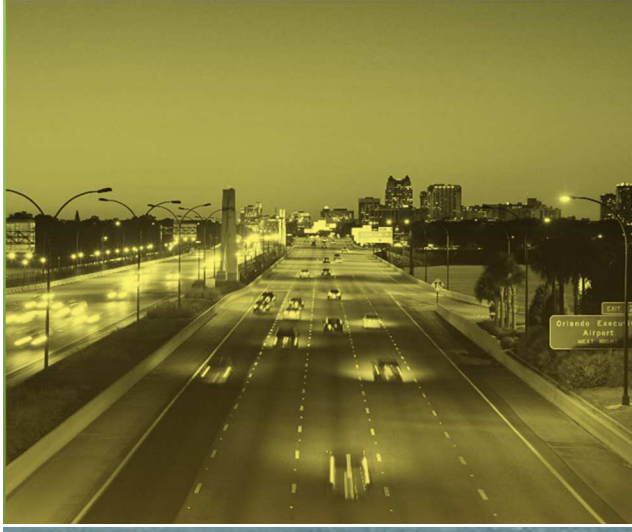
Central Florida Expressway Authority

# FY 2016
# General Traffic and Earnings Consultant's Annual Report
# Update to Report



Prepared for

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

April 2017

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April 24, 2017

Ms. Laura Kelley
Executive Director
Central Florida Expressway Authority
4974 ORL Tower Road
Orlando, FL 32807

RE: Updated Annual Transaction and Toll Revenue Forecasts for CFX System

Dear Ms. Kelley:

CDM Smith completed the **Fiscal Year (FY) 2016 General Traffic and Earnings Consultant's Annual Report** in January 2017. The Annual Report provides annual forecasts of transactions and revenues (T&R) for each of the six facilities over a thirty-year period. These forecasts were founded on the then current toll rate policies, adopted by the CFX Board of Directors on February 26, 2009. Following submission of the Annual Report, at your direction, CDM Smith analyzed several potential new toll rate policies and prepared System-wide toll revenue estimates for each alternative policy. Because of time constraints, these initial revenue estimates were developed using elasticity concepts, applied to prior travel-demand modeling work. Based on these revenue estimates and subsequent analysis by your financial advisors, the Board adopted a new toll rate policy on February 9, 2017.

The purpose of this letter is to present updated estimates of annual T&R reflecting the new toll rate policy. These estimates were prepared using updated travel-demand and revenue models. The letter contains summaries of the toll rate policies, the elasticity effects of recent toll rate adjustments on T&R, the latest model updates, and the updated T&R estimates with a comparison to the estimates published in the Annual Report.

## 1. Toll Rate Policies

In 2009, the Board approved a policy for System-wide toll rate adjustments. This toll rate policy included a one-time adjustment and a series of increases designed to keep pace with inflation. The one-time adjustment occurred on April 5, 2009 (FY 2009), in which toll rate for two-axle vehicles at all mainline plazas (except Coral Hills) and most toll ramp locations increased by $0.25. The stated purpose of the increase was to counterbalance declining System revenues resulting from the Great Recession, to stabilize the fiscal integrity of CFX and to fortify the ability to improve and expand the System in the future. This was the first toll rate adjustment since July 1, 1990. In addition to the new toll rates implemented on April 5, the Board approved future adjustments beginning on July 1, 2012 (FY 2013) and every five years thereafter. The policy stated that all tolls be adjusted to reflect the higher of either the combined annual increases to the Consumer Price Index for All Urban Consumers (CPI-U) in the South or three percent per year (applied linearly, i.e., a fifteen percent increase on the original toll every five years). The toll rate for electronic toll collection (ETC)

payments would be based upon the calculated amount rounded to the penny, and the toll rate for cash payments would be rounded up to the next quarter.

After the initial toll rate adjustment, CFX implemented the first in the series of planned toll rate adjustments on July 1, 2012. A rate differential was also implemented whereby the toll rate for customers paying with cash increased by $0.25 at most locations. The result was that ETC customers pay a lower toll than cash customers. Per the adopted toll policy, the next toll rate adjustment was planned for July 1, 2017 (beginning of FY 2018).

Since these toll rate policies were adopted, CFX facilities have continued to recover from the Great Recession. T&R on CFX facilities during FY 2015 and FY 2016 grew at faster rates than were recorded prior to the Great Recession. In addition to the economic recovery, the recent extraordinary growth can be attributed to new developments along the CFX facility corridors, low fuel prices, increased tourism and construction activities on competing roadways. These positive results prompted the Board to reconsider the toll policy.

On February 9, 2017, the Board voted unanimously to eliminate the 15 percent planned toll adjustment scheduled for July 1, 2017 (FY 2018). A new "Customer First" toll policy was adopted, which delayed the next toll rate adjustment until July 1, 2018 (FY 2019). The new policy states:

> "Beginning on July 1, 2018 and every year thereafter, all then current tolls shall be automatically adjusted to an amount higher of either the annual increase to the Consumer Price Index for All Urban Consumers (CPI-U) in the South or one and one-half percent per annum. The rate for cash collections shall be increased upward to the next quarter when the electronic rate reaches to within 10% of the cash rate at each individual plaza. The rate for electronic collection shall be based upon the actual calculated percentage rounded to the nearest cent. The rate for Pay-by-Plate collection will be set by CFX based on actual costs."

The Board cited the agency's strong financial health in recent years as the primary reason for this decision. Customers will now see a 1.5 percent annual increase in tolls, which is lower and more gradual than the original 15 percent increase every five years.

## 2. Elasticity

The effect of a change in toll rate on T&R can be analyzed with the microeconomic concept of elasticity. In this case, elasticity represents the relative change in traffic (or revenue) resulting from a relative change in toll rate with other factors held constant. In general, several factors can affect elasticity, including diversion to competing facilities, changes in the mode of travel, trip consolidation/trip chaining or adjustment in timeframe of travel (i.e., peak spreading). The effects of changes in toll rate on the various CFX facilities depend on the availability of alternative parallel highways, local driver's knowledge of alternative routes and the level of congestion in the network. 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 (the slopes of the curves). Traffic elasticity typically (and logically) has a negative algebraic sign, in that an increase in toll is expected to result in a reduction in traffic. For traffic, the higher the absolute value of elasticity the greater the decline in traffic.

The algebraic sign associated with revenue elasticity is more complex. From microeconomics, for each toll facility there is a revenue maximizing toll rate. Revenue elasticities below the revenue-maximizing toll rate have a positive algebraic sign; the revenue elasticity at the revenue maximizing rate is zero; and, revenue elasticities at toll rates above the revenue-maximizing toll rate are negative. As expected, a toll rate increase starting from a toll rate below the revenue maximizing toll rate will produce an increase in revenue; and, a toll rate increase starting at a toll rate above the revenue-maximizing toll rate will produce a decrease in revenue. An elasticity value of 1.0 would represent a case in which the response to a change in toll was unitary (perfectly elastic). That is, the relative change in revenue would be the same as the change in toll rate. For most toll facilities in the United State, the revenue elasticities are positive and lower than 1.0, or relatively inelastic, which would yield smaller percentage 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 per transaction depending on the location. Cash toll rates were increased by $0.25 at most locations, based on the policy to round up the cash rate to the next quarter. There was a shift in the method of payment from cash to E-PASS because of the rate differential. 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**. The calculated elasticities for S.R. 408 and S.R. 417 were used as a guideline in developing the updated T&R forecasts. Note that since traffic on S.R. 528, S.R. 429 and S.R. 414 increased with the toll rate increase for good reasons, the results were not used.

**Table 1**
**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 |

## 3. Model Updates

CDM Smith prepared an initial set of revenue estimates for a range of toll rate scenarios, including "no toll rate adjustments" and "annual toll rate adjustments" of 1.5 percent, 2.0 percent and 2.5 percent per year. This analysis included the three annual toll rate adjustments beginning in FY 2018 and delayed to begin in FY 2019. These results were used to inform the Board. After the new toll rate policy was adopted by the Board, CDM Smith prepared new T&R estimates with updated travel-demand model to forecast future-year traffic volumes and an updated revenue model to convert the traffic forecasts into annual transactions and toll revenue. We created a new version of

the Cube Voyager model with a new base year of 2015, disaggregation in the zone structure and network, and updated socioeconomic (SE) data. This new travel-demand model was designed to better reflect recent land development and traffic growth along the CFX System. After the travel-demand model was validated, traffic forecasts were prepared for three future years, 2018, 2033 and 2043. The revenue model was updated to reflect recent experience in all CFX plaza groups. CDM Smith then used the suite of models to prepare updated T&R estimates for the new toll rate policy – annual toll rate adjustments at 1.5 percent beginning in FY 2019.

## 3.1 SE Data Updates

CDM Smith reviewed the level of aggregation in the traffic analysis zones (TAZ) contained in the travel-demand model. TAZs along the Western Beltway (S.R. 429) and the Central Florida Greeneway (S.R. 417) were disaggregated to provide improve traffic loadings. The SE data was adjusted to coincide with the new zone structure. We created a 2015 base year with recent population, household and employment conditions.

The patterns of growth in future-year SE data was taken from the latest model produced by the Florida Department of Transportation District 5. Known as the Central Florida Regional Planning Model (CFRPM) v6.1, this model contained the most recent thoughts on future land uses developed originally by local governments and resolved through MetroPlan Orlando to be consistent with Bureau of Economic and Business Research (BEBR) forecasts.

## 3.2 Network Updates

CDM Smith adjusted the model networks in the base and future years to match the disaggregated zone system. We reviewed the network coding of those portions of the CFX System with recent improvements. This included the Beachline Expressway (the closure of Beachline Airport Main plaza and associated ramp plaza improvements), the S.R. 417/Turnpike system interchange, and the new interchanges on S.R. 429 and S.R. 414. CDM Smith reviewed the base and future-year networks to ensure correct coding of area and facility types, which influence capacity and speed. The future-year transportation networks were reviewed to ensure that planned improvements were coded properly in the appropriate year in accordance with the recently adopted CFX 2040 Master Plan and the MetroPlan Orlando 2040 LRTP Cost Feasible Network. Traffic volumes at the external stations were reviewed to ensure reasonable growth rates.

Traffic counts from 2015 were obtained from CFX, FDOT and local governments and incorporated into the base-year model. The CFX data included mainline and ramp counts. The FDOT and local agency counts described traffic conditions on other expressways, arterials and collectors. All of counts were reviewed and incorporated into the base model for calibration/validation purposes.

Toll rates were developed for the future-year networks to reflect the eight alternative toll scenarios. These scenarios include the “no-toll rate increase” scenario, three toll rate scenarios each with indexed toll rates (at 1.5 percent, 2.0 percent and 2.5 percent per year) beginning in FY 2018 and with a delayed start in FY 2019, plus the original toll rate scenario. These toll rates were developed in consultation with CFX staff to outline the specific policy assumptions applied to the scenarios, including electronic toll collection (ETC) participation and video toll surcharges.

## 3.3 Model Validation

CDM Smith successfully completed validation of the model to 2015 base-year conditions, designating the new model as CFX Model 2.1. Two measures of validation (goodness of fit between base-year model volumes and observed traffic counts) are the root mean square error (RMSE) and the volume/count (V/C) ratio. The RMSE was 36.5 percent for all count locations and 35.1 percent for count locations on CFX facilities. These results are within the allowable range for models of this type. The V/C ratio for all count locations in the model is 92% and for count locations on CFX facilities is 87%. This means that in both instances the model predicted traffic volumes are a lower than the counted volumes, a reasonable position for a model used to produce T&R estimates. **Figures 1 and 2** show the volume to count results for the entire network and for the CFX System. Model predicted volumes match actual traffic counts closely.

**Figure 1**

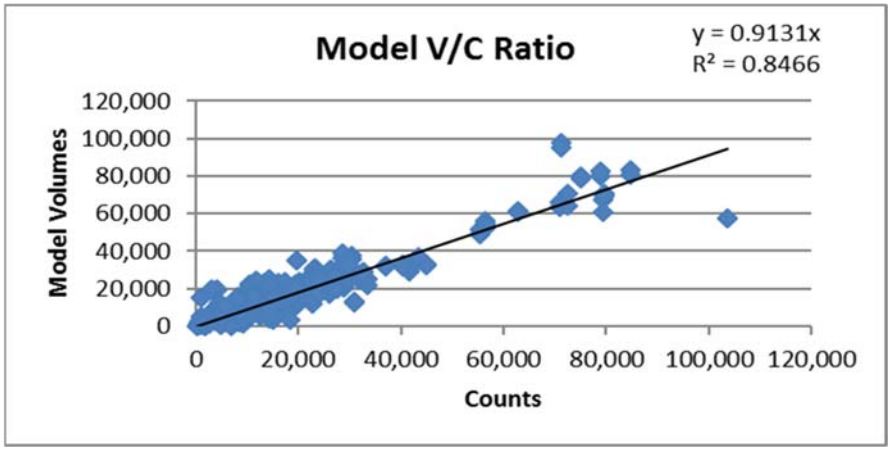
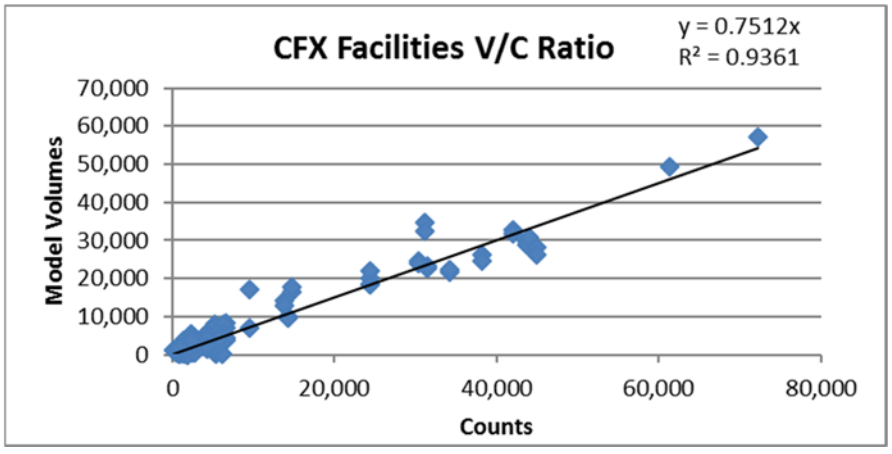



**Figure 2**



### 3.4 Revenue Model

CDM Smith also updated the revenue calculating model to 2015 base-year conditions. The revenue model contains a series of calibration factors designed make the model predicted traffic forecasts at each toll location match the counted traffic volumes and another set of factors to adjust the calculated (or indicated) toll revenue to match actual toll revenue collected by plaza group. This model also converts the analysis from calendar year to fiscal year. The same factors are applied in all future years. Since the base-year data used in this process includes the effect of violations in transactions and revenue, the effects of violations are included in the factored forecasts and do not have to be estimated separately, unless there is a reason to expect systematic change. Annual estimates of indicated revenue are produced by plaza group for a thirty-year period.

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 revenues 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 the transportation network and changes in toll rate.

The revenue model also contains a forecast of System available toll revenue, defined as the indicated revenue plus revenue collected from Unpaid Toll Notices (UTN) and Pay-by-Plate (PBP), less revenue returned to customers through the CFX discount programs. The revenues collected from UTN/PBP and paid to customers through discount programs are performed at the System level, not by plaza group.

## 4. Updated T&R Estimates

Utilizing the updated travel demand and revenue models, CDM Smith prepared annual T&R estimates by plaza group for a thirty-year period, which were then aggregated to T&R estimates by facility and for the CFX System.

### 4.1 Assumptions and Estimates

These T&R estimates were predicated on the following basic assumptions, which are considered reasonable for the purposes of this analysis:

- Toll rates at each location are in nominal or future-year dollars, conforming to the recent toll rate policy. Toll rate adjustments (indexed tolls) are applied every year based on the net change of the minimum adjustment rate of 1.5 percent per year beginning in FY 2019.
- Inflation is assumed to be 2.5 percent annually which includes the adjustment for real income growth. The value of time is likewise expected to increase by 2.5 percent per year.
- Future transportation projects were assumed as defined in the locally adopted plans. The projects listed in the Transportation Improvement Programs (TIP) and the 2040 Long Range Transportation Plans (LRTP) were reviewed and compared with the prior model and with CFRPM. Most of the projects in the TIP were assumed to be built by FY 2018, but some occur later depending on the 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 2040 Master Plan.

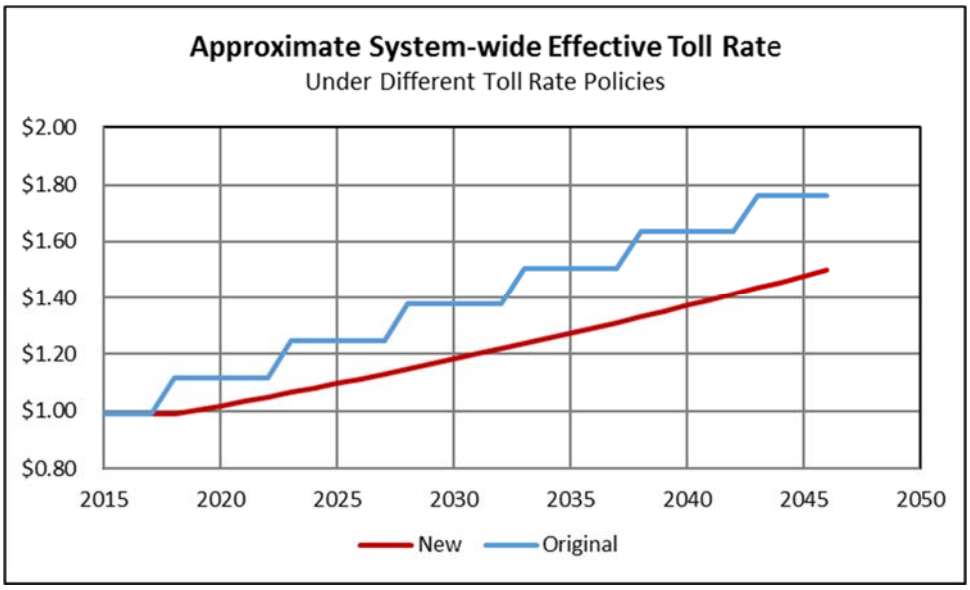
- The complete Wekiva Parkway was included in the models by the horizon year of 2023. The new toll facility is included both as part of S.R. 429 and as a new facility S.R. 453.
- The I-4 Ultimate project was included in the analysis by the horizon year of 2023.
- No local, regional or national emergency 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.

Any significant departure from these assumptions could materially affect the T&R estimates for the CFX System. The updated T&R estimates are included as a series of tables in an attachment this letter report. These tables are designed to be replacements for the tables with the annual T&R estimates for the CFX System and each of the facilities in the Annual Report.

## 4.2 Comparison

The updated T&R estimates are different from the estimates in the Annual Report. In general, there are more transactions and less revenue throughout the forecast period. The primary reason is that toll rates under the new policy are lower than toll rates under the original policy. The effects of the original and new toll rate policies are approximated in **Figure 3**, using the System-wide effective toll rate (which was $0.897 in FY 2012 and $0.989 in FY 2016) as the starting point. While the original policy had toll rate adjustments in uniform steps (linear), after a delay, the new policy involves annual adjustments at a smaller but identical rate of change (exponential). The new policy results in lower toll rates during the forecast period, leading to more transactions and less revenue.

**Figure 3**



In addition to the effects of the revised policy, the new estimates were produced with updated T&R models and model assumptions. Also, as part of the preparation of the new T&R estimates, CDM Smith developed new forecasts for the original toll policy. Using the new models to describe the original toll policy produced relatively fewer transactions but higher revenue than the prior models. Taking all these influences into account, differences between the updated forecast and the forecasts in the Annual Report are expressed in terms of the different estimates of annual transactions, system revenue and available revenue. **Table 2** contains a summary of the differences in these three variable for all forecast years. **Figure 4** contains a graph of annual transactions; **Figure 5** contains a graph of system revenue; and, **Figure 6** contains a graph of available revenue. These are the same T&R estimates delivered to CFX on March 22, 2017.

We appreciate the opportunity to assist you with this task. Please let either of us know if you have any questions or require further information. Respectfully submitted,

**CDM Smith**

Carleen M. Flynn, AICP
Deputy Project Manager

Hugh W. Miller, Jr., PhD, PE
Vice President and Project Manager

Attachments

cc: Lisa Lumbard, Chief Financial Officer
Joseph A. Berenis, PE, Chief of Infrastructure

**Table 2**
**System-wide Annual Transactions, System Revenue and Available Revenue (all in Millions)**

| | Annual Transaction | | System Revenue | | Available Revenue | |
|---|---|---|---|---|---|---|
| FY | New Estimate | FY 2016 Annual Report | New Estimate | FY 2016 Annual Report | New Estimate | FY 2016 Annual Report |
| 2015 | 357.6 | 357.6 | $353.1 | | $350.9 | $350.9 |
| 2016 | 398.3 | 398.3 | $393.9 | | $390.9 | $390.9 |
| 2017 | 422.4 | 422.4 | $417.6 | $417.6 | $413.4 | $413.4 |
| 2018 | 441.5 | 422.0 | $435.7 | $457.4 | $430.5 | $451.7 |
| 2019 | 454.0 | 433.4 | $459.0 | $471.0 | $452.6 | $464.3 |
| 2020 | 462.0 | 443.3 | $475.1 | $483.6 | $467.7 | $476.0 |
| 2021 | 467.1 | 453.2 | $485.1 | $496.1 | $476.9 | $487.4 |
| 2022 | 471.5 | 463.1 | $493.6 | $508.7 | $492.1 | $507.2 |
| 2023 | 477.6 | 444.2 | $502.6 | $543.6 | $500.4 | $541.3 |
| 2024 | 483.5 | 455.7 | $516.6 | $554.7 | $513.8 | $551.7 |
| 2025 | 489.3 | 467.3 | $530.6 | $565.9 | $527.2 | $562.2 |
| 2026 | 495.2 | 478.8 | $544.6 | $577.0 | $540.4 | $572.6 |
| 2027 | 501.0 | 490.4 | $558.6 | $588.1 | $553.7 | $582.9 |
| 2028 | 506.9 | 472.8 | $572.6 | $617.3 | $566.9 | $611.2 |
| 2029 | 512.5 | 483.4 | $587.1 | $629.1 | $580.6 | $622.1 |
| 2030 | 518.2 | 494.1 | $601.6 | $640.8 | $594.2 | $633.0 |
| 2031 | 523.8 | 504.7 | $616.1 | $652.5 | $607.9 | $643.8 |
| 2032 | 529.5 | 515.4 | $630.6 | $664.2 | $621.4 | $654.5 |
| 2033 | 535.1 | 498.5 | $645.0 | $692.7 | $634.9 | $681.8 |
| 2034 | 540.4 | 507.3 | $660.0 | $703.6 | $648.9 | $691.8 |
| 2035 | 545.6 | 516.1 | $674.9 | $714.5 | $662.8 | $701.7 |
| 2036 | 550.8 | 525.0 | $689.9 | $725.4 | $676.7 | $711.5 |
| 2037 | 556.0 | 533.8 | $704.8 | $736.3 | $690.6 | $721.4 |
| 2038 | 561.3 | 520.5 | $719.7 | $764.6 | $704.3 | $748.3 |
| 2039 | 565.8 | 529.0 | $733.5 | $776.2 | $717.0 | $758.8 |
| 2040 | 570.4 | 537.5 | $747.3 | $787.8 | $729.6 | $769.2 |
| 2041 | 575.0 | 546.0 | $761.0 | $799.3 | $742.1 | $779.4 |
| 2042 | 579.6 | 554.5 | $774.8 | $810.9 | $754.7 | $789.8 |
| 2043 | 584.2 | 545.2 | $788.6 | $834.9 | $767.2 | $812.3 |
| 2044 | 588.8 | 553.7 | $802.3 | $846.5 | $779.7 | $822.6 |
| 2045 | 593.4 | 562.2 | $816.1 | $858.0 | $792.2 | $832.8 |
| 2046 | 598.0 | 570.7 | $829.9 | $869.6 | $804.6 | $843.0 |

**Figure 4**

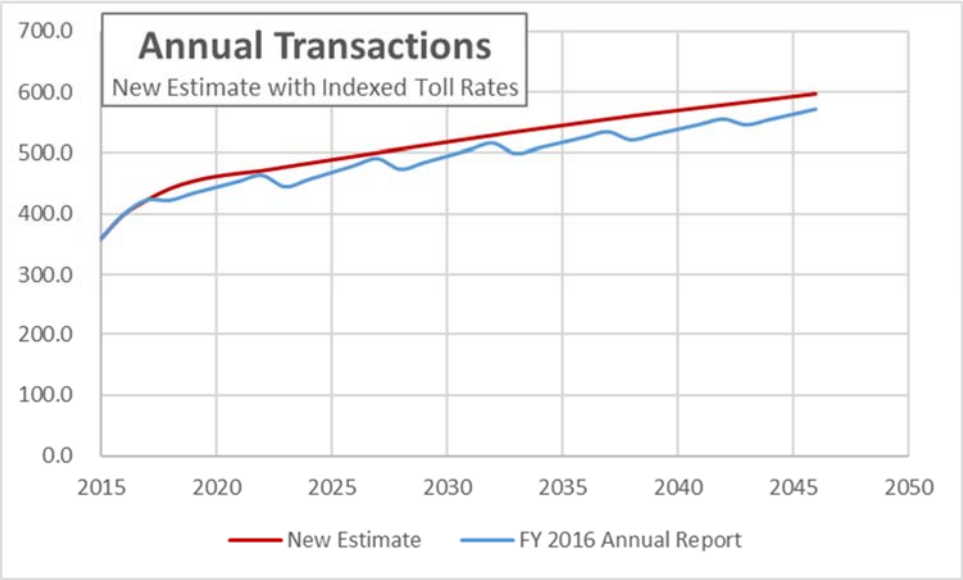



**Figure 5**

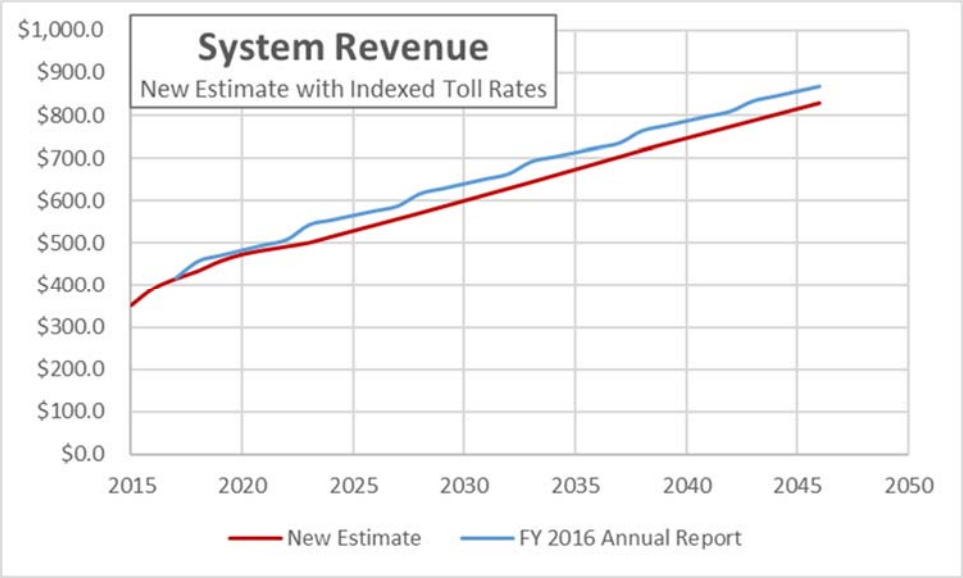
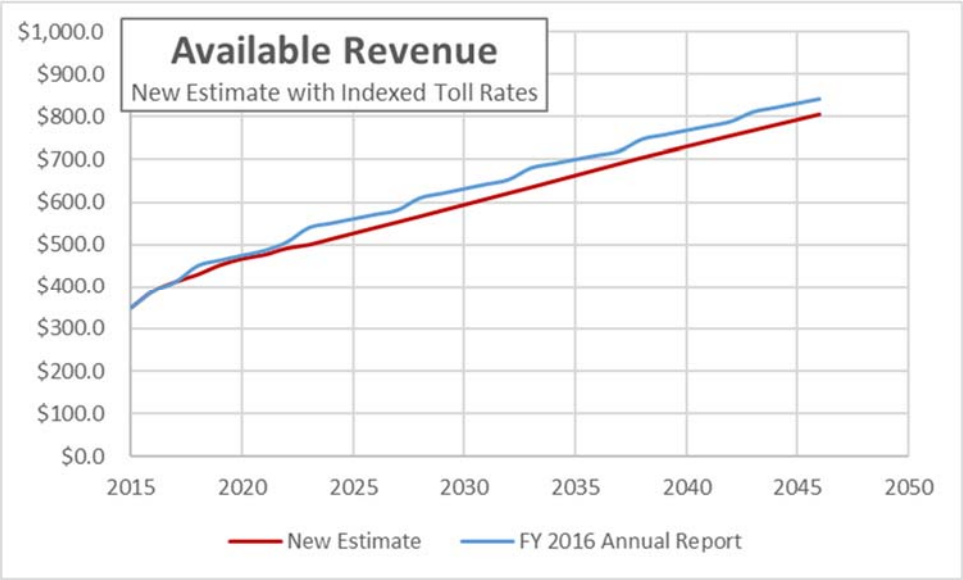


**Figure 6**




***Disclaimer***

CDM Smith used currently-accepted professional practices and procedures in the development of these traffic and revenue estimates. However, as with any forecast, 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 other 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. Selecting portions of any individual result without consideration of the intent of the whole may therefore 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.

# Attachments

## Table 1-9 - Revised
## CFX System Transaction Forecast (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 | 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 | 64.3 | | 138.2 | | 109.3 | | 35.2 | | 10.6 | | | | 357.6 | | 9.4% |
| 2016 [F] | 71.5 | | 146.2 | | 127.4 | | 41.2 | | 12.0 | | | | 398.3 | | 11.4% |
| 2017 | | 76.7 | | 152.8 | | 135.9 | | 44.1 | | 12.8 | | | | 422.4 | 6.0% |
| 2018 [G] | | 81.4 | | 156.6 | | 140.6 | | 48.7 | | 13.4 | | 0.8 | | 441.5 | 4.5% |
| 2019 [E] | | 83.1 | | 159.9 | | 144.0 | | 51.5 | | 13.6 | | 1.9 | | 454.0 | 2.8% |
| 2020 | | 84.4 | | 162.2 | | 146.4 | | 53.1 | | 13.8 | | 2.1 | | 462.0 | 1.8% |
| 2021 | | 85.1 | | 163.6 | | 147.8 | | 54.3 | | 13.9 | | 2.4 | | 467.1 | 1.1% |
| 2022 | | 85.7 | | 164.8 | | 149.0 | | 55.4 | | 14.0 | | 2.6 | | 471.5 | 0.9% |
| 2023 | | 86.3 | | 165.9 | | 150.2 | | 58.2 | | 14.1 | | 2.9 | | 477.6 | 1.3% |
| 2024 | | 86.8 | | 167.2 | | 152.5 | | 59.8 | | 14.1 | | 3.1 | | 483.5 | 1.2% |
| 2025 | | 87.3 | | 168.5 | | 154.7 | | 61.3 | | 14.2 | | 3.2 | | 489.3 | 1.2% |
| 2026 | | 87.7 | | 169.8 | | 157.0 | | 62.9 | | 14.3 | | 3.4 | | 495.2 | 1.2% |
| 2027 | | 88.2 | | 171.1 | | 159.3 | | 64.5 | | 14.4 | | 3.6 | | 501.0 | 1.2% |
| 2028 | | 88.7 | | 172.4 | | 161.5 | | 66.1 | | 14.5 | | 3.8 | | 506.9 | 1.2% |
| 2029 | | 89.3 | | 173.6 | | 163.5 | | 67.6 | | 14.6 | | 3.9 | | 512.5 | 1.1% |
| 2030 | | 89.9 | | 174.9 | | 165.4 | | 69.2 | | 14.7 | | 4.1 | | 518.2 | 1.1% |
| 2031 | | 90.5 | | 176.2 | | 167.4 | | 70.8 | | 14.8 | | 4.2 | | 523.8 | 1.1% |
| 2032 | | 91.1 | | 177.4 | | 169.3 | | 72.3 | | 14.9 | | 4.4 | | 529.5 | 1.1% |
| 2033 | | 91.7 | | 178.7 | | 171.3 | | 73.9 | | 15.0 | | 4.5 | | 535.1 | 1.1% |
| 2034 | | 92.1 | | 179.6 | | 173.3 | | 75.6 | | 15.1 | | 4.6 | | 540.4 | 1.0% |
| 2035 | | 92.5 | | 180.5 | | 175.3 | | 77.4 | | 15.2 | | 4.7 | | 545.6 | 1.0% |
| 2036 | | 92.9 | | 181.4 | | 177.2 | | 79.1 | | 15.3 | | 4.9 | | 550.8 | 1.0% |
| 2037 | | 93.3 | | 182.2 | | 179.2 | | 80.8 | | 15.4 | | 5.0 | | 556.0 | 0.9% |
| 2038 | | 93.7 | | 183.1 | | 181.2 | | 82.6 | | 15.5 | | 5.1 | | 561.3 | 0.9% |
| 2039 | | 94.2 | | 183.8 | | 183.1 | | 83.9 | | 15.6 | | 5.2 | | 565.8 | 0.8% |
| 2040 | | 94.7 | | 184.5 | | 185.1 | | 85.3 | | 15.6 | | 5.2 | | 570.4 | 0.8% |
| 2041 | | 95.2 | | 185.2 | | 187.0 | | 86.7 | | 15.7 | | 5.3 | | 575.0 | 0.8% |
| 2042 | | 95.7 | | 185.9 | | 188.9 | | 88.0 | | 15.8 | | 5.4 | | 579.6 | 0.8% |
| 2043 | | 96.1 | | 186.6 | | 190.8 | | 89.4 | | 15.8 | | 5.5 | | 584.2 | 0.8% |
| 2044 | | 96.6 | | 187.3 | | 192.7 | | 90.7 | | 15.9 | | 5.5 | | 588.8 | 0.8% |
| 2045 | | 97.1 | | 187.9 | | 194.7 | | 92.1 | | 15.9 | | 5.6 | | 593.4 | 0.8% |
| 2046 | | 97.6 | | 188.6 | | 196.6 | | 93.5 | | 16.0 | | 5.7 | | 598.0 | 0.8% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2000 - 2008 | 4.8% | 4.5% | 7.7% | | | | 6.8% | |
| 2008 - 2015 | 5.3% | -0.1% | 0.6% | 4.1% | | | 1.8% | |
| 2015 - 2025 | 3.1% | 2.0% | 3.5% | 5.7% | 3.0% | | 3.2% | |
| 2025 - 2035 | 0.6% | 0.7% | 1.3% | 2.3% | 0.7% | 3.9% | 1.1% | |
| 2035 - 2045 | 0.5% | 0.4% | 1.1% | 1.8% | 0.5% | 1.7% | 0.8% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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 -Revised
## CFX System Toll Revenue Forecast - Before Discounts and UTN/PBP 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** | 60.4 | | 133.0 | | 110.4 | | 38.9 | | 10.4 | | | | 353.1 | | 9.5% |
| **2016** [F] | 66.7 | | 140.1 | | 129.0 | | 46.0 | | 12.0 | | | | 393.8 | | 11.5% |
| **2017** | | $69.1 | | $147.5 | | $138.8 | | $49.3 | | $12.8 | | | | $417.6 | 6.0% |
| **2018** [G] | | 70.5 | | 151.6 | | 147.0 | | 52.8 | | 13.3 | | $0.5 | | 435.7 | 4.3% |
| **2019** [E] | | 73.7 | | 159.1 | | 154.1 | | 57.1 | | 13.9 | | 1.2 | | 459.0 | 5.4% |
| **2020** | | 76.0 | | 164.4 | | 159.1 | | 59.9 | | 14.3 | | 1.4 | | 475.1 | 3.5% |
| **2021** | | 77.4 | | 167.6 | | 162.2 | | 61.8 | | 14.5 | | 1.6 | | 485.1 | 2.1% |
| **2022** | | 78.5 | | 170.3 | | 164.7 | | 63.5 | | 14.7 | | 1.8 | | 493.6 | 1.7% |
| **2023** | | 79.7 | | 173.0 | | 167.3 | | 65.8 | | 14.9 | | 1.9 | | 502.6 | 1.8% |
| **2024** | | 81.3 | | 176.8 | | 172.3 | | 68.9 | | 15.3 | | 2.1 | | 516.6 | 2.8% |
| **2025** | | 83.0 | | 180.6 | | 177.3 | | 71.9 | | 15.6 | | 2.3 | | 530.6 | 2.7% |
| **2026** | | 84.6 | | 184.4 | | 182.3 | | 75.0 | | 15.9 | | 2.5 | | 544.6 | 2.6% |
| **2027** | | 86.2 | | 188.2 | | 187.3 | | 78.0 | | 16.3 | | 2.7 | | 558.6 | 2.6% |
| **2028** | | 87.9 | | 192.0 | | 192.3 | | 81.0 | | 16.6 | | 2.8 | | 572.6 | 2.5% |
| **2029** | | 89.7 | | 195.8 | | 197.5 | | 84.2 | | 16.9 | | 3.0 | | 587.1 | 2.5% |
| **2030** | | 91.5 | | 199.7 | | 202.7 | | 87.3 | | 17.2 | | 3.2 | | 601.6 | 2.5% |
| **2031** | | 93.3 | | 203.6 | | 207.9 | | 90.5 | | 17.5 | | 3.4 | | 616.1 | 2.4% |
| **2032** | | 95.1 | | 207.4 | | 213.1 | | 93.6 | | 17.8 | | 3.5 | | 630.6 | 2.4% |
| **2033** | | 96.9 | | 211.3 | | 218.3 | | 96.8 | | 18.1 | | 3.7 | | 645.0 | 2.3% |
| **2034** | | 98.6 | | 214.9 | | 224.2 | | 100.0 | | 18.4 | | 3.8 | | 660.0 | 2.3% |
| **2035** | | 100.4 | | 218.5 | | 230.1 | | 103.2 | | 18.8 | | 3.9 | | 674.9 | 2.3% |
| **2036** | | 102.1 | | 222.1 | | 236.0 | | 106.4 | | 19.2 | | 4.1 | | 689.9 | 2.2% |
| **2037** | | 103.9 | | 225.7 | | 241.9 | | 109.7 | | 19.5 | | 4.2 | | 704.8 | 2.2% |
| **2038** | | 105.6 | | 229.3 | | 247.8 | | 112.9 | | 19.9 | | 4.3 | | 719.7 | 2.1% |
| **2039** | | 107.6 | | 232.3 | | 253.4 | | 115.6 | | 20.2 | | 4.4 | | 733.5 | 1.9% |
| **2040** | | 109.6 | | 235.4 | | 259.0 | | 118.2 | | 20.4 | | 4.5 | | 747.3 | 1.9% |
| **2041** | | 111.6 | | 238.5 | | 264.6 | | 120.9 | | 20.7 | | 4.6 | | 761.0 | 1.8% |
| **2042** | | 113.6 | | 241.6 | | 270.2 | | 123.6 | | 21.0 | | 4.8 | | 774.8 | 1.8% |
| **2043** | | 115.6 | | 244.7 | | 275.8 | | 126.3 | | 21.3 | | 4.9 | | 788.6 | 1.8% |
| **2044** | | 117.6 | | 247.8 | | 281.4 | | 129.0 | | 21.6 | | 5.0 | | 802.3 | 1.7% |
| **2045** | | 119.6 | | 250.9 | | 287.0 | | 131.6 | | 21.8 | | 5.1 | | 816.1 | 1.7% |
| **2046** | | 121.6 | | 254.0 | | 292.6 | | 134.3 | | 22.1 | | 5.2 | | 829.9 | 1.7% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **2000 - 2008** | 4.7% | 4.1% | 7.5% | | | | 6.6% | |
| **2008 - 2015** | 6.0% | 6.4% | 7.1% | 10.8% | | | 7.4% | |
| **2015 - 2025** | 3.2% | 3.1% | 4.8% | 6.3% | 4.1% | | 4.2% | |
| **2025 - 2035** | 1.9% | 1.9% | 2.6% | 3.7% | 1.9% | 5.6% | 2.4% | |
| **2035 - 2045** | 1.8% | 1.4% | 2.2% | 2.5% | 1.5% | 2.6% | 1.9% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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 1-11 - Revised
## CFX System Toll Revenues Available (Millions)

| Fiscal Year | System Toll Revenues | Revenue Recaptured from UTN/PBP [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** | 353.1 | 11.0 | 364.1 | 13.2 | 350.9 | 10.0% |
| **2016** | 393.9 | 15.7 | 409.6 | 18.7 | 390.9 | 11.4% |
| **2017** | 417.6 | 16.4 | 434.0 | 20.6 | 413.4 | 5.8% |
| **2018** | 435.7 | 16.9 | 452.6 | 22.1 | 430.5 | 4.1% |
| **2019** [A] | 459.0 | 17.6 | 476.6 | 24.0 | 452.6 | 5.1% |
| **2020** | 475.1 | 18.0 | 493.1 | 25.4 | 467.7 | 3.3% |
| **2021** | 485.1 | 18.2 | 503.3 | 26.4 | 476.9 | 2.0% |
| **2022** | 493.6 | 18.3 | 511.9 | 19.8 | 492.1 | 3.2% |
| **2023** | 502.6 | 18.4 | 521.0 | 20.6 | 500.4 | 1.7% |
| **2024** | 516.6 | 18.7 | 535.3 | 21.5 | 513.8 | 2.7% |
| **2025** | 530.6 | 19.0 | 549.6 | 22.4 | 527.2 | 2.6% |
| **2026** | 544.6 | 19.2 | 563.8 | 23.4 | 540.4 | 2.5% |
| **2027** | 558.6 | 19.5 | 578.1 | 24.4 | 553.7 | 2.5% |
| **2028** | 572.6 | 19.7 | 592.3 | 25.4 | 566.9 | 2.4% |
| **2029** | 587.1 | 20.0 | 607.1 | 26.5 | 580.6 | 2.4% |
| **2030** | 601.6 | 20.2 | 621.8 | 27.6 | 594.2 | 2.3% |
| **2031** | 616.1 | 20.4 | 636.5 | 28.6 | 607.9 | 2.3% |
| **2032** | 630.6 | 20.6 | 651.2 | 29.8 | 621.4 | 2.2% |
| **2033** | 645.0 | 20.8 | 665.8 | 30.9 | 634.9 | 2.2% |
| **2034** | 660.0 | 21.0 | 681.0 | 32.1 | 648.9 | 2.2% |
| **2035** | 674.9 | 21.2 | 696.1 | 33.3 | 662.8 | 2.1% |
| **2036** | 689.9 | 21.3 | 711.2 | 34.5 | 676.7 | 2.1% |
| **2037** | 704.8 | 21.5 | 726.3 | 35.7 | 690.6 | 2.1% |
| **2038** | 719.7 | 21.6 | 741.3 | 37.0 | 704.3 | 2.0% |
| **2039** | 733.5 | 21.7 | 755.2 | 38.2 | 717.0 | 1.8% |
| **2040** | 747.3 | 21.8 | 769.1 | 39.5 | 729.6 | 1.8% |
| **2041** | 761.0 | 21.8 | 782.8 | 40.7 | 742.1 | 1.7% |
| **2042** | 774.8 | 21.9 | 796.7 | 42.0 | 754.7 | 1.7% |
| **2043** | 788.6 | 21.9 | 810.5 | 43.3 | 767.2 | 1.7% |
| **2044** | 802.3 | 22.0 | 824.3 | 44.6 | 779.7 | 1.6% |
| **2045** | 816.1 | 22.0 | 838.1 | 45.9 | 792.2 | 1.6% |
| **2046** | 829.9 | 22.0 | 851.9 | 47.3 | 804.6 | 1.6% |

| Fiscal Year | | Compound Annual Average Growth Rate (CAAGR) | | | | |
|---|---|---|---|---|---|---|
| **2000 - 2008** | 6.6% | | 6.6% | | 6.4% | |
| **2008 - 2015** | 7.4% | | 7.9% | 7.7% | 7.9% | |
| **2015 - 2025** | 4.2% | 5.6% | 4.2% | 5.5% | 4.2% | |
| **2025 - 2035** | 2.4% | 1.1% | 2.4% | 4.0% | 2.3% | |
| **2035 - 2045** | 1.9% | 0.4% | 1.9% | 3.3% | 1.8% | |

Notes:

A - Systemwide toll rate increase. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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 1-10 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 revenues have been reported separately.

C - Unpaid Toll Notice. The revenue recaptured from the UTNs comprised 3.1 percent and 4.0 percent of the System Revenues less E-PASS discount in FY 2015 and FY 2016, respectively. From FY 2017 through FY 2046, the estimated revenue recaptured from the UTNs is assumed to comprise 3.9 percent declining to 2.6 percent of the System Toll Revenues Less the E-PASS Discount. Historical information comes from the 2016 CAFR.

D - Discount Programs. The E-PASS Discount Program, created to increase ETC participation, provides a 5 percent discount to customers with at least 40 transactions in a month and a 10 percent discount to customers with at least 80 transactions per month. As of May 2016, the E-PASS Discount Program was replaced by the Customer Loyalty Discount Program, which provides a 10 percent discount to E-PASS customers with at least 40 transactions in a month and a 15 percent discount to E-PASS 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 percent discount to customers with 20 or more transactions per month on the CFX "beltway" facilities (SR 417, SR 429 and SR 414). Historical information on the E-PASS discount comes from the 2016 CAFR. The Regional School Bus Discount Program, scheduled to begin February 1, 2016, will provide a 99 percent discount to school buses in Orange, Brevard, Lake, Osceola, Polk, Seminole and Volusia Counties transporting students on official school business on CFX facilities. All discounts will only be offered during months when actual total revenue exceeds the current revenue projections by more than 2.0 percent.

Source - System Toll Revenue - CAFR "Average Toll Rate" Table that reports Toll revenue before E-PASS discount.

## Table 3-5 - Revised
## S.R. 528 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 28.8 | | 19.0 | | 16.4 | | 64.2 | | 7.5% |
| 2016 [G] | 32.6 | | 20.9 | | 18.0 | | 71.5 | | 11.4% |
| 2017 | | 36.3 | | 21.7 | | 18.7 | | 76.7 | 7.3% |
| 2018 | | 39.7 | | 22.3 | | 19.4 | | 81.4 | 6.1% |
| 2019 [E] | | 40.8 | | 22.7 | | 19.6 | | 83.1 | 2.1% |
| 2020 | | 41.6 | | 23.0 | | 19.8 | | 84.4 | 1.5% |
| 2021 | | 42.0 | | 23.1 | | 19.9 | | 85.1 | 0.9% |
| 2022 | | 42.4 | | 23.3 | | 20.0 | | 85.7 | 0.7% |
| 2023 | | 42.8 | | 23.4 | | 20.1 | | 86.3 | 0.7% |
| 2024 | | 43.2 | | 23.5 | | 20.1 | | 86.8 | 0.5% |
| 2025 | | 43.5 | | 23.6 | | 20.1 | | 87.3 | 0.5% |
| 2026 | | 43.9 | | 23.7 | | 20.1 | | 87.7 | 0.5% |
| 2027 | | 44.2 | | 23.8 | | 20.1 | | 88.2 | 0.5% |
| 2028 | | 44.6 | | 23.9 | | 20.2 | | 88.7 | 0.5% |
| 2029 | | 45.0 | | 24.1 | | 20.2 | | 89.3 | 0.7% |
| 2030 | | 45.4 | | 24.2 | | 20.3 | | 89.9 | 0.7% |
| 2031 | | 45.9 | | 24.3 | | 20.3 | | 90.5 | 0.7% |
| 2032 | | 46.3 | | 24.5 | | 20.4 | | 91.1 | 0.7% |
| 2033 | | 46.8 | | 24.6 | | 20.4 | | 91.7 | 0.7% |
| 2034 | | 47.1 | | 24.6 | | 20.4 | | 92.1 | 0.4% |
| 2035 | | 47.4 | | 24.7 | | 20.5 | | 92.5 | 0.4% |
| 2036 | | 47.7 | | 24.7 | | 20.5 | | 92.9 | 0.4% |
| 2037 | | 48.0 | | 24.8 | | 20.6 | | 93.3 | 0.4% |
| 2038 | | 48.3 | | 24.8 | | 20.6 | | 93.7 | 0.4% |
| 2039 | | 48.7 | | 24.9 | | 20.6 | | 94.2 | 0.5% |
| 2040 | | 49.1 | | 24.9 | | 20.7 | | 94.7 | 0.5% |
| 2041 | | 49.5 | | 25.0 | | 20.7 | | 95.2 | 0.5% |
| 2042 | | 49.8 | | 25.0 | | 20.8 | | 95.7 | 0.5% |
| 2043 | | 50.2 | | 25.1 | | 20.8 | | 96.1 | 0.5% |
| 2044 | | 50.6 | | 25.1 | | 20.9 | | 96.6 | 0.5% |
| 2045 | | 51.0 | | 25.2 | | 20.9 | | 97.1 | 0.5% |
| 2046 | | 51.4 | | 25.2 | | 21.0 | | 97.6 | 0.5% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | |
|---|---|---|---|---|---|
| 2000 - 2008 | 5.1% | 4.2% | | 4.8% | |
| 2008 - 2015 | 0.3% | 1.9% | | 5.3% | |
| 2015 - 2025 | 4.2% | 2.2% | 2.1% | 3.1% | |
| 2025 - 2035 | 0.9% | 0.4% | 0.2% | 0.6% | |
| 2035 - 2045 | 0.7% | 0.2% | 0.2% | 0.5% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.

First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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

G - Airport Main Plaza closed and new ramp plazas opened in March 2016.

## Table 3-6 - Revised
## S.R. 528 Plaza Groups – Toll Revenue Projections (Millions)
## FY 2017 – FY 2046

| 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 | 33.6 | | 18.2 | | 8.6 | | 60.4 | | 7.3% |
| 2016 [G] | 37.3 | | 20.0 | | 9.4 | | 66.7 | | 10.4% |
| 2017 | | $38.8 | | $20.5 | | $9.8 | | $69.1 | 3.5% |
| 2018 | | 39.7 | | 20.7 | | 10.1 | | 70.5 | 2.1% |
| 2019 [E] | | 41.8 | | 21.4 | | 10.5 | | 73.7 | 4.5% |
| 2020 | | 43.3 | | 21.9 | | 10.8 | | 76.0 | 3.1% |
| 2021 | | 44.2 | | 22.2 | | 11.0 | | 77.4 | 1.8% |
| 2022 | | 45.0 | | 22.4 | | 11.2 | | 78.5 | 1.5% |
| 2023 | | 45.7 | | 22.7 | | 11.3 | | 79.7 | 1.5% |
| 2024 | | 46.8 | | 23.0 | | 11.5 | | 81.3 | 2.1% |
| 2025 | | 47.9 | | 23.4 | | 11.6 | | 83.0 | 2.0% |
| 2026 | | 49.0 | | 23.8 | | 11.8 | | 84.6 | 2.0% |
| 2027 | | 50.1 | | 24.2 | | 12.0 | | 86.2 | 1.9% |
| 2028 | | 51.2 | | 24.5 | | 12.1 | | 87.9 | 1.9% |
| 2029 | | 52.3 | | 25.1 | | 12.3 | | 89.7 | 2.1% |
| 2030 | | 53.4 | | 25.6 | | 12.4 | | 91.5 | 2.0% |
| 2031 | | 54.5 | | 26.2 | | 12.6 | | 93.3 | 2.0% |
| 2032 | | 55.6 | | 26.7 | | 12.7 | | 95.1 | 1.9% |
| 2033 | | 56.7 | | 27.3 | | 12.9 | | 96.9 | 1.9% |
| 2034 | | 57.8 | | 27.8 | | 13.1 | | 98.6 | 1.8% |
| 2035 | | 58.8 | | 28.2 | | 13.3 | | 100.4 | 1.8% |
| 2036 | | 59.9 | | 28.7 | | 13.6 | | 102.1 | 1.7% |
| 2037 | | 60.9 | | 29.2 | | 13.8 | | 103.9 | 1.7% |
| 2038 | | 62.0 | | 29.7 | | 14.0 | | 105.6 | 1.7% |
| 2039 | | 63.2 | | 30.3 | | 14.1 | | 107.6 | 1.9% |
| 2040 | | 64.4 | | 30.9 | | 14.3 | | 109.6 | 1.9% |
| 2041 | | 65.6 | | 31.5 | | 14.4 | | 111.6 | 1.8% |
| 2042 | | 66.9 | | 32.2 | | 14.6 | | 113.6 | 1.8% |
| 2043 | | 68.1 | | 32.8 | | 14.7 | | 115.6 | 1.8% |
| 2044 | | 69.3 | | 33.4 | | 14.9 | | 117.6 | 1.7% |
| 2045 | | 70.6 | | 34.0 | | 15.0 | | 119.6 | 1.7% |
| 2046 | | 71.8 | | 34.7 | | 15.2 | | 121.6 | 1.7% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | |
|---|---|---|---|---|---|
| 2000 - 2008 | 5.1% | 4.3% | | 4.7% | |
| 2008 - 2015 | 6.2% | 0.2% | | 6.0% | |
| 2015 - 2025 | 3.6% | 2.5% | 3.1% | 3.2% | |
| 2025 - 2035 | 2.1% | 1.9% | 1.4% | 1.9% | |
| 2035 - 2045 | 1.8% | 1.9% | 1.2% | 1.8% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.
First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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

G - Airport Main Plaza closed and new ramp plazas opened in March 2016.

