



Collier County

Transportation Impact Fee Update Study

DRAFT REPORT

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Prepared for:

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Introduction

Collier County's Transportation Impact Fee Ordinance was originally adopted in January 1985 to assist the County in providing adequate transportation facilities for expected growth. The fee was last updated in the *2010 Collier County Transportation Impact Fee Cost & Credit Update Study* conducted by Tindale Oliver. Collier County has retained Tindale Oliver to prepare an update study to reflect the recent cost, credit, and demand components since 2010. It should be noted that figures calculated in this study represent the technically defensible level of impact fees that the County could charge; however, the Board of County Commissioners 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 Impact Fee Benefit Districts

The methodology used for the transportation impact fee study continues to follow a consumption-based impact fee approach, in which new development is charged based upon the proportion of vehicle-miles of travel (VMT) that each unit of new development is expected to consume of a lane mile of roadway network.

Included in this document is the necessary support material used in the calculation of the transportation impact fee. Most of the analysis in this report was completed in 2013 and additional cost data was incorporated in 2014. The general equation used to compute the impact fee for a given land use is:

$$\text{[Demand x Cost]} - \text{Credit} = \text{Fee}$$

The demand for travel placed on the transportation system is expressed in units of VMT (daily trip generation rate multiplied by the trip length and the percent new trips [of total trips]) for each 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 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 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 used in the fee equation:

Demand Variables:

- Trip generation rate
- Trip length
- Percent new trips
- Interstate and 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.

As part of this update, the trip characteristics variables were obtained primarily from four sources: (1) local studies conducted in Collier County, (2) similar studies previously conducted throughout Florida by Tindale Oliver (Florida Studies Database), and (3) the Institute of Transportation Engineers' (ITE) *Trip Generation* report (9th edition).

The Florida Studies Database (including Collier County studies) 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. 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.

It is important to note that the trip length used for the single family land use (5.88 miles) is based on local studies conducted in 1999. More recent studies conducted in Collier County suggested an average of 7.28 miles, with a range of 3.05 miles to 11.29 miles. In 2010, Tindale Oliver conducted a separate analysis using the 2035 Collier County Long Range Transportation Demand (LRTP) travel model, which suggested that the single family trip length ranged from an average of 6.82 miles in the western part of the county (urban area) to 11.75 miles in the eastern part of the county (rural area). However, to provide a conservative estimate, this study continues to use 5.88 miles. Additional information on single family trip length is included in Appendix A.

Interstate and 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 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 2035 Lee/Collier Transportation Planning model. A select link analysis was run for all traffic analysis zones located within Collier 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, interstate/toll facilities in Collier County include I-75 and Alligator Alley (toll portion of I-75). The limited access vehicle miles of travel (Limited Access VMT) for trips with an origin and/or destination within Collier County was calculated for the identified limited access facilities. The total Collier County VMT was calculated for all trips with an origin and/or destination within Collier County for all roads, including limited access roads, located within Collier County.

The I/T discount factor of 14.3 percent was determined by dividing the Total Limited Access VMT by the total Collier County VMT. By applying this factor, the total VMT for each land use is reduced, which is representative of only the roadways that are eligible to be funded with impact fee revenues. Appendix A, Table A-1 provides additional detail.

Cost Component

The cost of providing roadway system capacity has decreased in recent years. Construction costs increased significantly in Florida and in Collier County 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, communities have experienced a decrease in construction costs, returning to levels seen before 2005. In 2013/2014, roadway costs started to increase again. Cost information from Collier 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 following subsections summarize the methodology and findings of the 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 ROW, construction, and other cost components associated with county roads with respect to transportation capacity improvements in Collier 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 estimates are provided for seven components: ROW, construction, design, construction engineering/inspection (CEI), mitigation, and urban overpass costs. The following sections provide a summary of county roadway costs.

(1) 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. Local ROW cost estimates were based on cost data received for five projects along Santa Barbara Boulevard, Oil Well Road, and Collier Boulevard. A review of these local projects suggested that two different average ROW costs be calculated; a “low” cost, which represents acquisitions of mostly vacant parcels, and a “high” cost which reflects acquisitions along more developed corridors, where parcels have existing structures. The final ROW cost per lane mile was determined by

weighting low and high ROW cost estimates by the distribution of lane miles in the 2035 Long Range Transportation Plan based on the land use and roadway characteristics.

Based on the roadway classification, each LRTP improvement was designated as having a “high” or “low” ROW cost. Improvements classified as being in the urbanized area or transitioning areas were designated as “high”, while improvements in the rural undeveloped area were classified as “low”. Based on this analysis, a ROW cost of approximately \$863,000 per lane mile was used for county roads. Appendix B, Tables B-1 and B-2 provide a detailed description of the projects analyzed and the weighting process. This ratio is slightly lower than the ratio observed in other communities throughout Florida, providing a more conservative estimate for ROW cost in Collier County.

(2) Construction

Similar to the process for estimating ROW costs, the construction cost for county roads was based on local projects, costs for projects in other Florida communities, and discussions with County staff. A review of local construction cost data from 2008 to 2014 identified approximately 59 lane miles of improvements in Collier County, including projects along Santa Barbara Boulevard, Oil Well Road, Collier Boulevard, and Golden Gate Boulevard. To increase the sample size of projects, bids from multiple communities throughout the state were also reviewed for the same period (2008 through 2014). This review included approximately 380 lane miles of roadway improvements from 16 counties across Florida. Taking into account all of the local and statewide data, the construction cost per lane mile was estimated at \$2.7 million for county, as shown in Table 1. Appendix B, Tables B-3 and B-4, provide additional detail on the capacity expansion projects reviewed.

Based on discussions with County staff, it is anticipated that all of the lane miles that the County will construct in the future will have urban design characteristics.

(3) Other Component Costs

The unit cost per lane mile for county roads in Collier County also includes updated design/CEI, mitigation, and urban overpass costs associated with roadway capacity expansion projects.

Design / CEI

In recent transportation impact fee studies throughout the state, design and CEI costs are averaging approximately 10 percent of construction costs. Based on recent roadway improvements in Collier County design and CEI costs were assessed between four (4) percent and 20 percent of construction. Taking into consideration the range of local data and the statewide average, it was determined that design and CEI should each be calculated at 10 percent of construction costs for impact fee purposes. Appendix B, Table B-6 presents the projects local reviewed for determining the percentages.

Mitigation

Mitigation cost estimates were developed based on cost data received for five recent projects in the Collier County. Multiple improvements are located in the Panther Consultation Area (PCA), which, on average, tend to have higher costs than non-PCA mitigation. Therefore, the mitigation cost per lane mile was weighted by the distribution of lane miles from all projects in the LRTP that are located within or outside of the Panther Consultation Area. As shown in Table 1, a mitigation cost of approximately \$74,000 per lane mile was calculated for county roads. Appendix B, Tables B-7 and B-8, provide additional detail on the mitigation data that was reviewed.

Urban Overpass

Urban overpass cost estimates were developed based on cost data received for four planned improvement projects in Collier County. The total cost of these improvements was then divided by the total lane miles of needs projects in the 2035 Long Range Transportation Plan. As shown in Table 1, an urban overpass cost of approximately \$390,000 per lane mile was calculated for county roads. Appendix B, Table B-9, provides additional detail on the urban overpass data that was reviewed.

Table 1 summarizes the total cost per lane mile for county roads by phase. Table 2 presents a comparison of the updated costs to the cost used in the County's previous transportation impact fee updated study.

Table 1
Estimated Total Cost per Lane Mile for County Roads

Cost Phase	Cost Per Lane Mile
Design ⁽¹⁾	\$270,000
Right-of-Way ⁽²⁾	\$863,000
Construction ⁽³⁾	\$2,700,000
CEI ⁽⁴⁾	\$270,000
Mitigation ⁽⁵⁾	\$74,000
Urban Overpass ⁽⁶⁾	\$390,000
Total Cost	\$4,567,000

- (1) Design is estimated at 10% of the construction cost per lane mile
- (2) Source: Appendix B, Table B-2
- (3) Source: Appendix B, Tables B-3 and B-4
- (4) CEI is estimated at 10% of the construction cost per lane mile
- (5) Source: Appendix B, Table B-8
- (6) Source: Appendix B, Table B-9

Table 2
Total Cost per Lane Mile Comparison for County Roads

Cost Phase	Cost Per Lane Mile (2010) ⁽¹⁾	Cost Per Lane Mile (2014) ⁽²⁾	% Change
Design	\$119,560	\$270,000	126%
Right-of-Way	\$901,000	\$863,000	-4%
Construction	\$1,708,000	\$2,700,000	58%
CEI	\$119,560	\$270,000	126%
Mitigation	\$156,000	\$74,000	-53%
Urban Overpass	\$576,000	\$390,000	-32%
Carrying	\$170,000	-	-
Total Cost	\$3,750,120	\$4,567,000	22%

- (1) Source: Collier County Transportation Impact Fee Update Study Final Report, September 8, 2010; Table 1 (does not include utilities)
- (2) Source: Table 1

State Roadway Costs

This section examines the ROW, construction, and other cost components associated with state roads with respect to transportation capacity improvements in Collier County. For this purpose, recent bid data from state roadway projects in Collier 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 estimates are provided for seven components: ROW, construction, design, construction engineering/ inspection (CEI), mitigation, and urban overpass costs. The following sections provide a summary of state roadway costs.

(1) Right-of-Way

FDOT has not recently acquired ROW for any lane widening projects in Collier County. Based on discussions with staff, it was estimated that the ROW acquisition cost for state roads is likely to be equivalent to that of county roads. Therefore, a ROW acquisition cost of \$863,000 was used to calculate the unit cost per lane mile for state roads. See Appendix B, Tables B-1 and B-2 for additional detail. For state roads, ROW is approximately 32 percent of the construction costs. This ratio is slightly lower than the ratio observed in other communities throughout Florida, providing a more conservative estimate for state ROW in Collier County.

(2) Construction

Given the limited data on construction costs for state roads in Collier County, the construction cost for state roads was based on recently bid projects from multiple communities in Florida, including one recent bid in Collier County (SR 84 from Santa Barbara Boulevard to Radio Road). This review included approximately 327 lane miles or roadway improvements from 30 counties and calculated an average cost of \$2.7 million per lane mile. Appendix B, Table B-5 provides a detailed description of the projects analyzed. Table 3 presents the weighted average roadway cost for state roadways which was used in the transportation impact fee calculation.

(3) Other Cost Components

The unit cost per lane mile for state roads in Collier County also includes updated design/CEI, mitigation, and urban overpass costs associated with capacity expansion projects.

Design / CEI

Design and CEI costs for state roads were each estimated at 10 percent of construction phase costs, based on a review of FDOT's Long Range Estimates and recent transportation impact fee studies throughout Florida.

Mitigation

Due to a lack of mitigation cost data along state roadways, it was assumed that the mitigation cost for state facilities is the same as the costs for county facilities. Discussions with staff confirmed that these assumptions were appropriate for planning level mitigation estimates. Appendix B, Tables B-7 and B-8 provide additional data on the mitigation costs reviewed.

Urban Overpass

Due to a lack of urban overpass cost data along state roadways, it was assumed that the urban overpass cost for state facilities is the same as the costs for county facilities. Discussions with staff confirmed that these assumptions were appropriate for planning level urban overpass cost estimates. Appendix B, Table B-9 provides additional data on the urban overpass costs reviewed.

Table 3 summarizes the total cost per lane mile for state roads by phase. Table 4 presents a comparison of the updated costs to the cost used in the County’s previous transportation impact fee updated study.

**Table 3
Estimated Total Cost per Lane Mile
for State Roads**

Cost Phase	Cost Per Lane Mile
Design ⁽¹⁾	\$270,000
Right-of-Way ⁽²⁾	\$863,000
Construction ⁽³⁾	\$2,700,000
CEI ⁽⁴⁾	\$270,000
Mitigation ⁽⁵⁾	\$74,000
Urban Overpass ⁽⁶⁾	\$390,000
Total Cost	\$4,567,000

(1) Design is estimated at 10% of the construction cost per lane mile.

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

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

(4) CEI is estimated at 10% of the construction cost per lane mile.

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

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

Table 4
Total Cost per Lane Mile Comparison for State Roads

Cost Phase	Cost Per Lane Mile (2010) ⁽¹⁾	Cost Per Lane Mile (2014) ⁽²⁾	% Change
Design	\$241,800	\$270,000	12%
Right-of-Way	\$901,000	\$863,000	-4%
Construction	\$2,418,000	\$2,700,000	12%
CEI	\$241,800	\$270,000	12%
Mitigation	\$156,000	\$74,000	-53%
Urban Overpass	\$576,000	\$390,000	-32%
Carrying	\$218,000	-	-
Total Cost	\$4,752,600	\$4,567,000	-4%

(1) Source: Collier County Transportation Impact Fee Update Study Final Report, September 8, 2010; Table 3

(2) Source: Table 3

Summary of Costs (Blended Cost Analysis)

Given that the cost per lane mile for county and state roads do not differ, the estimated cost of approximately \$4.57 million per lane mile was utilized as the roadway cost input in the calculation of the transportation impact fee schedule.

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 planned improvements (see Appendix B, Table B-12) was conducted to reflect the mix of county and state road improvement that will be built in the future. As shown in Table 5, the resulting average capacity per lane mile calculated based on these projects is 9,935. This capacity is slightly lower than the figure used in the previous transportation impact fee study (10,217).

Table 5
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	313.80	2,843,045	9,060
State Roads	135.40	1,619,760	11,963
Total	449.20	4,462,805	
Weighted Average VMC Added per Lane Mile⁽⁴⁾			9,935

(1) Source: Appendix B, Table B-12

(2) Source: Appendix B, Table B-12

(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 1, 3, and 5, the roadway cost and capacity have been calculated based on typical roadway improvements. As shown in Table 6, the cost per VMC for travel within Collier County is approximately \$460. 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 \$460 of roadway capacity is consumed.

Table 6
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	\$4,567,000	9,060	\$504.08
State Roads	\$4,567,000	11,963	\$381.76
Weighted Average	\$4,567,000	9,935	\$459.69

(1) Source: Tables 1 and 3

(2) Source: Table 5

(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 include not only lane additions, but also associated intersection improvements, traffic signalization, and other amenities and technology improvements.

Credit Component

Gasoline Tax Equivalent Credit

The present value of the portion of 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

As part of this update study, a review of the County's FY 2013-2017 Annual Update and Inventory Report (AUIR) Transportation Work Program was conducted. This review indicated that a combination of gas tax revenues, impact fee, and grants are used to fund roadway capacity expansion.

Based on a review of the Five-Year Capital Improvements Plan, Collier County received a credit of 3.0 pennies for the portion of gas tax and grant funds dedicated to capacity expansion projects. Additionally, the County is using gas tax revenues to retire debt service used to fund roadway capacity expansion improvements. The gas tax dedication for the Series 2003 and Series 2012 bonds equates to 10.8 pennies of additional county credit. As shown in Table 7, a total gas tax equivalent revenue credit of 13.8 pennies was given for county 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 16-year period (2004-2019). This period represents past FDOT Work Program expenditures from 2004 to 2014 and also includes the current Transportation Improvement Program (TIP) from 2015 to 2019. 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 10.7 pennies of gas tax revenue annually. The use of a 16-year period for purposes of developing a state credit for roadway capacity-expansion projects results in a reasonably stable credit for Collier County, accounting for the volatility in FDOT spending in the county over short time periods.

In summary, Collier County contributes approximately 13.8 pennies toward roadway capacity expansion projects, while the State spends an average of 10.7 pennies for state roadway projects in Collier County. Therefore, a total of 24.5 pennies of 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 7. This represents a decrease of approximately 3 percent compared to the previous study. A reduction in credit results in an increase in impact fee levels.

Table 7
Equivalent Pennies of Gas Tax Revenue

Credit	Equivalent Pennies per Gallon
County Revenues ⁽¹⁾	\$0.030
County Debt Service ⁽²⁾	\$0.108
State Revenues ⁽³⁾	\$0.107
Total	\$0.245

(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 before major maintenance is needed.

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 4.0 percent was used in the transportation impact fee calculation based on the interest rate paid on most recent bond issues.

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 Collier County impact fee; and
- Percent difference between the calculated impact fee and the current impact fee.

It should be noted that the net impact fees calculated in Appendix D are not necessarily the recommended fees, but instead represent the technically defensible impact fees per unit of land use that could be charged in Collier 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 (2,000 sf) 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:

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

$$\text{Gas Tax Credit} = \text{Present Value (Annual Gas Tax), given 4.0\% interest rate \& 25-year facility life}$$

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

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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 (2,000 sf) land use category:

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.65).
- *Assessable Trip Length* = the actual average trip length for the category, in vehicle-miles (5.88)
- *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 ($5.88 + 0.50 = 6.38$)
- *% 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 (14.3%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in \$/lane-mile (\$4,567,000)
- *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 (9,935)
- *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 ($\$4,567,000 / 9,935 = \459.69)
- *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 4.0% interest and a 25-year facility life, the uniform series present worth factor is 15.6221
- *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 (\$0.245)
- *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 (2,000 sf) land use category as follows:

$$\begin{aligned} \text{Total Impact Cost} &= ([7.65 * 5.88 * 1.0] / 2) * (1 - 0.143) * (\$459.69) = \$8,860 \\ \text{Annual Gas Tax} &= ([7.65 * 6.38 * 1.0] / 2) * 365 * (\$0.245 / 18.43) = \$118 \\ \text{Gas Tax Credit} &= \$118 * 15.6221 = \$1,843 \\ \text{Net Impact Fee} &= \$8,860 - \$1,843 = \mathbf{\$7,017} \end{aligned}$$

The complete fee schedule by land use is included in Appendix D, Table D-1.

Transportation Impact Fee Comparison

As part of the work effort in developing the Collier County transportation impact fee program, a comparison of calculated fees to transportation impact fee schedules adopted in other jurisdictions was completed. Table 9 presents Collier County’s calculated impact fee and a comparison to transportation impact fees in other Florida jurisdictions.

It should be noted that the differences in fee levels for a given land use can be caused by several factors, including the year of the technical study, adoption percentage, study methodology including variations in costs, credits and travel demand, land use categories included in the fee schedule, etc.

**Table 9
Transportation Impact Fee Comparison**

Land Use	Unit ⁽²⁾	Collier County (Calculated) ⁽³⁾	Collier County (Existing) ⁽⁴⁾	Polk County ⁽⁵⁾	Pasco County ⁽⁶⁾	Lake County ⁽⁷⁾	Lee County ⁽⁸⁾	Charlotte County ⁽⁹⁾	Martin County ⁽¹⁰⁾	Indian River County ⁽¹¹⁾	Marion County ⁽¹²⁾	Manatee County ⁽¹³⁾	Sarasota County ⁽¹⁴⁾	Brevard County ⁽¹⁵⁾
Date of Last Update		2014	2010	2008	2011	2013	2011	2009	2012	2014	2005	2011	2006	2000
Assessed Portion of Calculated ⁽¹⁾		100%	100%	100%	100%	70%	20%	100%	100%	100%/45%	58%	100%	34%	100%
Residential:														
Single Family Detached (2,000 sq ft)	du	\$7,017	\$5,753	\$4,985	\$8,570	\$2,706	\$1,340	\$6,278	\$2,815	\$4,248	\$6,099	\$3,981	\$2,887	\$4,353
Non-Residential:														
Light Industrial	1,000 sf	\$5,373	\$4,333	\$675	\$1,000	\$1,505	\$925	\$4,587	\$1,857	\$1,206	\$2,121	\$776	\$1,416	n/a
Office (50,000 sq ft)	1,000 sf	\$9,661	\$9,291	\$5,310	\$1,174	\$2,623	\$1,071	\$2,433	\$2,198	\$1,916	\$2,027	\$1,823	\$3,004	\$5,058
Retail (125,000 sq ft)	1,000 sf	\$13,531	\$10,247	\$6,754	\$7,051	\$3,080	\$1,587	\$9,090	\$5,183	\$2,862	\$1,565	\$7,152	\$5,659	\$5,270
Bank w/Drive-In	1,000 sf	\$27,300	\$21,954	\$14,377	\$14,384	\$3,080	\$3,437	\$11,814	\$6,841	\$6,219	\$7,376	\$7,152	\$6,091	\$23,331
Fast Food w/Drive-Thru	1,000 sf	\$91,028	\$74,793	\$65,096	\$46,712	\$3,080	\$6,406	\$14,938	\$15,693	\$20,459	\$15,963	\$7,152	\$13,621	\$35,791

- (1) Represents the portion of the maximum fee for each respective county that is currently charged (excluding fees under moratorium, which are noted below). Fees may have been lowered through indexing or policy discounts
- (2) Du = dwelling unit
- (3) Source: Appendix D, Table D-1
- (4) Source: Collier County Impact Fee Administration Department
- (5) Source: Polk County Building & Construction Department. **Transportation impact fee moratorium in effect through 7/31/2015**
- (6) Source: Pasco County Multi-Modal Mobility Fee Study, adopted July 2011. Fee shown is for the Urban District
- (7) Source: Lake County Growth Management Department, Development Processing Division; North/Central Benefit District
- (8) Source: Lee County Community Development Department. Recent 80% reduction is in effect through 3/13/2015
- (9) Source: Charlotte County Community Development Department; Fees shown are an average of the Urban, Rural 1, and Rural 2 zones; Bank w/Drive-In is assessed "per lane"
- (10) Source: Martin County Growth Management Department
- (11) Source: Indian River County Planning Division; Residential land uses adopted at 100% and non-residential uses adopted at 45%
- (12) Source: Marion County Planning Department. **Transportation impact fee moratorium in effect through October 2015**
- (13) Source: Manatee County Financial Management Department, Impact Fee Administration; Single family fee is an average of all four bedroom options
- (14) Source: Sarasota County Planning & Development Services
- (15) Source: Brevard County Planning & Development Department. **Transportation impact fee moratorium in effect through 12/31/2014**

Transportation Impact Fee Benefit Districts

As part of the update of the transportation impact fee program, the existing impact fee benefit districts, illustrated in Map 1, were reviewed. To charge impact fees, the County must meet one of the dual rational nexus tests of proof of benefit to fee-paying developments by ensuring that funds collected are spent on eligible capital improvement projects. Establishing benefit districts enhances this proof, showing a close connection to the fee-payer and their resulting benefit, by restricting revenues to specific areas of the County where the fee is collected. Benefit district boundaries are typically influenced by geographic (i.e., lakes and rivers) or man-made boundaries/barriers (i.e., roads, highways, municipal limits) which in some way restrict traffic.

