

**Collier County  
General Government Buildings  
Impact Fee Update Study**

**Final Report**



*Prepared for:*

**Collier County**  
*2800 Horseshoe Drive N.  
Naples, FL 34104  
ph (239) 252-8192*

**October 10, 2016**

**Tindale Oliver**  
*1000 Ashley Drive, Suite 400  
Tampa, FL 33602  
ph (813) 224-8862, fax (813) 226-2106*

**Collier County  
Government Buildings Impact Fee Update Study  
Table of Contents**

<b>INTRODUCTION .....</b>	<b>1</b>
<b>FACILITY INVENTORY .....</b>	<b>2</b>
<b>SERVICE AREA AND POPULATION .....</b>	<b>3</b>
<b>LEVEL OF SERVICE .....</b>	<b>4</b>
<b>COST COMPONENT .....</b>	<b>5</b>
<b>CREDIT COMPONENT .....</b>	<b>6</b>
<b>NET GOVERNMENT BUILDINGS FACILITIES IMPACT COST .....</b>	<b>9</b>
<b>CALCULATED GOVERNMENT FACILITIES IMPACT FEE SCHEDULE.....</b>	<b>10</b>
<b>IMPACT FEE SCHEDULE COMPARISON .....</b>	<b>12</b>
<b>APPENDIX A:</b> Collier County Government Buildings Inventory	
<b>APPENDIX B:</b> Population – Supplemental Information	
<b>APPENDIX C:</b> Building and Land Value Analysis - Supplemental Information	

## Introduction

---

Government buildings impact fees are used to fund capital construction and expansion of government services related land and facilities required to support the additional government service demand created by new growth. Collier County's government buildings impact fee was last updated in 2010. To comply with the technical study update requirements of the impact fee ordinance and to ensure that the government buildings impact fee is calculated based on the most recent and localized data, the County retained Tindale Oliver (TO) to conduct an update study. This report presents the results of the Government Buildings Impact Fee Update Study for the County and will serve as the technical support document in updating the government buildings impact fee ordinance.

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

- Facility Inventory
- Service Area and Population
- Level of Service
- Cost Component
- Credit Component
- Net Government Buildings Impact Fee Cost
- Calculated Government Buildings Impact Fee Schedule
- Impact Fee Schedule Comparison

These various elements are summarized in the remainder of this report.

## Facility Inventory

The government buildings inventory includes facilities that are primarily for the provision of essential court and county 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 Collier County Facilities Management Division, Collier County has 1.3 million square feet of general government building space. This includes the square footage of both primary and support buildings. Support facilities are defined as facilities without air-conditioning, or facilities that are unlikely to be occupied by personnel. In addition, the County also leases approximately 32,000 square feet of space for general government services. For the purposes of impact fee calculations, the leased space is not included in the inventory and new development is not charged for it in the impact fee.

**Table 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 854,000 square feet of primary building space and 443,000 square feet of support space. A detailed summary of the County’s entire general government building inventory can be found in Appendix A, Table A-1.

**Table 1**  
**Summary of Building Inventory**

Building Type	Land	Square Feet <sup>(1)</sup>	Building Value per Square Foot <sup>(2)</sup>	Total Building & Land Value <sup>(3)</sup>
Primary Buildings		853,756	\$275	\$234,782,900
Support Buildings		443,152	\$80	\$35,452,160
Total		1,296,908		\$270,235,060
Allocated Acreage <sup>(4)</sup>	94.92			
Land Value per Acre <sup>(5)</sup>	\$160,000			\$15,187,200
<b>Total Building and Land Value<sup>(6)</sup></b>				<b>\$285,422,260</b>

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

(2) Building values are determined primarily by insurance values, discussions with architects, and other available information. Appendix C provides a detailed explanation of unit costs.

(3) Square feet (Item 1) multiplied by the building value per square foot (Item 2)

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

(5) Land value per acre is determined through an evaluation of the land values where existing facilities are located as well as future facility locations. Appendix C provides a more detailed explanation of the land value per acre.

(6) Sum of building and land value

An important part of the impact fee calculation involves estimating the current value of the capital assets. As shown in Table 1, primary buildings are estimated to cost \$275 per square foot while support buildings are estimated to cost \$80 per square foot. The building value estimates are based on a review of recently built or planned government buildings in Collier County, insurance values of the existing inventory, and discussions with architects currently working within Collier County. A more detailed explanation of building value estimates can be found in Appendix C.

In order to determine the value of land component of government buildings, land values of the existing inventory and the land values in areas where future planned facilities are likely to be located were reviewed. Both the recent sales and the value of vacant land as reported by the Collier County Property Appraiser were evaluated to determine the differentiation in land values in different parts of the county. In addition, land use characteristics of existing government buildings were evaluated. This analysis resulted in average land value of \$160,000 per acre, and is explained further in Appendix C.

## Service Area and Population

---

Government buildings and services are provided by Collier County in all areas of the county. Therefore, the proper benefit district for government buildings is the entire county.

The government buildings impact fee program requires the use of population data in calculating current levels of service and performance standards. To accurately determine demand for public building facility services and to be consistent with the population utilized in the County's comprehensive planning and Annual Update and Inventory Report (AUIR) process, this impact fee study considers not only the resident or permanent population of the County, but also the number of seasonal residents and visitors as well. Therefore, for purposes of this technical analysis, the peak season population is used in all population estimates and projections, unless otherwise noted. Peak season population projections were provided by Collier County's Comprehensive Planning Division. For more information regarding population figures, see Appendix B.

## Level of Service

**Table 2** presents the calculation of the existing LOS for government buildings within Collier County. It should be noted that the County is still paying off debt service on several recently constructed buildings. The existing LOS based on buildings that are paid for is approximately 1.49 square feet per peak resident, which is slightly lower than the adopted LOS standard of 1.70 square feet shown in the County’s 2015 Annual Update and Inventory Report (AUIR). The achieved LOS figure represents the existing community’s investment into government buildings while the adopted LOS standard that are also shown in Table 2, represents the service level intended going forward. Given that the achieved LOS based on owned buildings is slightly lower than the adopted LOS standard, the achieved LOS is used for impact fee calculation purposes, which results in a more conservative impact fee.

While the 2015 LOS for all owned buildings is 2.04 square feet per peak resident, in order to calculate the government buildings facilities impact fee, the LOS, or square feet per functional resident must be calculated. Table 2 also illustrates the calculation of the current LOS using the total functional residents within Collier County. The current LOS of primary government building space is 2.19 square feet per functional resident.

**Table 2**  
**Current Level of Service**  
**(Per Peak Season and Functional Resident)**

Calculation Step	Year 2015	
	Peak Population	Functional Population
Population <sup>(1)</sup>	418,048	390,674
Total Square Footage of Primary Buildings <sup>(2)</sup>	853,756	853,756
<b>LOS (Square Feet per Resident)<sup>(3)</sup></b>	2.04	2.19
Owned Square Footage of Primary Buildings <sup>(4)</sup>	623,242	623,242
<b>LOS (Owned Square Feet per Resident)<sup>(5)</sup></b>	1.49	1.60
Adopted LOS Standard (Square feet per Resident) <sup>(6)</sup>	1.70	1.82

(1) Source: Appendix B, Tables B-1 and B-7

(2) Source: Table 1

(3) Total square footage of primary buildings (Item 2) divided by population (Item 1)

(4) Owned building square footage is calculated as the portion of the owned total asset value to the total asset value times the total square feet of all primary buildings.

(5) Total square footage of owned primary buildings (Item 4) divided by population (Item 1)

(6) Source: Collier County 2015 Annual Update and Inventory Report (AUIR) for peak population. Figure in terms of functional population is calculated by adjusting the adopted standard (1.7) based on the ratio of peak to functional population (Item 1)

## Cost Component

The cost component of the study evaluates the cost of capital items, including buildings and land. As mentioned previously, a portion of the government buildings was funded through bond/commercial paper issues. The debt service on some of these issues is being paid with impact fee revenues. As such, the outstanding principal associated with debt service that will be paid with impact fee revenues is subtracted from the total inventory value to ensure that the new development is not charged twice for the same facility.

**Table 3** provides a summary of all capital costs, which amounts to \$244 per square foot of government building space. The cost per square foot figure is calculated by taking the net buildings and land value divided by the total building square footage of primary building space. Table 3 also provides the distribution of asset value by asset type for future indexing calculations in accordance with the indexing methodology adopted by the County.