## Table 4-5 - Revised
## S.R. 408 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 26.4 | | 31.6 | | 53.9 | | 26.3 | | 138.2 | | 6.6% |
| 2016 | 28.6 | | 33.7 | | 56.4 | | 27.5 | | 146.2 | | 5.8% |
| 2017 | | 30.2 | | 35.4 | | 58.5 | | 28.6 | | 152.8 | 4.5% |
| 2018 | | 31.2 | | 36.4 | | 59.8 | | 29.2 | | 156.6 | 2.5% |
| 2019 [G] | | 32.2 | | 36.9 | | 60.7 | | 30.0 | | 159.9 | 2.1% |
| 2020 | | 32.8 | | 37.3 | | 61.4 | | 30.7 | | 162.2 | 1.5% |
| 2021 | | 33.2 | | 37.5 | | 61.8 | | 31.0 | | 163.6 | 0.9% |
| 2022 | | 33.6 | | 37.7 | | 62.1 | | 31.3 | | 164.8 | 0.7% |
| 2023 | | 33.9 | | 37.9 | | 62.5 | | 31.6 | | 165.9 | 0.7% |
| 2024 | | 34.1 | | 38.3 | | 62.9 | | 32.0 | | 167.2 | 0.8% |
| 2025 | | 34.3 | | 38.7 | | 63.2 | | 32.3 | | 168.5 | 0.8% |
| 2026 | | 34.4 | | 39.1 | | 63.6 | | 32.7 | | 169.8 | 0.8% |
| 2027 | | 34.6 | | 39.5 | | 64.0 | | 33.0 | | 171.1 | 0.8% |
| 2028 | | 34.8 | | 39.8 | | 64.4 | | 33.4 | | 172.4 | 0.8% |
| 2029 | | 35.2 | | 40.0 | | 64.6 | | 33.7 | | 173.6 | 0.7% |
| 2030 | | 35.7 | | 40.2 | | 64.9 | | 34.1 | | 174.9 | 0.7% |
| 2031 | | 36.1 | | 40.4 | | 65.2 | | 34.4 | | 176.2 | 0.7% |
| 2032 | | 36.5 | | 40.6 | | 65.5 | | 34.8 | | 177.4 | 0.7% |
| 2033 | | 37.0 | | 40.8 | | 65.7 | | 35.1 | | 178.7 | 0.7% |
| 2034 | | 37.2 | | 40.9 | | 66.0 | | 35.4 | | 179.6 | 0.5% |
| 2035 | | 37.4 | | 41.1 | | 66.4 | | 35.7 | | 180.5 | 0.5% |
| 2036 | | 37.6 | | 41.2 | | 66.7 | | 35.9 | | 181.4 | 0.5% |
| 2037 | | 37.8 | | 41.3 | | 67.0 | | 36.2 | | 182.2 | 0.5% |
| 2038 | | 38.0 | | 41.4 | | 67.3 | | 36.5 | | 183.1 | 0.5% |
| 2039 | | 38.2 | | 41.7 | | 67.5 | | 36.5 | | 183.8 | 0.4% |
| 2040 | | 38.4 | | 41.9 | | 67.7 | | 36.5 | | 184.5 | 0.4% |
| 2041 | | 38.5 | | 42.2 | | 67.9 | | 36.5 | | 185.2 | 0.4% |
| 2042 | | 38.7 | | 42.4 | | 68.2 | | 36.6 | | 185.9 | 0.4% |
| 2043 | | 38.9 | | 42.7 | | 68.4 | | 36.6 | | 186.6 | 0.4% |
| 2044 | | 39.1 | | 42.9 | | 68.6 | | 36.6 | | 187.3 | 0.4% |
| 2045 | | 39.3 | | 43.2 | | 68.8 | | 36.7 | | 187.9 | 0.4% |
| 2046 | | 39.5 | | 43.4 | | 69.0 | | 36.7 | | 188.6 | 0.4% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 7.3% | 4.1% | 2.7% | 6.4% | 4.5% | |
| 2008 - 2015 | -0.4% | -0.9% | 0.9% | -0.6% | -0.1% | |
| 2015 - 2025 | 2.6% | 2.0% | 1.6% | 2.1% | 2.0% | |
| 2025 - 2035 | 0.9% | 0.6% | 0.5% | 1.0% | 0.7% | |
| 2035 - 2045 | 0.5% | 0.5% | 0.4% | 0.3% | 0.4% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.
First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

## Table 4-6 - Revised
## S.R. 408 Plaza Groups – Toll Revenue Projections (Millions)
## FY 2017 – FY 2046

| 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 | 21.0 | | 33.4 | | 56.9 | | 21.7 | | 133.0 | | 6.2% |
| 2016 | 22.6 | | 35.5 | | 59.4 | | 22.6 | | 140.1 | | 5.3% |
| 2017 | | $24.1 | | $37.6 | | $62.1 | | $23.6 | | $147.5 | 5.3% |
| 2018 | | 25.0 | | 38.7 | | 63.6 | | 24.2 | | 151.6 | 2.8% |
| 2019 [G] | | 26.4 | | 40.4 | | 66.5 | | 25.7 | | 159.1 | 5.0% |
| 2020 | | 27.4 | | 41.7 | | 68.6 | | 26.7 | | 164.4 | 3.4% |
| 2021 | | 28.0 | | 42.4 | | 69.9 | | 27.3 | | 167.6 | 2.0% |
| 2022 | | 28.5 | | 43.0 | | 70.9 | | 27.8 | | 170.3 | 1.6% |
| 2023 | | 29.0 | | 43.6 | | 72.0 | | 28.3 | | 173.0 | 1.6% |
| 2024 | | 29.6 | | 44.7 | | 73.4 | | 29.1 | | 176.8 | 2.2% |
| 2025 | | 30.1 | | 45.8 | | 74.8 | | 29.8 | | 180.6 | 2.1% |
| 2026 | | 30.6 | | 46.9 | | 76.2 | | 30.6 | | 184.4 | 2.1% |
| 2027 | | 31.2 | | 48.0 | | 77.7 | | 31.3 | | 188.2 | 2.1% |
| 2028 | | 31.7 | | 49.1 | | 79.1 | | 32.1 | | 192.0 | 2.0% |
| 2029 | | 32.4 | | 50.0 | | 80.7 | | 32.8 | | 195.8 | 2.0% |
| 2030 | | 33.1 | | 50.9 | | 82.3 | | 33.4 | | 199.7 | 2.0% |
| 2031 | | 33.7 | | 51.8 | | 83.9 | | 34.1 | | 203.6 | 1.9% |
| 2032 | | 34.4 | | 52.7 | | 85.6 | | 34.8 | | 207.4 | 1.9% |
| 2033 | | 35.1 | | 53.6 | | 87.2 | | 35.5 | | 211.3 | 1.9% |
| 2034 | | 35.5 | | 54.5 | | 88.6 | | 36.3 | | 214.9 | 1.7% |
| 2035 | | 36.0 | | 55.4 | | 89.9 | | 37.2 | | 218.5 | 1.7% |
| 2036 | | 36.5 | | 56.3 | | 91.3 | | 38.0 | | 222.1 | 1.6% |
| 2037 | | 37.0 | | 57.2 | | 92.7 | | 38.9 | | 225.7 | 1.6% |
| 2038 | | 37.4 | | 58.0 | | 94.0 | | 39.7 | | 229.3 | 1.6% |
| 2039 | | 37.9 | | 58.9 | | 95.4 | | 40.2 | | 232.3 | 1.3% |
| 2040 | | 38.4 | | 59.7 | | 96.7 | | 40.6 | | 235.4 | 1.3% |
| 2041 | | 39.0 | | 60.5 | | 98.1 | | 41.0 | | 238.5 | 1.3% |
| 2042 | | 39.5 | | 61.4 | | 99.4 | | 41.4 | | 241.6 | 1.3% |
| 2043 | | 40.0 | | 62.2 | | 100.8 | | 41.8 | | 244.7 | 1.3% |
| 2044 | | 40.5 | | 63.0 | | 102.1 | | 42.2 | | 247.8 | 1.3% |
| 2045 | | 41.0 | | 63.9 | | 103.4 | | 42.6 | | 250.9 | 1.2% |
| 2046 | | 41.5 | | 64.7 | | 104.8 | | 43.0 | | 254.0 | 1.2% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 7.3% | 3.8% | 2.6% | 6.6% | 4.1% | |
| 2008 - 2015 | 7.1% | 4.8% | 6.7% | 7.6% | 6.4% | |
| 2015 - 2025 | 3.7% | 3.2% | 2.8% | 3.2% | 3.1% | |
| 2025 - 2035 | 1.8% | 1.9% | 1.9% | 2.2% | 1.9% | |
| 2035 - 2045 | 1.3% | 1.4% | 1.4% | 1.4% | 1.4% | |

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 - 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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.

First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

## Table 5-5 - Revised
## S.R. 417 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 25.7 | | 25.3 | | 28.3 | | 30.0 | | 109.3 | | 12.4% |
| 2016 | 30.6 | | 31.0 | | 32.5 | | 33.3 | | 127.4 | | 16.6% |
| 2017 | | 33.0 | | 33.1 | | 34.6 | | 35.2 | | 135.9 | 6.7% |
| 2018 | | 34.0 | | 34.2 | | 35.9 | | 36.5 | | 140.6 | 3.5% |
| 2019 [D] | | 34.9 | | 35.4 | | 36.4 | | 37.2 | | 144.0 | 2.4% |
| 2020 | | 35.6 | | 36.3 | | 36.8 | | 37.7 | | 146.4 | 1.7% |
| 2021 | | 36.0 | | 36.8 | | 37.0 | | 38.0 | | 147.8 | 1.0% |
| 2022 | | 36.3 | | 37.2 | | 37.2 | | 38.2 | | 149.0 | 0.8% |
| 2023 | | 36.7 | | 37.7 | | 37.4 | | 38.5 | | 150.2 | 0.8% |
| 2024 | | 37.3 | | 38.3 | | 37.9 | | 38.9 | | 152.5 | 1.5% |
| 2025 | | 38.0 | | 39.0 | | 38.3 | | 39.4 | | 154.7 | 1.5% |
| 2026 | | 38.6 | | 39.7 | | 38.8 | | 39.9 | | 157.0 | 1.5% |
| 2027 | | 39.3 | | 40.4 | | 39.3 | | 40.3 | | 159.3 | 1.4% |
| 2028 | | 39.9 | | 41.0 | | 39.7 | | 40.8 | | 161.5 | 1.4% |
| 2029 | | 40.5 | | 41.6 | | 40.2 | | 41.2 | | 163.5 | 1.2% |
| 2030 | | 41.0 | | 42.1 | | 40.6 | | 41.7 | | 165.4 | 1.2% |
| 2031 | | 41.6 | | 42.7 | | 41.0 | | 42.1 | | 167.4 | 1.2% |
| 2032 | | 42.2 | | 43.2 | | 41.4 | | 42.5 | | 169.3 | 1.2% |
| 2033 | | 42.7 | | 43.8 | | 41.9 | | 42.9 | | 171.3 | 1.2% |
| 2034 | | 43.3 | | 44.1 | | 42.4 | | 43.4 | | 173.3 | 1.2% |
| 2035 | | 44.0 | | 44.4 | | 43.0 | | 43.9 | | 175.3 | 1.1% |
| 2036 | | 44.6 | | 44.8 | | 43.6 | | 44.3 | | 177.2 | 1.1% |
| 2037 | | 45.2 | | 45.1 | | 44.1 | | 44.8 | | 179.2 | 1.1% |
| 2038 | | 45.8 | | 45.4 | | 44.7 | | 45.2 | | 181.2 | 1.1% |
| 2039 | | 46.0 | | 46.1 | | 45.4 | | 45.6 | | 183.1 | 1.1% |
| 2040 | | 46.2 | | 46.7 | | 46.1 | | 46.1 | | 185.1 | 1.1% |
| 2041 | | 46.3 | | 47.3 | | 46.9 | | 46.5 | | 187.0 | 1.0% |
| 2042 | | 46.5 | | 47.9 | | 47.6 | | 46.9 | | 188.9 | 1.0% |
| 2043 | | 46.7 | | 48.6 | | 48.3 | | 47.3 | | 190.8 | 1.0% |
| 2044 | | 46.8 | | 49.2 | | 49.0 | | 47.7 | | 192.7 | 1.0% |
| 2045 | | 47.0 | | 49.8 | | 49.7 | | 48.1 | | 194.7 | 1.0% |
| 2046 | | 47.1 | | 50.4 | | 50.5 | | 48.5 | | 196.6 | 1.0% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 7.3% | 9.1% | 9.2% | 5.9% | 7.7% | |
| 2008 - 2015 | 1.2% | 3.2% | 0.4% | -1.4% | 0.6% | |
| 2015 - 2025 | 4.0% | 4.4% | 3.1% | 2.8% | 3.5% | |
| 2025 - 2035 | 1.5% | 1.3% | 1.2% | 1.1% | 1.3% | |
| 2035 - 2045 | 0.7% | 1.1% | 1.5% | 0.9% | 1.1% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.

First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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

## Table 5-6 - Revised
## S.R. 417 Plaza Groups – Toll Revenue Projections (Millions)
## FY 2017 – FY 2046

| 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** | 30.6 | | 30.8 | | 24.0 | | 25.0 | | 110.4 | | 12.3% |
| **2016** | 35.9 | | 37.7 | | 27.6 | | 27.8 | | 129.0 | | 16.8% |
| **2017** | | $38.5 | | $40.8 | | $29.7 | | $29.8 | | $138.8 | 7.6% |
| **2018** | | 41.4 | | 42.7 | | 31.7 | | 31.1 | | 147.0 | 5.8% |
| **2019** [D] | | 43.2 | | 45.3 | | 33.0 | | 32.5 | | 154.1 | 4.8% |
| **2020** | | 44.4 | | 47.2 | | 34.0 | | 33.6 | | 159.1 | 3.3% |
| **2021** | | 45.1 | | 48.3 | | 34.5 | | 34.2 | | 162.2 | 1.9% |
| **2022** | | 45.8 | | 49.2 | | 35.0 | | 34.7 | | 164.7 | 1.6% |
| **2023** | | 46.4 | | 50.2 | | 35.5 | | 35.2 | | 167.3 | 1.5% |
| **2024** | | 47.8 | | 51.9 | | 36.3 | | 36.3 | | 172.3 | 3.0% |
| **2025** | | 49.2 | | 53.6 | | 37.2 | | 37.3 | | 177.3 | 2.9% |
| **2026** | | 50.6 | | 55.3 | | 38.1 | | 38.3 | | 182.3 | 2.8% |
| **2027** | | 52.1 | | 57.0 | | 39.0 | | 39.3 | | 187.3 | 2.7% |
| **2028** | | 53.5 | | 58.6 | | 39.8 | | 40.3 | | 192.3 | 2.7% |
| **2029** | | 54.9 | | 60.1 | | 40.8 | | 41.7 | | 197.5 | 2.7% |
| **2030** | | 56.3 | | 61.6 | | 41.8 | | 43.0 | | 202.7 | 2.6% |
| **2031** | | 57.7 | | 63.1 | | 42.7 | | 44.3 | | 207.9 | 2.6% |
| **2032** | | 59.1 | | 64.6 | | 43.7 | | 45.6 | | 213.1 | 2.5% |
| **2033** | | 60.6 | | 66.1 | | 44.7 | | 46.9 | | 218.3 | 2.4% |
| **2034** | | 62.2 | | 68.0 | | 46.0 | | 48.0 | | 224.2 | 2.7% |
| **2035** | | 63.8 | | 69.9 | | 47.2 | | 49.1 | | 230.1 | 2.6% |
| **2036** | | 65.4 | | 71.8 | | 48.5 | | 50.3 | | 236.0 | 2.6% |
| **2037** | | 67.0 | | 73.7 | | 49.8 | | 51.4 | | 241.9 | 2.5% |
| **2038** | | 68.6 | | 75.6 | | 51.1 | | 52.5 | | 247.8 | 2.4% |
| **2039** | | 70.4 | | 77.3 | | 52.3 | | 53.4 | | 253.4 | 2.3% |
| **2040** | | 72.2 | | 79.0 | | 53.5 | | 54.2 | | 259.0 | 2.2% |
| **2041** | | 74.1 | | 80.7 | | 54.7 | | 55.1 | | 264.6 | 2.2% |
| **2042** | | 75.9 | | 82.4 | | 55.9 | | 56.0 | | 270.2 | 2.1% |
| **2043** | | 77.7 | | 84.1 | | 57.1 | | 56.9 | | 275.8 | 2.1% |
| **2044** | | 79.5 | | 85.8 | | 58.4 | | 57.7 | | 281.4 | 2.0% |
| **2045** | | 81.3 | | 87.5 | | 59.6 | | 58.6 | | 287.0 | 2.0% |
| **2046** | | 83.2 | | 89.2 | | 60.8 | | 59.5 | | 292.6 | 2.0% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| **2000 - 2008** | 6.8% | 8.6% | 8.8% | 6.2% | 7.5% | |
| **2008 - 2015** | 6.5% | 7.0% | 8.1% | 6.9% | 7.1% | |
| **2015 - 2025** | 4.9% | 5.7% | 4.5% | 4.1% | 4.8% | |
| **2025 - 2035** | 2.6% | 2.7% | 2.4% | 2.8% | 2.6% | |
| **2035 - 2045** | 2.5% | 2.3% | 2.3% | 1.8% | 2.2% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.

First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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

## Table 6-5 - Revised
## S.R. 429 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 18.3 | | 16.9 | | | | | | 35.2 | | 14.7% |
| 2016 | 21.4 | | 19.8 | | | | | | 41.2 | | 17.0% |
| 2017 | | 23.3 | | 20.8 | | | | | | 44.1 | 7.1% |
| 2018 [I] | | 24.6 | | 21.0 | | 2.3 | | 0.8 | | 48.7 | 10.3% |
| 2019 [H] | | 25.2 | | 21.8 | | 2.7 | | 1.8 | | 51.5 | 5.7% |
| 2020 | | 25.6 | | 22.4 | | 3.1 | | 1.9 | | 53.1 | 3.1% |
| 2021 | | 25.9 | | 22.8 | | 3.5 | | 2.1 | | 54.3 | 2.3% |
| 2022 | | 26.1 | | 23.1 | | 4.0 | | 2.3 | | 55.4 | 2.0% |
| 2023 | | 26.3 | | 23.4 | | 5.1 | | 3.5 | | 58.2 | 5.0% |
| 2024 | | 26.6 | | 23.6 | | 5.6 | | 3.9 | | 59.8 | 2.7% |
| 2025 | | 26.9 | | 23.9 | | 6.2 | | 4.3 | | 61.3 | 2.6% |
| 2026 | | 27.2 | | 24.2 | | 6.7 | | 4.7 | | 62.9 | 2.6% |
| 2027 | | 27.5 | | 24.5 | | 7.3 | | 5.2 | | 64.5 | 2.5% |
| 2028 | | 27.8 | | 24.8 | | 7.8 | | 5.6 | | 66.1 | 2.5% |
| 2029 | | 28.2 | | 25.2 | | 8.3 | | 5.9 | | 67.6 | 2.4% |
| 2030 | | 28.5 | | 25.6 | | 8.8 | | 6.3 | | 69.2 | 2.3% |
| 2031 | | 28.8 | | 25.9 | | 9.3 | | 6.7 | | 70.8 | 2.2% |
| 2032 | | 29.2 | | 26.3 | | 9.8 | | 7.0 | | 72.3 | 2.2% |
| 2033 | | 29.5 | | 26.7 | | 10.3 | | 7.4 | | 73.9 | 2.2% |
| 2034 | | 29.8 | | 27.1 | | 10.8 | | 7.9 | | 75.6 | 2.4% |
| 2035 | | 30.2 | | 27.6 | | 11.3 | | 8.3 | | 77.4 | 2.3% |
| 2036 | | 30.6 | | 28.0 | | 11.7 | | 8.8 | | 79.1 | 2.3% |
| 2037 | | 30.9 | | 28.4 | | 12.2 | | 9.3 | | 80.8 | 2.2% |
| 2038 | | 31.3 | | 28.9 | | 12.7 | | 9.7 | | 82.6 | 2.2% |
| 2039 | | 31.6 | | 29.3 | | 13.0 | | 10.1 | | 83.9 | 1.6% |
| 2040 | | 31.9 | | 29.6 | | 13.3 | | 10.4 | | 85.3 | 1.6% |
| 2041 | | 32.2 | | 30.0 | | 13.6 | | 10.8 | | 86.7 | 1.6% |
| 2042 | | 32.5 | | 30.4 | | 13.9 | | 11.1 | | 88.0 | 1.6% |
| 2043 | | 32.8 | | 30.8 | | 14.2 | | 11.5 | | 89.4 | 1.5% |
| 2044 | | 33.2 | | 31.2 | | 14.5 | | 11.9 | | 90.7 | 1.5% |
| 2045 | | 33.5 | | 31.6 | | 14.9 | | 12.2 | | 92.1 | 1.5% |
| 2046 | | 33.8 | | 31.9 | | 15.2 | | 12.6 | | 93.5 | 1.5% |

| Fiscal Year | | | | | | |
|---|---|---|---|---|---|---|
| 2001 - 2008 | 22.1% | 52.6% | | | 33.6% | |
| 2008 - 2015 | 3.7% | 4.5% | N/A | N/A | 4.1% | |
| 2015 - 2025 | 3.9% | 3.5% | N/A | N/A | 5.7% | |
| 2025 - 2035 | 1.2% | 1.4% | 6.2% | 6.8% | 2.3% | |
| 2035 - 2045 | 1.0% | 1.4% | 2.8% | 3.9% | 1.8% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.

First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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 - Revised
## S.R. 429 Plaza Groups – Toll Revenue Projections (Millions)
## FY 2017 – FY 2046

| | Forest Lake Main | | Independence Main | | Ponkan Main | | Mount Plymouth Main | | TOTAL | | Percent Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fiscal Year | Actual [A] | Projected | Actual [A] | Projected | Actual [A] | Projected | Actual [A] | Projected | Actual [A] | Projected | Change |
| 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 | 22.1 | | 16.8 | | | | | | 38.9 | | 16.1% |
| 2016 | 25.9 | | 20.1 | | | | | | 46.0 | | 18.3% |
| 2017 | | $28.3 | | $21.0 | | | | | | $49.3 | 7.3% |
| 2018 [I] | | 29.8 | | 20.7 | | $1.8 | | $0.5 | | 52.8 | 7.0% |
| 2019 [H] | | 31.5 | | 22.2 | | $2.2 | | 1.2 | | 57.1 | 8.0% |
| 2020 | | 32.7 | | 23.2 | | 2.6 | | 1.4 | | 59.9 | 5.0% |
| 2021 | | 33.4 | | 23.9 | | 3.0 | | $1.5 | | 61.8 | 3.2% |
| 2022 | | 34.0 | | 24.4 | | 3.4 | | 1.7 | | 63.5 | 2.8% |
| 2023 | | 34.6 | | 24.9 | | 4.0 | | 2.3 | | 65.8 | 3.7% |
| 2024 | | 35.8 | | 25.9 | | 4.5 | | 2.6 | | 68.9 | 4.6% |
| 2025 | | 37.0 | | 26.9 | | 5.0 | | 3.0 | | 71.9 | 4.4% |
| 2026 | | 38.2 | | 28.0 | | 5.5 | | 3.3 | | 75.0 | 4.2% |
| 2027 | | 39.4 | | 29.0 | | 6.1 | | 3.6 | | 78.0 | 4.1% |
| 2028 | | 40.5 | | 30.0 | | 6.6 | | 3.9 | | 81.0 | 3.9% |
| 2029 | | 41.7 | | 30.9 | | 7.3 | | 4.3 | | 84.2 | 3.9% |
| 2030 | | 42.8 | | 31.7 | | 8.1 | | 4.7 | | 87.3 | 3.7% |
| 2031 | | 43.9 | | 32.6 | | 8.9 | | 5.1 | | 90.5 | 3.6% |
| 2032 | | 45.0 | | 33.4 | | 9.7 | | 5.5 | | 93.6 | 3.5% |
| 2033 | | 46.1 | | 34.3 | | 10.4 | | 5.9 | | 96.8 | 3.4% |
| 2034 | | 47.2 | | 35.3 | | 11.0 | | 6.5 | | 100.0 | 3.3% |
| 2035 | | 48.2 | | 36.3 | | 11.7 | | 7.1 | | 103.2 | 3.2% |
| 2036 | | 49.3 | | 37.3 | | 12.3 | | 7.6 | | 106.4 | 3.1% |
| 2037 | | 50.3 | | 38.3 | | 12.9 | | 8.2 | | 109.7 | 3.0% |
| 2038 | | 51.4 | | 39.3 | | 13.5 | | 8.7 | | 112.9 | 2.9% |
| 2039 | | 52.4 | | 40.1 | | 14.0 | | 9.1 | | 115.6 | 2.4% |
| 2040 | | 53.4 | | 40.9 | | 14.4 | | 9.5 | | 118.2 | 2.3% |
| 2041 | | 54.4 | | 41.7 | | 14.9 | | 9.8 | | 120.9 | 2.3% |
| 2042 | | 55.5 | | 42.6 | | 15.4 | | 10.2 | | 123.6 | 2.2% |
| 2043 | | 56.5 | | 43.4 | | 15.9 | | 10.5 | | 126.3 | 2.2% |
| 2044 | | 57.5 | | 44.2 | | 16.3 | | 10.9 | | 129.0 | 2.1% |
| 2045 | | 58.6 | | 45.0 | | 16.8 | | 11.3 | | 131.6 | 2.1% |
| 2046 | | 59.6 | | 45.8 | | 17.3 | | 11.6 | | 134.3 | 2.0% |

| Fiscal Year | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2001 - 2008 | 20.1% | | 77.8% | | | 28.4% | |
| 2008 - 2015 | 9.2% | | 13.1% | | N/A | N/A | 10.8% |
| 2015 - 2025 | 5.3% | | 4.8% | | N/A | N/A | 6.3% |
| 2025 - 2035 | 2.7% | | 3.0% | | 8.8% | 9.1% | 3.7% |
| 2035 - 2045 | 2.0% | | 2.2% | | 3.7% | 4.8% | 2.5% |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017.

First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

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

**Table 7-5 - Revised**
**S.R. 414 Plaza Groups – Transaction Projections (Millions)**
**FY 2017 – FY 2046**

| 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 | 10.6 | | 11.6% |
| 2016 | 12.0 | | 13.2% |
| 2017 | | 12.8 | 6.9% |
| 2018 [D] | | 13.4 | 4.5% |
| 2019 [C] | | 13.6 | 1.7% |
| 2020 | | 13.8 | 1.2% |
| 2021 | | 13.9 | 0.7% |
| 2022 | | 14.0 | 0.6% |
| 2023 | | 14.1 | 0.6% |
| 2024 | | 14.1 | 0.6% |
| 2025 | | 14.2 | 0.6% |
| 2026 | | 14.3 | 0.6% |
| 2027 | | 14.4 | 0.6% |
| 2028 | | 14.5 | 0.6% |
| 2029 | | 14.6 | 0.7% |
| 2030 | | 14.7 | 0.7% |
| 2031 | | 14.8 | 0.7% |
| 2032 | | 14.9 | 0.7% |
| 2033 | | 15.0 | 0.7% |
| 2034 | | 15.1 | 0.6% |
| 2035 | | 15.2 | 0.6% |
| 2036 | | 15.3 | 0.6% |
| 2037 | | 15.4 | 0.6% |
| 2038 | | 15.5 | 0.6% |
| 2039 | | 15.6 | 0.4% |
| 2040 | | 15.6 | 0.4% |
| 2041 | | 15.7 | 0.4% |
| 2042 | | 15.8 | 0.4% |
| 2043 | | 15.8 | 0.4% |
| 2044 | | 15.9 | 0.4% |
| 2045 | | 15.9 | 0.4% |
| 2046 | | 16.0 | 0.4% |

| Fiscal Year | | |
|---|---|---|
| 2009 - 2015 | 61.4% | |
| 2015 - 2025 | 3.0% | |
| 2025 - 2035 | 0.7% | |
| 2035 - 2045 | 0.5% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

D - Wekiva Parkway opening in FY 2018.

**Table 7-6 - Revised**
**S.R. 414 Plaza Groups – Toll Revenue Projections (Millions)**
**FY 2017 – FY 2046**

| 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 | 10.4 | | 14.3% |
| 2016 | 12.0 | | 15.4% |
| 2017 | | $12.8 | 7.0% |
| 2018 [D] | | 13.3 | 3.5% |
| 2019 [C] | | 13.9 | 4.3% |
| 2020 | | 14.3 | 2.9% |
| 2021 | | 14.5 | 1.7% |
| 2022 | | 14.7 | 1.4% |
| 2023 | | 14.9 | 1.4% |
| 2024 | | 15.3 | 2.3% |
| 2025 | | 15.6 | 2.2% |
| 2026 | | 15.9 | 2.2% |
| 2027 | | 16.3 | 2.1% |
| 2028 | | 16.6 | 2.1% |
| 2029 | | 16.9 | 1.8% |
| 2030 | | 17.2 | 1.7% |
| 2031 | | 17.5 | 1.7% |
| 2032 | | 17.8 | 1.7% |
| 2033 | | 18.1 | 1.7% |
| 2034 | | 18.4 | 2.0% |
| 2035 | | 18.8 | 2.0% |
| 2036 | | 19.2 | 1.9% |
| 2037 | | 19.5 | 1.9% |
| 2038 | | 19.9 | 1.8% |
| 2039 | | 20.2 | 1.4% |
| 2040 | | 20.4 | 1.4% |
| 2041 | | 20.7 | 1.4% |
| 2042 | | 21.0 | 1.3% |
| 2043 | | 21.3 | 1.3% |
| 2044 | | 21.6 | 1.3% |
| 2045 | | 21.8 | 1.3% |
| 2046 | | 22.1 | 1.3% |

| Fiscal Year | | |
|---|---|---|
| 2009 - 2015 | 60.9% | |
| 2015 - 2025 | 4.1% | |
| 2025 - 2035 | 1.9% | |
| 2035 - 2045 | 1.5% | |

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. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).
D - Wekiva Parkway opening in FY 2018.

**Table 8-2 - Revised**
**S.R. 453 Plaza Group – Transaction Projections (Millions)**
**FY 2018 – FY 2046**

| Fiscal Year | Coronado Main | | Percent Annual Change |
|---|---|---|---|
| | Actual | Projected | |
| 2018 [A] | | 0.8 | |
| 2019 [B] | | 1.9 | 131.6% |
| 2020 | | 2.1 | 13.7% |
| 2021 | | 2.4 | 12.0% |
| 2022 | | 2.6 | 10.7% |
| 2023 | | 2.9 | 9.0% |
| 2024 | | 3.1 | 6.3% |
| 2025 | | 3.2 | 6.0% |
| 2026 | | 3.4 | 5.6% |
| 2027 | | 3.6 | 5.3% |
| 2028 | | 3.8 | 5.1% |
| 2029 | | 3.9 | 3.9% |
| 2030 | | 4.1 | 3.7% |
| 2031 | | 4.2 | 3.6% |
| 2032 | | 4.4 | 3.5% |
| 2033 | | 4.5 | 3.4% |
| 2034 | | 4.6 | 2.6% |
| 2035 | | 4.7 | 2.5% |
| 2036 | | 4.9 | 2.5% |
| 2037 | | 5.0 | 2.4% |
| 2038 | | 5.1 | 2.3% |
| 2039 | | 5.2 | 1.4% |
| 2040 | | 5.2 | 1.4% |
| 2041 | | 5.3 | 1.4% |
| 2042 | | 5.4 | 1.4% |
| 2043 | | 5.5 | 1.4% |
| 2044 | | 5.5 | 1.3% |
| 2045 | | 5.6 | 1.3% |
| 2046 | | 5.7 | 1.3% |

| Fiscal Year | | |
|---|---|---|
| 2018 -2025 | 22.0% | |
| 2025 - 2035 | 3.9% | |
| 2035 - 2045 | 1.7% | |

Notes:

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

B - Systemw ide toll rate increase. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

**Table 8-3 - Revised**
**S.R. 453 Plaza Group – Toll Revenue Projections (Millions)**
**FY 2018 – FY 2046**

| Fiscal Year | Coronado Main | | Percent Annual Change |
|---|---|---|---|
| | Actual | Projected | |
| **2018** [A] | | $0.5 | |
| **2019** [B] | | 1.2 | 139.1% |
| **2020** | | 1.4 | 16.4% |
| **2021** | | 1.6 | 14.1% |
| **2022** | | 1.8 | 12.3% |
| **2023** | | 1.9 | 6.3% |
| **2024** | | 2.1 | 9.6% |
| **2025** | | 2.3 | 8.7% |
| **2026** | | 2.5 | 8.0% |
| **2027** | | 2.7 | 7.4% |
| **2028** | | 2.8 | 6.9% |
| **2029** | | 3.0 | 6.1% |
| **2030** | | 3.2 | 5.7% |
| **2031** | | 3.4 | 5.4% |
| **2032** | | 3.5 | 5.1% |
| **2033** | | 3.7 | 4.9% |
| **2034** | | 3.8 | 3.2% |
| **2035** | | 3.9 | 3.1% |
| **2036** | | 4.1 | 3.0% |
| **2037** | | 4.2 | 2.9% |
| **2038** | | 4.3 | 2.9% |
| **2039** | | 4.4 | 2.6% |
| **2040** | | 4.5 | 2.6% |
| **2041** | | 4.6 | 2.5% |
| **2042** | | 4.8 | 2.4% |
| **2043** | | 4.9 | 2.4% |
| **2044** | | 5.0 | 2.3% |
| **2045** | | 5.1 | 2.3% |
| **2046** | | 5.2 | 2.2% |

| Fiscal Year | | |
|---|---|---|
| **2018 -2025** | 24.0% | |
| **2025 - 2035** | 5.6% | |
| **2035 - 2045** | 2.6% | |

Notes:

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

B - Systemwide toll rate increase. "Customer First" toll policy adopted by CFX Board on February 9, 2017. First toll rate adjustment under new policy to take place on July 1, 2018 (FY 2019).

Central Florida Expressway Authority

# FY 2016
# General Traffic and Earnings Consultant's Annual Report

Prepared for

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

CDM Smith

January 2017

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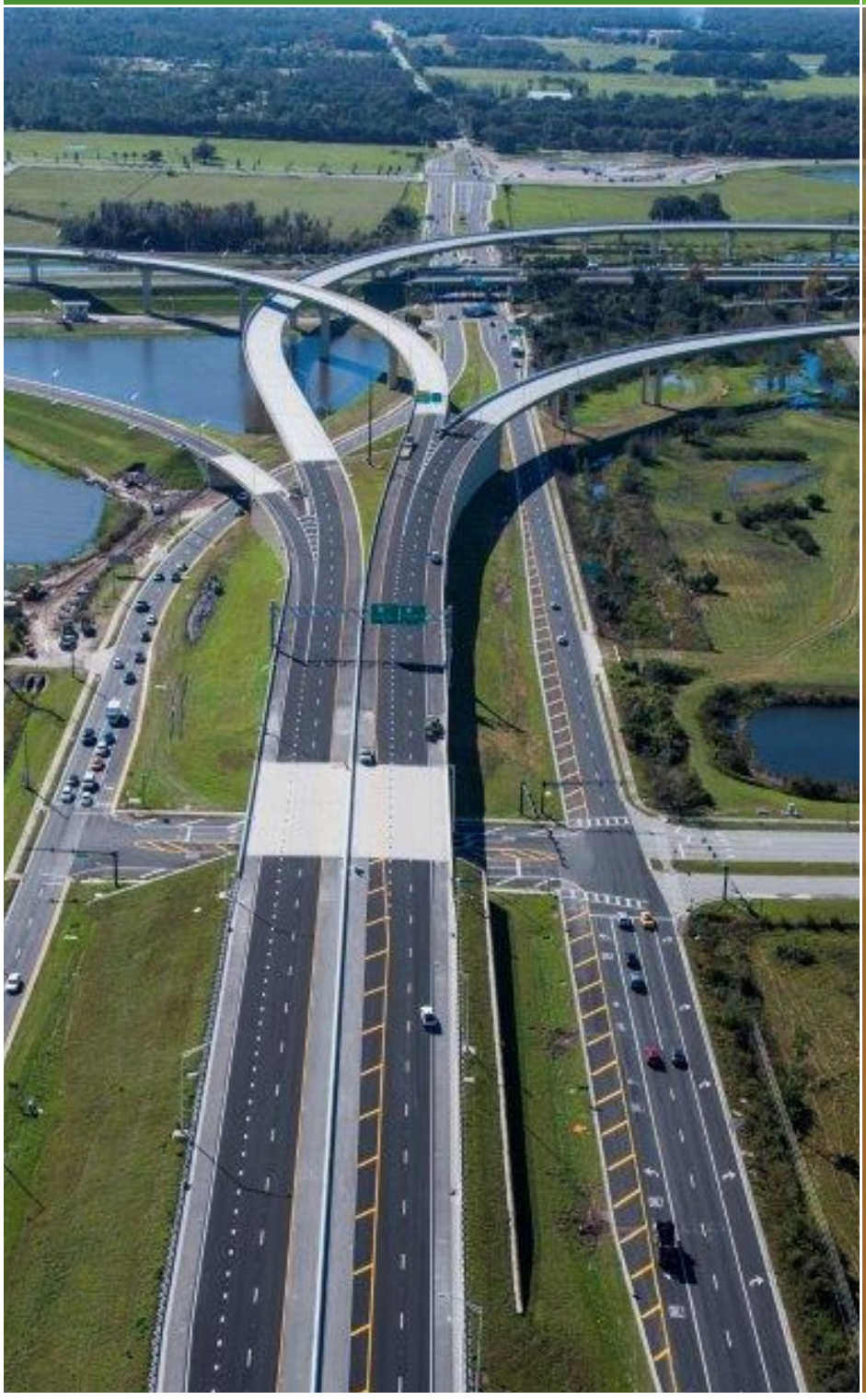
Chapter 1

# Introduction and System Overview



# INTRODUCTION AND SYSTEM OVERVIEW

## 1.1 Introduction

This Annual Report was prepared for the Central Florida Expressway Authority (CFX). The report contains a summary of the Fiscal Year (FY) 2016 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 purposes of this report are to describe current T&R trends for the System, to summarize the forecasting methodology used to develop the projections and to provide both short-term and long-term forecasts of T&R for the System. This report contains a description of historical T&R from FY 1997 through FY 2016, along with projected T&R for FY 2017 through FY 2046. 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 current toll rate schedule, 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 ongoing 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. Traffic profiles for each facility are included in the Appendix.

## 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 – 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 extended 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. Until recently it had three mainline toll plazas: the Airport Main, the Beachline Main and the Dallas Main, and two pairs of ramp plazas. In March 2016, the Airport Main Plaza was removed and toll collection was transferred to FTE's Beachline West Main Plaza. New ramp plazas were also installed at the Conway Road and Boggy Creek Road Interchanges with tolls collected to and from the east. 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 S.R. 408 East-West Expressway, which first opened to traffic in 1973. This facility currently runs 22 miles 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.

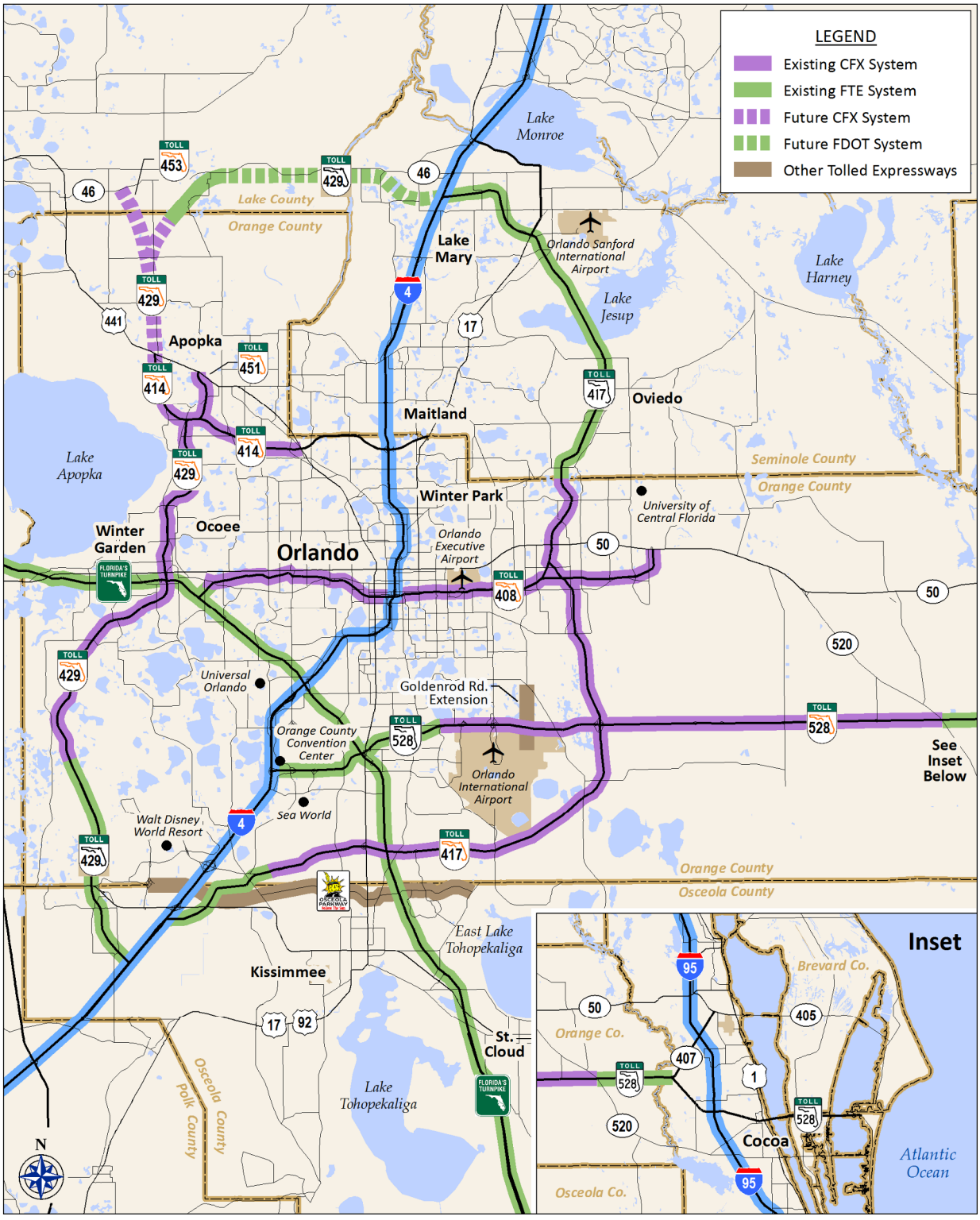
The next facility was S.R. 417 Central Florida Greeneway, which first opened to traffic in 1988. S.R. 417 is the eastern beltway around Orlando with the CFX portion extending 33 miles from International Drive on the southern end to the Aloma Avenue/Seminole County Line on the northern end. It has four 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 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 23 miles from Seidel Road in west Orange County on the southern end to U.S. 441 in the City of Apopka on the northern end. Of the 23 miles, three are part of a dual route with S.R. 414 (John Land Apopka Expressway). 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 9-mile S.R. 414 John Land Apopka Expressway. Of the nine miles, three are part of a dual route with S.R. 429. S.R. 414 extends Maitland Boulevard from U.S. 441 westerly to S.R. 429/Western Beltway, to relieve congestion

on U.S. 441. The Apopka Expressway has one mainline plaza, 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.

**Table 1-1** is a summary of CFX System facilities with the corresponding lengths and opening years.

**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[A] | 23 | 2000 |
| S.R. 414 - John Land Apopka Expressway[A] | 9 | 2009 |
| S.R. 451 - Western Beltway Connector Road | 2 | 2012 |
| Total | 109 | |
| **CFX Non-System** | | |
| Goldenrod Road Extension | 2 | 2003 |

Notes:
A - Of the 23 miles on S.R. 429 and nine miles on S.R. 414, three are part of a dual route between the two expressways. The three miles are only included once in the calculation of CFX System total miles.

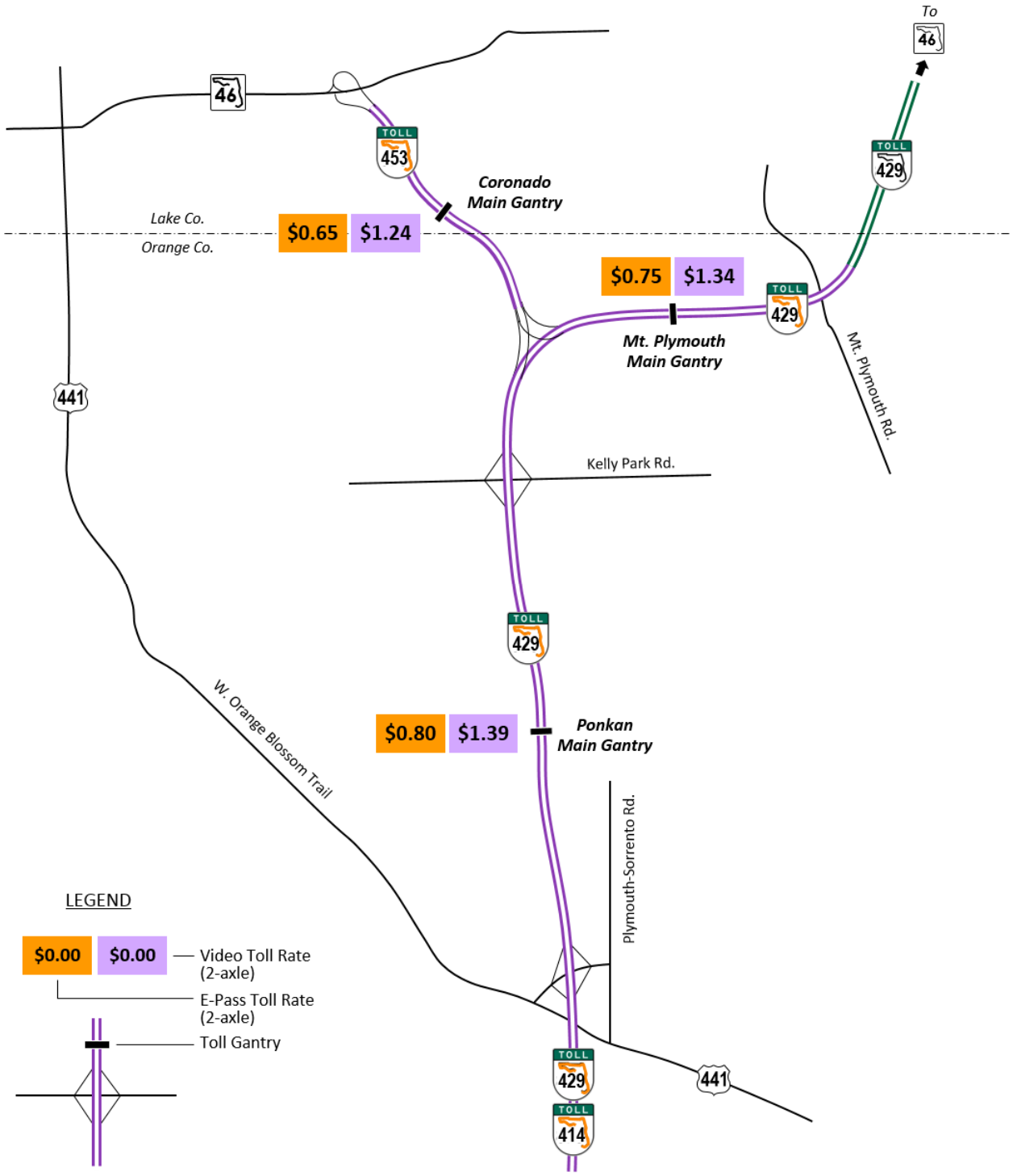
### 1.2.1 WEKIVA PARKWAY PROJECT

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.

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 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.

**Figure 1-2**
**Wekiva Parkway Facilities and Toll Rates Map**



Previously, T&R from the Wekiva Parkway had not been included in System totals, as it was only a planned project. 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 a new facility, S.R. 453,

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

Toll collection on the Wekiva Parkway will utilize an all-electronic toll (AET) collection system, i.e., customers will not be able to pay cash on the roadway as there will only be toll gantries. On the CFX portion of the Wekiva Parkway, customers will either pay with E-PASS/SunPass or by Pay-by-Plate video billing. Video billing customers will pay the E-PASS toll amount plus a surcharge on each transaction, which is designed to cover the administrative 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).

The Wekiva Parkway has been broken into fourteen design sections, allowing for more manageable design and construction projects. 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 (opened January 2016)
- 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

In spring 2015, CFX secured a $194 million loan through the U.S. Department of Transportation's Transportation Infrastructure Finance and Innovation Act (TIFIA) program at the historically low interest rate of 1.23 percent, accelerating CFX's Wekiva Parkway construction schedule by up to 18 months. The latest schedule for design and construction activities is shown in **Table 1-2**, with the first CFX 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 began 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**

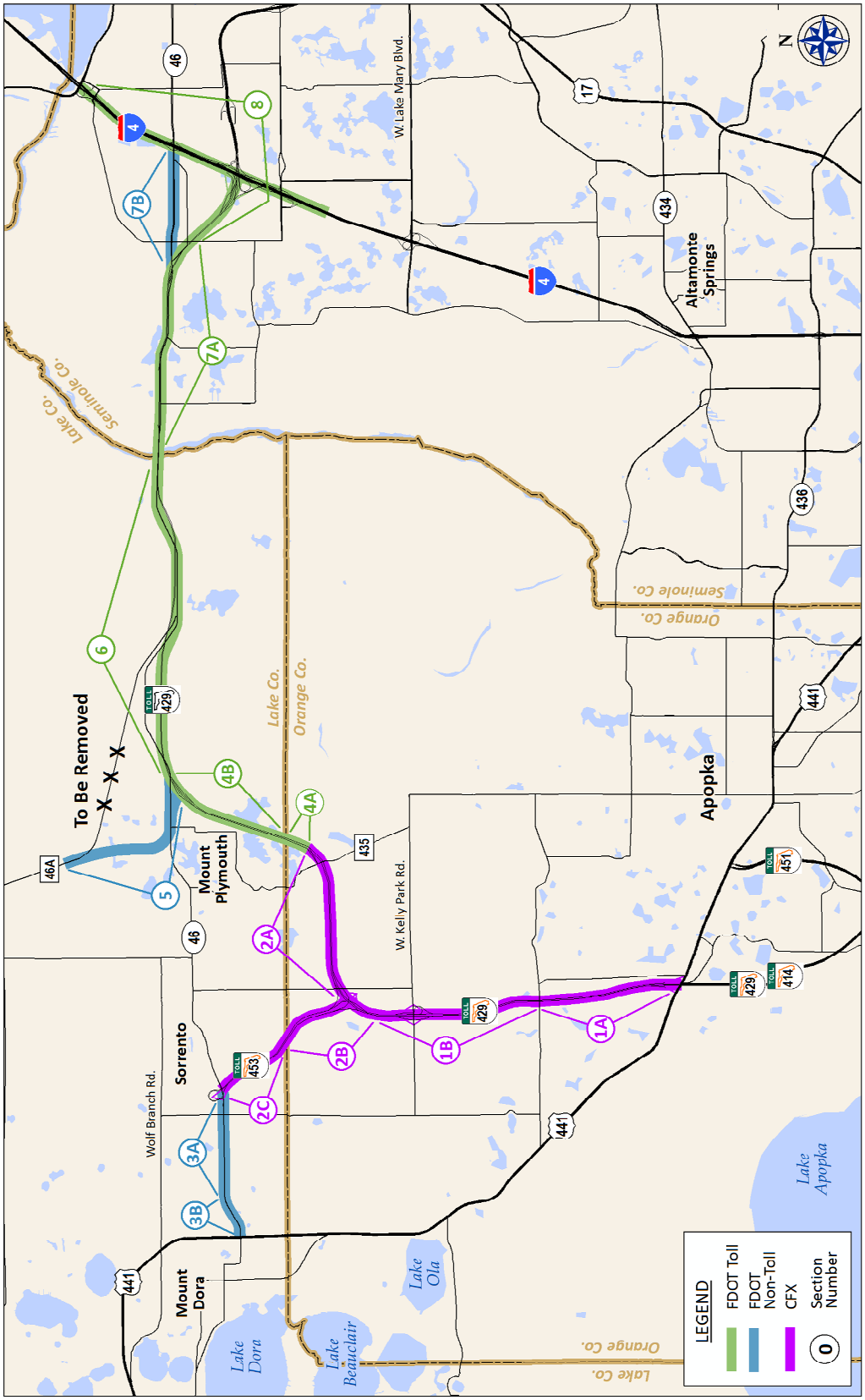
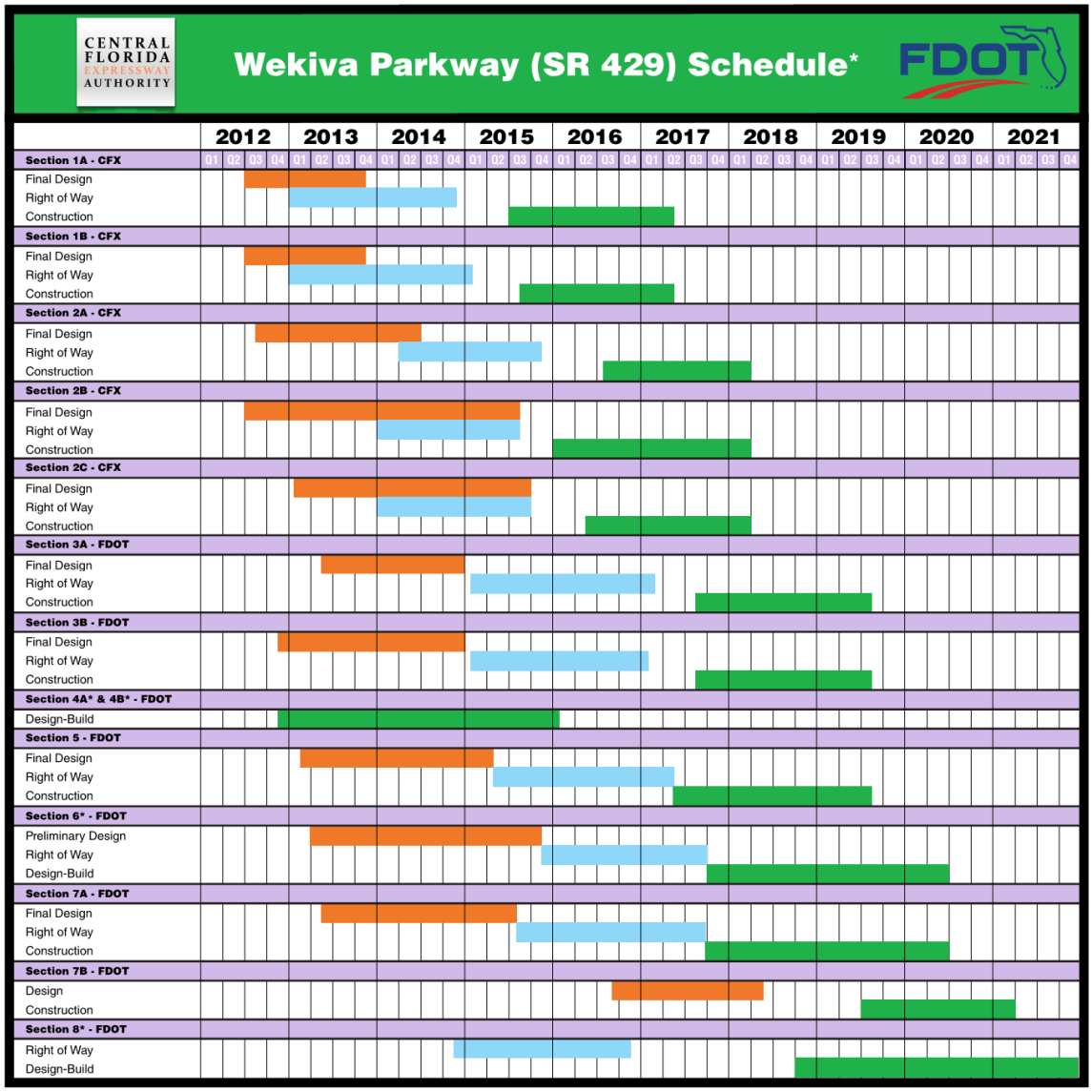


**Table 1-2**
**Wekiva Parkway Development Schedule**




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

*As of 1/20/2017

## *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 mainline plazas (except the recently opened 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. Since then, there were 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, the removal of the Airport Main plaza and the addition of ramp plazas at Boggy Creek Road and Conway Road.

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. Also, at this time, CFX implemented the first toll rate adjustment to keep pace with inflation.

The FY 2016 toll rates are presented in **Table 1-3**. The rates shown in this table continue to represent the rates from the FY 2013 toll rate adjustment. The Schofield Road ramps on S.R. 429 opened in FY 2015 and were added to the table. The Airport Plaza was removed and the Boggy Creek Road/McCoy Road and Conway Road/Tradeport Drive interchanges added in March 2016. In accordance with CFX's Toll Policy, the next toll rate adjustment is scheduled for July 1, 2017 (FY 2018).

### 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 offered a five percent rebate to ETC 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 through these systems were not eligible for the frequent user discount. Only transactions on CFX facilities paid through ETC received this discount, including SunPass and LeeWay.

In May 2016, CFX replaced the frequent-user discount program with a new Customer Loyalty Discount Program. The Customer Loyalty Discount Programs is exclusive to E-PASS customers and is a tiered program that provides toll discounts based on the number of transactions per transponder each month. All E-PASS customers are automatically eligible to participate in the program so there is no enrollment process or monthly fee. The program offers a ten percent rebate to E-PASS customers with 40 or more CFX electronic transactions per month and a 15 percent rebate to customers with 80 or more CFX electronic transactions per month. The discount will only be offered in months when actual toll revenue exceeds the revenue projections by more than 2.0 percent.

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 2016, the discount program has grown to $18.7 million, or 4.8 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 2016 the E-PASS participation rate reached 79.4 percent, exceeding the 75 percent goal.

## Table 1-3
## CFX System Toll Rates, FY 2016 (as of March 2016)

| 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** | | | | | | | | | | |
| Boggy Creek Road/McCoy Road | $1.09 | $1.09 | $1.09 | $1.09 | $1.09 | $1.25 | $1.25 | $1.25 | $1.25 | $1.25 |
| Conway Road/Tradeport Drive | $1.09 | $1.09 | $1.09 | $1.09 | $1.09 | $1.25 | $1.25 | $1.25 | $1.25 | $1.25 |
| 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] | $0.76 | $1.01 | $1.26 | $1.26 | $1.26 | $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** | | | | | | | | | | |
| Schofield Road | $0.55 | $0.55 | $0.55 | $0.55 | $0.55 | $0.75 | $0.75 | $0.75 | $0.75 | $0.75 |
| 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 $0.26 for transponder transactions or $0.50 for cash transactions regardless of the number of axles.

Beginning in FY 2016 (July 2015), CFX implemented the I-4 Commuter Discount Program. This discount program will be offered for a six-year period, to provide relief for and options to 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.

Beginning February 1, 2016 (FY 2016), CFX launched a discount program offering rebates to school buses using CFX facilities. A 99.0 percent discount is now given to school buses equipped with special E-PASS transponders transporting students on official school business from school districts in Orange, Brevard, Lake, Osceola, Seminole, Polk and Volusia Counties. The discount is 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 U.S. TOLL FACILITIES

As shown in **Table 1-4**, the FY 2016 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 20.3 cents per mile for cash rates, and 10.7 and 17.3 cents per mile for electronic toll rates. The average cash rate for the CFX System is 15.4 cents per mile and the average electronic toll rate is 13.5 cents per mile.

