



IMPACT FEE STUDY

FINAL REPORT

September 13, 2011



Prepared for:

City of North Port

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Tindale-Oliver & Associates, Inc.

Planning and Engineering

September 13, 2011

Mr. Peter Lear
Director of Finance
City of North Port
4970 City Hall Boulevard, Suite 128
North Port, Florida 34286

RE: Impact Fee Update Study

Dear Mr. Lear:

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

It has been out pleasure to have worked with the City staff on this important project.

Sincerely,

Tindale-Oliver & Associates, Inc.

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

**CITY OF NORTH PORT
IMPACT FEE STUDY**

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I. Introduction and Methodology

The last major update of the technical support document for City of North Port's Impact Fees was completed and adopted in 2006. To comply with the technical study update requirements of the impact fee ordinance and given the recent changes in variables affecting impact fees, the City of North Port (referred to hereafter as the City) retained Tindale-Oliver & Associates, Inc. (TOA) to update the following impact fee program areas:

The last technical support document for the City's Impact Fees was completed in 2006.

- Fire/EMS
- Government Buildings
- Law Enforcement
- Solid Waste
- Parks and Recreation
- Transportation

The methodology used to update the City's impact fee program is a consumption-based impact fee methodology, which has also been used to calculate the City's adopted impact fees as well as impact fees throughout Florida. A consumption-based impact fee charges new development based upon the burden placed on services from each land use (demand). The demand component is measured in terms of vehicle miles of travel per unit of land use in the case of transportation impact fee, waste generation units in the case of solid waste impact fee, and population per unit of land use in all other fees. A consumption-based impact fee is intended to charge new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. In addition, per the requirements of case law, a credit is subtracted from the total cost to account for contributions of the new development toward any capacity expansion projects through other revenue sources. Contributions used to calculate the credit component include non-impact fee revenues generated by the new development that are used toward capacity expansion projects. In other words, case law requires that the new development should not be charged twice for the same service.

A consumption-based methodology has been used for this study.

In this study, existing/achieved level of service (LOS) is used for all fee areas with the exception of the transportation impact fee. If the achieved LOS is higher than the adopted



LOS standard, the City needs to amend the Comprehensive Plan to reflect the commitment to this improved LOS. Alternatively, if the City desires to retain a lower LOS than achieved LOS, impact fee calculations should be revised to reflect this lower LOS. In the case of transportation impact fee, the adopted LOS standard is used.

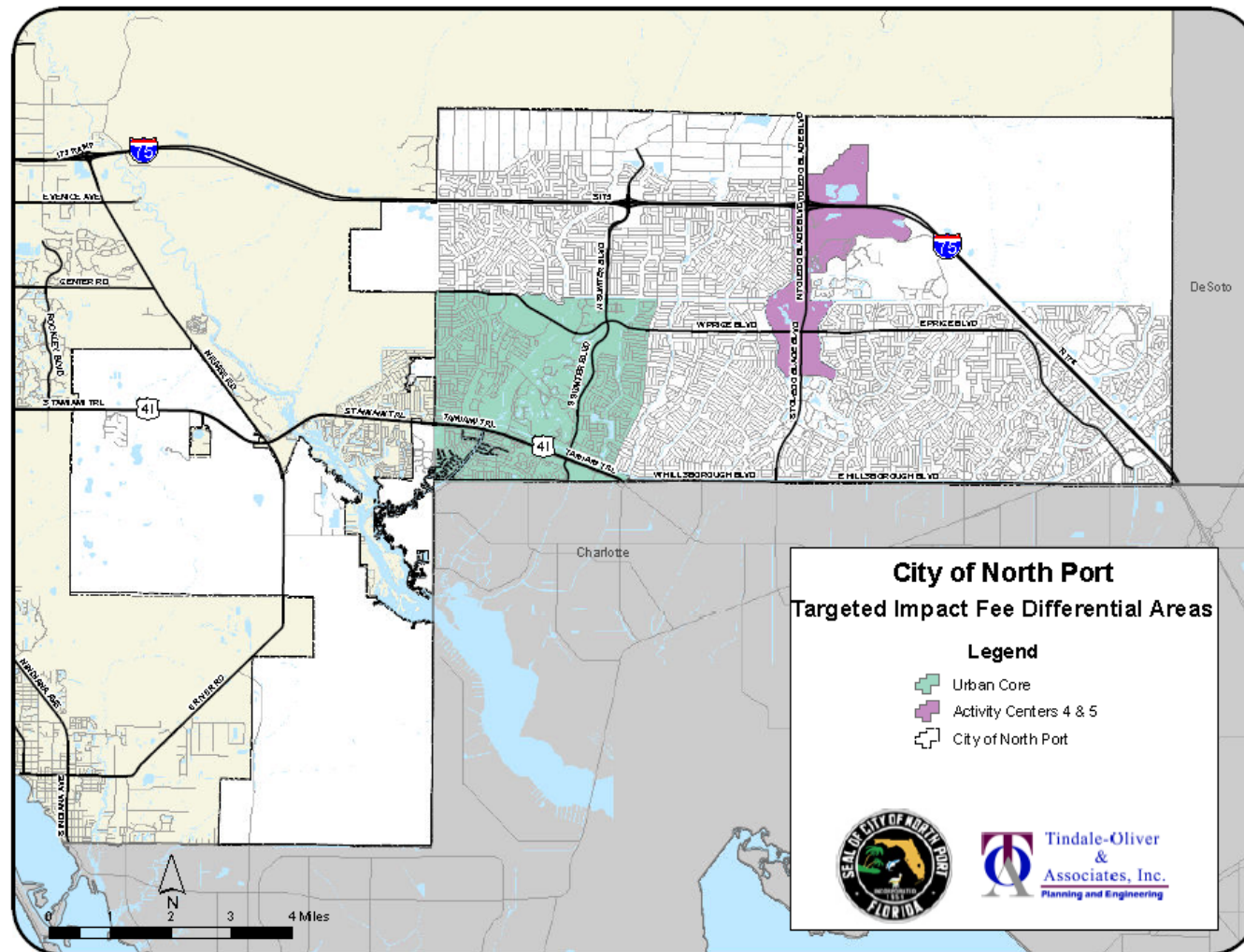
In addition to calculating the maximum legally acceptable fees, the study applies Smart Growth approach to the calculated impact fees for policy consideration. The calculated fees represent the maximum legally acceptable level of impact fees. Reductions shown under the “Smart Growth” approach are strictly for policy consideration, and the City has no legal obligation to provide these reductions.

TOA’s “Smart Growth” concept that has been advanced in other communities to address planning policy issues and provide flexibility in impact fee levels, develop incentives to encourage the right mix of desired land uses in targeted locations, and, from a regulatory perspective, establish an expedited development approval process. Current clients for whom these concepts are being developed or used include the Florida cities of Tampa and Orlando, and Pasco and Osceola Counties. Three components of the Smart Growth concept include a rate of growth analysis, fee buy-down by geographic area, and fee buy-down of “most favored” land uses.

- **Rate of Growth Analysis** – The rate of growth concept allows impact fees to be sensitive to the growth rate within the city. This approach reconciles the relationship between consumption-based and needs-based impact fee methodologies and generally reduces fees in built-up areas while maintaining the existing LOS.
- **Buy-down by Geographic Area and Geographic Goals** – This approach will allow the City to place a priority on select Activity Centers or the Urban Core to incentivize more efficient land use patterns as set forth in the City’s Comprehensive Plan. For example, the geographic area buy-down could be used to meet the goal of increasing density and creating a more diverse tax base in the Urban Core, identified by the City, by leveraging other revenues to offset impact fee costs while maintaining the current LOS. The City of North Port staff identified the Urban Core to include the area surrounding the Activity Centers 1 and 2. In addition, there is a desire to differentiate fees in Activity Centers 4 and 5. These areas are presented in Figure I-1.
- **Buy-down of “Most Favored Uses”** – This approach developed by TOA allows communities to establish policies for targeted land uses related to overall benefit and need for specific uses in targeted geographic areas of the city. These benefits also



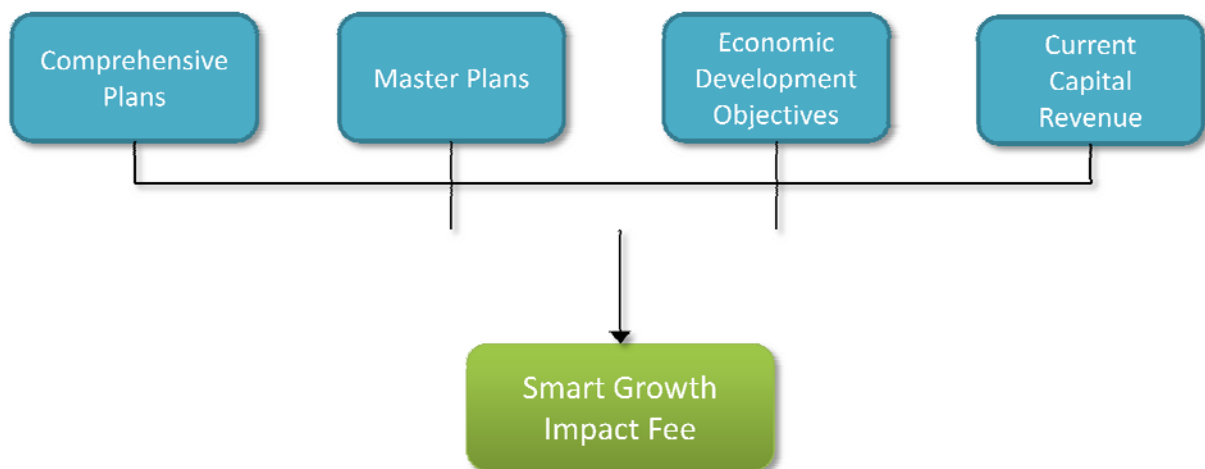
Figure I-1
Targeted Impact Fee Differential Areas



may include improved revenue generation through a more diverse tax base that brings economic stability in the future. The City staff indicated an interest in encouraging multi-family development as well as several non-residential land uses, including mixed-use, office, light industrial/business park, and certain retail/commercial categories.

As presented in the chart below, the Smart Growth Impact Fee concept is driven by the communities' economic development and growth management goals, available funding, and the desired/acceptable LOS for various program areas. This approach provides the City with the necessary information to achieve a flexible program that supports the community's planning goals.

Smart Growth Approach to Impact Fees



More specifically, the concept of Smart Growth incorporates the following thought process and analysis:

- Impact fees calculated under traditional methods are not sensitive to growth rates experienced in the community. For example, as explained previously, the consumption-based impact fees are based on the value of asset that is being consumed by the new development. These calculations are not affected by slow or high growth rates and do not consider the contributions of the existing development to maintain the current achieved LOS.



- Historically, many jurisdictions within Florida experienced high growth rates, which required a significant amount of investment in new infrastructure. With slower growth rate over the past two to three years, the burden of new growth has started to become more manageable. The City of North Port experienced an average annual growth rate of 9 percent between 2000 and 2011, which is estimated to decrease to approximately 3.5 percent over the next 20 years.
- Smart Growth incorporates the impact of the community's growth rate on the existing tax base's ability to absorb growth while maintaining the current/achieved LOS. Impact fees, if calculated correctly and adopted at the legally maximum level, would allow a community to maintain its LOS for a given infrastructure without any additional revenue contributions beyond what was contributed from the new development. When additional funds from existing development are also used toward the expansion of the same infrastructure, the LOS improves.

For example, a community that has 1 fire station per 12,000 people, will maintain this LOS through impact fee revenues if the fees are calculated based on this achieved LOS and are adopted at the maximum level. When additional funding, such as sales or ad valorem tax revenues are used toward building additional stations or buying additional vehicles, the LOS will improve. Table I-1 presents an example. Figures included in Table I-1 are based on the North Port Fire/EMS impact fee figures, but they are altered or rounded to simplify the example.

As shown in Table I-1, if adopted at the maximum legally allowable rate, fire/EMS impact fee revenues will be sufficient to maintain the existing LOS of 12,000 people per station without any other funding sources contributing toward capacity expansion projects. Alternatively, when additional funding is available, the LOS improves to 10,180 people per station. This is because per legal requirements, the credit component included in the impact fee calculations consists only of the non-impact fee contributions received from new development, and does not include the portion received from the existing population. This allows the City to decide if it wants to increase the LOS provided or maintain the existing LOS. The Smart Growth calculations quantify the choices of fees and projected LOS.



Table I-1
Changes in LOS -- Example

Variable	Figure
Fire/EMS:	
LOS Calculations with Only Impact Fees:	
Citywide Population	60,000
Number of Existing Stations	5
Exiting LOS (population per station)	12,000
Calculated Impact Fee per Person	\$360
Population Growth Rate	3.5%
Additional Population (2012-2016) ⁽¹⁾	11,261
Total Population (2016) ⁽²⁾	71,261
Impact Fee Revenue Collected ⁽³⁾	\$4,053,960
Cost per Fire Station ⁽⁴⁾	\$4,000,000
Additional Stations Built ⁽⁵⁾	1
Total Stations ⁽⁶⁾	6
LOS in 2016 ⁽⁷⁾	11,850
LOS Calculations with Impact Fees and Other Funding:	
Additional Funding Available ⁽⁸⁾	\$3,946,040
Total Funding Available ⁽⁹⁾	\$8,000,000
Additional Stations Built ⁽¹⁰⁾	2
Total Stations ⁽¹¹⁾	7
LOS in 2016 ⁽¹²⁾	10,180

- (1) Based on population of 60,000 and 3.5% annual growth rate compounded over 5 years
- (2) Sum of 60,000 initial population and 11,261 additional population (Item 1)
- (3) Calculated impact fee per person multiplied by the additional population (Item 1)
- (4) Includes the cost of buildings, land, and equipment
- (5) Impact fee revenues (Item 3) divided by fire station cost (Item 4)
- (6) Sum of 5 existing stations and 1 new station
- (7) Total population in 2016 (Item 2) divided by total stations (Item 6)
- (8) Assumed additional funding (e.g., sales tax, general fund, etc.) over the 5-year period
- (9) Sum of impact fee revenues (Item 3) and additional funding available (Item 8)
- (10) Total funding available (Item 9) divided by fire station cost (Item 4)
- (11) Sum of 5 existing stations and 2 new stations (Item 10)
- (12) Total population in 2016 (Item 2) divided by total stations (Item 11)



- It is important to note that whether to fund capacity expansion projects solely with impact fee collections or supplement them with alternative funding sources is strictly a policy decision. The City is not legally bound to contribute or limit non-impact fee funding for any service areas. If the City desires to improve the LOS, there will be a need for supplemental funding in addition to impact fee revenues. Alternatively, if the City is satisfied with the existing LOS, there may be an opportunity to reduce the impact fee levels and maintain the existing LOS as long as there are other dedicated revenues sources, such as sales tax, ad valorem tax, etc. For example, in the case of programs that are critical to the safety and well-being of the residents (such as fire, police, etc.), the City may want to improve the LOS. Alternatively, a program area such as government buildings may not be as critical, and the City may decide to provide impact fee discounts in order to support planning and economic development goals and still maintain the existing LOS.

The study methodology components for each of the impact fee areas are documented in the following sections of this technical report, and include an evaluation of the inventory, service area, level of service, cost, credit and demand components. In addition, application of the Smart Growth approach is also included for each program area.

Information supporting this analysis was obtained from the City of North Port and other sources, as indicated.



II. Current and Projected Population

This section identifies the assumptions and resulting population estimates and projections for the City of North Port. Population estimates for 2011 and projections through the year 2020 (in five-year increments) are presented and summarized in this section for use, as appropriate, within each of the impact fee program areas. Functional population estimates, as well as a discussion of what functional population is, also are provided in this section.

Population Assumptions

All program areas being considered for impact fees in North Port, with the exception of transportation, require the use of population data in calculating current levels of service and performance standards. To accurately determine demand for services, this impact fee study considers not only the resident or permanent population of the City, but also the seasonal residents and visitors as well. **Therefore, for purposes of this technical analysis, the weighted average seasonal population will be used in all population estimates and projections, unless otherwise noted.** Detailed calculations of the City's weighted average seasonal population are included in Appendix A, Tables A-1 through A-3.

Table II-1 presents the population trends for the City of North Port. The projections indicate that the population of North Port is expected to increase by 35 percent between 2011 and 2020. The projections are provided by the City staff and incorporate the 2010 Census data as well as the recent decrease in growth rates.

*City of North Port
population is
projected to increase
by 35% between
2011 and 2020.*



Table II-1
Weighted Average Seasonal Population Estimates & Projections

Year	Weighted Average Seasonal Population
2000	23,516
2001	26,029
2002	28,313
2003	32,339
2004	36,846
2005	42,292
2006	49,275
2007	55,425
2008	58,090
2009	57,515
2010	59,164
2011	60,690
2012	62,256
2013	63,862
2014	65,509
2015	67,184
2016	69,911
2017	72,750
2018	75,703
2019	78,777
2020	81,971

Source: Table A-3



Apportionment of Demand by Residential Unit Type and Size

The residential land uses to be used for the impact fee calculations include the following:

- Single Family Detached
- Multi-Family
- Mobile Home
- Retirement Community/Age Restricted Single Family

Tables II-2 presents the number of residents per housing unit for the residential categories identified above in the City of North Port. This analysis includes all housing units, both occupied and vacant.

Table II-2
Residents per Housing Unit

Housing Type	Population ⁽¹⁾	Housing Units ⁽²⁾	Residents / Housing Units
Single Family Detached	21,459	8,961	2.39
Multi Family	793	561	1.41
Mobile Home	975	835	1.17
Retirement Community/Age-Restricted Single Family ⁽⁴⁾	N/A	N/A	1.41
Weighed Average	23,227	10,357	2.24

(1) Source: 2000 Census, Table H-33, adjusted for seasonal population

(2) Source: 2000 Census, Table H-30

(3) Population divided by housing units

(4) Calculated using the residents per housing unit figure for single family land use and the ratio of residents that are 55 years old or older (59%), obtained from the National Household Travel Survey (2001)

Notes: Housing units exclude boats, RVs, vans, etc. Figures included in Table II-2 are extrapolated from a small sample and as such, the total population figure is slightly different than that shown in Appendix A, Table A-1.

It should be noted that 2010 Census population and housing units data by land use are not available. However, a comparison of the residents per housing units for all land uses



combined shown by Census 2000 and 2010 are within 0.02 people of each other. Given this, residents per housing unit figures for various land uses based on 2000 Census figures appear to be representative of the current conditions.

Functional Population

Because the City's fire rescue, law enforcement, and government buildings serve all residents, workers, and visitors, population figures need to consider the portion of the time residents, visitors, and employees spend in North Port. Population is used as the basis of current and future demand for certain facilities. In these cases, the higher the nonresident daytime population is, the greater the need for services relative to the resident population. Moreover, it is not enough to simply add resident population to the number of employees, since the service-demand characteristics of employees can vary considerably by type of industry. Using unweighted population and employment data to estimate facility needs may result in substantial error.

Functional population is the equivalent number of people occupying space within a community on a 24-hours-per-day, 7-days-per-week basis (Nelson and Nicholas 1992). A person living and working in the community will have a functional population coefficient of 1.0. A person living in the community but working elsewhere may spend only 16 hours per day in the community on weekdays and 24 hours per day on weekends for a functional population coefficient of 0.76 (128-hour presence divided by 168 hours in one week). A person commuting into the community to work five days per week would have a functional population coefficient of 0.30 (50-hour presence divided by 168 hours in one week). Similarly, a person traveling into the community to shop at stores, perhaps averaging 8 hours per week, would have a functional population coefficient of 0.05.

Functional population thus tries to capture the presence of all people within the community, whether residents, workers, or visitors, to arrive at a total estimate of effective population needing to be served. By estimating the functional and weighted seasonal population per unit of land use across all major land uses in a community, an estimate of the demand for certain facilities and services can be calculated. The following paragraphs explain how functional population is calculated for residential and nonresidential land uses.



Residential Functional Population

Developing the residential component of functional population is simpler than developing the nonresidential component. It is generally estimated that people spend one-half to three-fourths of their time at home and the rest of each 24-hour day away from their place of residence. In developing the residential component of North Port functional population, an analysis of the City's population and employment characteristics was conducted. Based on this analysis, it was estimated that people, on average, spend 17.6 hours, or approximately 73 percent, of each 24-hour day at their place of residence and the other 27 percent away from home. This analysis is presented in Tables II-3 and II-4.

Table II-3
City of North Port
Population and Employment Characteristics (2009)

Item/Calculation Step	Figure
Workers who live and work in North Port ⁽¹⁾	1,352
Workers who live in North Port, but work elsewhere ⁽²⁾	11,322
Total workers in North Port ⁽³⁾	12,674
Population ⁽⁴⁾	55,759
Total workers as a percent of population ⁽⁵⁾	22.7%
School age population (5-17 years) ⁽⁶⁾	9,571
Percent of total population ⁽⁷⁾	17.2%
Population net of workers & school age population ⁽⁸⁾	33,514
Percent of total population ⁽⁹⁾	60.1%

(1), (2) Source: Bureau of Transportation Statistics, OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2009

(3) Sum of the workers who live and work in North Port (Item 1) and workers who live in North Port but work elsewhere (Item 2)

(4) Source: City of North Port Planning Department

(5) Total workers living in North Port (Item 3) divided by total population (Item 4)

(6) Calculated based on the ratio of school age population in 2000. This figure is also consistent with 2009 estimates obtained from the American Community Survey

(7) School age population (Item 6) divided by total population (Item 4)



- (8) Total population (Item 4) less total workers living in North Port (Item 3) and school age population (Item 6)
- (9) Population net of workers and school age population (Item 8) divided by total population (Item 4)

Table II-4
Residential Coefficient for Functional Population

Population Group	Hours at Residence ⁽¹⁾	Percent of Population ⁽²⁾	Effective Hours ⁽³⁾
Workers	13	22.7%	3.0
Students	15	17.2%	2.6
Other	20	60.1%	12.0
Total Hours at Residence ⁽⁴⁾			17.6
Residential Functional Population Coefficient⁽⁵⁾			73.3%

(1) Estimated

(2) Source: Table II-3

(3) Hours at residence (Item 1) multiplied by percent of population (Item 2)

(4) Sum of the effective hours

(5) Sum of effective hours (Item 4) divided by 24

The resulting percentage from Table II-4 is used in the calculation of residential coefficient for the 24-hour functional population. These calculations are presented in Table II-5.

Nonresidential Functional Population

Given the varying characteristics of nonresidential land uses, developing estimates of functional residents for nonresidential land uses is more complicated than developing estimates of functional residents for residential land uses. Nelson and Nicholas originally introduced a method for estimating functional resident population, now used widely.¹ This method uses trip generation data from the Institute of Transportation Engineers' (ITE) Trip Generation Manual and TOA's Trip Characteristics Database, information on passengers per vehicle, workers per vehicle, length of time spent at the land use, and other variables. Specific calculations include:

¹ Arthur C. Nelson and James C. Nicholas, "Estimating Functional Population for Facility Planning," *Journal of Urban Planning and Development* 118(2): 45-58 (1992).



- Total one-way trips per employee (ITE trips multiplied by 50 percent to avoid double counting entering and exiting trips as two trips).
- Visitors per impact unit based on occupants per vehicle (trips multiplied by occupants per vehicle less employees).
- Worker hours per week per impact unit (such as nine worker hours per day multiplied by five to seven days in a work week).
- Visitor hours per week per impact unit (visitors multiplied by number of hours per day times relevant days in week such as five for offices and seven for retail shopping).
- Functional population coefficients per employee developed by estimating time spent by employees and visitors at each land use.

Table II-5 also shows the functional population coefficients for nonresidential uses/categories in North Port. The functional population coefficients in Table II-5 were used to estimate the City's functional population in Table II-6.



Table II-5
General Functional Population Coefficients

Population/ Employment Category	ITE LUC	Employee Hours In-Place ⁽¹⁾	Trips per Employee ⁽²⁾	One-Way Trips per Employee ⁽³⁾	Journey-to-Work Occupants per Trip ⁽⁴⁾	Daily Occupants per Trip ⁽⁵⁾	Visitors per Employee ⁽⁶⁾	Visitor Hours per Trip ⁽⁷⁾	Days per Week ⁽⁸⁾	Functional Population Coefficient ⁽⁹⁾
Population									7.00	0.733
Natural Resources	N/A	9.00	3.02	1.51	1.32	1.38	0.09	1.00	7.00	0.379
Construction	110	9.00	3.02	1.51	1.32	1.38	0.09	1.00	5.00	0.271
Manufacturing	140	9.00	2.13	1.07	1.32	1.38	0.06	1.00	5.00	0.270
Transportation, Communication, Utilities	110	9.00	3.02	1.51	1.32	1.38	0.09	1.00	5.00	0.271
Wholesale Trade	150	9.00	3.89	1.95	1.32	1.38	0.12	1.00	5.00	0.271
Retail Trade	820	9.00	67.72	33.86	1.24	1.73	16.59	1.50	7.00	1.412
Finance, Insurance, Real Estate	710	9.00	3.32	1.66	1.24	1.73	0.81	1.00	5.00	0.292
Services ⁽¹⁰⁾	N/A	9.00	0.00	0.00	1.24	1.73	0.00	1.00	6.00	0.321
Government ⁽¹¹⁾	730	9.00	11.95	5.98	1.24	1.73	2.93	1.00	7.00	0.497

(1), (7) Assumed

(2) Trips per employee represents all trips divided by the number of employees and is based on Trip Generation 8th Edition (Institute of Transportation Engineers 2008) as follows:

ITE Code 110 at 3.02 weekday trips per employee, page 90.
ITE Code 140 at 2.13 weekday trips per employee, page 161.
ITE Code 150 at 3.89 weekday trips per employee, page 190.
ITE Code 710 at 3.32 weekday trips per employee, page 1196.
ITE Code 730 at 11.95 weekday trips per employee, page 1248.
ITE Code 820 based on blended average of trips by retail center size calculated below, adapted from page 1500.

Trips per retail employee from the following table:

	Assumed Center Size	Trip Rate per 1K sq ft	per 1 sf	Sq Ft per Employee ⁽¹²⁾	Trips per Employee	Share	Weighted Trips
Retail Scale							
Neighborhood <50k sq.ft.	25	110.32	0.110	802	88.22	45.0%	39.70
Community 50k - 250k sq.ft.	150	58.93	0.059	975	57.53	35.0%	20.14
Regional 250k - 500k sq.ft.	375	42.76	0.043	1,043	44.85	15.0%	6.73
Super Reg. 500k-1000k sq.ft.	750	33.55	0.034	676	22.98	5.0%	1.15
Sum of Weighted Trips/employee						100.0%	67.72

(3) Trip per employee (Item 2) multiplied by 0.5.

(4) Journey-to-Work Occupants per Trip from 2001 Nationwide Household Travel Survey (FHWA 2001) as follows:
1.32 occupants per Construction, Manufacturing, TCU, and Wholesale trip
1.24 occupants per Retail Trade, FIRE, and Services trip

(5) Daily Occupants per Trip from 2001 Nationwide Household Travel Survey (FHWA 2001) as follows:
1.38 occupants per Construction, Manufacturing, TCU, and Wholesale trip
1.73 occupants per Retail Trade, FIRE, and Services trip

(6) [Daily occupants per trip (Item 5) multiplied by one-way trips per employee (Item 3)] - [Journey-to-Work occupants per trip (Item 4) multiplied by one-way trips per employee (Item 3)]

(8) Typical number of days per week that indicated industries provide services and relevant government services are available.

(9) The equation to determine the Functional Population Coefficient per Employee for all land-use categories except residential includes the following:

$$\frac{(\text{Days per Week} \times \text{Employee Hours in Place}) + (\text{Visitors per Employee} \times \text{Visitor Hours per Trip} \times \text{Days per Week})}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$$

(10) Trips per employee for the services category is the average trips per employee for the following service related land use categories: quality restaurant, high-turnover restaurant, supermarket, hotel, motel, elementary school, middle school, high school, hospital, medical office, and church. Source for the trips per employee figure from ITE, 8th ed., when available, or else derived from the square feet per employee for the appropriate land use category from the Energy Information Administration from Table B-1 of the Commercial Energy Building Survey (2003).

(11) Includes Federal Civilian Government, Federal Military Government, and State and Local Government categories.

(12) Square feet per retail employee from the Energy Information Administration from Table B-1 of the Commercial Energy Building Survey, 2003



Table II-6
Functional Population – Year 2011

Population Category	2011 North Port Baseline Population ⁽¹⁾	Functional Resident Coefficient ⁽²⁾	Functional Population
Total Weighted Population	60,690	0.733	44,486
Employment by Category			
Natural Resources	85	0.379	32
Construction	3,107	0.271	842
Manufacturing	1,557	0.270	420
Transportation, communication, and utilities	1,439	0.271	390
Wholesale Trade	590	0.271	160
Retail Trade	3,719	1.412	5,251
Finance, insurance, and real estate	1,797	0.292	525
Services	9,664	0.321	3,102
Government Services	994	0.497	494
Total Employment by Category Population ⁽³⁾	22,952		11,216
2011 Total Functional Population⁽⁴⁾			55,702

(1) Source: Table II-1 for population figures and Bureau of Labor Economics for employment data

(2) Source: Table II-5

(3) The total employment population by category is the sum of the employment figures from the nine employment categories, i.e. construction, manufacturing, etc.

(4) The total functional population is the sum of the weighted population and total employment by category

Functional Residents by Specific Land Use Category

When a wide range of land uses impact services, an estimate of that impact is needed for each land use. This section presents functional population estimates by residential and non-residential land uses.



Residential and Transient/Assisted/Group Land Uses

The average number of persons per housing unit in the City of North Port was calculated for single family, multi family, mobile homes, and retirement/age-restricted housing based on information obtained from the 2000 Census. Transient/assisted/group land uses include hotels, motels, nursing homes, and adult living facilities (ALF). Secondary sources, such as Sarasota Convention and Visitors Bureau and the Florida Department of Elderly Affairs, are used to determine the persons per unit for hotels, motels, and nursing homes land uses. As mentioned before, different functional population coefficients must be developed for each of the impact fee areas to be analyzed. For residential land uses, these coefficients are displayed in Table II-7.

Nonresidential Land Uses

A similar approach is used to estimate functional residents for nonresidential land uses. Table II-8 reports basic assumptions and calculations, such as trips per unit, trips per employee, employees per impact unit, one-way trips per impact unit, worker hours, occupants per vehicle trip, visitors (patrons, etc.) per impact unit, visitor hours per trip, and days per week for nonresidential land uses. The final column in the tables shows the estimated functional resident coefficients by land use. These coefficients by land use create the demand component for the fire/EMS, law enforcement, and government buildings program areas and will be used in the calculation of the impact fee per unit for each land use category in the fee schedule.



Table II-7
Functional Residents for Residential Land Uses

Residential Land Use	Impact Unit	ITE LUC ⁽¹⁾	Residents Per Unit ⁽²⁾	Occupancy Rate ⁽³⁾	Adjusted Residents Per Unit ⁽⁴⁾	Hours at Place ⁽⁵⁾	Workers Per Unit ⁽⁶⁾	Worker Hours per Day ⁽⁷⁾	Days Per Week ⁽⁸⁾	Work Week Residents Per Unit ⁽⁹⁾
Residential										
Single Family Detached	du	210	2.39							1.75
Multi Family	du	221	1.41							1.03
Mobile Home/RV Park Site	du	240	1.17							0.86
Retirement Community/Age-Restricted Single Family/Senior Adult Housing	du	250	1.41							1.03
Transient/Assisted, Group										
Hotel / Motel	room	310	2.60	63%	1.64	12	0.50	9	7	1.01
Nursing Home	bed	620	1.00	81%	0.81	16	0.36	9	7	0.68
ALF/Congregate Care Facility	du	253	1.38	81%	1.12	16	0.30	9	7	0.86
(1) Land use code from the Institute of Transportation Engineers, 8th Edition (2) For residential units, estimate from 2000 Census, verified against the 2010 data in terms of residents per unit for all home types combined. For hotel/motel, source is the Sarasota Convention and Visitors Bureau. For nursing homes, 1 person per bed is assumed. For ALF, weighted average residents per unit for single and multi family homes adjusted by the ratio of population 55 and over from the 2001 National Household Travel Survey, prepared by the US Department of Transportation. (3) Source: Sarasota Convention and Visitors Bureau for the average year-round hotel/motel occupancy rate for Sarasota County between 2005 and 2010. Source for nursing home occupancy is the Sarasota County 2010 Profile by the Department of Elderly Affairs. (4) Residents per unit times occupancy rate (5), (7), (8) Estimated (6) Adapted from ITE Trip Generation, 8th Edition. (9) For residential this is Residents Per Unit times 0.733. For Transient, Assisted, and Group it is: $\frac{[(\text{Adjusted Residents per Unit} \times \text{Hours at Place} \times \text{Days per Week}) + (\text{Workers Per Unit} \times \text{Work Hours Per Day} \times \text{Days per Week})]}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$										



Table II-8
Functional Residents for Non-Residential Land Uses

Land Use	Impact Unit	ITE LUC ⁽¹⁾	Trips Per Unit ⁽²⁾	Trips Per Employee ⁽³⁾	Employees Per Unit ⁽⁴⁾	One-Way Factor @ 50% ⁽⁵⁾	Worker Hours ⁽⁶⁾	Occupants Per Trip ⁽⁷⁾	Visitors ⁽⁸⁾	Visitor Hours Per Trip ⁽⁹⁾	Days Per Week ⁽¹⁰⁾	Functional Resident Coefficient ⁽¹¹⁾
Recreational												
Marina	berth	420	2.96	20.52	0.14	1.48	9	2.39	3.40	1.00	7	0.19
Golf Course	acre	430	5.04	20.52	0.25	2.52	9	2.39	5.77	0.25	7	0.15
Movie Theater	1,000 sf	444	30.00	53.12	0.56	15	9	2.39	35.29	1.00	7	1.68
Recreational/Community Center	1,000 sf	495	22.88	27.25	0.84	11.44	9	2.39	26.50	1.00	7	1.42
Institutions												
Elementary School (K-8)	1,000 sf	520	13.78	16.39	0.84	6.89	9	1.11	6.81	2.00	5	0.63
High School (9-12)	1,000 sf	530	12.89	19.74	0.65	6.45	9	1.11	6.51	2.00	5	0.56
University/Junior College with 7,500 or fewer students	student	540	2.00	12.21	0.16	1.00	9	1.11	0.95	2.00	5	0.10
University/Junior College with more than 7,500 students	Student	550	1.50	12.21	0.12	0.75	9	1.11	0.71	2.00	5	0.07
Church	1,000 sf	560	9.11	20.64	0.63	4.56	9	1.90	8.03	1.00	7	0.57
Day Care Center	1,000 sf	565	75.07	28.13	2.67	37.54	9	1.11	39.00	0.15	5	0.89
Hospital	1,000 sf	610	16.50	5.20	3.17	8.25	9	1.42	8.55	1.00	7	1.55
Office												
Office 50,000 SF or less ⁽¹²⁾	1,000 sf	710	15.65	3.32	4.71	7.83	9	1.28	5.31	1.00	5	1.42
Office 50,001 - 100,000 sf ⁽¹³⁾	1,000 sf	710	13.34	3.32	4.02	6.67	9	1.28	4.52	1.00	5	1.21
Office 100,001 - 200,000 sf ⁽¹⁴⁾	1,000 sf	710	11.37	3.32	3.42	5.69	9	1.28	3.86	1.00	5	1.03
Office 200,001 - 400,000 sf ⁽¹⁵⁾	1,000 sf	710	9.70	3.32	2.92	4.85	9	1.28	3.29	1.00	5	0.88
Office greater than 400,000 sf ⁽¹⁵⁾	1,000 sf	710	8.83	3.32	2.66	4.42	9	1.28	3.00	1.00	5	0.80
Medical Office (0-10,000 sf)	1,000 sf	720	23.83	8.91	2.67	11.92	9	1.42	14.26	1.00	5	1.14
Medical Office (>10,000 sf)	1,000 sf	720	35.95	8.91	4.03	17.98	9	1.42	21.50	1.00	5	1.72
Business Park (Flex Space)	1,000 sf	770	12.98	4.04	3.21	6.49	9	1.38	5.75	0.75	5	0.99



Table II-8 (continued)
Functional Residents for Non-Residential Land Uses

Land Use	Impact Unit	ITE LUC ⁽¹⁾	Trips Per Unit ⁽²⁾	Trips Per Employee ⁽³⁾	Employees Per Unit ⁽⁴⁾	One-Way Factor @ 50% ⁽⁵⁾	Worker Hours ⁽⁶⁾	Occupants Per Trip ⁽⁷⁾	Visitors ⁽⁸⁾	Visitor Hours Per Trip ⁽⁹⁾	Days Per Week ⁽¹⁰⁾	Functional Resident Coefficient ⁽¹¹⁾
Retail, Gross Square Feet												
Building Materials/Lumber Store	1,000 sf	812	45.16	32.12	1.41	22.58	9	1.52	32.91	0.50	7	1.21
Hardware/Paint Store	1,000 sf	816	51.29	53.21	0.96	25.65	9	1.52	38.03	0.50	7	1.15
Shopping Center 50,000 sfgla or less ⁽¹²⁾	1,000 sfgla	820	86.56	N/A	2.50	43.28	9	1.73	72.37	0.50	7	2.45
Shopping Center greater than 50,000 sfgla ⁽¹³⁾	1,000 sfgla	820	36.27	N/A	2.50	18.14	9	1.73	28.88	1.00	7	2.14
New/Used Auto Sales	1,000 sf	841	29.85	21.14	1.41	14.93	9	1.73	24.42	1.00	7	1.55
Tire Store	1,000 sf	848	24.87	41.35	0.60	12.44	9	1.52	18.31	1.00	7	0.99
Supermarket	1,000 sf	850	103.38	87.82	1.18	51.69	9	1.52	77.39	0.50	7	2.05
Convenience Store w/Gas Pumps	1,000 sf	853	775.14	N/A	2.50	387.57	9	1.52	586.61	0.20	7	5.83
Home Improvement Superstore	1,000 sf	862	29.80	N/A	2.50	14.90	9	1.52	20.15	1.00	7	1.78
Pharmacy/Drug Store with and w/o Drive-Thru	1,000 sf	881	92.88	N/A	2.50	46.44	9	1.52	68.09	0.35	7	1.93
Furniture Store	1,000 sf	890	5.06	12.19	0.42	2.53	9	1.52	3.43	0.50	7	0.23
Bank/Savings w/Drive-In	1,000 sf	912	159.34	30.94	5.15	79.67	9	1.52	115.95	0.15	6	2.28
Sit Down Restaurant	1,000 sf	931	91.10	N/A	9.92	45.55	9	1.85	74.35	1.00	7	6.82
High-Turnover Restaurant	1,000 sf	932	126.50	N/A	9.92	63.25	9	1.85	107.09	0.75	7	7.07
Fast Food Restaurant w/ Drive-Thru	1,000 sf	934	522.62	N/A	10.90	261.31	9	1.85	472.52	0.25	7	9.01
Quick Lube	bays	941	40.00	N/A	1.50	20.00	9	1.52	28.90	0.50	7	1.16
Automobile Repair Shop	1,000 sf	942	34.12	N/A	1.50	17.06	9	1.52	24.43	1.00	7	1.58
Gasoline/Service Station/Conv. Mart	fuel pos.	945	162.78	N/A	2.50	81.39	9	1.52	121.21	0.20	7	1.95
Self-Service Car Wash	bays	947	43.94	N/A	0.50	21.97	9	1.52	32.89	0.50	7	0.87
Convenience/Gasoline/Fast Food Store	1,000 sf	n/a	984.59	N/A	2.50	492.30	9	1.52	745.80	0.20	7	7.15



Table II-8 (continued)
Functional Residents for Non-Residential Land Uses

Land Use	Impact Unit	ITE LUC ⁽¹⁾	Trips Per Unit ⁽²⁾	Trips Per Employee ⁽³⁾	Employees Per Unit ⁽⁴⁾	One-Way Factor @ 50% ⁽⁵⁾	Worker Hours ⁽⁶⁾	Occupants Per Trip ⁽⁷⁾	Visitors ⁽⁸⁾	Visitor Hours Per Trip ⁽⁹⁾	Days Per Week ⁽¹⁰⁾	Functional Resident Coefficient ⁽¹¹⁾
Industrial												
General Light Industrial / Industrial Park	1,000 sf	110/130	6.96	3.02	2.30	3.48	9	1.38	2.50	1.00	5	0.69
General Heavy Industrial	1,000 sf	120	1.50	0.82	1.83	0.75	9	1.38	0.00	1.00	5	0.49
Manufacturing	1,000 sf	140	3.82	2.13	1.79	1.91	9	1.38	0.85	1.00	5	0.50
Warehousing	1,000 sf	150	3.56	3.89	0.92	1.78	9	1.38	1.54	0.75	5	0.28
Mini-Warehouse/Storage	1,000 sf	151	2.50	56.28	0.04	1.25	9	1.38	1.69	0.75	7	0.07
Sources: (1) Land use code found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 8th Edition (2) Land uses and trip generation rates consistent with those included in the 2008 Transportation Impact Fee Update Study (3) Trips per worker from ITE Trip Generation Handbook, 8th Edition, when available (4) Trips per impact unit divided by trips per person (usually employee). When trips per person are not available, the employees per unit is estimated. (5) Trips per unit (Item 2) multiplied by 50 percent (6), (9), (10) Estimated (7) Nationwide Personal Transportation Survey (8) [(One-way Trips/Unit X Occupants/Trip) - Employees]. (11) [(Workers X Hours/Day X Days/Week) + (Visitors X Hours/Visit X Days/Week)]/(24 Hours x 7 Days) (12) Trip rate is for 50,000 sf. (13) Trip rate is for 100,000 sf, (14) Trip rate is for 200,000 sf. (15) Trip rate is for 400,000 sf. (16) Trip rate is for 600,000 sf.												