District Boundaries

Currently, Collier County has eight road impact fee districts, whose boundaries define the current road impact fee benefit districts. Within these districts, Collier County charges the same transportation impact fee rate, except for Districts 7 and 8, where no fee is charged. Revenues collected in each district are placed into separate funds and can only be used to fund improvements within the corresponding benefit district. For example, revenues collected in District 2 are placed into an individual account and are only eligible to fund roadway capacity improvements within District 2. However, exceptions are made for projects that span multiple adjacent districts¹. In those cases funds from the two adjacent districts can both be used on the improvement. The use of benefit districts restricts impact fee funds to a smaller area with the intent of providing a direct benefit (via new road construction, lane additions, intersection improvements, etc.) to the fee payer.

In regard to the geographic boundaries of the districts, no changes are recommended to the existing districts. As shown in Table 10, impact fee revenues collected in Districts 1, 2, 4 and 6 are relatively proportionate. Development in District 5 is expected to pick up with the ongoing development of the Immokalee area, while District 3 (City of Naples) is built-out with little room for new development, explaining the low revenue return. However, because this District's boundaries correspond to the city limits, no changes are recommended. If the City were to annex additional land, the District 3 boundary should be expanded to capture the additional area. Based on a review of the revenue collection

¹ Collier County Code of Ordinances, Section 74-203 (b)

levels, municipal & geographic boundaries, and discussions with County representatives, it is recommended that the current boundaries are maintained.

Table 10
Transportation Impact Fee Revenues by District

Year	District 1	District 2	District 3	District 4	District 5	District 6	Total
FY 2005	\$17,327,097	\$11,875,858	\$1,490,418	\$14,045,379	\$1,864,206	\$11,140,462	\$57,743,420
FY 2006	\$12,968,812	\$9,275,777	\$557,542	\$15,168,598	\$4,468,761	\$8,866,864	\$51,306,354
FY 2007	\$13,598,462	\$20,155,717	\$2,078,330	\$12,673,929	\$4,928,468	\$16,001,882	\$69,436,788
FY 2008	\$14,748,470	\$3,185,621	\$750,669	\$4,042,933	\$2,804,124	\$2,520,900	\$28,052,717
FY 2009	\$1,917,400	\$2,426,744	-\$125,590	\$7,567,178	\$181,984	\$795,430	\$12,763,146
FY 2010	\$992,672	\$2,398,827	\$0	\$3,170,788	\$831,426	\$4,841,052	\$12,234,765
FY 2011	\$639,635	\$1,112,445	-\$61,285	\$2,153,551	\$233,830	\$1,523,791	\$5,601,967
FY 2012	\$2,406,382	\$297,230	\$115,747	\$5,128,168	\$1,621,702	-\$1,108,015	\$8,461,214
Total	\$64,598,930	\$50,728,219	\$4,805,831	\$63,950,524	\$16,934,501	\$44,582,366	\$245,600,371
%	26%	21%	2%	26%	7%	18%	100%

Source: Collier County Transportation Engineering Department

Impact Fee Revenue Use Across Districts

As previously mentioned, for certain projects, revenues from adjacent districts can be pooled together. For example, the planned construction of Benfield Rd (from Wilson Blvd Ext. to US 41) spans across portions of Districts 2 and 4 and would therefore be eligible for impact fee funding from both District 2 and District 4 transportation impact fee accounts, but not District 1. The Benfield extension will provide obvious benefits to transportation flow and circulation in Districts 2 and 4, but no clear benefit can be established for residents of District 1. In addition, funds from the adjacent districts are not restricted to a certain portion of the roadway improvement. Funds from District 2 can be used on portions of the improvement that lie in District 4 and vice versa. Although this approach creates some flexibility, it does not recognize regional roads that benefit multiple districts and requires an evaluation of each project on a case-by-case basis, which can be time consuming and inefficient. As such, the County asked Tindale Oliver to evaluate this aspect of the current procedures and provide recommendations related to regional roads and the use of impact fees from multiple districts.

Regional Roads

For purposes of the benefit districts analysis, “regional roads” refer to corridors which serve a significant portion of the county and is essential to moving traffic across or through the County, rather than serving as connectors to larger roads. From an impact fee perspective,

improvements to these corridors provide benefit to all districts, whether or not they are located within or adjacent to every transportation district because they are major connectors across the county (east-west or south-north, etc.). As such, it is appropriate that future capacity improvements to the corridors classified as “regional” would be eligible for funding from all of the impact fee districts in Collier County. The process for classifying regional roads is based primarily on the model trip lengths and traffic volumes along major roadways. Corridors with longer lengths and high volumes suggest that these roads are operating as significant regional roads.

Model Trip Length Validation

To identify regional roads, location and travel demand characteristics were reviewed. For travel demand, the Lee-Collier Florida Standard Urban Transportation Model Structure (FSUTMS) was used. Major arterial roadways within the country were divided into multiple segments. A “select-link” analysis was conducted on each of these segments using the existing 2007 scenario of the Lee-Collier FSUTMS. A select-link analysis determines the characteristics of the travel demand of a particular link in the model network. It allows the origin and destination of the traffic traveling on the analyzed link to be identified. For example, it measures the trip length of every car that passes by a specific point on a specific road. The select link analysis was used in order to determine the amount and route of traffic traveling on the county’s major arterial roadways. The multiple select-link analysis allowed the studied roadways to be evaluated to determine the total projected volume and trip length along the corridor.

As shown on Map 2, corridors including US 41 (Tamiami Trail), Collier Boulevard, Immokalee Road, Camp Keais Road, and Oil Well Road have higher than average trip lengths, determined through the select link analysis. The average trip length out of any type of development is between one and seven miles, while the corridors identified on Map 2 range from 6.7 to 23.5 miles, with trip lengths increasing as the select links move further away from the City of Naples and the urban core. These long trip lengths indicate that drivers are utilizing these specific corridors for long distance trips across Collier County. Collier Boulevard is the County’s primary north-south connector, while Immokalee Road and Oil Well Road provide east-west connections for the northern part of the county.

Traffic Volumes

Map 3 illustrates the 2080 build-out traffic volumes projected for Collier County, which emphasize the importance of these regional roadways². The analysis on Map 3 is used to show the relative projected traffic volumes between major roads in Collier County. It is not used as a basis for any technical calculations and the absolute volumes projected are not used for the basis of the impact fee analysis. As shown, US 41 and Collier Blvd will continue to be major north-south corridors, while Immokalee Road, Oil Well Road, and Camp Keais Road will be major east-west corridors.

Benefit Districts Recommendations

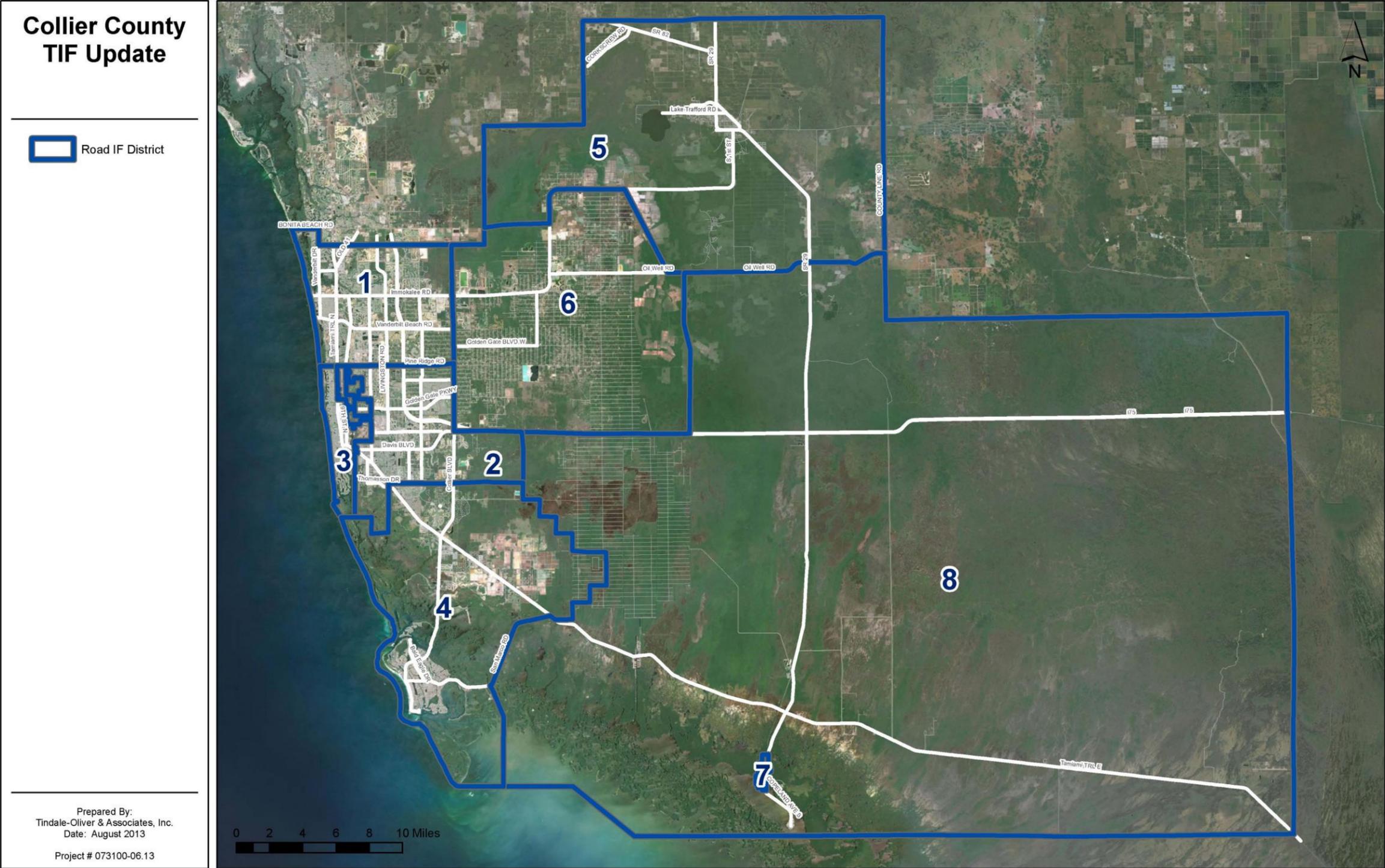
Based on a review of geographic barriers, historical impact fee revenue, travel, and traffic volume, it is recommended that Collier County continues forward with the existing benefit district alignments. Additionally, identified “regional roads” should be eligible for impact fee funding from any benefit district, even if the improvement is not located within or adjacent to a funding district. These regional roads include:

- US 41 (Tamiami Trail);
- Collier Boulevard;
- Oil Well Road;
- Camp Keais Road; and
- Immokalee Road.

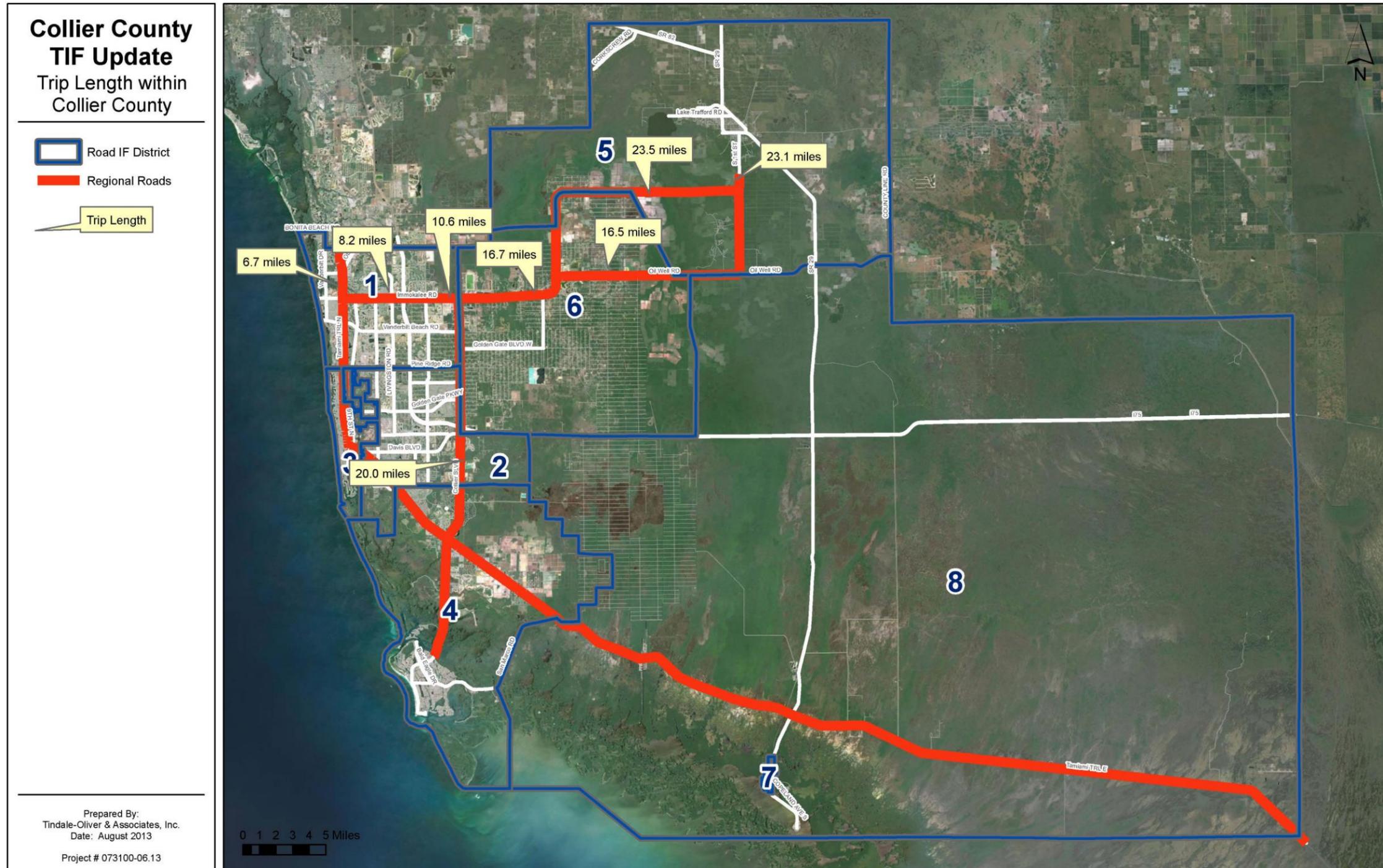
The travel demand and traffic characteristics of these corridors highlight their importance in moving traffic and connecting neighborhoods throughout the entire county. It is recommended that in future updates Collier County continue to monitor travel and traffic along major corridors to confirm this list of regional roads as well as to identify any additional regional-type roadways that may emerge.

² Source: Completed as part of the analysis for the Collier County Master Mobility Plan, Ph. II

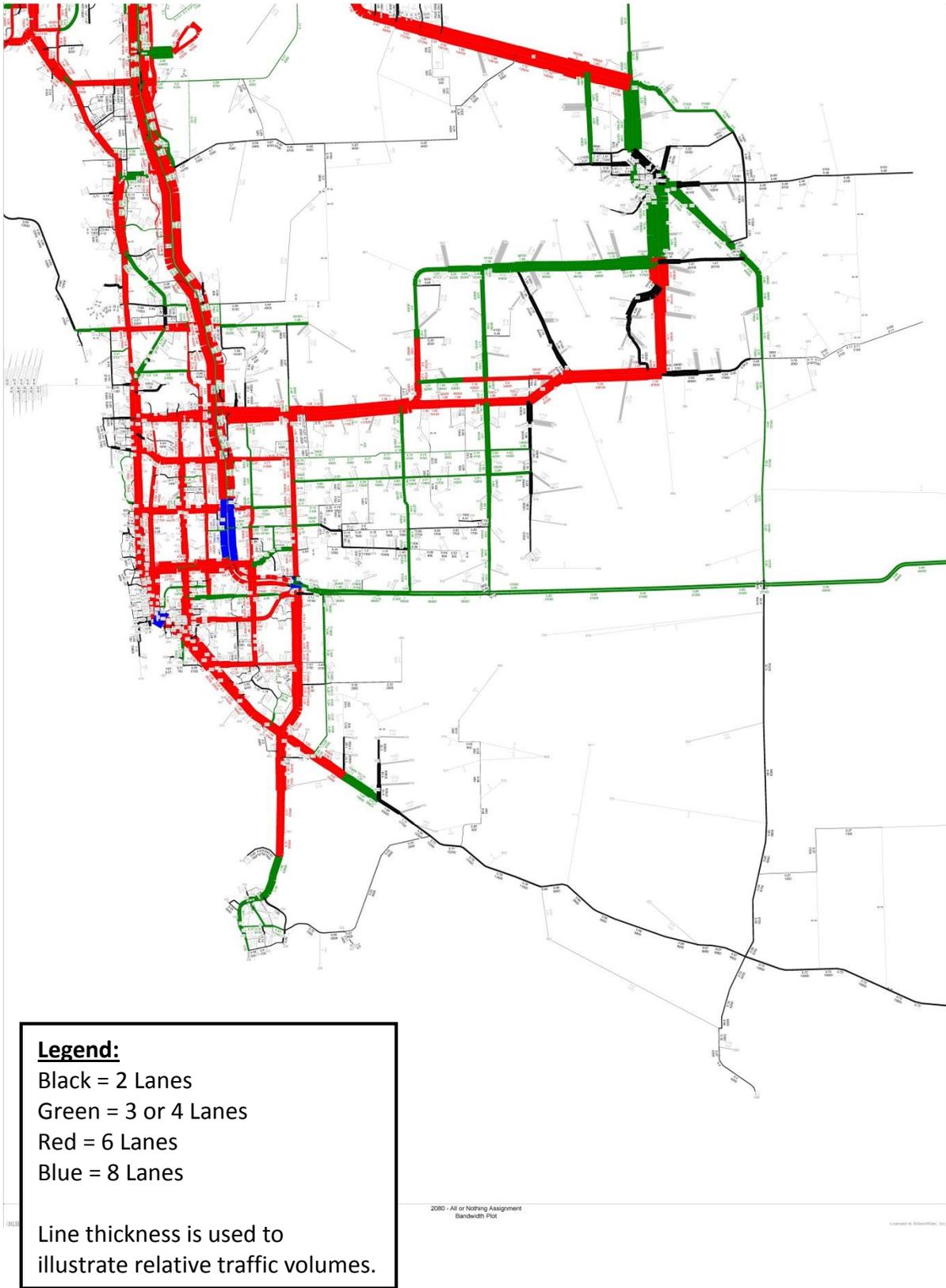
Map 1 – Collier County Transportation Impact Fee Benefit Districts



Map 2 – Collier County “Regional Roads”



Map 3 – Collier County 2080 Build-Out Volumes



Appendix A
Demand Component Calculations

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Appendix A

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

Interstate and 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 was based on data from the 2035 Lee/Collier Transportation 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 external-to-external trips, which represent traffic that goes through Collier County, but does not necessarily stop in the county. This traffic is excluded from the calculations since it does not come from a 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
I-75	1,286,416	10.3%
Alligator Alley	500,244	3.9%
Other Roads	10,721,690	85.7%
Total (All Roads)	12,508,350	100.0%
Total (Interstate/Toll Roads)	1,786,660	14.3%

Source: 2035 Lee/Collier Transportation Planning Model

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 two-tier analysis (previously three) 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 2011 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 2011 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	5.88	45.92	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 4,000 square feet in size (\$58,372) is slightly lower than the overall average income for the U.S. (\$58,429). In Table A-4, annual average household VMT was calculated from the NHTS database for a number of different income levels and arranged related to the resulting AHS income data in Table A-3.