## Table 1-4
## Toll Rate Comparison with Other U.S. Toll Facilities

| | Toll Facility | Initial Opening Year | 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 | Apr-16 | U | 58 | - | $11.71 | - | 20.2 |
| TX | Harris County Toll Road Authority - Westpark Tollway | 2004 | Sep-15 | U | 13 | - | $3.00 | - | 23.1 |
| TX | Harris County Toll Road Authority - Sam Houston Tollway | 1987 | Jan-16 | U | 70 | - | $12.00 | - | 17.1 |
| TX | Harris County Toll Road Authority - Hardy Toll Road | 1988 | Jul-16 | U | 21 | - | $3.00 | - | 14.2 |
| PA | Pennsylvania Turnpike | 1940 | Jan-16 | R | 360 | - | $35.13 | - | 9.8 |
| NY | New York State Thruway | 1954 | Apr-16 | R/U | 496 | - | $23.99 | - | 4.8 |
| CA | San Joaquin Hills Corridor (SR 73) | 1996 | Jul-16 | R/U | 15 | $7.61 | $6.92 | 50.7 | 46.1 |
| VA | Chesapeake Expressway (Route 168) | 2001 | May-16 | R | 16 | $8.00 | $8.00 | 50.0 | 50.0 |
| CO | Northwest Parkway | 2003 | Jan-16 | U | 10 | $4.10 | $3.70 | 43.2 | 38.9 |
| CA | Eastern Toll Road (SR 241) | 1998 | Jul-16 | R/U | 24 | $9.86 | $6.86 | 41.1 | 28.6 |
| VA | Dulles Greenway | 1995 | Feb-16 | R/U | 14 | $5.35 | $5.35 | 38.2 | 38.2 |
| CO | E-470 | 1991 | Jan-16 | R/U | 47 | $17.45 | $14.00 | 37.4 | 30.0 |
| 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 |
| CA | South Bay Expressway | 2007 | Jun-12 | C | 10 | $3.50 | $2.75 | 35.0 | 27.5 |
| FL | Miami Dade Expressway Authority - Dolphin Expressway (SR 836) | 1965 | Nov-14 | U | 14 | $4.80 | $2.40 | 34.3 | 17.1 |
| FL | Miami Dade Expressway, Airport Expressway, SR 112 | 1961 | Nov-14 | U | 4 | $1.40 | $0.70 | 33.3 | 16.7 |
| MD | Maryland Inter County Connector | 2011 | Jul-15 | P | 18 | $5.78 | $3.86 | 32.3 | 21.6 |
| 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 |
| TX | North Texas Tollway Authority - Sam Rayburn Tollway | 2006 | Jul-15 | U | 24 | $6.06 | $4.04 | 25.8 | 17.2 |
| TX | North Texas Tollway Authority - President George Bush TPK | 1998 | Jul-15 | U | 40 | $10.21 | $6.80 | 25.8 | 17.2 |
| TX | North Texas Tollway Authority - Dallas North Tollway | 1968 | Jul-15 | U | 30 | $7.73 | $5.15 | 25.7 | 17.1 |
| IL | Veterans Memorial Tollway | 1989 | Jan-16 | R/U | 30 | $7.60 | $3.80 | 25.5 | 12.7 |
| FL | Lee Roy Selmon Crosstown Expressway (SR 618) | 1976 | Jul-16 | U | 15 | $3.33 | $2.83 | 22.2 | 18.9 |
| SC | Greenville Southern Connector | 2001 | Jan-16 | R/U | 16 | $3.50 | $3.00 | 21.9 | 18.8 |
| FL | CFX S.R. 408 (East-West Expressway) | 1973 | Jul-12 | U | 22 | $4.50 | $3.82 | 20.3 | 17.3 |
| FL | Osceola Parkway (S.R. 522) | 1995 | Oct-14 | U | 12 | $2.00 | $2.00 | 16.1 | 16.1 |
| FL | CFX System (All Five Facilities)[A] | - | Jul-12 | R/U | 107 | $16.50 | $14.49 | 15.4 | 13.5 |
| FL | CFX S.R. 417 (Central Florida Greeneway) | 1988 | Jul-12 | R/U | 33 | $5.00 | $4.38 | 15.3 | 13.4 |
| FL | Florida's Turnpike, Polk Parkway | 1998 | Jul-15 | U | 25 | $3.75 | $3.18 | 15.0 | 12.7 |
| FL | Florida's Turnpike, Veterans Expressway | 1994 | Jul-15 | U | 15 | $2.25 | $1.85 | 15.0 | 12.3 |
| FL | CFX S.R. 414 (Apopka Expressway)[B] | 2009 | Jul-12 | R/U | 9 | $1.25 | $1.09 | 13.9 | 12.1 |
| FL | CFX S.R. 429 (Western Beltway)[B] | 2000 | Jul-12 | R/U | 23 | $3.00 | $2.74 | 13.0 | 11.9 |
| 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-15 | U | 8 | $1.00 | $0.79 | 12.3 | 9.7 |
| FL | CFX S.R. 528 (Beachline Expressway) | 1967 | Feb-16 | 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 |
| DE | Korean War Veterans Memorial Highway (SR 1) | 1991 | Aug-14 | R/U | 51 | $6.00 | $6.00 | 11.7 | 11.7 |
| IL | Tri-State Tollway | 1958 | Jan-16 | U | 77 | $9.00 | $4.50 | 11.6 | 5.8 |
| FL | Florida's Turnpike, Sawgrass Expressway | 1990 | Jul-15 | U | 23 | $2.64 | $2.12 | 11.5 | 9.2 |
| FL | Florida's Turnpike, Western Beltway | 2005 | Jul-15 | R/U | 11 | $1.25 | $1.06 | 11.4 | 9.6 |
| FL | Florida's Turnpike, Homestead Extension | 1974 | Jul-15 | U | 47 | $5.02 | $3.97 | 10.7 | 8.4 |
| IL | Reagan Memorial Tollway | 1958 | Jan-16 | C | 96 | $10.20 | $5.10 | 10.6 | 5.3 |
| IL | Jane Addams Memorial Tollway | 1958 | Jan-16 | C | 79 | $7.90 | $3.95 | 10.1 | 5.0 |
| FL | Florida's Turnpike, Suncoast Parkway | 2001 | Jul-15 | U | 42 | $3.75 | $3.18 | 8.9 | 7.6 |
| FL | Florida's Turnpike, Ticket System | 1957 | Jul-15 | R | 155 | $12.90 | $10.10 | 8.3 | 6.5 |
| FL | Florida's Turnpike, Southern Coin System | 1957 | Jul-15 | U | 43 | $3.50 | $2.91 | 8.1 | 6.8 |
| OH | Ohio Turnpike | 1954 | Jan-16 | R | 241 | $17.75 | $12.25 | 7.4 | 5.1 |
| 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-15 | U | 67 | $4.50 | $4.22 | 6.7 | 6.3 |
| IN | Indiana Toll Road | 1956 | Jul-16 | R | 157 | $10.50 | $4.65 | 6.7 | 3.0 |
| ME | Maine Turnpike | 1947 | Nov-12 | R | 110 | $7.00 | $6.45 | 6.4 | 5.9 |
| MA | Massachusetts Turnpike[C] | 1957 | Oct-13 | C | 123 | $7.10 | $7.10 | 5.8 | 5.8 |
| KS | Kansas Turnpike | 1956 | May-16 | R | 236 | $13.25 | $10.60 | 5.6 | 4.5 |
| NJ | Garden State Parkway[D] | 1954 | Jan-12 | R/U | 173 | $8.25 | $8.25 | 4.8 | 4.8 |
| NH | Spaulding Turnpike | 1957 | Oct-07 | R | 33 | $1.50 | $1.06 | 4.5 | 3.2 |
| FL | FDOT, Alligator Alley | 1969 | Jul-15 | R | 78 | $3.00 | $2.90 | 3.8 | 3.7 |

R:Rural, U:Urban, C:Commuter

Notes:

A - CFX System total length (miles) does not include the two miles for S.R. 451 (Wester Beltway Connector Road).

B - Of the 23 miles on S.R. 429 and nine miles on S.R. 414, three are part of a dual route between the two expressways. The three miles are only included once in the calculation of CFX System total miles.

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

D - 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). 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 1-5**.

**Table 1-5**
**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.

### 1.3.4 EXTRAORDINARY GROWTH

In FY 2015 and FY 2016, toll transactions on CFX facilities have grown at faster rates than have been seen since FY 2000, i.e., prior to the Great Recession during the expansion and widening programs. There are several reasons for this extraordinary growth.

The national and local economies have picked up. Citing recent announcement, Moody's Investors Service stated its outlook for the US toll industry on November 30, 2016 to remain positive, reflecting the stronger-than-expected recovery beginning in 2015 and continued growth through 2017[2]. Moody's reported the median toll road traffic growth of between 3% and 4% percent through that same time period based on 13 rated toll roads, significantly higher than previous forecasts. Furthermore, Moody's expects the median traffic and toll revenue to increase between 5% and 6% in 2015 and into 2017, owing to traffic growth and annual toll rate increases. Also, the U.S. Department of Transportation reported in January 2016 that 2015 was a record year for vehicle miles traveled (VMT) with a total of over 3.1 trillion, or 100 billion more miles than 2014, finally catching up with the prior high mark established in calendar year 2007.

The recent low fuel prices and increases in tourism (as evidenced by increases in enplanements at OIA) are other more local reasons for the extraordinary growth of T&R on CFX facilities. Construction activities along Interstate 4 (I-4) may have influenced travel patterns in the Orlando area, resulting in route changes away from I-4 to other facilities, as well as the additional toll discount incentive programs.

[1] October 2012 Traffic and Earnings Report for Florida's Turnpike System
[2] Moody's Investors Service, Moody's: Strong Traffic and Revenue Growth Supports US Toll Industry Outlook, November 30, 2016; www.Moodys.com.

While all CFX toll facilities grew at a strong pace, some facilities grew faster than others. **Table 1-6** contains a summary of transactions and toll revenue by facility for the last three fiscal years. Recent growth at the System level was fueled by transaction and revenue growth on S.R. 417 and S.R. 429. Transactions and revenue on S.R. 414 also grew at a brisk pace, with transactions increasing by 26.3 percent and toll revenues by 31.9 percent over the two year period. This facility may still be experiencing ramp up as the newest toll road on the CFX System.

**Table 1-6**
**Recent Transactions and Toll Revenue by Facility (Millions)**

| Transactions | S.R. 528 | S.R. 408 | S.R. 417 | S.R. 429 | S.R. 414 | Total |
|---|---|---|---|---|---|---|
| **FY 2014** | 59.7 | 129.7 | 97.2 | 30.7 | 9.5 | 326.8 |
| **FY 2015** | 64.3 | 138.2 | 109.3 | 35.2 | 10.6 | 357.6 |
| **FY 2016** | 71.5 | 146.2 | 127.4 | 41.2 | 12.0 | 398.3 |
| **Growth** | 19.8% | 12.7% | 31.1% | 34.2% | 26.3% | 21.9% |

| Revenue | S.R. 528 | S.R. 408 | S.R. 417 | S.R. 429 | S.R. 414 | Total |
|---|---|---|---|---|---|---|
| **FY 2014** | $56.3 | $125.2 | $98.3 | $33.5 | $9.1 | $322.5 |
| **FY 2015** | $60.4 | $133.0 | $110.4 | $38.9 | $10.4 | $353.1 |
| **FY 2016** | $66.7 | $140.1 | $129.0 | $46.0 | $12.0 | $393.9 |
| **Growth** | 18.5% | 11.9% | 31.2% | 37.3% | 31.9% | 22.1% |

During this period, S.R. 417 experienced transaction growth of 31.1 percent and revenue growth of 31.2 percent. Part of this growth can be attributed to a new partial interchange between S.R. 417 and Florida's Turnpike, which opened in January 2015, i.e., the middle of FY 2015. The new ramps are between the Turnpike northbound to S.R. 417 northbound and from southbound S.R. 417 to the southbound Turnpike. In May 2016, CFX also opened an additional ramp for motorists traveling southbound on S.R. 417 to access Florida's Turnpike northbound toward Interstate 4. Also, two new ramps were opened for motorists traveling north on S.R. 417 from Hunter's Creek to access Florida's Turnpike in both the north and south directions. Customers in South Orange and Osceola Counties are now able to easily get to the Orlando International Airport and the Medical City complex in the Lake Nona area. The recent land developments in the Medical City area along S.R. 417 represent another reason for the accelerated T&R growth.

S.R. 429 experienced transaction growth of 34.2 percent and revenue growth of 37.3 percent from FY 2014 to FY 2016. As shown in **Figure 1-4**, several new residential and commercial developments were recently opened (shown in green), which contributed to the significant growth on S.R. 429. The red areas on the map show potential future developments in the S.R. 429 area. Travel patterns also indicated that customers are using S.R. 429 as an alternative to Interstate 4 (I-4) during construction activities, with some people traveling between Florida's Turnpike and both S.R. 408 and S.R. 414.

Transactions and revenue on S.R. 528 also grew significantly, with transactions increasing by 19.8 percent and revenues by 18.5 percent over the two year period. This growth can partially be attributed to the opening of the two new ramp plazas at the Conway Road and Boggy Creek interchanges as a result of the relocation/removal of the Airport Main toll collection point to Beachline West.

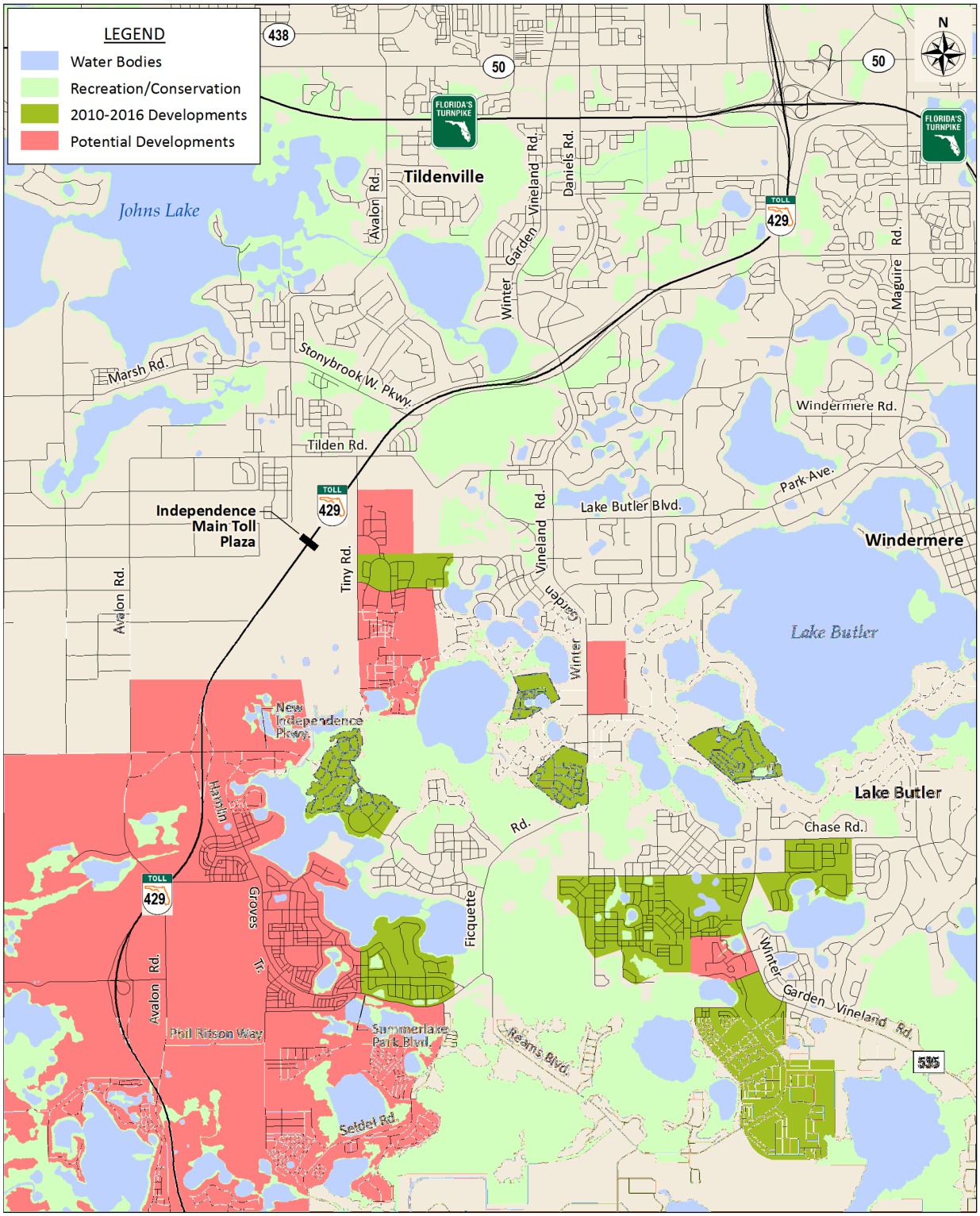
All of these effects are expected to positively impact transaction and revenue growth on CFX facilities in the short term, certainly during FY 2017.

### 1.3.5 WRONG-WAY DRIVING DETECTION AND PREVENTION PROGRAM

As part of CFX's mission to ensure the safety of their customers, the Authority began the Wrong-Way Driving Prevention and Detection Pilot Program in 2012 in partnership with the University of Central Florida. The program was broken out into three phases. Phase 1, which was completed in May 2013, included extensive research to determine the extent of the wrong-way driving problem and examine potential solutions. Through this research it was determined that current technology in use on the roadways did not adequately address wrong-way driving. Phase 2 of the program included the development of technology to help detect wrong-way drivers and take appropriate action. Testing began in January 2015 at the S.R. 528/S.R. 520 interchange and included data collection for a one year period.

In January 2016, CFX installed the first wrong-way driving detection system at the S.R. 528/S.R. 520 interchange and have continued to install the devices throughout the expressway system at 34 locations. Preliminary results conclude that the system has been successful in detecting wrong-way drivers. In reported cases the driver turned around when the flashing wrong way beacons were activated. CFX was awarded the International Bridge, Tunnel and Turnpike Association (IBTTA) National Toll Excellence Award for the program. These awards recognize the very best projects the international tolling industry has to offer and allows IBTTA to celebrate members whose creative, innovative and positive programs set a new standard of excellence.

**Figure 1-4**
**S.R. 429 Developments (2010 – 2016)**



## 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 1997 to FY 2016 are presented in **Table 1-7**. The annual data is based on the CFX Monthly Statistical Reports and is not reconciled to the fiscal year end results. Also, more detailed information on history is presented in Chapters 3 through 8 of this report. For these reasons, the information presented in this section may differ slightly from the data presented in the FY 2016 Comprehensive Annual Financial Report (CAFR) and other information in this report.

S.R. 408 has the largest number of annual transactions with 146.2 million and the greatest amount of toll revenue with $140.1 million in FY 2016. In FY 2016 S.R. 417 had 127.4 million transactions and $129.0 million in toll revenue, and S.R. 528 had 71.5 million transactions and $66.7 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 41.2 million transactions and $46.1 million in toll revenue for FY 2016. Being the newest facility on the CFX System, S.R. 414 has been open to traffic for just seven full years and is still experiencing "ramp-up" with 12.0 million in transactions and also $12.0 million in toll revenue for FY 2016.

As shown in the table, total System transactions in FY 2016 have increased by 40.7 million transactions or 11.4 percent over FY 2015. All plaza groups experienced growth in transactions in FY 2016 compared to FY 2015. Total System revenues in FY 2016 increased $40.8 million or 11.6 percent over FY 2015. All plaza groups experienced increases in revenue.

Historical transactions for the CFX System since FY 1997 are displayed in **Figure 1-5**. The green line represents the number of transactions and shows how overall transactions have increased over the last 20 years. The brown bars represent the annual growth (percent change) of transactions. The same information for toll revenues is depicted in **Figure 1-6**. Transaction and toll revenue growth patterns exhibited on the System roughly follow the same growth patterns. This pattern does shift in times of toll rate increases, as shown in the revenue growth in FY 2010 and FY 2013.

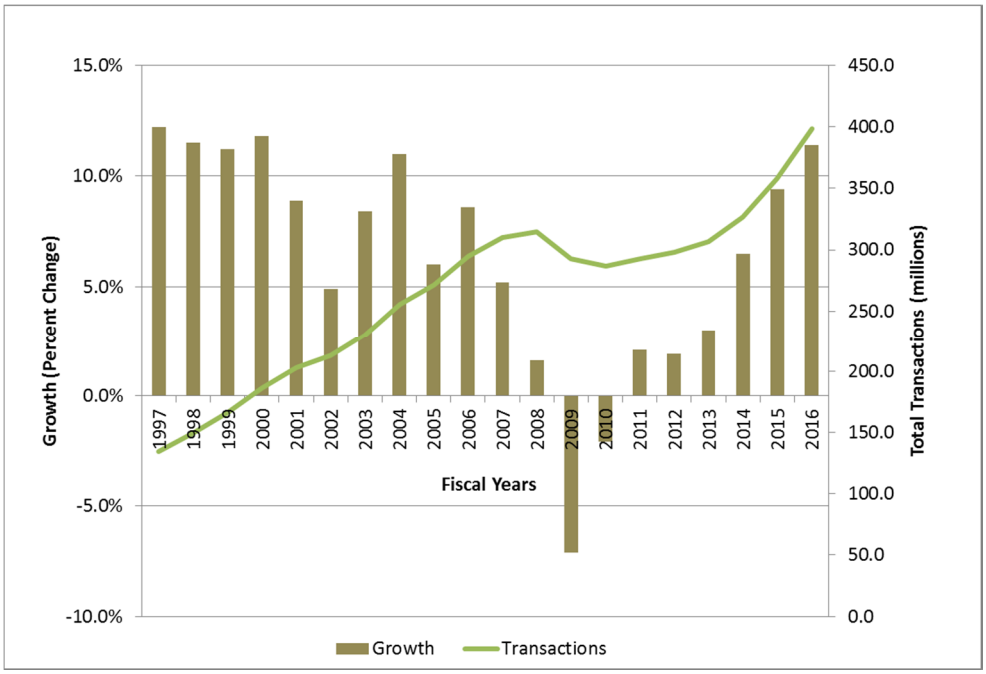
Transaction and revenue growth on the System was consistently strong up through FY 2007. Transactions and revenue exhibited double-digit growth from FY 1997 through FY 2000 and in FY 2004. The growth in transactions and revenue fell to below 5 percent in FY 2002, the first time annual growth rates fell 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. Then, in FY 2008 the first signs of the Great Recession appeared with transaction and revenue growth slowing down as the housing and construction industry across the State of Florida slowed down.

**Table 1-7**
**System Totals – Historical Transactions and Toll Revenues**
**FY 1997 – FY 2016**

| Fiscal Year Ending | S.R. 528 | S.R. 408 | S.R. 417 | S.R. 429 | S.R. 414 | TOTAL | Percent Change |
|---|---|---|---|---|---|---|---|
| **TRANSACTIONS (millions)** | | | | | | | |
| 1997 | 23.7 | 70.3 | 40.3 | | | 134.3 | |
| 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% |
| 2015 | 64.3 | 138.2 | 109.3 | 35.2 | 10.6 | 357.6 | 9.4% |
| 2016 | 71.5 | 146.2 | 127.4 | 41.2 | 12.0 | 398.3 | 11.4% |
| **TOLL REVENUES (millions)** | | | | | | | |
| 1997 | $21.2 | $45.5 | $26.4 | | | $93.1 | |
| 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% |
| 2015 | $60.4 | $133.0 | $110.4 | $38.9 | $10.4 | $353.1 | 9.5% |
| 2016 [O] | $66.7 | $140.1 | $129.0 | $46.1 | $12.0 | $393.9 | 11.6% |

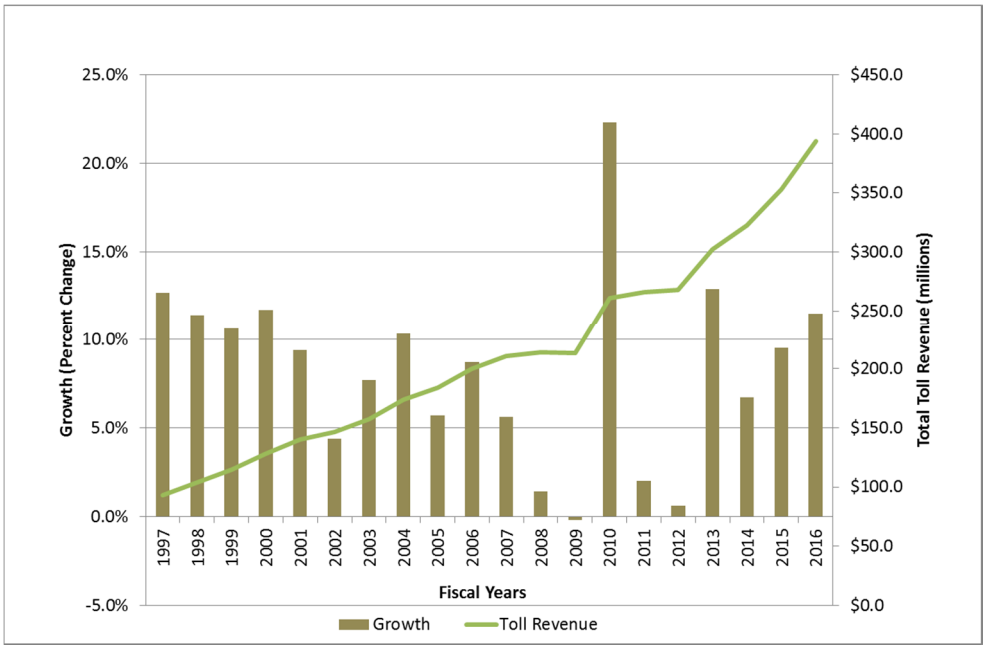
Notes:
A - Forest Lake Plaza on S.R. 429 opened in 2000.
B - C.R. 535 ramps on S.R. 429 opened in 2002.
C - Effects of the events on September 11, 2001.
D - Express lanes opened at University Main plaza.
E - Express lanes opened at Curry Ford and Dean Main plazas.
F - Effects from 2004 hurricane season (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.
O - Beachline Airport Main plaza closed in March 2016.

**Figure 1-5**
**CFX System Historical Transactions and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016

**Figure 1-6**
**CFX System Historical Toll Revenue and Annual Growth**
**FY 1997 – FY 2016**



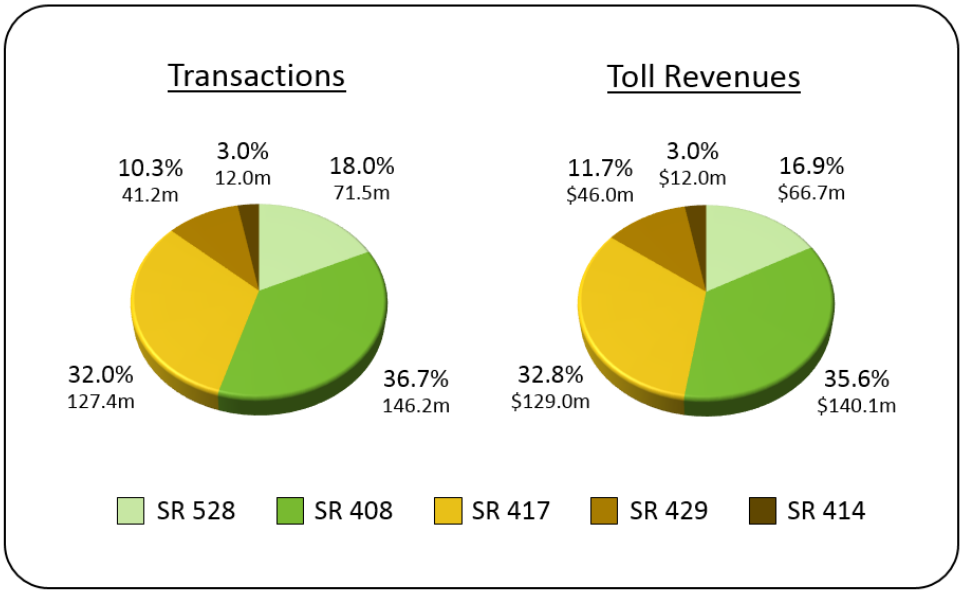

Source: CFX Statistical Report June 2016

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. Toll revenues only dipped into negative growth in FY 2009. The April 2009 toll rate increase slowed the negative revenue 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 2016 has shown stable transaction growth with each year increasing 2 to 11 percent despite the toll rate increase at the beginning of FY 2013. Revenues have climbed to nearly $400 million in FY 2016.

### 1.4.2 ANNUAL TRANSACTIONS AND TOLL REVENUE BY FACILITY

**Figure 1-7** contains a summary of the FY 2016 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 36.7 percent, or 146.2 million of the transactions and 35.6 percent, or $140.1 million of the revenues. Transactions and revenue on S.R. 417 are approximately 32.0 percent of the System, 127.4 million and $129.0 million, respectively. S.R. 528 comprises 18.0 percent, or 71.5 million of the transactions and 16.9 percent, or $66.7 million of the revenues. S.R. 429 transactions represent 10.3 percent, or 41.2 million of the System transactions and 11.7 percent, or $46.0 million of the System revenues. S.R. 414 transactions were reported at 12.0 million or 3.0 percent, while revenues were reported at $12.0 million or 3.0 percent of the System revenues for FY 2016.

**Figure 1-7**
**CFX System Annual Transactions and Toll Revenues by Facility**
**FY 2016**




Source: CFX Statistical Report June 2016

### 1.4.3 MONTHLY TRANSACTION SEASONAL VARIATION

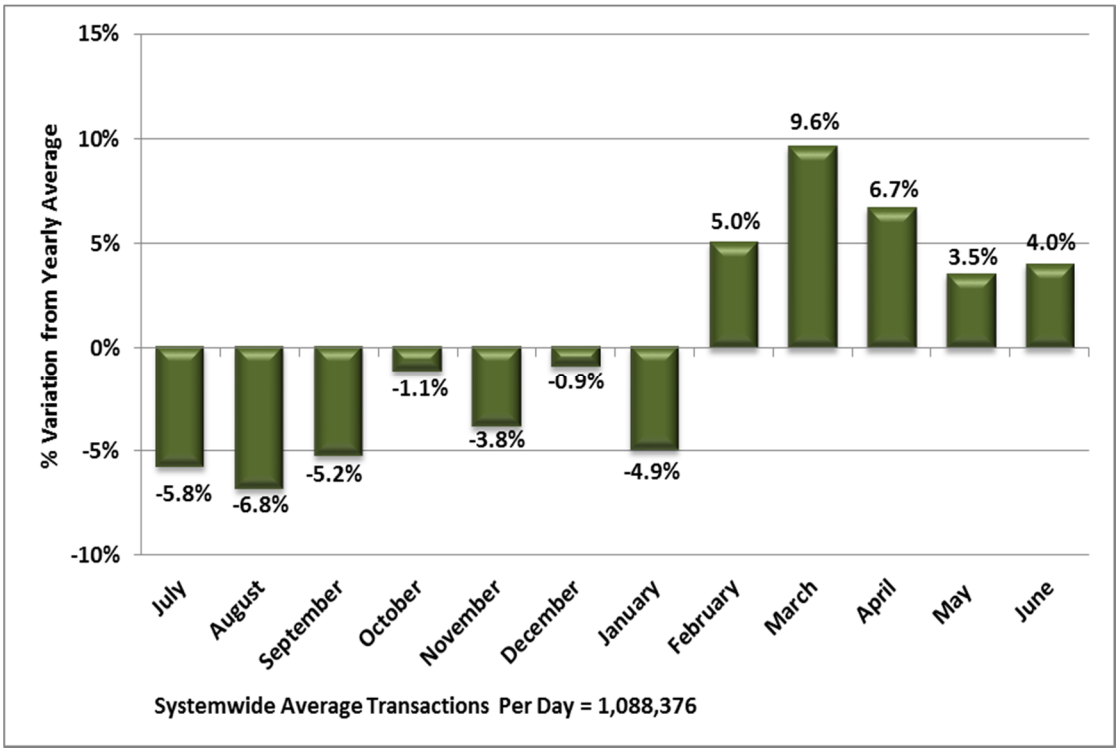
The seasonal variation in transactions is presented in **Table 1-8**. The average number of transactions per day on the System in FY 2016 ranged from a high of 1,192,769 in March 2016 to a low of 1,014,220 in August of 2015. This data is presented in a graphical format in **Figure 1-8**. Each month's average transactions per day appear as a percentage of the average for the fiscal year. As shown in the figure, March transactions were 9.6 percent above average and August transactions were 6.8 percent below the average. For FY 2016, 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 increase in the number of tourists and seasonal residents in the area. The seasonal patterns vary 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 2016**

| Month | Number of Days in Month | Total Toll Paying Transactions | Average Transactions Per Day | Seasonal Factor |
|---|---|---|---|---|
| July | 31 | 31,798,022 | 1,025,743 | 0.942 |
| August | 31 | 31,440,815 | 1,014,220 | 0.932 |
| September | 30 | 30,957,795 | 1,031,927 | 0.948 |
| October | 31 | 33,377,614 | 1,076,697 | 0.989 |
| November | 30 | 31,418,911 | 1,047,297 | 0.962 |
| December | 31 | 33,444,629 | 1,078,859 | 0.991 |
| January | 31 | 32,074,362 | 1,034,657 | 0.951 |
| February | 29 | 33,151,547 | 1,143,157 | 1.050 |
| March | 31 | 36,975,825 | 1,192,769 | 1.096 |
| April | 30 | 34,834,445 | 1,161,148 | 1.067 |
| May | 31 | 34,918,765 | 1,126,412 | 1.035 |
| June | 30 | 33,953,007 | 1,131,767 | 1.040 |
| ***Average*** | | ***33,195,478*** | ***1,088,376*** | ***1.000*** |
| **Total Year** | **366** | **398,345,737** | | |

Source: CFX Statistical Report June 2016

**Figure 1-8**
**CFX System Variation in Transactions Per Day, By Month**
**FY 2016**




Source: CFX Statistical Report June 2016

## *1.5 Historical E-PASS Usage (Revenue)*

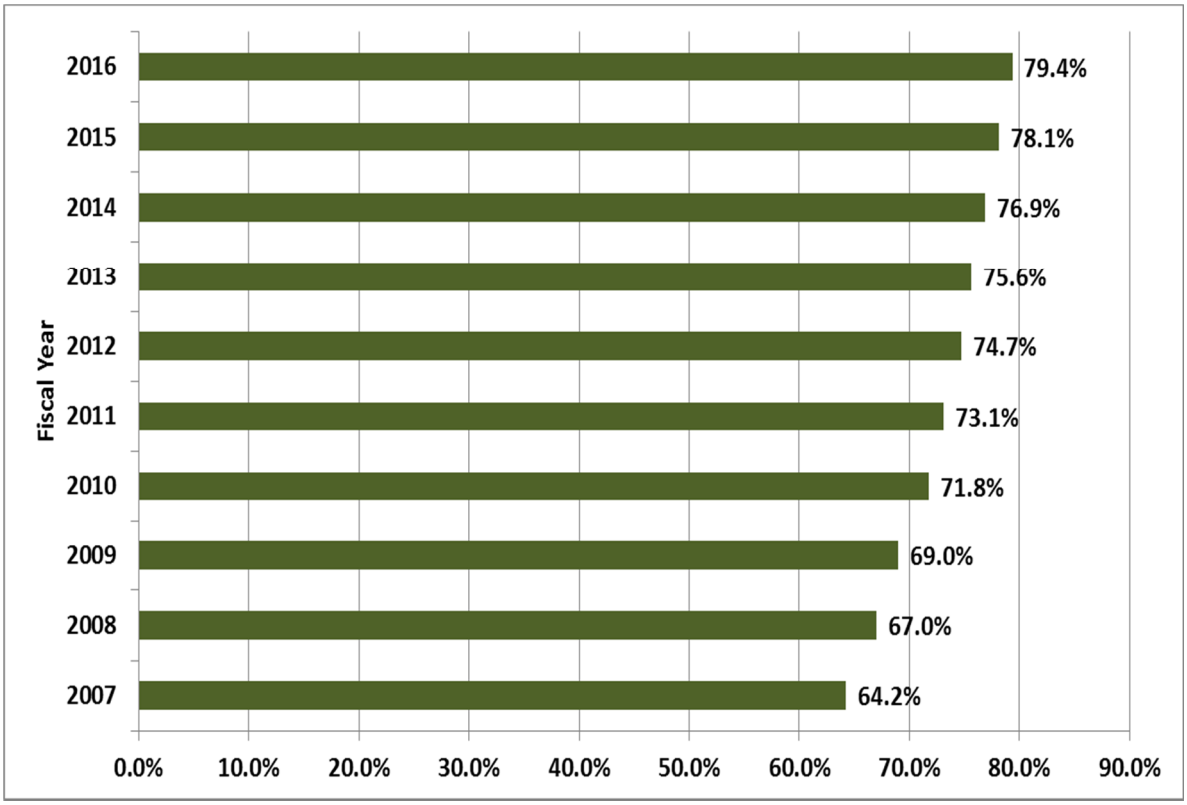
In 1994, CFX introduced its E-PASS electronic toll collection (ETC) program. During that year there were approximately 2,300 E-PASS transponders in use on the System. As of FY 2016 the number has grown to 554,500 transponders and approximately 300,800 active E-PASS accounts. As shown in **Figure 1-9**, revenues collected through E-PASS during FY 2016 account for 79.4 percent of the total System revenues. The percent of toll revenues from E-PASS has grown steadily for the past 10 years, from only 64.2 percent in FY 2007. E-PASS transactions account for over 80% of daily revenue at the University, Boggy Creek, John Young, Curry Ford, Dean, Conway, Pine Hills, Hiawassee, Independence, Forest Lake and Coral Hills Mainline plazas. The percentage of revenues collected through E-PASS is over 75 percent at the remainder of the mainline toll plazas. Many customers purchased E-PASS in FY 2016 to take advantage of the lower electronic toll rate and pay on average 23 percent less in tolls. In FY 2013, E-PASS 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.

Beginning May 11, 2016, CFX implemented a pilot program called The Reload Lane to encourage and increase E-PASS usage. CFX now offers this drive-through lane on S.R. 408 at the Conway Main Plaza for customers to sign up for an E-PASS electronic transponder or replenish an existing E-PASS account from 6:00 a.m. to 8:00 p.m. daily. This program is the first of its kind in the continental United States and provides customer convenience and multiple payment options

(cash, check, and debit/credit card). The program will be expanded to other locations on the CFX System in the future including S.R. 417 and S.R. 429 in 2017.

CFX continues to offer toll discount incentives to customers through various discount programs. The I-4 Commuter Discount Program, implemented in July 2015, offers discounts for transactions on S.R. 417, S.R. 429 and S.R. 414 during construction activities on I-4. Also, the Customer Loyalty Discount Program introduced in May 2016 offers discounts to frequent users of all facilities for ETC transactions. Both of these programs are discussed in more detail in Section 1.3.1 of this chapter. Recently, CFX began offering CollegePass in its first branded E-PASS partnership with the University of Central Florida (UCF), the University of Florida (UF) and Florida State University. These special sticker tags cost $18.50 plus tax and an additional $10 for customers to activate a prepaid toll account. CollegePass works the same way as regular sticker tag transponders and offer the same discounts and benefits exclusive to E-PASS customers.

**Figure 1-9**
**CFX System Percent of Toll Revenue from Electronic Transactions**




Source: CFX Statistical Report June 2016

## *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 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 2016 - 2020 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 adjustments and the toll amounts with the planned toll rate adjustments. In this way, the CFX Model 2.0 provides direct estimates of the effect of the future toll rate adjustments 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 (FY 2016) 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) and Pay-By-Plate (PBP) 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 complete 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 UTNs and PBP 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 toll facility and then to the CFX System.

## Table 1-9
## CFX System Transaction Forecast (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 | 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 | 64.3 | | 138.2 | | 109.3 | | 35.2 | | 10.6 | | | | 357.6 | | 9.4% |
| 2016 [F] | 71.5 | | 146.2 | | 127.4 | | 41.2 | | 12.0 | | | | 398.3 | | 11.4% |
| 2017 | | 76.7 | | 152.8 | | 135.9 | | 44.1 | | 12.8 | | | | 422.4 | 6.0% |
| 2018 [E,G] | | 78.8 | | 149.1 | | 133.8 | | 46.4 | | 13.0 | | 0.8 | | 422.0 | -0.1% |
| 2019 | | 79.7 | | 152.3 | | 136.8 | | 49.4 | | 13.3 | | 1.9 | | 433.4 | 2.7% |
| 2020 | | 80.6 | | 155.6 | | 139.8 | | 51.6 | | 13.7 | | 2.1 | | 443.3 | 2.3% |
| 2021 | | 81.6 | | 158.8 | | 142.8 | | 53.7 | | 14.0 | | 2.4 | | 453.2 | 2.2% |
| 2022 | | 82.5 | | 162.0 | | 145.7 | | 55.9 | | 14.3 | | 2.6 | | 463.1 | 2.2% |
| 2023 [E] | | 79.5 | | 153.6 | | 140.0 | | 54.5 | | 13.8 | | 2.9 | | 444.2 | -4.1% |
| 2024 | | 80.7 | | 156.8 | | 144.6 | | 56.5 | | 14.1 | | 3.1 | | 455.7 | 2.6% |
| 2025 | | 81.9 | | 159.9 | | 149.1 | | 58.6 | | 14.5 | | 3.4 | | 467.3 | 2.5% |
| 2026 | | 83.1 | | 163.0 | | 153.7 | | 60.6 | | 14.8 | | 3.6 | | 478.8 | 2.5% |
| 2027 | | 84.3 | | 166.1 | | 158.3 | | 62.7 | | 15.1 | | 3.9 | | 490.4 | 2.4% |
| 2028 [E] | | 81.5 | | 159.3 | | 153.8 | | 60.1 | | 14.4 | | 3.7 | | 472.8 | -3.6% |
| 2029 | | 82.7 | | 161.7 | | 158.8 | | 61.8 | | 14.6 | | 3.8 | | 483.4 | 2.3% |
| 2030 | | 83.9 | | 164.1 | | 163.9 | | 63.4 | | 14.7 | | 4.0 | | 494.1 | 2.2% |
| 2031 | | 85.1 | | 166.5 | | 168.9 | | 65.1 | | 14.9 | | 4.2 | | 504.7 | 2.2% |
| 2032 | | 86.3 | | 168.9 | | 174.0 | | 66.7 | | 15.1 | | 4.4 | | 515.4 | 2.1% |
| 2033 [E] | | 83.2 | | 163.2 | | 168.5 | | 64.6 | | 14.6 | | 4.3 | | 498.5 | -3.3% |
| 2034 | | 84.2 | | 165.7 | | 172.1 | | 66.0 | | 14.8 | | 4.5 | | 507.3 | 1.8% |
| 2035 | | 85.2 | | 168.2 | | 175.7 | | 67.3 | | 15.0 | | 4.7 | | 516.1 | 1.7% |
| 2036 | | 86.2 | | 170.6 | | 179.3 | | 68.6 | | 15.2 | | 5.0 | | 525.0 | 1.7% |
| 2037 | | 87.2 | | 173.1 | | 182.9 | | 69.9 | | 15.4 | | 5.2 | | 533.8 | 1.7% |
| 2038 [E] | | 84.0 | | 168.9 | | 179.9 | | 68.1 | | 14.6 | | 5.0 | | 520.5 | -2.5% |
| 2039 | | 85.0 | | 170.7 | | 183.9 | | 69.3 | | 14.8 | | 5.3 | | 529.0 | 1.6% |
| 2040 | | 86.1 | | 172.6 | | 187.8 | | 70.5 | | 15.0 | | 5.5 | | 537.5 | 1.6% |
| 2041 | | 87.2 | | 174.4 | | 191.7 | | 71.7 | | 15.2 | | 5.7 | | 546.0 | 1.6% |
| 2042 | | 88.3 | | 176.2 | | 195.7 | | 72.9 | | 15.5 | | 6.0 | | 554.5 | 1.6% |
| 2043 [E] | | 86.1 | | 172.4 | | 194.3 | | 72.1 | | 14.9 | | 5.5 | | 545.2 | -1.7% |
| 2044 | | 87.2 | | 174.2 | | 198.2 | | 73.3 | | 15.1 | | 5.7 | | 553.7 | 1.6% |
| 2045 | | 88.3 | | 176.0 | | 202.1 | | 74.5 | | 15.3 | | 5.9 | | 562.2 | 1.5% |
| 2046 | | 89.3 | | 177.8 | | 206.1 | | 75.7 | | 15.5 | | 6.2 | | 570.7 | 1.5% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2000 - 2008 | 4.8% | 4.5% | 7.7% | | | | 6.8% | |
| 2008 - 2015 | 5.3% | -0.1% | 0.6% | 4.1% | | | 1.8% | |
| 2015 - 2025 | 2.4% | 1.5% | 3.2% | 5.2% | 3.1% | | 2.7% | |
| 2025 - 2035 | 0.4% | 0.5% | 1.7% | 1.4% | 0.4% | 3.4% | 1.0% | |
| 2035 - 2045 | 0.4% | 0.5% | 1.4% | 1.0% | 0.2% | 2.3% | 0.9% | |

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/PBP 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 | 60.4 | | 133.0 | | 110.4 | | 38.9 | | 10.4 | | | | 353.1 | | 9.5% |
| 2016 [F] | 66.7 | | 140.1 | | 129.0 | | 46.0 | | 12.0 | | | | 393.8 | | 11.5% |
| 2017 | | $69.1 | | $147.5 | | $138.8 | | $49.3 | | $12.8 | | | | $417.6 | 6.0% |
| 2018 [E,G] | | 75.2 | | 159.1 | | 153.9 | | 55.1 | | 13.6 | | $0.5 | | 457.4 | 9.5% |
| 2019 | | 77.6 | | 161.5 | | 157.9 | | 58.9 | | 13.9 | | 1.2 | | 471.0 | 3.0% |
| 2020 | | 80.0 | | 163.8 | | 161.8 | | 62.2 | | 14.3 | | 1.4 | | 483.6 | 2.7% |
| 2021 | | 82.4 | | 166.2 | | 165.8 | | 65.5 | | 14.6 | | 1.6 | | 496.1 | 2.6% |
| 2022 | | 84.9 | | 168.6 | | 169.7 | | 68.8 | | 14.9 | | 1.8 | | 508.7 | 2.5% |
| 2023 [E] | | 90.3 | | 180.3 | | 180.2 | | 74.9 | | 15.7 | | 2.2 | | 543.6 | 6.9% |
| 2024 | | 91.2 | | 183.2 | | 184.5 | | 77.1 | | 16.2 | | 2.4 | | 554.7 | 2.0% |
| 2025 | | 92.2 | | 186.2 | | 188.8 | | 79.4 | | 16.7 | | 2.6 | | 565.9 | 2.0% |
| 2026 | | 93.1 | | 189.2 | | 193.1 | | 81.6 | | 17.3 | | 2.8 | | 577.0 | 2.0% |
| 2027 | | 94.0 | | 192.1 | | 197.4 | | 83.8 | | 17.8 | | 3.0 | | 588.1 | 1.9% |
| 2028 [E] | | 97.5 | | 202.2 | | 207.4 | | 88.1 | | 18.9 | | 3.3 | | 617.3 | 5.0% |
| 2029 | | 100.0 | | 204.2 | | 212.3 | | 89.9 | | 19.2 | | 3.5 | | 629.1 | 1.9% |
| 2030 | | 102.5 | | 206.3 | | 217.2 | | 91.7 | | 19.5 | | 3.6 | | 640.8 | 1.9% |
| 2031 | | 105.0 | | 208.4 | | 222.1 | | 93.5 | | 19.8 | | 3.8 | | 652.5 | 1.8% |
| 2032 | | 107.5 | | 210.4 | | 227.0 | | 95.2 | | 20.1 | | 3.9 | | 664.2 | 1.8% |
| 2033 [E] | | 112.3 | | 219.0 | | 237.1 | | 99.1 | | 21.0 | | 4.2 | | 692.7 | 4.3% |
| 2034 | | 114.2 | | 221.6 | | 240.9 | | 101.2 | | 21.2 | | 4.5 | | 703.6 | 1.6% |
| 2035 | | 116.2 | | 224.2 | | 244.7 | | 103.2 | | 21.5 | | 4.7 | | 714.5 | 1.5% |
| 2036 | | 118.2 | | 226.8 | | 248.5 | | 105.3 | | 21.7 | | 4.9 | | 725.4 | 1.5% |
| 2037 | | 120.2 | | 229.4 | | 252.2 | | 107.3 | | 22.0 | | 5.1 | | 736.3 | 1.5% |
| 2038 [E] | | 124.0 | | 238.6 | | 261.4 | | 112.2 | | 22.9 | | 5.6 | | 764.6 | 3.9% |
| 2039 | | 126.0 | | 241.8 | | 265.4 | | 114.1 | | 23.1 | | 5.9 | | 776.2 | 1.5% |
| 2040 | | 128.0 | | 245.0 | | 269.4 | | 116.0 | | 23.4 | | 6.1 | | 787.8 | 1.5% |
| 2041 | | 129.9 | | 248.2 | | 273.3 | | 117.9 | | 23.6 | | 6.4 | | 799.3 | 1.5% |
| 2042 | | 131.9 | | 251.4 | | 277.3 | | 119.8 | | 23.8 | | 6.6 | | 810.9 | 1.4% |
| 2043 [E] | | 136.6 | | 254.7 | | 287.2 | | 124.7 | | 24.8 | | 6.9 | | 834.9 | 3.0% |
| 2044 | | 138.6 | | 257.9 | | 291.2 | | 126.6 | | 25.0 | | 7.1 | | 846.5 | 1.4% |
| 2045 | | 140.6 | | 261.1 | | 295.2 | | 128.5 | | 25.3 | | 7.4 | | 858.0 | 1.4% |
| 2046 | | 142.6 | | 264.3 | | 299.2 | | 130.4 | | 25.5 | | 7.6 | | 869.6 | 1.3% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2000 - 2008 | 4.7% | 4.1% | 7.5% | | | | 6.6% | |
| 2008 - 2015 | 6.0% | 6.4% | 7.1% | 10.8% | | | 7.4% | |
| 2015 - 2025 | 4.3% | 3.4% | 5.5% | 7.4% | 4.9% | | 4.8% | |
| 2025 - 2035 | 2.3% | 1.9% | 2.6% | 2.7% | 2.5% | 5.9% | 2.4% | |
| 2035 - 2045 | 1.9% | 1.5% | 1.9% | 2.2% | 1.6% | 4.7% | 1.8% | |

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 SYSTEM AVAILABLE TOLL REVENUES

The System available toll revenue is defined as indicated revenue plus revenue from UTNs/PBP, less the discounts. The calculations are summarized in **Table 1-11**. The total System toll revenue plus the revenue recaptured from UTNs/PBP is expected to increase from the actual of $409.6 million in FY 2016 to $586.1 million in FY 2025, $736.9 million in FY 2035 and $881.1 million in FY 2045.

The System currently experiences a relatively low violation rate. In FY 2016, the unadjusted violations of all System transactions recorded as violations were 3.98 percent. This low violation rate is experienced despite providing open road tolling at all System mainline plazas. 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 UTNs 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 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 UTNs 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 discount programs are discussed in detail in Section 1.3.1 of this chapter. 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 $390.9 million in FY 2016 to estimated amounts of $562.2 million in FY 2025, $701.7 million in FY 2035 and $832.8 million in FY 2045.

### 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. Goldenrod Road was a four-lane state-maintained facility that terminated at Narcoosee Road. The Goldenrod Road Extension continues the roadway south from the 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.

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

| Fiscal Year | System Toll Revenues | Revenue Recaptured from UTN/PBP [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 | 353.1 | 11.0 | 364.1 | 13.2 | 350.9 | 10.0% |
| 2016 | 393.9 | 15.7 | 409.6 | 18.7 | 390.9 | 11.4% |
| 2017 | 417.6 | 16.4 | 434.0 | 20.6 | 413.4 | 5.8% |
| 2018 [A] | 457.4 | 17.8 | 475.2 | 23.5 | 451.7 | 9.3% |
| 2019 | 471.0 | 18.1 | 489.1 | 24.8 | 464.3 | 2.8% |
| 2020 | 483.6 | 18.4 | 502.0 | 26.0 | 476.0 | 2.5% |
| 2021 | 496.1 | 18.6 | 514.7 | 27.3 | 487.4 | 2.4% |
| 2022 | 508.7 | 18.9 | 527.6 | 20.4 | 507.2 | 4.1% |
| 2023 [A] | 543.6 | 19.9 | 563.5 | 22.2 | 541.3 | 6.7% |
| 2024 | 554.7 | 20.1 | 574.8 | 23.1 | 551.7 | 1.9% |
| 2025 | 565.9 | 20.2 | 586.1 | 23.9 | 562.2 | 1.9% |
| 2026 | 577.0 | 20.4 | 597.4 | 24.8 | 572.6 | 1.8% |
| 2027 | 588.1 | 20.5 | 608.6 | 25.7 | 582.9 | 1.8% |
| 2028 [A] | 617.3 | 21.3 | 638.6 | 27.4 | 611.2 | 4.9% |
| 2029 | 629.1 | 21.4 | 650.5 | 28.4 | 622.1 | 1.8% |
| 2030 | 640.8 | 21.5 | 662.3 | 29.3 | 633.0 | 1.8% |
| 2031 | 652.5 | 21.6 | 674.1 | 30.3 | 643.8 | 1.7% |
| 2032 | 664.2 | 21.7 | 685.9 | 31.4 | 654.5 | 1.7% |
| 2033 [A] | 692.7 | 22.3 | 715.0 | 33.2 | 681.8 | 4.2% |
| 2034 | 703.6 | 22.4 | 726.0 | 34.2 | 691.8 | 1.5% |
| 2035 | 714.5 | 22.4 | 736.9 | 35.2 | 701.7 | 1.4% |
| 2036 | 725.4 | 22.4 | 747.8 | 36.3 | 711.5 | 1.4% |
| 2037 | 736.3 | 22.4 | 758.7 | 37.3 | 721.4 | 1.4% |
| 2038 [A] | 764.6 | 23.0 | 787.6 | 39.3 | 748.3 | 3.7% |
| 2039 | 776.2 | 23.0 | 799.2 | 40.4 | 758.8 | 1.4% |
| 2040 | 787.8 | 23.0 | 810.8 | 41.6 | 769.2 | 1.4% |
| 2041 | 799.3 | 22.9 | 822.2 | 42.8 | 779.4 | 1.3% |
| 2042 | 810.9 | 22.9 | 833.8 | 44.0 | 789.8 | 1.3% |
| 2043 [A] | 834.9 | 23.2 | 858.1 | 45.8 | 812.3 | 2.8% |
| 2044 | 846.5 | 23.2 | 869.7 | 47.1 | 822.6 | 1.3% |
| 2045 | 858.0 | 23.1 | 881.1 | 48.3 | 832.8 | 1.2% |
| 2046 | 869.6 | 23.0 | 892.6 | 49.6 | 843.0 | 1.2% |

| Fiscal Year | | Compound Annual Average Growth Rate (CAAGR) | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 6.6% | | 6.6% | | 6.4% | |
| 2008 - 2015 | 7.4% | | 7.9% | 7.7% | 7.9% | |
| 2015 - 2025 | 4.8% | 6.3% | 4.9% | 6.1% | 4.8% | |
| 2025 - 2035 | 2.4% | 1.0% | 2.3% | 3.9% | 2.2% | |
| 2035 - 2045 | 1.8% | 0.3% | 1.8% | 3.2% | 1.7% | |

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 1-10 due to recovered revenues from toll violations and account adjustments. These adjustments occur periodically throughout the FY but are not tied to the collected revenue at a particular plaza group. Since FY 2010 the recovered revenues have been reported separately.
C - Unpaid Toll Notice/Pay-By-Plate (PBP). The revenue recaptured from the UTNs/(PBP) comprised 3.1 percent and 4.0 percent of the System Revenues less E-PASS discount in FY 2015 and FY 2016, respectively. From FY 2017 through FY 2046, the estimated revenue recaptured from the UTNs is assumed to comprise 3.9 percent declining to 2.6 percent of the System Toll Revenues Less the E-PASS Discount. Historical information comes from the 2016 CAFR.

D - Discount Programs. The E-PASS Discount Program, created to increase ETC participation, provides a 5 percent discount to customers with at least 40 transactions in a month and a 10 percent discount to customers with at least 80 transactions per month. As of May 2016, the E-PASS Discount Program was replaced by the Customer Loyalty Discount Program, which provides a 10 percent discount to E-PASS customers with at least 40 transactions in a month and a 15 percent discount to E-PASS 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, provides an additional 5 percent discount to customers with 20 or more transactions per month on the CFX "beltway" facilities (SR 417, SR 429 and SR 414). Historical information on the E-PASS discount comes from the 2016 CAFR. The Regional School Bus Discount Program, which began on February 1, 2016, provides a 99 percent discount to school buses in Orange, Brevard, Lake, Osceola, Polk, Seminole and Volusia Counties transporting students on official school business on CFX facilities. All discounts will only be offered during months when actual total revenue exceeds the current revenue projections by more than 2 percent.

Source - System Toll Revenue - CAFR "Average Toll Rate" Table that reports Toll revenue before E-PASS discount.

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 not 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 other 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.

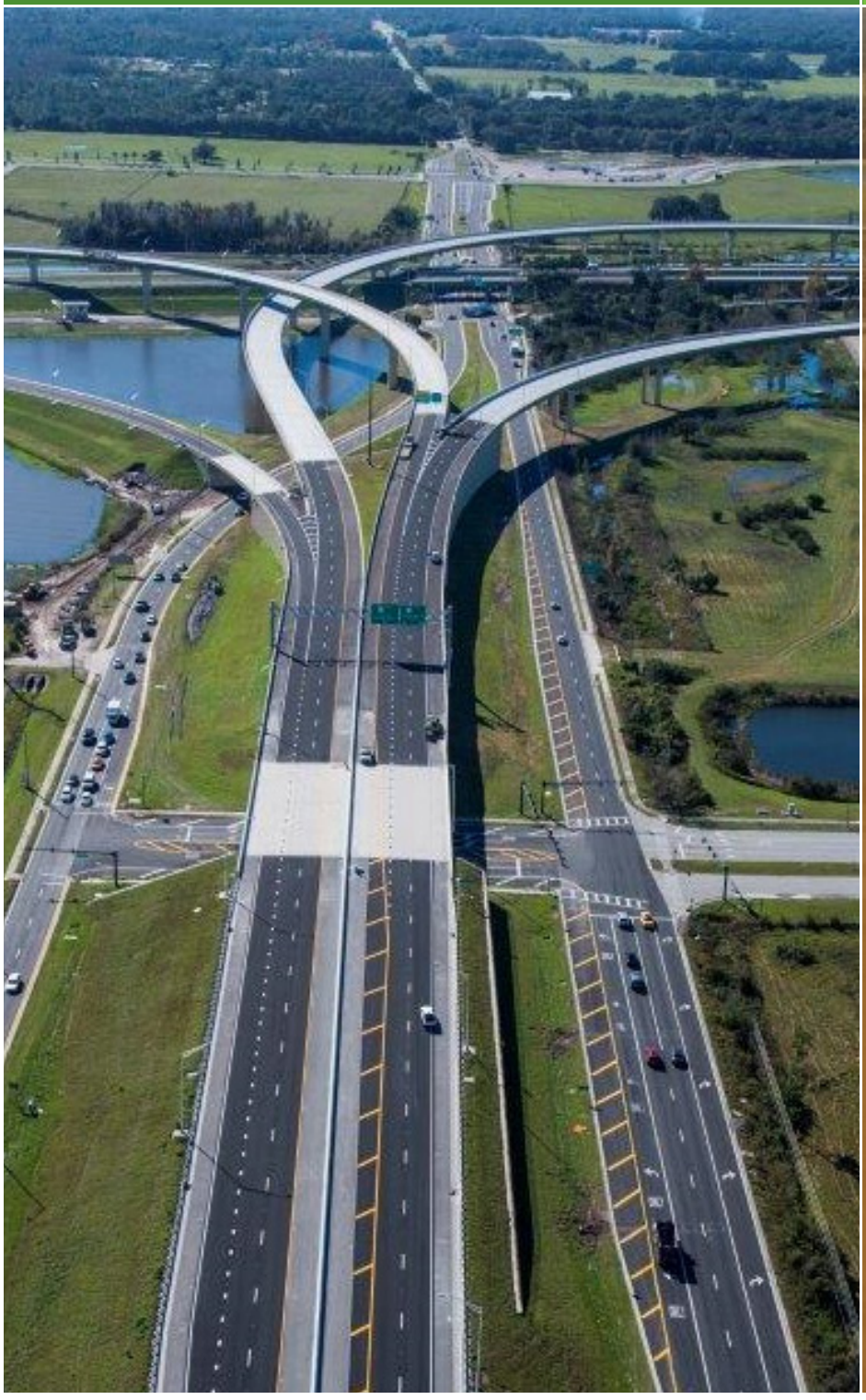
All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including CFX. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. 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.

