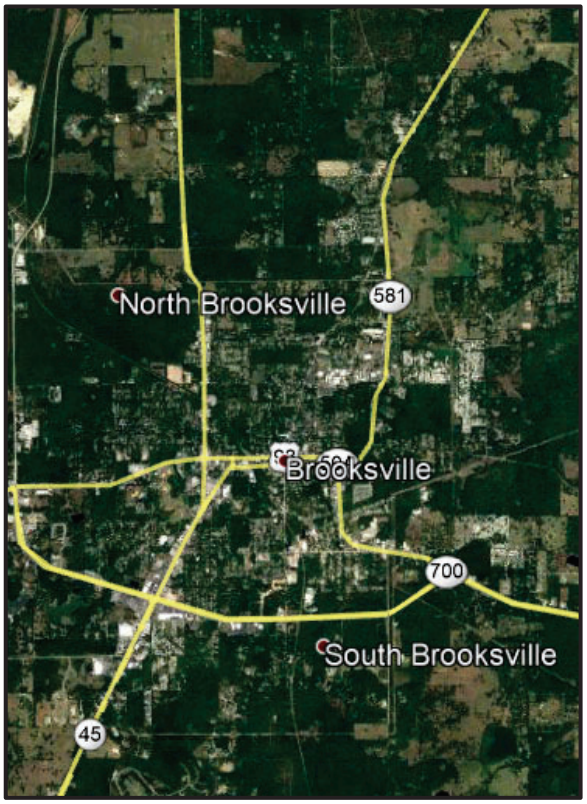
Hernando County Roads Impact Fee Update Study

Final Report
April 7, 2022



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Hernando County
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Table of Contents

Appendices:

Appendix A: Demand Component

Appendix B: Cost Component

Appendix C: Credit Component

Appendix D: Calculated Roads Impact Fee Schedule

Introduction

Hernando County's Roads Impact Fee Ordinance was originally adopted and went into effect in 1986 to assist the County in providing adequate roadway facilities for expected growth. The fee has since been updated multiple times, with the most recent update occurring in 2013. The current rates are based on the Hernando County Board of County Commission's policy decision to adopt the 2013 study at 22 percent of the full calculated fee levels. To reflect most recent and localized data, the County retained Benesch (formerly Tindale Oliver) to update the technical study that will be the basis for the updated fee schedule. The figures included in this study represent the technically calculated level of impact fees that the County could charge; however, the Board of County Commission may choose to discount the fees as a policy decision.

The data and information in this report was collected primarily in 2019; however, the calculations were reviewed and updated recently to reflect Institute of Transportation Engineers Trip Generation Handbook 11th Edition that was published in September 2021. Other variables were also reviewed; however, variations from the original data were not at a level to require additional changes in the fee calculations.

Methodology

Consistent with the County's current adopted methodology, the methodology used for the roads 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 roads impact fee. The general equation used to compute the impact fee for a given land use is:

[Demand x Cost] – Credit = Fee

The "demand" for travel placed on a roadway system is expressed in units of Vehicle-Miles of Travel (VMT) (daily vehicle-trip generation rate x the trip length x the percent new trips [of total trips]) for each land use contained in the impact fee schedule. Trip generation represents the average daily rates since new development consumes trips on a daily basis.

The “cost” of building new capacity is typically expressed in units of dollars per vehicle-mile of roadway capacity. Consistent with the current adopted methodology, the cost is based on recent roadway costs for county and state facilities.

The “credit” is an estimate of future non-impact fee revenues generated by new development that are allocated to provide roadway capacity expansion. The impact fee is considered to be an “up front” payment for a portion of the cost of a lane-mile of capacity that is 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 the new development activity over the next 25 years. These credits are required under the supporting case law for the calculation of impact fees where a new development activity must be reasonably assured that they are not paying, or being charged, twice for the same level of service.

The input variables used in the fee equation are as follows:

Demand Variables:

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

Cost Variables:

- Cost per lane-mile
- Capacity added per lane mile constructed

Credit Variables:

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

Legal Overview

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

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

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

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

- **HB 227 in 2009: The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.**
- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of Community Affairs (now the Department of Economic Opportunity) and Florida Department of Transportation (FDOT) to conduct studies on "mobility fees," which were completed in 2010.
- **HB 7207 in 2011:** Required a dollar-for-dollar credit, for purposes of concurrency compliance, for impact fees paid and other concurrency mitigation required. The payment must be reduced by the percentage share the project's traffic represents of the added capacity of the selected improvement (up to a maximum of 20 percent or to an

amount specified by ordinance, whichever results in a higher credit). The courts have not yet taken up the issue of whether a local government may still charge an impact/mobility fee in lieu of proportionate share if the impact/mobility fee is higher than the calculated proportionate share contribution.

- **HB 319 in 2013:** Applied mostly to concurrency management authorities, but also encouraged local governments to adopt alternative mobility systems using a series of tools identified in section 163.31801(5)(f), Florida Statutes.

  Under HB 319, a mobility fee funding system expressly must comply with the dual rational nexus test applicable to traditional impact fees. Furthermore, any mobility fee revenues collected must be used to implement the local government's plan, which served as the basis for the fee. Finally, under HB 319, an alternative mobility system, that is not mobility fee-based, must not impose upon new development any responsibility for funding an existing transportation deficiency.
- **HB 207 in 2019:** Included the following changes to the Impact Fee Act along with additional clarifying language:
  1. Impact fees cannot be collected prior to building permit issuance; and
  2. Impact fee revenues cannot be used to pay debt service for previously approved projects unless the expenditure is reasonably connected to, or has a rational nexus with, the increased impact generated by the new residential and commercial construction.
- **HB 7103 in 2019:** Addressed multiple issues related to affordable housing/linkage fees, impact fees, and building services fees. In terms of impact fees, the bill required that when local governments increase their impact fees, the outstanding impact fee credits for developer contributions should also be increased. This requirement was to operate prospectively; however, HB 337 that was signed in 2021 deleted this clause and made all outstanding credits eligible for this adjustment. This bill also allowed local governments to waive/reduce impact fees for affordable housing projects without having to offset the associated revenue loss.
- **SB 1066 in 2020:** Added language allowing impact fee credits to be assignable and transferable at any time after establishment from one development or parcel to another that is within the same impact fee zone or impact fee district or that is within an adjoining impact fee zone or district within the same local government jurisdiction. In addition, added language indicating any new/increased impact fee not being applicable to current or pending permit applications submitted prior to the effective date of an ordinance or resolution imposing new/increased fees.

- **HB 1339 in 2020:** Requires reporting of various impact fee related data items within the annual financial audit report submitted to the Department of Financial Services.
- **HB 337 in 2021:** Placed limits on the amount and frequency of fee increases, but also included a clause to exceed these restrictions if the local governments can demonstrate extraordinary circumstances, hold two public workshops discussing these circumstances and the increases are approved by two-thirds of the governing body. This act is retroactive to January 1, 2021.

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

Impact Fee Definition

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

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established based upon the specific benefit to the user related to a given infrastructure type and is not established for the primary purpose of generating revenue for the general benefit of the community, as are taxes.
- Impact fee expenditures must convey a proportional benefit to the fee payer. This is accomplished through the establishment of benefit districts, where fees collected in a benefit district are spent in the same benefit district.
- An impact fee must be tied to a proportional need for new infrastructure capacity created by new development.

This technical report has been prepared to support legal compliance with existing case law and statutory requirements. Information supporting this analysis was obtained from the County and other sources, as indicated.

Demand Component

Travel Demand

Travel demand is the amount of a roadway system consumed by a unit of new land development activity. Demand is calculated using the following variables and is measured in terms of vehicle-miles of new travel (VMT) a unit of development places on the existing roadway system:

- Number of daily trips generated (Trip Generation Rate = TGR)
- Average length of those trips (Trip Length = TL)
- Proportion of travel that is new travel, rather than travel that is already traveling on the road system and is captured by new development (Percent New Trips = PNT)

As part of this update, the trip characteristics variables were primarily obtained from two sources: (1) trip characteristics studies previously conducted throughout Florida (Florida Studies Database) and (2) the Institute of Transportation Engineers' (ITE) *Trip Generation Handbook* (11th Edition). The Florida Studies Database (included in Appendix A) was used to determine trip length, percent new trips, and the trip generation rate for several land uses. In addition, Tables A-35 through A-38 provide a comparison of the changes to the demand variables used in the 2013 study and this update study.

Land Use Changes

As part of this update study, several land uses were revised/added/removed from the Hernando County fee schedule to reflect the most recent ITE Trip Generation Handbook data or to provide additional land uses that the County may be permitting.

ITE Trip Generation Handbook Adjustments

Hernando County's 2013 study was based on the ITE 9th Edition data. The 10th Edition was published in 2017 and included significant changes, such as removal of all trip characteristics studies conducted prior to 1980, addition of new studies, and regrouping of certain land uses. In fall 2021, the 11th Edition was published and included several minor adjustments and re-alignment of a handful of land uses. The following paragraphs summarize resulting changes to the land uses that are included in the County's fee schedule.

Residential Condominium/Townhouse

The current roads impact fee schedule includes a "residential condominium/townhouse" land use. ITE 11th Edition has re-worked this land use slightly and changed the description to "Single Family Attached Housing. This land use includes duplexes and townhouses/rowhouses that are joined side-by-side, each with an outside entrance.

Multi-Family Housing

The current roads impact fee schedule includes a single "multi-family (apartment)" land use. ITE 11th Edition has re-worked this land use, with differentiation in trip generation rate based on the number of stories. This change is incorporated into the impact fee schedule, shown by Land Use Code (LUC) used by ITE:

- LUC 220 (multi-family, low-rise, 1-3 floors) – includes apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have two or three levels (floors).
- LUC 221 (multi-family, mid-rise, 4-10 floors) – includes apartments and condominiums located in a building that has between four and 10 levels (floors). Access to individual dwelling units is through an outside building entrance, a lobby, elevator, and a set of hallways.
- LUC 222 (multi-family, high-rise, >10 floors) – includes apartments, townhouses, and condominiums. Each building has more than 10 floors of living space and access to individual dwelling units is through an outside building entrance, a lobby, elevators, and a set of hallways.

Due to similar trip generation rate data, the mid-rise and high-rise land uses were combined into a single land use category (Multi-Family Mid/High Rise, 4 or more floors) for the road impact fee study.

While the Hernando County Code of Ordinances states that no multi-family building shall exceed three stories, it is possible to receive height deviations for mid-rise multi-family development through the planned development process (PDP).

Senior Adult Housing (Detached)

This land use appears in the current roads impact fee schedule as "Retirement Community/Age-Restricted (Detached)" and was renamed to "Senior Adult Housing (Detached)" to correspond with the ITE 11th Edition definition and to differentiate from the other similar land uses. Senior adult housing consists of detached independent living developments, including retirement

communities, age-restricted housing, and active adult communities. These developments may include amenities such as golf courses, swimming pools, 24-hour security, transportation, and common recreational facilities. However, they generally lack centralized dining and on-site health facilities. Detached senior adult housing communities may or may not be gated. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.

General Office

For the general office land use, the updated trip generation rate data in ITE 11th Edition indicate that there is little variation in the trip generation rate as the square footage of the facility increases. Therefore, the updated impact fee schedule includes a single office fee rate as opposed to current roads impact fee schedule, which includes three office rate tiers (100,000 sq ft or less; 100,001-200,000 sq ft; greater than 200,000 sq ft).

Retail (General Commercial)

The current roads impact fee schedule includes two general commercial tiers (50,000 sfgla or less; greater than 50,000 sfgla). ITE 11th Edition has divided this land us into three separate categories based on the size of development. The updated configurations are reflected in the impact fee schedule:

- Retail/Shopping Center less than 40,000 sfgla
- Retail/Shopping Center 40,000 to 15,000 sfgla
- Retail/Shopping Center greater than 150,000 sfgla

Gas Station w/Convenience Market

The current roads impact fee schedule includes a "service station" land use (LUC 944). ITE 11th Edition has realigned this use with other similar uses and added tiering to account for variation in the size of the convenience market:

- LUC 944: Gas Station w/Convenience Market <2,000 sq ft
- LUC 945: Gas Station w/Convenience Market 2,000 to 5,499 sq ft
- LUC 945: Gas Station w/Convenience Market 5,500+ sq ft

This re-alignment eliminates the need for a similar use in the existing roads impact fee schedule, LUC 853 (convenience market w/gasoline), and therefore, LUC 853 was removed to simplify the County's roads impact fee schedule and reduce any potential confusion in terms of classifying new development.

General Heavy Industrial

ITE 10th and 11th Editions have removed older trip characteristics studies that were conducted before 1980. As a result, certain land uses, including "General Heavy Industrial" are not present in the trip generation rate manual any longer. Therefore, this land use has also been removed from the transportation impact fee schedule. If the City receives any applications for this type of development, the "Manufacturing" fee rate should be applied.

Significant ITE Adjustments

As previously mentioned, the ITE 10th and 11th Editions included significant changes, which affect the impact fee rates. Below is a listing of several land uses that show significant trip generation rate variation when compared to the previous update study. Additional detail is provided in Appendix A, Table A-36.

- Multi-Family (Mid/High-Rise): -31%
- Motel: -40%
- Golf Course: -26%
- Elementary School: +76%
- Middle School: +30%
- Day Care Center: -31%
- Building Materials/Lumber Store: -62%
- Hardware/Paint Store: -84%
- Retail/Shopping Center less than 40,000 sfgla: -37%
- Retail/Shopping Center 40,000 to 150,000 sfgla: +86%
- Furniture Store: +25%
- Bank/Savings with Drive-Thru: -35%
- Gas Station w/Convenience Market 2,000 to 5,499 sq ft: +57%
- Gas Station w/Convenience Market 5,500+ sq ft: +105%
- General Light Industrial: -30%
- Industrial Park: -51%
- Manufacturing: +24%
- Warehouse: -52%
- Mini-Warehouse: -32%

Additional Land Uses for Consideration

Discussions with Hernando County representatives suggested that the addition of following land uses may be beneficial as the permitting of these types of land uses seems to be increasing.

Senior Adult Housing (Attached)

This land use was added to the land use schedule for consideration. Senior adult housing consists of attached independent living developments, including retirement communities, age-restricted housing, and active adult communities. These developments may include limited social or recreational services. However, they generally lack centralized dining and on-site medical facilities. Residents in these communities live independently, are typically active (requiring little to no medical supervision) and may or may not be retired.

Assisted Living

An assisted living complex is a residential setting that provides either routine general protective oversight or assistance with activities necessary for independent living to mentally or physically limited persons. It commonly has separate living quarters for residents. Its services typically include dining, housekeeping, social and physical activities, medication administration, and transportation. Alzheimer's and ALS care are commonly offered by these facilities, though the living quarters for these patients may be located separately from the other residents. Assisted care commonly bridges the gap between independent living and nursing homes. Staff may be available at an assisted care facility 24 hours a day, but skilled medical care – which is limited in nature – is not required.

Continuing Care Retirement Center

This land use was added to the land use schedule for consideration. A continuing care retirement center (CCRC) is a land use that provides multiple elements of senior adult living. CCRCs combine aspects of independent living with increased care, as lifestyle needs change with time. Housing options may include various combinations of senior adult (detached), senior adult (attached), congregate care, assisted living, and skilled nursing care – aimed at allowing the residents to live in one community as their medical needs change. The communities may also contain special services such as medical, dining, recreational, and some limited, supporting retail facilities. CCRCs are usually self-contained villages.

Public Assembly

This land use was added to the land use schedule for consideration. Examples of this land use include, but are not limited to gathering places used by religious, fraternal or other non-profit organizations, such as Veterans of Foreign Wars (VFW), Rotary Club, etc.

Interstate & Toll Facility Adjustment Factor

This variable is used to recognize that interstate highway and toll facility improvements are funded by the State (specifically, the Florida Department of Transportation) using earmarked State and Federal funds. Typically, roads impact fees are not used to pay for these improvements and the portion of travel occurring on the interstate/toll facility system is usually eliminated from the total travel for each use.

To calculate the interstate and toll (I/T) facility adjustment factor, the loaded highway network file was generated using the Tampa Bay Regional Planning Model (TBRPM v8.2a). A select zone analysis was run for all traffic analysis zones located within the Hernando County in order to differentiate trips with an origin and/or destination within the county versus trips that simply passed through the county.

The analysis reviewed trips on all interstate and toll facilities within Hernando County, including, Interstate 75 and the Suncoast Parkway. The limited access vehicle-miles of travel (Limited Access VMT) for county-generated trips with an origin and/or destination within county was calculated for the identified limited access facilities. Next, the total VMT was calculated for all county-generated trips with an origin and/or destination within Hernando County for all roads, including limited access facilities.

The I/T adjustment factor of 8.1 percent was determined by dividing the total limited access VMT by the total countywide VMT. Total county VMT reduced by this factor is representative of only the roadways that are eligible to be funded with roads impact fee revenues. Appendix A, Table A-1 provides further detail on this calculation.

Cost Component

Cost information from Hernando County and other counties in Florida was reviewed to develop a unit cost for all phases involved in the construction of one lane-mile of roadway capacity. Appendix B provides the data and other support information utilized in these analyses.

County Roadway Cost

This section examines the right-of-way (ROW), construction, and other cost components associated with county roads with respect to roadway capacity expansion improvements in Hernando County. In addition to local data, bid data for recently completed/ongoing projects throughout Florida were used to supplement the cost data for county roadway improvements. The cost for each roadway capacity project was separated into four components: design, right-of-way (ROW), construction, and construction engineering/inspection (CEI).

Design and CEI

Design costs for county roads were estimated at 11 percent of construction phase costs based on a review of recent roads/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-2.

CEI costs for county roads were estimated at nine (9) percent of construction phase costs based on a review of recent roads/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-8.

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. Due to limited recent local acquisition data, this factor was determined through a review of the ROW-to-construction cost ratios for county road unit costs in previously completed impact fee studies throughout Florida. For county roadways, the ROW factors ranged from 32 percent to 60 percent with an average of 42 percent. For purposes of this update study and based on discussions with County representatives, the ROW cost for county roads is estimated at 40 percent of the construction cost per lane mile. Additional detail is provided in Appendix B, Table B-3.

Construction

The construction cost for county roads was based on recently bid projects and future estimates in Hernando County and in other communities in Florida. A review of construction cost of improvements in Hernando County since 2013 identified two capacity expansion projects:

- Cortez Blvd Frontage Rd @ I-75
- Barclay Ave from San Antonio Rd to Powell Rd/Elgin Blvd

The Cortez Blvd improvement features a curb & gutter design with a construction cost of $1.67 million per lane mile, which is reflective of lower costs associated with frontage roads. The Barclay Ave project features an open drainage design with a construction cost estimate of $2.73 million per lane mile.

Curb & Gutter Design

In addition to the Cortez Blvd project in Hernando County, recent improvements from other suburban/rural counties throughout Florida were reviewed to increase the sample size. This review included over 98 lane miles of lane addition and new road construction improvements with a weighted average cost of approximately $2.80 million per lane mile. Additional data is provided in Appendix B, Table B-4.

Based on a review of these data sets and discussions with County representatives, construction cost is estimated at **$2.80 million** per lane mile for curb & gutter county road improvements.

Open Drainage Design

Due to the small sample of open drainage capacity projects, the cost per lane mile for county roads with open drainage-design characteristics was calculated based on the relationship between curb & gutter and open drainage roadway costs from the FDOT District 7 Long Range Estimates (LRE). Based on these cost estimates, the costs for roadways with open drainage-design characteristics were estimated at approximately 74 percent of the costs for roadways with curb & gutter-design characteristics. Additional detail is provided in Appendix B, Tables B-1 and B-5.

To determine the weighted average cost for county roadways, the cost for curb & gutter and open drainage roadways were weighted based on the distribution of Hernando County roadways included in the Hernando-Citrus MPO's 2045 Long Range Transportation Plan's (LRTP) Cost Feasible Plan. As shown in Table 1, the weighted average county roadway construction cost was

calculated at approximately $2.11 million per lane mile, with a total weighted average cost of $3.37 million per lane mile for county roadways.

Table 1

Estimated Total Cost per Lane Mile for County Roads

Cost Phase	Cost per Lane Mile		
	Curb & Gutter	Open Drainage[5]	Weighted Average[6]
Design[1]	$308,000	$228,000	$232,000
Right-of-Way[2]	$1,120,000	$829,000	$844,000
Construction[3]	$2,800,000	$2,072,000	$2,108,000
CEI[4]	$252,000	$186,000	$189,000
Total Cost	**$4,480,000**	**$3,315,000**	**$3,373,000**
Lane Mile Distribution[7]	5%	95%	100%

1) Design is estimated at 11% of construction costs
2) Right-of-Way is estimated at 40% of construction costs
3) Source: Appendix B, Table B-4
4) CEI is estimated at 9% of construction costs
5) Open drainage costs are estimated at 74% of the curb & gutter costs
6) Lane mile distribution (Item 7) multiplied by the design, right-of-way, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile
7) Source: Appendix B, Table B-9; Items (c) and (d)

Note: All figures rounded to nearest $000

State Roadway Cost

This section examines the right-of-way (ROW), construction, and other cost components associated with state roads and other roadways built by FDOT with respect to roadway capacity expansion improvements in Hernando County. In addition to local data, bid data for recently completed/ongoing roadway projects and recent roadway construction bid data throughout Florida were used to supplement the cost data for state roadway improvements. The cost for each roadway capacity project was separated into four components: design, right-of-way (ROW), construction, and construction engineering/inspection (CEI).

Design and CEI

Design costs for state roads were estimated at 11 percent of construction phase costs based on a review of recent roads/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-2.

CEI costs for state roads were estimated at 11 percent of construction phase costs based on a review of recent roads/transportation impact fee studies throughout Florida. Additional detail is provided in Appendix B, Table B-8.

Right-of-Way

The ROW cost factor for state roads was estimated as a percentage of the construction cost per lane mile. Due to limited recent local acquisition data, this factor was determined through a review of the ROW-to-construction cost ratios for state road unit costs in previously completed impact fee studies throughout Florida. For state roadways, the ROW factors ranged from 32 percent to 60 percent with an average of 43 percent. For purposes of this update study, the ROW costs for state roads was estimated at 40 percent of the construction cost per lane mile. Additional detail is provided in Appendix B, Table B-3.

Construction

The construction cost for state roads (and other roadways built by FDOT) was based on recently bid projects in Hernando County and in other communities in Florida. A review of construction cost data for improvements in Hernando County since 2013 identified three capacity expansion projects:

- SR 50 from Windmere Rd to E. of US 301 (curb & gutter/open drainage)
- CR 578 (County Line Rd) from Suncoast Pkwy to US 41 @ Ayers Rd (curb & gutter)
- CR 578 (County Line Rd) from Springtime St to E. of Mariner Blvd (open drainage)

The SR 50 improvement includes a mix of curb & gutter/open drainage design with a construction cost of $4.71 million per lane mile, while the CR 578 project (Suncoast to Ayers) features a curb & gutter design with a construction cost of $3.38 million per lane mile. Combined, the curb & gutter improvements result in a weighted average construction cost of $4.25 million per lane mile. The CR 578 project (Springtime to Mariner) has an open drainage design on a very short roadway segment, resulting in a construction cost of $6.28 million per lane mile.

Curb & Gutter

In addition to the local projects, recent improvements from other suburban/rural counties throughout Florida were reviewed to increase the sample size. This review included approximately 247 lane miles of lane addition and new road construction improvements with a weighted average cost of approximately $3.97 million per lane mile. Additional data is provided in Appendix B, Table B-6.

Based on a review of these data sets and discussions with County representatives, a construction cost of **$4.20 million** per lane mile was used in the impact fee calculation for curb & gutter state road improvements. This estimate reflects local costs in Hernando County along with inclusion of certain amenities, such as shared-use paths, etc.

Open Drainage Design

Due to the small sample of open drainage improvements, the cost per lane mile for state roads with rural-design characteristics (open drainage) was calculated based on the relationship between urban and rural roadway costs from the FDOT District 7 Long Range Estimates (LRE). Based on these cost estimates, the costs for roadways with rural-design characteristics were estimated at approximately 74 percent of the costs for roadways with urban-design characteristics. Additional detail is provided in Appendix B, Tables B-1 and B-7.

