

Marion County Transportation Impact Fee Update Study

FINAL REPORT
June 12, 2015



Prepared for:

Marion County

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June 12, 2015

Mr. Kevin Smith, Strategic Resources Project Manager
Marion County Growth Services Department
2710 E. Silver Springs Boulevard
Ocala, Florida 34470

Re: Marion County Transportation Impact Fee Update Study

Dear Mr. Smith:

Enclosed is the Final Technical Report of the Marion County Transportation Impact Fee Update Study. If you should have any questions concerning this report, please do not hesitate to contact me or Nilgün Kamp.

It has been a pleasure to have worked with the County staff on this important project.

Sincerely,



Steven A. Tindale, P.E., AICP
President

MARION COUNTY
TRANSPORTATION IMPACT FEE UPDATE STUDY

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Introduction

Marion County's Transportation Impact Fee was most recently updated in 2006 to assist the County in providing adequate transportation facilities for expected growth. In 2007, the adopted fee rates were adjusted resulting in an increase to the residential fee rates and a decrease to all non-residential transportation impact fees. Marion County placed a moratorium on the collection of transportation impact fees in early 2010. This suspension was extended multiple times and is now set to expire in October 2015. Marion County has retained Tindale Oliver to prepare an update study to reflect changes to the cost, credit, and demand components since 2006. It should be noted that figures calculated in this study represent the technically calculated level of impact fees that the County could charge; however, the BOCC may choose to discount the fees as a policy decision.

Following this introduction, this report provides the results of the fee analysis and consists of the following sections:

- Demand Component
- Cost Component
- Credit Component
- Calculated Transportation Impact Fee Schedule
- Transportation Impact Fee Schedule Comparison
- Transportation Benefit Districts Analysis
- Economic Growth Strategy

Methodology

The methodology used to update the Marion County's impact fee program is a consumption-based impact fee methodology, which is used throughout Florida. This methodology was also used in preparing the County's 2006 technical report. A consumption-based impact fee charges new development based upon the burden placed on services from each land use (demand), which, in the case of transportation impact fees, is measured in terms of vehicle-miles of travel (VMT). A consumption-based impact fee charges new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. In addition, per legal requirements, a credit is subtracted from the total cost to account for the value of future tax contributions of the new development toward any capacity expansion projects through other revenue sources. Contributions used to calculate the credit

component include estimates of future non-impact fee revenues generated by the new development that will be used toward capacity expansion projects. In other words, case law requires that the new development should not be charged twice for the same service.

Legal Standard Overview

In Florida, legal requirements related to impact fees have primarily been established through case law since the 1980's. Generally speaking, impact fees must comply with the "dual rational nexus" test, which requires that they:

- Be supported by a study demonstrating that the fees are proportionate in amount to the need created by new development paying the fee; and
- Be spent in a manner that directs a proportionate benefit to new development, typically accomplished through establishment of benefit districts and a list of capacity-adding projects included in the County's Capital Improvement Plan, Capital Improvement Element, or another planning document/Master Plan.

In 2006, the Florida legislature passed the "Florida Impact Fee Act," which recognized impact fees as "an outgrowth of home rule power of a local government to provide certain services within its jurisdiction." § 163.31801(2), Fla. Stat. The statute – concerned with mostly procedural and methodological limitations – did not expressly allow or disallow any particular public facility type from being funded with impact fees. The Act did specify procedural and methodological prerequisites, such as the requirement of the fee being based on most recent and localized data, a 90-day requirement for fee changes, and other similar requirements, most of which were common to the practice already.

More recent legislation further affected the impact fee framework in Florida, including the following:

- **HB 227 in 2009:** The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.
- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of

Community Affairs (now the Department of Economic Opportunity) and Florida Department of Transportation (FDOT) to conduct studies on “mobility fees,” which were completed in 2010.

- **HB 7207 in 2011:** Required a dollar-for-dollar credit, for purposes of concurrency compliance, for impact fees paid and other concurrency mitigation required. The payment must be reduced by the percentage share the project’s traffic represents of the added capacity of the selected improvement (up to a maximum of 20 percent or to an amount specified by ordinance, whichever results in a higher credit).
- **HB 319 in 2013:** Applied mostly to concurrency management authorities, but also encouraged local governments to adopt alternative mobility systems using a series of tools identified in section 3180(5)(f), Florida Statutes, including:
 1. Adoption of long-term strategies to facilitate development patterns that support multimodal solutions, including urban design, and appropriate land use mixes, including intensity and density.
 2. Adoption of an area-wide level of service not dependent on any single road segment function.
 3. Exempting or discounting impacts of locally desired development, such as development in urban areas, redevelopment, job creation, and mixed use on the transportation system.
 4. Assigning secondary priority to vehicle mobility and primary priority to ensuring a safe, comfortable, and attractive pedestrian environment, with convenient interconnection to transit.
 5. Establishing multimodal level of service standards that rely primarily on non-vehicular modes of transportation where existing or planned community design will provide adequate level of mobility.
 6. Reducing impact fees or local access fees to promote development within urban areas, multimodal transportation districts, and a balance of mixed-use development in certain areas or districts, or for affordable or workforce housing.

Also, under HB 319, a mobility fee funding system expressly must comply with the dual rational nexus test applicable to traditional impact fees. Furthermore, any mobility fee revenues collected must be used to implement the local government’s plan, which served as the basis for the fee. Finally, under HB 319, an alternative mobility system, that is not mobility fee-based, must not impose upon new development any responsibility for funding an existing transportation deficiency.

At this time, Marion County is not interested in implementing a mobility fee due to the suburban/rural nature of the county and because there are several roadway projects that still need funding.

The following paragraphs provide further detail on the generally applicable legal standards applicable here.

Impact Fee Definition

- An impact fee is a one-time capital charge levied against new development.
- An impact fee is designed to cover the portion of the capital costs of infrastructure capacity consumed by new development.
- The principle purpose of an impact fee is to assist in funding the implementation of projects identified in the Capital Improvements Element (CIE) and other capital improvement programs for the respective facility/service categories.

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established as a condition for improving property and is not established for the primary purpose of generating revenue, as are taxes.
- Impact fee expenditures must convey a proportional benefit to the fee payer. This is accomplished through the establishment of benefit districts, where fees collected in a benefit district are spent in the same benefit district. Marion County has four transportation impact fee benefit districts (a review and analysis of these districts is detailed in a subsection of this report).
- An impact fee must be tied to a proportional need for new infrastructure capacity created by new development.

Included in this document is the necessary support material used in the calculation of the transportation impact fee. The general equation used to compute the impact fee for a given land use is:

$$\mathbf{[Demand \times Cost] - Credit = Fee}$$

The demand for travel placed on the transportation system is expressed in units of VMT (daily vehicle-trip generation rate times the trip length times the percent new trips [of total trips])

for each residential and non-residential land use contained in the impact fee schedule. The trip generation is expressed in average daily rates since new development consumes trips on a daily basis. The demand component is based on trip characteristics studies conducted at different land uses, measuring the impact of each land use on roadway capacity.

The cost of building new capacity typically is expressed in units of dollars per vehicle mile or lane mile of roadway capacity. The credit is an estimate of the current value of future non-impact fee revenues generated by new development that are allocated to transportation capacity expansion construction projects. Thus, the impact fee is an “up front” payment for a portion of the cost of building a lane mile of capacity directly related to the amount of capacity consumed by each unit of land use contained in the impact fee schedule that is not paid for by future tax revenues generated by new development.

It should be noted that the information used to develop the impact fee schedule was based on the most recent, reliable, and localized data available. The following input variables were used in the fee equation:

Demand Variables:

- Trip generation rate
- Trip length
- Percent new trips
- Interstate & toll facility discount factor

Cost Variables:

- Cost per lane mile
- Capacity added per lane mile

Credit Variables:

- Equivalent gas tax credit (pennies)
- Present worth
- Fuel efficiency
- Effective days per year

A review of impact fee variables and corresponding recommendations are presented in the following sections.

Demand Component

Travel Demand

The amount of transportation system consumed by a unit of new land development is calculated using the following variables and is measured in terms of the vehicle miles of new travel a unit of development consumes on the existing road system.

- Number of daily trips generated;
- Average length of those trips; and
- Proportion of travel that is new travel, rather than travel that is already traveling on the road system and is captured by new development.

As part of this update, the trip characteristics variables were obtained primarily from two sources: (1) trip characteristics studies previously conducted throughout Florida (Florida Studies Database), and (2) the Institute of Transportation Engineers' (ITE) *Trip Generation* report (9th edition).

The Florida Studies Database is included in Appendix A. This database was used to determine VMT, which is developed from trip length, percent new trips, and trip rate for most land uses in the fee schedule. The data in the trip characteristics database is based on actual land use studies and was collected throughout Florida using machine traffic counts and site specific land use origin-destination surveys. In addition, trip generation data from the *ITE 9th Edition Trip Generation* report was used. In instances where trip generation was available from the *ITE Trip Generation* report and the Florida Studies Database, a blended average calculation was used to increase the sample size.

Interstate & Toll Facility Discount Factor

This variable is used to recognize that improvements to Interstate highways are funded by the State using earmarked and Federal funds, while toll facility improvements are funded with toll revenues. Typically, impact fees are not used to pay for these improvements, and the portion of new development's travel occurring on the interstate/toll facility system usually is eliminated from the total travel for each land use.

To calculate the interstate and toll (I/T) facility discount factor, the loaded highway network file was generated for the Central Florida Regional Planning Model v5.01 (CFRPMv51). A select link analysis was run for all traffic analysis zones located within Marion County in order

to differentiate trips with an origin and/or destination within the county versus trips with no origin or destination within the county.

Currently, the only interstate/toll facility in Marion County is Interstate 75. The limited access vehicle-miles of travel (Limited Access VMT) for trips with an origin and/or destination within Marion County was calculated for Interstate 75. The total Marion County VMT was calculated for all trips with an origin and/or destination within Marion County for all roads, including limited access roads, located within Marion County.

The I/T discount factor of 12.0 percent was determined by dividing the total Limited Access VMT (that has a start or termination point in the county) by the total Marion County VMT (that has a start or termination point within the county). By applying this factor, the total VMT for each land use is reduced. This adjusted VMT is representative of travel on the roadways that are eligible to be funded with impact fee revenues. Appendix A, Table A-1 provides further detail on this calculation.

Trip Length Adjustment Factor

This variable is used to adjust the average trip length obtained from the Florida Studies Database when the trip lengths in a jurisdiction appear significantly different than the average trip length observed in other jurisdictions. Using the Central Florida Regional Planning Model, the average trip lengths for Marion County were calculated for different trip types, including home-based work, home-based shopping, and home-based social/recreation, among others. These model trip lengths suggested that trip lengths in Marion County are typically longer than trip lengths observed in other counties throughout Florida. As such, residential land uses (including hotels and motels) were increased by 15 percent and the trip lengths for non-residential land uses were increased by five (5) percent.

Cost Component

Construction costs increased significantly in Florida between 2005 and 2007 due to additional construction demand caused by hurricanes, the housing market growth, and other factors. Appreciation in land values also resulted in higher right-of-way (ROW) costs during the same period. In early 2008, costs started to stabilize and between 2008 and 2011 most communities experienced a decrease in construction costs, returning to levels seen before 2005. In 2013/2014, roadway costs started to increase again in Florida. Cost information from Marion County, other Florida Counties, and the Florida Department of Transportation (FDOT) was reviewed to develop a unit cost for all phases involved in the construction of one lane-mile of roadway capacity. The findings were also discussed with the County staff to obtain additional input. The following subsections summarize the methodology and findings of the total unit cost analysis for county and state roads. Appendix B provides the data and other support information utilized in these analyses.

County Roadway Costs

This section examines the right-of-way (ROW), construction, and other cost components associated with county roads with respect to transportation capacity improvements in Marion County. For this purpose, recent bid data for ongoing projects provided by the County and recent construction bid data from county roadway projects throughout Florida were used to identify and provide supporting cost data for county improvements. The cost for each roadway capacity project was separated into four phases: design, construction/engineering inspection (CEI), ROW and construction.

Design and CEI

Design costs for county roads were estimated at 10 percent of construction phase costs based on a review of recent local improvements and cost data collected throughout Florida. Additional detail is provided in Appendix B, Tables B-10 and B-11.

CEI costs for county roads were estimated at 3 percent of construction phase costs based on input provided by the County staff. This percentage represents local conditions and is very conservative and reflects savings achieved from completing this task internally. CEI percentage levels that have been observed in recent impact fee studies for other jurisdictions in Florida range from four (4) percent to 14 percent while the local CEI cost percentage in Marion County is below the low end of this range. Additional detail is provided in Appendix B, Tables B-18 and B-19.

Right-of-Way

The ROW cost reflects the total cost of the acquisitions along a corridor that were necessary to have sufficient cross-section width to widen an existing road or, in the case of new construction, to build a new road. A review of recent ROW cost data for Marion County identified seven (7) recent improvements with acquisition data. Using the construction costs for these improvements, a ROW-to-construction factor was calculated for each improvement, ranging from 21 to 92 percent, with a weighted average of approximately 60 percent. This calculated local factor was slightly higher than county road ROW factors observed in recent impact fee studies throughout Florida, but, based on discussions with County staff, it is reflective of recent and expected ROW acquisition costs. As seen in Table 1, this amount is equal to approximately \$1.00 million per lane mile for county roads. Additional detail is provided in Appendix B, Tables B-12 and B-13.

Construction

The construction cost for county roads was based on a review of local and statewide projects. A review of recent construction cost data for Marion County identified 10 recent capacity expansion improvements averaging \$1.65 million per lane mile, as shown in Appendix B, Table B-14.

In addition to local improvements, recent bids from multiple communities throughout the state were also reviewed. This review included more than 440 lane miles of urban design roadway improvements from 17 counties and calculated an average cost of \$2.11 million per lane mile. Appendix B, Table B-15 provides a detailed description of the projects reviewed.

Based on this review and a discussion with staff, a county roadway cost of \$1.70 million per lane mile was used in the transportation impact fee calculation for county roads with urban design characteristics. This estimate relies heavily on the recently bid local projects which indicate that roadway construction in Marion County has been consistently less expensive than other jurisdictions in Florida, as shown in Table B-15.

To determine the cost per lane mile for county roads with rural design characteristics, the relationship between urban and rural roadway costs from the FDOT District 7 Long Range Estimates (LRE)¹ was reviewed. Based on these cost estimates, the costs for roadways with rural design characteristics were estimated at approximately 81 percent of the costs for

¹ This data was not available for FDOT District 5; <http://www.dot.state.fl.us/planning/policy/costs/>

roadways with urban design characteristics. Additional detail is provided in Appendix B, Table B-1.

To determine the weighted average cost for county roadways, the costs for urban design and rural design roadways were weighted based on the distribution of urban design and rural design roadways included in the County’s 2035 Long Range Transportation Plan’s Cost Feasible Plan (Appendix B, Table B-20). As show in Table 1, the weighted average county roadway construction cost was calculated at approximately \$1.67 million per lane mile and the total cost at \$2.89 million per lane mile for county roadways.

Table 1
Estimated Total Cost per Lane Mile for County Roads

Cost Phase	Cost per Lane Mile		
	Urban Design	Rural Design	Weighted Average ⁽⁶⁾
Design ⁽¹⁾	\$170,000	\$138,000	\$167,000
Right-of-Way ⁽²⁾	\$1,020,000	\$826,000	\$1,001,000
Construction ⁽³⁾	\$1,700,000	\$1,377,000	\$1,668,000
CEI ⁽⁴⁾	\$51,000	\$41,000	\$50,000
Total Cost	\$2,941,000	\$2,382,000	\$2,886,000
Lane Mile Distribution ⁽⁵⁾	90%	10%	100%

(1) Source: Appendix B, Table B-2

(2) Source: Appendix B, Table B-4

(3) Source: Appendix B, Table B-6

(4) Source: Appendix B, Table B-8

(5) Source: Appendix B, Table B-20, Items (c) and (d)

(6) Lane mile distribution (Item 5) multiplied by the design, ROW, construction, and CEI phase costs by section design to develop a weighted average cost per lane mile

All figures rounded to nearest \$1,000

State Roadway Costs

This section examines the ROW, construction, and other cost components associated with state roads with respect to transportation capacity improvements in Marion County. For this purpose, recent data from state roadway projects bid in Marion County and throughout Florida and the FDOT’s Long Range Estimates (LRE) were used to identify and provide supporting cost data for state improvements. The cost for each roadway capacity project was separated into four phases: design, CEI, ROW and construction.

Design and CEI

Design costs for state roads were estimated at 11 percent of construction phase costs based on a review of cost data collected for recent transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-11.

CEI costs for state roads were also estimated at 11 percent of construction phase costs based on a review of cost data collected for recent transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-19.

Right-of-Way

Given the limited data on ROW costs for state roads in Marion County and based on experience in other jurisdictions, the ROW cost ratio calculation for county roads was also applied to state roads. Using this ROW-to-construction ratio of 60 percent, the ROW cost for state roads with urban design characteristics is approximately \$1.26 million per lane mile.

Construction

A review of recent state road capacity improvements in Marion County identified six historical and one future capacity expansion improvements, as shown in Appendix B, Table B-16.

- SR 45 (US 41) from S. of Powell Rd to 0.42 miles N. of 111th Place Lane
- SR 40 from SW 80th Ave (CR 225A) to SW 52nd Ave
- CR 484 from 2200'E of I-75 to SE 47th Ave/SE 135th St
- SR 35 (US 301) from Sumter County Line to 529'S of CR 42
- SR 35 (Baseline Rd) from Maricamp Rd (SR 464) to SR 40 (Silver Springs)
- SR 40 from CR 328 to SW 80th Ave (CR 225A)
- US 41 from SW 111th Place Lane to SR 40

To compare the local improvements with improvements from other communities and to compare with the county roadway cost, all project costs were converted to an equivalent urban (curb & gutter) design costs. With several of these improvements having rural (open drainage) design characteristics, the construction costs were adjusted to estimate an equivalent urban cost using the rural/urban design cost ratio provided in Appendix B, Table B-1. Based on these adjusted construction costs, the weighted average construction cost per lane mile for local improvements was approximately \$2.38 million. An additional cost scenario was reviewed that did not consider the US 41 future estimate and returned a weighted average cost of approximately \$2.11 million per lane mile.

In addition to local improvements, recent bids from multiple communities throughout the state were also reviewed. This review included more than 325 lane miles of urban design roadway improvements from 30 counties and calculated an average cost of \$2.73 million per lane mile. Appendix B, Table B-17 provides a detailed description of the projects reviewed.

Based on this review and a discussion with staff, a state roadway cost of \$2.10 million was used in the transportation impact fee calculation for state roads with urban design characteristics. This estimate relies heavily on the recently bid local projects which indicate that roadway construction in Marion County has been consistently less expensive than other jurisdictions in Florida. The omission of the US 41 estimate from the weighted average cost reflects a conservative approach to the state road cost analysis.

To determine the cost per lane mile for state roads with rural design characteristics, the relationship between urban and rural roadway costs for state roadways was reviewed. With only limited local data available and no readily available data from FDOT District 5, this recent data from the FDOT District 7 Long Range Estimates (LRE)² was reviewed. Based on these cost estimates, the costs for roadways with rural design characteristics were estimated at approximately 81 percent of the costs for roadways with urban design characteristics. Additional detail is provided in Appendix B, Table B-1.

To determine the weighted average cost for state roadways, the costs for urban design and rural design roadways were weighted based on the distribution of urban design and rural design roadways included in the County's 2035 Long Range Transportation Plan's Cost Feasible Plan (Appendix B, Table B-20). As show in Table 2, the weighted average state roadway construction cost was calculated at approximately \$2.06 million per lane mile resulting in a total cost of \$3.75 million per lane mile for state roadways.

² This data was not available for FDOT District 5; <http://www.dot.state.fl.us/planning/policy/costs/>

Table 2
Estimated Total Cost per Lane Mile for State Roads

Cost Phase	Cost per Lane Mile		
	Urban Design	Rural Design	Weighted Average ⁽⁶⁾
Design ⁽¹⁾	\$231,000	\$187,000	\$227,000
Right-of-Way ⁽²⁾	\$1,260,000	\$1,021,000	\$1,236,000
Construction ⁽³⁾	\$2,100,000	\$1,701,000	\$2,060,000
CEI ⁽⁴⁾	\$231,000	\$187,000	\$227,000
Total Cost	\$3,822,000	\$3,096,000	\$3,750,000
Lane Mile Distribution ⁽⁵⁾	90%	10%	100%

(1) Source: Appendix B, Table B-3

(2) Source: Appendix B, Table B-5

(3) Source: Appendix B, Table B-7

(4) Source: Appendix B, Table B-9

(5) Source: Appendix B, Table B-20, Items (c) and (d)

(6) Lane mile distribution (Item 5) multiplied by the design, ROW, construction, and CEI phase costs by section design to develop a weighted average cost per lane mile

All figures rounded to nearest \$1,000

Summary of Costs (Blended Cost Analysis)

The weighted average cost per lane mile for county and state roads is presented in Table 3. The resulting weighted average cost of approximately \$3.14 million per lane mile was utilized as the roadway cost input in the calculation of the transportation impact fee schedule. The weighted average cost per lane mile includes county and state roads and is based on weighting the lane miles of roadway improvements in the Long Range Transportation Plan's (LRTP) Cost Feasible Plan.

Table 3
Estimated Cost per Lane Mile
for County and State Roadway Projects in Marion County

Cost Type	County Roads ⁽¹⁾	State Roads ⁽²⁾	County and State Roads ⁽³⁾
Design	\$167,000	\$227,000	\$184,000
Right-of-Way	\$1,001,000	\$1,236,000	\$1,069,000
Construction	\$1,668,000	\$2,060,000	\$1,782,000
CEI	\$50,000	\$227,000	\$101,000
Total	\$2,886,000	\$3,750,000	\$3,136,000
Lane Mile Distribution ⁽⁴⁾	71%	29%	100%

(1) Source: Table 1

(2) Source: Table 2

(3) Lane mile distribution (Item 4) multiplied by the design, ROW, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile

(4) Source: Appendix B, Table B-20, Items (a) and (b)

All figures rounded to nearest \$1,000

Capacity Added per Lane Mile

An additional component of the transportation impact fee equation is the capacity added per lane mile (also known as the maximum service volume added per mile) of roadway constructed. To calculate the vehicle miles of capacity (VMC) per lane mile of constructed future roadway, an analysis of the 2035 LRTP cost feasible projects (see Appendix B, Table B-20) was conducted to reflect the mix of county and state road improvement that will be built in the future. As shown in Table 4, the resulting average capacity per lane mile calculated based on these projects is 8,845.

Table 4
Weighted Average Vehicle-Miles of Capacity per Lane Mile

Source	Lane Mile Added ⁽¹⁾	Vehicle Miles of Capacity Added ⁽²⁾	VMC Added per Lane Mile ⁽³⁾
County Roads	141.06	1,174,024	8,323
State Roads	56.86	576,547	10,140
Total	197.92	1,750,571	
Weighted Average VMC Added per Lane Mile⁽⁴⁾			8,845

(1) Source: Appendix B, Table B-20

(2) Source: Appendix B, Table B-20

(3) Vehicle miles of capacity added (Item 2) divided by lane miles added (Item 1)

(4) Total vehicle miles of capacity added for county and state roads (Item 2) divided by the total lane miles added (Item 1)

Cost per Vehicle-Mile of Capacity Added

The impact fee cost per unit of development is assessed based on the cost per vehicle-mile of capacity. As shown in Tables 3 and 4, the cost and capacity for county and state roads have been calculated based on typical roadway improvements. As shown in Table 5, the cost per VMC for travel within Marion County is approximately \$355. This average cost per VMC figure is used in the impact fee calculation to determine the total impact cost per unit of development based on the vehicle-miles of travel consumed. For each vehicle-mile of travel that is added to the road system, approximately \$355 of roadway capacity is consumed.

Table 5
Weighted Average Cost per Vehicle-Mile of Capacity Added

Source	Cost per Lane Mile ⁽¹⁾	Average VMC Added per Lane Mile ⁽²⁾	Cost per VMC ⁽³⁾
County Roads	\$2,886,000	8,323	\$346.75
State Roads	\$3,750,000	10,140	\$369.82
Weighted Average	\$3,136,000	8,845	\$354.55

(1) Source: Table 3

(2) Source: Table 4

(3) Cost per lane mile (Item 1) divided by average capacity added per lane mile (Item 2)

It is important to note that capacity projects eligible for impact fee funding include not only new construction and lane additions, but also associated intersection improvements, traffic signalization, and other amenities and technology improvements that allow for additional vehicle capacity.

Credit Component

Gasoline Tax Equivalent Credit

The present value of the portion of future non-impact fee revenues (converted to equivalent gasoline taxes) generated by a new development over a 25-year period that is projected to be expended on capacity expansion projects is credited against the cost of the system consumed by travel associated with new development.

County

A review of the County's historical roadway financing program and the FY 2015-2019 Transportation Improvement Program (TIP) shows that roadway projects are primarily funded by a combination of transportation impact fees, fuel tax bonds, and fuel taxes. As shown in Table 6, a total gas tax equivalent revenue credit of 2.2 pennies was calculated for gas tax equivalent expenditures on roadway capacity expansion projects.

In addition, Marion County is currently using gas tax revenues to retire debt on the Series 2009A and Series 2010 public improvement revenue bonds, with all of the bond revenues dedicated to roadway capacity expansion improvements. As show in Table 6, a gas tax equivalent revenue credit of 2.8 pennies was calculated for county debt service expenditures.

State

State expenditures on state roads were reviewed, and a credit for the capacity expansion portion attributable to state projects was estimated. The equivalent number of pennies allocated to fund state projects was determined from projects spanning a 15-year period (FY 2006 to FY 2020). This period represents past expenditures (from FY 2006 to FY 2014) and projected expenditures (from FY 2015 to 2020) from the FDOT Work Programs. A list of capacity-adding roadway projects was developed, including lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, and other capacity-addition projects. This review (summarized in Appendix C, Table C-4) indicates that FDOT spending generates an equivalent gas tax credit of 17.7 pennies of gas tax revenue annually.

In summary, Marion County contributes approximately 5.0 pennies toward roadway capacity expansion projects, while the State spends an average of 17.7 pennies for state roadway projects in Marion County. Therefore, a total of 22.7 pennies of revenue credit are included

in the impact fee calculation to recognize the future capital revenue that is expected to be generated by new development from all non-impact fee revenues, as shown in Table 6.

Table 6
Equivalent Pennies of Gas Tax Revenue

Credit	Equivalent Pennies per Gallon
County Revenues ⁽¹⁾	\$0.022
County Debt Service ⁽²⁾	\$0.028
State Revenues ⁽³⁾	<u>\$0.177</u>
Total	\$0.227

(1) Source: Appendix C, Table C-2

(2) Source: Appendix C, Table C-3

(3) Source: Appendix C, Table C-4

Present Worth Variables

Facility Life

The roadway facility life used in the impact fee analysis is 25 years, which represents the reasonable life of a roadway.

Interest Rate

This is the discount rate at which gasoline tax revenues might be bonded. It is used to compute the present value of the gasoline taxes generated by new development. The discount rate of 3.75 percent was used in the transportation impact fee calculation based on information provided by Marion County.

The 25-year facility life and 3.75 percent interest rate result in a uniform series present worth factor is 16.0432.

Fuel Efficiency

The fuel efficiency (i.e., the average miles traveled per gallon of fuel consumed) of the fleet of motor vehicles was estimated using the quantity of gasoline consumed by travel associated with a particular land use.

Appendix C, Table C-10 documents the calculation of fuel efficiency value based on the following equation, where “VMT” is vehicle miles of travel and “MPG” is fuel efficiency in terms of miles per gallon.

$$Fuel\ Efficiency = \sum VMT_{RoadwayType} \div \sum \left(\frac{VMT_{VehicleType}}{MPG_{VehicleType}} \right)_{RoadwayType}$$

The methodology uses non-interstate VMT and average fuel efficiency data for passenger vehicles (i.e., passenger cars and other 2-axle, 4-tire vehicles, such as vans, pickups, and SUVs) and large trucks (i.e., single-unit, 2-axle, 6-tire or more trucks and combination trucks) to calculate the total gallons of fuel used by each of these vehicle types.

The combined total VMT for the vehicle types is then divided by the combined total gallons of fuel consumed to calculate, in effect, a “weighted” fuel efficiency value that reflects the existing fleet mix of traffic on non-interstate roadways. The VMT and average fuel efficiency data were obtained from the most recent Federal Highway Administration’s *Highway Statistics 2012*. Based on the calculation completed in Appendix C, Table C-10, the fuel efficiency rate to be used in the updated impact fee equation is 18.43 miles per gallon.

Effective Days per Year

An effective 365 days per year of operation was assumed for all land uses in the proposed fee. However, this will not be the case for all land uses since some uses operate only on weekdays (e.g., office buildings) and/or only seasonally (e.g., schools). The use of 365 days per year, therefore, provides a conservative estimate, ensuring that gasoline taxes are adequately credited against the fee.

Calculated Transportation Impact Fee Schedule

The impact fee calculations for each land use are included in Appendix D, which includes the major land use categories and the impact fees for the individual land uses contained in each of the major categories. For each land use, Appendix D illustrates the following:

- Demand component variables (trip rate, trip length, and percent of new trips)
- Total impact fee cost
- Annual gas tax credit
- Present value of the gas tax credit
- Net transportation impact fee
- Current Marion County impact fee
- Percent difference between the calculated impact fee and the current adopted impact fee

It should be noted that the net impact fee illustrated in Appendix D is not necessarily a recommended fee, but instead represents the technically calculated impact fee per unit of land use that could be charged in Marion County.