**Table 3**  
**Total Capital Asset Value**

Item	Figure	Percent of Total <sup>(8)</sup>
Total Land Value <sup>(1)</sup>	\$15,187,200	5%
Total Building Value <sup>(2)</sup>	\$270,235,060	95%
Total Capital Asset Value <sup>(3)</sup>	<b>\$285,422,260</b>	<b>100%</b>
Less: Portion Not Paid for <sup>(4)</sup>	\$77,349,469	
Net Buildings and Land Value <sup>(5)</sup>	\$208,072,791	
<b>Total Building Square Footage (Primary Buildings)<sup>(6)</sup></b>	<b>853,756</b>	
<b>Total Capital Value per Square Foot<sup>(7)</sup></b>	<b>\$243.71</b>	

(1) Source: Table 1

(2) Source: Table 1

(3) Sum of land and building values (Items 1 and 2)

(4) Source: Office of Management and Budget

(5) Total capital asset value (Item 3) less portion not paid for (Item 4)

(6) Source: Table 1

(7) Net buildings and land value (Item 5) divided by total building square footage (Item 6)

(8) Distribution of land and building values (Items 1 and 2)

**Total Impact Cost per Functional Resident**

**Table 4** presents the unit cost for the impact fee analysis. This unit cost was calculated as the total capital cost of \$244 per square foot multiplied by the LOS of 2.19 square feet per functional resident. As shown in the following table, the total impact cost per resident is \$534 for general government buildings.

**Table 4  
Total Impact Cost per Functional Resident**

Component	Figure
Total Capital Asset Value per Square Foot <sup>(1)</sup>	\$243.71
LOS (Square Feet per Functional Resident) <sup>(2)</sup>	2.19
<b>Total Capital Asset Value per Functional Resident<sup>(3)</sup></b>	<b>\$533.72</b>

(1) Source: Table 3

(2) Source: Table 2

(3) Total capital asset value per square foot (Item 1) multiplied by the LOS (Item 2)

## Credit Component

---

To avoid overcharging development for the government buildings impact fee, a review of the capital funding of 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 facility expansion or land purchase for government buildings. This review suggested that the County has issued bonds for some of the capacity expansion projects.

### Debt Service Credit

Any outstanding bond issues related to government buildings expansion will result in a credit to the impact fee. Collier County funded the Transportation Building and Domestic Animal Control Building through bonds. The Domestic Animal Control building is being paid with strictly General Fund dollars while the Transportation Building is being paid with funds from the Road and Bridge Operating Fund, which receives funds mostly from the General Fund (approximately 82 percent). Outstanding bond issues related to government buildings expansion expenditures are presented in **Table 5**.



## Collier County | Government Buildings IF Update Study

The debt service credit is calculated by determining the present value of the total payments related to the remaining portion of the bond issues and then dividing it by the average annual functional population estimated over the remaining life of the bond issue. The resulting credit for government buildings debt is \$13 per functional resident. Because the General Fund includes ad valorem tax revenues, a credit adjustment is made to account for the fact that new homes tend to pay higher property taxes per dwelling unit. This adjustment factor was estimated based on a comparison of the average taxable value of homes built over the past five years to that of all homes. As shown, the adjusted debt service credit is \$18 per resident, which is used in the calculation of residential impact fees.

**Table 5  
Debt Service Credit**

Bond Issue <sup>(1)</sup>	Payments Remaining <sup>(1)</sup>	Funding Source <sup>(1)</sup>	Present Value of Remaining Payments <sup>(1)</sup>	Avg. Annual Functional Population (Remaining Bond Issue Period) <sup>(2)</sup>	Credit per Functional Resident <sup>(3)</sup>
Domestic Animal Control Building (Series 2010B)	7	General Fund	\$746,556	420,780	<b>\$1.77</b>
Transportation Building (Series 2011)	10	Road & Bridge	\$1,778,585	431,586	<b>\$4.12</b>
Transportation Building (Series 2013)	21	Operating Fund 101	\$3,395,478	469,313	<b>\$7.23</b>
<b>Total Debt Service Credit</b>					<b>\$13.12</b>
Portion Funded from the General Fund <sup>(4)</sup>					\$11.08
Portion Funded with Ad Valorem Tax Revenues <sup>(5)</sup>					\$7.31
<b>Adjustment for Residential Land Uses</b>					
Adjustment Factor for Residential Land Uses <sup>(6)</sup>					1.60
Adjusted Debt Service Credit for Residential Land Uses <sup>(7)</sup>					\$11.70
Portion Funded with Other Sources <sup>(8)</sup>					\$5.81
<b>Total Debt Service Credit for Residential Land Uses <sup>(9)</sup></b>					<b>\$17.51</b>

(1) Source: Collier County Office of Management and Budget

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

(3) Present value of payments remaining (Item 1) divided by the average annual functional population over the same time period (Item 2)

(4) Portion of the total debt service credit per functional resident funded with revenues from the General Fund, represents 100% of the domestic animal control building and approximately 82% of the transportation building debt.

(5) Portion of the General Fund revenues funded by ad valorem taxes, represents approximately 66% of General Fund revenues.

(6) Adjustment factor to reflect higher ad valorem taxes paid by new homes

(7) Portion funded with ad valorem tax revenues (Item 5) multiplied by the credit adjustment factor (Item 6)

(8) Total debt service credit less the portion funded with ad valorem tax revenues (Item 5)

(9) Sum of the adjusted debt service credit for residential land uses (Item 7) and the portion funded with other sources (Item 8)

## Net Government Buildings Impact Cost

The net impact fee per functional resident is the difference between the Cost Component and the Credit Component. **Table 6** presents the calculation of the net government buildings impact cost per functional resident.

The first section of Table 6 shows the total impact cost per functional resident of \$534. The second section shows revenue credits for the government buildings impact fee of approximately \$18 per resident in the case of residential land uses and \$13 per resident for non-residential land uses.

The net impact cost per functional resident (third section of the table) is the difference between the total impact cost per resident and the total revenue credit per resident. The result is a net impact cost of \$516 per resident in the case of residential land uses and \$521 per resident for non-residential land uses.

**Table 6**  
**Net Impact Cost per Functional Resident**

Impact Cost/ Credit Element	Per Functional Resident
<b>Impact Cost</b>	
Total Impact Cost <sup>(1)</sup>	\$533.72
<b>Revenue Credit</b>	
Debt Service Credit <sup>(2)</sup>	
- Residential Land Uses	\$17.51
- Non-residential Land Uses	\$13.12
<b>Net Impact Cost<sup>(3)</sup></b>	
- Residential Land Uses	<b>\$516.21</b>
- Non-residential Land Uses	<b>\$520.60</b>

(1) Source: Table 4

(2) Source: Table 5

(3) Total impact cost (Item 1) less total debt service credit (Item 2)

## 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 7**. The calculated fee is approximately 30 percent higher than adopted fee due to the changes in the cost and credit variables. The remaining difference in fees is due to the changes to the demand component since 2010.