Chapter 2

# Economic Indicators



# 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 1980 through 2015 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 4.0 million in 2015, or equivalent to a growth rate of 2.6 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 5.5 percent per year. Polk and Volusia Counties have experienced the slowest relative growth of 2.0 percent per year from 1980 to 2015. 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 20.3 million in 2015, or an increase of 2.1 percent per year on average. The State of Florida is still recovering from the global recession, but is expected to return to normal levels of growth over the next several 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 – 2015**

| Area | 1980 | 1990 | 2000 | 2010 | 2015 |
|---|---|---|---|---|---|
| Brevard County | 272,959 | 398,978 | 476,230 | 543,376 | 568,088 |
| Lake County | 104,870 | 152,104 | 210,527 | 297,052 | 325,875 |
| Orange County | 470,865 | 677,491 | 896,344 | 1,145,956 | 1,288,126 |
| Osceola County | 49,287 | 107,728 | 172,493 | 268,685 | 323,993 |
| Polk County | 321,652 | 405,382 | 483,924 | 602,095 | 650,092 |
| Seminole County | 179,752 | 287,521 | 365,199 | 422,718 | 449,144 |
| Volusia County | 258,762 | 370,737 | 443,343 | 494,593 | 517,887 |
| ***Area Total*** | 1,658,147 | 2,399,941 | 3,048,060 | 3,774,475 | 4,123,205 |
| ***Florida (Statewide)*** | 9,746,959 | 12,938,071 | 15,982,378 | 18,801,310 | 20,271,272 |

Source: U.S. Census Bureau

**Table 2-2**
**Population – Historical Growth Rates (CAAGR)**
**1980 – 2015**

| Area | 1980 - 1990 | 1990 - 2000 | 2000 - 2010 | 2010 - 2015 | 1980 - 2015 |
|---|---|---|---|---|---|
| Brevard County | 3.9% | 1.8% | 1.3% | 0.9% | 2.1% |
| Lake County | 3.8% | 3.3% | 3.5% | 1.9% | 3.3% |
| Orange County | 3.7% | 2.8% | 2.5% | 2.4% | 2.9% |
| Osceola County | 8.1% | 4.8% | 4.5% | 3.8% | 5.5% |
| Polk County | 2.3% | 1.8% | 2.2% | 1.5% | 2.0% |
| Seminole County | 4.8% | 2.4% | 1.5% | 1.2% | 2.7% |
| Volusia County | 3.7% | 1.8% | 1.1% | 0.9% | 2.0% |
| ***Area Total*** | 3.8% | 2.4% | 2.2% | 1.8% | 2.6% |
| ***Florida (Statewide)*** | 2.9% | 2.1% | 1.6% | 1.5% | 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 2005 at an average pace of 2.2 percent annually. School population has declined in Brevard, Seminole and Volusia Counties between 0.3 percent, 0.1 percent, and 0.4 percent per year, respectively over the ten year period. Overall, school population in the study area has grown 0.8 percent per year on average since 2005. 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**
**2005 – 2015**

| County | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2005 - 2015 Total % Change | 2005 - 2015 CAAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brevard | 75,160 | 74,791 | 74,364 | 73,076 | 72,402 | 71,866 | 71,786 | 71,217 | 71,224 | 72,285 | 72,704 | -3.3% | -0.3% |
| Lake | 38,052 | 39,566 | 40,708 | 40,996 | 41,099 | 41,110 | 41,315 | 41,478 | 41,801 | 42,152 | 42,462 | 11.6% | 1.1% |
| Orange | 175,307 | 175,155 | 174,033 | 172,028 | 173,021 | 175,986 | 179,989 | 183,021 | 187,092 | 191,648 | 196,951 | 12.3% | 1.2% |
| Osceola | 49,779 | 51,881 | 52,752 | 51,955 | 52,142 | 53,466 | 54,776 | 56,369 | 58,147 | 59,320 | 61,893 | 24.3% | 2.2% |
| Polk | 89,483 | 92,873 | 94,165 | 94,716 | 94,577 | 95,178 | 96,034 | 96,943 | 97,971 | 99,723 | 101,635 | 13.6% | 1.3% |
| Seminole | 67,473 | 66,349 | 65,390 | 64,933 | 64,460 | 64,228 | 64,335 | 64,368 | 64,831 | 66,134 | 66,996 | -0.7% | -0.1% |
| Volusia | 65,599 | 65,867 | 64,570 | 63,065 | 62,329 | 61,559 | 61,524 | 61,054 | 61,226 | 61,777 | 62,928 | -4.1% | -0.4% |
| Area Total | 560,853 | 566,482 | 565,982 | 560,769 | 560,030 | 563,393 | 569,759 | 574,450 | 582,292 | 593,039 | 605,569 | 8.0% | 0.8% |

Source: Florida Department of Education

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 64 thousand students in 2016. In fact, long-term annual growth has averaged 4.6 percent per year from 1980 to 2016. This growth was due to opening of new programs, campus facilities and the increasing number of transfer students. Annual enrollment is expected to increase by 1.6 percent per year through 2021. 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 eventually have an impact on CFX facilities.

**Table 2-4**
**Historical UCF Enrollment**
**1980 – 2016**

| Area | Levels | | | | | |
|---|---|---|---|---|---|---|
| | 1980 | 1990 | 2000 | 2010 | 2015 | 2016 |
| UCF Enrollment | 12,820 | 21,376 | 33,453 | 56,337 | 63,373 | 64,318 |

Source: UCF

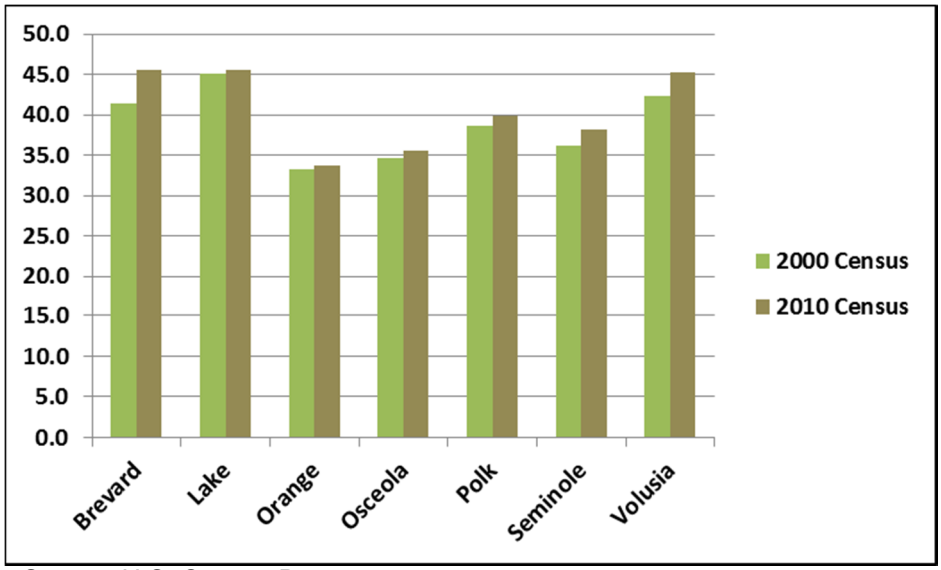
The age distribution comparison of the study area for 2000 and 2010 is shown in **Table 2-5**. A majority of the 2010 population (59 percent) is made up of the working age group, ages 20 to 64, who typically make the majority of commuter and business-related trips. The 2000 population data reflects the 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

The 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 recently released 2016 BEBR medium forecasts. Future long-term population growth for the study area is projected to average 1.4 percent per year, which is higher than the 1.1 percent per year projected growth for the State of Florida. Over the forecast period from 2015 through 2040, Osceola County is projected to experience the fastest population growth rate of 2.4 percent per year. Volusia County is expected to have the lowest growth rate of only 0.6 percent per year through the forecast period.

**Table 2-6**
**Population – Projected Growth Rates (CAAGR)**
**2015 – 2040**

| Area | Compound Average Annual Growth Rate (Percent) | | | |
|---|---|---|---|---|
| | 2015 - 2020 | 2020 - 2030 | 2030 - 2040 | 2015 - 2040 |
| Brevard County | 1.1% | 0.8% | 0.4% | 0.7% |
| Lake County | 2.4% | 1.9% | 1.4% | 1.8% |
| Orange County | 2.4% | 1.8% | 1.3% | 1.7% |
| Osceola County | 3.6% | 2.7% | 1.6% | 2.4% |
| Polk County | 1.8% | 1.5% | 1.1% | 1.4% |
| Seminole County | 1.4% | 1.0% | 0.7% | 1.0% |
| Volusia County | 1.0% | 0.7% | 0.4% | 0.6% |
| ***Area Total*** | 1.9% | 1.5% | 1.0% | 1.4% |
| ***Florida (Statewide)*** | 1.5% | 1.2% | 0.9% | 1.1% |

Source: BEBR 2016 – Population Studies, Bulletin 175; 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 over two and a half times from 700 thousand in 1980 to over 1.8 million in 2015. Orange County has the largest concentration of housing units in the seven-county study area with over 516 thousand in 2015. The corresponding CAAGRs are shown in **Table 2-8** for the same years. Long-term, the number of housing units in the study area grew from 1980 to 2015 by an average of 2.7 percent per year. Historical housing unit growth slowed down from 4.4 percent per year in the 1980s to 2.0 percent per year from 2000 to 2015. 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 5.1 percent per year while Volusia County has been the slowest with only 2.1 percent annual growth between 1980 and 2015. Overall, the study area historical housing unit growth has outpaced the State of Florida.

**Table 2-7**
**Housing Units – Historical Trend**
**1980 – 2015**

| Area | Levels | | | |
|---|---|---|---|---|
| | 1980 | 1990 | 2000 | 2015 |
| Brevard County | 113,900 | 185,150 | 222,072 | 273,096 |
| Lake County | 50,511 | 75,707 | 102,829 | 148,706 |
| Orange County | 184,701 | 282,686 | 361,349 | 516,477 |
| Osceola County | 23,825 | 47,959 | 72,293 | 137,090 |
| Polk County | 134,873 | 186,225 | 226,376 | 284,342 |
| Seminole County | 68,154 | 117,841 | 147,080 | 186,619 |
| Volusia County | 124,427 | 180,983 | 211,938 | 256,967 |
| ***Area Total*** | 700,391 | 1,076,551 | 1,343,937 | 1,803,297 |
| ***Florida (Statewide)*** | 4,378,867 | 6,100,250 | 7,303,108 | 9,209,857 |

Source: U.S. Census Bureau

**Table 2-8**
**Housing Units – Historical Growth Rates (CAAGR)**
**1980 – 2015**

| Area | Compound Average Annual Growth Rate (Percent) | | | |
|---|---|---|---|---|
| | 1980 - '90 | 1990 - '00 | 2000 - '15 | 1980 - 2015 |
| Brevard County | 5.0% | 1.8% | 1.4% | 2.5% |
| Lake County | 4.1% | 3.1% | 2.5% | 3.1% |
| Orange County | 4.3% | 2.5% | 2.4% | 3.0% |
| Osceola County | 7.2% | 4.2% | 4.4% | 5.1% |
| Polk County | 3.3% | 2.0% | 1.5% | 2.2% |
| Seminole County | 5.6% | 2.2% | 1.6% | 2.9% |
| Volusia County | 3.8% | 1.6% | 1.3% | 2.1% |
| ***Area Total*** | 4.4% | 2.2% | 2.0% | 2.7% |
| ***Florida (Statewide)*** | 3.4% | 1.8% | 1.6% | 2.1% |

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 2015 through 2040. Future long-term housing growth for the study area is projected to average 1.5 percent per year through 2040. Orange and Seminole Counties are forecasted to experience the most growth in housing units with an average rate of 1.6 percent per year while Lake and Polk Counties are expected to have the slowest growth of 1.3 percent per year. The Moody's forecasts for housing units presented here are not consistent with the BEBR population forecasts for some counties. The BEBR forecasts were used in the development of the future year single-family and multi-family housing unit control totals in the travel demand model.

**Table 2-9**
**Housing Units – Projected Growth Rates (CAAGR)**
**2015 – 2040**

| Area | Compound Average Annual Growth Rate (Percent) | | | |
|---|---|---|---|---|
| | 2015 - 2020 | 2020 - 2030 | 2030 - 2040 | 2015 - 2040 |
| Brevard County | 1.4% | 1.7% | 1.4% | 1.5% |
| Lake County | 1.2% | 1.4% | 1.3% | 1.3% |
| Orange County | 1.5% | 1.7% | 1.5% | 1.6% |
| Osceola County | 1.4% | 1.6% | 1.4% | 1.5% |
| Polk County | 1.1% | 1.4% | 1.3% | 1.3% |
| Seminole County | 1.5% | 1.8% | 1.5% | 1.6% |
| Volusia County | 1.4% | 1.7% | 1.4% | 1.5% |
| ***Area Total*** | 1.4% | 1.6% | 1.4% | 1.5% |

Source: Moody's Analytics, December 2016

## 2.3 Employment

### 2.3.1 HISTORICAL TRENDS

The employment numbers presented below in **Table 2-10** and **Table 2-11** are from the Bureau of Economic Analysis (BEA). Orange County dominates the regional employment base with over 43.0 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 3.0 percent per year. This growth was strong between 1980 and 1990 with an area growth of 4.7 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 for those years. Since 2010 employment growth has increased to 2.8 percent per year, with Osceola County averaging the strongest growth of 4.5 percent per year. Historically, the study area employment base growth outpaced the State of Florida by an average of approximately 0.5 percent per year.

**Table 2-10**
**Total Employment – Historical Trend**
**1980 – 2015**

| Area | 1980 | 1990 | 2000 | 2010 | 2015 |
|---|---|---|---|---|---|
| Brevard County | 129,188 | 202,232 | 243,415 | 256,565 | 272,003 |
| Lake County | 46,281 | 58,326 | 86,724 | 113,240 | 131,342 |
| Orange County | 291,166 | 516,943 | 737,821 | 823,242 | 988,811 |
| Osceola County | 19,483 | 43,173 | 63,938 | 101,434 | 126,407 |
| Polk County | 156,846 | 194,693 | 235,518 | 255,794 | 281,099 |
| Seminole County | 61,621 | 121,188 | 186,969 | 217,245 | 246,393 |
| Volusia County | 105,796 | 146,833 | 178,519 | 211,592 | 232,985 |
| ***Area Total*** | 810,381 | 1,283,388 | 1,732,904 | 1,981,122 | 2,279,040 |
| ***Florida (Statewide)*** | 4,687,521 | 6,740,289 | 8,918,234 | 9,877,353 | 11,287,608 |

Source: Bureau of Economic Analysis

**Table 2-11**
**Total Employment – Historical Growth Rates (CAAGR)**
**1980 – 2015**

| Area | 1980 - 1990 | 1990 - 2000 | 2000 - 2010 | 2010 - 2015 | 1980 - 2015 |
|---|---|---|---|---|---|
| Brevard County | 4.6% | 1.9% | 0.5% | 1.2% | 2.2% |
| Lake County | 2.3% | 4.0% | 2.7% | 3.0% | 3.0% |
| Orange County | 5.9% | 3.6% | 1.1% | 3.7% | 3.6% |
| Osceola County | 8.3% | 4.0% | 4.7% | 4.5% | 5.5% |
| Polk County | 2.2% | 1.9% | 0.8% | 1.9% | 1.7% |
| Seminole County | 7.0% | 4.4% | 1.5% | 2.6% | 4.0% |
| Volusia County | 3.3% | 2.0% | 1.7% | 1.9% | 2.3% |
| ***Area Total*** | 4.7% | 3.0% | 1.3% | 2.8% | 3.0% |
| ***Florida (Statewide)*** | 3.7% | 2.8% | 1.0% | 2.7% | 2.5% |

Source: Bureau of Economic Analysis

### 2.3.2 PROJECTIONS

Employment in the study area is projected to grow by an average of 1.7 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 2.4 percent per year while Brevard and Volusia Counties are forecasted with the slowest annual growth of only 1.2 percent through 2040.

**Table 2-12**
**Total Employment – Projected Growth Rates (CAAGR)**
**2015 – 2040**

| Area | Compound Average Annual Growth Rate (Percent) | | | |
|---|---|---|---|---|
| | 2015 - 2020 | 2020 - 2030 | 2030 - 2040 | 2015 - 2040 |
| Brevard County | 1.4% | 1.2% | 1.0% | 1.2% |
| Lake County | 2.4% | 2.2% | 1.9% | 2.1% |
| Orange County | 2.1% | 1.9% | 1.6% | 1.8% |
| Osceola County | 2.7% | 2.5% | 2.3% | 2.4% |
| Polk County | 1.6% | 1.4% | 1.2% | 1.4% |
| Seminole County | 2.1% | 1.9% | 1.7% | 1.9% |
| Volusia County | 1.5% | 1.3% | 1.1% | 1.2% |
| ***Area Total*** | 1.9% | 1.8% | 1.5% | 1.7% |
| ***Florida (Statewide)*** | 1.9% | 1.7% | 1.4% | 1.6% |

Source: Woods & Poole Economics, Inc.[1], 2016; 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 1.0 percent per year for the industrial sector, 1.5 percent per year for the commercial sector and 1.8 percent per year for the service 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)**
**2015 – 2040**

| Area | Compound Average Annual Growth Rate (Percent) | | | |
|---|---|---|---|---|
| | 2015 - 2020 | 2020 - 2030 | 2030 - 2040 | 2015 - 2040 |
| Area ***Industrial*** Employment | 1.7% | 1.1% | 0.7% | 1.0% |
| Area ***Commercial*** Employment | 1.8% | 1.5% | 1.4% | 1.5% |
| Area ***Service*** Employment | 2.0% | 1.9% | 1.6% | 1.8% |

Source: Woods & Poole Economics, Inc.[1], 2016; and CDM Smith calculations

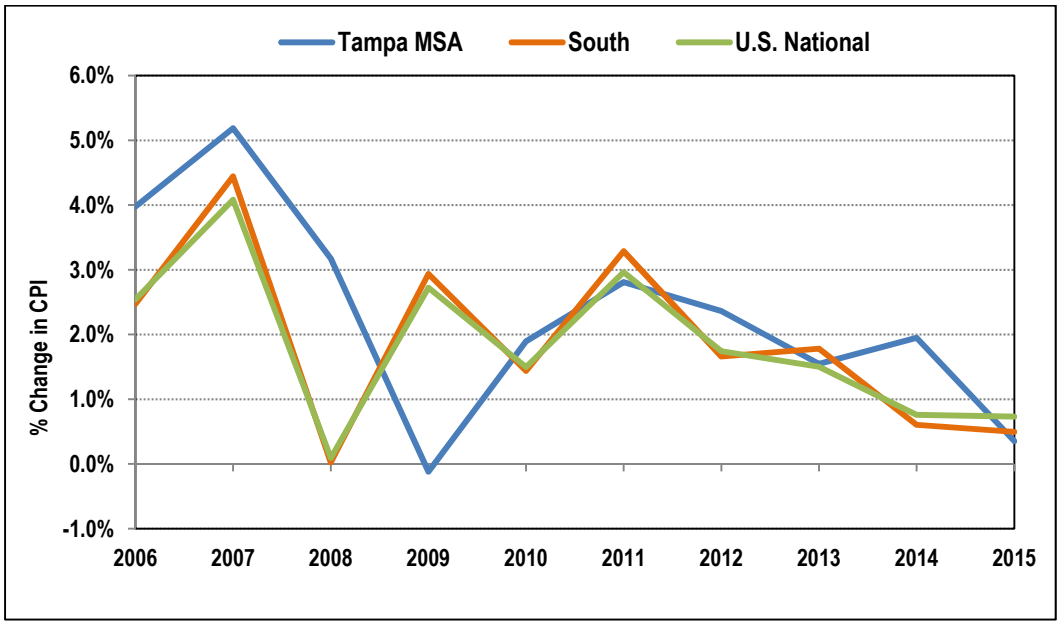
[1] Woods & Poole does not guarantee the accuracy of this data. The use of this data and the conclusions drawn from it are solely the responsibility of the Consulting Team.

## 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 2006 through 2015 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 declined for the first time since 1954 due to the start of the severe global recession. Since 2009, the CPI has increased every year including a 0.7 percent change in 2015 over the prior year, but still not as high as the increases seen prior to the recession. The change in CPI, year over year, has been on a declining trend since 2011 with the change in CPI only 0.7 percent for 2015. 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 2006.

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



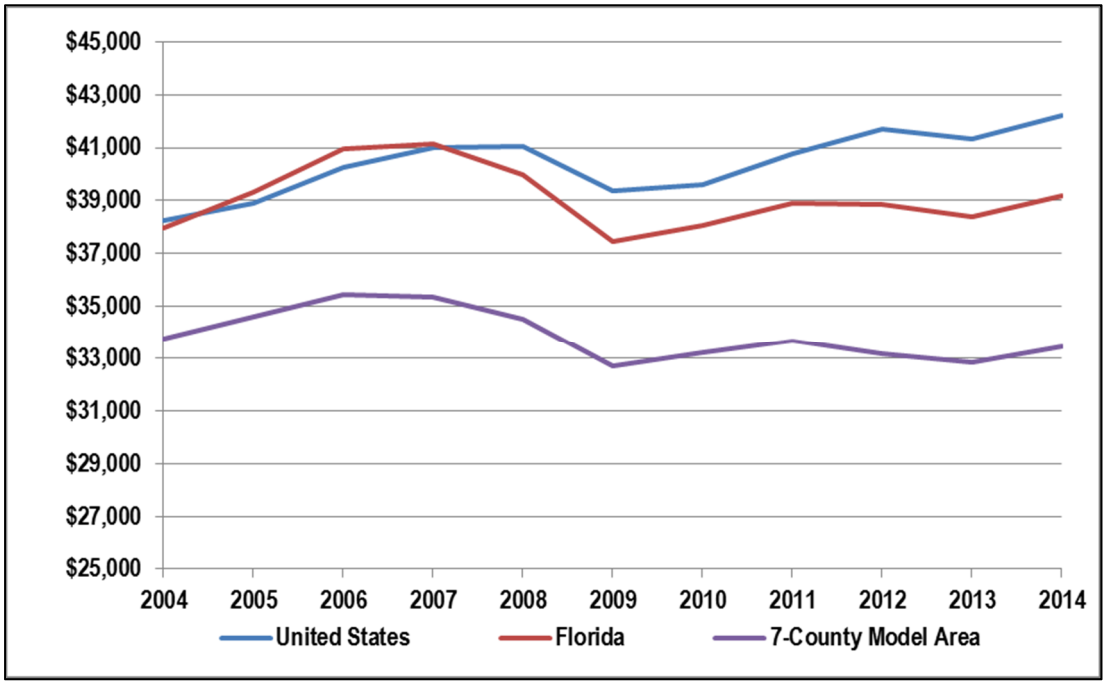

Source: Bureau of Labor Statistics

### 2.4.2 INCOME

Travel demand 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 2004 for the U.S., Florida, and the seven-county study area are shown in **Figure 2-3**. The levels of real personal income per capita for Florida and the seven-county study area are still below their respective pre-recession levels as of 2014 – 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 2004 through 2014, with CAGRs of only about 0.4 percent per year. Since 2011, the CAGRs for these two counties have actually declined. These are the prime counties responsible for generating traffic on the CFX System. The levels of real personal income per capita for the U.S. has now exceeded the levels seen before the recession.

**Figure 2-3**
**Total Real Personal Income Per Capita: 2004 - 2014**
**(2009 Dollars)**

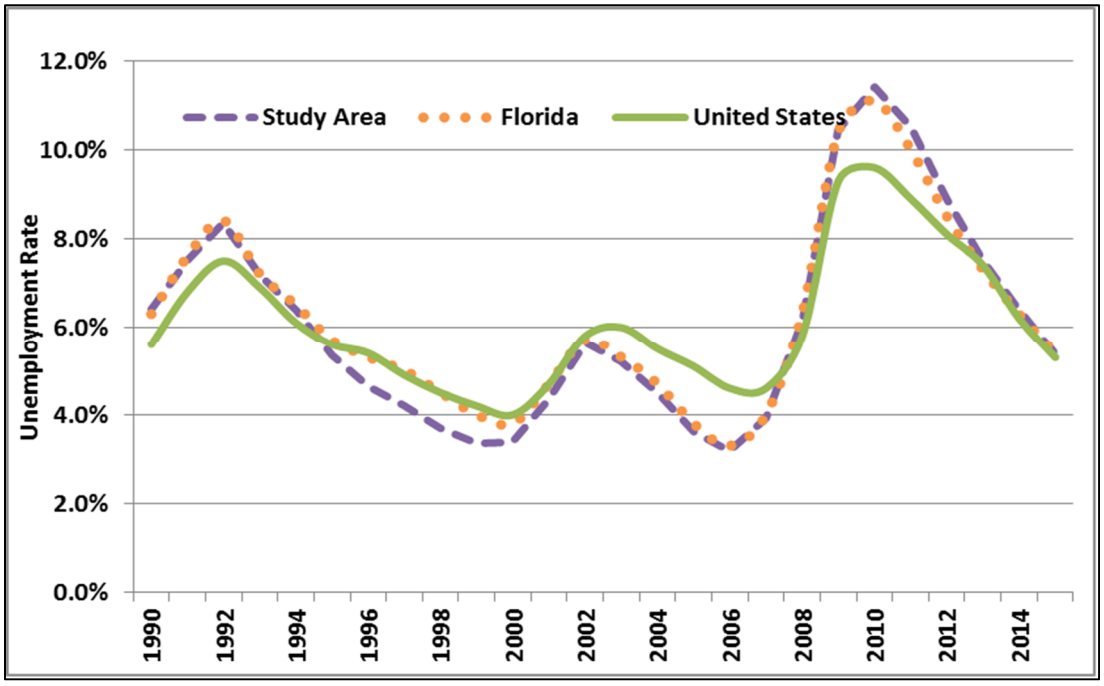



Source: Woods and Poole Economics, Inc., 2016; and CDM Smith calculations

## 2.5 Unemployment

The unemployment rate in the study area had been traditionally 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 2015. 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 2015 the study area unemployment rate decreased again to an average of 5.4 percent, but is still slightly higher than the national average of 5.3 percent. The study area's unemployment rate has historically been quite close to the Florida average, which also had an unemployment rate of 5.4 percent in 2015.

**Figure 2-4**
**Historical Unemployment Rate Comparison**
**1990 – 2015**




Source: Bureau of Labor Statistics

## 2.6 Regional Tourism

As shown in **Table 2-14**, Orlando hosted a record 66.1 million visitors in 2015, which was an increase of 5.4 percent over the 62.7 million visitors in 2014. 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 10.5 percent and 7.2 percent per year, respectively. Data for domestic and international visitors is currently not available.

**Table 2-14**
**Tourism – Orlando Visitors (Millions)**
**2006 – 2015**

| Visitor Type | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2006-2015 CAAGR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Domestic | 45.1 | 45.9 | 45.5 | 43.3 | 47.8 | 51.4 | 52.9 | 54.4 | 57.4 | N/A* | N/A* |
| International | 2.7 | 2.8 | 3.3 | 3.3 | 3.7 | 3.8 | 4.3 | 4.8 | 5.3 | N/A* | N/A* |
| **Total** | **47.8** | **48.7** | **48.9** | **46.6** | **51.5** | **55.2** | **57.2** | **59.2** | **62.7** | **66.1** | **3.7%** |

*2015 domestic and international visitor data not available at the time of report preparation.
Source: Visit Orlando Market Research & Insights – D.K. Shifflet & Associates; U.S. Department of Commerce, Office of Travel and Tourism Industries

In 2015, the Metro Orlando area hotel occupancy rate was 77.0 percent, an increase of 7.1 percent over 2014. This data is shown in **Table 2-15**. The 2015 average daily room rate was $112.00, which was a 4.4 percent increase over 2014. 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**
**2006 – 2015**

| Metro Orlando | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|---|---|
| Occupancy Rate | 67.7% | 67.9% | 65.8% | 59.5% | 63.9% | 67.6% | 68.8% | 71.0% | 71.9% | 77.0% |
| Average Daily Rate | $101.65 | $105.84 | $105.83 | $93.34 | $90.76 | $94.11 | $96.88 | $101.53 | $107.26 | $112.0 |
| Number of Rooms | 112,156 | 111,348 | 111,551 | 114,109 | 115,199 | 115,413 | 117,396 | 116,499 | 118,118 | 117,371 |
| Room Night Demand (in millions) | 27.5 | 27.6 | 26.9 | 24.3 | 26.7 | 28.5 | 29.3 | 30.1 | N/A* | 33.0 |

*2014 room night demand not available at the time of report preparation.
Source: Visit Orlando Market Research & Insights.

The historical and projected enplanements, or boardings, for OIA are shown in **Table 2-16** and **Table 2-17**. The Orlando International Airport (OIA) saw an increase of over 6 million enplanements from 1990 to 2000, an increase of over 69 percent. Enplanements totaled 19.3 million for 2015, 31.6 percent above the 2000 total. Since 1990, total enplanements at OIA have more than doubled at 3.3 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 2.4 percent per year through 2040. Enplanements are an indicator of tourism and economic growth.

**Table 2-16**
**Historical OIA Enplanements**
**1990 – 2015**

| Area | Levels | | | |
|---|---|---|---|---|
| | 1990 | 2000 | 2010 | 2015 |
| OIA Enplanements | 8,683,491 | 14,683,594 | 16,651,359 | 19,323,931 |

Source: U.S. DOT FAA TAF and GOAA

**Table 2-17**
**Projected OIA Enplanements**
**2015 - 2040**

| Area | Compound Average Annual Growth Rate (Percent) | | | |
|---|---|---|---|---|
| | 2015 - 2020 | 2020 - 2030 | 2030 - 2040 | 2015 - 2040 |
| OIA Enplanements | 3.6% | 2.3% | 2.2% | 2.4% |

Source: U.S. DOT FAA TAF; 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 a new attraction, Skull Island Reign of Kong, in the summer of 2016. Universal will also open Volcano Bay water theme park in 2017. Downtown Disney was also transformed into Disney Springs with new shopping, dining and entertainment choices which were opened in phases beginning in 2015. The grand opening of Disney Springs took place in July 2016.

As shown in **Table 2-18**, the Magic Kingdom attracted an estimated 20.5 million visitors in 2015, which had the highest attendance of all Orlando-area theme parks. Universal Studios at Universal Orlando had the highest growth in 2015 with a 45.6 percent increase in attendance compared to 2011.

**Table 2-18**
**Central Florida Attraction Attendance**
**2011- 2015 (Millions)**

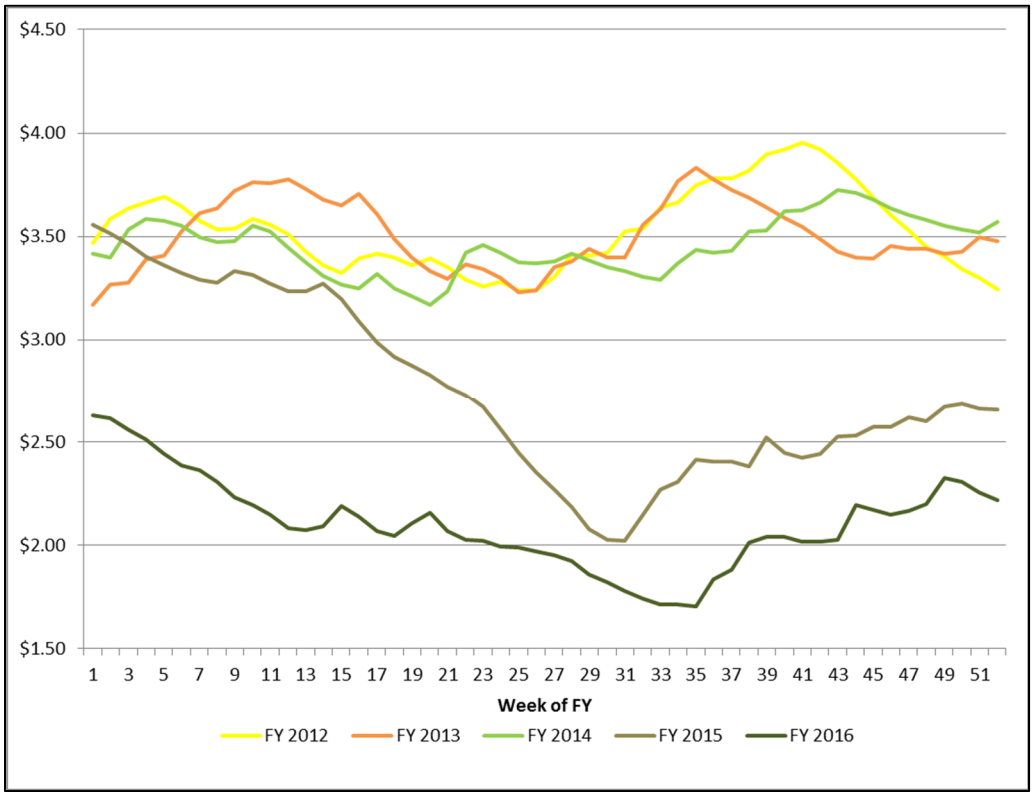
| Theme Parks | 2011 | 2015 | Growth |
|---|---|---|---|
| Disney's Magic Kingdom | 17.1 | 20.5 | 19.6% |
| Disney's Epcot Center | 10.8 | 11.8 | 9.0% |
| Disney's Animal Kingdom | 9.8 | 10.9 | 11.4% |
| Disney's Hollywood Studios | 9.7 | 10.8 | 11.4% |
| Islands of Adventure at Universal Orlando | 7.7 | 9.6 | 25.1% |
| Universal Studios at Universal Orlando | 6.0 | 8.8 | 45.6% |
| Seaworld Orlando | 5.2 | 4.8 | -7.7% |
| **Water Parks** | **2011** | **2015** | **Growth** |
| Typhoon Lagoon | 2.1 | 2.3 | 11.8% |
| Blizzard Beach | 1.9 | 2.1 | 11.1% |
| Aquatica | 1.5 | 1.6 | 6.7% |
| Wet 'n Wild | 1.2 | 1.3 | 6.3% |

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

## *2.7 Fuel Prices*

**Figure 2-5** includes regular grade weekly retail gasoline prices for Florida from July 2011 through June 2016 (FY 2012 – FY 2016). From July 2011 through June 2014, gasoline prices fluctuated within a relatively narrow range. Beginning around October 2014, however, motor fuel prices began a noticeable decline. Since March 2016, prices have started to increase slightly. Gasoline averaged $2.22 per gallon by the end of FY 2016 in June. Based on current forecasts from the U.S. Energy Information Administration, underlying near term price forecasts are expected to remain low. This should prove positive to current trends in strong passenger car and commercial vehicle traffic growth on CFX facilities.

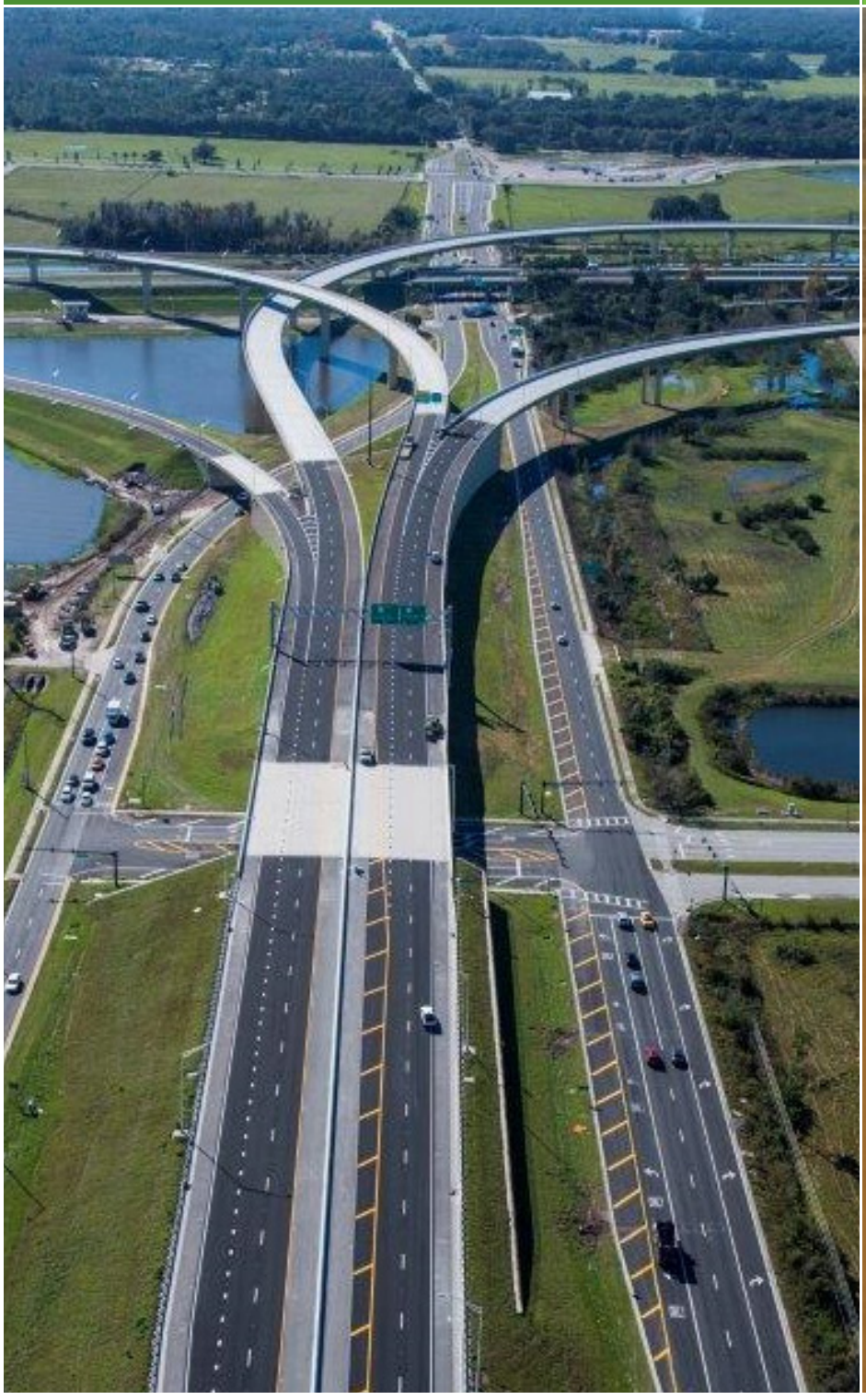
**Figure 2-5**
**Average Retail Fuel Prices – Florida (Regular Grade/Gallon)**
**FY 2012 – FY 2016**




Source: U.S. Energy Information Administration

# Chapter 3

# S.R. 528
## (Martin B. Andersen Beachline Expressway)



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

## 3.1 Facility Description

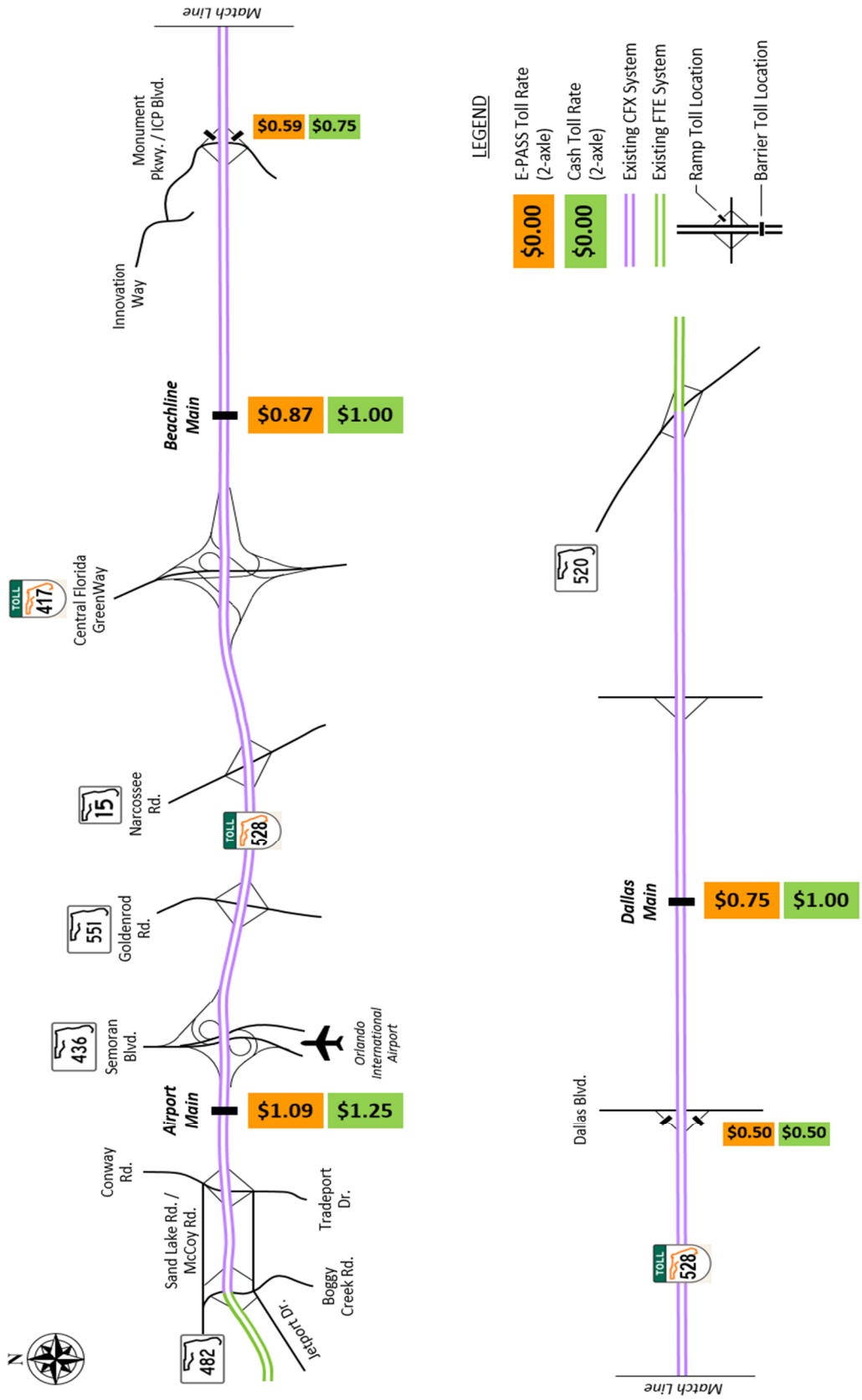

S. R. 528, also known as the Martin B. Andersen Beachline Expressway, is a 41-mile expressway that extends east from Interstate 4 (I-4) in the International Drive resort area to U.S. Highway 1 in the Brevard County coastal area near the Atlantic Ocean. The Beachline Expressway is owned, maintained and operated by two agencies, 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 plaza groups 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 2016 toll rates for the mainline and ramp toll plazas is shown in **Figure 3-1**.

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 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.

**Figure 3-1**
**S.R. 528 Facilities and Toll Rates (through February 2016)**

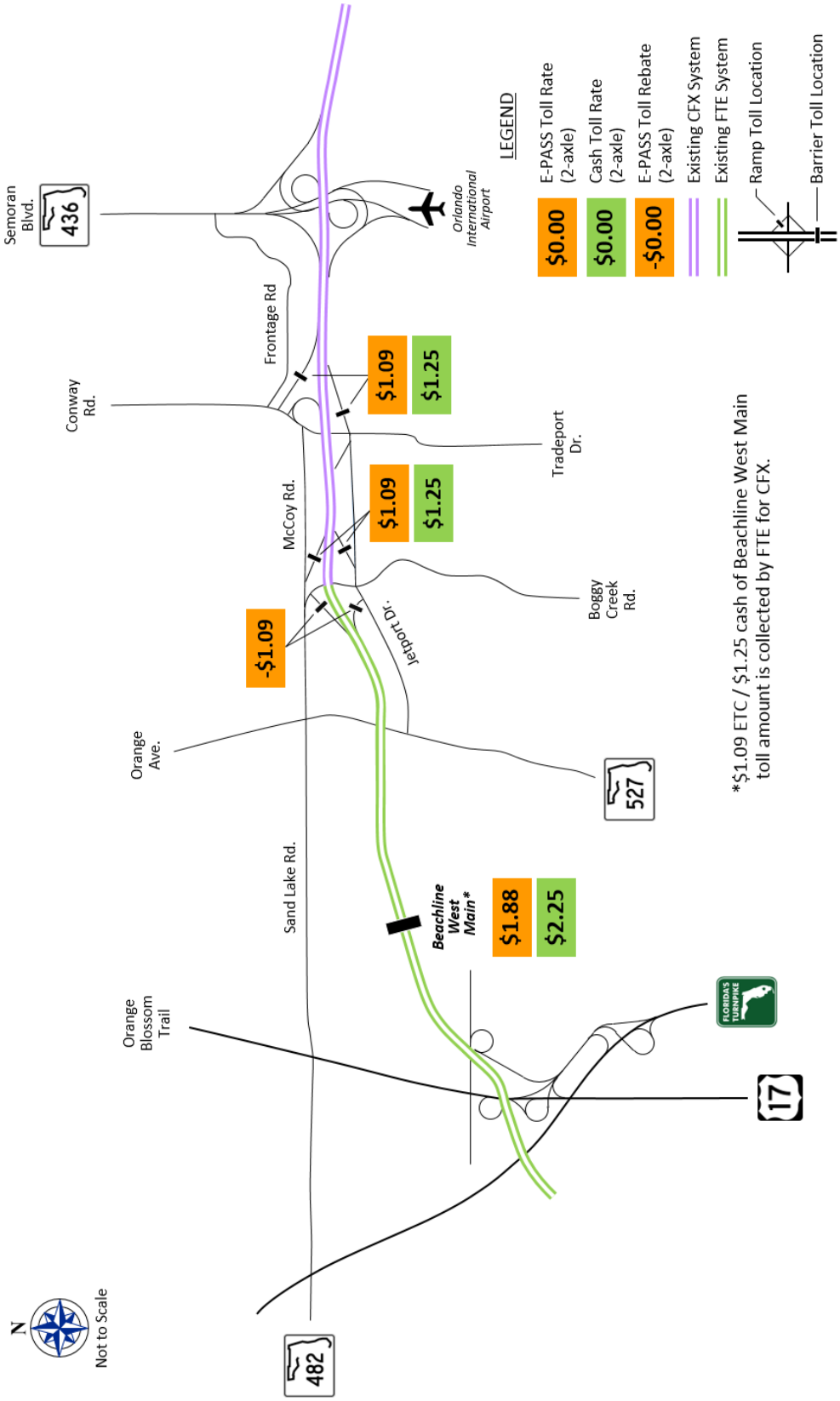


Previously, traffic on Innovation Way wanting to go south or west had no choice but to access S.R. 417 at the Curry Ford Road interchange and head south. The opening of this connection resulted in traffic diversion from the S.R. 417 Curry Ford plaza group to the S.R. 528 Beachline Main plaza. In March 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, S.R. 528 was the center of discussions for creation of a super corridor with intercity passenger rail service, known as Brightline (formerly All Aboard Florida), future utility needs, future expansion of S.R. 528, and possibly commuter rail. These discussions culminated in the execution of a contract for sale and purchase of rail line easements between CFX and Brightline over existing CFX property and newly acquired properties. CFX has purchased all property for the corridor. Regarding the Contract for Sale and Purchase of property owned by Suburban Land Reserve or Farmland Reserve, Inc., the Contract contains a number of conditions precedent with an outer closing date of December 31, 2015. One of the conditions precedent is an agreement on the modification and construction of the S.R. 528/Innovation Way interchange with programming in the FY 2016 – 2020 Five-Year Work Program.

Starting in November 2014, CFX began removal of the Airport Main Plaza. The removal was due to several factors including on-going concerns that S.R. 528 customers heading west from the Orlando International Airport encountered 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 was close in proximity to the S.R. 436 exit which caused 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 was to consolidate toll collection at the Beachline West Main Plaza. Beginning in March 2016, an "Interagency Toll Collection Agreement" with FTE facilitated the transfer of toll collections from the Airport Plaza to FTE's Beachline West Main Plaza. New ramp plazas were also installed at the Conway Road and Boggy Creek Road Interchanges with tolls collected to and from the east. ETC customers with 2-axle vehicles now pay a combined toll of $1.88 at the Beachline West Toll Plaza; $0.79 represents the FTE toll amount and $1.09 represents the CFX toll amount. With the combined toll structure, ETC customers using the Boggy Creek Road interchange are eligible for a $1.09 rebate when entering S.R. 528 westbound at Boggy Creek Road and passing through the Beachline West Plaza, and also when traveling eastbound on S.R. 528 passing through the Beachline West Plaza then exiting at Boggy Creek Road. The revised Airport Main Plaza group, effective as of March 2016, is shown in **Figure 3-2**.

**Figure 3-2**
**S.R. 528 Current Airport Main Plaza Group Toll Plan (effective March 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 1997 to FY 2016 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 2016 increased by 7.3 million, or 11.4 percent, over FY 2015. Toll revenues increased by $6.3 million, or 10.4 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, caused by the opening of the Monument Parkway connection between Innovation Way and S.R. 528/ International Corporate Park interchange, which provided alternative access in this area of east Orange County.

**Table 3-1**
**S.R. 528 Plaza Groups – Historical Transactions and Toll Revenues**
**FY 1997 – FY 2016**

| Fiscal Year | Airport Main | Beachline Main | Dallas Main | TOTAL | Airport Main | Beachline Main | Dallas Main | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | TRANSACTIONS (millions) | | | | PERCENT CHANGE | | | |
| 1997 | 14.5 | 9.2 | | 23.7 | | | | |
| 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% |
| 2015 | 28.8 | 19.0 | 16.4 | 64.2 | 6.7% | 8.0% | 8.6% | 7.5% |
| 2016 [H] | 32.6 | 20.9 | 18.0 | 71.5 | 13.2% | 10.0% | 9.8% | 11.4% |
| | TOLL REVENUES (millions) | | | | PERCENT CHANGE | | | |
| 1997 | $11.4 | $9.8 | | $21.2 | | | | |
| 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% |
| 2015 | $33.6 | $18.2 | $8.6 | $60.4 | 6.3% | 8.3% | 8.9% | 7.3% |
| 2016 [H] | $37.3 | $20.0 | $9.4 | $66.7 | 11.0% | 9.9% | 9.3% | 10.4% |

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.

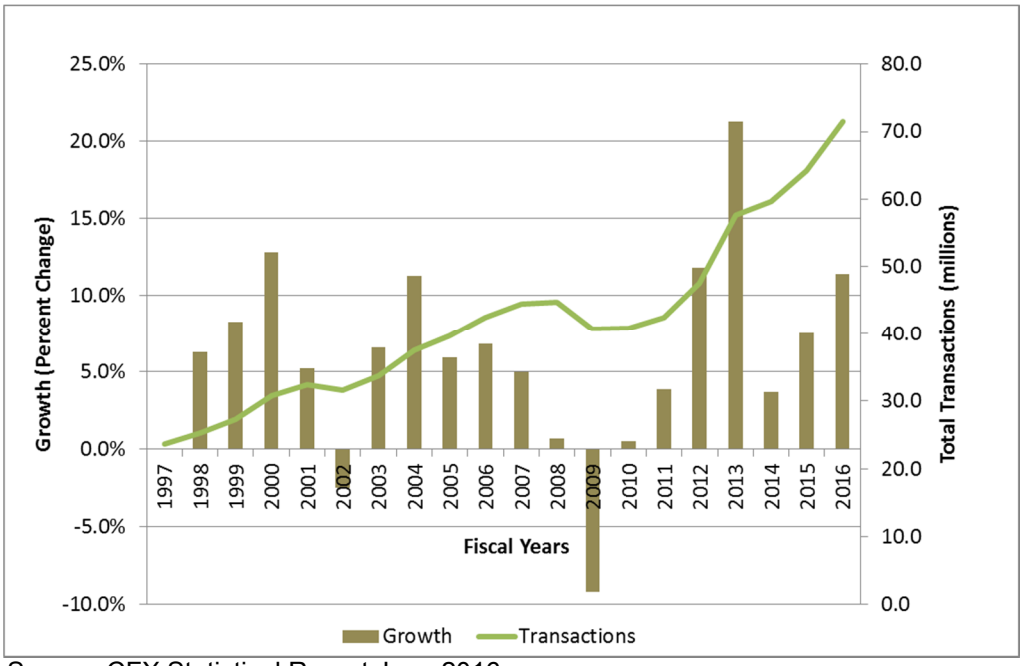
E - Monument Parkway connection to ICP ramps opened to traffic.

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.

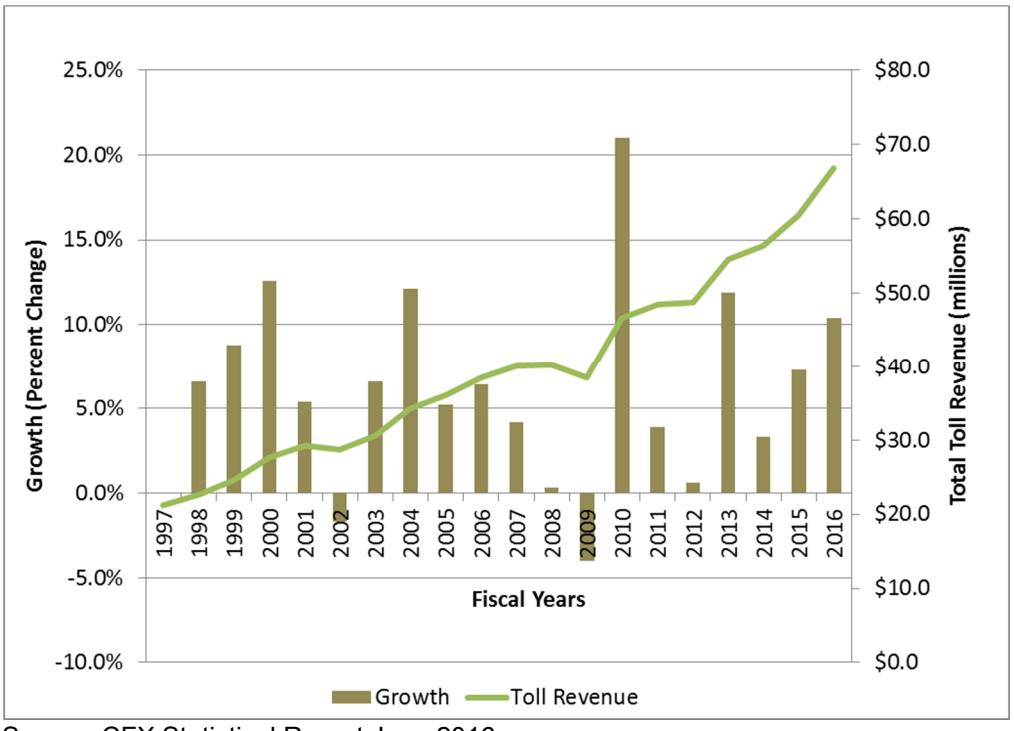
H - Airport Main Plaza stopped collecting tolls on 1/31/16. All transactions and toll revenues are from ramps or the FTE plaza.

**Figure 3-3**
**S.R. 528 Historical Transactions and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016

**Figure 3-4**
**S.R. 528 Historical Toll Revenue and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016


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 by collecting the toll at two locations. 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 237.2 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.

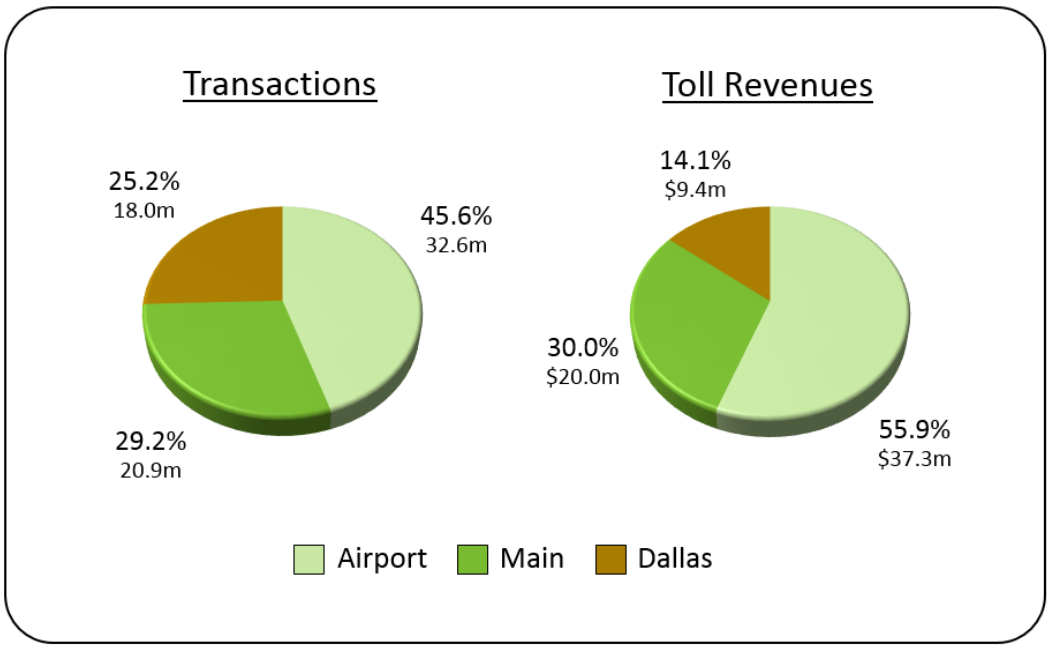
In FY 2014, transactions at the Airport Main plaza group increased by 2.3 percent and toll revenues increased by 2.3 percent compared to FY 2013. The Beachline Main plaza group transactions increased by 5.4 percent and toll revenues increased by 5.1 percent over FY 2013. In FY 2014, Dallas Main plaza 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. All plaza groups experienced significant growth again in FY 2015.