To determine the weighted average cost for state roadways, the cost for curb & gutter and open drainage roadways were weighted based on the distribution of Hernando County roadways included in the Hernando-Citrus MPO's 2045 LRTP's Cost Feasible Plan. As shown in Table 2, the weighted average state roadway construction cost was calculated at approximately $3.16 million per lane mile, with a total weighted average cost of $5.12 million per lane mile for state roadways.

Table 2

Estimated Total Cost per Lane Mile for State Roads

Cost Phase	Cost per Lane Mile		
	Curb & Gutter	Open Drainage[5]	Weighted Average[6]
Design[1]	$462,000	$342,000	$348,000
Right-of-Way[2]	$1,680,000	$1,243,000	$1,265,000
Construction[3]	$4,200,000	$3,108,000	$3,163,000
CEI[4]	$462,000	$342,000	$348,000
Total Cost	**$6,804,000**	**$5,035,000**	**$5,124,000**
Lane Mile Distribution[7]	5%	95%	100%

1) Design is estimated at 11% of construction costs
2) Right-of-Way is estimated at 40% of construction costs
3) Source: Appendix B, Table B-6
4) CEI is estimated at 11% of construction costs
5) Open drainage costs are estimated at 74% of the curb & gutter costs
6) Lane mile distribution (Item 7) multiplied by the design, right-of-way, construction, and CEI phase costs by jurisdiction to develop a weighted average cost per lane mile
7) Source: Appendix B, Table B-9; Items (c) and (d)

Note: All figures rounded to nearest $000.

Summary of Costs (Blended Cost Analysis)

The weighted average cost per lane mile for county and state roads is presented in Table 3. The resulting weighted average cost of approximately $3.95 million per lane mile was utilized as the roadway cost input in the calculation of the roads impact fee rates. The weighted average cost per lane-mile includes county and state roads and is based on the lane miles distribution of the LRTP's Cost Feasible Plan (Appendix B, Table B-9).

It should be noted that the cost estimates developed for this impact fee study reflect a large sample size from several communities over the past seven years. When compared to the smaller sample of improvements observed over the last two to three years, the data and estimates used in this study represent a conservative approach. Additionally, these estimates account for Hernando County's suburban/rural nature, which tends to moderate roadway costs compared to some of the larger, more urbanized counties that are experiencing higher construction and land acquisition costs.

Table 3

Estimated Cost per Lane Mile for County and State Roadway Projects

Cost Phase	County Roads[1]	State Roads[2]	County and State Roads[3]
Design	$232,000	$348,000	**$270,000**
Right-of-Way	$844,000	$1,265,000	**$983,000**
Construction	$2,108,000	$3,163,000	**$2,456,000**
CEI	$189,000	$348,000	**$241,000**
Total Cost	**$3,373,000**	**$5,124,000**	**$3,950,000**
Lane Mile Distribution[4]	67%	33%	100%

1) Source: Table 1
2) Source: Table 2
3) Lane mile distribution (Item 4) multiplied by the individual component costs for county and state roads and then added together to develop a weighted average cost per lane-mile
4) Source: Appendix B, Table B-9

Vehicle-Miles of Capacity Added per Lane Mile

An additional component of the roads impact fee equation is the capacity added per lane-mile of roadway constructed. The VMC is an estimate of capacity added per lane mile, for county, developer, and state roadway improvements in the Hernando-Citrus MPO's 2045 LRTP (projects in Hernando only). As shown in Table 4, each lane mile will add approximately 11,200 vehicles.

Additional detail is provided in Appendix B, Table B-9.

Table 4

Weighted Average Vehicle-Miles of Capacity per Lane Mile

Road Type	Lane Miles Added[1]	Vehicle-Miles of Capacity Added[2]	VMC Added per Lane Mile[3]
County/Dev. Roads	64.80	729,444	11,257
State Roads	31.22	346,721	11,106
Total	**96.02**	**1,076,165**	
Weighted Average VMC Added per Lane Mile[4]			**11,200**

1) Source: Appendix B, Table B-9
2) Source: Appendix B, Table B-9
3) Vehicle-miles of capacity added (Item 2) divided by lane miles added (Item 1)
4) Total VMC added (Item 2) divided by total lane miles added (Item 1)

Cost per Vehicle-Mile of Capacity

The roadway cost per unit of development is assessed based on the cost per vehicle-mile of capacity. As shown in Tables 3 and 4, the cost and capacity for roadways in Hernando County have been calculated based on recent statewide improvements. As shown in Table 5, the cost per VMC for travel within the county is approximately **$353**.

The cost per VMC figure is used in the roads impact fee calculation to determine the total cost per unit of development based on vehicle-miles of travel consumed. For each vehicle-mile of travel that is added to the roadway system, approximately $353 of roadway capacity is consumed.

Table 5

Weighted Average Cost per Vehicle-Mile of Capacity Added

Road Type	Cost per Lane Mile[1]	Average VMC Added per Lane Mile[2]	Cost per VMC[3]
County Roads	$3,373,000	11,257	$299.64
State Roads	$5,124,000	11,106	$461.37
Total	**$3,950,000**	**11,200**	
Weighted Average VMC Added per Lane Mile[4]			**$352.68**

1) Source: Table 3
2) Source: Table 4
3) Average VMC added per lane mile (Item 2) divided by cost per lane mile (Item 1)

Credit Component

Capital Improvement Credit

The credit component of the impact fee accounts for the existing County and State funding sources that are being expended on roadway capacity expansion (excluding impact fee funds). This section summarizes the calculations utilized to develop the credit component to account for non-impact fee revenue contributions. Additional details are provided in Appendix C.

The present value of the average annual non-impact fee funding generated by new development over a 25-year period that is expected to fund capacity expansion projects was credited against the cost of the system consumed by travel associated with new development. In order to provide a connection to the demand component, which is measured in terms of travel, the non-impact fee dollars were converted to a fuel tax equivalency.

County Credit

A review of the County's recent historical expenditures and the FY 2020-2024 Capital Improvement Plan indicates that the majority of capacity expansion improvements are being funded through local option fuel tax and roads impact fees. As shown in Table 6, a total gas tax equivalent revenue credit of 0.2 pennies was calculated for the average annual non-impact fee funding of capacity expansion projects.

State Credit

As shown in Table 6, State expenditures in Hernando County were reviewed and a credit for the capacity-expansion portion attributable to state projects was estimated (excluding expenditures on limited access facilities). This review, which included ten years of historical expenditures, as well as five years of planned expenditures, indicated that FDOT's roadway spending generates a credit of 23.2 pennies of equivalent gas tax revenue, annually. Additional detail is provided in Appendix C, Table C-3.

In summary, Hernando County contributes 0.2 pennies while the State spends an average of 23.2 pennies, annually, for roadway capacity projects in the County. A total credit of 23.4 pennies is expected to be generated by new development from all non-impact fee revenues. These credit figures reflect the most recent available data for roadway expenditures from County and State sources.

Table 6

Equivalent Pennies of Gas Tax Revenue

Credit	Average Annual Expenditures	Value per Penny[3]	Average Annual Equivalent Pennies per Gallon[4]
County Revenue[1]	$144,199	$830,883	$0.002
State Revenue[2]	$19,252,150	$830,883	$0.232
Total	**$19,396,349**		**$0.234**

1) Source: Appendix C, Table C-2
2) Source: Appendix C, Table C-3
3) Source: Appendix C, Table C-1
4) Average annual expenditures divided by the value per penny (Item 4) divided by 100

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. This variable is used to calculate the present worth of the capital improvement credit.

- Interest Rate: This is the discount rate at which gasoline tax revenues might be bonded. It is used to compute the present value of the gasoline taxes generated by new development. The discount rate of 3.0 percent was used in the impact fee calculation based on estimates provided by the County.

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 annually (over 25 years) by travel associated with a particular land use.

Appendix C, Table C-7 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.

$$Fuel\ Efficiency = \sum VMT_{Roadway\ Type} \div \sum \left(\frac{VMT_{Vehicle\ Type}}{MPG_{Vehicle\ Type}} \right)_{Roadway\ Type}$$

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 2018*. Based on the calculation completed in Appendix C, Table C-7, the fuel efficiency rate to be used in the updated impact fee equation is 19.08 miles per gallon. The fuel efficiency has been increasing over time, which may be partially due to alternative fuels. However, this estimate is based on historical data and does not attempt to estimate future impact of alternative fuels.

Effective Days per Year

An effective 365 days per year of operations 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, ensures that non-impact fee contributions are adequately credited against the fee.

Calculated Roads Impact Fee Schedule

Detailed 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 capital improvement credit;
- Present value of the capital improvement credit; and
- Net roads impact fee.

It should be noted that the net impact fee illustrated in Appendix D is not necessarily a recommended fee, but instead represents the technically calculated impact fee per unit of land use that could be charged in Hernando County. The Board of County Commission may choose to discount the fees across-the-board as a policy decision.

For clarification purposes, it may be useful to walk through the calculation of an impact fee for one of the land use categories. In the following example, the net impact fee is calculated for the single-family residential detached land use category (ITE LUC 210) using information from the impact fee schedules included in Appendix D. For each land use category, the following equations are utilized to calculate the net impact fee:

Net Impact Fee = Total Impact Cost – Capital Improvement Credit

Where:

Total Roads Impact Cost = ([Trip Rate × Assessable Trip Length × Percent New Trips] / 2) × (1 – Interstate/Toll Facility Adjustment Factor) x (Cost per Vehicle-Mile of Capacity)

Capital Improvement Credit = Present Value (Annual Capital Improvement Credit), given 3.0 percent interest rate & a 25-year facility life

Annual Capital Improvement Credit = ([Trip Rate × Total Trip Length × Percent New Trips] / 2) × (Effective Days per Year × $/Gallon to Capital) / Fuel Efficiency

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

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.81)
- *Assessable Trip Length* = the average trip length on collector roads or above, for the category, in vehicle-miles (6.62) (excluding local neighborhood roads).
- *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 (6.62 + 0.50 = 7.12)
- *Percent New Trips* = adjustment factor to account for trips that are already on the roadway (100 percent)
- *Divide by 2* = the total daily miles of travel generated by a particular category (i.e., rate*length*percent 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 Adjustment Factor* = discount factor to account for travel demand occurring on interstate highways and/or toll facilities (8.1 percent)
- *Cost per Lane* Mile = unit cost to construct one lane mile of roadway, in $/lane-mile ($3,950,000)
- *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 (11,200)
- Cost *per Vehicle-Mile of Capacity* = unit of vehicle-miles of capacity consumed per unit of development ($352.68)
- *Present Value* = calculation of the present value of a uniform series of cash flows, gas tax payments in this case, given an interest rate, “i,” and a number of periods, “n;” for 3.00 percent interest and a 25-year facility life, the uniform series present worth factor is 17.4131
- *Effective Days per Year* = 365 days
- *$/Gallon to Capital* = the amount of equivalent gas tax revenue per gallon of fuel that is used for capital improvements, in $/gallon = $0.234
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (19.08)

Roads Impact Fee Calculation

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

Roads Impact Fee:

Total Impact Cost = ([7.81 * 6.62 * 1.0] /2) * (1 - 0.081) * ($352.68) = **$8,379**

Annual Cap. Improv. Credit = ([7.81 * 7.12 * 1.0] /2) * 365 * ($0.234 /19.08) = $124
Capital Improvement Credit = $124 * 17.4131 = $2,159

Net Impact Fee = $8,379 – $2,159 = **$6,220**

Roads Impact Fee Comparison

As part of the work effort in developing Hernando County's roads impact fee program, a comparison of calculated fees to roads/transportation impact fee schedules adopted in other jurisdictions was completed, as shown in Table 8.

Note that 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 variation in costs, credits, and travel demand, land use categories included in the fee schedule, etc.

When comparing the full calculated rates in this study to the full calculated rates from the 2013 Hernando County Transportation Impact Fee Update Study, the changes in cost and credit variables account for up to 4 percent increase. Additional increases and all of the decreases are due to the changes in the demand variables, as explained previously and detailed in Appendix A, Tables A-35 through A-38.

Table 8

Roads/Transportation Impact Fee Comparison

Land Use	Unit[2]	Hernando County			Citrus County[6]	Pasco County[7]			Polk County[8]	Sumter County[9]	Lake County[10]		Collier County[11]	Volusia County[12]	Osceola County[13]		Orange County[14]		
		Full Calculated[3]	Full Calculated[4]	Current Adopted[5]		Urban	Suburban	Rural			Central	South			Urban	Rural	Urban	Non-Urban/ Suburban	Rural
Date of Last Update		**2022**	2013	2013	2014/20	2018	2018	2018	2019	2019	2019	2019	2019	2018	2020	2020	2020	2020	2020
Assessed Portion of Calculated[1]		**100%**	100%	22%	n/a	n/a	n/a	n/a	100%	40%	26%	70%	100%	100%	100%	100%	100%	100%	100%
Residential:																			
Single Family Detached (2,000 sq ft)	du	**$6,220**	$5,767	$1,269	$1,815	$5,835	$8,570	$9,800	$2,380	$2,666	$1,000	$2,706	$8,090	$5,432	$9,999	$15,941	$8,218	$10,138	$11,586
Non-Residential:																			
Light Industrial	1,000 sf	**$2,746**	$3,662	$806	$506	$0	$0	$0	$855	$1,204	$638	$1,728	$4,584	$2,040	$2,274	$2,274	$3,117	$3,857	$4,410
Office (50,000 sq ft)	1,000 sf	**$6,129**	$6,889	$1,516	$1,435	$0	$0	$0	$2,356	$2,367	$935	$2,531	$8,605	$4,020	$6,025	$6,025	$8,132	$10,037	$11,473
Retail (125,000 sq ft)	1,000 sf	**$8,443**	$8,565	$1,884	$1,204	$5,641	$7,051	$8,813	$3,536	$3,774	$1,095	$2,964	$13,774	$6,450	$25,943	$13,849	$11,052	$11,763	$12,569
Bank w/Drive-In	1,000 sf	**$13,519**	$19,349	$4,257	$1,204	$12,730	$14,384	$15,582	$3,536	$5,805	$7,589	$20,537	$21,254	$9,850	$10,718	$10,718	$14,868	$17,571	$18,719
Fast Food w/Drive-Thru	1,000 sf	**$79,511**	$79,079	$17,397	$1,204	$40,950	$46,712	$50,978	$3,536	$28,394	$7,589	$20,537	$104,272	$47,840	$14,802	$14,802	$74,592	$86,876	$92,547

1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fees may have been lowered/raised through indexing or policy discounts. Does not account for moratoriums/suspensions
2) Du = dwelling unit
3) Source: Appendix D, Table D-2
4) Source: *Hernando County Transportation Revenue Alternatives, March 2013*
5) Source: Hernando County Zoning Department
6) Source: Citrus County Department of Growth Management, Land Development Division. Retail/Commercial rate is applied to bank and fast food restaurant
7) Source: Pasco County Planning and Development Department. Pasco County rates reflect local buy-down policy used to reduce fee rates for certain types of development
8) Source: Polk County Planning and Development. Retail/Commercial rate is applied to bank and fast food restaurant. The Polk County impact fee only assesses the portion of travel occurring on the county road system
9) Source: Sumter County Impact Fee Division
10) Source: Lake County Office of Planning and Zoning. Rates for "Central Benefit District" are shown. Per the 2019 transportation impact fee study, the "convenience retail" rate is shown for bank w/drive-thru and fast food w/drive-thru. CENTRAL rates also apply to the NORTH CENTRAL district and SOUTH rates also apply to the NORTHEAST/WEKIVA district.
11) Source: Collier County Growth Management Division, Planning and Regulation
12) Source: Volusia County Growth and Resource Management Department
13) Source: Osceola County Community Development Department. Non-mixed use fees are shown. Single family fee shown is the non-rural rate and the bank w/drive-thru land use is measured per lane. Warehouse rate is shown for light industrial
14) Source: Orange County Planning and Development

Appendix A
Demand Component

Appendix A: Demand Component

This appendix presents the detailed calculations for the demand component of the roads impact fee study.

Interstate & Toll Facility Adjustment Factor

Table A-1 presents the interstate and toll facility adjustment factor used in the calculation of the roads impact fee. This variable is based on data from the Tampa Bay Regional Planning Model v8.2, specifically the 2040 projected vehicle-miles of travel of all county-generated trips on all in-county roadways. It should be noted that the adjustment factor excludes all external-to-external trips, which represent traffic that goes through Hernando County, but does not necessarily stop in the county. This traffic is excluded from the analysis since it does not come from development within the county. The I/T adjustment factor is used to reduce the VMT that the impact fee charges for each land use.

Table A-1

Interstate/Toll Facility Adjustment Factor

Roadway	VMT (2040)	% VMT
Interstate/Toll Facilities	393,377	**8.1%**
Other Roads	4,447,122	91.9%
Total (All Roads)	**4,840,499**	**100.0%**

Source: TBRPM v8.2, 2040

Florida Studies Trip Characteristics Database

The Florida Studies Trip Characteristics Database includes over 345 studies on 40 different residential and non-residential land uses collected over the last 30 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. Trip characteristics studies for land uses included in the Hernando County Roads Impact Fee Schedule are included in this Appendix.

Benesch estimates trip generation rates for all land uses in a roads impact fee schedule using data from studies in the Florida Studies Database and the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (11th edition). In instances, when both ITE *Trip Generation* reference report and Florida Studies trip generation rate (TGR) data are available for a particular land use, the data is typically blended to increase the sample size and provide a more valid estimate of the average number of trips generated per unit of development. If no Florida Studies data is available, only TGR data from the ITE reference report is used in the fee calculation.

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

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

The percent new trip variable is based on assigning each trip collected through the origin-destination survey process a trip type (primary, secondary, diverted, and captured). The percent new trip variable is then calculated as 1 minus the percentage of trips that are captured.

Table A-2

Land Use 151: Mini-Warehouse

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	89.6	2006	-	-	1.23	-	-	-	-	Orange County
Orange Co, FL	84.7	2006	-	-	1.39	-	-	-	-	Orange County
Orange Co, FL	93.0	2006	-	-	1.51	-	-	-	-	Orange County
Orange Co, FL	107.0	2007	-	-	1.45	-	-	-	-	Orange County
Orange Co, FL	77.0	2009	-	-	2.18	-	-	-	-	Tindale Oliver
Orange Co, FL	93.7	2012	-	-	1.15	-	-	-	-	Tindale Oliver
Total Size	545.0	6					Average Trip Length:	n/a		
ITE	880.0	16					Weighted Average Trip Length:	n/a		
Blended total	1,425.0									

Weighted Percent New Trip Average: -

Weighted Average Trip Generation Rate: 1.47

ITE Average Trip Generation Rate: 1.45

Blend of FL Studies and ITE Average Trip Generation Rate: 1.46

Table A-3

Land Use 210: Single Family - Detached

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	-	60.18	Sarasota County
Sarasota Co, FL	79	Jun-93	86	86	9.77	-	4.40	-	42.99	Sarasota County
Sarasota Co, FL	135	Jun-93	75	75	8.05	-	5.90	-	47.50	Sarasota County
Sarasota Co, FL	152	Jun-93	63	63	8.55	-	7.30	-	62.42	Sarasota County
Sarasota Co, FL	193	Jun-93	123	123	6.85	-	4.60	-	31.51	Sarasota County
Sarasota Co, FL	97	Jun-93	33	33	13.20	-	3.00	-	39.60	Sarasota County
Sarasota Co, FL	282	Jun-93	146	146	6.61	-	8.40	-	55.52	Sarasota County
Sarasota Co, FL	393	Jun-93	207	207	7.76	-	5.40	-	41.90	Sarasota County
Hernando Co, FL	76	May-96	148	148	10.01	9a-6p	4.85	-	48.55	Tindale Oliver
Hernando Co, FL	128	May-96	205	205	8.17	9a-6p	6.03	-	49.27	Tindale Oliver
Hernando Co, FL	232	May-96	182	182	7.24	9a-6p	5.04	-	36.49	Tindale Oliver
Hernando Co, FL	301	May-96	264	264	8.93	9a-6p	3.28	-	29.29	Tindale Oliver
Charlotte Co, FL	135	Oct-97	230	-	5.30	9a-5p	7.90	-	41.87	Tindale Oliver
Charlotte Co, FL	142	Oct-97	245	-	5.20	9a-5p	4.10	-	21.32	Tindale Oliver
Charlotte Co, FL	150	Oct-97	160	-	5.00	9a-5p	10.80	-	54.00	Tindale Oliver
Charlotte Co, FL	215	Oct-97	158	-	7.60	9a-5p	4.60	-	34.96	Tindale Oliver
Charlotte Co, FL	257	Oct-97	225	-	7.60	9a-5p	7.40	-	56.24	Tindale Oliver
Charlotte Co, FL	345	Oct-97	161	-	7.00	9a-5p	6.60	-	46.20	Tindale Oliver
Charlotte Co, FL	368	Oct-97	152	-	6.60	9a-5p	5.70	-	37.62	Tindale Oliver
Charlotte Co, FL	383	Oct-97	516	-	8.40	9a-5p	5.00	-	42.00	Tindale Oliver
Charlotte Co, FL	441	Oct-97	195	-	8.20	9a-5p	4.70	-	38.54	Tindale Oliver
Charlotte Co, FL	1,169	Oct-97	348	-	6.10	9a-5p	8.00	-	48.80	Tindale Oliver
Collier Co, FL	90	Dec-99	91	-	12.80	8a-6p	11.40	-	145.92	Tindale Oliver
Collier Co, FL	400	Dec-99	389	-	7.80	8a-6p	6.40	-	49.92	Tindale Oliver
Lake Co, FL	49	Apr-02	170	-	6.70	7a-6p	10.20	-	68.34	Tindale Oliver
Lake Co, FL	52	Apr-02	212	-	10.00	7a-6p	7.60	-	76.00	Tindale Oliver
Lake Co, FL	126	Apr-02	217	-	8.50	7a-6p	8.30	-	70.55	Tindale Oliver
Pasco Co, FL	55	Apr-02	133	-	6.80	8a-6p	8.12	-	55.22	Tindale Oliver
Pasco Co, FL	60	Apr-02	106	-	7.73	8a-6p	8.75	-	67.64	Tindale Oliver
Pasco Co, FL	70	Apr-02	188	-	7.80	8a-6p	6.03	-	47.03	Tindale Oliver
Pasco Co, FL	74	Apr-02	188	-	8.18	8a-6p	5.95	-	48.67	Tindale Oliver
Pasco Co, FL	189	Apr-02	261	-	7.46	8a-6p	8.99	-	67.07	Tindale Oliver
Marion Co, FL	102	Apr-02	167	-	8.02	7a-6p	5.10	-	40.90	Kimley-Horn & Associates
Marion Co, FL	105	Apr-02	169	-	7.23	7a-6p	7.22	-	52.20	Kimley-Horn & Associates
Marion Co, FL	124	Apr-02	170	-	6.04	7a-6p	7.29	-	44.03	Kimley-Horn & Associates
Marion Co, FL	132	Apr-02	171	-	7.87	7a-6p	7.00	-	55.09	Kimley-Horn & Associates
Marion Co, FL	133	Apr-02	209	-	8.04	7a-6p	4.92	-	39.56	Kimley-Horn & Associates
Citrus Co, FL	111	Oct-03	273	-	8.66	7a-6p	7.70	-	66.68	Tindale Oliver
Citrus Co, FL	231	Oct-03	155	-	5.71	7a-6p	4.82	-	27.52	Tindale Oliver
Citrus Co, FL	306	Oct-03	146	-	8.40	7a-6p	3.94	-	33.10	Tindale Oliver
Citrus Co, FL	364	Oct-03	345	-	7.20	7a-6p	9.14	-	65.81	Tindale Oliver
Citrus Co, FL	374	Oct-03	248	-	12.30	7a-6p	6.88	-	84.62	Tindale Oliver
Lake Co, FL	42	Dec-06	122	-	11.26	-	5.56	-	62.61	Tindale Oliver
Lake Co, FL	51	Dec-06	346	-	18.22	-	9.46	-	172.36	Tindale Oliver
Lake Co, FL	59	Dec-06	144	-	12.07	-	10.79	-	130.24	Tindale Oliver
Lake Co, FL	90	Dec-06	194	-	9.12	-	5.78	-	52.71	Tindale Oliver
Lake Co, FL	239	Dec-06	385	-	7.58	-	8.93	-	67.69	Tindale Oliver
Hernando Co, FL	232	Apr-07	516	-	8.02	7a-6p	8.16	-	65.44	Tindale Oliver
Hernando Co, FL	95	Apr-07	256	-	8.08	7a-6p	5.88	-	47.51	Tindale Oliver
Hernando Co, FL	90	Apr-07	338	-	7.13	7a-6p	5.86	-	41.78	Tindale Oliver
Hernando Co, FL	58	Apr-07	153	-	6.16	7a-6p	8.39	-	51.68	Tindale Oliver
Collier Co, FL	74	Mar-08	503	-	12.81	7a-6p	3.05	-	39.07	Tindale Oliver
Collier Co, FL	97	Mar-08	512	-	8.78	7a-6p	11.29	-	99.13	Tindale Oliver
Collier Co, FL	315	Mar-08	1,347	-	6.97	7a-6p	6.55	-	45.65	Tindale Oliver
Collier Co, FL	42	Mar-08	314	-	9.55	7a-6p	10.98	-	104.86	Tindale Oliver
Total Size	10,380	55	13,130				**Average Trip Length:**	**6.83**		
							Weighted Average Trip Length:	**6.62**		

