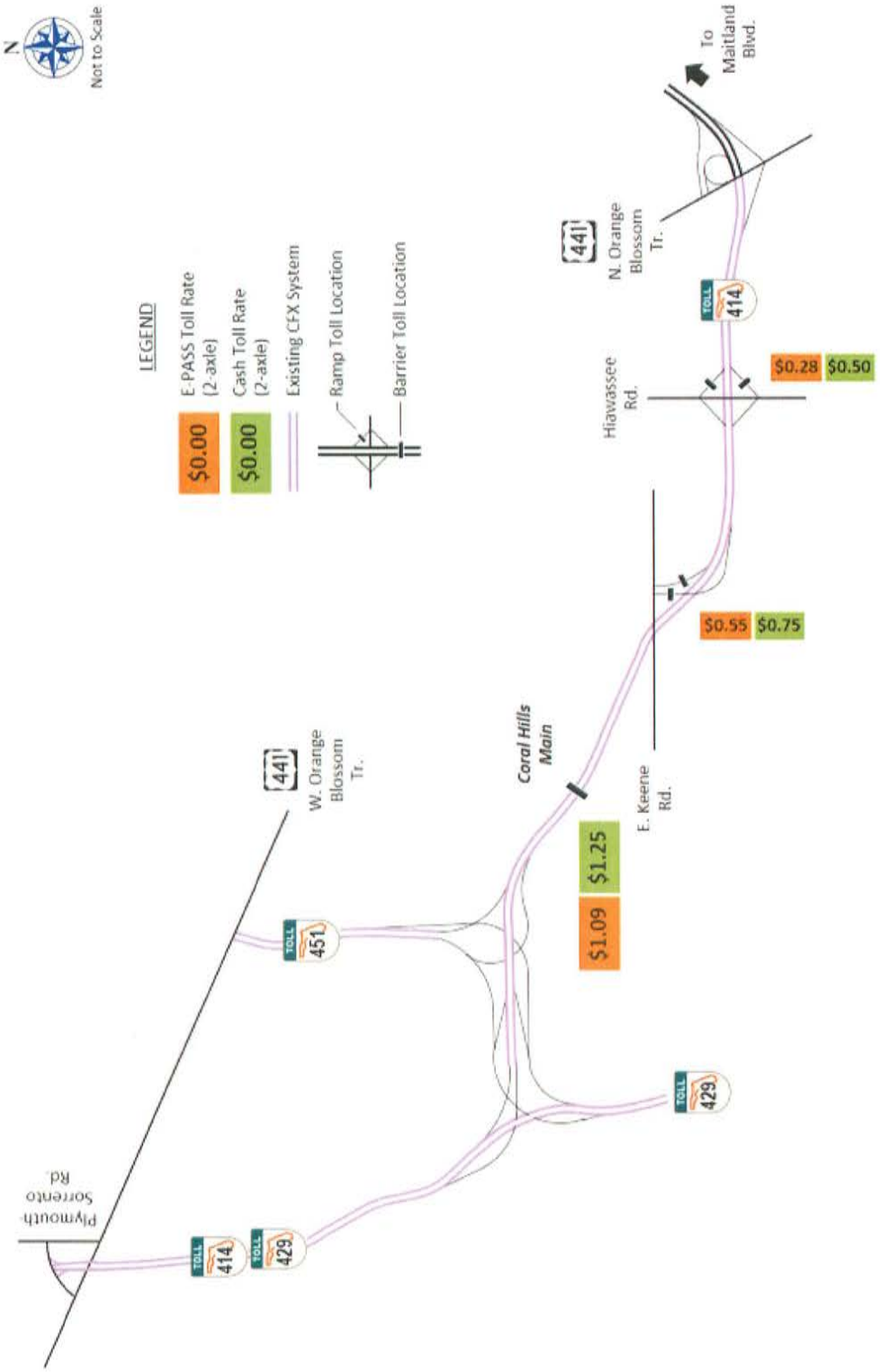
7.1 Facility Description

S.R. 414, also known as the John Land Apopka Expressway, is a 6-mile expressway that extends east from S.R. 429 to Maitland Boulevard at U.S. 441. This long-awaited expressway improves access between S.R. 429, I-4 and employment centers such as Maitland Center. While relieving congestion on U.S. 441 and many local roads in the greater Apopka area, it is the first new, major east-west corridor built in Central Florida in many years. S.R. 414 includes one mainline toll plaza, Coral Hills Main plaza. The plaza group has two interchange ramp toll plazas at the Keene Road and the Hiawassee Road interchanges. All three toll locations are included in the Coral Hills Main plaza group. Other existing interchanges include S.R. 429 and U.S. 441/Orange Blossom Trail. A map of S.R. 414 including the FY 2014 CFX toll rates for the mainline and ramp toll plazas is shown in **Figure 7-1**.

CFX began construction on the first phase of the S.R. 414 in January 2007. On February 14, 2009, because construction was ahead of schedule, CFX was able to partially open the new expressway to electronic toll collection customers from S.R. 429 to Hiawassee Road. The entire length of Phase I was opened to all traffic on May 15, 2009, earlier than originally scheduled.

In June 2010, construction began on Phase II of S.R. 414, which included a new interchange between S.R. 414 and S.R. 429 and an extension of S.R. 429/S.R. 414 northwest to U.S. 441 near Plymouth Sorrento Road. The new interchange, which was completed in October 2012, helps improve traffic flow between S.R. 429 and S.R. 414, accommodates future growth in west Orange County and provides improved access to I-4 and the attractions. The new extension of S.R. 429/S.R. 414 to U.S. 441 near Plymouth Sorrento Road opened in January 2013. The new expressway features sections with up to six travel lanes (three in each direction) and a new connector road to allow access between S.R. 429 and U.S. 441 near Plymouth Sorrento Road. In addition, the section of S.R. 429 from north of S.R. 414 to U.S. 441 was re-designated S.R. 451.

Figure 7-1
S.R. 414 Facilities and Toll Rates Map



7.2 Historical Transactions and Toll Revenues

7.2.1 ANNUAL TRANSACTION AND TOLL REVENUE TRENDS

S.R. 414 annual historical transactions for the Coral Hills Main plaza group from FY 2009 to FY 2014 are presented in the top half of **Table 7-1**. Annual historical toll revenues are also summarized and totaled in the bottom half of the table. The facility data and annual growth are also presented visually in **Figure 7-2** and **Figure 7-3**. Total transactions on S.R. 414 in FY 2014 increased by 1.2 million transactions, or 15.0 percent, over FY 2013. Toll revenues increased by $1.4 million, or 17.9 percent, in FY 2014. Traffic and revenue are still ramping-up. The facility has only been open for a few years with the first full year of operation in FY 2010. There was no toll rate increase at the Coral Hills Main plaza in FY 2009 since the road was not fully opened until after the toll increase went into effect, however tolls did increase during the FY 2013 Systemwide toll rate increase. This facility is expected to continue experiencing growth due to the recent opening of the northwest extension and S.R. 429/S.R. 414 systems interchange in FY 2013.

Table 7-1
S.R. 414 Plaza Groups – Historical Transactions and Toll Revenues
FY 2009 – FY 2014

Fiscal Year	Coral Hills Main	
	TRANSACTIONS (millions)	PERCENT CHANGE
2009 [A]	0.6	
2010	5.3	783.3%
2011	6.5	22.6%
2012	7.3	12.3%
2013 [B]	8.3	13.1%
2014	9.5	15.0%
	TOLL REVENUE (millions)	PERCENT CHANGE
2009 [A]	$0.6	
2010	$4.2	600.0%
2011	$5.1	21.4%
2012	$5.7	11.8%
2013 [B]	$7.7	35.4%
2014	$9.1	17.9%

Notes:
A - Opened to electronic traffic on February 14, 2009 and all traffic on May 15, 2009.
B - Systemwide toll rate increase in July 2013. Implementation of cash and electronic toll rate differential. Extension of S.R. 414 to U.S. 441 opens in January 2013.