**Table 7**  
**Calculated Government Buildings Impact Fee Schedule**

LUC	Land Use	Impact Unit	Functional Population Coefficient <sup>(1)</sup>	Net Impact Fee per Functional Resident <sup>(2)</sup>	Current Adopted Fee <sup>(3)</sup>	Percent Change <sup>(4)</sup>
<b>Residential:</b>						
210	Single Family Detached					
	- Less than 4,000 sf	du	1.81	\$934.34	\$766.12	22%
	- 4,000 sf or greater	du	2.03	\$1,047.91	\$847.96	24%
220/222/ 230/232	Multi-Family	du	0.86	\$443.94	\$388.48	14%
240	Mobile Home / RV (Tied Down)	du	1.45	\$748.50	\$572.86	31%
251	Retirement Community/Age-Restricted Single Family	du	0.79	\$407.81	\$766.12	-47%
<b>Transient, Assisted, Group:</b>						
310/311	Hotel	room	0.81	\$421.69	\$290.87	45%
320	Motel	room	0.76	\$395.66	\$271.15	46%
253	Assisted Living Facility (ALF)	du	1.01	\$525.81	\$322.42	63%
620	Nursing Home	bed	1.05	\$546.63	\$282.98	93%
<b>Recreational:</b>						
416	RV Park	site	0.50	\$260.30	\$211.99	23%
420	Marina	berth	0.19	\$98.91	\$74.93	32%
430	Golf Course	18 holes	19.44	\$10,120.46	\$7,634.52	33%
n/a	Bundled Golf Course	18 holes	5.83	\$3,035.10	\$7,634.52	-60%
444	Movie Theater	screen	5.98	\$3,113.19	\$2,348.65	33%
n/a	Dance Studios/Gyms	1,000 sf	2.22	\$1,155.73	\$962.33	20%
<b>Institutions:</b>						
520	Elementary School (Private)	student	0.06	\$31.24	\$23.66	32%
522	Middle School (Private)	student	0.07	\$36.44	\$27.60	32%
530	High School (Private)	student	0.08	\$41.65	\$31.55	32%
540	University/Junior College with 7,500 or fewer students	student	0.10	\$52.06	\$39.44	32%
550	University/Junior College with more than 7,500 students	student	0.07	\$36.44	\$27.60	32%
560	Church	seat	0.03	\$15.62	\$223.82 per 1,000 sf	N/A
565	Day Care	student	0.05	\$26.03	\$19.72	32%
610	Hospital	1,000 sf	1.37	\$713.22	\$608.36	17%
<b>Office:</b>						
710	Office 6,000 sf or less	1,000 sf	1.00	\$520.60	\$558.07	-7%
	Office 6,001 - 100,000 sf	1,000 sf	1.19	\$619.51	\$516.66	20%
	Office 100,001 - 200,000 sf	1,000 sf	1.01	\$525.81	\$404.26	30%
	Office 200,001 - 400,000 sf	1,000 sf	0.85	\$442.51	\$345.10	28%
	Office greater than 400,000 sf	1,000 sf	0.77	\$400.86	\$314.53	27%
720	Medical Office/Clinic 10,000 sf or less	1,000 sf	1.14	\$593.48	\$675.41	-12%
	Medical Office/Clinic greater than 10,000 sf	1,000 sf	1.66	\$864.20	\$675.41	28%
770	Business Park (Flex Space)	1,000 sf	0.96	\$499.78	\$388.48	29%

**Table 7 (continued)**  
**Calculated Government Buildings Impact Fee Schedule**

LUC	Land Use	Impact Unit	Functional Population Coefficient <sup>(1)</sup>	Net Impact Fee per Functional Resident <sup>(2)</sup>	Current Adopted Fee <sup>(3)</sup>	Percent Change <sup>(4)</sup>	
<b>Retail:</b>							
814	Specialty Retail	1,000 sf	1.69	\$879.81	\$663.57	33%	
820	Retail 6,000 gsf or less	1,000 gsf	2.45	\$1,275.47	\$962.33	33%	
	Retail 6,001 - 25,000 gsf	1,000 gsf	2.45	\$1,275.47	\$962.33	33%	
	Retail 25,001 - 50,000 gsf	1,000 gsf	2.45	\$1,275.47	\$962.33	33%	
	Retail 50,000 - 100,000 gsf	1,000 gsf	2.45	\$1,275.47	\$966.28	32%	
	Retail 100,001 - 150,000 gsf	1,000 gsf	2.45	\$1,275.47	\$883.45	44%	
	Retail 150,001 - 200,000 gsf	1,000 gsf	2.39	\$1,244.23	\$1,079.67	15%	
	Retail 200,001 - 400,000 gsf	1,000 gsf	2.34	\$1,218.20	\$918.95	33%	
	Retail 400,001 - 600,000 gsf	1,000 gsf	2.32	\$1,207.79	\$958.39	26%	
	Retail 600,001 - 1,000,000 gsf	1,000 gsf	2.17	\$1,129.70	\$950.50	19%	
	Retail greater than 1,000,000 gsf	1,000 gsf	2.09	\$1,088.05	\$820.35	33%	
841	New/Used Auto Sales	1,000 sf	1.47	\$765.28	\$671.46	14%	
849	Tire Superstore	bay	1.34	\$697.60	\$526.52	32%	
850	Supermarket	1,000 sf	2.05	\$1,067.23	\$804.57	33%	
851	Convenience Market (24 hour)	1,000 sf	5.47	\$2,847.68	\$2,120.88	34%	
853	Convenience Store w/ Gas Pumps						
		4 or less fuel positions	fuel pos.	4.35	\$2,264.61	\$1,708.73	33%
		5-6 fuel positions	fuel pos.	3.70	\$1,926.22	\$1,708.73	13%
		7-8 fuel positions	fuel pos.	3.29	\$1,712.77	\$1,708.73	0%
		9-10 fuel positions	fuel pos.	2.94	\$1,530.56	\$1,708.73	-10%
		11-12 fuel positions	fuel pos.	2.75	\$1,431.65	\$1,708.73	-16%
	13 or more fuel positions	fuel pos.	2.59	\$1,348.35	\$1,708.73	-21%	
862	Home Improvement Superstore	1,000 sf	1.81	\$942.29	\$699.07	35%	
881	Pharmacy/Drug Store with and wo/Drive-Thru	1,000 sf	1.96	\$1,020.38	\$758.23	35%	
890	Furniture Store	1,000 sf	0.24	\$124.94	\$94.65	32%	
911	Bank/Savings Walk-In	1,000 sf	2.23	\$1,160.94	\$1,009.66	15%	
912	Bank/Savings Drive-In	1,000 sf	2.28	\$1,186.97	\$895.28	33%	
931	Low-Turnover Restaurant	seat	0.22	\$114.53	\$86.76	32%	
932	High-Turnover Restaurant	seat	0.27	\$140.56	\$106.48	32%	
934	Fast Food Rest. w/Drive-Thru	1,000 sf	8.90	\$4,633.34	\$3,538.75	31%	
941	Quick Lube	service bay	1.16	\$603.90	\$455.53	33%	
944	Gasoline/Service Station	fuel pos.	1.91	\$994.35	\$777.95	28%	
947	Self-Service Car Wash	service bay	0.87	\$452.92	\$239.59	89%	
948	Automated Car Wash	1,000 sf	1.76	\$916.26	\$632.02	45%	
n/a	Luxury Auto Sales	1,000 sf	1.03	\$536.22	\$435.81	23%	
<b>Industrial:</b>							
110	Light Industrial	1,000 sf	0.69	\$359.21	\$271.15	32%	
140	Manufacturing	1,000 sf	0.50	\$260.30	\$271.15	-4%	
150	Warehousing	1,000 sf	0.28	\$145.77	\$271.15	-46%	
151	Mini-Warehouse	1,000 sf	0.06	\$31.24	\$27.60	13%	

- (1) Source: Table B-8 for residential land uses and Table B-9 for non-residential land uses
  - (2) Source: Net impact cost per functional resident from Table 6 is multiplied by the functional population coefficient for each land use
  - (3) Source: Collier County Capital Project Planning, Impact Fees and Program Management Division. The current impact fee rate shown for the 6,001- to 100,000-square feet office category is the average of the 6,001 to 50,000 sf and 50,001 sf to 100,000 sf groupings (\$558.07 and \$475.25)
  - (4) Percent change from the net impact fee per functional resident (Item 2) and the current adopted fee (Item 3)
- Note: N/A indicates a different unit

## Impact Fee Schedule Comparison

---

As part of the work effort in updating Collier County’s government buildings impact fee program, a comparison of government buildings impact fee schedules was completed for other Florida counties. **Table 8** presents this comparison. The purpose of this table is simply to provide a comparison of adopted rates in these jurisdictions. This information is limited in its ability to explain the differential in the rates since several factors affect the fee levels, including policy decisions as well as technical factors, such as inventory levels, types of facilities built, alternative funding availability, variations in demand, etc.