For clarification purposes, the calculation of an impact fee for one land use category is presented. In the following example, the net impact fee is calculated for the single-family residential detached land use category (ITE LUC 210) using information from the impact fee schedule included in Appendix D, Table D-1. For each land use category, the following equations are utilized to calculate the net impact fee:

$$\text{Net Impact Fee} = \text{Total Impact Cost} - \text{Gas Tax Credit}$$

Where:

$$\text{Total Impact Cost} = ([\text{Trip Rate} \times \text{Assessable Trip Length} \times \% \text{ New Trips}] / 2) \times (1 - \text{Interstate \& Toll Facility Disc. Factor}) \times (\text{Cost per Vehicle-Mile of Capacity})$$

$$\text{Gas Tax Credit} = \text{Present Value (Annual Gas Tax), given 3.75\% interest rate \& 25-year facility life}$$

Annual Gas/Sales Tax = $([\text{Trip Rate} \times \text{Total Trip Length} \times \% \text{ New Trips}] / 2) \times (\text{Effective Days per Year} \times \$/\text{Gallon to Capital}) / \text{Fuel Efficiency}$

Each of the inputs has been discussed previously in this document; however, for purposes of this example, brief definitions for each input are provided in the following paragraphs, along with the actual inputs used in the calculation of the fee for the single-family detached residential land use category:

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.81)
- *Assessable Trip Length* = the actual average trip length for the category, in vehicle-miles (7.61)
- *Total Trip Length* = the assessable trip length plus an adjustment factor of half a mile, which is added to the trip length to account for the fact that gas taxes are collected for travel on all roads including local roads (7.61 + 0.50 = 8.11)
- *% New Trips* = adjustment factor to account for trips that are already on the roadway (100%)
- *Divide by 2* = the total daily miles of travel generated by a particular category (i.e., rate*length*% new trips) is divided by two to prevent the double-counting of travel generated between two land use codes since every trip has an origin and a destination
- *Interstate & Toll Facility Discount Factor* = discount factor to account for the travel demand occurring on interstate highways and/or toll facilities (12.0%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in \$/lane-mile (\$3,136,000)
- *Average Capacity Added per Lane Mile* = represents the average daily traffic on one travel lane at capacity for one lane mile of roadway, in vehicles/lane-mile/day (8,845)
- *Cost per Vehicle-Mile of Capacity* = unit of vehicle-miles of capacity consumed per unit of development. Cost per lane mile divided by average capacity added per lane mile (\$3,136,000 / 8,845 = \$354.55)
- *Present Value* = calculation of the present value of a uniform series of cash flows, gas tax payments in this case, given an interest rate, “i,” and a number of periods, “n;” for 3.75% interest and a 25-year facility life, the uniform series present worth factor is 16.0432
- *Effective Days per Year* = 365 days
- *\$/Gallon to Capital* = the amount of gas tax revenue per gallon of fuel that is used for capital improvements, in \$/gallon (\$0.227)
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.43)

Transportation Impact Fee Calculation

Using these inputs, a net impact fee can be calculated for the single-family residential detached land use category as follows:

$$\text{Total Impact Cost} = ([7.81 * 7.61 * 1.0] / 2) * (1 - 0.12) * (\$3,136,000 / 8,845) = \$9,272$$

$$\begin{aligned} \text{Annual Credit for Gas Tax and Other Sources} &= ([7.81 * 8.11 * 1.0] / 2) * 365 * (\$0.227 / 18.43) \\ &= \$142 \end{aligned}$$

$$\text{Gas Tax Credit} = \$142 * 16.0432 = \$2,278$$

$$\text{Net Impact Fee} = \$9,272 - \$2,278 = \$6,994$$

Transportation Impact Fee Comparison

A comparison of calculated fee schedule to the current adopted fee by land use is presented in Table 7. The detailed fee schedule that includes the calculations shown above for all land uses is presented in Appendix D, Table D-1.

**Table 7
Transportation Impact Fee Comparison**

Land Use	Unit ⁽²⁾	Marion County		Levy County ⁽⁵⁾	Citrus County ⁽⁶⁾	Sumter County ⁽⁷⁾	Lake County ⁽⁸⁾	Volusia County ⁽⁹⁾	Alachua County ⁽¹⁰⁾
		Calculated ⁽³⁾	Existing ⁽⁴⁾						
Date of Last Update		2015	2007	2005	2010	2008	2013	2003	n/a
Assessed Portion of Calculated ⁽¹⁾		100%	57.6%	100%	50%	50%	70%	68%	n/a
Residential:									
Single Family Detached (2,000 sq ft)	du	\$6,994	\$6,099	\$1,046	\$1,985	\$2,600	\$2,706	\$2,174	\$4,146
Non-Residential:									
Light Industrial	1,000 sf	\$4,048	\$2,121	\$709	\$628	\$1,584	\$1,505	\$1,220	\$2,857
Office (50,000 sq ft)	1,000 sf	\$6,391	\$2,027	\$995	\$1,803	\$3,591	\$2,623	\$2,310	\$4,275
Retail (125,000 sq ft)	1,000 sf	\$9,592	\$1,565	\$1,710	\$1,487	\$3,637	\$3,080	\$3,080	\$6,062
Bank w/Drive-In	1,000 sf	\$21,367	\$7,376	\$3,436	\$1,487	\$8,528	\$3,080	\$10,960	\$13,409
Fast Food w/Drive-Thru	1,000 sf	\$71,091	\$15,963	\$4,111	\$1,487	\$29,136	\$3,080	\$23,010	\$17,293

(1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered/increased through annual indexing or policy discounts. Does not account for moratoriums/suspensions

(2) du = dwelling unit

(3) Source: Appendix D, Table D-1

(4) Source: Marion County Planning Department. Moratorium in effect through October 2015

(5) Source: Levy County Community Development Department

(6) Source: Citrus County Planning & Development Department

(7) Source: Sumter County Planning & Development Services

(8) Source: Lake County Growth Management Department. Fees shown are for "South Benefit District"

(9) Source: Volusia County Growth and Resource Management Department. Fees were adopted at 68% and have been indexed since adoption

(10) Source: Alachua County Department of Growth Management

Transportation Impact Fee Benefit Districts

Currently, Marion County has four transportation impact fee districts, as outlined in Section 10-325 (Exhibit B) of the County's Code of Ordinances. Benefit districts dictate where impact fee revenues can be spent to ensure that fee payers receive the associated benefit. Typically, these boundaries are based on land uses, growth rates, major roadway boundaries, and major geographical/environmental boundaries.

As part of the update study, Tindale Oliver conducted a review of the existing fee district boundaries (see Map 1). More specifically, the following was reviewed:

- Preservation (non-developable) land to identify the County's activity areas;
- Urban Growth Boundary;
- Municipal boundaries;
- Historical transportation impact fee revenue collections;
- Location of roadway improvements in the County's 5-year plan; and
- Location of roadway improvements in the County's 20-year plan (LRTP).

The impact fee revenue and expenditure amounts were reviewed to determine the effectiveness of the existing boundaries in terms of achieving the necessary funding for the needs in a given district. Since 1999, the transportation impact fee revenues collections have been distributed as follows:

- Zone 1 – 11.7%
- Zone 2 – 9.4%
- Zone 3 – 33.1%
- Zone 4 – 45.8%

This revenue distribution indicates that the majority of recent development has taken place in the southern half of the county. The County's 2035 Long Range Transportation Plan's Cost Feasible Plan shows the majority of roadway capacity expansion improvements are planned for the southern portion of the County, as well, with a few projects planned in the northern two districts, but within the County's urban growth boundary and near the City of Ocala. With the current districts, future capacity expansion and intersection needs that arise in Zone 1 and Zone 2 will potentially face funding issues.

In terms of historical collections, Zones 3 and 4 generated over 75 percent of the County's transportation impact fee revenues. This distribution increases the County's ability to fund

improvements in South Ocala and South County, but funding in North Ocala and North County is more limited and may not be sufficient for any large scale projects, if needed. While the Marion County 2035 Long Range Transportation Plan's Cost Feasible Plan indicates that the majority of planned improvements are located in the southern part of the County, there are several improvements planned for North Ocala and North County that would benefit from increased impact fee funding.

The current district alignments also create an uneven distribution of developable land area for use. Based on Map 1 it would appear that the original districts were drawn to develop four relatively similar sized districts. However, this land area distribution does not account for the large amount of undevelopable conservation/preservation that comprises the eastern portion of the County. Map 2 illustrates the existing benefit district alignments with the undevelopable land highlighted. Given that large portions of Zones 2 and 3 are undevelopable, the land area distribution of the existing districts becomes less balanced.

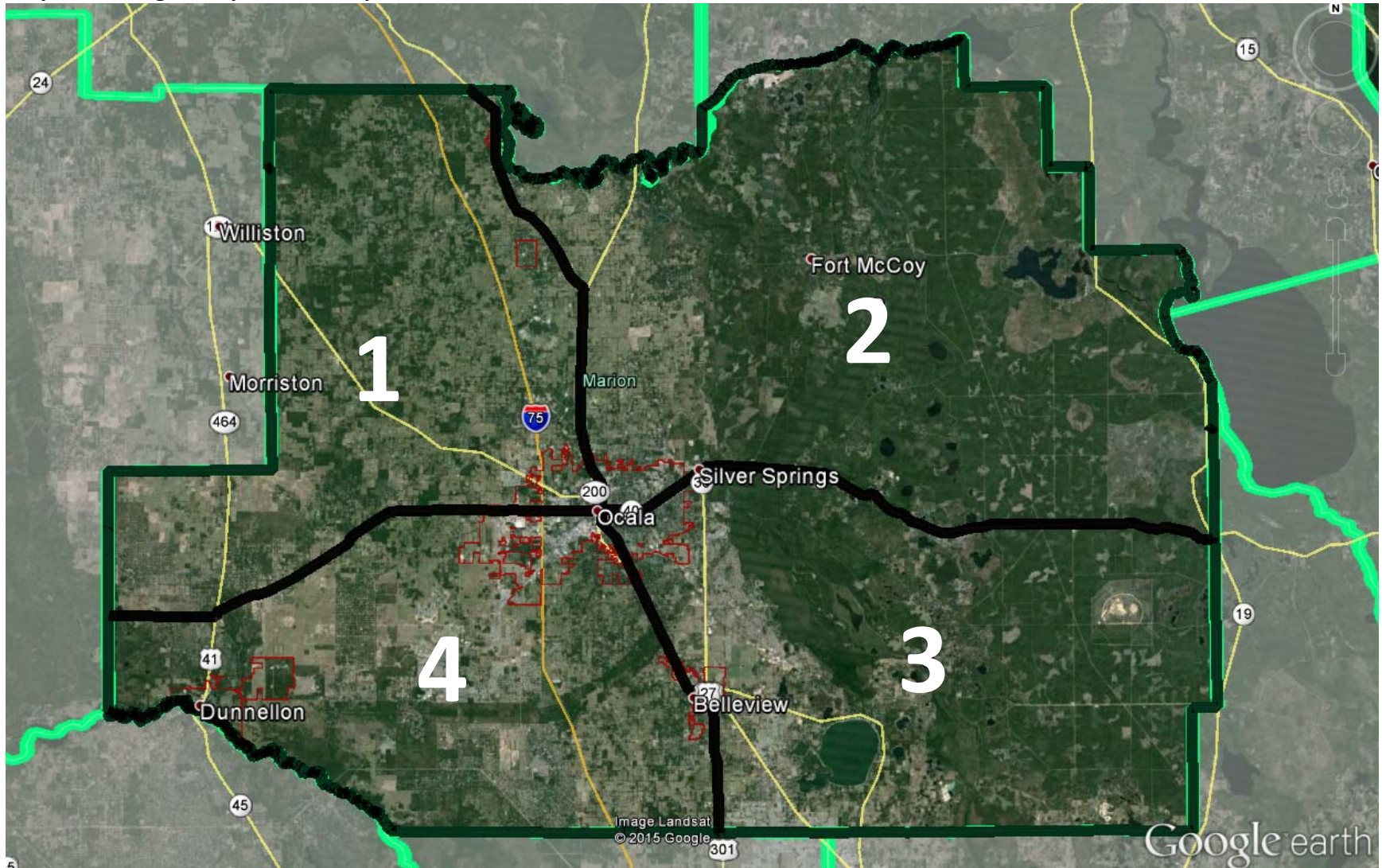
Considering the factors mentioned above and through discussions with County staff, it is recommended that Marion County reduce the number of impact fee benefit districts from four to two and use I-75 as the dividing line. This re-alignment would create two districts of relatively equal size in terms of developable land, impact fee revenues, and planned improvements. I-75 is a clearly defined dividing line and will simplify the process for determining projects eligible for funding from each district. If an improvement crosses the interstate, it would be eligible for impact fee revenues from either (or both) districts. With this alignment, any future lane addition, interchange, or intersection improvements that come online in the north county will have access to a larger pool of funding. Map 3 illustrates the recommended transportation impact fee benefit district re-alignment.

In addition to the recommended alignment, several other options were considered for the Marion County benefit districts, specifically related to the urban growth boundary, including:

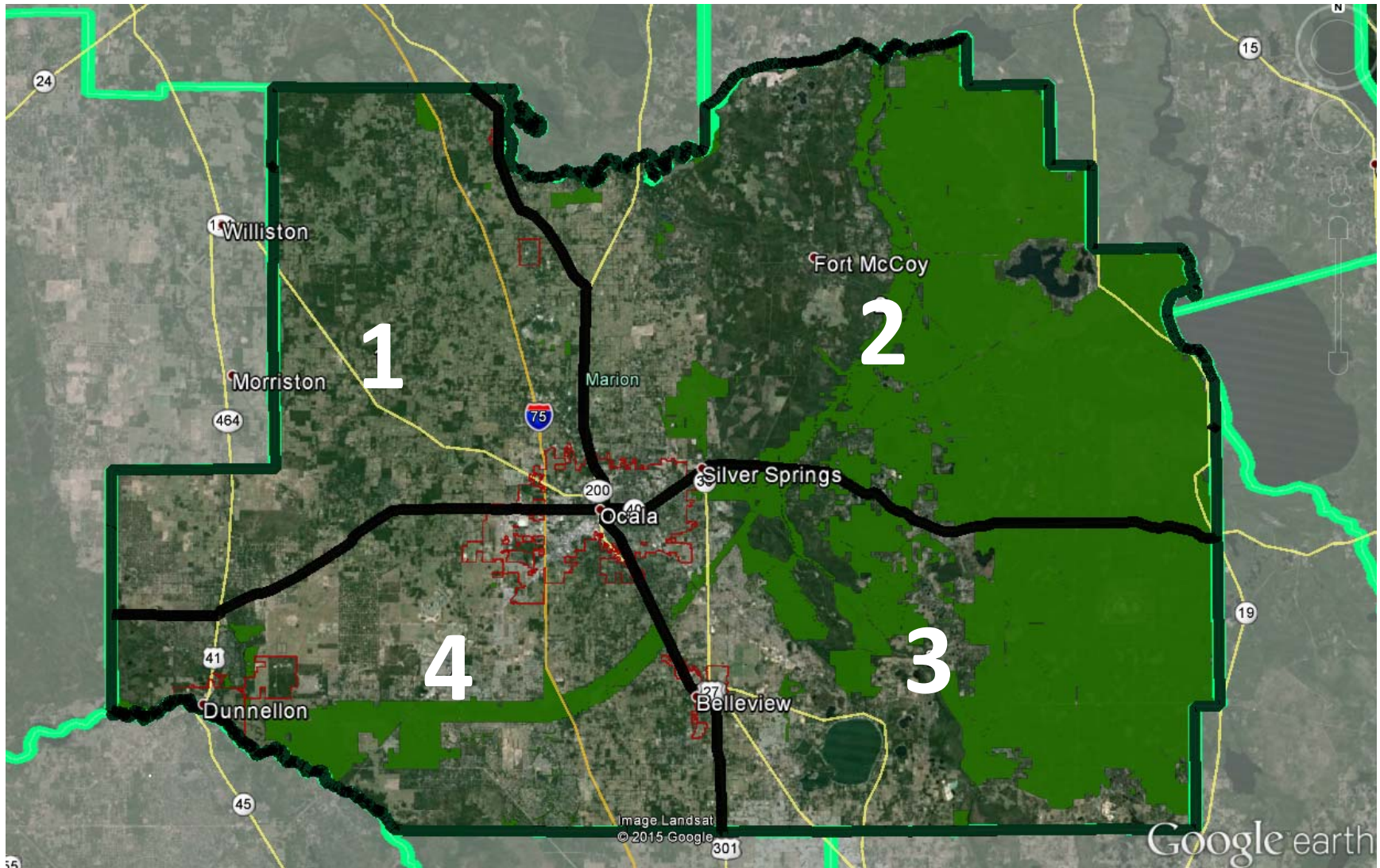
- Creating two north/south districts, following the northern border of the Urban Growth Boundary; and
- Creating two districts, where one includes the area inside the Urban Growth Boundary, and the other remaining parts of the county.

However, neither of these two options created the balance that the recommended scenario provides both in terms of area size and revenue levels.

Map 1: Existing Transportation Impact Fee Benefit Districts

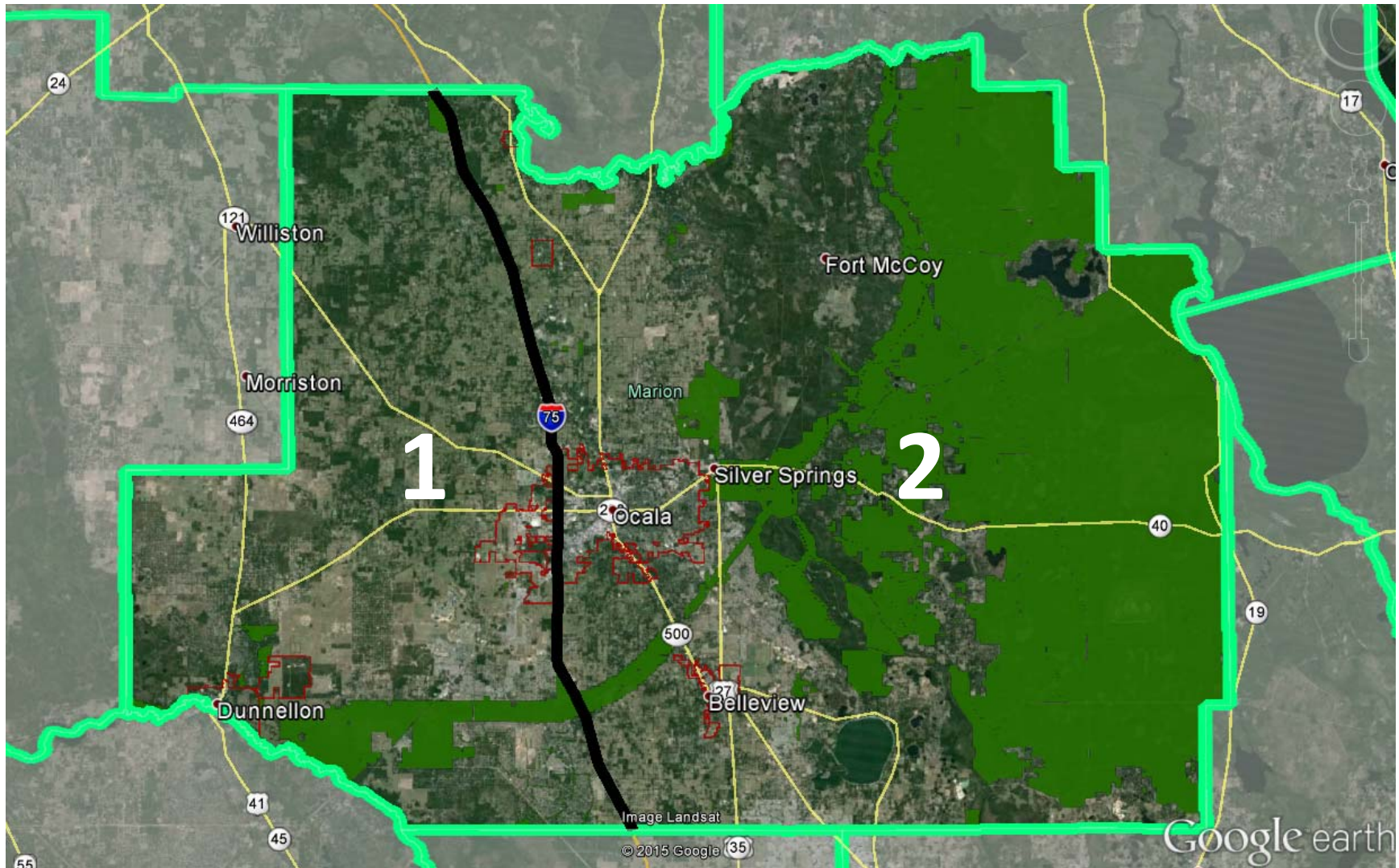


Map 2: Existing Transportation Impact Fee Benefit Districts w/Undevelopable Land (green highlight)



Preservation Land is highlighted in **GREEN**

Map 3: Proposed Transportation Impact Fee Benefit Districts



Preservation Land is highlighted in **GREEN**

Economic Growth Strategy

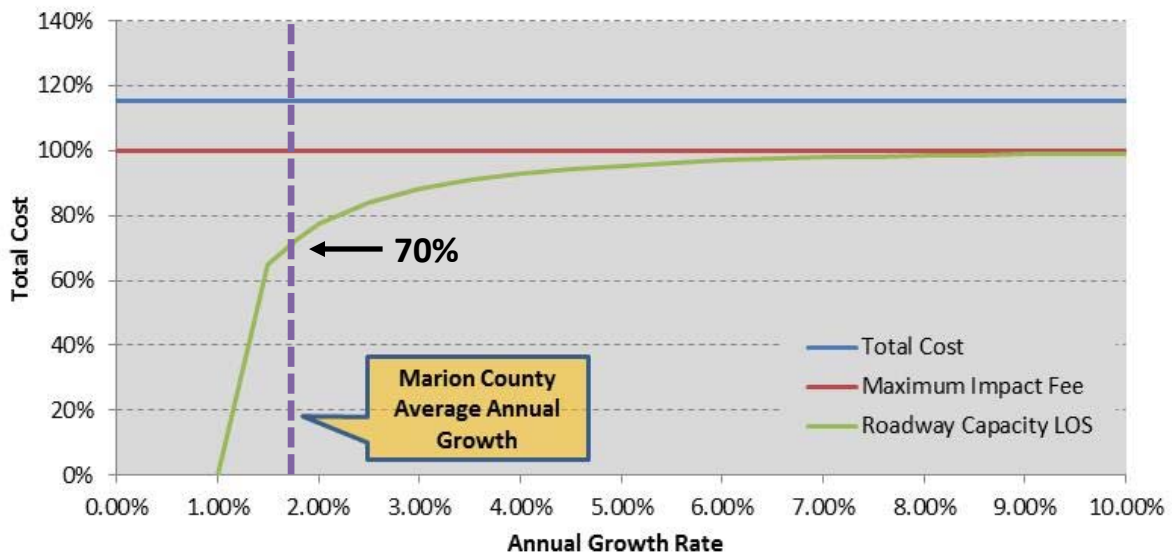
In addition to calculating the full transportation impact fee levels, this study also includes an economic growth strategy approach to impact fee calculations, which takes into account the existing development's ability to absorb new growth and calculates the level of possible policy discounts without reducing the level of service.

As presented in Appendix C, in addition to impact fees, the County uses fuel tax revenues to fund the transportation system. In terms of the economic growth strategy calculations, it is important to note the following:

- Consistent with the methodology used by many Florida jurisdictions, impact fee calculations are based on the adopted LOS standard, which is lower than the current achieved LOS. In other words, under the current methodology, even with the full impact fee, unless the County uses other revenue sources, the current achieved LOS for the system will deteriorate and more congestion will be experienced. As such, the standard methodology used for transportation impact fees results in fee levels that slows down the degradation of the system, but does not generate sufficient revenues to maintain the existing conditions when they are better than the adopted LOS standard.
- The economic growth strategy calculations are based on the County's historical and future estimated fuel tax funding toward transportation capital capacity projects as well as a portion of funding from the State. The State contributions to projects in Marion County has been relatively high compared to other counties. Not to overstate future contribution levels, statewide average for State contribution was used in the calculations. In addition, the calculations exclude any funding dedicated toward paying the debt service since this dollar amount cannot be available for absorbing the growth. If other revenue sources become available, these calculations will need to be revised.
- Based on the socio-economic data and projections provided by Ocala/Marion County TPO, an average annual growth rate of 1.8 percent was calculated for Marion County. This growth projection is used in the calculations associated with the economic growth strategy.

Based on this scenario, the County would need approximately 70 percent of the calculated transportation impact fee for all land uses, as long as a non-impact fee funding of approximately \$21.3 million per year is available, with an average annual population growth rate of 1.8 percent. As presented in Figure 1, the red horizontal line represents the maximum technically acceptable fee. Although the County may charge the maximum amount of transportation impact fee calculated, if the estimated levels of non-impact fee funding continue to be available, the County could adopt the impact fee at approximately 70 percent for all land uses and continue to maintain the adopted LOS standard.

Figure 1
Transportation Impact Fee – Economic Growth Strategy
Adopted Level-of-Service Standard



Alternatively, if the County adopts the residential land uses at 100 percent, the fees for non-residential land uses could be reduced by up to 80 percent (or adopted at 20 percent) to maintain the adopted LOS standard. As mentioned previously, the level of discount is more of a policy decision and could be at any level between the minimum levels calculated in this section and 100 percent.

To illustrate, a third scenario was developed which would discount the rates for residential land uses by 15 percent (85 percent adoption) and non-residential land uses by 55 percent (45 percent adoption).

Finally, if the County would like to discount certain land uses, it could provide discounts for up to \$21.3 million annually and still maintain the adopted LOS standard. As explained previously, even at full maximum calculated impact fee levels, impact fee revenues will not be sufficient to maintain the County's current LOS, which is better than the adopted LOS standard. Providing any level of impact fee discount, without utilizing any additional/alternative revenue sources, is likely to increase the deterioration of the current LOS.

Table 8 presents discounted impact fee schedule using the 70 percent adoption policy as an example and Table 9 presents an alternate discounted schedule in which residential uses are adopted at 100 percent and non-residential uses are adopted at 20 percent. Finally, Table 10 provides a scenario where the fee for the residential land uses is adopted at 85 percent and for non-residential land uses at 45 percent.

Table 8
Calculated Transportation Impact Fee Schedule – Economic Growth Strategy Scenario #1
70% Adoption for All Land Uses

ITE LUC	Land Use	Unit	Net Impact Fee ⁽¹⁾	Percent Adoption Policy	Discounted Impact Fee Rate
RESIDENTIAL:					
210	Single Family (Detached) - Less than 1,500 sf	du	\$5,473	70%	\$3,831
	Single Family (Detached) - 1,501 to 2,499 sf	du	\$6,994	70%	\$4,896
	Single Family (Detached) - 2,500 sf and greater	du	\$7,821	70%	\$5,475
220	Multi-Family (Apartment); 1-2 Stories	du	\$4,520	70%	\$3,164
222/223	Multi-Family (Apartment); 3+ Stories	du	\$2,844	70%	\$1,991
230	Residential Condominium/Townhouse	du	\$3,959	70%	\$2,771
240	Mobile Home Park	du	\$2,575	70%	\$1,803
252	Assisted Care Living Facility (ACLF)	du	\$921	70%	\$645
LODGING:					
310	Hotel	room	\$3,544	70%	\$2,481
320	Motel	room	\$2,525	70%	\$1,768
RECREATION:					
412	General Recreation/County Park	acre	\$1,286	70%	\$900
430	Golf Course	hole	\$26,228	70%	\$18,360
444	Movie Theater	screen	\$24,529	70%	\$17,170
492	Racquet Club/Health Spa	1,000 sf	\$19,530	70%	\$13,671
INSTITUTIONS:					
520	Elementary School (Private)	student	\$516	70%	\$361
522	Middle School (Private)	student	\$721	70%	\$505
530	High School (Private)	student	\$759	70%	\$531
540	University/Junior College (7,500 or fewer students) (Private)	student	\$1,471	70%	\$1,030
550	University/Junior College (more than 7,500 students) (Private)	student	\$1,095	70%	\$767
560	Church	1,000 sf	\$3,880	70%	\$2,716
565	Day Care Center	1,000 sf	\$12,463	70%	\$8,724
590	Library	1,000 sf	\$22,482	70%	\$15,737
610	Hospital	1,000 sf	\$8,310	70%	\$5,817
620	Nursing Home	bed	\$753	70%	\$527
640	Animal Hospital/Veterinary Clinic	1,000 sf	\$5,094	70%	\$3,566
OFFICE:					
710	Office	1,000 sf	\$6,391	70%	\$4,474
720	Medical Office/Clinic	1,000 sf	\$14,444	70%	\$10,111
770	Business Park	1,000 sf	\$7,420	70%	\$5,194
RETAIL:					
820	Retail 6,000 sfgla or less	1,000 sfgla	\$4,177	70%	\$2,924
820	Retail greater than 6,000 sfgla	1,000 sfgla	\$9,592	70%	\$6,714
-	Shopping Center (Office/Retail)	1,000 sfgla	\$8,792	70%	\$6,154
841	New/Used Auto Sales	1,000 sf	\$12,532	70%	\$8,772
850	Supermarket	1,000 sf	\$14,089	70%	\$9,862
853	Convenience Market w/Gasoline	1,000 sf	\$37,471	70%	\$26,230
862	Home Improvement Superstore	1,000 sf	\$5,851	70%	\$4,096
880/881	Pharmacy/Drug Store with or w/o Drive-Thru	1,000 sf	\$7,475	70%	\$5,233
890	Furniture Store	1,000 sf	\$2,050	70%	\$1,435
911	Bank/Savings Walk-In	1,000 sf	\$16,265	70%	\$11,386
912	Bank/Savings Drive-In	1,000 sf	\$21,367	70%	\$14,957
931	Restaurant	1,000 sf	\$26,502	70%	\$18,551
n/a	Small Local Restaurant	1,000 sf	\$12,668	70%	\$8,868
941	Quick Lube	service bay	\$12,613	70%	\$8,829
942	Automobile Care Center	1,000 sf	\$9,902	70%	\$6,931
944	Gas/Service Station	fuel pos.	\$8,033	70%	\$5,623
947	Self-Service Car Wash	service bay	\$7,674	70%	\$5,372
INDUSTRIAL:					
110	General Light Industrial	1,000 sf	\$4,048	70%	\$2,834
140	Manufacturing	1,000 sf	\$2,212	70%	\$1,548
150	Warehousing	1,000 sf	\$2,058	70%	\$1,441
151	Mini-Warehouse	1,000 sf	\$733	70%	\$513
152	High-Cube Warehouse	1,000 sf	\$967	70%	\$677

(1) Source: Appendix D, Table D-1

Table 9
Calculated Transportation Impact Fee Schedule – Economic Growth Strategy Scenario #2
100% Adoption for Residential Land Uses and 20% Adoption for Non-Residential Land Uses