In FY 2016, the Airport Main plaza group transactions increased by 13.2 percent, Beachline Main plaza group transactions increased by 10.0 percent and Dallas Main plaza group transactions increased by 9.8 percent over FY 2015. Over the same period, the Airport Main plaza toll revenues increased by 11.0 percent, Beachline Main plaza group toll revenues increased by 9.9 percent and Dallas Main plaza group toll revenues increased by 9.3 percent over FY 2015. 2016 was a leap

year so February 2016 included an extra day of transactions and toll revenue collection compared to February 2015. Part of the increase at the Airport Main Plaza group is due to the change in the toll plan, or addition of the Boggy Creek Road and Conway Road ramp plazas, as a result of the mainline plaza removal.

The transactions and toll revenues by plaza group and as a percentage of total S.R. 528 transactions and toll revenues for FY 2016 are shown in **Figure 3-5**. The Airport Main plaza group represented 32.6 million transactions or 45.6 percent of total S.R. 528 transactions. The Beachline Main plaza group carried 20.9 million or 29.2 percent of total transactions on the facility. Finally, the Dallas Main plaza group represented 18.0 million or 25.2 percent of total S.R. 528 transactions in FY 2016.

**Figure 3-5**
**S.R. 528 Transactions and Toll Revenues by Plaza Group**
**FY 2016**




Source: CFX Statistical Report June 2016

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 $37.3 million in toll revenues or 55.9 percent of total S.R. 528 toll revenues. The Beachline Main plaza group carried $20.0 million or 30.0 percent of toll revenues on the facility. Finally, because of the lower toll, the Dallas Main plaza group represented $9.4 million or 14.1 percent of total S.R. 528 transactions in FY 2016.

### 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.

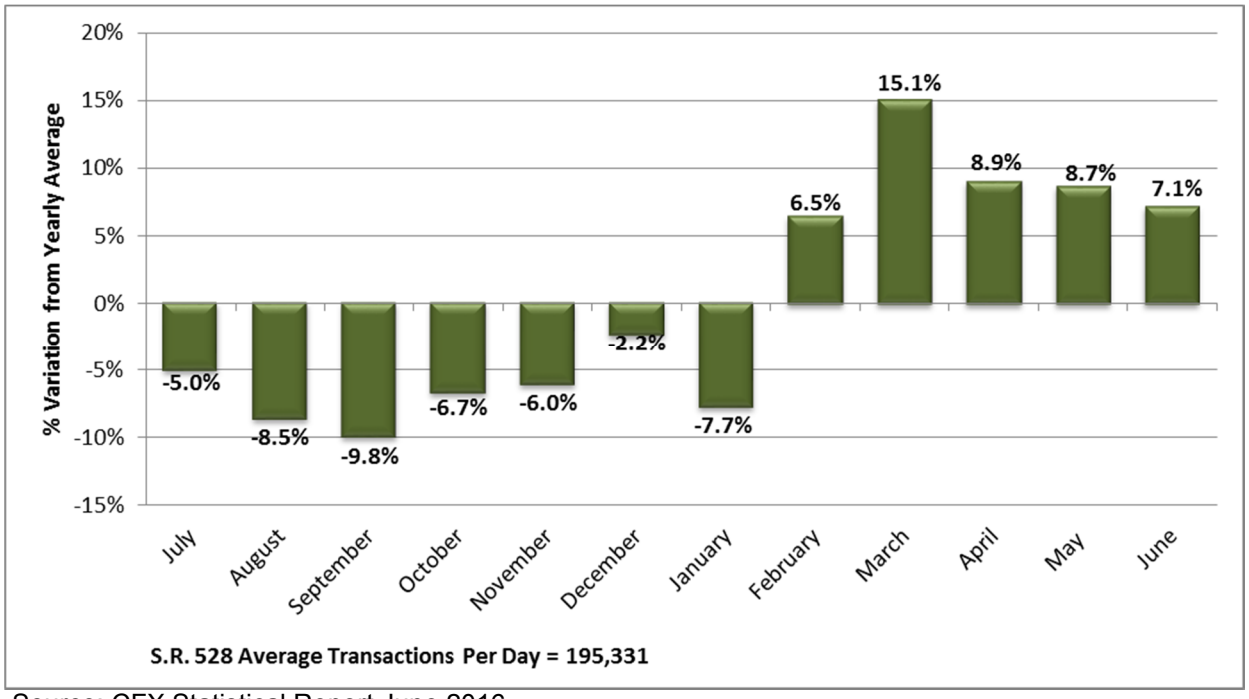
**Table 3-2**
**S.R. 528 – Monthly Seasonal Variation in Toll-Paying Traffic**
**FY 2016**

| Month | Number of Days in Month | Total Toll Paying Transactions | Average Transactions/day | Seasonal Factor |
|---|---|---|---|---|
| July | 31 | 5,754,004 | 185,613 | 0.950 |
| August | 31 | 5,539,073 | 178,680 | 0.915 |
| September | 30 | 5,283,445 | 176,115 | 0.902 |
| October | 31 | 5,651,725 | 182,314 | 0.933 |
| November | 30 | 5,508,598 | 183,620 | 0.940 |
| December | 31 | 5,921,332 | 191,011 | 0.978 |
| January | 31 | 5,591,753 | 180,379 | 0.923 |
| February | 29 | 6,031,029 | 207,967 | 1.065 |
| March | 31 | 6,967,851 | 224,769 | 1.151 |
| April | 30 | 6,384,223 | 212,807 | 1.089 |
| May | 31 | 6,579,443 | 212,240 | 1.087 |
| June | 30 | 6,278,625 | 209,288 | 1.071 |
| ***Average*** | | ***5,957,592*** | ***195,331*** | ***1.000*** |
| **Total Year** | **366** | **71,491,101** | | |

Source: CFX Statistical Report June 2016

As presented in Table 3-2, average transactions per day in FY 2016 on S.R. 528 ranged from a high of 224,769 in March 2016 to a low of 176,115 in September 2015. March is typically the month with the highest average number of transactions per day due to a large number of tourists and seasonal residents in the area during the Spring. 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 15.1 percent above average and September transactions were 9.8 percent below average for the facility.

**Figure 3-6**
**S.R. 528 Variation in Transactions Per Day, By Month**
**FY 2016**



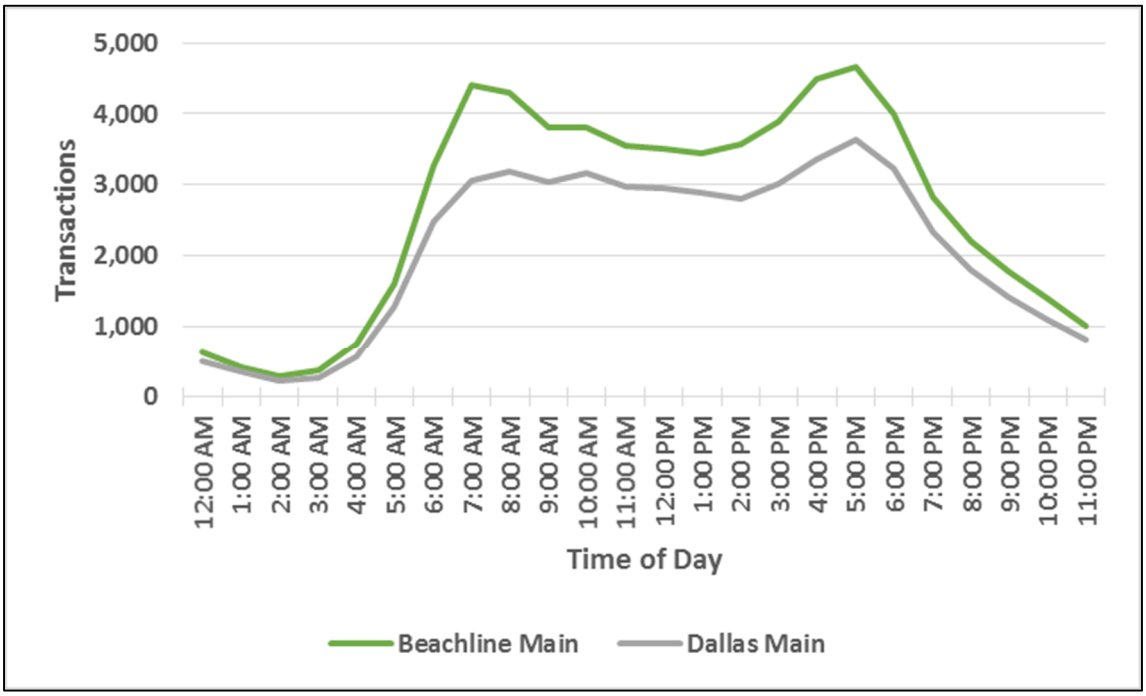

Source: CFX Statistical Report June 2016

### 3.2.3 DAILY TRAFFIC DISTRIBUTION

The daily distribution of traffic includes information on the usage characteristics of the facility. The daily distributions represent counts taken during a typical week at the mainline toll plazas in the month of July. The typical weekday distribution is shown in **Figure 3-7** and the weekend distribution is shown in **Figure 3-8**. The figures contain the sum of traffic volumes in both directions.

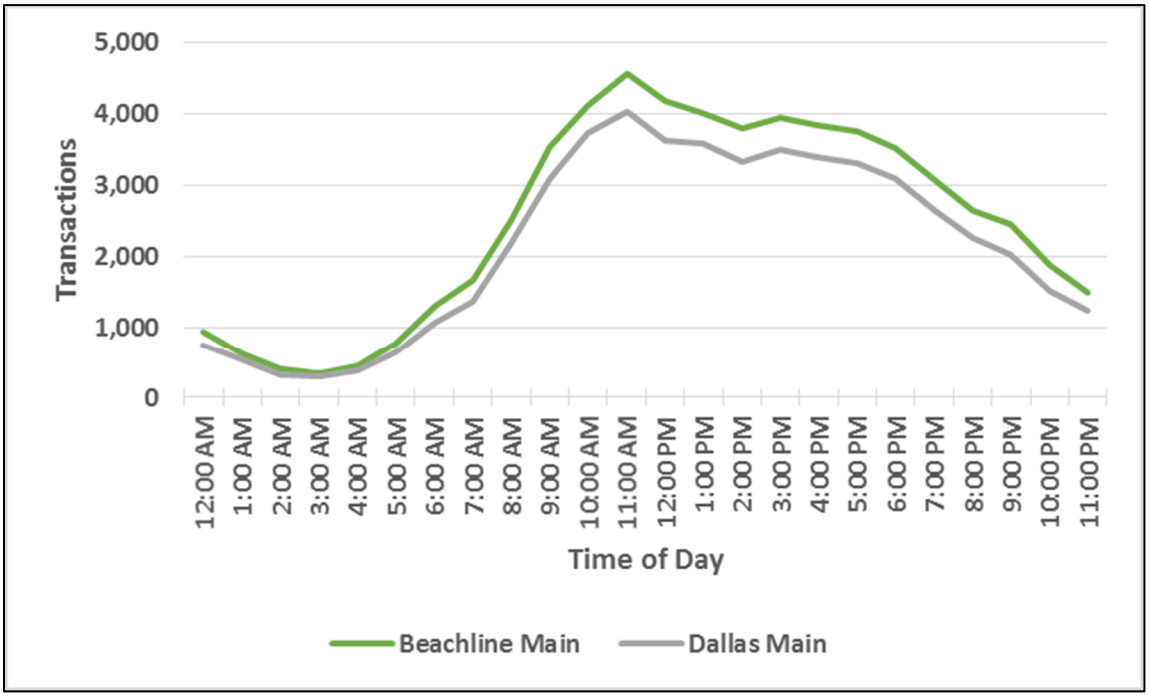
The two mainline toll plaza locations on S.R. 528 exhibit similar hourly traffic patterns. The Airport mainline plaza is not included in this analysis since the plaza was removed in January 2016. On weekdays, demand for travel at both locations is bimodal, with both morning and evening peak hours. The Beachline and Dallas mainline plazas both experience higher peak volumes in the evening hours than in the morning hours. The highest peak hour volumes during the week were 4,600 per hour beginning at 5:00 P.M. at the Beachline mainline plaza and 3,600 per hour beginning at 5:00 P.M. at the Dallas mainline plaza. On weekends, there is no clear morning or evening peak periods, indicating that many customers use the facility for non-work trip purposes.

**Figure 3-7**
**S.R. 528 Daily Traffic Variation (Weekday)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

**Figure 3-8**
**S.R. 528 Daily Traffic Variation (Weekend)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

### 3.2.4 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 2016 is shown in **Table 3-3**. Overall, 98.5 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 0.8 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 0.5 percent of total transactions.

**Table 3-3**
**S.R. 528 Percent of Total Transactions by Vehicle Class**
**FY 2016**

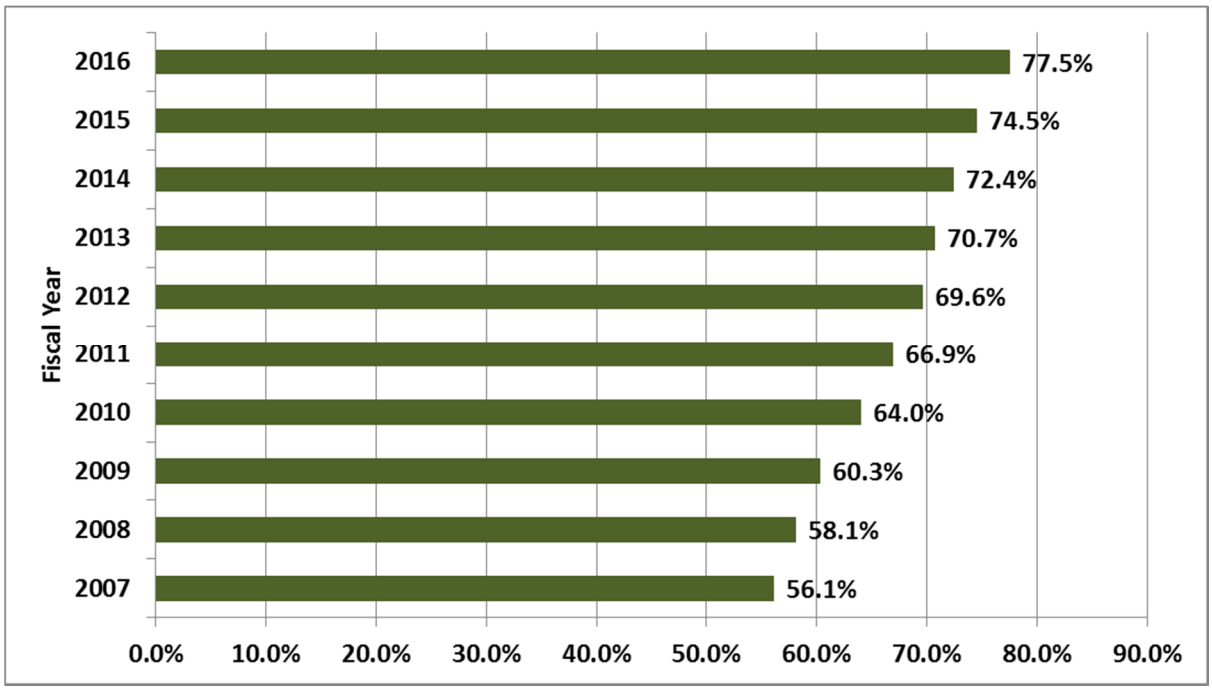
| Vehicle Class | Airport Main | Beachline Main | Dallas Main | S.R. 528 Total |
|---|---|---|---|---|
| 2-Axle | 98.6% | 98.4% | 98.3% | 98.5% |
| 3-Axle | 0.8% | 0.9% | 0.9% | 0.8% |
| 4-Axle | 0.2% | 0.2% | 0.2% | 0.2% |
| 5 or More Axles | 0.4% | 0.5% | 0.6% | 0.5% |
| **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

Source: Unaudited lane transaction data – January and July 2016

## 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 3-9**. The proportion of toll revenues collected by E-PASS has steadily increased on the facility. In FY 2006, E-PASS revenues represented 52.3 percent of total revenues on the facility. In FY 2015, E-PASS revenues reached 74.5 percent. S.R. 528 has the lowest E-PASS usage of all CFX toll facilities due to the high volume of tourists using the expressway. The usage of E-PASS is expected 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 3-9**
**S.R. 528 Percent of Toll Revenue from Electronic Transactions**
**FY 2007 – FY 2016**




Source: CFX Statistical Report June 2016

## 3.4 Forecasted Transactions and Toll Revenues

The assumed completion of Brightline intercity passenger rail service in FY 2017 has a minor impact on S.R. 528 T&R forecasts. The Brightline Train will operate between Orlando International Airport and three stations in South Florida (West Palm Beach, Fort Lauderdale and Miami).

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.

**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 | | 2018 | CFX | Plaza Demolition |
| S.R. 528/Beachline Expressway | I-4 | Florida's Turnpike | 2023 | Turnpike | Widen 4-8 lanes |
| S.R. 528/Beachline Expressway | Florida's Turnpike | MP 8.421 | 2023 | Turnpike | 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 |
| Interstate 4 | Kirkman Road | North of SR 434 | 2028 | FDOT | Ultimate Managed Lanes |
| SR 528 | I-95 | Port Canaveral | 2043 | FDOT | Widen 4-6 lanes |
| Interstate 4 | Kirkman Road | US 27 | 2043 | FDOT | BtU South Managed Lanes |

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 increase in transactions and revenue in FY 2016 over FY 2015 can partially be attributed to the opening of the two ramp plazas at Conway Road/Tradeport Drive and Boggy Creek Road/Sand Lake Road as a result of the relocation/removal of the Airport Main Plaza toll collection point to Beachline West. 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.

Total transactions on S.R. 528 are projected to increase during the forecast period from the actual of 71.5 million in FY 2016 to 89.3 million in FY 2046. During the FY 2017 through FY 2046 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 $66.7 million in FY 2016 to $142.6 million in FY 2046. Transactions are forecasted to increase an average of 2.5 percent per year from FY 2015 to FY 2025. Revenues during the same period are forecasted to increase an average of 4.3 percent per year. Transactions and revenues are forecasted to increase at an average of 0.4 and 2.3 percent per year from FY 2025 to FY 2035, and 0.4 and 1.9 percent per year from FY 2035 to FY 2045, respectively.

## Table 3-5
## S.R. 528 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 28.8 | | 19.0 | | 16.4 | | 64.2 | | 7.5% |
| 2016 [G] | 32.6 | | 20.9 | | 18.0 | | 71.5 | | 11.4% |
| 2017 | | 36.3 | | 21.7 | | 18.7 | | 76.7 | 7.3% |
| 2018 [E] | | 39.4 | | 21.1 | | 18.4 | | 78.8 | 2.7% |
| 2019 | | 39.6 | | 21.4 | | 18.7 | | 79.7 | 1.2% |
| 2020 | | 39.8 | | 21.8 | | 19.1 | | 80.6 | 1.1% |
| 2021 | | 40.0 | | 22.1 | | 19.5 | | 81.6 | 1.1% |
| 2022 | | 40.1 | | 22.5 | | 19.9 | | 82.5 | 1.1% |
| 2023 [E] | | 38.9 | | 21.5 | | 19.0 | | 79.5 | -3.6% |
| 2024 | | 39.4 | | 21.9 | | 19.3 | | 80.7 | 1.5% |
| 2025 | | 39.9 | | 22.3 | | 19.7 | | 81.9 | 1.5% |
| 2026 | | 40.4 | | 22.8 | | 20.0 | | 83.1 | 1.5% |
| 2027 | | 40.8 | | 23.2 | | 20.3 | | 84.3 | 1.4% |
| 2028 [E] | | 40.2 | | 21.8 | | 19.4 | | 81.5 | -3.3% |
| 2029 | | 40.7 | | 22.3 | | 19.7 | | 82.7 | 1.5% |
| 2030 | | 41.1 | | 22.8 | | 20.0 | | 83.9 | 1.5% |
| 2031 | | 41.5 | | 23.3 | | 20.3 | | 85.1 | 1.5% |
| 2032 | | 41.9 | | 23.9 | | 20.6 | | 86.3 | 1.4% |
| 2033 [E] | | 41.0 | | 22.8 | | 19.5 | | 83.2 | -3.7% |
| 2034 | | 41.2 | | 23.2 | | 19.8 | | 84.2 | 1.2% |
| 2035 | | 41.5 | | 23.5 | | 20.1 | | 85.2 | 1.2% |
| 2036 | | 41.8 | | 23.9 | | 20.5 | | 86.2 | 1.2% |
| 2037 | | 42.1 | | 24.2 | | 20.8 | | 87.2 | 1.2% |
| 2038 [E] | | 41.4 | | 22.9 | | 19.7 | | 84.0 | -3.7% |
| 2039 | | 41.8 | | 23.3 | | 19.9 | | 85.0 | 1.3% |
| 2040 | | 42.2 | | 23.7 | | 20.2 | | 86.1 | 1.3% |
| 2041 | | 42.6 | | 24.2 | | 20.4 | | 87.2 | 1.3% |
| 2042 | | 43.1 | | 24.6 | | 20.6 | | 88.3 | 1.2% |
| 2043 [E] | | 42.1 | | 24.1 | | 19.9 | | 86.1 | -2.5% |
| 2044 | | 42.5 | | 24.5 | | 20.1 | | 87.2 | 1.3% |
| 2045 | | 43.0 | | 25.0 | | 20.3 | | 88.3 | 1.2% |
| 2046 | | 43.4 | | 25.4 | | 20.5 | | 89.3 | 1.2% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | |
|---|---|---|---|---|---|
| 2000 - 2008 | 5.1% | 4.2% | | 4.8% | |
| 2008 - 2015 | 0.3% | 1.9% | | 5.3% | |
| 2015 - 2025 | 3.3% | 1.6% | 1.8% | 2.5% | |
| 2025 - 2035 | 0.4% | 0.5% | 0.2% | 0.4% | |
| 2035 - 2045 | 0.3% | 0.6% | 0.1% | 0.4% | |

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 closed and new ramp plazas opened in March 2016.

## Table 3-6
## S.R. 528 Plaza Groups – Toll Revenue Projections (Millions)
## FY 2017 – FY 2046

| 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 | 33.6 | | 18.2 | | 8.6 | | 60.4 | | 7.3% |
| 2016 [G] | 37.3 | | 20.0 | | 9.4 | | 66.7 | | 10.4% |
| 2017 | | $38.8 | | $20.5 | | $9.8 | | $69.1 | 3.5% |
| 2018 [E] | | 41.2 | | 22.4 | | 11.6 | | 75.2 | 8.9% |
| 2019 | | 43.1 | | 22.7 | | 11.8 | | 77.6 | 3.2% |
| 2020 | | 44.9 | | 23.1 | | 12.1 | | 80.0 | 3.1% |
| 2021 | | 46.7 | | 23.4 | | 12.3 | | 82.4 | 3.0% |
| 2022 | | 48.6 | | 23.7 | | 12.5 | | 84.9 | 2.9% |
| 2023 [E] | | 52.5 | | 24.8 | | 13.0 | | 90.3 | 6.4% |
| 2024 | | 52.7 | | 25.3 | | 13.2 | | 91.2 | 1.0% |
| 2025 | | 53.0 | | 25.8 | | 13.4 | | 92.2 | 1.0% |
| 2026 | | 53.2 | | 26.2 | | 13.7 | | 93.1 | 1.0% |
| 2027 | | 53.4 | | 26.7 | | 13.9 | | 94.0 | 1.0% |
| 2028 [E] | | 55.1 | | 28.1 | | 14.3 | | 97.5 | 3.7% |
| 2029 | | 56.7 | | 28.8 | | 14.5 | | 100.0 | 2.6% |
| 2030 | | 58.4 | | 29.4 | | 14.7 | | 102.5 | 2.5% |
| 2031 | | 60.0 | | 30.1 | | 15.0 | | 105.0 | 2.4% |
| 2032 | | 61.6 | | 30.8 | | 15.2 | | 107.5 | 2.4% |
| 2033 [E] | | 64.3 | | 31.5 | | 16.5 | | 112.3 | 4.4% |
| 2034 | | 65.5 | | 32.0 | | 16.8 | | 114.2 | 1.8% |
| 2035 | | 66.7 | | 32.5 | | 17.1 | | 116.2 | 1.7% |
| 2036 | | 67.9 | | 32.9 | | 17.4 | | 118.2 | 1.7% |
| 2037 | | 69.1 | | 33.4 | | 17.7 | | 120.2 | 1.7% |
| 2038 [E] | | 71.6 | | 34.6 | | 17.8 | | 124.0 | 3.1% |
| 2039 | | 73.3 | | 34.7 | | 17.9 | | 126.0 | 1.6% |
| 2040 | | 75.0 | | 34.8 | | 18.1 | | 128.0 | 1.6% |
| 2041 | | 76.7 | | 35.0 | | 18.3 | | 129.9 | 1.6% |
| 2042 | | 78.4 | | 35.1 | | 18.4 | | 131.9 | 1.5% |
| 2043 [E] | | 80.9 | | 36.9 | | 18.8 | | 136.6 | 3.5% |
| 2044 | | 82.6 | | 37.0 | | 19.0 | | 138.6 | 1.5% |
| 2045 | | 84.3 | | 37.1 | | 19.2 | | 140.6 | 1.4% |
| 2046 | | 86.0 | | 37.3 | | 19.3 | | 142.6 | 1.4% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | |
|---|---|---|---|---|---|
| 2000 - 2008 | 5.1% | 4.3% | | 4.7% | |
| 2008 - 2015 | 6.2% | 0.2% | | 6.0% | |
| 2015 - 2025 | 4.7% | 3.5% | 4.6% | 4.3% | |
| 2025 - 2035 | 2.3% | 2.3% | 2.4% | 2.3% | |
| 2035 - 2045 | 2.4% | 1.4% | 1.2% | 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 - 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 closed and new ramp plazas opened in March 2016.

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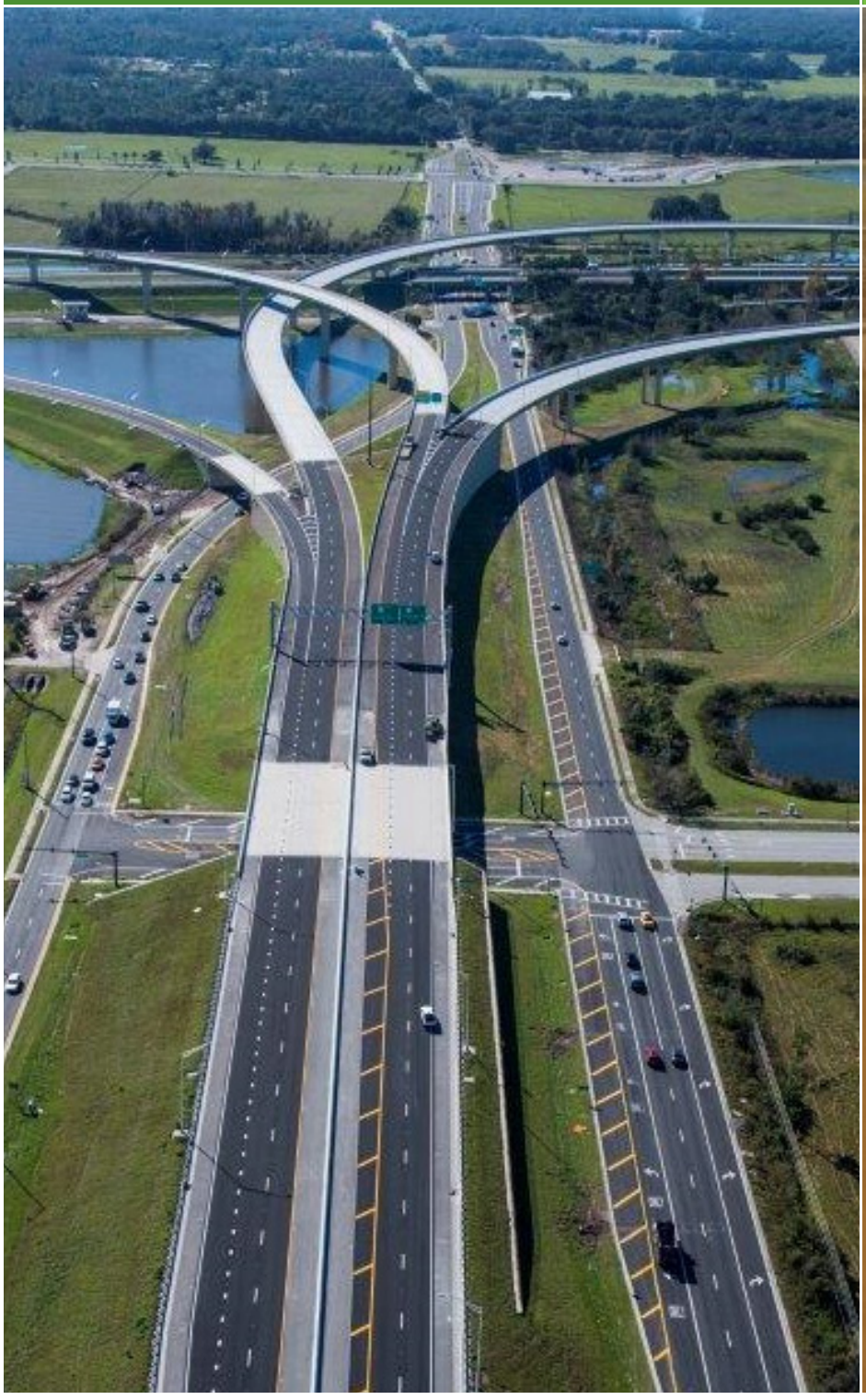
# Chapter 4

# S.R. 408

## (Spessard Lindsay Holland East-West Expressway)



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

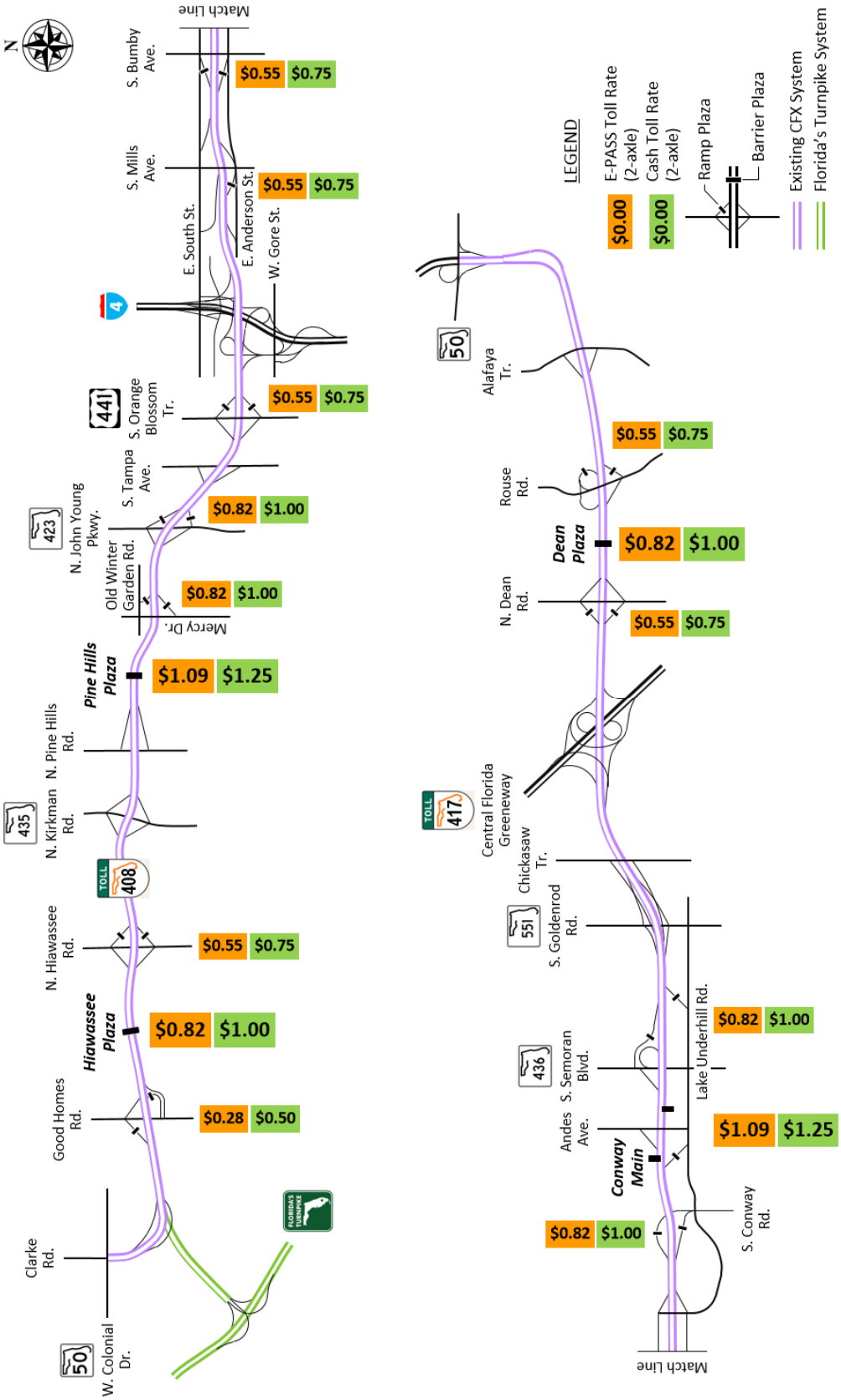
## 4.1 Facility Description


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 2016 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 Andes Avenue/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 (reconstructed and 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**



The S.R. 408 mainline plazas have all been converted to the express toll 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 toll lanes were opened in each direction in 2008, with an additional lane added in each direction in 2009.

In August 2006, a full interchange with Florida's Turnpike was completed with two access ramps to connect Good Homes Road with S.R. 408 in both directions. CFX also widened the Good Homes Road bridge to accommodate Orange County's widening of Good Homes Road between S.R. 50 and Old Winter Garden Road.

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.

CFX is currently widening S.R. 408 from Good Homes Road to east of Hiawassee Road. This two-mile project will add a travel lane in both directions (from two to three lanes) and will widen the ramp from westbound S.R. 408 to Good Homes Road from one to two lanes. The project is scheduled for completion in 2017.

As part of a partnership project, the FDOT is reconstructing the I-4/S.R. 408 interchange as part of their 21-mile I-4 Ultimate project. The reconstruction will improve transitions between S.R. 408 and I-4, including new flyover ramps, direct connection ramps from the eastbound and westbound I-4 Express Lanes to S.R. 408 and also the reconstruction of the S.R. 408 travel lanes over I-4.

Beginning in the spring of 2017, CFX will widen S.R. 408 from east of S.R. 417 to east of Alafaya Trail. This 3.24-mile project will add a travel lane to S.R. 408 in each direction (two lanes to three lanes), widen the ramp from westbound S.R. 408 to northbound S.R. 417 (two lanes to three lanes), and add an additional Express Lane at the Dean Road Main Plaza. The project is scheduled for completion in 2018.

## *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 1997 to FY 2016 is presented in **Table 4-1**. The facility data and annual growth are also presented visually in **Figure 4-2** and **Figure 4-3**. As shown, total transactions on S.R. 408 in FY 2016 increased by approximately 8.0 million, or 5.8 percent, compared to FY 2015. FY 2016 total toll revenues increased by $7.1 million, or 5.3 percent compared to FY 2015. Annual transaction and toll revenue trends by plaza group are also presented in the table.

## Table 4-1
## S.R. 408 Plaza Groups – Historical Transactions and Toll Revenues
## FY 1997 – FY 2016

| 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 | | | | |
| 1997 | 10.0 | 17.5 | 32.6 | 10.2 | 70.3 | | | | | |
| 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 | 7.1% | 5.8% | 4.5% | 3.3% | 5.0% |
| 2015 | 26.4 | 31.6 | 53.9 | 26.3 | 138.2 | 9.5% | 8.2% | 5.5% | 4.0% | 6.6% |
| 2016 | 28.6 | 33.7 | 56.4 | 27.5 | 146.2 | 8.3% | 6.6% | 4.6% | 4.6% | 5.8% |
| | TOLL REVENUES (millions) | | | | | PERCENT CHANGE | | | | |
| 1997 | $4.7 | $13.0 | $23.2 | $4.6 | $45.5 | | | | | |
| 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% |
| 2015 | $21.0 | $33.4 | $56.9 | $21.7 | $133.0 | 9.4% | 7.7% | 5.0% | 4.3% | 6.2% |
| 2016 | $22.6 | $35.5 | $59.4 | $22.6 | $140.1 | 7.6% | 6.3% | 4.4% | 4.1% | 5.3% |

Notes:

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

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

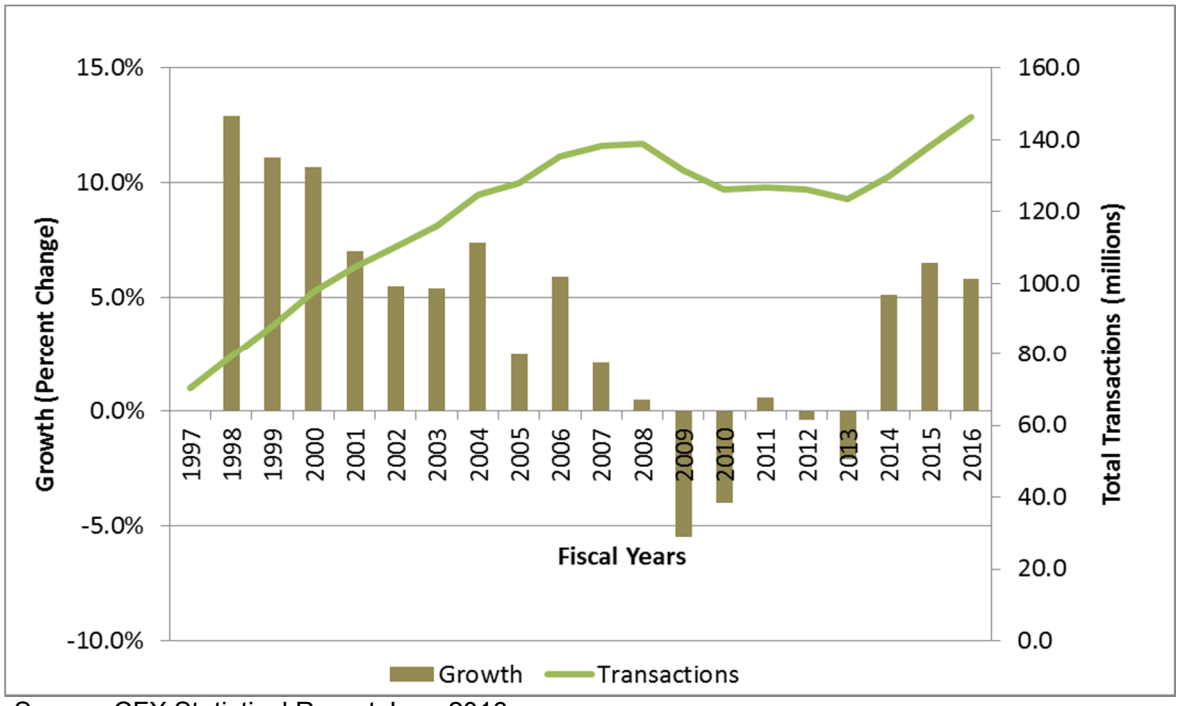
C - Mills Avenue on-ramp to westbound S.R. 408 permanently closed. Dean Main plaza converted to open road tolling in August 2005.

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.

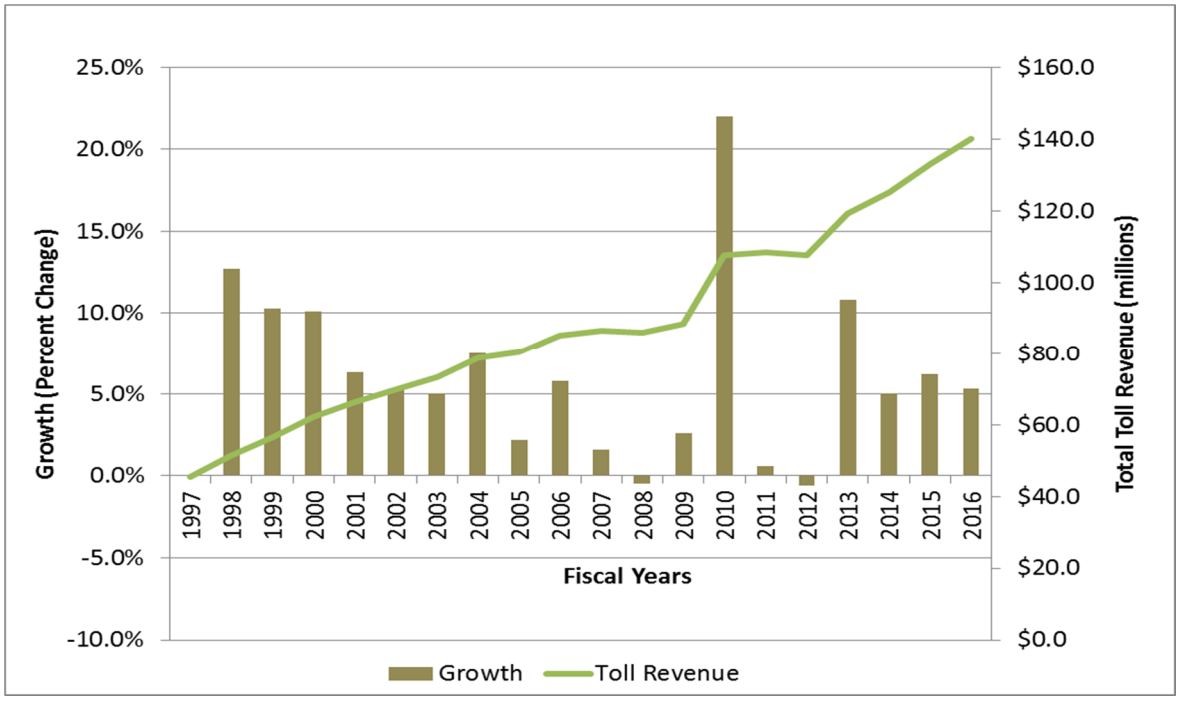
F - Systemwide toll rate increase. Conway Main plaza converted to open road tolling in Nov 2008.

**Figure 4-2**
**S.R. 408 Historical Transactions and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016

**Figure 4-3**
**S.R. 408 Historical Toll Revenue and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016

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.

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.

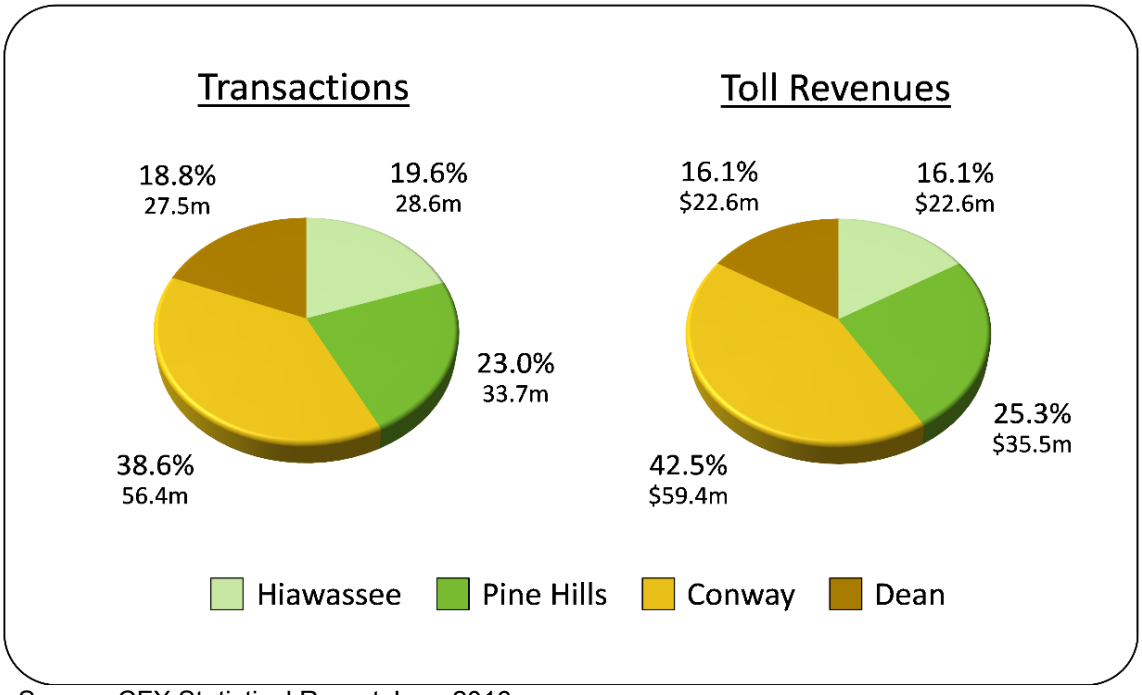
FY 2011 transactions decreased at the Hiawassee Main plaza group by 0.4 percent and at the Dean Main plaza group by 0.8 percent due to construction on S.R. 408. Revenues also declined at both facilities by approximately 1.0 percent. Transactions and revenues at the Pine Hills Main plaza group remained 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 at the beginning of the fiscal year, 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.

In FY 2015, transactions and toll revenues increased over FY 2014 at all four plaza groups. The Hiawassee Main plaza group experienced the largest increase in both transactions and toll revenues. The same trend continued in FY 2016 during which transactions increased by 5.8 percent and toll revenues increased by 5.3 percent. The Hiawassee Main plaza group experienced the largest increase in transactions and toll revenues for the second consecutive year.

The transactions and toll revenues by plaza groups and as a percentage of total S.R. 408 transactions and toll revenues for FY 2016 are presented in **Figure 4-4**. The largest portion of the transactions on S.R. 408 during FY 2016 were reported at the Conway Main plaza group, with 56.4 million or 38.6 percent. The Pine Hills Main, Hiawassee Main, and Dean Main plaza groups reported 33.7, 28.6 and 27.5 million transactions and each contributed between 18.8 to 23.0 percent of total S.R. 408 transactions for FY 2016.

**Figure 4-4**
**S.R. 408 Transactions and Toll Revenues by Plaza Group**
**FY 2016**




Source: CFX Statistical Report June 2016

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 $59.4 million in toll revenues or 42.5 percent of total S.R. 408 toll revenues. The Pine Hills Main plaza group represented $35.5 million or 25.3 percent of total revenues on the facility. The Dean Main plaza group and the Hiawassee Main plaza group both represented $22.6 million or 16.1 percent of total revenues on the facility.

### 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.

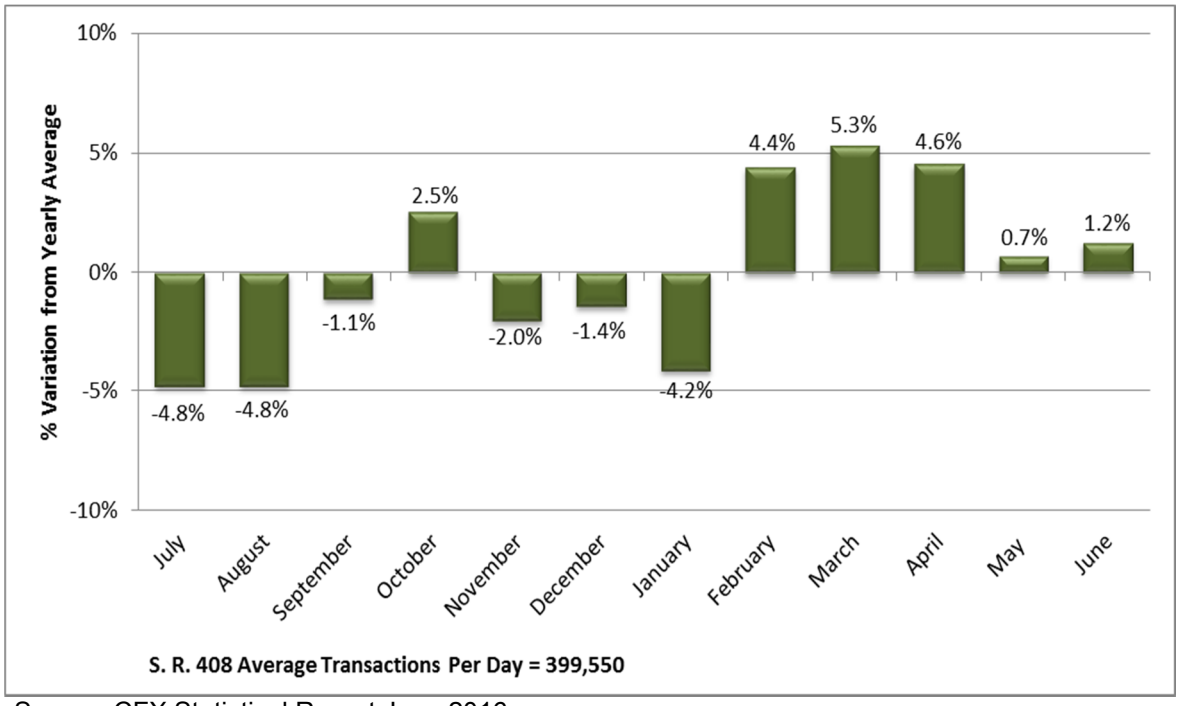
The average number of transactions per day in FY 2016 on S.R. 408 ranged from a high of 420,706 in March 2016 to a low of 380,248 in July 2015. Historically, the winter months (December and January) have been the months with the lowest average number of transactions per day. This data is presented in a graphical format in **Figure 4-5**. The transactions for each month appear as a percentage of the average for the fiscal year. As shown in the figure, March transactions were 5.3 percent above average and July and August transactions were 4.8 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 a lower level of use by tourists and seasonal residents. Transactions only deviate 4 to 5 percent from the annual average.

**Table 4-2**
**S.R. 408 – Monthly Seasonal Variation in Toll-Paying Traffic**
**FY 2016**

| Month | Number of Days in Month | Total Toll Paying Transactions | Average Transactions/day | Seasonal Factor |
|---|---|---|---|---|
| July | 31 | 11,787,688 | 380,248 | 0.952 |
| August | 31 | 11,789,399 | 380,303 | 0.952 |
| September | 30 | 11,852,536 | 395,085 | 0.989 |
| October | 31 | 12,698,644 | 409,634 | 1.025 |
| November | 30 | 11,747,215 | 391,574 | 0.980 |
| December | 31 | 12,211,471 | 393,918 | 0.986 |
| January | 31 | 11,867,237 | 382,814 | 0.958 |
| February | 29 | 12,097,637 | 417,160 | 1.044 |
| March | 31 | 13,041,899 | 420,706 | 1.053 |
| April | 30 | 12,535,036 | 417,835 | 1.046 |
| May | 31 | 12,471,922 | 402,320 | 1.007 |
| June | 30 | 12,134,752 | 404,492 | 1.012 |
| ***Average*** | | ***12,186,286*** | ***399,550*** | ***1.000*** |
| **Total Year** | **366** | **146,235,436** | | |

Source: CFX Statistical Report June 2016

**Figure 4-5**
**S.R. 408 Variation in Transactions per Day, by Month**
**FY 2016**



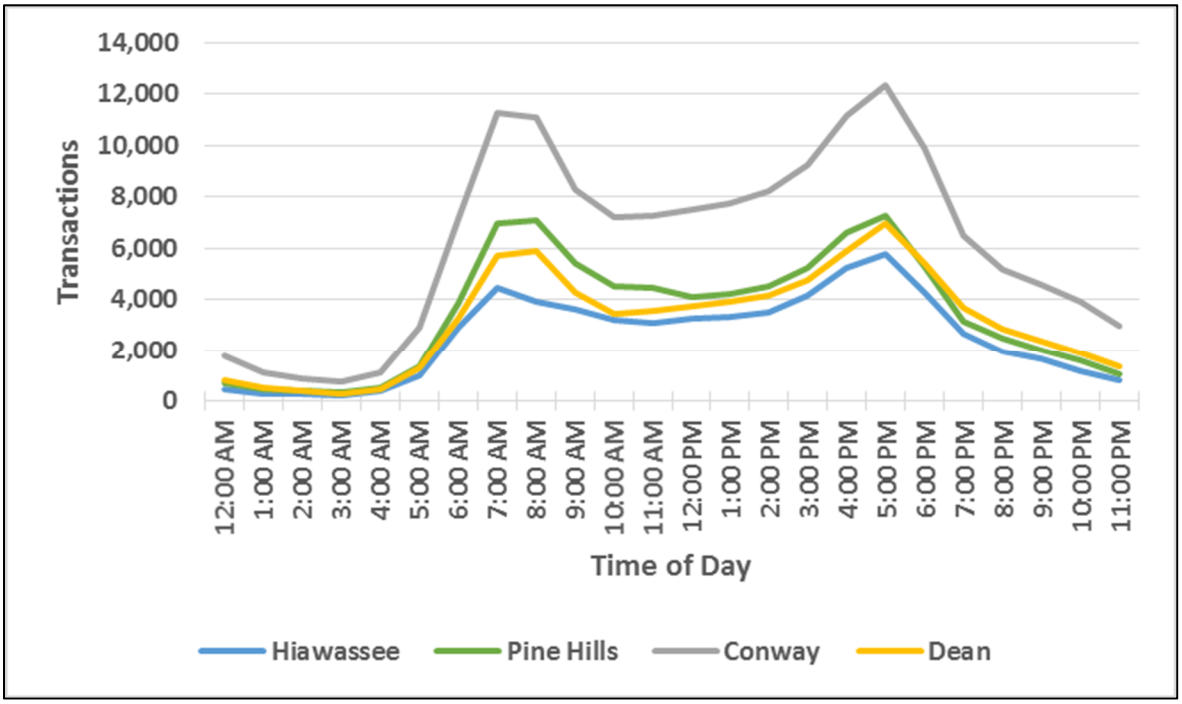

Source: CFX Statistical Report June 2016

### 4.2.3 DAILY TRAFFIC DISTRIBUTION

The daily distribution of traffic includes information on the usage characteristics of travel on the facility. The daily distributions represent counts taken during a typical week at the mainline plazas in the month of July. The typical weekday distribution is shown in **Figure 4-6** and the weekend distribution is shown in **Figure 4-7**. The figures contain the sum of traffic volumes in both directions.

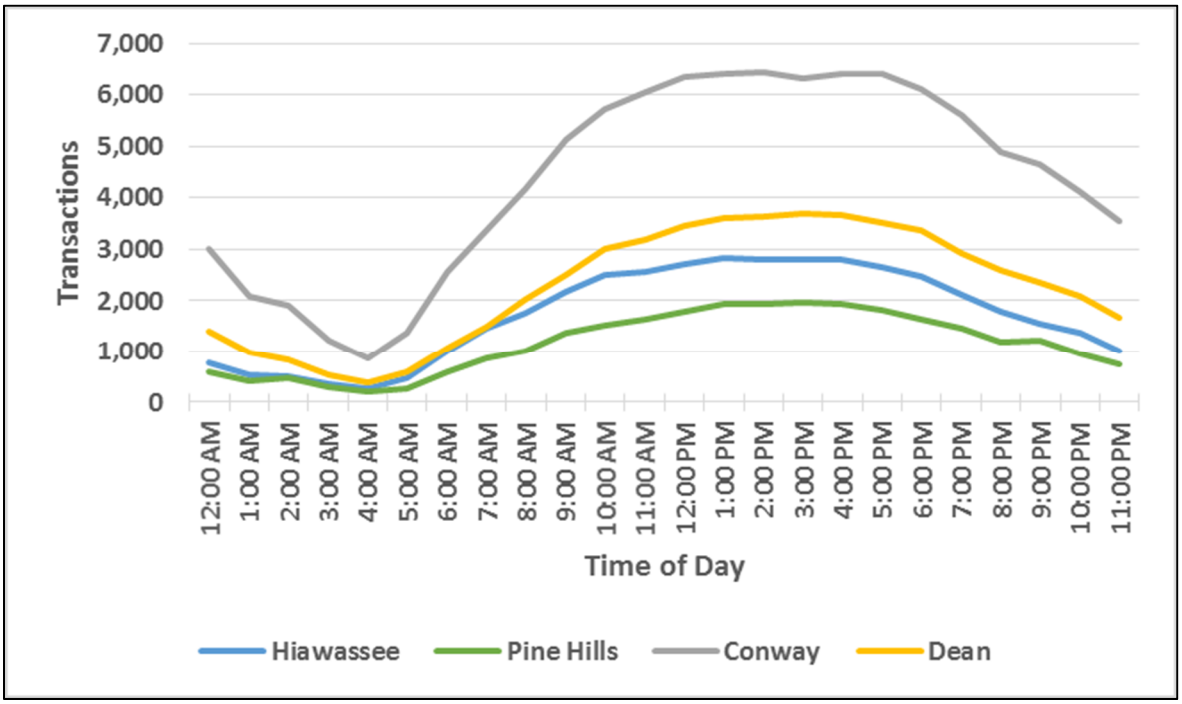
The four mainline locations on S.R. 408 exhibit similar hourly traffic patterns. On weekdays, demand for travel at all four locations is bimodal, with both morning and evening peak hours. Traffic volumes in the evening peak hours at all four mainline plazas are higher than in the morning peak hours. The highest peak hour volumes during the week were 12,400 per hour beginning at 5:00 P.M. at the Conway mainline plaza, 7,200 per hour beginning at 5:00 P.M. at the Pine Hills mainline plaza, 6,900 per hour beginning at 5:00 P.M. at the Dean mainline plaza and 5,800 per hour beginning at 5:00 P.M. at the Hiawassee mainline plaza. On weekends, there is no clear morning or evening peak periods, indicating that many customers use the facility for non-work trip purposes.