**Table 8**  
**Government Buildings Impact Fee Schedule Comparison**

Land Use	Unit <sup>(2)</sup>	Collier County		Charlotte	Palm Beach	Sarasota	St. Lucie	Martin	Indian River
		Calculated <sup>(3)</sup>	Existing <sup>(4)</sup>	County <sup>(5)</sup>	County <sup>(6)</sup>	County <sup>(7)</sup>	County <sup>(8)</sup>	County <sup>(9)</sup>	County <sup>(10)</sup>
Date of Last Update		2016	2010	2014	2012	2007	2009	2012	2014
Assessed Portion of Calculated <sup>(1)</sup>		100%	100%	40%	27%	100%	100%	100%	50%/26%
<b>Residential:</b>									
Single Family (2,000 sf)	du	\$934	\$766	\$296	\$223	\$339	\$340	\$646	\$370
<b>Non-Residential:</b>									
Light Industrial	1,000 sf	\$359	\$271	\$144	\$74	\$106	\$69	\$182	\$86
Office (50,000 sq ft)	1,000 sf	\$620	\$558	\$248	\$131	\$177	\$302	\$316	\$125
Retail (100,000 sq ft)	1,000 sf	\$1,275	\$966	\$439	\$324	\$441	\$512	\$551	\$296
Bank w/Drive-Thru	1,000 sf	\$1,187	\$895	\$475	\$382	\$441	\$445	\$554	\$285
Fast Food w/Drive-Thru	1,000 sf	\$4,633	\$3,539	\$1,853	\$604	\$441	\$445	\$2,482	\$1,111

- (1) Represents the portion of the maximum calculated fee for each respective county that is actually charged. Fee may have been lowered/increased through annual indexing or policy discounts. Does not account for moratorium/suspensions.
- (2) du = dwelling unit
- (3) Source: Table 7
- (4) Source: Collier County Capital Project Planning, Impact Fees and Program Management Division
- (5) Source: Charlotte County Community Development Department. Fees were adopted at 40% in 2015.
- (6) Source: Palm Beach County Department of Planning, Zoning, and Building
- (7) Source: Sarasota County Planning & Development Services Department
- (8) St. Lucie County Planning & Development Services Department. Fees were adopted at 100% and have since been indexed annually using the CPI.
- (9) Martin County Growth Management Department
- (10) Indian River County Planning Division. Adopted the "affordable growth" scenario which discounted non-res to 26%. Additionally, staff recommended a 50% discount to all land uses.

**Appendix A**  
**Collier County Government Buildings Inventory**



**Table A-1  
Government Buildings Inventory (Primary)**

Name of Structure - Primary Buildings	Square Feet <sup>(1)</sup>
Golden Gate Government Services Center	6,090
Immokalee Government Center	10,495
Immokalee Health Department (CHSI)	14,778
Immokalee Barn (Floors 1 & 2)	14,530
Immokalee Transportation Building	3,358
Medical Examiners Office	13,238
Building "B" Human Resources	7,160
Building "D" PWED	8,388
Building "C-1"-"C-2" Tax Collector and Supervisor of Elections	30,753
Building "F" (Floors 1-8)	89,966
Building "G" Purchasing	5,569
Building "H" Health (Floors 1-3)	54,160
Building "L" Courthouse (Floors 1-6, Mezz.)	148,533
Building "L-1" Courthouse Annex	137,984
Building "W" General Services (Floors 1-2)	31,054
Animal Control Administration	8,933
Animal Control Sally Port	6,727
Immokalee Animal Control Office	164
Marco Tax Collector	2,699
Transportation Headquarters	33,542
CAT Operations	32,144
Immokalee Code Enforcement Building	1,994
BCC Fleet Management	41,316
North Collier County Government Services Center	14,000
Emergency Services Center	57,274
Agriculture Building	13,361
Supervisor of Elections	7,000
Property Appraiser/Elks Lodge	27,566
New Supervisor of Elections Building	30,980
<b>TOTAL (Primary Buildings)</b>	<b>853,756</b>

**Table A-1 (continued)  
Government Buildings Inventory (Support)**

Name of Structure - Support Buildings	Square Feet <sup>(1)</sup>
800 MHz Generator Building	238
Animal Control Kennel 1-3	11,847
Animal Control Stable	3,159
Immokalee Animal Control Kennel	1,572
Immokalee Radio Tower Shed	16
Road & Bridge Shed	102
Road & Bridge Fuel Island	818
Building "K" Chiller Building	5,520
800 MGHZ Generator	368
Electric Substation "A"	824
Electric Substation "B"	1,088
Parking Garage #2 (Courthouse Annex)	410,302
Fuel Island/Canopy	3,600
Generator/Fuel Tank	127
Fuel Tanks and Slab	1,557
County Barn 800 MGHZ Repeater Building	64
BCC Fleet Wash Rack	1,950
<b>TOTAL (Support Buildings)</b>	<b>443,152</b>

(1) Source: Collier County Capital Project Planning, Impact Fees and Program Management Division

**Table A-2  
Collier County Government Buildings Inventory (Acreage)**

Name of Structure	Address	Square Feet <sup>(1)</sup>	Total Square Footage on Site <sup>(2)</sup>	Total Acres <sup>(3)</sup>	Acres per 1,000 sf of Bldg Space <sup>(4)</sup>	Land (Allocated Acres) <sup>(5)</sup>			
Golden Gate Government Services Center	4715 Golden Gate Parkway	6,090	76,498	12.91	0.169	1.029			
Immokalee Government Center	106 S. 1st Street	10,495	23,042	7.42	0.322	3.379			
Immokalee Health Department (CHSI)	419 N. 1st Street	14,778	29,513	10.00	0.339	5.010			
Immokalee Barn (Floors 1 & 2)	425 Sgt. Joe Jones Road	14,530	69,135	41.81	0.605	8.791			
Immokalee Transportation Building	550 Stockade Road	3,358				2.032			
800 MGHZ Generator Bldg.	312 Stockade Road	238				0.144			
Immokalee Animal Control Kennel	405 Sgt. Joe Jones Road	1,572				0.951			
Immokalee Animal Control Office	405 Sgt. Joe Jones Road	164				0.099			
Immokalee Radio Tower Shed	312 Stockade Road	16				0.010			
Road & Bridge Shed	402 Stockade Road	102				0.062			
Road & Bridge Fuel Island	402 Stockade Road	818				0.495			
Medical Examiners Office	3838 Domestic Avenue	13,238				13,238	2.00	0.151	2.000
Building "B" Human Resources	3301 E. Tamiami Trail	7,160				1,491,521	45.28	0.030	0.215
Building "C-1," "C-1 Addition", "C-2," "C-2 Addition" Tax Collector & Supervisor of Elections	3301 E. Tamiami Trail	30,753	0.923						
Building "D" PWED	3301 E. Tamiami Trail	8,388	0.252						
Building "F" Administration (Floors 1-8)	3301 E. Tamiami Trail	89,966	2.699						
Building "G" Purchasing	3301 E. Tamiami Trail	5,569	0.167						
Building "H" Health (Floors 1-3)	3301 E. Tamiami Trail	54,160	1.625						
Building "L" Courthouse (Floors 1-6, Mezz.)	3301 E. Tamiami Trail	148,533	4.456						
Building "W" General Services (Floors 1-2)	3301 E. Tamiami Trail	31,054	0.932						
Building "K" Chiller Building	3301 E. Tamiami Trail	5,520	0.166						
Electric Substation "A"	3301 E. Tamiami Trail	824	0.025						
Electric Substation "B"	3301 E. Tamiami Trail	1,088	0.033						
Building "L-1" Courthouse Annex	3301 E. Tamiami Trail	137,984	4.140						
Parking Garage #2 (Courthouse Annex)	3301 E. Tamiami Trail	410,302	410,302	9.51	0.023				9.510
Fuel Island/Canopy	2897 County Barn Road	3,600	82,847	9.63	0.116	0.418			
Generator/Fuel Tank	2897 County Barn Road	127				0.015			
Fuel Tanks and Slab	2897 County Barn Road	1,557				0.181			
800 MGHZ Generator	2901 County Barn Road	368				0.043			
BCC Fleet Management	2901 County Barn Road	41,316				4.793			
County Barn 800 MGHZ Repeater Building	2901 County Barn Road	64				0.007			
BCC Fleet Wash Rack	2901 County Barn Road	1,950				0.226			
Animal Control Administration	7610 Davis Boulevard	8,933				32,178	9.44	0.293	2.617
Animal Control Sally Port	7610 Davis Boulevard	6,727	1.971						
Animal Control Kennel 1-3	7610 Davis Boulevard	11,847	3.471						
Animal Control Stable	7610 Davis Boulevard	3,159	0.926						
Marco Tax Collector	1040 Winterberry	2,699	2,699	0.49	0.182	0.490			
Transportation Headquarters	2885 Horseshoe Dr S	33,542	33,542	2.46	0.073	2.460			
CAT Operations (ex-Monrande Dealership)	8300 Radio Road	32,144	32,144	10.04	0.312	10.040			
Immokalee Code Enforcement Building	310 Alachua Street	1,994	1,994	0.20	0.100	0.200			
North Collier County Government Services Center	2335 Orange Blossom Drive	14,000	56,401	7.63	0.135	1.890			
Emergency Services Center	8075 Lely Cultural Pkwy	57,274	154,388	20.00	0.130	7.446			
Agriculture Building	14700 Immokalee Road	13,361	N/A	N/A	N/A	N/A			
Supervisor of Elections	3300 Santa Barbara Blvd.	7,000	N/A	N/A	N/A	N/A			
Property Appraiser/Elks Lodge	3950 Radio Road	27,566	27,566	6.74	0.245	6.740			
New Supervisor of Elections Building	3750 Enterprise Ave.	30,980	30,980	1.84	0.059	1.840			
<b>TOTAL</b>		<b>1,296,908</b>				<b>94.919</b>			