Weighted Average Trip Generation Rate: **7.81**

Table A-4

LUC 215: Single Family Attached Housing

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	-	-	-	Tindale Oliver
Hernando Co, FL	128	May-96	198	198	6.47	9a-6p	-	-	-	Tindale Oliver
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	-	-	-	Tindale Oliver
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	-	-	-	Tindale Oliver
Total Size	636	4	780				**Average Trip Length:**	**-**		
ITE	2,640	22					**Weighted Average Trip Length:**	**-**		
Blended total	3,276									

Weighted Average Trip Generation Rate: 4.97

ITE Average Trip Generation Rate: 7.20

Blend of FL Studies and ITE Average Trip Generation Rate: **6.77**

Table A-5

LUC 220/221/222: Multi-Family/Apartment

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	-	30.06	Sarasota County
Sarasota Co, FL	243	Jun-93	36	36	5.84	-	-	-	-	Sarasota County
Marion Co, FL	214	Apr-02	175	175	6.84	-	4.61	-	31.53	Kimley-Horn & Associates
Marion Co, FL	240	Apr-02	174	174	6.96	-	3.43	-	23.87	Kimley-Horn & Associates
Marion Co, FL	288	Apr-02	175	175	5.66	-	5.55	-	31.41	Kimley-Horn & Associates
Marion Co, FL	480	Apr-02	175	175	5.73	-	6.88	-	39.42	Kimley-Horn & Associates
Marion Co, FL	500	Apr-02	170	170	5.46	-	5.94	-	32.43	Kimley-Horn & Associates
Lake Co, FL	250	Dec-06	135	135	6.71	-	5.33	-	35.76	Tindale Oliver
Lake Co, FL	157	Dec-06	265	265	13.97	-	2.62	-	36.60	Tindale Oliver
Lake Co, FL	169	Dec-06	212	-	8.09	-	6.00	-	48.54	Tindale Oliver
Lake Co, FL	226	Dec-06	301	-	6.74	-	2.17	-	14.63	Tindale Oliver
Hernando Co, FL	312	Apr-07	456	-	4.09	-	5.95	-	24.34	Tindale Oliver
Hernando Co, FL	176	Apr-07	332	-	5.38	-	5.24	-	28.19	Tindale Oliver
Total Size	3,467	13	2,648			**Average Trip Length:**	**4.91**			
						Weighted Average Trip Length:	**5.21**			

Table A-6

Land Use 240: Mobile Home Park

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	-	12.37	Tindale Oliver
Marion Co, FL	82	Jul-91	58	58	10.80	24hr.	3.72	-	40.18	Tindale Oliver
Marion Co, FL	137	Jul-91	22	22	3.10	24hr.	4.88	-	15.13	Tindale Oliver
Sarasota Co, FL	996	Jun-93	181	181	4.19	-	4.40	-	18.44	Sarasota County
Sarasota Co, FL	235	Jun-93	100	100	3.51	-	5.10	-	17.90	Sarasota County
Marion Co, FL	188	Apr-02	147	-	3.51	24hr.	5.48	-	19.23	Kimley-Horn & Associates
Marion Co, FL	227	Apr-02	173	-	2.76	24hr.	8.80	-	24.29	Kimley-Horn & Associates
Marion Co, FL	297	Apr-02	175	-	4.78	24hr.	4.76	-	22.75	Kimley-Horn & Associates
Hernando Co, FL	1,892	May-96	425	425	4.13	9a-6p	4.13	-	17.06	Tindale Oliver
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**

Table A-7

Land Use 251: Senior Adult Housing - Detached

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	-	8.54	Tindale Oliver
Marion Co, FL	778	Apr-02	175	-	2.96	24hr.	3.49	-	10.33	Kimley-Horn & Associates
Marion Co, FL	877	Apr-02	209	-	2.91	24hr.	5.90	-	17.17	Kimley-Horn & Associates
Marion Co, FL	1,054	Apr-02	173	-	3.65	24hr.	6.00	-	21.90	Kimley-Horn & Associates
Marion Co, FL	3,076	Apr-02	198	-	2.63	24hr.	5.16	-	13.57	Kimley-Horn & Associates
Marion Co, FL	3,625	Apr-02	164	-	2.50	24hr.	5.83	-	14.58	Kimley-Horn & Associates
Total Size	9,477	6	945			**Average Trip Length:**	**4.80**			
ITE	9,690	15				**Weighted Average Trip Length:**	**5.42**			
Blended total	19,167							Weighted Average Trip Generation Rate:		2.75
								ITE Average Trip Generation Rate:		4.31
								Blend of FL Studies and ITE Average Trip Generation Rate:		**3.54**

Table A-8

Land Use 252: Senior Adult Housing - Attached

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Sun City Center, FL	208	Oct-91	726	726	2.46	24hr.	-	-	-	Tindale Oliver
Total Size	208	1				**Average Trip Length:**	**n/a**			
ITE	432	6				**Weighted Average Trip Length:**	**n/a**			
Blended total	640							Weighted Average Trip Generation Rate:		2.46
								ITE Average Trip Generation Rate:		3.24
								Blend of FL Studies and ITE Average Trip Generation Rate:		**2.99**

Table A-9

Land Use 253: Congregate Care Facility

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
Palm Harbor, FL	200	Oct-89	58	40	-	9am-5pm	3.40	69.0	-	Tindale Oliver
Total Size	272	2	83			**Average Trip Length:**	**2.80**			
ITE	720	4				**Weighted Average Trip Length:**	**3.08**			
Blended total	992							Weighted Percent New Trip Average:	71.6	
	792							Weighted Average Trip Generation Rate:		3.50
								ITE Average Trip Generation Rate:		2.21
								Blend of FL Studies and ITE Average Trip Generation Rate:		**2.33**

Table A-10

Land Use 310: Hotel

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
Pinellas Co, FL	114	Oct-89	30	14	7.30	12-7p	6.20	47.0	21.27	Tindale Oliver
Orange Co, FL	123	1997	-	-	6.32	-	-	-	-	Orange County
Orange Co, FL	120	1997	-	-	5.27	-	-	-	-	Orange County
Orange Co, FL	146	1997	-	-	7.61	-	-	-	-	Orange County
Orange Co, FL	252	1997	-	-	5.63	-	-	-	-	Orange County
Orange Co, FL	172	1997	-	-	6.36	-	-	-	-	Orange County
Orange Co, FL	170	1997	-	-	6.06	-	-	-	-	Orange County
Orange Co, FL	128	1997	-	-	6.10	-	-	-	-	Orange County
Orange Co, FL	200	1997	-	-	4.56	-	-	-	-	Orange County
Orange Co, FL	112	1998	-	-	2.78	-	-	-	-	Orange County
Orange Co, FL	130	1998	-	-	9.12	-	-	-	-	Orange County
Orange Co, FL	106	1998	-	-	7.34	-	-	-	-	Orange County
Orange Co, FL	98	1998	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	120	1998	-	-	5.57	-	-	-	-	Orange County
Orange Co, FL	70	1999	-	-	1.85	-	-	-	-	Orange County
Orange Co, FL	123	1999	-	-	4.81	-	-	-	-	Orange County
Orange Co, FL	123	1999	-	-	3.70	-	-	-	-	Orange County
Orange Co, FL	211	2000	-	-	2.23	-	-	-	-	Orange County
Orange Co, FL	144	2000	-	-	7.32	-	-	-	-	Orange County
Orange Co, FL	105	2001	-	-	5.25	-	-	-	-	Orange County
Orange Co, FL	891	2005	-	-	5.69	-	-	-	-	Orange County
Orange Co, FL	1,584	2005	-	-	5.88	-	-	-	-	Orange County
Orange Co, FL	210	2006	-	-	4.88	-	-	-	-	Orange County
Orange Co, FL	1,499	2006	-	-	4.69	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	4.74	-	-	-	-	Orange County
Orange Co, FL	148	-	-	-	7.61	-	-	-	-	Orange County
Orange Co, FL	160	-	-	-	6.19	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	4.29	-	-	-	-	Orange County
Orange Co, FL	130	-	-	-	3.40	-	-	-	-	Orange County
Orange Co, FL	144	-	-	-	7.66	-	-	-	-	Orange County
Orange Co, FL	100	-	-	-	7.37	-	-	-	-	Orange County
Orange Co, FL	190	-	-	-	4.71	-	-	-	-	Orange County
Orange Co, FL	1,501	2011	-	-	3.50	-	-	-	-	Tindale Oliver
Orange Co, FL	174	2011	-	-	7.03	-	-	-	-	Tindale Oliver
Orange Co, FL	238	2014	-	-	4.05	-	-	-	-	Tindale Oliver
Total Size	10,184	36	164				**Average Trip Length:**	**6.25**		
ITE	1,036	7					**Weighted Average Trip Length:**	**6.26**		
Blended total	11,220						Weighted Percent New Trip Average:	66.3		

Weighted Average Trip Generation Rate:	5.31
ITE Average Trip Generation Rate:	7.99
Blend of FL Studies and ITE Average Trip Generation Rate:	**5.56**

Table A-11

Land Use 320: Motel

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
Pinellas Co, FL	54	Oct-89	32	22	-	12p-7p	3.80	69.0	-	Tindale Oliver
Pinellas Co, FL	120	Oct-89	26	22	-	2p-7p	5.20	84.6	-	Tindale Oliver
Total Size	222	3	104				**Average Trip Length:**	**3.93**		
ITE	654	6					**Weighted Average Trip Length:**	**4.34**		
							Weighted Percent New Trip Average:	76.6		

Table A-12

Land Use 445: Movie Theater

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
Pinellas Co, FL	12	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale Oliver
Total Size	20	2	273				**Average Trip Length:**	**2.30**		
ITE	6	1					**Weighted Average Trip Length:**	**2.22**		
Blended total	26						Weighted Percent New Trip Average:	87.8		

Weighted Average Trip Generation Rate:	83.28
ITE Average Trip Generation Rate:	220.00
Blend of FL Studies and ITE Average Trip Generation Rate:	**114.83**

Table A-13

Land Use 492: Health/Fitness Club

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	31	-	-	7.90	94.0	-	Kimley-Horn & Associates
Total Size		1	33				**Average Trip Length:**	**n/a**		
ITE	37	8					Percent New Trip Average:	94.0		

Table A-14

Land Use 565: Day Care Center

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
Pinellas Co, FL	10.0	Sep-89	179	134	66.99	7a-6p	2.10	75.0	105.51	Tindale Oliver
Tampa, FL	-	Mar-86	28	25	-	-	2.60	89.0	-	Kimley-Horn & Associates
Total Size	15.6	3	301			**Average Trip Length:**	**2.20**			
ITE	135.0	27				**Weighted Average Trip Length:**	**2.03**			
Blended total	150.6					Weighted Percent New Trip Average:		73.2		
								Weighted Average Trip Generation Rate:		66.99
								ITE Average Trip Generation Rate:		47.62
								Blend of FL Studies and ITE Average Trip Generation Rate:		**49.63**

Table A-15

Land Use 620: Nursing Home

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
Total Size	120	1	74			**Average Trip Length:**	**2.59**			
ITE	480	3				**Weighted Average Trip Length:**	**2.59**			
Blended total	600					Weighted Percent New Trip Average:		89.0		
								Weighted Average Trip Generation Rate:		2.86
								ITE Average Trip Generation Rate:		3.06
								Blend of FL Studies and ITE Average Trip Generation Rate:		**3.02**

Table A-16

Land Use 630: Clinic

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	103.9	Aug-89	614	572	37.03	7a-430p	5.10	93.0	175.63	Tindale Oliver
St. Petersburg, FL	-	Oct-89	280	252	-	9a-5p	4.10	90.0	-	Tindale Oliver
Total Size	103.9	2	894			**Average Trip Length:**	**4.60**			
ITE	180.0	9				**Weighted Average Trip Length:**	**5.10**			
	283.9					Weighted Percent New Trip Average:		93.0		
								Weighted Average Trip Generation Rate:		37.03
								ITE Average Trip Generation Rate:		37.60
								Blend of FL Studies and ITE Average Trip Generation Rate:		**37.39**

Table A-17

Land Use 710: General Office Building

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
St. Petersburg, FL	262.8	Sep-89	291	274	-	7a-5p	3.40	94.0	-	Tindale Oliver
Total Size	742.1	5	736			**Average Trip Length:**	**6.46**			
ITE	9,617.0	59				**Weighted Average Trip Length:**	**5.15**			
						Weighted Percent New Trip Average:		92.3		

Table A-18

LUC 720: Small Medical/Dental Office Building: 10,000 sf or Less

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

Table A-19

Land Use 720: Medical-Dental Office Building

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
St. Petersburg, FL	-	Nov-89	34	30	57.20	9a-4p	1.20	88.0	-	Tindale Oliver
Hernando Co, FL	58.4	May-96	390	349	28.52	9a-6p	6.47	89.5	165.09	Tindale Oliver
Hernando Co, FL	28.0	May-96	202	189	49.75	9a-6p	6.06	93.8	282.64	Tindale Oliver
Charlotte Co, FL	11.0	Oct-97	-	186	49.50	9a-5p	4.60	92.1	209.67	Tindale Oliver
Charlotte Co, FL	28.0	Oct-97	-	186	31.00	9a-5p	3.60	81.6	91.04	Tindale Oliver
Charlotte Co, FL	30.4	Oct-97	-	324	39.80	9a-5p	3.30	83.5	109.68	Tindale Oliver
Citrus Co, FL	38.9	Oct-03	-	168	32.26	8-6p	6.80	97.1	213.03	Tindale Oliver
Citrus Co, FL	10.0	Nov-03	-	340	40.56	8-630p	6.20	92.4	232.33	Tindale Oliver
Citrus Co, FL	5.3	Dec-03	-	20	29.36	8-5p	5.25	95.2	146.78	Tindale Oliver
Orange Co, FL	50.6	2009	-	-	26.72	-	-	-	-	Orange County
Orange Co, FL	23.5	2010	-	-	16.58	-	-	-	-	Tindale Oliver
Total Size	298.6	13	763				**Average Trip Length:**	**5.07**		
ITE	270.0	18					**Weighted Average Trip Length:**	**5.55**		
Blended total	568.6						Weighted Percent New Trip Average:	88.9		

Average Trip Generation Rate:	32.59
ITE Average Trip Generation Rate:	36.00
Blend of FL Studies and ITE Average Trip Generation Rate:	**34.21**

Table A-20

Land Use 812: Building Materials and Lumber Store

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	86.9	Jun-93	40	-	-	7a-430p	6.58	73.0	-	Tindale Oliver
Tampa, FL	98.5	Jun-93	40	-	-	7a-430p	6.00	-	-	Tindale Oliver
Tampa, FL	-	Jun-93	40	-	-	7a-430p	5.87	75.7	-	Tindale Oliver
Total Size	185.4	3	120				**Average Trip Length:**	**6.15**		
ITE	234.0	13					**Weighted Average Trip Length:**	**6.27**		
							Weighted Percent New Trip Average:	74.4		

Table A-21

Land Use 813: Free-Standing Discount Superstore

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Citrus Co, FL	203.6	Nov-03	-	236	55.01	8a-6p	-	91.8	-	Tindale Oliver
Total Size	203.6	1					**Average Trip Length:**	**-**		
ITE	13,896.0	72					**Weighted Average Trip Length:**	**-**		
Blended total	14,099.6						Weighted Percent New Trip Average:	-		

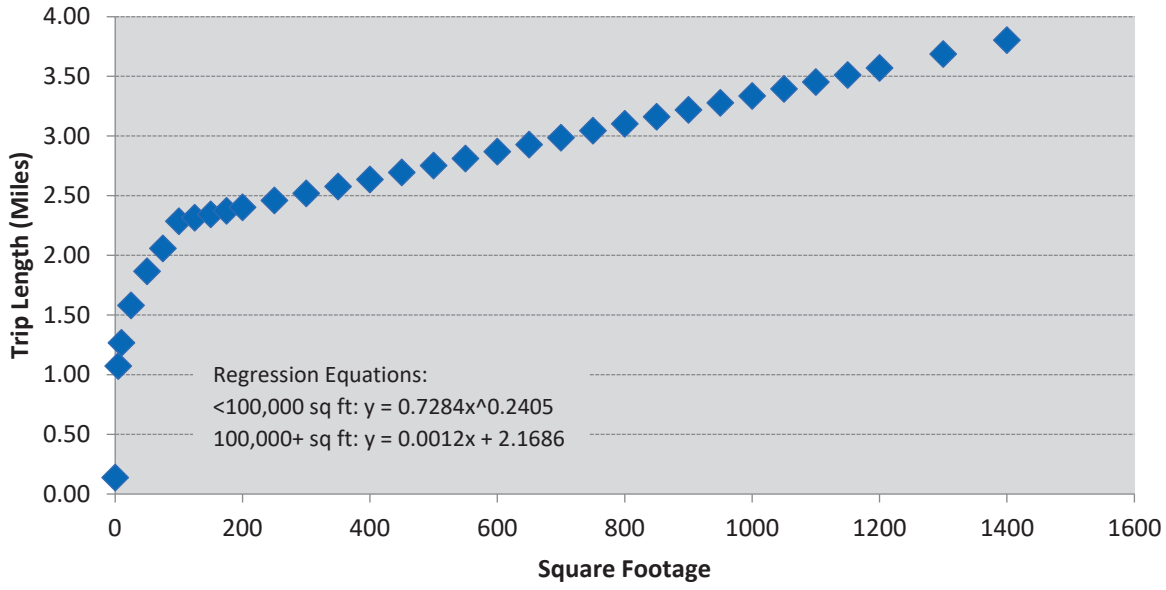
Average Trip Generation Rate:	55.01
ITE Average Trip Generation Rate:	50.52
Blend of FL Studies and ITE Average Trip Generation Rate:	**50.58**

Table A-22

Land Use 820/821/822: Retail/Shopping Center

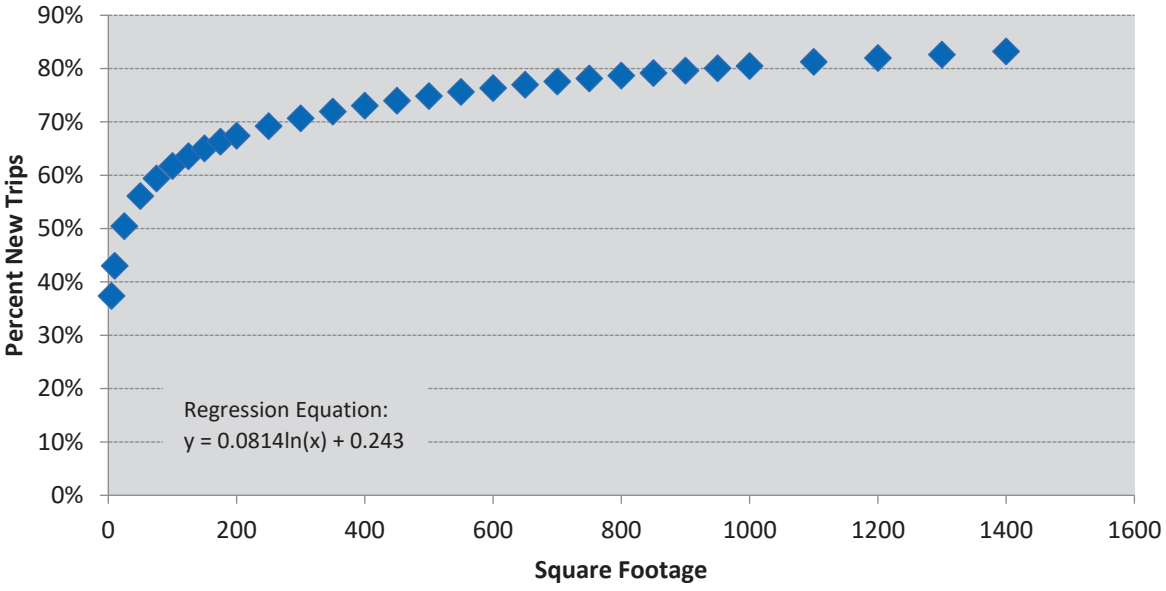
Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	527	348	-	-	-	66.0	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	170	-	-	-	1.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	354	269	-	-	-	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
St. Petersburg, FL	132.3	Sep-89	400	368	77.00	10a-7p	1.80	92.0	127.51	Tindale Oliver
Largo, FL	425.0	Aug-89	160	120	26.73	10a-6p	2.30	75.0	46.11	Tindale Oliver
Dunedin, FL	80.5	Sep-89	276	210	81.48	9a-5p	1.40	76.0	86.69	Tindale Oliver
Pinellas Park, FL	696.0	Sep-89	485	388	-	9a-6p	3.20	80.0	-	Tindale Oliver
Seminole, FL	425.0	Oct-89	674	586	-	-	-	87.0	-	Tindale Oliver
Hillsborough Co, FL	134.0	Jul-91	-	-	-	-	1.30	74.0	-	Tindale Oliver
Hillsborough Co, FL	151.0	Jul-91	-	-	-	-	1.30	73.0	-	Tindale Oliver
Collier Co, FL	-	Aug-91	68	64	-	-	3.33	94.1	-	Tindale Oliver
Collier Co, FL	-	Aug-91	208	154	-	-	2.64	74.0	-	Tindale Oliver
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	-	-	84.0	-	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
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale Oliver
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale Oliver
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale Oliver
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale Oliver
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale Oliver
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale Oliver
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale Oliver
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale Oliver
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale Oliver
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale Oliver
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale Oliver
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale Oliver
Total Size	5,757.5	35	7,536				**Average Trip Length:**	**2.66**		

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



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

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



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

Table A-23

Land Use 840/841: New/Used Automobile Sales

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
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale Oliver
Orange Co, FL	13.8	1997	-	-	35.75	-	-	-	-	Orange County
Orange Co, FL	34.4	1998	-	-	23.45	-	-	-	-	Orange County
Orange Co, FL	66.3	2001	-	-	28.50	-	-	-	-	Orange County
Orange Co, FL	39.1	2002	-	-	10.48	-	-	-	-	Orange County
Orange Co, FL	116.7	2003	-	-	22.18	-	-	-	-	Orange County
Orange Co, FL	51.7	2007	-	-	40.34	-	-	-	-	L-TEC
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	216.4	2008	-	-	13.45	-	-	-	-	Orange County

Total Size	618.0	10	288	**Average Trip Length:**	**4.60**
ITE (840)	648.0	18		**Weighted Average Trip Length:**	**4.60**
ITE (841)	28.0	14		Weighted Percent New Trip Average:	78.5
Blended total	1,294.0			Weighted Average Trip Generation Rate:	21.04
				ITE Average Trip Generation Rate (LUC 840):	27.84
				ITE Average Trip Generation Rate (LUC 841):	27.06
				Blend of FL Studies and ITE Average Trip Generation Rate:	**24.58**