ITE LUC	Land Use	Unit	Net Impact Fee ⁽¹⁾	Percent Adoption Policy	Discounted Impact Fee Rate
RESIDENTIAL:					
210	Single Family (Detached) - Less than 1,500 sf	du	\$5,473	100%	\$5,473
	Single Family (Detached) - 1,501 to 2,499 sf	du	\$6,994	100%	\$6,994
	Single Family (Detached) - 2,500 sf and greater	du	\$7,821	100%	\$7,821
220	Multi-Family (Apartment); 1-2 Stories	du	\$4,520	100%	\$4,520
222/223	Multi-Family (Apartment); 3+ Stories	du	\$2,844	100%	\$2,844
230	Residential Condominium/Townhouse	du	\$3,959	100%	\$3,959
240	Mobile Home Park	du	\$2,575	100%	\$2,575
252	Assisted Care Living Facility (ACLF)	du	\$921	100%	\$921
LODGING:					
310	Hotel	room	\$3,544	20%	\$709
320	Motel	room	\$2,525	20%	\$505
RECREATION:					
412	General Recreation/County Park	acre	\$1,286	20%	\$257
430	Golf Course	hole	\$26,228	20%	\$5,246
444	Movie Theater	screen	\$24,529	20%	\$4,906
492	Racquet Club/Health Spa	1,000 sf	\$19,530	20%	\$3,906
INSTITUTIONS:					
520	Elementary School (Private)	student	\$516	20%	\$103
522	Middle School (Private)	student	\$721	20%	\$144
530	High School (Private)	student	\$759	20%	\$152
540	University/Junior College (7,500 or fewer students) (Private)	student	\$1,471	20%	\$294
550	University/Junior College (more than 7,500 students) (Private)	student	\$1,095	20%	\$219
560	Church	1,000 sf	\$3,880	20%	\$776
565	Day Care Center	1,000 sf	\$12,463	20%	\$2,493
590	Library	1,000 sf	\$22,482	20%	\$4,496
610	Hospital	1,000 sf	\$8,310	20%	\$1,662
620	Nursing Home	bed	\$753	20%	\$151
640	Animal Hospital/Veterinary Clinic	1,000 sf	\$5,094	20%	\$1,019
OFFICE:					
710	Office	1,000 sf	\$6,391	20%	\$1,278
720	Medical Office/Clinic	1,000 sf	\$14,444	20%	\$2,889
770	Business Park	1,000 sf	\$7,420	20%	\$1,484
RETAIL:					
820	Retail 6,000 sfgla or less	1,000 sfgla	\$4,177	20%	\$835
820	Retail greater than 6,000 sfgla	1,000 sfgla	\$9,592	20%	\$1,918
-	Shopping Center (Office/Retail)	1,000 sfgla	\$8,792	20%	\$1,758
841	New/Used Auto Sales	1,000 sf	\$12,532	20%	\$2,506
850	Supermarket	1,000 sf	\$14,089	20%	\$2,818
853	Convenience Market w/Gasoline	1,000 sf	\$37,471	20%	\$7,494
862	Home Improvement Superstore	1,000 sf	\$5,851	20%	\$1,170
880/881	Pharmacy/Drug Store with or w/o Drive-Thru	1,000 sf	\$7,475	20%	\$1,495
890	Furniture Store	1,000 sf	\$2,050	20%	\$410
911	Bank/Savings Walk-In	1,000 sf	\$16,265	20%	\$3,253
912	Bank/Savings Drive-In	1,000 sf	\$21,367	20%	\$4,273
931	Restaurant	1,000 sf	\$26,502	20%	\$5,300
n/a	Small Local Restaurant	1,000 sf	\$12,668	20%	\$2,534
941	Quick Lube	service bay	\$12,613	20%	\$2,523
942	Automobile Care Center	1,000 sf	\$9,902	20%	\$1,980
944	Gas/Service Station	fuel pos.	\$8,033	20%	\$1,607
947	Self-Service Car Wash	service bay	\$7,674	20%	\$1,535
INDUSTRIAL:					
110	General Light Industrial	1,000 sf	\$4,048	20%	\$810
140	Manufacturing	1,000 sf	\$2,212	20%	\$442
150	Warehousing	1,000 sf	\$2,058	20%	\$412
151	Mini-Warehouse	1,000 sf	\$733	20%	\$147
152	High-Cube Warehouse	1,000 sf	\$967	20%	\$193

(1) Source: Appendix D, Table D-1

Table 10
Calculated Transportation Impact Fee Schedule – Economic Growth Strategy Scenario #3
85% Adoption for Residential Land Uses and 45% Adoption for Non-Residential Land Uses

ITE LUC	Land Use	Unit	Net Impact Fee ⁽¹⁾	Percent Adoption Policy	Discounted Impact Fee Rate
RESIDENTIAL:					
210	Single Family (Detached) - Less than 1,500 sf	du	\$5,473	85%	\$4,652
	Single Family (Detached) - 1,501 to 2,499 sf	du	\$6,994	85%	\$5,945
	Single Family (Detached) - 2,500 sf and greater	du	\$7,821	85%	\$6,648
220	Multi-Family (Apartment); 1-2 Stories	du	\$4,520	85%	\$3,842
222/223	Multi-Family (Apartment); 3+ Stories	du	\$2,844	85%	\$2,417
230	Residential Condominium/Townhouse	du	\$3,959	85%	\$3,365
240	Mobile Home Park	du	\$2,575	85%	\$2,189
252	Assisted Care Living Facility (ACLF)	du	\$921	85%	\$783
LODGING:					
310	Hotel	room	\$3,544	45%	\$1,595
320	Motel	room	\$2,525	45%	\$1,136
RECREATION:					
412	General Recreation/County Park	acre	\$1,286	45%	\$579
430	Golf Course	hole	\$26,228	45%	\$11,803
444	Movie Theater	screen	\$24,529	45%	\$11,038
492	Racquet Club/Health Spa	1,000 sf	\$19,530	45%	\$8,789
INSTITUTIONS:					
520	Elementary School (Private)	student	\$516	45%	\$232
522	Middle School (Private)	student	\$721	45%	\$324
530	High School (Private)	student	\$759	45%	\$342
540	University/Junior College (7,500 or fewer students) (Private)	student	\$1,471	45%	\$662
550	University/Junior College (more than 7,500 students) (Private)	student	\$1,095	45%	\$493
560	Church	1,000 sf	\$3,880	45%	\$1,746
565	Day Care Center	1,000 sf	\$12,463	45%	\$5,608
590	Library	1,000 sf	\$22,482	45%	\$10,117
610	Hospital	1,000 sf	\$8,310	45%	\$3,740
620	Nursing Home	bed	\$753	45%	\$339
640	Animal Hospital/Veterinary Clinic	1,000 sf	\$5,094	45%	\$2,292
OFFICE:					
710	Office	1,000 sf	\$6,391	45%	\$2,876
720	Medical Office/Clinic	1,000 sf	\$14,444	45%	\$6,500
770	Business Park	1,000 sf	\$7,420	45%	\$3,339
RETAIL:					
820	Retail 6,000 sfgla or less	1,000 sfgla	\$4,177	45%	\$1,880
820	Retail greater than 6,000 sfgla	1,000 sfgla	\$9,592	45%	\$4,316
-	Shopping Center (Office/Retail)	1,000 sfgla	\$8,792	45%	\$3,956
841	New/Used Auto Sales	1,000 sf	\$12,532	45%	\$5,639
850	Supermarket	1,000 sf	\$14,089	45%	\$6,340
853	Convenience Market w/Gasoline	1,000 sf	\$37,471	45%	\$16,862
862	Home Improvement Superstore	1,000 sf	\$5,851	45%	\$2,633
880/881	Pharmacy/Drug Store with or w/o Drive-Thru	1,000 sf	\$7,475	45%	\$3,364
890	Furniture Store	1,000 sf	\$2,050	45%	\$923
911	Bank/Savings Walk-In	1,000 sf	\$16,265	45%	\$7,319
912	Bank/Savings Drive-In	1,000 sf	\$21,367	45%	\$9,615
931	Restaurant	1,000 sf	\$26,502	45%	\$11,926
n/a	Small Local Restaurant	1,000 sf	\$12,668	45%	\$5,701
941	Quick Lube	service bay	\$12,613	45%	\$5,676
942	Automobile Care Center	1,000 sf	\$9,902	45%	\$4,456
944	Gas/Service Station	fuel pos.	\$8,033	45%	\$3,615
947	Self-Service Car Wash	service bay	\$7,674	45%	\$3,453
INDUSTRIAL:					
110	General Light Industrial	1,000 sf	\$4,048	45%	\$1,822
140	Manufacturing	1,000 sf	\$2,212	45%	\$995
150	Warehousing	1,000 sf	\$2,058	45%	\$926
151	Mini-Warehouse	1,000 sf	\$733	45%	\$330
152	High-Cube Warehouse	1,000 sf	\$967	45%	\$435

(1) Source: Appendix D, Table D-1

Industrial and Manufacturing Use Rebate

Prior to 2004, Marion County provided impact fee rebates for industrial and manufacturing land uses based on the BOCC findings that providing incentives for the creation and expansion of the industrial and manufacturing sectors of the local economy benefits the community as a whole. If the development was determined to be eligible for the rebate, payments of any rebates were ultimately made from the County's General Fund.

At this time, Marion County is interested in implementing an impact fee rebate for Qualified Target Industries, as defined by the State of Florida (generally speaking, these are manufacturing, corporate headquarters, and research & development facilities), that generate "primary jobs." Primary jobs are tied to the primary job market that generally consists of high-wage paying jobs, social security, and longer-lasting careers, essentially jobs requiring "higher education." Based on a legal review, the eligibility process and General Fund reimbursements were found to be sound practices. As such, if implemented, it is recommended that the County follow a similar process that was used for the rebates for industrial and manufacturing land uses. In addition, it is recommended that:

- The County cites or quotes any policy support that exists in its Comprehensive Plan or other economic development programs to show the rational basis for deciding to discount or exempt the fees for these uses.
- Similar to the previous industrial rebate program, the discounted amount would be reimbursed from the General Fund. If this is not possible, it is recommended for the County to set up a system to track the rebate amounts to demonstrate that the level of service will NOT diminish significantly due to these rebates and that the capital improvement program will still be built. This could be accomplished through demonstrating that non-impact fee revenues used toward funding transportation capacity projects equal or exceed the amount of rebates/discounts.

Indexing

In many cases, impact fees are reviewed periodically (every three to five years) as opposed to an annual review. If no adjustment to the impact fee schedule is made in between update periods a situation can be created where major adjustments to the impact fee schedule become necessary due to the time interval between adjustments. The need for significant adjustment also creates major concern in the development community. To address this issue, the calculated fees in Appendix D, Table D-1, could potentially be indexed annually for construction and land cost increases, as appropriate. The method for developing this index is provided in this sub-section.

Land Cost

As shown in Table 11, between 2010 and 2014 the total just property value for Marion County decreased by an annual average of 4.3 percent, countywide.

Table 11
Just Value Trend

Year	Marion County Just Values	Percent Change
2010	\$28,554,626,784	-
2011	\$25,478,095,384	-10.8%
2012	\$23,039,079,668	-9.6%
2013	\$23,039,717,284	0.0%
2014	\$23,986,700,919	4.1%
Average (2010-2014)		-4.3%

Source: Florida Legislature's Office of Economic and Demographic Research

Roadway Construction Cost

The Florida Department of Transportation (FDOT) provides projected inflation rates for transportation project costs, which are present in Table 12. It is recommended that these inflation rates be used for the design, construction, and CEI components of the transportation impact fee indexing. As shown in Table 12, the average index of 2.5 percent for the next five years will be used in the Marion County transportation impact fee indexing calculation.

Table 12
FDOT Project Cost Inflation Index

Fiscal Year	Inflation Rate
2016	2.7%
2017	2.5%
2018	2.5%
2019	2.5%
2020	2.5%
Annual Avg.	2.5%

Source: FDOT Office of Policy Planning

Index Calculation

Table 13 presents the indexing application for the transportation impact fee rates.

Table 13
FDOT Project Cost Inflation Index

Phase	Cost per Lane Mile ⁽¹⁾	Percent of Total Cost ⁽²⁾	Annual Increase ⁽³⁾	Index ⁽⁴⁾
Design	\$184,000	5.9%	2.5%	0.1%
Right-of-Way	\$1,069,000	34.1%	-4.3%	-1.5%
Construction	\$1,782,000	56.8%	2.5%	1.4%
CEI	\$101,000	3.3%	2.5%	0.1%
Total Cost	\$3,136,000		-	-
Total Applicable Index⁽⁵⁾				0.1%

(1) Source: Table 3

(2) Cost phase (design, ROW, construction, CEI) divided by the total cost

(3) Source: Table 12 for design, construction, and CEI; Table 11 for right-of-way

(4) Percent of the total cost (Item 2) for each phase, multiplied by the annual increase (Item 3)

(5) Sum of index components (Item 4) for all phases

Index Application

Using the total application index of 0.1 percent, the net impact fee for the single family detached land use would increase to \$7,001 (\$6,994 x [1+0.1%]) at the end of the first year after the adoption and implementation of the updated fee schedule. This index would be applied to the fee for each land use listed in the fee schedule. Given the recent fluctuations in land and construction values, it is recommended that the indices be re-evaluated and re-calculated at the end of the first year of adoption. At the end of each subsequent year, the

index would be re-calculated and applied to the current adopted fee schedule. This approach created an opportunity to base the index on the most current data available.

Index in Other Counties

Several jurisdictions in Florida index transportation impact fees on an annual basis. For example, Collier County, Charlotte County, St. Lucie County, Volusia County, and St. Johns County have applied annual indices that have both increased and reduced the impact fee rates as land and construction costs have fluctuated in recent years. While some of these indices are calculated using a similar methodology included in this section, others use a single index, such as the Consumer Price Index (CPI), or conduct a detailed analysis to create a more localized index.

APPENDIX A
Demand Component Calculations

Demand Component

This appendix presents the detailed calculations for the demand component of the transportation impact fee update.

Interstate & Toll Facility Discount Factor

Table A-1 presents the interstate and toll facility discount factor used in the calculation of the transportation impact fee. This variable is based on data from the Central Florida Regional Planning Model, specifically the 2035 projected vehicle miles of travel, accounting for roadway improvements included in the 2035 Long Range Transportation Plan. It should be noted that discount factor excludes all external-to-external trips, which represent traffic that goes through Marion County, but does not necessarily stop in the county. This traffic is excluded from the analysis since it does not come from development within the county. The I/T discount factor is used to reduce the VMT that the impact fee charges for each land use.

Table A-1
Interstate/Toll Facility Discount Factor

Roadway	VMT (2035)	% VMT
Interstate 75	1,663,611	12.0%
Other Roads	12,182,916	88.0%
Total (All Roads)	13,846,527	100.0%
Total (Interstate/Toll Roads)	1,663,611	12.0%

Source: Central Florida Regional Planning Model v5.01
TPO model scenario: TPO 2035 CF

Single Family Residential Trip Generation Rate Tiering

As part of this study, the single family residential trip generation rate tiering was updated to reflect a three-tier analysis to ensure equity by the size of a home. To facilitate this, an analysis was completed on the comparative relationship between housing size and household travel behavior. This analysis utilized data from the 2009 National Household Travel Survey (NHTS) and the 2013 American Housing Survey (AHS) to examine overall trip-making characteristics of households in the United States.

Table A-2 presents the existing trip characteristics being utilized in the current adopted impact fee schedule for the single family (detached) land use. The 2009 NHTS database was used to assess average annual household vehicle miles of travel (VMT) for various annual household income levels. In addition, the 2013 AHS database was used to compare median annual family/household incomes with housing unit size. It is important to recognize that the use of the income variable in each of these databases is completed simply to provide a convenient linking mechanism between household VMT from the NHTS and housing unit size from the AHS.

**Table A-2
Calculated Single Family Trip Characteristics**

Calculated Values Excluding Tiering	Trip Rate	Assessable Trip Length	Daily VMT	Ratio to Mean
Single Family (Detached)	7.81	7.61	59.46	1.00

Source: FL Studies for LUC 210, shown later in this appendix

The results of the NHTS and AHS analyses are included in Tables A-3 and A-4. First, the data shown in Table A-3 indicates that the average income in the U.S. for families/households living in housing units smaller than 1,500 square feet in size (\$44,243) is lower than the overall average income for the U.S. (\$56,993). In Table A-4, annual average household VMT was calculated from the NHTS database for a number of different income levels and ranges related to the resulting AHS income data in Table A-3.

**Table A-3
Calculated Single Family Trip Characteristics**

2013 AHS Average Income Data by Housing Size	Annual Income ⁽¹⁾
Less than 1,500 sf	\$44,243
1,500 to 2,499 sf	\$66,398
2,500 sf or more	\$80,449
Average of All Houses	\$56,993

Source: 2013 American Household Survey

Table A-4
NHTS VMT Annual VMT by Income Category

2009 NHTS Travel Data by Annual HH Income	Annual VMT/HH	Days	Daily VMT	Ratio to Mean	Normalized to 1.083
Average of \$44,243	19,856	365	54.40	0.847	0.782
Total (All Homes)	23,455	365	64.26	1.000	
Average of \$66,398	25,397	365	69.58	1.083	1.000
Average of \$80,449	28,461	365	77.98	1.214	1.121

Source: 2009 National Household Travel Survey Database, Federal Highway Administration

To calculate a corresponding trip rate for the new tiers it was necessary to rely on comparative ratios. As an example, consider the \$44,243 annual income category. First, it was determine that the average annual household VMT for this income level is 19,856 miles. This figure was then compared to the overall average annual VMT per household in the U.S. and normalized to the average of the \$56,993 (23,455 miles) category to derive a ratio of 0.782. It should be noted that the \$62,563 category (1,500 to 2,499 sf) is not an impact fee tier, but rather the average home size that corresponds with the Florida Studies data shown in Table A-2.

Next, the normalized ratio was applied to the daily VMT for the average single family housing unit size (less than 1,500 sf) to generate a daily VMT of 46.50 for the new tier, as shown in Table A-5. This daily VMT figure was then divided by the proposed assessable trip length of 7.61 miles to obtain a typical trip rate of 6.11 trips per day.

Table A-5
Trip Generation Rate by Single Family Land Use Tier

Estimation of Trip Rate by Tier	Trip Rate ⁽¹⁾	Assessable Trip Length ⁽²⁾	Daily VMT ⁽³⁾	Ratio to Mean ⁽⁴⁾
Single Family (Detached)				
Less than 1,500 sf	6.11	7.61	46.50	0.782
1,500 to 2,499 sf	7.81	7.61	59.46	1.000
2,500 sf or larger	8.75	7.61	66.65	1.121

- (1) Daily VMT (Item 3) divided by assessable trip length (Item 2) for each tiered single family land use category
- (2) Source: Table A-2
- (3) Ratio to the mean (Item 4) divided by the total daily VMT for the 1,500 to 2,499 sf tier for each tiered sf single family land use category
- (4) Source: Table A-4

Table A-6 illustrates the impact that the incorporation of the trip generation rate tiers for the single family (detached) land use have on the County’s calculated impact fee schedule.

Table A-6
Net Impact Fee by Single Family Land Use Tier

Impact of Tiering on Fee Schedule	Trip Rate ⁽¹⁾	Assessable Trip Length	Daily VMT	Net Fee ⁽²⁾
Single Family (Detached)				
Less than 1,500 sf	6.11	7.61	46.50	\$5,473
1,500 to 2,499 sf	7.81	7.61	59.46	\$6,994
2,500 sf or larger	8.75	7.61	66.65	\$7,821

(1) Source: Table A-5, Item 1

(2) Source: Appendix D, Table D-1

Trip Length Adjustment Factor Analysis

This variable is used to adjust the average trip length obtained from the Florida Studies Database when the trip lengths in a jurisdiction appear significantly different than the average trip length observed in other jurisdiction.

Using the Central Florida Regional Planning Model, the average trip lengths for Marion County were compared to other jurisdictions throughout Florida and it was determined that Marion County trip lengths for residential and non-residential land uses are above average. In Marion County, the model trip lengths for home-based work, home-based social/recreational, and home-based other range from 12.4 to 15.2 miles, while the average for 14 other regional model runs from various jurisdictions in Florida ranged from 8.4 to 11.5 miles. Additionally, fuel tax consumption per person for Marion County was compared to other Florida counties of similar population. Again, Marion County was above average, indicating a higher level fuel consumption per capita, which suggests a higher level of travel.

Based on this analysis, conservative adjustment factors of 15 percent and five (5) percent were applied to trip lengths for residential (including hotels and motels) and non-residential land uses, respectively.

Demand Variable Changes

Since the 2006 technical study, the trip generation rate, trip length, and percent new trips values have changed for several land uses. Land uses were updated based on additional data

included in the Florida Studies Database since 2006 and the use of the ITE 9th Edition Trip Generation Reference Report. Additionally, certain land uses were consolidated while others were added to the fee schedule, with additional explanations provided below.

Office/Retail Land Use Changes

As part of this updated study, per the County's request, a review of office and retail land uses was conducted to create a single use without tiering. Tindale Oliver conducted a review of available data, including the ITE 9th Edition Handbook and recent trip characteristic studies conducted throughout Florida. Based on this review and discussions with staff, it was recommended that office and retail uses should be charged separately in regard to transportation impact fees. For the office land use, a single category (without tiering) is presented, using the average trip generation rate provided by ITE. By only using a single tier, this will result in a conservative impact fee rate for the majority of new office developments expected in Marion County.

For the retail land use, the County requested a "small retail" option in addition to the separate retail use fee category. Using the ITE 9th Edition equation for the retail trip generation rate and the Florida Studies Database for trip length and capture levels, it was determined that the VMT for general retail uses is approximately equivalent to a 400,000-square foot development. Based on the available data, this tier is used for all retail development greater than 6,000 square feet. For retail uses smaller than 6,000 square feet, a lower VMT was recommended due to decreased trip lengths and percent new trips associated with the small retail development, as provided by the Florida Curve regression analysis (see figures A-1 and A-2). This small retail category would only be assessed to local, non-franchise retail establishments developed within Marion County.

Small Local Restaurant

As part of this updated study, County Staff requested the addition of a small local restaurant land use, more commonly known as a "Mom and Pop Restaurant". Unlike the restaurant land uses already included in the study, staff indicated that many of these smaller non-chain type of restaurants are becoming more prevalent and do not exhibit the same travel characteristics of the national restaurant brands. With no trip characteristic data available for this specific restaurant type, travel characteristics from similar land uses were assumed for the small local restaurant.

For the trip generation rate, the small local restaurant TGR was assumed to be equivalent to the quality restaurant land use (LUC 931). With no count data available, LUC 931 was

assumed as it is the most similar in description to a small local restaurant based on the ITE 9th Edition land use definitions. For trip length and percent new trips, the trip characteristics variables for a fast food restaurant were assumed. Small local restaurants are thought to have a low trip length as they are typically frequented by those residents that live nearby and are familiar with this “neighborhood” establishment. By using these trip characteristic assumptions, the VMT for a small local restaurant will be charged a lower fee than the quality restaurant. Without this new land use, any small local restaurant would previously be charged as a “quality restaurant” land use.

Florida Studies Trip Characteristics Database

The Florida Studies Trip Characteristics Database includes over 200 studies on 40 different residential and non-residential land uses collected over the last 20 years. Data from these studies include trip generation, trip length, and percent new trips for each land use. This information has been used in the development of impact fees and the creation of land use plan category trip characteristics for communities throughout Florida and the U.S.

Tindale Oliver estimates trip generation rates for all land uses in a transportation impact fee schedule using data from studies in the Florida Studies Database and the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (9th edition). In instances, when both ITE *Trip Generation* reference report (9th edition) and Florida Studies trip generation rate (TGR) data are available for a particular land use, the data is typically blended together to increase the sample size and provide a more valid estimate of the average number of trips generated per unit of development. If no Florida Studies data is available, only TGR data from the ITE reference report is used in the fee calculation.

The trip generation rate for each respective land use is calculated using machine counts that record daily traffic into and out of the site studied. The traffic count hoses are set at entrances to residential subdivisions for the residential land uses and at all access points for non-residential land uses.

The trip length information is obtained through origin-destination surveys that ask respondents where they came from prior to arriving at the site and where they intended to go after leaving the site. The results of these surveys were used to estimate average trip length by land use.

The percent new trip variable is based on assigning each trip collected through the origin-destination survey process a trip type (primary, secondary, diverted, and captured). The percent new trip variable is then calculated as 1 minus the percentage of trips that are captured. Tindale Oliver has published an article entitled, *Measuring Travel Characteristics for Transportation Impact Fees*, *ITE Journal*, April 1991 on the data collecting methodology for trip characteristics studies.

Mini-Warehouse (ITE LUC 151)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Orange Co, FL	107.0	-	-	-	1.45	-	-	-	-	Orange County
Orange Co, FL	89.6	-	-	-	1.23	-	-	-	-	Orange County
Orange Co, FL	84.7	-	-	-	1.39	-	-	-	-	Orange County
Orange Co, FL	93.0	-	-	-	1.51	-	-	-	-	Orange County
Orange Co, FL	77.0	-	-	-	2.18	-	-	-	-	Orange County
Total Size	451.3		5							
ITE	784.0		14							
Blended total	1,235.3									
Average Trip Length: n/a										
Weighted Average Trip Length: n/a										
Weighted Percent New Trip Average: -										
Weighted Average Trip Generation Rate: 1.53										
ITE Average Trip Generation Rate: 2.50										
Blend of FL Studies and ITE Average Trip Generation Rate: 2.15										

Single-Family Detached Housing (ITE LUC 210)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Gwinnett Co, GA	-	12/13-18/92	-	-	5.80	-	5.40	N/A	31.32	Street Smarts
Gwinnett Co, GA	-	12/13-18/92	-	-	5.40	-	6.10	N/A	32.94	Street Smarts
Sarasota Co, FL	76	Jun-93	70	70	10.03	-	6.00	N/A	60.18	Sarasota County
Sarasota Co, FL	79	Jun-93	86	86	9.77	-	4.40	N/A	42.99	Sarasota County
Sarasota Co, FL	135	Jun-93	75	75	8.05	-	5.90	N/A	47.50	Sarasota County
Sarasota Co, FL	152	Jun-93	63	63	8.55	-	7.30	N/A	62.42	Sarasota County
Sarasota Co, FL	193	Jun-93	123	123	6.85	-	4.60	N/A	31.51	Sarasota County
Sarasota Co, FL	97	Jun-93	33	33	13.20	-	3.00	N/A	39.60	Sarasota County
Sarasota Co, FL	282	Jun-93	146	146	6.61	-	8.40	N/A	55.52	Sarasota County
Sarasota Co, FL	393	Jun-93	207	207	7.76	-	5.40	N/A	41.90	Sarasota County
Hernando Co, FL	76	May-96	148	148	10.01	9a-6p	4.85	N/A	48.55	Tindale-Oliver & Associates
Hernando Co, FL	128	May-96	205	205	8.17	9a-6p	6.03	N/A	49.27	Tindale-Oliver & Associates
Hernando Co, FL	232	May-96	182	182	7.24	9a-6p	5.04	N/A	36.49	Tindale-Oliver & Associates
Hernando Co, FL	301	May-96	264	264	8.93	9a-6p	3.28	N/A	29.29	Tindale-Oliver & Associates
Charlotte Co, FL	135	Oct-97	230	-	5.30	9a-5p	7.90	N/A	41.87	Tindale-Oliver & Associates
Charlotte Co, FL	142	Oct-97	245	-	5.20	9a-5p	4.10	N/A	21.32	Tindale-Oliver & Associates
Charlotte Co, FL	150	Oct-97	160	-	5.00	9a-5p	10.80	N/A	54.00	Tindale-Oliver & Associates
Charlotte Co, FL	215	Oct-97	158	-	7.60	9a-5p	4.60	N/A	34.96	Tindale-Oliver & Associates
Charlotte Co, FL	257	Oct-97	225	-	7.60	9a-5p	7.40	N/A	56.24	Tindale-Oliver & Associates
Charlotte Co, FL	345	Oct-97	161	-	7.00	9a-5p	6.60	N/A	46.20	Tindale-Oliver & Associates
Charlotte Co, FL	368	Oct-97	152	-	6.60	9a-5p	5.70	N/A	37.62	Tindale-Oliver & Associates
Charlotte Co, FL	383	Oct-97	516	-	8.40	9a-5p	5.00	N/A	42.00	Tindale-Oliver & Associates
Charlotte Co, FL	441	Oct-97	195	-	8.20	9a-5p	4.70	N/A	38.54	Tindale-Oliver & Associates
Charlotte Co, FL	1,169	Oct-97	348	-	6.10	9a-5p	8.00	N/A	48.80	Tindale-Oliver & Associates
Collier Co, FL	90	Dec-99	91	-	12.80	8a-6p	11.40	N/A	145.92	Tindale-Oliver & Associates
Collier Co, FL	400	Dec-99	389	-	7.80	8a-6p	6.40	N/A	49.92	Tindale-Oliver & Associates
Lake Co, FL	49	Apr-02	170	-	6.70	7a-6p	10.20	N/A	68.34	Tindale-Oliver & Associates
Lake Co, FL	52	Apr-02	212	-	10.00	7a-6p	7.60	N/A	76.00	Tindale-Oliver & Associates
Lake Co, FL	126	Apr-02	217	-	8.50	7a-6p	8.30	N/A	70.55	Tindale-Oliver & Associates
Pasco Co, FL	55	Apr-02	133	-	6.80	8a-6p	8.12	N/A	55.22	Tindale-Oliver & Associates
Pasco Co, FL	60	Apr-02	106	-	7.73	8a-6p	8.75	N/A	67.64	Tindale-Oliver & Associates
Pasco Co, FL	70	Apr-02	188	-	7.80	8a-6p	6.03	N/A	47.03	Tindale-Oliver & Associates
Pasco Co, FL	74	Apr-02	188	-	8.18	8a-6p	5.95	N/A	48.67	Tindale-Oliver & Associates
Pasco Co, FL	189	Apr-02	261	-	7.46	8a-6p	8.99	N/A	67.07	Tindale-Oliver & Associates
Marion Co, FL	102	Apr-02	167	-	8.02	7a-6p	5.10	N/A	40.90	Kimley-Horn & Associates
Marion Co, FL	105	Apr-02	169	-	7.23	7a-6p	7.22	N/A	52.20	Kimley-Horn & Associates
Marion Co, FL	124	Apr-02	170	-	6.04	7a-6p	7.29	N/A	44.03	Kimley-Horn & Associates
Marion Co, FL	132	Apr-02	171	-	7.87	7a-6p	7.00	N/A	55.09	Kimley-Horn & Associates
Marion Co, FL	133	Apr-02	209	-	8.04	7a-6p	4.92	N/A	39.56	Kimley-Horn & Associates
Citrus Co, FL	111	Oct-03	273	-	8.66	7a-6p	7.70	N/A	66.68	Tindale-Oliver & Associates
Citrus Co, FL	231	Oct-03	155	-	5.71	7a-6p	4.82	N/A	27.52	Tindale-Oliver & Associates
Citrus Co, FL	306	Oct-03	146	-	8.40	7a-6p	3.94	N/A	33.10	Tindale-Oliver & Associates
Citrus Co, FL	364	Oct-03	345	-	7.20	7a-6p	9.14	N/A	65.81	Tindale-Oliver & Associates
Citrus Co, FL	374	Oct-03	248	-	12.30	7a-6p	6.88	N/A	84.62	Tindale-Oliver & Associates
Lake Co, FL	42	Dec-06	122	-	11.26	-	5.56	N/A	62.61	Tindale-Oliver & Associates
Lake Co, FL	51	Dec-06	346	-	18.22	-	9.46	N/A	172.36	Tindale-Oliver & Associates
Lake Co, FL	59	Dec-06	144	-	12.07	-	10.79	N/A	130.24	Tindale-Oliver & Associates
Lake Co, FL	90	Dec-06	194	-	9.12	-	5.78	N/A	52.71	Tindale-Oliver & Associates
Lake Co, FL	239	Dec-06	385	-	7.58	-	8.93	N/A	67.69	Tindale-Oliver & Associates
Hernando Co, FL	232	Apr-07	516	-	8.02	7a-6p	8.16	N/A	65.44	Tindale-Oliver & Associates
Hernando Co, FL	95	Apr-07	256	-	8.08	7a-6p	5.88	N/A	47.51	Tindale-Oliver & Associates
Hernando Co, FL	90	Apr-07	338	-	7.13	7a-6p	5.86	N/A	41.78	Tindale-Oliver & Associates
Hernando Co, FL	58	Apr-07	153	-	6.16	7a-6p	8.39	N/A	51.68	Tindale-Oliver & Associates
Collier Co, FL	74	Mar-08	503	-	12.81	7a-6p	3.05	N/A	39.07	Tindale-Oliver & Associates
Collier Co, FL	97	Mar-08	512	-	8.78	7a-6p	11.29	N/A	99.13	Tindale-Oliver & Associates
Collier Co, FL	315	Mar-08	1,347	-	6.97	7a-6p	6.55	N/A	45.65	Tindale-Oliver & Associates
Collier Co, FL	42	Mar-08	314	-	9.55	7a-6p	10.98	N/A	104.86	Tindale-Oliver & Associates
Total Size	10,380		55	13,130						
Average Trip Length: 6.79										
Weighted Average Trip Length: 6.62										
Marion Adjusted Trip Length: 7.61										
Weighted Average Trip Generation Rate: 7.81										

Note: Georgia studies are not included in summary statistics.