(1) Square footage of the indicated facility. Source: Collier County Capital Project Planning, Impact Fees and Program Management Division

(2) Square footage of all buildings on the parcel. Source: Collier County Capital Project Planning, Impact Fees and Program Management Division and Collier County Property Appraiser

(3) Source: Collier County Property Appraiser

(4) Acres (Item 3) divided by total square footage on site (Item 2) multiplied by 1,000.

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

**Appendix B**  
**Population - Supplemental Information**

## Collier County | Government Buildings IF Update Study

The government buildings impact fee program requires the use of population data in calculating current levels of service and to be consistent with the population utilized in the County's comprehensive planning and Annual Update and Inventory Report (AUIR) process. This impact fee study considers not only the resident or permanent population of the County, but also the number of seasonal residents and visitors as well. Therefore, for purposes of this technical analysis, the peak season population is used in all population estimates and projections. Peak season population projections were provided by Collier County's Comprehensive Planning Division.

**Table B-1** presents the population trends for Collier County. The county population is estimated to increase by 34 percent between 2015 and 2034.

**Table B-1**  
**Collier County Peak Season Population Estimates & Projections**

Year	Peak Season Population	
	Countywide	Percent Change
2000	309,511	-
2001	325,159	5.06%
2002	341,954	5.17%
2003	359,191	5.04%
2004	374,384	4.23%
2005	386,668	3.28%
2006	396,310	2.49%
2007	400,027	0.94%
2008	399,532	-0.12%
2009	399,979	0.11%
2010	387,184	-3.20%
2011	392,180	1.29%
2012	398,107	1.51%
2013	403,435	1.34%
2014	410,297	1.70%
<b>2015</b>	<b>418,048</b>	<b>1.89%</b>
2016	425,979	1.90%
2017	434,060	1.90%
2018	442,295	1.90%
2019	450,685	1.90%
2020	458,670	1.77%
2021	466,233	1.65%
2022	473,920	1.65%
2023	481,734	1.65%
2024	489,677	1.65%
2025	497,236	1.54%
2026	504,399	1.44%
2027	511,666	1.44%
2028	519,037	1.44%
2029	526,514	1.44%
2030	533,638	1.35%
2031	540,396	1.27%
2032	547,239	1.27%
2033	554,170	1.27%
2034	561,188	1.27%

Source: Collier County Comprehensive Planning Division

**Apportionment of Demand by Residential Unit Type and Size**

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

- Single Family (Detached)
- Multi-Family
- Mobile Home/RV (Tied Down)

**Table B-2** presents the number of residents per housing unit for the residential categories identified above in Collier County. This analysis includes all housing units, both occupied and vacant.

To address fairness and equity issues between land uses, the single family land use is tiered based on two categories of square footage: less than 4,000 square feet and 4,000 square feet or greater. To accommodate the tiering of impact fee assessments for the single family residential land use category, an analysis was completed based on housing unit size and persons per housing unit, comparing nationwide averages to those of Collier County. This analysis utilized national data from the 2013 American Housing Survey (AHS) and data from the 2013 American Community Survey (ACS) to examine this relationship.

**Table B-2  
Residents per Housing Unit**

Housing Type	Population <sup>(1)</sup>	Housing Units <sup>(2)</sup>	Ratio to the Avg Population per Housing Unit <sup>(3)</sup>	Residents / Housing Units <sup>(4)</sup>
Single Family Detached	244,190	91,056		2.68
- Less than 4,000 sf			99%	2.65
- 4,000 sf or greater			111%	2.97
Multi Family	121,440	96,353		1.26
Mobile Home/RV (Tied Down)	22,868	10,725		2.13
<b>Weighted Average</b>	<b>388,498</b>	<b>198,134</b>		<b>1.96</b>

(1) Source: 2013 American Community Survey (ACS), Table B25033 (adjusted for peak season population)

(2) Source: 2013 American Community Survey (ACS), Table DP04

(3) Ratios developed based on persons per housing unit data derived from the 2013 American Housing Survey

(4) Population (Item 1) divided by housing units (Item 2)

### **Functional Population**

For government building facilities, this study uses functional population as the demand component, which distributes the cost associated with the availability of government building facilities among various land uses based on the density of people at each land use throughout the day. Functional population, as used in the impact fee analysis, is a generally accepted methodology for several impact fee areas and is based on the assumption that demand for certain facilities is generally proportional to the presence of people at a land use, including residents, employees, and visitors. It is not enough to simply add resident population to the number of employees, since the service-demand characteristics can vary considerably by type of industry.

Functional population is the equivalent number of people occupying space within a community on a 24-hour-day, 7-days-a-week basis. A person living and working in the community would 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 county 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 needed to be served.

This form of adjusting population to help measure real facility needs replaces the population approach of merely weighting residents two-thirds and workers one-third (Nelson and Nicholas 1992). By estimating the functional and weighted population per unit of land use across all major land uses in a community, an estimate of the demand for certain facilities and services in the present and future years can be calculated. The following paragraphs explain how functional population is calculated for residential and non-residential land uses.



**Residential Functional Population**

Developing the residential component of functional population is simpler than developing the non-residential 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 Collier County’s functional population, an analysis of the County’s population and employment characteristics was conducted. Based on this analysis, it was estimated that people, on average, spend 16.4 hours, or approximately 68 percent, of each 24-hour day at their place of residence and the other 32 percent away from home. This analysis is presented in **Tables B-3 and B-4**.

**Table B-3  
Collier County Population & Employment Characteristics**

Item/Calculation Step	Figure
Workers who live and work in Collier County (2010) <sup>(1)</sup>	121,530
Workers who live in Collier County but work elsewhere (2010) <sup>(1)</sup>	10,293
Total workers living in Collier County <sup>(2)</sup>	131,823
Collier County Census Population (2010) <sup>(3)</sup>	321,520
Total workers as a percent of population <sup>(4)</sup>	41.0%
School age population (5-17 years) (2010) <sup>(5)</sup>	45,811
School age population as a percent of population <sup>(6)</sup>	14.2%
Population net of workers and school age population <sup>(7)</sup>	143,886
Other population as a percent of total population <sup>(8)</sup>	44.8%

- (1) Source: CTPP 5-Year Data Set (2006 to 2010)
- (2) Sum of workers who live and work in Collier County and workers who work elsewhere but live in Collier County
- (3) Source: 2010 U.S. Census
- (4) Total workers (Item 2) divided by population (Item 3)
- (5) Source: 2010 U.S. Census
- (6) Total school age population (Item 5) divided by 2010 population (Item 3)
- (7) Population (Item 3) less total workers (Item 2) and school age population (Item 5)
- (8) Population net of workers and school age population (Item 7) divided by 2010 population (Item 3)

**Table B-4**  
**Residential Coefficient for Functional Population**

Pop. Group	Hours at Residence <sup>(1)</sup>	Percent of Population <sup>(2)</sup>	Effective Hours <sup>(3)</sup>
Workers	13	41.0%	5.3
Students	15	14.2%	2.1
Other	20	44.8%	9.0
Total Hours at Residence <sup>(4)</sup>			16.4
<b>Residential Functional Population Coefficient<sup>(5)</sup></b>			<b>68.3%</b>

(1) Source: Estimated

(2) Source: Table B-3

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

(4) Sum of effective hours (Item 3)

(5) Total hours at residence (Item 4) divided by 24

The resulting percentage from Table B-4 is used in the calculation of the residential coefficient for the 24-hour functional population. These actual calculations are presented in **Table B-6**.