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

2011 AHS Average Income Data by Housing Size	Annual Income ⁽¹⁾
Less than 4,000 sf	\$58,372
1,500 to 2,499 sf	\$62,563
4,000 sf or more	\$80,136
Average of All Houses	\$58,429

Source: 2011 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 0.998
Average of \$58,372	23,598	365	64.65	1.000	0.980
Total (All Homes)	23,601	365	64.66	1.000	
Average of \$62,563	24,069	365	65.94	1.020	1.000
Average of \$80,136	28,426	365	77.88	1.204	1.180

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 \$58,372 annual income category. First, it was determine that the average annual household VMT for this income level is 23,598 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 \$62,563 (24,069 miles) category to derive a ratio of 0.980. 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 4,000 sf) to generate a daily VMT of 45.00 for the new tier, as shown in Table A-5. This daily VMT figure was then divided by the proposed assessable trip length of 5.88 miles to obtain a typical trip rate of 7.65 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 4,000 sf	7.65	5.88	45.00	0.980
1,500 to 2,499 sf	7.81	5.88	45.92	1.000
4,000 sf or larger	9.22	5.88	54.19	1.180

- (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 ⁽¹⁾
Single Family (Detached)				
Less than 4,000 sf	7.65	5.88	45.00	\$7,017
4,000 sf or larger	9.22	5.88	54.19	\$8,445

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

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

Single Family Residential Trip Length Analysis

The current single family land use trip length used to calculate the transportation impact fee is 5.88 miles. This trip length is based on local trip characteristics data collected in Collier County in 1999. In 2008, Tindale-Oliver conducted additional trip characteristics studies to evaluate the demand component for the single family land use. Trip lengths observed ranged from 3.05 miles to 11.29 miles, with a weighted average of 7.28 miles across the four study sites.

In 2010, Tindale-Oliver used the 2030 Collier County LRTP Florida Standard Urban Transportation Model (FSUTMS) to evaluate the results of the 2008 trip characteristics studies and review the model trip length results for Collier County and other peer communities. As part of this analysis, Collier County was separated into three geographic areas (West, Central, and East) and three representative traffic zones (TAZ’s) were selected for modeling purposes. These TAZ’s contained 100 dwelling units and were placed in areas with high concentrations of residential dwelling units. The model runs returned the following trip length data:

- West – reflects “urban” character; Average trip length of 6.82 miles
- Central – Average trip length of 8.96 miles
- East – Average trip length of 11.75 miles

Results of this analysis suggested that the current trip length of 5.88 miles represents a conservative estimate of the average travel distance of existing and future residents from a countywide perspective.

Demand Variable Changes

Since the last demand component update in 2009, the trip generation rate (TGR), trip length (TL), and percent new trips (PNT) has changed for several land uses. Land uses were updated based on additional data included in the Florida Studies Database and the use of the ITE 9th Edition Trip Generation Reference Report. Table A-7 presents the percent changes in VMT (TGR, TL, and PNT) for each land use where the demand component was updated.

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**Table A-7
Percent VMT Change for Transportation Impact Fee Land Uses**

ITE LUC	Land Use	Unit	VMT (2010)	VMT (2014)	% Change (Gross VMT)	Explanation
RESIDENTIAL:						
210	Single Family (Detached)					
	Less than 4,000 sf	du	22.87	22.49	-2%	The single family tiering was restructured from three tiers to only two and therefore the TGR for each tier was updated, with the highest tier increasing by 5% and the lower tier being reduced by 2% (when compared to the 1,499-2,500 sf tier from the previous study)
	4,000 sf or larger	du	25.87	27.11	5%	
220	Multi-Family (Apartment) - 1 to 10 stories	du	17.19	16.83	-2%	
222	Multi-Family (Apartment) - More than 10 stories	du	10.94	10.71	-2%	TL decreased by 2% due to an updated blending analysis for Multi-Family and Condominium FL Studies
230	Residential Condominium/Townhouse	du	16.93	14.69	-13%	TL decreased by 13% due to an updated blending analysis for Multi-Family and Condominium FL Studies
232	High-Rise Condominium - 3 or more stories	du	12.29	10.66	-13%	TL decreased by 13% due to an updated blending analysis for Multi-Family and Condominium FL Studies
240	Mobile Home Park	du	9.59	9.59	0%	No change
251	Retirement Community/Age-Restricted Single-Family	du	8.48	8.46	0%	No change
253	Assisted Living Facilities (ALF)	du	3.47	2.48	-29%	PNT decreased by 28% due to an update to the Florida Studies database
LODGING:						
310	Hotel	room	14.61	11.38	-22%	TGR decreased 22% due a blending analysis of the ITE 9th Edition and Florida Studies data.
311	All Suites Hotel	room	8.76	8.76	0%	No change
320	Motel	room	9.41	9.41	0%	No change
RECREATION:						
416	RV Park	acre	5.11	3.73	-27%	TGR decreased 27% due to an update to the ITE 9th Edition Handbook
420	Marina	boat berth	7.83	7.83	0%	No change
430	Golf Course	18 holes	1702.22	1702.22	0%	No change
444	Movie Theater with Matinee	screen	104.16	104.16	0%	No change
N/A	Dance Studio/Gym	1,000 sf	25.60	25.34	-1%	TL decreased by 1% due to rounding

Table A-7 (continued)
Percent VMT Change for Transportation Impact Fee Land Uses

ITE LUC	Land Use	Unit	VMT (2010)	VMT (2014)	% Change (Gross VMT)	Explanation
INSTITUTIONS:						
520	Elementary School (Private)	student	2.32	2.22	-4%	TL decreased by 4% due to an update to the Florida Schedules
522	Middle School (Private)	student	3.28	3.13	-5%	TL decreased by 4% due to an update to the Florida Schedules
530	High School (Private)	student	3.46	3.31	-4%	TL decreased by 4% due to an update to the Florida Schedules
540	University/Junior College (7,500 or fewer students) (Private)	student	5.29	5.29	0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	3.97	3.97	0%	No change
560	Church	1,000 sf	1.26	1.07	-15%	TL decreased by 15% due to an update to the Florida Schedules
565	Day Care	student	3.32	3.25	-2%	TGR decreased by 2% due to an update to the ITE 9th Edition Handbook
610	Hospital	1,000 sf	37.35	29.93	-20%	TGR decreased by 20% due to an update to the ITE 9th Edition Handbook
620	Nursing Home	bed	2.86	3.18	11%	TGR increased by 11% due to an update to the ITE 9th Edition Handbook
OFFICE:						
710	General Office 6,000 sf or less	1,000 sf	37.07	26.11	-30%	TGR decreased by 30% due to an update to the ITE 9th Edition Handbook's equation and a change to the square footage tiering
	General Office 6,001-100,000 sf	1,000 sf	31.60	31.10	-2%	TGR decreased by 2% due to an update to the ITE 9th Edition Handbook's equation
	General Office 100,001-200,000 sf	1,000 sf	26.94	26.34	-2%	TGR decreased by 2% due to an update to the ITE 9th Edition Handbook's equation
	General Office 200,001-400,000 sf	1,000 sf	22.98	22.29	-3%	TGR decreased by 3% due to an update to the ITE 9th Edition Handbook's equation
	General Office greater than 400,000 sf	1,000 sf	20.92	20.23	-3%	TGR decreased by 3% due to an update to the ITE 9th Edition Handbook's equation
720	Medical Office/Clinic 10,000 sf or less	1,000 sf	88.79	58.85	-34%	Due to recent TCS data that indicate a lower TGR for smaller medical offices, this new tier was created. TL and PNT are the same for both tiers
	Medical Office/Clinic greater than 10,000 sf	1,000 sf	88.79	85.75	-3%	TGR decreased by 3% due to new TCS data available since 2009
770	Business Park (Flex-Space)	1,000 sf	31.08	30.29	-3%	TGR decreased by 3% due to an update to the ITE 9th Edition Handbook

Table A-7 (continued)
Percent VMT Change for Transportation Impact Fee Land Uses

ITE LUC	Land Use	Unit	VMT (2010)	VMT (2014)	% Change (Gross VMT)	Explanation
RETAIL:						
826	Specialty Retail	1,000 sf	59.99	59.39	-1%	TL decreased by 1% due to rounding
820	Retail 6,000 sfgla or less	1,000 sfgla	45.32	18.90	-58%	The trip length regression analysis was updated since the last study, resulting in a significantly lower TL for the 25,000 sfgla or less tiers and a 6% increase for retail up to 400,000 sf.
	Retail 6,001-25,000 sfgla	1,000 sfgla	45.32	34.19	-25%	
	Retail 25,001-50,000 sfgla	1,000 sfgla	45.32	45.32	0%	
	Retail 50,001-100,000 sfgla	1,000 sfgla	45.47	48.21	6%	
	Retail 100,001-150,000 sfgla	1,000 sfgla	42.33	44.82	6%	
	Retail 150,001-200,000 sfgla	1,000 sfgla	40.52	42.84	6%	
	Retail 200,001-400,000 sfgla	1,000 sfgla	38.14	40.28	6%	
	Retail 400,001-600,000 sfgla	1,000 sfgla	37.90	39.56	4%	
	Retail 600,001-1,000,000 sfgla	1,000 sfgla	40.78	41.03	1%	
	Retail greater than 1,000,000 sfgla	1,000 sfgla	42.71	41.66	-2%	
841	New/Used Auto Sales	1,000 sf	54.24	51.33	-5%	TGR decreased by 9% due to new TCS data available since 2009 and an update to the ITE 9th Edition Handbook
849	Tire Superstore	service bay	24.94	25.52	2%	TL and PNT increased by 1% each due to rounding
850	Supermarket	1,000 sf	60.21	60.21	0%	No change
851	Convenience Market - 24 hrs	1,000 sf	224.10	224.10	0%	No change

Table A-7 (continued)
Percent VMT Change for Transportation Impact Fee Land Uses

ITE LUC	Land Use	Unit	VMT (2010)	VMT (2014)	% Change (Gross VMT)	Explanation
RETAIL:						
853	Convenience Store with Gas Pumps					
	4 or less Fuel Positions	fuel pos.	88.91	85.84	-3%	PNT decreased by 3% due to additional analysis completed in 2011
	5-6 Fuel Positions	fuel pos.	72.08	69.60	-3%	PNT decreased by 3% due to additional analysis completed in 2011
	7-8 Fuel Positions	fuel pos.	61.46	59.34	-3%	PNT decreased by 3% due to additional analysis completed in 2011
	9-10 Fuel Positions	fuel pos.	52.30	50.50	-3%	PNT decreased by 3% due to additional analysis completed in 2011
	11-12 Fuel Positions	fuel pos.	47.50	45.87	-3%	PNT decreased by 3% due to additional analysis completed in 2011
	13 or more Fuel Positions	fuel pos.	43.26	41.76	-3%	PNT decreased by 3% due to additional analysis completed in 2011
862	Home Improvement Superstore	1,000 sf	22.66	23.38	3%	TGR increased by 3% due to an update to the ITE 9th Edition Handbook. TL increased by 3% and PNT decreased by 3% due to the use of LUC 820 (100-150K) as a comparable land use
880/ 881	Pharmacy/Drugstore w/Drive-Thru	1,000 sf	31.88	31.94	0%	TGR increased by 3% due to an update to the ITE 9th Edition Handbook. PNT decreased by 3% due to rounding
890	Furniture Store	1,000 sf	8.26	8.26	0%	No change
911	Bank/Savings Walk-In	1,000 sf	88.54	68.63	-22%	TGR decreased by 22% due to an update to the ITE 9th Edition Handbook
912	Bank/Savings Drive-In	1,000 sf	90.15	90.15	0%	No change
931	Quality/Local Restaurant	seat	3.46	3.46	0%	No change
932	High-Turnover Restaurant	seat	5.44	5.44	0%	No change
934	Fast Food Rest. w/Drive-Thru	1,000 sf	310.70	303.79	-2%	TGR decreased by 2% due to new TCS data available since 2009
941	Quick Lube	service bay	32.66	33.41	2%	TL and PNT increased by 1% each due to rounding
944/ 946	Gasoline/Service Station with or without Car Wash	fuel pos.	19.58	18.27	-7%	TGR decreased by 7% due to an updated blending analysis of TGR's for LUC 944 and 946

Table A-7 (continued)
Percent VMT Change for Transportation Impact Fee Land Uses

ITE LUC	Land Use	Unit	VMT (2010)	VMT (2014)	% Change (Gross VMT)	Explanation
RETAIL:						
947	Self-Service Car Wash	service bay	82.08	32.57	-60%	TGR decreased 59% due a blending analysis of the ITE 9th Edition and Florida Studies data, as well as the availability of new TCS data since 2009. TL increased by 9% and PNT decreased by 11% due to new TCS data available since 2009
948	Automated Car Wash	1,000 sf	88.46	104.66	18%	TGR increased by 21% due to an update in the ITE 9th Edition. TL and PNT are linked to LUC 947 and therefore increased when the LUC 947 variables were updated
N/A	Luxury Auto Sales	1,000 sf	33.25	33.25	0%	No change
INDUSTRIAL:						
110	General Light Industrial	1,000 sf	17.25	17.25	0%	No change
140	Manufacturing	1,000 sf	9.45	9.45	0%	No change
150	Warehousing	1,000 sf	8.81	8.81	0%	No change
151	Mini-Warehouse	1,000 sf	3.57	3.07	-14%	TGR decreased by 14% due to blending the ITE 9th Edition Handbook figures with FL Studies data
N/A	Mine	1,000 cy	0.07	0.07	0%	No change

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 25 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. In addition, local studies conducted in Collier County are incorporated in the calculation of trip generation rate.

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. A comparison of the sample size from ITE and the Florida studies database is presented in Table A-8.

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.

Table A-8
Number of Trip Characteristics Studies

ITE Code	Land Use	ITE 9th Ed. Studies	FL Studies w/TGR data	Total Studies (Blended)
151	Mini-Warehouse	14	5	19
210	Single Family (Detached)	-	55	55
220	Multi-Family (Apartment)	88	13	101
230	Condo/Townhouse	56	4	60
240	Mobile Home Park	-	9	9
251	Retirement Community/Age-Restricted Single Family	8	6	14
253	Congregate Care Facility	2	1	3
310	Hotel	10	21	31
320	Motel	10	-	10
444	Movie Theater w/Matinee	1	2	3
565	Day Care Center	12	-	12
620	Nursing Home	6	1	7
710	General Office Building	78	-	78
720	Small Medical-Dental Office Building	-	5	5
720	Medical-Dental Office Building	10	12	22
770	Business Park	16	3	19
820	Shopping Center	302	-	302
826	Specialty Retail Center	4	2	6
841	New Care Sales	15	8	23
850	Supermarket	4	1	5
851	Convenience Market - 24 hrs	8	5	13
853	Service Station w/Convenience Market	10	6	16
880/881	Pharmacy/Drug Store w/Drive-Thru	16	3	19
890	Furniture Store	13	3	16
912	Bank w/Drive-In	7	1	8
931	Quality Restaurant	15	1	16
932	High-Turnover Restaurant	14	21	35
934	Fast Food Restaurant w/Drive-Thru	21	13	34
942	Automobile Care Center	6	1	7
944/946	Service Station with and w/o Car Wash	16	-	16
947	Self-Service Car Wash	1	2	3
n/a	Dance Studio/Gym	-	3	3
n/a	Mine	-	-	0
Total	33 Different Land Uses	763	207	970

Source: ITE 9th Edition and Tindale Oliver's Florida Studies Database

Bundled Golf Courses

At the request of the County, Tindale Oliver conducted additional research related to the “bundled-golf development” land use. Based on these findings and prior experience with this type of development, Tindale Oliver estimated that, as long as the following conditions are met, no significant amount of additional traffic is likely to be generated due to the golf course and recommend not collecting the fee for the golf course component of the development:

- The golf course will be developed as part of a residential development.
- The membership to the course will be limited to the residents (and any guests they bring along).
- The golf course will not include any ancillary facilities and/or services that are open/available to those other than the residents. Examples of these facilities/services include drive-in ranges, club houses, restaurants, retail shops, golf lessons, and other similar facilities/services.

It is our opinion that bundled-golf developments that are deed restricted to comply with these conditions are unlikely to generate a significant amount of additional traffic due to the golf course component of the development. As such, it is reasonable to collect the impact fees only from the residential component.

In some cases, the golf course may be open to the public during the construction period. This is considered a temporary use and the County needs to address this short-term impact either by collecting a portion of the impact fee or through another agreement with the developer. Tindale Oliver estimated the impact of allowing for the public use of the golf course during the construction period at approximately 25 percent to 30 percent of the total impact of golf courses that are open to the public on a continual basis. These estimates are based on the ITE trip generation rate of employees versus visitors to golf courses and a construction period of five years.