Multi-Family/Apartment and Residential Condo/Townhouse (ITE LUC 220/230)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	212	Jun-93	42	42	5.78	-	5.20	N/A	30.06	Sarasota County
Sarasota Co, FL	243	Jun-93	36	36	5.84	-	-	N/A	-	Sarasota County
Marion Co, FL	214	Apr-02	175	175	6.84	-	4.61	N/A	31.53	Kimley-Horn & Associates
Marion Co, FL	240	Apr-02	174	174	6.96	-	3.43	N/A	23.87	Kimley-Horn & Associates
Marion Co, FL	288	Apr-02	175	175	5.66	-	5.55	N/A	31.41	Kimley-Horn & Associates
Marion Co, FL	480	Apr-02	175	175	5.73	-	6.88	N/A	39.42	Kimley-Horn & Associates
Marion Co, FL	500	Apr-02	170	170	5.46	-	5.94	N/A	32.43	Kimley-Horn & Associates
Lake Co, FL	250	Dec-06	135	135	6.71	-	5.33	N/A	35.76	Tindale-Oliver & Associates
Lake Co, FL	157	Dec-06	265	265	13.97	-	2.62	N/A	36.60	Tindale-Oliver & Associates
Lake Co, FL	169	Dec-06	212	-	8.09	-	6.00	N/A	48.54	Tindale-Oliver & Associates
Lake Co, FL	226	Dec-06	301	-	6.74	-	2.17	N/A	14.63	Tindale-Oliver & Associates
Hernando Co, FL	312	Apr-07	456	-	4.09	-	5.95	N/A	24.34	Tindale-Oliver & Associates
Hernando Co, FL	176	Apr-07	332	-	5.38	-	5.24	N/A	28.19	Tindale-Oliver & Associates
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	4.98	N/A	30.48	Tindale-Oliver & Associates
Hernando Co, FL	128	May-96	128	128	6.47	9a-6p	5.18	N/A	33.51	Tindale-Oliver & Associates
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	-	N/A	-	Tindale-Oliver & Associates
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	3.53	N/A	14.97	Tindale-Oliver & Associates

Total Size	4,103	Average Trip Length:	4.84
Total Size (TL)	3,631	Weighted Average Trip Length:	5.10
		Marion Adjusted Trip Length:	5.87

Total Size	3,467	13	Weighted Average Trip Generation Rate:	6.31	LUC 220: Multi-Family
ITE	18,480	88	ITE Average Trip Generation Rate:	6.65	
Blended total	21,947		Blend of FL Studies and ITE Average Trip Generation Rate:	6.60	

LUC 230 Studies are highlighted				LUC 230: Condo/Townhouse			
Total Size	636	4	Weighted Average Trip Generation Rate:	4.97			
ITE	10,024	56	ITE Average Trip Generation Rate:	5.81			
Blended total	10,660		Blend of FL Studies and ITE Average Trip Generation Rate:	5.76			

Multi-Family/Apartment; 3+ Stories (ITE LUC 222/223)

ITE	435	High-Rise Apartment:	4.20
ITE	120	Mid-Rise Apartment:	3.90
ITE	555	Blend of ITE Average Trip Generation Rate for High-Rise and Mid-Rise Apts:	4.14

Residential Condominium/Townhouse (ITE LUC 230)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	4.98	N/A	30.48	Tindale-Oliver & Associates
Hernando Co, FL	128	May-96	198	198	6.47	9a-6p	5.18	N/A	33.51	Tindale-Oliver & Associates
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	12.09	N/A	57.67	Tindale-Oliver & Associates
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	3.53	N/A	14.97	Tindale-Oliver & Associates

Total Size	636	4	780	Average Trip Length:	6.45
ITE	10,024	56		Weighted Average Trip Length:	7.01
				Marion Adjusted Trip Length:	8.06

Blended total	10,660		Weighted Average Trip Generation Rate:	4.97
			ITE Average Trip Generation Rate:	5.81
			Blend of FL Studies and ITE Average Trip Generation Rate:	5.76

Mobile Home Park (ITE LUC 240)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Marion Co, FL	67	Jul-91	22	22	5.40	48hrs.	2.29	N/A	12.37	Tindale-Oliver & Associates
Marion Co, FL	82	Jul-91	58	58	10.80	24hr.	3.72	N/A	40.18	Tindale-Oliver & Associates
Marion Co, FL	137	Jul-91	22	22	3.10	24hr.	4.88	N/A	15.13	Tindale-Oliver & Associates
Marion Co, FL	188	Apr-02	147	-	3.51	24hr.	5.48	N/A	19.23	Kimley-Horn & Associates
Marion Co, FL	227	Apr-02	173	-	2.76	24hr.	8.80	N/A	24.29	Kimley-Horn & Associates
Sarasota Co, FL	235	Jun-93	100	100	3.51	-	5.10	N/A	17.90	Sarasota County
Marion Co, FL	297	Apr-02	175	-	4.78	24hr.	4.76	N/A	22.75	Kimley-Horn & Associates
Sarasota Co, FL	996	Jun-93	181	181	4.19	-	4.40	N/A	18.44	Sarasota County
Hernando Co, FL	1,892	May-96	425	425	4.13	9a-6p	4.13	N/A	17.06	Tindale-Oliver & Associates

Total Size	4,121	9	1,303	Average Trip Length:	4.84
				Weighted Average Trip Length:	4.60
				Marion Adjusted Trip Length:	5.29

Weighted Average Trip Generation Rate:	4.17
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Senior Adult Housing - Attached (ITE LUC 252)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sun City Center, FL	208	Oct-91	726	726	2.46	24hr.	3.28	-	8.07	Tindale-Oliver & Associates

Total Size	208	1		Average Trip Length:	3.28
ITE	230	5		Weighted Average Trip Length:	3.28
				Marion Adjusted Trip Length:	3.77

Blended total	438		Weighted Average Trip Generation Rate:	2.46
			ITE Average Trip Generation Rate:	3.44
			Blend of FL Studies and ITE Average Trip Generation Rate:	2.97

Congregate Care Facility (ITE LUC 253)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source	
Pinellas Park, FL	72	Aug-89	25	19	3.50	9am-5pm	2.20	79.0	7.70	Tindale-Oliver & Associates	
Palm Harbor, FL	200	Oct-89	58	40	-	9am-5pm	3.40	69.0	-	Tindale-Oliver & Associates	
Total Size	272		2	83							
ITE	388		2								
				Average Trip Length: 2.80							
				Weighted Average Trip Length: 3.08							
				Marion Adjusted Trip Length: 3.54							
Blended total	660										
	460										
Weighted Percent New Trip Average:								71.6			
Weighted Average Trip Generation Rate:								3.50			
ITE Average Trip Generation Rate:								2.02			
Blend of FL Studies and ITE Average Trip Generation Rate:								2.25			

Hotel (ITE LUC 310)

Location	Size (Rooms)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source	
Pinellas Co, FL	174	Aug-89	134	106	12.50	7-11a/3-7p	6.30	79.0	62.21	Tindale-Oliver & Associates	
Pinellas Co, FL	114	Oct-89	30	14	7.30	12-7p	6.20	47.0	21.27	Tindale-Oliver & Associates	
Orange Co, FL	70	-	-	-	1.85	-	-	-	-	Orange County	
Orange Co, FL	211	-	-	-	2.23	-	-	-	-	Orange County	
Orange Co, FL	112	-	-	-	2.78	-	-	-	-	Orange County	
Orange Co, FL	1,495	-	-	-	3.50	-	-	-	-	Orange County	
Orange Co, FL	123	-	-	-	3.70	-	-	-	-	Orange County	
Orange Co, FL	130	-	-	-	4.29	-	-	-	-	Orange County	
Orange Co, FL	1,499	-	-	-	4.69	-	-	-	-	Orange County	
Orange Co, FL	190	-	-	-	4.71	-	-	-	-	Orange County	
Orange Co, FL	123	-	-	-	4.81	-	-	-	-	Orange County	
Orange Co, FL	105	-	-	-	5.25	-	-	-	-	Orange County	
Orange Co, FL	120	-	-	-	5.27	-	-	-	-	Orange County	
Orange Co, FL	1,584	-	-	-	5.88	-	-	-	-	Orange County	
Orange Co, FL	128	-	-	-	6.10	-	-	-	-	Orange County	
Orange Co, FL	174	-	-	-	7.03	-	-	-	-	Orange County	
Orange Co, FL	144	-	-	-	7.32	-	-	-	-	Orange County	
Orange Co, FL	98	-	-	-	7.32	-	-	-	-	Orange County	
Orange Co, FL	106	-	-	-	7.34	-	-	-	-	Orange County	
Orange Co, FL	100	-	-	-	7.37	-	-	-	-	Orange County	
Orange Co, FL	144	-	-	-	7.66	-	-	-	-	Orange County	
Total Size	6,944		21	164							
ITE	4,760		10								
				Average Trip Length: 6.25							
				Weighted Average Trip Length: 6.26							
				Marion Adjusted Trip Length: 7.20							
Blended total	11,704										
Weighted Percent New Trip Average:								66.3			
Weighted Average Trip Generation Rate:								5.12			
ITE Average Trip Generation Rate:								8.17			
Blend of FL Studies and ITE Average Trip Generation Rate:								6.36			

Motel (ITE LUC 320)

Location	Size (Rooms)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source	
Pinellas Co, FL	48	Oct-89	46	24	-	10a-2p	2.80	65.0	-	Tindale-Oliver & Associates	
Pinellas Co, FL	54	Oct-89	32	22	-	12p-7p	3.80	69.0	-	Tindale-Oliver & Associates	
Pinellas Co, FL	120	Oct-89	26	22	-	2p-7p	5.20	84.6	-	Tindale-Oliver & Associates	
Total Size	222		3	104							
ITE	2,160		10								
				Average Trip Length: 3.93							
				Weighted Average Trip Length: 4.34							
				Marion Adjusted Trip Length: 4.99							
Weighted Percent New Trip Average:								76.6			
ITE Average Trip Generation Rate:								5.63			

Movie Theater (ITE LUC 444)

Location	Size (Screens)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source	
Pinellas Co, FL	8	Oct-89	151	116	113.10	2p-8p	2.70	77.0	235.13	Tindale-Oliver & Associates	
Pinellas Co, FL	12	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale-Oliver & Associates	
Total Size	20		273								
ITE	10 estimated										
	30										
				Average Trip Length: 2.30							
				Weighted Average Trip Length: 2.22							
				Marion Adjusted Trip Length: 2.33							
Weighted Percent New Trip Average:								87.8			
Weighted Average Trip Generation Rate:								83.28			
ITE Average Trip Generation Rate (6th):								153.33			
Blend of FL Studies and ITE Average Trip Generation Rate:								106.63			

Racquet Club/Health Spa (ITE LUC 492)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source	
Tampa, FL	-	Mar-86	33	31	-	-	7.90	94.0	-	Kimley-Horn & Associates	
Total Size			33								
ITE	15		1								
				Average Trip Length: n/a							
				Marion Adjusted Trip Length: 0.00							
Percent New Trip Average:								94.0			
ITE Average Trip Generation Rate:								32.93			

Day Care Center (ITE LUC 565)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	5.6	Aug-89	94	66	66.99	7a-6p	1.90	70.0	89.10	Tindale-Oliver & Associates
Pinellas Co, FL	10.0	Sep-89	179	134	66.99	7a-6p	2.10	75.0	105.51	Tindale-Oliver & Associates
Tampa, FL	-	Mar-86	28	25	-	-	2.60	89.0	-	Kimley-Horn & Associates
Total Size	15.6		2	301	Average Trip Length: 2.20					
ITE	35.0		7		Weighted Average Trip Length: 2.03					
					Marion Adjusted Trip Length: 2.13					
Blended total	50.6				Weighted Percent New Trip Average: 73.2					
					Average Trip Generation Rate: 66.99					
					ITE Average Trip Generation Rate: 74.06					
					Blend of FL Studies and ITE Average Trip Generation Rate: 71.88					

Nursing Home (ITE LUC 620)

Location	Size (Beds)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	120	Mar-90	74	66	2.86	11a-4p	2.59	89.0	6.59	Tindale-Oliver & Associates
Total Size	120		1	74	Average Trip Length: 2.59					
ITE	714		6		Weighted Average Trip Length: 2.59					
					Marion Adjusted Trip Length: 2.72					
Blended total	834				Weighted Percent New Trip Average: 89.0					
					Average Trip Generation Rate: 2.86					
					ITE Average Trip Generation Rate: 2.74					
					Blend of FL Studies and ITE Average Trip Generation Rate: 2.76					

General Office Building (ITE LUC 710)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sarasota Co, FL	14.3	Jun-93	14	14	46.85	-	11.30	-	529.41	Sarasota County
Gwinnett Co, GA	98.0	Dec-92	-	-	4.30	-	5.40	-	-	Street Smarts
Gwinnett Co, GA	180.0	Dec-92	-	-	3.60	-	5.90	-	-	Street Smarts
Pinellas Co, FL	187.0	Oct-89	431	388	18.49	7a-5p	6.30	90.0	104.84	Tindale-Oliver & Associates
St. Petersburg, FL	262.8	Sep-89	291	274	-	7a-5p	3.40	94.0	-	Tindale-Oliver & Associates
Total Size	742.1		5	736	Average Trip Length: 6.46					
ITE	15,522.0		78		Weighted Average Trip Length: 5.15					
					Marion Adjusted Trip Length: 5.41					
					Weighted Percent New Trip Average: 92.3					

Medical-Dental Office Building (ITE LUC 720): 10,000 sf or Less

Site	Size (1,000 sf)	Tues., Jan 11		Wedn., Jan 12		Thur., Jan 13		TOTAL		AVERAGE		AVERAGE (per 1,000 sf)		
		IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	TOTAL
Collier Co, FL - Site 1	2.100	35	35	22	22	13	13	70	70	23.33	23.33	11.11	11.11	22.22
Collier Co, FL - Site 2	3.000	40	40	52	52	53	53	145	145	48.33	48.33	16.11	16.11	32.22
Collier Co, FL - Site 3	2.000	28	28	19	21	24	26	71	75	23.67	25.00	11.84	12.50	24.34
Collier Co, FL - Site 4	1.000	30	30	52	52	57	57	139	139	46.33	46.33	46.33	46.33	92.66
Collier Co, FL - Site 5	3.024	31	32	43	43	24	24	98	99	32.67	33.00	10.80	10.91	21.71
Collier Co, FL - Site 6	1.860	22	24	19	17	11	11	52	52	17.33	17.33	9.32	9.32	18.64
Average												17.59	17.71	35.30
Average (excluding Site 4)												11.84	11.99	23.83

Medical-Dental Office Building (ITE LUC 720)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	26	-	-	6.00	79.0	-	Kimley-Horn & Associates
Palm Harbor, FL	14.6	Oct-89	104	76	33.98	9a-5p	6.30	73.0	156.27	Tindale-Oliver & Associates
St. Petersburg, FL	-	Nov-89	34	30	57.20	9a-4p	1.20	88.0	-	Tindale-Oliver & Associates
Hernando Co, FL	58.4	May-96	390	349	28.52	9a-6p	6.47	89.5	165.09	Tindale-Oliver & Associates
Hernando Co, FL	28.0	May-96	202	189	49.75	9a-6p	6.06	93.8	282.64	Tindale-Oliver & Associates
Charlotte Co, FL	11.0	Oct-97	-	186	49.50	9a-5p	4.60	92.1	209.67	Tindale-Oliver & Associates
Charlotte Co, FL	28.0	Oct-97	-	186	31.00	9a-5p	3.60	81.6	91.04	Tindale-Oliver & Associates
Charlotte Co, FL	30.4	Oct-97	-	324	39.80	9a-5p	3.30	83.5	109.68	Tindale-Oliver & Associates
Citrus Co, FL	38.9	Oct-03	-	168	32.26	8-6p	6.80	97.1	213.03	Tindale-Oliver & Associates
Citrus Co, FL	10.0	Nov-03	-	340	40.56	8-630p	6.20	92.4	232.33	Tindale-Oliver & Associates
Citrus Co, FL	5.3	Dec-03	-	20	29.36	8-5p	5.25	95.2	146.78	Tindale-Oliver & Associates
Orange Co, FL	50.6	-	-	-	26.72	-	-	-	-	Orange County
Orange Co, FL	23.5	-	-	-	16.58	-	-	-	-	Orange County
Total Size	298.6		11	763	Average Trip Length: 5.07					
ITE	450.0		10		Weighted Average Trip Length: 5.55					
					Marion Adjusted Trip Length: 5.83					
Blended total	748.6				Weighted Percent New Trip Average: 88.9					
					Average Trip Generation Rate: 32.59					
					ITE Average Trip Generation Rate: 36.13					
					Blend of FL Studies and ITE Average Trip Generation Rate: 34.72					

Business Park (ITE LUC 770)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	14.1	May-99	-	55	33.48	8a-6p	3.60	72.7	87.62	Tindale-Oliver & Associates
Collier Co, FL	66.0	May-99	-	43	11.53	8a-6p	5.70	79.0	51.92	Tindale-Oliver & Associates
Collier Co, FL	211.1	May-99	-	284	17.91	8a-6p	5.40	93.0	89.94	Tindale-Oliver & Associates
Total Size	291.2		3	Average Trip Length: 4.90						
ITE	6,288.0		16	Weighted Average Trip Length: 5.38						
				Marion Adjusted Trip Length: 5.65						
Blended total	6,579.2			Weighted Percent New Trip Average: 88.8						
				Weighted Average Trip Generation Rate: 17.22						
				ITE Average Trip Generation Rate: 12.44						
				Blend of FL Studies and ITE Average Trip Generation Rate: 12.65						

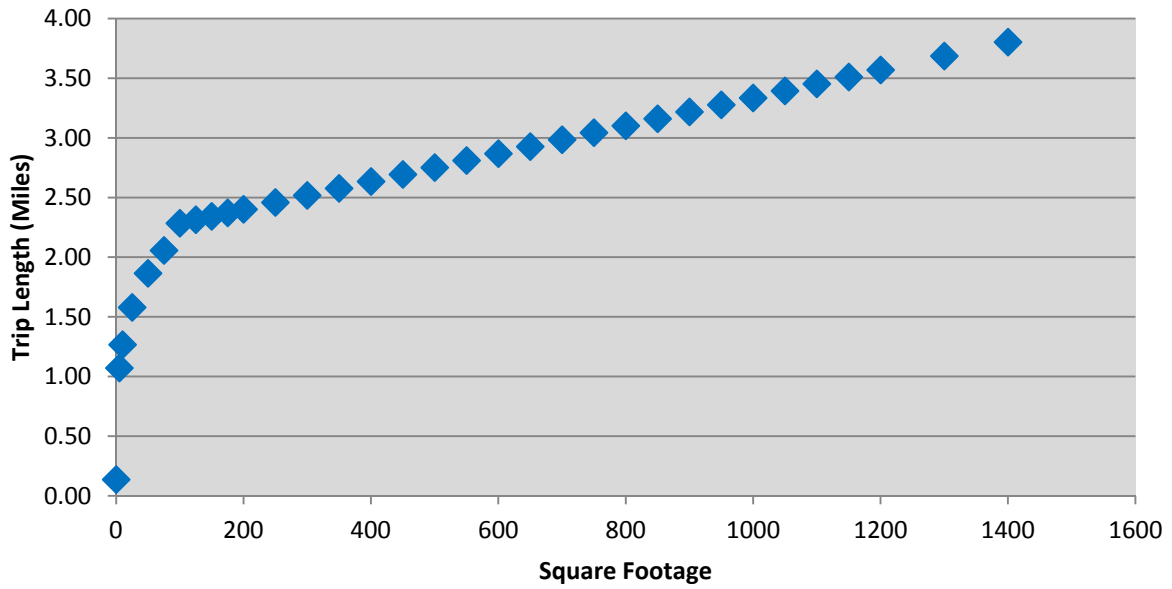
Specialty Retail Center (ITE LUC 826)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	12.0	May-99	-	13	19.70	8a-6p	3.70	75.0	54.67	Tindale-Oliver & Associates
Collier Co, FL	12.0	May-99	-	146	127.50	8a-6p	2.24	84.3	240.76	Tindale-Oliver & Associates
Total Size	24.0		3	Average Trip Length: 2.97						
ITE	100.0		4	Weighted Average Trip Length: 2.97						
				Marion Adjusted Trip Length: 3.12						
Blended total	124.0			Weighted Percent New Trip Average: 79.7						
				Weighted Average Trip Generation Rate: 73.60						
				ITE Average Trip Generation Rate (8th): 44.32						
				Blend of FL Studies and ITE Average Trip Generation Rate: 49.99						

Shopping Center (ITE LUC 820)

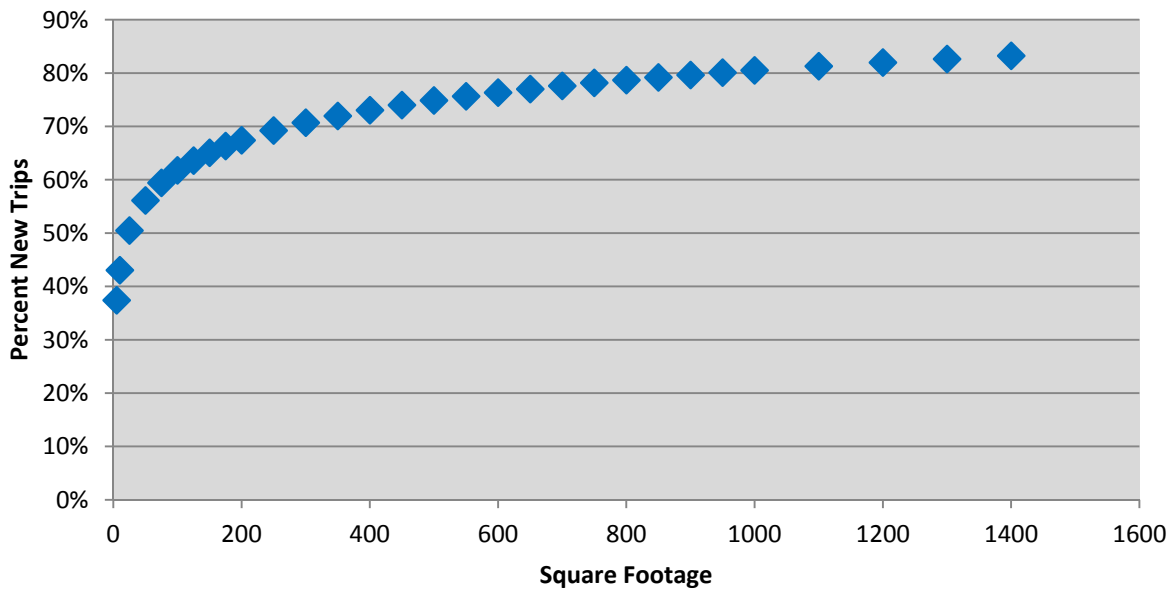
Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	170	-	-	-	1.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	354	269	-	-	-	76.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	144	-	-	-	2.50	-	-	Kimley-Horn & Associates
St. Petersburg, FL	1,192.0	Aug-89	384	298	-	11a-7p	3.60	78.0	-	Tindale-Oliver & Associates
St. Petersburg, FL	132.3	Sep-89	400	368	77.00	10a-7p	1.80	92.0	127.51	Tindale-Oliver & Associates
Largo, FL	425.0	Aug-89	160	120	26.73	10a-6p	2.30	75.0	46.11	Tindale-Oliver & Associates
Dunedin, FL	80.5	Sep-89	276	210	81.48	9a-5p	1.40	76.0	86.69	Tindale-Oliver & Associates
Pinellas Park, FL	696.0	Sep-89	485	388	-	9a-6p	3.20	80.0	-	Tindale-Oliver & Associates
Seminole, FL	425.0	Oct-89	674	586	-	-	-	87.0	-	Tindale-Oliver & Associates
Hillsborough Co, FL	134.0	Jul-91	-	-	-	-	1.30	74.0	-	Tindale-Oliver & Associates
Hillsborough Co, FL	151.0	Jul-91	-	-	-	-	1.30	73.0	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	68	64	-	-	3.33	94.1	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	208	154	-	-	2.64	74.0	-	Tindale-Oliver & Associates
Sarasota/Bradenton, FL	109.0	Sep-92	300	185	-	12a-6p	-	61.6	-	King Engineering Associates, Inc.
Ocala, FL	133.4	Sep-92	300	192	-	12a-6p	-	64.0	-	King Engineering Associates, Inc.
Gwinnett Co, GA	99.1	Dec-92	-	-	46.00	-	3.20	70.0	103.04	Street Smarts
Gwinnett Co, GA	314.7	Dec-92	-	-	27.00	-	8.50	84.0	192.78	Street Smarts
Sarasota Co, FL	110.0	Jun-93	58	58	122.14	-	3.20	-	-	Sarasota County
Sarasota Co, FL	146.1	Jun-93	65	65	51.53	-	2.80	-	-	Sarasota County
Sarasota Co, FL	157.5	Jun-93	57	57	79.79	-	3.40	-	-	Sarasota County
Sarasota Co, FL	191.0	Jun-93	62	62	66.79	-	5.90	-	-	Sarasota County
Hernando Co, FL	107.8	May-96	608	331	77.60	9a-6p	4.68	54.5	197.85	Tindale-Oliver & Associates
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale-Oliver & Associates
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale-Oliver & Associates
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale-Oliver & Associates
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale-Oliver & Associates
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale-Oliver & Associates
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale-Oliver & Associates
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale-Oliver & Associates
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale-Oliver & Associates
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale-Oliver & Associates
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale-Oliver & Associates
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale-Oliver & Associates
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale-Oliver & Associates
Total Size	5,757.5		7,536	Average Trip Length: n/a						
				Weighted Average Trip Length: n/a						

Figure A-1
Retail/Shopping Center (LUC 820) – Florida Curve Trip Length Regression



Source: Regression analysis based on FL Studies data for LUC 820

Figure A-2
Retail/Shopping Center (LUC 820) – Florida Curve Percent New Trips Regression



Source: Regression analysis based on FL Studies data for LUC 820

New/Used Auto Sales (ITE LUC 841)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
St.Petersburg, FL	43.0	Oct-89	152	120	-	9a-5p	4.70	79.0	-	Tindale-Oliver & Associates
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale-Oliver & Associates
Orange Co, FL	116.7	-	-	-	22.18	-	-	-	-	Orange County
Orange Co, FL	99.8	-	-	-	13.45	-	-	-	-	Orange County
Orange Co, FL	39.1	-	-	-	10.48	-	-	-	-	Orange County
Orange Co, FL	66.3	-	-	-	28.50	-	-	-	-	Orange County
Orange Co, FL	46.7	-	-	-	40.34	-	-	-	-	Orange County
Orange Co, FL	34.4	-	-	-	23.45	-	-	-	-	Orange County
Orange Co, FL	13.8	-	-	-	35.75	-	-	-	-	Orange County
Total Size	459.7		9	288	Average Trip Length: 4.60					
ITE	570.0		15		Weighted Average Trip Length: 4.60					
					Marion Adjusted Trip Length: 4.83					
Blended total	1,029.7				Weighted Percent New Trip Average: 78.5					
					ITE Average Trip Generation Rate: 32.30					
					Blend of FL Studies and ITE Average Trip Generation Rate: 28.25					