Figure 7-2
S.R. 414 Historical Transactions and Annual Growth
FY 2009 – FY 2014

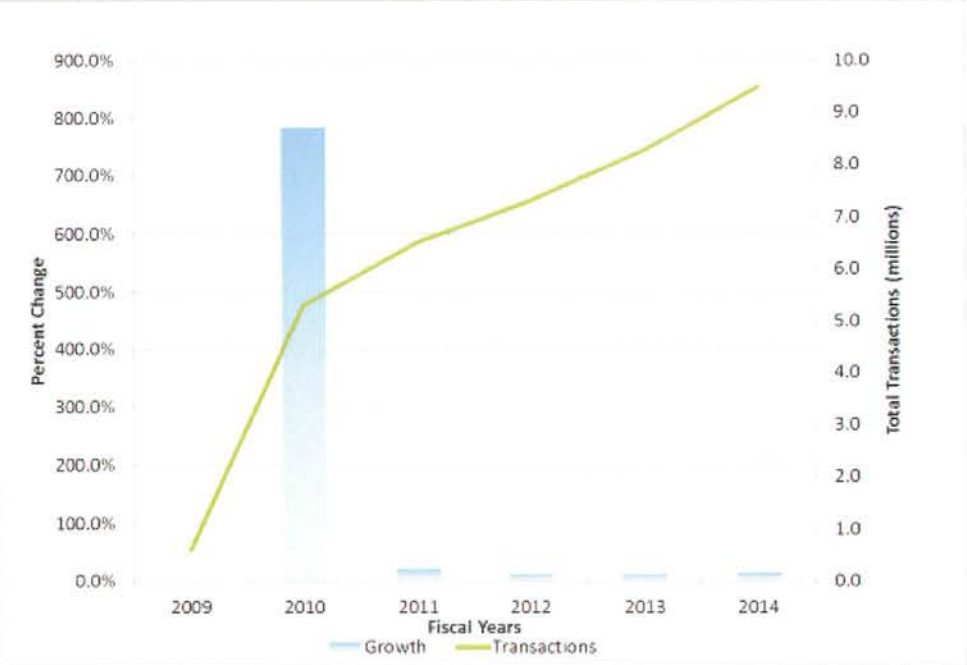
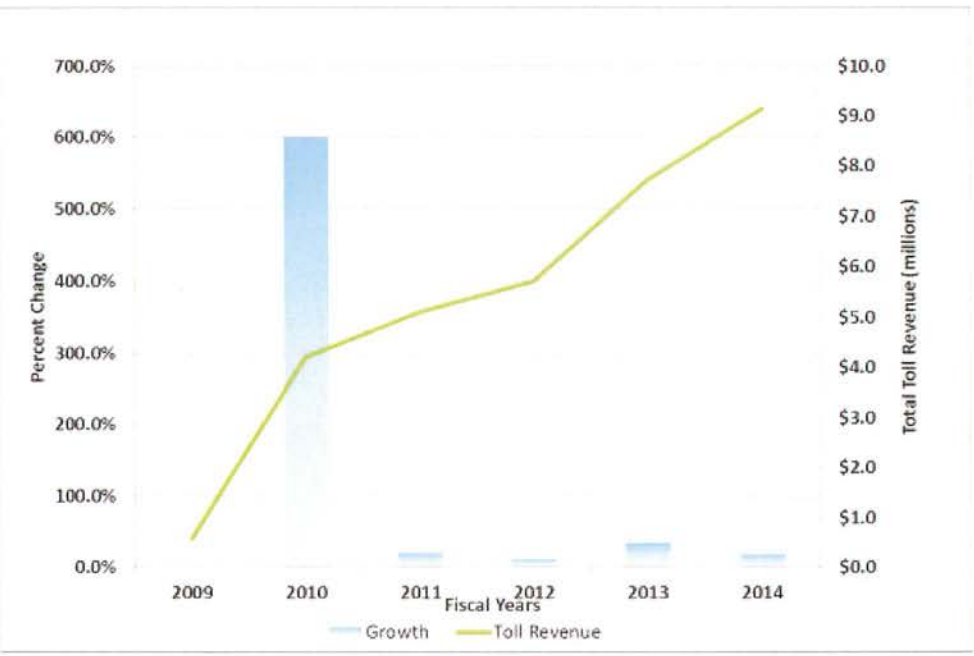


Figure 7-3
S.R. 414 Historical Toll Revenue and Annual Growth
FY 2009 – FY 2014



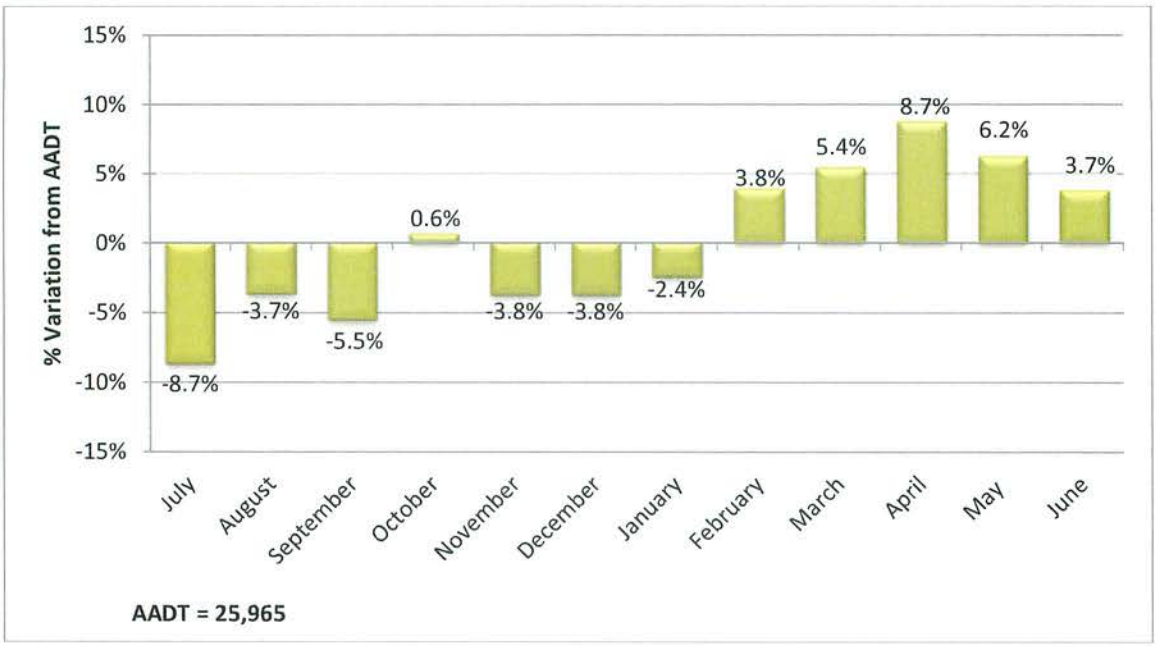
7.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

As presented in **Table 7-2**, average transactions per day in FY 2014 on S.R. 414 ranged from a high of 28,216 in April 2014 to a low of 23,713 in July of 2013. It is difficult to determine a seasonal traffic pattern on this facility since it is still experiencing significant growth as a result of the facility only being open for a few years. Also, more tourists in the area during the second half of the fiscal year could also be the reason for higher number of transactions per day during those months. This data is presented in a graphical format in **Figure 7-4**. Each month's average transactions per day appear as a percentage of the average for the fiscal year. April transactions were 8.7 percent above average and July transactions were 8.7 percent below average for the facility. These numbers reflect a combination of continued growth and seasonal variation.

Table 7-2
S.R. 414 – Monthly Seasonal Variation in Toll-Paying Traffic
FY 2014

Month	Number of Days in Month	Total Toll Paying Transactions	Average Transactions/day	Seasonal Factor
July	31	735,091	23,713	0.913
August	31	775,233	25,008	0.963
September	30	735,764	24,525	0.945
October	31	809,652	26,118	1.006
November	30	749,712	24,990	0.962
December	31	774,659	24,989	0.962
January	31	785,202	25,329	0.976
February	28	754,926	26,962	1.038
March	31	848,079	27,357	1.054
April	30	846,483	28,216	1.087
May	31	854,468	27,563	1.062
June	30	807,898	26,930	1.037
Average		***789,764***	***25,965***	***1.000***
Total Year	**365**	**9,477,167**		

Figure 7-4
S.R. 414 Variation Transactions Per Day, by Month
FY 2014



7.2.3 TRANSACTIONS BY VEHICLE CLASS

The distribution of transactions at the Coral Hills Main plaza group by vehicle class (number of axles) for FY 2014 is presented in **Table 7-3**. Overall, 98.6 percent of all transactions were made by 2-axle passenger vehicles. The next most frequent vehicle class was the 3-axle classification, which typically includes delivery and service vehicles. These vehicles accounted for 0.9 percent of all transactions. Four-axle vehicles and trucks with five or more axles represented the smallest categories with only 0.3 and 0.2 percent of transactions.