***Non-Residential Functional Population***

Given the varying characteristics of non-residential land uses, developing the estimates of functional residents for non-residential land uses is more complicated than developing the estimates of functional residents for residential land uses. Nelson and Nicholas originally introduced a method for estimating functional resident population, now used internationally<sup>1</sup>. This method uses trip generation data from the Institute of Transportation Engineers’ (ITE) Trip Generation Manual and Tindale Oliver’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:

- 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 days in a work week).

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

## Collier County | Government Buildings IF Update Study

- Visitor hours per week per impact unit (visitors multiplied by number of hours per day times relevant days in a 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 B-5** shows the functional population coefficients for residential and non-residential land uses in Collier County. The functional population coefficients in **Table B-5** were used to estimate the County's functional population in **Table B-6**.

**Table B-5  
General Functional Population Coefficients**

Population/ Employment Category	ITE LUC	Employee Hours In- Place <sup>(1)</sup>	Trips per Employee <sup>(2)</sup>	One-Way Trips per Employee <sup>(3)</sup>	Journey-to- Work Occupants per Trip <sup>(4)</sup>	Daily Occupants per Trip <sup>(5)</sup>	Visitors per Employee <sup>(6)</sup>	Visitor Hours per Trip <sup>(1)</sup>	Days per Week <sup>(7)</sup>	Functional Population Coefficient <sup>(8)</sup>
Population									7.00	0.683
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	52.10	26.05	1.24	1.73	12.76	1.50	7.00	1.173
Finance, Insurance, Real Estate	710	9.00	3.32	1.66	1.24	1.73	0.81	1.00	5.00	0.292
Services <sup>(9)</sup>	N/A	9.00	28.17	14.09	1.24	1.73	6.90	1.00	6.00	0.568
Government <sup>(10)</sup>	730	9.00	11.95	5.98	1.24	1.73	2.93	1.00	7.00	0.497

(1) Assumed

(2) Trips per employee represents all trips divided by the number of employees and is based on Trip Generation 9th Edition (Institute of Transportation Engineers 2012) as follows:  
 ITE Code 110 at 3.02 weekday trips per employee, page 93.  
 ITE Code 140 at 2.13 weekday trips per employee, page 164.  
 ITE Code 150 at 3.89 weekday trips per employee, page 193.  
 ITE Code 710 at 3.32 weekday trips per employee, page 1252.  
 ITE Code 730 at 11.95 weekday trips per employee, page 1304.  
 ITE Code 820 based on blended average of trips by retail center size calculated below, adapted from page 1561.  
 Trips per retail employee from the following table:

<i>Retail Scale</i>	<i>Assumed Center Size</i>	<i>Trip Rate</i>	<i>Sq Ft per Employee<sup>(11)</sup></i>	<i>Trips per Employee</i>	<i>Share</i>	<i>Weighted Trips</i>
Neighborhood <50k sq.ft.	50	86.56	802	69	40.0%	27.60
Community 50k - 250k sq.ft.	250	49.28	975	48	30.0%	14.40
Regional 250k - 500k sq.ft.	500	38.66	1,043	40	20.0%	8.00
Super Reg. 500k-1000k sq.ft.	1,000	30.33	676	21	10.0%	2.10
Sum of Weighted Trips/1k sq.ft.						52.10

(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)]

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

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

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

(9) 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, 9th 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).

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

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

**Table B-6**  
**Functional Population – Year 2015**

Population Category	Collier County Baseline Data <sup>(1)</sup>	Functional Resident Coefficient <sup>(2)</sup>	Functional Population <sup>(3)</sup>
2015 Peak Season Population	418,048	0.683	285,527
<b>Employment Category</b>			
Natural Resources	7,848	0.379	2,974
Construction	14,244	0.271	3,860
Manufacturing	3,579	0.270	966
Transportation, Communication, and Utilities	5,184	0.271	1,405
Wholesale Trade	4,305	0.271	1,167
Retail Trade	22,620	1.173	26,533
Finance, Insurance, and Real Estate	33,794	0.292	9,868
Services	90,723	0.568	51,531
Government Services	13,768	0.497	6,843
Total Employment by Category Population <sup>(4)</sup>			105,147
<b>2015 Total Functional Population<sup>(5)</sup></b>			<b>390,674</b>

(1) Source: Table B-1 for population and 2015 Woods & Poole for employment data

(2) Source: Table B-5

(3) The functional population is Collier County baseline data (Item 1) multiplied by the functional resident coefficient (Item 2)

(4) The total employment population by category is the sum of the employment figures from the nine employment categories (e.g., natural resources, construction, etc.)

(5) The total functional population is the sum of the residential functional population (285,527) and employment functional population (105,147)

**Table B-7** presents the County’s annual functional population figures from 2000 through 2034, based on the 2015 functional population figure from Table B-6 and the annual population growth rates from the population figures previously presented in Table B-1.

**Table B-7**  
**Collier County Functional Population (2000-2034)**

Year	Functional Population Projections
2000	289,313
2001	304,068
2002	319,880
2003	335,874
2004	349,981
2005	361,530
2006	370,568
2007	373,903
2008	373,529
2009	373,903
2010	361,938
2011	366,643
2012	372,143
2013	376,981
2014	383,390
<b>2015</b>	<b>390,674</b>
2016	398,097
2017	405,661
2018	413,369
2019	421,223
2020	428,805
2021	435,666
2022	442,637
2023	449,719
2024	456,915
2025	463,769
2026	470,262
2027	476,846
2028	483,522
2029	490,291
2030	497,155
2031	503,618
2032	510,165
2033	516,797
2034	523,515

Source: Table B-6 for 2015 functional population figure and Table B-1 for annual growth rates

**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 Land Uses***

As previously mentioned, the average number of persons per housing unit in Collier County was calculated for the single family, multi-family, and mobile home/RV land uses, based on information obtained from the American Community Survey (ACS). Besides the residential land uses, the table also includes transient land uses, such as hotels, motels, nursing homes, and adult living facilities (ALF). Secondary sources, such as the local Convention and Visitors Bureau (CVB) and the Florida Department of Elderly Affairs, are used to determine the occupancy rate 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 and transient land uses, these coefficients are displayed in **Table B-8**.

***Non-Residential Land Uses***

A similar approach is used to estimate functional residents for non-residential land uses. **Table B-9** 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 non-residential 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 government buildings impact fee program and are used in the calculation of the cost per unit for each land use category in the government buildings impact fee schedule.

**Table B-8  
Functional Residents for Residential and Transient Land Uses**

Residential Land Use	Impact Unit	ITE LUC <sup>(1)</sup>	Residents/Visitors Per Unit <sup>(2)</sup>	Occupancy Rate <sup>(3)</sup>	Adjusted Residents Per Unit <sup>(4)</sup>	Peak Visitor Hours at Place <sup>(5)</sup>	Workers Per Unit <sup>(6)</sup>	Work Day Hours <sup>(7)</sup>	Days Per Week <sup>(8)</sup>	Work Week Residents Per Unit <sup>(9)</sup>
<b>Residential</b>										
Single Family Detached										
- Less than 4,000 sf	du	210	2.65							1.81
- 4,000 sf or greater	du	210	2.97							2.03
Multi Family	du	220, 222, 230, 232	1.26							0.86
Mobile Home / RV (Tied Down)	du	240	2.13							1.45
Retirement Community/Age-Restricted Single Family	du	251	1.15							0.79
<b>Transient/Assisted, Group</b>										
Hotel	room	310	1.68	71%	1.19	12	0.57	9	7	0.81
Motel	room	320	1.68	71%	1.19	12	0.44	9	7	0.76
Nursing Home	bed	620	1.00	88%	0.88	20	0.84	9	7	1.05
Assisted Living Facility (ALF)	du	253	1.15	88%	1.01	20	0.45	9	7	1.01
<p>(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 9th Edition</p> <p>(2) Estimates for the single family, multi-family, and mobile home land use from Table B-2; estimates for the hotel/motel land use assumes that there is one person per room for all business-related trips (32% of total hotel/motel occupancies in Collier County) and 2 people per room for leisure trips (68% of total hotel/motel occupancies in Collier County). Source for distribution of business and leisure trips is the Collier County Visitors and Convention Bureau 2011 November Report. One person per bed is assumed for nursing homes. Estimate for ALF and Retirement Community is based on people per household figures for single and multi-family homes, adjusted for the residents over 55 years of age based on information obtained from the 2001 National Household Travel Survey, prepared by the US Department of Transportation.</p> <p>(3) Source for hotel/motel occupancy: Collier County Convention and Visitors Bureau 2012 and 2014 Annual Reports. Source for nursing home/ALF occupancy rate is the Florida Department of Elderly Affairs Collier County Profile. Average occupancy rate for 2011 through 2014.</p> <p>(4) Residents per unit times occupancy rate</p> <p>(5), (7), (8) Estimated</p> <p>(6) Adapted from ITE Trip Generation Handbook, 9th Edition</p> <p>(9) For residential this is Residents Per Unit times 0.683. For Transient, Assisted, and Group it is:</p> <p><math display="block">\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})}</math></p>										