Supermarket (ITE LUC 850)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Palm Harbor, FL	62.0	Aug-89	163	62	106.26	9a-4p	2.08	56.0	123.77	Tindale-Oliver & Associates
Total Size	62.0		1	163	Average Trip Length: 2.08					
ITE	156.0		4		Weighted Average Trip Length: 2.08					
					Marion Adjusted Trip Length: 2.18					
Blended total	218.0				Weighted Percent New Trip Average: 56.0					
					ITE Average Trip Generation Rate: 102.24					
					Blend of FL Studies and ITE Average Trip Generation Rate: 103.38					

Convenience Market - 24hrs. (ITE LUC 851)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	80	-	-	-	1.10	-	-	Kimley-Horn & Associates
Largo, FL	2.5	8/15,25/89	171	116	634.80	-	1.20	68.0	518.00	Tindale-Oliver & Associates
Clearwater, FL	2.5	Aug-89	237	64	690.80	-	1.60	27.0	298.43	Tindale-Oliver & Associates
Clearwater, FL	2.1	Nov-89	143	50	635.24	24hr.	1.60	35.0	355.73	Tindale-Oliver & Associates
Marion Co, FL	2.5	Jun-91	94	43	787.20	48hrs.	1.52	46.2	552.80	Tindale-Oliver & Associates
Marion Co, FL	2.5	Jun-91	74	20	714.00	48hrs.	0.75	27.0	144.59	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	146	36	-	-	2.53	24.7	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	148	38	-	-	1.08	25.7	-	Tindale-Oliver & Associates
Gwinnett Co, GA	2.9	12/13-18/92	-	-	-	-	2.30	48.0	-	Street Smarts
Gwinnett Co, GA	3.2	12/13-18/92	-	-	-	-	-	37.0	-	Street Smarts
Total Size	18.2		7	1,093	Average Trip Length: 1.52					
ITE	16.0		8		Weighted Average Trip Length: 1.52					
					Marion Adjusted Trip Length: 1.60					
Blended total	34.2				Weighted Percent New Trip Average: 41.3					
	28.1				ITE Average Trip Generation Rate: 737.99					
					Blend of FL Studies and ITE Average Trip Generation Rate: 719.18					

Convenience Market w/Gasoline (ITE LUC 853)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	72	-	-	-	2.00	-	-	Kimley-Horn & Associates
Marion Co, FL	1.1	Jun-91	77	20	544.80	24hr.	0.89	26.0	126.07	Tindale-Oliver & Associates
Marion Co, FL	2.1	Jun-91	66	24	997.60	24hr.	1.67	36.4	606.42	Tindale-Oliver & Associates
Marion Co, FL	4.4	Jun-91	85	25	486.70	48hrs.	1.06	29.4	151.68	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	96	38	-	-	1.19	39.6	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	78	16	-	-	1.06	20.5	-	Tindale-Oliver & Associates
Tampa, FL	2.3	10/13-15/92	239	74	-	24hr.	1.06	31.1	-	Tindale-Oliver & Associates
Ellenton, FL	3.3	10/20-22/92	124	44	-	24hr.	0.96	35.3	-	Tindale-Oliver & Associates
Tampa, FL	3.8	11/10-12/92	142	23	-	24hr.	3.13	16.4	-	Tindale-Oliver & Associates
Marion Co, FL	2.5	Apr-02	87	-	719.79	24hr.	1.62	32.8	322.19	Kimley-Horn & Associates
Marion Co, FL	2.5	Apr-02	23	-	610.46	24hr.	1.77	11.7	126.61	Kimley-Horn & Associates
Marion Co, FL	3.0	Apr-02	59	-	606.02	24hr.	0.83	32.6	195.00	Kimley-Horn & Associates
Total Size	25.1		9	1,148	Average Trip Length: 1.44					
ITE	30.0		10		Weighted Average Trip Length: 1.51					
					Marion Adjusted Trip Length: 1.59					
Blended Total	55.1				Weighted Percent New Trip Average: 27.7					
	45.6		15.6		ITE Average Trip Generation Rate: 845.60					
					Blend of FL Studies and ITE Average Trip Generation Rate: 775.14					

Pharmacy/Drugstore w/Drive-Thru (ITE LUC 880 & 881)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pasco Co, FL	11.1	Apr-02	138	38	88.97	-	2.05	27.5	50.23	Tindale-Oliver & Associates
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale-Oliver & Associates
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale-Oliver & Associates
Total Size	38.2		3	1,542	Average Trip Length: 2.07					
ITE	196.0		16	Weighted Average Trip Length: 2.08						
				Marion Adjusted Trip Length: 2.18						
Blended total	234.2			Weighted Percent New Trip Average: 32.5						
				Average Trip Generation Rate: 103.03						
				ITE Average Trip Generation Rate (LUC 880 / 881): 90.06 / 96.91						
				Blend of FL Studies and ITE Average Trip Generation Rate: 95.96						

Furniture Store (ITE LUC 890)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	15.0	7/28-30/92	64	34	-	-	4.63	52.5	-	Tindale-Oliver & Associates
Tampa, FL	16.9	Jul-92	68	39	-	-	7.38	55.7	-	Tindale-Oliver & Associates
Total Size	31.9		2	132	Average Trip Length: 6.01					
ITE	897.0		13	Weighted Average Trip Length: 6.09						
				Marion Adjusted Trip Length: 6.39						
				Weighted Percent New Trip Average: 54.2						
				ITE Average Trip Generation Rate: 5.06						

Drive-In Bank (ITE LUC 912)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	77	-	-	-	2.40	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	211	-	-	-	-	54.0	-	Kimley-Horn & Associates
Clearwater, FL	0.4	Aug-89	113	52	-	9a-6p	5.20	46.0	-	Tindale-Oliver & Associates
Largo, FL	2.0	Sep-89	129	94	-	-	1.60	73.0	-	Tindale-Oliver & Associates
Seminole, FL	4.5	Oct-89	-	-	-	-	-	-	-	Tindale-Oliver & Associates
Marion Co, FL	2.3	Jun-91	69	29	-	24hr.	1.33	42.0	-	Tindale-Oliver & Associates
Marion Co, FL	3.1	Jun-91	47	32	-	24hr.	1.75	68.1	-	Tindale-Oliver & Associates
Marion Co, FL	2.5	Jul-91	57	26	-	48hrs.	2.70	45.6	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	162	96	-	24hr.	0.88	59.3	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	116	54	-	-	1.58	46.6	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	142	68	-	-	2.08	47.9	-	Tindale-Oliver & Associates
Hernando Co, FL	5.4	May-96	164	41	-	9a-6p	2.77	24.7	-	Tindale-Oliver & Associates
Marion Co, FL	2.4	Apr-02	70	-	-	24hr.	3.55	54.6	-	Kimley-Horn & Associates
Marion Co, FL	2.7	May-02	50	-	246.66	24hr.	2.66	40.5	265.44	Kimley-Horn & Associates
Total Size	25.2		9	1,407	Average Trip Length: 2.38					
ITE	21.0		7	Weighted Average Trip Length: 2.46						
				Marion Adjusted Trip Length: 2.58						
Blended total	46.2			Weighted Percent New Trip Average: 46.2						
	23.7			Average Trip Generation Rate: 246.66						
				ITE Average Trip Generation Rate: 148.15						
				Blend of FL Studies and ITE Average Trip Generation Rate: 159.34						

Quality Restaurant (ITE LUC 931)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	76	62	-	-	2.10	82.0	-	Kimley-Horn & Associates
St. Petersburg, FL	7.5	Oct-89	177	154	-	11a-2p/4-8p	3.50	87.0	-	Tindale-Oliver & Associates
Clearwater, FL	8.0	Oct-89	60	40	110.63	10a-2p/5-9p	2.80	67.0	207.54	Tindale-Oliver & Associates
Total Size	15.5		2	313	Average Trip Length: 2.80					
ITE	135.0		15	Weighted Average Trip Length: 3.14						
				Marion Adjusted Trip Length: 3.30						
Blended total	150.5			Weighted Percent New Trip Average: 76.7						
	143.0			Average Trip Generation Rate: 110.63						
				ITE Average Trip Generation Rate: 89.95						
				Blend of FL Studies and ITE Average Trip Generation Rate: 91.10						

High-Turnover Restaurant (ITE LUC 932)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Hernando Co, FL	6.2	May-96	242	175	187.51	9a-6p	2.76	72.5	375.00	Tindale-Oliver & Associates
Hernando Co, FL	8.2	May-96	154	93	102.71	9a-6p	4.15	60.2	256.43	Tindale-Oliver & Associates
St. Petersburg, FL	5.0	Oct-89	74	68	132.60	1130-7p	2.00	92.0	243.98	Tindale-Oliver & Associates
Kenneth City, FL	5.2	Oct-89	236	176	127.88	4p-730p	2.30	75.0	220.59	Tindale-Oliver & Associates
Pasco Co, FL	5.2	Apr-02	114	88	82.47	9a-6p	3.72	77.2	236.81	Tindale-Oliver & Associates
Pasco Co, FL	5.8	Apr-02	182	102	116.97	9a-6p	3.49	56.0	228.77	Tindale-Oliver & Associates
Orange Co, FL	8.9	-	-	-	52.69	-	-	-	-	Orange County
Orange Co, FL	11.3	-	-	-	62.12	-	-	-	-	Orange County
Orange Co, FL	6.7	-	-	-	82.58	-	-	-	-	Orange County
Orange Co, FL	11.4	-	-	-	91.67	-	-	-	-	Orange County
Orange Co, FL	11.3	-	-	-	95.33	-	-	-	-	Orange County
Orange Co, FL	7.2	-	-	-	98.06	-	-	-	-	Orange County
Orange Co, FL	5.5	-	-	-	100.18	-	-	-	-	Orange County
Orange Co, FL	9.7	-	-	-	105.84	-	-	-	-	Orange County
Orange Co, FL	4.6	-	-	-	129.23	-	-	-	-	Orange County
Orange Co, FL	7.0	-	-	-	126.40	-	-	-	-	Orange County
Orange Co, FL	9.7	-	-	-	132.32	-	-	-	-	Orange County
Orange Co, FL	5.0	-	-	-	135.68	-	-	-	-	Orange County
Orange Co, FL	5.6	-	-	-	145.59	-	-	-	-	Orange County
Orange Co, FL	7.4	-	-	-	147.44	-	-	-	-	Orange County
Orange Co, FL	5.9	-	-	-	147.74	-	-	-	-	Orange County

Total Size	152.8	21	1,102	Average Trip Length: 3.07	
ITE	98.0	14		Weighted Average Trip Length: 3.17	
				Marion Adjusted Trip Length: 3.33	
Blended total	250.8			Weighted Percent New Trip Average:	70.8
				Weighted Average Trip Generation Rate:	109.84
				ITE Average Trip Generation Rate:	127.15
				Blend of FL Studies and ITE Average Trip Generation Rate:	116.60

Fast Food Restaurant w/Drive Thru (ITE LUC 934)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	61	-	-	-	2.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	306	-	-	-	-	65.0	-	Kimley-Horn & Associates
Pinellas Co, FL	2.20	Aug-89	81	48	502.80	11a-2p	1.70	59.0	504.31	Tindale-Oliver & Associates
Pinellas Co, FL	4.30	Oct-89	456	260	660.40	1 day	2.30	57.0	865.78	Tindale-Oliver & Associates
Tarpon Springs, FL	-	Oct-89	233	114	-	7a-7p	3.60	49.0	-	Tindale-Oliver & Associates
Marion Co, FL	1.60	Jun-91	60	32	962.50	48hrs.	0.91	53.3	466.84	Tindale-Oliver & Associates
Marion Co, FL	4.00	Jun-91	75	46	625.00	48hrs.	1.54	61.3	590.01	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	66	44	-	-	1.91	66.7	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	118	40	-	-	1.17	33.9	-	Tindale-Oliver & Associates
Hernando Co, FL	5.43	May-96	136	82	311.83	9a-6p	1.68	60.2	315.27	Tindale-Oliver & Associates
Hernando Co, FL	3.13	May-96	168	82	547.34	9a-6p	1.59	48.8	425.04	Tindale-Oliver & Associates
Lake Co, FL	2.20	Apr-01	376	252	934.30	-	2.50	74.6	1742.47	Tindale-Oliver & Associates
Lake Co, FL	3.20	Apr-01	171	182	654.90	-	4.10	47.8	-	Tindale-Oliver & Associates
Lake Co, FL	3.80	Apr-01	188	137	353.70	-	3.30	70.8	826.38	Tindale-Oliver & Associates
Pasco Co, FL	2.66	Apr-02	100	46	283.12	9a-6p	5.10	46.0	-	Tindale-Oliver & Associates
Pasco Co, FL	2.96	Apr-02	486	164	515.32	9a-6p	2.72	33.7	472.92	Tindale-Oliver & Associates
Pasco Co, FL	4.42	Apr-02	168	120	759.24	9a-6p	1.89	71.4	1024.99	Tindale-Oliver & Associates
Orange Co, FL	8.93	-	-	-	377.00	-	-	-	-	Orange County

Total Size	48.8	13	4,463	Average Trip Length: 2.42	
ITE	63.0	21		Weighted Average Trip Length: 2.05	
				Marion Adjusted Trip Length: 2.15	
Blended total	111.8			Weighted Percent New Trip Average:	57.9
	34.0			Weighted Average Trip Generation Rate:	530.19
				ITE Average Trip Generation Rate:	496.12
				Blend of FL Studies and ITE Average Trip Generation Rate:	511.00

Automobile Care Center (ITE LUC 942)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Jacksonville, FL	2.3	2/3-4/90	124	94	-	9a-5p	3.07	76.0	-	Tindale-Oliver & Associates
Jacksonville, FL	2.3	2/3-4/90	110	74	-	9a-5p	2.96	67.0	-	Tindale-Oliver & Associates
Jacksonville, FL	2.4	2/3-4/90	132	87	-	9a-5p	2.32	66.0	-	Tindale-Oliver & Associates
Lakeland, FL	5.2	Mar-90	24	14	-	9a-4p	1.36	59.0	-	Tindale-Oliver & Associates
Largo, FL	5.5	Sep-89	34	30	37.64	9a-5p	2.40	88.0	79.50	Tindale-Oliver & Associates
Orange Co, FL	25.0	Nov-92	41	39	-	2-6p	4.60	-	-	LCE, Inc.
Lakeland, FL	-	Mar-90	54	42	-	9a-4p	2.44	78.0	-	Tindale-Oliver & Associates

Total Size	42.6	6	519	Average Trip Length: 2.74	
ITE	102.0	6		Weighted Average Trip Length: 3.62	
				Marion Adjusted Trip Length: 3.80	
Blended total	144.6			Weighted Percent New Trip Average:	72.2
	107.5			Weighted Average Trip Generation Rate:	37.64
				ITE Average Trip Generation Rate:	31.10
				Blend of FL Studies and ITE Average Trip Generation Rate:	31.43

Service Station with and w/o Car Wash (ITE LUC 944 & 946)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	0.6	Nov-89	70	14	-	8am-5pm	1.90	23.0	-	Tindale-Oliver & Associates
Collier County, FL	-	Aug-91	168	40	-	-	1.01	23.8	-	Tindale-Oliver & Associates
Total Size	0.6		1	238						
ITE LUC 944 (vfp)	48.0		6							
ITE LUC 946 (vfp)	120.0		10							
							Average Trip Length:	1.46		
							Weighted Average Trip Length:	1.90		
							Marion Adjusted Trip Length:	2.00		
								Weighted Percent New Trip Average:	23.0	
								ITE Average Trip Generation Rate - per fuel position (LUC 944):	168.56	
								ITE Average Trip Generation Rate - per fuel position (LUC 946):	152.84	
								Blended ITE Average Trip Generation Rate - per fuel position:	157.33	

Self-Service Car Wash (ITE LUC 947)

Location	Size (Bays)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	10	Nov-89	111	84	-	8am-5pm	2.00	76.0	-	Tindale-Oliver & Associates
Clearwater, FL	-	Nov-89	177	108	-	10am-5pm	1.30	61.0	-	Tindale-Oliver & Associates
Collier, FL	11	Dec-09	304	-	30.24	-	2.50	57.0	-	Tindale-Oliver & Associates
Collier, FL	8	Jan-09	186	-	22.75	-	1.96	72.0	-	Tindale-Oliver & Associates
Total Size	29		3	778						
Total Size (TGR)	19		2							
ITE	5		1							
Blended total	24									
							Average Trip Length:	1.94		
							Weighted Average Trip Length:	2.18		
							Marion Adjusted Trip Length:	2.29		
								Weighted Percent New Trip Average:	67.7	
								Weighted Average Trip Generation Rate:	27.09	
								ITE Average Trip Generation Rate:	108.00	
								Blend of FL Studies and ITE Average Trip Generation Rate:	43.94	

Gasoline/Fast Food/Convenience Store (ITE LUC -)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Volusia Co, FL	-	-	-	-	918.00	-	2.40	33.0	727.06	Tindale-Oliver & Associates
Collier Co, FL	2.4	Nov-99	-	128	1399.58	8a-6p	4.10	13.3	763.19	Tindale-Oliver & Associates
Indian River Co, FL	2.5	Mar-98	132	52	748.30	8a-6p	3.70	19.7	545.44	Tindale-Oliver & Associates
Indian River Co, FL	3.0	Mar-98	107	84	563.10	8a-6p	2.00	39.3	442.60	Tindale-Oliver & Associates
Indian River Co, FL	3.1	Mar-98	132	110	1396.00	8a-6p	1.80	41.7	1,047.84	Tindale-Oliver & Associates
Collier Co, FL	3.3	Nov-99	-	144	862.56	8a-6p	2.20	39.6	751.46	Tindale-Oliver & Associates
Total Size	14.3		5	371						
							Average Trip Length:	2.70		
							Weighted Average Trip Length:	2.65		
							Marion Adjusted Trip Length:	2.78		
								Weighted Percent New Trip Average:	32.1	
								Weighted Average Trip Generation Rate:	984.59	

APPENDIX B
Cost Component Calculations

Cost Component

This appendix presents the detailed calculations for the cost component of the transportation impact fee update. Backup data and assumptions are provided for all cost variables (for county and state roads), including:

- Design
- Right-of-Way
- Construction
- Construction Engineering/Inspection
- Roadway Capacity

Urban Design vs. Rural Design

Due to a lack of roadway construction data for rural-design roadways, the cost per lane mile for these types of roads was calculated using an adjustment factor. This factor was based on the rural-to-urban design cost ratio from the most recent District 7 Long Range Estimates (LRE) provided by FDOT. This data was not available for FDOT District 5. Based on the LRE, the cost for rural-design roadway capacity expansion (new road construction or lane addition) is approximately 81 percent of the cost of urban-design roadway improvements. For all subsequent tables (for county and state roadways), costs are presented for urban-design roadways, with the rural-design roadway costs being calculated using the cost ratio from Table B-1.

Table B-1
Urban / Rural Design Cost Factor

Improvement	Cost per Lane Mile		
	Rural Design	Urban Design	Ratio
0-2 Lanes	\$2,534,872	\$3,660,722	69%
0-4 Lanes	\$2,060,744	\$2,583,635	80%
0-6 Lanes	\$1,750,755	\$2,105,746	83%
2-4 Lanes	\$2,946,063	\$3,386,132	87%
4-6 Lanes	\$3,300,893	\$3,782,969	87%
Average	\$2,518,665	\$3,103,841	81%

Source: FDOT District 7 Long Range Estimates, 2014; this data was not available for FDOT District 5

Design

County Roadways

The design cost factor for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the design-to-construction cost ratios from recently completed and bid improvements in Marion County and from previously completed impact fee studies throughout Florida. For county roadways from throughout Florida, the design factors ranged from 4 percent to 20 percent, with a weighted average of 10 percent from recent studies and 10 percent from local studies. For purposes of this update study, the design cost for county roads was calculated at 10 percent of the construction cost per lane mile based on a review of the available data (see Tables B-10 and B-11 for additional information).

**Table B-2
Design Cost Adjustment – County Roads**

Road Type	Design Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted Design Cost per Lane Mile ⁽³⁾
Urban Design	\$170,000	90%	\$153,000
Rural Design	\$138,000	10%	\$14,000
Weighted Average Design Cost per Lane Mile			\$167,000

(1) Design cost is estimated at 10% of construction cost based on recent local projects (Table B-10) and recent TIF studies (Table B-11, Item a); construction cost is shown in Table B-14

(2) Source: Appendix B, Table B-20 (Items c and d)

(3) Design cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together

All figures rounded to nearest \$1,000

State Roadways

The design cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the design-to-construction cost ratios for state road unit costs in previously completed impact fee studies throughout Florida. For state roadways, the design factors ranged from 10 percent to 14 percent, with a weighted average of 11 percent. For purposes of this update study, the design cost for state roads was calculated at 11 percent of the construction cost per lane mile. See Table B-11 for additional information.

**Table B-3
Design Cost Adjustment – State Roads**

Road Type	Design Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted Design Cost per Lane Mile ⁽³⁾
Urban Design	\$231,000	90%	\$208,000
Rural Design	\$187,000	10%	\$19,000
Weighted Average Design Cost per Lane Mile			\$227,000

(1) Design cost is estimated at 11% of construction cost based on recent TIF studies in Table B-11 (Item b); construction cost is shown in Table B-16

(2) Source: Appendix B, Table B-20 (Items c and d)

(3) Design cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together

All figures rounded to nearest \$1,000

Right-of-Way

The ROW cost reflects the total cost of the acquisitions along a corridor that was necessary to have sufficient cross-section width to widen an existing road or, in the case of new construction, build a new road.

County Roadways

To determine a ROW acquisition cost per lane mile for county roads, Tindale Oliver conducted a review of recently completed ROW acquisitions and current ROW estimates along capacity expansion projects in Marion County and also reviewed ROW estimates from recent transportation impact fee studies from other counties in Florida. For impact fee purposes, the ROW cost for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the ROW-to-construction cost ratios for county road unit costs from recent local projects and in previously completed impact fee studies throughout Florida. For county roadways in Marion County, the ROW factors ranged from 21 percent to 92 percent, with a weighted average of 60 percent, as shown in Table B-12. For purposes of this update study, the ROW cost for county roads was calculated at 60 percent of the construction cost per lane mile, which is higher than the average ROW-to-construction cost ratio of 41 percent observed in other Florida jurisdictions (see Table B-13). Discussions with Marion County staff indicated that above average ROW acquisition costs are expected to continue.

**Table B-4
Right-of-Way Cost Adjustment – County Roads**

Road Type	ROW Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted ROW Cost per Lane Mile ⁽³⁾
Urban Design	\$1,020,000	90%	\$918,000
Rural Design	\$826,000	10%	\$83,000
Weighted Average ROW Cost per Lane Mile			\$1,001,000

- (1) ROW cost is estimated at 60% of construction cost based on recent Marion County improvements in Table B-12; construction cost is shown in Table B-14
- (2) Source: Appendix B, Table B-20 (Items c and d)
- (3) ROW cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together
- All figures rounded to nearest \$1,000

State Roadways

Similar to county roads, the ROW cost for state roads was estimated as a percentage of the construction cost per lane mile. Given the limited data on ROW costs for state roads in Marion County and based on experience in other jurisdictions, the ROW cost ratio calculated for county roads was also applied to state roads. Using this ROW-to-construction ratio of 60 percent, the weighted average ROW cost for state roadways is approximately \$1.24 million per lane mile.

**Table B-5
Right-of-Way Cost Adjustment – State Roads**

Road Type	ROW Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted ROW Cost per Lane Mile ⁽³⁾
Urban Design	\$1,260,000	90%	\$1,134,000
Rural Design	\$1,021,000	10%	\$102,000
Weighted Average ROW Cost per Lane Mile			\$1,236,000

- (1) ROW cost is estimated at 45% of construction cost based on recent local county roadway improvements in Table B-12; construction cost is shown in Table B-16
- (2) Source: Appendix B, Table B-20 (Items c and d)
- (3) ROW cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
- All figures rounded to nearest \$1,000

Construction

County Roadways

A review of construction cost data for recent local county roadway capacity expansion projects identified 10 recent improvements in Marion County. These improvements had a weighted average construction cost of approximately **\$1.65 million** per lane mile, as shown in Table B-14:

- NW 60th Ave from SR 2000 to SR 40
- CR 464 (Ph. I) from Oak Rd to Locust Rd
- CR 200A from US 441 to NE 35th St
- NW 44th Ave from US 27 to NW 60th St
- SE 31st St from SE 19th Ave to SE 36th St
- SE 31st St from SE 36th Ave to SR 464
- SW 110th St from US 41 to SW 200th Ave
- NW 35th St from NW 35th Avenue Rd to NW 27th Ave
- NW 35th St from NW 27th Ave to US 441
- NW/NE 35th St (Ph. 1a) from US 441 to 600' E. of Anthony Rd

In addition to local data, a review of recently bid projects throughout the state of Florida was conducted. As shown in Table B-15, a total of 84 additional projects from 17 different counties provided a weighted average cost per lane mile of \$2.11 million per lane mile. When compared to the statewide bids, the local improvements average a significantly lower average cost per lane mile. Staff indicated that road construction in Marion County tends to be lower based on the rural nature of the County. While costs in FDOT District 5 are typically higher than average, Marion County does not have the same characteristics as other District 5 Counties such as Orange County or Brevard County. Future improvements are planned along rural stretched of the County or near the outer boundaries of the City of Ocala, resulting in more cost effective projects.

Based on this review and discussions with staff, a county roadway cost of \$1.70 million per lane mile was used in the transportation impact fee calculation for county roads with urban design characteristics. Table B-6 presents the urban and rural design cost estimates, as well as the weighted average cost per lane mile for county roads in Marion County.

**Table B-6
Construction Cost Adjustment – County Roads**

Road Type	Construction Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted Constr. Cost per Lane Mile ⁽³⁾
Urban Design	\$1,700,000	90%	\$1,530,000
Rural Design	\$1,377,000	10%	\$138,000
Weighted Average Construction Cost per Lane Mile			\$1,668,000

(1) Source: Table B-14. Rural design is estimated at 81% of urban design costs (see Table B-1)

(2) Source: Appendix B, Table B-20 (Items c and d)

(3) Construction cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.

All figures rounded to nearest \$1,000

State Roadways

A review of construction cost data for recent local state roadway capacity expansion projects identified six (6) recent improvements and one future estimate in Marion County. These improvements had an adjusted (urban-design equivalent) weighted average construction cost of approximately **\$2.38 million** per lane mile, as shown in Table B-16:

- SR 45 (US 41) from S. of Powell Rd to 0.42 miles N. of 111th Place Lane
- SR 40 from SW 80th Ave (CR 225A) to SW 52nd Ave
- CR 484 from 2200'E of I-75 to SE 47th Ave/SE 135th St
- SR 35 (US 301) from Sumter County Line to 529'S of CR 42
- SR 35 (Baseline Rd) from Maricamp Rd (SR 464) to SR 40 (Silver Springs)
- SR 40 from CR 328 to SW 80th Ave (CR 225A)
- US 41 from SW 111th Place Lane to SR 40

In addition to looking at local data, a review of recently bid projects located throughout the state of Florida was conducted. As shown in Table B-17, a total of 57 projects from 30 different counties estimated a weighted average cost per lane mile of \$2.73 million per lane mile (all improvements are urban section design). Similar to the county road cost data, the local data for state roads indicated a significantly lower per lane mile cost for Marion County when compared to the statewide data. Based on this review and discussions with staff, a state roadway cost of \$2.10 million per lane mile was used in the transportation impact fee calculation for state roads with urban design characteristics. Local data supported this lower cost, although the recent estimate on US 41 showing a very high cost per lane mile. For impact fee calculation purposes, and to be conservative, this improvement was excluded from the cost per lane mile calculation. Table B-7 presents the urban and rural design cost

estimates, as well as the weighted average cost per lane mile for state roads in Marion County.

**Table B-7
Construction Cost Adjustment – State Roads**

Road Type	Construction Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted Constr. Cost per Lane Mile ⁽³⁾
Urban Design	\$2,100,000	90%	\$1,890,000
Rural Design	\$1,701,000	10%	\$170,000
Weighted Average Construction Cost per Lane Mile			\$2,060,000

- (1) Source: Table B-14. Rural design is estimated at 81% of urban design costs
 (2) Source: Appendix B, Table B-20 (Items c and d)
 (3) Construction cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
 All figures rounded to nearest \$1,000

Construction Engineering/Inspection

County Roadways

The CEI cost factor for county roads was estimated as a percentage of the construction cost per lane mile. Based on a review of recent improvements (as shown in Table B-18) and a discussion with County Staff, a CEI-to-construction cost factor of three (3) percent was used for purposes of this impact fee update study. This figure is lower than factors observed in other Florida jurisdictions, but is representative of current local conditions. As shown in Table B-8, this resulted in a weighted average CEI cost of approximately \$50,000 per lane mile for county roadways.

**Table B-8
CEI Cost Adjustment – County Roads**

Road Type	CEI Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted CEI Cost per Lane Mile ⁽³⁾
Urban Design	\$51,000	90%	\$46,000
Rural Design	\$41,000	10%	\$4,000
Weighted Average CEI Cost per Lane Mile			\$50,000

- (1) Source: Table B-18. CEI cost is estimated at 3% of construction cost based on local data and discussions with County Staff; construction cost is shown in Table B-14
 (2) Source: Appendix B, Table B-20 (Items c and d)
 (3) CEI cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.
 All figures rounded to nearest \$1,000

State Roadways

The CEI cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined through a review of the CEI-to-construction cost ratios for state road unit costs in previously completed impact fee studies throughout Florida. For state roadways, the CEI factors ranged from 8 percent to 17 percent, with a weighted average of 11 percent. For purposes of this update study, the CEI cost for state roads was calculated at 11 percent of the construction cost per lane mile (see Table B-19 for additional information).

Table B-9
CEI Cost Adjustment – State Roads

Road Type	CEI Cost per Lane Mile ⁽¹⁾	Section Design Distribution ⁽²⁾	Weighted CEI Cost per Lane Mile ⁽³⁾
Urban Design	\$231,000	90%	\$208,000
Rural Design	\$187,000	10%	\$19,000
Weighted Average CEI Cost per Lane Mile			\$227,000

(1) CEI cost is estimated at 11% of construction cost based on recent TIF studies in Table B-19 (Item b); construction cost is shown in Table B-15

(2) Source: Appendix B, Table B-20 (Items c and d)

(3) CEI cost per lane mile (Item 1) multiplied by the associated section design weight (Item 2) for each design type and added together.