Table 7-3
S.R. 414 Percent of Total Transactions by Vehicle Class
FY 2014

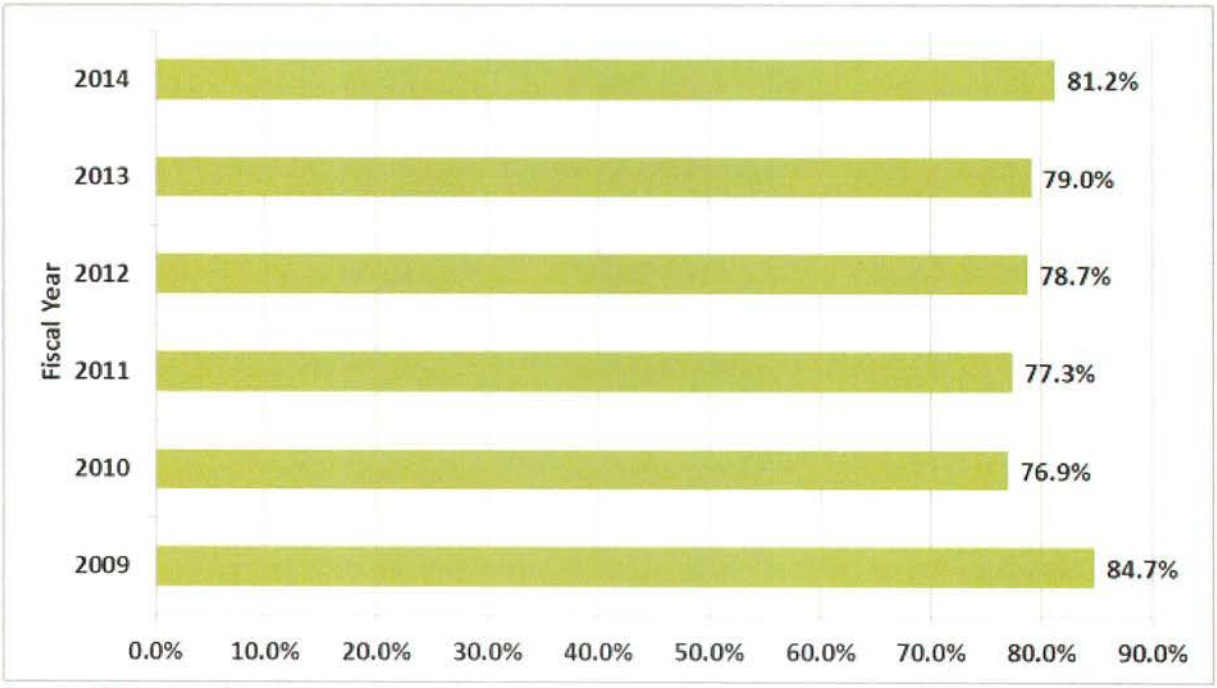
Vehicle Class	Coral Hills Main	S.R. 414 Total
2-Axle	98.6%	98.6%
3-Axle	0.9%	0.9%
4-Axle	0.3%	0.3%
5 or More Axles	0.2%	0.2%
Total	**100.0%**	**100.0%**

Source: Unaudited lane transaction data – January 2014

7.3 E-PASS Usage

The percent of revenues generated from electronic transactions over the past six fiscal years on S.R. 414 is shown in **Figure 7-5**. E-PASS revenues were the highest during FY 2009. This was an anomaly since the facility opened to electronic customers only until May 2009. By the end of FY 2014, E-PASS revenues reached 81.2 percent. The usage of E-PASS will continue to increase as customers shift from cash to E-PASS to take advantage of the toll rate differential between cash and electronic payment methods.

Figure 7-5
S.R. 414 Percent of Toll Revenue from Electronic Transactions
FY 2009 – FY 2014



Source: CFX Statistical Report June 2014

7.4 Forecasted Transactions and Toll Revenues

Future transportation improvements that could influence the T&R forecasts for S.R. 414, are similar to those that could influence S.R. 429 and include the projects listed in **Table 7-4**, assumed to be completed in each horizon year.

The intersection improvements at S.R. 451 and U.S. 441 are important to T&R estimates in the early years. This feeder road improvement, completed in 2013, extends Vick Road to U.S 441 and the interchange with S.R. 451, to provide a direct connection onto the expressway system.

Table 7-4
S.R. 414 - Key Transportation Improvements

Facility	From	To	Horizon Year	Jurisdiction	Improvement
S.R. 451/U.S. 441	U.S. 441	Vick Road	2018	CFX	Intersection Improvements
Clarcona - Ocoee Road	Clarke Road	Hiawassee Road	2023	Orange County	Widen 4-6 lanes
Clarcona Road	Clarcona-Ocoee Road	Keene Street	2023	Orange County	Widen 4-6 lanes
McCormick Road	Ocoee-Apopka Road	Ingram Road	2023	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	West Road	Binion Road	2023	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	Fullers Cross Road	West Road	2023	Orange County	Widen 4-6 lanes
Plymouth-Sorrento Road/ C.R. 437	Kelly Park Road	U.S. 441/Orange Blossom Trail	2023	Orange County	Widen 2-4 lanes
Roberson Road	Windermere Road	Maguire Road	2023	Orange County	Widen 2-4 lanes
Binion Road	Ocoee-Apopka Road	Lust Road	2028	Orange County	Widen 2-4 lanes
Ocoee-Apopka Road	Binion Road	Bradshaw Road	2028	Orange County	Widen 2-4 lanes
Rock Springs Road/Park Avenue - Apopka	U.S. 441/Orange Blossom Trail	Welch Road	2028	Orange County	Widen 4-6 lanes
Hiawassee Road	Clarcona-Ocoee Road	Apopka Boulevard	2028	Orange County	Widen 4-6 lanes
Pine Hills Road	Clarcona-Ocoee Road	Beggs Road	2028	Orange County	Widen 4-6 lanes
Clarcona-Ocoee Road	West Road	Adair Street	2033	Orange County	Widen 4-6 lanes
Ocoee-Apopka Road	S.R. 438/Silver Star Road	Fullers Cross Road	2033	Orange County	Widen 4-6 lanes
Thompson Road	Semoran Boulevard	Welch Road	2033	Orange County	Widen 2-4 lanes

Recent CFX System improvements including the Apopka Expressway extension and S.R. 414/S.R. 429 interchange re-construction have improved the potential for growth in NW Orange County and S.R. 414. The growth potential is also demonstrated by the planned improvements to the local street system. Many facilities including Hiawassee Road, Pine Hills Road, Clarcona Road, Ocoee-Apopka Road, Clarcona-Ocoee Road, Plymouth-Sorrento Road, Rock Springs Road and Binion Road, serve as feeder roads to S.R. 414 and positively impact T&R in the near term and long term forecasts. The future construction of the Wekiva Parkway is also a positive sign for the growth potential along S.R. 414.

Historical and projected transactions and toll revenues for S.R. 414 are summarized in **Table 7-5** and **Table 7-6**. The forecasts assume toll rate indexing at 3 percent per year, implemented every fifth year. Due to the toll rate adjustments every fifth year, there are noticeable decreases in transactions and increases in revenues.

Total transactions on S.R. 414 are projected to increase during the forecast period from the actual of 9.5 million in FY 2014 to 13.9 million in FY 2044. Total revenues on S.R. 414 are projected to increase during the forecast period from the actual $9.1 million in FY 2014 to $23.2 million in FY 2044. S.R. 414 is expected to be the smallest contributor to total revenues of the five existing expressways. Transactions and revenues are forecasted to increase an average of 4.6 and 4.4 percent per year through FY 2020, 0.9 and 4.1 percent per year from FY 2020 to FY 2030, and 0.1 and 2.0 percent per year from FY 2030 to FY 2040, respectively.

Table 7-5
S.R. 414 Plaza Groups – Transaction Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Coral Hills Main		Percent Annual Change
	Actual [A]	Projected	
2009 [B]	0.6		
2010	5.3		783.3%
2011	6.5		22.6%
2012	7.3		12.3%
2013 [C]	8.3		13.7%
2014	9.5		14.5%
2015		10.5	10.1%
2016		11.0	5.4%
2017		11.6	5.1%
2018 [C,D]		11.7	1.1%
2019		12.1	3.1%
2020		12.4	3.0%
2021		12.8	2.9%
2022		13.2	2.9%
2023 [C]		12.7	-3.9%
2024		13.0	2.6%
2025		13.3	2.5%
2026		13.7	2.5%
2027		14.0	2.4%
2028 [C]		13.3	-5.1%
2029		13.4	1.3%
2030		13.6	1.2%
2031		13.8	1.2%
2032		13.9	1.2%
2033 [C]		13.4	-3.8%
2034		13.6	1.4%
2035		13.8	1.4%
2036		14.0	1.4%
2037		14.2	1.4%
2038 [C]		13.3	-5.9%
2039		13.5	1.7%
2040		13.8	1.6%
2041		14.0	1.6%
2042		14.2	1.6%
2043 [C]		13.7	-3.7%
2044		13.9	1.6%

Fiscal Year		
2009 - 2014	73.7%	
2014 - 2020	4.6%	
2020 - 2030	0.9%	
2030 - 2040	0.1%	

Notes:

A - Actual transaction data provided by CFX from Monthly Statistical Reports.

B - Opened to electronic traffic on February 14, 2009 and to all traffic on May 15, 2009.

C - Systemwide toll rate increase.

D - Wekiva Parkway opening in FY 2018.