**Table B-9  
Functional Residents for Non-Residential Land Uses**

Land Use	Impact Unit	ITE LUC <sup>(1)</sup>	Trips Per Unit <sup>(2)</sup>	Trips Per Employee <sup>(3)</sup>	Employees Per Unit <sup>(4)</sup>	One-Way Factor @ 50% <sup>(5)</sup>	Worker Hours <sup>(6)</sup>	Occupants Per Trip <sup>(7)</sup>	Visitors <sup>(8)</sup>	Visitor Hours Per Trip <sup>(9)</sup>	Days Per Week <sup>(10)</sup>	Functional Resident Coefficient <sup>(11)</sup>
<b>Recreational</b>												
RV Park	site	416	1.62	n/a	1.20	0.81	9	2.39	0.74	1.50	7	0.50
Marina	berth	420	2.96	20.52	0.14	1.48	9	2.39	3.40	1.00	7	0.19
Golf Course	18 holes	430	643.32	20.52	31.35	321.66	9	2.39	737.42	0.25	7	19.44
Bundled Golf Course	18 holes	n/a	193.00	20.52	9.41	96.50	9	2.39	221.23	0.25	7	5.83
Movie Theater	screen	444	106.63	53.12	2.01	53.32	9	2.39	125.42	1.00	7	5.98
Dance Studio/Gyms	1,000 sf	n/a	21.33	n/a	2.00	10.67	9	2.39	23.50	1.50	7	2.22
<b>Institutions</b>												
Elementary School (Private)	student	520	1.29	15.71	0.08	0.65	9	1.11	0.64	2.00	5	0.06
Middle School (Private)	student	522	1.62	16.39	0.10	0.81	9	1.11	0.80	2.00	5	0.07
High School (Private)	student	530	1.71	19.74	0.09	0.86	9	1.11	0.86	2.00	5	0.08
University/Junior College with 7,500 or fewer students	student	540 & 550	2.00	12.26	0.16	1.00	9	1.11	0.95	2.00	5	0.10
University/Junior College with more than 7,500 students	student	540 & 550	1.50	12.26	0.12	0.75	9	1.11	0.71	2.00	5	0.07
Church	seat	560	0.61	20.64	0.03	0.31	9	1.90	0.56	1.00	7	0.03
Day Care	student	565	4.38	26.73	0.16	2.19	9	1.11	2.27	0.15	5	0.05
Hospital	1,000 sf	610	13.22	4.50	2.94	6.61	9	1.42	6.45	1.00	7	1.37
<b>Office</b>												
Office 6,000 SF or less <sup>(12)</sup>	1,000 sf	710	11.02	3.32	3.32	5.51	9	1.28	3.73	1.00	5	1.00
Office 6,001 - 100,000 SF <sup>(13)</sup>	1,000 sf	710	13.13	3.32	3.95	6.57	9	1.28	4.46	1.00	5	1.19
Office 100,001 - 200,000 SF <sup>(14)</sup>	1,000 sf	710	11.12	3.32	3.35	5.56	9	1.28	3.77	1.00	5	1.01
Office 200,001 - 400,000 SF <sup>(15)</sup>	1,000 sf	710	9.41	3.32	2.83	4.71	9	1.28	3.20	1.00	5	0.85
Office greater than 400,000 SF <sup>(16)</sup>	1,000 sf	710	8.54	3.32	2.57	4.27	9	1.28	2.90	1.00	5	0.77
Medical Office/Clinic 10,000 sf or less	1,000 sf	720	23.83	8.91	2.67	11.92	9	1.42	14.26	1.00	5	1.14
Medical Office/Clinic greater than 10,000 sf	1,000 sf	720	34.72	8.91	3.90	17.36	9	1.42	20.75	1.00	5	1.66
Business Park (Flex Space)	1,000 sf	770	12.65	4.04	3.13	6.33	9	1.38	5.61	0.75	5	0.96

**Table B-9 (continued)**  
**Functional Residents for Non-Residential Land Uses**

Land Use	Impact Unit	ITE LUC <sup>(1)</sup>	Trips Per Unit <sup>(2)</sup>	Trips Per Employee <sup>(3)</sup>	Employees Per Unit <sup>(4)</sup>	One-Way Factor @ 50% <sup>(5)</sup>	Worker Hours <sup>(6)</sup>	Occupants Per Trip <sup>(7)</sup>	Visitors <sup>(8)</sup>	Visitor Hours Per Trip <sup>(9)</sup>	Days Per Week <sup>(10)</sup>	Functional Resident Coefficient <sup>(11)</sup>
<b>Retail, Gross Square Feet</b>												
Specialty Retail	1,000 sf	826	49.99	22.36	2.24	25.00	9	1.73	41.01	0.50	7	1.69
Retail 6,000 sfgla or less <sup>(12)</sup>	1,000 sfgla	820	86.56	n/a	2.50	43.28	9	1.73	72.37	0.50	7	2.45
Retail 6,001 to 25,000 sfgla <sup>(12)</sup>	1,000 sfgla	820	86.56	n/a	2.50	43.28	9	1.73	72.37	0.50	7	2.45
Retail 25,001 to 50,000 sfgla <sup>(12)</sup>	1,000 sfgla	820	86.56	n/a	2.50	43.28	9	1.73	72.37	0.50	7	2.45
Retail 50,001 to 100,000 sfgla <sup>(13)</sup>	1,000 sfgla	820	67.91	n/a	2.50	33.96	9	1.73	56.25	0.65	7	2.45
Retail 100,001 to 150,000 sfgla <sup>(17)</sup>	1,000 sfgla	820	58.93	n/a	2.50	29.47	9	1.73	48.48	0.75	7	2.45
Retail 150,001 to 200,000 sfgla <sup>(18)</sup>	1,000 sfgla	820	53.28	n/a	2.50	26.64	9	1.73	43.59	0.80	7	2.39
Retail 200,001 to 400,000 sfgla <sup>(15)</sup>	1,000 sfgla	820	41.80	n/a	2.50	20.90	9	1.73	33.66	1.00	7	2.34
Retail 400,001 to 600,000 sfgla <sup>(19)</sup>	1,000 sfgla	820	36.27	n/a	2.50	18.14	9	1.73	28.88	1.15	7	2.32
Retail 600,001 to 1,000,000 sfgla <sup>(20)</sup>	1,000 sfgla	820	30.33	n/a	2.50	15.17	9	1.73	23.74	1.25	7	2.17
Retail greater than 1,000,000 sfgla <sup>(21)</sup>	1,000 sfgla	820	28.46	n/a	2.50	14.23	9	1.73	22.12	1.25	7	2.09
New/Used Auto Sales	1,000 sf	841	28.25	21.14	1.34	14.13	9	1.73	23.10	1.00	7	1.47
Tire Superstore	bay	849	30.55	43.02	0.71	15.28	9	1.73	25.72	1.00	7	1.34
Supermarket	1,000 sf	850	103.38	87.82	1.18	51.69	9	1.52	77.39	0.50	7	2.05
Convenience Market (24 hour)	1,000 sf	851	719.18	n/a	2.50	359.59	9	1.52	544.08	0.20	7	5.47
<b>Convenience Store with Gas Pumps</b>												
4 or less Fuel Positions	fuel pos.	853	542.60	n/a	2.50	271.30	9	1.52	409.88	0.20	7	4.35
5-6 Fuel Positions	fuel pos.	853	439.92	n/a	2.50	219.96	9	1.52	331.84	0.20	7	3.70
7-8 Fuel Positions	fuel pos.	853	375.12	n/a	2.50	187.56	9	1.52	282.59	0.20	7	3.29
9-10 Fuel Positions	fuel pos.	853	319.20	n/a	2.50	159.60	9	1.52	240.09	0.20	7	2.94
11-12 Fuel Positions	fuel pos.	853	289.92	n/a	2.50	144.96	9	1.52	217.84	0.20	7	2.75
13 or more Fuel Positions	fuel pos.	853	264.00	n/a	2.50	132.00	9	1.52	198.14	0.20	7	2.59
Home Improvement Superstore	1,000 sf	862	30.74	n/a	2.50	15.37	9	1.52	20.86	1.00	7	1.81
Pharmacy/Drug Store with and without Drive-Thru	1,000 sf	881	95.96	n/a	2.50	47.98	9	1.52	70.43	0.35	7	1.96
Furniture Store	1,000 sf	890	5.23	12.19	0.43	2.62	9	1.52	3.55	0.50	7	0.24
Bank/Savings Walk-In	1,000 sf	911	121.30	34.69	3.50	60.65	9	1.52	88.69	0.35	6	2.23
Bank/Savings Drive-In	1,000 sf	912	159.34	30.94	5.15	79.67	9	1.52	115.95	0.15	6	2.28
Low-Turnover Restaurant	seat	931	2.86	n/a	0.32	1.43	9	1.85	2.33	1.00	7	0.22
High-Turnover Restaurant	seat	932	4.83	n/a	0.38	2.42	9	1.85	4.10	0.75	7	0.27
Fast Food Rest w/ Drive-Thru	1,000 sf	934	511.00	n/a	10.90	255.50	9	1.85	461.78	0.25	7	8.90