All figures rounded to nearest \$1,000

**Table B-10
Design Cost Factor – Marion County Improvements**

Description	From	To	Bid Year	Feature	Section Design	Design	Construction Cost	Design / Construction
NW 60th Ave	SR 200	SR 40	FY 05/06	2 to 4 Lanes	Urban	\$516,982	\$14,763,186	3.5%
CR 464 (Ph. I)	Oak Rd	Locust Rd	FY 06/07	2 to 4 Lanes	Urban	\$1,597,263	\$12,843,881	12.4%
CR 200A	US 441	NE 35th St	FY 08/09	2 to 4 Lanes	Urban	\$782,936	\$6,451,296	12.1%
NW 44th Ave	US 27	NW 60th St	FY 08/09	2 to 4 Lanes	Urban	\$265,773	\$5,910,189	4.5%
SE 31th St	SE 19th Ave	SE 36th Ave	FY 08/09	2 to 4 Lanes	Urban	\$1,111,467	\$5,544,524	20.0%
	SE 36th Ave	SR 464	FY 08/09	0 to 4 Lanes	Urban			
NW 35th St	NW 35th Avenue Rd	NW 27th Ave	FY 12/13	0 to 4 Lanes	Urban	\$1,186,033	\$8,618,236	13.8%
	NW 27th Ave	US 441	FY 12/13	2 to 4 Lanes	Urban			
Belleview Bypass	SE 92nd Loop	SR 35	FY 14/15	0 to 4 Lanes	Semi-Urban	\$1,863,883	\$23,280,000	8.0%
NW/NE 35th St (Ph. 1a)	US 441	600' E. of W Anthony Rd	FY 15/16	2 to 4 Lanes	Urban	\$196,750	\$1,770,250	11.1%
Total						\$7,521,087	\$79,181,562	9.5%
							Used in Fee Calculation:	10.0%

Source: Marion County Transportation Department

Table B-11
Design Cost Factor for County & State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		Design	Constr.	Design Ratio	Design	Constr.	Design Ratio
2006	Collier	\$323,639	\$2,558,546	13%	\$349,643	\$3,385,978	10%
2006	Citrus	\$361,774	\$2,584,099	14%	\$400,432	\$2,860,227	14%
2006	Highlands	\$235,030	\$1,678,785	14%	\$347,326	\$2,480,900	14%
2006	Marion	\$185,333	\$1,941,244	10%	\$154,643	\$1,430,919	11%
2007	Pasco	\$246,324	\$3,079,051	8%	\$427,112	\$3,050,799	14%
2007	Lake	\$232,882	\$2,911,021	8%	\$318,412	\$3,184,125	10%
2007	Flagler	\$174,000	\$1,740,000	10%	-	-	n/a
2007	Volusia	\$291,696	\$2,651,778	11%	\$309,526	\$3,095,258	10%
2008	Leon	\$212,800	\$2,660,000	8%	\$372,130	\$3,383,000	11%
2008	Sumter	\$178,960	\$2,237,000	8%	\$238,000	\$2,380,000	10%
2009	Collier	\$217,000	\$3,100,000	7%	\$320,000	\$3,200,000	10%
2009	Polk	\$95,400	\$1,590,000	6%	\$217,000	\$2,170,000	10%
2009	Hillsborough/Tampa	\$308,000	\$2,800,000	11%	\$420,000	\$3,500,000	12%
2010	Collier	\$119,560	\$1,708,000	7%	\$241,800	\$2,418,000	10%
2011	Sarasota/North Port	\$240,000	\$2,400,000	10%	\$200,000	\$2,000,000	10%
2012	Osceola	\$371,196	\$2,651,400	14%	\$313,258	\$2,847,800	11%
2012	Orange	\$264,000	\$2,400,000	11%	-	-	n/a
2012	City of Orlando	\$288,000	\$2,400,000	12%	\$319,000	\$2,900,000	11%
2012	City of Sarasota	\$240,000	\$2,400,000	10%	\$286,000	\$2,600,000	11%
2013	Hernando	\$198,000	\$1,980,000	10%	\$222,640	\$2,024,000	11%
2013	Charlotte	\$220,000	\$2,200,000	10%	\$240,000	\$2,400,000	10%
2014	Indian River	\$159,000	\$1,598,000	10%	\$196,000	\$1,776,000	11%
Average		\$234,663	\$2,330,406	10%	\$309,268	\$2,767,938	11%

(a)

(b)

Source: Recent impact fee studies constructed throughout Florida

Note: Letter references (i.e., "a") are used to assist with footnotes and sourcing

Table B-12
Right-of-Way Factor – Recent County Road Improvements in Marion County

Description	From	To	Bid Year	Feature	Section Design	Right-of-Way	Construction Cost	Right-of-Way / Construction
CR 464 (Ph. I)	Oak Rd	Locust Rd	FY 06/07	2 to 4 Lanes	Urban	\$2,667,660	\$12,843,881	20.8%
CR 200A	US 441	NE 35th St	FY 08/09	2 to 4 Lanes	Urban	\$5,909,195	\$6,451,296	91.6%
NW 44th Ave	US 27	NW 60th St	FY 08/09	2 to 4 Lanes	Urban	\$3,946,500	\$5,910,189	66.8%
NW 35th St	NW 35th Avenue Rd	NW 27th Ave	FY 12/13	0 to 4 Lanes	Urban	\$6,983,485	\$8,618,236	81.0%
	NW 27th Ave	US 441	FY 12/13	2 to 4 Lanes	Urban			
Belleview Bypass	SE 92nd Loop	SR 35	FY 14/15	0 to 4 Lanes	Semi-Urban	\$14,000,000	\$23,280,000	60.1%
NW/NE 35th St (Ph. 1a)	US 441	600' E. of W Anthony Rd	FY 15/16	2 to 4 Lanes	Urban	<u>\$1,600,000</u>	<u>\$1,770,250</u>	90.4%
Total						\$35,106,840	\$58,873,852	59.6%
						Used in Fee Calculation:		60.0%

Source: Marion County Transportation Department

Table B-13
Right-of-Way Factor for County & State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		ROW	Constr.	Design Ratio	ROW	Constr.	Design Ratio
2006	Collier	\$1,751,790	\$2,558,546	68%	\$1,751,790	\$3,385,978	52%
2006	Citrus	\$784,599	\$2,584,099	30%	\$949,979	\$2,860,227	33%
2006	Highlands	\$468,853	\$1,678,785	28%	\$507,500	\$2,480,900	20%
2006	Marion	\$1,005,123	\$1,941,244	52%	\$868,908	\$1,430,919	61%
2007	Pasco	\$814,517	\$3,079,051	26%	\$1,560,714	\$3,050,799	51%
2007	Lake	\$599,185	\$2,911,021	21%	\$1,462,133	\$3,184,125	46%
2007	Flagler	\$460,000	\$1,740,000	26%	-	-	n/a
2007	Volusia	\$858,109	\$2,651,778	32%	\$954,543	\$3,095,258	31%
2008	Leon	\$1,120,000	\$2,660,000	42%	\$1,363,000	\$3,383,000	40%
2008	Sumter	\$802,000	\$2,237,000	36%	\$1,400,000	\$2,380,000	59%
2009	Collier	\$1,300,000	\$3,100,000	42%	\$1,300,000	\$3,200,000	41%
2009	Polk	\$1,491,000	\$1,590,000	94%	\$550,000	\$2,170,000	25%
2009	Hillsborough/Tampa	\$1,500,000	\$2,800,000	54%	\$2,500,000	\$3,500,000	71%
2010	Collier	\$901,000	\$1,708,000	53%	\$901,000	\$2,418,000	37%
2011	Sarasota/North Port	\$620,000	\$2,400,000	26%	\$800,000	\$2,000,000	40%
2012	Osceola	\$1,087,074	\$2,651,400	41%	\$1,167,598	\$2,847,800	41%
2012	Orange	\$1,080,000	\$2,400,000	45%	-	-	n/a
2012	City of Orlando	\$1,080,000	\$2,400,000	45%	\$1,305,000	\$2,900,000	45%
2012	City of Sarasota	\$620,000	\$2,400,000	26%	\$1,144,000	\$2,600,000	44%
2013	Hernando	\$811,800	\$1,980,000	41%	\$890,560	\$2,024,000	44%
2013	Charlotte	\$1,034,000	\$2,200,000	47%	\$1,128,000	\$2,400,000	47%
2014	Indian River	\$656,000	\$1,598,000	41%	\$781,000	\$1,776,000	44%
	Average	\$947,502	\$2,330,406	41%	\$1,164,286	\$2,654,350	44%

(a)

(b)

Source: Recent impact fee studies constructed throughout Florida

Note: Letter references (i.e., "a") are used to assist with footnotes and sourcing

Table B-14
Construction Cost – County Road Improvements from Marion County

Description	From	To	Bid Year	Feature	Section Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
NW 60th Ave	SR 200	SR 40	FY 05/06	2 to 4 Lanes	Urban	4.70	2	9.40	\$14,763,186	\$1,570,552
CR 464 (Ph. I)	Oak Rd	Locust Rd	FY 06/07	2 to 4 Lanes	Urban	3.20	2	6.40	\$12,843,881	\$2,006,856
CR 200A	US 441	NE 35th St	FY 08/09	2 to 4 Lanes	Urban	1.73	2	3.46	\$6,451,296	\$1,864,536
NW 44th Ave	US 27	NW 60th St	FY 08/09	2 to 4 Lanes	Urban	2.63	2	5.26	\$5,910,189	\$1,123,610
SE 31th St	SE 19th Ave	SE 36th Ave	FY 08/09	2 to 4 Lanes	Urban	1.50	2	4.20	\$5,544,524	\$1,320,125
	SE 36th Ave	SR 464	FY 08/09	0 to 4 Lanes	Urban	0.30	4			
SW 110th St	US 41	SW 200th Ave	FY 12/13	0 to 2 Lanes	Urban	0.11	2	0.22	\$438,765	\$1,994,386
NW 35th St	NW 35th Avenue Rd	NW 27th Ave	FY 12/13	0 to 4 Lanes	Urban	0.50	4	4.60	\$8,618,236	\$1,873,530
	NW 27th Ave	US 441	FY 12/13	2 to 4 Lanes	Urban	1.30	2			
NW/NE 35th St (Ph. 1a)	US 441	600' E. of W Anthony Rd	FY 15/16	2 to 4 Lanes	Urban	0.30	2	0.60	\$1,770,250	\$2,950,417
Total								34.14	\$56,340,327	\$1,650,273
								Used in Fee Calculation:		\$1,700,000

Source: Marion County Transportation Department

**Table B-15
Construction Cost – County Road Improvements from Other Jurisdictions throughout Florida**

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Collier	1	Santa Barbara Blvd Extension	Rattlesnake Hammock Rd	Davis Blvd	2008	Bid	0 to 6	Urban	2.00	6	12.00	\$12,035,894	\$1,002,991
Polk	1	Silver Connector Rd	E.F. Griffin Rd	US 98	2008	Bid	0 to 2	Urban	0.33	2	0.66	\$1,560,483	\$2,364,368
Polk	1	County Line Rd Ph. I and II	SR 60	W. Pipkin Rd	2008	Bid	2 to 4	Urban	3.02	2	6.04	\$10,827,839	\$1,792,689
Polk	1	Berkley Rd Ph. II and III	Old Dixie Hwy	Pace Rd	2008	Bid	2 to 4	Urban	4.80	2	9.60	\$13,951,130	\$1,453,243
Polk	1	Ernie Caldwell Blvd Ph. I and IIA	FDC Grove Rd	Pine Tree Trail	2008	Bid	0 to 4	Urban	3.66	4	14.64	\$25,910,148	\$1,769,819
Volusia	5	Debary Ave	Deltona Blvd	Providence Blvd	2008	Bid	2 to 4	Urban	1.84	2	3.68	\$7,405,914	\$2,012,477
Volusia	5	S. Williamson Blvd Ph. II	S. of Sabal Creek Blvd	N. of Moody Bridge	2008	Bid	2 to 4	Urban	1.91	2	3.82	\$11,109,225	\$2,908,174
Lake	5	CR 466 (Segment A)	US 301	CR 319	2008	Bid	2 to 4	Urban	1.00	2	2.00	\$4,062,660	\$2,031,330
Hillsborough	7	40th St	River Pines Apts	Humphrey St	2008	Bid	2 to 4	Urban	0.95	2	1.90	\$5,154,862	\$2,713,085
Hillsborough	7	Race Track Rd Ph. I	Douglas Rd	Linebaugh Ave	2008	Bid	2 to 6	Urban	1.01	4	4.04	\$10,099,911	\$2,499,978
Osceola	5	John Young Pkwy	Carroll	Orange Co. Line	2008	Bid	4 to 6	Urban	0.85	2	1.70	\$3,230,000	\$1,900,000
Orange	5	CR 535 (Segments C and E)	Ficquette Rd	Butler Ridge Dr	2008	Bid	2 to 4	Urban	1.10	2	2.20	\$3,693,616	\$1,678,916
Orange	5	Clarcona-Ocoee Rd	Ocoee Apopka Rd	SR 417	2008	Bid	2 to 4	Urban	0.40	2	0.80	\$2,803,484	\$3,504,355
Orange	5	Destination Pkwy	International Dr	Tradeshaw Blvd	2008	Bid	2 to 4	Urban	0.71	2	1.42	\$3,017,443	\$2,124,960
Lee	1	Gladiolus Dr Ph. I	A&W Bulb Rd	Winkler Rd	2008	Bid	2 to 4/6	Urban	1.94	2/4	5.44	\$13,971,509	\$2,568,292
Lee	1	Gladiolus Dr Ph. II	Pine Ridge Rd	A&W Bulb Rd	2008	Bid	2 to 4	Urban	1.02	2	2.04	\$6,748,642	\$3,308,158
Charlotte	1	Toledo-Blade Corridor	North Port	US 41	2008	Bid	2 to 4	Sub-Urb	1.20	2	2.40	\$3,174,852	\$1,322,855
Indian River	4	17th Lane SW	27th Ave	20th Ave	2008	Bid	2 to 3	Urban	0.52	1	0.52	\$525,000	\$1,009,615
Indian River	4	20th Ave SW	25th St SW	17th Lane SW	2008	Bid	0/1 to 2	Urban	0.52	2	1.04	\$1,886,715	\$1,814,149
Palm Beach	4	Hypoluxo Rd	W. of Lyons Rd	W. of Hagen Ranch Rd	2008	Bid	2 to 4	Urban	3.00	2	6.00	\$15,294,751	\$2,549,125
Palm Beach	4	Okeechobee Blvd	Royal Palm Beach High School Entr.	E. of Florida's Turnpike	2008	Bid	6 to 8	Urban	4.70	2	9.40	\$30,529,591	\$3,247,829
Palm Beach	4	Haverhill Rd	45th St	N. of NPBWCD EPB-10 Canal	2008	Bid	2 to 5	Urban	0.50	3	1.50	\$2,050,830	\$1,367,220
Palm Beach	4	Jog Rd	Yamato Rd	Clint Moore Rd	2008	Bid	4 to 6	Urban	1.00	2	2.00	\$2,396,040	\$1,198,020
Palm Beach	4	Jog Rd/Donald Ross Rd	Hood Rd	64th Dr N	2008	Bid	2 to 4	Urban	1.80	2	3.60	\$4,630,327	\$1,286,202
Orange	5	Clarcona-Ocoee Rd	Hiwassee Rd	Clark	2009	Bid	2 to 4	Urban	2.50	2	5.00	\$10,182,738	\$2,036,548
Orange	5	Woodbury Rd	S. of SR 50	Challenger Pkwy	2009	Bid	2 to 4	Urban	0.65	2	1.30	\$4,088,942	\$3,145,340
Orange	5	Sand Lake Rd	President's Dr	FL Mall	2009	Bid	2 to 4	Urban	1.00	2	2.00	\$6,020,755	\$3,010,378
Orange	5	Taft-Vineland Road Extension	Central Florida Pkwy	John Young Pkwy	2009	Bid	2 to 4	Urban	0.70	2	1.40	\$4,462,535	\$3,187,525
Osceola	5	Narcoossee Rd	US 192	Orange Co. Line	2009	Bid	2 to 4	Urban	7.40	2	14.80	\$47,360,000	\$3,200,000
Osceola	5	Osceola Pkwy (Ph. I)	FL Turnpike	Buenaventura Blvd	2009	Bid	4 to 6	Urban	1.57	2	3.14	\$5,966,000	\$1,900,000
Osceola	5	Poinciana Blvd (Ph. II)	Crescent Lakes	US 17/92	2009	Bid	2 to 4	Urban	2.50	2	5.00	\$16,000,000	\$3,200,000
Osceola	5	Old Lake Wilson Rd (Ph. I)	Livingston Rd	Sinclair Rd	2009	Bid	2 to 4	Urban	2.30	2	4.60	\$14,720,000	\$3,200,000
Hillsborough	7	Bruce B. Downs	Palm Springs Blvd	Pebble Beach Blvd	2009	Bid	4 to 8	Urban	7.20	4	28.80	\$40,575,305	\$1,408,865
Hillsborough	7	Race Track Rd (Ph. IV)	Douglas Rd	Hillsborough Ave	2009	Bid	2 to 6	Urban	0.56	4	2.24	\$4,397,412	\$1,963,130
Sarasota	1	Fruitville Rd (Ph. I)	Tatum Rd	Debrecen Rd	2009	Bid	2 to 4	Urban	0.72	2	1.44	\$4,355,796	\$3,024,858
Sarasota	1	Fruitville Rd (Ph. II)	Coburn Rd	Tatum Rd	2009	Bid	2 to 4	Urban	1.26	2	2.52	\$8,557,904	\$3,395,994
Lee	1	Colonial Blvd (CR 884)	I-75	SR 82	2009	Bid	4 to 6	Urban	2.70	2	5.40	\$14,576,393	\$2,699,332
Indian River	4	College Lane Rd	Extension IRSC	66th Ave	2009	Bid	0 to 2	Urban	0.50	2	1.00	\$1,700,000	\$1,700,000
Indian River	4	16th St	66th Ave	74th Ave	2009	Bid	0 to 2	Urban	1.27	2	2.54	\$3,109,321	\$1,224,142
Polk	1	Pine Tree Trail	Ernie Caldwell Blvd	CR 54/Reagan Pkwy	2009	Bid	0 to 2	Urban	1.40	2	2.80	\$3,442,332	\$1,229,404
Polk	1	Lakeland Highlands Rd	Polk Pkwy	CR 540A	2009	Bid	2 to 4	Urban	3.01	2	6.02	\$13,603,672	\$2,259,746
Palm Beach	4	Alt. A1A	S. of Frederick Small Rd	Center St	2009	Bid	4 to 6	Urban	4.40	2	8.80	\$6,364,139	\$723,198
Palm Beach	4	Lyons Rd	Glades Rd	Yamato Rd	2009	Bid	4 to 6	Urban	1.80	2	3.60	\$5,967,464	\$1,657,629
Palm Beach	4	Hypoluxo Rd	Jog Rd	Military Tr	2009	Bid	4 to 6	Urban	2.00	2	4.00	\$4,054,386	\$1,013,597
Palm Beach	4	Lawrence Rd	S. of C. Stanley Weaver Canal	N. of C. Stanley Weaver Canal	2009	Bid	2 to 4	Urban	0.20	2	0.40	\$1,051,680	\$2,629,200
Orange	5	Alafaya Tr	Avalon Park Blvd	Mark Twain Blvd	2010	Bid	2 to 4	Urban	3.83	2	7.66	\$18,918,599	\$2,469,791

Table B-15 (continued)
Construction Cost – County Road Improvements from Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile	
Hillsborough	7	Boyette Rd (Ph. III)	McMullen Rd	Bell Shoals Rd	2010	Bid	2 to 4	Urban	2.60	2	5.20	\$23,184,354	\$4,458,530	
Broward	4	Bailey Rd	NW 64th Ave / SW 81st Ave	SR 7 (US 441)	2010	Bid	2 to 4	Urban	2.00	2	4.00	\$6,330,297	\$1,582,574	
Collier	1	Oil Well Rd (Segment 2)	Immokalee Rd	E. of Everglades Blvd	2010	Bid	2 to 4/6	Urban	5.05	2/4	10.92	\$15,091,068	\$1,381,966	
Collier	1	Oil Well Rd (Segment 4A)	W. of Oil Well Grade Rd	W. of Camp Keais Rd	2010	Bid	2 to 6	Urban	4.72	4	18.88	\$15,875,782	\$840,878	
Lee	1	Six Mile Cypress Pkwy	Daniels Pkwy	S. of Winkler Rd Ext.	2010	Bid	2 to 4	Urban	3.09	2	6.18	\$6,711,242	\$1,085,961	
Charlotte	1	Piper Rd	Henry St	Jones Loop Rd	2010	Bid	2 to 4	Sub-Urb	2.10	2	4.20	\$8,627,803	\$2,054,239	
Indian River	4	53rd St	Kings Hwy	Lateral H Canal	2010	Bid	0 to 4	Urban	2.04	4	8.16	\$7,000,000	\$857,843	
Indian River	4	53rd St	Lateral H Canal	Indian River Blvd	2010	Bid	0 to 4	Urban	0.50	4	2.00	\$7,605,993	\$3,802,997	
Palm Beach	4	45th St	Jog Rd	E. of Haverhill Rd	2010	Bid	2 to 4	Urban	1.50	2	3.00	\$12,423,103	\$4,141,034	
Palm Beach	4	Jog Rd	S. of 45th St	N. of 45th St	2010	Bid	0 to 4	Urban	0.50	4	2.00	\$4,960,399	\$2,480,200	
Palm Beach	4	Congress Ave	Lantana Rd	Melaluca Ln	2010	Bid	4 to 6	Urban	1.30	2	2.60	\$6,130,698	\$2,357,961	
Palm Beach	4	Seminole Pratt Whitney Rd	SR 80	Sycamore Dr	2010	Bid	2 to 4	Urban	4.20	2	8.40	\$9,930,460	\$1,182,198	
Palm Beach	4	Seminole Pratt Whitney Rd	S. of M Canal	S. of Orange Blvd	2010	Bid	2 to 4	Urban	1.40	2	2.80	\$2,820,892	\$1,007,461	
Citrus	7	CR 486	SR 44	Forest Ridge Blvd	2010	Bid	2 to 4	Urban	6.30	2	12.60	\$26,614,211	\$2,112,239	
Brevard	5	Pineda Cswy Extension	I-95	W. of Wickham Rd	2010	Bid	0 to 4	Urban	2.10	4	8.40	\$17,238,865	\$2,052,246	
Sarasota	1	North Cattlemen Rd	Richardson Rd	Desoto Rd	2011	Bid	2 to 4	Urban	2.55	2	5.10	\$12,153,584	\$2,383,056	
Lee	1	Daniels Pkwy	Chamberlin Pkwy	Gateway Blvd	2011	Bid	4 to 6	Urban	2.05	2	4.10	\$2,906,553	\$708,915	
Orange	5	Rouse Rd	SR 50	Corporate Blvd	2011	Bid	2 to 4	Urban	2.60	2	5.20	\$29,380,249	\$5,650,048	
Orange	5	CR 535 Seg. A	Magnolia Park Ct	SR 429	2011	Bid	2 to 4	Urban	1.37	2	2.74	\$8,390,570	\$3,062,252	
Osceola	5	Goodman Rd	Tri-County	Sand Mine Rd	2011	Bid	0 to 2	Urban	3.53	2	7.06	\$7,060,000	\$1,000,000	
Pinellas	1	Bryan Dairy Rd	Starkey Rd (CR 1)	72nd St	2011	Bid	4 to 6	Urban	1.47	2	2.94	\$10,327,383	\$3,512,715	
Hernando	7	Elgin Blvd	Mariner Blvd	East 3900'	2011	Bid	2 to 4	Urban	0.74	2	1.48	\$2,684,566	\$1,813,896	
Hernando	7	Sunshine Grove Rd	SR 50	Ken Austin Pkwy	2011	Bid	2 to 4	Urban	2.10	2	4.20	\$4,646,801	\$1,106,381	
Palm Beach	4	Lyons Rd	N. of West Atlantic Ave	S. of Boynton Beach Blvd	2011	Bid	0 to 2	Urban	3.20	2	6.40	\$5,329,359	\$832,712	
Charlotte	1	Burnt Store Rd (Ph. I)	US 41	Notre Dame Blvd	2011	Bid	2 to 4	Urban	2.40	2	4.80	\$13,512,394	\$2,815,082	
Indian River	4	Oslo Rd Ph. II	43rd Ave	27th Ave	2011	Bid	2 to 4D	Urban	1.20	3	3.60	\$4,531,822	\$1,258,839	
Indian River	4	Oslo Rd Ph. III	43rd Ave	58th Ave	2012	Bid	2 to 4	Urban	1.15	2	2.30	\$3,812,202	\$1,657,479	
Indian River	4	66th Ave	SR 60	49th St	2012	Bid	2 to 4	Urban	3.05	2	6.10	\$20,773,389	\$3,405,474	
Polk	1	Kathleen Rd (CR35A) Ph. II	Galloway Rd	Duff Rd	2012	Bid	2 to 4	Urban	3.00	2	6.00	\$17,813,685	\$2,968,948	
Polk	1	Bartow Northern Connector Ph. I	US 98	US 17	2012	Bid	0 to 4	Urban	2.00	4	8.00	\$11,255,736	\$1,406,967	
Volusia	5	Tymer Creek Rd	SR 40	Peruvian Ln	2012	Bid	2 to 4	Urban	0.75	2	1.50	\$5,276,057	\$3,517,371	
Palm Beach	4	Jog Rd	N. of SR 710	N. of Florida's Turnpike	2012	Bid	0 to 4	Urban	0.70	4	2.80	\$3,413,874	\$1,219,241	
Palm Beach	4	West Atlantic Ave	W. of Lyons Rd	Starkey Rd	2012	Bid	2 to 4	Urban	0.80	2	1.60	\$8,818,727	\$5,511,704	
Palm Beach	4	60th St N & SR 7 Ext.	E. of Royal Palm Beach Blvd	SR 7	2012	Bid	0 to 2	Urban	1.50	2	3.00	\$3,821,404	\$1,273,801	
Brevard	5	Babcock St	S. of Foundation Park Blvd	Malabar Rd	2013	Bid	2 to 4	Urban	12.40	2	24.80	\$56,000,000	\$2,258,065	
Collier	1	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2014	Bid	4 to 6	Urban	2.74	2	5.48	\$21,157,124	\$3,860,789	
Collier	1	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	Bid	2 to 4	Urban	5.71	2	11.42	\$51,402,161	\$4,501,065	
Brevard	5	St. Johns Heritage Pkwy	SE of I-95 Intersection	US 192 (Space Coast Pkwy)	2014	Bid	0 to 2	Sub-Urb	3.11	2	6.22	\$16,763,567	\$2,695,107	
Total										Count:	84	439.08	\$927,322,613	\$2,111,967
District 5 Improvements ONLY										Count:	23	116.44	\$303,151,219	\$2,603,497

Source: Roadway bids from recent impact fee studies throughout Florida as well as recent bids from the Tindale Oliver Cost Database, with information having been provided by each respective County

Table B-16
Construction Cost – State Road Improvements from Marion County

Description	From	To	Bid Year	Feature	Section Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Adjusted Construction Cost ⁽¹⁾	Adjusted Construction Cost per Lane Mile
SR 45 (US 41)	S. of Powell Rd	0.42 miles N. of 111th Place Ln	2003	2 to 4 Lanes	Urban	0.54	2	1.08	\$3,272,727	\$3,272,727	\$3,030,303
SR 40	SW 80th Ave (CR 225A)	SW 52nd Ave	2006	2 to 4 Lanes	Rural	2.75	2	5.50	\$12,990,213	\$16,037,300	\$2,915,873
CR 484	2200'E of I-75	SE 47th Ave/SE 135th St	2007	2 to 4 Lanes	Rural	5.65	2	11.30	\$13,112,675	\$16,188,488	\$1,432,610
SR 35 (US 301)	Sumter Co. Line	529' S. of CR 42	2009	2 to 4 Lanes	Urban	1.40	2	2.80	\$3,596,000	\$3,596,000	\$1,284,286
SR 35 (Baseline Rd)	Maricamp Rd (SR 464)	SR 40 (Silver Springs)	2009	2 to 4 Lanes	Rural	5.35	2	10.70	\$23,325,845	\$28,797,340	\$2,691,340
SR 40	CR 328	SW 80th Ave (CR 225A)	2014	2 to 4 Lanes	Rural	4.04	2	8.08	\$12,324,444	\$15,215,363	\$1,883,089
US 41	SW 111th Place Lane	SR 40	2019	2 to 4 Lanes	Urban	3.58	2	7.16	\$27,672,000	\$27,672,000	\$3,864,804
Total								46.62	\$96,293,904	\$110,779,218	\$2,376,217
Total (excluding US 41 Future Estimate)								39.46	\$68,621,904	\$83,107,218	\$2,106,113
									Used in Fee Calculation:		\$2,100,000

(1) Rural design roads were adjusted to an “equivalent urban design cost” using the FDOT urban/rural design cost ratio from Table B-1
Source: Marion County Transportation Department