**Figure 4-6**
**S.R. 408 Daily Traffic Variation (Weekday)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

**Figure 4-7**
**S.R. 408 Daily Traffic Variation (Weekend)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

### 4.2.4 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 2016 is presented in **Table 4-3**. Overall, 99.2 percent of all transactions on S.R. 408 were made by 2-axle passenger vehicles, with little variation among the four plaza groups. Otherwise 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 0.2 percent of facility transactions, respectively.

**Table 4-3**
**S.R. 408 Percent of Total Transactions by Vehicle Class**
**FY 2016**

| Vehicle Class | Hiawassee Main | Pine Hills Main | Conway Main | Dean Main | S.R. 408 Total |
|---|---|---|---|---|---|
| 2-Axle | 98.8% | 99.0% | 99.3% | 99.5% | 99.2% |
| 3-Axle | 0.6% | 0.5% | 0.4% | 0.3% | 0.5% |
| 4-Axle | 0.2% | 0.2% | 0.1% | 0.1% | 0.1% |
| 5 or More Axles | 0.4% | 0.3% | 0.2% | 0.1% | 0.2% |
| **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

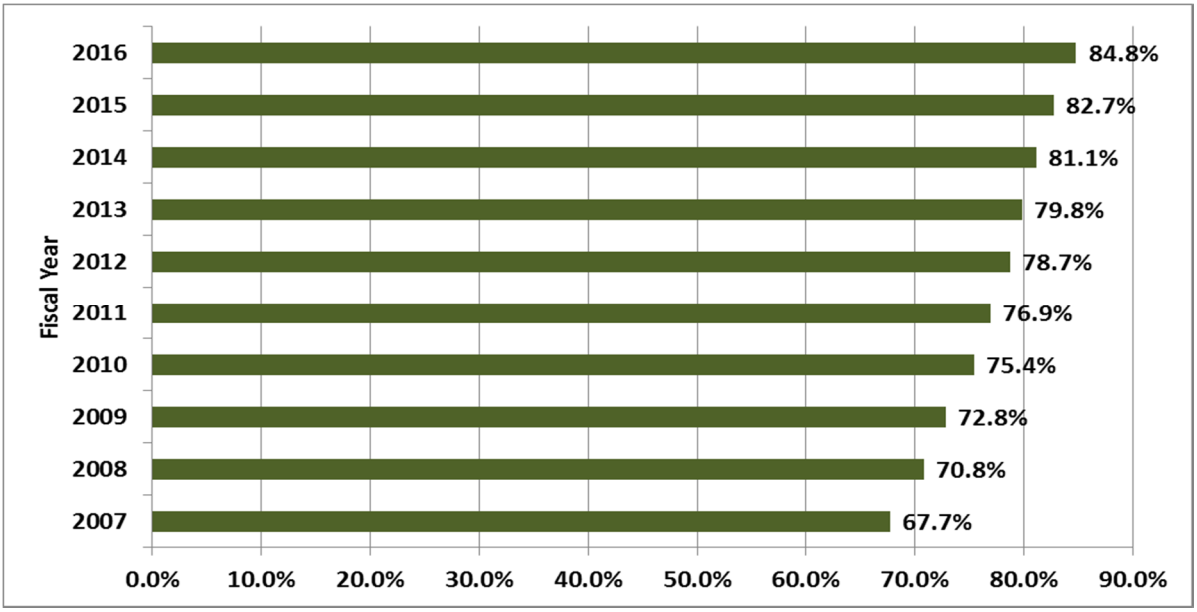
Source: Unaudited lane transaction data – January and July 2016

## 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 4-8**. The share of toll revenue collected through E-PASS has steadily increased on the facility since. In FY 2007, E-PASS revenues totaled 67.7 percent of total revenues on the facility. By the end of FY 2016, E-PASS revenues reached 84.8 percent. The usage of E-PASS is expected to increase as customers shift from cash to E-PASS to take advantage of the lower toll rate and convenience of paying tolls electronically.

Beginning May 11, 2016, CFX implemented a pilot program called The Reload Lane to encourage and increase E-PASS usage. CFX now offers this drive-through lane on S.R. 408 at the Conway Main Plaza for customers to sign up for an E-PASS electronic transponder or replenish an existing E-PASS account from 6:00 a.m. to 8:00 p.m. daily. This program is the first of its kind in the continental United States and provides customer convenience and multiple payment options (cash, check, and debit/credit card). The program will be expanded to other locations on the CFX System in the future including S.R. 417 and S.R. 429 in 2017.


**Figure 4-8**
**S.R. 408 Percent of Toll Revenue from Electronic Transactions**
**FY 2007 – FY 2016**




Source: CFX Statistical Report June 2016

## 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 1.6% 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 | | 2028 | FDOT | Ultimate Interchange Improvement |
| Interstate 4 | Kirkman Rd. | North of S.R. 434 | 2028 | 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 |
| Interstate 4 | Kirkman Road | US 27 | 2043** | FDOT | BtU South Managed 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 Interstate 4 Ultimate, 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 1.5 percent per year through FY 2025 and then lower rates through the end of the forecast period because of the impact of toll rate adjustments. Total revenues on S.R. 408 are projected to increase significantly over the forecast period, from the FY 2016 actual of $140.1 million to $264.3 million in FY 2046. Currently the largest contributor to System revenue, S.R. 408 revenues are forecasted to increase an average of 3.4 percent per year through FY 2025, 1.9 percent per year from FY 2025 to FY 2035, and 1.5 percent per year from FY 2035 to FY 2045.

## Table 4-5
## S.R. 408 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| | Hiawassee Main | | Pine Hills Main | | Conway Main | | Dean Main | | TOTAL | | Percent Annual |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fiscal Year | Actual [A] | Projected | Actual [A] | Projected | Actual [A] | Projected | Actual [A] | Projected | Actual [A] | Projected | Change |
| 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 | 26.4 | | 31.6 | | 53.9 | | 26.3 | | 138.2 | | 6.6% |
| 2016 | 28.6 | | 33.7 | | 56.4 | | 27.5 | | 146.2 | | 5.8% |
| 2017 | | 30.2 | | 35.4 | | 58.5 | | 28.6 | | 152.8 | 4.5% |
| 2018 [G] | | 29.1 | | 34.4 | | 57.4 | | 28.2 | | 149.1 | -2.4% |
| 2019 | | 30.2 | | 35.3 | | 58.2 | | 28.6 | | 152.3 | 2.2% |
| 2020 | | 31.3 | | 36.2 | | 59.0 | | 29.1 | | 155.6 | 2.1% |
| 2021 | | 32.4 | | 37.1 | | 59.7 | | 29.5 | | 158.8 | 2.1% |
| 2022 | | 33.5 | | 38.1 | | 60.5 | | 29.9 | | 162.0 | 2.0% |
| 2023 [G] | | 31.6 | | 35.2 | | 57.9 | | 28.9 | | 153.6 | -5.2% |
| 2024 | | 32.2 | | 35.7 | | 59.1 | | 29.7 | | 156.8 | 2.0% |
| 2025 | | 32.8 | | 36.3 | | 60.3 | | 30.5 | | 159.9 | 2.0% |
| 2026 | | 33.4 | | 36.9 | | 61.5 | | 31.3 | | 163.0 | 2.0% |
| 2027 | | 34.0 | | 37.5 | | 62.6 | | 32.1 | | 166.1 | 1.9% |
| 2028 [G] | | 32.9 | | 36.9 | | 59.9 | | 29.6 | | 159.3 | -4.1% |
| 2029 | | 33.4 | | 37.1 | | 60.9 | | 30.3 | | 161.7 | 1.5% |
| 2030 | | 33.9 | | 37.3 | | 61.8 | | 31.1 | | 164.1 | 1.5% |
| 2031 | | 34.4 | | 37.5 | | 62.7 | | 31.8 | | 166.5 | 1.4% |
| 2032 | | 34.9 | | 37.7 | | 63.7 | | 32.5 | | 168.9 | 1.4% |
| 2033 [G] | | 34.1 | | 37.3 | | 61.3 | | 30.6 | | 163.2 | -3.3% |
| 2034 | | 34.7 | | 37.6 | | 62.1 | | 31.2 | | 165.7 | 1.5% |
| 2035 | | 35.4 | | 38.0 | | 63.0 | | 31.8 | | 168.2 | 1.5% |
| 2036 | | 36.0 | | 38.3 | | 63.8 | | 32.4 | | 170.6 | 1.5% |
| 2037 | | 36.7 | | 38.7 | | 64.7 | | 33.0 | | 173.1 | 1.5% |
| 2038 [G] | | 36.7 | | 38.8 | | 62.0 | | 31.4 | | 168.9 | -2.4% |
| 2039 | | 36.9 | | 39.1 | | 62.7 | | 32.0 | | 170.7 | 1.1% |
| 2040 | | 37.0 | | 39.4 | | 63.4 | | 32.7 | | 172.6 | 1.1% |
| 2041 | | 37.2 | | 39.7 | | 64.1 | | 33.4 | | 174.4 | 1.1% |
| 2042 | | 37.4 | | 40.0 | | 64.9 | | 34.0 | | 176.2 | 1.0% |
| 2043 [G] | | 37.6 | | 39.8 | | 62.7 | | 32.2 | | 172.4 | -2.2% |
| 2044 | | 37.8 | | 40.1 | | 63.4 | | 32.9 | | 174.2 | 1.1% |
| 2045 | | 37.9 | | 40.4 | | 64.2 | | 33.6 | | 176.0 | 1.0% |
| 2046 | | 38.1 | | 40.6 | | 64.9 | | 34.2 | | 177.8 | 1.0% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 7.3% | 4.1% | 2.7% | 6.4% | 4.5% | |
| 2008 - 2015 | -0.4% | -0.9% | 0.9% | -0.6% | -0.1% | |
| 2015 - 2025 | 2.2% | 1.4% | 1.1% | 1.5% | 1.5% | |
| 2025 - 2035 | 0.8% | 0.4% | 0.4% | 0.4% | 0.5% | |
| 2035 - 2045 | 0.7% | 0.6% | 0.2% | 0.5% | 0.5% | |

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 2017 – FY 2046

| 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 | 21.0 | | 33.4 | | 56.9 | | 21.7 | | 133.0 | | 6.2% |
| 2016 | 22.6 | | 35.5 | | 59.4 | | 22.6 | | 140.1 | | 5.3% |
| 2017 | | $24.1 | | $37.6 | | $62.1 | | $23.6 | | $147.5 | 5.3% |
| 2018 [G] | | 25.4 | | 40.3 | | 67.6 | | 25.7 | | 159.1 | 7.9% |
| 2019 | | 26.1 | | 41.2 | | 68.3 | | 25.9 | | 161.5 | 1.5% |
| 2020 | | 26.7 | | 42.0 | | 68.9 | | 26.1 | | 163.8 | 1.5% |
| 2021 | | 27.4 | | 42.9 | | 69.6 | | 26.3 | | 166.2 | 1.4% |
| 2022 | | 28.0 | | 43.8 | | 70.3 | | 26.5 | | 168.6 | 1.4% |
| 2023 [G] | | 29.2 | | 45.9 | | 76.3 | | 28.8 | | 180.3 | 6.9% |
| 2024 | | 29.7 | | 46.2 | | 77.5 | | 29.8 | | 183.2 | 1.6% |
| 2025 | | 30.2 | | 46.5 | | 78.7 | | 30.8 | | 186.2 | 1.6% |
| 2026 | | 30.6 | | 46.8 | | 79.9 | | 31.9 | | 189.2 | 1.6% |
| 2027 | | 31.1 | | 47.0 | | 81.1 | | 32.9 | | 192.1 | 1.6% |
| 2028 [G] | | 32.3 | | 50.5 | | 86.1 | | 33.3 | | 202.2 | 5.2% |
| 2029 | | 32.8 | | 50.7 | | 86.9 | | 33.9 | | 204.2 | 1.0% |
| 2030 | | 33.3 | | 50.8 | | 87.7 | | 34.5 | | 206.3 | 1.0% |
| 2031 | | 33.7 | | 51.0 | | 88.6 | | 35.1 | | 208.4 | 1.0% |
| 2032 | | 34.2 | | 51.1 | | 89.4 | | 35.7 | | 210.4 | 1.0% |
| 2033 [G] | | 36.0 | | 53.9 | | 92.6 | | 36.5 | | 219.0 | 4.1% |
| 2034 | | 36.3 | | 54.6 | | 93.5 | | 37.2 | | 221.6 | 1.2% |
| 2035 | | 36.5 | | 55.3 | | 94.5 | | 37.9 | | 224.2 | 1.2% |
| 2036 | | 36.8 | | 55.9 | | 95.5 | | 38.6 | | 226.8 | 1.2% |
| 2037 | | 37.1 | | 56.6 | | 96.4 | | 39.3 | | 229.4 | 1.1% |
| 2038 [G] | | 38.6 | | 60.8 | | 99.8 | | 39.4 | | 238.6 | 4.0% |
| 2039 | | 38.9 | | 61.4 | | 101.3 | | 40.2 | | 241.8 | 1.3% |
| 2040 | | 39.2 | | 62.1 | | 102.7 | | 40.9 | | 245.0 | 1.3% |
| 2041 | | 39.6 | | 62.8 | | 104.2 | | 41.6 | | 248.2 | 1.3% |
| 2042 | | 39.9 | | 63.5 | | 105.6 | | 42.4 | | 251.4 | 1.3% |
| 2043 [G] | | 39.8 | | 64.3 | | 108.3 | | 42.2 | | 254.7 | 1.3% |
| 2044 | | 40.2 | | 65.0 | | 109.8 | | 43.0 | | 257.9 | 1.3% |
| 2045 | | 40.5 | | 65.6 | | 111.2 | | 43.7 | | 261.1 | 1.2% |
| 2046 | | 40.8 | | 66.3 | | 112.7 | | 44.5 | | 264.3 | 1.2% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 7.3% | 3.8% | 2.6% | 6.6% | 4.1% | |
| 2008 - 2015 | 7.1% | 4.8% | 6.7% | 7.6% | 6.4% | |
| 2015 - 2025 | 3.7% | 3.4% | 3.3% | 3.6% | 3.4% | |
| 2025 - 2035 | 1.9% | 1.7% | 1.8% | 2.1% | 1.9% | |
| 2035 - 2045 | 1.0% | 1.7% | 1.6% | 1.4% | 1.5% | |

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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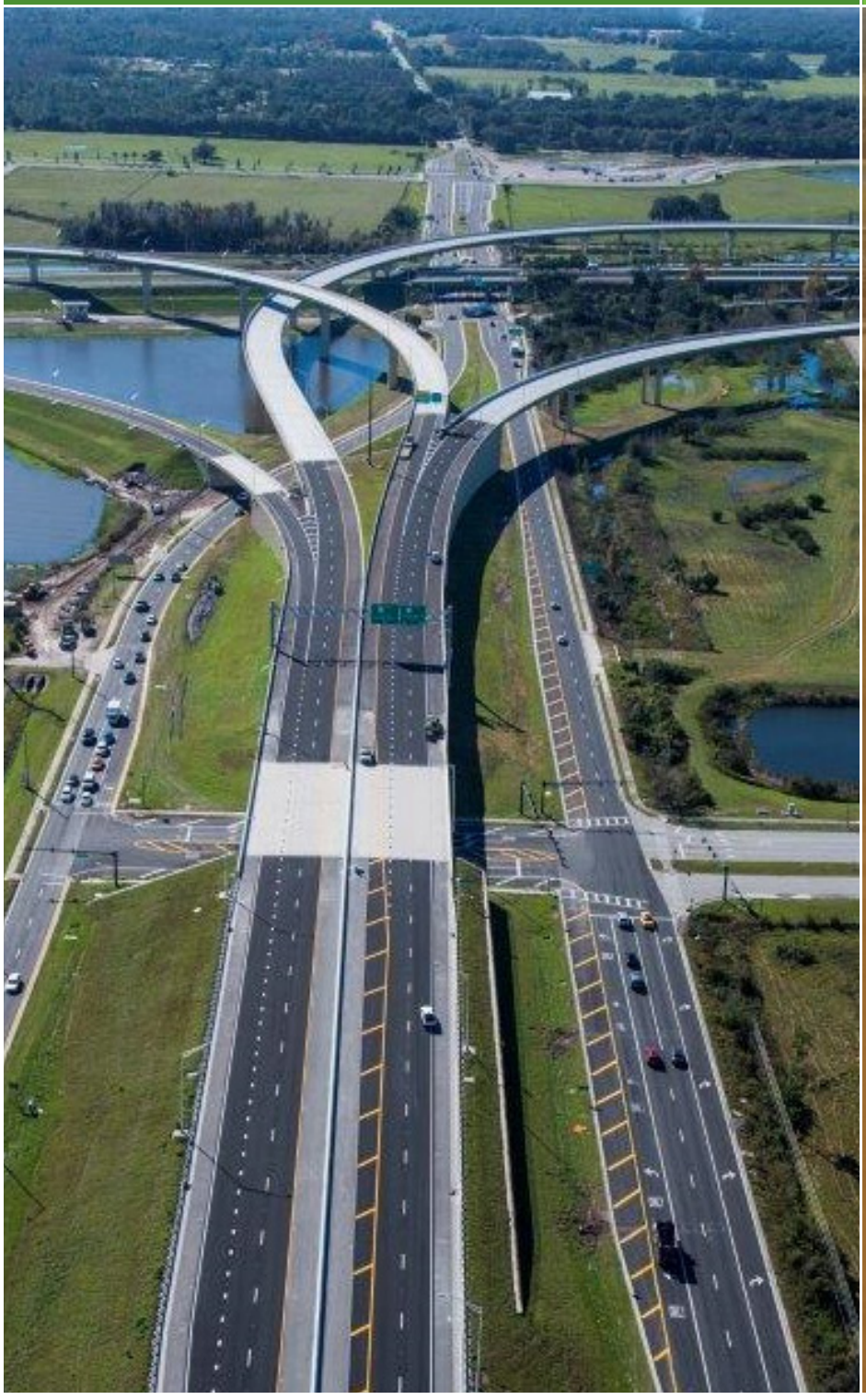
# Chapter 5

# S.R. 417
## (Central Florida Greeneway)



# S.R. 417 (CENTRAL FLORIDA GREENEWAY)

## 5.1 Facility Description

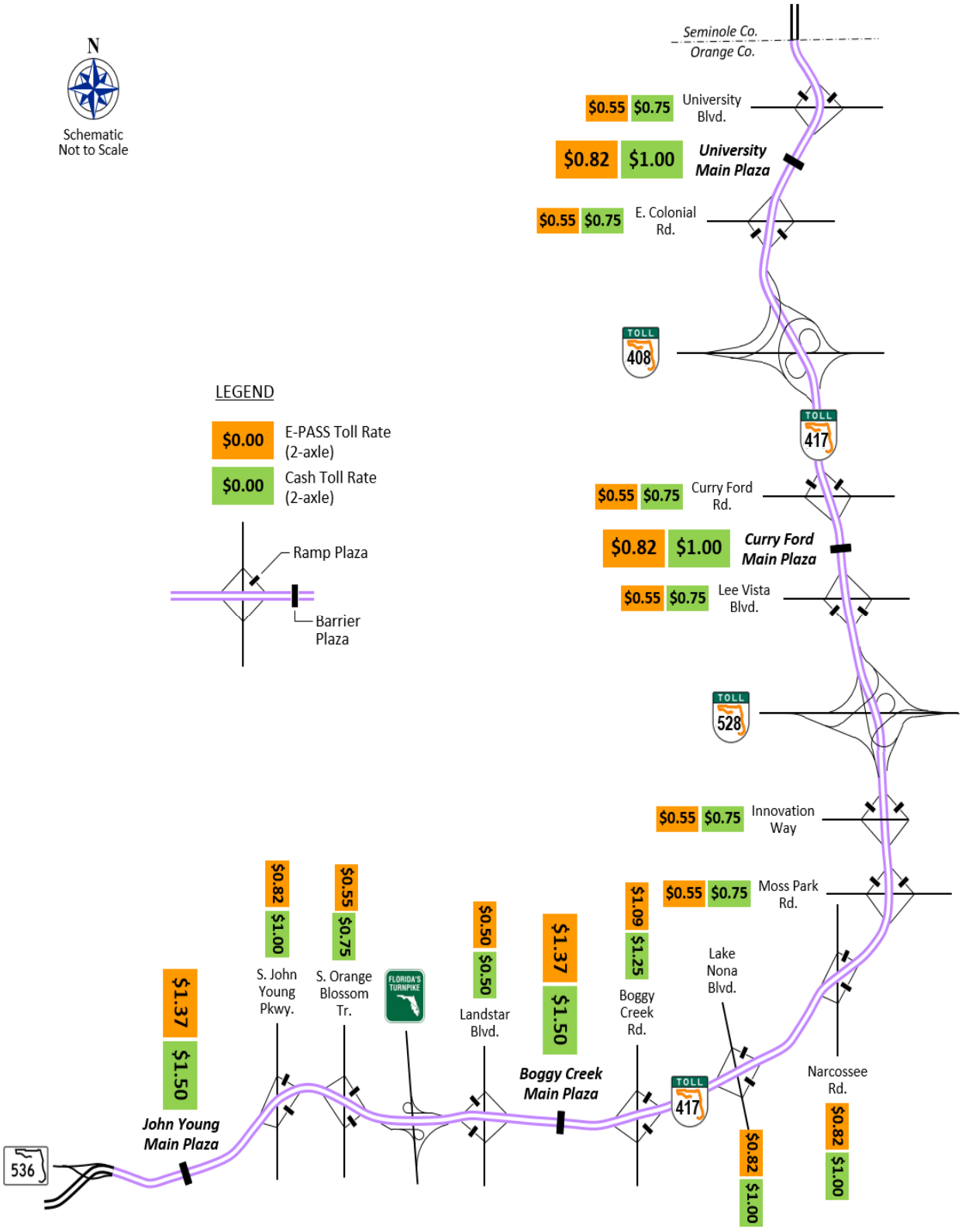

S. R. 417, also known as the Central Florida Greeneway, is a 55-mile expressway that serves as an eastern beltway around Orlando and provides a connection from the residential areas northeast, east and southeast of Orlando in Orange, Seminole and Osceola Counties to S.R. 408 and downtown Orlando. It 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 2016 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.

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 periods. Also, in January 2013, CFX completed work on the modified S.R. 408/S.R. 417 Interchange project. As part of the

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



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 partial interchange between S.R. 417 and Florida's Turnpike, providing ramps from southbound S.R. 417 to southbound Florida's Turnpike and from northbound Florida's Turnpike to northbound S.R. 417. In May 2016, FTE opened an additional ramp for motorists traveling southbound on S.R. 417 to access Florida's Turnpike northbound toward Interstate 4. Also, two new ramps were opened for motorists traveling north on S.R. 417 from Hunter's Creek to access Florida's Turnpike in both the north and south directions. This completes five of eight ramps planned for the interchange. FTE is planning on constructing the remainder of the ramps to complete the system to system interchange.

In May 2015, CFX completed the widening of S.R. 417 between Curry Ford Road and Lake Underhill Road from four to six lanes. The project also included improvements to the southbound off ramp to Curry Ford Road and the Curry Ford Road on ramp to northbound S.R. 417.

In February 2016, CFX completed the interchange improvement at S.R. 417/Boggy Creek Road and opened the new airport ramps. This improvement will provide better access to and from OIA for customers in South Orange and Osceola Counties.

## *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 1997 to FY 2016 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 economic downturn and the Systemwide toll rate increase. 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.

## Table 5-1
## S.R. 417 Plaza Groups – Historical Transactions and Toll Revenues
## FY 1997 – FY 2016

| 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 | | | | |
| 1997 | 9.0 | 7.1 | 9.0 | 15.2 | 40.3 | | | | | |
| 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% |
| 2015 | 25.7 | 25.3 | 28.3 | 30.0 | 109.3 | 13.7% | 15.5% | 12.3% | 9.1% | 12.4% |
| 2016 | 30.6 | 31.0 | 32.5 | 33.3 | 127.4 | 19.1% | 22.5% | 14.8% | 11.0% | 16.6% |
| | TOLL REVENUE (millions) | | | | | PERCENT CHANGE | | | | |
| 1997 | $7.8 | $7.0 | $4.7 | $6.9 | $26.4 | | | | | |
| 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% |
| 2015 | $30.6 | $30.8 | $24.0 | $25.0 | $110.4 | 12.5% | 14.5% | 12.7% | 9.2% | 12.3% |
| 2016 | $35.9 | $37.7 | $27.6 | $27.8 | $129.0 | 17.3% | 22.4% | 15.0% | 11.2% | 16.8% |

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.

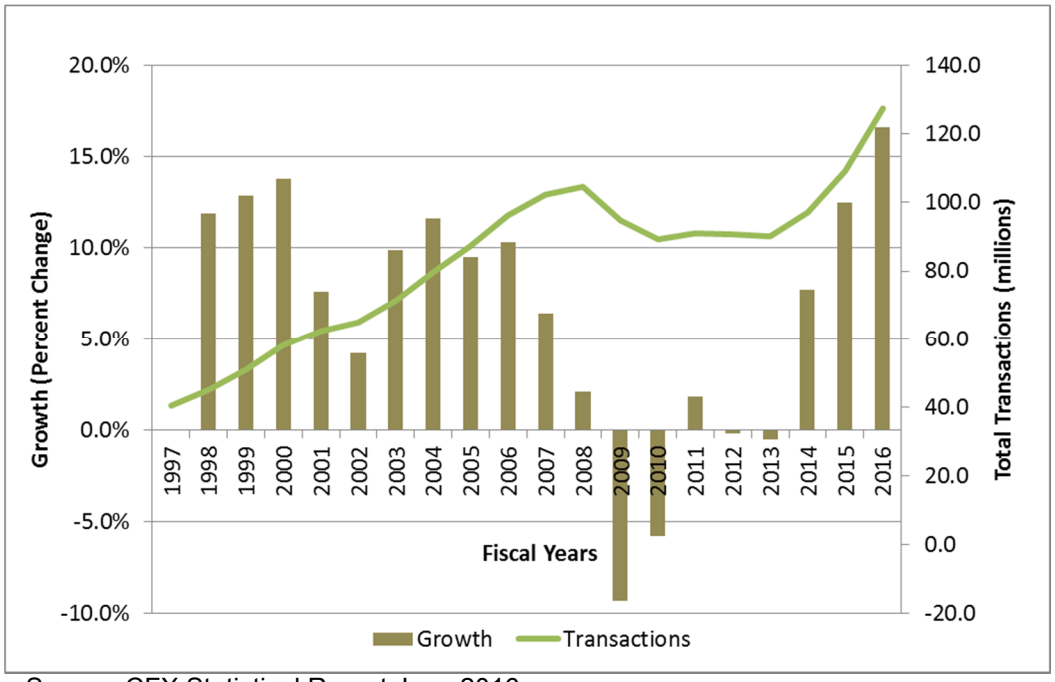
E - Boggy Creek Main and John Young Main plazas converted to open road tolling plazas in March 2007.

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.

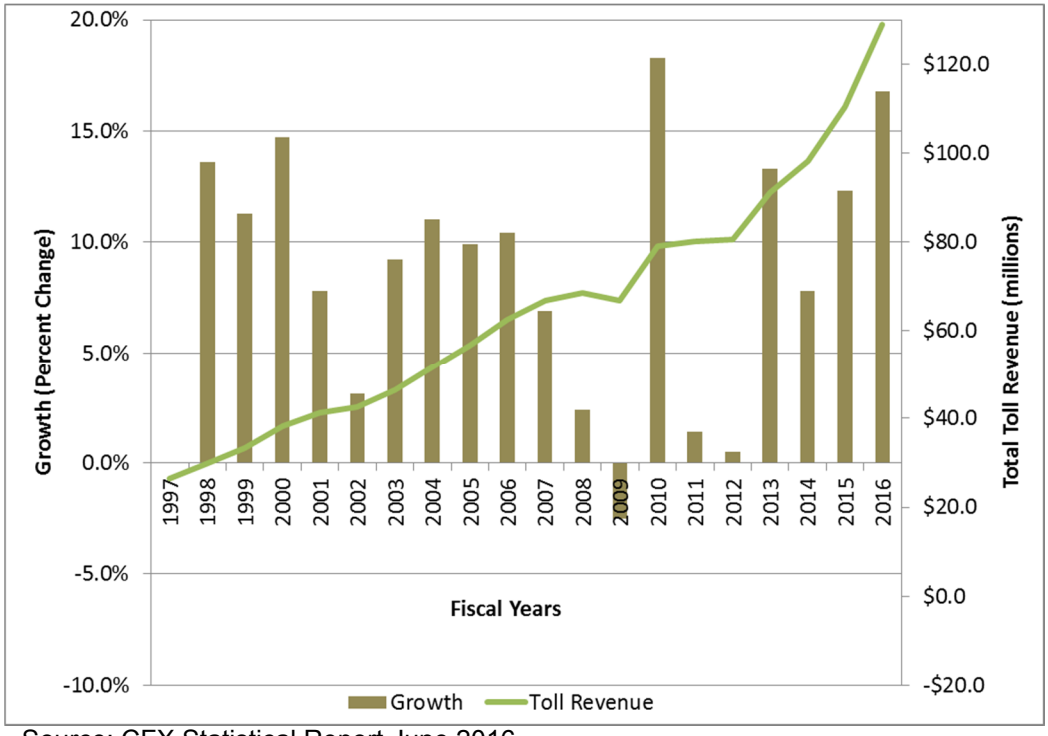
H - Systemwide toll rate increase in July 2013. Implementation of cash and electronic toll rate differential.

**Figure 5-2**
**S.R. 417 Historical Transactions and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016

**Figure 5-3**
**S.R. 417 Historical Toll Revenue and Annual Growth**
**FY 1997 – FY 2016**




Source: CFX Statistical Report June 2016

FY 2010 transactions continued to decline at all four plaza groups as a result of the economic downturn and the toll rate increase, which impacted the first nine months of the fiscal year. However, toll revenues increased significantly at all plaza groups due to the higher toll rates. TheUniversity 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.

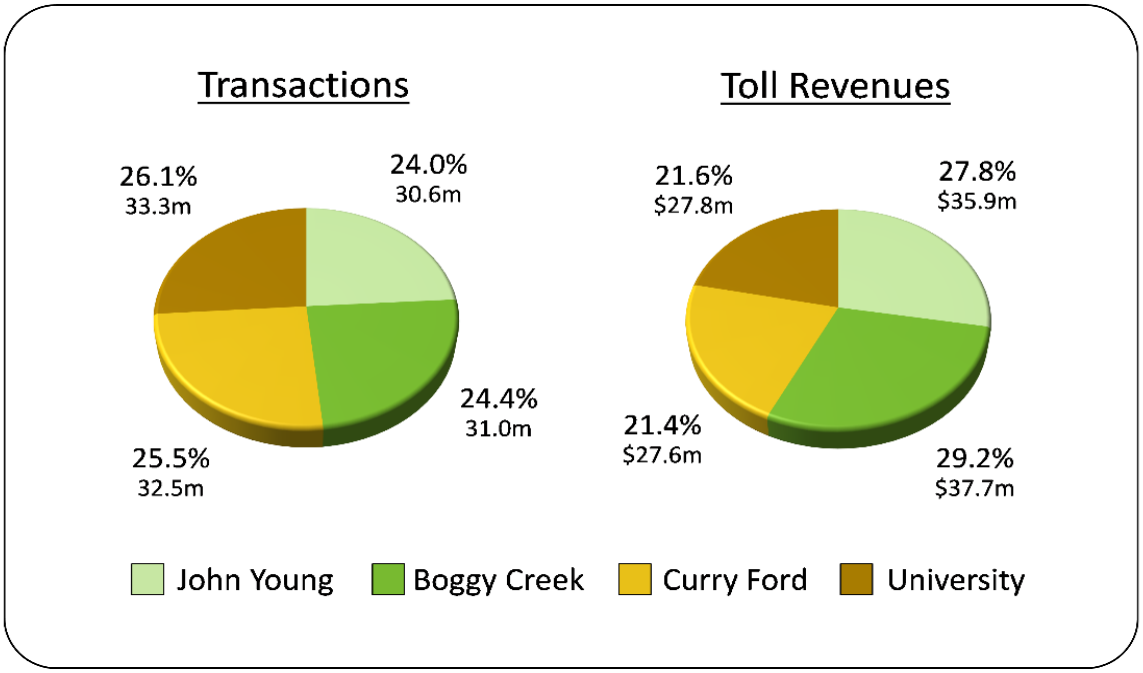
In FY 2013, University Main plaza group was the only one that experienced a decline in transactions, a decrease of 7.0 percent as compared to FY 2012. All other plaza groups experienced an increase in transactions although this was the July 2012 toll rate increase. Revenues at all plaza groups increased in FY 2013.

In FY 2014, all plaza groups experienced growth in transactions and toll revenues. Overall, S.R. 417 transactions increased 7.6 percent and toll revenues increased 7.8 percent over FY 2013. The growth trend continued in FY 2015 and FY 2016 at all plaza groups. In FY 2016, transactions increased 16.6 percent and toll revenues increased 16.8 percent compared to FY 2015. 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, as well as the opening of the partial interchange at Florida's Turnpike.

The transactions and toll revenues by plaza group and as a percentage of total S.R. 417 transactions and toll revenues for FY 2016 are presented in **Figure 5-4**. As shown, the University Main plaza group represented 33.3 million transactions or 26.1 percent of total S.R. 417 transactions. The Curry Ford Main plaza group had the second highest amount of transactions at 32.5 million or 25.5 percent. The Boggy Creek Main and John Young Main plaza groups followed with 31.0 and 30.6 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 mainline plazas resulting in higher toll amounts. The Boggy Creek Main plaza group reported the highest revenues of $37.7 million or 29.2 percent of total S.R. 417 revenues. The Curry Ford Main plaza group represented the lowest amount of revenues on S.R. 417 with $27.6 million or 21.4 percent of total revenues.

**Figure 5-4**
**S.R. 417 Transactions and Toll Revenues by Plaza Group**
**FY 2016**




Source: CFX Statistical Report June 2016

### 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.

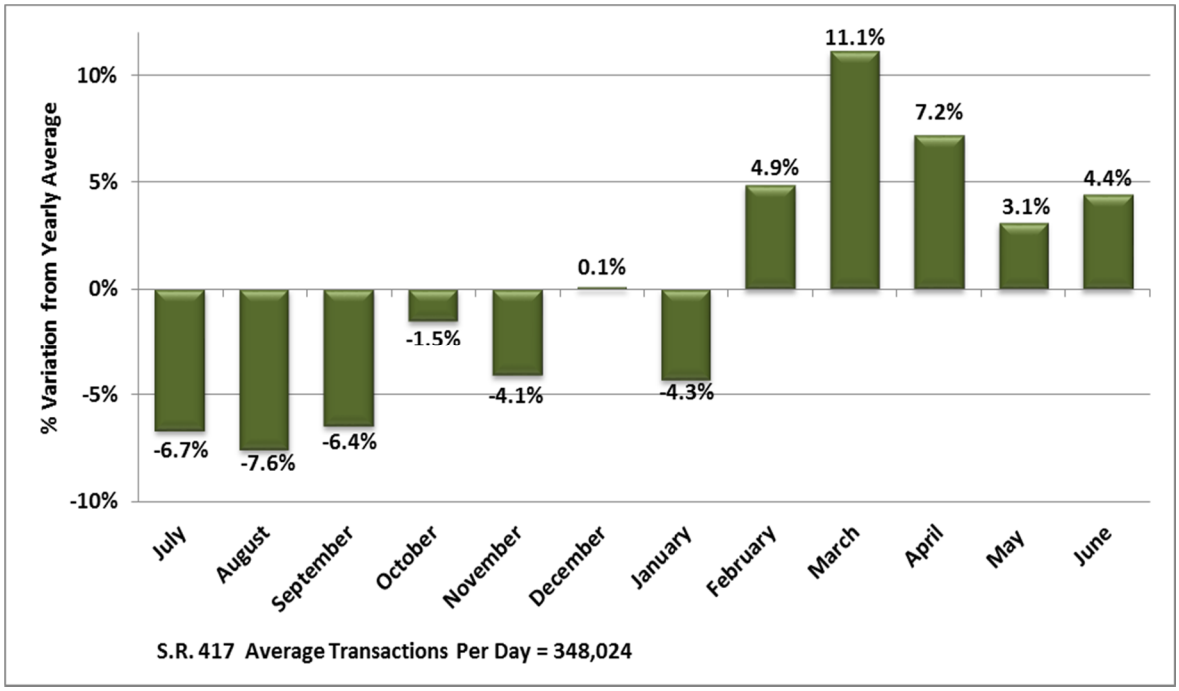
Average number of transactions per day in FY 2016 on S.R. 417 ranged from a high of 386,789 in March 2016 to a low of 321,649 in August 2015. Historically, the winter months have been the months with the lowest average number of transactions per day. This data is presented in a graphical format in **Figure 5-5**. The transactions for each month appear as a percentage of the average for the fiscal year. March transactions were 11.1 percent above average and August transactions were 7.6 percent below average for the facility. The S.R. 417 transactions remained flat and below the average for the first two quarters of FY 2016 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 2016**

| Month | Number of Days in Month | Total Toll Paying Transactions | Average Transactions/day | Seasonal Factor |
|---|---|---|---|---|
| July | 31 | 10,065,598 | 324,697 | 0.933 |
| August | 31 | 9,971,129 | 321,649 | 0.924 |
| September | 30 | 9,767,349 | 325,578 | 0.936 |
| October | 31 | 10,631,847 | 342,963 | 0.985 |
| November | 30 | 10,014,894 | 333,830 | 0.959 |
| December | 31 | 10,801,521 | 348,436 | 1.001 |
| January | 31 | 10,326,398 | 333,110 | 0.957 |
| February | 29 | 10,585,075 | 365,003 | 1.049 |
| March | 31 | 11,990,457 | 386,789 | 1.111 |
| April | 30 | 11,192,449 | 373,082 | 1.072 |
| May | 31 | 11,126,476 | 358,919 | 1.031 |
| June | 30 | 10,903,601 | 363,453 | 1.044 |
| ***Average*** | | ***10,614,733*** | ***348,024*** | ***1.000*** |
| **Total Year** | **366** | **127,376,794** | | |

Source: CFX Statistical Report June 2016

**Figure 5-5**
**S.R. 417 Variation in Transactions Per Day, By Month**
**FY 2016**



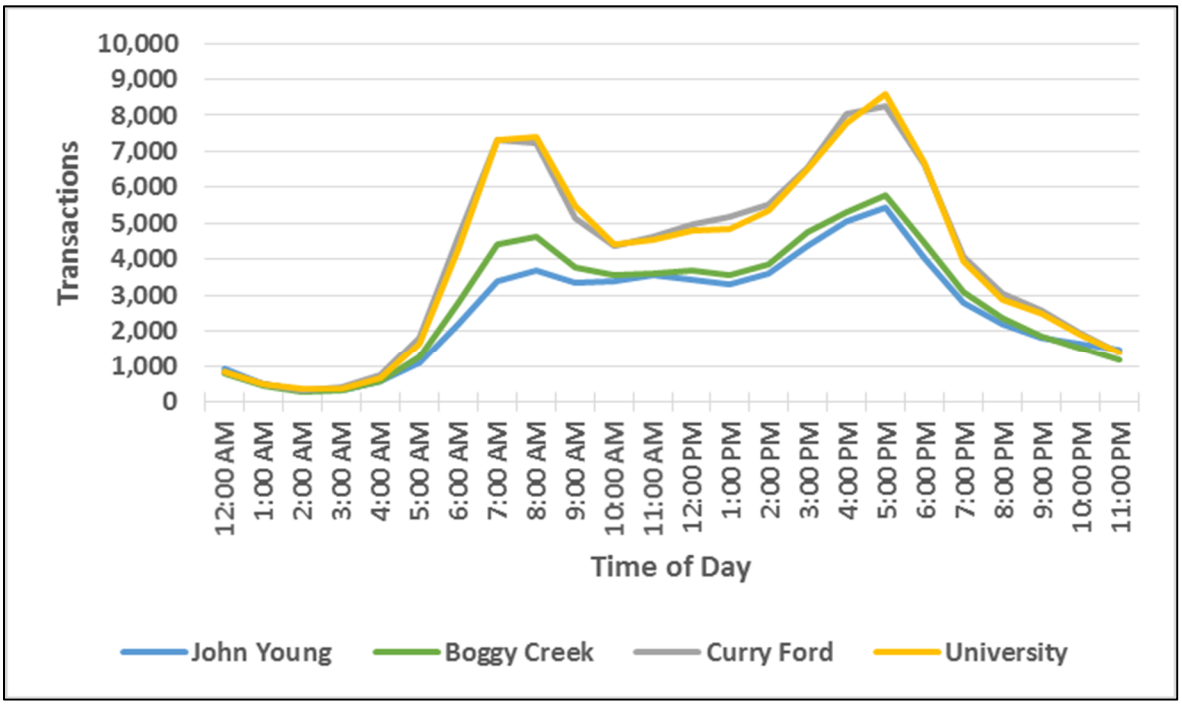

Source: CFX Statistical Report June 2016

### 5.2.3 DAILY TRAFFIC DISTRIBUTION

The daily distribution of traffic includes information on the usage characteristics of travel on the facility. The daily distributions represent counts taken during a typical week at the mainline plazas in the month of July. The typical weekday distribution is shown in **Figure 5-6** and the weekend distribution is shown in **Figure 5-7**. The figures contain the sum of traffic volumes in both directions.

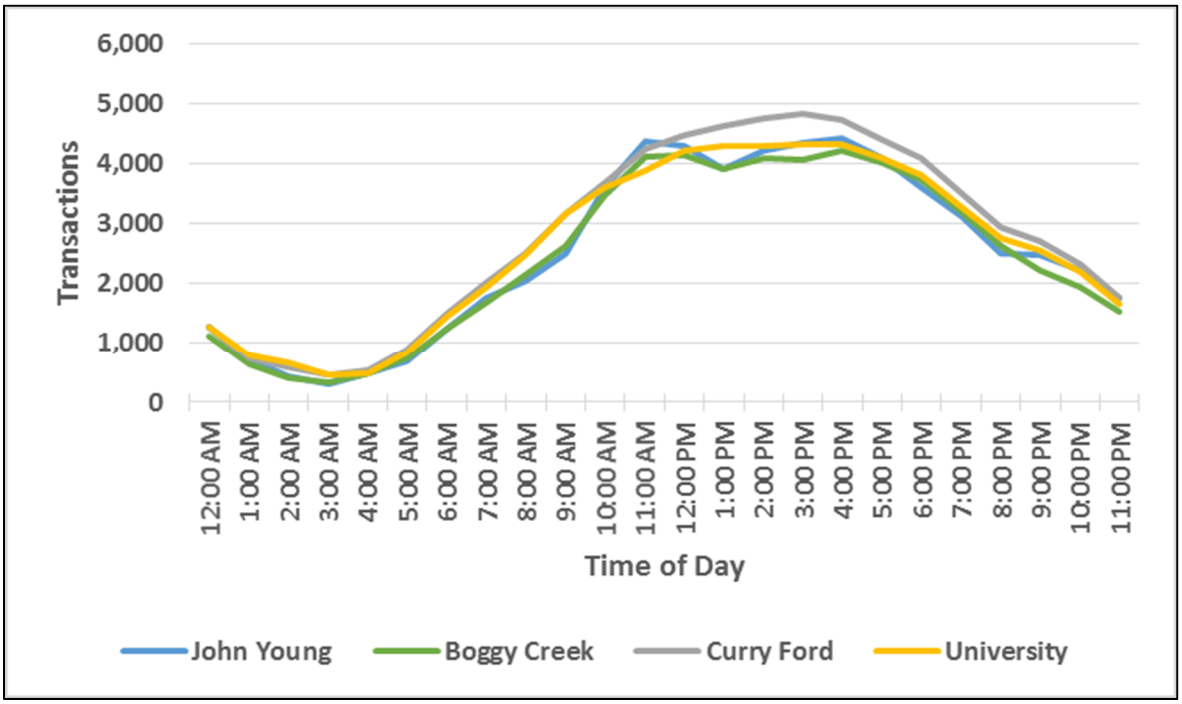
The four mainline locations on S.R. 417 exhibit similar hourly traffic patterns. On weekdays, demand for travel at all four locations is bimodal, with both morning and evening peak hours. Traffic volumes in the evening peak hours at all four mainline plazas are higher than in the morning peak hours. The highest peak hour volumes during the week were 8,600 per hour beginning at 5:00 P.M. at the University mainline plaza, 8,300 per hour beginning at 5:00 P.M. at the Curry Ford mainline plaza, and 5,800 per hour beginning at 5:00 P.M. at the Boggy Creek mainline plaza and 5,400 per hour beginning at 5:00 P.M. at the John Young mainline plaza. The University and Curry Ford mainline plazas serve a relatively higher portion of trips in peak hours. On weekends, there is no clear morning or evening peak periods, indicating that many customers use the facility for non-work trip purposes.

**Figure 5-6**
**S.R. 417 Daily Traffic Variation (Weekday)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

**Figure 5-7**
**S.R. 417 Daily Traffic Variation (Weekend)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

### 5.2.4 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 2016 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 0.8 percent of all transactions on the facility. Four-axle vehicles and trucks with five or more axles represented the smallest category with only 0.2 percent of facility transactions.

**Table 5-3**
**S.R. 417 Percent of Total Transactions by Vehicle Class**
**FY 2016**

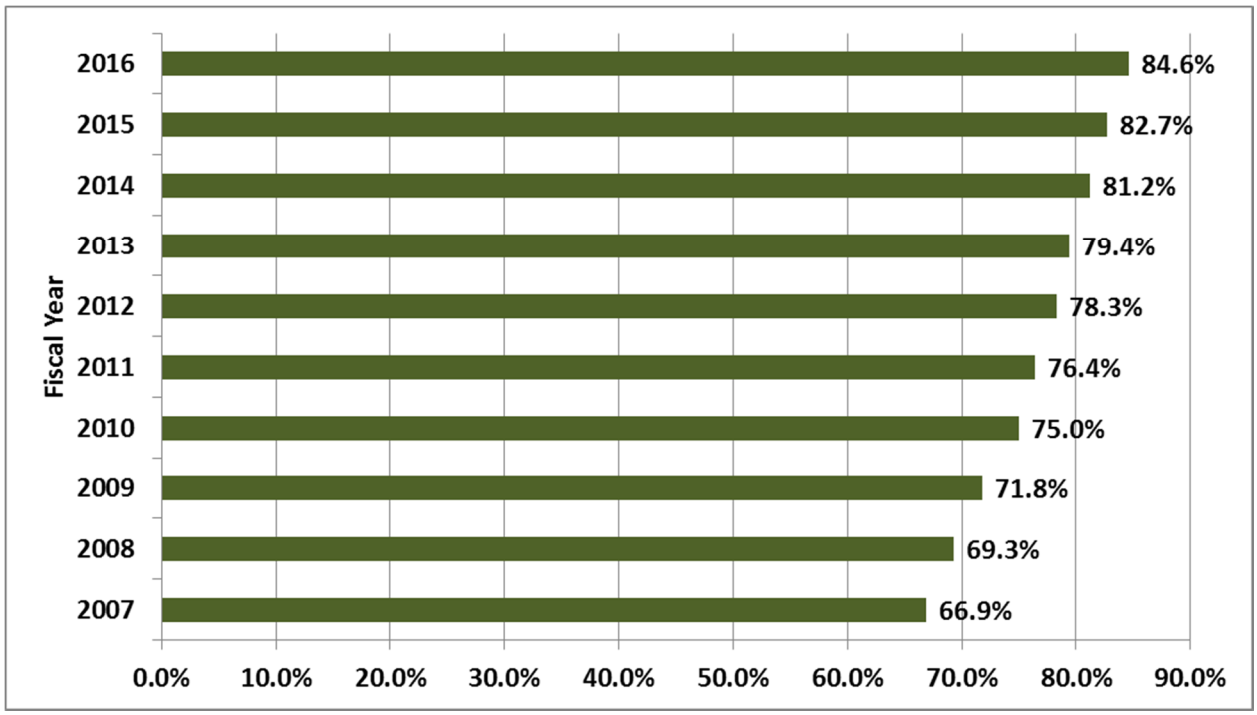
| Vehicle Class | John Young Main | Boggy Creek Main | Curry Ford Main | University Main | S.R. 417 Total |
|---|---|---|---|---|---|
| 2-Axle | 98.4% | 98.7% | 98.8% | 99.1% | 98.8% |
| 3-Axle | 1.1% | 0.9% | 0.7% | 0.5% | 0.8% |
| 4-Axle | 0.2% | 0.2% | 0.2% | 0.2% | 0.2% |
| 5 or More Axles | 0.3% | 0.2% | 0.3% | 0.2% | 0.2% |
| **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

Source: Unaudited lane transaction data – January and July 2016

## 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 5-8**. Over this time, E-PASS revenues have steadily increased on the facility. In FY 2007, E-PASS revenues totaled 66.9 percent of total revenues on the facility. In FY 2016, E-PASS revenues reached 84.6 percent. E-PASS usage is expected 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, as well as the proposed opening of a "Reload" Lane at the John Young Parkway Main Plaza in 2017.

**Figure 5-8**
**S.R. 417 Percent of Toll Revenue from Electronic Transactions**
**FY 2007 – FY 2016**




Source: CFX Statistical Report June 2016

## 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) contribute greatly to the growth in transactions and revenue. Even with improvements to competing facilities, such as Econlockhatchee Trail, growth rates are expected to remain high on S.R. 417. Growth rates remain above 2.1% 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 | Turnpike | 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 |
| Interstate 4 | Kirkman Road | US 27 | 2043 | FDOT | BtU South Managed 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 127.4 million in FY 2016 to 206.1 million in FY 2046. Total revenues on S.R. 417 are projected to increase during the forecast period from the actual $129.0 million in FY 2016 to $299.2 million in FY 2046. Transactions and revenues are forecasted to increase an average of 3.2 and 8.7 percent per year through FY 2025, 1.7 and 3.0 percent per year from FY 2025 to FY 2035, and 1.4 and 2.2 percent per year from FY 2035 to FY 2045, respectively.

## Table 5-5
## S.R. 417 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 25.7 | | 25.3 | | 28.3 | | 30.0 | | 109.3 | | 12.4% |
| 2016 | 30.6 | | 31.0 | | 32.5 | | 33.3 | | 127.4 | | 16.6% |
| 2017 | | 33.0 | | 33.1 | | 34.6 | | 35.2 | | 135.9 | 6.7% |
| 2018 [D] | | 31.8 | | 33.0 | | 34.6 | | 34.4 | | 133.8 | -1.5% |
| 2019 | | 32.5 | | 33.9 | | 35.4 | | 35.1 | | 136.8 | 2.2% |
| 2020 | | 33.1 | | 34.7 | | 36.1 | | 35.8 | | 139.8 | 2.2% |
| 2021 | | 33.8 | | 35.6 | | 36.9 | | 36.4 | | 142.8 | 2.1% |
| 2022 | | 34.5 | | 36.5 | | 37.6 | | 37.1 | | 145.7 | 2.1% |
| 2023 [D] | | 33.0 | | 35.9 | | 35.9 | | 35.1 | | 140.0 | -4.0% |
| 2024 | | 33.6 | | 38.1 | | 37.1 | | 35.7 | | 144.6 | 3.3% |
| 2025 | | 34.2 | | 40.3 | | 38.3 | | 36.3 | | 149.1 | 3.2% |
| 2026 | | 34.8 | | 42.6 | | 39.5 | | 36.9 | | 153.7 | 3.1% |
| 2027 | | 35.4 | | 44.8 | | 40.7 | | 37.5 | | 158.3 | 3.0% |
| 2028 [D] | | 34.6 | | 44.1 | | 39.5 | | 35.7 | | 153.8 | -2.9% |
| 2029 | | 35.1 | | 46.5 | | 40.7 | | 36.5 | | 158.8 | 3.3% |
| 2030 | | 35.7 | | 48.9 | | 42.0 | | 37.3 | | 163.9 | 3.2% |
| 2031 | | 36.2 | | 51.3 | | 43.3 | | 38.2 | | 168.9 | 3.1% |
| 2032 | | 36.7 | | 53.7 | | 44.6 | | 39.0 | | 174.0 | 3.0% |
| 2033 [D] | | 35.6 | | 52.1 | | 44.1 | | 36.7 | | 168.5 | -3.1% |
| 2034 | | 36.1 | | 53.4 | | 45.2 | | 37.4 | | 172.1 | 2.1% |
| 2035 | | 36.6 | | 54.8 | | 46.2 | | 38.1 | | 175.7 | 2.1% |
| 2036 | | 37.0 | | 56.2 | | 47.3 | | 38.8 | | 179.3 | 2.0% |
| 2037 | | 37.5 | | 57.6 | | 48.4 | | 39.5 | | 182.9 | 2.0% |
| 2038 [D] | | 37.5 | | 55.8 | | 49.2 | | 37.5 | | 179.9 | -1.6% |
| 2039 | | 38.0 | | 57.3 | | 50.6 | | 38.0 | | 183.9 | 2.2% |
| 2040 | | 38.5 | | 58.7 | | 52.0 | | 38.6 | | 187.8 | 2.1% |
| 2041 | | 39.1 | | 60.2 | | 53.4 | | 39.1 | | 191.7 | 2.1% |
| 2042 | | 39.6 | | 61.7 | | 54.8 | | 39.6 | | 195.7 | 2.1% |
| 2043 [D] | | 39.7 | | 60.5 | | 56.2 | | 37.9 | | 194.3 | -0.7% |
| 2044 | | 40.2 | | 61.9 | | 57.6 | | 38.5 | | 198.2 | 2.0% |
| 2045 | | 40.7 | | 63.4 | | 59.0 | | 39.0 | | 202.1 | 2.0% |
| 2046 | | 41.3 | | 64.9 | | 60.4 | | 39.5 | | 206.1 | 2.0% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 7.3% | 9.1% | 9.2% | 5.9% | 7.7% | |
| 2008 - 2015 | 1.2% | 3.2% | 0.4% | -1.4% | 0.6% | |
| 2015 - 2025 | 2.9% | 4.8% | 3.1% | 1.9% | 3.2% | |
| 2025 - 2035 | 0.7% | 3.1% | 1.9% | 0.5% | 1.7% | |
| 2035 - 2045 | 1.1% | 1.5% | 2.5% | 0.2% | 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 2017 – FY 2046

| 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 | 30.6 | | 30.8 | | 24.0 | | 25.0 | | 110.4 | | 12.3% |
| 2016 | 35.9 | | 37.7 | | 27.6 | | 27.8 | | 129.0 | | 16.8% |
| 2017 | | $38.5 | | $40.8 | | $29.7 | | $29.8 | | $138.8 | 7.6% |
| 2018 [D] | | 43.3 | | 45.3 | | 33.2 | | 32.1 | | 153.9 | 10.9% |
| 2019 | | 45.0 | | 46.5 | | 33.8 | | 32.6 | | 157.9 | 2.6% |
| 2020 | | 46.7 | | 47.6 | | 34.4 | | 33.1 | | 161.8 | 2.5% |
| 2021 | | 48.4 | | 48.7 | | 35.1 | | 33.7 | | 165.8 | 2.4% |
| 2022 | | 50.0 | | 49.8 | | 35.7 | | 34.2 | | 169.7 | 2.4% |
| 2023 [D] | | 52.4 | | 53.0 | | 38.2 | | 36.5 | | 180.2 | 6.2% |
| 2024 | | 52.7 | | 55.3 | | 39.4 | | 37.1 | | 184.5 | 2.4% |
| 2025 | | 53.0 | | 57.5 | | 40.6 | | 37.7 | | 188.8 | 2.3% |
| 2026 | | 53.4 | | 59.7 | | 41.8 | | 38.2 | | 193.1 | 2.3% |
| 2027 | | 53.7 | | 61.9 | | 43.0 | | 38.8 | | 197.4 | 2.2% |
| 2028 [D] | | 56.3 | | 66.1 | | 44.9 | | 40.0 | | 207.4 | 5.1% |
| 2029 | | 56.6 | | 68.9 | | 46.2 | | 40.6 | | 212.3 | 2.4% |
| 2030 | | 56.9 | | 71.7 | | 47.4 | | 41.2 | | 217.2 | 2.3% |
| 2031 | | 57.2 | | 74.4 | | 48.6 | | 41.8 | | 222.1 | 2.3% |
| 2032 | | 57.5 | | 77.2 | | 49.9 | | 42.4 | | 227.0 | 2.2% |
| 2033 [D] | | 59.6 | | 80.4 | | 53.4 | | 43.8 | | 237.1 | 4.5% |
| 2034 | | 59.9 | | 82.1 | | 54.5 | | 44.4 | | 240.9 | 1.6% |
| 2035 | | 60.1 | | 83.8 | | 55.7 | | 45.1 | | 244.7 | 1.6% |
| 2036 | | 60.4 | | 85.5 | | 56.8 | | 45.7 | | 248.5 | 1.5% |
| 2037 | | 60.6 | | 87.2 | | 58.0 | | 46.4 | | 252.2 | 1.5% |
| 2038 [D] | | 63.5 | | 89.9 | | 61.5 | | 46.5 | | 261.4 | 3.6% |
| 2039 | | 63.7 | | 91.7 | | 62.9 | | 47.1 | | 265.4 | 1.5% |
| 2040 | | 63.9 | | 93.6 | | 64.3 | | 47.6 | | 269.4 | 1.5% |
| 2041 | | 64.1 | | 95.4 | | 65.7 | | 48.2 | | 273.3 | 1.5% |
| 2042 | | 64.3 | | 97.2 | | 67.0 | | 48.8 | | 277.3 | 1.5% |
| 2043 [D] | | 66.6 | | 99.9 | | 71.6 | | 49.1 | | 287.2 | 3.6% |
| 2044 | | 66.8 | | 101.7 | | 73.0 | | 49.7 | | 291.2 | 1.4% |
| 2045 | | 67.0 | | 103.5 | | 74.4 | | 50.3 | | 295.2 | 1.4% |
| 2046 | | 67.2 | | 105.4 | | 75.8 | | 50.8 | | 299.2 | 1.3% |

| Fiscal Year | Compound Annual Average Growth Rate (CAAGR) | | | | | |
|---|---|---|---|---|---|---|
| 2000 - 2008 | 6.8% | 8.6% | 8.8% | 6.2% | 7.5% | |
| 2008 - 2015 | 5.5% | 5.8% | 7.4% | 6.5% | 6.2% | |
| 2015 - 2025 | 9.4% | 10.0% | 8.3% | 6.3% | 8.7% | |
| 2025 - 2035 | 2.0% | 4.2% | 3.2% | 2.2% | 3.0% | |
| 2035 - 2045 | 1.2% | 2.7% | 3.1% | 1.5% | 2.2% | |

Notes:

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

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

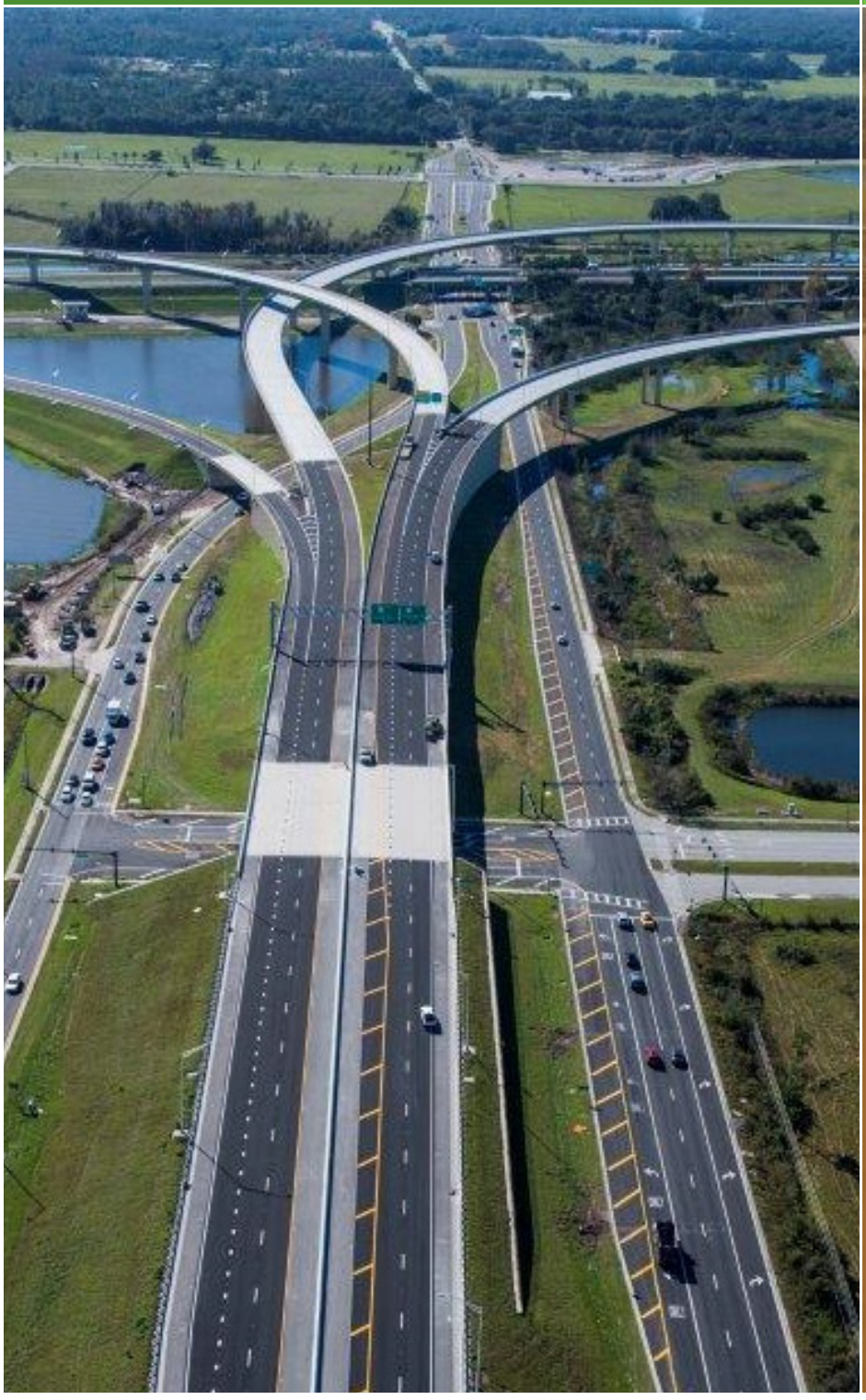
C - Effects from 2004 hurricane season (4 storms with toll suspensions).