III. Fire/EMS

The City of North Port provides fire/EMS services to all residents of the city. As such, this analysis will include all fire/EMS facilities located within the municipal boundaries of the City of North Port that are owned and operated by the City. This section summarizes the analysis used in the development of the proposed City of North Port fire/EMS impact fee schedule and includes the following sections:

- Capital Asset Inventory
- Service Area, Population and Benefit Districts
- Level of Service
- Cost Component
- Credit Component
- Net Fire Rescue Services Impact Cost
- Calculated Fire/EMS Fee Schedule
- Fire/EMS Impact Fee Schedule Comparison
- Smart Growth Application

These elements are summarized in the remainder of this section, with the result being the proposed fire/EMS impact fee schedule.

Capital Asset Inventory

Table III-1 presents the building and land inventory for the City of North Port Fire Rescue District (NPFRD). The City currently owns five fire stations, with Station #81 also housing the District's headquarters. The construction of the fifth station (Station 85) is estimated to start later this year or early next year, but because the funding for this stations is already secured, it is included in the inventory.

The station construction cost is estimated at \$200 per square foot based on recently built stations in North Port and other Florida jurisdictions as well as the insurance values of the existing stations.



Table III-1
Fire/EMS Land & Buildings Inventory

Facility Description	Location	Square Footage ⁽¹⁾	Number of Bays ⁽²⁾	Total Square Footage on Site ⁽³⁾	Total Acres ⁽⁴⁾	Acres per 1,000 sf of Building Space ⁽⁵⁾	Adjusted Acres ⁽⁶⁾	Current Value		
								Buildings ⁽⁷⁾	Adjusted Land ⁽⁸⁾	Total ⁽⁹⁾
Station 81/Headquarters	4980 City Center Blvd, North Port, FL 34286	14,602	3	136,063	33.49	0.25	3.65	\$2,920,400	\$182,500	\$3,102,900
Station 82	5650 North Port Blvd, North Port, FL 34287	11,961	3	28,713	17.10	0.60	3.00	\$2,392,200	\$150,000	\$2,542,200
Station 83	3601 E. Price Blvd, North Port, FL 34288	9,160	2	N/A	4.00	N/A	1.78	\$1,832,000	\$89,000	\$1,921,000
Station 84	1350 Citizens Parkway, North Port, FL 34286	11,961	3	11,961	3.00	0.25	3.00	\$2,392,200	\$150,000	\$2,542,200
Station 85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$2,391,900	\$150,000	\$2,541,900
Total (All Buildings)		47,684		176,737	57.59		11.43	\$11,928,700	\$721,500	\$12,650,200
Weighted Average Acreage per 1,000 Square Feet of Building							0.240			
Building Cost per Square Foot								\$200		
Land Value per Acre									\$50,000	
Number of Stations										5
Total Building and Land Replacement Cost per Station										\$2,530,040

(1) Source: City of North Port Fire Rescue District

(2) Source: City of North Port Fire Rescue District

(3) Source: City of North Port Planning & Zoning Department

(4) Source: City of North Port Planning & Zoning Department

(5) Total acres (Item 4) divided by total square footage on site (Item 3) multiplied by 1,000

(6) Acres per 1,000 sf of building space (Item 5) multiplied by square footage of fire stations (Item 1) divided by 1,000. In the case of Stations 82 and 83, the acreage associated with the fire station is provided by the City staff.

(7) Square footage multiplied by a construction cost of \$200 per square foot for Stations 81 thru 84. In the case of Station 85, programmed funding is included.

(8) Adjusted acres (Item 6) multiplied by land value of \$50,000 per acre

(9) Sum of building and land value (Items 7 and 8)



Land value of \$50,000 per acre is estimated based on the value of parcels where the existing fire/EMS stations are located as well as vacant land sales and value analysis for parcels of similar size based on the data obtained from the Sarasota County Property Appraiser, and the characteristics of fire station locations (e.g., major intersections with easy access, etc.). More specifically, the following analysis was conducted:

- The value of parcels (as reported by the Property Appraiser) where the current stations are located ranges from \$14,000 to \$161,000 per acre. At the high end, the parcel with a value of \$161,000 per acre, is in a commercial area.
- A citywide vacant land value analysis for 1- to 5-acre parcels as well as 2- to 3-acre parcels resulted in an assessed value of approximately \$20,000 per acre in residential areas and \$150,000 per acre in commercial areas.
- It is our understanding that of the future stations, Station 85 is likely to be located in an area that is considered residential/commercial, and Station 86 in a commercial area. (The location of Station 87 is not known at this time). Many times fire stations are located at major intersections to allow easy access, which limits potential parcels. As such, it is expected that in the future, some of the stations will be located in commercial areas.
- Using an average land value of \$20,000 per acre for residential areas and an average value of \$150,000 per acre for non-residential areas, and assuming one out of every four station is likely to be located in a commercial area, the weighted average land value is estimated at \$52,500 per acre for fire/EMS stations ($[(3 \times \$50,000) + (1 \times \$150,000)]/4 = \$52,500$). This figure was rounded down to \$50,000 per acre.

In addition to the five fire stations, the NPFRD inventory includes the necessary vehicles and equipment required to perform its fire/EMS duties. As presented in Table III-2, the total vehicle and equipment cost is \$7.4 million. The unit costs of the City's vehicles and other equipment are based on the information provided by the District and compared to costs observed in other jurisdictions to verify consistency.



Table III-2
Fire Vehicle & Equipment Inventory

Description	Units ⁽¹⁾	Unit Cost ⁽²⁾	Total Asset Value ⁽³⁾
Equipment			
LP-15	10	\$36,000	\$360,000
Stretchers	4	\$11,200	\$44,800
Air Packs	48	\$8,000	\$384,000
Extrication Tools	4	\$15,500	\$62,000
Thermal Imaging Camera	4	\$8,500	\$34,000
Cascade Systems	3	\$34,000	\$102,000
Total Equipment Cost			\$986,800
Vehicles			
ALS Engines	1	\$600,000	\$600,000
Rescues	6	\$200,000	\$1,200,000
Engines	3	\$550,000	\$1,650,000
Aerials	2	\$950,000	\$1,900,000
Tanker	1	\$300,000	\$300,000
Brush Trucks	4	\$50,000	\$200,000
TRT Trailer	1	\$150,000	\$150,000
Command Vehicles	5	\$55,000	\$275,000
Staff Vehicles	6	\$30,000	\$180,000
Total Vehicle Cost			\$6,455,000
Total Vehicle and Equipment Value			\$7,441,800
Number of Owned Stations⁽⁴⁾			5
Total Vehicle and Equipment Value per Station			\$1,488,360

(1) & (2) Source: City of North Port Fire Rescue District

(3) Number of units multiplied by the respective unit cost (Item 2)



Service Area, Population and Benefit Districts

The NPFRD provides all residents, workers, and visitors fire protection and EMS services. As such, the service area is the entire city, which will continue to be included in a single citywide benefit district.

In terms of population figures, the citywide 24-hour functional population estimate for year 2011 is used, which is provided in Section II, Table II-6.

Level of Service

Typically, when population is used as the basis for demand, the level of service (LOS) for fire/EMS is expressed in terms of stations per resident. Using this method, the current LOS for the NPFRD is 1 station per 12,138 weighted residents or 0.000082 stations per weighted resident. As mentioned previously, for the City's fire/EMS impact fee analysis, the LOS must be measured using functional population to capture workers, visitors, and residents to calculate the fire impact fee. In terms of functional population, the current LOS is 0.000090 stations per functional residents. Table III-3 summarizes the calculation of the achieved LOS for the NPFRD using both weighted and functional population.



Table III-3
Achieved/Current Level of Service (2011)

Calculation Step	Year 2011	
	Weighted Population	Functional Population
Population ⁽¹⁾	60,690	55,702
Number of Stations ⁽²⁾	5	5
Population per Station ⁽³⁾	12,138	11,140
Current LOS (Owned Stations per Resident)⁽⁴⁾	0.000082	0.000090

(1) Source: Table II-1 for weighted population figure and Table II-6 for functional population figure

(2) Source: Table III-1

(3) Population (Item 1) divided by the number of stations (Item 2)

(4) Number of stations (Item 2) divided by the population (Item 1), multiplied by 1,000

Table III-4 summarizes a LOS comparison between the City of North Port and surrounding/select jurisdictions. The LOS is displayed in terms of permanent population for all jurisdictions because a functional population analysis has not been completed for these entities. The LOS comparison is based on the permanent population for 2010, as this is the most recent population data available for all jurisdictions. As presented in this table, the City of North Port's LOS is within the range of these other communities.

In reviewing comparisons such as that included in Table III-3, it is important to note that the size and density of the service area can affect response time significantly, which in turn determines the necessary number of stations. However, based on the previous impact fee studies, overall average throughout the state is approximately 10,000 people per station.



Table III-4
2010 Level of Service Comparison

Jurisdiction	Population ⁽¹⁾	Number of Stations ⁽²⁾	Residents per Station ⁽³⁾
City of Punta Gorda	16,641	3	5,547
City of Venice	20,748	3	6,916
Charlotte County	143,337	16	8,959
Sarasota County	259,225	28	9,258
City of North Port	57,357	5	11,471
City of Lakeland	97,422	6	16,237

(1) Source: Census 2010

(2) Source: Table III-1 for the City of North Port, individual departments for all other

(3) Population (Item 1) divided by stations (Item 2)

Cost Component

Table III-5 summarizes the total current value of land, buildings, and equipment for fire services, including:

- five stations with a total asset value of \$12.7 million for buildings and land and \$7.4 million for vehicles and equipment, for a total asset value of \$20 million; and
- an average value of \$4 million per station.

In addition, Table III-5 presents the total impact cost per functional resident for fire/EMS in the City of North Port, which is calculated by multiplying the total cost per station by the LOS (stations per 1,000 functional residents) and dividing that figure by 1,000. The total impact cost for fire services provided by the City's Fire District is \$362 per functional resident.



Table III-5
Total Impact Cost per Functional Resident

Description	Value
Building Value per Station ⁽¹⁾	\$2,385,740
Land Value per Station ⁽²⁾	\$144,300
Vehicle & Equipment Value per Station ⁽³⁾	\$1,488,360
Total Asset Value per Station⁽⁴⁾	\$4,018,400
LOS (Stations/Functional Resident) ⁽⁵⁾	0.000090
Total Impact Cost per Functional Resident⁽⁶⁾	\$361.66

(1), (2) Source: Table III-1

(3) Source: Table III-2

(4) Sum of building, land, vehicle and equipment values

(5) Source: Table III-3

(6) Total asset value per station multiplied by the LOS (Item 5) and divided by 1,000

Credit Component

To avoid overcharging new development for the fire/EMS impact fee, a review of the capital financing program for fire/EMS services was completed. The purpose of this review was to determine any potential revenue credits generated by new development that are being used for expansion of capital facilities, land, vehicles, and equipment included in the inventory. It should be noted that the credit component does not include any capital renovation, maintenance, or operations expenses, as these types of expenditures cannot be funded with impact fee revenue.

Capital Expansion Expenditure Credit

To calculate the capital expansion expenditure credit per functional resident, the capital expansion projects programmed in the CIP are reviewed. Historically, the City has used primarily fire district funds and sales tax revenues to fund fire/EMS capital expansion projects. The Capital Improvements Plan (CIP) includes one capacity expansion project that is programmed to be funded with sales tax revenues. Although historically, the Fire District received a larger annual amount of non-impact fee funding for the capacity expansion projects, because of the reductions in available funding, the CIP period is



determined to be more representative of future funding the NPF RD is likely to receive towards capacity expansion projects. As such, the credit for new development is based on this period. The annual capital expansion expenditures were divided by the average functional residents for the same period in order to calculate the average capital expansion cost per functional resident.

As presented in Table III-6, the result is an average annual expansion cost of \$5 per functional resident.

Table III-6
Capital Expansion Expenditures Credit⁽¹⁾

Capital Expansion Expenditures	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
Sales Surtax 3 Funding						
Construction of Station 87			\$1,456,600			\$1,456,600
Functional Population ⁽²⁾	57,150	58,636	60,161	61,725	64,256	
Average Annual Capacity Expansion Expenditures⁽³⁾						\$291,320
Average Functional Population⁽⁴⁾						60,386
Average Annual Capacity Expansion Expenditures per Functional Resident⁽⁵⁾						\$4.82

(1) Source: City of North Port Finance Department

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

(3) Average capital expenditures over the 5-year period

(4) Average functional population over the 5-year period

(5) Average annual capital expansion expenditures (Item 3) divided by average functional population (Item 4)

Net Fire/EMS Impact Cost

The net impact fee per functional resident is the difference between the cost component and the credit component. Table III-7 summarizes the calculation of the net fire/EMS impact cost per functional resident.

The first section of this table identifies the total impact cost as \$362 per functional resident. The second section of the table identifies the revenue credits for the fire/EMS impact fee totaling approximately \$84 per functional resident which is equal to the net present value of the capital expansion credit per functional resident.



The net impact cost per functional resident is the difference between the total impact cost and the total revenue credit. This results in a net impact cost of \$278 per functional resident.

Table III-7
Net Impact Cost per Functional Resident

Impact Cost / Credit Element	Impact Cost	Revenue Credit
Impact Cost		
Capital Cost per Functional Resident ⁽¹⁾	\$361.66	
Impact Credit		
Total Capital Improvement Credit per Functional Resident ⁽²⁾		(\$4.82)
Capitalization Period (in years)		25
Capitalization Rate		3%
Total Revenue Credit ⁽³⁾		(\$83.93)
Net Impact Cost		
Net Impact Cost per Functional Resident ⁽⁴⁾	\$277.73	

(1) Source: Table III-5

(2) Source: Table III-6

(3) The present value of the capital improvement credit per functional resident (Item 2) at a discount rate of 3 percent with a capitalization period of 25 years. The capitalization rate is based on the interest rate of the City is expecting to pay for an upcoming bond issue.

(4) Total impact cost per functional resident (Item 1) less then capital improvement credit per functional resident (Item 3)



Calculated Fire/EMS Impact Fee Schedule

Table III-8 presents the calculated fire impact fee schedule developed for the City of North Port for both residential and non-residential land uses, based on the net impact cost per functional resident previously presented in Table III-7. The table also includes a comparison to the current/adopted fees.

Table III-8
Calculated Fire/EMS Impact Fee Schedule

Land Use	Impact Unit	Functional Population Coefficient ⁽¹⁾	Net Impact Cost per Functional Resident ⁽²⁾	Current Fee	Percent Change
Residential					
Single Family Detached	du	1.75	\$486.03	\$240.00	103%
Multi-Family	du	1.03	\$286.06	\$177.00	62%
Mobile Home / RV Park Site	du	0.86	\$238.85	\$157.00	52%
Retirement Community/Age Restricted Single Family/Senior Adult Housing	du	1.03	\$286.06	\$240.00	19%
Transient, Assisted, Group					
Hotel/Motel	room	1.01	\$280.51	\$169.50	66%
Nursing Home	bed	0.68	\$188.86	\$387.50	-51%
Assisted Living Facility (ALF)/Congregate Care Facility	du	0.86	\$238.85	N/A	N/A
Recreational					
Marina	berth	0.19	\$52.77	\$672.00	-92%
Golf Course	acre	0.15	\$41.66	\$672.00	-94%
Movie Theater with Matinee	1,000 sf	1.68	\$466.59	\$672.00	-31%
Recreational/Community Center	1,000 sf	1.42	\$394.38	\$672.00	-41%
Institutions					
Elementary School(K-8)	1,000 sf	0.63	\$174.97	\$387.50	-55%
High School (9-12)	1,000 sf	0.56	\$155.53	\$387.50	-60%
University/Junior College with 7,500 or fewer students	student	0.10	\$27.77	N/A	N/A
University/Junior College with more than 7,500 students	student	0.07	\$19.44	N/A	N/A
Church	1,000 sf	0.57	\$158.31	\$387.50	-59%
Day Care	1,000 sf	0.89	\$247.18	\$387.50	-36%
Hospital	1,000 sf	1.55	\$430.48	\$387.50	11%
Office and Financial					
Office 50,000 SF or less	1,000 sf	1.42	\$394.38	\$387.50	2%
Office 50,001 - 100,000 SF	1,000 sf	1.21	\$336.05	\$387.50	-13%
Office 100,001 - 200,000 SF	1,000 sf	1.03	\$286.06	\$387.50	-26%
Office 200,001 - 400,000 SF	1,000 sf	0.88	\$244.40	\$387.50	-37%
Office greater than 400,000 SF	1,000 sf	0.80	\$222.18	\$387.50	-43%
Medical Office (1 to 10,000 SF)	1,000 sf	1.14	\$316.61	\$387.50	-18%
Medical Office (Greater than 10,000 SF)	1,000 sf	1.72	\$477.70	\$387.50	23%
Business Park (Flex space)	1,000 sf	0.99	\$274.95	\$238.50	15%



Table III-8 (Continued)
Calculated Fire/EMS Impact Fee Schedule

Land Use	Impact Unit	Functional Population Coefficient ⁽¹⁾	Net Impact Cost per Functional Resident ⁽²⁾	Current Fee	Percent Change
Retail, Gross Square Feet					
Building Materials/Lumber	1,000 sf	1.21	\$336.05	\$672.00	-50%
Hardware/Paint	1,000 sf	1.15	\$319.39	\$672.00	-53%
Shopping Center 50,000 sfgla or less	1,000 sfgla	2.45	\$680.44	\$672.00	1%
Shopping Center greater than 50,000 sfgla	1,000 sfgla	2.14	\$594.34	\$672.00	-12%
New and Used Auto Sales	1,000 sf	1.55	\$430.48	\$672.00	-36%
Tire Store	1,000 sf	0.99	\$274.95	\$672.00	-59%
Supermarket	1,000 sf	2.05	\$569.35	\$672.00	-15%
Convenience Store with Gas Pumps	1,000 sf	5.83	\$1,619.17	\$672.00	141%
Home Improvement Superstore	1,000 sf	1.78	\$494.36	\$672.00	-26%
Pharmacy/Drug Store with and without drive thru	1,000 sf	1.93	\$536.02	\$672.00	-20%
Furniture Store	1,000 sf	0.23	\$63.88	\$672.00	-91%
Bank/Savings Drive-in	1,000 sf	2.28	\$633.22	\$672.00	-6%
Sit-down Restaurant	1,000 sf	6.82	\$1,894.12	\$672.00	182%
High-Turnover Restaurant	1,000 sf	7.07	\$1,963.55	\$672.00	192%
Fast Food Rest w/ Drive-Thru	1,000 sf	9.01	\$2,502.35	\$672.00	272%
Quick Lube	service bay	1.16	\$322.17	N/A	N/A
Auto Repair Shop	1,000 sf	1.58	\$438.81	\$672.00	-35%
Gasoline/Service Station/Convenience Mart	fuel pos.	1.95	\$541.57	\$672.00	-19%
Self Service Car Wash	service bay	0.87	\$241.63	N/A	N/A
Convenience/Gasoline/Fast Food Store	1,000 sf	7.15	\$1,985.77	\$672.00	196%
Industrial					
Light Industrial / Industrial Park	1,000 sf	0.69	\$191.63	\$238.50	-20%
General Heavy Industrial	1,000 sf	0.49	\$136.09	\$238.50	-43%
Manufacturing	1,000 sf	0.50	\$138.87	\$238.50	-42%
Warehousing	1,000 sf	0.28	\$77.76	\$151.50	-49%
Mini-Warehouse/Storage	1,000 sf	0.07	\$19.44	\$151.50	-87%

GLA = Gross Leasable Area

- (1) Source: Table II-7 for residential land uses and Table II-8 for nonresidential land uses
- (2) Calculated impact fee determined by multiplying the net impact cost per functional resident (\$277.73) by the functional resident coefficient for each land use
- (3) Source: City of North Port Impact Fee Schedule

Fire/EMS Impact Fee Schedule Comparison

As part of the work effort in updating the City of North Port's fire/EMS impact fee schedule, the City's calculated and adopted impact fee schedules were compared to those in similar or nearby jurisdictions. Table III-9 presents this comparison.



Table III-9
Fire/EMS Impact Fee Schedule Comparison

Land Use	Impact Fee Unit	City of North Port Calculated	City of North Port Adopted	Sarasota County	Charlotte County	City of Punta Gorda	City of Lakeland	City of Bradenton
Residential:								
Single Family (2,000 sf)	du	\$486	\$240	\$339	\$198	\$146	\$349	\$210
Non-Residential:								
Office (50,000 sf)	1,000 sf	\$394	\$388	\$178	\$124	\$80	\$207	\$247
General Light Industrial	1,000 sf	\$192	\$239	\$106	\$69	\$30	\$100	\$247
Fast Food Restaurant w/Drive-Thru	1,000 sf	\$2,502	\$672	\$442	\$773	\$280	\$491	\$247
Retail (100,000 sf)	1,000 sf	\$594	\$672	\$442	\$191	\$230	\$491	\$247

Source: City of North Port figures are from Table III-8. Figures for all other jurisdictions are from their respective impact fee schedules. Please note that the Cities of Bradenton and Punta Gorda and Charlotte County are currently under moratorium and are not charging fees.

Smart Growth Application

As discussed in Section I, the Smart Growth approach takes into consideration revenues received from the existing development that are used toward capacity expansion projects. It calculates what the impact fee level needs to be to maintain the existing/achieved LOS given a certain level of non-impact fee funding and estimated growth rate.

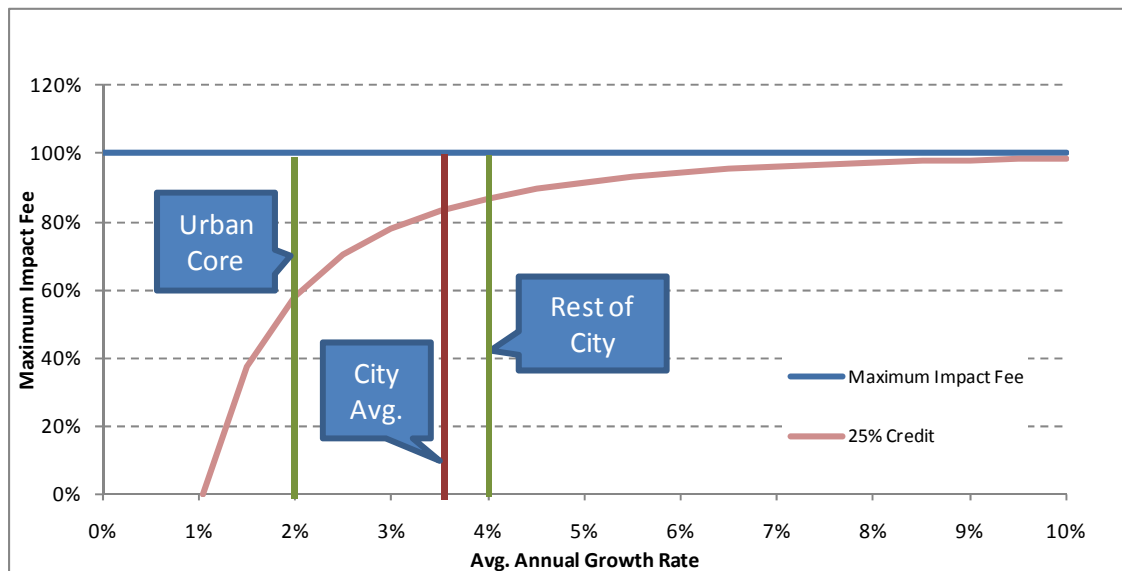
In the case of Fire/EMS services, the CIP indicates a contribution of approximately \$300,000 per year from the sales tax. Over the next 20 years, the City is expected to grow at an annual rate of 3.5 percent. Figure III-1 presents how impact fee levels would change over time with different growth rates. As shown, the maximum impact fee level is compared investment needed to maintain the current LOS. Although the City has the legal right to charge the Fire/EMS impact fee at the maximum level, approximately 85 percent of this fee is needed to maintain the current/achieved LOS due to non-impact fee contributions from the existing development and relatively lower rate of population growth.

If the City is interested in lowering fees only in the urban core area and continue to charge the full rate in the rest of the city, because the urban core is projected to grow at a lower rate of 2 percent, the City could lower the impact fee in this area by 40% (or adopt the fee at 60%) as long as a minimum of 90 percent of the calculated fire/EMS impact fee is adopted in the rest of the city to maintain the existing LOS.



Similarly, the level of flexibility extends to targeted land uses. In other words, if the City wants to continue to charge the impact fee for certain land uses, such as single family, etc., and eliminate or reduce the impact fee on non-residential land uses, it can do so. If the City adopts the single family home fee at 100 percent, it is able to reduce the fee for non-residential land uses by approximately 60 percent (or adopt the fee for non-residential land uses at 40 percent). These revenues along with non-impact fee funding available will enable the City to maintain its existing LOS. This is based on the assumption that over the next ten to 20 years, on average, approximately 75 percent of the impact fee revenues will be obtained from residential land uses and the remainder from non-residential land uses.

Figure III-1
Fire/EMS Impact Fee vs. Average Annual Growth Rate



Calculations shown in this study establish the legally maximum level of impact fee that can be charged for fire/EMS services (shown in Table III-8), and shows the flexibility the City has in terms of either reducing the impact fee levels or sales tax contributions to maintain the current LOS given the relatively low growth rate.



Given this information, the City has the following options:

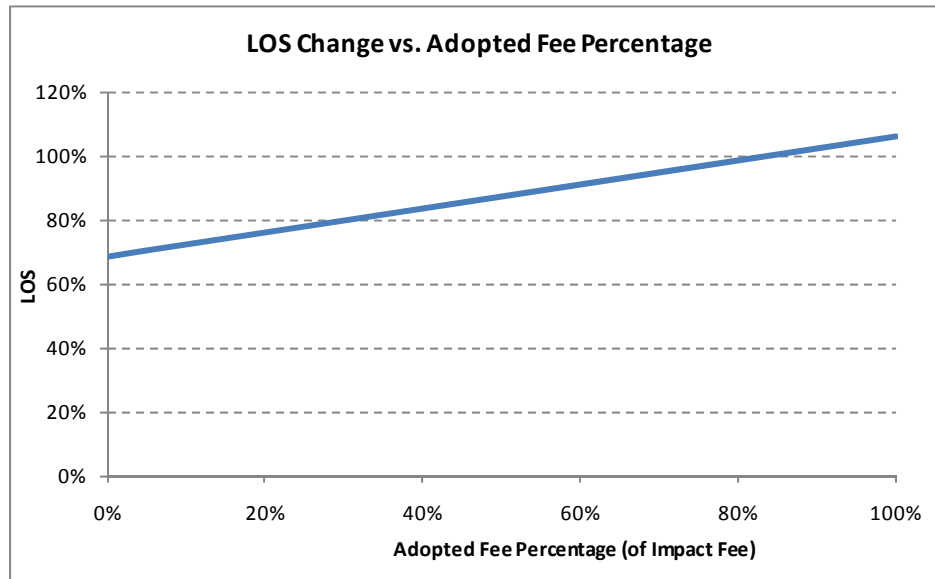
- Collect the fire/EMS impact fee at the maximum legally acceptable level and continue to contribute sales tax revenues to improve the existing LOS, which is shown in Figure III-2. As presented, with the current sales tax contribution levels, collection of fire/EMS impact fees at 100 percent level will improve the LOS by approximately 5 percent when the population doubles.

It is important to note that aside from population per station, other factors such as the location of stations, ISO ratings, etc. are also important in determining the additional number of stations needed, which benefit the community by reducing response time and/or insurance premiums.

- Adopt the fire/EMS impact fee with a discount either citywide or in certain areas and/or for targeted land uses. This will enable the City to provide incentives for the targeted development in desired locations and still maintain or even improve the LOS.
- Collect the impact fee at 100 percent and use the sales tax revenues for other infrastructure/projects as needed. This will allow the City to maintain the current LOS for fire/EMS capital facilities and provide some flexibility with non-impact funds.



Figure III-2
Fire/EMS LOS Improvement



IV. Law Enforcement

Law enforcement impact fees are used to fund the capital construction and expansion of police service related land, facilities and capital equipment required to support the additional police service demand created by new growth. This report presents the results of the law enforcement impact fee study for the City of North Port and will serve as the technical support document for the calculated law enforcement impact fee schedule.

There are several major elements associated with the development of the law enforcement impact fee. These include:

- Capital Asset Inventory
- Service Area and Population
- Facility Service Delivery
- Cost Component
- Credit Component
- Calculated Law Enforcement Impact Fee Schedule
- Law Enforcement Impact Fee Schedule Comparison
- Smart Growth Application

Inventory and Value of Capital Assets

According to information provided by the City of North Port Police Department (NPPD), the City has approximately 32,500 square feet of building space at the Police Headquarters used to provide law enforcement facilities. Table IV-1 shows a summary of the building and land inventory. It is our understanding that the future police substations will be located in fire stations. As such, the current building value of \$200 per square foot is used, which was also the unit cost figure used for future fire stations. Similarly, for land value \$50,000 per acre that was used for fire stations was used in the case of law enforcement facilities as well.



Table IV-1
Building and Land Inventory

Facility Description	Location	Square Footage ⁽¹⁾	Total Square Footage on Site ⁽²⁾	Total Acres ⁽³⁾	Acres per 1,000 sf of Building Space ⁽⁴⁾	Adjusted Acres ⁽⁵⁾	Current Value		
							Buildings ⁽⁶⁾	Land ⁽⁷⁾	Total ⁽⁸⁾
Police Headquarters	4980 City Hall Blvd., North Port, FL	32,484	136,063	33.49	0.25	8.12	\$6,496,800	\$406,000	\$6,902,800
Average Building Value per Square Foot							\$200		
Average Land Value per Acre								\$50,000	

(1), (2), (3) Source: City of North Port Planning & Zoning Department

(4) Total acres (Item 3) divided by total square footage on site (Item 4) multiplied by 1,000

(5) Acres per 1,000 sf of building space (Item 4) multiplied by square footage (Item 1) divided by 1,000

(6) Square footage (Item 1) multiplied by the average building value per square foot

(7) Adjusted acres (Item 5) multiplied by the average land value per acre

(8) Sum of the buildings value (Item 6) and land value (Item 7)



In addition to the land and buildings inventory, the NPPD also has the vehicles and equipment to perform its law enforcement duties. Table IV-2 summarizes the vehicle inventory.

Table IV-2
Vehicle Inventory

Description	Units ⁽¹⁾	Unit Cost ⁽²⁾	Total Cost ⁽³⁾
Marked Police Units	67	\$48,000	\$3,216,000
Unmarked Police Units	28	\$41,589	\$1,164,500
Van / Pickup / Utility Vehicles	22	\$45,545	\$1,002,000
ATVs and Trailers	7	\$11,429	\$80,000
Total Vehicle Value	124		\$5,462,500
Number of Sworn Officers⁽⁴⁾			103
Total Vehicle Value per Officer			\$53,034

(1) & (2) Source: City of North Port Police Department, represents the value of fully equipped vehicles

(3) Unit cost (Item 2) multiplied by units (Item 1)

(4) Source: Table IV-3

Service Area, Population and Benefit Districts

The City of North Port Police Department provides all residents, workers, and visitors law enforcement services. As such, the service area is the entire city, which will continue to be included in a single citywide benefit district.

As previously stated, police services are provided to the entire City of North Port. Therefore, the citywide 24-hour functional population estimate for year 2011 is used, which is provided in Section II, Table II-6.



Level of Service

Based on the information provided by the City, the City of North Port's 2011 level of service (LOS) is 1.70 sworn law enforcement officers per 1,000 weighted residents. Table IV-3 presents the calculation of the existing LOS.

While the 2011 LOS is 1.70 officers per 1,000 weighted residents, in order to calculate the law enforcement facilities impact fee, the LOS needs to be calculated in terms of officers per 1,000 functional residents. Table IV-3 also illustrates the calculation of the current LOS using the total functional residents within the service area. The current LOS of law enforcement facilities is 1.85 officers per 1,000 functional residents.

Table IV-3
Level of Service

Component	2011
Number of Sworn Officers ⁽¹⁾	103
Weighted Population ⁽²⁾	60,690
LOS (Officers per 1,000 Weighted Residents)	1.70
Functional Population ⁽³⁾	55,702
LOS (Officers per 1,000 Functional Residents)	1.85

(1) Source: City of North Port Police Department

(2) Source: Section II, Table II-1

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

Table IV-4 summarizes a LOS comparison between the North Port and cities and counties near or similar to North Port.



Table IV-4
Level of Service Comparison (2010)

Jurisdiction	Population ⁽¹⁾	Number of Officers ⁽²⁾	Residents per Officer ⁽³⁾	LOS (Officers per 1,000 Residents) ⁽⁴⁾
Charlotte County (Unincorp)	143,337	199	720	1.388
Sarasota County (Unincorp)	207,308	322	644	1.553
City of North Port	57,357	103	557	1.796
City of Punta Gorda	16,641	34	489	2.043
City of Lakeland	97,422	220	443	2.258
City of Venice	20,748	51	407	2.458
City of Sarasota	51,917	172	302	3.313

(1) Source: 2010 Census

(2) Source: Table IV-3 for City of North Port, Florida Department of Law Enforcement Criminal Agency Profile Report for all other jurisdictions.

(3) Population (Item 1) divided by number of officers (Item 2)

(4) Number of officers (Item 2) divided by population (Item 1) multiplied by 1,000

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings, land, vehicles, and equipment. Table IV-5 provides a summary of all capital costs, which amounts to approximately \$120,000 per sworn law enforcement officer.

Table IV-5 also presents the cost per functional resident for the impact fee analysis. This cost was calculated as the total capital cost of \$120,000 per officer multiplied by the LOS of 1.85 officers per 1,000 functional residents divided by 1,000. As shown in the following table, the total impact cost per resident is \$222 for law enforcement facilities.



Table IV-5
Asset Value per Officer

Item	Figure	Percent of Total ⁽⁹⁾
Total Land Value ⁽¹⁾	\$406,000	3%
Total Building Value ⁽²⁾	\$6,496,800	53%
Total Vehicle Value ⁽³⁾	<u>\$5,462,500</u>	<u>44%</u>
Total Capital Asset Value ⁽⁴⁾	\$12,365,300	100%
Number of Sworn Police Officers ⁽⁵⁾	103	
Total Capital Asset Value per Officer⁽⁶⁾	\$120,051	
LOS (Officers per 1,000 Functional Residents) ⁽⁷⁾	1.85	
Total Capital Asset Value per Functional Resident⁽⁸⁾	\$222.09	

(1) Source: Table IV-1

(2) Source: Table IV-1

(3) Source: Table IV-2

(4) Sum of the land value (Item 1), building value (Item 2), and equipment value (Item 3)

(5) Source: Table IV-3

(6) Total capital asset value (Item 4) divided by number of sworn police officers (Item 5)

(7) Source: Table IV-3

(8) Total capital asset value per officer (Item 6) multiplied by the LOS (Item 7) divided by 1,000

(9) Respective asset value divided by the total capital asset value per office (Item 4)

Credit Component

To avoid overcharging development for the law enforcement impact fee, a review of the capital financing program for law enforcement services was completed. The purpose of this review was to determine any potential revenue credits that should be considered for revenues generated by new development that could be used for capital facilities, land, and equipment expansion for the law enforcement program.

The review of the capital expansion expenditures for the 10-year period from FY 2007 to FY 2016 indicated that capacity expansion projects are fully funded with impact fee revenues. As such, it is not necessary to give credit against the impact cost and the net impact cost is \$222 per resident as shown previously in Table IV-5.