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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		Average Trip Length:		n/a			
ITE	784.0		14		Weighted Average Trip Length:		n/a			
Blended total	1,235.3				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
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	Weighted Average Trip Generation Rate:		7.81			

SFR Trip Length Analysis

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	770	Dec-99	175	-	4.32	8a-6p	4.96	N/A	21.43	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
Total Size	1,260		55	655	Average Trip Length:		7.59			
					Weighted Average Trip Length:		5.88			

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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
Total Size (TL) 3,631

Average Trip Length: 4.84
Weighted Average Trip Length: 5.10

Total Size 3,467 13
ITE 18,480 88
Blended total 21,947

Weighted Average Trip Generation Rate: 6.31
ITE Average Trip Generation Rate: 6.65
Blend of FL Studies and ITE Average Trip Generation Rate: 6.60

LUC 220: Multi-Family

LUC 230 Studies are highlighted

Total Size 636 4
ITE 10,024 56
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

LUC 230: Condo/Townhouse

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

Weighted Average Trip Generation Rate: 4.17

Retirement Community/Age-Restricted Single Family (ITE LUC 251)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	67	3/28-4/2/90	26	24	3.50	9am-4pm	2.44	N/A	8.54	Tindale-Oliver & Associates
Marion Co, FL	778	Apr-02	175	-	2.96	24hr.	3.49	N/A	10.33	Kimley-Horn & Associates
Marion Co, FL	877	Apr-02	209	-	2.91	24hr.	5.90	N/A	17.17	Kimley-Horn & Associates
Marion Co, FL	1,054	Apr-02	173	-	3.65	24hr.	6.00	N/A	21.90	Kimley-Horn & Associates
Marion Co, FL	3,076	Apr-02	198	-	2.63	24hr.	5.16	N/A	13.57	Kimley-Horn & Associates
Marion Co, FL	3,625	Apr-02	164	-	2.50	24hr.	5.83	N/A	14.58	Kimley-Horn & Associates

Total Size 9,477 6 945
ITE 5,240 8
Blended total 15,717

Average Trip Length: 4.80
Weighted Average Trip Length: 5.42

Weighted Average Trip Generation Rate: 2.75
ITE Average Trip Generation Rate: 3.68
Blend of FL Studies and ITE Average Trip Generation Rate: 3.12

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
Blended total 660 460

Average Trip Length: 2.80
Weighted Average Trip Length: 3.08

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

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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	Average Trip Length:	n/a
ITE	4,760	10		Weighted Average Trip Length:	n/a
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

Hotel/Motel (ITE LUC 310 & 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
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

Total Size	510	5	268	Average Trip Length:	4.86
ITE	4,760	10		*Weighted Average Trip Length:	5.42
Blended total	5,270				

*The weighted avg. trip length will be used for the hotel land use

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	Average Trip Length:	3.93
ITE	2,160	10		Weighted Average Trip Length:	4.34
				Weighted Percent New Trip Average:	76.6
				ITE Average Trip Generation Rate:	5.63

Movie Theater with Matinee (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	Average Trip Length:	2.30
ITE	10 estimated			Weighted Average Trip Length:	2.22
	30			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

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		301	Average Trip Length:	2.20
				Weighted Average Trip Length:	2.03
				Weighted Percent New Trip Average:	73.2
				ITE Average Trip Generation Rate - per student:	4.38

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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:			
ITE	714		6				Weighted Average Trip Length:			
Blended total	834							Weighted Percent New Trip Average:	89.0	
								Weighted 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:			
ITE	15,522.0		78				Weighted Average Trip Length:			
								Weighted Percent New Trip Average:	92.3	

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:			
ITE	450.0		10				Weighted Average Trip Length:			
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:			
ITE	6,288.0		16				Weighted Average Trip Length:			
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:			
ITE	100.0		4				Weighted Average Trip Length:			
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

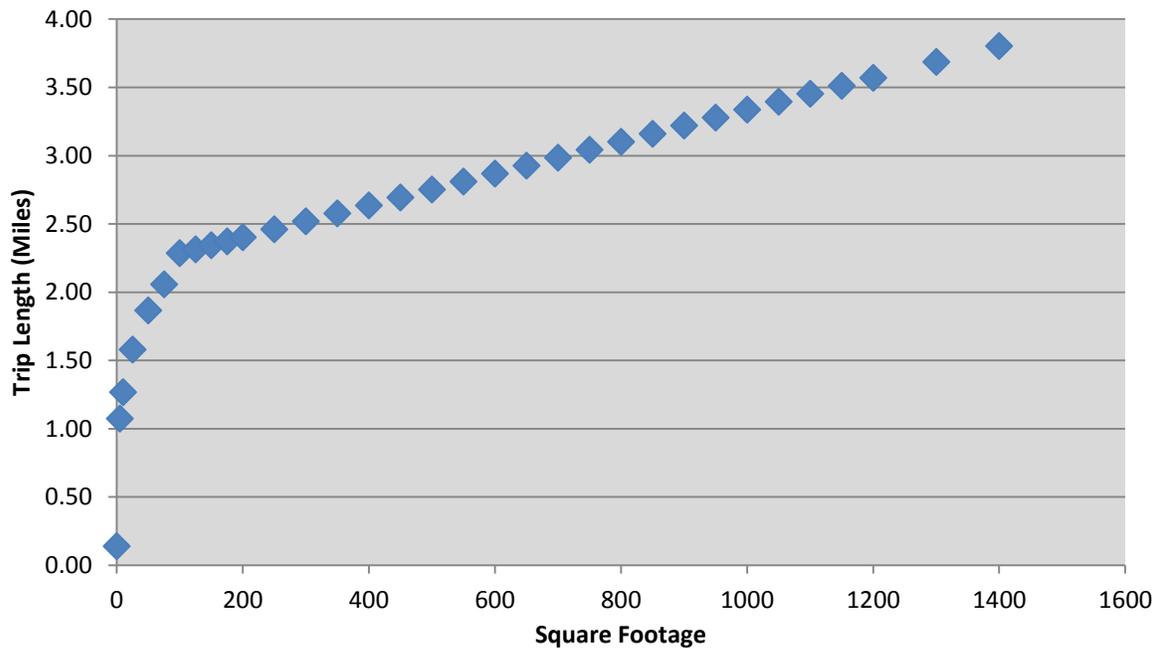
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Shopping Center (ITE LUC 820)

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		

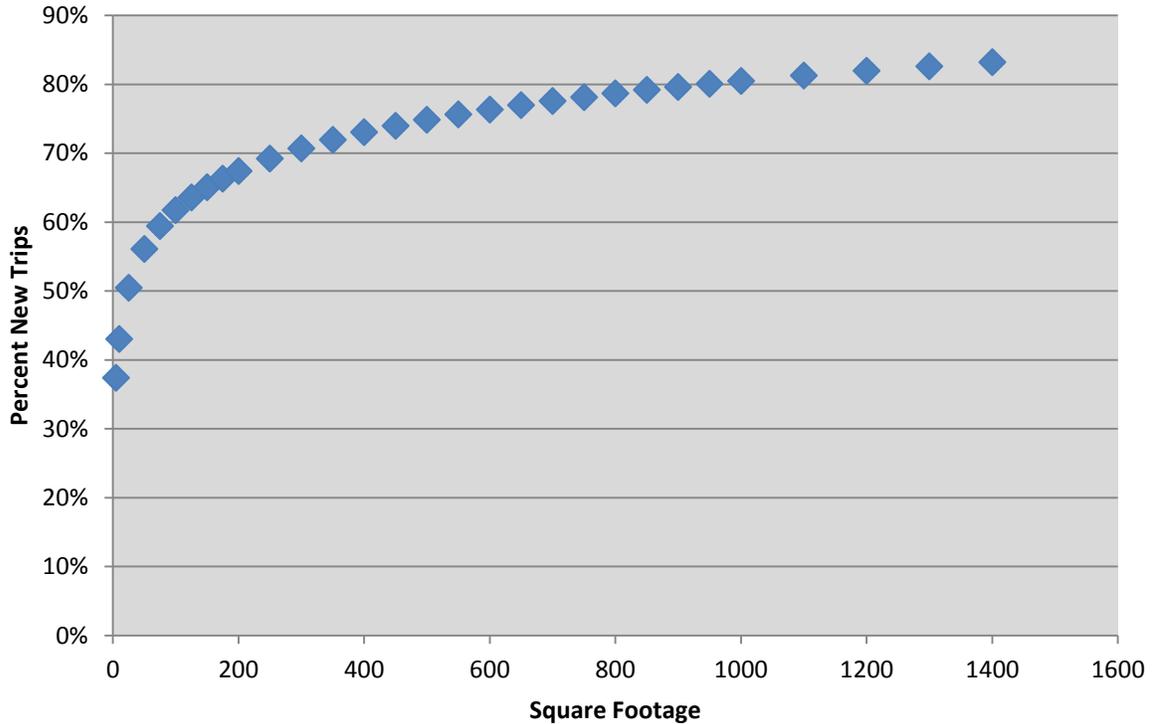
Figure A-1

Shopping Center (LUC 820) – Florida Curve Trip Length Regression



Source: Regression analysis based on Florida Studies for LUC 820

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



Source: Regression analysis based on Florida Studies for LUC 820

New Car 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	502.7	9	288	Average Trip Length:	4.60	
ITE	570.0	15		Weighted Average Trip Length:	4.60	
Blended total	1,072.7			Weighted Percent New Trip Average:	78.5	
				Weighted Average Trip Generation Rate:		23.22
				ITE Average Trip Generation Rate:		32.30
				Blend of FL Studies and ITE Average Trip Generation Rate:		27.12

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	
Blended total	218.0			Weighted Percent New Trip Average:	56.0	
				Weighted Average Trip Generation Rate:		106.26
				ITE Average Trip Generation Rate:		102.24
				Blend of FL Studies and ITE Average Trip Generation Rate:		103.38

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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
Blended total	34.2			Weighted Percent New Trip Average:	41.3
	28.1			Weighted Average Trip Generation Rate:	694.30
				ITE Average Trip Generation Rate:	737.99
				Blend of FL Studies and ITE Average Trip Generation Rate:	719.18

Service Station w/Convenience Market (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
Blended Total	55.1			Average Trip Length (Collier):	1.13
				Weighted Percent New Trip Average:	27.7
				ITE Average Trip Generation Rate (per fuel pos.):	542.60

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
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
Pompano Beach, FL	58.5	Jun-06	31	140	3.70	9a-6p	4.38	89.2	16.21	Nunner Group - Collier County
Stuart, FL	100.0	Jun-06	198	154	6.50	9a-6p	3.14	79.4	20.41	Nunner Group - Collier County
Boca Raton, FL	19.1	Jun-06	198	108	11.00	9a-6p	4.36	74.5	47.96	Nunner Group - Collier County

Total Size	209.5	132		Average Trip Length:	4.78
	177.6			Weighted Average Trip Length:	4.05
ITE	897.0			Weighted Percent New Trip Average:	77.8
Blended total	1074.60			Average Trip Generation Rate:	6.06
				ITE Average Trip Generation Rate:	5.06
				Blend of FL Studies and ITE Average Trip Generation Rate:	5.23

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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
Blended total	46.2			Weighted Percent New Trip Average:	46.2
	23.7			Weighted 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
Blended total	150.5			Weighted Percent New Trip Average:	76.7
				ITE Average Trip Generation Rate (per seat):	2.86

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
Blended total	250.8			Weighted Percent New Trip Average:	70.8
				ITE Average Trip Generation Rate (per seat):	4.83

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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				
Blended total	111.8			Weighted Percent New Trip Average:		57.9		Weighted Average Trip Generation Rate: 530.19		
	34.0							ITE Average Trip Generation Rate: 496.12		
								Blend of FL Studies and ITE Average Trip Generation Rate: 511.00		

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	Average Trip Length:		1.46				
ITE LUC 944 (vfp)	48.0	6		Weighted Average Trip Length:		1.90				
ITE LUC 946 (vfp)	120.0	10		Average Trip Length (Collier):		1.01				
								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	Average Trip Length:		1.94				
Total Size (TGR)	19	2		Weighted Average Trip Length:		2.18				
ITE	5	1		Weighted Percent New Trip Average:		67.7		Weighted Average Trip Generation Rate: 27.09		
Blended total	24							ITE Average Trip Generation Rate: 108.00		
								Blend of FL Studies and ITE Average Trip Generation Rate: 43.94		

Dance Studio/Gym (ITE LUC -)

Location	Size (1,000 sf)	Date	Total # Interviews	Average Daily Trips	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	7.0	May-08	-	212	30.29	-	-	-	-	Tindale-Oliver & Associates
Collier Co, FL	20.5	May-08	-	352	17.19	-	-	-	-	Tindale-Oliver & Associates
Collier Co, FL	8.7	May-08	-	208	23.89	-	-	-	-	Tindale-Oliver & Associates
Total Size	36.2			Average Trip Length:		n/a				
								Weighted Average Trip Length: n/a		
								Weighted Percent New Trip Average: n/a		
								Weighted Average Trip Generation Rate: 21.33		
								ITE Average Trip Generation Rate: -		

Mine (ITE LUC -)

Location	Tonnage (1,000 CY)	Date	Total # Interviews	Assessable Trip Ends	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	7,800	Jan-09	55	108	-	-	17.33	98.0	-	Tindale-Oliver & Associates
Collier Co, FL	33,620	Jan-09	20	36	-	-	8.07	90.0	-	Tindale-Oliver & Associates
Collier Co, FL	15,000	Jan-09	22	44	-	-	14.20	100.0	-	Tindale-Oliver & Associates
Total Trip Ends	188			Average Trip Length:		13.20				
								Weighted Average Trip Length: 14.82		
								Weighted Percent New Trip Average: 96.9		
								Weighted Average Trip Generation Rate: 0.01		
								ITE Average Trip Generation Rate: -		

Appendix B
Cost Component Calculations

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Appendix B

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:

- Right-of-Way
- Construction
- Design/CEI
- Mitigation
- Urban Overpass
- Roadway Capacity

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

The ROW cost reflects the total cost of the acquisitions along a corridor that is necessary to have sufficient cross-section width to widen an existing road or, in the case of new construction, build a new road. The Collier County Transportation Engineering Department provided recent ROW cost figures for five local improvements, including three recent acquisitions and two future estimates. Due to significant variation in the cost per lane mile for these projects based on their geographical location, the improvements were grouped into “high” and “low” ROW cost per lane mile designations. The “high” ROW category included improvements along Collier Boulevard, while the “low” ROW projects included sections of Oil Well Road and Santa Barbara Boulevard.

To determine a single weighted average cost per lane mile for the impact fee calculation, the “high” and “low” ROW costs were blended based on the ROW designation of all capacity expansion improvements listed in the 2035 Long Range Transportation Plan. Improvements located in rural areas were designated as “low”, while improvements in urban or rural transitioning areas were designated as “high”. Table B-1 details the specific improvements used to calculate the high and low ROW costs, while Table B-2 details the weighted average

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calculation. Additionally, Table B-12 provides the project-by-project ROW designation for all roadway capacity expansion improvements in the LRTP.

State Roadways

Based on discussions with staff, the ROW cost per lane mile determined for county roads reflects the same costs expected for state roads.

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Table B-1
Right-of-Way Acquisitions and Estimates – County Roads

Description	From	To	Status	Lane Miles	Right-of-Way Cost	ROW Cost per Lane Mile ⁽²⁾
Santa Barbara Blvd Ext.	Rattlesnake Hammock Rd	Davis Blvd	Acquisition	12.00	\$9,081,200	\$756,767
Oil Well Rd (Segment 2)	Immokalee Rd	Everglades Blvd	Acquisition	10.92	\$7,452,000	\$682,418
Oil Well Rd (Segment 4)	Oil Well Grade Rd	W. of Camp Keais Rd	Acquisition	18.88	\$7,800,000	\$413,136
Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	Estimate	5.48	\$6,100,000	\$1,113,139
Collier/Davis Intersection	E. of Radio Rd	Collier Blvd, SR-84, Davis Blvd	Estimate	9.30	\$10,340,660	\$1,111,899
Total				56.58	\$40,773,860	\$720,641
Acquisitions Only - Low Cost				41.80	\$24,333,200	\$582,134 (a)
Estimates Only - High Cost				14.78	\$16,440,660	\$1,112,359 (b)

(1) Source: Collier County Transportation Engineering Department

(2) Right-of-Way cost divided by lane miles

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

Table B-2
Right-of-Way Cost Calculation – County Roads

ROW Cost Rates	LRTP ROW Designation Distribution ⁽¹⁾	ROW Cost per Lane Mile ⁽²⁾	Weighted Avg. ROW ⁽³⁾
Low Cost ROW	47%	\$582,134	\$273,603
High Cost ROW	53%	\$1,112,359	\$589,550
Weighted Average Cost per Lane Mile			\$863,153
Weighted Average Cost per Lane Mile (Rounded)			\$863,000

(1) Source: Table B-13, Items (a) and (b)

(2) Source: Table B-1, Items (a) and (b)

(3) ROW cost per lane mile (Item 2) multiplied by the LRTP ROW designation distribution (Item 1) to develop a weighted average cost per lane mile.

Construction

County Roadways

The construction cost for county roads (urban section design) was based on local projects, costs for projects in other communities in Florida, and discussions with County staff. Based on discussions with County staff, it is anticipated that all of the lane miles that the County will construct in the future will have urban design characteristics.

A review of local construction cost data for the past seven years identified approximately 59 lane miles of improvements, including projects along Santa Barbara Blvd, Oil Well Rd, Collier Blvd, and Golden Gate Blvd, with a weighted average cost of \$2.0 million (Table B-3). Of these projects, three were bid in 2008 and 2009, while the remaining two were bid or estimated in 2014. These 2014 projects (Collier Blvd from Golden Gate Blvd to Green Blvd and Golden Gate Blvd from Wilson Blvd to Desoto Blvd) have the highest cost per lane mile, which is approximately \$4.5 million, while the projects that were built four to five years ago have lower costs.

Due to the limited sample of local projects, recent bids from multiple communities throughout the state were also reviewed to increase the sample size of data. This review included approximately 380 lane miles of roadway improvements from 16 counties across Florida, including several projects in FDOT District 1. As shown in Table B-4, the weighted average cost per lane mile for the statewide county road improvements is approximately \$2.1 million. When looking at the weighted average cost by year, the data shows that construction costs are steadily increasing in Florida.

Taking into account all of the local and statewide data, a cost per lane mile of \$2.7 million for county roads was used in the transportation impact fee calculation, as shown in Table 1. This estimate accounts for the higher recent bid costs seen in Collier County, but also reflects the older Collier County bids and bids from other Counties which have not increased as drastically. Historically, Collier County bids have been higher than the statewide average, and a construction cost of \$2.7 million per lane mile continues this trend. Table B-4 provides additional detail on the projects reviewed.

Following the detailed list of county road improvements in Tables B-3 and B-4, Map B-1 illustrates the location (by county) of the improvements that were reviewed. Figure B-1

illustrates the trend of county roadway costs in the Tindale Oliver cost database (of which Table B-4 is a subset) and the construction cost per lane mile figures for recent local bids.

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Table B-3
Local Roadway Construction Costs – County Roads

Description	From	To	Bid Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
County Roads										
Santa Barbara Blvd Ext.	Rattlesnake Hammock Rd	Davis Blvd	2008	0 to 6	Urban	2.00	6	12.00	\$12,035,894	\$1,002,991
Oil Well Rd (Segment 2)	Immokalee Rd	Everglades Blvd	2009	2 to 4/6	Urban	5.05	4/6	10.92	\$15,091,068	\$1,381,966
Oil Well Rd (Segment 4)	Oil Well Grade Rd	W. of Camp Keais Rd	2009	2 to 6	Urban	4.72	4	18.88	\$15,875,782	\$840,878
Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2013	4 to 6	Urban	2.74	2	5.48	\$23,295,924	\$4,251,081
Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	2 to 4	Urban	5.71	2	11.42	\$51,402,161	\$4,501,065
Total (All Projects)								58.70	\$117,700,829	\$2,005,125

Source: Collier County Transportation Engineering Department. Construction cost excludes bridge/structure costs



Table B-4
Statewide Roadway Construction Costs – County Roads

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 Ext.	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	Carrroll	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	Tradeshow 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	Suburban	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	17th Lane 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	Hiawasse 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 Mail	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	Debrecon 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
Collier	1	Oil Well Rd (Segment 2)	Immokalee Rd	Everglades Blvd	2009	Bid	2 to 4/6	Urban	5.05	2/4	10.92	\$15,091,068	\$1,381,966
Collier	1	Oil Well Rd (Segment 4)	Oil Well Grade Rd	W. of Camp Keais Rd	2009	Bid	2 to 6	Urban	4.72	4	18.88	\$15,875,782	\$840,878
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
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	Bailley 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
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	Suburban	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	\$12,153,534	\$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	Suburban	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 17/92	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							