**Table B-9 (continued)**  
**Functional Residents for Non-Residential Land Uses**

Land Use	Impact Unit	ITE LUC <sup>(1)</sup>	Trips Per Unit <sup>(2)</sup>	Trips Per Employee <sup>(3)</sup>	Employees Per Unit <sup>(4)</sup>	One-Way Factor @ 50% <sup>(5)</sup>	Worker Hours <sup>(6)</sup>	Occupants Per Trip <sup>(7)</sup>	Visitors <sup>(8)</sup>	Visitor Hours Per Trip <sup>(9)</sup>	Days Per Week <sup>(10)</sup>	Functional Resident Coefficient <sup>(11)</sup>
<b>Retail, Gross Square Feet</b>												
Quick Lube	service bay	941	40.00	n/a	1.50	20.00	9	1.52	28.90	0.50	7	1.16
Gasoline/Service Station	fuel pos.	944/946	157.33	n/a	2.50	78.67	9	1.52	117.08	0.20	7	1.91
Self-Service Car Wash	service bay	947	43.94	n/a	0.50	21.97	9	1.52	32.89	0.50	7	0.87
Automated Car Wash	1,000 sf	948	141.20	n/a	1.75	70.60	9	1.52	105.56	0.25	7	1.76
Luxury Auto Sales	1,000 sf	n/a	16.30	n/a	1.34	8.15	9	1.73	12.76	1.00	7	1.03
<b>Industrial</b>												
Light Industrial	1,000 sf	110	6.97	3.02	2.31	3.49	9	1.38	2.51	1.00	5	0.69
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	1,000 sf	151	2.15	61.90	0.03	1.08	9	1.38	1.46	0.75	7	0.06
Sources:												
(1) Land use code found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 9th Edition												
(2) Land uses and trip generation rates consistent with those included in the 2013 Transportation Impact Fee Update Study												
(3) Trips per employee from ITE Trip Generation Handbook, 9th 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												
(17) Trip rate is for 150,000 sf												
(18) Trip rate is for 200,000 sf												
(19) Trip rate is for 600,000 sf												
(20) Trip rate is for 1,000,000 sf												
(21) Trip rate is for 1,200,000 sf												

**Appendix C**  
**Building and Land Value Analysis -**  
**Supplemental Information**

## Appendix C

---

This appendix provides the additional data and information on building and land value estimates.

### ***Building Values***

In determining the appropriate unit value for buildings, the following analysis was conducted:

- A review of recently built or planned government buildings in Collier County;
- Insurance value of the existing inventory; and
- Discussions with architects.

Over the past five years, the County purchased a building for the Supervisor of Elections at a cost of \$480 per square foot, including land and building value. The County's Annual Update and Inventory Report (AUIR) estimated the unit cost for government buildings at \$346 per square foot in 2015.

During the 2010 study, the value of primary buildings was estimated at \$270 per square foot. Applying Engineering News Records Building Cost Index for the cost changes between 2010 and 2015 resulted in a unit cost of \$298 per square foot.

The insurance values of existing primary buildings ranged from \$208 per square foot for building only to \$224 per square foot for buildings and contents. It is important to note that insurance values are considered to be a conservative estimate because the value of the foundation and other more permanent parts of the structure tends to be excluded since these would not have to be rebuilt if the structure is damaged or lost.

Industry architects estimated the cost of building general government buildings at a range of \$250 per square foot to \$300 per square foot.

Given this data and information, building cost for primary buildings was estimated at \$275 per square foot. The value of support facilities was estimated at \$80 per square foot, based primarily on insurance values. These costs reflect all costs related to constructing buildings (such as design, construction, site preparation, etc.) with the exception of land purchase. This information is summarized in Table C-1.

**Table C-1  
Government Buildings  
Total Building Value per Square Foot**

Facility	Source	Year	Cost per Square Foot
County Estimate for Future Buildings	AUIR	2015	\$346
Adjusted 2010 Building Cost	ENR Building Index	2015	\$298
Current Value of Primary Buildings	Insurance Reports	2015	\$208 - \$224
Current Value of Support Buildings	Insurance Reports	2015	\$80
General Government Buildings	Industry Architects	2015	\$250 - \$300
<b>Used in the Study:</b>			
- Primary Buildings			<b>\$275</b>
- Support Buildings			<b>\$80</b>

**Land Values**

In order to determine land value associated with government buildings, the following information was evaluated:

- Current value of land where government buildings are located;
- Land value in areas where future government buildings are likely to be located;
- Vacant land sales analysis; and
- Land use characteristics of areas where government buildings are located.

It is likely that future government buildings will be located in the eastern parts of the county. An evaluation of the vacant residential versus commercial land values for 1 to 10-acre parcels in the area east of County Road 951 resulted in an average land value of \$20,000 per acre for residential land uses, and \$300,000 per acre for commercial land uses. This information is presented in Table C-2.

**Table C-2  
Land Value Estimates  
East of CR 951 (1 to 10-acre parcels)**

Location	Year	Land Use	Cost per Acre	
			Average	Count
<b>Vacant Land Sales:</b>				
- East of CR 951	2012-2015	Residential	\$27,594	621
		Commercial	\$336,890	9
<b>Vacant Land Values:</b>				
- East of CR 951	2015	Residential	\$15,060	4,599
		Commercial	\$193,894	109
<b>Used in the Study:</b>				
- East of CR 951	2015	Residential	\$20,000	N/A
		Commercial	\$300,000	N/A

Source: Collier County Property Appraiser

Currently, approximately 30 percent of government buildings are located in residential areas while the remaining 70 percent are located in commercial areas. For the purposes of impact fee calculations, a more conservative ratio of 50 percent is used for commercial location. As presented in Table C-3, applying these percentages to the estimated land value in residential versus commercial areas results in a combined land value of approximately \$160,000, which is found to be a reasonable estimate for impact fee calculation purposes. This estimate is also within the range of value of properties where existing facilities are located (\$4,000 per acre to \$655,000 per acre), based on the information included in the Property Appraiser’s database.

**Table C-3  
Weighted Land Value**

Land Use	Distribution <sup>(1)</sup>	Land Value per Acre <sup>(2)</sup>	Weighted Land Value per Acre <sup>(3)</sup>
Residential	50%	\$20,000	\$10,000
Commercial	50%	\$300,000	\$150,000
<b>Land Value Used in the Study</b>			<b>\$160,000</b>

(1) Reflects a conservative estimate of future land purchases by land use compared to the current distribution of 30% residential and 70% commercial

(2) Source: Table C-2

(3) Distribution (Item 1) multiplied by land value per acre (Item 2) for each land use and added