Table A-24

Land Use 850: Supermarket

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

Total Size	62.0	1	163	**Average Trip Length:**	**2.08**
ITE	1,144.0	22		**Weighted Average Trip Length:**	**2.08**
Blended total	1,206.0			Weighted Percent New Trip Average:	56.0
				Weighted Average Trip Generation Rate:	106.26
				ITE Average Trip Generation Rate:	93.84
				Blend of FL Studies and ITE Average Trip Generation Rate:	**94.48**

Table A-25

Land Use 880/881: Pharmacy with and without Drive-Through Window

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
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale Oliver
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale Oliver

Total Size	38.2	3	1,542	**Average Trip Length:**	**2.07**
ITE (LUC 880)	66.0	6		**Weighted Average Trip Length:**	**2.08**
ITE (LUC 881)	208.0	16		Weighted Percent New Trip Average:	32.4
Blended total	312.2			Average Trip Generation Rate:	103.03
				ITE Average Trip Generation Rate (LUC 880):	90.08
				ITE Average Trip Generation Rate (LUC 881):	108.40
				Blend of FL Studies and ITE Average Trip Generation Rate:	**103.86**

Table A-26

Land Use 890: Furniture Store

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
Tampa, FL	16.9	Jul-92	68	39	-	-	7.38	55.7	-	Tindale Oliver

Total Size	31.90	2	132	**Average Trip Length:**	**6.01**
ITE	779.0	19		**Weighted Average Trip Length:**	**6.09**
Blended total	810.90			Weighted Percent New Trip Average:	54.2

Table A-27

Land Use 912: Drive-In Bank

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
Largo, FL	2.0	Sep-89	129	94	-	-	1.60	73.0	-	Tindale Oliver
Seminole, FL	4.5	Oct-89	-	-	-	-	-	-	-	Tindale Oliver
Marion Co, FL	2.3	Jun-91	69	29	-	24hr.	1.33	42.0	-	Tindale Oliver
Marion Co, FL	3.1	Jun-91	47	32	-	24hr.	1.75	68.1	-	Tindale Oliver
Marion Co, FL	2.5	Jul-91	57	26	-	48hrs.	2.70	45.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	162	96	-	24hr.	0.88	59.3	-	Tindale Oliver
Collier Co, FL	-	Aug-91	116	54	-	-	1.58	46.6	-	Tindale Oliver
Collier Co, FL	-	Aug-91	142	68	-	-	2.08	47.9	-	Tindale Oliver
Hernando Co, FL	5.4	May-96	164	41	-	9a-6p	2.77	24.7	-	Tindale Oliver
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	14	1,407	**Average Trip Length:**	**2.38**
ITE	114.0	19		**Weighted Average Trip Length:**	**2.46**
Blended total	139.2			Weighted Percent New Trip Average:	46.2
	116.7			Weighted Average Trip Generation Rate:	246.66
				ITE Average Trip Generation Rate:	100.35
				Blend of FL Studies and ITE Average Trip Generation Rate:	**103.73**

Table A-28

Land Use 931: Fine-Dining/Quality Restaurant

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
Clearwater, FL	8.0	Oct-89	60	40	110.63	10a-2p/5-9p	2.80	67.0	207.54	Tindale Oliver
Total Size	15.5	3	313				**Average Trip Length:**	**2.80**		
ITE	90.0	10					**Weighted Average Trip Length:**	**3.14**		
Blended total	105.5						Weighted Percent New Trip Average:	76.7		
	98.0							Weighted Average Trip Generation Rate:		110.63
								ITE Average Trip Generation Rate:		83.84
								Blend of FL Studies and ITE Average Trip Generation Rate:		**86.03**

Table A-29

Land Use 932: High-Turnover (Sit-Down) Restaurant

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	1996	242	175	187.51	9a-6p	2.76	72.5	375.00	Tindale Oliver
Hernando Co, FL	8.2	1996	154	93	102.71	9a-6p	4.15	60.2	256.43	Tindale Oliver
St. Petersburg, FL	5.0	1989	74	68	132.60	1130-7p	2.00	92.0	243.98	Tindale Oliver
Kenneth City, FL	5.2	1989	236	176	127.88	4p-730p	2.30	75.0	220.59	Tindale Oliver
Pasco Co, FL	5.2	2002	114	88	82.47	9a-6p	3.72	77.2	236.81	Tindale Oliver
Pasco Co, FL	5.8	2002	182	102	116.97	9a-6p	3.49	56.0	228.77	Tindale Oliver
Orange Co, FL	5.0	1996	-	-	135.68	-	-	-	-	Orange County
Orange Co, FL	9.7	1996	-	-	132.32	-	-	-	-	Orange County
Orange Co, FL	11.2	1998	-	-	18.76	-	-	-	-	Orange County
Orange Co, FL	7.0	1998	-	-	126.40	-	-	-	-	Orange County
Orange Co, FL	4.6	1998	-	-	129.23	-	-	-	-	Orange County
Orange Co, FL	7.4	1998	-	-	147.44	-	-	-	-	Orange County
Orange Co, FL	6.7	1998	-	-	82.58	-	-	-	-	Orange County
Orange Co, FL	11.3	2000	-	-	95.33	-	-	-	-	Orange County
Orange Co, FL	7.2	2000	-	-	98.06	-	-	-	-	Orange County
Orange Co, FL	11.4	2001	-	-	91.67	-	-	-	-	Orange County
Orange Co, FL	5.6	2001	-	-	145.59	-	-	-	-	Orange County
Orange Co, FL	5.5	-	-	-	100.18	-	-	-	-	Orange County
Orange Co, FL	11.3	-	-	-	62.12	-	-	-	-	Orange County
Orange Co, FL	10.4	-	-	-	31.77	-	-	-	-	Orange County
Orange Co, FL	5.9	-	-	-	147.74	-	-	-	-	Orange County
Orange Co, FL	8.9	2008	-	-	52.69	-	-	-	-	Orange County
Orange Co, FL	9.7	2010	-	-	105.84	-	-	-	-	Orange County
Orange Co, FL	9.5	2013	-	-	40.46	-	-	-	-	Orange County
Orange Co, FL	11.0	2015	-	-	138.39	-	-	-	-	Orange County
Total Size	194.9	25	1,102				**Average Trip Length:**	**3.07**		
ITE	250.0	50					**Weighted Average Trip Length:**	**3.17**		
Blended total	444.9						Weighted Percent New Trip Average:	70.8		
								Weighted Average Trip Generation Rate:		98.67
								ITE Average Trip Generation Rate:		107.20
								Blend of FL Studies and ITE Average Trip Generation Rate:		**103.46**

Table A-30

Land Use 934: Fast Food Restaurant with Drive-Through Window

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
Pinellas Co, FL	4.30	Oct-89	456	260	660.40	1 day	2.30	57.0	865.78	Tindale Oliver
Tarpon Springs, FL	-	Oct-89	233	114	-	7a-7p	3.60	49.0	-	Tindale Oliver
Marion Co, FL	1.60	Jun-91	60	32	962.50	48hrs.	0.91	53.3	466.84	Tindale Oliver
Marion Co, FL	4.00	Jun-91	75	46	625.00	48hrs.	1.54	61.3	590.01	Tindale Oliver
Collier Co, FL	-	Aug-91	66	44	-	-	1.91	66.7	-	Tindale Oliver
Collier Co, FL	-	Aug-91	118	40	-	-	1.17	33.9	-	Tindale Oliver
Hernando Co, FL	5.43	May-96	136	82	311.83	9a-6p	1.68	60.2	315.27	Tindale Oliver
Hernando Co, FL	3.13	May-96	168	82	547.34	9a-6p	1.59	48.8	425.04	Tindale Oliver
Orange Co, FL	8.93	1996	-	-	377.00	-	-	-	-	Orange County
Lake Co, FL	2.20	Apr-01	376	252	934.30	-	2.50	74.6	1742.47	Tindale Oliver
Lake Co, FL	3.20	Apr-01	171	182	654.90	-	-	47.8	-	Tindale Oliver
Lake Co, FL	3.80	Apr-01	188	137	353.70	-	3.30	70.8	826.38	Tindale Oliver
Pasco Co, FL	2.66	Apr-02	100	46	283.12	9a-6p	-	46.0	-	Tindale Oliver
Pasco Co, FL	2.96	Apr-02	486	164	515.32	9a-6p	2.72	33.7	472.92	Tindale Oliver
Pasco Co, FL	4.42	Apr-02	168	120	759.24	9a-6p	1.89	71.4	1024.99	Tindale Oliver
Hernando Co, FL	2.70	Apr-07	520	-	640.74	7a-6p	2.52	79.0	1275.59	Tindale Oliver
Hernando Co, FL	2.40	Apr-07	115	-	594.58	7a-6p	3.14	81.0	1512.25	Tindale Oliver
Hernando Co, FL	2.43	Apr-07	318	-	541.98	7a-6p	2.91	77.0	1214.41	Tindale Oliver
Hernando Co, FL	4.47	Apr-07	261	-	458.17	7a-6p	3.47	72.0	1144.69	Tindale Oliver
Total Size	60.8	22	4,463				**Average Trip Length:**	**2.31**		
ITE	213.0	71					**Weighted Average Trip Length:**	**2.32**		
Blended total	273.8						Weighted Percent New Trip Average:	62.2		
	46.0							Weighted Average Trip Generation Rate:		532.81
								ITE Average Trip Generation Rate:		467.48
								Blend of FL Studies and ITE Average Trip Generation Rate:		**481.99**

Table A-31

Land Use 942: Automobile Care Center

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	5.5	Sep-89	34	30	37.64	9a-5p	2.40	88.0	79.50	Tindale Oliver
Jacksonville, FL	2.3	2/3-4/90	124	94	-	9a-5p	3.07	76.0	-	Tindale Oliver
Jacksonville, FL	2.3	2/3-4/90	110	74	-	9a-5p	2.96	67.0	-	Tindale Oliver
Jacksonville, FL	2.4	2/3-4/90	132	87	-	9a-5p	2.32	66.0	-	Tindale Oliver
Lakeland, FL	5.2	Mar-90	24	14	-	9a-4p	1.36	59.0	-	Tindale Oliver
Lakeland, FL	-	Mar-90	54	42	-	9a-4p	2.44	78.0	-	Tindale Oliver
Orange Co, FL	25.0	Nov-92	41	39	-	2-6p	4.60	-	-	LCE, Inc.
Orange Co, FL	36.6	-	-	-	15.17	-	-	-	-	Orange County
Orange Co, FL	7.0	-	-	-	46.43	-	-	-	-	Orange County

Total Size	86.2	9	519	**Average Trip Length:**	**2.74**
ITE	102.0	6		**Weighted Average Trip Length:**	**3.62**
Blended total	188.2			Weighted Percent New Trip Average:	72.2
	151.1			Weighted Average Trip Generation Rate:	22.14
				ITE Average Trip Generation Rate (adjusted):	31.10
				Blend of FL Studies and ITE Average Trip Generation Rate:	**28.19**

Table A-32

Land Use 944/945: Gasoline/Service Station

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
Collier Co, FL	-	Aug-91	168	40	-	-	1.01	23.8	-	Tindale Oliver

Total Size	0.6	2	238	**Average Trip Length:**	**1.46**
				Weighted Average Trip Length:	**1.90**
				Weighted Percent New Trip Average:	23.0

Convenience Store/Gas Station (ITE LUC 945)

ITE	48		Conv. Store 2,000 to 3,999 sf:	265.12
ITE	5		Conv. Store 4,000 to 5,499 sf:	257.13
	53		**Blend of ITE Average Trip Generation Rates for Convenience Store/Gas Station 2,000 to 5,499 sf:**	**264.38**

Table A-33

Land Use 947: Self-Service Car Wash

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
Clearwater, FL	-	Nov-89	177	108	-	10am-5pm	1.30	61.0	-	Tindale Oliver
Collier Co, FL	11	Dec-09	304	-	30.24	-	2.50	57.0	-	Tindale Oliver
Collier Co, FL	8	Jan-09	186	-	22.75	-	1.96	72.0	-	Tindale Oliver

Total Size	29	4	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
Blended total	24			Weighted Average Trip Generation Rate:	27.09
				ITE Average Trip Generation Rate:	108.00
				Blend of FL Studies and ITE Average Trip Generation Rate:	**43.94**

Table A-34

Land Use N/A: Gasoline/Fast Food/Convenience Store

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Volusia Co, FL	-	-	-	-	918.00	-	2.40	33.0	727.06	Tindale Oliver
Indian River Co, FL	2.5	Mar-98	132	52	748.30	8a-6p	3.70	19.7	545.44	Tindale Oliver
Indian River Co, FL	3.0	Mar-98	107	84	563.10	8a-6p	2.00	39.3	442.60	Tindale Oliver
Indian River Co, FL	3.1	Mar-98	132	110	1,396.00	8a-6p	1.80	41.7	1,047.84	Tindale Oliver
Collier Co, FL	2.4	Nov-99	-	128	1,399.58	8a-6p	4.10	13.3	763.19	Tindale Oliver
Collier Co, FL	3.3	Nov-99	-	144	862.56	8a-6p	2.20	39.6	751.46	Tindale Oliver

Total Size	14.3	6	371	**Average Trip Length:**	**2.70**
				Weighted Average Trip Length:	**2.65**
				Weighted Percent New Trip Average:	32.1
				Weighted Average Trip Generation Rate:	**984.59**

Demand Variable Changes

Since the last demand component update in 2013, the trip generation rate (TGR), trip length (TL), and percent new trips (PNT) has changed for several land uses. Tables A-35 through A-38 present the change in each variable for each land use for the 2022 update.

Table A-35

Percent Change in Gross VMT of Impact Fee Land Uses

LUC	Land Use	Unit	GVMT 2013	GVMT 2022	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached)	du	25.85	25.85	**0%**	No change
215	Single Family (Attached/Townhouse)	du	14.69	22.41	**53%**	TGR & TL update, see Tables A-36 and A-37
220	Multi-Family (Low-Rise); 1-3 Levels	du	16.83	17.56	**4%**	TGR update, see Table A-36
221/222	Multi-Family (Mid/High-Rise); 4 Levels or more	du	16.83	11.83	**-30%**	TGR update, see Table A-36
240	Mobile Home Park	du	9.59	9.59	**0%**	No change
251	Senior Adult Housing - Detached	du	8.46	9.59	**13%**	TGR update, see Table A-36
252	Senior Adult Housing - Attached	du	-	6.49	-	New land use
253	Congregate Care Facility	du	2.49	2.58	**4%**	No change
254	Assisted Living	bed	-	2.88	-	New land use
255	Continuing Care Retirement Center	du	-	2.74	-	New land use
	LODGING:					
310	Hotel	room	13.14	11.49	**-13%**	TGR update, see Table A-36
320	Motel	room	9.41	5.60	**-40%**	TGR update, see Table A-36
	RECREATION:					
416	RV Park	occ. site	3.73	3.73	**0%**	No change
420	Marina	berth	8.82	7.18	**-19%**	TGR update, see Table A-36
430	Golf Course	acre	15.01	11.14	**-26%**	TGR update, see Table A-36
445	Movie Theater	screen	104.16	112.17	**8%**	TGR update, see Table A-36
492	Health Club	1,000 sf	79.71	83.51	**5%**	TGR update, see Table A-36
	INSTITUTIONS:					
520	Elementary School (Private)	student	2.22	3.01	**36%**	TGR & TL update, see Tables A-36 and A-37
522	Middle School (Private)	student	3.13	2.78	**-11%**	TGR, TL, & PNT update, see Tables A-36, A-37, and A-38
525	High School (Private)	student	3.31	2.89	**-13%**	TGR & TL update, see Tables A-36 and A-37
540	University/Junior College (7,500 or fewer students) (Private)	student	5.96	5.96	**0%**	No change
550	University/Junior College (more than 7,500 students) (Private)	student	4.47	4.47	**0%**	No change
560	Pubilc Assembly	1,000 sf	-	13.37	-	New land use
565	Day Care Center	1,000 sf	53.26	36.77	**-31%**	TGR update, see Table A-36
	MEDICAL:					
610	Hospital	1,000 sf	33.69	27.81	**-17%**	TGR & PNT update, see Tables A-36 and A-38
620	Nursing Home	bed	3.18	3.48	**9%**	TGR update, see Table A-36
630	Clinic	1,000 sf	78.78	88.67	**13%**	TGR update, see Table A-36
	OFFICE:					
710	General Office 100,000 sq ft or less	1,000 sf	31.10	28.17	**-9%**	TGR update, see Table A-36
	General Office 100,001-200,000 sq ft	1,000 sf	26.34	28.17	**7%**	TGR update, see Table A-36
	General Office greater that 200,000 sq ft	1,000 sf	22.29	28.17	**26%**	TGR update, see Table A-36
720	Medical Office 10,000 sq ft or less	1,000 sf	58.85	58.85	**0%**	No change
720	Medical Office greater than 10,000 sq ft	1,000 sf	85.75	84.49	**-1%**	TGR update, see Table A-36
	RETAIL:					
812	Building Materials/Lumber Store	1,000 sf	104.77	39.55	**-62%**	TGR update, see Table A-36
813	Discount Superstore; Free-Standing	1,000 sf	138.16	40.50	**-71%**	TGR, TL, & PNT update, see Tables A-36, A-37, and A-38
816	Hardware/Paint Store	1,000 sf	26.86	2.31	**-91%**	TGR, TL, & PNT update, see Tables A-36, A-37, and A-38
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	45.32	19.34	**-57%**	TGR, TL, & PNT update, see Tables A-36, A-37, and A-38
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	39.56	37.33	**-6%**	TGR, TL, & PNT update, see Tables A-36, A-37, and A-38
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	39.56	38.86	**-2%**	TGR, TL, & PNT update, see Tables A-36, A-37, and A-38
840/841	New/Used Auto Sales	1,000 sf	49.28	44.66	**-9%**	TGR update, see Table A-36
850	Supermarket	1,000 sf	60.21	55.03	**-9%**	TGR update, see Table A-36
853	Convenience Market w/Gas Pumps	1,000 sf	201.40	-	-	Land use removed from schedule
862	Home Improvement Superstore	1,000 sf	24.71	22.92	**-7%**	TL & PNT update, see Tables A-37 and A-38
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	31.94	34.56	**8%**	TGR update, see Table A-36
890	Furniture Store	1,000 sf	8.32	10.36	**25%**	TGR update, see Table A-36
	SERVICES:					
912	Bank/Savings Drive-In	1,000 sf	90.15	58.69	**-35%**	TGR update, see Table A-36
931	Fine Dining/Quality Restaurant	1,000 sf	110.13	104.00	**-6%**	TGR update, see Table A-36
932	High-Turnover Restaurant	1,000 sf	131.22	116.43	**-11%**	TGR update, see Table A-36
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	369.78	346.65	**-6%**	TGR update, see Table A-36
942	Automobile Care Center	1,000 sf	40.96	36.74	**-10%**	TGR update, see Table A-36
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	36.83	37.58	**2%**	TGR update, see Table A-36
945	Gas Station w/Convenience Market 2,000-5,499 sq ft	fuel pos.	36.83	57.77	**57%**	TGR update, see Table A-36
945	Gas Station w/Convenience Market 5,500+ sq ft	fuel pos.	36.83	75.55	**105%**	TGR update, see Table A-36
947	Self-Service Car Wash	service bay	32.57	32.57	**0%**	No change
n/a	Convenience/Gasoline/Fast Food Restaurant	1,000 sf	417.47	417.47	**0%**	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	16.51	11.54	**-30%**	TGR update, see Table A-36
120	General Heavy Industrial	1,000 sf	3.55	-	-	Land use removed from schedule
130	Industrial Park	1,000 sf	16.18	7.98	**-51%**	TGR update, see Table A-36
140	Manufacturing	1,000 sf	9.05	11.25	**24%**	TGR update, see Table A-36
150	Warehouse	1,000 sf	8.43	4.05	**-52%**	TGR update, see Table A-36
151	Mini-Warehouse	1,000 sf	3.07	2.36	**-23%**	TGR & TL update, see Tables A-36 and A-37

- Gross VMT = TGR * TL * PNT / 2
- Individual variables are shown in Tables A-36 through A-38

Table A-36

Percent Change in Trip Generation Rate of Impact Fee Land Uses

LUC	Land Use	Unit	Trip Rate 2013	Trip Rate 2022	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached)	du	7.81	7.81	0%	No change
215	Single Family (Attached/Townhouse)	du	5.76	6.77	18%	Updated TGR in ITE 11th Edition
220	Multi-Family (Low-Rise); 1-3 Levels	du	6.60	6.74	2%	Re-alignment of multi-family uses in ITE 11th Ed.
221/222	Multi-Family (Mid/High-Rise); 4 Levels or more	du	6.60	4.54	-31%	Re-alignment of multi-family uses in ITE 11th Ed.
240	Mobile Home Park	du	4.17	4.17	0%	No change
251	Senior Adult Housing - Detached	du	3.12	3.54	13%	Updated TGR in ITE 11th Edition
252	Senior Adult Housing - Attached	du	-	2.99	-	New land use
253	Congregate Care Facility	du	2.25	2.33	4%	Updated TGR in ITE 11th Edition
254	Assisted Living	bed	-	2.60	-	New land use
255	Continuing Care Retirement Center	du	-	2.47	-	New land use
	LODGING:					
310	Hotel	room	6.36	5.56	-13%	Additional FL Studies added and updated TGR in ITE 11th Edition
320	Motel	room	5.63	3.35	-40%	Updated TGR in ITE 11th Edition
	RECREATION:					
416	RV Park	occ. site	1.62	1.62	0%	No change
420	Marina	berth	2.96	2.41	-19%	Updated TGR in ITE 11th Edition
430	Golf Course	acre	5.04	3.74	-26%	Updated TGR in ITE 11th Edition
445	Movie Theater	screen	106.63	114.83	8%	Updated TGR in ITE 11th Edition
492	Health Club	1,000 sf	32.93	34.50	5%	Updated TGR in ITE 11th Edition (peak hour adjusted for daily)
	INSTITUTIONS:					
520	Elementary School (Private)	student	1.29	2.27	76%	Updated TGR in ITE 11th Edition
522	Middle School (Private)	student	1.62	2.10	30%	Updated TGR in ITE 11th Edition
525	High School (Private)	student	1.71	1.94	13%	Updated TGR in ITE 11th Edition
540	University/Junior College (7,500 or fewer students) (Private)	student	2.00	2.00	0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	1.50	1.50	0%	No change
560	Pubilc Assembly	1,000 sf	-	7.60	-	New land use
565	Day Care Center	1,000 sf	71.88	49.63	-31%	Updated TGR in ITE 11th Edition
	MEDICAL:					
610	Hospital	1,000 sf	13.22	10.77	-19%	Updated TGR in ITE 11th Edition
620	Nursing Home	bed	2.76	3.02	9%	Updated TGR in ITE 11th Edition
630	Clinic	1,000 sf	33.22	37.39	13%	Updated TGR in ITE 11th Edition
	OFFICE:					
710	General Office 100,000 sq ft or less	1,000 sf	13.13	10.84	-17%	Updated TGR in ITE 11th Edition, removal of tiering
	General Office 100,001-200,000 sq ft	1,000 sf	11.12	10.84	-3%	Updated TGR in ITE 11th Edition, removal of tiering
	General Office greater that 200,000 sq ft	1,000 sf	9.41	10.84	15%	Updated TGR in ITE 11th Edition, removal of tiering
720	Medical Office 10,000 sq ft or less	1,000 sf	23.83	23.83	0%	No change
720	Medical Office greater than 10,000 sq ft	1,000 sf	34.72	34.21	-1%	Updated TGR in ITE 11th Edition
	RETAIL:					
812	Building Materials/Lumber Store	1,000 sf	45.16	17.05	-62%	Updated TGR in ITE 10th Edition
813	Discount Superstore; Free-Standing	1,000 sf	50.82	50.58	0%	Updated TGR in ITE 10th Edition
816	Hardware/Paint Store	1,000 sf	51.29	8.07	-84%	Updated TGR in ITE 10th Edition
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	86.56	54.45	-37%	Re-alignment of Retail/Shopping Center use in ITE 11th Ed.
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	36.27	67.52	86%	Re-alignment of Retail/Shopping Center use in ITE 11th Ed.
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	36.27	37.01	2%	Re-alignment of Retail/Shopping Center use in ITE 11th Ed.
840/841	New/Used Auto Sales	1,000 sf	27.12	24.58	-9%	Updated TGR in ITE 11th Edition. Blend of LUC 840 and 841
850	Supermarket	1,000 sf	103.38	94.48	-9%	Updated TGR in ITE 11th Edition
853	Convenience Market w/Gas Pumps	1,000 sf	772.23	-	-	Use removed from schedule. Use LUC 944 or 945 for Gas w/ Conv. Market
862	Home Improvement Superstore	1,000 sf	30.74	30.74	0%	No change
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	95.96	103.86	8%	Updated TGR in ITE 11th Edition. Blend of LUC 880 and 881
890	Furniture Store	1,000 sf	5.06	6.30	25%	Updated TGR in ITE 11th Edition
	SERVICES:					
912	Bank/Savings Drive-In	1,000 sf	159.34	103.73	-35%	Updated TGR in ITE 11th Edition
931	Fine Dining/Quality Restaurant	1,000 sf	91.10	86.03	-6%	Updated TGR in ITE 11th Edition
932	High-Turnover Restaurant	1,000 sf	116.60	103.46	-11%	Updated TGR in ITE 11th Edition
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	514.15	481.99	-6%	Updated TGR in ITE 11th Edition
942	Automobile Care Center	1,000 sf	31.43	28.19	-10%	Updated TGR in ITE 11th Edition
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	168.56	172.01	2%	Re-alignment of Gas Station w/Convenience Market land uses in ITE 11th Ed.
945	Gas Station w/Convenience Market 2,000-5,499 sq ft	fuel pos.	168.56	264.38	57%	Re-alignment of Gas Station w/Convenience Market land uses in ITE 11th Ed.
945	Gas Station w/Convenience Market 5,500+ sq ft	fuel pos.	168.56	345.75	105%	Re-alignment of Gas Station w/Convenience Market land uses in ITE 11th Ed.
947	Self-Service Car Wash	service bay	43.94	43.94	0%	No change
n/a	Convenience/Gasoline/Fast Food Restaurant	1,000 sf	984.59	984.59	0%	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	6.97	4.87	-30%	Updated TGR in ITE 11th Edition
120	General Heavy Industrial	1,000 sf	1.50	-	-	Use removed from ITE 11th Edition, see LUC 140
130	Industrial Park	1,000 sf	6.83	3.37	-51%	Updated TGR in ITE 11th Edition
140	Manufacturing	1,000 sf	3.82	4.75	24%	Updated TGR in ITE 11th Edition
150	Warehouse	1,000 sf	3.56	1.71	-52%	Updated TGR in ITE 11th Edition
151	Mini-Warehouse	1,000 sf	2.15	1.46	-32%	Updated TGR in ITE 11th Edition