Impact fee revenue is the sole funding source used toward law enforcement capacity expansion projects.



Law Enforcement Calculated Impact Fee Schedule

The law enforcement impact fee schedule was developed for residential and nonresidential land uses and is provided in Table IV-6. The percent change from the current fee to the new calculated fee is also provided.

Table IV-6
Law Enforcement Impact Fee Schedule

Land Use	Impact Unit	Functional Population Coefficient ⁽¹⁾	Net Impact Cost per Functional Resident ⁽²⁾	Current Fee	Percent Change
Residential					
Single Family Detached	du	1.75	\$388.66	\$80.50	383%
Multi-Family	du	1.03	\$228.75	\$59.50	285%
Mobile Home / RV Park Site	du	0.86	\$191.00	\$53.00	260%
Retirement Community/Age Restricted Single Family/Senior Adult Housing	du	1.03	\$228.75	\$80.50	184%
Transient, Assisted, Group					
Hotel/Motel	room	1.01	\$224.31	\$56.00	301%
Nursing Home	bed	0.68	\$151.02	\$130.00	16%
Assisted Living Facility (ALF)/Congregate Care Facility	du	0.86	\$191.00	N/A	N/A
Recreational					
Marina	berth	0.19	\$42.20	\$225.50	-81%
Golf Course	acre	0.15	\$33.31	\$225.50	-85%
Movie Theater with Matinee	1,000 sf	1.68	\$373.11	\$225.50	66%
Recreational/Community Center	1,000 sf	1.42	\$315.37	\$225.50	40%
Institutions					
Elementary School(K-8)	1,000 sf	0.63	\$139.92	\$130.00	8%
High School (9-12)	1,000 sf	0.56	\$124.37	\$130.00	-4%
University/Junior College with 7,500 or fewer students	student	0.10	\$22.21	N/A	N/A
University/Junior College with more than 7,500 students	student	0.07	\$15.55	N/A	N/A
Church	1,000 sf	0.57	\$126.59	\$130.00	-3%
Day Care	1,000 sf	0.89	\$197.66	\$130.00	52%
Hospital	1,000 sf	1.55	\$344.24	\$130.00	165%
Office and Financial					
Office 50,000 SF or less	1,000 sf	1.42	\$315.37	\$130.00	143%
Office 50,001 - 100,000 SF	1,000 sf	1.21	\$268.73	\$130.00	107%
Office 100,001 - 200,000 SF	1,000 sf	1.03	\$228.75	\$130.00	76%
Office 200,001 - 400,000 SF	1,000 sf	0.88	\$195.44	\$130.00	50%
Office greater than 400,000 SF	1,000 sf	0.80	\$177.67	\$130.00	37%
Medical Office (1 to 10,000 SF)	1,000 sf	1.14	\$253.18	\$130.00	95%
Medical Office (Greater than 10,000 SF)	1,000 sf	1.72	\$381.99	\$130.00	194%
Business Park (Flex space)	1,000 sf	0.99	\$219.87	\$80.50	173%



Table IV-6
Law Enforcement Impact Fee Schedule (Continued)

Land Use	Impact Unit	Functional Population Coefficient ⁽¹⁾	Net Impact Cost per Functional Resident ⁽²⁾	Current Fee	Percent Change
Retail, Gross Square Feet					
Building Materials/Lumber	1,000 sf	1.21	\$268.73	\$225.50	19%
Hardware/Paint	1,000 sf	1.15	\$255.40	\$225.50	13%
Shopping Center 50,000 sfgla or less	1,000 sfgla	2.45	\$544.12	\$225.50	141%
Shopping Center greater than 50,000 sfgla	1,000 sfgla	2.14	\$475.27	\$225.50	111%
New and Used Auto Sales	1,000 sf	1.55	\$344.24	\$225.50	53%
Tire Store	1,000 sf	0.99	\$219.87	\$225.50	-3%
Supermarket	1,000 sf	2.05	\$455.28	\$225.50	102%
Convenience Store with Gas Pumps	1,000 sf	5.83	\$1,294.78	\$225.50	474%
Home Improvement Superstore	1,000 sf	1.78	\$395.32	\$225.50	75%
Pharmacy/Drug Store with and without drive thru	1,000 sf	1.93	\$428.63	\$225.50	90%
Furniture Store	1,000 sf	0.23	\$51.08	\$225.50	-77%
Bank/Savings Drive-in	1,000 sf	2.28	\$506.37	\$225.50	125%
Sit-down Restaurant	1,000 sf	6.82	\$1,514.65	\$225.50	N/A
High-Turnover Restaurant	1,000 sf	7.07	\$1,570.18	\$225.50	N/A
Fast Food Rest w/ Drive-Thru	1,000 sf	9.01	\$2,001.03	\$225.50	787%
Quick Lube	service bay	1.16	\$257.62	N/A	N/A
Auto Repair Shop	1,000 sf	1.58	\$350.90	\$225.50	56%
Gasoline/Service Station/Convenience Mart	fuel pos.	1.95	\$433.08	N/A	N/A
Self Service Car Wash	service bay	0.87	\$193.22	N/A	N/A
Convenience/Gasoline/Fast Food Store	1,000 sf	7.15	\$1,587.94	\$225.50	604%
Industrial					
Light Industrial / Industrial Park	1,000 sf	0.69	\$153.24	\$80.50	90%
Heavy Industrial	1,000 sf	0.49	\$108.82	\$80.50	35%
Manufacturing	1,000 sf	0.50	\$111.05	\$80.50	38%
Warehousing	1,000 sf	0.28	\$62.19	\$51.00	22%
Mini-Warehouse/Storage	1,000 sf	0.07	\$15.55	\$51.00	-70%

GLA = Gross Leasable Area

(1) Source: Table II-7 for residential land uses and Table II-8 for nonresidential land uses

(2) Net impact cost from Table IV-7 (\$222.09) multiplied by the functional population coefficient (Item 1)

Law Enforcement Impact Fee Schedule Comparison

As part of the work effort in updating the City of North Port's law enforcement impact fee schedule, the City's calculated impact fee schedule was compared to the adopted fee schedule and those in similar or nearby jurisdictions. Table IV-7 presents this comparison.



Table IV-7
Law Enforcement Impact Fee Schedule Comparison

Land Use	Impact Fee Unit	City of North Port (Calculated)	City of North Port (Adopted)	Sarasota County	Charlotte County	City of Punta Gorda	City of Lakeland	City of Bradenton
Residential:								
Single Family	du	\$389	\$81	\$195	\$89	\$199	\$591	\$310
Non-Residential:								
Office (50,000 sf)	1,000 sf	\$315	\$130	\$102	\$57	\$30	\$350	\$155
General Light Industrial	1,000 sf	\$153	\$81	\$61	\$32	\$10	\$170	\$155
Fast Food Restaurant w/Drive-Thru	1,000 sf	\$2,001	\$226	\$254	\$351	\$120	\$832	\$155
Retail (100,000 sf)	1,000 sf	\$475	\$226	\$254	\$87	\$100	\$781	\$155

Note:

-Cities of Bradenton and Punta Gorda and Charlotte County implemented a moratorium on the law enforcement impact fee.

Smart Growth Application

As mentioned previously, the Smart Growth approach takes into consideration revenues received from the existing development that are used toward capacity expansion projects. It calculates what the impact fee level needs to be to maintain the existing/achieved LOS given a certain level of non-impact fee funding and estimated growth rate.

In the case of law enforcement services, the City expects to fund all capacity expansion projects with impact fee revenues. In other words, no other revenue sources are available to fund additional capacity. As such, if the City does not adopt the law enforcement impact fees at the maximum amount calculated in this study, the LOS for law enforcement service is likely to deteriorate over time.



V. Parks and Recreation

The City of North Port provides parks and recreation services to all residents of the City of North Port. As such, this analysis will include all parks and recreation facilities located within the municipal boundaries of the City of North Port. This section summarizes the analysis used in the development of the proposed City of North Port parks and recreation impact fee schedule and includes the following sections:

- Capital Asset Inventory
- Service Area and Population
- Facility Service Delivery
- Cost Component
- Credit Component
- Net Parks and Recreation Impact Cost
- Calculated Parks and Recreation Impact Fee Schedule
- Parks and Recreation Impact Fee Schedule Comparison
- Smart Growth Application

Information supporting this analysis was obtained from the City of North Port Parks and Recreation Department and other sources as indicated.

Inventory of Capital Assets

City of North Port parks and recreation facilities are classified into four different types of parks: neighborhood, special, community and undeveloped parks, based on the information provided by the City. The impact fee inventory does not contain any parks or portions thereof that are located in wetlands and are unable to be developed.

Table V-1 provides an inventory of all parks and recreation facilities that are owned by City of North Port and included in the impact fee analysis, along with the facilities that are available at each park location. The parks and recreation inventory used as the basis for the impact fee analysis includes 23 parks, including seven neighborhood parks, seven special parks, five community parks and four undeveloped parks.



Table V-1
Parks and Recreation Inventory⁽¹⁾

Park/Facility Name	Total Acreage	Park Class	Baseball Complex	Basketball Court	Benches	Boat Ramp / Dock	Fence	Flag Pole	Fountain	Handball Court	Maintenance Bldg / Shed / Office (sf)	Monument	Multipurpose Center	Observation Area / Walkways	Picnic Pavilion/ Shelter/Area	Picnic Table	Playground	Restroom (sq ft)	Shuffleboard Court	Skate Park/ BMX Park	Softball Field	Sports Complex	Tennis Court
Atwater Park	25.00	C	1																				
Blue Ridge Park	6.10	N					2								1		1	180					
Butler Park	40.00	C					1				1,856		1		1			114				1	
Dallas White Park	17.10	C					1				520				1		1	355			1		
Garden of the Five Senses	16.36	S																					
George Mullen Activity Center	4.76	C					1						1			1							
Highland Ridge Park	8.00	N		2			2			1	240						1	273		1			1
Mt. Hope Park	1.90	N													1		1						
Kirk Park	1.90	N		1			1								1		1		8				
LaBrea Park	2.70	N		1			1								1								
Marina Park - Boat Ramp	1.04	S				1									1								
McKibben Park	3.50	N		1			2								1		1	180	2				1
Myakkahatchee Park	10.00	S					1	1						2	1			49					
Narramore Sports Complex	24.70	C					1	1														1	
Oaks Park (Undeveloped)	8.23	U																					
Paw Park	3.77	S													1								
Pine Park	2.60	N													1		1						
North Port Skate Park	0.85	S					1											480		1			
Veterans Park	2.90	S			1			1	1			1											
Greenway (Myakkahatchee Creek & Boca Chica)	42.21	S																					
West Villages Park (Undeveloped)	63.00	U																					
Tract BJ, CK & BH 47th Addition (Undeveloped)	60.69	U																					
Tract A, 21st Addition (Undeveloped)	47.24	U																					
Summary	Acreage		Baseball Complex	Basketball Court	Benches	Boat Ramp / Dock	Fence	Flag Pole	Fountain	Handball Court	Maintenance Bldg / Shed / Office (sf)	Monument	Multipurpose Center	Observation Area / Walkways	Picnic Pavilion/ Shelter/Area	Picnic Table	Playground	Restroom (sq ft)	Shuffleboard Court	Skate Park/ BMX Park	Softball Field	Sports Complex	Tennis Court
Neighborhood Park (N)	26.70		0	5	0	0	8	0	0	1	240	0	0	0	6	0	6	633	10	1	0	0	2
Special Park (S)	77.13		0	0	1	1	2	2	1	0	0	1	0	2	3	0	0	529	0	1	0	0	0
Community Park (C)	111.56		1	0	0	0	4	1	0	0	2,376	0	2	0	2	1	1	469	0	0	1	2	0
Undeveloped Park Land (U)	179.16		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	394.55		1	5	1	1	14	3	1	1	2,616	1	2	2	11	1	7	1,631	10	2	1	2	2

(1) Source: City of North



Service Area, Population and Benefit Districts

The City of North Port provides community recreation and parks facilities and services to all city residents. Although neighborhood parks tend to serve smaller geographic areas, in terms of future improvements to these types of parks, it is the intent of the City to build types of facilities that would serve the entire city. In addition, the City will continue to develop community parks. As such, the service area for the parks included in the impact fee calculations is the entire citywide population. However, due to an agreement that involves the West Villages, it is recommended to maintain the current benefit districts: one that includes the West Villages, and the other that includes the rest of the city. In other words, the parks and recreation impact fee will be the same for the entire city; however, there will be two benefit districts that determine where the impact fee revenues will be spent. Section II, Tables II-1 and II-2 provide the estimated population for 2011, the projected population through 2020, and people per housing unit by land use for use in the recreation and parks impact fee analysis.

Level of Service

Based on the information provided by the City, North Port's 2011 level of service (LOS) for developed parks is 3.55 acres per 1,000 residents and the undeveloped land LOS is 2.95 acres per 1,000 residents, for a total of 6.50 acres per 1,000 residents.

The current parks and recreation level of service is 6.50 acres of parks per 1,000 residents.

Table V-2 presents the calculation of the current LOS for each park type included in the inventory, as well as the City's adopted LOS standards included in the City's Comprehensive Plan. It is recommended that the City amend the adopted LOS standard to be consistent with the achieved LOS included in the impact fee calculations.



Table V-2
Current Level of Service

Calculation Step	2011 Population ⁽¹⁾	Park Acreage ⁽²⁾	Current LOS ⁽³⁾	Adopted LOS ⁽⁴⁾
City of North Port	60,690			
<i>Parks and Recreation Level of Service (Acres per 1,000 Residents):</i>				
Neighborhood Park		26.70	0.44	N/A
Special Park		77.13	1.27	N/A
Community Park		111.56	1.84	1.50
Developed Park Acreage / LOS		215.39	3.55	1.50
Undeveloped Land		179.16	2.95	N/A
Total Park Acreage/LOS		394.55	6.50	1.50

(1) Source: Section II, Table II-1

(2) Source: Table V-1

(3) Park acreage (Item 2) divided by 2011 population (Item 1) multiplied by 1,000

(4) Source: City of North Port Comprehensive Plan

Table V-3 presents a comparison of the parks and recreation adopted LOS standards of surrounding counties and municipalities to the City of North Port's adopted standards and achieved LOS. Based on this comparison, the City of North Port's achieved LOS is within the range of the surround communities' adopted standards.



Table V-3
Level of Service Comparison

Jurisdiction	LOS Standard (Acres per 1,000 Residents)
City of North Port (adopted)⁽¹⁾	1.50
City of Punta Gorda ⁽²⁾	5.00
City of Lakeland ⁽³⁾	5.98
Charlotte County ⁽⁴⁾	6.00
City of North Port (achieved)⁽⁵⁾	6.50
City of Venice ⁽⁶⁾	7.00
Sarasota County ⁽⁷⁾	7.00
City of Sarasota ⁽⁸⁾	10.00

(1) Source: Table V-2

(2) Source: City of Punta Gorda 2025 Comprehensive Plan

(3) Source: City of Lakeland Comprehensive Plan

(4) Source: Charlotte County Comprehensive Plan

(5) Source: Table V-2

(6) City of Venice Comprehensive Plan

(7) Source: Sarasota Comprehensive Plan; Sarasota County's desired LOS is higher than currently adopted.

(8) Source: City of Sarasota Comprehensive Plan

Cost Component

The total cost per resident for parks and recreation facilities consists of two components: the cost of purchasing and developing land for each park and the cost of facilities and equipment located at each park.

The cost of parks and recreation services includes building, facilities, and land cost.

Facility and Equipment Cost

The first step in calculating the total cost for parks and recreation services in North Port involves estimating the current value of the facility and equipment cost of the total inventory.



As presented in Table V-4, the total park facilities and equipment value is \$20.1 million, or approximately \$51,000 of facility value per acre, including facilities, equipment, and architecture and engineering costs. When available, the current value for the parks facilities and equipment is estimated based on recent bids or purchases made by the City for its park facilities. When recent bid/purchase information was not available, unit costs from the City's insurance reports and recent costs for similar facilities from other jurisdictions were used.



Table V-4
Parks and Recreation Facilities and Equipment Cost

Facility Description ⁽¹⁾	Unit	Unit Current Value ⁽²⁾	All Parks	
			Count ⁽³⁾	Total Value ⁽⁴⁾
Baseball Complex	complex	\$4,000,000	1	\$4,000,000
Basketball Court	court	\$5,000	5	\$25,000
Benches	bench	\$2,500	1	\$2,500
Boat Ramp / Dock	ramp	\$15,800	1	\$15,800
Fence	fence	\$25,000	14	\$350,000
Flag Pole	pole	\$4,500	3	\$13,500
Fountain	fountain	\$32,600	1	\$32,600
Handball Court	court	\$21,100	1	\$21,100
Maintenance Building	square foot	\$55	2,616	\$143,880
Monument	monument	\$23,900	1	\$23,900
Multipurpose Center	center	\$5,000,000	2	\$10,000,000
Observation Area / Walkways	walkway	\$40,250	2	\$80,500
Picnic Pavilion/Shelter/Area	pavilion/area	\$25,000	11	\$275,000
Picnic Table	table	\$2,100	1	\$2,100
Playground	playground	\$52,500	7	\$367,500
Restroom	square foot	\$185	1,631	\$301,735
Shuffleboard Court	court	\$2,500	10	\$25,000
Skate/BMX Park	park	\$430,000	2	\$860,000
Softball Field	field	\$75,000	1	\$75,000
Sports Complex	complex	\$775,000	2	\$1,550,000
Tennis Court	court	\$60,000	2	\$120,000
Facilities and Equipment Value				\$18,285,115
Architecture, Engineering, and Inspection @ 10%⁽⁵⁾				\$1,828,512
Total Facilities and Equipment Value⁽⁶⁾				\$20,113,627
Total Number of Acres⁽⁷⁾				394.55
Total Facilities and Equipment Value per Acre⁽⁸⁾				\$50,979

(1) , (3) Source: Table V-1

(2) Source: City of North Port insurance reports and recent construction information

(4) Unit value (Item 2) multiplied by unit count (Item 3)

(5) Facilities and equipment value multiplied by 10 percent, based on information from other jurisdictions and discussions with City staff

(6) Sum of the facilities and equipment value and the architecture, engineering and inspection costs (Item 5)

(7) Source: Table V-1

(8) Total facilities and equipment value (Item 6) divided by number of acres (Item 7)



Land Value

Because of recent fluctuations in land values statewide, a detailed analysis of the land values was conducted. This analysis takes into consideration recent purchase information provided by North Port staff, an analysis of recent sales of vacant land similar in size and location to North Port's parks, and information provided by the Sarasota County Property Appraiser. More specifically, the following analysis was conducted:

- A review of City's park land purchases between 2006 and 2010, which indicated that park land in many areas of the city can be obtained only by assembling residential lots, which tend to be small parcels of 0.25 acres.
- A review of the current value of existing park land base on information included in the Sarasota County Property Appraiser database.
- A review of vacant land sales between 2008 and 2011.
- A review of just market value for each parcel-size group from the Property Appraiser database and a comparison of the results to the sales data.

Based on this analysis and information, a unit cost of \$50,000 per acre was found to be a reasonable estimate.

The cost of land for parks and recreation facilities includes more than just the purchase cost of the land. Landscaping/site improvement and utilities/paving costs also are considered. These costs can vary greatly, depending on the type of services offered at each park. Based on information from other jurisdictions and discussions with City staff, basic landscaping, site preparation, and irrigation costs were determined and are presented in Table V-5.

Total Impact Cost per Resident

The first section of Table V-5 identifies the total land cost as \$60,000 per acre. The second section of the table shows the total land and facility cost of \$110,979 per acre. The net impact cost per person (third section of the table) presents the resulting total impact cost per functional resident of \$721 per resident.



Table V-5
Total Impact Cost per Resident

Component	Value
Land Purchase Cost per Acre ⁽¹⁾	\$50,000
Landscaping, Site Preparation, and Irrigation Costs (per acre) ⁽²⁾	\$10,000
Total Land Cost per Acre⁽³⁾	\$60,000
Facility & Equipment Cost per Acre ⁽⁴⁾	\$50,979
Total Land & Facility Cost per Acre⁽⁵⁾	\$110,979
Parks LOS (acres per 1,000 Residents) ⁽⁶⁾	6.50
Parks and Recreation Total Cost per Resident⁽⁷⁾	\$721.36

- (1) Based on an evaluation of recent purchases, value of existing park land, vacant land sales and value analysis
- (2) Based on information obtained from other jurisdictions and discussions with the City of North Port staff
- (3) Sum of the land cost per acre (Item 1) and the landscaping, site preparation, and irrigation cost per acre (Item 2)
- (4) Source: Table V-4
- (5) Sum of the total land cost per acre (Item 3) and the facility & equipment cost per acre (Item 4)
- (6) Source: Table V-2
- (7) Total land & facility cost per acre (Item 5) divided by the parks LOS (Item 6)

Credit Component

To avoid overcharging new development for the capital cost of providing parks and recreation services, a review of the capital financing program for the parks and recreation program was completed. The purpose of this review was to determine any potential revenues generated by new development, other than impact fees, that have been used within the last five years and are programmed to fund over the next five years the expansion of capital facilities, land, and equipment related to North Port's parks and recreation program. Based on this review and discussions with the City staff, it is determined that the funding sources that were used over the past five years are not representatives of the funding sources and levels that will be available over the next five years. As such, the credit calculations are based on the funding sources of the capacity expansion projects included in the CIP, which includes impact fees and sales tax revenues.



Capital Expansion Expenditures Credit

Capital expenditure credits per resident were calculated based on the non-impact fee revenue expenditures planned for capital expansion projects for 2012 through 2016. To calculate the capital expenditure per resident, the average capital expansion expenditures divided by the average residents for the same period.

Over the next five years, North Port plans to spend a total of \$3.2 millions of sales tax revenue on capital expansion, resulting in an average annual capital expansion expenditure of \$647,000. As presented in Table V-6, the average capital expansion expenditure per resident, based on this five year period, is almost \$10 per resident.

Table V-6
Capital Expansion Credit per Resident⁽¹⁾

Capital Expansion Expenditures	Fiscal Year					Total
	2012	2013	2014	2015	2016	
Sales Tax						
Atwater Park	\$150,000	\$250,000	\$250,000	\$300,000	\$300,000	\$1,250,000
Garden of the Five Senses		\$435,000	\$350,000	\$200,000		\$985,000
Myakkahatchee Creek Greenway	\$150,000	\$200,000	\$200,000	\$200,000		\$750,000
Park Land Acquisition	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$250,000
Total Capital Expansion Expenditures						\$3,235,000
Average Annual Capital Expansion Expenditures ⁽²⁾						\$647,000
Average Annual Population ⁽³⁾						65,744
Average Annual Capital Expansion Expenditures per Person⁽⁴⁾						\$9.84

(1) Source: City of North Port Finance Department

(2) Total capital expansion expenditures divided by 5 years

(3) Source: Section II, Table II-1 (2012 through 2016)

(4) Average annual capacity expansion expenditures (Item 2) divided by average annual population (Item 3)

Net Parks and Recreation Impact Cost

The net impact fee per functional resident is the difference between the Cost Component and the Credit Component. Table V-7 summarizes the calculation of the net parks and recreation impact cost per resident of \$550.



Table V-7
Net Impact Cost per Resident

Calculation Step	Impact Cost
Impact Cost	
Total Impact Cost per Resident ⁽¹⁾	\$721.36
Impact Credit	
Capital Expansion Expenditure Credit	
Average Annual Capital Expansion Credit per Resident ⁽²⁾	(\$9.84)
Capitalization Rate	3.0%
Capitalization Period (in years)	25
Capital Expansion Credit per Resident ⁽³⁾	(\$171.35)
Net Impact Cost	
Net Impact Cost per Resident ⁽⁴⁾	\$550.01

(1) Source: Table V-5

(2) Source: Table V-6

(3) The present value of the capital improvement credit per functional resident (Item 2) at a discount rate of 3 percent with a capitalization period of 25 years. The capitalization rate is based on the estimated interest rate of an upcoming bond issue as provided by the City Finance Department.

(4) Total impact cost per resident (Item 1) reduced by the capital expansion credit per resident (Item 3)

Calculated Parks and Recreation Impact Fee Schedule

An updated parks and recreation impact fee schedule was developed for residential land uses and is illustrated in Table V-8. Table V-8 also presents the difference between the current and calculated fees.



Table V-8
Calculated Parks and Recreation Impact Fee Schedule

Land Use	Impact Unit	Citywide Residents per Unit ⁽¹⁾	Net Cost per Resident ⁽²⁾	Calculated Impact Fee ⁽³⁾	Adopted Impact Fee ⁽⁴⁾	% Change ⁽⁵⁾
Single Family Detached	du	2.39	\$550.01	\$1,314.52	\$2,040.00	-36%
Multi-family	du	1.41	\$550.01	\$775.51	\$1,432.00	-46%
Mobile Home/RV (Tied Down)	du	1.17	\$550.01	\$643.51	\$1,328.00	-52%
Retirement Community/Age-Restricted Single Family	du	1.41	\$550.01	\$775.51	\$2,040.00	-62%

(1) Source: Section II, Table II-2

(2) Source: Table V-7

(3) Residents per unit (Item 1) multiplied by the net cost per resident (Item 2)

(4) Source: City of North Port

(5) Percent change from the calculated impact fee compared to the currently adopted fee

Parks and Recreation Impact Fee Schedule Comparison

As part of the work effort in updating the City of North Port parks and recreation impact fee program, a comparison of parks and recreation impact fee schedules was completed for nearby/similar jurisdictions. Table V-9 presents the comparison of parks and recreation impact fees in North Port and other selected jurisdictions.

Table V-9
Parks and Recreation Impact Fee Schedule Comparison

Land Use	Impact Fee Unit	City of North Port (Calculated)	City of North Port (Adopted)	Sarasota County	Charlotte County	City of Punta Gorda	City of Lakeland	City of Bradenton
Single Family	du	\$1,315	\$2,040	\$2,348	\$776	\$290	\$2,707	\$720
Multi-Family	du	\$776	\$1,432	\$2,348	\$519	\$290	\$2,123	\$540
Mobile Home	du	\$644	\$1,328	\$1,559	\$549	\$290	\$1,317	\$360

Notes:

- Charlotte County and the City of Bradenton implemented a moratorium on the parks and recreation impact fee.



Smart Growth Application

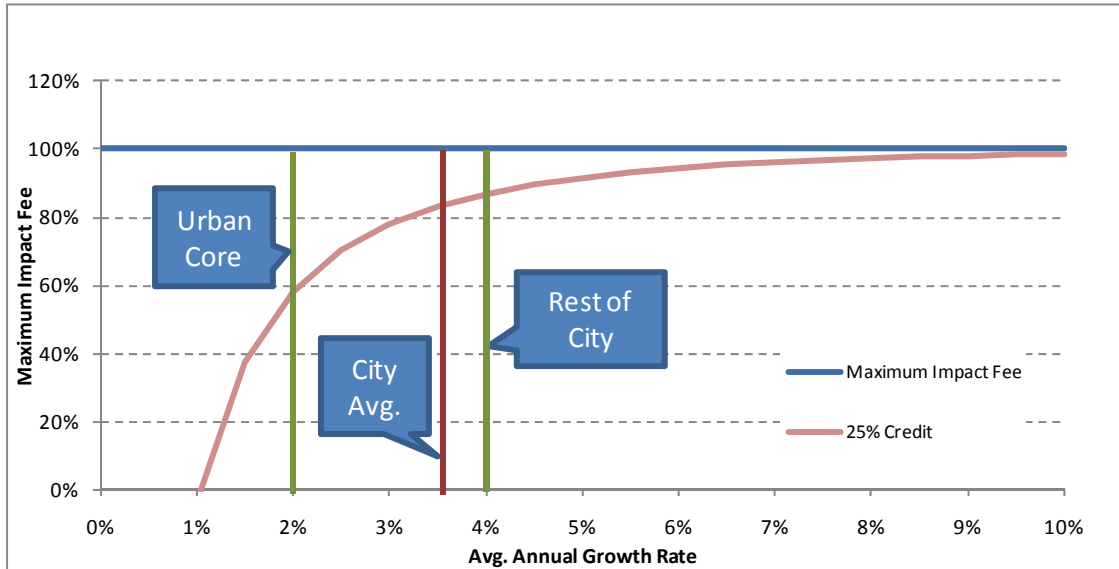
As mentioned previously, the Smart Growth approach takes into consideration revenues received from the existing development that are used toward capacity expansion projects. It calculates what the impact fee level needs to be to maintain the existing/achieved LOS given a certain level of non-impact fee funding and estimated growth rate.

In the case of parks and recreation services, the CIP indicates a contribution of approximately \$647,000 per year from the sales tax. During the next 20 years, the City is expected to grow at an annual rate of 3.5 percent. Figure V-1 presents how impact fee levels would change over time with different growth rates. As shown, the horizontal line represents the maximum legally acceptable level of impact fee. This level is compared investment needed to maintain the current LOS. Although the City has the legal right to charge the maximum amount of parks and recreation impact fee calculated, only 85 percent of this amount is needed to maintain the current/achieved LOS citywide due to non-impact fee contributions from the existing development and lower rate of population growth.

If the City is interested in lower impact fees only in the urban core, which is growing at a slower rate than the entire city, the fees could be adopted at 60 percent in the urban core and a minimum of 87 percent in the rest of the city to maintain the LOS.



Figure V-1
Parks and Recreation Impact Fee vs. Average Annual Growth Rate



Similarly, the level of flexibility extends to targeted land uses. In other words, if the City wants to continue to charge an impact fee for certain land uses, such as single family, etc., and eliminate or reduce the impact fee on multi-family development, it has the flexibility to do so. To eliminate impact fees for multi-family land use, the fee for single family homes needs to be adopted at a minimum of approximately 90 percent to maintain the LOS. This is based on the assumption that over the next ten to 20 years, on average, approximately 90 percent of the impact fee revenues will be obtained from single family land use and the remainder from other residential land uses.

Calculations in this study establish the legally maximum level of impact fee that can be charged for parks and recreation services (shown in Table V-8). This section of the report shows the flexibility the City has in terms of either reducing the impact fee levels or sales tax contributions to maintain the current LOS given the relatively low growth rate. As such, impact fee revenues need to cover the remaining amount.

Given this information, the City has the following options:

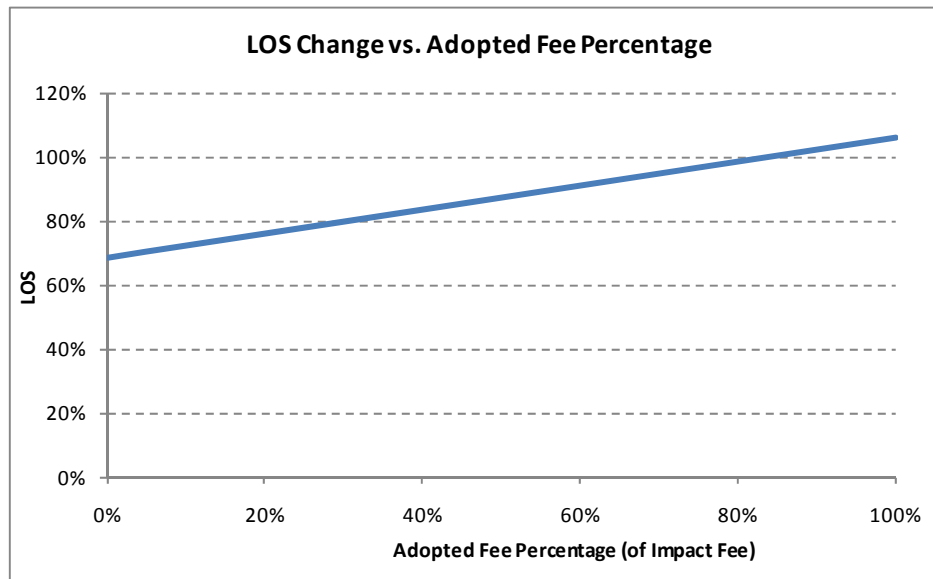
- Collect the parks and recreation impact fee at 100 percent level and continue to contribute sales tax revenues to improve the existing LOS, which is shown in Figure V-2. As presented, with the current sales tax contribution levels, collection of parks and recreation impact fees at 100 percent level will improve



the LOS by approximately five percent when the population doubles, based on the estimated annual growth rate of 3.5 percent.

- Adopt the parks and recreation impact fee with a discount either citywide or in certain areas and/or for targeted land uses. This will enable the City to provide incentives for the targeted development in desired locations.
- Collect the impact fee at 100 percent and allow the sales tax revenues to be used for other infrastructure/projects. This will allow the City to maintain the existing LOS and provide some flexibility with non-impact fee funds.

Figure V-2
Parks and Recreation LOS Improvement



VI. General Government Buildings

Government buildings impact fees are used to fund the capital construction and expansion of government services related to land, facilities and capital equipment required to support the additional government service demand created by growth.

There are several major elements associated with the development of the government buildings impact fee. These include:

- Capital Asset Inventory
- Service Area and Population
- Facility Service Delivery
- Cost Component
- Credit Component
- Net Government Buildings Impact Cost
- Calculated Government Buildings Impact Fee Schedule
- Government Buildings Impact Fee Schedule Comparison
- Smart Growth Application

Inventory and Value of Capital Assets

The government buildings inventory includes facilities that are primarily for the provision of essential city services and do not include any of the buildings included in the calculation of other impact fees or buildings that were funded with user fees.

According to information provided by the City of North Port, the City has approximately 148,000 square feet of general government building space. This includes the square footage of both primary and support buildings. Support facilities are defined as trailers, facilities without air-conditioning, or facilities that are unlikely to be occupied by personnel.

Table VI-1 shows a summary of the government buildings inventory and the current value of buildings and land. As presented, the inventory includes a total of 124,737 square feet of primary building space and 23,278 square feet of support space.



Table VI-1
Government Buildings Inventory⁽¹⁾

Facility Description	Location	Square Footage ⁽²⁾	Total Square Footage on Site ⁽³⁾	Total Acres ⁽⁴⁾	Acres per 1,000 sf of Building Space ⁽⁵⁾	Adjusted Acres ⁽⁶⁾	Current Value		
							Buildings ⁽⁷⁾	Land ⁽⁸⁾	Total ⁽⁹⁾
Primary Buildings:									
Planning & Building Department (Art Center)	5950 Sam Shapos Way, North Port	4,500	16,752	14.10	0.84	3.78	\$787,500	\$113,400	\$900,900
Family Services Center	6919 Outreach Way, North Port	15,599	33,948	5.10	0.15	2.34	\$2,729,825	\$70,200	\$2,800,025
New City Hall	4970 City Hall Blvd., North Port	67,138	136,063	33.49	0.25	16.78	\$11,749,150	\$503,400	\$12,252,550
Fleet Maintenance Facility (under construction)	1890 West Price Blvd., North Port	37,500	38,060	9.75	0.26	9.60	\$6,562,500	\$288,000	\$6,850,500
Subtotal -- Primary Buildings		124,737				32.50	\$21,828,975	\$975,000	\$22,803,975
Support Buildings:									
Public Works Administration	1850 West Price Blvd., North Port	2,426	4,176	5.07	1.21	2.94	\$121,300	\$88,200	\$209,500
Tool Shed	1850 West Price Blvd., North Port	168				0.20	\$8,400	\$6,000	\$14,400
Wash Shed	1850 West Price Blvd., North Port	192				0.23	\$9,600	\$6,900	\$16,500
Chemical Shed	1850 West Price Blvd., North Port	80				0.10	\$4,000	\$3,000	\$7,000
Storage Shed	1850 West Price Blvd., North Port	288				0.35	\$14,400	\$10,500	\$24,900
Fleet Garage #1	5455 Pan American Blvd., North Port	5,556	19,564	2.68	0.14	0.78	\$277,800	\$23,400	\$301,200
Fleet Garage #2	5455 Pan American Blvd., North Port	5,760				0.81	\$288,000	\$24,300	\$312,300
Facilities Maintenance	5455 Pan American Blvd., North Port	1,200				0.17	\$60,000	\$5,100	\$65,100
Vehicle Storage	5455 Pan American Blvd., North Port	6,000				0.84	\$300,000	\$25,200	\$325,200
Wash Station Storage	5455 Pan American Blvd., North Port	48				0.01	\$2,400	\$300	\$2,700
Tire Shed	5455 Pan American Blvd., North Port	1,000				0.14	\$50,000	\$4,200	\$54,200
Sign Shop	1890 West Price Blvd., North Port	560				0.15	\$28,000	\$4,500	\$32,500
Subtotal -- Support Buildings		23,278				6.72	\$1,163,900	\$201,600	\$1,365,500
Total (All Buildings)		148,015	248,563	70.19		39.22	\$22,992,875	\$1,176,600	\$24,169,475
Weighted Average Acreage per 1,000 Square Feet of Building						0.265			
Building Value per Square Foot (Primary Buildings)							\$175		
Building Value per Square Foot (Support Buildings)							\$50		
Building Value per Square Foot (Weighted Average)							\$155		
Land Value per Acre								\$30,000	



- (1), (2), (3), (4) Source: City of North Port. (Total square footage and acreage for the Planning & Building Department excludes square footage and acreage associated with Fire Station 82 located on the same parcel).
- (5) Total acres (Item 4) divided by total square footage on site (Item 3) multiplied by 1,000
- (6) Acres per 1,000 sf of building space (Item 5) multiplied by square footage (Item 2) divided by 1,000
- (7) Square footage (Item 2) multiplied by value per square foot (\$175 per square foot for primary buildings and \$50 per square foot for support buildings). The construction cost is determined from the insurance value of existing buildings as well as information from other jurisdictions.
- (8) Adjusted acres (Item 6) multiplied by \$30,000 per acre; Land value per acre is determined through an evaluation of the land values where existing facilities are located as well as vacant land sales and value analysis for similar sized parcels in residential areas.
- (9) Sum of building value (Item 7) and land value (Item 8)



Service Area, Population and Benefit Districts

The City of North Port provides all residents, workers, and visitors the benefit of government services. As such the service area and associated benefit district are determined to be the entire city.

Because simply using population does not fully address all of the benefactors of the City's government services, the "functional" population approach is used to establish a common unit of demand across different land uses.

As previously mentioned, government buildings provide municipal services to the entire City. Therefore, the current citywide functional population estimate for year 2011 is used, which is provided in Section II, Table II-6.

Level of Service

Based on the information provided by the City, North Port's 2011 level of service (LOS) is 2.06 square feet of primary government buildings per weighted population. Table VI-2 presents the calculation of the existing LOS.