**Table B-17
Construction Cost – State Road Improvements from Other Jurisdictions throughout Florida**

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Walton	3	SR 83 (US 331)	SR 30 (US 98)	S. end of Choctaw Bridge	2008	Bid	2 to 4	Urban	2.08	2	4.16	\$11,649,363	\$2,800,328
Hillsborough	7	US 301 (SR 43)	S. of Balm Rd	N. of Gibsonton Rd	2008	Bid	2 to 6	Urban	6.03	4	24.12	\$55,702,777	\$2,309,402
Indian River	4	SR 5 (US 1)	S. of Oslo Rd	S. of Indian River Bend	2008	Bid	4 to 6	Urban	1.70	2	3.40	\$14,953,562	\$4,398,106
Indian River	4	SR 60/Osceola Blvd	W. of 82 Ave	66th Ave/CR 505	2008	Bid	4 to 6	Urban	2.15	2	4.30	\$18,496,793	\$4,301,580
Orange	5	SR 50	Good Homes Rd	Pine Hills Rd	2008	Bid	4 to 6	Urban	3.63	2	7.26	\$35,929,914	\$4,949,024
Leon	3	SR 10 (Mahan Drive)	Dempsey Mayo Rd	Walden Rd	2009	Bid	2 to 4	Urban	3.10	2	6.20	\$18,083,510	\$2,916,695
Indian River	4	SR 60 (Osceola Blvd)	W. of I-95	W. of 82nd Ave/CR 609	2009	Bid	4 to 6	Urban	3.07	2	6.14	\$7,366,557	\$1,199,765
Sarasota	1	US 301	Wood St	Myrtle Ave	2009	Bid	4 to 6	Urban	2.60	2	5.20	\$18,372,050	\$3,533,087
Sarasota	1	US 301	Myrtle Ave	Desoto Rd	2009	Bid	4 to 6	Urban	1.00	2	2.00	\$8,293,271	\$4,146,636
Pasco	7	US 41 (SR 45)	Tower Rd	Ridge Rd	2009	Bid	2 to 4	Urban	2.84	2	5.68	\$12,685,027	\$2,233,279
Lee	1	SR 739	US 41 (S. of Alico)	Six Mile Cypress Pkwy	2009	Bid	0 to 6	Urban	2.77	6	16.62	\$20,663,929	\$1,243,317
Manatee	1	US 301	Erie Rd	CR 675	2009	Bid	4 to 6	Urban	4.10	2	8.20	\$21,040,000	\$2,565,854
Miami-Dade	6	Perimeter Rd	NW 72 Avenue	NW 57 Avenue	2009	Bid	2 to 4	Urban	1.50	2	3.00	\$6,383,286	\$2,127,762
Polk	1	US 27	N. of CR 546	S. of SR 544	2009	Bid	2 to 4	Urban	1.56	2	3.12	\$4,100,069	\$1,314,125
Santa Rosa	3	SR 281 (Avalon Blvd)	N. of CSX R/R Bridge	S. of Commerce Rd	2009	Bid	2 to 4	Urban	0.98	2	1.96	\$5,621,006	\$2,867,860
Santa Rosa	3	SR 281 (Avalon Blvd)	Gulf Rd	SR 10 (US 90)	2009	Bid	2 to 4	Urban	1.78	2	3.56	\$9,150,583	\$2,570,388
St. Lucie	4	SR 70	MP 5.860	MP 10.216	2009	Bid	2 to 4	Urban	4.36	2	8.72	\$12,426,020	\$1,425,002
Sumter	5	SR 35 (US 301)	N. of CR 204	Marion County Line	2009	Bid	2 to 4	Urban	1.51	2	3.02	\$3,856,688	\$1,277,049
Washington	3	SR 79	N. Environmental Rd	Strickland Rd	2009	Bid	2 to 4	Urban	1.72	2	3.44	\$8,877,323	\$2,580,617
Lake	5	SR 50	E. of Grand Hwy	W. of Hancock Rd	2010	Bid	4 to 6	Urban	1.30	2	2.60	\$4,689,633	\$1,803,705
Polk	1	SR 559 Extension	SR 655 (Recker Hwy)	Derby Ave	2010	Bid	0 to 2	Urban	0.69	2	1.38	\$2,751,592	\$1,993,907
Santa Rosa	3	SR 281 (Avalon Blvd)	SR 8 (I-10)	S. of Moor's Lodge	2010	Bid	2 to 4	Urban	0.85	2	1.70	\$5,378,226	\$3,163,662
Santa Rosa	3	SR 281 (Avalon Blvd)	S. of Moor's Lodge	N. of CSX R/R Bridge	2010	Bid	2 to 4	Urban	1.48	2	2.96	\$7,145,212	\$2,413,923
Lee	1	US 41	Corkscrew Rd	San Carlos Blvd	2010	Bid	4 to 6	Urban	4.48	2	8.96	\$12,822,677	\$1,431,102
Polk	1	US 98	S. of Manor Dr	N. of CR 540A	2010	Bid	4 to 6	Urban	3.32	2	6.64	\$11,092,909	\$1,670,619
St. Lucie	4	SR 70	Okeechobee County Line	MP 5.871	2010	Bid	2 to 4	Urban	5.87	2	11.74	\$18,782,630	\$1,599,883
Polk	1	US 98 (Bartow Hwy)	Brooks St	Edgewood Dr	2011	Bid	4 to 6	Urban	0.72	2	1.44	\$4,341,917	\$3,015,220
Hillsborough	7	CR 39/Alexander St	N. of I-4	N. of Knights Griffin	2011	Bid	0 to 4	Urban	3.19	4	12.76	\$14,782,862	\$1,158,532
Pinellas	7	SR 688 (Ulmerton Rd)	E. of 119th St	W. of Seminole Bypass	2011	Bid	4 to 6	Urban	1.50	2	3.00	\$16,908,929	\$5,636,310
Polk	1	SR 60 (Van Fleet)	W. of US 98/Broadway	W. of US 17 (SR 555)	2011	Bid	2 to 4	Urban	0.86	2	1.72	\$9,540,473	\$5,546,787
Lake	5	SR 500 (US 441)	Martin Luther King Jr. Blvd	Lake Ella Rd	2011	Bid	4 to 6	Urban	3.25	2	6.50	\$16,278,889	\$2,504,444
Hillsborough	7	SR 574 (MLK Blvd)	W. of Highview Rd	E. of Parsons Ave	2011	Bid	3 to 5	Urban	0.91	2	1.82	\$7,147,510	\$3,927,203
Collier	1	SR 84 (Davis Blvd)	E. of Santa Barbara Blvd	W. of Radio Rd	2012	Bid	2 to 6	Urban	1.77	4	7.08	\$10,956,198	\$1,547,486
Volusia	5	SR 415	Seminole Co. Line	Reed Ellis Rd	2012	Bid	2 to 4	Urban	2.26	2	4.53	\$18,718,637	\$4,132,149
Volusia	5	SR 415	Reed Ellis Rd	0.3 miles N. of Acorn Lake	2012	Bid	2 to 4	Urban	5.07	2	10.13	\$18,388,845	\$1,815,286
Pinellas	7	US 19 (SR 55)	N. of CR 576/Sunset Pnt	S. of Countryside Blvd	2012	Bid	6 to 10	Urban	1.76	4	7.04	\$17,196,050	\$2,442,621
Miami-Dade	6	SR 823/NW 57th Ave	W. 23rd St	W. 46th St	2012	Bid	4 to 6	Urban	1.48	2	2.96	\$14,081,161	\$4,757,149
Hernando	7	SR 50 (Cortez Blvd)	US 19 (SR 55)	W. of CR 587/Mariner Blvd	2012	Bid	4 to 6	Urban	6.02	2	12.04	\$39,444,222	\$3,276,098
Orange	5	SR 50	E. of West Oaks Mall	W. of Good Homes Rd	2012	Bid	4 to 6	Urban	0.45	2	0.90	\$8,694,472	\$9,660,524
Clay	2	SR 23	Oakleaf Plantation Pkwy	Old Jennings	2012	Bid	0 to 2	Urban	3.14	2	6.28	\$13,231,111	\$2,106,865
Hendry	1	SR 80	Birchwood Pkwy	Dalton Lane	2012	Bid	2 to 4	Urban	5.00	2	10.00	\$12,855,092	\$1,285,509
Hendry	1	SR 80	CR 833	US 27	2012	Bid	2 to 4	Urban	2.90	2	5.80	\$8,117,039	\$1,399,489
Lee	1	SR 739	Winkler Ave	Hanson St	2012	Bid	0 to 6	Urban	1.34	6	8.04	\$14,025,932	\$1,744,519
Seminole	5	SR 434	I-4	Rangeline Rd	2012	Bid	4 to 6	Urban	1.80	2	3.60	\$10,111,333	\$2,808,704
Palm Beach	4	SR 710/Beeline Hwy	W. of Congress Ave	W. of Australian Ave	2012	Bid	2 to 4	Urban	0.84	2	1.68	\$12,189,533	\$7,255,674
Polk	1	US 27	N. of Ritchie Rd	S. of Barry Rd	2012	Bid	4 to 6	Urban	3.20	2	6.40	\$14,242,918	\$2,225,456

Table B-17 (continued)
Construction Cost – State Road Improvements from Other Jurisdictions throughout Florida

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile	
Polk	1	US 98 (SR 35/SR 700)	N. of CR 540A	SR 540	2012	Bid	4 to 6	Urban	3.45	2	6.90	\$18,004,051	\$2,609,283	
Brevard	5	SR 5 (US 1)	N. of Pine St	N. of Cidco Rd	2012	Bid	4 to 6	Urban	3.84	2	7.68	\$29,360,536	\$3,822,986	
Brevard	5	SR 507 (Babcock St)	Melbourne Ave	Fee Ave	2013	Bid	2 to 4	Urban	0.55	2	1.10	\$5,167,891	\$4,698,083	
Hillsborough	7	SR 41 (US 301)	S. of Tampa Bypass Canal	N. of Fowler Ave	2013	Bid	2 to 4	Sub-Urb	1.81	2	3.61	\$15,758,965	\$4,365,364	
Lee	1	US 41 Business	Littleton Rd	SR 739	2013	Bid	2 to 4	Urban	1.23	2	2.46	\$8,488,393	\$3,450,566	
Orange	5	SR 50 (Colonial Dr)	E. of CR 425 (Dean Rd)	E. of Old Cheney Hwy	2013	Bid	4 to 6	Urban	4.91	2	9.82	\$66,201,688	\$6,741,516	
Okeechobee	1	SR 70	NE 34th Ave	NE 80th Ave	2014	Bid	2 to 4	Urban	3.60	2	7.20	\$23,707,065	\$3,292,648	
Martin	4	CR 714/Indian St	Turnpike/Martin Downs Blvd	W. of Mapp Rd	2014	Bid	2 to 4	Urban	1.87	2	3.74	\$14,935,957	\$3,993,571	
Broward	4	SR 7	N. of Hallendale Bch	N. of Fillmore St.	2014	Bid	4 to 6	Urban	1.79	2	3.57	\$30,674,813	\$8,592,385	
Broward	4	Andrews Ave Ext.	Pompano Park Place	S. of Atlantic Blvd	2014	Bid	2 to 4	Urban	0.36	2	0.72	\$3,177,530	\$4,413,236	
Charlotte	1	US 41 (SR 45)	Enterprise Dr	Sarasota County Line	2014	Bid	4 to 6	Urban	3.62	2	7.24	\$31,131,016	\$4,299,864	
Total										Count:	57	323.84	\$884,175,634	\$2,730,285
District 5 Improvements ONLY										Count:	11	57.14	\$217,398,525	\$3,804,664

Source: FDOT recently-bid projects by transportation district, available at www.dot.state.fl.us/

Table B-18
CEI Cost Factor – Marion County Improvements

Description	From	To	Bid Year	Feature	Section Design	CEI	Construction Cost	CEI / Construction
NW 60th Ave	SR 200	SR 40	FY 05/06	2 to 4 Lanes	Urban	\$71,279	\$14,763,186	0.5%
CR 464 (Ph. I)	Oak Rd	Locust Rd	FY 06/07	2 to 4 Lanes	Urban	\$810,005	\$12,843,881	6.3%
CR 200A	US 441	NE 35th St	FY 08/09	2 to 4 Lanes	Urban	\$172,361	\$6,451,296	2.7%
NW 44th Ave	US 27	NW 60th St	FY 08/09	2 to 4 Lanes	Urban	\$113,066	\$5,910,189	1.9%
SE 31th St	SE 19th Ave	SE 36th Ave	FY 08/09	2 to 4 Lanes	Urban	\$381,810	\$5,544,524	6.9%
	SE 36th Ave	SR 464	FY 08/09	0 to 4 Lanes	Urban			
NW 35th St	NW 35th Avenue Rd	NW 27th Ave	FY 12/13	0 to 4 Lanes	Urban	\$414,966	\$8,618,236	4.8%
	NW 27th Ave	US 441	FY 12/13	2 to 4 Lanes	Urban			
Belleview Bypass	SE 92nd Loop	SR 35	FY 14/15	0 to 4 Lanes	Semi-Urban	\$720,000	\$23,280,000	3.1%
NW/NE 35th St (Ph. 1a)	US 441	600' E. of W Anthony Rd	FY 15/16	2 to 4 Lanes	Urban	\$54,750	\$1,770,250	3.1%
Total						\$2,738,237	\$79,181,562	3.5%
Used in Fee Calculation:								3.0%

Source: Marion County Transportation Department

**Table B-19
Construction Engineering/Inspection Factor – County & State Roads**

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		CEI	Constr.	CEI Ratio	CEI	Constr.	CEI Ratio
200	Collier	\$294,054	\$2,558,546	11%	\$354,442	\$3,385,978	10%
2006	Citrus	\$180,887	\$2,584,099	7%	\$474,464	\$2,860,227	17%
2007	Pasco	\$215,534	\$3,079,051	7%	\$442,849	\$3,050,799	15%
2007	Lake	\$116,441	\$2,911,021	4%	\$318,412	\$3,184,125	10%
2007	Flagler	\$174,000	\$1,740,000	10%	-	-	n/a
2007	Volusia	\$238,660	\$2,651,778	9%	\$309,526	\$3,095,258	10%
2008	Leon	\$372,400	\$2,660,000	14%	\$270,640	\$3,383,000	8%
2008	Sumter	\$223,700	\$2,237,000	10%	\$238,000	\$2,380,000	10%
2009	Collier	\$186,000	\$3,100,000	6%	\$320,000	\$3,200,000	10%
2009	Polk	\$111,300	\$1,590,000	7%	\$217,000	\$2,170,000	10%
2009	Hillsborough/Tampa	\$308,000	\$2,800,000	11%	\$315,000	\$3,500,000	9%
2010	Collier	\$119,560	\$1,708,000	7%	\$241,800	\$2,418,000	10%
2011	Sarasota/North Port	\$216,000	\$2,400,000	9%	\$180,000	\$2,000,000	9%
2012	Osceola	\$265,140	\$2,651,400	10%	\$313,258	\$2,847,800	11%
2012	City of Orlando	-	\$2,400,000	n/a	-	\$2,900,000	n/a
2012	City of Sarasota	\$240,000	\$2,400,000	10%	\$286,000	\$2,600,000	n/a
2013	Hernando	\$198,000	\$1,980,000	10%	\$222,640	\$2,024,000	n/a
2013	Charlotte	\$220,000	\$2,200,000	10%	\$240,000	\$2,400,000	n/a
2014	Indian River	\$159,000	\$1,598,000	10%	\$196,000	\$1,776,000	n/a
Average		\$213,260	\$2,380,494	9%	\$4,940,031	\$46,275,187	11%

(a)

(b)

Source: Recent impact fee studies constructed throughout Florida

Note: Letter references (i.e., "a") are used to assist with footnotes and sourcing

Roadway Capacity

As shown in Table B-20, the average capacity per lane mile was based on the planned improvements projects in the 2035 Long Range Transportation Plan's Cost Feasible Plan. This listing of projects reflects the mix of improvements that will yield the vehicle miles of capacity (VMC) that will be built in Marion County.

**Table B-20
Marion County 2035 Long Range Transportation Plan**

Jurisdiction	Description	From	To	Improvement	Length	Lanes Added	Lane Miles Added	Section Design	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added	
State Roads													
State	SR 200	Citrus Co. Line	CR 484	Add 2 Lanes (2 to 4)	5.94	2	11.88	Rural	16,200	35,500	19,300	114,642	
State	SR 35	SE 92nd Place Rd	SR 464	Add 2 Lanes (2 to 4)	3.67	2	7.34	Urban	18,585	41,790	23,205	85,162	
State	US 41	SW 111th Place Ln	SR 40	Add 2 Lanes (2 to 4)	3.58	2	7.16	Urban	18,585	41,790	23,205	83,074	
State	SR 40	SW 60th Ave	I-75	Add 2 Lanes (4 to 6)	2.02	2	4.04	Urban	39,800	59,900	20,100	40,602	
State	SR 40	I-75	SW 27th Ave	Add 2 Lanes (4 to 6)	0.93	2	1.86	Urban	39,800	59,900	20,100	18,693	
State	US 27	I-75	NW 27th Ave	Add 2 Lanes (4 to 6)	1.12	2	2.24	Urban	39,800	59,900	20,100	22,512	
State	US 27	NW 44th Ave	I-75	Add 2 Lanes (4 to 6)	0.59	2	1.18	Urban	39,800	59,900	20,100	11,859	
State	US 441	Sumter Co. Line	CR 42	Add 2 Lanes (4 to 6)	2.01	2	4.02	Urban	39,800	59,900	20,100	40,401	
State	SR 326	US 441	CR 200A	Add 2 Lanes (2 to 4)	2.32	2	4.64	Urban	17,700	39,800	22,100	51,272	
State	SR 40	SR 35	SR 326	Add 2 Lanes (2 to 4)	1.49	2	2.98	Urban	14,200	30,400	16,200	24,138	
State	SR 40	SR 326	CR 314	Add 2 Lanes (2 to 4)	3.56	2	7.12	Rural	14,200	30,400	16,200	57,672	
State	SR 326	CR 200A	NE 36th Ave	Add 2 Lanes (2 to 4)	1.20	2	2.40	Urban	17,700	39,800	22,100	26,520	
City/County Roads													
County	NW 35th St	SW 27th Ave	US 441	Add 2 Lanes (2 to 4)	1.28	2	2.56	Urban	14,040	30,420	16,380	20,966	
County	NW 44th Ave	NW 60th St	SR 326	Add 2 Lanes (2 to 4)	1.40	2	2.80	Urban	14,040	30,420	16,380	22,932	
County	NW 49th St	NW 44th Ave	NW 27th Ave	New 4 Lane	1.50	4	6.00	Urban	0	30,420	30,420	45,630	
County	NW 35th St	US 441	CR 200A	Add 2 Lanes (2 to 4)	1.43	2	2.86	Urban	14,040	30,420	16,380	23,423	
County	NW 35th St	CR 200A	NE 36th Ave	Add 2 Lanes (2 to 4)	2.24	2	4.48	Urban	14,040	30,420	16,380	36,691	
County	SE 92nd Loop	US 441	CR 25	New 4 Lane	1.90	4	7.60	Urban	0	30,420	30,420	57,798	
County	SE 92nd Loop	CR 25	SR 35	New 4 Lane	3.00	4	12.00	Urban	0	30,420	30,420	91,260	
County	SE 92nd Loop	US 441	SR 35	Add 2 Lanes (2 to 4)	1.67	2	3.34	Urban	14,040	30,420	16,380	27,355	
County	Emerald Rd Ext.	SE 92nd Place Loop	Florida Northern RR	New 2 Lane	0.50	2	1.00	Urban	0	14,040	14,040	7,020	
County	CR 25	SE 92nd Loop	SE 108th Terrace Rd	Add 2 Lanes	2.40	2	4.80	Urban	30,420	45,810	15,390	36,936	
County	CR 42	US 441	CR 25	Add 2 Lanes (2 to 4)	3.82	2	7.64	Urban	30,420	45,810	15,390	58,790	
County	CR 464	SR 35	Oak Rd	Add 2 Lanes (4 to 6)	4.86	2	9.72	Urban	30,420	45,810	15,390	74,795	
County	SW 49th Ave	SW 95th St	SW 42nd St	New 4 Lane	4.40	4	17.60	Urban	0	45,810	45,810	201,564	
County	SW 95th St	SW 49th Ave	I-75	Add 2 Lanes (2 to 4)	1.00	2	2.00	Urban	14,040	30,420	16,380	16,380	
County	SW 95th St	I-75	CR 475A	New 4 Lane	1.00	2	2.00	Urban	14,040	30,420	16,380	16,380	
County	SW 49th Ave	CR 484	SW 95th St	Add 2 Lanes (2 to 4)	4.13	2	8.26	Urban	30,420	45,810	15,390	63,561	
County	CR 484	SR 200	SW 49th Ave	Add 2 Lanes (2 to 4)	5.67	2	11.34	Urban	14,040	30,420	16,380	92,875	
County	CR 484	SW 49th Ave	CR 475A	Add 2 Lanes (4 to 6)	2.68	2	5.36	Urban	30,420	45,810	15,390	41,245	
County	SW 80th Ave	SW 90th St	SR 40	Add 2 Lanes (2 to 4)	6.55	2	13.10	Urban	14,040	30,420	16,380	107,289	
City	NE 36th Ave	NE 14th St	NE 35th St	Add 2 Lanes (2 to 4)	1.51	2	3.02	Urban	14,040	30,420	16,380	24,734	
City	SW 20th St	I-75	SR 200	Add 2 Lanes (2 to 4)	1.10	2	2.20	Urban	14,040	30,420	16,380	18,018	
City	NE 25th Ave	NE 14th St	NE 35th St	Add 2 Lanes (2 to 4)	1.57	2	3.14	Urban	14,040	30,420	16,380	25,717	
City	SW 44th Ave	SR 200	SW 20th St	New Road	1.31	4	5.24	Urban	0	30,420	30,420	39,850	
City	NW 44th Ave	SR 40	NW 11th St	New Road	0.75	4	3.00	Urban	0	30,420	30,420	22,815	
Total (All Roads):							197.92					1,750,571	
County/City Roads:							141.06	71% (a)					1,174,024
State Roads:							56.86	29% (b)					576,547
Urban Section Design:							178.92	90% (c)					1,578,257
Rural Section Design:							19.00	10% (d)					172,314
											VMC Added per Lane Mile:	8,845	

Source: Marion County 2035 Long Range Transportation Plan; Plan includes adjustments based on discussions with County Staff

Note: Letter references (i.e., "a") are used to assist with footnotes and sourcing

APPENDIX C
Credit Component Calculations

Credit Component

This appendix presents the detailed calculations for the credit component. Currently, in addition to the capital support that ultimately results from State fuel tax revenues, Marion County also receives financial benefit from several other funding sources. Of these, County fuel taxes that are collected in Marion County are listed below, along with a few pertinent characteristics of each.

1. Constitutional Fuel Tax (2¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county. Collected in accordance with Article XII, Section 9 (c) of the Florida Constitution.
- The State allocated 80 percent of this tax to Counties after first withholding amounts pledged for debt service on bonds issued pursuant to provisions of the State Constitution for road and bridge purposes.
- The 20 percent surplus can be used to support the road construction program within the county.
- Counties are not required to share the proceeds of this tax with their municipalities.
- Marion County uses revenues from this tax for transportation capacity capital improvements and transportation maintenance.

2. County Fuel Tax (1¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county.
- Primary purpose of these funds is to help reduce a County's reliance on ad valorem taxes.
- Proceeds are to be used for transportation-related expenses, including the reduction of bond indebtedness incurred for transportation purposes. Authorized uses include acquisition of rights-of-way; the construction, reconstruction, operation, maintenance, and repair of transportation facilities, roads, bridges, bicycle paths, and pedestrian pathways; or the reduction of bond indebtedness incurred for transportation purposes.
- Counties are not required to share the proceeds of this tax with their municipalities.
- Marion County uses revenues from this tax for transportation capacity capital improvements and transportation maintenance.

3. Ninth-Cent Fuel Tax (1¢/gallon)

- Tax on every net gallon of motor fuel sold within a county.

- Proceeds may be used to fund transportation expenditures.
- To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a county is levying the tax on motor fuel at all.
- Counties are not required to share the proceeds of this tax with their municipalities.
- Marion County uses revenues from this tax primarily for transportation maintenance and debt service related to roadway expansion improvements.

3. 1st Local Option Tax (up to 6¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county
- Proceeds may be used to fund transportation expenditures
- To accommodate statewide equalization, all six cents are automatically levied on diesel fuel in every county, regardless of whether a county is levying the tax on motor fuel at all or at the maximum rate
- Proceeds are distributed to a county and its municipalities according to a mutually agreed upon distribution ratio, or by using a formula contained in the Florida Statutes
- Marion County uses revenues from this tax primarily for transportation maintenance and debt service related to roadway expansion improvements.

4. 2nd Local Option Tax (up to 5¢/gallon)

- Tax applies to every net gallon of motor and diesel fuel sold within a county
- Proceeds may be used to fund transportation expenditures needed to meet requirements of the capital improvements element of an adopted Local Government Comprehensive Plan
- Proceeds are distributed to a county and its municipalities according to a mutually agreed upon distribution scheme, or by using a formula contained in the Florida Statutes
- Marion County uses revenues from this tax primarily for capacity expansion and capitalized maintenance improvements.

Each year, the Florida Legislature’s Office of Economic and Demographic Research (EDR) produces the *Local Government Financial Information Handbook*, which details the estimated local government revenues for the upcoming fiscal year. Included in this document are the estimated distributions of the various fuel tax revenues for each county in the state. The 2014-15 data represent projected fuel tax distributions to Marion County for the current fiscal year. In the table, the fuel tax revenue data are used to calculate the value per penny (per gallon of fuel) that should be used to estimate the “equivalent pennies” of other revenue

sources. Table C-1 shows the distribution per penny for each of the fuel levies, and then the calculation of the weighted average for the value of a penny of fuel tax. The weighting procedure takes into account the differing amount of revenues generated for the various types of gas tax revenues. The weighted average figure of approximately \$1.74 million estimates the annual revenue that one penny of gas tax generates in Marion County.

Table C-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for
Marion County & Municipalities, FY 2014-15⁽¹⁾

Tax	Amount of Levy per Gallon	Total Distribution	Distribution Per Penny
Constitutional Fuel Tax	\$0.02	\$4,298,224	\$2,149,112
County Fuel Tax	\$0.01	\$1,894,488	\$1,894,488
9th Cent Fuel Tax	\$0.01	\$1,946,332	\$1,946,332
1st Local Option (1-6 cents)	\$0.06	\$10,947,988	\$1,824,665
2nd Local Option (1-5 cents)	\$0.05	\$7,037,578	\$1,407,516
Total	\$0.15	\$26,124,610	-
Weighted Average per Penny⁽²⁾			\$1,741,641

(1) Source: Florida Legislature’s Office of Economic and Demographic Research, <http://edr.state.fl.us/content/local-government/reports/>

(2) The weighted average distribution per penny is calculated by taking the sum of the total distribution and dividing that value by the sum of the total levies per gallon (multiplied by 100).

Gas Tax Credit

A revenue credit for the annual gas tax equivalent expenditures on roadway capacity expansion projects in Marion County is presented below. The two components of the credit are as follows:

- County gas tax equivalent pennies
- State gas tax expenditures

County Gas Tax Equivalent Pennies

A review of the County’s historical roadway financing program and the Transportation Improvement Program (TIP) for FY 2015-2019 indicates that a combination of transportation impact fees, fuel tax bonds, and fuel tax revenues are used to fund roadway capacity expansion projects. As shown in Table C-2, Marion County receives a credit of 2.2 pennies for the portion of non-impact fee revenues dedicated to capacity expansion projects such as new road construction, lane additions, and intersection improvements.

**Table C-2
County Gas Tax Equivalent Pennies**

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Historical County Expenditures (FY 2005-2014) ⁽¹⁾	\$26,542,633	10	\$1,741,641	\$0.015
Projected TIP Expenditures (FY 2015-2019) ⁽²⁾	\$30,719,067	5	\$1,741,641	\$0.035
Total	\$57,261,700	15	\$1,741,641	\$0.022

(1) Source: Table C-5

(2) Source: Table C-6

(3) Source: Table C-1

(4) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) divided by 100

Additionally, the County is currently using gas tax revenues to retire debt on the 2009A and 2010 public improvement revenue bonds that were used to help fund capacity expansion improvements. As show in Table C-3, a credit of 2.8 pennies is given for outstanding debt service in Marion County.

**Table C-3
County Gas Tax Equivalent Pennies for Debt Service**

Source	Total Payment Remaining	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Series 2009A Public Improvement Revenue Bond ⁽¹⁾	\$35,894,788	15	\$1,741,641	\$0.014
Series 2010 Public Improvement Revenue Bond ⁽²⁾	\$36,863,656	15	\$1,741,641	\$0.014
Total	\$72,758,444		\$1,741,641	\$0.028

(1) Source: Table C-7

(2) Source: Table C-8

(3) Source: Table C-1

(4) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) divided by 100

State Gas Tax Expenditures

In the calculation of the equivalent pennies of gas tax from the State funded capacity expansion, projects for the 15-year period (from FY 2006 to FY 2020) were reviewed. For calculation purposes, the 15-year period was broken into three increments; two historical (FY 2006-2009 and FY 2010-2014) and one future (FY 2015-2020). Information on historical projects' funding and the future year estimates was obtained from the FDOT Work Programs. The use of a 15-year period, for purposes of developing a State credit for roadway capacity expansion projects, results in a stable credit, as it accounts for the volatility in FDOT spending in the county over short periods of time.

The total cost of the capacity expansion projects for the 9-year “historical” period and projected in the six-year “future” time period are as follows:

- FY 2006-2009 work plan equates to 12.3 pennies
- FY 2010-2014 work plan equates to 13.3 pennies
- FY 2015-2020 work plan equates to 25.0 pennies

The combined weighted average over the 15-year period of state expenditure for capacity-adding roadway projects results in a total of 17.7. Table C-4 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Table C-9.