Table 7-6
S.R. 414 Plaza Groups – Toll Revenue Projections (Millions)
FY 2015 – FY 2044

Fiscal Year	Coral Hills Main		Percent Annual Change
	Actual [A]	Projected	
2009 [B]	$0.6		
2010	4.2		600.0%
2011	5.1		21.4%
2012	5.7		11.8%
2013 [C]	7.7		35.1%
2014	9.1		18.2%
2015		$10.2	11.8%
2016		10.3	1.0%
2017		10.4	1.0%
2018 [C,D]		10.8	3.8%
2019		11.3	4.6%
2020		11.8	4.4%
2021		12.3	4.2%
2022		12.8	4.0%
2023 [C]		13.7	7.5%
2024		14.3	3.9%
2025		14.8	3.8%
2026		15.3	3.6%
2027		15.9	3.5%
2028 [C]		17.0	7.0%
2029		17.3	1.8%
2030		17.6	1.8%
2031		17.9	1.7%
2032		18.2	1.7%
2033 [C]		19.0	4.6%
2034		19.3	1.3%
2035		19.5	1.2%
2036		19.8	1.2%
2037		20.0	1.2%
2038 [C]		20.9	4.4%
2039		21.1	1.3%
2040		21.4	1.3%
2041		21.7	1.3%
2042		22.0	1.3%
2043 [C]		23.0	4.5%
2044		23.2	1.2%

Fiscal Year		
2009 - 2014	72.3%	
2014 - 2020	4.4%	
2020 - 2030	4.1%	
2030 - 2040	2.0%	

Notes:

A - Actual revenue data provided by CFX from Monthly Statistical Reports.

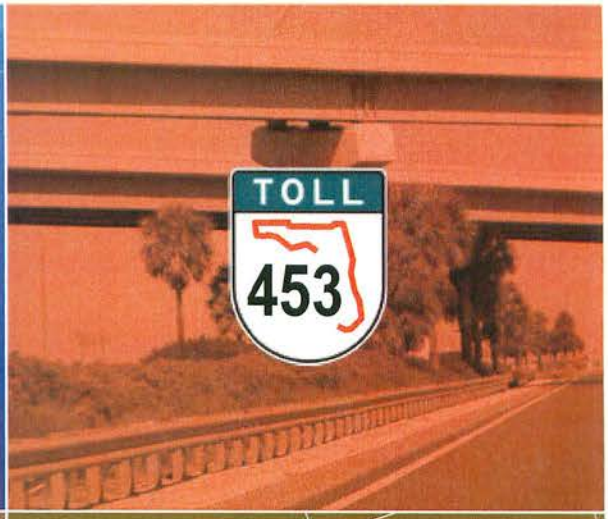
B - Opened to electronic traffic on February 14, 2009 and to all traffic on May 15, 2009.

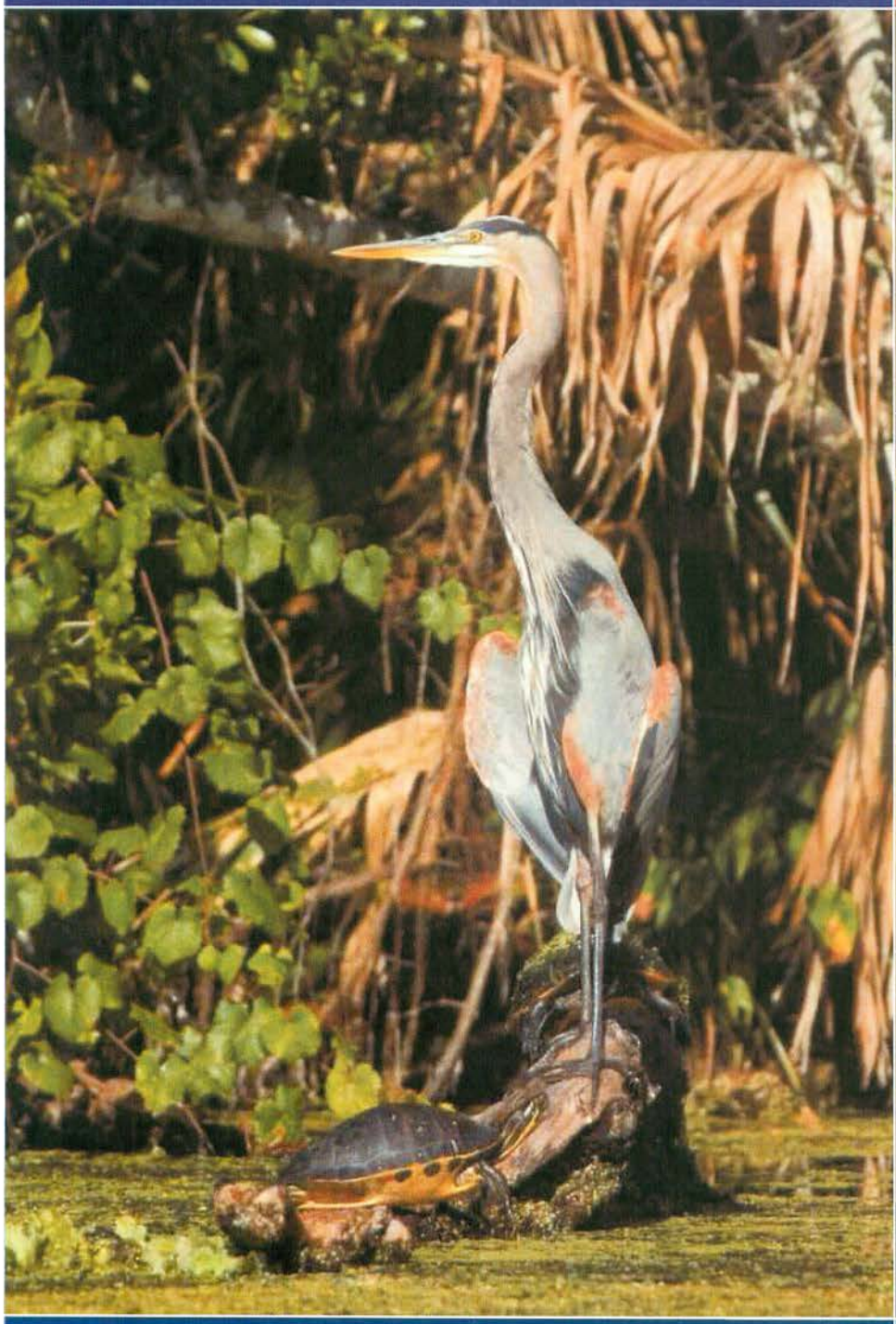
C - Systemwide toll rate increase.

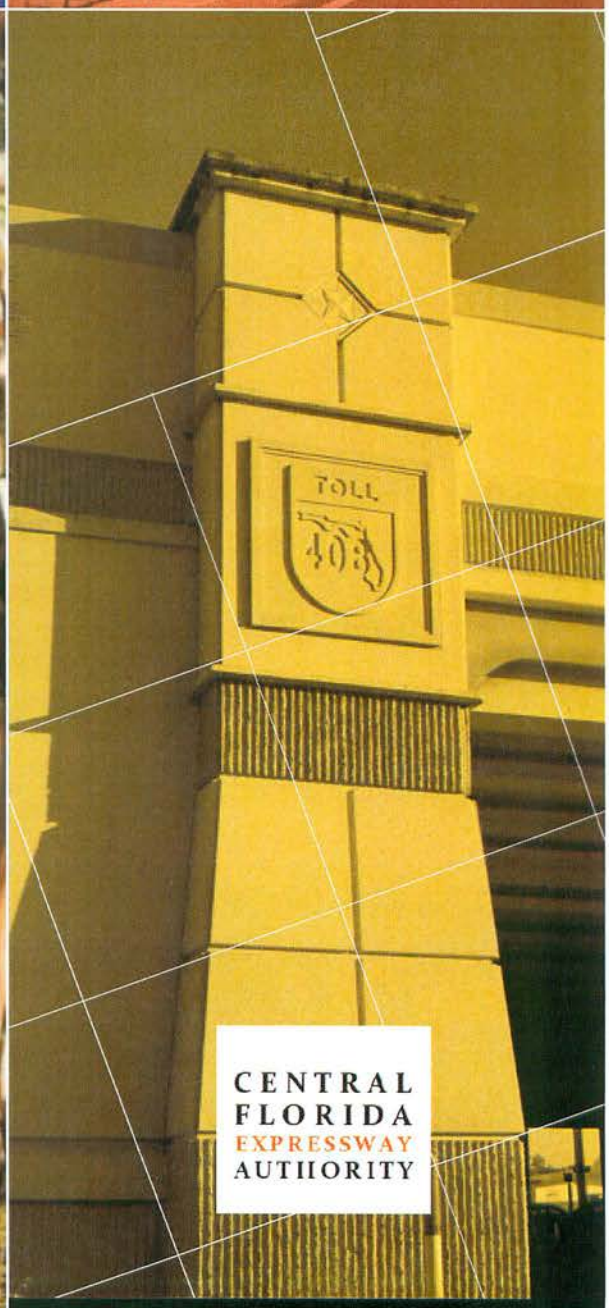
D - Wekiva Parkway opening in FY 2018.