While the 2011 LOS for all buildings is 2.06 square feet per weighted resident, in order to calculate the government buildings facilities impact fee, the LOS needs to be calculated in term of square feet per functional resident. Table VI-2 also illustrates the calculation of the current achieved LOS using the total functional residents within the city. The current LOS of primary government building space is 2.24 square feet per functional resident.

The current government buildings level of service is 2.24 square feet of primary building space per functional resident.



Table VI-2
Current Level of Service

Description	Figure
Total Square Feet of Primary Buildings ⁽¹⁾	124,737
2011 Weighted Population ⁽²⁾	60,690
LOS (Square Feet per Weighted Resident) ⁽³⁾	2.06
2011 Functional Population ⁽⁴⁾	55,702
LOS (Square Feet per Functional Resident) ⁽⁵⁾	2.24

(1) Source: Table VI-1

(2) Source: Section II, Table II-4

(3) Total square feet of primary buildings (Item 1) divided by 2011 weighted population (Item 2)

(4) Source: Section II, Table II-6

(5) Total square feet of primary buildings (Item 1) divided by 2011 functional population (Item 4)

Cost Component

The cost component of the study evaluates the cost of capital items, including buildings and land. The equipment value is excluded to provide a more conservative approach.

Table VI-3 provides a summary of all capital costs, which amounts to \$194 per square foot of government buildings, and \$434 per functional resident.

The cost of government buildings includes building and land cost.



Table VI-3
Total Capital Asset Value

Capital Asset Component	Figure
Total Building Value ⁽¹⁾	\$22,992,875
Total Land Value ⁽²⁾	\$1,176,600
Total Asset Value ⁽³⁾	\$24,169,475
Square Footage of Primary Buildings ⁽⁴⁾	124,737
Total Asset Value per Square Foot⁽⁵⁾	\$193.76
LOS (Square Feet per Functional Resident) ⁽⁶⁾	2.24
Total Capital Asset Value per Functional Resident⁽⁷⁾	\$434.02

(1) , (2) , (4) Source: Table VI-1

(3) Sum of total building value (Item 1) and total land value (Item 2)

(5) Total asset value (Item 3) divided by square footage of primary buildings (Item 4)

(6) Source: Table VI-2

(7) Total asset value per square foot (Item 5) multiplied by the LOS (Item 6)

Credit Component

To avoid overcharging development for the government buildings impact fee, a review of the capital financing program for government buildings was conducted. The purpose of this review was to determine any potential revenue credits that should be considered for revenues generated by new development that could be used for capital facilities and land expansion for government buildings.

It should be noted that the investment in government buildings can be lumpy since it is difficult to building these buildings in small increments. This results in high expenditure levels in certain periods and none in others. To overcome these fluctuations, a review of funding sources for capital projects for a 20-year period, from 2007 thru 2026, was conducted. Based on this review, the primary funding sources for government buildings, other than impact fees, include the general fund, grants, and the special assessment funds. As presented in Table VI-4, the City plans to use an average of \$708,000 per year of non-impact fee funds for capital expansion expenditures.



This annual expenditure of approximately \$708,000 is divided by the average annual functional population over the same period, which results in average annual capital expansion expenditures of \$10 per functional resident. These results are presented in below table VI-4.

Table VI-4
Capital Expansion Credit per Functional Resident⁽¹⁾

Capital Expansion Expenditures	2007-2016	2017-2026	Total
<i>Non-Impact Fee Funding</i>			
Family Services Center	\$2,545,406		\$2,545,406
Fleet Maintenance Facility	\$7,155,950		\$7,155,950
Government Annex		\$831,000	\$831,000
Fleet Maintenance Facility Expansion		\$1,136,000	\$1,136,000
Public Works Administration		\$2,493,000	\$2,493,000
Total			\$14,161,356
Average Annual Capacity Expansion Expenditures ⁽²⁾			\$708,068
Average Annual Functional Population ⁽³⁾			67,884
Average Annual Capacity Expansion per Person⁽⁴⁾			\$10.43

(1) Source: City of North Port

(2) Total capital expansion expenditures divided by 20 years

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

(4) Average annual capacity expansion expenditures (Item 2) divided by average annual functional population (Item 3)

In addition, the City is paying debt service on the bond issue used to fund the City Hall. However, because the debt service will be paid off in 2013 and the funding for the payment is already secured, an additional debt service credit is not calculated.

Net Government Buildings Impact Cost

The net impact fee per functional resident is the difference between the Cost Component and the Credit Component. Table VI-5 presents the calculation of the net government buildings impact cost per functional resident.



The first section of Table VI-5 identifies the total impact cost as \$434 per functional resident. The second section of the table identifies the capital expansion expenditure credits for the government buildings impact fee.

The net impact cost per person (third section of the table) is the difference between the total impact cost per functional resident of \$434 and the total revenue credit of \$182 per functional resident. The result is a net impact cost of \$252 per functional resident.

Table VI-5
Net Impact Cost per Functional Resident

Cost Component	Figure
Total Government Buildings Asset Value per Functional Resident ⁽¹⁾	\$434.02
Average Annual Revenue Credit for Capacity Expansion Expenditures ⁽²⁾	\$10.43
Capitalization Period (in years)	25
Capitalization Rate	3%
Future Credit per Functional Resident ⁽³⁾	\$181.62
<i>Net Government Buildings Asset Value per Functional Resident⁽⁴⁾</i>	<i>\$252.40</i>

(1) Source: Table VI-3

(2) Source: Table VI-4

(3) The present value of the capital improvement credit per functional resident (Item 2) at a discount rate of 3.0 percent with a capitalization period of 25 years. The capitalization rate is based on the estimated interest rate for an upcoming bond issue as provided by the City's Finance Department.

(4) Total government buildings asset value per person (Item 1) less future credit (Item 3)

Calculated Government Buildings Impact Fee Schedule

An updated government buildings impact fee schedule was developed for residential and nonresidential land uses and is illustrated in Table VI-6. Table VI-6 also presents the difference between the current and calculated fees.



Table VI-6
Calculated Government Buildings Impact Fee Schedule

Land Use	Impact Unit	Functional Population Coefficient ⁽¹⁾	Net Impact Cost per Functional Resident ⁽²⁾	Current Fee	Percent Change
Residential					
Single Family Detached	du	1.75	\$441.70	\$54.50	710%
Multi-Family	du	1.03	\$259.97	\$38.50	575%
Mobile Home / RV Park Site	du	0.86	\$217.06	\$35.50	511%
Retirement Community/Age Restricted Single Family/Senior Adult Housing	du	1.03	\$259.97	\$54.50	377%
Transient, Assisted, Group					
Hotel/Motel	room	1.01	\$254.92	\$29.00	779%
Nursing Home	bed	0.68	\$171.63	\$79.00	117%
Assisted Living Facility (ALF)/Congregate Care Facility	du	0.86	\$217.06	N/A	N/A
Recreational					
Marina	berth	0.19	\$47.96	\$150.50	-68%
Golf Course	acre	0.15	\$37.86	\$150.50	-75%
Movie Theater with Matinee	1,000 sf	1.68	\$424.03	\$150.50	182%
Recreational/Community Center	1,000 sf	1.42	\$358.41	\$150.50	138%
Institutions					
Elementary School(K-8)	1,000 sf	0.63	\$159.01	\$79.00	101%
High School (9-12)	1,000 sf	0.56	\$141.34	\$79.00	79%
University/Junior College with 7,500 or fewer students	student	0.10	\$25.24	N/A	N/A
University/Junior College with more than 7,500 students	student	0.07	\$17.67	N/A	N/A
Church	1,000 sf	0.57	\$143.87	\$79.00	82%
Day Care	1,000 sf	0.89	\$224.64	\$79.00	184%
Hospital	1,000 sf	1.55	\$391.22	\$79.00	395%
Office and Financial					
Office 50,000 SF or less	1,000 sf	1.42	\$358.41	\$79.00	354%
Office 50,001 - 100,000 SF	1,000 sf	1.21	\$305.40	\$79.00	287%
Office 100,001 - 200,000 SF	1,000 sf	1.03	\$259.97	\$79.00	229%
Office 200,001 - 400,000 SF	1,000 sf	0.88	\$222.11	\$79.00	181%
Office greater than 400,000 SF	1,000 sf	0.80	\$201.92	\$79.00	156%
Medical Office (1 to 10,000 SF)	1,000 sf	1.14	\$287.74	\$79.00	264%
Medical Office (Greater than 10,000 SF)	1,000 sf	1.72	\$434.13	\$79.00	450%
Business Park (Flex space)	1,000 sf	0.99	\$249.88	\$49.50	405%



Table VI-6
Calculated Government Buildings Impact Fee Schedule (Continued)

Land Use	Impact Unit	Functional Population Coefficient ⁽¹⁾	Net Impact Cost per Functional Resident ⁽²⁾	Current Fee	Percent Change
Retail, Gross Square Feet					
Building Materials/Lumber	1,000 sf	1.21	\$305.40	\$150.50	103%
Hardware/Paint	1,000 sf	1.15	\$290.26	\$150.50	93%
Shopping Center 50,000 sfgla or less	1,000 sfgla	2.45	\$618.38	\$150.50	311%
Shopping Center greater than 50,000 sfgla	1,000 sfgla	2.14	\$540.14	\$150.50	259%
New and Used Auto Sales	1,000 sf	1.55	\$391.22	\$150.50	160%
Tire Store	1,000 sf	0.99	\$249.88	\$150.50	66%
Supermarket	1,000 sf	2.05	\$517.42	\$150.50	244%
Convenience Store with Gas Pumps	1,000 sf	5.83	\$1,471.49	\$150.50	878%
Home Improvement Superstore	1,000 sf	1.78	\$449.27	\$150.50	199%
Pharmacy/Drug Store with and without drive thru	1,000 sf	1.93	\$487.13	\$150.50	224%
Furniture Store	1,000 sf	0.23	\$58.05	\$150.50	-61%
Bank/Savings Drive-in	1,000 sf	2.28	\$575.47	\$150.50	282%
Sit-down Restaurant	1,000 sf	6.82	\$1,721.37	\$150.50	1044%
High-Turnover Restaurant	1,000 sf	7.07	\$1,784.47	\$150.50	1086%
Fast Food Rest w/ Drive-Thru	1,000 sf	9.01	\$2,274.12	\$150.50	1411%
Quick Lube	service bay	1.16	\$292.78	N/A	N/A
Auto Repair Shop	1,000 sf	1.58	\$398.79	\$150.50	165%
Gasoline/Service Station/Convenience Mart	fuel pos.	1.95	\$492.18	N/A	N/A
Self Service Car Wash	service bay	0.87	\$219.59	N/A	N/A
Convenience/Gasoline/Fast Food Store	1,000 sf	7.15	\$1,804.66	\$150.50	1099%
Industrial					
Light Industrial / Industrial Park	1,000 sf	0.69	\$174.16	\$49.50	252%
Heavy Industrial	1,000 sf	0.49	\$123.68	\$49.50	150%
Manufacturing	1,000 sf	0.50	\$126.20	\$49.50	155%
Warehousing	1,000 sf	0.28	\$70.67	\$31.50	124%
Mini-Warehouse/Storage	1,000 sf	0.07	\$17.67	\$31.50	-44%

GLA = Gross Leasable Area

(1) Source: Table II-7 for residential land uses and Table II-8 for nonresidential land uses

(2) Net impact cost from Table VI-5 (\$252.40) multiplied by the functional population coefficient (Item 1)



Government Buildings Impact Fee Schedule Comparison

As part of the work effort in updating the City of North Port government buildings impact fee program, a comparison of government building impact fee schedules was completed for similar jurisdictions. Table VI-7 presents the comparison of government building impact fees in North Port and other selected jurisdictions.

Table VI-7
Government Buildings Impact Fee Schedule Comparison

Land Use	Impact Fee Unit	City of North Port (Calculated)	City of North Port (Adopted)	Sarasota County	Charlotte County	City of Punta Gorda
Residential:						
Single Family	du	\$442	\$55	\$339	\$437	\$345
Non-Residential:						
Office (50,000 sf)	1,000 sf	\$358	\$79	\$177	\$274	\$230
General Light Industrial	1,000 sf	\$174	\$50	\$106	\$151	\$130
Fast Food Restaurant w/Drive-Thru	1,000 sf	\$2,274	\$151	\$441	\$1,703	\$160
Retail (100,000 sf)	1,000 sf	\$540	\$151	\$441	\$422	\$140

Notes:

-City of Punta Gorda and Charlotte County implemented a moratorium on the government buildings impact fee.

Smart Growth Application

As mentioned previously, the Smart Growth approach takes into consideration revenues received from the existing development that are used toward capacity expansion projects. It calculates what the impact fee level needs to be to maintain the existing/achieved LOS given a certain level of non-impact fee funding and estimated growth rate.

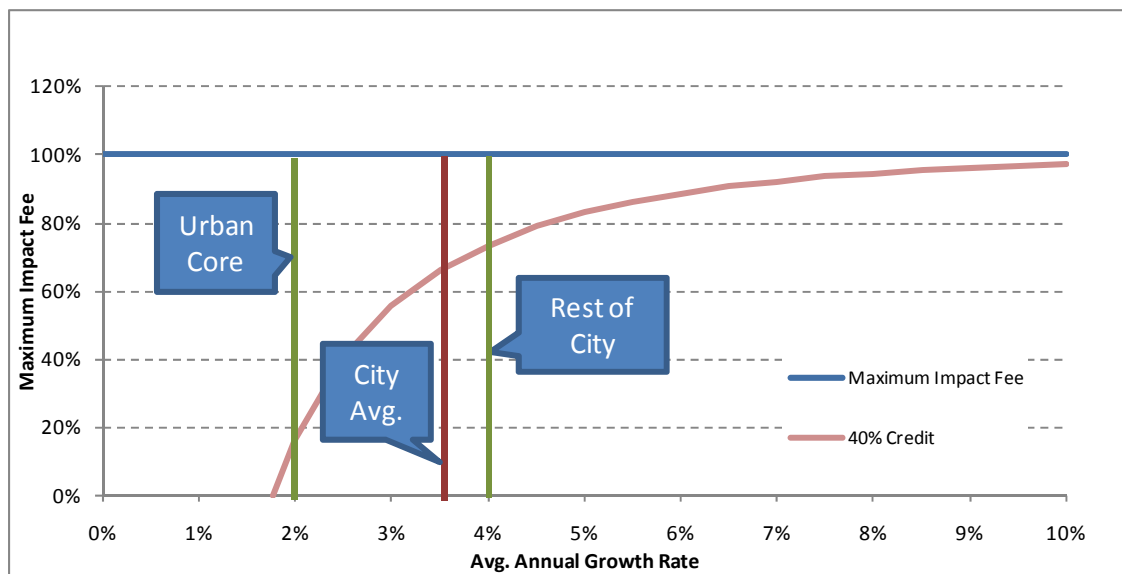
In the case of government buildings, the historical expenditures and CIP indicate a contribution of approximately \$708,000 per year from non-impact fee funds. During the next 20 years, the City is expected to grow at an annual rate of 3.5 percent. Figure VI-1 presents how impact fee levels would change over time with different growth rates. As shown, the horizontal line represents the maximum legally acceptable fee. This level is compared investment needed to maintain the current LOS. Although the City has the legal right to charge the maximum amount of government buildings impact fee



calculated, only 65 percent of this amount is needed to maintain the current/achieved LOS citywide due to non-impact fee contributions from the existing development and low rate of population growth. If the impact fee is adopted at a level less than 65 percent, the LOS for government buildings is likely to deteriorate, and if it is adopted at a level higher than 65 percent, it is likely to improve.

If the City is interested in lower impact fees only in the urban core, which is growing at a slower rate than the entire city, the fee could be adopted at 15 percent (a reduction of 85 percent) as long as a minimum of 75 percent of the maximum impact fee is adopted in the rest of the city to maintain the LOS.

Figure VI-1
Government Buildings Impact Fee vs. Average Annual Growth Rate



Similarly, the level of flexibility extends to targeted land uses. In other words, if the City wants to continue to charge an impact fee for certain land uses, such as single family, etc., and eliminate or reduce the impact fee on other land uses mentioned previously, it has the flexibility to do so. To eliminate impact fees for non-residential land uses, the fee for the residential fees need to be adopted at a minimum of 90 percent, instead of 65 percent to maintain the LOS. This calculation is based on the assumption that over the next ten to 20 years, approximately 75 percent of the impact fee collections will be from residential land uses, with the remainder coming from non-residential land uses.



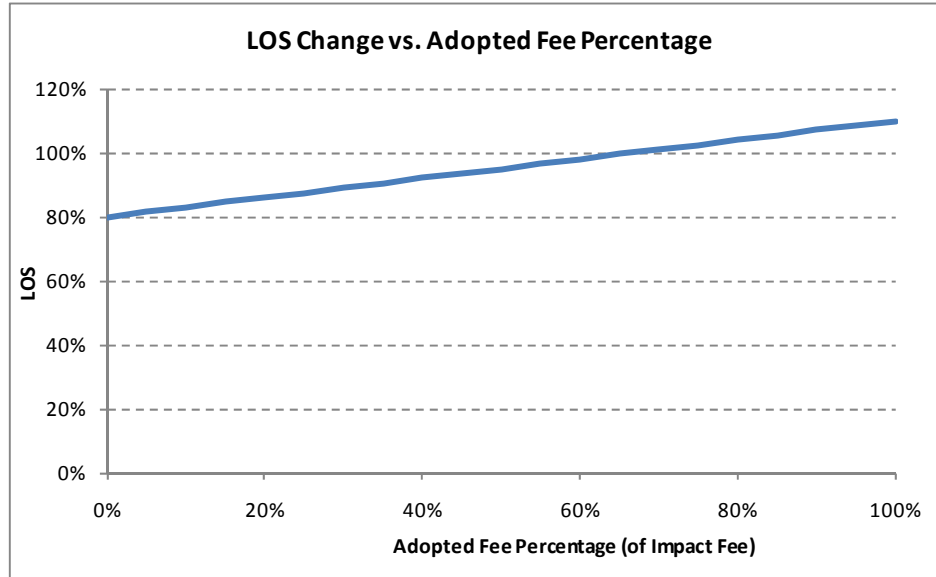
Calculations shown in this study establish the legally maximum level of impact fee that can be charged for government buildings, and shows the flexibility the City has in terms of either reducing the impact fee levels or sales tax contributions to maintain the current LOS given the relatively low growth rate.

Given this information, the City has the following options:

- Collect the government buildings impact fee at 100 percent level and continue to contribute from other revenue sources to improve the existing LOS, which is shown in Figure VI-2. As presented, with the current non-impact fee contribution levels, collection of government buildings impact fee at 100 percent level will improve the LOS by approximately 10 percent when the population doubles.
- Adopt the government buildings impact fee with a discount either citywide or in certain areas and/or for targeted land uses. This will enable the City to provide incentives for the targeted development in desired locations and still maintain or even improve the LOS.
- Collect the impact fees at 100 percent and allow the sales tax revenues to be used for other infrastructure/projects.



Figure VI-2
Government Buildings LOS Improvement



VII. Solid Waste

The City of North Port Solid Waste Division provides solid waste services to all residents of the city. As such, this analysis will include all solid waste facilities and vehicles located within the municipal boundaries of the City of North Port. This section summarizes the analysis used in the update of the solid waste impact fee schedule and includes the following sections:

- Capital Asset Inventory
- Service Area, Population and Benefit Districts
- Level of Service
- Cost Component
- Credit Component
- Net Solid Waste Impact Cost
- Calculated Solid Waste Impact Fee Schedule
- Solid Waste Impact Fee Schedule Comparison
- Smart Growth Application

These elements are summarized in the remainder of this section, with the result being the updated solid waste impact fee schedule.

Inventory and Value of Capital Assets

In terms of buildings, the Solid Waste Division operates through one solid waste operations center, which is part of the Public Works Administration. Table VII-1 provides the portion of this building and land used for solid waste administration along with the land and building values.



Table VII-1
Solid Waste Building Inventory⁽¹⁾

Facility Description	Location	Square Footage ⁽²⁾	Total Square Footage on Site ⁽³⁾	Total Acres ⁽⁴⁾	Acres per 1,000 sf of Building Space ⁽⁵⁾	Adjusted Acres ⁽⁶⁾	Current Value		
							Buildings ⁽⁷⁾	Adjusted Land ⁽⁸⁾	Total ⁽⁹⁾
Public Works Administration	1850 W. Price Blvd, North Port, FL	1,022	4,176	5.07	1.21	1.24	\$51,100	\$37,200	\$88,300
Building Cost per Square Foot							\$50		
Land Value per Acre								\$30,000	

(1), (2), (3), (4) Source: City of North Port Solid Waste Division and Planning & Zoning Department

(5) Total acres (Item 4) divided by total square footage on site (Item 3)

(6) The acreage for the building on the parcel is apportioned by the ratio of building square footage to the total square feet of all buildings on the parcel; Square footage (Item 2) multiplied by the acres per 1,000 sf of building space (Item 5) divided by 1,000

(7) Square footage (Item 2) multiplied by \$50 cost per square foot, which is based on the insurance value of the building. This figure is consistent with cost figures observed in other jurisdictions for similar buildings.

(8) Adjusted acres (Item 6) multiplied by the land value per acre of \$30,000; Land value based on a review of vacant land values and value of existing parcels.

(9) Sum of building and land values (Items 7 and 8)

The City of North Port has not recently constructed any new solid waste facilities. Based on the insurance values and costs observed in other jurisdictions, a current value of \$50 per square foot is used for the operations center.

Similarly, land values are based on the value of existing parcels as well as vacant land values of similarly sized parcels.

In addition to land and buildings, the City's Solid Waste Division owns the necessary vehicles to provide solid waste disposal services to city residents. As presented, the Solid Waste Division has 37 vehicles with a total value of \$8.6 million, and additional equipment valued at \$215,000.

Table VII-2
Solid Waste Vehicle and Equipment Inventory

Description	Units ⁽¹⁾	Unit Cost ⁽²⁾	Total Value ⁽³⁾
Vehicles			
Garbage Truck -- Sideload	5	\$281,143	\$1,405,715
Garbage Truck -- Frontload	9	\$265,329	\$2,387,961
Garbage Truck -- Rearload	3	\$227,590	\$682,770
Recycling Truck	11	\$288,780	\$3,176,580
Claw Truck	2	\$200,443	\$400,886
Roll Off Truck	2	\$185,287	\$370,574
Pickup Truck -- Ford F150 4x4	2	\$18,768	\$37,536
Pickup Truck with Lift Gate	2	\$47,373	\$94,746
Pickup Truck -- Freightliner KPAC	1	\$74,470	\$74,470
Subtotal -- Vehicles	37		\$8,631,238
Equipment			
Power Washer	1	\$2,204	\$2,204
Garbage -- Curotto Can	10	\$21,150	\$211,500
Subtotal -- Equipment	11		\$213,704
Total Vehicle and Equipment Value⁽⁴⁾			\$8,844,942

(1), (2) Source: City of North Port Solid Waste Division

(3) Current value per item (Item 1) multiplied by the number of units (Item 2)

(4) Sum of the vehicles total value and equipment value



Level of Service

Based on the information provided by the City, the current level of service (LOS) for solid waste in the City of North Port is 0.49 tons of debris per person, per year. This LOS includes 0.38 tons of garbage per person, per year, as well as 0.03 tons of yard waste debris per person, per year and 0.08 tons of recycling per person, per year.

The current solid waste level of service is 0.49 tons per person per year.

Table VII-3 shows the calculation of the current achieved LOS, which is based on the current LOS calculated for garbage, yard waste, and recycling.

Table VII-3
Level of Service

Description	Population ⁽¹⁾	Annual Solid Waste Generation ⁽²⁾ (tons)	Level of Service ⁽³⁾ (tons/person/year)
2011 Weighted Population	60,690		
Garbage		23,096	0.38
Yard Waste		1,534	0.03
Recycling		4,730	0.08
2011 Current LOS ⁽⁴⁾			0.49

(1) Source: Section II, Table II-1

(2) Source: City of North Port Solid Waste Division

(3) Annual solid waste generation in tons (Item 2) divided by population (Item 1) for each class of debris

(4) Sum of the level of service for garbage, yard waste, and recycling

Cost Component

Table VII-4 summarizes the capital value for land, buildings, and vehicles for solid waste disposal services. As previously mentioned, the City's Solid Waste Division operates from one main building with a total cost of \$8.9 million, including buildings, land and vehicles. In addition, the following table presents the total impact cost per resident for solid waste disposal service in the City of North Port, which is calculated by dividing the total cost for all Solid Waste Division assets by the annual tonnage of all debris types and multiplying that figure by the City's current LOS (tons of debris/person/year). The



resulting total impact cost for solid waste disposal services in the City of North Port is \$149 per resident.

Table VII-4
Total Impact Cost per Resident

Capital Asset Component	Figure
Total Building Value ⁽¹⁾	\$51,100
Total Land Value ⁽²⁾	\$37,200
Total Vehicle and Equipment Value ⁽³⁾	\$8,844,942
Total Asset Value ⁽⁴⁾	\$8,933,242
Debris (Tons per Year) ⁽⁵⁾	29,360
Asset Value per Ton of Solid Waste Debris ⁽⁶⁾	\$304.27
Current Level of Service (Tons/Person/Year) ⁽⁷⁾	0.49
Total Solid Waste Generation Cost per Person⁽⁸⁾	\$149.09

(1) & (2) Source: Table VII-1

(3) Source: Table VII-2

(4) Sum of total building value (Item 1), total land value (Item 2), and total vehicle and equipment value (Item 3)

(5) & (7) Source: Table VII-3

(6) Total asset value (Item 4) divided by tons of debris per year (Item 5)

(8) Asset value per ton of solid waste debris (Item 6) multiplied by the LOS (Item 7)

Credit Component

Based on discussions with the City's Finance Department and Solid Waste Division, it is our understanding that the City is planning to fund all future capacity expansion for solid waste collection services with impact fee revenues. As such, a revenue credit is not necessary.

Net Solid Waste Impact Cost

To determine the solid waste impact cost per household, the residential percentage of the net solid waste generation cost per resident must be determined. According to the City's Solid Waste Department, 84 percent of the solid waste generation is from the residential development, while the remaining 16 percent is from nonresidential development. Therefore, the net solid waste generation cost by resident is adjusted



to account only for the portion of waste generated by residential development. The resulting residential solid waste generation cost per resident is multiplied by the residents per housing unit for the single family land use. Table VII-5 presents the calculation of the net solid waste impact cost of \$149 per resident and \$299 per household.

Table VII-5
Net Impact Cost per Household

Cost Component	Figure
Total Solid Waste Services Asset Value per Person ⁽¹⁾	\$149.09
Average Annual Revenue Credit for Capacity Expansion Expenditures ⁽²⁾	\$0.00
<i>Net Solid Waste Services Asset Value per Person⁽³⁾</i>	<i>\$149.09</i>
Percent Residential ⁽⁴⁾	84%
Residential Solid Waste Services Value per Person ⁽⁵⁾	\$125.24
Persons per Single Family Housing Unit ⁽⁶⁾	2.39
Net Solid Waste Cost per Household⁽⁷⁾	\$299.32

(1) Source: Table VII-4

(2) No credit is applied

(3) Asset value per person (Item 1) less the average annual revenue credit (Item 2)

(4) Source: City of North Port Solid Waste Division

(5) Net solid waste services asset value per person (Item 3) multiplied by the percent residential (Item 4)

(6) Source: Section II, Table II-2

(7) Residential solid waste services value per person (Item 5) multiplied by the persons per single family housing unit (Item 6)

Calculated Solid Waste Impact Fee Schedule

Table VII-6 presents the calculated solid waste impact fee schedule developed for both the residential and nonresidential land uses, based on the net impact cost per household presented in Table VII-5.

For the City of North Port, the amount of residential waste is 0.42 tons per resident, per year. This is calculated by multiplying the current LOS of 0.49 tons per person per year by the percent of waste attributed to residential development, which is 84 percent of all waste. To calculate the demand component, measured in waste generation units



(WGU) for the residential land uses, the 0.42 tons per resident per year figure is then multiplied by the persons per household for each respective residential land use, which are presented in Section II, Table II-2.

The nonresidential percentage of solid waste collection (16 percent) is applied to net asset value and distributed over the existing non-residential square footage to determine cost per 1,000 square feet. This unit cost is distributed among the land uses based on the ratio of the waste generation level of each land use to the average of the all non-residential land waste generation.

For the nonresidential land uses, the City of North Port did not have local information on the amount of waste generated by nonresidential land use type that would be suitable to use for the demand component of the impact fee schedule. Therefore, the demand component used to develop the City's solid waste schedule is based on data derived from a study calculating commercial generation by various commercial land use types, prepared for the Solid Waste Authority of Palm Beach County. Additional information to calculate the demand component for the nonresidential land uses is derived from the Indian River County Comprehensive Plan Solid Waste Sub-Element, Schedule of Solid Waste Generation Units.



Table VII-6
Calculated Solid Waste Impact Fee Schedule

Land Use	Impact Unit	WGU	Net Impact Cost	Current Fee	Percent Change
Residential					
Single Family Detached	du	0.98	\$299.32	\$17.50	1610%
Multi-Family	du	0.58	\$177.15	\$12.00	1376%
Mobile Home / RV Park Site	du	0.48	\$146.53	\$11.50	1174%
Retirement Community/Age-Restricted Single Family/Senior Adult Housing	du	0.58	\$177.15	\$17.50	912%
Transient, Assisted, Group					
Hotel/Motel	room	0.68	\$58.40	N/A	N/A
Nursing Home	1,000 sf	0.98	\$84.17	N/A	N/A
Assisted Living Facility (ALF)/Congregate Care Facility	1,000 sf	0.98	\$84.17	N/A	N/A
Recreational					
Marina	1,000 sf	2.50	\$214.72	N/A	N/A
Golf Course	1,000 sf	2.50	\$214.72	N/A	N/A
Movie Theater with Matinee	1,000 sf	3.84	\$329.82	N/A	N/A
Recreational/Community Center	1,000 sf	2.21	\$189.82	N/A	N/A
Institutions					
Elementary School (K-8)	1,000 sf	3.48	\$298.90	N/A	N/A
High School (9-12)	1,000 sf	3.48	\$298.90	N/A	N/A
University/Junior College with 7,500 or fewer students	1,000 sf	3.48	\$298.90	N/A	N/A
University/Junior College with more than 7,500 students	1,000 sf	3.48	\$298.90	N/A	N/A
Church	1,000 sf	0.47	\$40.37	N/A	N/A
Day Care	1,000 sf	2.55	\$219.02	N/A	N/A
Hospital	1,000 sf	0.99	\$85.03	N/A	N/A
Office and Financial					
Office 50,000 SF or less	1,000 sf	1.14	\$97.91	N/A	N/A
Office 50,001 - 100,000 SF	1,000 sf	1.14	\$97.91	N/A	N/A
Office 100,001 - 200,000 SF	1,000 sf	1.14	\$97.91	N/A	N/A
Office 200,001 - 400,000 SF	1,000 sf	1.14	\$97.91	N/A	N/A
Office greater than 400,000 SF	1,000 sf	1.14	\$97.91	N/A	N/A
Medical Office (1 to 10,000 SF)	1,000 sf	1.35	\$115.95	N/A	N/A
Medical Office (Greater than 10,000 SF)	1,000 sf	1.35	\$115.95	N/A	N/A
Business Park (Flex Space)	1,000 sf	1.14	\$97.91	N/A	N/A



Table VII-6
Calculated Solid Waste Impact Fee Schedule (Continued)

Land Use	Impact Unit	WGU	Net Impact Cost	Current Fee	Percent Change
Retail, Gross Square Feet					
Building Materials/Lumber	1,000 sf	0.78	\$66.99	N/A	N/A
Hardware/Paint	1,000 sf	3.39	\$291.17	N/A	N/A
Retail 50,000 SF or less	1,000 sfgla	2.42	\$207.85	N/A	N/A
Retail greater than 50,000 SF	1,000 sfgla	2.42	\$207.85	N/A	N/A
New and Used Auto Sales	1,000 sf	1.75	\$150.31	N/A	N/A
Tire Store	1,000 sf	3.06	\$262.82	N/A	N/A
Supermarket	1,000 sf	7.42	\$637.30	N/A	N/A
Convenience Store with Gas Pumps	1,000 sf	9.68	\$831.41	N/A	N/A
Home Improvement Superstore	1,000 sf	0.78	\$66.99	N/A	N/A
Pharmacy/Drug Store with or without drive thru	1,000 sf	3.39	\$291.17	N/A	N/A
Furniture Store	1,000 sf	3.39	\$291.17	N/A	N/A
Bank/Savings Drive-in	1,000 sf	1.49	\$127.98	N/A	N/A
Sit-down Restaurant	1,000 sf	11.60	\$996.32	N/A	N/A
High-Turnover Restaurant	1,000 sf	11.60	\$996.32	N/A	N/A
Fast Food Rest w/ Drive-Thru	1,000 sf	18.16	\$1,559.75	N/A	N/A
Quick Lube	service bay	1.38	\$118.53	N/A	N/A
Auto Repair Shop	1,000 sf	3.06	\$262.82	N/A	N/A
Gas/Service Station	fuel pos.	0.61	\$52.39	N/A	N/A
Gasoline/Service Station/Conv. Mart	fuel pos.	9.68	\$831.41	N/A	N/A
Self-Service Car Wash	service bay	1.62	\$139.14	N/A	N/A
Convenience/Gasoline/Fast Food Store	1,000 sf	9.68	\$831.41	N/A	N/A
Industrial					
Light Industrial/Industrial Park	1,000 sf	2.08	\$178.65	N/A	N/A
Heavy Industrial	1,000 sf	0.68	\$58.40	N/A	N/A
Manufacturing	1,000 sf	2.08	\$178.65	N/A	N/A
Warehousing	1,000 sf	2.36	\$202.70	N/A	N/A
Mini-Warehouse/Storage	1,000 sf	0.83	\$71.29	N/A	N/A



Solid Waste Impact Fee Schedule Comparison

As part of the work effort in implementing the City of North Port solid waste impact fee program, a comparison of solid waste impact fee schedules was completed for select jurisdictions. It should be noted that solid waste impact fees are not as commonly implemented as some of the other program areas. As such, Table VII-7 presents the comparison of solid waste impact fees in several jurisdictions that implemented a solid waste impact fee.

Table VII-7
Solid Waste Impact Fee Schedule Comparison

Land Use	Impact Fee Unit	City of North Port (Calculated)	City of North Port (Adopted)	City of Fort Pierce ⁽¹⁾	Brevard County	Indian River County ⁽³⁾
Residential:						
Single Family	du	\$299	\$18	\$136	\$160	\$82
Non-Residential:						
Office (50,000 sf)	1,000 sf	\$98	N/A	\$87	(2)	\$16
General Light Industrial	1,000 sf	\$179	N/A	\$159	(2)	\$41
Fast Food Restaurant w/Drive-Thru	1,000 sf	\$1,560	N/A	\$1,387	(2)	\$106
Retail (100,000 sf)	1,000 sf	\$208	N/A	\$185	(2)	\$41

- (1) The City of Fort Pierce is currently charging 60% of total calculated fee.
- (2) For Brevard County, solid waste fees for nonresidential land uses are determined through a comparison of the solid waste generation of three existing structures similar to the proposed development. For example, the solid waste fee for a new bank with drive-thru would be determined by reviewing the solid waste generated from three existing similar bank sites. As such, a comparison is not available because the nonresidential solid waste fee is dependent on the specific structure and is not a flat fee per unit by land use type.
- (3) Indian River County impact fees are currently on moratorium.

Smart Growth Application

As mentioned previously, the Smart Growth approach takes into consideration revenues received from the existing development that are used toward capacity expansion projects. It calculates what the impact fee level needs to be to maintain the existing/achieved LOS given a certain level of non-impact fee funding and estimated growth rate.



In the case of solid waste facilities and equipment, the City expects to fund all capacity expansion projects with impact fee revenues. In other words, no other revenue sources are available to fund additional capacity. As such, if the City does not adopt the solid waste impact fees at the maximum amount calculated in this study, the LOS for solid waste facilities and service is likely to deteriorate over time.



VIII. Transportation

This section of the report includes the transportation impact fee. The study methodology is documented in the following sections of this technical report:

- Service Area and Benefit Districts
- Demand Component
- Cost Component
- Credit Component
- Calculated Transportation Impact Fee Schedule
- Smart Growth Credit Application

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

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

The demand for travel placed on the transportation system is expressed in units of vehicle miles of travel (daily trip generation rate times the trip length times the percent new trips (of total trips)) for each land use contained in the impact fee schedule. It should be noted that trip generation is expressed in 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 or lane mile of roadway capacity. The credit is an estimate of the future non-impact fee revenues generated by new development that are allocated to roadway capacity expansion construction projects. Thus, the impact fee is an “up front” payment for a portion of the cost of building a lane mile of capacity directly related to the amount of capacity consumed by each unit of land use contained in the impact fee schedule that is not paid for by the future tax revenues generated by the development.

It should be noted that the information used to develop the impact fee schedule was based upon the most recent, reliable and localized data available.

There are 10 input variables use in the fee equation:



Demand Variables:

- Trip generation rate
- Trip length
- Percent new trips
- Interstate adjustment factor

Cost Variables:

- Cost per lane mile
- Capacity added per lane mile

Credit Variables:

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

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

Service Area and Benefit Districts

The City provides transportation facilities throughout citywide. Given the relatively small geographic area and lack of major manmade or natural barriers, it is appropriate to continue to keep a single benefit district for transportation impact fees.

Demand Component

Travel Demand

The amount of road system consumed by a unit of new land development is calculated using the following variables and is a measure of the vehicle miles of new travel that a unit of development places on the existing road system:

- Number of daily trips generated;



- Length of those trips; and
- Proportion of travel that is new travel, rather than travel that is already traveling on the road system.

As part of this update, the trip characteristic variables were obtained primarily from two sources: (1) similar studies previously conducted throughout Florida (Florida Studies Database), and (2) the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (8th edition).

The Florida Trip Characteristics Studies Database (included in Appendix E) was used to determine vehicle miles of travel which is developed from trip rate, trip length, and percent new trips for most land uses. In addition, trip generation rate data from the ITE 8th edition report was also used. In all instances where trip generation rate data was available from both the ITE reference report and the Florida Studies Database, a blend calculation was used to increase the sample size.

Interstate Adjustment Factor

This variable is used to recognize that interstate highway improvements are funded by the State using earmarked State and Federal funds. Typically, impact fees are not used to pay for these improvements and the portion of travel generated by new development in the City of North Port occurring on the interstate system was eliminated from the total travel calculated for each use. Currently, I-75 is the only interstate running through the City of North Port.