- See Appendix D for additional information

Table A-37

Percent Change in Trip Length of Impact Fee Land Uses

LUC	Land Use	Unit	Trip Length 2013	Trip Length 2022	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached)	du	6.62	6.62	0%	No change
215	Single Family (Attached/Townhouse)	du	5.10	6.62	30%	Updated to be comparable to Single Family
220	Multi-Family (Low-Rise); 1-3 Levels	du	5.10	5.21	2%	Update to FL Studies database
221/222	Multi-Family (Mid/High-Rise); 4 Levels or more	du	5.10	5.21	2%	Update to FL Studies database
240	Mobile Home Park	du	4.60	4.60	0%	No change
251	Senior Adult Housing - Detached	du	5.42	5.42	0%	No change
252	Senior Adult Housing - Attached	du	-	4.34	-	New land use
253	Congregate Care Facility	du	3.08	3.08	0%	No change
254	Assisted Living	bed	-	3.08	-	New land use
255	Continuing Care Retirement Center	du	-	3.08	-	New land use
	LODGING:					
310	Hotel	room	6.26	6.26	0%	No change
320	Motel	room	4.34	4.34	0%	No change
	RECREATION:					
416	RV Park	occ. site	4.60	4.60	0%	No change
420	Marina	berth	6.62	6.62	0%	No change
430	Golf Course	acre	6.62	6.62	0%	No change
445	Movie Theater	screen	2.22	2.22	0%	No change
492	Health Club	1,000 sf	5.15	5.15	0%	No change
	INSTITUTIONS:					
520	Elementary School (Private)	student	4.30	3.31	-23%	Updated to use 50% of LUC 210 per review of travel demand models
522	Middle School (Private)	student	4.30	3.31	-23%	Updated to use 50% of LUC 210 per review of travel demand models
525	High School (Private)	student	4.30	3.31	-23%	Updated to use 50% of LUC 210 per review of travel demand models
540	University/Junior College (7,500 or fewer students) (Private)	student	6.62	6.62	0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	6.62	6.62	0%	No change
560	Pubilc Assembly	1,000 sf	-	3.91	-	New land use
565	Day Care Center	1,000 sf	2.03	2.03	0%	No change
	MEDICAL:					
610	Hospital	1,000 sf	6.62	6.62	0%	No change
620	Nursing Home	bed	2.59	2.59	0%	No change
630	Clinic	1,000 sf	5.10	5.10	0%	No change
	OFFICE:					
710	General Office 100,000 sq ft or less	1,000 sf	5.15	5.65	10%	No change
	General Office 100,001-200,000 sq ft	1,000 sf	5.15	5.65	10%	No change
	General Office greater that 200,000 sq ft	1,000 sf	5.15	5.65	10%	No change
720	Medical Office 10,000 sq ft or less	1,000 sf	5.55	5.55	0%	No change
720	Medical Office greater than 10,000 sq ft	1,000 sf	5.55	5.55	0%	No change
	RETAIL:					
812	Building Materials/Lumber Store	1,000 sf	6.27	6.27	0%	No change
813	Discount Superstore; Free-Standing	1,000 sf	5.91	2.39	-60%	Updated to reflect the average size in ITE 11th Edition (193k sq ft)
816	Hardware/Paint Store	1,000 sf	1.87	1.30	-30%	Updated to reflect the average size in ITE 11th Edition (11k sq ft)
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	1.87	1.48	-21%	Updated to reflect the average size in ITE 11th Edition (19k sq ft)
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	2.87	1.94	-32%	Updated to reflect the average size in ITE 11th Edition (59k sq ft)
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	2.87	2.80	-2%	Updated to reflect the average size in ITE 11th Edition (538k sq ft)
840/841	New/Used Auto Sales	1,000 sf	4.60	4.60	0%	No change
850	Supermarket	1,000 sf	2.08	2.08	0%	No change
853	Convenience Market w/Gas Pumps	1,000 sf	1.63	-	-	Use removed from schedule. Use LUC 944 or 945 for Gas w/ Conv. Market
862	Home Improvement Superstore	1,000 sf	2.40	2.33	-3%	Updated to reflect the average size in ITE 11th Edition (135k sq ft)
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	2.08	2.08	0%	No change
890	Furniture Store	1,000 sf	6.09	6.09	0%	No change
	SERVICES:					
912	Bank/Savings Drive-In	1,000 sf	2.46	2.46	0%	No change
931	Fine Dining/Quality Restaurant	1,000 sf	3.14	3.14	0%	No change
932	High-Turnover Restaurant	1,000 sf	3.17	3.17	0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	2.32	2.32	0%	No change
942	Automobile Care Center	1,000 sf	3.62	3.62	0%	No change
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	1.90	1.90	0%	No change
945	Gas Station w/Convenience Market 2,000-5,499 sq ft	fuel pos.	1.90	1.90	0%	No change
945	Gas Station w/Convenience Market 5,500+ sq ft	fuel pos.	1.90	1.90	0%	No change
947	Self-Service Car Wash	service bay	2.18	2.18	0%	No change
n/a	Convenience/Gasoline/Fast Food Restaurant	1,000 sf	2.65	2.65	0%	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	5.15	5.15	0%	No change
120	General Heavy Industrial	1,000 sf	5.15	-	-	Land use no longer in fee schedule
130	Industrial Park	1,000 sf	5.15	5.15	0%	No change
140	Manufacturing	1,000 sf	5.15	5.15	0%	No change
150	Warehouse	1,000 sf	5.15	5.15	0%	No change
151	Mini-Warehouse	1,000 sf	3.10	3.51	13%	Updated to use the midpoint of LUC 710 and LUC 820 (<50k sq ft)

- See Appendix D for additional information

Table A-38

Percent Change in Percent New Trips of Impact Fee Land Uses

LUC	Land Use	Unit	% New Trips 2013	% New Trips 2022	% Change	Explanation
	RESIDENTIAL:					
210	Single Family (Detached)	du	100%	100%	0%	No change
215	Single Family (Attached/Townhouse)	du	100%	100%	0%	No change
220	Multi-Family (Low-Rise); 1-3 Levels	du	100%	100%	0%	No change
221/222	Multi-Family (Mid/High-Rise); 4 Levels or more	du	100%	100%	0%	No change
240	Mobile Home Park	du	100%	100%	0%	No change
251	Senior Adult Housing - Detached	du	100%	100%	0%	No change
252	Senior Adult Housing - Attached	du	-	100%	-	New land use
253	Congregate Care Facility	du	72%	72%	0%	No change
254	Assisted Living	bed	-	72%	-	New land use
255	Continuing Care Retirement Center	du	-	72%	-	New land use
	LODGING:					
310	Hotel	room	66%	66%	0%	No change
320	Motel	room	77%	77%	0%	No change
	RECREATION:					
416	RV Park	occ. site	100%	100%	0%	No change
420	Marina	berth	90%	90%	0%	No change
430	Golf Course	acre	90%	90%	0%	No change
445	Movie Theater	screen	88%	88%	0%	No change
492	Health Club	1,000 sf	94%	94%	0%	No change
	INSTITUTIONS:					
520	Elementary School (Private)	student	80%	80%	0%	No change
522	Middle School (Private)	student	90%	80%	-11%	Updated to be the same as LUC 520
525	High School (Private)	student	90%	90%	0%	No change
540	University/Junior College (7,500 or fewer students) (Private)	student	90%	90%	0%	No change
550	University/Junior College (more than 7,500 students) (Private)	student	90%	90%	0%	No change
560	Pubilc Assembly	1,000 sf	-	90%	-	New land use
565	Day Care Center	1,000 sf	73%	73%	0%	No change
	MEDICAL:					
610	Hospital	1,000 sf	77%	78%	1%	Updated to use the midpoint of LUC 310 and LUC 710
620	Nursing Home	bed	89%	89%	0%	No change
630	Clinic	1,000 sf	93%	93%	0%	No change
	OFFICE:					
710	General Office 100,000 sq ft or less	1,000 sf	92%	92%	0%	No change
	General Office 100,001-200,000 sq ft	1,000 sf	92%	92%	0%	No change
	General Office greater that 200,000 sq ft	1,000 sf	92%	92%	0%	No change
720	Medical Office 10,000 sq ft or less	1,000 sf	89%	89%	0%	No change
720	Medical Office greater than 10,000 sq ft	1,000 sf	89%	89%	0%	No change
	RETAIL:					
812	Building Materials/Lumber Store	1,000 sf	74%	74%	0%	No change
813	Discount Superstore; Free-Standing	1,000 sf	92%	67%	-27%	Updated to reflect the average size in ITE 11th Edition (193k sq ft)
816	Hardware/Paint Store	1,000 sf	56%	44%	-21%	Updated to reflect the average size in ITE 11th Edition (11k sq ft)
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	56%	48%	-14%	Updated to reflect the average size in ITE 11th Edition (19k sq ft)
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	76%	57%	-25%	Updated to reflect the average size in ITE 11th Edition (59k sq ft)
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	76%	75%	-1%	Updated to reflect the average size in ITE 11th Edition (538k sq ft)
840/841	New/Used Auto Sales	1,000 sf	79%	79%	0%	No change
850	Supermarket	1,000 sf	56%	56%	0%	No change
853	Convenience Market w/Gas Pumps	1,000 sf	32%	-	-	Use removed from schedule. Use LUC 944 or 945 for Gas w/ Conv. Market
862	Home Improvement Superstore	1,000 sf	67%	64%	-4%	Updated to reflect the average size in ITE 11th Edition (135k sq ft)
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	32%	32%	0%	No change
890	Furniture Store	1,000 sf	54%	54%	0%	No change
	SERVICES:					
912	Bank/Savings Drive-In	1,000 sf	46%	46%	0%	No change
931	Fine Dining/Quality Restaurant	1,000 sf	77%	77%	0%	No change
932	High-Turnover Restaurant	1,000 sf	71%	71%	0%	No change
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	62%	62%	0%	No change
942	Automobile Care Center	1,000 sf	72%	72%	0%	No change
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	23%	23%	0%	No change
945	Gas Station w/Convenience Market 2,000-5,499 sq ft	fuel pos.	23%	23%	0%	No change
945	Gas Station w/Convenience Market 5,500+ sq ft	fuel pos.	23%	23%	0%	No change
947	Self-Service Car Wash	service bay	68%	68%	0%	No change
n/a	Convenience/Gasoline/Fast Food Restaurant	1,000 sf	32%	32%	0%	No change
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	92%	92%	0%	No change
120	General Heavy Industrial	1,000 sf	92%	-	-	Land use no longer in fee schedule
130	Industrial Park	1,000 sf	92%	92%	0%	No change
140	Manufacturing	1,000 sf	92%	92%	0%	No change
150	Warehouse	1,000 sf	92%	92%	0%	No change
151	Mini-Warehouse	1,000 sf	92%	92%	0%	No change

- See Appendix D for additional information

Appendix B
Cost Component

Appendix B: Cost Component

This appendix presents the detailed calculations for the cost component of the roads impact fee update. Supporting data and estimates are provided for all cost variables, including:

- Design
- Right-of-Way
- Construction
- CEI
- Roadway Capacity

It should be noted that the cost estimates developed for this impact fee study reflect a large sample size from several communities for projects bid/completed since 2013. When compared to the smaller sample of improvements observed over the last two to three years, the data and estimates used in this study represent a conservative approach. Additionally, these estimates account for Hernando County's suburban/rural nature, which tends to moderate roadway costs compared to some of the larger, more urbanized counties that are experiencing higher construction and land acquisition costs.

Curb & Gutter vs. Open Drainage

To determine the weighted average cost per lane mile for open drainage designed roadways, an adjustment factor was applied to the curb & gutter cost estimate. This factor was based on the design cost ratio from the most recent District 7 Long Range Estimates (LRE) provided by FDOT. Based on the LRE, the cost for open drainage-design roadway capacity expansion (new road construction or lane addition) is approximately 74 percent of the cost of curb & gutter-design roadway improvements.

Table B-1

Curb & Gutter vs. Open Drainage Design Cost Factor

Improvement	Construction Cost per Lane Mile		
	Open Drainage Rural Design	Curb & Gutter Urban Design	Ratio
0-2 Lanes	$3,190,321	$5,001,730	64%
0-4 Lanes	$2,571,116	$3,517,494	73%
0-6 Lanes	$2,182,686	$2,843,061	77%
2-4 Lanes	$3,707,679	$4,601,110	81%
4-6 Lanes	$4,072,695	$5,179,613	79%
Average	**$3,144,899**	**$4,228,602**	**74%**

Source: FDOT District 7 Long Range Estimates, 2019

Design

County Roadways

The design cost factor for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of design-to-construction cost ratios from previously completed roads/transportation impact fee studies throughout Florida. As shown in Table B-2, recent design factors ranged from 10 percent to 13 percent with a weighted average of 11 percent. For purposes of this study, the design cost for county roads was calculated at 11 percent of the construction cost per lane mile.

State Roadways

Similarly, the design cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of design-to-construction cost ratios from previously completed roads/transportation impact fee studies throughout Florida. As shown in Table B-2, recent design factors ranged from 10 percent to 11 percent with a weighted average of 11 percent. For purposes of this study, the design cost for state roads was calculated at 11 percent of the construction cost per lane mile.

Table B-2

Design Cost Factor for County and State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		Design	Constr.	Design Ratio	Design	Constr.	Design Ratio
2013	Hernando	$198,000	$1,980,000	10%	$222,640	$2,024,000	11%
2013	Charlotte	$220,000	$2,200,000	10%	$240,000	$2,400,000	10%
2014	Indian River	$159,000	$1,598,000	10%	$196,000	$1,776,000	11%
2015	Collier	$270,000	$2,700,000	10%	$270,000	$2,700,000	10%
2015	Brevard	$242,000	$2,023,000	12%	$316,000	$2,875,000	11%
2015	Sumter	$210,000	$2,100,000	10%	$276,000	$2,505,000	11%
2015	Marion	$167,000	$1,668,000	10%	$227,000	$2,060,000	11%
2015	Palm Beach	$224,000	$1,759,000	13%	$333,000	$3,029,000	11%
2016	Hillsborough	$348,000	$2,897,000	12%	$319,000	$2,897,000	11%
2017	St. Lucie	$220,000	$2,200,000	10%	$341,000	$3,100,000	11%
2017	Clay	$239,000	$2,385,000	10%	-	-	n/a
2018	Collier	$385,000	$3,500,000	11%	$385,000	$3,500,000	11%
Average		**$240,167**	**$2,250,833**	**11%**	**$288,553**	**$2,660,500**	**11%**

Source: Recent impact fee studies conducted throughout Florida

Right-of-Way

The ROW cost reflects the total cost of the acquisitions along a corridor that are 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

Given the limited data for ROW costs on county roads in Hernando County, the ROW-to-construction ratio was based on several recently completed roads/transportation impact fee studies throughout Florida. As shown in Table B-3, ratios for county roads ranged from 32 percent to 60 with an average of 42 percent. For purposes of this update study, the ROW cost was estimated at 40 percent of the construction cost per lane mile for county roadways.

State Roadways

Similar to county roads, the ROW-to-construction ratio for state roads was based on several recently completed roads/transportation impact fee studies throughout Florida. As shown in Table B-3, ratios for state roads ranged from 32 percent to 60 percent with an average of 43 percent. For purposes of this update study, the ROW cost was estimated at 40 percent of the construction cost per lane mile for state roadways.

Table B-3

Right-of-Way Cost Factor for County and State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		ROW	Constr.	ROW Ratio	ROW	Constr.	ROW Ratio
2013	Hernando	$811,800	$1,980,000	41%	$890,560	$2,024,000	44%
2013	Charlotte	$1,034,000	$2,200,000	47%	$1,128,000	$2,400,000	47%
2014	Indian River	$656,000	$1,598,000	41%	$781,000	$1,776,000	44%
2015	Collier	$863,000	$2,700,000	32%	$863,000	$2,700,000	32%
2015	Brevard	$708,000	$2,023,000	35%	$1,006,000	$2,785,000	36%
2015	Sumter	$945,000	$2,100,000	45%	$1,127,000	$2,505,000	45%
2015	Marion	$1,001,000	$1,668,000	60%	$1,236,000	$2,060,000	60%
2015	Palm Beach	$721,000	$1,759,000	41%	$1,333,000	$3,029,000	44%
2016	Hillsborough	$1,448,000	$2,897,000	50%	$1,448,000	$2,897,000	50%
2017	St. Lucie	$990,000	$2,200,000	45%	$1,395,000	$3,100,000	45%
2017	Clay	$954,000	$2,385,000	40%	-	-	n/a
2018	Collier	$1,208,000	$3,500,000	35%	$1,208,000	$3,500,000	35%
Average		**$944,983**	**$2,250,833**	**42%**	**$1,128,687**	**$2,616,000**	**43%**

Source: Recent impact fee studies conducted throughout Florida

Construction

County Roadways

A review of construction cost data for local county roadway capacity expansion projects included two improvements provided by Hernando County. These improvements include a recently bid improvement and an estimate for future consideration:

- Cortez Blvd Frontage Rd @ I-75
- Barclay Ave from San Antonio Rd to Powell Rd/Elgin Blvd

The Cortez Blvd improvement includes a curb & gutter design with a construction cost of $1.67 million per lane mile, which reflects the lower costs associated with frontage roads. The Barclay Ave project features an open drainage design with a construction cost estimate of $2.73 million per lane mile. These local projects were supplemented with recent improvements from other communities in Florida to increase the sample size in estimating the construction cost for impact fee purposes.

Curb & Gutter Design

As shown in Table B-4, this review included approximately 155 lane miles of improvements across 13 different counties (including Hernando). These improvements were summarized based on the county land use and demographic characteristics (urban vs rural in nature). For purposes of this analysis, Hernando County was considered a "rural" county with urban counties consisting of Broward, Hillsborough, Miami-Dade, Orange, and Palm Beach Counties. The rural counties

experienced a weighted average cost of $2.80 million (excluding Hernando County), or $2.78 million (including Hernando County), for curb & gutter improvements.

Based on a review of the local projects, statewide projects, and discussions with County representatives, a construction cost of **$2.80 million per lane mile** for county roads (curb & gutter) was utilized for the roads impact fee calculation.

Open Drainage Design

As shown in Table B-5, this review included approximately 7.60 lane miles of improvements, one project from Hernando County and one project from Sarasota County. As previously mentioned, the Hernando County project had an estimated construction cost of $2.73 million per lane mile, while the Sarasota improvement had a construction cost of $2.17 million per lane mile. Combined, these improvements averaged approximately $2.34 million per lane mile. Due to this small sample size, the construction cost per lane mile estimate for open drainage improvements was based on the FDOT LRE ratio presented in Table B-1. This ratio (74 percent) was applied to the estimated construction cost of curb & gutter projects, which resulted is a construction cost estimate of **$2.07 million per lane mile** for open drainage county projects.