D - Systemwide toll rate increase.

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

# Chapter 6

# S.R. 429
## (Daniel Webster Western Beltway)



# S.R. 429 (DANIEL WEBSTER WESTERN BELTWAY)

## 6.1 Facility Description

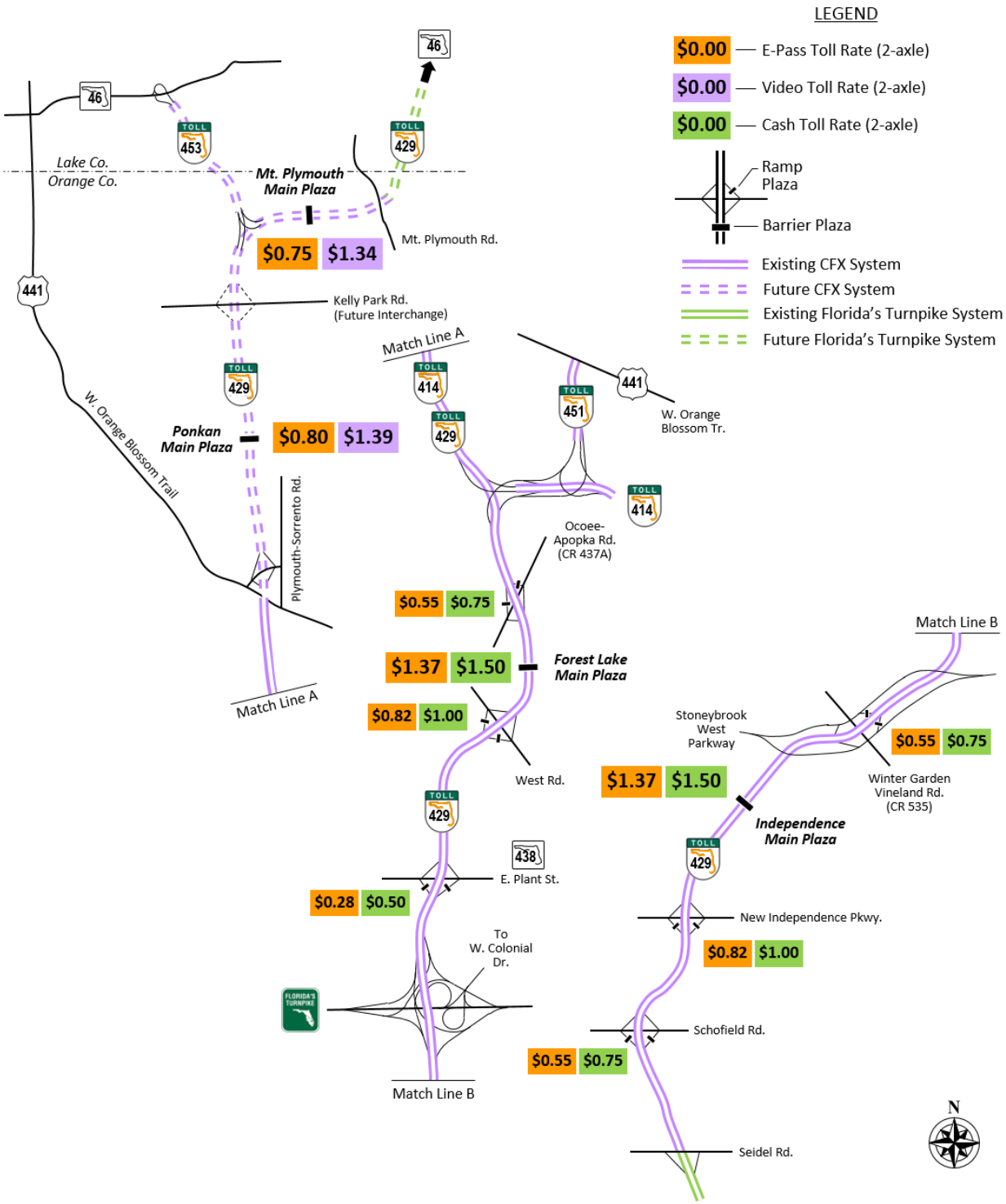

S.R. 429, also known as the Daniel Webster Western Beltway, is a 34-mile expressway that extends east from I-4 in Osceola County to U.S. Highway 441 in Apopka. As its name suggests, it comprises a majority of the western beltway around Orlando. The Western Beltway is owned and operated by two agencies, CFX and FTE. CFX is responsible for the 23-mile portion of S.R. 429 from Seidel Road north 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 New Independence Parkway, Winter Garden Vineland Road and Schofield 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. Of the 23 miles on S.R. 429, three are part of a dual route with S.R. 414. A map of CFX's portion of S.R. 429 including the FY 2016 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 Road 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. In May

2015, CFX opened the new full interchange between S.R. 429 and Schofield Road to provide additional access to this rapidly growing area of West Orange County.

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



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. CFX started construction of its first segments in January of 2015. This long-awaited expressway will complete the Western Beltway around the Orlando metropolitan region. The project will also add two additional plaza groups to S.R. 429 along CFX's section of the Wekiva Parkway: 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 also includes construction of S.R. 453, discussed in Chapter 8. Detailed information about the Wekiva Parkway is included in Chapter 1 of this report.

In March 2016, CFX completed the improvements at the S.R. 429/Winter Garden Vineland Road C.R. 535) interchange in west Orange County, which began in August 2015. This project extended the southbound S.R. 429 off ramp to C.R. 535/Stoneybrook West Parkway and included the resurfacing of approximately one-half mile of southbound S.R. 429 near the interchange. The improvement helped with afternoon traffic backups on the S.R. 429 mainline from the off ramp.

## 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 2016 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 2016, S. R. 429 transactions increased by 17.0 percent over FY 2015 and revenues increased by 18.3 percent.

Since its opening, S.R. 429 had only two years of negative growth in transactions, which occurred in FY 2009 and FY 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 7.0 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 2016**

| 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% |
| 2015 | 18.3 | 16.9 | 35.2 | 13.7% | 15.8% | 14.7% |
| 2016 | 21.4 | 19.8 | 41.2 | 16.9% | 17.2% | 17.0% |
| | 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% |
| 2015 | $22.1 | $16.8 | $38.9 | 13.3% | 20.0% | 16.1% |
| 2016 | $25.9 | $20.1 | $46.0 | 17.2% | 19.6% | 18.3% |

Notes:

A - Opened to traffic on July 8, 2000. Toll collection began one w eek 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 w ith 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 - Systemw ide toll rate increase in April 2009.

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

In FY 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 1.6 percent over FY 2012. Annual revenue growth was also higher at Forest Lake Main plaza group than at Independence Main plaza group with 20.6 percent and 14.6 percent respectively.

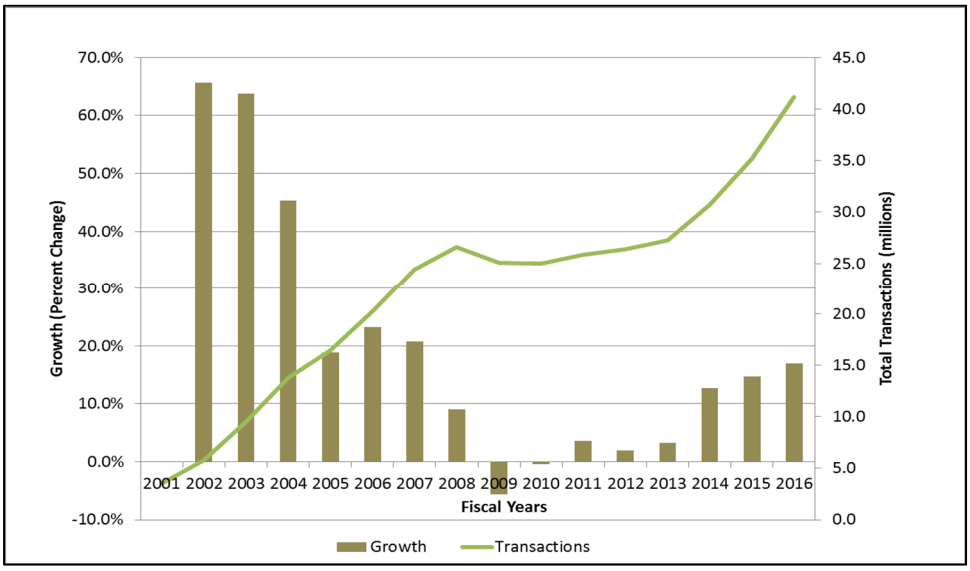
In FY 2014, transactions at the Forest Lake Main plaza group increased by 13.4 percent and toll revenues increased by 13.8 percent. Transactions during the same period at the Independence Main plaza group by 12.3 percent and toll revenues increased by 14.1 percent. In FY 2015, transactions at the Forest Lake Main plaza group and Independence Main plaza group increased by 13.7 percent and 15.8 percent, respectively, over FY 2014. During the same period, toll revenues at the Forest Lake Main plaza group and Independence Main plaza group increased by 13.3 percent and 20.0 percent. The same trend continued in FY 2016 at the Forest Lake Main plaza group with transaction growth of 16.9 percent and revenue growth of 17.2 percent. Transactions increased by 17.2 percent at the Independence Main plaza and revenues increased by 19.6 percent during the same period.

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 four 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 toll rate increases.

The transactions and toll revenues by plaza group and as a percentage of total S.R. 429 transactions and toll revenues for FY 2016 are presented in **Figure 6-4**. As shown, the Forest Lake Main plaza group represented 21.4 million transactions or 51.9 percent of total S.R. 429 transactions. Independence Main plaza group carried the remaining 19.8 million or 48.1 percent of total transactions on the facility.

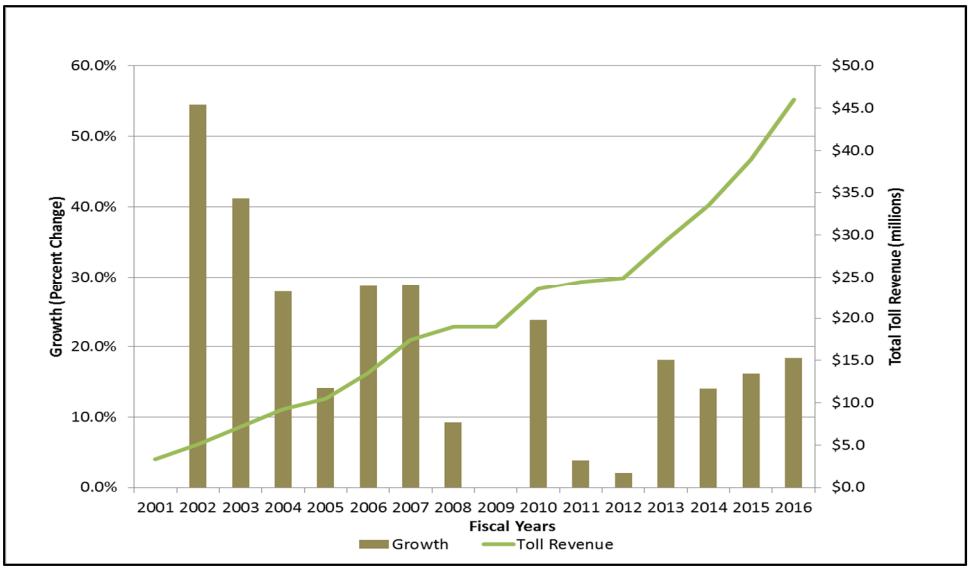
The annual totals and percentages for toll revenues are similar to the trends reported for annual transactions. Having more ramp toll plazas and a higher mainline toll rate, the Forest Lake Main plaza group represented $25.9 million in toll revenues or 56.3 percent of total S.R. 429 toll revenues. Independence Main plaza group carried the remaining $20.1 million or 43.7 percent of total revenue on the facility.

**Figure 6-2**
**S.R. 429 Historical Transactions and Annual Growth**
**FY 2001 – FY 2016**



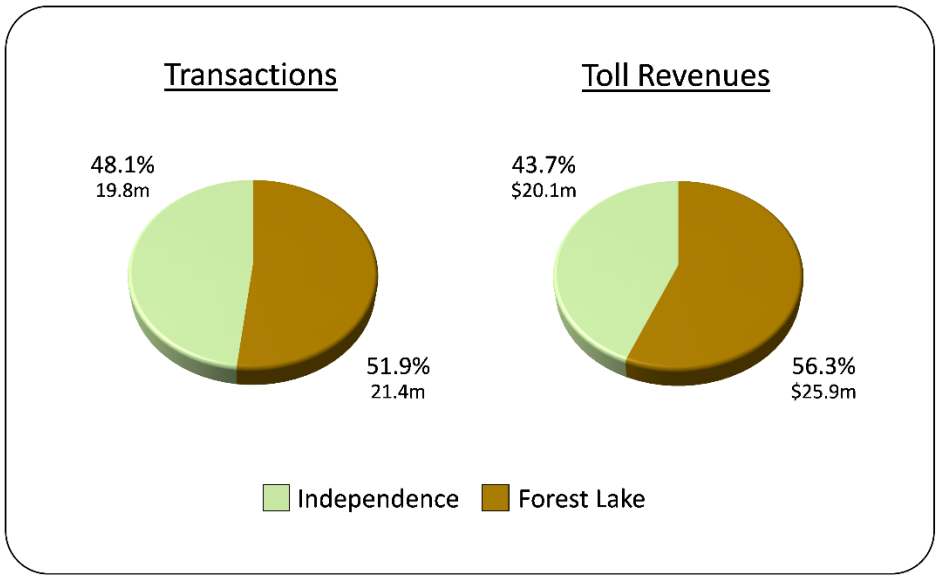

Source: CFX Statistical Report June 2016

**Figure 6-3**
**S.R. 429 Historical Toll Revenue and Annual Growth**
**FY 2001 – FY 2016**




Source: CFX Statistical Report June 2016

**Figure 6-4**
**S.R. 429 Transactions and Toll Revenues by Plaza Group**
**FY 2016**




Source: CFX Statistical Report June 2016

### 6.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

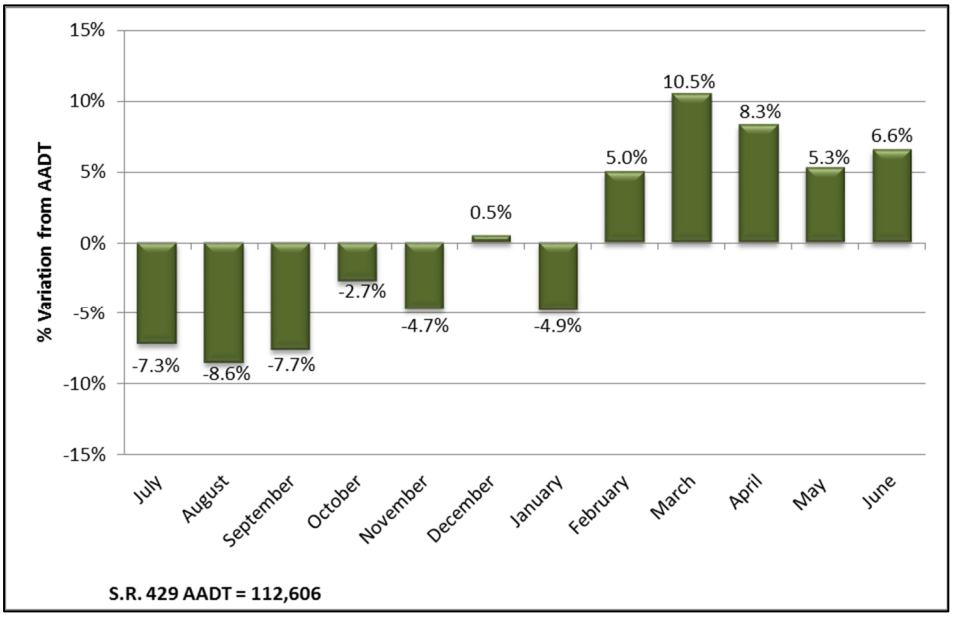
As presented in **Table 6-2**, average transactions per day in FY 2016 on S.R. 429 ranged from a high of 124,450 in March 2016 to a low of 102,936 in August 2015. Historically, September has been the month with the lowest average transactions per day. This data is presented in a graphical format in **Figure 6-5**. Each month's average daily transactions appear as a percentage of the average for the fiscal year. Transactions in March were 10.5 percent above average and transactions in August were 8.6 percent below average for the facility. For FY 2016, 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 and seasonal residents 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 2016**

| Month | Number of Days in Month | Total Toll Paying Transactions | Average Transactions/day | Seasonal Factor |
|---|---|---|---|---|
| July | 31 | 3,237,621 | 104,439 | 0.927 |
| August | 31 | 3,191,022 | 102,936 | 0.914 |
| September | 30 | 3,119,353 | 103,978 | 0.923 |
| October | 31 | 3,395,263 | 109,525 | 0.973 |
| November | 30 | 3,218,237 | 107,275 | 0.953 |
| December | 31 | 3,508,644 | 113,182 | 1.005 |
| January | 31 | 3,321,253 | 107,137 | 0.951 |
| February | 29 | 3,428,784 | 118,234 | 1.050 |
| March | 31 | 3,857,942 | 124,450 | 1.105 |
| April | 30 | 3,658,653 | 121,955 | 1.083 |
| May | 31 | 3,676,000 | 118,581 | 1.053 |
| June | 30 | 3,600,911 | 120,030 | 1.066 |
| ***Average*** | | ***3,434,474*** | ***112,606*** | ***1.000*** |
| **Total Year** | **366** | **41,213,683** | | |

Source: CFX Statistical Report June 2016

**Figure 6-5**
**S.R. 429 Variation in Transactions Per Day, By Month**
**FY 2016**



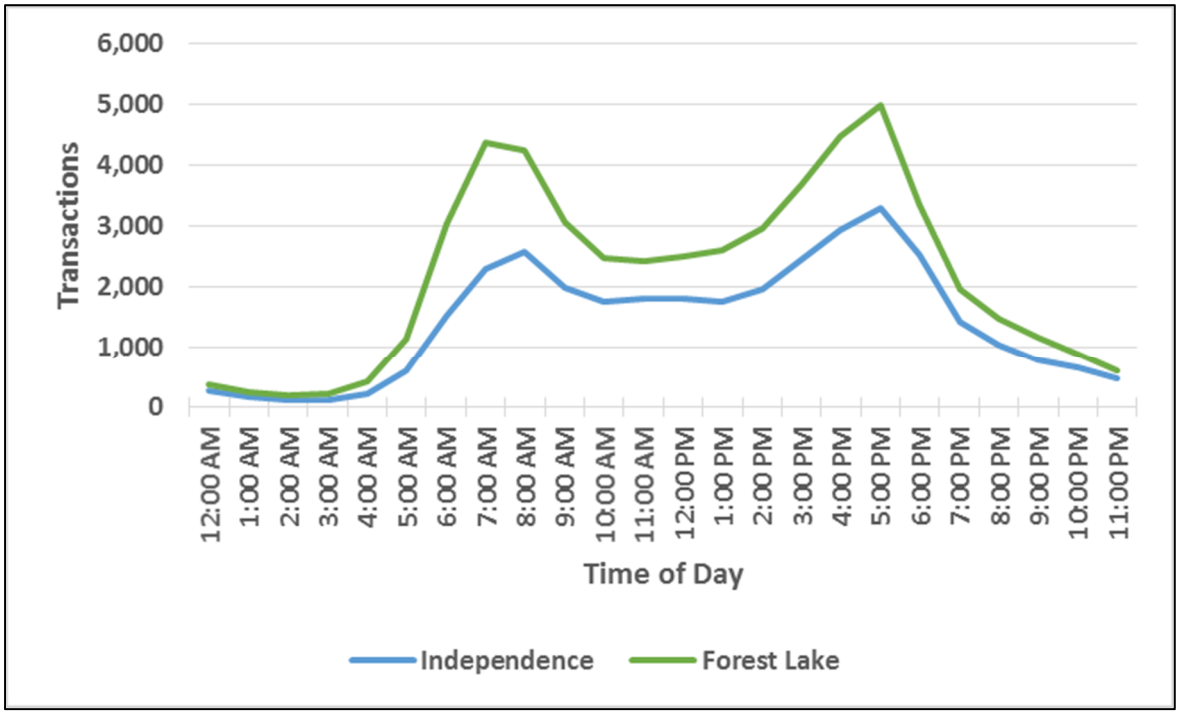

Source: CFX Statistical Report June 2016

### 6.2.3 DAILY TRAFFIC DISTRIBUTION

The daily distribution of traffic includes information on the usage characteristics of travel on the facility. The daily distributions represent counts taken during a typical week at the mainline plazas in the month of July. The typical weekday distribution is shown in **Figure 6-6** and the weekend distribution is shown in **Figure 6-7**. The figures contain the sum of traffic volumes in both directions.

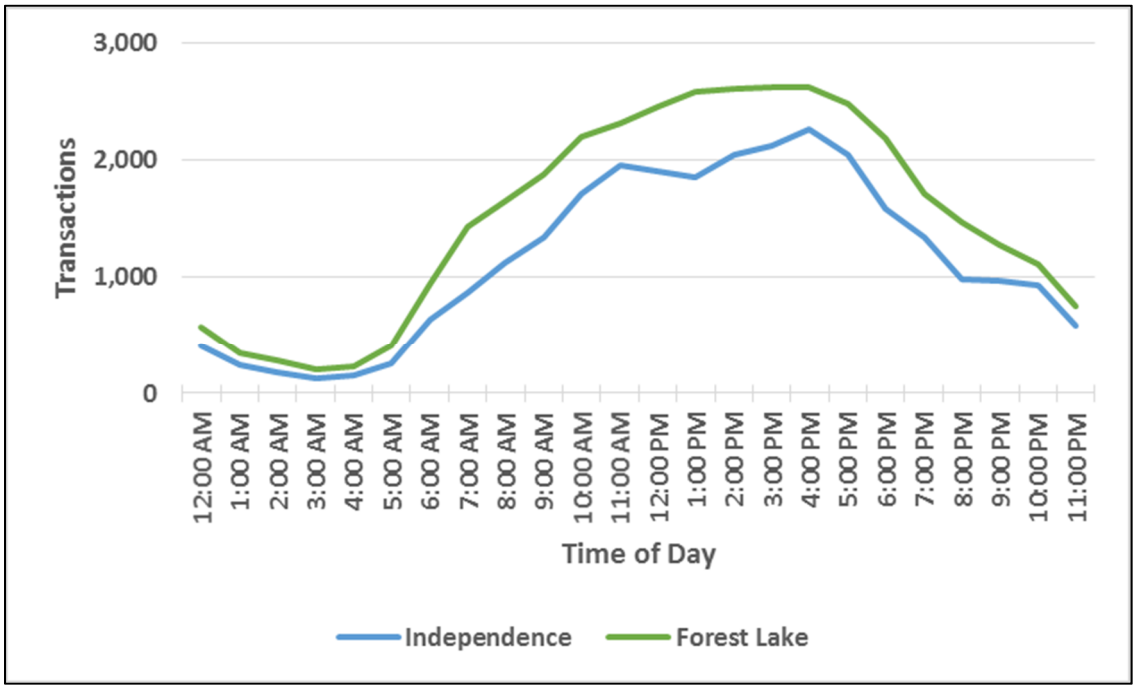
The four mainline locations on S.R. 429 exhibit similar hourly traffic patterns. On weekdays, demand for travel at all both locations is bimodal, with both morning and evening peak hours. Traffic volumes in the evening peak hours at both mainline plazas are higher than in the morning peak hours. The highest peak hour volumes during the week were 4,300 per hour beginning at 5:00 P.M. at the Independence mainline plaza and 5,000 per hour beginning at 5:00 P.M. at the Forest Lake mainline plaza. On weekends, there is no clear morning or evening peak periods, indicating that many customers use the facility for non-work trip purposes.

**Figure 6-6**
**S.R. 429 Daily Traffic Variation (Weekday)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

**Figure 6-7**
**S.R. 429 Daily Traffic Variation (Weekend)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

### 6.2.4 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 2016 is shown in **Table 6-3**. Overall, 98.0 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. This is slightly higher than other facilities due to the amount of development and construction activity along S.R. 429. Four-axle vehicles represented the smallest category with only 0.3 percent of facility transactions. Trucks with five or more axles represented 0.5 percent of total transactions.

**Table 6-3**
**S.R. 429 Percent of Total Transactions by Vehicle Class**
**FY 2016**

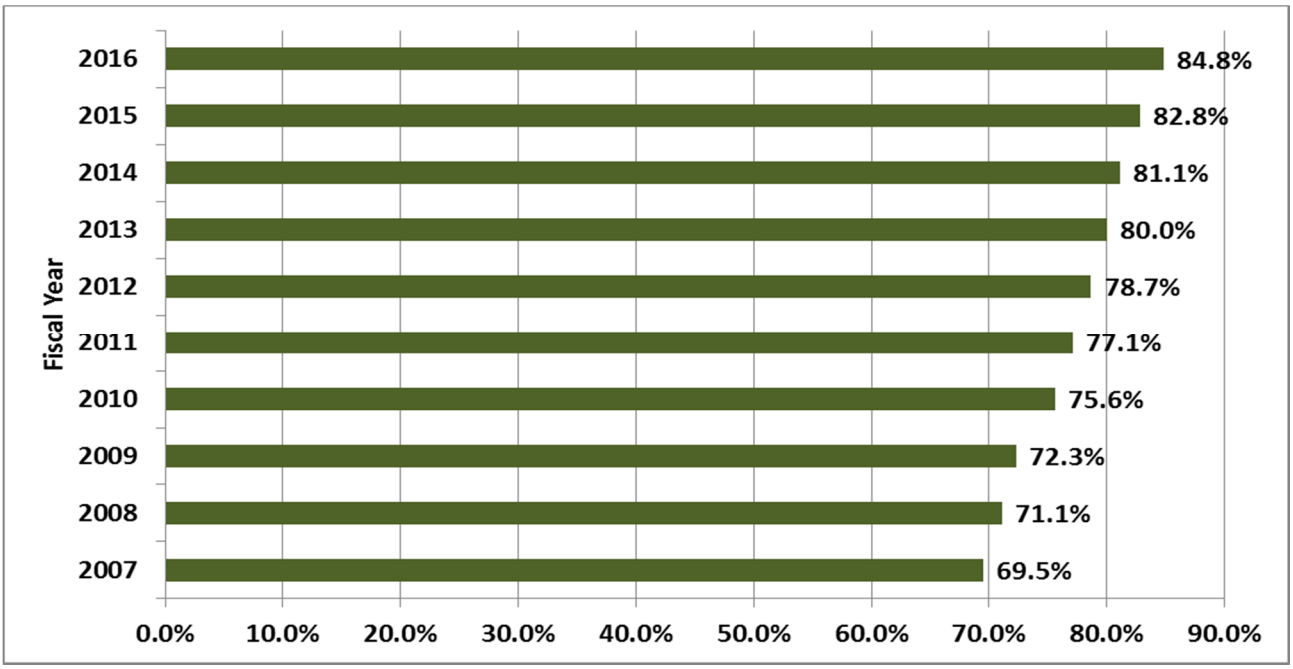
| Vehicle Class | Forest Lake Main | Independence Main | S.R. 429 Total |
|---|---|---|---|
| 2-Axle | 98.2% | 97.6% | 98.0% |
| 3-Axle | 1.1% | 1.3% | 1.2% |
| 4-Axle | 0.3% | 0.4% | 0.3% |
| 5 or More Axles | 0.4% | 0.7% | 0.5% |
| **Total** | **100.0%** | **100.0%** | **100.0%** |

Source: Unaudited lane transaction data – January and July 2016

## 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 6-8**. Over this time, E-PASS revenues have steadily increased on the facility. In FY 2007, E-PASS revenues totaled 69.5 percent of total revenues. By the end of FY 2016, E-PASS revenues reached 84.8 percent, which is 5.4 percent higher than overall System participation. The usage of E-PASS is expected 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. CFX will be adding a Reload Lane at the Forest Lake Main Plaza in 2017 so customers can conveniently obtain and replenish E-PASS transponders.

**Figure 6-8**
**S.R. 429 Percent of Toll Revenue from Electronic Transactions**
**FY 2007 – FY 2016**




Source: CFX Statistical Report June 2016

## 6.4 Forecasted Transactions and Toll Revenues

In addition to the Wekiva Parkway, 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.

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, included in the travel demand model (year 2023), 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. The 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.

**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 |
| Interstate 4 | Kirkman Road | US 27 | 2043 | FDOT | BtU South Managed Lanes |

CFX System improvements including the Apopka Expressway 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 planned improvements to 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 transactions on S.R. 429 are projected to increase during the forecast period from the actual of 41.2 million in FY 2016 to 75.7 million in FY 2045. Total revenues are projected to increase over the forecast period from the actual of $49.3 million in FY 2016 to $130.4 million in FY 2046. Of this increase, a total of $2.3 million in FY 2018 increasing to $19.7 million in FY 2046 is expected to be collected at the two Wekiva Parkway toll plazas. Overall revenues are forecasted to increase

an average of 7.4 percent per year through FY 2025, 2.7 percent per year from FY 2025 to FY 2035, and 2.2 percent per year from FY 2035 to FY 2045.

## Table 6-5
## S.R. 429 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 18.3 | | 16.9 | | | | | | 35.2 | | 14.7% |
| 2016 | 21.4 | | 19.8 | | | | | | 41.2 | | 17.0% |
| 2017 | | 23.3 | | 20.8 | | | | | | 44.1 | 7.1% |
| 2018 [H,I] | | 22.2 | | 21.1 | | 2.3 | | 0.8 | | 46.4 | 5.3% |
| 2019 | | 23.0 | | 22.0 | | 2.7 | | 1.8 | | 49.4 | 6.3% |
| 2020 | | 23.7 | | 22.8 | | 3.1 | | 1.9 | | 51.6 | 4.4% |
| 2021 | | 24.5 | | 23.6 | | 3.5 | | 2.1 | | 53.7 | 4.2% |
| 2022 | | 25.2 | | 24.4 | | 4.0 | | 2.3 | | 55.9 | 4.0% |
| 2023 [H] | | 24.8 | | 23.2 | | 4.0 | | 2.5 | | 54.5 | -2.5% |
| 2024 | | 25.5 | | 23.9 | | 4.4 | | 2.7 | | 56.5 | 3.8% |
| 2025 | | 26.2 | | 24.7 | | 4.8 | | 2.9 | | 58.6 | 3.6% |
| 2026 | | 27.0 | | 25.4 | | 5.2 | | 3.1 | | 60.6 | 3.5% |
| 2027 | | 27.7 | | 26.1 | | 5.6 | | 3.2 | | 62.7 | 3.4% |
| 2028 [H] | | 26.4 | | 25.0 | | 5.7 | | 3.0 | | 60.1 | -4.0% |
| 2029 | | 27.1 | | 25.5 | | 6.0 | | 3.2 | | 61.8 | 2.7% |
| 2030 | | 27.8 | | 26.0 | | 6.3 | | 3.4 | | 63.4 | 2.7% |
| 2031 | | 28.4 | | 26.5 | | 6.6 | | 3.5 | | 65.1 | 2.6% |
| 2032 | | 29.1 | | 27.0 | | 6.9 | | 3.7 | | 66.7 | 2.5% |
| 2033 [H] | | 27.9 | | 26.8 | | 6.4 | | 3.5 | | 64.6 | -3.1% |
| 2034 | | 28.5 | | 27.1 | | 6.8 | | 3.6 | | 66.0 | 2.0% |
| 2035 | | 29.1 | | 27.3 | | 7.1 | | 3.8 | | 67.3 | 2.0% |
| 2036 | | 29.7 | | 27.6 | | 7.4 | | 3.9 | | 68.6 | 2.0% |
| 2037 | | 30.2 | | 27.9 | | 7.8 | | 4.0 | | 69.9 | 1.9% |
| 2038 [H] | | 28.8 | | 28.1 | | 7.3 | | 4.0 | | 68.1 | -2.6% |
| 2039 | | 29.3 | | 28.4 | | 7.5 | | 4.1 | | 69.3 | 1.8% |
| 2040 | | 29.9 | | 28.6 | | 7.7 | | 4.2 | | 70.5 | 1.7% |
| 2041 | | 30.4 | | 28.9 | | 8.0 | | 4.4 | | 71.7 | 1.7% |
| 2042 | | 30.9 | | 29.2 | | 8.2 | | 4.5 | | 72.9 | 1.7% |
| 2043 [H] | | 30.0 | | 29.4 | | 8.1 | | 4.6 | | 72.1 | -1.0% |
| 2044 | | 30.5 | | 29.7 | | 8.3 | | 4.8 | | 73.3 | 1.7% |
| 2045 | | 31.0 | | 30.0 | | 8.6 | | 4.9 | | 74.5 | 1.6% |
| 2046 | | 31.5 | | 30.3 | | 8.8 | | 5.0 | | 75.7 | 1.6% |

| Fiscal Year | | | | | | |
|---|---|---|---|---|---|---|
| 2001 - 2008 | 22.1% | 52.6% | | | 33.6% | |
| 2008 - 2015 | 3.7% | 4.5% | N/A | N/A | 4.1% | |
| 2015 - 2025 | 3.7% | 3.9% | N/A | N/A | 5.2% | |
| 2025 - 2035 | 1.0% | 1.0% | 4.0% | 2.7% | 1.4% | |
| 2035 - 2045 | 0.6% | 0.9% | 1.9% | 2.7% | 1.0% | |

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 w eek 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 w ith toll suspensions).

F - Independence Main plaza opened in December 2005.

G - First effects of national recession.

H - Systemw ide 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 2017 – FY 2046

| 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 | 22.1 | | 16.8 | | | | | | 38.9 | | 16.1% |
| 2016 | 25.9 | | 20.1 | | | | | | 46.0 | | 18.3% |
| 2017 | | $28.3 | | $21.0 | | | | | | $49.3 | 7.3% |
| 2018 [H,I] | | 29.9 | | 23.0 | | $1.8 | | $0.5 | | 55.1 | 11.7% |
| 2019 | | 31.3 | | 24.3 | | $2.2 | | 1.2 | | 58.9 | 6.9% |
| 2020 | | 32.8 | | 25.5 | | 2.6 | | 1.4 | | 62.2 | 5.6% |
| 2021 | | 34.2 | | 26.8 | | 3.0 | | $1.5 | | 65.5 | 5.3% |
| 2022 | | 35.7 | | 28.0 | | 3.4 | | 1.7 | | 68.8 | 5.0% |
| 2023 [H] | | 39.0 | | 29.8 | | 3.9 | | 2.2 | | 74.9 | 8.9% |
| 2024 | | 40.0 | | 30.5 | | 4.3 | | 2.3 | | 77.1 | 3.0% |
| 2025 | | 40.9 | | 31.3 | | 4.7 | | 2.5 | | 79.4 | 2.9% |
| 2026 | | 41.9 | | 32.0 | | 5.1 | | 2.7 | | 81.6 | 2.8% |
| 2027 | | 42.8 | | 32.7 | | 5.5 | | 2.8 | | 83.8 | 2.7% |
| 2028 [H] | | 44.6 | | 34.3 | | 6.3 | | 2.9 | | 88.1 | 5.1% |
| 2029 | | 45.7 | | 34.5 | | 6.7 | | 3.1 | | 89.9 | 2.0% |
| 2030 | | 46.8 | | 34.6 | | 7.0 | | 3.2 | | 91.7 | 2.0% |
| 2031 | | 48.0 | | 34.8 | | 7.3 | | 3.4 | | 93.5 | 1.9% |
| 2032 | | 49.1 | | 35.0 | | 7.7 | | 3.5 | | 95.2 | 1.9% |
| 2033 [H] | | 50.4 | | 37.0 | | 7.8 | | 3.8 | | 99.1 | 4.0% |
| 2034 | | 51.5 | | 37.5 | | 8.2 | | 3.9 | | 101.2 | 2.1% |
| 2035 | | 52.6 | | 37.9 | | 8.6 | | 4.1 | | 103.2 | 2.0% |
| 2036 | | 53.7 | | 38.3 | | 9.0 | | 4.2 | | 105.3 | 2.0% |
| 2037 | | 54.8 | | 38.7 | | 9.4 | | 4.4 | | 107.3 | 2.0% |
| 2038 [H] | | 55.6 | | 42.1 | | 9.9 | | 4.7 | | 112.2 | 4.5% |
| 2039 | | 56.8 | | 42.3 | | 10.2 | | 4.8 | | 114.1 | 1.7% |
| 2040 | | 57.9 | | 42.5 | | 10.5 | | 5.0 | | 116.0 | 1.7% |
| 2041 | | 59.1 | | 42.7 | | 10.9 | | 5.2 | | 117.9 | 1.6% |
| 2042 | | 60.3 | | 42.9 | | 11.2 | | 5.3 | | 119.8 | 1.6% |
| 2043 [H] | | 60.9 | | 45.6 | | 12.3 | | 5.9 | | 124.7 | 4.1% |
| 2044 | | 62.0 | | 45.8 | | 12.7 | | 6.1 | | 126.6 | 1.5% |
| 2045 | | 63.2 | | 46.0 | | 13.0 | | 6.3 | | 128.5 | 1.5% |
| 2046 | | 64.4 | | 46.2 | | 13.3 | | 6.4 | | 130.4 | 1.5% |

| Fiscal Year | | | | | | |
|---|---|---|---|---|---|---|
| 2001 - 2008 | 20.1% | 77.8% | | | 28.4% | |
| 2008 - 2015 | 9.2% | 13.1% | N/A | N/A | 10.8% | |
| 2015 - 2025 | 6.4% | 6.4% | N/A | N/A | 7.4% | |
| 2025 - 2035 | 2.5% | 1.9% | 6.3% | 5.1% | 2.7% | |
| 2035 - 2045 | 1.9% | 2.0% | 4.2% | 4.4% | 2.2% | |

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.

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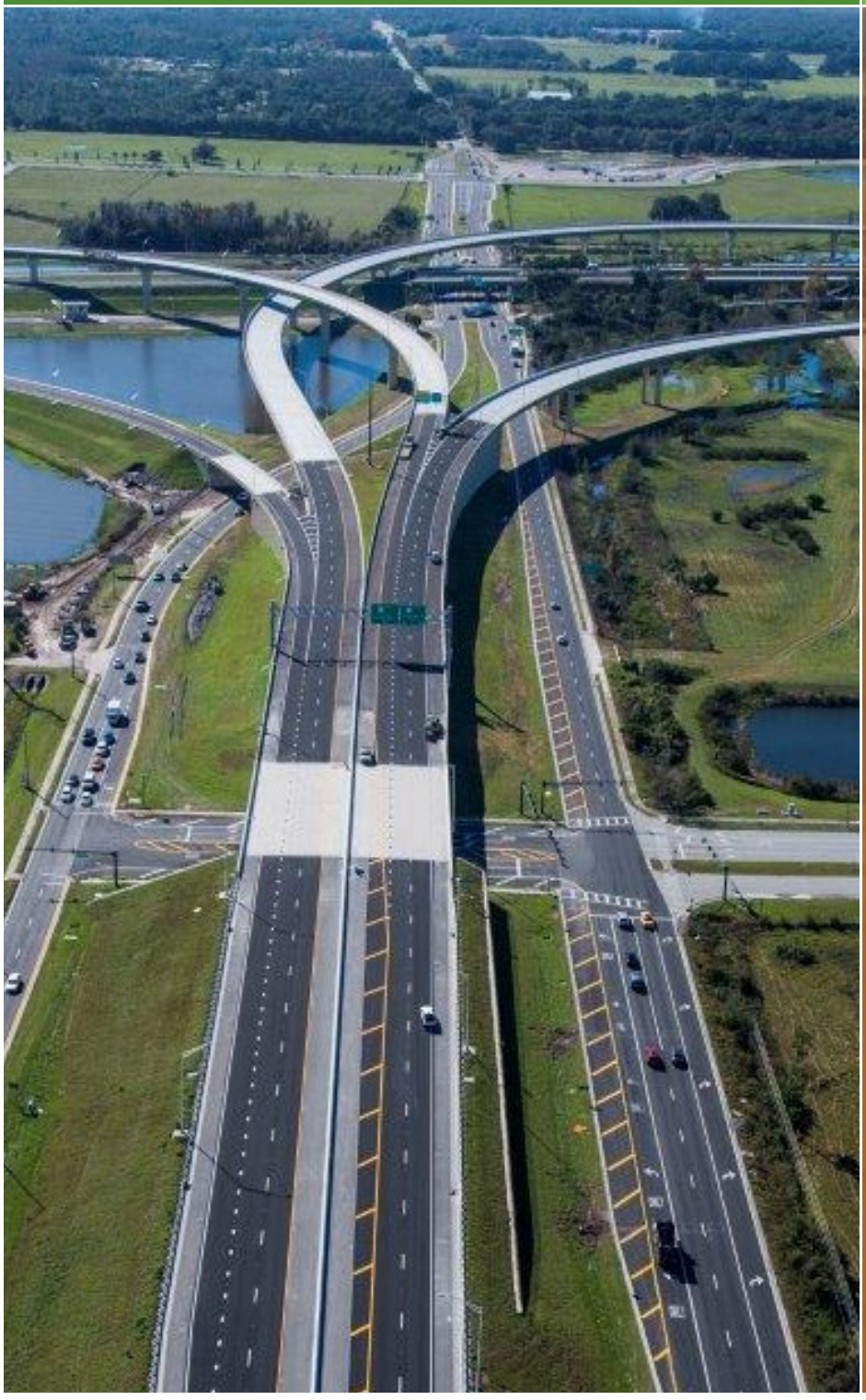
# Chapter 7

# S.R. 414
## (John Land Apopka Expressway)



# S.R. 414 (JOHN LAND APOPKA EXPRESSWAY)

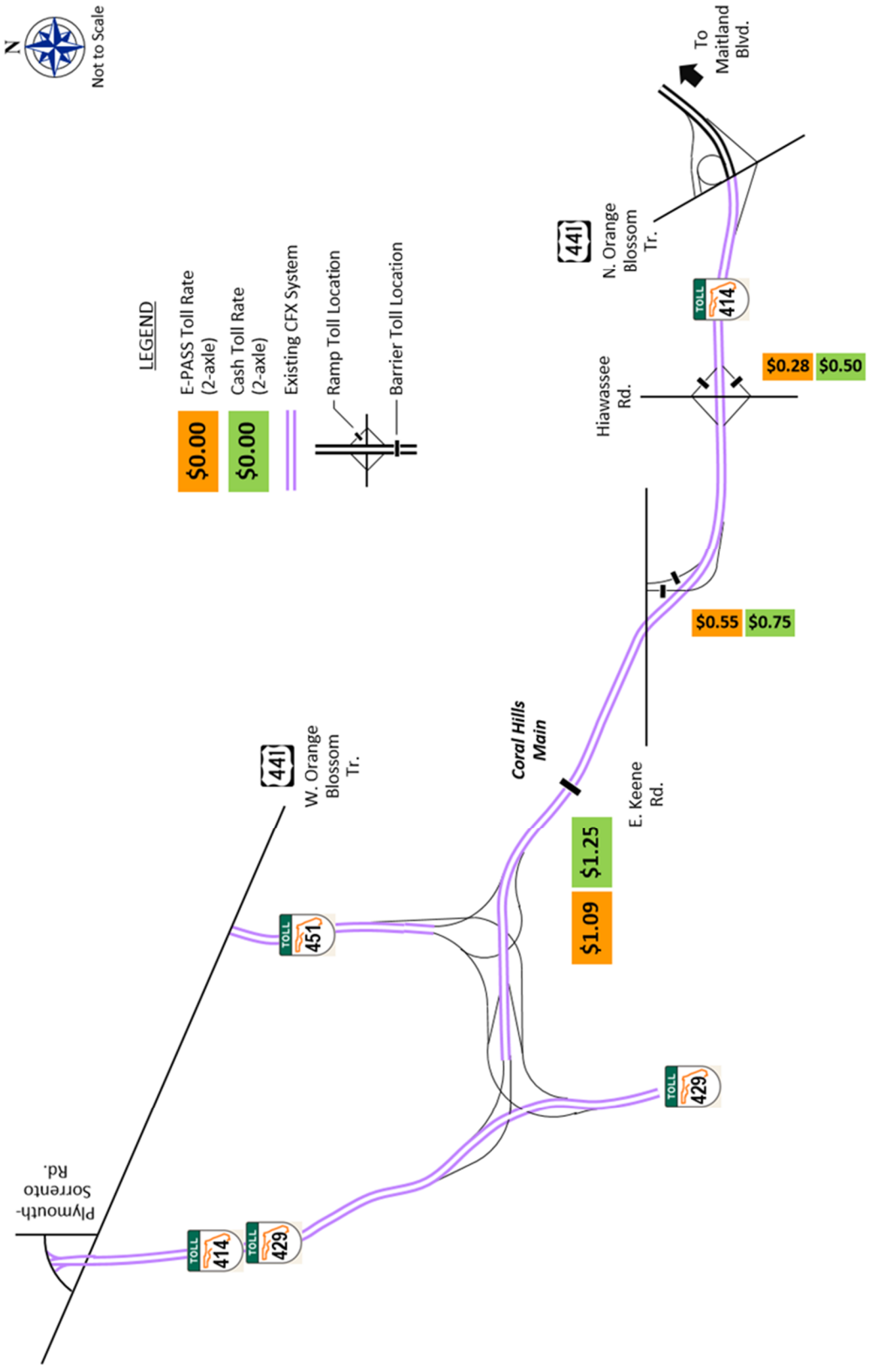
## 7.1 Facility Description

S.R. 414, also known as the John Land Apopka Expressway, is a 9-mile expressway that extends east from S.R. 429 to Maitland Boulevard at U.S. 441. Of the 9 miles, three are part of a dual route with S.R. 429. This long-awaited expressway improved 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 was 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 2016 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. CFX was able to partially open the new expressway to electronic toll collection customers from S.R. 429 to Hiawassee Road on February 14, 2009, because construction was ahead of schedule. 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**



## 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 2016 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 2016 increased by 1.4 million transactions, or 13.2 percent, over FY 2015. Toll revenues increased by $1.6 million, or 15.4 percent, in FY 2016. Traffic and revenue are still ramping-up. The facility has only been open for seven 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 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 2016**

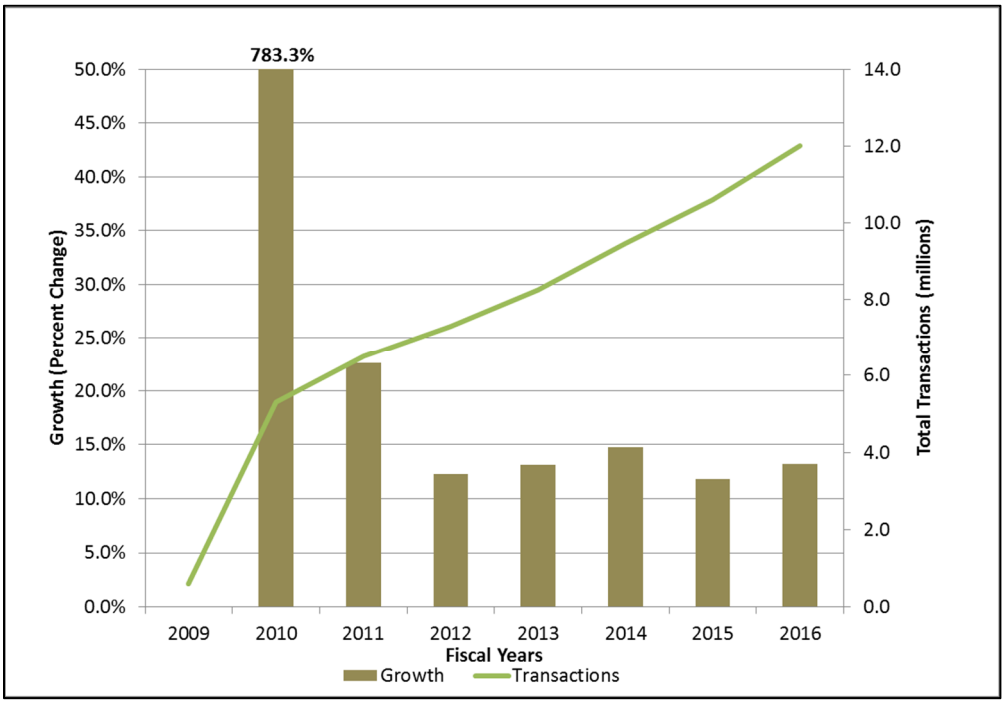
| Fiscal Year | Coral Hills Main | |
|---|---|---|
| | TRANSACTIONS (millions) | PERCENT CHANGE |
| 2009 [A] | 0.6 | |
| 2010 | 5.3 | 783.3% |
| 2011 | 6.5 | 22.6% |
| 2012 | 7.3 | 12.3% |
| 2013 [B] | 8.3 | 13.1% |
| 2014 | 9.5 | 14.5% |
| 2015 | 10.6 | 11.6% |
| 2016 | 12.0 | 13.2% |
| | TOLL REVENUE (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 | 18.2% |
| 2015 | $10.4 | 14.3% |
| 2016 | $12.0 | 15.4% |

Notes:

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

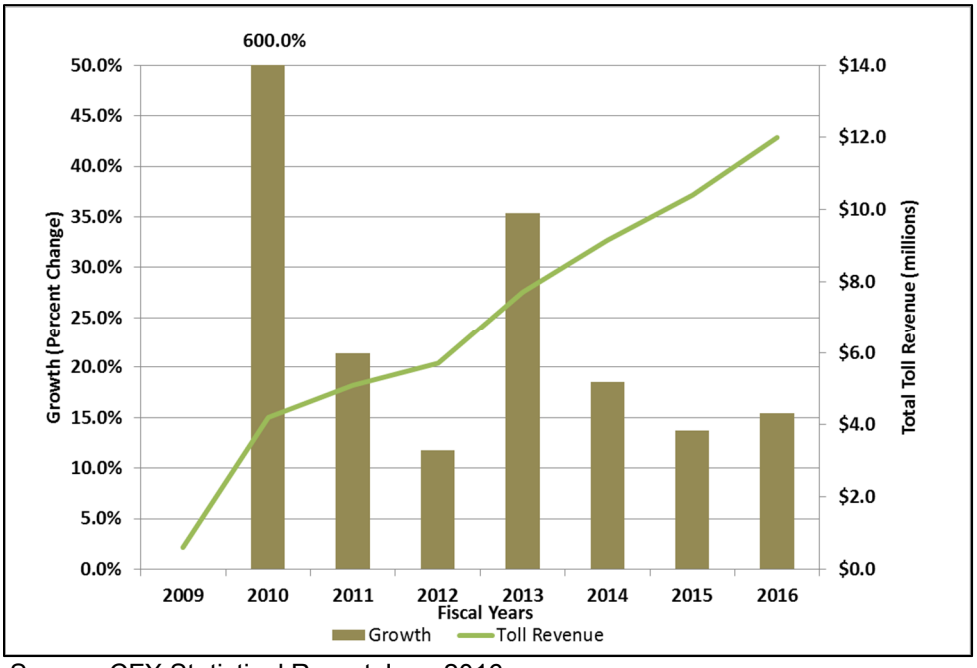
B - Systemwide toll rate increase in July 2013. Implementation of cash and electronic toll rate differential. Extension of S.R. 414 to U.S. 441 opens in January 2013.