Table VIII-1
Interstate Adjustment Factor

Facility	2007 Model VMT
Interstate 75	184,341
Other Roads	487,983
All Roads	672,324
% Travel on I-75	27.4%

Note: Excludes external-to-external travel



Cost Component

Recent Cost Trends

This section provides a framework for evaluating the recent changes in right-of-way (ROW) and construction costs for city, county, and state roadways in the City of North Port and Sarasota County, as well as the entire state of Florida. The cost trends will show the need for updating these costs in the transportation impact fee equation to ensure that new development is being charged at a rate that reflects current market costs for the consumption of roadway assets.

Construction costs increased significantly in Florida and in Sarasota County between 2005 and 2007 due to additional construction demand caused by hurricanes, the housing market growth, and other factors. Appreciation in land values also resulted in higher right-of-way (ROW) cost over the last several years. In early 2008, costs started to stabilize, and recently, many communities have experienced a decrease in costs. Information from the City of North Port, Sarasota County, roadway cost information from other counties in Florida, and data from the Florida Department of Transportation (FDOT) was used to develop a unit cost for all phases involved in the construction of one lane mile of roadway capacity. The following subsections summarize the methodology and findings of the total unit cost analysis for city, county, and state roads. Appendix B provides the data and other support information utilized in these analyses.

City Roadway Costs

This section examines the ROW, construction, and other cost components associated with city roads with respect to transportation capacity improvements in the City of North Port. For this purpose, recent bid data for ongoing projects provided by the city was used to identify and provide supporting cost data for city improvements. The cost for each roadway capacity project was separated into four phases: ROW, construction, design, and construction engineering/inspection (CEI).

Based on a review of recently completed projects in the City of North Port, Sarasota County, and other counties in Florida, design costs were estimated at 10 percent of



construction costs, and CEI costs were estimated at 9 percent of construction costs for city roadways.

Right-of-Way

The ROW cost reflects the total cost of acquisitions along the 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. ROW cost estimates were developed based on cost data received for three local projects along Sumter Blvd (Ph. II, from US 41 to Heron Creek Blvd and Ph. III, from Heron Creek Blvd to City Center Blvd) and Price Blvd (Biscayne Dr to Orlando Blvd). Based on a review of these local projects, a ROW cost of \$320,000 per lane mile was used for city roads, as shown in Table VIII-2. See Appendix B, Table B-1 for additional project detail.

Construction

A review of recent and upcoming construction cost data for the City of North Port showed that the City has recently completed two urban design lane addition projects and has three improvements on the horizon. Construction cost estimates were developed based on cost figures and estimates for these five projects (along Sumter Blvd, Toledo Blade Blvd, and Price Blvd). Based on a review of these local projects, a construction cost of \$2.4 million per lane mile was used for city roads, as shown in Table VIII-2. Appendix B, Table B-3 provides additional project detail. This cost reflects the fact that the construction cost for city roads in North Port is higher than most communities due to unique landscaping, lighting, and infrastructure amenities included in the roadway design.

In addition to unique amenities, city roads typically include some form of bridge structure to accommodate the canals and waterways located throughout the City. Based on bridge costs observed for sections of the Sumter Blvd, Toledo Blade Blvd, and Price Blvd improvements, a bridge cost factor of 25 percent (applied to the base construction cost) was added to the total cost of improving a city road, increasing the construction cost to \$3.0 million per lane mile. Appendix B, Table B-4 provides further detail on this calculation.

As shown in Table VIII-2, the total estimated cost for a city road is approximately \$3.89 million per lane mile.



Table VIII-2
Estimated Cost per Lane Mile by City Project Phase

Cost Phase	Cost Per Lane Mile
Design ⁽¹⁾	\$300,000
Right-of-Way ⁽²⁾	\$320,000
Construction ⁽³⁾	\$3,000,000
CEI ⁽⁴⁾	\$270,000
Total Cost	\$3,890,000

(1) Design is estimated at 10 percent of construction costs

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

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

(4) CEI is estimated at 9 percent of construction costs

County Roadway Costs

This section examines the ROW, construction, design, and construction engineering/inspection (CEI) costs associated with county roads with respect to transportation capacity improvements in the City of North Port and Sarasota County. For this purpose, recent bid data for ongoing and future projects provided by Sarasota County and recent construction bid data from county roadway projects throughout Florida were used to identify and provide supporting cost data for county improvements. The cost for each roadway capacity expansion projects was separated into four phases: ROW, construction, design, and construction engineering & inspection (CEI).

Based on a review of recently completed projects in Sarasota County, and other counties in Florida, design costs were estimated at 10 percent of construction costs, and CEI costs were estimated at 9 percent of construction costs for county roadways.

Right-of-Way

ROW cost estimates for county roads were developed based on cost data received for 10 local projects that were recently completed. The ROW costs ranged from approximately \$240,000 to \$1.07 million per lane mile for these projects, with a weighted average cost of \$620,000 per lane mile. Based on a review of these local



projects, a ROW cost of \$620,000 per lane mile was used for county roads. Appendix B, Table B-2 provides additional project detail.

Construction

A review of recent and upcoming construction cost data for Sarasota County showed that the County has recently completed 13 urban design lane addition projects and has recently bid three capacity expansion improvements. These 16 improvements have a weighted average cost of approximately \$3.27 million per lane mile. It should be noted that the majority of the local projects were completed prior to 2008, when construction costs were peaking prior to the economic recession. A review of recent projects let between 2008 and 2011 in other Florida counties identified 22 urban design projects ranging from approximately \$0.71 million to \$3.51 million per lane mile, with a weighted average cost of approximately \$1.79 million per lane mile. Based on these sets of data, it was determined that Sarasota's construction costs are higher than the state average, and that the most recent bid project along North Cattlemen Road (from Richardson Rd to Desoto Blvd) represents the typical cost of a County roadway at this time. Based on a review of these local projects and statewide projects, a construction cost of \$2.40 million per lane mile was used for county roads, as shown in Table VIII-3. Appendix B, Tables B-5 and B-6 provide additional project detail.

As shown in Table VIII-3, the total estimated cost for a county road is approximately \$3.48 million per lane mile.



Table VIII-3
Estimated Cost per Lane Mile by County Project Phase

Cost Phase	Cost Per Lane Mile
Design ⁽¹⁾	\$240,000
Right-of-Way ⁽²⁾	\$620,000
Construction ⁽³⁾	\$2,400,000
CEI ⁽⁴⁾	\$216,000
Total Cost	\$3,476,000

(1) Design is estimated at 10 percent of construction costs

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

(3) Source: Appendix B, Tables B-5 and B-6

(4) CEI is estimated at 9 percent of construction costs

State Roadway Costs

This section examines the ROW, construction, design, and construction engineering/inspection (CEI) costs associated with state roads with respect to transportation capacity improvements in the City of North Port and Sarasota County. For this purpose, recent construction bid data from state projects throughout Florida were used to identify and provide supporting cost data for state roadway improvements. The cost for each roadway capacity expansion projects was separated into four phases: ROW, construction, design, and construction engineering & inspection (CEI).

Based on a review of recent completed projects in North Port, Sarasota County, and other counties in Florida, design costs were estimated at 10 percent of construction costs, and CEI costs were estimated at 9 percent of construction costs for state roadways.

Right-of-Way

ROW cost estimates for state roads were developed based on the relationship of ROW to construction cost data observed in recent transportation impact fee studies. Since no ROW cost data was available for state projects, ROW was estimated at 40 percent of the construction cost of a capacity expansion project on state roads. This



factor is consistent with the average ROW to construction ratio used in recent transportation impact fee studies throughout Florida. Therefore, a ROW cost of \$800,000 per lane mile was used for state roads.

Construction

A review of recent projects let between 2008 and 2011 in Sarasota and other Florida counties identified 28 urban design projects ranging from approximately \$1.20 million to \$4.95 million per lane mile, with a weighted average cost of approximately \$2.22 million per lane mile. Only one project from the list, US 301 from Wood St to Myrtle Ave, is located in Sarasota and has a cost of \$3.53 per lane mile. However, when looking at all projects in FDOT District 1, the weighted average cost is \$1.82 million per lane mile, which is considerably lower than the state average. Weighing the fact that the lone Sarasota project was above the state average and District 1 was below the average, a conservative estimate of \$2.0 million per lane mile was used in the impact fee calculation for state roads, as shown in Table VIII-4. Appendix B, Table B-7 provides additional project detail.

As shown in Table VIII-4, the total estimated cost for a state road is approximately \$3.18 million per lane mile.

Table VIII-4
Estimated Cost per Lane Mile by State Project Phase

Cost Phase	Cost Per Lane Mile
Design ⁽¹⁾	\$200,000
Right-of-Way ⁽²⁾	\$800,000
Construction ⁽³⁾	\$2,000,000
CEI ⁽⁴⁾	\$180,000
Total Cost	\$3,180,000

(1) Design is estimated at 10 percent of construction costs

(2) ROW is estimated at 40 percent of construction costs

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

(4) CEI is estimated at 9 percent of construction costs



Summary of Costs (Blended Cost Analysis)

The weighted average cost per lane mile for city, county, and state roads is calculated and presented in Table VIII-5. The resulting weighted average cost of approximately \$3.52 million per lane mile was utilized in the calculation of the impact fee schedule. This weighted average cost per lane mile includes city, county and state projects and is based on weighting the lane miles of programmed future roadway improvements included in the Sarasota County 2035 Long Range Transportation Plan (LRTP) Needs Plan. As noted previously, the project information and methodology used in these calculations are included in Appendix B.

Table VIII-5
Estimated Cost per Lane Mile for City, County, and State Roadway Projects
in the City of North Port

Cost Type	City Roads ⁽¹⁾	County Roads ⁽²⁾	State Roads ⁽³⁾	City, County, and State Roads ⁽⁴⁾
Design	\$300,000	\$240,000	\$200,000	\$247,200
Right-of-Way	\$320,000	\$620,000	\$800,000	\$579,200
Construction	\$3,000,000	\$2,400,000	\$2,000,000	\$2,472,000
CEI	\$270,000	\$216,000	\$180,000	\$222,480
Total	\$3,890,000	\$3,476,000	\$3,180,000	\$3,520,880
Lane Mile Distribution ⁽⁵⁾	28%	48%	24%	100%

(1) Source: Table VIII-2

(2) Source: Table VIII-3

(3) Source: Table VIII-4

(4) Lane mile distribution (Item 5) multiplied by design, ROW, construction, and CEI costs by jurisdiction to develop a weighted average cost per lane mile.

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

Capacity Added per Lane Mile

An additional component of the impact fee equation is the capacity added per lane mile (also known as maximum service volume added per lane mile) of roadway constructed. An analysis of the Sarasota County 2035 LRTP Needs Plan projects (see Appendix B, Table B-8 for the list of projects) was conducted to reflect the mix of improvements that will yield the vehicle miles of capacity (VMC) that will be built in Sarasota County. The



resulting weighted average capacity per lane mile calculated based on these projects is 8,633.

Table VIII-6
Weighted Average Capacity per Lane Mile

Source	Lane Miles Added ⁽¹⁾	Vehicle Miles of Capacity Added ⁽²⁾	VMC Added per Lane Mile ⁽³⁾
City Roads	25.36	205,416	8,100
County Roads	43.44	388,172	8,936
State Roads	22.14	191,517	8,650
Total	90.94	785,105	
Weighted Average Capacity Added⁽⁴⁾			8,633

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

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

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

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

Cost per Vehicle Mile of Capacity Added

The impact fee cost per unit of development is assessed based on the cost per vehicle mile of capacity. As shown in Tables VIII-5 and VIII-6, the cost and capacity for city, county, and state roads have been calculated based on typical roadway improvements. In order to estimate the weighted average cost per vehicle mile of capacity, the cost per VMC for city, county, and state roads was weighted by the lane mile distribution of projects in the Sarasota County 2035 LRTP Needs Plan. As shown in Table VIII-7, the cost per vehicle mile of capacity for travel on all roads within the City of North Port and Sarasota County is \$407.84. This weighted average cost per vehicle mile of capacity figure was used in the impact fee calculation to determine the total impact cost per unit of development based on the vehicle miles of travel consumed. For each vehicle mile of travel that is added to the road system, over \$407 of roadway capacity is consumed.



Table VIII-7
**Weighted Average Cost per Vehicle Mile of Capacity Added for City,
County, and State Roadways in the City of North Port**

Source	Cost per Lane Mile ⁽¹⁾	Average Capacity Added Per Lane Mile ⁽²⁾	Cost per VMC ⁽³⁾
City Roads	\$3,890,000	8,100	\$480.25
County Roads	\$3,476,000	8,936	\$388.99
State Roads	\$3,180,000	8,650	\$367.63
Weighted Average	\$3,520,880	8,633	\$407.84

(1) Source: Table VIII-5

(2) Source: Table VIII-6

(3) Cost per lane mile (Item 1) divided by average capacity per lane mile (Item 2) for city, county, and state roads respectively.

Credit Component

Gasoline Tax Equivalent Credit

The present value of the portion of gasoline taxes generated by a new development over a 25-year period that is expended on capacity expansion projects is credited against the cost of the system consumed by travel associated with new development. Since gas tax revenues are generated on a county-wide basis, all roadway capacity expansion expenditures on county and state roads in Sarasota County were also used to calculate the gas tax equivalent credit.

City

A review of the City's historical roadway financing program (FY 2006-2010) and the FY 2011-2015 Capital Improvement Plan (CIP) shows that roadway capacity expansion projects are being funded by a combination of impact fees, gas tax, sales tax, transportation regional improvement program (TRIP) funds, tree replacement funds, ARRA funds, and grant funds. As shown in Table VIII-8, the City receives 0.6 pennies of credit for gas tax equivalent expenditures on roadway capacity expansion projects funded with recurring revenue sources other than impact fees.



County

A review of Sarasota County's historical roadway financing program (FY 2006-2010) and the FY 2011-2015 CIP shows that all roadway projects are being funded by a combination of impact fees, ad valorem taxes, gas tax, sales tax, and grant funds. Sarasota County receives a credit of 5.6 pennies for the portion of ad valorem tax, gas tax, sales tax, and grant fund revenues dedicated to capacity expansion projects in the past five years and in the 5-year work program. The County also receives 8.2 pennies for debt service payments on the 2005B and 2006 CST bonds, the 2005 ELMS bond and the 2008A and 2008B surtax bonds. Based on discussion with County staff, all bond proceeds were expended on roadway capacity expansion projects. Thus, a credit of 13.8 equivalent pennies will be given for the allocation of funds the county collects in ad valorem tax, gas tax, sales tax, and grant revenues, and for debt service expenditures.

State

In addition, state expenditures on state roads were reviewed and a credit for the capacity expansion portion attributable to state projects was provided. The equivalent number of pennies allocated to fund state projects was determined using information for a 15-year period of the Florida Department of Transportation (FDOT) Work Program (2002 through 2016). A list of capacity-adding roadway projects was developed including lane additions, new road construction, intersection improvements, interchanges, traffic signal projects, and other capacity-addition projects. Major roadway expansion projects along US 41, US 301, Cattlemen Rd, and Dearborn St were included in this list as well as the major intersection improvements at University Parkway and US 301. This review (which is summarized in Appendix C, Table C-5) indicates that FDOT spending generates an equivalent gas tax credit of 11.0 pennies of gas tax revenue annually. The use of a 15-year period for purposes of developing a state credit for roadway capacity-adding projects results in a conservative credit for Sarasota County. Compared to recent impact fee studies throughout Florida, Sarasota County is in line with the average state contribution of 11.8 pennies (state contributions have ranged from approximately 7.7 pennies to 20.4 pennies). The state gas tax credit is also reflected in Table VIII-8.

In summary, the City of North Port contributes approximately 0.6 pennies and the County contributes approximately 13.8 pennies toward roadway capacity expansion projects, while state spending is equivalent to an average of 11.0 pennies for state roadway projects in Sarasota County. Therefore, a total of 25.4 pennies of credit is included in the



impact fee equation to recognize the future capital revenue that is expected to be generated by new development from all non-impact fee revenues. Non-impact fee revenues from different funding sources have been converted to equivalent gas tax pennies for purposes of estimating the revenue credit per unit of development.

Table VIII-8
Equivalent Pennies of Gas Tax Revenue

Credit	Equivalent Pennies per Gallon
City Revenues ⁽¹⁾	\$0.006
County Revenues ⁽²⁾	\$0.056
County Debt Service ⁽³⁾	\$0.082
State Revenues ⁽⁴⁾	\$0.110
Total	\$0.254

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

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

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

(4) Source: Appendix C, Table C-5

Present Worth Variables

Facility Life

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

Interest Rate

This is the discount rate at which gasoline tax revenues might be bonded. It is used to compute the present value of the gasoline taxes generated by new development. The discount rate of 3.0 percent was provided by the City's Finance Department based on upcoming bond issues.



Fuel Efficiency

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

Appendix C, Table C-14, 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.

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

The methodology utilizes 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 utilized 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 appropriately accounts for 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 2009 (includes 2011 updates)*. Based on the calculation completed in Appendix C, Table C-14, the fuel efficiency rate to be used in the updated impact fee equation is 18.19 miles per gallon.

Effective Days per Year

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



Calculated Transportation Impact Fee Schedule

The impact fee calculations for each land use are included in Appendix D. This Appendix 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, this Appendix illustrates the impact fee demand component variables (trip rate, trip length, and percent of new trips), the total impact fee cost, the annual gas tax credit and present value of the gas tax credit, the net impact fee, the current City of North Port impact fee, and the percent difference between the calculated impact fee and the current 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 most reasonable and legally defensible impact fee per unit of land use that could be charged in The City of North Port. As discussed throughout the report, the impact fee analysis has been completed using a conservative approach to develop the impact fee per unit of land use.

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 proposed impact fee schedule included in Appendix D, Table D-1. For each land use category, the following equations are utilized to calculate the net impact fee:

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

Where:

$$\text{Total Impact Cost} = ((\text{Trip Rate} \times \text{Assessable Trip Length} \times \% \text{ New Trips}) / 2) \times (1 - \text{Interstate Adj. Factor}) \times (\text{Cost per Lane Mile} / \text{Avg. Capacity Added per Lane Mile})$$

$$\text{Gas Tax Credit} = \text{Present Value (Annual Gas Tax), given 3.00\% interest rate \& 25-year facility life}$$

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

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 single-family detached residential land use category:

- *Trip Rate* = the average daily trip generation rate, in vehicle-trips/day (7.81)
- *Assessable Trip Length* = the actual average trip length for the category, in vehicle-miles (6.62)
- *Total Trip Length* = the recommended 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 ($6.62 + 0.50 = 7.12$)
- *% New Trips* = adjustment factor to account for trips that are already on the roadway (100%)
- *Divide by 2* = the total daily miles of travel generated by a particular category (i.e., rate*length*% new trips) is divided by two to prevent the double-counting of travel generated among land use codes since every trip has an origin and a destination.
- *Interstate Adjustment Factor* = discount factor to account for the travel demand occurring on interstate highways and/or toll facilities (27.4%)
- *Cost per Lane Mile* = unit cost to construct one lane mile of roadway, in \$/lane-mile (\$3,520,880)
- *Average Capacity Added per Lane Mile* = represents the average daily traffic on one travel lane at capacity for one lane mile of roadway, in vehicles/lane-mile/day (8,633)
- *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% 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 gas tax revenue per gallon of fuel that is used for capital improvements, in \$/gallon (\$0.254)
- *Fuel Efficiency* = average fuel efficiency of vehicles, in vehicle-miles/gallon (18.19)

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

Total Impact Cost = $((7.81 * 6.62 * 1.0) / 2) * (1 - 0.274) * (\$3,520,880 / 8,633) = \$7,654$

Annual Gas Tax = $((7.81 * 7.12 * 1.0) / 2) * 365 * \$0.254 / 18.19 = \$142$



Gas Tax Credit = $\$142 * 17.4131 = \$2,473$

Net Impact Fee (Total) = $\$7,654 - \$2,473 = \$5,181$

Net Impact Fee (City's Portion) = $\$5,181 - \$643.95 = \mathbf{\$4,537}$

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

Transportation Impact Fee Comparison

As part of the work effort in developing the City of North Port transportation impact fee program, a comparison of calculated fees to transportation impact fee schedules adopted in other jurisdictions was completed. Table VIII-9 presents the comparison of transportation impact fees in the surrounding jurisdictions.



Table VIII-9
Transportation Impact Fee Comparison

Land Use	Unit ⁽¹⁾	City of North Port (Calculated) ⁽²⁾	City of North Port (Adopted) ⁽³⁾	Sarasota County ⁽⁴⁾	Charlotte County ⁽⁵⁾	City of Punta Gorda ⁽⁶⁾	City of Lakeland ⁽⁷⁾	City of Bradenton ⁽⁸⁾
Residential:								
Single Family Detached (2,000 sq ft)	du	\$4,537	\$2,341	\$2,887	\$1,832	\$1,523	\$4,895	\$2,374
Non-Residential:								
Office (50,000 sf)	1,000 sf	\$6,953	\$2,883	\$3,004	\$615	\$1,180	\$5,310	\$1,824
General Light Industrial	1,000 sf	\$2,925	\$1,901	\$1,986	\$1,182	\$520	\$675	\$816
Fast Food Rest. w/Drive-Thru	1,000 sf	\$57,438	\$14,729	\$13,621	\$3,763	\$3,680	\$65,096	\$4,709
Shopping Center (100,000 sf)	1,000 sf	\$6,869	\$4,858	\$5,659	\$2,287	\$3,080	\$6,754	\$3,785

(1) Du = dwelling unit

(2) Source: Appendix D, Table D-1, exclude the portion retained by Sarasota County

(3) Source: City of North Port Planning Department, excludes the portion retained by Sarasota County

(4) Source: Sarasota County Planning and Development Services

(5) Source: Charlotte County Building and Growth Management Division

(6) Source: City of Punta Gorda Growth Management Division

(7) Source: City of Lakeland Community Development Department

(8) Source: City of Bradenton Department of Planning and Community Development



Smart Growth Application

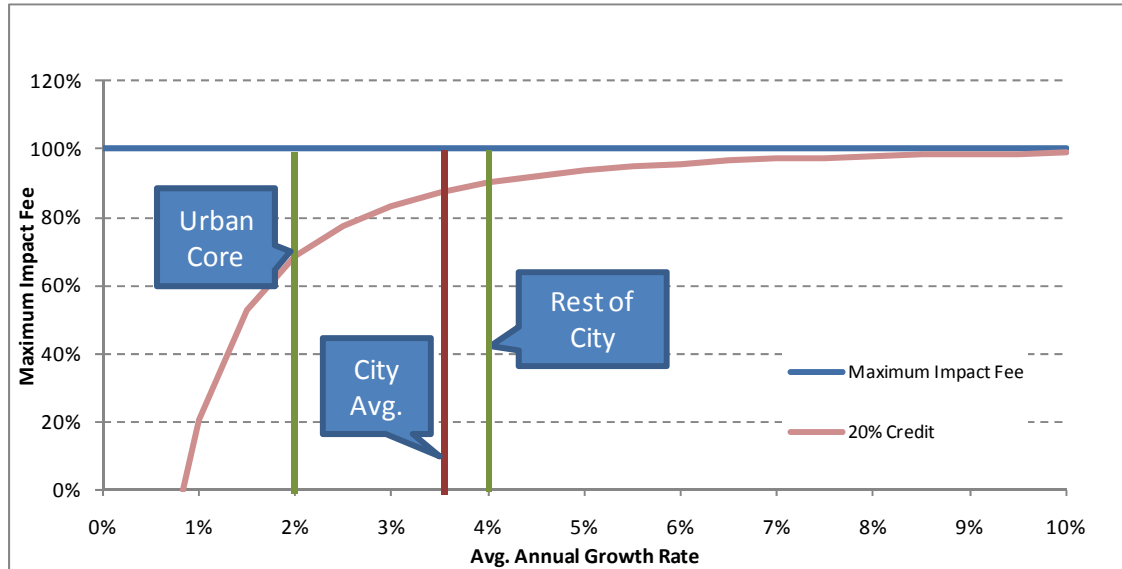
As mentioned previously, the Smart Growth approach takes into consideration revenues received from the existing development that are used toward capacity expansion projects. It calculates what the impact fee level needs to be to maintain the existing/achieved LOS given a certain level of non-impact fee funding and estimated growth rate.

In the case of transportation, the City's historical expenditures and CIP indicate a contribution of approximately \$1 million per year from non-impact fee funds. In addition, the County and State contribute an average of \$25 million per year for roadway capacity expansion in Sarasota County. During the next 20 years, the City is expected to grow at an annual rate of 3.5 percent. Figure VIII-1 presents how impact fee levels would change over time with different growth rates. As shown, the horizontal line represents the maximum legally acceptable fee. This level is compared investment needed to maintain the current LOS. Although the City has the legal right to charge the maximum amount of transportation impact fee calculated, only approximately 85 percent of this amount is needed to maintain the current/achieved LOS citywide due to non-impact fee contributions from the existing development and low rate of population growth. If the impact fee is adopted at a level less than 85 percent, the LOS for transportation capital facilities is likely to deteriorate, and if it is adopted at a level higher than 85 percent, it is likely to improve.

If the City is interested in lower impact fees only in the urban core, which is growing at a slower rate than the entire city, the fee could be adopted at 70 percent in the urban core as long as a minimum of 90 percent of the maximum impact fee is adopted in the rest of the city to maintain the LOS.



Figure VIII-1
Transportation Impact Fee vs. Average Annual Growth Rate



Similarly, the level of flexibility extends to targeted land uses. In other words, if the City wants to continue to charge an impact fee for certain land uses, such as single family, etc., and eliminate or reduce the impact fee on other land uses mentioned previously, it has the flexibility to do so. If the fee is adopted at 100 percent for residential land uses, the City will be able to reduce the fee by 45 percent for non-residential land uses and still maintain the LOS. This calculation is based on the assumption that over the next ten to 20 years, approximately 75 percent of the impact fee collections will be from residential land uses, with the remainder coming from non-residential land uses.

Calculations shown in this study establish the legally maximum level of impact fee that can be charged for transportation, and shows the flexibility the City has in terms of either reducing the impact fee levels or sales tax contributions to maintain the current LOS given the relatively low growth rate.

Given this information, the City has the following options:

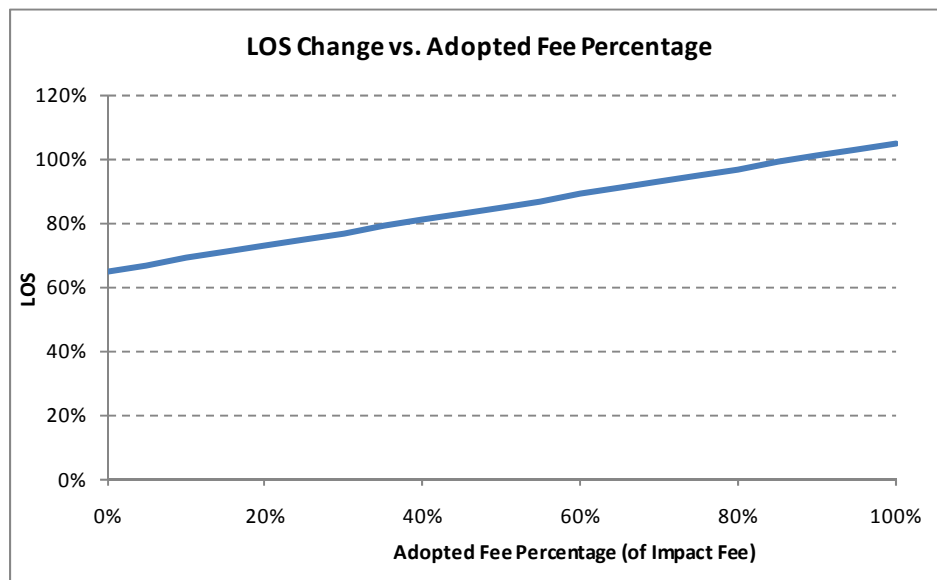
- Collect the transportation impact fee at 100 percent level and continue to contribute from other revenue sources to improve the existing LOS, which is shown in Figure VIII-2. As presented, with the current non-impact fee contribution levels, collection of transportation impact fee at 100 percent level



will improve the LOS by approximately 5 percent when the population doubles.

- Adopt the transportation impact fee with a discount either citywide or in certain areas and/or for targeted land uses. This will enable the City to provide incentives for the targeted development in desired locations and still maintain or even improve the LOS.
- Collect the impact fee at 100 percent and allow the other revenue sources to be used for other infrastructure/projects. This will allow the City to maintain the existing LOS.

Figure VIII-2
Transportation LOS Improvement



IX. Summary of Calculated Fees

Table IX-1 presents a summary comparison of the calculated fees and the fees currently being charged by the City. In addition, the table also presents potential reductions to the maximum calculated fee levels that would be in line with the City's economic development and planning goals and still maintain the existing LOS. Three scenarios included in the table (citywide reduction, fee elimination or reduction in the urban core, and fee elimination or reduction for non-residential land uses) are independent of each other, and represent the minimum adoption percentage necessary to maintain the existing LOS. The City has the legal right to adopt the fees at the maximum level (Item 2 in the Table) or at any level below that.



Table IX-1
Summary of Calculated Fees

Fee Area	Single Family Residential	Office (50,000 sf)	General Light Industrial	Fast Food Restaurant w/Drive-Thru	Retail (100,000 sf)	Adoption Percentage
Fire Rescue:						
Adopted ⁽¹⁾	\$240.00	\$387.50	\$238.50	\$672.00	\$672.00	
Calculated ⁽²⁾	\$486.03	\$394.38	\$191.63	\$2,502.35	\$594.34	
Minimum Adoption Level -- Citywide ⁽³⁾	\$403.40	\$327.34	\$159.05	\$2,076.95	\$493.30	83%
With Urban Core Fee Reduction: ⁽⁴⁾						
- Urban Core	\$281.90	\$228.74	\$111.15	\$1,451.36	\$344.72	58%
- Rest of the City	\$422.85	\$343.11	\$166.72	\$2,177.04	\$517.08	87%
With Non-Residential Fee Reduction (60%) ⁽⁵⁾	\$486.03	\$157.75	\$76.65	\$1,000.94	\$237.74	100%
Law Enforcement:						
Adopted ⁽¹⁾	\$81.00	\$130.00	\$81.00	\$226.00	\$226.00	
Calculated ⁽²⁾	\$389.00	\$315.00	\$153.00	\$2,001.00	\$475.00	
Parks and Recreation:						
Adopted ⁽¹⁾	\$2,040.00	-	-	-	-	
Calculated ⁽²⁾	\$1,315.00	-	-	-	-	
Minimum Adoption Level -- Citywide ⁽³⁾	\$1,091.45					83%
With Urban Core Fee Reduction: ⁽⁴⁾						
- Urban Core	\$762.70					58%
- Rest of the City	\$1,144.05					87%
With Non-Residential Fee Elimination ⁽⁵⁾	\$1,209.80					92%
Government Buildings:						
Adopted ⁽¹⁾	\$54.50	\$79.00	\$49.50	\$150.50	\$150.50	
Calculated ⁽²⁾	\$441.70	\$358.41	\$174.16	\$2,274.12	\$540.14	
Minimum Adoption Level -- Citywide ⁽³⁾	\$291.52	\$236.55	\$114.95	\$1,500.92	\$356.49	66%
With Urban Core Fee Reduction: ⁽⁴⁾						
- Urban Core	\$70.67	\$57.35	\$27.87	\$363.86	\$86.42	16%
- Rest of the City	\$326.86	\$265.22	\$128.88	\$1,682.85	\$399.70	74%
With Non-Residential Fee Elimination ⁽⁵⁾	\$388.70	\$0.00	\$0.00	\$0.00	\$0.00	88%
Solid Waste:						
Adopted ⁽¹⁾	\$17.50	-	-	-	-	
Calculated ⁽²⁾	\$299.32	\$97.91	\$178.65	\$1,559.75	\$207.85	
Transportation:						
Adopted ⁽¹⁾	\$2,341.00	\$2,883.00	\$1,901.00	\$14,729.00	\$4,858.00	
Calculated ⁽²⁾	\$4,537.00	\$6,953.00	\$2,925.00	\$57,438.00	\$6,869.00	
Minimum Adoption Level -- Citywide ⁽³⁾	\$3,947.19	\$6,049.11	\$2,544.75	\$49,971.06	\$5,976.03	87%
With Urban Core Fee Reduction: ⁽⁴⁾						
- Urban Core	\$3,130.53	\$4,797.57	\$2,018.25	\$39,632.22	\$4,739.61	69%
- Rest of the City	\$4,083.30	\$6,257.70	\$2,632.50	\$51,694.20	\$6,182.10	90%
With Non-Residential Reduction (45%) ⁽⁵⁾	\$4,537.00	\$3,824.15	\$1,608.75	\$31,590.90	\$3,777.95	100%
All Fees:						
Adopted ⁽¹⁾	\$4,774.00	\$3,479.50	\$2,270.00	\$15,777.50	\$5,906.50	
Calculated ⁽²⁾	\$7,468.05	\$8,118.70	\$3,622.44	\$65,775.22	\$8,686.33	
Minimum Adoption Level -- Citywide ⁽³⁾	\$6,421.88	\$7,025.91	\$3,150.40	\$57,109.68	\$7,508.67	
With Urban Core Fee Reduction ⁽⁴⁾						
- Urban Core	\$4,934.12	\$5,496.57	\$2,488.92	\$45,008.19	\$5,853.60	
- Rest of the City	\$6,665.38	\$7,278.94	\$3,259.75	\$59,114.84	\$7,781.73	
With Maximum Non-Residential Discount ⁽⁵⁾	\$7,309.85	\$4,394.81	\$2,017.05	\$36,152.59	\$4,698.54	



- (1) Source: The City of North Port Impact Fee Schedule
- (2) Source: Respective impact fee service areas, Sections III through VIII
- (3) Represents the minimum adoption level citywide to maintain the existing LOS in each program area
- (4) Represents the minimum adoption level to reduce impact fees in the urban core area and still maintain the existing LOS
- (5) Represents the minimum adoption level to eliminate or reduce impact fees for non-residential land uses and still maintain the existing LOS



APPENDIX A

Supplemental Population Data

Table A-1
City of North Port Permanent Population Projections⁽¹⁾

Year																				
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
22,797	25,234	27,448	31,352	35,721	41,000	47,770	53,732	56,316	55,759	57,357	58,837	60,355	61,912	63,509	65,132	67,776	70,528	73,391	76,371	79,468

(1) Source: City of North Port Planning & Zoning Department

Table A-2
City of North Port Seasonal Population Projections
(Seasonal Occasional, and Recreational Land Use Types)⁽¹⁾

Year																				
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1,713	1,893	2,059	2,351	2,679	3,075	3,583	4,030	4,224	4,182	4,302	4,413	4,527	4,643	4,763	4,885	5,083	5,290	5,504	5,728	5,960

(1) Seasonal population calculated by multiplying the number of seasonal units in 2000 by the weighted average persons per residential unit from 2000 Census. The permanent residents for subsequent years is calculated by applying ratio of seasonal to permanent residents for 2000 (7.5%) to the permanent population.



Table A-3
City of North Port Weighted Average Population Projections

Seasonal Land Use Type	Year																				
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Permanent Residents ⁽¹⁾	22,797	25,234	27,448	31,352	35,721	41,000	47,770	53,732	56,316	55,759	57,357	58,837	60,355	61,912	63,509	65,132	67,776	70,528	73,391	76,371	79,468
Seasonal, Occasional, Recreational ⁽²⁾	719	795	865	987	1,125	1,292	1,505	1,693	1,774	1,756	1,807	1,853	1,901	1,950	2,000	2,052	2,135	2,222	2,312	2,406	2,503
Total	23,516	26,029	28,313	32,339	36,846	42,292	49,275	55,425	58,090	57,515	59,164	60,690	62,256	63,862	65,509	67,184	69,911	72,750	75,703	78,777	81,971

(1) Number of permanent residents per year, from Table A-1, multiplied by a weighting factor of 1.0, or 12 months per year.

(2) Number of seasonal, occasional, or recreational residents per year, from Table A-2, multiplied by a weighting factor of 0.42, or 5 months per year, per the Census definition of a part-time resident.



Table A-4
City of North Port Functional Population Projections

Year	City of North Port Functional Population ⁽¹⁾
2000	21,573
2001	23,881
2002	25,983
2003	29,673
2004	33,798
2005	38,800
2006	45,202
2007	50,852
2008	53,293
2009	52,760
2010	54,290
2011	55,702
2012	57,150
2013	58,636
2014	60,161
2015	61,725
2016	64,256
2017	66,890
2018	69,632
2019	72,487
2020	75,459
2021	77,813
2022	80,241
2023	82,745
2024	85,327
2025	87,989
2026	90,268

(1) Based on growth rates for the City of North Port's population



APPENDIX B

Transportation Impact Fee Cost Data Supplement

Appendix B

Cost Component Calculations

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

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

Right-of-Way

City Roads

As shown in Table B-1, a review of ROW cost data for the City of North Port showed that the City has four recently-bid or completed projects with ROW acquisition costs. ROW was acquired along Sumter Blvd, Toledo Blade Blvd, and Price Blvd, with a weighted average cost of \$250,000 per lane mile. Upon further review of the local data, it was determined that the Toledo Blade Blvd project did not reflect typical ROW costs that the City expects to incur and therefore was removed from the cost per lane mile calculation. The resulting ROW cost of approximately \$320,000 per lane mile for city roads was used in the transportation impact fee calculation.

County Roads

As shown in Table B-2, a review of ROW cost data for Sarasota County showed that the County has 10 recently completed projects with ROW acquisition costs. The ROW costs ranged from approximately \$240,000 to \$1.07 million per lane mile for these projects, with a weighted average cost of \$620,000 per lane mile. Based on a review of these local projects, a ROW cost of \$620,000 per lane mile was used for county roads in the transportation impact fee calculation.



State Roads

ROW cost estimates for state roads were developed based on the relationship of ROW to construction cost data observed in recent transportation impact fee studies. Since no ROW cost data was available for state projects in the City of North Port or Sarasota County, ROW was estimated at 40 percent of the construction cost of a capacity expansion project on state roads. This factor is consistent with the average ROW to construction ratio used in recent transportation impact fee studies throughout Florida. Therefore, a ROW cost of \$800,000 per lane mile was used for state roads, based on the \$2,000,000 construction cost per lane mile for state roads discussed in the subsequent sections of this appendix.

Construction

City

As shown in Table B-3, the City of North Port has recently completed three urban design lane addition projects and has three improvements on the horizon. Projects were located along Sumter Blvd, Toledo Blade Blvd, and Price Blvd, with a weighted average cost of \$2.60 million per lane mile. Upon further review of the local data, it was determined that the Sumter Blvd (Ph. II) improvement from US 41 to Heron Creek Blvd project did not reflect typical construction costs that the City expects in upcoming years and therefore was removed from the cost per lane mile calculation. The resulting construction cost of approximately \$2.40 million per lane mile for city roads was used in the transportation impact fee calculation. This cost reflects the fact that the construction cost for city roads in North Port is higher than most communities due to unique landscaping, lighting, and infrastructure amenities included in the roadway design.

