



FIRE & LAW ENFORCEMENT IMPACT FEE UPDATE STUDY

FINAL REPORT

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City of Lakeland

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**CITY OF LAKELAND
FIRE PROTECTION & LAW ENFORCEMENT
IMPACT FEE UPDATE STUDY**

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I. Introduction and Methodology

The City of Lakeland's Fire Protection and Law Enforcement Impact Fee Programs were initially developed in 1988, with the most recent major update of the fee schedules occurring in 2010. Since the 2010 Study, the City's population has increased and is projected to continue to grow by an additional 17 percent by 2025.

To address the infrastructure costs associated with this projected growth, the City once again retained Tindale-Oliver & Associates (TOA) to update impact fee schedules for several program areas, including fire protection, law enforcement, parks and recreation, and transportation.

The City of Lakeland is interested in updating the impact fee rates for four program areas.

This report contains the data analysis and assumptions used to update the fee schedules for the fire protection and law enforcement program areas. The analysis included in this report was completed in June 2014, with minor revisions in July 2015. The technical reports for the parks and recreation and transportation impact fee update are provided under separate covers. More specifically, this report provides for the following:

- Updated technical calculations to ensure that the City's fire protection and law enforcement impact fee programs are in compliance with the Florida Statute (F.S.) 163.31801 requirements and other related case law. One of the requirements of the Statute is the use of most recent and localized data.
- An updated inventory of capital facilities for both fee program areas. This information is helpful to the City in terms of land use planning efforts, identification of future capital needs, and prioritization of capital projects.
- Current capital cost of new development to the City in both the fire protection and law enforcement program areas. This information is useful in estimating the cost of capital projects that will be included in the Capital Improvement Plan, establishing the appropriate rates of the impact fees, and also during negotiations with large developers.

In Florida, legal requirements related to impact fees have primarily been established through case law since the 1980's. In 2006, the Florida legislature passed the "Florida Impact Fee

Act,” which added to the body of law guiding impact fees. Generally speaking, impact fees must:

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

The methodology used to update the City’s impact fee program complies with the legal requirements and is a consumption-based impact fee methodology, which is consistent with the methodology used to calculate the City’s current impact fee program as well as many 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 population in the case of fire protection and law enforcement program areas. 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.

The purpose of this study is to create a technically defensible set of impact fees for the City of Lakeland’s fire protection and law enforcement impact fee program areas. It is important to note that, whenever possible, the most current and localized data available at the time of the study was utilized, pursuant to State legislature.

This report identifies the study methodology components for both the fire protection and law enforcement fee areas, which includes an evaluation of the inventory, service area, level of service (LOS), cost, credit, and demand components. Information supporting this analysis was obtained from the City 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 Lakeland. Population estimates for 2014 and projections through the year 2025 are presented and summarized in this section for use, as appropriate. Functional population estimates, as well as a discussion of what functional population is, also are provided in this section.

Population Assumptions

Both the fire protection and law enforcement impact fees 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 Lakeland. The projections indicate that the population of Lakeland is expected to increase by 17 percent between 2014 and 2025.

*City of Lakeland
population is
projected to increase
by 17% between
2014 and 2025.*

Table II-1
Weighted Seasonal Population
Estimates & Projections

Year	Weighted Seasonal Population Figure
2000	81,769
2001	86,196
2002	89,126
2003	92,486
2004	93,518
2005	94,685
2006	95,473
2007	97,372
2008	97,454
2009	98,137
2010	100,884
2011	101,156
2012	101,685
2013	102,104
2014	102,915
2015	104,886
2016	106,658
2017	108,460
2018	110,294
2019	112,159
2020	114,064
2021	115,341
2022	116,633
2023	117,939
2024	119,261
2025	120,622

Source: Appendix A, 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

Table II-2 presents the number of residents per housing unit for the residential categories identified above in the City of Lakeland. 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 ⁽³⁾	Residents / Housing Units with 2010 Adj ⁽⁴⁾
Single Family Detached	45,857	19,386	2.37	2.51
Multi Family	22,553	12,590	1.79	1.89
Mobile Home	7,881	7,088	1.11	1.17
Weighed Average	76,291	39,064	1.95	2.06

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

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

(3) Population divided by housing units

(4) Residents per housing unit based on Census 2000 are adjusted upward by 5.76% to reflect the increase in people per housing units between 2000 and 2010

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 data by land use are not available. However, a comparison of the residents per housing units for all land uses combined published by Census 2010 indicates a 5.76 percent increase compared to the 2000 Census figures. This factor is used to adjust people per housing unit figures in Table II-2.

Functional Population

For the fire protection and law enforcement impact fees, the fee is charged to both residential and non-residential land uses. Since these facilities serve all residents, workers, and visitors, population figures need to consider the portion of the time residents, visitors, and employees spend in Lakeland. 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 un-weighted 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 Lakeland 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 16.4 hours, or approximately

68.3 percent, of each 24-hour day at their place of residence and the other 31.7 percent away from home. This analysis is presented in Tables II-3 and II-4.