Chapter 8

S.R. 453







CDM Smith

S.R. 453

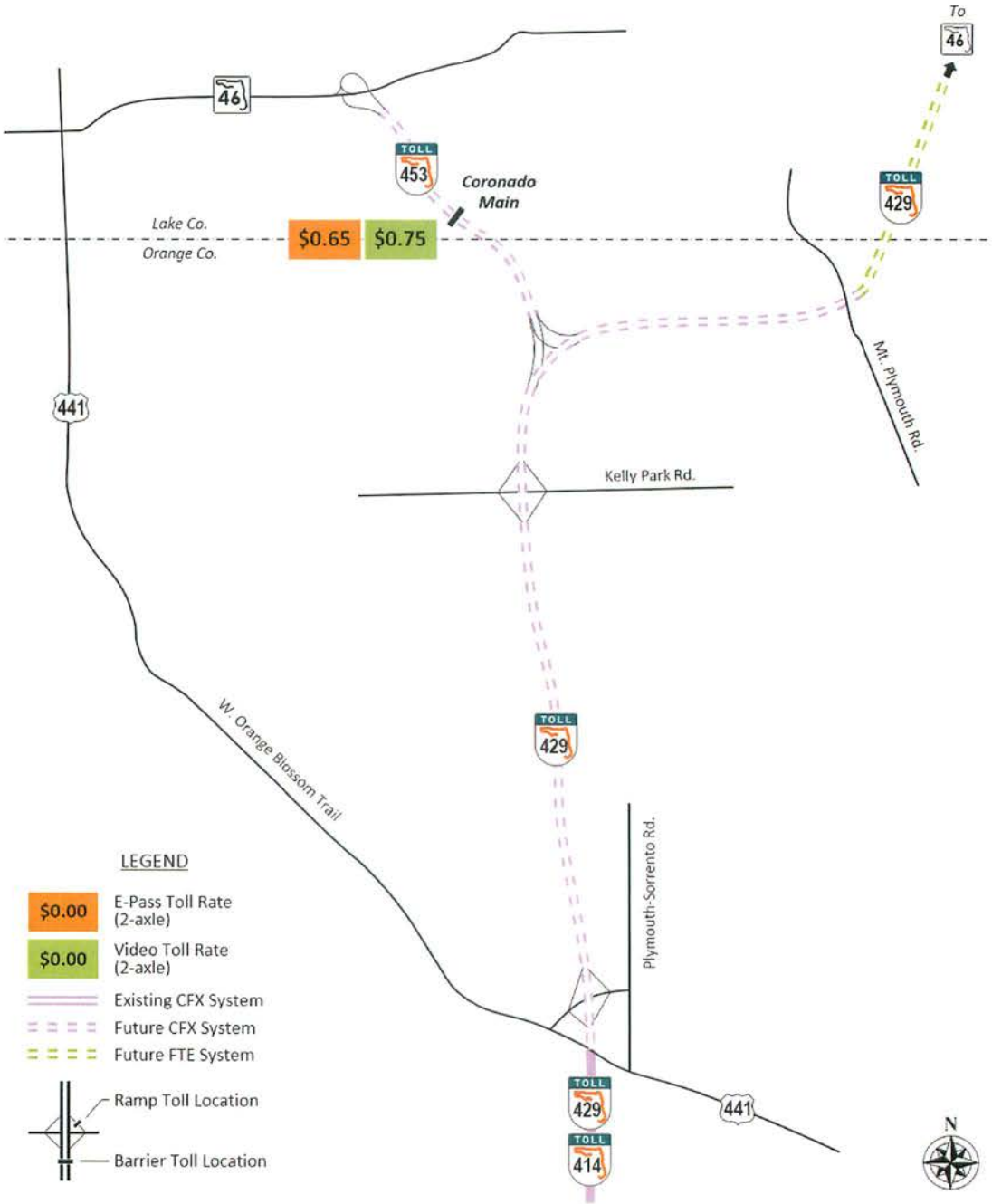
8.1 Facility Description

S.R. 453 is a portion of the project locally known as the Wekiva Parkway, which will be a new 27-mile expressway that extends S.R. 429 into northwest Orange, southeast Lake, and east Seminole counties. From a CFX vision in the *Year 2000 Long Range Expressway Plan*, completed in 1983, the Wekiva Parkway – then known as the Western Bypass and later as the Western Beltway, Part B, is under design with CFX starting construction of its first segments in January of 2015. This long-awaited expressway completes the Western Beltway around the Orlando metropolitan region. S.R. 453 will provide connection from the Wekiva Parkway, northwest to Mount Dora via S.R. 46 in Lake County. S.R. 453 has one mainline toll plaza, the Coronado Main plaza, which is scheduled to open on January 1, 2018 (FY 2018). A map of the future S.R. 453 including the proposed opening toll rates for the plaza is shown in **Figure 8-1**.

S.R. 453 will be a spur off of the planned extension of S.R. 429 which currently terminates just north of U.S. 441 near Apopka. The new 27-mile facility would ultimately connect to S.R. 417 at I-4 near Sanford, thus completing the beltway around northwest metropolitan Orlando. S.R. 453 will run about 2.2 miles from the planned Wekiva Parkway, across the Lake County Line to S.R. 46.

Toll collection on the Wekiva Parkway will be an AET collection system, i.e., customers will not be able to pay cash on the roadway as there will be no toll plazas. On the CFX portion of the Wekiva Parkway, customers will either pay with E-PASS/SunPass or by video billing. Video billing customers will pay a higher toll amount (equivalent of the cash toll elsewhere) plus an increment on each transaction designed to cover the entire cost of video billing. Future tolls include toll rate increases based on the toll rate indexing policy of each agency (CFX and FDOT). A detailed description of the entire Wekiva Parkway project is included in Chapter 1 of this report.

Figure 8-1
S.R. 453 Facilities and Toll Rates Map



8.2 Forecasted Transactions and Toll Revenues

Future transportation improvements that influence the T&R forecasts for S.R. 453, are similar to those that could influence S.R. 429, which include the projects listed in **Table 8-1**, assumed to be completed in each model horizon year.

Table 8-1
S.R. 453 - Key Transportation Improvements

Facility	From	To	Horizon Year	Jurisidction	Improvement
S.R. 451/U.S. 441	U.S. 441	Vick Road	2018	CFX	Intersection Upgrade
SR 46	U.S. 441	Round Lake Road	2018	Lake County	Widen 2 to 4 Lanes
Plymouth-Sorrento Road/C.R. 437	Kelly Park Road	U.S. 441	2023	Orange County	Widen 2 to 4 Lanes
SR 500/U.S. 441	S.R. 46	Perkins Street	2023	Lake County	Widen 4 to 6 Lanes
Binion Road	Ocoee-Apopka Road	Lust Road	2028	Orange County	Widen 2 to 4 Lanes
Rock Springs Road/Park Avenue	U.S. 441	Welch Road	2028	Orange County	Widen 4 to 6 Lanes
Mt. Plymouth Road	Kelly Park Road	Lake County Line	2033	Orange County	Widen 2 to 4 Lanes
Round Lake Road	Wolf Branch Road	SR 44	2038	Lake County	New 4 Lane Road
Round Lake Road	SR 44	SR 46	2038	Lake County	Widen 2 to 4 Lanes
SR 44	Orange Avenue	US 441	2038	Lake County	Widen 2 to 4 Lanes

A majority of the planned improvements provide a needed upgrade to the transportation system to NW Orange County. These projects improve connectivity and capacity needs that will link this part of Orange County to S.R. 429. Many facilities including Kelly Park Road, Rock Springs Road, Sadler Road and Round Lake Road, serve as feeder roads to S.R. 429 and positively impact T&R in the near term and long term forecasts. Virtually any improvement which provides additional connectivity to S.R. 429 from the south and east will inherently benefit S.R. 453 as well. The construction of the Wekiva Parkway may also delay the need to improve some of the parallel facilities such as Plymouth–Sorrento Road, Round Lake Road and Rock Springs Road.

Projected transactions and toll revenues for S.R. 453 are summarized in **Table 8-2** and **Table 8-3**. The Coronado Main plaza is scheduled to open on January 1, 2018 (FY 2018). The forecasts assume toll rate indexing at 3 percent per year, implemented every fifth year starting in FY 2023. It also assumes the current construction schedule included in Chapter 1 of this report.

The forecasts expect that total transactions start at 0.8 Million in FY 2018, and increase to 2.1 Million in FY 2020, given the partial opening and system "ramp-up." Total revenues on S.R. 453 are projected to start at $0.5 Million in FY 2018 and increase to $1.4 Million in FY 2020. During the FY 2020 through FY 2044 forecast period, S.R. 453 traffic is expected to increase an average of 6.6 percent per year from FY 2020 to FY 2030, and 3.2 percent per year from FY 2030 to FY 2040. Revenue is expected to increase an average of 9.9 percent per year from FY 2020 to FY 2030, and 5.4 percent per year from FY 2030 to FY 2040.