In addition to unique amenities, city roads typically include some form of bridge structure to accommodate the canals and waterways located throughout the City. As shown in Table B-4, based on bridge costs observed for sections of the Sumter Blvd, Toledo Blade Blvd, and Price Blvd improvements, a bridge cost factor of 25 percent (applied to the base construction cost) was added to the total cost of improving a city road.



County

As shown in Table B-5, Sarasota County recently completed 13 urban design lane addition projects and has recently bid three capacity expansion improvements. These 16 improvements have a weighted average cost of approximately \$3.27 million per lane mile. It should be noted that the majority of the local projects were completed prior to 2008, when construction costs were peaking prior to the economic recession. In addition to these local projects, a review of recent projects let between 2008 and 2011 in other Florida counties identified 22 urban design projects ranging from approximately \$0.71 million to \$3.51 million per lane mile, with a weighted average cost of approximately \$1.79 million per lane mile, as shown in Table B-6. Based on these sets of data, it was determined that Sarasota's construction costs are higher than the state average, and that the most recent bid project along North Cattlemen Road (from Richardson Rd to Desoto Blvd) represents the typical cost of a County roadway at this time. Based on a review of these local projects and statewide projects, a construction cost of \$2.40 million per lane mile was used for county roads in the transportation impact fee calculation.

State

Due to a lack of cost data for state roadway capacity expansion projects within Sarasota County, state road costs were based on projects from throughout Florida. A review of recent projects let between 2008 and 2011 in Sarasota and other Florida counties identified 28 urban design projects ranging from approximately \$1.20 million to \$4.95 million per lane mile, with a weighted average cost of approximately \$2.22 million per lane mile. Only one project from the list, US 301 from Wood St to Myrtle Ave, is located in Sarasota and has a cost of \$3.53 per lane mile. However, when looking at all projects in FDOT District 1, the weighted average cost is \$1.82 million per lane mile, which is considerable lower than the state average. Weighing the fact that the lone Sarasota project was above the state average and District 1 was below the average, a conservative estimate of \$2.0 million per lane mile was used in the impact fee calculation for state roads.

Design/CEI

Based on a review of recent completed projects in North Port, Sarasota County, and other counties in Florida, design costs were estimated at 10 percent of construction



costs, and CEI costs were estimated at 9 percent of construction costs for state roadways.

Roadway Capacity

As shown in Table B-8, the average capacity per lane mile was based on the projects in the 2035 Sarasota-Manatee LRTP Needs Plan. This listing of projects reflects the mix of improvements that will yield the vehicle miles of capacity (VMC) that will be built in Sarasota County. The resulting weighted average capacity per lane mile calculated based on these projects is 8,633 was used in the transportation impact fee calculation.



Table B-1
Right-of-Way – City Roadways

Jurisdiction	Description	From	To	Start Date	End Date	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Land / ROW	ROW Cost per Lane Mile
City	Sumter Blvd (Ph. II)	US 41	Heron Creek Blvd	2011	2011	Completed	2 to 4	Urban	1.40	2	2.80	\$819,223	\$292,580
City	Sumter Blvd (Ph. III)	Heron Creek Blvd	City Center Blvd	n/a	n/a	Not Started	2 to 4	Urban	2.00	2	4.00	\$1,000,000	\$250,000
City	Toledo Blade Blvd	Cranberry Blvd	Hillsborough Blvd	2007	2011	Completed	2 to 4	Urban	4.50	2	9.00	\$151,150	\$16,794
City	Price Blvd (Preferred Alt.)	Biscayne Dr	Orlando Blvd	n/a	n/a	Not Started	2 to 4	Urban	12.68	2	25.36	\$8,546,780	\$337,018
Total											41.16	\$10,517,153	\$255,519
Total (City ROW - Excluding Toledo Blade Blvd)											32.16	\$10,366,003	\$322,326

Source: City of North Port



Table B-2
Right-of-Way – County Roadways

Jurisdiction	CIP #	Description	From	To	Start Date	End Date	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Land / ROW	ROW Cost per Lane Mile
County	95740	Dearborn St	SR 776	Pine St	1992	2008	Completed	2 to 4	Urban	0.74	2	1.48	\$715,046	\$483,139
County	95742	Albee Farm Rd	Laurel Rd	US 41 (Venice Bypass)	1992	2006	Completed	2 to 4	Urban	2.50	2	5.00	\$2,646,437	\$529,287
County	95781	Bahia Vista St	McIntosh Rd	Cattlemen Rd	1998	2008	Completed	2 to 4	Urban	1.85	2	3.70	\$3,941,508	\$1,065,272
County	95752	Pine St	Dearborn St	Englewood Sports Complex	1998	2007	Completed	0 to 2	Urban	0.60	2	1.20	\$1,107,358	\$922,798
County	95765	Proctor Rd (Ph. I)	E. of Honore Ave	W. of Gantt Rd	1998	2006	Completed	2 to 4	Urban	0.50	2	1.00	\$521,866	\$521,866
County	95770	Webber St (Ph. I)	Linwood Dr	Cattlemen Rd	1999	2007	Completed	0 to 2	Urban	1.08	2	2.16	\$884,774	\$409,618
County	95812	McIntosh Rd (Ph. II)	Proctor Rd	S. of Bee Rdige	2000	2007	Completed	2 to 4	Urban	0.75	2	1.50	\$464,865	\$309,910
County	95782	Center Rd (Ph. I)	Jacaranda Blvd	Venice Middle School	2000	2007	Completed	2 to 4	Urban	2.00	2	4.00	\$972,241	\$243,060
County	95806	Center Rd (Ph. II)	Venice Middle School	River Rd	2000	2007	Completed	2 to 4	Urban	1.25	2	2.50	\$2,437,412	\$974,965
County	95803	Border Rd	I-75	Jacaranda Blvd	2001	2007	Completed	0 to 2	Urban	0.60	2	1.20	\$1,111,893	\$926,578
Average ROW Cost per Lane Mile												23.74	\$14,803,400	\$623,564

Source: Sarasota County



Table B-3
Construction – City Roadways

Jurisdiction	Description	From	To	Start Date	End Date	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost ⁽¹⁾	Construction Cost per Lane Mile
City	Sumter Blvd (Ph. II)	US 41	Heron Creek Blvd	2011	2011	Completed	2 to 4	Urban	1.40	2	2.80	\$14,105,358	\$5,037,628
City	Sumter Blvd (Ph. III)	Heron Creek Blvd	City Center Blvd	n/a	n/a	Not Started	2 to 4	Urban	2.00	2	4.00	\$9,000,000	\$2,250,000
City	Toledo Blade Blvd	Cranberry Blvd	Hillsborough Blvd	2007	2011	Completed	2 to 4	Urban	4.50	2	9.00	\$19,509,211	\$2,167,690
City	Sumter Blvd	Hansard Ave	City Center Blvd	2011	2011	Completed	2 to 4	Urban	0.36	2	0.72	\$1,928,294	\$2,678,186
City	Sumter Blvd	Hansard Ave	Morandi Ave	n/a	n/a	Not Started	2 to 4	Urban	0.50	2	1.00	\$2,400,000	\$2,400,000
City	Price Blvd (Preferred Alt.)	Biscayne Dr	Orlando Blvd	n/a	n/a	Not Started	2 to 4	Urban	12.68	2	25.36	\$64,327,439	\$2,536,571
Total (City Construction)											42.88	\$111,270,302	\$2,594,923
Total (City Construction - Excluding Sumter Blvd, Ph. II)											40.08	\$97,164,944	\$2,424,275
Total (City Construction - Excluding Sumter Blvd, Ph. II, with Bridge Costs @ 25%) - Rounded to nearest million											40.08	\$121,456,180	\$3,000,000

(1) Does not include bridge costs

Source: City of North Port

Table B-4
Bridge Cost Adjustment Factor – City Roadways

Jurisdiction	Description	From	To	Status	Length	Lanes Added	Lane Miles Added	Bridge Cost	Construction Cost ⁽¹⁾	Bridge Cost / Constr.
City	Sumter Blvd (Ph. II)	US 41	Heron Creek Blvd	Completed	1.40	2	2.80	\$1,683,000	\$14,105,358	12%
City	Toledo Blade Blvd	Cranberry Blvd	Hillsborough Blvd	Completed	4.50	2	9.00	\$2,123,000	\$19,509,211	11%
City	Sumter Blvd	Hansard Ave	City Center Blvd	Completed	0.36	2	0.72	\$1,059,000	\$1,928,294	55%
City	Price Blvd (Alt A-1/3)	Biscayne Dr	Orlando Blvd	Not Started	12.68	2	25.36	\$18,449,951	\$66,288,090	28%
City	Price Blvd (Preferred)	Biscayne Dr	Orlando Blvd	Not Started	12.68	2	25.36	\$17,485,506	\$64,327,439	27%
Total								\$40,800,457	\$166,158,392	25%

(1) Does not include bridge costs

Source: City of North Port



Table B-5
Construction – County Roadways (Local)

Jurisdiction	CIP #	Description	From	To	Start Date	End Date	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
County	95740	Dearborn St	SR 776	Pine St	1992	2008	Completed	2 to 4	Urban	0.74	2	1.48	\$13,362,450	\$9,028,682
County	95742	Albee Farm Rd	Laurel Rd	US 41 (Venice Bypass)	1992	2006	Completed	2 to 4	Urban	2.50	2	5.00	\$7,638,886	\$1,527,777
County	95781	Bahia Vista St	McIntosh Rd	Cattlemen Rd	1998	2008	Completed	2 to 4	Urban	1.85	2	3.70	\$19,911,470	\$5,381,478
County	95752	Pine St	Dearborn St	Englewood Sports Complex	1998	2007	Completed	0 to 2	Urban	0.60	2	1.20	\$4,295,476	\$3,579,563
County	95761	Winchester Blvd (Ph. I)	County Line	South River Rd	1998	2006	Completed	2 to 4	Urban	4.92	2	9.84	\$11,265,467	\$1,144,865
County	95765	Proctor Rd (Ph. I)	E. of Honore Ave	W. of Gantt Rd	1998	2006	Completed	2 to 4	Urban	0.50	2	1.00	\$2,978,594	\$2,978,594
County	95779	Cattlemen Rd (Ph. III)	N. of Colonial Oaks Blvd	S. of Bahia Vista St	1998	2006	Completed	3 to 4	Urban	0.70	1	0.70	\$2,232,600	\$3,189,429
County	95872	Cattlemen Rd (Ph. IV)	Canal AA Culvert	N. of Colonial Oaks Blvd	1998	2006	Completed	3 to 4	Urban	0.85	1	0.85	\$5,207,668	\$6,126,668
County	95770	Webber St (Ph. I)	Linwood Dr	Cattlemen Rd	1999	2007	Completed	0 to 2	Urban	1.08	2	2.16	\$14,406,670	\$6,669,755
County	95812	McIntosh Rd (Ph. II)	Proctor Rd	S. of Bee Rdige	2000	2007	Completed	2 to 4	Urban	0.75	2	1.50	\$7,891,832	\$5,261,221
County	95782	Center Rd (Ph. I)	Jacaranda Blvd	Venice Middle School	2000	2007	Completed	2 to 4	Urban	2.00	2	4.00	\$12,068,301	\$3,017,075
County	95806	Center Rd (Ph. II)	Venice Middle School	River Rd	2000	2007	Completed	2 to 4	Urban	1.25	2	2.50	\$14,309,796	\$5,723,918
County	95803	Border Rd	I-75	Jacaranda Blvd	2001	2007	Completed	0 to 2	Urban	0.60	2	1.20	\$3,958,102	\$3,298,418
County	85762	Fruitville Rd, Ph. I	Tatum Rd	Debrecen Rd	2009	-	Bid	2 to 4	Urban	0.72	2	1.44	\$4,355,796	\$3,024,858
County	85762	Fruitville Rd, Ph. II	Coburn Rd	Tatum Rd	2009	-	Bid	2 to 4	Urban	1.26	2	2.52	\$8,557,904	\$3,395,994
County	85829	North Cattlemen Rd	Richardson Rd	Desoto Blvd	2011	-	Bid	2 to 4	Urban	2.55	2	5.10	\$12,153,584	\$2,383,056
Total												44.19	\$144,594,596	\$3,272,111

Source: Sarasota County



Table B-6
Construction – County Roadways (Statewide)

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Collier	1	Santa Barbara Blvd Extension	Rattlesnake Hammock Rd	Davis Blvd	2008	Bid	0 to 6	Urban	2.00	6	12.00	\$18,947,979	\$1,578,998
Polk	1	Silver Connector Rd	E.F. Griffin Rd	US 98	2008	Bid	0 to 2	Urban	0.33	2	0.66	\$1,560,483	\$2,364,368
Polk	1	County Line Rd	Ewell Ave	Pipkin Rd	2008	Bid	2 to 4	Urban	1.20	2	2.40	\$3,993,892	\$1,664,122
Volusia	5	Debary Ave	Deltona Blvd	Providence Blvd	2008	Bid	2 to 4	Urban	1.84	2	3.68	\$7,405,914	\$2,012,477
Volusia	5	S. Williamson Blvd Phase II	S. of Sabal Creek Blvd	N. of Moody Bridge	2008	Bid	2 to 4	Urban	1.91	2	3.82	\$11,109,225	\$2,908,174
Lake	5	CR 466 (Segment A)	US 301	CR 319	2008	Bid	2 to 4	Urban	1.00	2	2.00	\$4,062,660	\$2,031,330
Hillsborough	7	40th St	River Pines Apts	Humphrey St	2008	Bid	2 to 4	Urban	0.95	2	1.90	\$5,154,862	\$2,713,085
Hillsborough	7	Race Track Rd (Phase I)	Douglas Rd	Linebaugh Ave	2008	Bid	2 to 6	Urban	1.01	4	4.04	\$10,099,911	\$2,499,978
Orange	5	CR 535 (Segments C and E)	Ficquette Rd	Butler Ridge Dr	2008	Bid	2 to 4	Urban	1.10	2	2.20	\$3,695,233	\$1,679,651
Orange	5	Taft-Vineland Road Extension	Central Florida Pkwy	John Young Pkwy	2008	Bid	0 to 4	Urban	0.80	4	3.20	\$3,476,629	\$1,086,447
Lee	1	Gladiolus Dr (Ph. I)	A&W Bulb Rd	Winkler Rd	2008	Bid	2 to 4/6	Urban	1.94	2/4	5.44	\$13,971,509	\$2,568,292
Lee	1	Gladiolus Dr (Ph. II)	Pine Ridge Rd	A&W Bulb Rd	2008	Bid	2 to 4	Urban	1.02	2	2.04	\$6,748,642	\$3,308,158
Hillsborough	7	Bruce B. Downs	Palm Springs Blvd	Pebble Beach Blvd	2009	Bid	4 to 8	Urban	7.20	4	28.80	\$40,575,305	\$1,408,865
Hillsborough	7	Race Track Rd (Phase IV)	Douglas Rd	Hillsborough Ave	2009	Bid	2 to 6	Urban	0.56	4	2.24	\$4,397,412	\$1,963,130
Lee	1	Colonial Blvd (CR 884)	I-75	SR 82	2009	Bid	4 to 6	Urban	2.70	2	5.40	\$14,576,393	\$2,699,332
Orange	5	Barack Obama Pkwy (Phase I)	N. of Conroy Rd	Metro West Blvd	2010	Bid	0 to 4	Urban	1.50	4	6.00	\$8,691,007	\$1,448,501
Broward	4	Bailey Rd	NW 64th Ave / SW 81st Ave	SR 7 (US 441)	2010	Bid	2 to 4	Urban	2.00	2	4.00	\$6,330,297	\$1,582,574
Collier	1	Oil Well Rd (Segment 2)	Immokalee Rd	E. of Everglades Blvd	2010	Bid	2 to 4	Urban	3.33	2	6.66	\$19,735,024	\$2,963,217
Collier	1	Oil Well Rd (Segment 4A)	W. of Oil Well Grade Rd	W. of Camp Keais Rd	2010	Bid	2 to 6	Urban	3.79	4	15.16	\$19,464,255	\$1,283,922
Lee	1	Six Mile Cypress Pkwy	Daniels Pkwy	S. of Winkler Rd Ext.	2010	Bid	2 to 4	Urban	3.09	2	6.18	\$6,711,242	\$1,085,961
Lee	1	Daniels Pkwy	Chamberlin Pkwy	Gateway Blvd	2011	Bid	4 to 6	Urban	2.05	2	4.10	\$2,906,553	\$708,915
Pinellas	1	Bryan Dairy Rd	Starkey Rd (CR 1)	72nd St	2011	Bid	4 to 6	Urban	1.47	2	2.94	\$10,327,383	\$3,512,715
Total											124.86	\$223,941,810	\$1,793,543

Source: Roadway bids from recent impact fee studies and from the TOA Cost Database, with information having been provided by each respective County.



Table B-7
Construction – State Roadways (Statewide)

County	District	Description	From	To	Year	Status	Feature	Design	Length	Lanes Added	Lane Miles Added	Construction Cost	Construction Cost per Lane Mile
Walton	3	SR 83 (US 331)	SR 30 (US 98)	S. end of Choctaw Bridge	2008	Bid	2 to 4	Urban	2.08	2	4.16	\$11,649,363	\$2,800,328
Hillsborough	7	US 301 (SR 43)	S. of Balm Rd	N. of Gibsonton Rd	2008	Bid	2 to 6	Urban	6.03	4	24.12	\$55,702,777	\$2,309,402
Indian River	4	SR 5 (US 1)	S. of Oslo Rd	S. of Indian River Bend	2008	Bid	4 to 6	Urban	1.70	2	3.40	\$14,953,562	\$4,398,106
Indian River	4	SR 60/Osceola Blvd	W. of 82 Ave	66th Ave/CR 505	2008	Bid	4 to 6	Urban	2.15	2	4.30	\$18,496,793	\$4,301,580
Orange	5	SR 50	Good Homes Rd	Pine Hills Rd	2008	Bid	4 to 6	Urban	3.63	2	7.26	\$35,929,914	\$4,949,024
Leon	3	SR 10 (Mahan Drive)	Dempsey Mayo Rd	Walden Rd	2009	Bid	2 to 4	Urban	3.10	2	6.20	\$18,083,510	\$2,916,695
Indian River	4	SR 60 (Osceola Blvd)	W. of I-95	W. of 82nd Ave/CR 609	2009	Bid	4 to 6	Urban	3.07	2	6.14	\$7,366,557	\$1,199,765
Sarasota	1	US 301	Wood St	Myrtle Ave	2009	Bid	4 to 6	Urban	2.60	2	5.20	\$18,372,050	\$3,533,087
Pasco	7	US 41 (SR 45)	Tower Rd	Ridge Rd	2009	Bid	2 to 4	Urban	2.84	2	5.68	\$12,685,027	\$2,233,279
Lee	1	SR 739	US 41 (S. of Alico)	Six Mile Cypress Pkwy	2009	Bid	0 to 6	Urban	2.77	6	16.62	\$20,663,929	\$1,243,317
Manatee	1	US 301	Erie Rd	CR 675	2009	Bid	4 to 6	Urban	4.10	2	8.20	\$21,040,000	\$2,565,854
Marion	5	SR 35 (US 301)	Sumter County Line	529' S. of CR 42	2009	Bid	2 to 4	Urban	1.40	2	2.80	\$3,596,000	\$1,284,286
Miami-Dade	6	Perimeter Rd	NW 72 Avenue	NW 57 Avenue	2009	Bid	2 to 4	Urban	1.50	2	3.00	\$6,383,286	\$2,127,762
Polk	1	US 27	N. of CR 546	S. of SR 544	2009	Bid	2 to 4	Urban	1.56	2	3.12	\$4,100,069	\$1,314,125
Santa Rosa	3	SR 281 (Avalon Blvd)	N. of CSX R/R Bridge	S. of Commerce Rd	2009	Bid	2 to 4	Urban	0.98	2	1.96	\$5,621,006	\$2,867,860
Santa Rosa	3	SR 281 (Avalon Blvd)	Gulf Rd	SR 10 (US 90)	2009	Bid	2 to 4	Urban	1.78	2	3.56	\$9,150,583	\$2,570,388
St. Lucie	4	SR 70	MP 5.860	MP 10.216	2009	Bid	2 to 4	Urban	4.36	2	8.72	\$12,426,020	\$1,425,002
Sumter	5	SR 35 (US 301)	N. of CR 204	Marion County Line	2009	Bid	2 to 4	Urban	1.51	2	3.02	\$3,856,688	\$1,277,049
Washington	3	SR 79	N. Environmental Rd	Strickland Rd	2009	Bid	2 to 4	Urban	1.72	2	3.44	\$8,877,323	\$2,580,617
Lake	5	SR 50	E. of Grand Hwy	W. of Hancock Rd	2010	Bid	4 to 6	Urban	1.30	2	2.60	\$4,689,633	\$1,803,705
Polk	1	SR 559 Extension	SR 655 (Recker Hwy)	Derby Ave	2010	Bid	0 to 2	Urban	0.69	2	1.38	\$2,751,592	\$1,993,907
Desoto	1	US 17 (SR 35)	N. of Peace River Shores	SW Collins Street	2010	Bid	2 to 4	Urban	3.88	2	7.76	\$13,066,106	\$1,683,777
Santa Rosa	3	SR 281 (Avalon Blvd)	S. of Moor's Lodge	N. of CSX R/R Bridge	2010	Bid	2 to 4	Urban	1.48	2	2.96	\$7,145,212	\$2,413,923
Lee	1	US 41	Corkscrew Rd	San Carlos Blvd	2010	Bid	4 to 6	Urban	4.48	2	8.96	\$12,822,677	\$1,431,102
Polk	1	US 98	S. of Manor Dr	N. of CR 540A	2010	Bid	4 to 6	Urban	3.32	2	6.64	\$11,092,909	\$1,670,619
St. Lucie	4	SR 70	Okeechobee County Line	MP 5.871	2010	Bid	2 to 4	Urban	5.87	2	11.74	\$18,782,630	\$1,599,883
Santa Rosa	3	SR 281 (Avalon Blvd)	SR 8 (I-10)	S. of Moor's Lodge	2010	Bid	2 to 4	Urban	0.85	2	1.70	\$5,378,226	\$3,163,662
Polk	1	US 98 (Bartow Hwy)	Brooks St	Edgewood Dr	2011	Bid	4 to 6	Urban	0.72	2	1.44	\$4,341,917	\$3,015,220
Total											166.08	\$369,025,359	\$2,221,974
Total (District 1 Only)											59.32	\$108,251,249	\$1,824,869

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



Table B-8
Sarasota County 2035 Long Range Transportation Plan Needs Plan

County	Jurisdiction	Description	From	To	Section Design	Improvement	Length	Lanes Added	Lane Miles Added	Initial Capacity	Future Capacity	Added Capacity	Vehicle Miles of Capacity Added	VMC Added per Lane Mile
Sarasota	State	Bee Ridge Rd	Cattlemen Rd	Bond St	Urban	4 to 6 Lanes	1.48	2	2.96	36,700	55,300	18,600	27,528	9,300
Sarasota	County	Honore Ave Ext.	Laurel Rd	SR 681	Urban	2 to 4 Lanes	3.40	2	6.80	13,860	31,950	18,090	61,506	9,045
Sarasota	County	Lakewood Ranch Blvd Ext.	Fruitville Rd	University Pkwy	Urban	0 to 4 Lanes	2.82	4	11.28	0	31,950	31,950	90,099	7,988
Sarasota	City	Price Blvd/Orlando Blvd	Veterans Blvd	Biscayne Dr	Urban	2 to 4 Lanes	12.68	2	25.36	13,680	29,880	16,200	205,416	8,100
Sarasota	County	River Rd	US 41 (Tamiami Tr)	I-75	Urban	2 to 4 Lanes	5.53	2	11.06	13,860	31,950	18,090	100,038	9,045
Sarasota	County	River Rd/Winchester Blvd	Prospect Ave	US 41 (Tamiami Tr)	Rural	2 to 4 Lanes	7.15	2	14.30	14,630	33,725	19,095	136,529	9,547
Sarasota	State	US 41 (Tamiami Tr)	US 41 Bypass	Center Rd	Urban	4 to 6 Lanes	2.64	2	5.28	33,200	50,300	17,100	45,144	8,550
Sarasota	State	US 41 (Tamiami Tr)	Vamo Way	Baywood Dr	Urban	4 to 6 Lanes	3.25	2	6.50	33,200	50,300	17,100	55,575	8,550
Sarasota	State	US 41 (Tamiami Tr)	Sumter Blvd	Charlotte County Line	Urban	4 to 6 Lanes	1.00	2	2.00	33,200	50,300	17,100	17,100	8,550
Sarasota	State	US 41 Bypass (Venice)	US 41 (Tamiami Tr)	US 41 (Tamiami Tr)	Urban	4 to 6 Lanes	2.70	2	5.40	33,200	50,300	17,100	46,170	8,550
Total							42.65		90.94	225,530	415,955	190,425	785,105	8,633
City Roads									25.36	28%			205,416	8,100
County Roads									43.44	48%			388,172	8,936
State Roads									22.14	24%			191,517	8,650

Source: 2035 Sarasota-ManateeLong Range Transportation Plan, Table 12



APPENDIX C

Transportation Impact Fee Credit Data Supplement

Appendix C

Credit Component Calculations

This appendix presents the detailed calculations for the credit component of the transportation impact fee. Currently, in addition to the capital support that ultimately results from State fuel tax revenues, the City of North Port and Sarasota County also receive financial benefit from several other funding sources. Of these, the fuel taxes 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. 1st Local Option Tax (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 scheme, or by using a formula contained in the Florida Statutes.

4. 2nd Local Option Tax (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 the 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.

5. Ninth-Cent Fuel Tax (1¢/gallon)

- Tax is on every net gallon of motor fuel sold within a county.
- Proceeds may be used to fund transportation expenditures.
- To accommodate statewide equalization, this tax is automatically levied on diesel fuel in every county, regardless of whether a County is levying the tax on motor fuel at all.
- Counties are not required to share the proceeds of this tax with their municipalities.

Each year, the Florida Legislative Committee on Intergovernmental Relations (LCIR) 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 2010-11 data represent projected fuel tax distributions to Sarasota County for the upcoming fiscal year. In the table, the fuel tax revenue data are used to calculate the value per penny (per gallon of fuel) that should be used to estimate the “equivalent pennies” of other revenue sources. Table C-1 shows the distribution per penny for each of the fuel levies, and then the calculation of the weighted average for the value of a penny of fuel tax. The weighting procedure takes into account the differing amount of revenues generated for the various types of gas tax



revenues. The weighted average figure of approximately \$1.49 million estimates the annual revenue that one penny of gas tax generates in Sarasota County.

Table C-1
Estimated Fuel Tax Distribution Allocated to Capital Programs for Sarasota County & Municipalities, FY 2010-11⁽¹⁾

Tax	Amount of Levy per Gallon	Total Distribution	Distribution Per Penny
Constitutional Fuel Tax	\$0.02	\$3,234,936	\$1,617,468
County Fuel Tax	\$0.01	\$1,430,699	\$1,430,699
1st Local Option (1-6 cents)	\$0.06	\$9,144,020	\$1,524,003
2nd Local Option (1-5 cents)	\$0.05	\$6,873,521	\$1,374,704
Ninth Cent Fuel Tax	\$0.01	\$1,636,037	\$1,636,037
Total	\$0.15	\$22,319,213	
Weighted Average⁽²⁾			\$1,487,948

(1) Source: Florida Legislative Committee on Intergovernmental relations, www.floridacir.gov/revenue_estimates.cfm

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

Gas Tax Credit

A revenue credit for the annual gas tax equivalent expenditures on roadway capacity expansion projects in the City of North Port and Sarasota County is presented below. The four components of the credit are as follows:

- City North Port gas tax equivalent pennies
- County gas tax equivalent pennies
- County debt service equivalent pennies
- State gas tax expenditures

City Gas Tax Equivalent Pennies

A review of the City's historical roadway financing program (FY 2006-2010) and the FY 2011-2015 Capital Improvement Plan (CIP) shows that roadway capacity expansion projects are being funded by a combination of impact fees, gas tax, sales tax,



transportation regional improvement program (TRIP) funds, tree replacement funds, ARRA funds, and grant funds. As shown in Table C-2, the City receives 0.6 pennies of credit for gas tax equivalent expenditures on roadway capacity expansion projects funded with recurring revenue sources other than impact fees.

Table C-2
City Gas Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
City CIP Projects (2011-2015) ⁽¹⁾	\$0	5	\$1,487,948	\$0.000
City CIP Projects (2006-2010) ⁽²⁾	\$9,488,231	5	\$1,487,948	\$0.013
Total	\$9,488,231	10	\$1,487,948	\$0.006

(1) Source: Table C-6

(2) Source: Table C-6

(3) Source: Table C-1

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

County Gas Tax Equivalent Pennies

A review of Sarasota County's historical roadway financing program (FY 2006-2010) and the FY 2011-2015 CIP shows that all roadway projects are being funded by a combination of impact fees, ad valorem taxes, gas tax, sales tax, and grant funds. As shown in Table C-3, Sarasota County receives a credit of 5.6 pennies for the portion of ad valorem tax, gas tax, sales tax, and grant fund revenues dedicated to capacity expansion projects in the past five years and in the 5-year work program. As shown in Table C-4, the County also receives 8.2 pennies for debt service payments on the 2005B and 2006 CST bonds, the 2005 ELMS bond and the 2008A and 2008B surtax bonds. Based on discussion with County staff, all bond proceeds were expended on roadway capacity expansion projects. Thus, a credit of 13.8 equivalent pennies will be given for the allocation of funds the county collects in ad valorem tax, gas tax, sales tax, and grant revenues, and for debt service expenditures.



Table C-3
County Gas Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 penny ⁽³⁾	Equivalent Pennies ⁽⁴⁾
County CIP Projects (2011-2015) ⁽¹⁾	\$10,946,788	5	\$1,487,948	\$0.015
County CIP Projects (2006-2010) ⁽²⁾	\$72,119,294	5	\$1,487,948	\$0.097
Total	\$83,066,082	10	\$1,487,948	\$0.056

(1) Source: Table C-7

(2) Source: Table C-7

(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

Table C-4
County Debt Service Equivalent Pennies

Source	Annual Payment Present Value	Number of Years Remaining	Revenue from 1 penny ⁽⁶⁾	Equivalent Pennies ⁽⁷⁾
CST Bond 2005B ⁽¹⁾	\$10,014,073	14	\$1,487,948	\$0.005
CST Bond 2006 ⁽²⁾	\$14,726,890	15	\$1,487,948	\$0.007
ELMS Bond 2005 ⁽³⁾	\$11,747,029	14	\$1,487,948	\$0.006
Surtax Bond 2008A ⁽⁴⁾	\$63,133,946	13	\$1,487,948	\$0.033
Surtax Bond 2008B ⁽⁵⁾	\$59,866,268	13	\$1,487,948	\$0.031
Total	\$159,488,206		\$1,487,948	\$0.082

(1) Source: Table C-8

(2) Source: Table C-9

(3) Source: Table C-10

(4) Source: Table C-11

(5) Source: Table C-12

(6) Source: Table C-1

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

State Gas Tax Expenditures

In the calculation of the equivalent pennies of gas tax from the State, expenditures on roadway capacity expansion spanning a 15-year period (from FY 2002 to FY 2016) were reviewed. For calculation purposes, the 15-year period was broken into three increments; two historical (FY 2002-2006 and FY 2007-2011) and one future (FY 2012-



2016). Information on historical projects' funding was obtained from the FDOT Work Programs. The use of a 15-year period, for purposes of developing a State credit for roadway capacity expansion projects, results in a stable credit, as it accounts for the volatility in FDOT spending in the county over short periods of time.

The five years of "future" roadway projects from FY 2012-2016 indicate a total State expenditure of approximately \$68.7 million for capacity-adding projects in the county. On an annual basis, this level of expenditure is equivalent to 9.2 pennies of gas tax revenue. Comparatively, the total cost of the capacity-adding projects for the five-year "historical" periods are as follows:

- FY 2007-2011 work plan equates to 11.1 pennies
- FY 2002-2006 work plan equates to 12.7 pennies

The combined weighted average over the 15-year period of state expenditure for capacity-adding roadway projects results in a total of 11.0 equivalent pennies. Table C-5 documents this calculation. The specific projects that were used in the equivalent penny calculations are summarized in Table C-13.

Table C-5
State Gas Tax Equivalent Pennies

Source	Cost of Projects	Number of Years	Revenue from 1 penny ⁽⁴⁾	Equivalent Pennies ⁽⁵⁾
Projected Work Program (FY 2012-2016) ⁽¹⁾	\$68,719,618	5	\$1,487,948	\$0.092
Historical Work Program (FY 2007-2011) ⁽²⁾	\$82,374,649	5	\$1,487,948	\$0.111
Historical Work Program (FY 2002-2006) ⁽³⁾	\$94,666,962	5	\$1,487,948	\$0.127
Total	\$245,761,229	15	\$1,487,948	\$0.110

(1) Source: Table C-13

(2) Source: Table C-13

(3) Source: Table C-13

(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



Table C-6
FY 2006-2015 City of North Port Gas Tax Equivalent Expenditures

Description	Improvement	Funding Source	2006-2010	2011-2015	Total
Price Blvd @ Cranberry Blvd	Intersection Improvement	FHCM	\$711,355	\$0	\$711,355
Sumter Blvd Ph. II	Lane Addition	STRIP	\$6,400,000	\$0	\$6,400,000
Toledo Blade Blvd	Lane Addition	Surtax II	\$110,000	\$0	\$110,000
Toledo Blade Blvd	Lane Addition	TRF	\$500,000	\$0	\$500,000
Sumter Blvd from Hansard Ave to City Center Blvd	Lane Addition	Surtax II	\$318,808	\$0	\$318,808
Sumter Blvd from Hansard Ave to City Center Blvd	Lane Addition	ARRA	\$1,448,068	\$0	\$1,448,068
Total			\$9,488,231	\$0	\$9,488,231

Source: City of North Port



Table C-7
FY 2006-2015 Sarasota County Gas Tax Equivalent Expenditures

ID	Description	Improvement	2006	2007	2008	2009	2010	2011-2015	Total
75830	Bee Ridge Rd E. (W. of Mauna Loa Blvd to Iona Rd)	Lane Addition	\$893,917	\$16,222	\$7,003	\$5,235	\$608,891	\$9,642,500	\$11,173,768
85761	McIntosh Rd (Sawyer Loop Rd to US 41)	Lane Addition	\$13,805	\$0	\$0	\$0	\$0	\$0	\$13,805
85762	Fruitville Rd (Coburn to Sarasota Center Blvd)	Lane Addition	\$1,878,763	\$4,342,158	\$123,539	\$749,406	\$280,441	\$0	\$7,374,307
85763	Honore Ave (Bee Ridge Rd to Fruitville Rd)	New Road Construction	\$1,254,900	\$1,566,566	\$1,094,743	\$307,969	\$470,639	\$0	\$4,694,817
85766	Fruitville Rd @ Cattlemen Rd	Intersection Improvement	\$8,686	\$86,998	\$1,401,004	\$189,666	\$0	\$0	\$1,686,354
85793	Sumter Blvd (Hansard Ave to Morandi Ave)	Lane Addition	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85794	US 41 @ 10 th St	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85795	US 41 @ Orange Ave	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85796	US 41 @ 14th St	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
85827	McIntosh Rd (Bahia Vist St to Fruitville Rd)	Lane Addition	\$2,828	\$1,703	\$0	\$1,141	\$0	\$0	\$5,672
85828	North Cattlemen Gateway DRI	Lane Addition	\$151,909	\$152,471	\$0	\$0	\$0	\$0	\$304,380
85829	North Cattlemen Rd (Richardson Rd to University Pkwy)	New Road Construction	\$44,447	\$1,428,243	\$22,113	\$390,313	\$165,256	\$444,288	\$2,494,660
85830	Pinebrook - Development Reimbursement	Lane Addition	\$6,926	\$259,783	\$215,656	\$261,749	\$278,052	\$0	\$1,022,166
85831	Bay Street ROW	ROW Acquisition	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95713	Countywide ROW Acquisition	ROW Acquisition	\$57,300	\$472,203	\$17,829	\$30,106	\$17,534	\$0	\$594,972
95740	Dearborn St (SR 776 to Pine St)	Lane Addition	\$30,267	\$4,610,250	\$27	\$216,857	\$0	\$0	\$4,857,401
95742	Albee Farm Rd	Lane Addition	\$6	\$0	\$0	\$0	\$0	\$0	\$6
95744	Lockwood Ridge (Fruitville Rd to 17th St)	Lane Addition	\$1,021	\$26	\$0	\$0	\$0	\$0	\$1,047
95747	US 41 @ Fruitville Rd	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95750	Center Rd @ Jacaranda Blvd	Intersection Improvement	\$1,993,799	\$2,616,274	\$0	\$1,187	\$0	\$0	\$4,611,260
95752	Pine St (Dearborn St to Englewood Sports Complex)	New Road Construction	\$83,269	\$1,928,497	\$351,570	\$64,668	\$0	\$0	\$2,428,004
95754	Central Sarasota Pkwy Interchange	Interchange Improvement	\$541,824	\$373,699	\$423,100	\$15,838	\$4,456	\$0	\$1,358,917
95756	17th St (Orange Ave to US 41)	ROW Acquisition	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95760	Englewood Interstate Connector (South County Line to I-75)	New Road Construction	\$1,717,402	\$722,211	\$342,349	\$358,425	\$34,995	\$0	\$3,175,382
95761	Winchester Blvd - Ph. I (County Line to South River Rd)	Lane Addition	\$23,284	\$0	\$0	\$0	\$0	\$0	\$23,284
95765	Proctor Rd - Ph. I (E. of Honore Ave to W. of Gantt Rd)	Lane Addition	\$3,715	\$0	\$0	\$0	\$0	\$0	\$3,715
95766	Proctor Rd - Ph. II (E. McIntosh Rd to W. of Honore Ave)	Lane Addition	\$183,725	\$138,661	\$222,187	\$312,053	\$26,697	\$0	\$883,323
95770	Webber St - Ph. I (Linwood Dr to Cattlemen Rd)	New Road Construction	\$183,221	\$11,604	\$1,721	\$2,134	\$0	\$0	\$198,680
95771	McIntosh Rd - Ph. I (Sawyer Loop Rd to Proctor Rd)	Lane Addition	\$77,289	\$92,872	\$16,265	\$24,787	\$2,641	\$0	\$213,854
95772	US 41 @ Jacaranda Blvd	Intersection Improvement	\$106,961	\$0	\$0	\$0	\$0	\$0	\$106,961
95773	Venice Ave @ Jacaranda Blvd	Intersection Improvement	\$18,947	\$140,103	\$3,679,458	\$1,559,165	\$1,198,173	\$0	\$6,595,846
95777	Myrtle St - Ph. 1a (US 301 @ Railroad ROW)	New Road Construction	\$92,525	\$2,549	\$0	\$0	\$0	\$0	\$95,074