Table C-4
Equivalent Penny Calculation for State Portion

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽⁴⁾	Equivalent Pennies ⁽⁵⁾
Historical Work Program (FY 2006-2009) ⁽¹⁾	\$85,446,274	4	\$1,741,641	\$0.123
Historical Work Program (FY 2010-2014) ⁽²⁾	\$115,857,716	5	\$1,741,641	\$0.133
Projected Work Program (FY 2015-2020) ⁽³⁾	\$261,204,513	6	\$1,741,641	\$0.250
Total	\$462,508,503	15	\$1,741,641	\$0.177

(1) Source: Table C-9

(2) Source: Table C-9

(3) Source: Table C-9

(4) Source: Table C-1

(5) Cost of projects divided by number of years divided by revenue from 1 penny (Item 4) divided by 100

**Table C-5
Historical Capital Improvement Expenditures for Marion County, FY 2005 to FY 2014**

Description	Name/Location	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Total
New 4-Lane Divided Road	SW 31st St (Ph. II) from US 441 to CR 475A	\$1,210,206	\$5,448,668	\$2,172,869	\$344,419	\$28,542	\$0	\$35,170	\$0	\$0	\$0	\$9,239,874
Add 2 Lanes for 4-Lane Divided Road	NW 44th Ave from US 27 to NW 60th St	\$0	\$0	\$0	\$0	\$1,453	\$92,666	\$130,946	\$7,225	\$0	\$0	\$232,290
Add 2 Lanes	CR 464 (Ph. I) from Locust Rd to Oak Rd	\$0	\$0	\$287,807	\$0	\$0	\$0	\$0	\$150,463	\$0	\$0	\$438,270
New 4-Lane Divided Road	Bellevue Bypass from SE 92nd Loop to SR 35	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,303,082	\$1,313,126	\$3,922,998	\$6,539,206
Add 2 Lanes for 4-Lane Divided Road (1 mi) & New 4-Lane Divided Road (0.5 mi)	SW 90th St/SW 95th St from SR 200 to SW 49th Ave	\$0	\$0	\$0	\$0	\$0	\$88,759	\$0	\$0	\$0	\$0	\$88,759
Install Turn Lane	Baseline Rd @ SE 85th Lane	\$0	\$0	\$0	\$119,983	\$16,482	\$0	\$0	\$0	\$0	\$0	\$136,465
Intersection Re-alignment	CR 25 @ SE 92nd Court	\$0	\$0	\$0	\$0	\$0	\$0	\$10,544	\$0	\$0	\$0	\$10,544
Widen & Construct Flyover	SW 42nd St Flyover (SR 200 Bypass) from SR 200 to SW 27th Ave	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,866,351	\$990,874	\$0	\$9,857,225
Total		\$1,210,206	\$5,448,668	\$2,460,676	\$464,402	\$46,477	\$181,425	\$176,660	\$10,327,121	\$2,304,000	\$3,922,998	\$26,542,633

Source: Marion County Transportation Department

**Table C-6
Future Capital Improvement Expenditures for Marion County, FY 2015 to FY 2019**

Description	Name/Location	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total
Add 2 Lanes	NW/NE 35th St Ph. 1a from US 441 to 600' E. of W. Anthony Rd	\$0	\$1,430,000	\$0	\$0	\$0	\$1,430,000
New 4-Lane Divided	SE 92nd Loop (South Phase) from US 441 S. to CR 25	\$3,024,215	\$0	\$0	\$0	\$0	\$3,024,215
New 4-Lane Divided	SE 92nd Loop (North Phase) from CR 25 to SR 35 @ SE 92nd Place Rd	\$0	\$10,629,421	\$0	\$0	\$0	\$10,629,421
New 4-Lane Divided	SW 49th/40th Ave (Ph. 1) from SW 66th St to SW 42nd Flyover	\$0	\$0	\$0	\$0	\$7,300,000	\$7,300,000
New 2-Lane Divided	SW 49th/40th Ave (Ph. 2) from SW 95th St to SW 80th St	\$0	\$0	\$0	\$0	\$4,400,931	\$4,400,931
New 4-Lane Divided	SW 49th/40th Ave (Ph. 3) from SW 80th St to SW 66th St	\$0	\$0	\$0	\$0	\$3,700,000	\$3,700,000
New 4-Lane Divided w/I-75 Overpass	SW 42nd St Flyover from SR 200 to SW 27th Ave	\$0	\$0	\$0	\$0	\$0	\$0
New 4-Lane Divided	SW 49th Ave from Marion Oaks Manor to Marion Oaks Trail	\$0	\$0	\$0	\$0	\$0	\$0
Add 2 Lanes	SW 49th Ave from Marion Oaks Trail to SW 95th St	\$0	\$0	\$0	\$0	\$0	\$0
Intersection	CR 25 from SE 104th Terrace to SE 108th Terrace Rd	\$0	\$0	\$0	\$0	\$0	\$0
Intersection	SW 66th St @ CR 475A	\$0	\$0	\$0	\$0	\$0	\$0
Intersection	CR 484 @ Marion Oaks Trail	\$0	\$234,500	\$0	\$0	\$0	\$234,500
Total		\$3,024,215	\$12,293,921	\$0	\$0	\$15,400,931	\$30,719,067

Source: Marion County Transportation Improvement Program, FY 2015-2019

**Table C-7
Debt Service Schedule – Series 2009A Public Improvement Revenue Bond**

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
12/1/2009			\$506,115.73	\$506,115.73	\$506,115.73
6/1/2010			\$497,818.75	\$497,818.75	
12/1/2010	\$800,000	3.000%	\$497,818.75	\$1,297,818.75	\$1,795,637.50
6/1/2011			\$485,818.75	\$485,818.75	
12/1/2011	\$825,000	3.000%	\$485,818.75	\$1,310,818.75	\$1,796,637.50
6/1/2012			\$473,443.75	\$473,443.75	
12/1/2012	\$850,000	3.000%	\$473,443.75	\$1,323,443.75	\$1,796,887.50
6/1/2013			\$460,693.75	\$460,693.75	
12/1/2013	\$875,000	3.000%	\$460,693.75	\$1,335,693.75	\$1,796,387.50
6/1/2014			\$447,568.75	\$447,568.75	
12/1/2014	\$900,000	3.000%	\$447,568.75	\$1,347,568.75	\$1,795,137.50
6/1/2015			\$434,068.75	\$434,068.75	
12/1/2015	\$925,000	4.000%	\$434,068.75	\$1,359,068.75	\$1,793,137.50
6/1/2016			\$415,568.75	\$415,568.75	
12/1/2016	\$965,000	4.000%	\$415,568.75	\$1,380,568.75	\$1,796,137.50
6/1/2017			\$396,268.75	\$396,268.75	
12/1/2017	\$1,000,000	4.000%	\$396,268.75	\$1,396,268.75	\$1,792,537.50
6/1/2018			\$376,268.75	\$376,268.75	
12/1/2018	\$1,040,000	4.000%	\$376,268.75	\$1,416,268.75	\$1,792,537.50
6/1/2019			\$355,468.75	\$355,468.75	
12/1/2019	\$1,085,000	4.125%	\$355,468.75	\$1,440,468.75	\$1,795,937.50
6/1/2020			\$333,090.63	\$333,090.63	
12/1/2020	\$1,130,000	4.250%	\$333,090.63	\$1,463,090.63	\$1,796,181.26
6/1/2021			\$309,078.13	\$309,078.13	
12/1/2021	\$1,175,000	4.375%	\$309,078.13	\$1,484,078.13	\$1,793,156.26
6/1/2022			\$283,375.00	\$283,375.00	
12/1/2022	\$1,230,000	4.500%	\$283,375.00	\$1,513,375.00	\$1,796,750.00
6/1/2023			\$255,700.00	\$255,700.00	
12/1/2023	\$1,285,000	4.500%	\$255,700.00	\$1,540,700.00	\$1,796,400.00
6/1/2024			\$226,787.50	\$226,787.50	
12/1/2024	\$1,340,000	4.875%	\$226,787.50	\$1,566,787.50	\$1,793,575.00
6/1/2025			\$194,125.00	\$194,125.00	
12/1/2025	\$1,405,000	5.000%	\$194,125.00	\$1,599,125.00	\$1,793,250.00
6/1/2026			\$159,000.00	\$159,000.00	
12/1/2026	\$1,475,000	5.000%	\$159,000.00	\$1,634,000.00	\$1,793,000.00
6/1/2027			\$122,125.00	\$122,125.00	
12/1/2027	\$1,550,000	5.000%	\$122,125.00	\$1,672,125.00	\$1,794,250.00
6/1/2028			\$83,375.00	\$83,375.00	
12/1/2028	\$1,625,000	5.000%	\$83,375.00	\$1,708,375.00	\$1,791,750.00
6/1/2029			\$42,750.00	\$42,750.00	
12/1/2029	\$1,710,000	5.000%	\$42,750.00	\$1,752,750.00	\$1,795,500.00
Totals	\$23,190,000	4.131%	\$13,210,903.25	\$36,400,903.25	\$36,400,903.25
Payments Remaining (2015-2029)					\$35,894,788

Source: Marion County Transportation Department. All revenues are for roadway capacity expansion

**Table C-8
Debt Service Schedule – Series 2010 Public Improvement Revenue Bond**

Period Ending	Principal	Coupon	Interest	Debt Service	Annual Debt Service
6/1/2010			\$87,555.99	\$87,555.99	
12/1/2010	\$680,000	3.000%	\$630,403.13	\$1,310,403.13	\$1,397,959.12
6/1/2011			\$620,203.13	\$620,203.13	
12/1/2011	\$1,215,000	3.000%	\$620,203.13	\$1,835,203.13	\$2,455,406.26
6/1/2012			\$601,978.13	\$601,978.13	
12/1/2012	\$1,255,000	3.000%	\$601,978.13	\$1,856,978.13	\$2,458,956.26
6/1/2013			\$583,153.13	\$583,153.13	
12/1/2013	\$1,290,000	3.000%	\$583,153.13	\$1,873,153.13	\$2,456,306.26
6/1/2014			\$563,803.13	\$563,803.13	
12/1/2014	\$1,330,000	3.000%	\$563,803.13	\$1,893,803.13	\$2,457,606.26
6/1/2015			\$543,853.13	\$543,853.13	
12/1/2015	\$1,370,000	3.000%	\$543,853.13	\$1,913,853.13	\$2,457,706.26
6/1/2016			\$523,303.13	\$523,303.13	
12/1/2016	\$1,410,000	3.000%	\$523,303.13	\$1,933,303.13	\$2,456,606.26
6/1/2017			\$502,153.13	\$502,153.13	
12/1/2017	\$1,455,000	3.250%	\$502,153.13	\$1,957,153.13	\$2,459,306.26
6/1/2018			\$478,509.38	\$478,509.38	
12/1/2018	\$1,500,000	3.375%	\$478,509.38	\$1,978,509.38	\$2,457,018.76
6/1/2019			\$453,196.88	\$453,196.88	
12/1/2019	\$1,550,000	3.625%	\$453,196.88	\$2,003,196.88	\$2,456,393.76
6/1/2020			\$425,103.13	\$425,103.13	
12/1/2020	\$1,605,000	4.000%	\$425,103.13	\$2,030,103.13	\$2,455,206.26
6/1/2021			\$393,003.13	\$393,003.13	
12/1/2021	\$1,670,000	4.000%	\$393,003.13	\$2,063,003.13	\$2,456,006.26
6/1/2022			\$359,603.13	\$359,603.13	
12/1/2022	\$1,740,000	4.000%	\$359,603.13	\$2,099,603.13	\$2,459,206.26
6/1/2023			\$324,803.13	\$324,803.13	
12/1/2023	\$1,810,000	4.125%	\$324,803.13	\$2,134,803.13	\$2,459,606.26
6/1/2024			\$287,471.88	\$287,471.88	
12/1/2024	\$1,885,000	4.125%	\$287,471.88	\$2,172,471.88	\$2,459,943.76
6/1/2025			\$248,593.75	\$248,593.75	
12/1/2025	\$1,960,000	4.625%	\$248,593.75	\$2,208,593.75	\$2,457,187.50
6/1/2026			\$203,268.75	\$203,268.75	
12/1/2026	\$2,050,000	4.625%	\$203,268.75	\$2,253,268.75	\$2,456,537.50
6/1/2027			\$155,862.50	\$155,862.50	
12/1/2027	\$2,145,000	4.625%	\$155,862.50	\$2,300,862.50	\$2,456,725.00
6/1/2028			\$106,259.38	\$106,259.38	
12/1/2028	\$2,245,000	4.625%	\$106,259.38	\$2,351,259.38	\$2,457,518.76
6/1/2029			\$54,343.75	\$54,343.75	
12/1/2029	\$2,350,000	4.625%	\$54,343.75	\$2,404,343.75	\$2,458,687.50
Totals	\$32,515,000	3.731%	\$15,574,890.52	\$48,089,890.52	\$48,089,890.52
Payments Remaining (2015-2029)					\$36,863,656

Source: Marion County Transportation Department. All revenues are for roadway capacity expansion

Table C-10
Average Motor Vehicle Fuel Efficiency – Excluding Interstate Travel

Travel			
Vehicle Miles of Travel (VMT) @			
	21.6	6.4	
Other Arterial Rural	320,156,000,000	46,883,000,000	367,039,000,000
Other Rural	321,133,000,000	32,277,000,000	353,410,000,000
Other Urban	1,408,957,000,000	81,065,000,000	1,490,022,000,000
Total	2,050,246,000,000	160,225,000,000	2,210,471,000,000

Percent VMT	
@ 21.6 mpg	@ 6.4 mpg
87%	13%
91%	9%
95%	5%
93%	7%

Fuel Consumed			
	Gallons @ 21.6 mpg	Gallons @ 6.4 mpg	
Other Arterial Rural	14,822,037,037	7,325,468,750	22,147,505,787
Other Rural	14,867,268,519	5,043,281,250	19,910,549,769
Other Urban	65,229,490,741	12,666,406,250	77,895,896,991
Total	94,918,796,297	25,035,156,250	119,953,952,547

Total Mileage and Fuel	
2,210,471	miles (millions)
119,954	gallons (millions)
18.43	mpg

Source: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2012*, Section V, Table VM-1
 Annual Vehicle Distance Traveled in Miles and Related Data - 2012 by Highway Category and Vehicle Type
<http://www.fhwa.dot.gov/policyinformation/statistics.cfm>

Source: See Table C-11

**Table C-11
Annual Vehicle Distance Traveled in Miles and Related Data (2012) - By Highway Category and Vehicle Type^{1/}**

Published January 2014											TABLE VM-1
YEAR	ITEM	LIGHT DUTY VEHICLES SHORT WB ⁽²⁾	MOTOR-CYCLES	BUSES	LIGHT DUTY VEHICLES LONG WB ⁽²⁾	SINGLE-UNIT TRUCKS ⁽³⁾	COMBINATION TRUCKS	SUBTOTALS		ALL MOTOR VEHICLES	
								ALL LIGHT VEHICLES ⁽²⁾	SINGLE-UNIT 2-AXLE 6-TIRE OR MORE AND COMBINATION TRUCKS		
2012	Motor-Vehicle Travel: (millions of vehicle-miles)										
2012	Interstate Rural	141,090	1,279	1,674	43,889	9,249	48,691	184,979	57,940	245,872	
2012	Other Arterial Rural	231,314	2,880	2,036	88,842	17,194	29,689	320,156	46,883	371,954	
2012	Other Rural	226,777	3,358	2,031	94,356	17,961	14,316	321,133	32,277	358,799	
2012	All Rural	599,181	7,516	5,741	227,086	44,403	92,696	826,268	137,100	976,624	
2012	Interstate Urban	345,091	2,815	2,359	84,130	14,539	35,614	429,220	50,153	484,547	
2012	Other Urban	1,119,085	10,967	6,654	289,872	46,018	35,047	1,408,957	81,065	1,507,643	
2012	All Urban	1,464,176	13,782	9,013	374,001	60,557	70,662	1,838,177	131,219	1,992,191	
2012	Total Rural and Urban ⁽⁵⁾	2,063,357	21,298	14,755	601,088	104,960	163,358	2,664,445	268,318	2,968,815	
2012	Number of motor vehicles registered ⁽²⁾	183,171,882	8,454,939	764,509	50,588,676	8,190,286	2,469,094	233,760,558	10,659,380	253,639,386	
2012	Average miles traveled per vehicle	11,265	2,519	19,299	11,882	12,815	66,161	11,398	25,172	11,705	
2012	Person-miles of travel ⁽⁴⁾ (millions)	2,866,797	22,940	312,797	803,023	104,960	163,358	3,669,821	268,318	4,273,876	
2012	Fuel consumed (thousand gallons)	88,541,453	489,115	2,059,305	35,093,224	14,286,505	27,925,585	123,634,677	42,212,090	168,395,187	
2012	Average fuel consumption per vehicle (gallons)	483	58	2,694	694	1,744	11,310	529	3,960	664	
2012	Average miles traveled per gallon of fuel consumed	23.3	43.5	7.2	17.1	7.3	5.8	21.6	6.4	17.6	
<p>(1) The FHWA estimates national trends by using State reported Highway Performance and Monitoring System (HPMS) data, fuel consumption data (MF-21 and MF-27), vehicle registration data (MV-1, MV-9, and MV-10), other data such as the R.L. Polk vehicle data, and a host of modeling techniques. Starting with the 2009 VM-1, an enhanced methodology was used to provide timely indicators on both travel and travel behavior changes.</p> <p>(2) Light Duty Vehicles Short WB - passenger cars, light trucks, vans and sport utility vehicles with a wheelbase (WB) equal to or less than 121 inches. Light Duty Vehicles Long WB - large passenger cars, vans, pickup trucks, and sport/utility vehicles with wheelbases (WB) larger than 121 inches. All Light Duty Vehicles - passenger cars, light trucks, vans and sport utility vehicles regardless of</p> <p>(3) Single-Unit - single frame trucks that have 2-Axles and at least 6 tires or a gross vehicle weight rating exceeding 10,000 lbs.</p> <p>(4) Vehicle occupancy is estimated by the FHWA from the 2009 National Household Travel Survey (NHTS); For single unit truck and heavy trucks, 1 motor vehicle mile travelled = 1 person-mile traveled.</p> <p>(5) VMT data are based on the latest HPMS data available; it may not match previous published results.</p>											

APPENDIX D
Calculated Transportation Impact Fee Schedule

Transportation Impact Fee Schedule

This appendix presents the detailed impact fee calculations for each land use in Marion County's transportation impact fee schedule. A detailed description of specific changes in the demand component for each land use is provided in Appendix A, Table A-2.

**Table D-1
Calculated Transportation Impact Fee Schedule**

		Gasoline Tax				Unit Construction Cost:				Interstate/Toll Facility Adjustment Factor:						
		\$\$ per gallon to capital:	\$0.227			Capacity per lane mile:		8,845			Cost per VMC:		\$354.55			
		Facility life (years):	25	County Revenues:		\$0.050	Fuel Efficiency:		18.43 mpg							
		Interest rate:	3.75%	State Revenues:		\$0.177	Effectivedays per year:		365							
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee ⁽²⁾	% Change
RESIDENTIAL:																
210	Single Family (Detached) - Less than 1,500 sf	du	6.11	FL Studies (NHTS, AHS, Census)	7.61	8.11	FL Studies	100%	n/a	20.46	\$7,254	\$111	\$1,781	\$5,473	\$6,099	-10%
	Single Family (Detached) - 1,501 to 2,499 sf	du	7.81	FL Studies (NHTS, AHS, Census)	7.61	8.11	FL Studies	100%	n/a	26.15	\$9,272	\$142	\$2,278	\$6,994	\$6,099	15%
	Single Family (Detached) - 2,500 sf and greater	du	8.75	FL Studies (NHTS, AHS, Census)	7.61	8.11	FL Studies	100%	n/a	29.30	\$10,388	\$160	\$2,567	\$7,821	\$6,099	28%
220	Multi-Family (Apartment); 1-2 Stories	du	6.60	Blend ITE 9th & FL Studies	5.87	6.37	FL Studies (LUC 220/230)	100%	n/a	17.05	\$6,044	\$95	\$1,524	\$4,520	\$3,213	41%
222/ 223	Multi-Family (Apartment); 3+ Stories	du	4.14	ITE 9th Edition (weighted avg)	5.87	6.37	Same as LUC 220	100%	n/a	10.69	\$3,791	\$59	\$947	\$2,844	\$2,045	39%
230	Residential Condominium/Townhouse	du	5.76	Blend ITE 9th & FL Studies	5.87	6.37	Same as LUC 220	100%	n/a	14.88	\$5,275	\$82	\$1,316	\$3,959	\$2,860	38%
240	Mobile Home Park	du	4.17	FL Studies	5.29	5.79	FL Studies	100%	n/a	9.71	\$3,441	\$54	\$866	\$2,575	\$2,517	2%
252	Senior Adult Housing - Attached	du	2.97	Blend ITE 9th & FL Studies	3.77	4.27	FL Studies	72%	FL Studies (Same as LUC 253)	3.55	\$1,258	\$21	\$337	\$921	\$946	-3%
254	Assisted Living Facility (ALF)	bed	2.66	ITE 9th Edition	3.54	4.04	FL Studies (Same as LUC 253)	72%	FL Studies (Same as LUC 253)	2.98	\$1,058	\$17	\$273	\$785	n/a	n/a
LODGING:																
310	Hotel	room	6.36	Blend ITE 9th & FL Studies	7.20	7.70	FL Studies	66%	FL Studies	13.30	\$4,715	\$73	\$1,171	\$3,544	\$2,437	45%
320	Motel	room	5.63	ITE 9th Edition	4.99	5.49	FL Studies	77%	FL Studies	9.52	\$3,375	\$53	\$850	\$2,525	\$1,314	92%
RECREATION:																
412	General Recreation/County Park	acre	2.28	ITE 9th Edition	5.37	5.87	FL Studies (Pinellas County)	90%	FL Studies (Pinellas County)	4.85	\$1,719	\$27	\$433	\$1,286	\$856	50%
430	Golf Course	hole	35.74	ITE 9th Edition	6.95	7.45	Same as LUC 210	90%	FL Studies (Pinellas County)	98.36	\$34,875	\$539	\$8,647	\$26,228	\$14,482	81%
444	Movie Theater	screen	106.63	Blend ITE 6th & FL Studies	2.33	2.83	FL Studies	88%	FL Studies	96.20	\$34,107	\$597	\$9,578	\$24,529	\$3,714	560%
492	Racquet Club/Health Spa	1,000 sf	32.93	ITE 9th Edition	5.41	5.91	Same as LUC 710	94%	FL Studies	73.68	\$26,124	\$411	\$6,594	\$19,530	\$13,939	40%
INSTITUTIONS:																
520	Elementary School (Private)	student	1.29	ITE 9th Edition	4.30	4.80	FL Studies (Pinellas County)	80%	FL Studies (Pinellas County)	1.95	\$692	\$11	\$176	\$516	\$287	80%
522	Middle School (Private)	student	1.62	ITE 9th Edition	4.30	4.80	FL Studies (Pinellas County)	90%	FL Studies (Pinellas County)	2.76	\$978	\$16	\$257	\$721	\$405	78%
530	High School (Private)	student	1.71	ITE 9th Edition	4.30	4.80	FL Studies (Pinellas County)	90%	FL Studies (Pinellas County)	2.91	\$1,032	\$17	\$273	\$759	\$432	76%
540	University/Junior College (7,500 or fewer students) (Private)	student	2.00	ITE Regression Analysis	6.95	7.45	Same as LUC 210	90%	FL Studies (Pinellas County)	5.50	\$1,952	\$30	\$481	\$1,471	\$489	201%

Table D-1 (continued)
Calculated Transportation Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee ⁽²⁾	% Change
INSTITUTIONS:																
550	University/Junior College (more than 7,500 students) (Private)	student	1.50	ITE Regression Analysis	6.95	7.45	Same as LUC 210	90%	FL Studies (Pinellas County)	4.13	\$1,464	\$23	\$369	\$1,095	\$969	13%
560	Church	1,000 sf	9.11	ITE 9th Edition	4.10	4.60	FL Studies (Pinellas County)	90%	FL Studies (Pinellas County)	14.79	\$5,244	\$85	\$1,364	\$3,880	\$2,064	88%
565	Day Care Center	1,000 sf	71.88	Blend ITE 9th & FL Studies	2.13	2.63	FL Studies	73%	FL Studies	49.18	\$17,436	\$310	\$4,973	\$12,463	\$7,297	71%
590	Library	1,000 sf	56.24	ITE 9th Edition	6.95	7.45	Same as LUC 210	49%	Orange Co. 2004 Road IF Update	84.27	\$29,878	\$461	\$7,396	\$22,482	\$9,593	134%
610	Hospital	1,000 sf	13.22	ITE 9th Edition	6.95	7.45	Same as LUC 210	77%	FL Studies (Pinellas County)	31.13	\$11,037	\$170	\$2,727	\$8,310	\$5,640	47%
620	Nursing Home	bed	2.76	Blend ITE 9th & FL Studies	2.72	3.22	FL Studies	89%	FL Studies	2.94	\$1,042	\$18	\$289	\$753	\$351	115%
640	Animal Hospital/Veterinary Clinic	1,000 sf	32.80	FL Studies (Pinellas County)	2.00	2.50	FL Studies (Pinellas County)	70%	FL Studies (Pinellas County)	20.20	\$7,164	\$129	\$2,070	\$5,094	\$1,058	382%
OFFICE:																
710	Office	1,000 sf	11.02	ITE 9th equation	5.41	5.91	FL Studies	92%	FL Studies	24.13	\$8,557	\$135	\$2,166	\$6,391	\$1,669	283%
720	Medical Office/Clinic	1,000 sf	23.83	FL Studies	5.83	6.33	FL Studies	89%	FL Studies	54.40	\$19,289	\$302	\$4,845	\$14,444	\$1,669	765%
770	Business Park	1,000 sf	12.65	Blend ITE 9th & FL Studies	5.65	6.15	FL Studies	89%	FL Studies	27.99	\$9,923	\$156	\$2,503	\$7,420	\$1,669	345%
RETAIL:																
820	Retail 6,000 sf gla or less ⁽³⁾	1,000 sf gla	86.56	ITE 9th equation	1.18	1.68	FL Curve	39%	FL Curve	17.53	\$6,214	\$127	\$2,037	\$4,177	\$1,669	150%
	Retail greater than 6,000 sf gla	1,000 sf gla	41.80	ITE 9th equation (400K sq ft)	2.77	3.27	FL Curve (400K sq ft)	73%	FL Curve (400K sq ft)	37.19	\$13,186	\$224	\$3,594	\$9,592	\$1,489	544%
n/a	Shopping Center (Office/Retail) ⁽⁴⁾	1,000 sf gla	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$8,792	n/a	n/a
841	New/Used Auto Sales	1,000 sf	28.25	Blend ITE 9th & FL Studies	4.83	5.33	FL Studies	79%	FL Studies	47.43	\$16,816	\$267	\$4,284	\$12,532	\$2,927	328%
850	Supermarket	1,000 sf	103.38	Blend ITE 9th & FL Studies	2.18	2.68	FL Studies	56%	FL Studies	55.53	\$19,688	\$349	\$5,599	\$14,089	\$2,779	407%
853	Convenience Market w/Gasoline	1,000 sf	775.14	Blend ITE 9th & FL Studies	1.59	2.09	FL Studies	28%	FL Studies	151.84	\$53,835	\$1,020	\$16,364	\$37,471	\$7,873	376%
862	Home Improvement Superstore	1,000 sf	30.74	ITE 9th Edition	2.52	3.02	FL Curve (200K sq ft)	67%	FL Curve (200K sq ft)	22.84	\$8,097	\$140	\$2,246	\$5,851	\$1,724	239%
880/ 881	Pharmacy/Drug Store with or w/o Drive-Thru	1,000 sf	95.96	Blend ITE 9th & FL Studies	2.18	2.68	FL Studies	32%	FL Studies	29.45	\$10,443	\$185	\$2,968	\$7,475	\$1,391	437%
890	Furniture Store	1,000 sf	5.06	ITE 9th Edition	6.39	6.89	FL Studies	54%	FL Studies	7.68	\$2,724	\$42	\$674	\$2,050	\$401	411%
911	Bank/Savings Walk-In	1,000 sf	121.30	ITE 9th Edition	2.58	3.08	Same as LUC 912	46%	Same as LUC 912	63.34	\$22,458	\$386	\$6,193	\$16,265	\$5,450	198%
912	Bank/Savings Drive-In	1,000 sf	159.34	Blend ITE 9th & FL Studies	2.58	3.08	FL Studies	46%	FL Studies	83.21	\$29,501	\$507	\$8,134	\$21,367	\$7,376	190%
931	Restaurant	1,000 sf	91.10	Blend ITE 9th & FL Studies	3.30	3.80	FL Studies	77%	FL Studies	101.85	\$36,112	\$599	\$9,610	\$26,502	\$5,007	429%

Table D-1 (continued)
Calculated Transportation Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee ⁽²⁾	% Change
RETAIL:																
n/a	Small Local Restaurant ⁽⁵⁾	1,000 sf	91.10	Same as LUC 931	2.15	2.65	Same as LUC 934	58%	Same as LUC 934	49.98	\$17,722	\$315	\$5,054	\$12,668	\$5,007	153%
941	Quick Lube	service bay	40.00	ITE 9th Edition	3.80	4.30	Same as LUC 942	72%	Same as LUC 942	48.15	\$17,073	\$278	\$4,460	\$12,613	\$2,401	425%
942	Automobile Care Center	1,000 sf	31.43	Blend ITE 9th & FL Studies	3.80	4.30	FL Studies	72%	FL Studies	37.84	\$13,415	\$219	\$3,513	\$9,902	\$2,301	330%
944	Gas/Service Station	fuel pos.	157.33	ITE 9th Edition (944 & 946 Blend)	2.00	2.50	FL Studies	23%	FL Studies	31.84	\$11,290	\$203	\$3,257	\$8,033	\$1,877	328%
947	Self-Service Car Wash	service bay	43.94	Blend ITE 9th & FL Studies	2.29	2.79	FL Studies	68%	FL Studies	30.11	\$10,674	\$187	\$3,000	\$7,674	\$3,524	118%
INDUSTRIAL:																
110	General Light Industrial	1,000 sf	6.97	ITE 9th Edition	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	15.26	\$5,412	\$85	\$1,364	\$4,048	\$2,121	91%
140	Manufacturing	1,000 sf	3.82	ITE 9th Edition	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	8.37	\$2,966	\$47	\$754	\$2,212	\$1,162	90%
150	Warehousing	1,000 sf	3.56	ITE 9th Edition	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	7.80	\$2,764	\$44	\$706	\$2,058	\$1,513	36%
151	Mini-Warehouse	1,000 sf	2.15	Blend ITE 9th & FL Studies	3.26	3.76	FL Studies (Pinellas County)	92%	Same as LUC 710	2.84	\$1,006	\$17	\$273	\$733	\$455	61%
152	High-Cube Warehouse	1,000 sf	1.68	ITE 9th Edition	5.41	5.91	Same as LUC 710	92%	Same as LUC 710	3.68	\$1,304	\$21	\$337	\$967	\$527	84%

- (1) Source: Net VMT calculated as ((Trip Generation Rate* Trip Length* % New Trips)*(1-Interstate/Toll Facility Adjustment Factor)/2). This reflects the unit of vehicle miles of capacity consumed per unit of development and is multiplied by the cost per vehicle
- (2) For the office and retail land uses the current impact fee rate represents an average of all existing tiers
- (3) This rate should only be applied to small local retail establishments that are not part of a multi-location retail chain
- (4) This rate should be applied to developments that have both office and retail tenants. Fee rate is a blend of the office rate and the retail rate (>6,000 sfgla) at a ratio of 25% office and 75% retail
- (5) This rate should only be applied to small local restaurants that are not part of a multi-location restaurant chain