Table 8-2
S.R. 453 Plaza Group – Transaction Projections (Millions)
FY 2018 – FY 2044

Fiscal Year	Coronado Main		Percent Annual Change
	Actual	Projected	
2018 [A]		0.8	
2019		1.9	131.6%
2020		2.1	13.7%
2021		2.4	12.0%
2022		2.6	10.7%
2023 [B]		2.9	9.0%
2024		3.1	8.9%
2025		3.4	8.2%
2026		3.6	7.5%
2027		3.9	7.0%
2028 [B]		3.7	-5.6%
2029		3.8	4.7%
2030		4.0	4.5%
2031		4.2	4.3%
2032		4.4	4.1%
2033 [B]		4.3	-1.6%
2034		4.5	5.3%
2035		4.7	5.0%
2036		5.0	4.8%
2037		5.2	4.5%
2038 [B]		5.0	-2.7%
2039		5.3	4.5%
2040		5.5	4.3%
2041		5.7	4.1%
2042		6.0	4.0%
2043 [B]		5.5	-7.8%
2044		5.7	4.1%

Fiscal Year		
2018 -2020	62.3%	
2020 - 2030	6.6%	
2030 - 2040	3.2%	

Notes:

A - Coronado Main scheduled to open on January 1, 2018 (FY 2018).

B - Systemwide toll rate increase.

Table 8-3
S.R. 453 Plaza Group – Toll Revenue Projections (Millions)
FY 2018 – FY 2044

Fiscal Year	Coronado Main		Percent Annual Change
	Actual	Projected	
2018 [A]		$0.5	
2019		1.2	139.1%
2020		1.4	16.4%
2021		1.6	14.1%
2022		1.8	12.3%
2023 [B]		2.2	23.5%
2024		2.4	8.9%
2025		2.6	8.2%
2026		2.8	7.5%
2027		3.0	7.0%
2028 [B]		3.3	9.5%
2029		3.5	4.7%
2030		3.6	4.5%
2031		3.8	4.3%
2032		3.9	4.1%
2033 [B]		4.2	7.4%
2034		4.5	5.3%
2035		4.7	5.0%
2036		4.9	4.8%
2037		5.1	4.5%
2038 [B]		5.6	9.6%
2039		5.9	4.5%
2040		6.1	4.3%
2041		6.4	4.1%
2042		6.6	4.0%
2043 [B]		6.9	3.8%
2044		7.1	3.7%

Fiscal Year		
2018 -2020	66.8%	
2020 - 2030	9.9%	
2030 - 2040	5.4%	

Notes:

A - Coronado Main scheduled to open on January 1, 2018 (FY 2018).

B - Systemwide toll rate increase.

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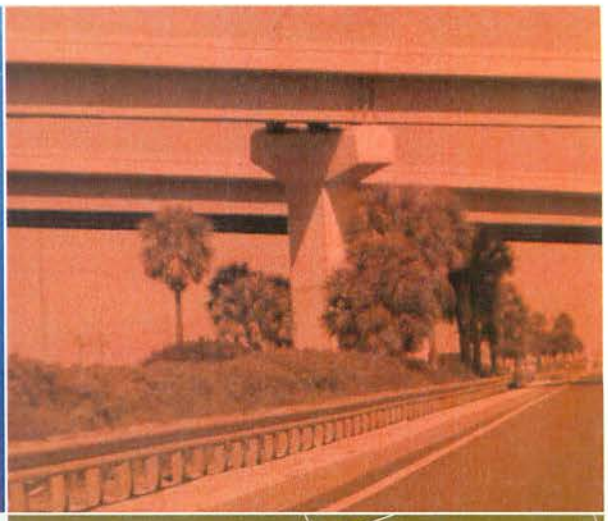
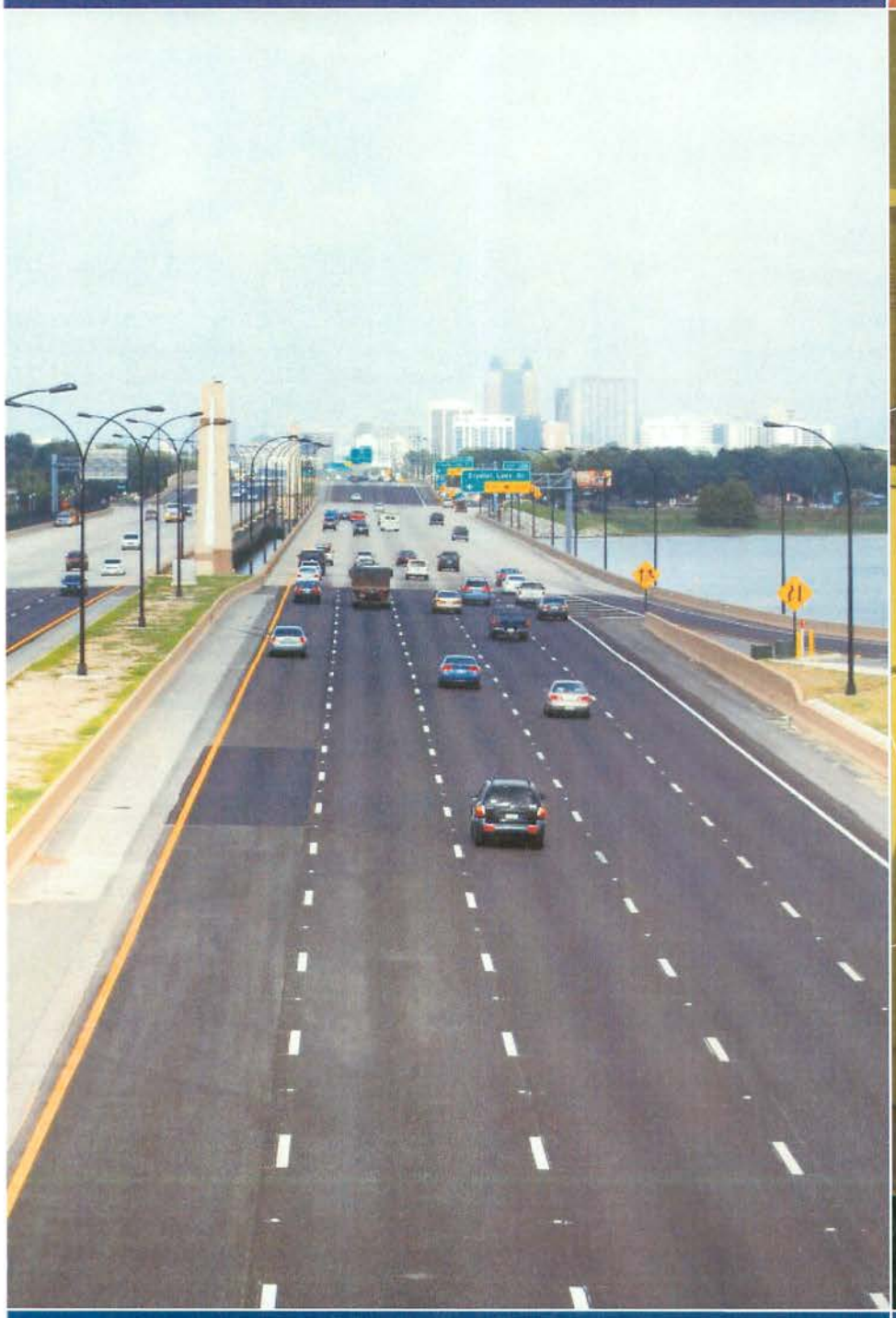
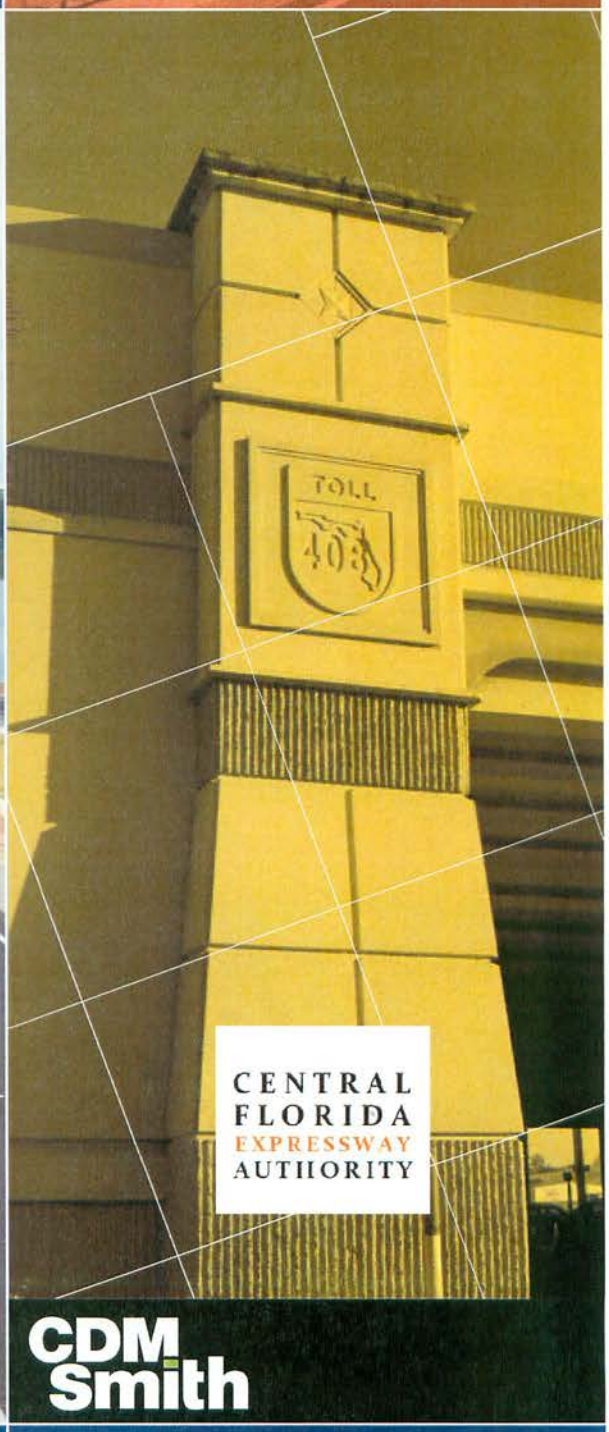
Appendix A