Table B-4

Construction Cost – County Road Improvements from Hernando County and Other Jurisdictions throughout Florida (Curb & Gutter Design)

County	County Classification	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
URBAN Counties, Curb and Gutter													
Orange	Urban	5	Rouse Rd	Lake Underhill Rd	SR 50	2013	2 to 4	Urban	1.55	2	3.10	$7,592,408	$2,449,164
Orange	Urban	5	Lake Underhill Rd	Goldenrod Rd	Chickasaw Tr	2013	2 to 4	Urban	0.69	2	1.38	$6,371,855	$4,617,286
Hillsborough	Urban	7	Bruce B. Downs Blvd, Seg. B/C	Palm Springs Blvd	Pebble Creek Dr	2013	4 to 8	Urban	3.36	4	13.44	$51,855,535	$3,858,299
Orange	Urban	5	CR 535 Seg. F	Overstreet Rd	Fossick Rd	2014	2 to 4	Urban	0.60	2	1.20	$3,263,746	$2,719,788
Hillsborough	Urban	7	Boyette Rd, Ph. III	Donneymoor Dr	Bell Shoals Rd	2014	2 to 4	Urban	1.84	2	3.68	$25,720,068	$6,989,149
Orange	Urban	5	International Dr	Westwood Blvd	Westwood Blvd	2015	4 to 6	Urban	2.20	2	4.40	$16,775,875	$3,812,699
Orange	Urban	5	Reams Rd	Delmar Ave	Taborfield Ave	2017	2 to 4	Urban	0.36	2	0.72	$3,409,584	$4,735,533
Orange	Urban	5	Destination Pkwy 1B/2A	Tradeshow Blvd	Lake Cay	2017	2 to 4	Urban	0.78	2	1.56	$6,110,403	$3,916,925
Hillsborough	Urban	7	Bruce B. Downs Blvd, Seg. A	Bearss Ave	Palm Springs Blvd	2017	4 to 8	Urban	3.56	4	14.24	$37,155,153	$2,609,210
Hillsborough	Urban	7	Bruce B. Downs Blvd, Seg. D	Pebble Creek Dr	Pasco Co. Line	2018	4 to 8	Urban	1.36	4	5.44	$17,755,778	$3,263,930
Orange	Urban	5	Holden Ave	John Young Pkwy	Orange Blossom Tr	2019	0/2 to 4	Urban	1.24	2/4	3.50	$18,798,771	$5,371,077
Orange	Urban	5	Boggy Creek Rd N	South Access Rd	Wetherbee Rd	2019	2 to 4	Urban	1.29	2	2.58	$8,585,774	$3,327,819
Total (2013-2019); Urban Counties ONLY									**Count:**	**12**	**55.24**	**$203,394,950**	**$3,682,023**
RURAL Counties, Curb and Gutter													
Brevard	Rural	5	Babcock St	S. of Foundation Park Blvd	Malabar Rd	2013	2 to 4	Urban	12.40	2	24.80	$56,000,000	$2,258,065
Collier	Rural	1	Collier Blvd (CR 951)	Golden Gate Blvd	Green Blvd	2013	4 to 6	Urban	2.00	2	4.00	$17,122,640	$4,280,660
Marion	Rural	5	SW 110th St	US 41	SW 200th Ave	2013	0 to 2	Urban	0.11	2	0.22	$438,765	$1,994,386
Marion	Rural	5	NW 35th St	NW 35th Avenue Rd	NW 27th Ave	2013	0 to 4	Urban	0.50	4	4.60	$8,616,236	$1,873,095
Marion	Rural	5	NW 35th St	NW 27th Ave	US 441	2013	2 to 4	Urban	1.30	2			
Sumter	Rural	5	C-466A, Ph. III	US 301 N	Powell Rd	2013	2 to 3/4	Urban	1.10	2	2.20	$4,283,842	$1,947,201
Collier	Rural	1	Golden Gate Blvd	Wilson Blvd	Desoto Blvd	2014	2 to 4	Urban	2.40	2	4.80	$16,003,504	$3,334,063
Brevard	Rural	5	St. Johns Heritage Pkwy	SE of I-95 Intersection	US 192 (Space Coast Pkwy)	2014	0 to 2	Sub-Urb	3.11	2	6.22	$16,763,567	$2,695,107
Sarasota	Rural	1	Bee Ridge Rd	Mauna Loa Blvd	Iona Rd	2014	2 to 4	Urban	2.68	2	5.36	$14,066,523	$2,624,351
St. Lucie	Rural	4	W Midway Rd (CR 712)	Selvitz Rd	South 25th St	2014	2 to 4	Urban	1.00	2	2.00	$6,144,000	$3,072,000
Lake	Rural	5	N. Hancock Rd Ext.	Old 50	Gatewood Dr	2014	0/2 to 4	Urban	1.50	2/4	5.00	$8,185,574	$1,637,115
Polk	Rural	1	CR 655 & CR 559A	Pace Rd & N of CR 559A	N. of CR 559A & SR 599	2014	2 to 4	Urban	2.60	2	5.20	$10,793,552	$2,075,683
Volusia	Rural	5	Howland Blvd	Courtland Blvd	N. of SR 415	2014	2 to 4	Urban	2.08	2	4.16	$11,110,480	$2,670,788
Polk	Rural	1	Ernie Caldwell Blvd	Pine Tree Tr	US 17/92	2015	0 to 4	Urban	2.41	4	9.64	$19,535,391	$2,026,493
Volusia	Rural	5	LPGA Blvd	Jimmy Ann Dr/Grand Reserve	Derbyshire Rd	2016	2 to 4	Urban	0.68	2	1.36	$3,758,279	$2,763,440
St. Lucie	Rural	4	W Midway Rd (CR 712)	W. of South 25th St	E. of SR 5 (US 1)	2016	2 to 4	Urban	1.77	2	3.54	$24,415,701	$6,897,091
Marion	Rural	5	NW/NE 35th St, Ph. 1a	US 441	600' E. of W Anthony Rd	2016	2 to 4	Urban	0.30	2	0.60	$1,770,250	$2,950,417
Volusia	Rural	5	Howland Blvd	Providence Blvd	Elkcam Blvd	2017	2 to 4	Urban	2.15	2	4.30	$10,850,000	$2,523,256
Volusia	Rural	5	Orange Camp Rd	MLK Blvd	I-4 in DeLand	2017	2 to 4	Urban	0.75	2	1.50	$10,332,000	$6,888,000
Lake	Rural	5	CR 466A, Ph. IIIA	Poinsettia Ave	Century Ave	2018	2 to 4	Urban	0.42	2	0.84	$3,062,456	$3,645,781
Lee	Rural	1	Alico Rd	Ben Hill Griffin Pkwy	E. of Airport Haul Rd	2018	2 to 4	Urban	1.78	2	3.56	$18,062,562	$5,073,753
Lee	Rural	1	Homestead Rd	S. of Sunrise Blvd	N. of Alabama Rd	2018	2 to 4	Urban	2.25	2	4.50	$14,041,919	$3,120,426
Hernando	Rural	7	Cortez Blvd Frontage Rd @ I-75			2020	0 to 2	Urban	0.62	2	1.24	$2,064,688	$1,665,071
Total (2013-2019); Rural Counties ONLY									**Count:**	**23**	**99.64**	**$277,421,929**	**$2,784,243**
Total (2013-2019); Rural Counties ONLY, Excluding Hernando County									**Count:**	**22**	**98.40**	**$275,357,241**	**$2,798,346**

Source: Data obtained from each respective county (Building and Public Works Departments)

Table B-5

Construction Cost – County Road Improvements from Hernando County and Other Jurisdictions throughout Florida (Open Drainage Design)

County	County Classification	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
RURAL Counties, Open Drainage													
Sarasota	Rural	1	Honore Ave/Pinebrook Rd Ext.	SR 681	Laurel Rd	2013	0 to 2	Rural	2.70	2	5.40	$11,699,059	$2,166,492
Hernando	Rural	7	Barclay Ave	San Antonio Rd	Powell Rd/Elgin Blvd	2020	2 to 4	Rural	1.10	2	2.20	$6,000,000	$2,727,273
Total (2013+); Rural Counties ONLY									**Count:**	**2**	**7.60**	**$17,699,059**	**$2,328,824**

Source: Data obtained from each respective county (Building and Public Works Departments)

State Roadways

A review of construction cost data for recent state (and other roads built by FDOT) roadway capacity expansion projects identified three (3) improvements in Hernando County:

- SR 50 from Windmere Rd to E. of US 301 (curb & gutter)
- CR 578 (County Line Rd) from Suncoast Pkwy to US 41 @ Ayers Rd (curb & gutter)
- CR 578 (County Line Rd) from Springtime St to E. of Mariner Blvd (open drainage)

For the curb & gutter projects, these improvements range from $3.18 million per lane mile to $4.72 million per lane mile with a weighted average cost of $4.25 million per lane mile. For the open drainage improvement, the construction cost is approximately $6.28 million per lane mile. Note that this is a very short segment with a high cost figure. It should be noted that the costs for both CR 578 improvements include the associated shared-use paths.

Curb & Gutter Design

In addition to the two local improvements (curb & gutter), a review of recently bid projects located throughout Florida identified 60 curb & gutter improvements from 30 different counties (see Table B-6). These improvements were then grouped into "urban" and "rural" counties, with the urban counties including Broward, Hillsborough, Miami-Dade, Orange, and Palm Beach Counties. The rural counties (excluding Hernando County) experienced a weighted average construction cost of approximately $3.97 million per lane mile. Based on a review of the local projects, statewide projects, and discussions with County representatives, a construction of **$4.20 million per lane mile** for state roads (curb & gutter) was utilized for the roads impact fee calculation, which reflects local cost factors in Hernando County and the inclusion of certain amenities, such as shared-use paths.

Open Drainage Design

In addition to the local improvement (open drainage), a review of recently bid projects located throughout the state of Florida identified 15 open drainage improvements from 8 different counties. These improvements were then grouped into "urban" and "rural" counties, with Hernando County being considered a "rural" county. The open drainage improvements for urban counties averaged $3.73 million per lane mile, and the rural counties averaged $2.21 million per lane mile (excluding Hernando County). Due to the small sample size and high variation of the open drainage improvement costs, the construction cost for these improvements was calculated based on the roadway design cost ratio estimates obtained from the FDOT District 7 LRE (74 percent of curb & gutter project cost, see Table B-1). Applying this 74-percent ratio resulted in a construction cost estimate of **$3.11 million per lane mile** for open drainage projects.

Table B-6

Construction Cost – State Road Improvements (and Other Roads Built by FDOT) from Hernando County and Other Jurisdictions throughout Florida (Curb & Gutter Design)

County	County Classification	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
URBAN Counties, Curb and Gutter													
Broward	Urban	4	Andrews Ave Ext.	NW 18th St	Copans Rd	2013	2 to 4	Urban	0.50	2	1.00	$6,592,014	$6,592,014
Hillsborough	Urban	7	SR 41 (US 301)	S. of Tampa Bypass Canal	N. of Fowler Ave	2013	2 to 4	Sub-Urb	1.81	2	3.62	$15,758,965	$4,353,305
Orange	Urban	5	SR 50 (Colonial Dr)	E. of CR 425 (Dean Rd)	E. of Old Cheney Hwy	2013	4 to 6	Urban	4.91	2	9.82	$66,201,688	$6,741,516
Broward	Urban	4	SR 7 (US 441)	N. of Hallandale Beach	N. of Fillmore St	2014	4 to 6	Urban	1.79	2	3.58	$30,674,813	$8,568,384
Broward	Urban	4	Andrews Ave Ext.	Pompano Park Place	S. of Atlantic Blvd	2014	2 to 4	Urban	0.36	2	0.72	$3,177,530	$4,413,236
Miami-Dade	Urban	6	SR 823/NW 57th Ave	W. 65th St	W. 84th St	2014	4 to 6	Urban	1.00	2	2.00	$17,896,531	$8,948,266
Miami-Dade	Urban	6	SR 823/NW 57th Ave	W. 53rd St	W. 65th St	2014	4 to 6	Urban	0.78	2	1.56	$14,837,466	$9,511,196
Orange	Urban	5	SR 50	SR 429 (Western Beltway)	E. of West Oaks Mall	2014	4 to 6	Urban	2.56	2	5.12	$34,275,001	$6,694,336
Orange	Urban	5	SR 15 (Hofner Rd)	Lee Vista Blvd	Conway Rd	2015	2 to 4	Urban	3.81	2	7.62	$37,089,690	$4,867,413
Miami-Dade	Urban	6	SR 977/Krome Ave/SW 177th Ave	S of SW 136th St	S. of SR 94 (SW 88th St/Kendall Dr)	2016	0 to 4	Urban	3.50	4	14.00	$32,129,013	$2,294,930
Broward	Urban	4	SW 30th Ave	Griffin Rd	SW 45th St	2016	2 to 4	Urban	0.24	2	0.48	$1,303,999	$2,716,665
Hillsborough	Urban	7	SR 43 (US 301)	SR 674	S. of CR 672 (Balm Rd)	2016	2 to 6	Urban	3.77	4	15.08	$43,591,333	$2,890,672
Miami-Dade	Urban	6	NW 87th Ave/SR 25 & SR 932	NW 74th St	NW 103rd St	2016	0 to 4	Urban	1.93	4	7.72	$28,078,366	$3,637,094
Orange	Urban	5	SR 423 (John Young Pkwy)	SR 50 (Colonial Dr)	Shader Rd	2017	4 to 6	Urban	2.35	2	4.70	$27,752,000	$5,904,681
Palm Beach	Urban	4	SR 80	W. of Lion County Safari Rd	Forest Hill Blvd	2018	4 to 6	Urban	7.20	2	14.40	$32,799,566	$2,277,748
Miami-Dade	Urban	6	SR 847 (NW 47th Ave)	SR 860 (NW 183rd St)	N. of NW 199th St	2018	2 to 4	Urban	1.31	2	2.62	$18,768,744	$7,163,643
Miami-Dade	Urban	6	SR 847 (NW 47th Ave)	N. of NW 199th St and S of NW 203 St	Premier Pkwy and N of S Snake CR Canal	2018	2 to 4	Urban	1.09	2	2.18	$10,785,063	$4,947,277
Hillsborough	Urban	7	CR 580 (Sam Allen Rd)	W. of SR 39 (Paul Buchman Hwy)	E. of Park Rd	2018	2 to 4	Urban	2.02	2	4.04	$23,444,444	$5,803,080
Orange	Urban	5	SR 414 (Maitland Blvd)	E. of I-4	E. of CR 427 (Maitland Ave)	2018	4 to 6	Urban	1.39	2	2.78	$7,136,709	$2,567,162
Miami-Dade	Urban	6	SR 997 (Krome Ave)	SW 312 St	SW 232nd St	2019	2 to 4	Urban	3.64	2	7.28	$30,374,141	$4,172,272
Total (2013-2019); Urban Counties ONLY									**Count:**	**20**	**110.32**	**$482,667,076**	**$4,375,155**
RURAL Counties, Curb and Gutter													
Lee	Rural	1	SR 78 (Pine Island)	Burnt Store Rd	W. of Chiquita Blvd	2013	2 to 4	Urban	1.94	2	3.88	$8,005,048	$2,063,157
Brevard	Rural	5	SR 507 (Babcock St)	Melbourne Ave	Fee Ave	2013	2 to 4	Urban	0.55	2	1.10	$5,167,891	$4,698,083
Lee	Rural	1	US 41 Business	Littleton Rd	SR 739	2013	2 to 4	Urban	1.23	2	2.46	$8,488,393	$3,450,566
Brevard	Rural	5	Apollo Blvd	Sarno Rd	Eau Gallie Blvd	2013	2 to 4	Urban	0.74	2	1.48	$10,318,613	$6,972,036
Okeechobee	Rural	1	SR 70	NE 34th Ave	NE 80th Ave	2014	2 to 4	Urban	3.60	2	7.20	$23,707,065	$3,292,648
Martin	Rural	4	CR 714/Indian St	Turnpike/Martin Downs Blvd	W. of Mapp Rd	2014	2 to 4	Urban	1.87	2	3.74	$14,935,957	$3,993,571
Pinellas	Rural	7	43rd St Extension	S. of 118th Ave	40th St	2014	0 to 4	Urban	0.49	4	1.96	$4,872,870	$2,486,158
Nassau	Rural	2	SR 200 (A1A)	W. of Still Quarters Rd	W. of Ruben Ln	2014	4 to 6	Urban	3.05	2	6.10	$18,473,682	$3,028,472
Charlotte	Rural	1	US 41 (SR 45)	Enterprise Dr	Sarasota County Line	2014	4 to 6	Urban	3.62	2	7.24	$31,131,016	$4,299,864
Duval	Rural	2	SR 243 (JIA N Access)	Airport Rd	Pelican Park (I-95)	2014	0 to 2	Urban	2.60	2	5.20	$14,205,429	$2,731,813
Desoto	Rural	1	US 17	CR 760A (Nocatee)	Heard St	2014	2 to 4	Urban	4.40	2	8.80	$29,584,798	$3,361,909
Hendry	Rural	1	SR 82 (Immokalee Rd)	Lee County Line	Collier County Line	2015	2 to 4	Urban	1.27	2	2.54	$7,593,742	$2,989,662
Sarasota	Rural	1	SR 45A (US 41) (Venice Bypass)	Gulf Coast Blvd	Bird Bay Dr W	2015	4 to 6	Urban	1.14	2	2.28	$16,584,224	$7,273,782
Clay	Rural	2	SR 21	S. of Branan Field	Old Jennings Rd	2015	4 to 6	Urban	1.45	2	2.90	$15,887,487	$5,478,444
Putnam	Rural	2	SR 15 (US 17)	Horse Landing Rd	N. Boundary Rd	2015	2 to 4	Urban	1.99	2	3.98	$13,869,804	$3,484,875
Osceola	Rural	5	SR 500 (US 192/441)	Eastern Ave	Nova Rd	2015	4 to 6	Urban	3.18	2	6.36	$16,187,452	$2,545,197
Osceola	Rural	5	SR 500 (US 192/441)	Aeronautical Blvd	Budinger Ave	2015	4 to 6	Urban	3.94	2	7.88	$34,256,621	$4,347,287
Lake	Rural	5	SR 25 (US 27)	N. of Boggy Marsh Rd	N. of Lake Louisa Rd	2015	4 to 6	Sub-Urb	6.52	2	13.03	$37,503,443	$2,878,238
Seminole	Rural	5	SR 15/600	Shepard Rd	Lake Mary Blvd	2015	4 to 6	Urban	3.63	2	7.26	$42,712,728	$5,883,296
St. Lucie	Rural	4	SR 614 (Indrio Rd)	W. of SR 9 (I-95)	E. of SR 607 (Emerson Ave)	2016	2 to 4	Urban	3.80	2	7.60	$22,773,660	$2,996,534
Seminole	Rural	5	SR 46	Mellonville Ave	E. of SR 415	2016	2 to 4	Urban	2.83	2	5.66	$26,475,089	$4,677,578
St. Lucie	Rural	4	CR 712 (Midway Rd)	W. of S. 25th St	E. of SR 5 (US 1)	2016	2 to 4	Urban	1.77	2	3.54	$24,415,701	$6,897,091
Citrus	Rural	7	SR 55 (US 19)	W. Green Acres St	W. Jump Ct	2016	4 to 6	Urban	2.07	2	4.14	$27,868,889	$6,731,616
Walton	Rural	3	SR 30 (US 98)	Emerald Bay Dr	Tang-o-mar Dr	2016	4 to 6	Urban	3.37	2	6.74	$42,140,000	$6,252,226
Duval	Rural	2	SR 201	S. of Baldwin	N. of Baldwin (Bypass)	2016	0 to 4	Urban	4.11	4	16.44	$50,974,795	$3,100,657
Hardee	Rural	1	SR 35 (US 17)	S. of W. 9th St	N. of W. 3rd St	2016	0 to 4	Urban	1.11	4	4.44	$14,067,161	$3,168,280
Alachua	Rural	2	SR 20 (SE Hawthorne Rd)	E. of US 301	E. of Putnam Co. Line	2017	2 to 4	Urban	1.70	2	3.40	$11,112,564	$3,268,401

Table B-6 (continued)

Construction Cost – State Road Improvements (and Other Roads Built by FDOT) from Hernando County and Other Jurisdictions throughout Florida (Curb & Gutter Design), continued

County	County Classification	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
RURAL Counties, Curb and Gutter													
Okaloosa	Rural	3	SR 30 (US 98)	CR 30F (Airport Rd)	E. of Walton Co. Line	2017	4 to 6	Urban	3.85	2	7.70	$33,319,378	$4,327,192
Bay	Rural	3	SR 390 (St. Andrews Blvd)	E. of CR 2312 (Baldwin Rd)	Jenks Ave	2017	2 to 6	Urban	1.33	4	5.32	$14,541,719	$2,733,406
Pasco	Rural	7	SR 54	E. of CR 577 (Curley Rd)	E. of CR 579 (Morris Bridge Rd)	2017	2 to 4/6	Urban	4.50	2/4	11.80	$41,349,267	$3,504,175
Lake	Rural	5	SR 46 (US 441)	W. of SR 500	E. of Round Lake Rd	2017	2 to 6	Urban	2.23	4	8.92	$27,677,972	$3,102,912
Wakulla	Rural	3	SR 369 (US 19)	N. of SR 267	Leon Co. Line	2018	2 to 4	Urban	2.24	2	4.48	$15,646,589	$3,492,542
St. Lucie	Rural	4	SR 713 (Kings Hwy)	S. of SR 70	SR 9 (I-95) Overpass	2018	2 to 4	Urban	3.42	2	6.84	$45,162,221	$6,602,664
Citrus	Rural	7	SR 55 (US 19)	W. Jump Ct	CR 44 (W Fort Island Tr)	2018	4 to 6	Urban	4.81	2	9.62	$50,444,444	$5,243,705
Sarasota	Rural	1	SR 45A (US 41) (Venice Bypass)	Center Rd	Gulf Coast Blvd	2018	4 to 6	Urban	1.19	2	2.38	$15,860,000	$6,663,866
Seminole	Rural	5	SR 46	Orange Blvd	N. Oregon St (Wekiva Section 7B)	2019	4 to 6	Urban	1.30	2	2.60	$17,848,966	$6,864,987
Duval	Rural	2	Jax National Cemetery Access Rd	Lannie Rd	Arnold Rd	2019	0 to 2	Urban	3.26	2	6.52	$11,188,337	$1,716,003
Pasco	Rural	7	SR 52	W. of Suncoast Pkwy	E. of SR 45 (US 41)	2019	4 to 6	Urban	4.64	2	9.28	$45,307,439	$4,882,267
Hernando	Rural	7	CR 578 (County Line Rd)	Suncoast Pkwy	US 41 @ Ayers Rd	2017	0 to 4	Urban	1.49	4	5.96	$20,155,312	$3,381,764
Hernando	Rural	7	SR 50	Windmere Rd	E of US 301	2019	4 to 6	Urb/Rural	5.60	2	11.20	$52,736,220	$4,708,591
Putnam	Rural	2	SR 20	Alachua/Putnam Co. Line	SW 56th Ave	2019	2 to 4	Urban	6.95	2	13.90	$45,290,778	$3,258,329
Bay	Rural	3	SR 390 (St. Andrews Blvd)	SR 368 (23rd St)	E of CR 2312 (Baldwin Rd)	2019	2 to 6	Urban	2.47	4	9.88	$41,711,427	$4,221,804
Total (2013-2019); Rural Counties ONLY									**Count:**	**42**	**263.75**	**$1,051,554,191**	**$3,986,935**
Total (2013-2019); Hernando County ONLY									**Count:**	**2**	**17.16**	**$72,891,532**	**$4,247,758**
Total (2013-2019); Rural Counties ONLY, Excluding Hernando County									**Count:**	**40**	**246.59**	**$978,662,659**	**$3,968,785**

Source: Florida Department of Transportation Contracts Administration Department, Bid Tabulations

Table B-7

Construction Cost – State Road Improvements (and Other Roads Built by FDOT) from Hernando County and Other Jurisdictions throughout Florida (Open Drainage Design)

County	County Classification	District	Description	From	To	Year	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
URBAN Counties, Open Drainage													
Miami-Dade	Urban	6	SR 997 (Krome Ave)	SR 94/Kendall Dr	1 mile N. of 8th St	2014	2 to 4	Rural	5.72	2	11.44	$55,164,057	$4,822,033
Miami-Dade	Urban	6	SR 997 (Krome Ave)	MP 8.151	MP 10.935	2015	2 to 4	Rural	2.78	2	5.56	$17,715,916	$3,186,316
Miami-Dade	Urban	6	SR 997 (Krome Ave)	MP 5.122	MP 8.151	2015	2 to 4	Rural	3.03	2	6.06	$18,903,175	$3,119,336
Miami-Dade	Urban	6	SR 997	N of SW 8th St	MP 5.122	2015	2 to 4	Rural	2.10	2	4.20	$26,217,745	$6,242,320
Miami-Dade	Urban	6	SR 997/Krome Ave/NW 177th Ave	MP 10.935	MP 14.184/Okeechobee Rd	2015	2 to 4	Rural	3.10	2	6.20	$17,492,235	$2,821,328
Miami-Dade	Urban	6	SR 997 (Krome Ave) (SW 177th Ave)	S of SW 23rd St	S of SW 136th St (Howard Dr)	2018	2 to 4	Rural	6.28	2	12.56	$35,977,083	$2,864,417
Total (2013-2019); Urban Counties ONLY									**Count:**	**6**	**46.02**	**$171,470,211**	**$3,725,993**
RURAL Counties, Open Drainage													
Desoto	Rural	1	US 17 (SR 35)	SW Collins St	S. of CR 760A	2013	2 to 4	Rural	6.00	2	12.00	$12,312,349	$1,026,029
Marion	Rural	5	SR 40	CR 328	SW 80th Ave (CR 225A)	2014	2 to 4	Rural	4.04	2	8.08	$12,324,444	$1,525,302
Okaloosa	Rural	3	SR 123	N of Toms Creek	N of Turkey Creek	2014	2 to 4	Rural	1.67	2	3.34	$11,745,896	$3,516,735
Okaloosa	Rural	3	SR 123	N of Turkey Creek	SR 85 N	2014	2 to 4	Rural	2.89	2	5.77	$10,424,530	$1,806,678
Santa Rosa	Rural	3	SR 87	Eglin Air Force Base Boundary	2 miles S. of Yellow River Br	2015	2 to 4	Rural	5.43	2	10.86	$18,411,475	$1,695,348
Santa Rosa	Rural	3	SR 87	2 Mi S of Yellow River	CR 184	2015	2 to 4	Rural	3.26	2	6.52	$15,764,843	$2,417,921
Hardee	Rural	1	SR 35 (US 17)	Desoto County Line	CR 634 (Sweetwater Rd)	2016	2 to 4	Rural	4.88	2	9.76	$19,770,518	$2,025,668
Hendry	Rural	1	SR 80	Dalton Lane	CR 833	2017	2 to 4	Rural	11.13	2	22.26	$48,642,463	$2,185,196
Hernando	Rural	7	CR 578 (County Line Rd)	Springtime St	E of Mariner Blvd	2017	2 to 4	Rural	0.67	2	1.34	$8,414,444	$6,279,436
Bay	Rural	3	SR 388	SR 79	E of NW Florida Beaches Int. Airport	2018	2 to 4	Rural	3.95	2	7.90	$41,598,533	$5,265,637
Total (2013-2019); Rural Counties ONLY									**Count:**	**10**	**87.83**	**$199,409,496**	**$2,270,403**
Total (2013-2019); Hernando County ONLY									**Count:**	**1**	**1.34**	**$8,414,444**	**$6,279,436**
Total (2013-2019); Rural Counties ONLY, Excluding Hernando County									**Count:**	**9**	**86.49**	**$190,995,052**	**$2,208,291**

Source: Florida Department of Transportation Contracts Administration Department, Bid Tabulations

Construction Engineering/Inspection

County Roadways

The CEI cost factor for county roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of CEI-to-construction cost ratios from previously completed roads/transportation impact fee studies throughout Florida. As shown in Table B-8, recent CEI factors ranged from 3 percent to 17 percent with a weighted average of 9 percent. For purposes of this study, the CEI cost for county roads was calculated at 9 percent of the construction cost per lane mile.