**Figure 7-2**
**S.R. 414 Historical Transactions and Annual Growth**
**FY 2009 – FY 2016**




Source: CFX Statistical Report June 2016

**Figure 7-3**
**S.R. 414 Historical Toll Revenue and Annual Growth**
**FY 2009 – FY 2016**




Source: CFX Statistical Report June 2016

### 7.2.2 MONTHLY TRANSACTION SEASONAL VARIATION

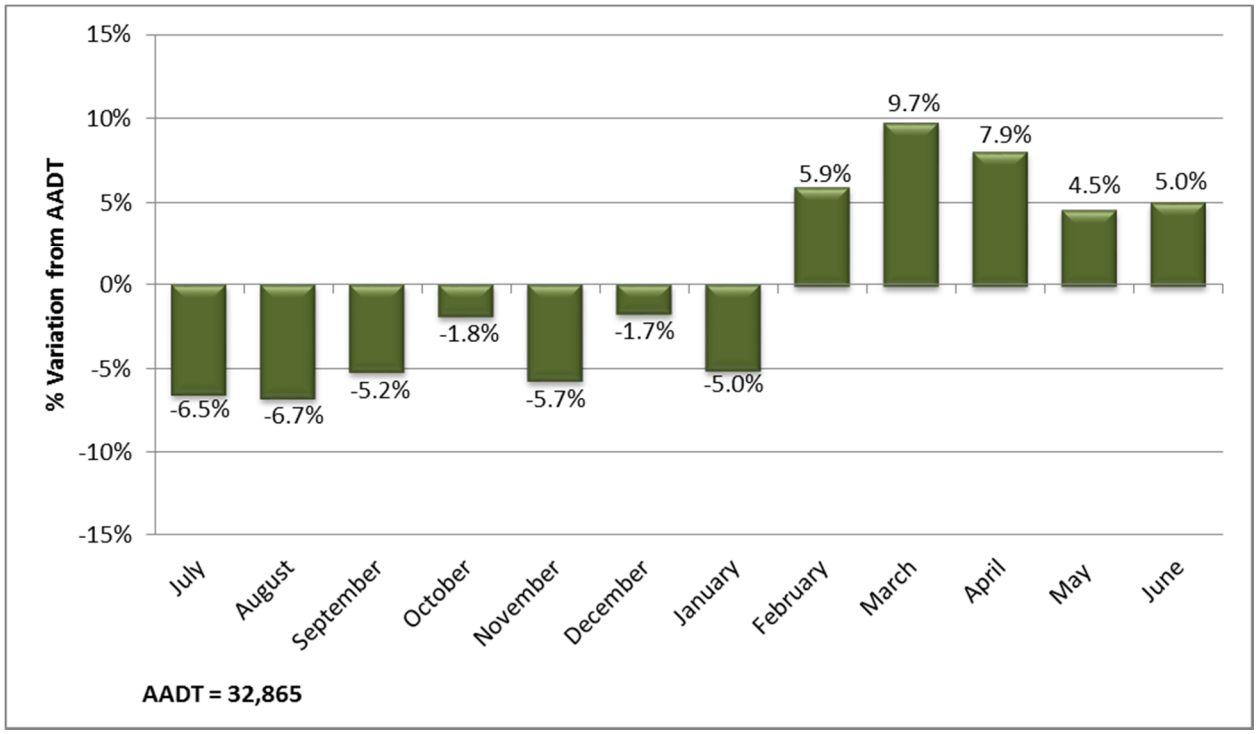
As presented in **Table 7-2**, average transactions per day in FY 2016 on S.R. 414 ranged from a high of 36,054 in March 2016 to a low of 30,651 in August 2015. It is difficult to determine a seasonal traffic pattern on this facility since it is still experiencing significant growth as a result of the facility only being open for a few years. Also, more tourists in the area (possibly snowbirds) 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. March transactions were 9.7 percent above average and August transactions were 6.7 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 2016**

| Month | Number of Days in Month | Total Toll Paying Transactions | Average Transactions/day | Seasonal Factor |
|---|---|---|---|---|
| July | 31 | 953,111 | 30,746 | 0.935 |
| August | 31 | 950,192 | 30,651 | 0.933 |
| September | 30 | 935,112 | 31,170 | 0.948 |
| October | 31 | 1,000,135 | 32,262 | 0.982 |
| November | 30 | 929,967 | 30,999 | 0.943 |
| December | 31 | 1,001,661 | 32,312 | 0.983 |
| January | 31 | 967,721 | 31,217 | 0.950 |
| February | 29 | 1,009,022 | 34,794 | 1.059 |
| March | 31 | 1,117,676 | 36,054 | 1.097 |
| April | 30 | 1,064,084 | 35,469 | 1.079 |
| May | 31 | 1,064,924 | 34,352 | 1.045 |
| June | 30 | 1,035,118 | 34,504 | 1.050 |
| ***Average*** | | ***1,002,394*** | ***32,865*** | ***1.000*** |
| **Total Year** | **366** | **12,028,723** | | |

Source: CFX Statistical Report June 2016

**Figure 7-4**
**S.R. 414 Variation in Transactions Per Day, by Month**
**FY 2016**



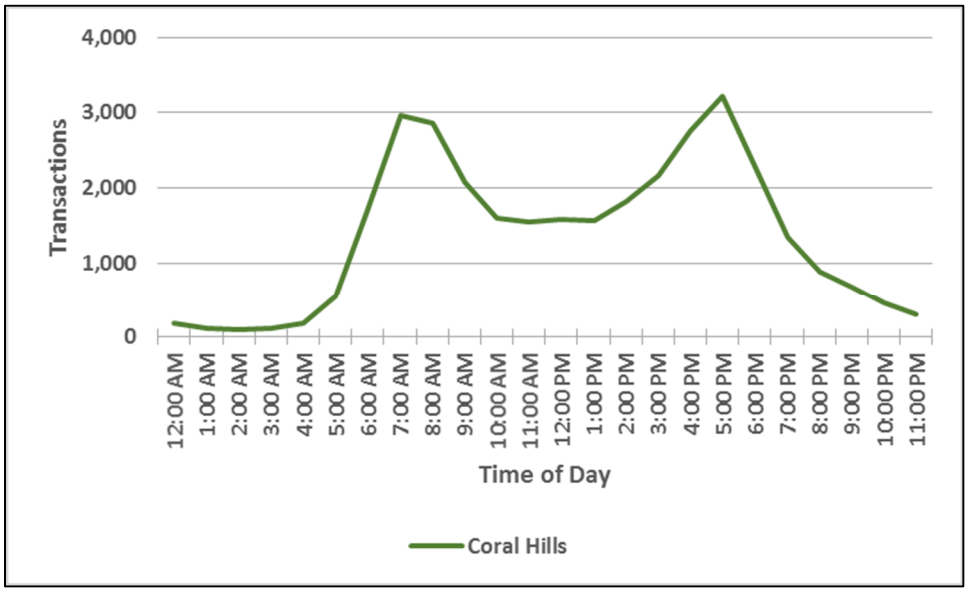

Source: CFX Statistical Report June 2016

### 7.2.3 DAILY TRAFFIC DISTRIBUTION

The daily distribution of traffic includes information on the usage characteristics of travel on the facility. The daily distributions represent counts taken during a typical week at the mainline plaza in the month of July. The typical weekday distribution is shown in **Figure 7-5** and the weekend distribution is shown in **Figure 7-6**. The figures contain the sum of traffic volumes in both directions.

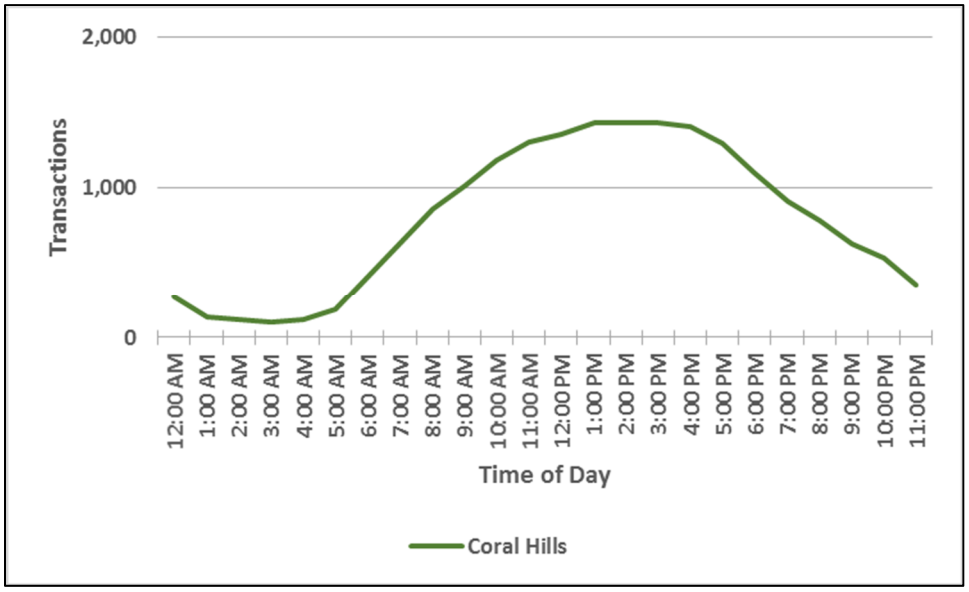
On weekdays, demand for travel at the Coral Hills plaza is bimodal, with both morning and evening peak hours. Traffic volumes in the evening peak hours are higher than in the morning peak hours. The highest peak hour volumes during the week were 3,200 per hour beginning at 5:00 P.M. On weekends, there is no clear morning or evening peak periods, indicating that many customers use the facility for non-work trip purposes. This weekend pattern is typical of most roadway facilities' weekend usage.

**Figure 7-5**
**S.R. 414 Daily Traffic Variation (Weekday)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

**Figure 7-6**
**S.R. 414 Daily Traffic Variation (Weekend)**
**FY 2016 (July)**




Source: Unaudited lane transaction data – July 2016

### 7.2.4 TRANSACTIONS BY VEHICLE CLASS

The distribution of transactions at the Coral Hills Main plaza group by vehicle class (number of axles) for FY 2016 is presented in **Table 7-3**. Overall, 98.4 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 1.0 percent of all transactions. Four-axle vehicles and trucks with five or more axles represented the smallest categories each with only 0.3 percent of transactions.

**Table 7-3**
**S.R. 414 Percent of Total Transactions by Vehicle Class**
**FY 2016**

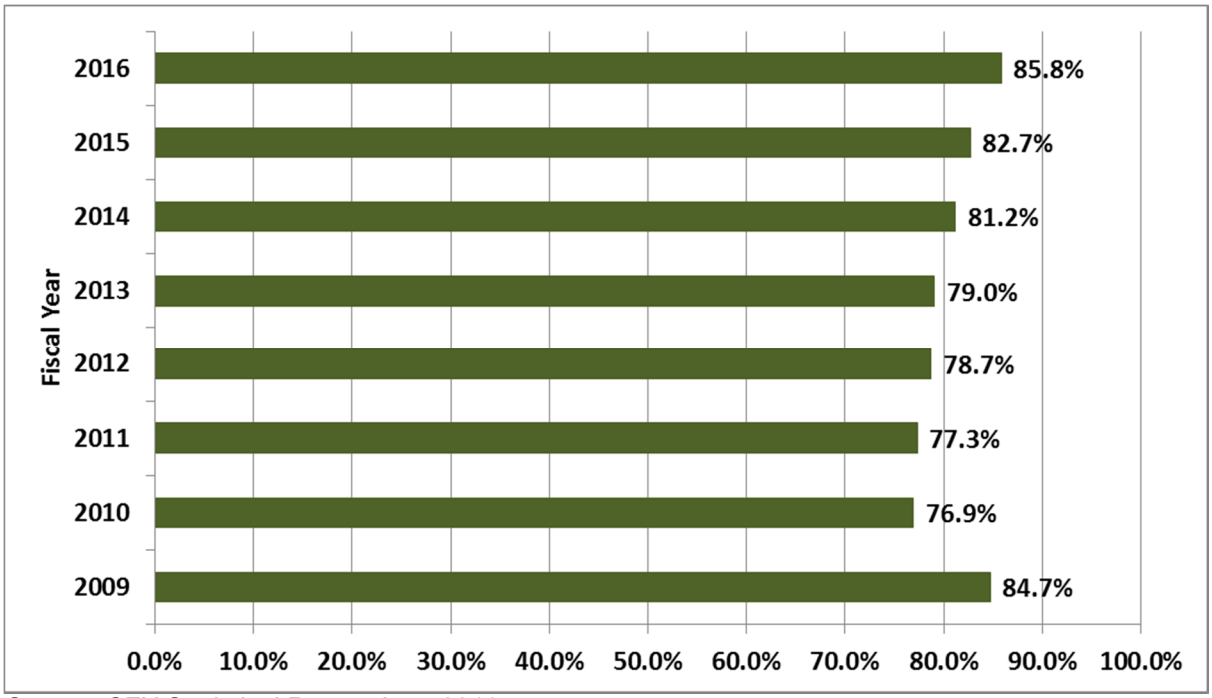
| Vehicle Class | Coral Hills Main | S.R. 414 Total |
|---|---|---|
| 2-Axle | 98.4% | 98.4% |
| 3-Axle | 1.0% | 1.0% |
| 4-Axle | 0.3% | 0.3% |
| 5 or More Axles | 0.3% | 0.3% |
| **Total** | **100.0%** | **100.0%** |

Source: Unaudited lane transaction data – January and July 2016

## *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 7-7**. E-PASS revenues were 84.7 percent during FY 2009. This was an anomaly since the facility opened to electronic customers only until May 2009. By the end of FY 2016, E-PASS revenues have reached 85.8 percent of facility revenues, which is 6.4 percent higher than overall System participation. The usage of E-PASS is expected 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 7-7**
**S.R. 414 Percent of Toll Revenue from Electronic Transactions**
**FY 2009 – FY 2016**




Source: CFX Statistical Report June 2016

## *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.

In addition to the Wekiva Parkway, 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 |

Other 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 12.0 million in FY 2016 to 15.5 million in FY 2046. Total revenues on S.R. 414 are projected to increase during the forecast period from the actual $12.0 million in FY 2016 to $25.5 million in FY 2045. 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 3.1 and 4.9 percent per year through FY 2025, 0.4 and 2.5 percent per year from FY 2025 to FY 2035, and 0.2 and 1.6 percent per year from FY 2035 to FY 2045, respectively.

## Table 7-5
## S.R. 414 Plaza Groups – Transaction Projections (Millions)
## FY 2017 – FY 2046

| 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 | 10.6 | | 11.6% |
| 2016 | 12.0 | | 13.2% |
| 2017 | | 12.8 | 6.9% |
| 2018 [C,D] | | 13.0 | 1.1% |
| 2019 | | 13.3 | 2.6% |
| 2020 | | 13.7 | 2.6% |
| 2021 | | 14.0 | 2.5% |
| 2022 | | 14.3 | 2.4% |
| 2023 [C] | | 13.8 | -3.7% |
| 2024 | | 14.1 | 2.3% |
| 2025 | | 14.5 | 2.3% |
| 2026 | | 14.8 | 2.2% |
| 2027 | | 15.1 | 2.2% |
| 2028 [C] | | 14.4 | -4.8% |
| 2029 | | 14.6 | 1.3% |
| 2030 | | 14.7 | 1.3% |
| 2031 | | 14.9 | 1.2% |
| 2032 | | 15.1 | 1.2% |
| 2033 [C] | | 14.6 | -3.4% |
| 2034 | | 14.8 | 1.5% |
| 2035 | | 15.0 | 1.4% |
| 2036 | | 15.2 | 1.4% |
| 2037 | | 15.4 | 1.4% |
| 2038 [C] | | 14.6 | -5.3% |
| 2039 | | 14.8 | 1.4% |
| 2040 | | 15.0 | 1.4% |
| 2041 | | 15.2 | 1.4% |
| 2042 | | 15.5 | 1.3% |
| 2043 [C] | | 14.9 | -3.6% |
| 2044 | | 15.1 | 1.4% |
| 2045 | | 15.3 | 1.4% |
| 2046 | | 15.5 | 1.3% |

| Fiscal Year | | |
|---|---|---|
| 2009 - 2015 | 61.4% | |
| 2015 - 2025 | 3.1% | |
| 2025 - 2035 | 0.4% | |
| 2035 - 2045 | 0.2% | |

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 2017 – FY 2046**

| 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 | 10.4 | | 14.3% |
| 2016 | 12.0 | | 15.4% |
| 2017 | | $12.8 | 7.0% |
| 2018 [C,D] | | 13.6 | 5.8% |
| 2019 | | 13.9 | 2.5% |
| 2020 | | 14.3 | 2.4% |
| 2021 | | 14.6 | 2.3% |
| 2022 | | 14.9 | 2.3% |
| 2023 [C] | | 15.7 | 5.3% |
| 2024 | | 16.2 | 3.3% |
| 2025 | | 16.7 | 3.2% |
| 2026 | | 17.3 | 3.1% |
| 2027 | | 17.8 | 3.0% |
| 2028 [C] | | 18.9 | 6.1% |
| 2029 | | 19.2 | 1.7% |
| 2030 | | 19.5 | 1.7% |
| 2031 | | 19.8 | 1.6% |
| 2032 | | 20.1 | 1.6% |
| 2033 [C] | | 21.0 | 4.2% |
| 2034 | | 21.2 | 1.2% |
| 2035 | | 21.5 | 1.2% |
| 2036 | | 21.7 | 1.2% |
| 2037 | | 22.0 | 1.2% |
| 2038 [C] | | 22.9 | 4.0% |
| 2039 | | 23.1 | 1.1% |
| 2040 | | 23.4 | 1.0% |
| 2041 | | 23.6 | 1.0% |
| 2042 | | 23.8 | 1.0% |
| 2043 [C] | | 24.8 | 4.0% |
| 2044 | | 25.0 | 1.0% |
| 2045 | | 25.3 | 1.0% |
| 2046 | | 25.5 | 1.0% |

| Fiscal Year | | |
|---|---|---|
| 2009 - 2015 | 60.9% | |
| 2015 - 2025 | 4.9% | |
| 2025 - 2035 | 2.5% | |
| 2035 - 2045 | 1.6% | |

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.

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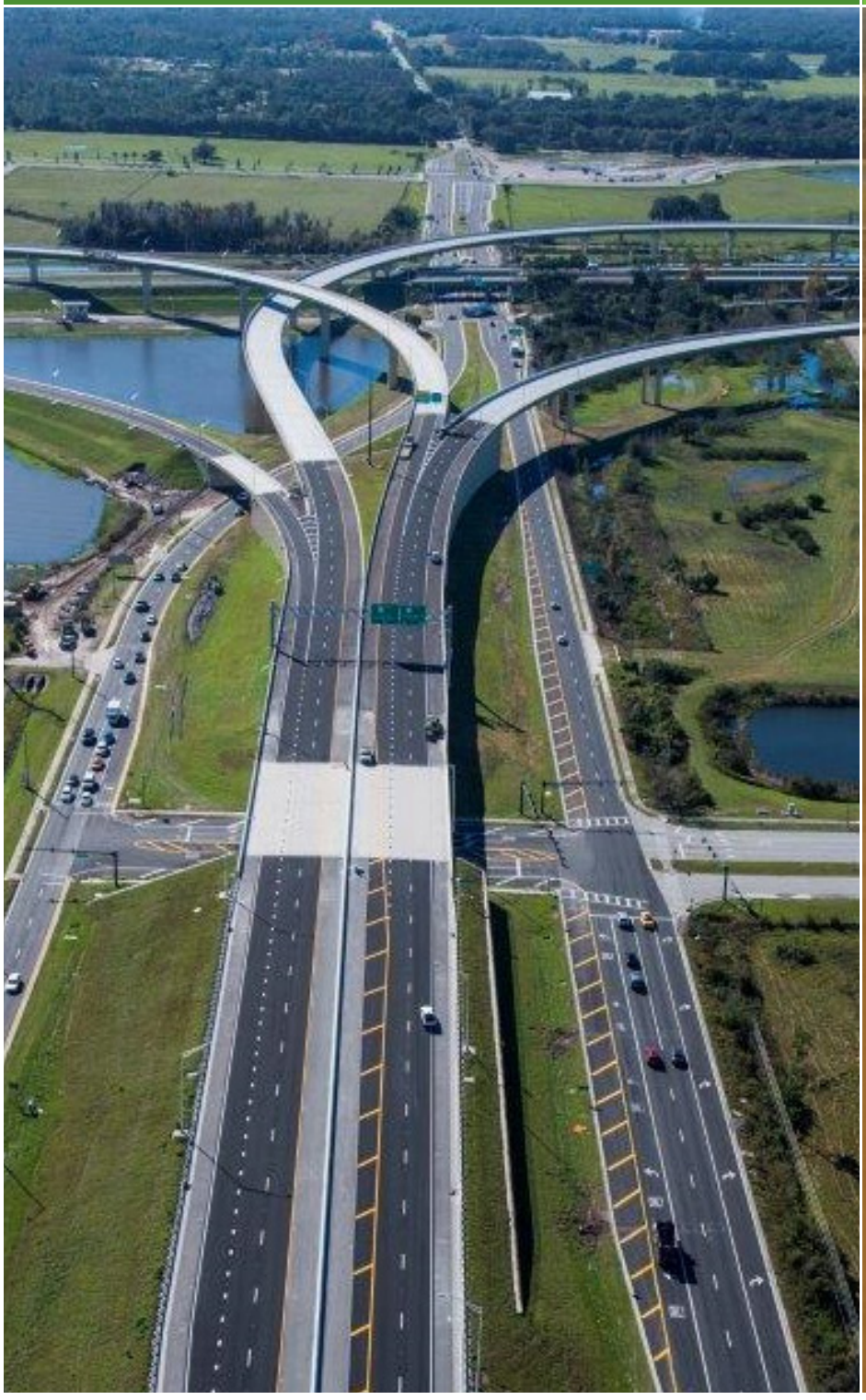
# Chapter 8

# S.R. 453



# S.R. 453

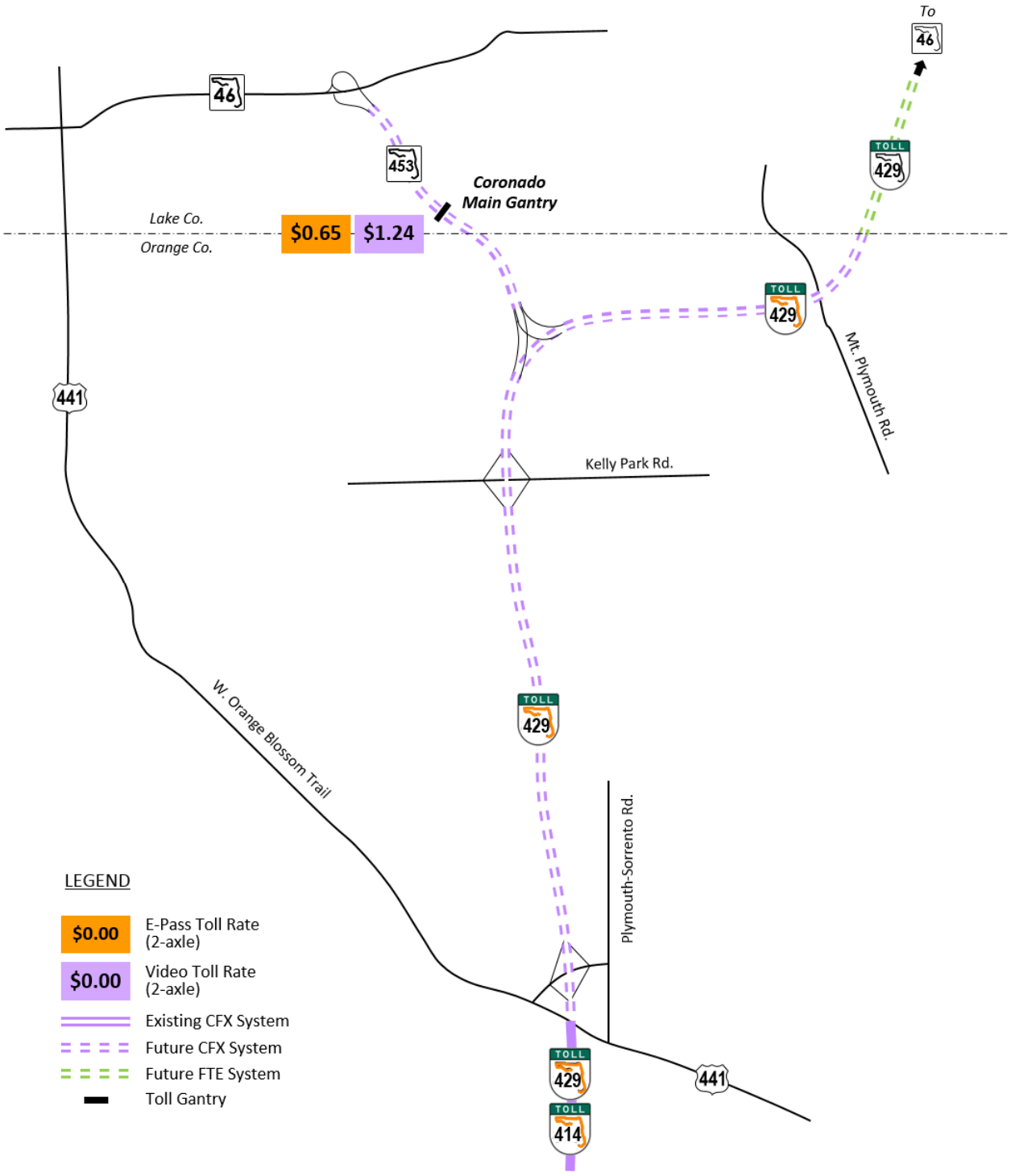
## 8.1 Facility Description


S.R. 453 is a 2.2 mile 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 is now under construction. This long-awaited expressway will complete 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 extension of S.R. 429 which currently terminates just north of U.S. 441 near Apopka. The new S.R. 429 extension would ultimately connect to S.R. 417 at I-4 near Sanford, thus completing the beltway around the northwest section of the Orlando metropolitan region. S.R. 453 will run about 2.2 miles from the planned Wekiva Parkway, across the Lake County Line to connect to S.R. 46.


Toll collection on the Wekiva Parkway will utilize an all-electronic toll (AET) collection system, i.e., customers will not be able to pay cash on the roadway as there will only be toll gantries. On the CFX portion of the Wekiva Parkway, customers will either pay with E-PASS/SunPass or by Pay-by-Plate video billing. Video billing customers will pay the E-PASS toll amount plus a surcharge on each transaction, which is designed to cover the administrative 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**



## 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 2018 through FY 2046 forecast period, S.R. 453 traffic is expected to increase an average of 22.7 percent per year from FY 2018 to FY 2025 (due to ramp-up), 3.4 percent per year from FY 2025 to FY 2035 and 2.3 percent per year from FY 2035 to FY 2045. Revenue is expected to increase an average of 26.5 percent per year from FY 2018 to FY 2025 (again due to ramp-up), 5.9 percent per year from FY 2025 to FY 2035 and 4.7 percent per year from FY 2035 to FY 2045.

**Table 8-2**
**S.R. 453 Plaza Group – Transaction Projections (Millions)**
**FY 2018 – FY 2046**

| 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% |
| 2045 | | 5.9 | 4.0% |
| 2046 | | 6.2 | 3.8% |

| Fiscal Year | | |
|---|---|---|
| 2018 -2025 | 22.7% | |
| 2025 - 2035 | 3.4% | |
| 2035 - 2045 | 2.3% | |

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 2046**

| 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% |
| 2045 | | 7.4 | 3.5% |
| 2046 | | 7.6 | 3.4% |

| Fiscal Year | | |
|---|---|---|
| 2018 -2025 | 26.5% | |
| 2025 - 2035 | 5.9% | |
| 2035 - 2045 | 4.7% | |

Notes:

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

B - Systemwide toll rate increase.

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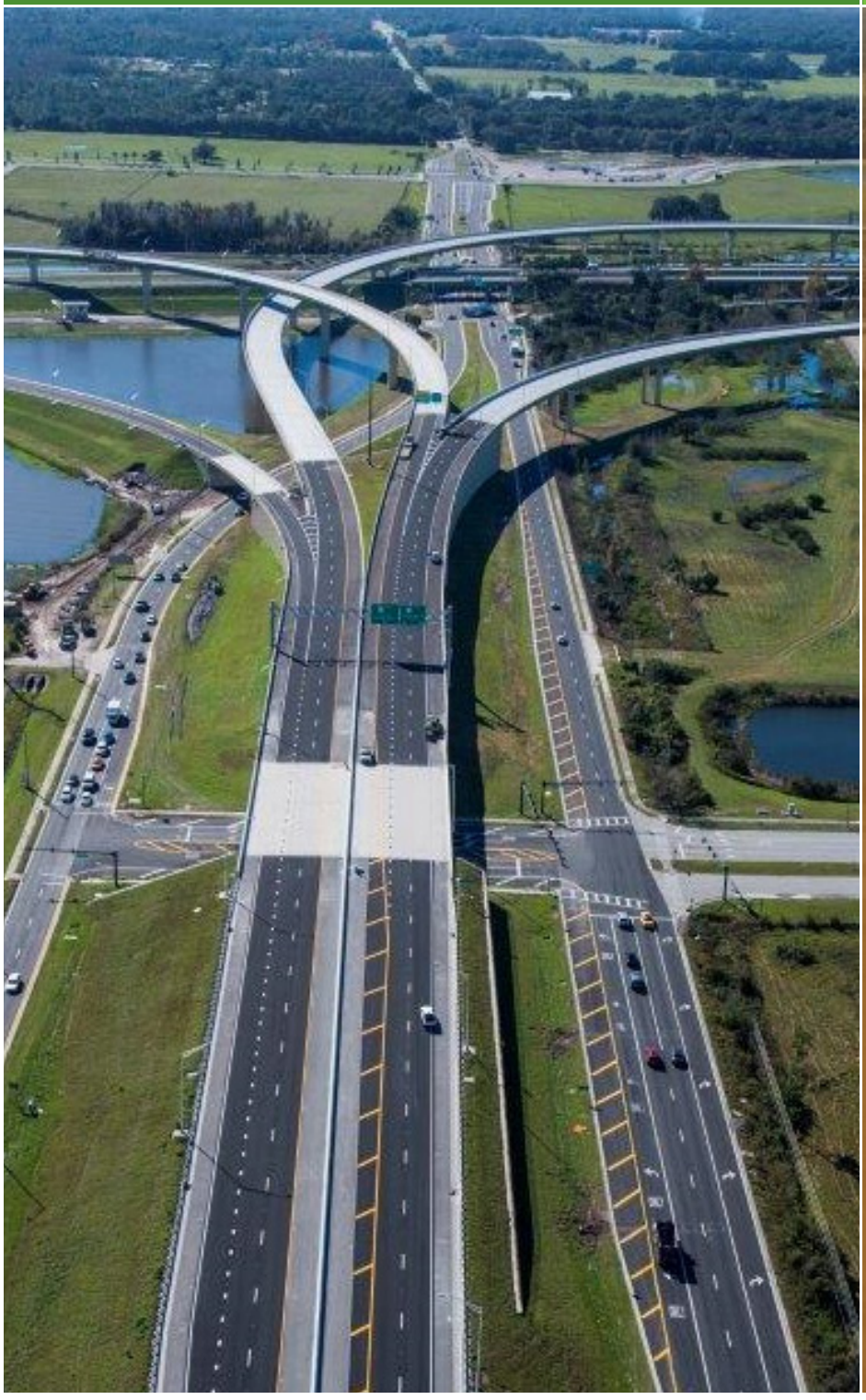
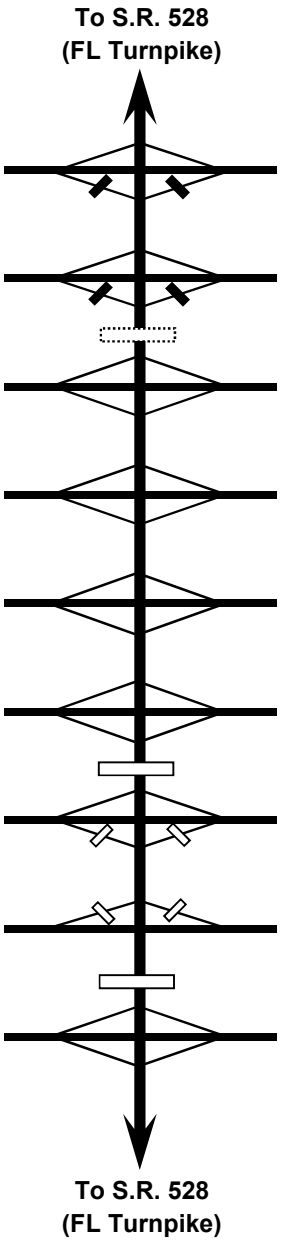
## Appendix A

# Traffic Profiles CY 2016 – CY 2045



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



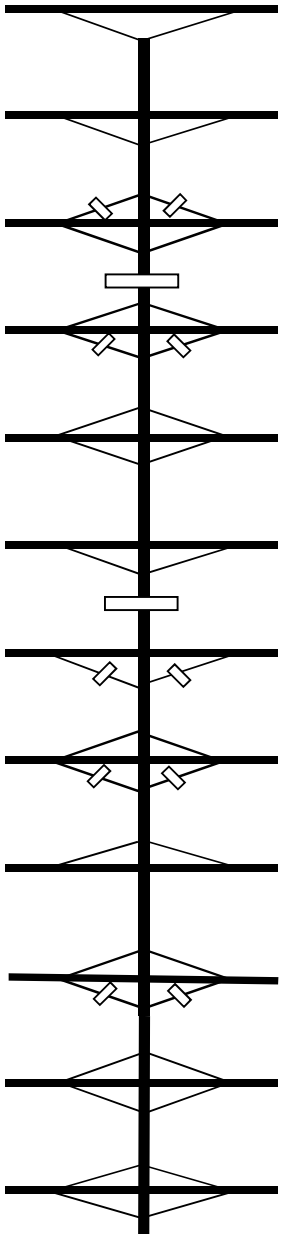

| Cross Street | FY 2016 | FY 2025 | FY 2035 | FY 2045 |
|---|---|---|---|---|
| | **79,300** | **86,400** | **88,900** | **90,900** |
| **Boggy Creek Road** | 6,900 | 7,600 | 7,900 | 8,100 |
| | 17,400 | 19,100 | 19,900 | 20,500 |
| | **89,800** | **97,900** | **100,900** | **103,300** |
| **Tradeport Drive /** | 6,000 | 6,600 | 6,900 | 7,100 |
| **Conway Road** | 5,000 | 5,500 | 5,700 | 5,900 |
| *Airport Main* | **88,800** | **96,800** | **99,700** | **102,100** |
| **Semoran Boulevard** | 40,800 | 44,900 | 46,700 | 48,100 |
| | 27,500 | 30,300 | 31,500 | 32,400 |
| | **75,500** | **82,200** | **84,500** | **86,400** |
| **Goldenrod Road** | 5,500 | 6,100 | 6,300 | 6,500 |
| | 8,500 | 9,400 | 9,800 | 10,100 |
| | **78,500** | **85,500** | **88,000** | **90,000** |
| **Narcoossee Road** | 21,600 | 23,800 | 24,800 | 25,500 |
| | 7,100 | 7,800 | 8,100 | 8,300 |
| | **64,000** | **69,500** | **71,300** | **72,800** |
| **S.R. 417** | 31,800 | 34,000 | 35,700 | 37,800 |
| | 23,500 | 25,100 | 26,400 | 28,000 |
| *Beachline Main* | **55,700** | 60,600 | 62,000 | 63,000 |
| **International** | 8,200 | 8,800 | 9,200 | 9,800 |
| **Corporate Park** | 1,600 | 1,700 | 1,800 | 1,900 |
| | **49,100** | **53,500** | **54,600** | **55,100** |
| **Dallas Boulevard** | 4,200 | 4,600 | 4,700 | 4,700 |
| *Dallas Main* | **44,900** | 48,900 | 49,900 | 50,400 |
| **S.R. 520** | 8,000 | 8,700 | 8,900 | 9,000 |
| | **36,900** | **40,200** | **41,000** | **41,400** |

Notes:

Airport Mainline Plaza removed during FY 2016 and merged with Turpike Mainline Plaza west of Boggy Creek Rd.

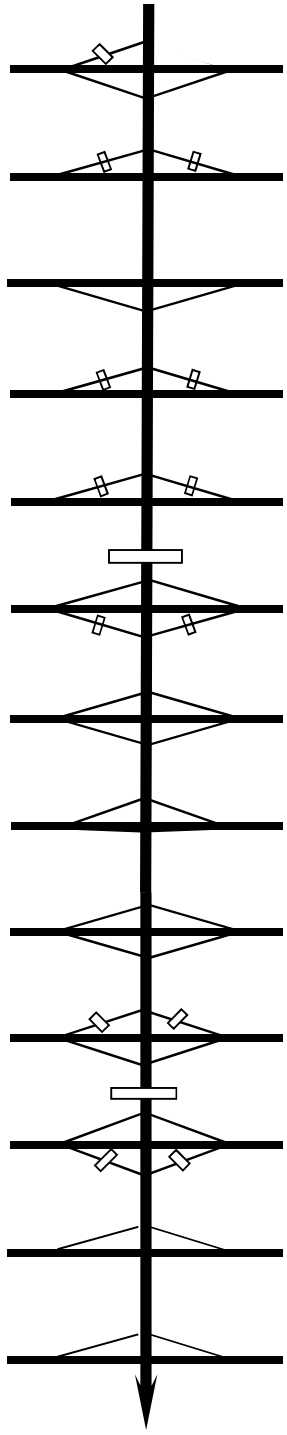
New ramp plazas installed in FY 2016.

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



| Cross Street | FY 2016 | FY 2025 | FY 2035 | FY 2045 |
|---|---|---|---|---|
| **Turnpike Spur** | | | | |
| | **55,700** | **62,600** | **65,300** | **68,500** |
| | **55,700** | **62,600** | **65,300** | **68,500** |
| **S.R. 50 West** | | | | |
| | 8,100 | 9,300 | 10,000 | 10,700 |
| | **63,800** | **71,900** | **75,300** | **79,200** |
| **Good Homes Road** | 9,600 | 11,000 | 11,900 | 12,700 |
| | 10,100 | 11,600 | 12,500 | 13,400 |
| *Hiawassee Main* | **64,300** | **72,500** | **75,900** | **79,900** |
| **Hiawassee Road** | 5,200 | 6,000 | 6,500 | 7,000 |
| | 10,400 | 11,500 | 11,900 | 12,200 |
| | **69,500** | **78,000** | **81,300** | **85,100** |
| **Kirkman Road** | 7,100 | 8,700 | 9,900 | 11,100 |
| | 11,300 | 12,000 | 12,500 | 12,900 |
| | **73,700** | **81,300** | **83,900** | **86,900** |
| **Pine Hills Road** | | | | |
| | 5,000 | 5,400 | 5,700 | 6,000 |
| *Pine Hills Main* | **78,700** | **86,700** | **89,600** | **92,900** |
| **Old Winter Garden Rd** | | | | |
| | 4,600 | 5,000 | 5,300 | 5,600 |
| | **83,300** | **91,700** | **94,900** | **98,500** |
| **John Young Parkway** | 6,700 | 7,400 | 7,800 | 8,300 |
| | 9,700 | 10,500 | 11,000 | 11,700 |
| | **86,300** | **94,800** | **98,100** | **101,900** |
| **Tampa Avenue** | 2,500 | 2,800 | 2,900 | 3,100 |
| | **83,800** | **92,000** | **95,200** | **98,800** |
| **Orange Blossom Trail** | 5,600 | 6,000 | 6,300 | 6,700 |
| | 7,900 | 8,500 | 8,900 | 9,400 |
| | **86,100** | **94,500** | **97,800** | **101,500** |
| **Interstate-4** | 17,400 | 19,800 | 21,800 | 24,100 |
| | 63,000 | 67,000 | 69,400 | 72,600 |
| | **131,700** | **141,700** | **145,400** | **150,000** |
| **Orange Avenue/ Rosalind Avenue** | 11,500 | 12,300 | 12,800 | 13,100 |
| | 18,500 | 19,800 | 20,600 | 21,000 |

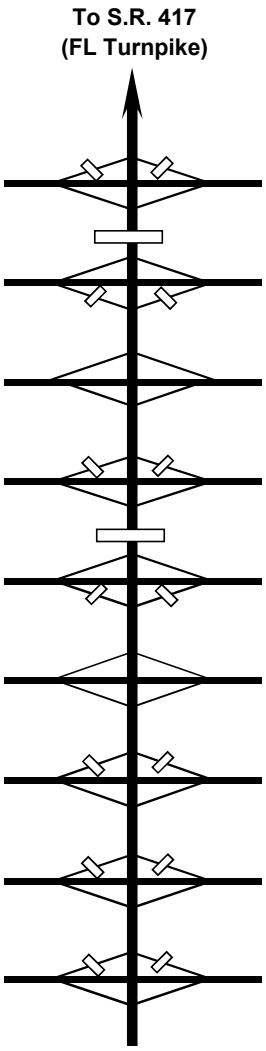
# S.R. 408 - Average Two-Way Daily Revenue Traffic



| Cross Street | FY 2016 | FY 2025 | FY 2035 | FY 2045 |
|---|---|---|---|---|
| | **138,700** | **149,200** | **153,200** | **157,900** |
| **Mills Avenue** | 1,200 | 1,300 | 1,400 | 1,400 |
| | 9,100 | 9,700 | 10,100 | 10,300 |
| | **146,600** | **157,600** | **161,900** | **166,800** |
| **Bumby Avenue/** | 12,100 | 12,900 | 13,400 | 13,700 |
| | **134,500** | **144,700** | **148,500** | **153,100** |
| **Crystal Lake Drive** | 12,100 | 12,900 | 13,400 | 13,700 |
| | **146,600** | **157,600** | **161,900** | **166,800** |
| **Conway Road** | 11,700 | 12,500 | 13,000 | 13,300 |
| | **134,900** | **145,100** | **148,900** | **153,500** |
| **Andes Ave** | 11,300 | 12,100 | 12,600 | 12,900 |
| *Conway Main* | **123,600** | **133,000** | **136,300** | **140,600** |
| **Semoran Boulevard/** | 12,800 | 13,200 | 13,700 | 14,000 |
| **Yucatan Drive** | 9,400 | 10,100 | 10,500 | 10,700 |
| | **120,200** | **129,900** | **133,100** | **137,300** |
| **Goldenrod Road** | 13,700 | 14,200 | 14,800 | 15,100 |
| | 12,300 | 13,200 | 13,700 | 14,000 |
| | **118,800** | **128,900** | **132,000** | **136,200** |
| **Chickasaw Trail** | 10,100 | 10,300 | 10,700 | 10,900 |
| | **108,700** | **118,600** | **121,300** | **125,300** |
| **S.R. 417** | 53,300 | 58,200 | 59,500 | 61,500 |
| | 23,200 | 26,800 | 28,900 | 31,300 |
| | **78,600** | **87,200** | **90,700** | **95,100** |
| **Dean Road** | 10,200 | 11,300 | 11,800 | 12,400 |
| | 2,700 | 3,000 | 3,100 | 3,300 |
| *Dean Main* | **71,100** | **78,900** | **82,000** | **86,000** |
| **Rouse Road** | 9,500 | 10,500 | 10,900 | 11,400 |
| | 1,200 | 1,300 | 1,400 | 1,500 |
| | **62,800** | **69,700** | **72,500** | **76,100** |
| **Alafaya Trail** | 28,900 | 32,100 | 33,400 | 35,100 |
| | **33,900** | **37,600** | **39,100** | **41,000** |
| **S.R. 50** | 22,800 | 25,300 | 26,300 | 27,600 |
| | **11,100** | **12,300** | **12,800** | **13,400** |

**To Challenger Parkway**

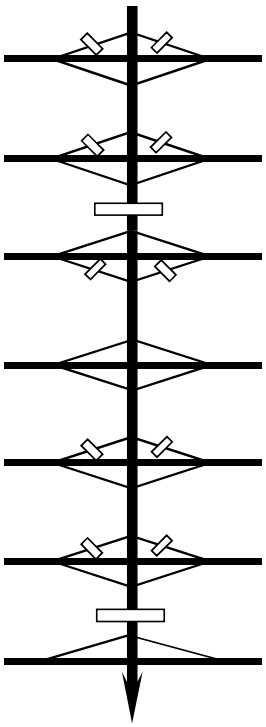
# S.R. 417 - Average Two-Way Daily Revenue Traffic




| Cross Street | FY 2016 | FY 2025 | FY 2035 | FY 2045 |
|---|---|---|---|---|
| | **65,100** | **71,200** | **79,900** | **90,400** |
| **University Boulevard** | 6,500 | 7,100 | 7,500 | 7,700 |
| | 22,200 | 24,200 | 25,400 | 26,000 |
| *University Main* | **80,800** | **88,300** | **97,800** | **108,700** |
| **S.R. 50** | 5,800 | 5,800 | 5,600 | 5,700 |
| | 7,800 | 8,500 | 9,400 | 11,600 |
| | **82,800** | **91,000** | **101,600** | **114,600** |
| **S.R. 408** | 41,800 | 44,900 | 45,200 | 46,500 |
| | 34,700 | 40,000 | 43,100 | 46,300 |
| | **75,700** | **86,100** | **99,500** | **114,400** |
| **Curry Ford Road** | 8,100 | 9,600 | 10,600 | 12,500 |
| | 13,500 | 15,900 | 19,200 | 25,500 |
| *Curry Ford Main* | **81,100** | **92,400** | **108,100** | **127,400** |
| **Lee Vista Boulevard** | 5,100 | 6,000 | 7,200 | 9,200 |
| | 3,300 | 3,900 | 4,700 | 8,000 |
| | **79,300** | **90,300** | **105,600** | **126,200** |
| **S.R. 528** | 39,700 | 41,000 | 42,100 | 45,600 |
| | 15,600 | 18,200 | 20,100 | 20,300 |
| | **55,200** | **67,500** | **83,600** | **100,900** |
| **Dowden Road** | 2,700 | 3,500 | 4,800 | 6,500 |
| | 1,400 | 1,800 | 2,400 | 2,800 |
| | **53,900** | **65,800** | **81,200** | **97,200** |
| **Moss Park Road** | 6,600 | 8,600 | 11,700 | 13,500 |
| | 1,600 | 2,100 | 2,900 | 3,400 |
| | **48,900** | **59,300** | **72,400** | **87,100** |
| **Narcoossee Road** | 10,300 | 13,400 | 16,200 | 18,700 |
| | 7,800 | 10,100 | 13,700 | 15,800 |
| | **46,400** | **56,000** | **69,900** | **84,200** |

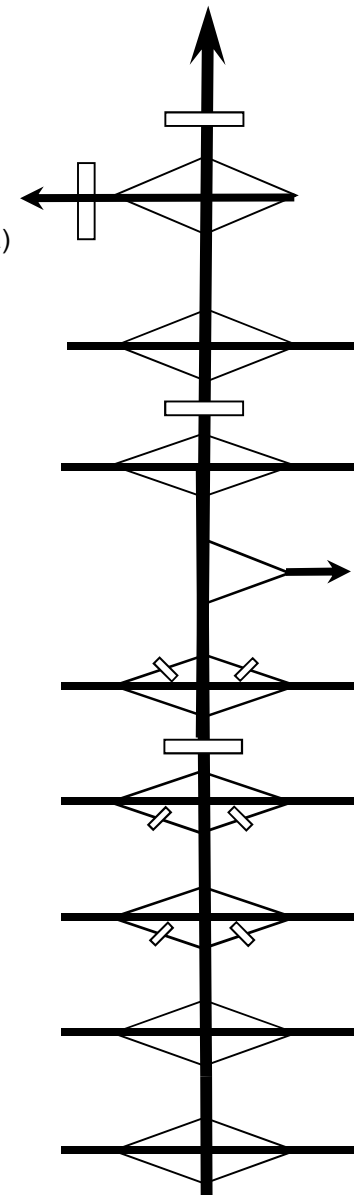
# S.R. 417 - Average Two-Way Daily Revenue Traffic

| Cross Street | FY 2016 | FY 2025 | FY 2035 | FY 2045 |
|---|---|---|---|---|
| **Lake Nona Road** | 4,500 | 5,900 | 8,000 | 11,200 |
| | 5,600 | 7,300 | 9,900 | 11,400 |
| | **47,500** | **57,400** | **71,800** | **84,400** |
| **Boggy Creek Road** | 5,100 | 6,600 | 9,000 | 12,400 |
| | 15,400 | 20,000 | 24,200 | 26,000 |
| *Boggy Creek Main* | **57,800** | **70,800** | **87,000** | **98,000** |
| **Landstar Boulevard** | 7,300 | 9,200 | 10,800 | 12,000 |
| | 12,000 | 13,400 | 13,800 | 15,400 |
| | **62,500** | **75,000** | **90,000** | **101,400** |
| **Florida's Turnpike** | 9,000 | 10,100 | 15,800 | 17,600 |
| | 2,500 | 2,800 | 3,000 | 3,300 |
| | **56,000** | **67,700** | **77,200** | **87,100** |
| **Orange Blossom Trail** | 7,400 | 9,300 | 10,900 | 12,100 |
| | 9,400 | 9,500 | 9,200 | 10,200 |
| | **58,000** | **67,900** | **75,500** | **85,200** |
| **John Young Parkway** | 9,600 | 10,800 | 12,000 | 13,400 |
| | 9,600 | 9,800 | 10,000 | 11,100 |
| *John Young Main* | **58,000** | **66,900** | **73,500** | **82,900** |
| **World Center Drive** | 26,900 | 30,100 | 32,200 | 35,900 |
| | **31,100** | **36,800** | **41,300** | **47,000** |



**To S.R. 417**
**(FL Turnpike)**

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

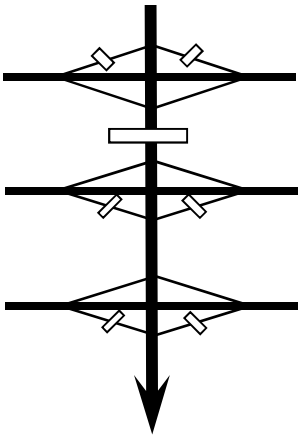



| Cross Street | 2016 | 2025 | 2035 | 2045 |
|---|---|---|---|---|
| *Mt Plymouth Main | | **7,900** | **10,400** | **13,700** |
| *S.R. 453 | | 2,800 | 3,400 | 4,900 |
| *Coronado Main* | | **9,300** | **13,000** | **16,300** |
| (To S.R. 46/Mt. Dora) | | 6,500 | 9,600 | 11,400 |
| | | **11,600** | **16,600** | **20,200** |
| Kelly Park Road | | 900 | 1,300 | 1,600 |
| | | 2,500 | 4,200 | 5,100 |
| *Ponkan Main* | | **13,200** | **19,500** | **23,700** |
| **U.S. 441** | | 1,400 | 3,100 | 3,300 |
| | | 19,000 | 20,100 | 21,500 |
| | **24,700** | **30,800** | **36,500** | **41,900** |
| **S.R. 414** | 10,000 | 12,200 | 13,900 | 15,300 |
| | 24,900 | 30,400 | 32,300 | 33,700 |
| | **39,600** | **49,000** | **54,900** | **60,300** |
| **C.R. 437A** | 1,200 | 1,500 | 2,200 | 2,900 |
| | 4,500 | 5,500 | 6,100 | 6,500 |
| *Forest Lake Main* | **42,900** | **53,000** | **58,800** | **63,900** |
| **West Road** | 1,600 | 2,000 | 2,200 | 2,400 |
| | 7,800 | 9,500 | 10,500 | 11,200 |
| | **49,100** | **60,500** | **67,100** | **72,700** |
| **S.R. 438/** | 3,600 | 4,400 | 4,900 | 5,200 |
| **Plant Street** | 8,200 | 10,000 | 11,100 | 11,900 |
| | **53,700** | **66,100** | **73,300** | **79,400** |
| **S.R. 50** | 6,500 | 7,900 | 8,800 | 9,400 |
| | 5,000 | 6,100 | 6,800 | 7,300 |
| | **52,200** | **64,300** | **71,300** | **77,300** |
| **Florida's Turnpike** | 31,400 | 38,800 | 43,100 | 46,900 |
| | 26,900 | 34,100 | 37,900 | 42,200 |

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

**Cross Street**

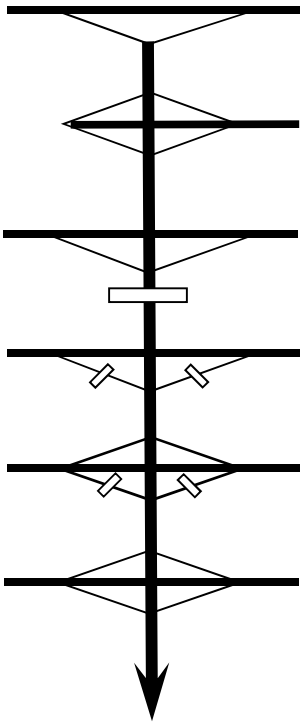
| | 2016 | 2025 | 2035 | 2045 |
|---|---|---|---|---|
| | **47,700** | **59,600** | **66,100** | **72,600** |
| **C.R. 535** | 26,200 | 30,700 | 32,000 | 33,100 |
| | 5,400 | 6,800 | 7,500 | 8,300 |
| *Independence Main* | **26,900** | **35,700** | **41,600** | **47,800** |
| **New Independence** | 3,900 | 6,400 | 8,100 | 9,900 |
| **Parkway** | 1,600 | 2,500 | 2,800 | 3,100 |
| | **24,600** | **31,800** | **36,300** | **41,000** |
| **Schofield Road** | 1,800 | 3,800 | 5,200 | 6,800 |
| | 300 | 900 | 1,000 | 1,100 |
| | **23,100** | **28,900** | **32,100** | **35,300** |



**To S.R. 429**
**(FL Turnpike)**

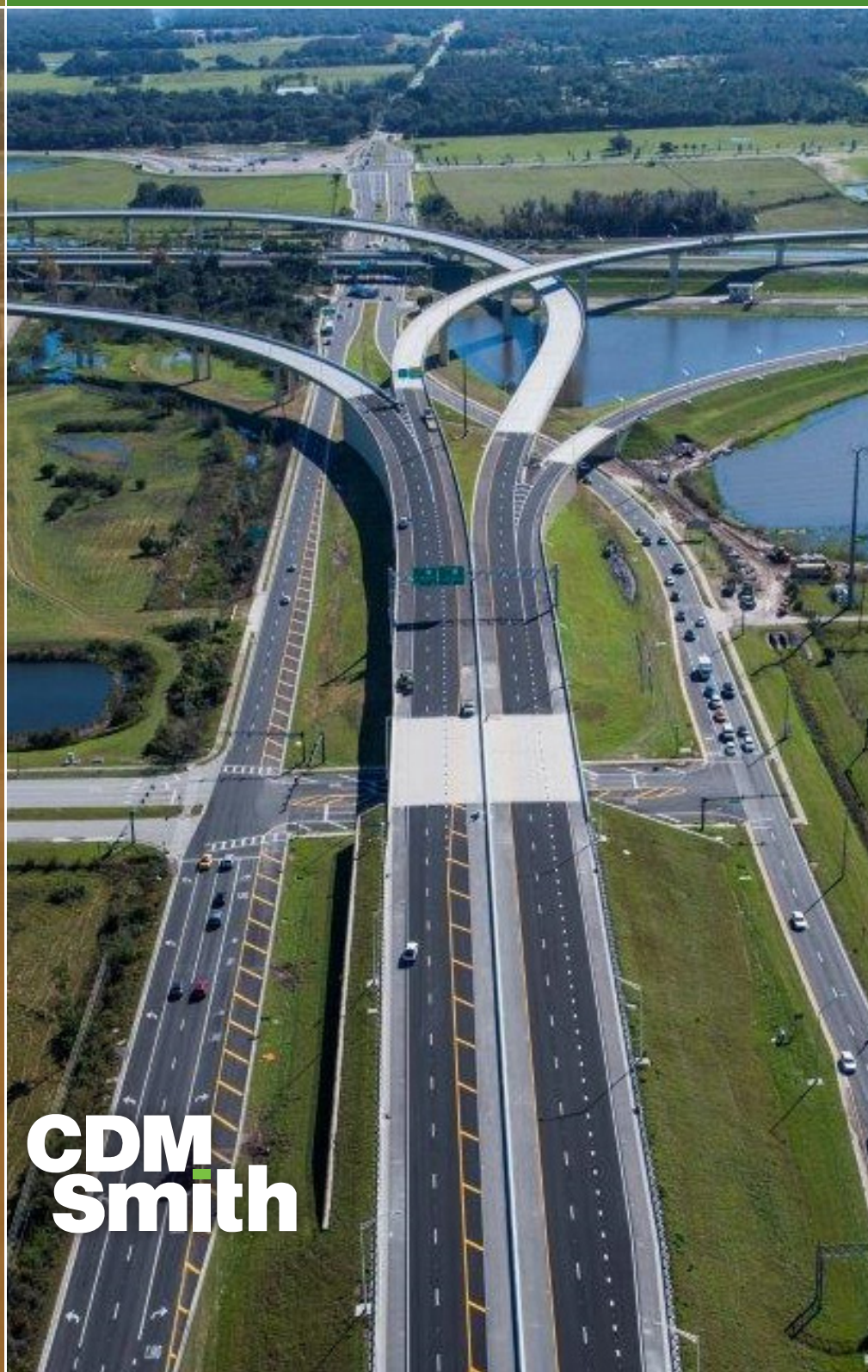
* Ponkan Main openning date of July 1, 2017 (FY 2018). Mt Plymouth Main and Coronado Main openning date January 1, 2018 (FY 2018).

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



| Cross Street | FY 2016 | FY 2025 | FY 2035 | FY 2045 |
|---|---|---|---|---|
| **S.R. 429** | | | | |
| | **34,900** | **42,100** | **45,800** | **47,700** |
| | **34,900** | **42,100** | **45,800** | **47,700** |
| **US 441 via SR 451** | 10,200 | 13,700 | 15,200 | 15,500 |
| | 1,600 | 1,700 | 1,800 | 1,800 |
| | **26,300** | **30,100** | **32,400** | **34,000** |
| **Marden Road** | | | | |
| | | 2,000 | 2,100 | 2,100 |
| *Coral Hills Main* | **26,300** | **32,100** | **34,500** | **36,100** |
| **Keene Road / C.R. 435** | 3,700 | 4,200 | 4,400 | 4,500 |
| | **30,000** | **36,300** | **38,900** | **40,600** |
| **Hiawassee Road** | 4,500 | 5,400 | 6,100 | 6,700 |
| | 4,200 | 4,700 | 4,900 | 5,000 |
| | **29,700** | **35,600** | **37,700** | **38,900** |
| **U.S. 441** | 5,200 | 6,200 | 6,900 | 7,500 |
| | 11,000 | 13,200 | 13,500 | 13,800 |
| | **35,500** | **42,600** | **44,300** | **45,200** |

**To Maitland Blvd.**



CDM Smith