Map B-1
2008-2014 Florida Construction Bids for County Roadway Projects

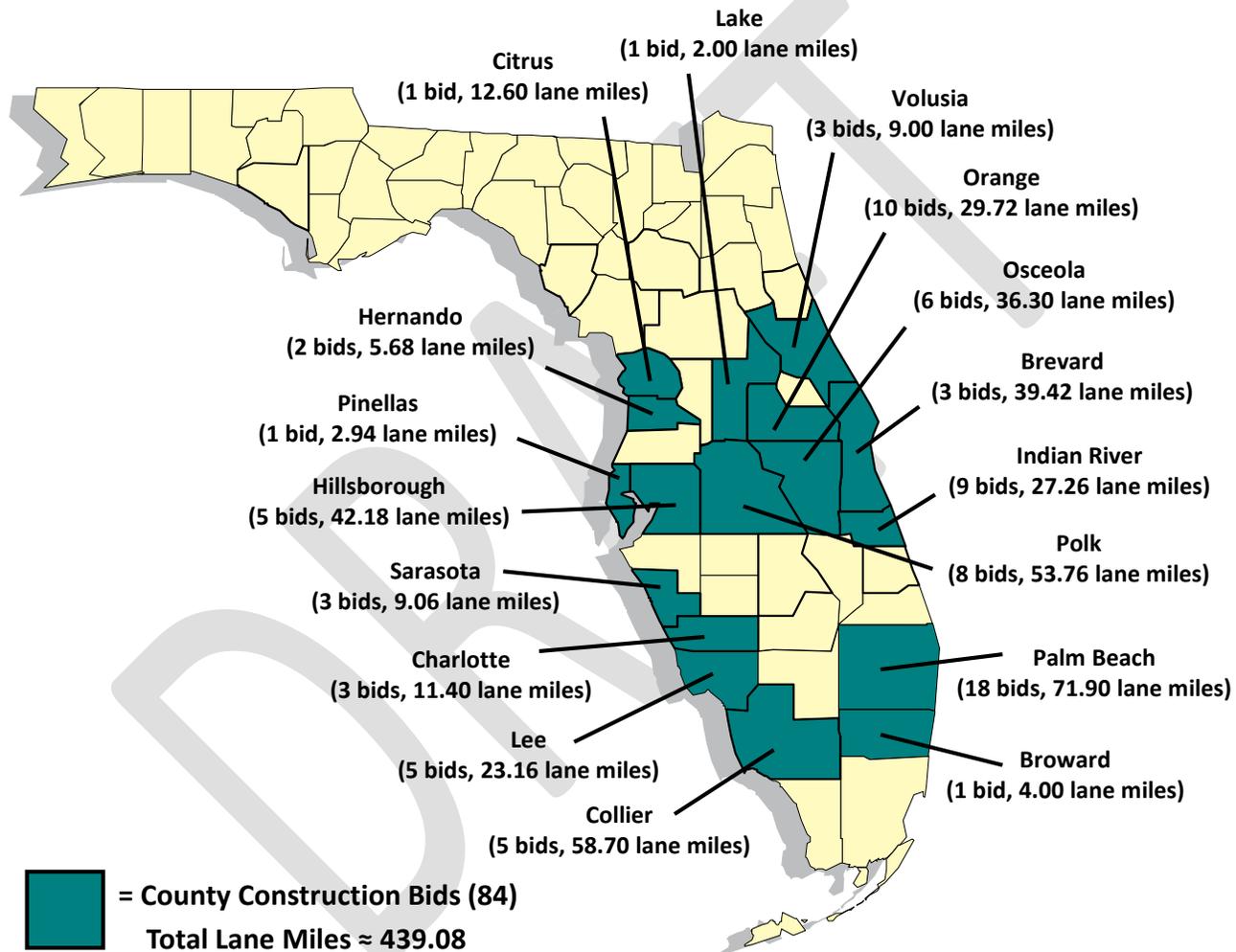
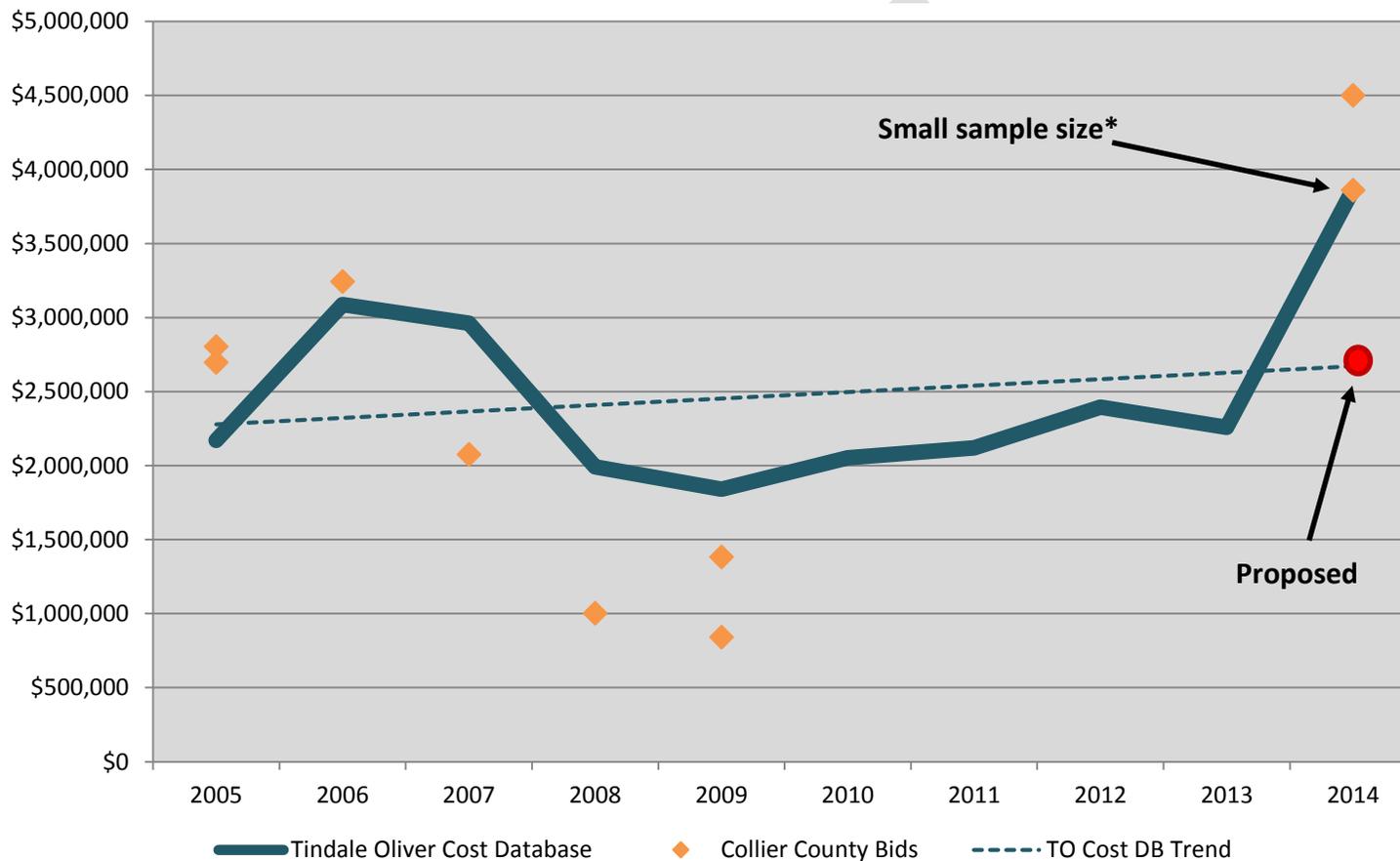


Figure B-1
Construction Cost Trends – County Roads



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.

*2014 data includes local improvements along Collier Blvd (GGB to Green) and along Golden Gate Blvd (Wilson to Desoto), as well as one recent bid in Brevard County

State Roadways

As shown in Table B-5, a statewide review of construction cost data for recent state roadway capacity expansion projects identified 58 improvements dating back to 2008. Of these 58 improvements, one project is located in Collier County (SR 84 from E. of Santa Barbara Blvd to W. of Radio Rd), with an additional 18 projects located in District 1. To increase the sample size, the Collier County and other District 1 improvements were combined with an additional 39 projects from throughout the state to determine the roadway cost per lane mile for state roads. Based on a review of these 58 improvements, a weighted average cost of approximately \$2.7 million per lane mile was used in the transportation impact fee calculation.

Following the detailed list of state road improvements in Table B-5, Map B-2 illustrates the location (by county) of the improvements that were reviewed. Figure B-2 illustrates the trend of state roadway costs in the Tindale Oliver cost database (of which Table B-5 is a subset) and the construction cost per lane mile figures for recent county and state roadway bids in Collier County. As presented, construction costs in Collier County have been consistently below the average of state project costs and the current construction cost estimate for state roadways in Collier County is consistent with this trend.

Figures B-3 through B-7 illustrate the recent changes in units costs for earthwork, base, steel, asphalt, and concrete for both District 1 and statewide. Each of these graphs indicates that costs are recovering since the crash in 2009/10, which is consistent with trends observed in the County's construction costs. The average increase for each component in District 1 is indicated below:

- Earthwork = approximately a 13% cost increase between 2010 and 2013
- Base = approximately an 11% cost increase between 2010 and 2013
- Asphalt = approximately a 5% cost increase between 2010 and 2013
- Concrete = approximately a 5% cost increase between 2009 and 2013
- Steel = approximately an 11% cost increase between 2009 and 2013

Table B-5
Statewide Roadway Construction Costs – State Roads

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
Marion	5	SR 35 (US 301)	Sumter County Line	529' S. of CR 42	2009	Bid	2 to 4	Urban	1.40	2	2.80	\$3,596,000	\$1,284,286
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
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											326.64	\$887,771,634	\$2,717,890

Source: FDOT recently-bid projects by transportation district, available at www.dot.state.fl.us/. See Map B-2.

Map B-2

2008-2014 Florida Construction Bids for State Roadway Projects

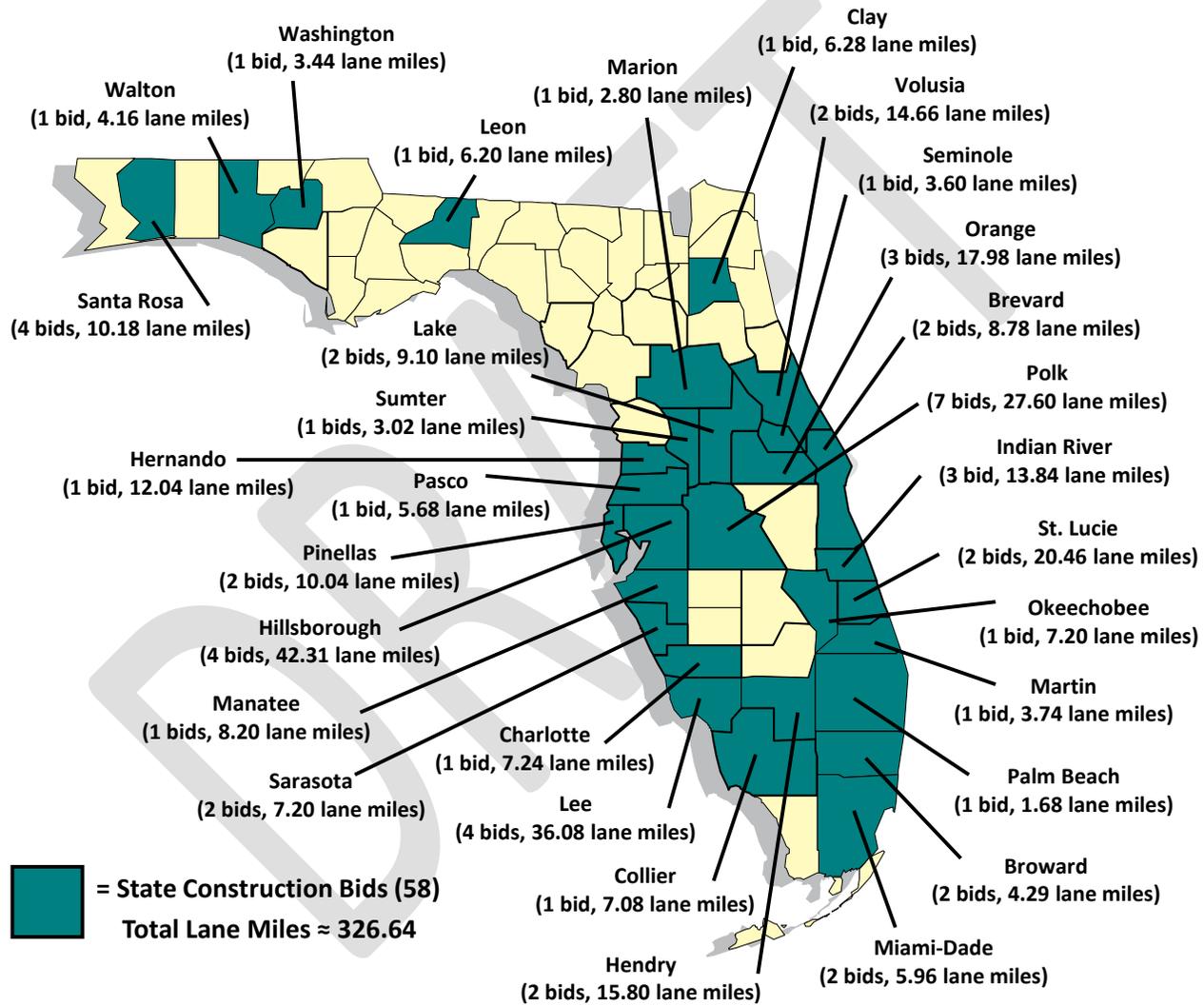
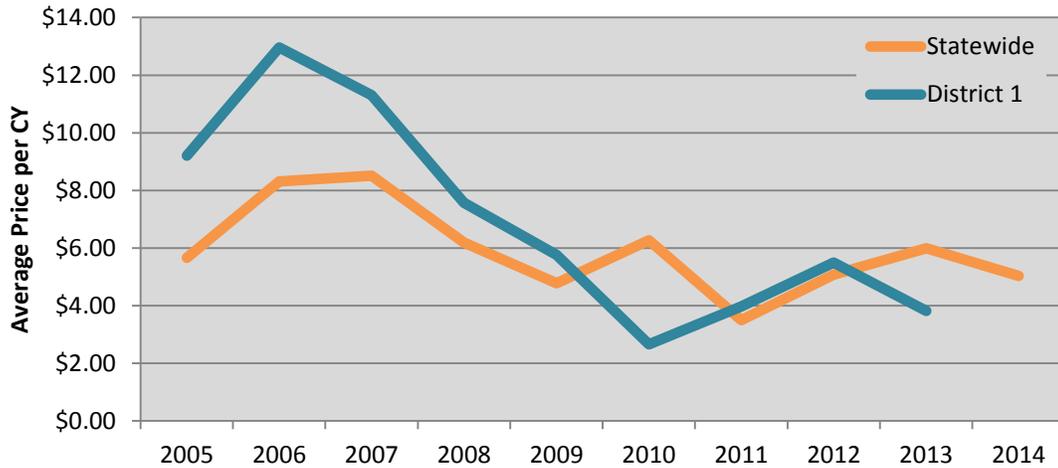


Figure B-2
Construction Cost Trends – State Roads



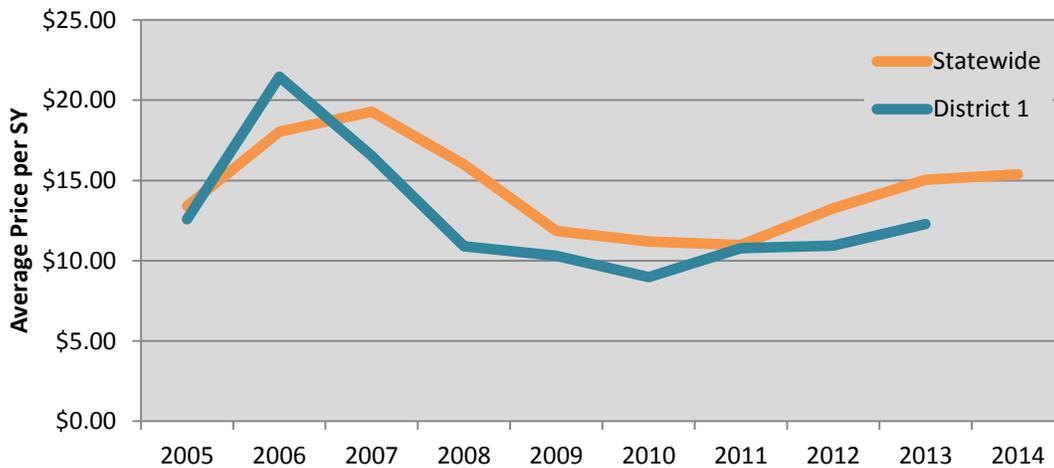
Source: FDOT recently-bid projects by transportation district, available at www.dot.state.fl.us/.

Figure B-3
FDOT Earthwork Cost Trend



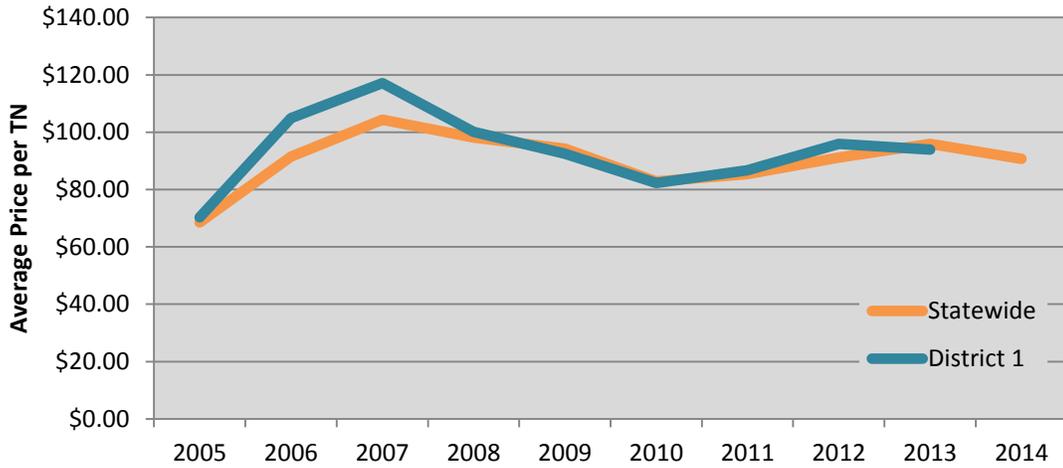
Source: Cost Trends by Fiscal Year for Major Pay Item Groups, July 2004 – August 2013; State Specification & Estimates Office

Figure B-4
FDOT Base Cost Trend



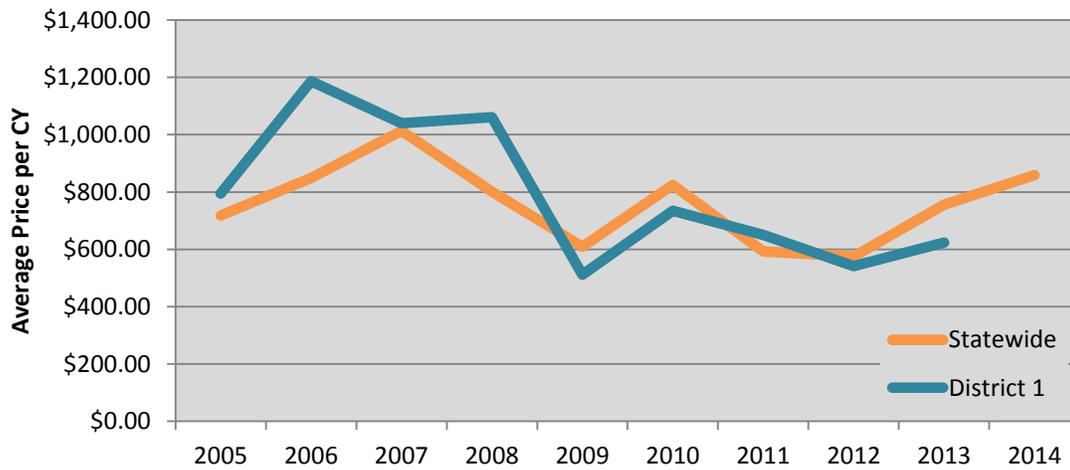
Source: Cost Trends by Fiscal Year for Major Pay Item Groups, July 2004 – August 2013; State Specification & Estimates Office

Figure B-5
FDOT Asphalt Cost Trend



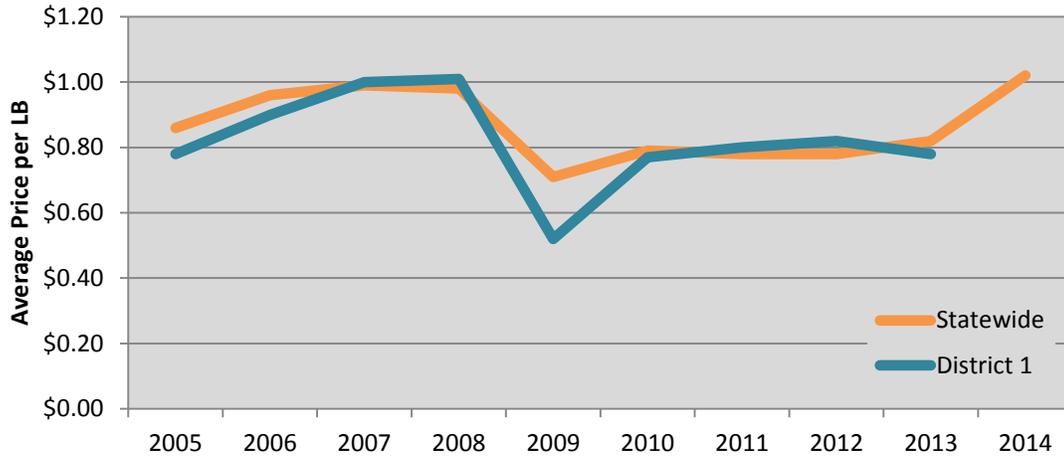
Source: Cost Trends by Fiscal Year for Major Pay Item Groups, July 2004 – August 2013; State Specification & Estimates Office

Figure B-6
FDOT Structural Concrete Cost Trend



Source: Cost Trends by Fiscal Year for Major Pay Item Groups, July 2004 – August 2013; State Specification & Estimates Office

Figure B-7
FDOT Reinforcing Steel Cost Trend



Source: Cost Trends by Fiscal Year for Major Pay Item Groups, July 2004 – August 2013; State Specification & Estimates Office

Design/CEI

County Roadways

The design/CEI cost factors for county roads were determined based on a review of recent roadway capacity expansion projects in Collier County. A total of 11 projects completed or bid since 2006 were evaluated. The design and CEI cost figures for each project were calculated as a percentage of the total construction cost for each respective project to determine both a design and CEI percentage-of-construction factor. As shown in Table B-6, these factors ranged between 4.5 and 20.1 percent, with design averaging 9 percent and CEI averaging 11 percent.