Traffic Profiles
CY 2014 - CY 2043



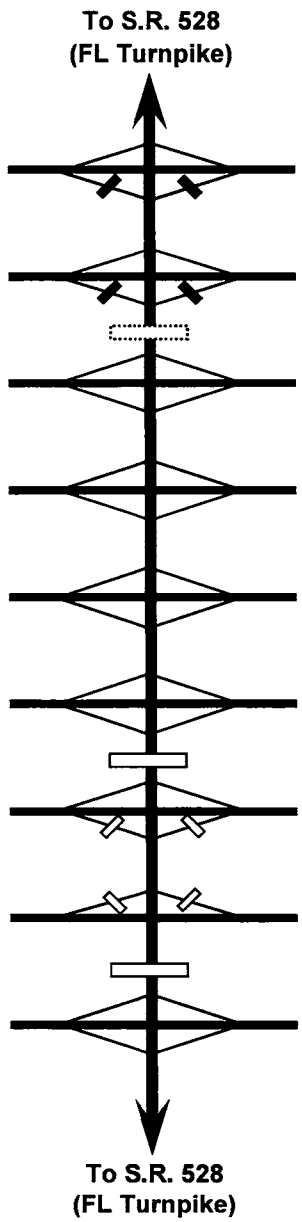




CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

S.R. 528 - Average Two-Way Daily Revenue Traffic



Cross Street	Daily Volume 2014	2023	2033	2043
	65,100	**74,500**	**83,100**	**91,200**
Boggy Creek Road	-	-	-	-
	23,100	26,600	29,700	33,100
	88,200	**101,100**	**112,800**	**124,300**
Tradeport Drive /	15,900	18,300	20,400	22,800
Conway Road	4,800	5,600	6,300	7,100
Airport Main	**77,100**	**88,400**	**98,700**	**108,600**
Semoran Boulevard	33,600	38,600	43,000	48,900
	25,700	29,600	33,000	36,800
	69,200	**79,400**	**88,700**	**96,500**
Goldenrod Road	5,400	6,300	8,100	9,100
	6,300	7,300	8,200	9,200
	70,100	**80,400**	**88,800**	**96,600**
Narcoossee Road	20,900	24,100	28,900	33,200
	6,300	7,300	8,200	9,200
	55,500	**63,600**	**68,100**	**72,600**
S.R. 417	27,800	32,000	36,700	41,900
	20,700	23,900	26,700	29,800
Beachline Main	**48,400**	**55,500**	**58,100**	**60,500**
International	8,600	9,400	10,200	10,800
Corporate Park	1,600	1,800	2,500	2,700
	41,400	**47,900**	**50,400**	**52,400**
Dallas Boulevard	4,100	4,800	4,900	5,100
	-	-	-	-
Dallas Main	**37,300**	**43,100**	**45,500**	**47,300**
S.R. 520	7,800	9,100	9,300	9,700
	-	-	-	-
	29,500	**34,000**	**36,200**	**37,600**

Notes:

Airport Mainline Plaza to be removed in 2016 and merged with Turpike Mainline Plaza west of Boggy Creek Rd.

New ramp plazas to be installed in 2016.

S.R. 408 - Average Two-Way Daily Revenue Traffic

Cross Street	Daily Volume 2014	2023	2033	2043
Turnpike Spur	45,800	51,800	54,500	57,600
	45,800	**51,800**	**54,500**	**57,600**
S.R. 50 West	-	-	-	-
	9,100	10,300	11,100	11,600
	54,900	**62,100**	**65,600**	**69,200**
Good Homes Road	7,600	8,600	9,300	9,700
	8,700	9,900	10,600	11,000
Hiawassee Main	**56,000**	**63,400**	**66,900**	**70,500**
Hiawassee Road	4,800	5,700	6,100	6,300
	9,300	10,100	10,900	11,700
	60,500	**67,800**	**71,700**	**75,900**
Kirkman Road	6,600	8,000	8,600	8,900
	10,600	11,500	12,400	13,200
	64,500	**71,300**	**75,500**	**80,200**
Pine Hills Road	-	-	-	-
	5,100	5,500	5,900	6,600
Pine Hills Main	**69,600**	**76,800**	**81,400**	**86,800**
Old Winter Garden Rd	-	-	-	-
	4,100	4,600	5,000	5,300
	73,700	**81,400**	**86,400**	**92,100**
John Young Parkway	6,400	7,500	8,100	9,200
	9,100	10,100	10,900	11,200
	76,400	**84,000**	**89,200**	**94,100**
Tampa Avenue	2,000	2,300	2,500	2,700
	-	-	-	-
	74,400	**81,700**	**86,700**	**91,400**
Orange Blossom Trail	5,200	6,000	6,500	7,400
	7,500	8,300	9,000	9,200
	76,700	**84,000**	**89,200**	**93,200**
Interstate-4	10,700	12,200	13,800	15,700
	50,500	53,800	55,700	56,400
	116,500	**125,600**	**131,100**	**133,900**
Orange Avenue/ Rosalind Avenue	11,500	12,400	13,000	13,300
	18,500	20,000	20,900	21,400

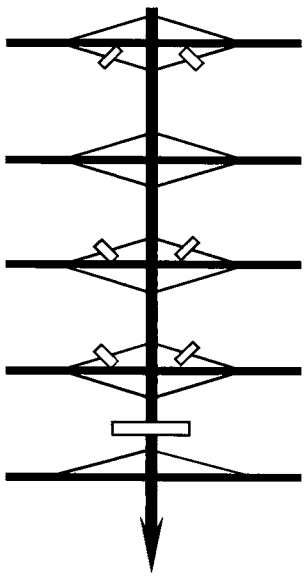
Cross Street	Daily Volume 2014	2023	2033	2043
	123,500	**133,200**	**139,000**	**142,000**
Mills Avenue	1,100	1,200	1,300	1,400
	8,700	9,400	9,900	10,200
	131,100	**141,400**	**147,600**	**150,800**
Bumby Avenue/	11,100	12,000	12,600	12,900
Crystal Lake Drive	10,800	11,700	12,300	12,600
	130,800	**141,100**	**147,300**	**150,500**
Conway Road	10,700	11,600	12,100	12,400
	-	-	-	-
	120,100	**129,500**	**135,200**	**138,100**
Yucatan Drive	9,400	10,200	10,700	11,000
	-	-	-	-
Conway Main	**110,700**	**119,300**	**124,500**	**127,100**
Semoran Boulevard	10,600	11,500	12,000	12,300
	8,800	9,500	10,000	10,300
	108,900	**117,300**	**122,500**	**125,100**
Goldenrod Road	13,400	14,600	15,300	15,700
	10,100	10,900	11,400	11,700
	105,600	**113,600**	**118,600**	**121,100**
Chickasaw Trail	9,300	10,100	10,600	10,900
	-	-	-	-
	96,300	**103,500**	**108,000**	**110,200**
S.R. 417	44,600	48,300	50,500	52,000
	18,100	19,400	20,300	20,600
	69,800	**74,600**	**77,800**	**78,800**
Dean Road	9,700	10,400	10,900	11,100
	2,600	2,800	3,000	3,100
Dean Main	**62,700**	**67,000**	**69,900**	**70,800**
Rouse Road	8,900	9,600	10,100	10,300
	1,300	1,400	1,500	1,600
	55,100	**58,800**	**61,300**	**62,100**
Alafaya Trail	25,800	27,600	28,800	29,200
	-	-	-	-
	29,300	**31,200**	**32,500**	**32,900**
S.R. 50	21,300	22,800	23,800	24,100
	-	-	-	-
	8,000	**8,400**	**8,700**	**8,800**