Table C-7 (continued)
FY 2006-2015 Sarasota County Gas Tax Equivalent Expenditures

ID	Description	Improvement	2006	2007	2008	2009	2010	2011-2015	Total
95779	Cattlemen Rd - Ph. III (N. of Colonial Oaks Blvd to S. of Bahia Vista St)	Lane Addition	\$19,940	\$0	\$0	\$0	\$0	\$0	\$19,940
95781	Bahia Vista St (McIntosh Rd to Cattlemen Rd)	Lane Addition	\$1,739,685	\$372,277	\$390,995	\$10,017	\$570	\$0	\$2,513,544
95782	Center Rd - Ph. I (Jacaranda Blvd to Venice Middle School)	Lane Addition	\$1,297,429	\$3,135,167	\$473,911	\$6,664	\$343	\$0	\$4,913,514
95785	Future Projects - Surveys & Appraisals	Land Acquisition	\$31,186	\$2,060	\$3,903	\$1,179	\$55	\$0	\$38,383
95786	Honore Ave (SR 681 to Palmer Ranch Pkwy)	New Road Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95789	Myrtle St - Ph. 1b (W. edge of RR ROW to Carmichael Ave)	Lane Addition	\$226,733	\$4,053	\$0	\$0	\$0	\$0	\$230,786
95798	Honore Ave (Laurel Rd to SR 681)	Lane Addition	\$430,726	\$503,136	\$607,923	\$13,885	\$26,409	\$860,000	\$2,442,079
95799	Myrtle St - Ph. III (Carmichael Ave to Booker Middle School)	Lane Addition	\$1,088	\$0	\$0	\$0	\$0	\$0	\$1,088
95803	Border Rd (I-75 to Jacaranda Blvd)	New Road Construction	\$1,216,783	\$437,576	\$9,189	\$28,440	\$27,321	\$0	\$1,719,309
95804	Cattlemen Rd - Ph. II (Bahia Vista/Palmer/Packinghouse)	ROW Acquisition	\$15,467	\$28,755	\$4,690	\$597	\$37	\$0	\$49,546
95805	Cattlemen Rd - Ph. V (S. of Packinghouse Rd to S. of Fruitville Rd)	Lane Addition	\$51,425	\$23,143	\$9,116	\$26,343	\$10,181	\$0	\$120,208
95806	Center Rd - Ph. II (Venice Middle School to River Rd)	Lane Addition	\$3,015,751	\$2,693,102	\$449,434	\$23,126	\$799	\$0	\$6,182,212
95812	McIntosh Rd - Ph. II (Proctor Rd to S. of Bee Ridge)	Lane Addition	\$497,394	\$5,706,044	\$1,782	\$5,614	\$5,402	\$0	\$6,216,236
95816	Venice Ave Left Turn Lanes	Add Turn Lane(s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
95818	Center Rd (Jacaranda Blvd to Rockley Blvd)	Lane Addition	\$17,441	\$554	\$0	\$0	\$0	\$0	\$17,995
PM601/95823	Honore Ave (Clark Rd to Proctor Rd)	ROW Acquisition	\$213,010	\$254,355	\$82,353	\$5,381	\$227,041	\$0	\$782,140
95827	Laurel Rd / Knights Trail	Intersection Improvement	\$0	\$0	\$239	\$724,762	\$0	\$0	\$725,001
95872	Cattlemen Rd - Ph. IV (Canal AA Culvert to N. of Colonial Oaks Blvd)	Lane Addition	\$22,242	\$38,206	\$0	\$970	\$0	\$0	\$61,418
95876	Desoto Rd (Harold St to North Cattlemen Rd)	ROW Acquisition	\$41,312	\$107,377	\$17,082	\$2,945,554	\$3,703	\$0	\$3,115,028
Total			\$18,208,348	\$32,268,898	\$9,969,181	\$8,283,231	\$3,389,636	\$10,946,788	\$83,066,082

Source: Sarasota County



Table C-8
County Debt Service – CST Bond 2005B

Principal Payment Due:	Coupon	Principal Amount	Annual Interest	Annual Debt Service	Annual Debt Service (Present Value)	Principal Balance
09/30/12	3.500%	\$540,000	\$396,229	\$936,229	\$904,569	\$9,270,000
09/30/13	3.600%	\$560,000	\$377,329	\$937,329	\$874,162	\$8,710,000
09/30/14	3.750%	\$580,000	\$357,169	\$937,169	\$842,422	\$8,130,000
09/30/15	3.750%	\$605,000	\$335,419	\$940,419	\$814,789	\$7,525,000
09/30/16	3.875%	\$625,000	\$312,731	\$937,731	\$782,152	\$6,900,000
09/30/17	4.000%	\$650,000	\$288,513	\$938,513	\$752,696	\$6,250,000
09/30/18	4.000%	\$675,000	\$262,513	\$937,513	\$722,975	\$5,575,000
09/30/19	4.000%	\$705,000	\$235,513	\$940,513	\$697,392	\$4,870,000
09/30/20	4.125%	\$730,000	\$207,313	\$937,313	\$667,486	\$4,140,000
09/30/21	4.125%	\$760,000	\$177,200	\$937,200	\$640,966	\$3,380,000
09/30/22	4.250%	\$795,000	\$145,850	\$940,850	\$617,230	\$2,585,000
09/30/23	4.250%	\$825,000	\$112,063	\$937,063	\$589,684	\$1,760,000
09/30/24	4.375%	\$860,000	\$77,000	\$937,000	\$564,929	\$900,000
09/30/25	4.375%	\$900,000	\$39,375	\$939,375	\$542,621	\$0
Total Debt Service Payments					\$10,014,073	
Total Bond Proceeds					\$9,810,000	
Number of Years of Remaining Payments					14	
Present Value of Annual Payment					\$715,291	

Source: Sarasota County



Table C-9
County Debt Service – CST Bond 2006

Principal Payment Due:	Coupon	Principal Amount	Annual Interest	Annual Debt Service	Annual Debt Service (Present Value)	Principal Balance
09/30/12	4.000%	\$715,000	\$639,625	\$1,354,625	\$1,302,524	\$13,915,000
09/30/13	4.000%	\$740,000	\$611,025	\$1,351,025	\$1,249,099	\$13,175,000
09/30/14	4.000%	\$770,000	\$581,425	\$1,351,425	\$1,201,412	\$12,405,000
09/30/15	5.000%	\$805,000	\$550,625	\$1,355,625	\$1,147,758	\$11,600,000
09/30/16	5.000%	\$845,000	\$510,375	\$1,355,375	\$1,092,901	\$10,755,000
09/30/17	4.125%	\$885,000	\$468,125	\$1,353,125	\$1,047,862	\$9,870,000
09/30/18	4.200%	\$920,000	\$431,619	\$1,351,619	\$1,004,507	\$8,950,000
09/30/19	4.250%	\$960,000	\$392,979	\$1,352,979	\$964,525	\$7,990,000
09/30/20	4.250%	\$1,000,000	\$352,179	\$1,352,179	\$924,657	\$6,990,000
09/30/21	4.300%	\$1,045,000	\$309,679	\$1,354,679	\$888,175	\$5,945,000
09/30/22	4.375%	\$1,090,000	\$264,744	\$1,354,744	\$850,987	\$4,855,000
09/30/23	4.375%	\$1,135,000	\$217,056	\$1,352,056	\$813,699	\$3,720,000
09/30/24	4.500%	\$1,185,000	\$167,400	\$1,352,400	\$778,858	\$2,535,000
09/30/25	4.500%	\$1,240,000	\$114,075	\$1,354,075	\$746,241	\$1,295,000
09/30/26	4.500%	\$1,295,000	\$58,275	\$1,353,275	\$713,685	\$0
Total Debt Service Payments					\$14,726,890	
Total Bond Proceeds					\$14,630,000	
Number of Years of Remaining Payments					15	
Present Value of Annual Payment					\$981,793	

Source: Sarasota County



Table C-10
County Debt Service – ELMS Bond 2005

Principal Payment Due:	Coupon	Principal Amount	Annual Interest	Annual Debt Service	Annual Debt Service (Present Value)	Principal Balance
09/30/12	3.250%	\$635,000	\$459,674	\$1,094,674	\$1,060,217	\$10,840,000
09/30/13	3.375%	\$655,000	\$439,036	\$1,094,036	\$1,025,005	\$10,185,000
09/30/14	3.500%	\$680,000	\$416,930	\$1,096,930	\$992,963	\$9,505,000
09/30/15	4.000%	\$705,000	\$393,130	\$1,098,130	\$955,816	\$8,800,000
09/30/16	4.000%	\$730,000	\$364,930	\$1,094,930	\$916,376	\$8,070,000
09/30/17	4.000%	\$760,000	\$335,730	\$1,095,730	\$881,775	\$7,310,000
09/30/18	4.000%	\$790,000	\$305,330	\$1,095,330	\$847,551	\$6,520,000
09/30/19	4.000%	\$825,000	\$273,730	\$1,098,730	\$817,482	\$5,695,000
09/30/20	4.100%	\$855,000	\$240,730	\$1,095,730	\$783,141	\$4,840,000
09/30/21	4.125%	\$890,000	\$205,675	\$1,095,675	\$752,079	\$3,950,000
09/30/22	4.200%	\$930,000	\$168,963	\$1,098,963	\$723,930	\$3,020,000
09/30/23	4.250%	\$965,000	\$129,903	\$1,094,903	\$691,852	\$2,055,000
09/30/24	4.300%	\$1,005,000	\$88,890	\$1,093,890	\$662,716	\$1,050,000
09/30/25	4.350%	\$1,050,000	\$45,675	\$1,095,675	\$636,126	\$0
Total Debt Service Payments					\$11,747,029	
Total Bond Proceeds					\$11,475,000	
Number of Years of Remaining Payments					14	
Present Value of Annual Payment					\$839,074	

Source: Sarasota County



Table C-11
County Debt Service – Surtax Bond 2008A

Principal Payment Due:	Coupon	Principal Amount	Annual Interest	Annual Debt Service	Annual Debt Service (Present Value)	Principal Balance
09/30/12	3.000%	\$4,005,000	\$2,826,450	\$6,831,450	\$6,632,476	\$62,325,000
09/30/13	3.000%	\$4,125,000	\$2,706,300	\$6,831,300	\$6,439,155	\$58,200,000
09/30/14	3.500%	\$4,250,000	\$2,582,550	\$6,832,550	\$6,222,545	\$53,950,000
09/30/15	3.500%	\$4,395,000	\$2,433,800	\$6,828,800	\$6,008,821	\$49,555,000
09/30/16	5.000%	\$4,550,000	\$2,279,975	\$6,829,975	\$5,723,671	\$45,005,000
09/30/17	4.787%	\$4,780,000	\$2,052,475	\$6,832,475	\$5,464,215	\$40,225,000
09/30/18	5.000%	\$5,010,000	\$1,823,675	\$6,833,675	\$5,204,929	\$35,215,000
09/30/19	4.565%	\$5,260,000	\$1,573,175	\$6,833,175	\$4,977,350	\$29,955,000
09/30/20	4.039%	\$5,500,000	\$1,333,075	\$6,833,075	\$4,784,055	\$24,455,000
09/30/21	4.160%	\$5,720,000	\$1,110,938	\$6,830,938	\$4,591,557	\$18,735,000
09/30/22	4.634%	\$5,960,000	\$872,994	\$6,832,994	\$4,389,527	\$12,775,000
09/30/23	4.942%	\$6,235,000	\$596,806	\$6,831,806	\$4,182,091	\$6,540,000
09/30/24	4.414%	\$6,540,000	\$288,681	\$6,828,681	\$4,003,462	\$0
Total Debt Service Payments					\$68,623,854	
Total Bond Proceeds					\$66,330,000	
Number of Years of Remaining Payments					13	
Present Value of Annual Payment					\$5,278,758	
Total Debt Service Payments (Adjusted)					\$63,133,946	

Source: Sarasota County



Table C-12
County Debt Service – Surtax Bond 2008B

Principal Payment Due:	Coupon	Principal Amount	Annual Interest	Annual Debt Service	Annual Debt Service (Present Value)	Principal Balance
09/30/12	5.000%	\$3,595,000	\$3,285,293	\$6,880,293	\$6,552,660	\$59,550,000
09/30/13	4.467%	\$3,770,000	\$3,105,543	\$6,875,543	\$6,268,150	\$55,780,000
09/30/14	5.000%	\$3,940,000	\$2,937,144	\$6,877,144	\$5,971,057	\$51,840,000
09/30/15	4.341%	\$4,140,000	\$2,740,144	\$6,880,144	\$5,725,156	\$47,700,000
09/30/16	4.503%	\$4,320,000	\$2,560,443	\$6,880,443	\$5,478,704	\$43,380,000
09/30/17	4.926%	\$4,510,000	\$2,365,918	\$6,875,918	\$5,218,040	\$38,870,000
09/30/18	5.000%	\$4,735,000	\$2,143,738	\$6,878,738	\$4,971,599	\$34,135,000
09/30/19	5.250%	\$4,965,000	\$1,906,988	\$6,871,988	\$4,718,974	\$29,170,000
09/30/20	5.250%	\$5,230,000	\$1,646,325	\$6,876,325	\$4,486,416	\$23,940,000
09/30/21	5.500%	\$5,505,000	\$1,371,750	\$6,876,750	\$4,252,790	\$18,435,000
09/30/22	5.625%	\$5,810,000	\$1,068,975	\$6,878,975	\$4,027,613	\$12,625,000
09/30/23	5.750%	\$6,135,000	\$742,163	\$6,877,163	\$3,807,614	\$6,490,000
09/30/24	6.000%	\$6,490,000	\$389,400	\$6,879,400	\$3,593,257	\$0
Total Debt Service Payments					\$65,072,030	
Total Bond Proceeds					\$63,145,000	
Number of Years of Remaining Payments					13	
Present Value of Annual Payment					\$5,005,541	
Total Debt Service Payments (Adjusted)					\$59,866,268	

Source: Sarasota County



Table C-13
FY 2002-2016 FDOT Work Program – Sarasota County Capacity Expansion Projects

ID	Description	Improvement	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
197898-2	SR 758 (Midnight Pass from SR 72 to E. of Shadowlawn Way)	Widen/Resurface Existing Lanes	\$7,620	\$25,652	\$1,169,683	\$47,975	\$399	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,251,329
197925-1	SR 72 (Big Slough Canal to Desoto County Line)	Widen/Resurface Existing Lanes	\$11,509	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11,509
197948-1	SR 776 (N. of Dearborn St to N. of Keyway Rd)	Add Lanes & Reconstruct	\$140,964	\$3,956	\$1,886	\$110,326	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$257,132
197978-1	Sarasota County Countywide Retiming	Traffic Control Devices/System	\$7,856	\$4,802	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,658
197988-1	US 41 (Venice Conn. (SR 681) to Oscar Scherer Pk Ent.)	Add Lanes & Reconstruct	\$21	\$0	\$0	\$125	\$0	\$35	\$195	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$376
198004-2	US 301 @ University Pkwy	Preliminary Engineering	\$0	\$825,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$825,000
198005-1	US 41 Bus (Palermo Pl to US 41 Bus (Bypass N))	New Road Construction	\$1,193,913	\$1,483,948	\$1,511,291	\$2,216,689	\$38,152	\$31	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,444,024
198010-1	US 301 (Wood St to S. of University Pkwy)	Preliminary Eng. for Future Capacity	\$1,989,327	\$959,955	\$28,308	\$658,686	\$2,332,124	\$605,982	\$3,070,159	\$2,165,874	\$8,489	\$0	\$0	\$0	\$0	\$0	\$0	\$11,818,904
198010-4	US 301 (Myrtle St to Desoto Rd)	Add Lanes & Reconstruct	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$18,026,168	\$10,170,091	\$2,333,140	\$0	\$0	\$0	\$0	\$0	\$30,529,399
198017-2	US 41 Venice Bypass (Center Rd to S. of US 41 Bus N.)	Preliminary Eng. for Future Capacity	\$0	\$0	\$0	\$3,148,609	\$14,357	\$22,660	\$51,598	\$9,180	\$678,872	\$1,154,802	\$21,000	\$0	\$0	\$0	\$0	\$5,101,078
198017-4	US 41 (Venice Bypass) (Gulf Coast Blvd to Albee Farm Rd)	Right-of-Way for Future Capacity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$28,690,650	\$0	\$0	\$10,215,675	\$0	\$38,906,325
198017-5	US 41 (Venice Bypass) (Albee Farm Rd to Bird Bay Dr)	Add Lanes & Reconstruct	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,256,350	\$0	\$0	\$0	\$7,664,955	\$14,921,305
198018-1	US 41 (US 41 Bus (SR 45A) to Venice Conn. (SR 681))	Add Lanes & Reconstruct	\$392,977	\$2,073,613	\$99,594	\$29,608,146	\$760,134	\$697,711	\$3,735,616	\$2,162,529	\$290,325	\$103,620	\$0	\$0	\$0	\$0	\$0	\$39,924,265
198026-1	US 41 Bus (Shamrock Blvd to Palermo Pl)	Add Lanes & Reconstruct	\$15,933,937	\$1,323,957	\$1,131,872	\$1,513,064	\$270,915	\$1,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,175,185
198040-1	US 301 (SR 55) (Wood St to S. of University Pkwy)	PD&E/EMO Study	\$86,291	\$10,800	\$10,118	\$642	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$107,851
200610-1	Englewood/Int/Conn. (Charlotte County Line to I-75)	PD&E/EMO Study	\$22,562	\$24,230	\$29,930	\$8,254	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$84,976
200610-3	Englewood/Int/Conn. (Center Rd to I-75)	Preliminary Eng. for Future Capacity	\$0	\$0	\$2,428,730	\$1,000,000	\$0	\$318	\$499,673	\$371,268	\$427,214	\$0	\$0	\$0	\$0	\$0	\$0	\$4,727,203
200610-5	Englewood/Int/Conn. (S. of Venice Ave to N. of Center Rd)	Right-of-Way for Future Capacity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,729,181	\$100	\$0	\$0	\$0	\$0	\$0	\$0	\$2,729,281
200617-1	Dearborn St (W. of Pine St to SR 776)	Add Lanes & Reconstruct	\$0	\$0	\$1,027	\$2,174	\$4,811,821	\$3,575,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$8,390,022
405137-1	US 41 (Tamiami Tr) @ Osprey Ave	Add Turn Lane(s)	\$0	\$0	\$0	\$0	\$268,784	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$268,784
408473-1	SR 758 (Siesta Dr) @ Osprey Ave	Add Right Turn Lane(s)	\$5,344	\$344,702	\$86,590	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$436,636
409157-1	US 41 (SR 45) @ Bispham Rd	Add Right Turn Lane(s)	\$97,570	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$97,570
409159-2	US 41 (SR 45) @ South Venice Ave	Add Left Turn Lane(s)	\$67,490	\$7,734	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,224
410016-1	US 41 @ Jacaranda Blvd	Intersection (Major)	\$312,806	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$312,806
410201-1	Cattleman Rd (S. of Bahia Vista St to N. of Colonial Oaks Blvd)	New Road Construction	\$572,595	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$572,595
411738-1	US 41 (SR 45 Tamiami) @ 10th St	Add Left Turn Lane(s)	\$0	\$16,066	\$93,874	\$551,019	\$26,009	\$2,727	\$442	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$690,137
411779-1	US 41 (Tamiami Tr) @ SR 780 (Fruitville Rd)	Add Left Turn Lane(s)	\$717	\$270	\$181	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,168
411951-1	SR 780 (Fruitville Rd) @ Beneva Rd	Add Turn Lane(s)	\$0	\$0	\$17,492	\$611,692	\$10,708	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$639,892
412676-1	Sarasota County Traffic Signals Reimbursement	Traffic Signals	\$0	\$27,122	\$83,803	\$117,178	\$120,700	\$123,536	\$126,648	\$130,447	\$133,028	\$137,327	\$145,000	\$150,000	\$156,000	\$160,000	\$167,000	\$1,777,789
413657-1	Longboat Key Traffic Signals Reimbursement	Traffic Signals	\$0	\$518	\$2,142	\$2,942	\$3,031	\$3,122	\$3,216	\$3,312	\$2,970	\$3,059	\$6,000	\$6,000	\$7,000	\$7,000	\$7,000	\$57,312
413658-1	North Port Traffic Signals Reimbursement	Traffic Signals	\$0	\$1,036	\$3,997	\$5,490	\$5,655	\$6,990	\$8,016	\$7,836	\$8,062	\$9,614	\$12,000	\$12,000	\$12,000	\$13,000	\$13,000	\$118,696
413659-1	Sarasota City Traffic Signals Reimbursement	Traffic Signals	\$0	\$9,842	\$30,381	\$41,724	\$44,109	\$45,435	\$48,000	\$49,440	\$51,556	\$53,423	\$58,000	\$60,000	\$62,000	\$64,000	\$66,000	\$683,910
413660-1	Venice Traffic Signals Reimbursement	Traffic Signals	\$0	\$2,072	\$6,396	\$9,882	\$10,179	\$10,485	\$10,800	\$11,124	\$11,457	\$11,799	\$14,000	\$14,000	\$15,000	\$15,000	\$16,000	\$158,194
414742-1	US 41 @ Salford Blvd	Traffic Signals	\$0	\$123,638	\$218,747	\$15,052	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$357,437
416085-1	SR 758 (Bee Ridge Rd) (Beneva Rd to Cattleman Rd)	Traffic Control Devices/System	\$0	\$0	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000
416116-1	Bahia Vista @ US 41 (SR 45)	Intersection Improvement	\$0	\$0	\$0	\$0	\$766	\$227	\$109,739	\$35,304	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$146,036
416118-1	SR 789 (Gulf Stream) (US 41 to E. of Sunset St)	Traffic Ops Improvement	\$0	\$0	\$0	\$1,447	\$14,276	\$624,951	\$61,252	\$6,014	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$707,940
417071-1	University Pkwy @ US 301	Intersection (Minor)	\$0	\$0	\$0	\$4,200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,200,000
417577-1	US 41 @ Main St	Add Left Turn Lane(s)	\$0	\$0	\$0	\$0	\$95,273	\$706,975	\$96,392	\$27,293	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$925,933
420877-1	West Price Blvd @ Cranberry Blvd	Add Turn Lane(s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$711,355	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$711,355
420974-2	Automated Traffic Management System	Traffic Control Devices/System	\$0	\$0	\$0	\$0	\$0	\$7,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,500,000
420974-3	Sarasota ATMs Ph. III	ATMs - Arterial Traffic Management	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$471,609	\$0	\$0	\$0	\$0	\$471,609
420980-1	Sumter Blvd (US 41 to Heron Creek Blvd)	Add Lanes & Reconstruct	\$0	\$0	\$0	\$0	\$6,400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,400,000
422623-1	Ringling Blvd @ Palm Ave	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$727,720	\$0	\$0	\$0	\$0	\$0	\$0	\$727,720
422710-5	US 41 (SR 45) (Charlotte County Line to Sumter Blvd)	Preliminary Eng. for Future Capacity	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	\$75,000



Table C-13 (continued)
FY 2002-2016 FDOT Work Program – Sarasota County Capacity Expansion Projects

ID	Description	Improvement	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
423129-1	University Pkwy @West of I-75	Traffic Ops Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$220,469	\$19,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$240,249
423148-1	US 41 (Tamiami Tr) (Venitian Bay Blvd to Eagle Point Circle)	Traffic Control Devices/System	\$0	\$0	\$0	\$0	\$0	\$0	\$255	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$255
423274-1	US 41 @ South Biscayne Dr	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$43,567	\$2,578	\$0	\$0	\$0	\$0	\$0	\$46,145
423527-1	Brentwood Area	Traffic Ops Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$27,939	\$253,312	\$0	\$1	\$0	\$0	\$0	\$0	\$0	\$281,252
423667-1	SR 789 (Gulfstream) from W. of Sunset to W. of US 41	Add Right Turn Lane(s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$192	\$0	\$0	\$0	\$0	\$0	\$0	\$192
424724-1	SR 72 @ Proctor Rd	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$112,773	\$458,079	\$0	\$0	\$0	\$0	\$0	\$570,852
425733-1	17th St @ US 301	Add Right Turn Lane(s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$62,479	\$8,659	\$0	\$0	\$0	\$0	\$0	\$71,138
426765-1	Venice Ave @ Harbor Dr	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$332,747	\$3,051	\$0	\$0	\$0	\$0	\$0	\$0	\$335,798
427939-1	US 41 @ Sumter Blvd	Add Right Turn Lane(s)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$208,238	\$0	\$0	\$0	\$0	\$208,238
427940-1	Price Blvd @ Haberland Blvd	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,199,824	\$0	\$0	\$0	\$1,199,824
428150-1	Honore Ave @ Richardsoun Rd	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,831,994	\$0	\$0	\$1,831,994
428236-1	Cattlemen Rd (Richardson Rd to Desoto Rd)	New Road Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,982,620	\$0	\$0	\$0	\$0	\$0	\$13,982,620
428383-1	US 41 (10th St to 14th St)	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$799,998	\$0	\$468,125	\$0	\$0	\$1,933,476	\$3,201,599
428383-1	US 41 (10th St to 14th St)	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
428940-1	Honore Ave Ext. (Laurel Rd to N. of Fox Creek)	New Road Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,000,000	\$0	\$0	\$6,000,000
429775-1	US 41 / SR 45 (S. of Bee Ridge Rd to S. of Siesta Dr)	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$907,716	\$0	\$0	\$0	\$0	\$0	\$907,716
429778-1	SR 72 @ Gantt Rd	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$551,070	\$0	\$0	\$0	\$0	\$0	\$551,070
429872-1	Biscayne Dr @ US 41	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$574,334	\$0	\$0	\$574,334
430042-1	Honore Ave @ SR 758 (Bee Ridge)	Intersection Improvement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$926,388	\$926,388
	Total		\$20,843,499	\$7,268,913	\$6,956,042	\$43,871,116	\$15,727,392	\$13,927,625	\$8,070,409	\$27,052,164	\$12,731,946	\$20,592,505	\$36,882,847	\$1,909,949	\$8,658,328	\$10,474,675	\$10,793,819	\$245,761,229

Source: Florida Department of Transportation, District 1 Office

Table C-14
Average Motor Vehicle Fuel Efficiency – Excluding Interstate Travel

Travel			
Vehicle Miles of Travel (VMT) @			
	21.7	6.5	
Other Arterial Rural	318,561,000,000	48,549,000,000	367,110,000,000
Other Rural	324,384,000,000	35,494,000,000	359,878,000,000
Other Urban	1,383,890,000,000	98,204,000,000	1,482,094,000,000
Total	2,026,835,000,000	182,247,000,000	2,209,082,000,000

Percent VMT	
@ 21.7 mpg	@ 6.5 mpg
87%	13%
90%	10%
93%	7%
92%	8%

Fuel Consumed			
	Gallons @ 21.7 mpg	Gallons @ 6.5 mpg	
Other Arterial Rural	14,680,230,415	7,469,076,923	22,149,307,338
Other Rural	14,948,571,429	5,460,615,385	20,409,186,814
Other Urban	63,773,732,719	15,108,307,692	78,882,040,411
Total	93,402,534,563	28,038,000,000	121,440,534,563

Total Mileage and Fuel	
2,209,082	miles (millions)
121,441	gallons (millions)
18.19	mpg

Source: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2009*, Section V, Table VM-1
 Annual Vehicle Distance Traveled in Miles and Related Data - 2009 by Highway Category and Vehicle Type
<http://www.fhwa.dot.gov/policyinformation/statistics.cfm>



Table C-15
Annual Vehicle Distance Traveled in Miles and Related Data – By Highway Category and Vehicle Type^{1/}

April 2011								TABLE VM-1		
YEAR	ITEM	LIGHT DUTY VEHICLES SHORT WB 2/	MOTOR- CYCLES	BUSES	LIGHT DUTY VEHICLES LONG WB 2/	SINGLE-UNIT TRUCKS 3/	COMBINATIO N TRUCKS	SUBTOTALS		ALL MOTOR VEHICLES
								ALL LIGHT VEHICLES 2/	SINGLE-UNIT 2- AXLE 6-TIRE OR MORE AND COMBINATION	
2009	Motor-Vehicle Travel: (millions of vehicle-miles)									
2009	Interstate Rural	139,621	1,480	1,601	42,002	10,991	46,178	181,622	57,169	241,873
2009	Other Arterial Rural	229,367	3,295	2,063	89,194	19,364	29,185	318,561	48,549	372,468
2009	Other Rural	226,498	3,502	2,506	97,887	19,173	16,322	324,384	35,494	365,886
2009	All Rural	595,485	8,277	6,170	229,082	49,528	91,684	824,567	141,212	980,227
2009	Interstate Urban	334,765	2,323	2,170	87,116	15,649	32,940	421,881	48,589	474,963
2009	Other Urban	1,083,185	10,201	6,017	300,705	54,986	43,218	1,383,890	98,204	1,498,311
2009	All Urban	1,417,950	12,523	8,187	387,821	70,635	76,158	1,805,771	146,793	1,973,274
2009	Total Rural and Urban	2,013,436	20,800	14,358	616,903	120,163	167,842	2,630,338	288,005	2,953,501
2009	Number of motor vehicles registered 2/	193,979,654	7,929,724	841,993	40,488,025	8,356,097	2,617,118	234,467,679	10,973,214	254,212,610
2009	Average miles traveled per vehicle	10,380	2,623	17,052	15,237	14,380	64,132	11,218	26,246	11,618
2009	Person-miles of travel 4/ (millions)	2,797,438	22,404	304,386	824,151	120,163	167,842	3,621,589	288,005	4,236,384
2009	Fuel consumed (thousand gallons)	85,560,236	474,909	1,868,792	35,763,797	16,342,208	28,130,088	121,324,034	44,472,296	168,140,031
2009	Average fuel consumption per vehicle (gallons)	441	60	2,219	883	1,956	10,748	517	4,053	661
2009	Average miles traveled per gallon of fuel consumed	23.8	43.2	7.2	17.4	7.4	6.0	21.7	6.5	17.6
^{1/} The FHWA estimates national trends by using State reported Highway Performance and Monitoring System (HPMS) data, fuel consumption data (MF-21 and MF-27), vehicle registration data (MV-1, MV-9, and MV-10), other data such as the R.L. Polk vehicle data, and a host of modeling techniques. Starting with the 2009 VM-1, an enhanced methodology is used to provide timely indicators on both travel and travel behavior changes. ^{2/} Light Duty Vehicles Short WB - passenger cars, light trucks, vans and sport utility vehicles with a wheelbase (WB) equal to or less than 121 inches. Light Duty Vehicles Long WB - large passenger cars, vans, pickup trucks, and sport/utility vehicles with wheelbases (WB) larger than 121 inches. All Light Duty Vehicles - passenger cars, light trucks, vans and sport utility vehicles regardless of 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/} Vehicle occupancy is estimated by the FHWA from the 2009 National Household Travel Survey (NHTS); For single unit truck and heavy trucks, 1 motor vehicle mile travelled = 1 person-mile traveled. ^{5/} VMT data are based on the latest HPMS data available; it may not match previous published results.										



APPENDIX D

Calculated Transportation Impact Fee Schedule

Table D-1
Calculated Transportation Impact Fee Schedule

Gasoline Tax \$\$ per gallon to capital: \$0.254 Facility life (years): 25 Interest rate: 3.0%				City Revenues: \$0.006 County Revenues: \$0.138 State Revenues: \$0.110		Unit Construction Cost: \$3,520,880 Capacity per lane mile: 8,633 Fuel Efficiency: 18.19 mpg Effectivedays per year: 365				Interstate Adjustment Factor: 27.4% Cost per VMC: \$407.84								
ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Sarasota County Portion ⁽⁴⁾	Net Impact Fee (City Portion)	Current Impact Fee	% Change (vs City Portion)
RESIDENTIAL:																		
210	Single Family (Detached)	du	7.81	Blend ITE 8th & FL Studies	6.62	7.12	FL Studies	100%	N/A	18.77	\$7,654	\$142	\$2,473	\$5,181	\$643.95	\$4,537	\$2,341	94%
220	Multi-Family (Apartment)	du	6.60	Blend ITE 8th & FL Studies	5.21	5.71	FL Studies	100%	N/A	12.48	\$5,091	\$96	\$1,672	\$3,419	\$339.19	\$3,080	\$1,755	76%
230	Residential Condominium/Townhouse	du	5.76	Blend ITE 8th & FL Studies	7.01	7.51	FL Studies	100%	N/A	14.66	\$5,978	\$110	\$1,915	\$4,063	\$339.19	\$3,724	\$1,755	112%
240	Mobile Home Park/RV Park	du	4.17	Florida Studies	4.60	5.10	FL Studies	100%	N/A	6.97	\$2,841	\$54	\$940	\$1,901	\$254.14	\$1,647	\$1,083	52%
251	Retirement Community/Age-Restricted Single-Family	du	3.13	Blend ITE 8th & FL Studies	5.42	5.92	FL Studies	100%	N/A	6.16	\$2,512	\$47	\$818	\$1,694	\$643.95	\$1,050	\$768	37%
253	Assisted Living Facility (ALF)/Congregate Care Facility	du	2.25	Blend ITE 8th & FL Studies	3.08	3.58	FL Studies	100%	N/A	2.52	\$1,026	\$21	\$366	\$660	\$0.00	\$660	\$768	-14%
LODGING:																		
310 / 320	Hotel/Motel	room	5.63	ITE 8th Edition (LUC 320)	4.34	4.84	FL Studies (LUC 320)	77%	FL Studies (LUC 320)	6.83	\$2,785	\$53	\$923	\$1,862	\$0.00	\$1,862	\$1,461	27%
RECREATION:																		
420	Marina	berth	2.96	ITE 8th Edition	6.62	7.12	Same as LUC 210	90%	FL Schedules	6.40	\$2,611	\$48	\$836	\$1,775	\$108.34	\$1,667	\$547	205%
430	Golf Course	acres	5.04	ITE 8th Edition	6.62	7.12	Same as LUC 210	90%	FL Schedules	10.90	\$4,446	\$82	\$1,428	\$3,018	\$186.30	\$2,832	\$931	204%
443	Movie Theater w/o Matinee ⁽²⁾	1,000 sf	30.00	ITE 6th and 8th Edition (Adjusted)	2.22	2.72	FL Studies (LUC 444)	88%	FL Studies (LUC 444)	21.27	\$8,677	\$183	\$3,187	\$5,490	\$0.00	\$5,490	\$4,858	13%
495	Recreational/Community Center	1,000 sf	22.88	ITE 8th Edition	4.50	5.00	Sames as LUC 530	90%	Sames as LUC 530	33.64	\$13,719	\$262	\$4,562	\$9,157	\$486.00	\$8,671	\$3,385	156%
INSTITUTIONS:																		
520 / 522	Elementary/Middle School	1,000 sf	13.78	ITE 8th Edition	4.50	5.00	Model-based Trip Length	80%	Estimated	18.01	\$7,344	\$140	\$2,438	\$4,906	\$292.51	\$4,613	\$2,887	60%
530	High School	1,000 sf	12.89	ITE 8th Edition	4.50	5.00	Model-based Trip Length	90%	Estimated	18.95	\$7,729	\$148	\$2,577	\$5,152	\$260.21	\$4,892	\$2,569	90%
540	University/Junior College (7,500 or fewer students) (Private)	student	2.00	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	FL Schedules	4.33	\$1,764	\$33	\$575	\$1,189	n/a	\$1,189	n/a	n/a
540	University/Junior College (more than 7,500 students) (Private)	student	1.50	ITE Regression Analysis	6.62	7.12	Same as LUC 210	90%	FL Schedules	3.24	\$1,323	\$24	\$418	\$905	n/a	\$905	n/a	n/a
560	Church	1,000 sf	9.11	ITE 8th Edition	3.90	4.40	FL Schedules	90%	FL Schedules	11.61	\$4,734	\$92	\$1,602	\$3,132	\$240.98	\$2,891	\$1,375	110%
565	Day Care	1,000 sf	75.07	Blend ITE 8th & FL Studies	2.03	2.53	FL Studies	73%	FL Studies	40.38	\$16,470	\$353	\$6,147	\$10,323	\$505.24	\$9,818	\$4,396	123%
610	Hospital	1,000 sf	16.50	ITE 8th Edition	6.62	7.12	Same as LUC 210	77%	FL Schedules	30.53	\$12,452	\$231	\$4,022	\$8,430	\$607.50	\$7,823	\$5,301	48%
620	Nursing Home	1,000 sf	7.58	ITE 8th Edition	2.59	3.09	FL Studies	89%	FL Studies	6.34	\$2,587	\$53	\$923	\$1,664	\$581.18	\$1,083	\$1,200	-10%