A review of recent transportation impact fee studies completed throughout Florida indicated that design and CEI are typically assessed at 10 percent of construction each. Based on the variation of the local data, the average of the local data, and the statewide average, it was determined that design and CEI should each be assessed at 10 percent of the construction cost of county roads for impact fee purposes.

State Roadways

For state roads, because estimates from the FDOT District 1 were not available, the FDOT District 7 Long Range Estimates were evaluated, which calculated design and CEI at 15 percent of construction each. Based on discussions with staff, and a review of recent transportation impact fee studies completed throughout Florida, design and CEI for state roads was estimated at 10 percent of construction costs.

Table B-6
Design and CEI Percentages – County Roads

Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Design Cost	Design Cost per Lane Mile	Construction Cost	CEI Cost	CEI Cost per Lane Mile	Design/ Const. Cost	CEI/ Const. Cost
County Roads															
Immokalee Road	I-75	Collier Boulevard (CR 951)	2006	4 to 6	Urban	3.25	2	6.50	\$1,600,000	\$246,154	\$19,265,499	\$1,500,000	\$230,769	8.3%	7.8%
Rattlesnake Hammock Road	Polly Avenue	Collier Boulevard (CR 951)	2006	2 to 6	Urban	2.00	4	8.00	\$1,267,338	\$158,417	\$20,571,049	\$2,517,581	\$314,698	6.2%	12.2%
Collier Boulevard (CR 951)	Immokalee Rd	Golden Gate Blvd	2006	2 to 6	Urban	3.05	4	12.20	\$1,978,538	\$162,175	\$34,103,355	\$1,663,793	\$136,376	5.8%	4.9%
Santa Barbara Blvd Ext.	Copper Leaf Ln	Davis plus Radio Rd	2007	4 to 6	Urban	4.24	2	8.48	\$3,735,963	\$440,562	\$53,641,796	\$2,405,006	\$283,609	7.0%	4.5%
Santa Barbara Blvd Ext.	Rattlesnake Hammock Rd	Davis Blvd	2008	0 to 6	Urban	2.00	6	12.00	\$1,160,034	\$96,670	\$12,035,894	\$1,515,589	\$126,299	9.6%	12.6%
Oil Well Rd (Segment 2)	Immokalee Rd	Everglades Blvd	2009	2 to 4/6	Urban	5.05	4/6	10.92	\$2,983,230	\$273,190	\$15,091,068	\$1,823,024	\$166,944	19.8%	12.1%
Oil Well Rd (Segment 4)	Oil Well Grade Rd	W. of Camp Keais Rd	2009	2 to 6	Urban	4.72	4	18.88	\$2,787,333	\$147,634	\$15,875,782	\$1,938,989	\$102,701	17.6%	12.2%
Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2013	4 to 6	Urban	2.74	2	5.48	\$2,902,063	\$529,574	\$23,295,924	\$2,709,444	\$494,424	12.5%	11.6%
Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	2 to 4	Urban	5.71	2	11.42	\$3,873,302	\$339,168	\$51,402,161	\$10,340,660	\$905,487	7.5%	20.1%
Collier/Davis Intersection	E. of Radio Rd	Collier Blvd, SR-84, Davis Blvd	2013	6 to 8	Urban	4.65	2	9.30	\$2,514,007	\$270,323	\$28,040,212	\$3,026,117	\$325,389	9.0%	10.8%
US 41/951 Intersection			2013	n/a	Urban	n/a	n/a	n/a	\$1,902,399	n/a	\$17,688,951	\$1,609,080	n/a	10.8%	9.1%
Total (All Projects)								103.18	\$26,704,207		\$291,011,691	\$31,049,283		9.2%	10.7%

Source: Collier County Transportation Engineering Department



Mitigation

County Roadways

Mitigation cost estimates were developed based on cost data received for six recent projects in the County:

- Santa Barbara Blvd Extension (from Rattlesnake Hammock Rd to Davis Blvd)
- Oil Well Rd Seg. 2 (from Immokalee Rd to Everglades Blvd)
- Oil Well Rd Seg. 4 (from Oil Well Grade Rd to W. of Camp Keais Rd)
- Collier Blvd (from Golden Gate Blvd to Green Blvd)
- Golden Gate Blvd (from Wilson Blvd to Desoto Blvd)
- Collier/Davis Intersections (from E. of Radio Rd to Collier Blvd, SR-84, Davis Blvd)

Both Oil Well Road segments are located in the Panther Consultation Area (PCA), which, on average, tend to have higher costs than non-PCA mitigation. As shown in Table B-7, a weighted average cost per lane mile was developed for PCA mitigation and non-PCA mitigation from the five recent mitigation projects. To develop a weighted average mitigation cost for all county roads, regardless of location, the PCS and non-PCA costs were weighted by the distribution of lane miles from cost feasible and needs plan projected in the LRTP that are located within the PCA or outside of the PCA, as shown in Table B-8.

Based on the six mitigation projects and the weighting analysis, an average cost of approximately \$74,000 per lane mile was used in the transportation impact fee calculation for county roads, which is a decrease from the estimate used in 2010. Map B-3 illustrates the Panther Consultation Area boundaries in Collier County.

State Roadways

Due to a lack of mitigation cost data along state roadways, it was assumed that the mitigation cost for state facilities is the same as the costs for county facilities. Discussions with staff confirmed that these assumptions were appropriate for planning level mitigation estimates.

Table B-7
Mitigation Costs – County Roads

Panther Consultation Area	Description	From	To	Feature	Lanes Added	Mitigation Cost	Project Length (Miles)	Lane Miles Added	Mitigation Cost per Lane Mile
N	Santa Barbara Blvd Ext.	Rattlesnake Hammock Rd	Davis Blvd	0 to 6	6	\$802,820	2.00	12.00	\$66,902
Y	Oil Well Rd (Segment 2)	Immokalee Rd	Everglades Blvd	2 to 4/6	4/6	\$1,284,223	5.05	10.92	\$117,603
Y	Oil Well Rd (Segment 4)	Oil Well Grade Rd	W. of Camp Keais Rd	2 to 6	4	\$1,199,893	4.72	18.88	\$63,554
N	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	4 to 6	2	\$88,060	2.74	5.48	\$16,069
N	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2 to 4	2	\$686,222	5.71	11.42	\$60,089
N	Collier/Davis Intersection	E. of Radio Rd	Collier Blvd, SR-84, Davis Blvd	6 to 8	2	\$507,396	4.65	9.30	\$54,559
-	Total					\$4,568,614	24.87	68.00	
Weighted Average Cost Per Lane Mile:									\$67,186
Panther Consultation Area Cost Per Lane Mile:									\$83,360 (a)
Non-Panther Consultation Area Cost Per Lane Mile:									\$54,568 (b)

Source: Collier County Transportation Engineering Department

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

Table B-8
Weighted Average Mitigation Cost Calculation – County Roads

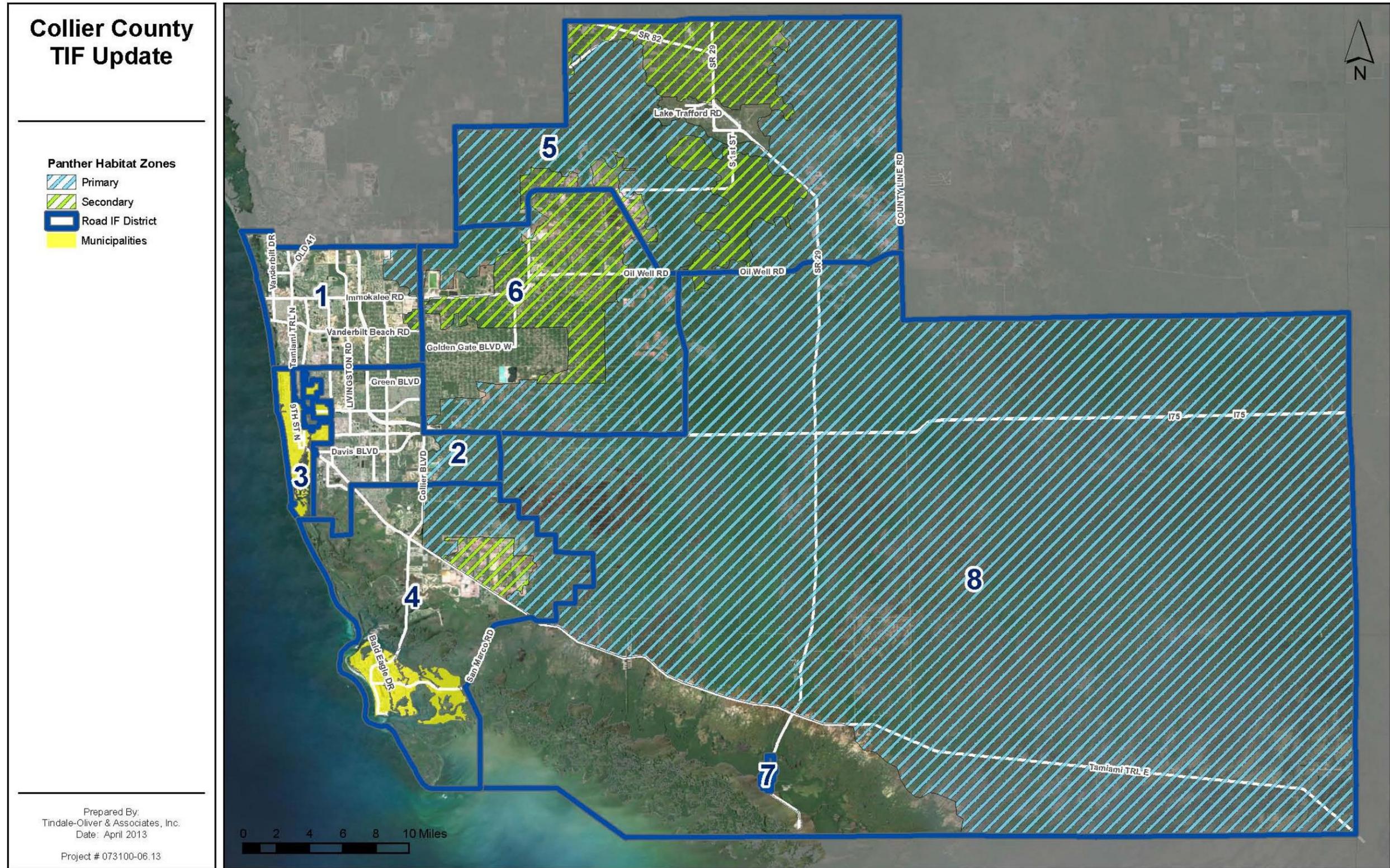
Cost Type	L RTP Lane Mile Distribution ⁽¹⁾	Mitigation Cost per Lane Mile ⁽²⁾	Weighted Avg. Mitigation ⁽³⁾
Panther Consultation	67%	\$83,360	\$55,851
Non-Panther Consultation	33%	\$54,568	\$18,007
Weighted Average Cost per Lane Mile			\$73,858
Weighted Average Cost per Lane Mile (Rounded)			\$74,000

(1) Source: Table B-14, Items (a) and (b)

(2) Source: Table B-7, Items (a) and (b)

(3) L RTP lane mile distribution (Item 1) multiplied by the mitigation cost per lane mile for each area (Item 2) to determine a weighted average cost per lane mile

Map B-3: Panther Consultation Area



Urban Overpass

County Roadways

The urban overpass cost estimate was developed based on four planned improvements in the LRTP Cost Feasible Plan. The total estimated project cost for these improvements is approximately \$175.3 million. This total was then divided by the total lane miles in the 2035 Long Range Transportation Plan Cost Feasible and Needs Plan to develop an urban overpass cost per lane mile. As shown in Table B-9, the urban overpass cost is approximately \$390,000 per lane mile for county roads, which is a decrease from the last study.

State Roadways

Due to a lack of urban overpass cost data along state roadways, it was assumed that the urban overpass cost for state facilities is the same as the costs for county facilities. Discussions with staff confirmed that these assumptions were appropriate for planning level urban overpass estimates.

**Table B-9
Urban Overpass Costs – County Roads**

Urban Overpass	Status	Cost ⁽¹⁾
Immokalee Rd & Randall Blvd	Cost Feasible Plan; 2026-2030	\$54,000,000
I-75 @ SR 951	PD&E Phase	\$49,350,000
US 41 (SR 90) Tamiami Tr East @ Collier Blvd (CR 951)	Unfunded	\$35,957,477
Immokalee Rd & Collier Blvd	Unfunded	\$35,957,477
Total Urban Overpass Cost		\$175,264,954
Total 2035 LRTP Cost Feasible/Needs Plan Lane Miles Added⁽²⁾		449.20
Total Urban Overpass Cost Per Lane Mile⁽³⁾		\$390,000

(1) Source: Collier County LRTP Cost Feasible Plan & Collier County Staff

(2) Source: Table B-12

(3) Total urban overpass cost divided by the LRTP lane miles added (Item 2), rounded to thousands

Roadway Capacity

Tables B-12 through B-14 present the Collier County 2035 Long Range Transportation Plan projects and accompanying summaries used in the cost component calculations.

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Table B-10
Collier County MPO 2035 Long Range Transportation Plan

Jurisdiction	Description	From	To	Improvement	ROW Designation ⁽¹⁾	Panther Consultation Area ⁽²⁾	Length	Lanes Added	Lane Miles Added	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added
Cost Feasible Improvements													
County	Airport Pulling Rd	Vanderbilt Beach Rd	Immokalee Rd	4 to 6	High	N	2.00	2	4.00	29,160	45,000	15,840	31,680
County	Camp Keais Rd	Oil Well Rd	Immokalee Rd	2 to 4	Low	Y	5.20	2	10.40	23,100	52,400	29,300	152,360
County	CR 951 (Collier Blvd)	Golden Gate Canal	Green Blvd	4 to 6	High	N	2.00	2	4.00	37,828	56,932	19,104	38,208
County	CR 951 Ext.	Heritage Bay Entrance	Logan Blvd	0 to 2	High	N	2.50	2	5.00	0	15,930	15,930	39,825
County	Everglades Blvd	I-75 (SR 93)	Golden Gate Blvd	2 to 4	Low	Y	5.30	2	10.60	12,780	27,360	14,580	77,274
County	Golden Gate Blvd	Wilson Blvd	Everglades Blvd	2 to 4	Low	N	3.90	2	7.80	12,780	27,360	14,580	56,862
County	Golden Gate Blvd	Everglades Blvd	Desoto Blvd	2 to 4	Low	Y	2.00	2	4.00	12,780	27,360	14,580	29,160
County	Goodlette-Frank Rd	Orange Blossom Dr	Vanderbilt Beach Rd	4 to 6	High	N	0.90	2	1.80	37,828	56,932	19,104	17,194
County	Goodlette-Frank Rd	Vandebilt Beach Rd	Immokalee Rd	2 to 4	High	N	1.80	2	3.60	15,930	35,820	19,890	35,802
County	Green Blvd	Santa Barbara/Logan Blvd	Sunshine Blvd	2 to 4	High	N	1.00	2	2.00	15,930	35,820	19,890	19,890
County	Immokalee Rd	Camp Keais Rd	Eustis Ave	2 to 4	Low	Y	2.50	2	5.00	23,100	52,400	29,300	73,250
County	Logan Blvd	1.5 miles N. of Immokalee Rd	Lee/Collier Co. Line	0 to 2	High	N	3.10	2	6.20	0	15,930	15,930	49,383
County	Oil Well Rd / CR 858	Everglades Blvd	Oil Well Grade Rd	2 to 6	High	Y	3.90	4	15.60	14,580	48,150	33,570	130,923
County	Old US 41	US 41 (SR 45)	Lee/Collier Co. Line	2 to 4	High	N	1.50	2	3.00	15,930	35,820	19,890	29,835
County	Orange Blossom Dr	Airport Pulling Rd	Livingston Rd	2 to 4	High	N	0.70	2	1.40	15,930	35,820	19,890	13,923
County	Randal Blvd	8th St	Everglades Blvd	2 to 6	High	Y	3.40	4	13.60	14,580	48,150	33,570	114,138
County	Santa Barbara Blvd	Painted Leaf Ln	Green Blvd	4 to 6	High	N	1.70	2	3.40	35,820	53,910	18,090	30,753
State	SR 29	New Market Rd North	N. of SR 82	2 to 4	Low	Y	3.10	2	6.20	23,100	52,400	29,300	90,830
State	SR 84 (Davis Blvd)	Airport Pulling Rd	Santa Barbara Blvd	4 to 6	High	N	3.00	2	6.00	39,800	59,900	20,100	60,300
State	SR 951 (Collier Blvd)	S. of Manatee Rd	N. of Tower Rd	4 to 6	High	N	1.00	2	2.00	39,800	59,900	20,100	20,100
State	US 41 (SR 90) Tamiami Tr East	E. of CR 951	E. of Henderson Creek	2 to 6	High	N	0.60	2	1.20	17,700	59,900	42,200	25,320
State	US 41 (SR 90) Tamiami Tr East	E. of Henderson Creek	Greenway Rd	2 to 6	High	N	2.40	4	9.60	17,700	59,900	42,200	101,280
State	US 41 (SR 90) Tamiami Tr East	Greenway Rd	6 L Farm Rd	2 to 4	High	N	2.60	2	5.20	16,200	35,500	19,300	50,180
County	Vanderbilt Beach Rd Ext.	CR 951	Wilson Blvd	2 to 4	Low	N	5.00	2	10.00	12,780	27,360	14,580	72,900
County	Vanderbilt Beach Rd	US 41 (SR 45)	Airport Pulling Rd	4 to 6	High	N	2.10	2	4.20	35,820	53,910	18,090	37,989
County	Veterans Memorial Blvd	US 41 (SR 45)	Livingston Rd	0 to 4	High	N	2.90	4	11.60	0	53,910	53,910	156,339
Unfunded Needs Improvements													
County	Benfield Rd	US 41 (SR 90)	Wilson Blvd Ext.	0 to 2	Low	Y	7.90	2	15.80	0	23,100	23,100	182,490
County	Everglades Blvd	Golden Gate Blvd	Oil Well Rd	2 to 4	Low	Y	4.30	2	8.60	12,780	27,360	14,580	62,694
County	Everglades Blvd	Oil Well Rd	Immokalee Rd	2 to 4	Low	Y	5.00	2	10.00	23,100	52,400	29,300	146,500
County	Florida Tradeport Blvd	New Market Rd	SR 29 Loop Rd	0 to 2	Low	Y	2.60	2	5.20	0	23,100	23,100	60,060
County	Green Blvd Ext. / 16th Ave SW	CR 951	23rd St SW	0 to 4	High	N	2.10	4	8.40	0	35,820	35,820	75,222
County	Green Blvd Ext. / 16th Ave SW	23rd St SW	Everglades Blvd	0 to 2	High	N	6.80	2	13.60	0	15,930	15,930	108,324
County	Green Blvd Ext. W	Over I-75		0 to 4	High	N	0.20	4	0.80	0	35,820	35,820	7,164
County	Green Blvd Ext. W	Livingston Rd	Santa Barbara Blvd	2 to 4	High	N	2.00	2	4.00	15,930	35,820	19,890	39,780
County	Immokalee Rd Ext.	Camp Keais Rd	SR 29	0 to 2	Low	Y	2.70	2	5.40	0	23,100	23,100	62,370
County	Immokalee Rd (CR 846)	SR 29	Airpark Blvd	2 to 4	Low	N	0.40	2	0.80	23,100	52,400	29,300	11,720
County	Keane Ave	Inez Rd	Wilson Blvd Ext.	0 to 2	High	Y	2.00	2	4.00	0	15,930	15,930	31,860
County	Logan Blvd	Green Blvd	Pine Ridge Rd	4 to 6	High	N	2.60	2	5.20	35,820	53,910	18,090	47,034
County	Logan Blvd	Pine Ridge Rd	Vanderbilt Beach Rd	2 to 4	High	N	2.10	2	4.20	15,930	35,820	19,890	41,769
County	Logan Blvd	Vanderbilt Beach Rd	Immokalee Rd	2 to 4	High	N	2.10	2	4.20	15,930	35,820	19,890	41,769
County	Massey St	Vanderbilt Beach Rd	Immokalee Rd	2 to 3	High	Y	2.00	1	2.00	15,930	18,585	2,655	5,310