State Roadways

The CEI cost factor for state roads was estimated as a percentage of the construction cost per lane mile. This factor was determined based on a review of CEI-to-construction cost ratios from previously completed roads/transportation impact fee studies throughout Florida. As shown in Table B-8, recent CEI factors ranged from 10 percent to 11 percent with a weighted average of 11 percent. For purposes of this study, the CEI cost for state roads was calculated at 11 percent of the construction cost per lane mile.

Table B-8

CEI Cost Factor for County and State Roads – Recent Impact Fee Studies

Year	County	County Roadways (Cost per Lane Mile)			State Roadways (Cost per Lane Mile)		
		CEI	Constr.	CEI Ratio	CEI	Constr.	CEI Ratio
2013	Hernando	$178,200	$1,980,000	9%	$222,640	$2,024,000	11%
2013	Charlotte	$220,000	$2,200,000	10%	$240,000	$2,400,000	10%
2014	Indian River	$143,000	$1,598,000	9%	$196,000	$1,776,000	11%
2015	Collier	$270,000	$2,700,000	10%	$270,000	$2,700,000	10%
2015	Brevard	$344,000	$2,023,000	17%	$316,000	$2,875,000	11%
2015	Sumter	$147,000	$2,100,000	7%	$250,000	$2,505,000	10%
2015	Marion	$50,000	$1,668,000	3%	$227,000	$2,060,000	11%
2015	Palm Beach	$108,000	$1,759,000	6%	$333,000	$3,029,000	11%
2016	Hillsborough	$261,000	$2,897,000	9%	$319,000	$2,897,000	11%
2017	St. Lucie	$198,000	$2,200,000	9%	$341,000	$3,100,000	11%
2017	Clay	$191,000	$2,385,000	8%	-	-	n/a
2018	Collier	$315,000	$3,500,000	9%	$385,000	$3,500,000	11%
Average		**$202,100**	**$2,250,833**	**9%**	**$3,099,640**	**$28,866,000**	**11%**

Source: Recent impact fee studies conducted throughout Florida

Roadway Capacity

As shown in Table B-9, the average capacity per lane miles was based on the projects in the Hernando-Citrus MPO's 2040 Long Range Transportation Plan (Cost Feasible Plan). The listing of projects reflects the mix of improvements that will yield the vehicle-miles of capacity (VMC) that will be built in Hernando County. The resulting weighted average capacity per lane mile of approximately 11,200 was used in the roads impact fee calculation. Based on discussions with County representatives, the planned improvements will primarily feature an "uninterrupted flow" roadway classification, resulting in a higher VMC per lane mile of improvement than many other jurisdictions in Florida.

Table B-9

Hernando County Planned Improvements – Long Range Transportation Plan

Jurisdiction	Description	From	To	Improvement	Length	Lanes Added	Lane Miles Added	Section Design[1]	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added
Cost Feasible Plan												
County	Barclay Rd	Elgin Blvd	San Antonio Blvd	2 to 4 Lanes	1.03	2	2.06	OD	15,930	35,820	19,890	20,487
County	Barclay Rd	San Antonio Rd	Lucky Ln	2 to 4 Lanes	1.62	2	3.24	OD	15,930	35,820	19,890	32,222
County	Barclay Rd	Lucky Ln	Cortez Blvd (SR 50)	2 to 4 Lanes	0.28	2	0.56	OD	15,930	35,820	19,890	5,569
County	California St	Cortez Blvd (SR 50)	Sam C	0 to 2 Lanes	0.51	2	1.02	OD	0	15,930	15,930	8,124
County	County Line Rd	East Rd	Mariner Blvd	2 to 4 Lanes	2.70	2	5.40	OD	15,930	35,820	19,890	53,703
County	Deltona Blvd	Northcliffe Blvd	Elgin Blvd	2 to 4 Lanes	0.95	2	1.90	OD	15,930	35,820	19,890	18,896
County	Deltona Blvd	Elgin Blvd	Cortez Blvd (SR 50)	2 to 4 Lanes	0.53	2	1.06	OD	15,930	35,820	19,890	10,542
County	Downy Woodpecker Rd	Thrasher Ave	Velvet Scooter Ave	0 to 2 Lanes	0.09	2	0.18	OD	0	24,400	24,400	2,196
County	Emerson Rd	Jefferson St (SR 50)	Mondon Hill Rd	0 to 2 Lanes	0.78	2	1.56	OD	0	24,200	24,200	18,876
County	Emerson Rd	Mondon Hill Rd	Broad St	0 to 2 Lanes	0.56	2	1.12	OD	0	24,200	24,200	13,552
County	Sunshine Grove Rd Ext.	Velvet Scooter Ave	Sunshine Grove Rd Ext.	0 to 2 Lanes	0.38	2	0.76	OD	0	24,400	24,400	9,272
County	Sunshine Grove Rd Ext.	Sunshine Grove Rd Ext.	N Suncoast Pkwy (SR 589)	0 to 2 Lanes	0.35	2	0.70	OD	0	24,400	24,400	8,540
County	Cortez Blvd (SR 50 EB Frontage)	Highpoint Blvd	Mariner Blvd	0 to 2 Lanes	0.99	2	1.98	C&G	0	12,100	12,100	11,979
County	Cortez Blvd (SR 50 WB Frontage)	Mariner Blvd	Highpoint Blvd	0 to 2 Lanes	0.99	2	1.98	C&G	0	12,100	12,100	11,979
County	Powell Rd	Barclay Ave	California St	2 to 4 Lanes	1.67	2	3.34	OD	15,930	35,820	19,890	33,216
State	Broad St (US 41/SR 45)	County Line Rd	Ayers Rd	2 to 4 Lanes	1.37	2	2.74	OD	17,700	39,800	22,100	30,277
State	Broad St (US 41/SR 45)	Spring Hill Dr	Powell Rd	4 to 6 Lanes	0.86	2	1.72	OD	39,800	59,900	20,100	17,286
County	Cobb Rd	Cortez Blvd (SR 50)	Fort Dade Ave	2 to 4 Lanes	0.26	2	0.52	C&G	24,200	65,600	41,400	10,764
County	Cobb Rd	Fort Dade Ave	Yontz Rd	2 to 4 Lanes	1.50	2	3.00	OD	24,200	65,600	41,400	62,100
County	Cobb Rd	Yontz Rd	Ponce De Leon Blvd (US 98/SR 700)	2 to 4 Lanes	2.72	2	5.44	OD	15,930	35,820	19,890	54,101
State	Cortez Blvd (SR 50)	Treiman Blvd (US 301/SR 35)	Sumter County Line	2 to 4 Lanes	5.01	2	10.02	OD	16,400	40,700	24,300	121,743
State	Cortez Blvd (SR 50)	N Suncoast Pkwy (SR 589)	Cobb Rd	4 to 6 Lanes	3.98	2	7.96	OD	39,800	59,900	20,100	79,998
State	Ponce De Leon Blvd (US 98/SR 700)	Broad St (US 41/SR 45)	Jefferson St (SR 50A)	2 to 4 Lanes	0.36	2	0.72	OD	18,585	41,790	23,205	8,354
State	Ponce De Leon Blvd (US 98/SR 700)	Yontz Rd	Cobb Rd	2 to 4 Lanes	2.54	2	5.08	OD	17,700	39,800	22,100	56,134
State	Ponce De Leon Blvd (US 98/SR 700)	Cobb Rd	Lake Lindsey Rd	2 to 4 Lanes	1.49	2	2.98	OD	17,700	39,800	22,100	32,929
County	Dashbach Rd	Lockhart Rd	I-75	0 to 2 Lanes	0.29	2	0.58	OD	0	24,400	24,400	7,076
County	Dashbach Rd	I-75	Spine Rd	0 to 2 Lanes	0.72	2	1.44	OD	0	24,400	24,400	17,568
County	Dashbach Rd	Spine Rd	Sunrise Rd	0 to 2 Lanes	0.53	2	1.06	OD	0	24,400	24,400	12,932
County	Dashbach Rd	Sunrise Rd	Kettering Rd	0 to 2 Lanes	0.49	2	0.98	OD	0	24,400	24,400	11,956
Developer	Exile Rd	Cortez Blvd (SR 50)	Flock Ave	2 to 4 Lanes	1.27	2	2.54	OD	15,930	35,820	19,890	25,260
Developer	Hospital Rd	Cortez Blvd (SR 50)	Fort Dade Ave	0 to 2 Lanes	1.03	2	2.06	OD	0	24,400	24,400	25,132
County	Lockhart Rd	Dashbach Rd	Cortez Blvd (SR 50)	2 to 4 Lanes	2.04	2	4.08	OD	24,400	62,900	38,500	78,540
Developer	New Road C	Lockhart Rd	Cortez Blvd (US 98/SR 50)	0 to 2 Lanes	1.00	2	2.00	OD	0	24,400	24,400	24,400
Developer	Spine Rd	Powerline Rd	Dashbach Rd	0 to 2 Lanes	1.00	2	2.00	OD	0	24,400	24,400	24,400
County	Sunshine Grove Rd Ext.	N Suncoast Pkwy (SR 589)	Ponce De Leon Blvd (US 98/SR 700)	0 to 2 Lanes	1.27	2	2.54	OD	0	24,400	24,400	30,988
County	Sunrise Rd	Dashbach Rd	Cortez Blvd (US 98/SR 50)	2 to 4 Lanes	2.07	2	4.14	OD	13,320	29,160	15,840	32,789
County	Powerline Rd	Lockhart Rd	Kettering Rd	2 to 4 Lanes	2.02	2	4.04	OD	15,930	35,820	19,890	40,178
County	Star Rd	Exile Rd	Weeping Willow St	0 to 2 Lanes	0.76	2	1.52	OD	0	15,930	15,930	12,107
Total (All Roads):							**96.02**					**1,076,165**
County/Developer Roads:							64.80		**67%**	**(a)**		729,444
State Roads:							31.22		**33%**	**(b)**		346,721
Curb & Gutter:							4.48		**5%**	**(c)**		-
Open Drainage:							91.54		**95%**	**(d)**		-
											VMC Added per Lane Mile:	**11,200**

1) C&G = Curb & Gutter (Urban Design), OD = Open Drainage (Rural Design)

Source: Hernando-Citrus MPO Long Range Transportation Plan, Cost Feasible Plan. Improvements in Hernando County only

Appendix C
Credit Component

Appendix C: Credit Component

This appendix presents the detailed calculations for the credit component. County fuel taxes that are collected in Hernando 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 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, 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 2019-20 data represent projected fuel tax distributions to Hernando County for the current fiscal year. 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 fuel taxes. It is estimated that approximately $0.83 million of annual revenue will be generated for the County from one penny of fuel tax in Hernando County.

Table C-1

Estimated Fuel Tax Distribution Allocated to Capital Programs for Hernando County & Municipalities, FY 2019-20[1]

Tax	Amount of Levy per Gallon	Total Distribution	Distribution per Penny
Constitutional Fuel Tax	$0.02	$1,900,811	$950,406
County Fuel Tax	$0.01	$836,214	$836,214
9th Cent Fuel Tax	$0.01	$921,669	$921,669
1st Local Option (1-6 cents)	$0.06	$5,202,168	$867,028
2nd Local Option (1-5 cents)	$0.05	$3,602,382	$720,476
Total	**$0.15**	**$12,463,244**	
Weighted Average per Penny[2]			**$830,883**

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).

Capital Improvement Credit

For the calculated impact fee, the capital improvement credit includes capacity-expansion expenditures for roadway improvements in Hernando County.

County Capital Project Funding

A review of the County's FY 2015-2019 historical funding and the FY 2020-2024 Capital Improvement Plan indicates that fuel tax revenues and impact fee revenues are the primary funding sources for roadway capacity expansion improvements. As shown in Table C-2, Hernando County allocates funding equivalent of approximately 0.2 pennies for the portion of non-impact fee revenues dedicated to capacity expansion projects such as new road construction, lane additions, and intersection improvements.

Table C-2

County Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[3]	Equivalent Pennies[4]
Hernando County CIP FY 2020-2024[1]	$313,000	5	$830,883	$0.001
Historical Expenditures FY 2015-2019[2]	$1,128,992	5	$830,883	$0.003
Total	**$1,441,992**	**10**	**$830,883**	**$0.002**

1) Source: Table C-5
2) Source: Table C-4
3) Source: Table C-1
4) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) divided by 100

State Capital Project Funding

In the calculation of the equivalent pennies of fuel tax from the State, expenditures on roadway capacity-expansion spanning a 15-year period (from FY 2010 to FY 2024) were reviewed. From these, a list of improvements was developed, including lane additions, new road construction, intersection improvements, interchanges, and traffic signal projects, etc. The use of a 15-year period, for purposes of developing a State credit for road 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 roadway capacity-expansion projects for the "historical" periods and the "future" period:

- FY 2010-2014 work plan equates to 15.1 pennies
- FY 2015-2019 work plan equates to 19.7 pennies
- FY 2020-2024 work plan equates to 34.7 pennies

The combined weighted average over the 15-year period of state expenditure for capacity-expansion roadway projects results in a total of 23.2 equivalent pennies. Table C-3 documents this calculation and the specific projects that were used in the equivalent penny calculations are summarized in Table C-6.

Table C-3

State Fuel Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 Penny[4]	Equivalent Pennies[5]
Projected Work Program (FY 2020-2024)[1]	$144,204,019	5	$830,883	$0.347
Historical Work Program (FY 2015-2019)[2]	$81,960,261	5	$830,883	$0.197
Historical Work Program (FY 2010-2014)[3]	$62,617,964	5	$830,883	$0.151
Total	**$288,782,244**	**15**	**$830,883**	**$0.232**

1) Source: Table C-6
2) Source: Table C-6
3) Source: Table C-6
4) Source: Table C-1
5) Cost of projects divided by number of years divided by revenue from 1 penny (Item 3) divided by 100

Tables C-4 through C-8 provide additional detail for the summaries included previously in the report and in Appendix C, Tables C-1 through C-3.

Table C-4

Hernando County – Historical Roadway Expenditures

Project #	Project Name	Improvement	2015	2016	2017	2018	2019	Total
107110	Deltona-Forest Oaks Intersection Improvements	Intersection improvements to add turn lanes and sidewalks	$0	$0	$0	$1,874	$672,484	$674,358
107490	Forest Oaks @ US19 Intersection Improvements	Intersection improvements to add turn lanes and sidewalks	$0	$0	$4,899	$21,957	$0	$26,856
105800	Powell Road Widening West	Multi-laning roadway	$7,451	$0	$0	$0	$0	$7,451
105860	SR50 Frontage Road E of I75	Two lane frontage road with sidewalks east of I-75 located on north and south side of SR 50	$0	$0	$0	$0	$934	$934
108520	Sunshine Grove @ Jacqualine Traffic Signal	Design and construct traffic signal on Sunshine Grove @ Jacqueline and install concrete separator on Sunshine Grove @ Chamboard St	$0	$0	$60,975	$54,656	$727	$116,358
107480	West Landover Traffic Management	Construct traffic signal at Landover @ Mariner	$0	$0	$261,912	$41,123	$0	$303,035
Total			**$7,451**	**$0**	**$327,786**	**$119,610**	**$674,145**	**$1,128,992**

Source: Hernando County Department of Public Works

Table C-5

Hernando County – FY 2020-2024 Capital Improvement Plan: Capacity Expansion Improvements

CIP #	Project Name	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Total
Public Works Department							
109850	Cobblestone @ Spring Hill Intersection Improvements	$63,000	$175,000	$0	$0	$0	**$238,000**
107870	Howell Ave @ US 41 Intersection Improvements	$75,000	$0	$0	$0	$0	**$75,000**
Total		**$138,000**	**$175,000**	**$0**	**$0**	**$0**	**$313,000**

Source: Hernando County Office of Management & Budget

Table C-6

Hernando County FDOT Work Program, FY 2010 to FY 2024

Item	Item Description	Work Mix Description	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Total
416734-1	SR 50 (CORTEZ BLVD) FROM CALIFORNIA ST TO EAST OF COBB RD	ADD LANES & RECONSTRUCT	$0	$397	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$397**
407951-2	SR 50 (CORTEZ BLVD) FROM CR587 (MARINER BLVD) TO SR589(SUNCOAST PARKWY	ADD LANES & RECONSTRUCT	$895,578	$383,222	$65,195	$15,623,391	$13,177	$85,905	$222,361	$83,813	$397	$31	$0	$0	$0	$0	$0	**$17,373,070**
416732-1	SR 50 (CORTEZ BLVD) FROM LOCKHART ROAD TO KETTERING ROAD	ADD LANES & RECONSTRUCT	$0	$0	$613	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$613**
407951-3	SR 50 (CORTEZ BLVD) FROM US 19 (SR 55) TO W OF CR587/MARINER BVD	ADD LANES & REHABILITATE PVMNT	$326,666	$6,503,212	$471,775	$23,896,542	$239,007	$233,412	$112,646	$45,249	$63,693	$344	$124	$0	$0	$0	$0	**$31,892,670**
416732-4	SR 50 FM WINDMERE RD/BRONSON BL TO E OF US 98/MCKETHAN RD	ADD LANES & REHABILITATE PVMNT	$0	$0	$0	$348	$3,030,539	$35,221	$79,201	$1,340,679	$1,717,524	$1,561,072	$36,914,262	$0	$0	$0	$0	**$44,678,846**
430051-1	SR 50 FROM BROOKSVILLE BYPASS TO WEST OF I-75	PD&E/EMO STUDY	$0	$0	$0	$0	$1,007,846	$9,520	$6,839	$6,181	$2,114	$9,901	$8,380	$0	$0	$0	$0	**$1,050,781**
416732-3	SR 50 FROM E OF US 98/MCKETHAN RD TO E OF US 301	ADD LANES & REHABILITATE PVMNT	$0	$0	$0	$510	$2,985,124	$507,852	$120,212	$957,777	$3,038,819	$1,824,042	$23,416,004	$0	$0	$0	$0	**$32,850,340**
430051-2	SR 50 FROM LOCKHART RD TO E OF REMINGTON RD	ADD LANES & REHABILITATE PVMNT	$0	$0	$0	$0	$26,586	$951,491	$36,571	$16,992	$40,447	$158,863	$5,456,413	$0	$0	$0	$0	**$6,687,363**
416732-2	SR 50 FROM LOCKHART RD TO US 301	PD&E/EMO STUDY	$0	$0	$4,061	$47,626	$5,821	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$57,508**
435859-2	SR 50 FROM SR 35 (US 301) TO HERNANDO/SUMTER COUNTY LINE	PRELIMINARY ENGINEERING	$0	$0	$0	$0	$0	$0	$0	$0	$3,209,622	$1,038,446	$421,284	$0	$0	$0	$0	**$4,669,352**
442835-1	SR 50 FROM US 301/SR 35 TO HERNANDO/SUMTER COUNTY LINE	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$0	$0	$0	$0	$34	$1,553	$1,440,000	$5,966,000	$54,317,918	$0	$0	**$61,725,505**
416733-2	SR 50/CORTEZ BLVD FROM COBB RD TO W OF BUCK HOPE RD	ADD LANES & RECONSTRUCT	$0	$0	$0	$0	$23,668	$1,112,026	$1,393,625	$31,225	$935,588	$653,943	$491,232	$0	$144,974	$11,192,916	$0	**$15,979,197**
416735-1	SR 50/CORTEZ BLVD FROM W OF BUCK HOPE RD TO W OF JEFFERSON STREET	ADD LANES & REHABILITATE PVMNT	$0	$0	$0	$0	$53,316	$2,055,284	$33,438	$73,900	$47,743	$2,211,672	$568,235	$0	$0	$111,446	$0	**$5,155,034**
433244-1	SR 50A/JEFFERSON ST @ SR 700/PONCE DE LEON BL	TRAFFIC ENGINEERING STUDY	$0	$0	$0	$0	$162,880	$2,907	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$165,787**
405920-3	TRAFFIC SIGNAL MAINTENANCE AND OPERATION FOR LOCAL GOVERNMENT	TRAFFIC SIGNALS	$81,344	$85,083	$87,646	$90,734	$92,339	$95,096	$158,080	$182,179	$188,378	$197,121	$6,881	$0	$0	$0	$0	**$1,264,881**
439448-1	US 98/SR 700/PONCE DE LEON FR N OF CITRUS WAY/CR491 TO S OF CITRUS WAY	ROUNDABOUT	$0	$0	$0	$0	$0	$0	$118,276	$0	$19,284	$79,511	$157,531	$2,981,756	$0	$0	$0	**$3,356,358**
254823-1	US 41/SR 45/BROAD ST FROM HVIEZDOSLAV ST TO S OF SWFWMD ENTRANCE	ADD LANES & RECONSTRUCT	$0	$22,269	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$22,269**
431842-1	BARCLAY AT SR 50	ADD LEFT TURN LANE(S)	$0	$0	$0	$100,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$100,000**
257298-3	CR 578 (CO LINE RD) FROM E OF EAST RD TO SPRING TIME ST	ADD LANES & RECONSTRUCT	$759,086	$665,828	$457,874	$15,203	$3,002	$6,270	$8,635	$5,249	$3,011	$1,499	$5,112	$0	$0	$0	$0	**$1,930,769**
257298-4	CR 578 (CO LINE RD) FROM E OF MARINER BLVD TO W OF SUNCOAST PARKWAY	ADD LANES & RECONSTRUCT	$13,643	$7,063	$5,304	$299	$455	$1,256	$702	$904	$2,735	$1,622	$7,868	$0	$0	$0	$0	**$41,851**
257298-5	CR 578 (CO LINE RD) FROM SUNCOAST PARKWAY TO US41 AT AYERS RD	NEW ROAD CONSTRUCTION	$31,556	$48,382	$915,130	$564,249	$152,282	$5,795,049	$1,326,342	$25,467	$835,053	$20,105,327	$411,059	$0	$0	$0	$0	**$30,209,896**
257298-2	CR 578 (CO LINE RD) FROM US 19 TO EAST OF EAST RD	ADD LANES & RECONSTRUCT	$16,215	$225,080	$4,857	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$246,152**
257298-6	CR 578 @ MARINER INT FM SPRINGTIME STREET TO EAST OF MARINER BLVD	INTERSECTION IMPROVEMENT	$0	$0	$0	$337,048	$984,944	$10,997,422	$2,975,427	$10,294,339	$418,339	$747,513	$184,624	$0	$0	$0	$0	**$26,939,656**
424156-1	ELGIN/DELTONA-POWELL FROM MARINER BLVD TO VILLAGE VAN GOGH	ADD LANES & RECONSTRUCT	$0	$1,083,949	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$1,083,949**
443369-1	CYRIL DR BYPASS FROM KETTERING RD TO CYRIL DR	NEW ROAD CONSTRUCTION	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,300,000	$0	$0	$0	$0	$0	**$1,300,000**
Total			**$2,124,088**	**$9,024,485**	**$2,012,455**	**$40,675,950**	**$8,780,986**	**$21,888,711**	**$6,592,355**	**$13,063,954**	**$10,522,781**	**$29,892,460**	**$69,489,009**	**$8,947,756**	**$54,462,892**	**$11,304,362**	**$0**	**$288,782,244**
Sub-Totals						**Total 2010-2014:**	**$62,617,964**				**Total 2015-2019:**	**$81,960,261**				**Total 2020-2024:**	**$144,204,019**	-