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

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Sarasota County Portion ⁽⁴⁾	Net Impact Fee (City Portion)	Current Impact Fee	% Change (vs City Portion)
OFFICE:																		
710	General Office 50,000 sf or less ⁽³⁾	1,000 sf	15.65	ITE 8th equation	5.15	5.65	FL Studies	92%	FL Studies	26.92	\$10,978	\$207	\$3,605	\$7,373	\$420.19	\$6,953	\$2,883	141%
710	General Office 50,001-100,000 sf ⁽³⁾	1,000 sf	13.34	ITE 8th equation	5.15	5.65	FL Studies	92%	FL Studies	22.94	\$9,357	\$177	\$3,082	\$6,275	\$420.19	\$5,855	\$2,883	103%
710	General Office 100,001-200,000 sf ⁽³⁾	1,000 sf	11.37	ITE 8th equation	5.15	5.65	FL Studies	92%	FL Studies	19.56	\$7,975	\$151	\$2,629	\$5,346	\$420.19	\$4,926	\$2,883	71%
710	General Office 200,001-400,000 sf ⁽³⁾	1,000 sf	9.70	ITE 8th equation	5.15	5.65	FL Studies	92%	FL Studies	16.68	\$6,804	\$128	\$2,229	\$4,575	\$420.19	\$4,155	\$2,883	44%
710	General Office greater than 400,000 sf ⁽³⁾	1,000 sf	8.83	ITE 8th equation	5.15	5.65	FL Studies	92%	FL Studies	15.19	\$6,194	\$117	\$2,037	\$4,157	\$420.19	\$3,737	\$2,883	30%
720	Medical Office (0-10,000 sf)	1,000 sf	23.83	FL Studies	5.55	6.05	FL Studies	89%	FL Studies	42.73	\$17,426	\$327	\$5,694	\$11,732	\$420.19	\$11,312	\$2,883	292%
720	Medical Office (>10,000 sf)	1,000 sf	35.95	Blend ITE 8th & FL Studies	5.55	6.05	FL Studies	89%	FL Studies	64.46	\$26,289	\$493	\$8,585	\$17,704	\$420.19	\$17,284	\$2,883	500%
770	Business Park (Flex Space)	1,000 sf	12.98	Blend ITE 8th & FL Studies	5.38	5.88	FL Studies	89%	FL Studies	22.56	\$9,201	\$173	\$3,012	\$6,189	\$355.39	\$5,834	\$1,901	207%
RETAIL:																		
812	Building Materials / Lumber Store	1,000 sf	45.16	ITE 8th Edition	6.27	6.77	FL Studies	74%	FL Studies	76.06	\$31,021	\$577	\$10,047	\$20,974	\$836.33	\$20,138	\$7,145	182%
816	Hardware/Paint	1,000 sf	51.29	ITE 8th Edition	1.87	2.37	Same as LUC 820 (<50K)	56%	Same as LUC 820 (<50K)	19.50	\$7,952	\$173	\$3,012	\$4,940	\$836.33	\$4,104	\$7,145	-43%
820	Shopping Center 50,000 sf gla or less ⁽³⁾	1,000 sf gla	86.56	ITE 8th equation	1.87	2.37	FL Curve	56%	FL Curve	32.90	\$13,420	\$293	\$5,102	\$8,318	\$715.84	\$7,602	\$4,858	57%
820	Shopping Center greater than 50,000 sf gla ⁽³⁾	1,000 sf gla	36.27	ITE 8th equation	2.87	3.37	FL Curve	76%	FL Curve	28.72	\$11,712	\$237	\$4,127	\$7,585	\$715.84	\$6,869	\$4,858	41%
841	New/Used Auto Sales	1,000 sf	29.85	Blend ITE 8th & FL Studies	4.60	5.10	FL Studies	79%	FL Studies	39.38	\$16,059	\$306	\$5,328	\$10,731	\$339.19	\$10,392	\$2,972	250%
848	Tire Store	1,000 sf	24.87	ITE 8th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	23.53	\$9,597	\$188	\$3,274	\$6,323	\$715.84	\$5,607	\$2,972	89%
850	Supermarket	1,000 sf	103.38	Blend ITE 8th & FL Studies	2.08	2.58	FL Studies	56%	FL Studies	43.71	\$17,827	\$381	\$6,634	\$11,193	\$715.84	\$10,477	\$4,858	116%
853	Convenience Store w/Gas Pumps	1,000 sf	775.14	Blend ITE 8th & FL Studies	1.51	2.01	FL Studies	28%	FL Studies	118.97	\$48,519	\$1,112	\$19,363	\$29,156	\$0.00	\$29,156	\$15,001	94%
862	Home Improvement Superstore	1,000 sf	29.80	ITE 8th Edition	2.87	3.37	Same as LUC 820 (50-200K)	76%	Same as LUC 820 (50-200K)	23.59	\$9,623	\$195	\$3,396	\$6,227	\$715.84	\$5,511	\$4,858	13%
881	Pharmacy/Drug Store with and without Drive-Thru	1,000 sf	92.88	Blend ITE 8th & FL Studies	2.08	2.58	FL Studies	33%	FL Studies	23.14	\$9,438	\$202	\$3,517	\$5,921	\$715.84	\$5,205	\$4,858	7%
890	Furniture Store	1,000 sf	5.06	ITE 8th Edition	6.09	6.59	FL Studies	54%	FL Studies	6.04	\$2,464	\$46	\$801	\$1,663	\$93.15	\$1,570	\$801	96%
912	Bank/Savings w/Drive-In	1,000 sf	159.34	Blend ITE 8th & FL Studies	2.46	2.96	FL Studies	46%	FL Studies	65.45	\$26,694	\$553	\$9,629	\$17,065	\$770.51	\$16,294	\$7,683	112%
931	Sit-Down Restaurant	1,000 sf	91.10	Blend ITE 8th & FL Studies	3.14	3.64	FL Studies	77%	FL Studies	79.95	\$32,609	\$651	\$11,336	\$21,273	\$115.43	\$21,158	\$6,474	227%
932	High-Turnover Restaurant	1,000 sf	126.50	Blend ITE 8th & FL Studies	3.17	3.67	FL Studies	71%	FL Studies	103.35	\$42,151	\$840	\$14,627	\$27,524	\$115.43	\$27,409	\$6,474	323%
934	Fast Food Restaurant w/Drive-Thru	1,000 sf	522.62	Blend ITE 8th & FL Studies	2.05	2.55	FL Studies	58%	FL Studies	225.57	\$91,995	\$1,970	\$34,304	\$57,691	\$253.13	\$57,438	\$14,729	290%



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

ITE LUC	Land Use	Unit	Trip Rate	Trip Rate Source	Assessable Trip Length	Total Trip Length	Trip Length Source	% New Trips	% New Trips Source	Net VMT ⁽¹⁾	Total Impact Cost	Annual Gas Tax	Gas Tax Credit	Net Impact Fee	Sarasota County Portion ⁽⁴⁾	Net Impact Fee (City Portion)	Current Impact Fee	% Change (vs City Portion)
RETAIL:																		
941	Quick Lube	bays	40.00	ITE 8th Edition	3.62	4.12	Same as LUC 942	72%	Same as LUC 942	37.84	\$15,435	\$302	\$5,259	\$10,176	n/a	\$10,176	n/a	n/a
942	Automobile Repair Shop	1,000 sf	34.12	Blend ITE 8th & FL Studies	3.62	4.12	FL Studies	72%	FL Studies	32.28	\$13,166	\$258	\$4,493	\$8,673	\$339.19	\$8,334	\$2,972	180%
945	Gasoline/Service Station/Conv. Mart	fuel pos.	162.78	ITE 8th Edition	1.90	2.40	Same as LUC 944	23%	Same as LUC 944	25.82	\$10,531	\$229	\$3,988	\$6,543	\$0.00	\$6,543	\$2,935	123%
947	Self-Service Car Wash	bays	43.94	Blend ITE 8th & FL Studies	2.00	2.50	FL Studies	18%	FL Studies	5.74	\$2,342	\$50	\$871	\$1,471	n/a	\$1,471	n/a	n/a
n/a	Convenience/Gasoline/Fast Food Store	1,000 sf	984.59	Florida Studies	2.65	3.15	FL Studies	32%	FL Studies	303.08	\$123,608	\$2,529	\$44,038	\$79,570	\$0.00	\$79,570	\$2,935	2611%
INDUSTRIAL:																		
110 / 130	General Light Industrial / Industrial Park	1,000 sf	6.96	ITE 8th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	11.97	\$4,882	\$92	\$1,602	\$3,280	\$355.39	\$2,925	\$1,901	54%
120	General Heavy Industrial	1,000 sf	1.50	ITE 8th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	2.58	\$1,052	\$20	\$348	\$704	\$355.39	\$349	\$1,901	-82%
140	Manufacturing	1,000 sf	3.82	ITE 8th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	6.57	\$2,680	\$51	\$888	\$1,792	\$355.39	\$1,437	\$1,901	-24%
150	Warehouse	1,000 sf	3.56	ITE 8th Edition	5.15	5.65	Same as LUC 710	92%	Same as LUC 710	6.12	\$2,497	\$47	\$818	\$1,679	\$253.13	\$1,426	\$1,563	-9%
151	Mini-Warehouse/Storage	1,000 sf	2.50	ITE 8th Edition	3.10	3.60	FL Schedules	92%	Same as LUC 710	2.59	\$1,056	\$21	\$366	\$690	\$65.81	\$624	\$519	20%

- (1) Net VMT is calculated using the formula: ((Trip Generation Rate * Trip Length * % New Trips)*(1-Interstate 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 trip generation rate of the “Movie Theater” land use was adjusted to reflect the lower trip generation rates observed in the FL Studies database for the similar land use, “Movie Theater w/Matinee” (LUC 444).
- (3) The trip generation rate recommended for the office and shopping center land uses use the end-point regression value.
- (4) For new land uses that are not in the current North Port or Sarasota County transportation impact fee schedules, the County’s portion of the fee is based on a similar lane use. Based on discussions with City Staff, LUC 220 and 230 would be charged the Single Family Residential rate for a 1,500 to 1,999 sf home and LUC 251 would be charged the Single Family Residential rate for a 2,000 to 2,999 sf home. Additionally, LUC 540 would be charged at the Office rate, LUC’s 848, 850, 862, 881, and 932 would be charged the Shopping Center rate, LUC’s 770, 120, and 140 would be charged the Industrial Park rate, and LUC’s 540, 941, and 947 would not be charged due to a conflict in the units of measure.

APPENDIX E

Trip Characteristics Database

Appendix E

Trip Characteristics Database

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

TOA estimates trip generation rates for all land uses in a transportation impact fee schedule using data from studies in the Florida Studies Database and the Institute of Transportation Engineers' (ITE) *Trip Generation* reference report (8th edition). When both ITE *Trip Generation* reference report (8th edition) and Florida Studies trip generation rate (TGR) data are available for a particular land use, in most cases, the data is blended together to increase the sample size and provide a more valid estimate of the average number of trips generated per unit of development. An exception to this approach is when the Florida Studies database contains several studies, which indicate a lower trip generation rate than what is reported by ITE (such as the single family land use). 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 intend 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. TOA has published an article entitled, *Measuring Travel*



Characteristics for Transportation Impact Fees, ITE Journal, April 1991 on the data collecting methodology for trip characteristics studies.

Single-Family Detached Housing (ITE LUC 210)

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

Weighted Average Trip Generation Rate: 7.81
ITE Average Trip Generation Rate: 9.57
Average VMT: 57.33
Weighted Average VMT: 51.70

Note: Georgia studies are not included in summary statistics.



Multi-Family/Apartment (ITE LUC 220)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Sarasota Co, FL	212	Jun-93	42	42	5.78	-	5.20	N/A	30.06	Sarasota County
Sarasota Co, FL	243	Jun-93	36	36	5.84	-	11.50	N/A	67.16	Sarasota County
Marion Co, FL	214	Apr-02	175	175	6.84	-	4.61	N/A	31.53	Kimley-Horn & Associates
Marion Co, FL	240	Apr-02	174	174	6.96	-	3.43	N/A	23.87	Kimley-Horn & Associates
Marion Co, FL	288	Apr-02	175	175	5.66	-	5.55	N/A	31.41	Kimley-Horn & Associates
Marion Co, FL	480	Apr-02	175	175	5.73	-	6.88	N/A	39.42	Kimley-Horn & Associates
Marion Co, FL	500	Apr-02	170	170	5.46	-	5.94	N/A	32.43	Kimley-Horn & Associates
Lake Co, FL	250	Dec-06	135	135	6.71	-	5.33	N/A	35.76	Tindale-Oliver & Associates
Lake Co, FL	157	Dec-06	265	265	13.97	-	2.62	N/A	36.60	Tindale-Oliver & Associates
Lake Co, FL	169	Dec-06	212	-	8.09	-	6.00	N/A	48.54	Tindale-Oliver & Associates
Lake Co, FL	226	Dec-06	301	-	6.74	-	2.17	N/A	14.63	Tindale-Oliver & Associates
Hernando Co, FL	312	Apr-07	456	-	4.09	-	5.95	N/A	24.34	Tindale-Oliver & Associates
Hernando Co, FL	176	Apr-07	332	-	5.38	-	5.24	N/A	28.19	Tindale-Oliver & Associates
Total Size	3,467		2,648		Average Trip Length: 4.91					
ITE	18,480				Weighted Average Trip Length: 5.21					
Blended total	21,947									

Weighted Average Trip Generation Rate: 6.31

ITE Average Trip Generation Rate (8th): 6.65

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

Average VMT: 34.15

Weighted Average VMT: 34.39

Note: The 2nd Sarasota study with 11.5 mi TL was excluded from Weighted Average Trip Length calculation.

Residential Condominium/Townhouse (ITE LUC 230)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Hernando Co, FL	31	May-96	31	31	6.12	9a-6p	4.98	N/A	30.48	Tindale-Oliver & Associates
Hernando Co, FL	128	May-96	198	198	6.47	9a-6p	5.18	N/A	33.51	Tindale-Oliver & Associates
Pasco Co, FL	229	Apr-02	198	198	4.77	9a-6p	12.09	N/A	57.67	Tindale-Oliver & Associates
Pasco Co, FL	248	Apr-02	353	353	4.24	9a-6p	3.53	N/A	14.97	Tindale-Oliver & Associates
Total Size	636		780		Average Trip Length: 6.45					
ITE	10,024				Weighted Average Trip Length: 7.01					
Blended total	10,660									

Weighted Average Trip Generation Rate: 4.97

ITE Average Trip Generation Rate (8th): 5.81

Blend of FL Studies and ITE Average Trip Generation Rate: 5.76

Average VMT: 34.16

Weighted Average VMT: 40.38

Mobile Home Park/RV Park (ITE LUC 240)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Marion Co, FL	67	Jul-91	22	22	5.40	48hrs.	2.29	N/A	12.37	Tindale-Oliver & Associates
Marion Co, FL	82	Jul-91	58	58	10.80	24hr.	3.72	N/A	40.18	Tindale-Oliver & Associates
Marion Co, FL	137	Jul-91	22	22	3.10	24hr.	4.88	N/A	15.13	Tindale-Oliver & Associates
Marion Co, FL	188	Apr-02	147	-	3.51	24hr.	5.48	N/A	19.23	Kimley-Horn & Associates
Marion Co, FL	227	Apr-02	173	-	2.76	24hr.	8.80	N/A	24.29	Kimley-Horn & Associates
Sarasota Co, FL	235	Jun-93	100	100	3.51	-	5.10	N/A	17.90	Sarasota County
Marion Co, FL	297	Apr-02	175	-	4.78	24hr.	4.76	N/A	22.75	Kimley-Horn & Associates
Sarasota Co, FL	996	Jun-93	181	181	4.19	-	4.40	N/A	18.44	Sarasota County
Hernando Co, FL	1,892	May-96	425	425	4.13	9a-6p	4.13	N/A	17.06	Tindale-Oliver & Associates
Total Size	4,121		1,303		Average Trip Length: 4.84					
					Weighted Average Trip Length: 4.60					

Weighted Average Trip Generation Rate: 4.17

ITE Average Trip Generation Rate (8th): 4.99

Average VMT: 20.82

Weighted Average VMT: 19.19

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

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Lakeland, FL	67	3/28-4/2/90	26	24	3.50	9am-4pm	2.44	N/A	8.54	Tindale-Oliver & Associates
Marion Co, FL	778	Apr-02	175	-	2.96	24hr.	3.49	N/A	10.33	Kimley-Horn & Associates
Marion Co, FL	877	Apr-02	209	-	2.91	24hr.	5.90	N/A	17.17	Kimley-Horn & Associates
Marion Co, FL	1,054	Apr-02	173	-	3.65	24hr.	6.00	N/A	21.90	Kimley-Horn & Associates
Marion Co, FL	3,076	Apr-02	198	-	2.63	24hr.	5.16	N/A	13.57	Kimley-Horn & Associates
Marion Co, FL	3,625	Apr-02	164	-	2.50	24hr.	5.83	N/A	14.58	Kimley-Horn & Associates
Total Size	9,477		945		Average Trip Length: 4.80					
ITE	6,034				Weighted Average Trip Length: 5.42					
Blended total	15,511									

Weighted Average Trip Generation Rate: 2.75

ITE Average Trip Generation Rate (8th): 3.71

Blend of FL Studies and ITE Average Trip Generation Rate: 3.13

Average VMT: 14.35

Weighted Average VMT: 16.96



Congregate Care Facility (ITE LUC 253)

Location	Size / Units	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Park, FL	72	Aug-89	25	19	3.50	9am-5pm	2.20	79.0	6.08	Tindale-Oliver & Associates
Palm Harbor, FL	200	Oct-89	58	40	-	9am-5pm	3.40	69.0	-	Tindale-Oliver & Associates
Total Size	272	72	83	Average Trip Length: 2.80						
ITE	388	388		Weighted Average Trip Length: 3.08						
Blended total	660	460		Weighted Percent New Trip Average: 71.6						
				Weighted Average Trip Generation Rate: 3.50						
				ITE Average Trip Generation Rate (8th): 2.02						
				Blend of FL Studies and ITE Average Trip Generation Rate: 2.25						
				Average VMT: 6.08						
				Weighted Average VMT: 4.97						

Motel (ITE LUC 320)

Location	Size (Rooms)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	48	Oct-89	46	24	-	10a-2p	2.80	65.0	-	Tindale-Oliver & Associates
Pinellas Co, FL	54	Oct-89	32	22	-	12p-7p	3.80	69.0	-	Tindale-Oliver & Associates
Pinellas Co, FL	120	Oct-89	26	22	-	2p-7p	5.20	84.6	-	Tindale-Oliver & Associates
Total Size	222		104	Average Trip Length: 3.93						
				Weighted Average Trip Length: 4.34						
				Weighted Percent New Trip Average: 76.6						
				Weighted Average Trip Generation Rate: -						
				ITE Average Trip Generation Rate (8th): 5.63						

Movie Theater with Matinee (ITE LUC 444)

Location	Size (Screens)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	8	Oct-89	151	116	113.10	2p-8p	2.70	77.0	235.13	Tindale-Oliver & Associates
Pinellas Co, FL	12	Sep-89	122	116	63.40	2p-8p	1.90	95.0	114.44	Tindale-Oliver & Associates
Total Size	20		273	Average Trip Length: 2.30						
ITE	10 estimated			Weighted Average Trip Length: 2.22						
Blended total	30			Weighted Percent New Trip Average: 87.8						

Day Care Center (ITE LUC 565)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Pinellas Co, FL	5.6	Aug-89	94	66	66.99	7a-6p	1.90	70.0	89.10	Tindale-Oliver & Associates
Pinellas Co, FL	10.0	Sep-89	179	134	66.99	7a-6p	2.10	75.0	105.51	Tindale-Oliver & Associates
Tampa, FL	-	Mar-86	28	25	-	-	2.60	89.0	-	Kimley-Horn & Associates
Total Size	15.6		301	Average Trip Length: 2.20						
ITE	30.0			Weighted Average Trip Length: 2.03						
Blended total	45.6			Weighted Percent New Trip Average: 73.2						
				Weighted Average Trip Generation Rate: 66.99						
				ITE Average Trip Generation Rate (8th): 79.26						
				Blend of FL Studies and ITE Average Trip Generation Rate: 75.07						
				Average VMT: 97.30						
				Weighted Average VMT: 111.56						

Nursing Home (ITE LUC 620)

Location	Size (Beds)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Lakeland, FL	120	Mar-90	74	66	2.86	11a-4p	2.59	89.0	6.59	Tindale-Oliver & Associates
Total Size	120		74	Average Trip Length: 2.59						
ITE	415			Weighted Average Trip Length: 2.59						
Blended total	535			Weighted Percent New Trip Average: 89.0						
				ITE Average Trip Generation Rate (8th): 7.58						

General Office Building (ITE LUC 710)

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



Medical-Dental Office Building (ITE LUC 720)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Tampa, FL	-	Mar-86	33	26	-	-	6.00	79.0	-	Kimley-Horn & Associates
Palm Harbor, FL	14.6	Oct-89	104	76	33.98	9a-5p	6.30	73.0	156.27	Tindale-Oliver & Associates
St. Petersburg, FL	-	Nov-89	34	30	57.20	9a-4p	1.20	88.0	-	Tindale-Oliver & Associates
Hernando Co, FL	58.4	May-96	390	349	28.52	9a-6p	6.47	89.5	165.09	Tindale-Oliver & Associates
Hernando Co, FL	28.0	May-96	202	189	49.75	9a-6p	6.06	93.8	282.64	Tindale-Oliver & Associates
Charlotte Co, FL	11.0	Oct-97	-	186	49.50	9a-5p	4.60	92.1	209.67	Tindale-Oliver & Associates
Charlotte Co, FL	28.0	Oct-97	-	186	31.00	9a-5p	3.60	81.6	91.04	Tindale-Oliver & Associates
Charlotte Co, FL	30.4	Oct-97	-	324	39.80	9a-5p	3.30	83.5	109.68	Tindale-Oliver & Associates
Citrus Co, FL	38.9	Oct-03	-	168	32.26	8-6p	6.80	97.1	213.03	Tindale-Oliver & Associates
Citrus Co, FL	10.0	Nov-03	-	340	40.56	8-630p	6.20	92.4	232.33	Tindale-Oliver & Associates
Citrus Co, FL	5.3	Dec-03	-	20	29.36	8-5p	5.25	95.2	146.78	Tindale-Oliver & Associates

Total Size 224.5
ITE 450.0
Blended total 674.5

763
Average Trip Length: 5.07
Weighted Average Trip Length: 5.55

Weighted Percent New Trip Average: 88.9
Average Trip Generation Rate: 35.59
ITE Average Trip Generation Rate (8th): 36.13
Blend of FL Studies and ITE Average Trip Generation Rate: 35.95
Adjusted Trip Generation Rate for Medical Office <10,000 sf: 23.83
Average VMT: 178.51
Weighted Average VMT: 177.29

Business Park (ITE LUC 770)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Collier Co, FL	14.1	May-99	-	55	33.48	8a-6p	3.60	72.7	87.62	Tindale-Oliver & Associates
Collier Co, FL	66.0	May-99	-	43	11.53	8a-6p	5.70	79.0	51.92	Tindale-Oliver & Associates
Collier Co, FL	211.1	May-99	-	284	17.91	8a-6p	5.40	93.0	89.94	Tindale-Oliver & Associates

Total Size 291.2
ITE 5565.0
Blended total 5856.2

4.97%
95.03%
Average Trip Length: 4.90
Weighted Average Trip Length: 5.38

Weighted Percent New Trip Average: 88.8
Weighted Average Trip Generation Rate: 17.22
ITE Average Trip Generation Rate (8th): 12.76
Blend of FL Studies and ITE Average Trip Generation Rate: 12.98
Average VMT: 76.50
Weighted Average VMT: 62.04

Building Materials and Lumber Store (ITE LUC 812)

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 & Associates
Tampa, FL	98.5	Jun-93	40	-	-	7a-430p	6.00	-	-	Tindale-Oliver & Associates
Tampa, FL	-	Jun-93	40	-	-	7a-430p	5.87	75.7	-	Tindale-Oliver & Associates

Total Size 185.4

120
Average Trip Length: 6.15
Weighted Average Trip Length: 6.27

Weighted Percent New Trip Average: 74.4
Weighted Average Trip Generation Rate: -
ITE Average Trip Generation Rate (8th): 45.16



Shopping Center (ITE LUC 820)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	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	1192.0	Aug-89	384	298	-	11a-7p	3.60	78.0	-	Tindale-Oliver & Associates
St. Petersburg, FL	132.3	Sep-89	400	368	77.00	10a-7p	1.80	92.0	127.51	Tindale-Oliver & Associates
Largo, FL	425.0	Aug-89	160	120	26.73	10a-6p	2.30	75.0	46.11	Tindale-Oliver & Associates
Dunedin, FL	80.5	Sep-89	276	210	81.48	9a-5p	1.40	76.0	86.69	Tindale-Oliver & Associates
Pinellas Park, FL	696.0	Sep-89	485	388	-	9a-6p	3.20	80.0	-	Tindale-Oliver & Associates
Seminole, FL	425.0	Oct-89	674	586	-	-	-	87.0	-	Tindale-Oliver & Associates
Hillsborough Co, FL	134.0	Jul-91	-	-	-	-	1.30	74.0	-	Tindale-Oliver & Associates
Hillsborough Co, FL	151.0	Jul-91	-	-	-	-	1.30	73.0	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	68	64	-	-	3.33	94.1	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	208	154	-	-	2.64	74.0	-	Tindale-Oliver & Associates
Sarasota/Bradenton, FL	109.0	Sep-92	300	185	-	12a-6p	-	61.6	-	King Engineering Associates, Inc.
Ocala, FL	133.4	Sep-92	300	192	-	12a-6p	-	64.0	-	King Engineering Associates, Inc.
Gwinnett Co, GA	99.1	Dec-92	-	-	46.00	-	3.20	70.0	103.04	Street Smarts
Gwinnett Co, GA	314.7	Dec-92	-	-	27.00	-	8.50	84.0	192.78	Street Smarts
Sarasota Co, FL	110.0	Jun-93	58	58	122.14	-	3.20	-	-	Sarasota County
Sarasota Co, FL	146.1	Jun-93	65	65	51.53	-	2.80	-	-	Sarasota County
Sarasota Co, FL	157.5	Jun-93	57	57	79.79	-	3.40	-	-	Sarasota County
Sarasota Co, FL	191.0	Jun-93	62	62	66.79	-	5.90	-	-	Sarasota County
Hernando Co, FL	107.8	May-96	608	331	77.60	9a-6p	4.68	54.5	197.85	Tindale-Oliver & Associates
Charlotte Co, FL	88.0	Oct-97	-	-	73.50	9a-5p	1.80	57.1	75.56	Tindale-Oliver & Associates
Charlotte Co, FL	191.9	Oct-97	-	-	72.00	9a-5p	2.40	50.9	87.97	Tindale-Oliver & Associates
Charlotte Co, FL	51.3	Oct-97	-	-	43.00	9a-5p	2.70	51.8	60.08	Tindale-Oliver & Associates
Lake Co, FL	67.8	Apr-01	246	177	102.60	-	3.40	71.2	248.37	Tindale-Oliver & Associates
Lake Co, FL	72.3	Apr-01	444	376	65.30	-	4.50	59.0	173.37	Tindale-Oliver & Associates
Pasco Co, FL	65.6	Apr-02	222	-	145.64	9a-5p	1.46	46.9	99.62	Tindale-Oliver & Associates
Pasco Co, FL	75.8	Apr-02	134	-	38.23	9a-5p	2.36	58.2	52.52	Tindale-Oliver & Associates
Citrus Co, FL	185.0	Oct-03	-	784	55.84	8a-6p	2.40	88.1	118.05	Tindale-Oliver & Associates
Citrus Co, FL	91.3	Nov-03	-	390	54.50	8a-6p	1.60	88.0	76.77	Tindale-Oliver & Associates
Bozeman, MT	104.3	Dec-06	359	359	46.96	-	3.35	49.0	77.08	Tindale-Oliver & Associates
Bozeman, MT	159.9	Dec-06	502	502	56.49	-	1.56	54.0	47.59	Tindale-Oliver & Associates
Bozeman, MT	35.9	Dec-06	329	329	69.30	-	1.39	74.0	71.28	Tindale-Oliver & Associates
Total Size			5,757.5	7,536	Average Trip Length: n/a					
					Weighted Average Trip Length: n/a					
					Weighted Percent New Trip Average: -					

New Car Sales (ITE LUC 841)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
St. Petersburg, FL	43.0	Oct-89	152	120	-	9a-5p	4.70	79.0	-	Tindale-Oliver & Associates
Clearwater, FL	43.0	Oct-89	136	106	29.40	9a-5p	4.50	78.0	103.19	Tindale-Oliver & Associates

Total Size 86.0
ITE 374.0
Blended total 460.0

Average Trip Length: 4.60
Weighted Average Trip Length: 4.60
Weighted Percent New Trip Average: 78.5

Weighted Average Trip Generation Rate: 29.40
ITE Average Trip Generation Rate (8th): 33.34
Blend of FL Studies and ITE Average Trip Generation Rate: 29.85
Average VMT: 103.19
Weighted Average VMT: 107.79

Supermarket (ITE LUC 850)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Palm Harbor, FL	62.0	Aug-89	163	62	106.26	9a-4p	2.08	56.0	123.77	Tindale-Oliver & Associates

Total Size 62.0
ITE 156.0
Blended total 218.0

Average Trip Length: 2.08
Weighted Average Trip Length: 2.08
Weighted Percent New Trip Average: 56.0

Weighted Average Trip Generation Rate: 106.26
ITE Average Trip Generation Rate (8th): 102.24
Blend of FL Studies and ITE Average Trip Generation Rate: 103.38
Average VMT: 123.77
Weighted Average VMT: 120.42



Service Station w/Convenience Market (ITE LUC 853)

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

Weighted Average Trip Generation Rate: 845.60
ITE Average Trip Generation Rate (8th): 845.60
Blend of FL Studies and ITE Average Trip Generation Rate: 775.14
Average VMT: 254.66
Weighted Average VMT: 324.28

Pharmacy/Drugstore with and without Drive-Through Window (ITE LUC 880 & 881)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Pasco Co, FL	11.1	Apr-02	138	38	88.97	-	2.05	27.5	50.23	Tindale-Oliver & Associates
Pasco Co, FL	12.0	Apr-02	212	90	122.16	-	2.04	42.5	105.79	Tindale-Oliver & Associates
Pasco Co, FL	15.1	Apr-02	1192	54	97.96	-	2.13	28.1	58.69	Tindale-Oliver & Associates
Total Size	38.2		1,542	Average Trip Length:		2.07				
ITE	108.0			Weighted Average Trip Length:		2.08				
Blended total	146.2			Weighted Percent New Trip Average:		32.5				

Average Trip Generation Rate: 103.03
ITE Average Trip Generation Rate, 8th edition (LUC 880 / 881): 88.16 / 90.06
Blend of FL Studies and ITE Average Trip Generation Rate: 92.88
Average VMT: 71.57
Weighted Average VMT: 62.71

Furniture Store (ITE LUC 890)

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

Weighted Percent New Trip Average: 54.2
Average Trip Generation Rate: -
ITE Average Trip Generation Rate (8th): 5.06

Drive-In Bank (ITE LUC 912)

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

Weighted Average Trip Generation Rate: 246.66
ITE Average Trip Generation Rate (8th): 148.15
Blend of FL Studies and ITE Average Trip Generation Rate: 159.34
Average VMT: 265.44
Weighted Average VMT: 180.91



Sit-Down Restaurant (ITE LUC 931)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Tampa, FL	-	Mar-86	76	62	-	-	2.10	82.0	-	Kimley-Horn & Associates
St. Petersburg, FL	7.5	Oct-89	177	154	-	11a-2p/4-8p	3.50	87.0	-	Tindale-Oliver & Associates
Clearwater, FL	8.0	Oct-89	60	40	110.63	10a-2p/5-9p	2.80	67.0	207.54	Tindale-Oliver & Associates

Total Size 15.5 8.0 313
ITE 135.0 135.0
Blended total 150.5 143.0

Average Trip Length: 2.80
Weighted Average Trip Length: 3.14

Weighted Percent New Trip Average: 76.7
Weighted Average Trip Generation Rate: 110.63
ITE Average Trip Generation Rate: 89.95
Blend of FL Studies and ITE Average Trip Generation Rate: 91.10
Average VMT: 207.54
Weighted Average VMT: 219.34

High-Turnover Restaurant (ITE LUC 932)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Hernando Co, FL	6.2	May-96	242	175	187.51	9a-6p	2.76	72.5	375.00	Tindale-Oliver & Associates
Hernando Co, FL	8.2	May-96	154	93	102.71	9a-6p	4.15	60.2	256.43	Tindale-Oliver & Associates
St. Petersburg, FL	5.0	Oct-89	74	68	132.60	1130-7p	2.00	92.0	243.98	Tindale-Oliver & Associates
Kenneth City, FL	5.2	Oct-89	236	176	127.88	4p-730p	2.30	75.0	220.59	Tindale-Oliver & Associates
Pasco Co, FL	5.2	Apr-02	114	88	82.47	9a-6p	3.72	77.2	236.81	Tindale-Oliver & Associates
Pasco Co, FL	5.8	Apr-02	182	102	116.97	9a-6p	3.49	56.0	228.77	Tindale-Oliver & Associates

Total Size 35.6 1.102
ITE 98.0
Blended total 133.6

Average Trip Length: 3.07
Weighted Average Trip Length: 3.17

Weighted Percent New Trip Average: 70.8
Weighted Average Trip Generation Rate: 124.69
ITE Average Trip Generation Rate: 127.15
Blend of FL Studies and ITE Average Trip Generation Rate: 126.50
Average VMT: 260.26
Weighted Average VMT: 283.77

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

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VTM	Source
Tampa, FL	-	Mar-86	61	-	-	-	2.70	-	-	Kimley-Horn & Associates
Tampa, FL	-	Mar-86	306	-	-	-	-	65.0	-	Kimley-Horn & Associates
Pinellas Co, FL	2.20	Aug-89	81	48	502.80	11a-2p	1.70	59.0	504.31	Tindale-Oliver & Associates
Pinellas Co, FL	4.30	Oct-89	456	260	660.40	1 day	2.30	57.0	865.78	Tindale-Oliver & Associates
Tarpon Springs, FL	-	Oct-89	233	114	-	7a-7p	3.60	49.0	-	Tindale-Oliver & Associates
Marion Co, FL	1.60	Jun-91	60	32	962.50	48hrs.	0.91	53.3	466.84	Tindale-Oliver & Associates
Marion Co, FL	4.00	Jun-91	75	46	625.00	48hrs.	1.54	61.3	590.01	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	66	44	-	-	1.91	66.7	-	Tindale-Oliver & Associates
Collier Co, FL	-	Aug-91	118	40	-	-	1.17	33.9	-	Tindale-Oliver & Associates
Hernando Co, FL	5.43	May-96	136	82	311.83	9a-6p	1.68	60.2	315.27	Tindale-Oliver & Associates
Hernando Co, FL	3.13	May-96	168	82	547.34	9a-6p	1.59	48.8	425.04	Tindale-Oliver & Associates
Lake Co, FL	2.20	Apr-01	376	252	934.30	-	2.50	74.6	1742.47	Tindale-Oliver & Associates
Lake Co, FL	3.20	Apr-01	171	182	654.90	-	4.10	47.8	1283.47	Tindale-Oliver & Associates
Lake Co, FL	3.80	Apr-01	188	137	353.70	-	3.30	70.8	826.38	Tindale-Oliver & Associates
Pasco Co, FL	2.66	Apr-02	100	46	283.12	9a-6p	5.10	46.0	664.20	Tindale-Oliver & Associates
Pasco Co, FL	2.96	Apr-02	486	164	515.32	9a-6p	2.72	33.7	472.92	Tindale-Oliver & Associates
Pasco Co, FL	4.42	Apr-02	168	120	759.24	9a-6p	1.89	71.4	1024.99	Tindale-Oliver & Associates

Total Size 39.9 34.0 4,463
ITE 63.0 63.0
Blended total 102.9 97.0

Average Trip Length: 2.42
Weighted Average Trip Length: 2.05

Weighted Percent New Trip Average: 57.9
Weighted Average Trip Generation Rate: 564.46
ITE Average Trip Generation Rate (8th): 496.12
Blend of FL Studies and ITE Average Trip Generation Rate: 522.62
Average VMT: 765.14
Weighted Average VMT: 620.02



Automobile Repair Shop (ITE LUC 942)

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Jacksonville, FL	2.3	2/3-4/90	124	94	-	9a-5p	3.07	76.0	-	Tindale-Oliver & Associates
Jacksonville, FL	2.3	2/3-4/90	110	74	-	9a-5p	2.96	67.0	-	Tindale-Oliver & Associates
Jacksonville, FL	2.4	2/3-4/90	132	87	-	9a-5p	2.32	66.0	-	Tindale-Oliver & Associates
Lakeland, FL	5.2	Mar-90	24	14	-	9a-4p	1.36	59.0	-	Tindale-Oliver & Associates
Largo, FL	5.5	Sep-89	34	30	37.64	9a-5p	2.40	88.0	79.50	Tindale-Oliver & Associates
Orange Co, FL	25.0	Nov-92	41	39	-	2-6p	4.60	-	-	LCE, Inc.
Lakeland, FL	-	Mar-90	54	42	-	9a-4p	2.44	78.0	-	Tindale-Oliver & Associates
Total Size	42.6	5.5	519	Average Trip Length: 2.74						
ITE	60.0	60.0		Weighted Average Trip Length: 3.62						
Blended total	102.6	65.5		Weighted Percent New Trip Average: 72.2						

Weighted Average Trip Generation Rate: 37.64
ITE Average Trip Generation Rate (8th): 33.80
Blend of FL Studies and ITE Average Trip Generation Rate: 34.12
Average VMT: 79.50
Weighted Average VMT: 89.19

Self-Service Car Wash (ITE LUC 947)

Location	Size (Bays)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Largo, FL	5.8	Nov-89	111	84	-	8am-5pm	2.00	76.0	-	Tindale-Oliver & Associates
Clearwater, FL	-	Nov-89	177	108	-	10am-5pm	1.30	61.0	-	Tindale-Oliver & Associates
Collier Co, FL	11	Jan-09	-	-	30.24	-	-	-	-	Tindale-Oliver & Associates
Collier Co, FL	8	Jan-09	-	-	22.75	-	-	-	-	Tindale-Oliver & Associates
Total Size	24.8	19.0	288	Average Trip Length: 1.65						
ITE	5.0	5.0		Weighted Average Trip Length: 2.00						
Blended total	29.8	24.0		Weighted Percent New Trip Average: 17.8						

Weighted Average Trip Generation Rate: 27.09
ITE Average Trip Generation Rate: 108.00
Blend of FL Studies and ITE Average Trip Generation Rate: 43.94

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

Location	Size (1,000 sf)	Date	Total # Interviews	# Trip Length Interviews	Trip Gen Rate	Time Period	Trip Length	Percent New Trips	VMT	Source
Volusia Co, FL	-	-	-	-	918.00	-	2.40	33.0	727.06	Tindale-Oliver & Associates
Collier Co, FL	2.4	Nov-99	-	128	1399.58	8a-6p	4.10	13.3	763.19	Tindale-Oliver & Associates
Indian River Co, FL	2.5	Mar-98	132	52	748.30	8a-6p	3.70	19.7	545.44	Tindale-Oliver & Associates
Indian River Co, FL	3.0	Mar-98	107	84	563.10	8a-6p	2.00	39.3	442.60	Tindale-Oliver & Associates
Indian River Co, FL	3.1	Mar-98	132	110	1396.00	8a-6p	1.80	41.7	1,047.84	Tindale-Oliver & Associates
Collier Co, FL	3.3	Nov-99	-	144	862.56	8a-6p	2.20	39.6	751.46	Tindale-Oliver & Associates
Total Size	14.3		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
ITE Average Trip Generation Rate (8th): -
Average VMT: 712.93
Weighted Average VMT: 838.72