Table B-10 (continued)
Collier County MPO 2035 Long Range Transportation Plan

Jurisdiction	Description	From	To	Improvement	ROW Designation ⁽¹⁾	Panther Consultation Area ⁽²⁾	Length	Lanes Added	Lane Miles Added	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added
Unfunded Needs Improvements													
County	New Gordon River Bridge	Goodlett-Frank Rd	North Rd	0 to 2	High	N	0.40	2	0.80	0	15,930	15,930	6,372
County	Oil Well Rd / CR 858	Ave Maria Entrance	Camp Keais Rd	2 to 6	Low	Y	1.00	4	4.00	12,780	41,220	28,440	28,440
County	Randal Blvd	Everglades Blvd	Desoto Blvd	2 to 6	High	Y	1.80	4	7.20	14,580	48,150	33,570	60,426
County	Randal Blvd Ext.	Desoto Blvd	Oil Well Rd	0 to 6	High	Y	2.10	6	12.60	0	48,150	48,150	101,115
County	Rattlesnake Hammock Rd Ext.	CR 951 / Collier Blvd	Benfield Rd Ext.	0 to 2	High	Y	1.30	2	2.60	0	16,823	16,823	21,870
State	SR 29	N. of SR 82	Hendy/Collier Co. Line	2 to 4	Low	Y	2.40	2	4.80	23,100	52,400	29,300	70,320
State	SR 29	I-75 (SR 93)	Oil Well Rd	2 to 4	Low	Y	10.20	2	20.40	23,100	52,400	29,300	298,860
State	SR 29	Oil Well Rd	Immokalee Rd (CR 846)	2 to 4	High	Y	9.40	2	18.80	17,700	39,800	22,100	207,740
State	SR 29	9th St	Immokalee Dr	2 to 4	High	N	0.90	2	1.80	17,700	39,800	22,100	19,890
State	SR 29	Immokalee Dr	New Market Rd North	2 to 4	High	N	2.00	2	4.00	17,700	39,800	22,100	44,200
State	SR 29 Loop Rd	Florida Tradeport Blvd	SR 29 (North)	0 to 4	Low	Y	2.40	4	9.60	0	40,700	40,700	97,680
State	SR 29 Loop Rd	SR 29 (South)	Immokalee Rd (CR 846)	0 to 2	Low	Y	3.30	2	6.60	0	16,400	16,400	54,120
State	SR 29 Loop Rd	Immokalee Rd (CR 846)	Florida Tradeport Blvd	0 to 2	Low	Y	5.60	2	11.20	0	16,400	16,400	91,840
State	SR 82	SR 29	Hendy/Collier Co. Line	2 to 6	Low	Y	7.00	4	28.00	23,100	78,400	55,300	387,100
County	Trade Center Way Ext.	Airport Pulling Rd	Livingston Rd	0 to 2	High	N	1.00	2	2.00	0	15,930	15,930	15,930
County	Tree Farm Rd	Existing end at Davila St	Massey St	0 to 2	High	N	1.00	2	2.00	0	15,930	15,930	15,930
County	Twin Eagles Blvd Ext.	Vanderbilt Beach Rd	Immokalee Rd	0 to 2	Low	Y	2.00	2	4.00	0	23,100	23,100	46,200
County	Vanderbilt Beach Rd Ext.	Wilson Blvd	Desoto Blvd	0 to 4	Low	Y	5.70	4	22.80	0	27,360	27,360	155,952
County	Valewood Drive Ext.	Immokalee Rd	Autumn Oakes Ln	0 to 2	High	N	0.10	2	0.20	0	15,930	15,930	1,593
County	Westclox	Little League Rd	W. of Carson Rd	0 to 2	High	N	0.90	2	1.80	0	15,930	15,930	14,337
County	White Blvd	CR 951	31st St SW	2 to 3	High	N	0.80	1	0.80	15,930	18,585	2,655	2,124
County	Wilson Blvd	Golden Gate Blvd	Immokalee Rd	2 to 4	High	Y	3.30	2	6.60	13,320	29,160	15,840	52,272
County	Wilson Blvd Ext. / White Lake Blvd	CR 951	Benfield Rd	0 to 4	High	Y	2.50	4	10.00	0	29,160	29,160	72,900
County	Wilson Blvd Ext. / Black Burn Rd	Benfield Rd	Wilson Blvd	0 to 2	High	Y	7.50	2	15.00	0	13,320	13,320	99,900
County	Wolfe Rd	Vanderbilt Beach Rd	existing end	0 to 2	High	N	1.00	2	2.00	0	15,930	15,930	15,930
Total (All Roads):									449.20				4,462,805
County Roads:									313.80	70% (a)			2,843,045
State Roads:									135.40	30% (b)			1,619,760
									County - Low ROW:	124.40			
									County - High ROW:	189.40			
									State - Low ROW:	86.80			
									State - High ROW:	48.60			
									County - PCA:	195.00			
									County - Non-PCA:	118.80			
									State - PCA:	105.60			
									State - Non-PCA:	29.80			

Source: Collier County MPO 2035 LRTP; Minor Update – Cost Feasible Plan Report (March 2013)

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

Table B-11

Collier County 2035 LRTP – ROW Designation Summary

Jurisdiction	ROW Designation	Lane Miles Added	Percentage of Total
County	Low	124.40	40%
	High	<u>189.40</u>	<u>60%</u>
	Total	313.80	100%
State	Low	86.80	64%
	High	<u>48.60</u>	<u>36%</u>
	Total	135.40	100%
Total	Low	211.20	47% (a)
	High	<u>238.00</u>	<u>53%</u> (b)
Total (All Roads)		449.20	100%

Source: Summary ROW Designation (Item 1) at the bottom of Table B-10

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

Table B-12

Collier County 2035 LRTP – Mitigation Designation Summary

Jurisdiction	PCA / Non-PCA	Lane Miles Added	Percentage of Total
County	PCA	195.00	62%
	Non-PCA	<u>118.80</u>	<u>38%</u>
	Total	313.80	100%
State	PCA	105.60	78%
	Non-PCA	<u>29.80</u>	<u>22%</u>
	Total	135.40	100%
Total	PCA	300.60	67% (a)
	Non-PCA	<u>148.60</u>	<u>33%</u> (b)
Total (All Roads)		449.20	100%

Source: Summary of Panther Consultation Area (Item 2) at the bottom of Table B-10

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

Appendix C
Credit Component Calculations

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Appendix C

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, Collier County also receives financial benefit from several other funding sources. Of these, County fuel taxes that are collected in Collier 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.

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.

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.

4. 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.

5. 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.

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 2012-13 data represent projected fuel tax distributions to Collier County for the upcoming 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 \$1.38 million estimates the annual revenue that one penny of gas tax generates in Collier County.

Table C-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for
Collier County & Municipalities, FY 2012-13⁽¹⁾

Tax	Amount of Levy per Gallon	Total Distribution	Distribution Per Penny
Constitutional Fuel Tax	\$0.02	\$3,937,580	\$1,968,790
County Fuel Tax	\$0.01	\$1,722,147	\$1,722,147
1st Local Option (1-6 cents)	\$0.06	\$7,787,693	\$1,297,949
2nd Local Option (1-5 cents)	\$0.05	\$5,941,620	\$1,188,324
Ninth-Cent Fuel Tax	\$0.01	\$1,384,624	\$1,384,624
Total	\$0.15	\$20,773,664	
Weighted Average⁽²⁾			\$1,384,911

(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 Collier 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 FY 2013-2017 Annual Update and Inventory Report (AUIR) Transportation Work Program indicates that a combination of gas tax revenues, impact fees, and grants are used to fund roadway capacity expansion projects. As shown in Table C-2, Collier County receives a credit of 3.0 pennies for the portion of non-impact fee revenues dedicated to capacity expansion projects such as new road construction, lane additions, and intersection improvements. The gas tax credit in Table C-2 does not include the portion of gas tax revenues being used to repay the debt service.

Table C-2
County Gas Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
Grant Revenues ⁽¹⁾	\$37,049,000	5	\$1,384,911	\$0.054
Gas Tax Revenues ⁽²⁾	\$3,835,000	5	\$1,384,911	\$0.006
Total	\$40,884,000	10	\$1,384,911	\$0.030

(1) Source: Table C-5

(2) Source: Table C-5

(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

As previously mentioned, the County is currently using gas tax revenues to retire debt on the Series 2005 and the Series 2012 Gas Tax Bond Issues that are being used to fund capacity expansion improvements. As shown in Table C-3, a credit of 10.8 pennies is given for outstanding debt service in Collier 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⁾
Gas Tax Bond Issue, Series, 2005 ⁽¹⁾	\$123,376,100	12	\$1,384,911	\$0.074
Gas Tax Bond Issue, Series, 2012 ⁽²⁾	\$47,200,400	10	\$1,384,911	\$0.034
Total	\$170,576,500		\$1,384,911	\$0.108

(1) Source: Table C-6

(2) Source: Table C-7

(3) Source: Table C-1

(4) Sum of equivalent pennies (Item 4) for each bond issue

State Gas Tax Expenditures

In the calculation of the equivalent pennies of gas tax from the State, expenditures on roadway capacity expansion spanning a 16-year period (from FY 2004 to FY 2019) were reviewed. For calculation purposes, the 16-year period was broken into three increments; two historical (FY 2004-2009 and FY 2010-2014) and one future (FY 2015-2019). Information on historical projects' funding and the future year estimates was obtained from the FDOT Work Programs and the County's FY 2015-2019 Transportation Improvement Program (TIP). The use of a 16-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-adding projects for the five-year “historical” periods and projected in the five-year Transportation Improvement Program are as follows:

- FY 2004-2009 work plan equates to 0.8 pennies
- FY 2010-2014 work plan equates to 17.2 pennies
- FY 2015-2019 TIP equates to 7.4 pennies

The combined weighted average over the 16-year period of state expenditure for capacity-adding roadway projects results in a total of 10.7 equivalent pennies. 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⁾
Projected TIP (FY 2015-2019) ⁽¹⁾	\$51,342,420	5	\$1,384,911	\$0.074
Historical Work Program (FY 2010-2014) ⁽²⁾	\$119,296,602	5	\$1,384,911	\$0.172
Historical Work Program (FY 2004-2009) ⁽³⁾	\$66,700,265	6	\$1,384,911	\$0.080
Total	\$237,339,287	16	\$1,384,911	\$0.107

(1) Source: Table C-9, total cost of expansion projects

(2) Source: Table C-9, total cost of expansion projects

(3) Source: Table C-9, total cost of expansion projects

(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
FY 2013 – FY 2017 5-Year Work Program (AUIR)
Roadway Capacity Expansion Expenditures**

FY 2013-2017 Work Program Expenditures and Revenue Sources	Expenditures and Revenues ⁽¹⁾
<i>Work Program Expenditures</i>	
Total - Capacity Expansion Projects	\$68,990,000
<i>Revenues available to fund capacity expansion (new projects)</i>	
- Impact Fees (including interest)	\$28,106,000
- Grant Funds	\$37,049,000
- Gas Tax (including interest)	<u>\$93,812,000</u>
Total	\$158,967,000
<i>Revenues used to fund capacity expansion (new projects)</i>	
- Impact Fees (including interest)	\$28,106,000
- Grant Funds (used to fund capacity expansion projects)	\$37,049,000 (a)
- Gas Tax (used to fund capacity expansion)	\$3,835,000 (b)
- Gas Tax (used to fund debt service) ⁽²⁾	<u>\$70,879,561</u>
Total	\$139,869,561
<i>Remaining revenues available to fund capitalized maintenance</i>	
- Impact Fees	\$0
- Grant Funds	\$0
- Gas Tax	<u>\$19,097,439</u>
Total	\$19,097,439

(1) Source: FY 2013-2017 5-Year Work Program (tied to FY 2013 Adopted Budget)

(2) Source: Appendix C, Table C-8

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

Table C-6
Debt Service – Gas Tax Bond Issues, Series 2005

Year	Principal	Interest	Total Debt Service
FY 2014	\$1,690,000	\$4,344,613	\$6,034,613
FY 2015	\$1,770,000	\$4,260,113	\$6,030,113
FY 2016	\$6,100,000	\$4,171,613	\$10,271,613
FY 2017	\$6,400,000	\$3,866,613	\$10,266,613
FY 2018	\$6,725,000	\$3,546,613	\$10,271,613
FY 2019	\$7,060,000	\$3,210,363	\$10,270,363
FY 2020	\$7,410,000	\$2,857,363	\$10,267,363
FY 2021	\$7,780,000	\$2,486,863	\$10,266,863
FY 2022	\$8,170,000	\$2,097,863	\$10,267,863
FY 2023	\$8,580,000	\$1,689,363	\$10,269,363
FY 2024	\$13,320,000	\$1,260,363	\$14,580,363
FY 2025	\$13,985,000	\$594,363	\$14,579,363
Total	\$88,990,000	\$34,386,100	\$123,376,100
Payments Remaining			12
Annual Average Payment			\$10,281,342

Source: Appendix C, Table C-8

Table C-7
Debt Service – Gas Tax Bond Issues, Series 2005

Year	Principal	Interest	Total Debt Service
FY 2014	\$6,350,000	\$1,759,150	\$8,109,150
FY 2015	\$6,605,000	\$1,505,150	\$8,110,150
FY 2016	\$2,700,000	\$1,174,900	\$3,874,900
FY 2017	\$2,835,000	\$1,039,900	\$3,874,900
FY 2018	\$2,970,000	\$898,150	\$3,868,150
FY 2019	\$3,120,000	\$749,650	\$3,869,650
FY 2020	\$3,280,000	\$593,650	\$3,873,650
FY 2021	\$3,445,000	\$429,650	\$3,874,650
FY 2022	\$3,615,000	\$257,400	\$3,872,400
FY 2023	\$3,760,000	\$112,800	\$3,872,800
Total	\$38,680,000	\$8,520,400	\$47,200,400
Payments Remaining			10
Annual Average Payment			\$4,720,040

Source: Appendix C, Table C-8

Table C-8
Collier County Debt Service Schedules – Roadway Capacity Expansion

Month-Year	Series 2003			Series 2005			Series 2012			Total Gas Tax Load - Senior Debt			Fiscal Year	Total Principal & Interest
	Principal Due	Semi-Annual Interest	Total Principal and Interest	Principal Due	Semi-Annual Interest	Total Principal and Interest	Principal Due	Semi-Annual Interest	Total Principal and Interest	Principal Due	Semi-Annual Interest	Total Principal and Interest		
Jun-12	\$5,975,000	\$1,287,601.25	\$7,262,601.25	\$1,530,000	\$2,250,806.25	\$3,780,806.25	-	-	\$860,028.89	\$7,505,000	\$3,538,407.50	\$11,043,407.50	-	\$11,043,407.50
Dec-12	-	\$143,897.50	-	-	\$2,212,556.25	\$2,212,556.25	-	\$860,028.89	\$879,575.00	-	\$3,216,482.64	\$3,216,482.64	FY 2013	\$14,307,511.39
Jun-13	\$6,245,000	\$143,897.50	\$6,388,897.50	\$1,610,000	\$2,212,556.25	\$3,822,556.25	-	\$879,575.00	\$879,575.00	\$7,855,000	\$3,236,028.75	\$11,091,028.75	-	
Dec-13	-	-	-	-	\$2,172,306.25	\$2,172,306.25	-	\$879,575.00	\$7,229,575.00	-	\$3,051,881.25	\$3,051,881.25	FY 2014	\$14,143,762.50
Jun-14	-	-	-	\$1,690,000	\$2,172,306.25	\$3,862,306.25	\$6,350,000	\$879,575.00	\$752,575.00	\$8,040,000	\$3,051,881.25	\$11,091,881.25	-	
Dec-14	-	-	-	-	\$2,130,056.25	\$2,130,056.25	-	\$752,575.00	\$7,357,575.00	-	\$2,882,631.25	\$2,882,631.25	FY 2015	\$14,140,262.50
Jun-15	-	-	-	\$1,770,000	\$2,130,056.25	\$3,900,056.25	\$6,605,000	\$752,575.00	\$587,450.00	\$8,375,000	\$2,882,631.25	\$11,257,631.25	-	
Dec-15	-	-	-	-	\$2,085,806.25	\$2,085,806.25	-	\$587,450.00	\$3,287,450.00	-	\$2,673,256.25	\$2,673,256.25	FY 2016	\$14,146,512.50
Jun-16	-	-	-	\$6,100,000	\$2,085,806.25	\$8,185,806.25	\$2,700,000	\$587,450.00	\$519,950.00	\$8,800,000	\$2,673,256.25	\$11,473,256.25	-	
Dec-16	-	-	-	-	\$1,933,306.25	\$1,933,306.25	-	\$519,950.00	\$3,354,950.00	-	\$2,453,256.25	\$2,453,256.25	FY 2017	\$14,141,512.50
Jun-17	-	-	-	\$6,400,000	\$1,933,306.25	\$8,333,306.25	\$2,835,000	\$519,950.00	\$449,075.00	\$9,235,000	\$2,453,256.25	\$11,688,256.25	-	
Dec-17	-	-	-	-	\$1,773,306.25	\$1,773,306.25	-	\$449,075.00	\$3,419,075.00	-	\$2,222,381.25	\$2,222,381.25	FY 2018	\$14,139,762.50
Jun-18	-	-	-	\$6,725,000	\$1,773,306.25	\$8,498,306.25	\$2,970,000	\$449,075.00	\$374,825.00	\$9,695,000	\$2,222,381.25	\$11,917,381.25	-	
Dec-18	-	-	-	-	\$1,605,181.25	\$1,605,181.25	-	\$374,825.00	\$3,494,825.00	-	\$1,980,006.25	\$1,980,006.25	FY 2019	\$14,140,012.50
Jun-19	-	-	-	\$7,060,000	\$1,605,181.25	\$8,665,181.25	\$3,120,000	\$374,825.00	\$296,825.00	\$10,180,000	\$1,980,006.25	\$12,160,006.25	-	
Dec-19	-	-	-	-	\$1,428,681.25	\$1,428,681.25	-	\$296,825.00	\$3,576,825.00	-	\$1,725,506.25	\$1,725,506.25	FY 2020	\$14,141,012.50
Jun-20	-	-	-	\$7,410,000	\$1,428,681.25	\$8,838,681.25	\$3,280,000	\$296,825.00	\$214,825.00	\$10,690,000	\$1,725,506.25	\$12,415,506.25	-	
Dec-20	-	-	-	-	\$1,243,431.25	\$1,243,431.25	-	\$214,825.00	\$3,659,825.00	-	\$1,458,256.25	\$1,458,256.25	FY 2021	\$14,141,512.50
Jun-21	-	-	-	\$7,780,000	\$1,243,431.25	\$9,023,431.25	\$3,445,000	\$214,825.00	\$128,700.00	\$11,225,000	\$1,458,256.25	\$12,683,256.25	-	
Dec-21	-	-	-	-	\$1,048,931.25	\$1,048,931.25	-	\$128,700.00	\$3,743,700.00	-	\$1,177,631.25	\$1,177,631.25	FY 2022	\$14,140,262.50
Jun-22	-	-	-	\$8,170,000	\$1,048,931.25	\$9,218,931.25	\$3,615,000	\$128,700.00	\$56,400.00	\$11,785,000	\$1,177,631.25	\$12,962,631.25	-	
Dec-22	-	-	-	-	\$844,681.25	\$844,681.25	-	\$56,400.00	\$3,816,400.00	-	\$901,081.25	\$901,081.25	FY 2023	\$14,142,162.50
Jun-23	-	-	-	\$8,580,000	\$844,681.25	\$9,424,681.25	\$3,760,000	\$56,400.00	-	\$12,340,000	\$901,081.25	\$13,241,081.25	-	
Dec-23	-	-	-	-	\$630,181.25	\$630,181.25	-	-	-	-	\$630,181.25	\$630,181.25	FY 2024	\$14,580,362.50
Jun-24	-	-	-	\$13,320,000	\$630,181.25	\$13,950,181.25	-	-	-	\$13,320,000	\$630,181.25	\$13,950,181.25	-	
Dec-24	-	-	-	-	\$297,181.25	\$297,181.25	-	-	-	-	\$297,181.25	\$297,181.25	FY 2025	\$14,579,362.50
Jun-25	-	-	-	\$13,985,000	\$297,181.25	\$14,282,181.25	-	-	-	\$13,985,000	\$297,181.25	\$14,282,181.25	-	
Total	\$12,220,000	\$1,575,396.25	\$13,651,498.75	\$92,130,000	\$41,062,018.75	\$133,192,018.75	\$38,680,000	\$10,260,003.89	\$48,940,003.89	\$143,030,000	\$52,897,418.89	\$195,927,418.89	-	\$195,927,418.89
													FY 2013 to 2017:	\$70,879,561

Source: Collier County Budget Department

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	

(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.