Source: Florida Department of Transportation

Table C-7

Average Motor Vehicle Fuel Efficiency – Excluding Interstate Travel

Travel Vehicle Miles of Travel (VMT) @			
	22.5	**6.6**	
Other Arterial Rural	326,771,000,000	47,822,000,000	374,593,000,000
Other Rural	305,549,000,000	31,615,000,000	337,164,000,000
Other Urban	1,572,316,000,000	97,594,000,000	1,669,910,000,000
Total	***2,204,636,000,000***	***177,031,000,000***	***2,381,667,000,000***

Percent VMT

@ 22.5 mpg	@ 6.6 mpg
87%	13%
91%	9%
94%	6%
93%	**7%**

Fuel Consumed			
	Gallons @ 22.5 mpg	**Gallons @ 6.6 mpg**	
Other Arterial Rural	14,523,155,556	7,245,757,576	21,768,913,132
Other Rural	13,579,955,556	4,790,151,515	18,370,107,071
Other Urban	69,880,711,111	14,786,969,697	84,667,680,808
Total	***97,983,822,223***	***26,822,878,788***	***124,806,701,011***

Total Mileage and Fuel	
2,381,667	**miles (millions)**
124,807	**gallons (millions)**
19.08	**mpg**

Source: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2018*, Section V, Table VM-1
Annual Vehicle Distance Traveled in Miles and Related Data - 2018 by Highway Category and Vehicle Type
http://www.fhwa.dot.gov/policyinformation/statistics.cfm

Table C-8

Annual Vehicle Distance Travelled in Miles and Related Data – 2018[1]

By Highway Category and Vehicle Type

Revised: March 2020 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	
	Motor-Vehicle Travel (millions of vehicle-miles):									
2018	Interstate Rural	147,065	1,312	1,664	46,092	10,418	50,688	**193,158**	**61,106**	257,240
2018	Other Arterial Rural	233,941	2,667	2,271	92,830	17,656	30,166	**326,771**	**47,822**	379,531
2018	Other Rural	212,919	2,786	2,081	92,630	17,339	14,277	**305,549**	**31,615**	342,031
2018	All Rural	593,925	6,765	6,016	231,553	45,413	95,130	825,478	140,543	978,802
2018	Interstate Urban	398,748	2,606	2,793	100,541	19,427	47,300	**499,289**	**66,727**	571,415
2018	Other Urban	1,239,915	10,705	9,494	332,401	55,859	41,735	**1,572,316**	**97,594**	1,690,110
2018	All Urban	1,638,663	13,311	12,287	432,942	75,286	89,035	2,071,605	164,321	2,261,525
2018	Total Rural and Urban[5]	2,232,588	20,076	18,303	664,495	120,699	184,165	2,897,083	304,864	3,240,327
2018	Number of motor vehicles registered(2)	192,856,211	8,666,185	992,152	57,853,642	10,327,899	2,906,011	250,709,853	13,233,910	273,602,100
2018	Average miles traveled per vehicle	11,576	2,317	18,448	11,486	11,687	63,374	11,556	23,037	11,843
2018	Person-miles of travel (millions)[4]	3,729,610	23,297	388,032	1,119,644	120,699	184,165	4,849,254	143,996	5,565,447
2018	Fuel consumed (thousand gallons)	91,585,334	456,657	2,493,815	37,189,350	16,080,122	30,325,060	128,774,684	46,405,182	178,130,339
2018	Average fuel consumption per vehicle (gallons)	475	53	2,514	643	1,557	10,435	514	3,507	651
2018	Average miles traveled per gallon of fuel consumed	24.4	44.0	7.3	17.9	7.5	6.1	**22.5**	**6.6**	18.2

(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.

(2) Light Duty Vehicles Short WB - passenger cars, light trucks, vans and sport utility vehicles with a wheelbase (WM) 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 wheelbase.

(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) For 2017 and 2018, the vehicle occupancy is estimated by the FHWA from the 2017 National Household Travel Survey (NHTS) and the annual R.L. Polk Vehicle registration data; For single unit truck and heavy trucks, 1 motor vehicle mile traveled = 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 Roads Impact Fee Schedule

Appendix D: Calculated Roads Impact Fee Schedule

This appendix presents the detailed fee calculations for each land use in the Hernando County transportation impact fee schedule:

- Table D-1 – Comparison of calculated fee rates to the full calculated fee rates from the 2013 transportation impact fee study.
- Table D-2 – Detailed calculations for the updated transportation impact fee rates.

Table D-1

Hernando County – Transportation Impact Fee Rate Comparison

ITE LUC	Land Use	Unit	2013 Full Calculated Rate (100%)[1]	2022 Full Calculated Rate (100%)[2]	Percent Change	Current Rate (22% Adoption)[3]
	RESIDENTIAL:					
210	Single Family (Detached)	du	$5,767	$6,220	8%	$1,269
215	Single Family (Attached/Townhouse)	du	$3,254	$5,382	65%	$716
220	Multi-Family (Low-Rise); 1-3 Levels	du	*	$4,193	-	*
221/222	Multi-Family (Mid/High-Rise); 4 Levels or more	du	*	$2,823	-	*
240	Mobile Home Park	du	$2,123	$2,273	7%	$467
251	Senior Adult Housing - Detached	du	$1,881	$2,291	22%	$414
252	Senior Adult Housing - Attached	du	**	$1,546	-	**
253	Congregate Care Facility	du	$550	$611	11%	$121
254	Assisted Living	bed	**	$673	-	**
255	Continuing Care Retirement Center	du	**	$644	-	**
	LODGING:					
310	Hotel	room	$2,927	$2,748	-6%	$644
320	Motel	room	$2,069	$1,326	-36%	$455
	RECREATION:					
416	RV Park	occupied site	$821	$895	9%	$181
420	Marina	boat berth	$1,969	$1,718	-13%	$433
430	Golf Course	acre	$3,350	$2,671	-20%	$737
445	Movie Theater	screen	$22,199	$25,645	16%	$4,884
492	Health/Fitness Club	1,000 sf	$17,675	$19,927	13%	$3,889
	INSTITUTIONS:					
520	Elementary School (Private)	student	$487	$713	46%	$107
522	Middle School (Private)	student	$683	$657	-4%	$150
525	High School (Private)	student	$734	$676	-8%	$161
540	University 7,500 or fewer students (Private)	student	$1,330	$1,426	7%	$293
550	University greater than 7,500 students (Private)	student	$1,002	$1,065	6%	$220
560	Public Assembly	1,000 sf	**	$3,150	-	**
565	Day Care Center	1,000 sf	$11,273	$8,349	-26%	$2,480
	MEDICAL:					
610	Hospital	1,000 sf	$7,522	$6,679	-11%	$1,655
620	Nursing Home	bed	$678	$797	18%	$149
630	Clinic	1,000 sf	$17,457	$21,147	21%	$3,841
	OFFICE:					
710	Office	1,000 sf	***	$6,129	-	***
720	Medical Office 10,000 sq ft or less	1,000 sf	$13,066	$14,077	8%	$2,875
720	Medical Office greater than 10,000 sq ft	1,000 sf	$19,047	$20,210	6%	$4,190
	RETAIL:					
812	Building Materials/Lumber Store	1,000 sf	$23,336	$9,494	-59%	$5,134
813	Discount Superstore, Free-Standing	1,000 sf	$30,733	$9,313	-70%	$6,761
816	Hardware/Paint Store	1,000 sf	$5,656	$504	-91%	$1,244
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	$9,545	$4,249	-55%	$2,100
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	$8,565	$8,443	-1%	$1,884
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	$8,565	$9,025	5%	$1,884
840/841	New/Used Auto Sales	1,000 sf	$10,892	$10,609	-3%	$2,396
850	Supermarket	1,000 sf	$12,783	$12,506	-2%	$2,812
862	Home Improvement Superstore	1,000 sf	$5,303	$5,252	-1%	$1,167
880/881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	$6,783	$7,860	16%	$1,492
890	Furniture Store	1,000 sf	$1,859	$2,487	34%	$409
	SERVICES:					
912	Bank/Savings Drive-In	1,000 sf	$19,349	$13,519	-30%	$4,257
931	Fine Dining/Quality Restaurant	1,000 sf	$23,957	$24,305	1%	$5,271
932	High-Turnover (Sit-Down) Restaurant	1,000 sf	$28,560	$27,236	-5%	$6,283
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	$79,079	$79,511	1%	$17,397
942	Automobile Care Center	1,000 sf	$8,960	$8,651	-3%	$1,971
944	Gas Station w/Convenience Market <2,000 sq ft	fuel pos.	*	$8,472	-	*
945	Gas Station w/Convenience Market 2,000-5,499 sq ft	fuel pos.	*	$13,029	-	*
945	Gas Station w/Convenience Market 5,500+ sq ft	fuel pos.	*	$17,050	-	*
947	Self-Service Car Wash	service bay	$6,933	$7,439	7%	$1,525
n/a	Convenience/Gasoline/Fast Food Restaurant	1,000 sf	$90,019	$96,631	7%	$19,804
	INDUSTRIAL:					
110	General Light Industrial	1,000 sf	$3,662	$2,746	-25%	$806
130	Industrial Park	1,000 sf	$3,583	$1,909	-47%	$788
140	Manufacturing	1,000 sf	$2,001	$2,689	34%	$440
150	Warehouse	1,000 sf	$1,874	$965	-49%	$412
151	Mini-Warehouse	1,000 sf	$662	$555	-16%	$146

1) Source: *Hernando County Transportation Revenue Alternatives, March 2013*
2) Source: Table D-2
3) Source: Hernando County Zoning Department

* These land uses have been realigned for the updated schedule. These developments are currently charged, but in a slightly different manner that does not create a meaningful comparison

** Represents a new land use added to the schedule. These land uses are currently charged the rate of a similar land use

*** Office land use is currently charged several different rates using a tiered schedule based on square footage. The updated schedule charges a single rate for each tier

Table D-2

Hernando County – Calculated Roads Impact Fee Schedule

Equivalent Gasoline Tax				Unit Cost per Lane Mile:	$3,950,000	Interstate/Toll Facility Adjustment Factor:	8.1%	
$$ per gallon to capital:	$0.234	County Revenues:	$0.002	Average VMC per Lane Mile:	11,200	Cost per VMC:	$352.68	
Facility life (years):	25	State Revenues:	$0.232	Fuel Efficiency:	19.08 mpg			
Interest rate:	3.00%			Effectivedays per year:	365			

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Road Impact Fee (Full, 100%)
	RESIDENTIAL:													
210	Single Family (Detached)	du	7.81	FL Studies	6.62	7.12	FL Studies	100%	n/a	23.76	$8,379	$124	$2,159	**$6,220**
215	Single Family (Attached/Townhouse)	du	6.77	Blend ITE 11th & FL Studies	6.62	7.12	Same as LUC 210	100%	n/a	20.59	$7,263	$108	$1,881	**$5,382**
220	Multi-Family (Low-Rise); 1-3 Levels	du	6.74	ITE 11th Edition	5.21	5.71	FL Studies (LUC 220/221/222)	100%	n/a	16.14	$5,691	$86	$1,498	**$4,193**
221/ 222	Multi-Family (Mid/High-Rise); 4 Levels or more	du	4.54	ITE 11th Edition	5.21	5.71	FL Studies (LUC 220/221/222)	100%	n/a	10.87	$3,833	$58	$1,010	**$2,823**
240	Mobile Home Park	du	4.17	FL Studies	4.60	5.10	FL Studies	100%	n/a	8.81	$3,109	$48	$836	**$2,273**
251	Senior Adult Housing - Detached	du	3.54	Blend ITE 11th & FL Studies	5.42	5.92	FL Studies	100%	n/a	8.82	$3,109	$47	$818	**$2,291**
252	Senior Adult Housing - Attached	du	2.99	Blend ITE 11th & FL Studies	4.34	4.84	Same as LUC 251 (Adjusted)[2]	100%	n/a	5.96	$2,103	$32	$557	**$1,546**
253	Congregate Care Facility	du	2.33	Blend ITE 11th & FL Studies	3.08	3.58	FL Studies	72%	FL Studies	2.37	$837	$13	$226	**$611**
254	Assisted Living	bed	2.60	ITE 11th Edition	3.08	3.58	Same as LUC 253	72%	Same as LUC 253	2.65	$934	$15	$261	**$673**
255	Continuing Care Retirement Center	du	2.47	ITE 11th Edition	3.08	3.58	Same as LUC 253	72%	Same as LUC 253	2.52	$888	$14	$244	**$644**
	LODGING:													
310	Hotel	room	5.56	Blend ITE 11th & FL Studies	6.26	6.76	FL Studies	66%	FL Studies	10.56	$3,723	$56	$975	**$2,748**
320	Motel	room	3.35	ITE 11th Edition	4.34	4.84	FL Studies	77%	FL Studies	5.14	$1,814	$28	$488	**$1,326**
	RECREATION:													
416	RV Park	occupied site	1.62	ITE 11th Edition (Adjusted)[3]	4.60	5.10	Same as LUC 240	100%	Same as LUC 240	3.42	$1,208	$18	$313	**$895**
420	Marina	boat berth	2.41	ITE 11th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	6.60	$2,327	$35	$609	**$1,718**
430	Golf Course	acre	3.74	ITE 11th Edition	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	10.24	$3,611	$54	$940	**$2,671**
445	Movie Theater	screen	114.83	Blend ITE 11th & FL Studies	2.22	2.72	FL Studies	88%	FL Studies	103.08	$36,354	$615	$10,709	**$25,645**
492	Health/Fitness Club	1,000 sf	34.50	ITE 11th Edition (Adjusted)[4]	5.15	5.65	Same as LUC 710	94%	FL Studies	76.74	$27,066	$410	$7,139	**$19,927**
	INSTITUTIONS:													
520	Elementary School (Private)	student	2.27	ITE 11th Edition	3.31	3.81	50% of LUC 210: Tavel Demand Model	80%	Based on LUC 710 (adjusted)[5]	2.76	$974	$15	$261	**$713**
522	Middle School (Private)	student	2.10	ITE 11th Edition	3.31	3.81	50% of LUC 210: Tavel Demand Model	80%	Based on LUC 710 (adjusted)[5]	2.56	$901	$14	$244	**$657**

Table D-2 (continued)

Hernando County – Calculated Roads Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Road Impact Fee (Full, 100%)
	INSTITUTIONS:													
525	High School (Private)	student	1.94	ITE 11th Edition	3.31	3.81	50% of LUC 210: Tavel Demand Model	90%	Based on LUC 710	2.66	$937	$15	$261	**$676**
540	University 7,500 or fewer students (Private)	student	2.00	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	5.48	$1,931	$29	$505	**$1,426**
550	University greater than 7,500 students (Private)	student	1.50	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	Based on LUC 710	4.11	$1,448	$22	$383	**$1,065**
560	Public Assembly	1,000 sf	7.60	ITE 11th Edition	3.91	4.41	Midpoint of LUC 710 & LUC 820 (App. A)	90%	Based on LUC 710	12.29	$4,334	$68	$1,184	**$3,150**
565	Day Care Center	1,000 sf	49.63	Blend ITE 11th & FL Studies	2.03	2.53	FL Studies	73%	FL Studies	33.79	$11,919	$205	$3,570	**$8,349**
	MEDICAL:													
610	Hospital	1,000 sf	10.77	ITE 11th Edition	6.62	7.12	Same as LUC 210	78%	Midpoint of LUC 310 & LUC 720	25.55	$9,012	$134	$2,333	**$6,679**
620	Nursing Home	bed	3.02	Blend ITE 11th & FL Studies	2.59	3.09	FL Studies	89%	FL Studies	3.20	$1,128	$19	$331	**$797**
630	Clinic	1,000 sf	37.39	Blend ITE 11th & FL Studies	5.10	5.60	FL Studies	93%	FL Studies	81.49	$28,739	$436	$7,592	**$21,147**
	OFFICE:													
710	Office	1,000 sf	10.84	ITE 11th Edition	5.15	5.65	FL Studies	92%	FL Studies	23.60	$8,323	$126	$2,194	**$6,129**
720	Medical Office 10,000 sq ft or less	1,000 sf	23.83	FL Studies	5.55	6.05	FL Studies	89%	FL Studies	54.09	$19,075	$287	$4,998	**$14,077**
720	Medical Office greater than 10,000 sq ft	1,000 sf	34.21	Blend ITE 11th & FL Studies	5.55	6.05	FL Studies	89%	FL Studies	77.65	$27,384	$412	$7,174	**$20,210**
	RETAIL:													
812	Building Materials/Lumber Store	1,000 sf	17.05	ITE 11th Edition	6.27	6.77	FL Studies	74%	FL Studies	36.35	$12,820	$191	$3,326	**$9,494**
813	Discount Superstore, Free-Standing	1,000 sf	50.58	Blend ITE 11th & FL Studies	2.39	2.89	Appendix A: Fig. A-1 (193k sfgla)	67%	Appendix A: Fig. A-2 (193k sfgla)	37.22	$13,126	$219	$3,813	**$9,313**
816	Hardware/Paint Store	1,000 sf	8.07	ITE 11th Edition	1.30	1.80	Appendix A: Fig. A-1 (11k sfgla)	44%	Appendix A: Fig. A-2 (11k sfgla)	2.12	$748	$14	$244	**$504**
822	Retail/Shopping Center less than 40,000 sfgla	1,000 sfgla	54.45	ITE 11th Edition	1.48	1.98	Appendix A: Fig. A-1 (19k sfgla)	48%	Appendix A: Fig. A-2 (19k sfgla)	17.77	$6,269	$116	$2,020	**$4,249**
821	Retail/Shopping Center 40,000 to 150,000 sfgla	1,000 sfgla	67.52	ITE 11th Edition	1.94	2.44	Appendix A: Fig. A-1 (59k sfgla)	57%	Appendix A: Fig. A-2 (59k sfgla)	34.31	$12,100	$210	$3,657	**$8,443**
820	Retail/Shopping Center greater than 150,000 sfgla	1,000 sfgla	37.01	ITE 11th Edition	2.80	3.30	Appendix A: Fig. A-1 (538k sfgla)	75%	Appendix A: Fig. A-2 (538k sfgla)	35.71	$12,595	$205	$3,570	**$9,025**
840/ 841	New/Used Auto Sales	1,000 sf	24.58	Blend ITE 11th & FL Studies	4.60	5.10	FL Studies	79%	FL Studies	41.04	$14,475	$222	$3,866	**$10,609**
850	Supermarket	1,000 sf	94.48	Blend ITE 11th & FL Studies	2.08	2.58	FL Studies	56%	FL Studies	50.57	$17,834	$306	$5,328	**$12,506**
862	Home Improvement Superstore	1,000 sf	30.74	ITE 11th Edition	2.33	2.83	Appendix A: Fig. A-1 (135k sfgla)	64%	Appendix A: Fig. A-2 (135k sfgla)	21.06	$7,429	$125	$2,177	**$5,252**
880/ 881	Pharmacy/Drug Store with & without Drive-Thru	1,000 sf	103.86	Blend ITE 11th & FL Studies	2.08	2.58	FL Studies	32%	FL Studies	31.76	$11,203	$192	$3,343	**$7,860**

Table D-2 (continued)

Hernando County – Calculated Roads Impact Fee Schedule

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	Percent New Trips	% New Trips Source	Net VMT[1]	Total Impact Cost	Annual Capital Impr. Tax	Capital Improvement Credit	Net Road Impact Fee (Full, 100%)
	RETAIL:													
890	Furniture Store	1,000 sf	6.30	ITE 11th Edition	6.09	6.59	FL Studies	54%	FL Studies	9.52	$3,358	$50	$871	**$2,487**
	SERVICES:													
912	Bank/Savings Drive-In	1,000 sf	103.73	Blend ITE 11th & FL Studies	2.46	2.96	FL Studies	46%	FL Studies	53.94	$19,022	$316	$5,503	**$13,519**
931	Fine Dining/Quality Restaurant	1,000 sf	86.03	Blend ITE 11th & FL Studies	3.14	3.64	FL Studies	77%	FL Studies	95.58	$33,708	$540	$9,403	**$24,305**
932	High-Turnover (Sit-Down) Restaurant	1,000 sf	103.46	Blend ITE 11th & FL Studies	3.17	3.67	FL Studies	71%	FL Studies	107.00	$37,736	$603	$10,500	**$27,236**
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	481.99	Blend ITE 11th & FL Studies	2.32	2.82	FL Studies	62%	FL Studies	318.57	$112,352	$1,886	$32,841	**$79,511**
942	Automobile Care Center	1,000 sf	28.19	Blend ITE 11th & FL Studies	3.62	4.12	FL Studies	72%	FL Studies	33.76	$11,907	$187	$3,256	**$8,651**
944	Gas Station w/Convenience Store <2,000 sq ft	fuel pos.	172.01	ITE 11th Edition	1.90	2.40	FL Studies (LUC 944/945)	23%	FL Studies (LUC 944/945)	34.54	$12,181	$213	$3,709	**$8,472**
945	Gas Station w/Convenience Store 2,000-5,499 sq ft	fuel pos.	264.38	ITE 11th Edition (Adjusted)[6]	1.90	2.40	FL Studies (LUC 944/945)	23%	FL Studies (LUC 944/945)	53.09	$18,723	$327	$5,694	**$13,029**
945	Gas Station w/Convenience Store 5,500+ sq ft	fuel pos.	345.75	ITE 11th Edition	1.90	2.40	FL Studies (LUC 944/945)	23%	FL Studies (LUC 944/945)	69.43	$24,485	$427	$7,435	**$17,050**
947	Self-Service Car Wash	service bay	43.94	Blend ITE 11th & FL Studies	2.18	2.68	FL Studies	68%	FL Studies	29.93	$10,556	$179	$3,117	**$7,439**
n/a	Convenience/Gasoline/Fast Food Restaurant	1,000 sf	984.59	FL Studies	2.65	3.15	FL Studies	32%	FL Studies	383.65	$135,306	$2,221	$38,675	**$96,631**
	INDUSTRIAL:													
110	General Light Industrial	1,000 sf	4.87	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	10.60	$3,739	$57	$993	**$2,746**
130	Industrial Park	1,000 sf	3.37	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	7.34	$2,588	$39	$679	**$1,909**
140	Manufacturing	1,000 sf	4.75	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	10.34	$3,647	$55	$958	**$2,689**
150	Warehouse	1,000 sf	1.71	ITE 11th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	3.72	$1,313	$20	$348	**$965**
151	Mini-Warehouse	1,000 sf	1.46	Blend ITE 11th & FL Studies	3.51	4.01	Average of LUC 710 & LUC 820 (50k sq ft)	92%	Same as LUC 710	2.17	$764	$12	$209	**$555**

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 10th 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 ITE 10th Edition trip generation rate for PM Peak Hour of Adjacent traffic was adjusted by a factor of 10 to approximate the Daily TGR
4) The trip length for Senior Adult Housing Detached was based on the trip length for LUC 252, but was then adjusted by 80% based on the relationship of the trip lengths for LUC 210 (Single Family Detached) and LUC 220 (Multi-Family)
5) The percent new trips for schools was estimated at 90% based on LUC 710, but was then adjusted to 80% to provide a conservative fee rate. This adjustment reflects the nature of elementary and middle school uses where attendees are unable to drive and are typically dropped off by parents on their way to another destination
6) The trip generation rate represents a blend of the 2,000 to 3,999 sf and 4,000 to 5,499 sf tiered presented in the ITE 11th Edition Trip Generation Rate Manual