To Challenger Parkway

S.R. 417 - Average Two-Way Daily Revenue Traffic

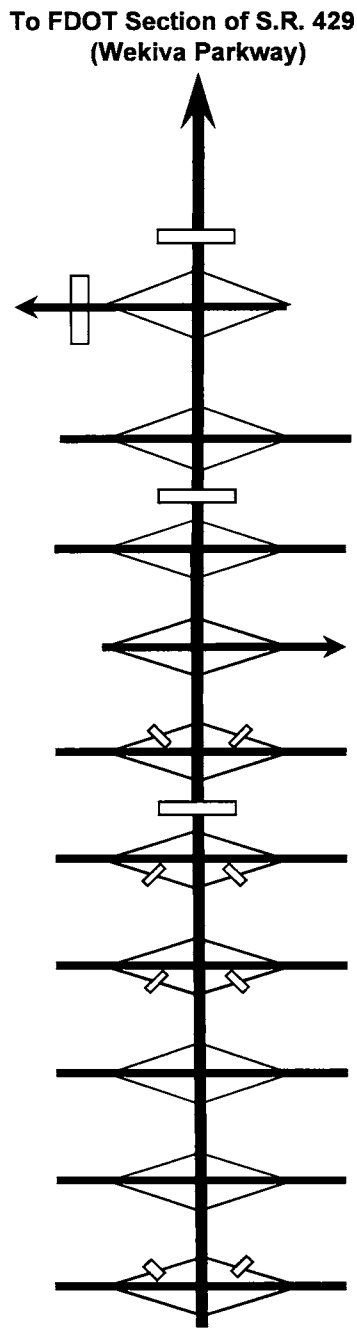
Cross Street	Daily Volume 2014	2023	2033	2043
To S.R. 417 (FL Turnpike)				
	51,500	**59,100**	**70,300**	**81,000**
University Boulevard	6,500	7,400	7,800	7,900
	20,700	23,600	24,700	24,800
University Main	**65,700**	**75,300**	**87,200**	**97,900**
S.R. 50	5,900	6,800	7,200	7,300
	6,800	8,800	10,700	12,800
	66,600	**77,300**	**90,700**	**103,400**
S.R. 408	34,400	37,200	38,800	39,800
	28,300	30,500	32,000	32,800
	60,500	**70,600**	**83,900**	**96,400**
Curry Ford Road	7,700	9,300	11,200	12,000
	10,900	11,100	16,600	25,200
Curry Ford Main	**63,700**	**72,400**	**89,300**	**109,600**
Lee Vista Boulevard	4,800	7,800	10,300	13,800
	2,900	3,500	5,800	7,800
	61,800	**68,100**	**84,800**	**103,600**
S.R. 528	34,600	36,500	40,800	45,700
	13,900	19,400	22,600	26,000
	41,100	**51,000**	**66,600**	**83,900**
Dowden Road	2,000	5,600	9,100	11,000
	1,000	4,300	9,000	10,900
	40,100	**49,700**	**66,500**	**83,800**
Moss Park Road	6,300	9,200	15,900	18,200
	1,600	3,100	6,100	7,400
	35,400	**43,600**	**56,700**	**73,000**
Narcoossee Road	9,100	11,800	19,100	24,100
	7,600	9,900	16,000	19,300
	33,900	**41,700**	**53,600**	**68,200**
Lake Nona Road	3,800	7,000	13,400	19,200
	4,600	8,000	14,000	16,900
	34,700	**42,700**	**54,200**	**65,900**
Boggy Creek Road	6,500	9,400	17,200	23,800
	11,400	15,800	25,600	30,900
Boggy Creek Main	**39,600**	**49,100**	**62,600**	**73,000**

Cross Street	Daily Volume 2014	2023	2033	2043
Landstar Boulevard	7,300	9,100	11,200	12,300
	7,200	8,000	9,000	9,100
	39,500	**48,000**	**60,400**	**69,800**
Florida's Turnpike	-	-	-	-
	-	-	-	-
	39,500	**48,000**	**60,400**	**69,800**
Orange Blossom Trail	6,600	8,300	9,300	10,400
	8,100	9,000	10,100	10,200
	41,000	**48,700**	**61,200**	**69,600**
John Young Parkway	8,600	10,600	11,800	12,900
	7,600	8,400	9,400	9,500
John Young Main	**40,000**	**46,500**	**58,800**	**66,200**
International Drive	20,000	23,500	26,200	26,400
	-	-	-	-
	20,000	**23,000**	**32,600**	**39,800**



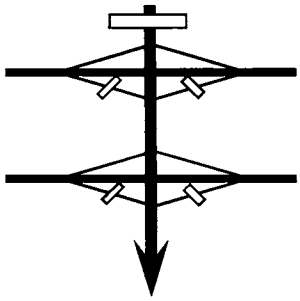
To S.R. 417
(FL Turnpike)

S.R. 429 - Average Two-Way Daily Revenue Traffic



Cross Street	Daily Volume 2014	2023	2033	2043
Mount Plymouth Main	-	**6,900**	**9,600**	**12,700**
S.R. 453	-	3,100	4,500	5,400
Coronado Main	-	**7,900**	**11,800**	**15,100**
(To S.R. 46/Mt. Dora)	-	4,800	7,300	9,700
		8,600	**12,400**	**17,000**
Kelly Park Road	-	3,200	5,300	7,400
	-	5,500	10,600	12,600
Ponkan Main	-	**10,900**	**17,700**	**22,200**
U.S. 441	-	1,600	2,200	4,000
	18,700	17,300	19,600	19,700
	18,700	**26,600**	**35,100**	**37,900**
S.R. 414	7,400	9,600	11,300	11,700
	21,700	28,100	30,100	31,000
	33,000	**45,100**	**53,900**	**57,200**
C.R. 437A	1,000	1,400	1,600	1,700
	2,700	3,700	4,300	4,500
Forest Hills Main	**34,700**	47,400	56,600	60,000
West Road	1,500	2,600	3,100	3,300
	6,100	7,900	9,100	9,400
	39,300	**52,700**	**62,600**	**66,100**
S.R. 438/	3,100	4,300	5,000	5,200
Plant Street	7,400	10,100	11,600	12,000
	43,600	**58,500**	**69,200**	**72,900**
S.R. 50	5,800	8,000	9,200	9,500
	3,800	5,200	6,000	6,200
	41,600	**55,700**	**66,000**	**69,600**
Florida's Turnpike	24,200	31,400	36,200	37,200
	21,100	27,300	31,400	32,100
	38,500	**51,600**	**61,200**	**64,500**
C.R. 535	23,900	29,000	32,400	33,200
	3,700	5,000	6,000	6,400

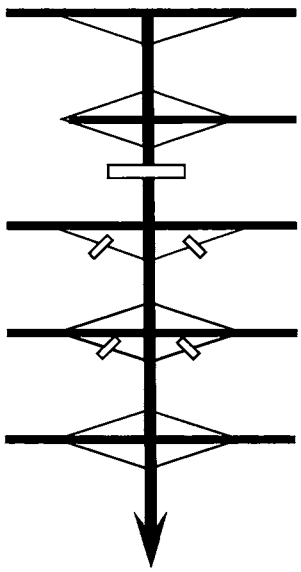
Independence Main	**18,300**	**27,600**	**34,800**	**37,700**
New Independence Parkway	3,500	6,200	8,400	9,400
	1,500	2,100	2,500	2,700
	16,300	**23,500**	**28,900**	**31,000**
Seidel Road	-	6,200	7,900	8,900
	-	2,100	2,500	2,700
	16,300	**19,400**	**23,500**	**24,800**



To S.R. 429
(FL Turnpike)

S.R. 414 - Average Two-Way Daily Revenue Traffic

Cross Street	Daily Volume 2014	2023	2033	2043
S.R. 429				
	29,100	37,700	41,400	42,700
	29,100	**37,700**	**41,400**	**42,700**
US 441 via SR 451	9,400	11,400	13,500	14,200
	3,000	4,000	4,200	4,300
Coral Hills Main	**22,700**	**30,300**	**32,100**	**32,800**
Keene Road / C.R. 435	-	-	-	-
	3,900	5,300	5,700	5,900
	26,600	**35,600**	**37,800**	**38,700**
Hiawassee Road	3,600	4,900	5,200	5,400
	4,500	6,100	6,500	6,700
	27,500	**36,800**	**39,100**	**40,000**
U.S. 441	4,300	5,800	6,200	6,400
	2,000	2,700	2,900	3,000
	25,200	**33,700**	**35,800**	**36,600**



To Maitland Blvd.

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