(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

(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.

(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.

(5) VMT data are based on the latest HPMS data available; it may not match previous published results.

Appendix D
Calculated Transportation Impact Fee Schedule

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

		Gasoline Tax				Unit Construction Cost:				Interstate/Toll Facility Adjustment Factor:						
		\$\$ per gallon to capital:	\$0.245			Capacity per lane mile:		9,935		Cost per VMC:		14.3%				
		Facility life (years):	25	County Revenues:		Fuel Efficiency:		18.43 mpg								
		Interest rate:	4.0%	State Revenues:		Effectivedays per year:		365								
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
RESIDENTIAL:																
210	Single Family (Detached)	du														
	Less than 4,000 sf	du	7.65	FL Studies (NHTS, AHS, Census)	5.88	6.38	FL Studies (Collier)	100%	n/a	19.27	\$8,860	\$118	\$1,843	\$7,017	\$5,753	22%
	4,000 sf or larger	du	9.22	FL Studies (NHTS, AHS, Census)	5.88	6.38	FL Studies (Collier)	100%	n/a	23.23	\$10,679	\$143	\$2,234	\$8,445	\$6,504	30%
220	Multi-Family (Apartment) - 1 to 10 stories	du	6.60	Blend ITE 9th & FL Studies	5.10	5.60	FL Studies (LUC 220/230)	100%	n/a	14.42	\$6,630	\$90	\$1,406	\$5,224	\$4,314	21%
222	Multi-Family (Apartment) - More than 10 stories	du	4.20	ITE 9th Edition	5.10	5.60	FL Studies (LUC 220/230)	100%	n/a	9.18	\$4,219	\$57	\$890	\$3,329	\$2,742	21%
230	Residential Condominium/Townhouse	du	5.76	Blend ITE 9th & FL Studies	5.10	5.60	FL Studies (LUC 220/230)	100%	n/a	12.59	\$5,786	\$78	\$1,219	\$4,567	\$4,256	7%
232	High-Rise Condominium - 3 or more stories	du	4.18	ITE 9th Edition	5.10	5.60	FL Studies (LUC 220/230)	100%	n/a	9.13	\$4,199	\$57	\$890	\$3,309	\$3,088	7%
240	Mobile Home Park	du	4.17	Florida Studies	4.60	5.10	FL Studies	100%	n/a	8.22	\$3,778	\$52	\$812	\$2,966	\$2,395	24%
251	Retirement Community/Age-Restricted Single-Family	du	3.12	Blend ITE 9th & FL Studies	5.42	5.92	FL Studies	100%	n/a	7.25	\$3,331	\$45	\$703	\$2,628	\$2,126	24%
253	Assisted Living Facilities (ALF)	du	2.25	Blend ITE 9th & FL Studies	3.08	3.58	FL Studies	72%	FL Studies	2.13	\$978	\$14	\$219	\$759	\$850	-11%
LODGING:																
310	Hotel	room	6.36	Blend ITE 9th & FL Studies	5.42	5.92	FL Studies (Blend of Hotel and Motel)	66%	FL Studies	9.75	\$4,481	\$60	\$937	\$3,544	\$3,672	-4%
311	All Suites Hotel	room	4.90	ITE 9th Edition	5.42	5.92	Same as LUC 310	66%	Same as LUC 310	7.51	\$3,453	\$46	\$719	\$2,734	\$2,204	24%
320	Motel	room	5.63	ITE 9th Edition	4.34	4.84	FL Studies	77%	FL Studies	8.06	\$3,706	\$51	\$797	\$2,909	\$2,348	24%
RECREATION:																
416	RV Park ⁽²⁾	site	1.62	ITE 9th Edition	4.60	5.10	Same as LUC 240	100%	FL Schedules	3.19	\$1,468	\$20	\$312	\$1,156	\$1,278	-10%
420	Marina	boat berth	2.96	ITE 9th Edition	5.88	6.38	Same as LUC 210	90%	FL Schedules	6.71	\$3,085	\$41	\$641	\$2,444	\$1,968	24%
430	Golf Course	18 holes	643.32	ITE 9th Edition	5.88	6.38	Same as LUC 210	90%	FL Schedules	1458.81	\$670,596	\$8,962	\$140,005	\$530,591	\$428,222	24%
n/a	Bundled Golf Course ⁽³⁾	18 holes	193.00	ITE 9th Edition (LUC 430, Adjusted)	5.88	6.38	Same as LUC 430	90%	Same as LUC 430	437.65	\$201,183	\$2,689	\$42,008	\$159,175	\$428,222	-63%
444	Movie Theater w/Matinee	screen	106.63	Blend ITE 6th & FL Studies	2.22	2.72	FL Studies	88%	FL Studies	89.26	\$41,033	\$619	\$9,670	\$31,363	\$25,202	24%
n/a	Dance Studios/Gym	1,000 sf	21.33	Local Studies	2.97	3.47	Same as LUC 826	80%	Same as LUC 826	21.72	\$9,983	\$144	\$2,250	\$7,733	\$6,296	23%
INSTITUTIONS:																
520	Elementary School (Private)	student	1.29	ITE 9th Edition	4.30	4.80	FL Schedules	80%	FL Schedules	1.90	\$874	\$12	\$187	\$687	\$584	18%
522	Middle School (Private)	student	1.62	ITE 9th Edition	4.30	4.80	FL Schedules	90%	FL Schedules	2.69	\$1,235	\$17	\$266	\$969	\$816	19%
530	High School (Private)	student	1.71	ITE 9th Edition	4.30	4.80	FL Schedules	90%	FL Schedules	2.84	\$1,304	\$18	\$281	\$1,023	\$863	19%

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	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
INSTITUTIONS:																
540	University/Junior College (7,500 or fewer students) (Private)	student	2.00	ITE Regression Analysis	5.88	6.38	Same as LUC 210	90%	FL Schedules	4.54	\$2,085	\$28	\$437	\$1,648	\$1,325	24%
550	University/Junior College (more than 7,500 students) (Private)	student	1.50	ITE Regression Analysis	5.88	6.38	Same as LUC 210	90%	FL Schedules	3.40	\$1,564	\$21	\$328	\$1,236	\$1,001	24%
560	Church	seat	0.61	ITE 9th Edition	3.90	4.40	FL Schedules	90%	FL Schedules	0.92	\$422	\$6	\$94	\$328	\$318	3%
565	Day Care	student	4.38	ITE 9th Edition	2.03	2.53	FL Studies	73%	FL Studies	2.78	\$1,279	\$20	\$312	\$967	\$803	20%
610	Hospital	1,000 sf	13.22	ITE 9th Edition	5.88	6.38	Same as LUC 210	77%	FL Schedules	25.65	\$11,790	\$158	\$2,468	\$9,322	\$9,394	-1%
620	Nursing Home	bed	2.76	Blend ITE 9th & FL Studies	2.59	3.09	FL Studies	89%	FL Studies	2.73	\$1,253	\$18	\$281	\$972	\$692	40%
OFFICE:																
710	General Office 6,000 sf or less ⁽⁴⁾	1,000 sf	11.02	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	22.37	\$10,285	\$139	\$2,171	\$8,114	\$9,291	-13%
	General Office 6,001-100,000 sf ⁽⁴⁾	1,000 sf	13.13	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	26.66	\$12,254	\$166	\$2,593	\$9,661	\$7,920	22%
	General Office 100,001-200,000 sf ⁽⁴⁾	1,000 sf	11.12	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	22.58	\$10,378	\$140	\$2,187	\$8,191	\$6,758	21%
	General Office 200,001-400,000 sf ⁽⁴⁾	1,000 sf	9.41	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	19.10	\$8,782	\$119	\$1,859	\$6,923	\$5,761	20%
	General Office greater than 400,000 sf ⁽⁴⁾	1,000 sf	8.54	ITE 9th equation	5.15	5.65	FL Studies	92%	FL Studies	17.34	\$7,970	\$108	\$1,687	\$6,283	\$5,249	20%
720	Medical Office/Clinic 10,000 sf or less	1,000 sf	23.83	Local Studies	5.55	6.05	FL Studies	89%	FL Studies	50.44	\$23,186	\$311	\$4,858	\$18,328	\$14,780	24%
	Medical Office/Clinic greater than 10,000 sf	1,000 sf	34.72	Blend ITE 9th & FL Studies	5.55	6.05	FL Studies	89%	FL Studies	73.49	\$33,781	\$454	\$7,092	\$26,689	\$22,302	20%
770	Business Park (Flex-Space)	1,000 sf	12.65	Blend ITE 9th & Local Studies	5.38	5.88	FL Studies	89%	FL Studies	25.95	\$11,931	\$161	\$2,515	\$9,416	\$7,801	21%
RETAIL:																
820	Retail 6,000 sfgla or less ⁽⁴⁾	1,000 sfgla	86.56	ITE 9th equation (use 50k TGR)	1.12	1.62	FL Curve	39%	FL Curve	16.20	\$7,448	\$133	\$2,078	\$5,370	\$10,839	-51%
	Retail 6,001-25,000 sfgla ⁽⁴⁾	1,000 sfgla	86.56	ITE 9th equation (use 50k TGR)	1.58	2.08	FL Curve	50%	FL Curve	29.30	\$13,470	\$218	\$3,406	\$10,064	\$10,839	-7%
	Retail 25,001-50,000 sfgla ⁽⁴⁾	1,000 sfgla	86.56	ITE 9th equation	1.87	2.37	FL Curve	56%	FL Curve	38.84	\$17,855	\$279	\$4,359	\$13,496	\$10,839	25%
	Retail 50,001-100,000 sfgla ⁽⁴⁾	1,000 sfgla	67.91	ITE 9th equation	2.29	2.79	FL Curve	62%	FL Curve	41.32	\$18,992	\$285	\$4,452	\$14,540	\$10,980	32%
	Retail 100,001-150,000 sfgla ⁽⁴⁾	1,000 sfgla	58.93	ITE 9th equation	2.34	2.84	FL Curve	65%	FL Curve	38.41	\$17,655	\$264	\$4,124	\$13,531	\$10,247	32%
	Retail 150,001-200,000 sfgla ⁽⁴⁾	1,000 sfgla	53.28	ITE 9th equation	2.40	2.90	FL Curve	67%	FL Curve	36.71	\$16,876	\$251	\$3,921	\$12,955	\$9,816	32%
	Retail 200,001-400,000 sfgla ⁽⁴⁾	1,000 sfgla	41.80	ITE 9th equation	2.64	3.14	FL Curve	73%	FL Curve	34.52	\$15,868	\$232	\$3,624	\$12,244	\$9,295	32%
	Retail 400,001-600,000 sfgla ⁽⁴⁾	1,000 sfgla	36.27	ITE 9th equation	2.87	3.37	FL Curve	76%	FL Curve	33.90	\$15,583	\$225	\$3,515	\$12,068	\$9,282	30%
	Retail 600,001-1,000,000 sfgla ⁽⁴⁾	1,000 sfgla	30.33	ITE 9th equation	3.34	3.84	FL Curve	81%	FL Curve	35.16	\$16,163	\$229	\$3,577	\$12,586	\$10,074	25%
	Retail greater than 1,000,000 sfgla ⁽⁴⁾	1,000 sfgla	28.46	ITE 9th equation	3.57	4.07	FL Curve	82%	FL Curve	35.70	\$16,411	\$230	\$3,593	\$12,818	\$10,596	21%

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	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
RETAIL:																
826	Specialty Retail	1,000 sf	49.99	Blend ITE 9th & FL Studies	2.97	3.47	FL Studies	80%	FL Studies	50.90	\$23,396	\$337	\$5,265	\$18,131	\$14,753	23%
841	New/Used Auto Sales	1,000 sf	28.25	Blend ITE 9th & FL Studies	4.60	5.10	FL Studies	79%	FL Studies	43.99	\$20,222	\$276	\$4,312	\$15,910	\$13,555	17%
849	Tire Superstore	service bay	30.55	ITE 9th Edition	2.32	2.82	Same as LUC 941	72%	Same as LUC 941	21.87	\$10,052	\$150	\$2,343	\$7,709	\$6,057	27%
850	Supermarket	1,000 sf	103.38	Blend ITE 9th & FL Studies	2.08	2.58	FL Studies	56%	FL Studies	51.60	\$23,719	\$362	\$5,655	\$18,064	\$14,507	25%
851	Convenience Market (24 hour):	1,000 sf	719.18	Blend ITE 9th & FL Studies	1.52	2.02	FL Studies	41%	FL Studies	192.05	\$88,283	\$1,445	\$22,574	\$65,709	\$52,648	25%
853	Convenience Store with Gas Pumps	fuel pos.														
	4 or less Fuel Positions	fuel pos.	542.60	ITE 9th Edition	1.13	1.63	FL Studies (Collier)	28%	FL Studies	73.56	\$33,817	\$601	\$9,389	\$24,428	\$20,199	21%
	5-6 Fuel Positions	fuel pos.	439.92	ITE 9th Edition (Adjusted)	1.13	1.63	FL Studies (Collier)	28%	FL Studies	59.64	\$27,417	\$487	\$7,608	\$19,809	\$16,376	21%
	7-8 Fuel Positions	fuel pos.	375.12	ITE 9th Edition (Adjusted)	1.13	1.63	FL Studies (Collier)	28%	FL Studies	50.86	\$23,379	\$415	\$6,483	\$16,896	\$13,964	21%
	9-10 Fuel Positions	fuel pos.	319.20	ITE 9th Edition (Adjusted)	1.13	1.63	FL Studies (Collier)	28%	FL Studies	43.28	\$19,894	\$353	\$5,515	\$14,379	\$11,880	21%
	11-12 Fuel Positions	fuel pos.	289.92	ITE 9th Edition (Adjusted)	1.13	1.63	FL Studies (Collier)	28%	FL Studies	39.31	\$18,069	\$321	\$5,015	\$13,054	\$10,795	21%
	13 or more Fuel Positions	fuel pos.	264.00	ITE 9th Edition (Adjusted)	1.13	1.63	FL Studies (Collier)	28%	FL Studies	35.79	\$16,453	\$292	\$4,562	\$11,891	\$9,823	21%
862	Home Improvement Superstore	1,000 sf	30.74	ITE 9th Edition	2.34	2.84	Same as LUC 820 (100-150K)	65%	Same as LUC 820 (100-150K)	20.03	\$9,210	\$138	\$2,156	\$7,054	\$5,486	29%
881	Pharmacy/Drug Store with and without Drive-Thru	1,000 sf	95.96	Blend ITE 9th & FL Studies	2.08	2.58	FL Studies	32%	FL Studies	27.37	\$12,581	\$192	\$2,999	\$9,582	\$7,678	25%
890	Furniture Store	1,000 sf	5.23	Blend ITE 9th & Local Studies	4.05	4.55	Local Studies and FL Studies	78%	Local Studies and FL Studies	7.08	\$3,254	\$45	\$703	\$2,551	\$2,053	24%
911	Bank/Savings Walk-In ⁽⁵⁾	1,000 sf	121.30	ITE 9th Edition	2.46	2.96	Same as LUC 912	46%	Same as LUC 912	58.82	\$27,038	\$401	\$6,264	\$20,774	\$21,559	-4%
912	Bank/Savings Drive-In	1,000 sf	159.34	Blend ITE 9th & FL Studies	2.46	2.96	FL Studies	46%	FL Studies	77.26	\$35,517	\$526	\$8,217	\$27,300	\$21,954	24%
931	Low-Turnover Restaurant	seat	2.86	ITE 9th Edition	3.14	3.64	FL Studies	77%	FL Studies	2.96	\$1,362	\$19	\$297	\$1,065	\$848	26%
932	High-Turnover Restaurant	seat	4.83	ITE 9th Edition	3.17	3.67	FL Studies	71%	FL Studies	4.66	\$2,141	\$31	\$484	\$1,657	\$1,346	23%
934	Fast Food Rest. w/Drive-Thru	1,000 sf	511.00	Blend ITE 9th & FL Studies	2.05	2.55	FL Studies	58%	FL Studies	260.35	\$119,679	\$1,834	\$28,651	\$91,028	\$74,793	22%
941	Quick Lube	service bay	40.00	ITE 9th Edition	2.32	2.82	Mid-Point of Gas Stn and LUC 942 (see App. A)	72%	Same as LUC 942 (see Appendix A)	28.63	\$13,161	\$197	\$3,078	\$10,083	\$7,920	27%
944/ 946	Gasoline/Service Station with or w/o Car Wash	fuel pos.	157.33	ITE 9th Edition (944 & 946 Blend)	1.01	1.51	Florida Studies (Collier)	23%	FL Studies	15.66	\$7,199	\$133	\$2,078	\$5,121	\$4,377	17%
947	Self-Service Car Wash	service bay	43.94	Blend ITE 9th & FL Studies	2.18	2.68	FL Studies	68%	FL Studies	27.91	\$12,830	\$194	\$3,031	\$9,799	\$19,722	-50%
948	Automated Car Wash ⁽⁶⁾	1,000 sf	141.20	ITE 9th Edition	2.18	2.68	Same as LUC 947	68%	Same as LUC 947	89.69	\$41,230	\$624	\$9,748	\$31,482	\$21,258	48%
n/a	Luxury Auto Sales	1,000 sf	16.30	Independent Studies	4.80	5.30	Independent Studies	85%	Independent Studies	28.50	\$13,100	\$178	\$2,781	\$10,319	\$8,324	24%

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	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Current Impact Fee	% Change
INDUSTRIAL:																
110	General Light Industrial	1,000 sf	6.97	ITE 9th Edition	5.38	5.88	Same as LUC 770	92%	Same as LUC 710	14.78	\$6,795	\$91	\$1,422	\$5,373	\$4,333	24%
140	Manufacturing	1,000 sf	3.82	ITE 9th Edition	5.38	5.88	Same as LUC 770	92%	Same as LUC 710	8.10	\$3,724	\$50	\$781	\$2,943	\$2,395	23%
150	Warehousing	1,000 sf	3.56	ITE 9th Edition	5.38	5.88	Same as LUC 770	92%	Same as LUC 710	7.55	\$3,471	\$47	\$734	\$2,737	\$2,206	24%
151	Mini-Warehouse	1,000 sf	2.15	Blend ITE 9th & FL Studies	3.10	3.60	FL Schedules	92%	Same as LUC 710	2.63	\$1,208	\$17	\$266	\$942	\$883	7%
n/a	Mine ⁽⁷⁾	1,000 cy	0.01	Local Studies	14.82	15.32	Local Studies	97%	Local Studies	0.05	\$24	\$1	\$16	\$8	\$6	42%

- (1) 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) The ITE 9th Edition trip generation rate was adjusted to reflect the average occupancy rate of 60 percent based on data provided by the Florida Association of RV Parks and Campgrounds
- (3) The trip generation rate for “bundled golf course” is assessed at 30 percent of the trip generation rate for the “golf course” land use
- (4) The trip generation rates recommended for the offices and shopping centers uses the end-point regression value
- (5) Walk-In Bank was added back in the ITE 9th Edition; Peak hour of adjacent street traffic (one hr between 4pm and 6pm) multiplied by 10
- (6) Peak hour of adjacent street traffic multiplied by 10
- (7) The mines land use impact fee rate was calculated using an I/T adjustment factor of 27.3% and a fuel efficiency value of 6.2 gallons per mile based on the 2009 Collier County Mines Trip Characteristics Study, Tindale-Oliver