Table II-3
2010 Population and Employment Characteristics

Item/Calculation Step	Figure
Workers who live and work in City of Lakeland (2010) ⁽¹⁾	22,693
Workers who live in City of Lakeland but work elsewhere (2010) ⁽¹⁾	17,445
Total workers living in the City of Lakeland ⁽²⁾	40,138
City of Lakeland Census Population (2010) ⁽³⁾	97,422
Total workers as a percent of population ⁽⁴⁾	41.2%
School age population (5-17 years) (2010) ⁽⁵⁾	14,419
School age population as a percent of population ⁽⁶⁾	14.8%
Population net of workers and school age population ⁽⁷⁾	42,865
Other population as a percent of total population ⁽⁸⁾	44.0%

- (1) Source: Estimated based on data from Census 2010 and Bureau of Transportation Statistics, Census Transportation Planning Package (CTPP) 2000 Part
- (2) Sum of workers who live and work in Lakeland and workers who live in Lakeland but work elsewhere
- (3) Source: Table A-1
- (4) Total workers (Item 2) divided by population (Item 3)
- (5) Source: Census 2010
- (6) Total school age population (Item 5) divided by 2010 population (Item 3)
- (7) 2010 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 II-4
Residential Coefficient for Functional Population

Pop. Group	Hours at Residence ⁽¹⁾	Percent of Population ⁽²⁾	Effective Hours ⁽³⁾
Workers	13	41.2%	5.4
Students	15	14.8%	2.2
Other	20	44.0%	8.8
Total Hours at Residence ⁽⁴⁾			16.4
Residential Functional Population Coefficient⁽⁵⁾			68.3%

(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 Tables II-5 and II-6.

Non-Residential Functional Population

Given the varying characteristics of non-residential 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:

- 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).

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).

- 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 non-residential uses/categories in Lakeland. 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 ⁽¹⁾	Days per Week ⁽⁷⁾	Functional Population Coefficient ⁽⁸⁾
Population										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	67.27	33.64	1.24	1.73	16.48	1.50	7.00	1.405
Finance, Insurance, Real Estate	710	9.00	3.32	1.66	1.24	1.73	0.81	1.00	5.00	0.292
Services ⁽⁹⁾	n/a	9.00	28.17	14.09	1.24	1.73	6.90	1.00	6.00	0.568
Government ⁽¹⁰⁾	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 per 1ksf</i>	<i>Trip Rate per sf</i>	<i>Sq Ft per Employee⁽¹¹⁾</i>	<i>Trips per Employee</i>	<i>Share</i>	<i>Weighted Trips</i>
Neighborhood <50k sq.ft.	25	110.32	0.110	802	88.22	40.0%	35.29
Community 50k-250k sq.ft.	150	58.93	0.059	975	57.53	40.0%	23.01
Regional 250k-500k sq.ft.	375	42.76	0.043	1,043	44.85	20.0%	8.97
Super Reg. 500k-1000k sq.ft.	750	33.55	0.034	676	22.98	0.0%	0.00
Sum of Weighted Trips/1k sq.ft.							67.27

(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:

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

(24 Hours per Day x 7 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 II-6
Functional Population – Year 2014**

Population Category	2014 Lakeland Baseline Data ⁽¹⁾	Functional Resident Coefficient ⁽²⁾	Functional Population ⁽³⁾
2014 Total Weighted Population	102,915	0.683	70,291
<i>Employment Category</i>			
Natural Resources	1,229	0.379	466
Construction	2,340	0.271	634
Manufacturing	3,812	0.270	1,029
Transportation, Communication, and Utilities	4,950	0.271	1,341
Wholesale Trade	2,856	0.271	774
Retail Trade	8,040	1.405	11,296
Finance, Insurance, and Real Estate	8,389	0.292	2,450
Services	30,934	0.568	17,571
Government Services	<u>8,760</u>	0.497	<u>4,354</u>
Total Employment by Category Population	71,310		39,915
2013 Total Functional Population⁽⁴⁾			110,206

(1) Source: Table II-1 for population figures and Woods & Poole for employment data, adjusted for total number of employees in Lakeland estimated by the US Census, American Community Survey

(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 population

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 Lakeland was calculated for single family housing, multi-family housing, and mobile homes based on information obtained from the 2000 and 2010 Census. Transient/assisted/group land uses include hotels, motels, nursing homes, adult living facilities (ALF), and adult congregate care/living facilities (ACLF). Secondary sources, such as Visit Orlando, Florida Nursing Home Guide, and the 2001 National Household Travel Survey, are used to determine the persons per unit and occupancy rates for hotels, motels, and nursing home land uses. As mentioned before, different functional population coefficients must be developed for each of the land uses included in

the impact fee schedule. For residential land uses, these coefficients are displayed in Table II-7.

Non-Residential Land Uses

A similar approach is used to estimate functional residents for non-residential 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 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 fire protection and law enforcement facilities program areas and will be used in the calculation of the impact fee per unit for each land use category in the fee schedules.

**Table II-7
Functional Residents for Residential Land Uses**

Residential Land Use	Impact Unit	ITE LUC ⁽¹⁾	Residents/Visitors Per Unit ⁽²⁾	Occupancy Rate ⁽³⁾	Adjusted Residents Per Unit ⁽⁴⁾	Peak Visitor Hours at Place ⁽⁵⁾	Workers Per Unit ⁽⁶⁾	Work Day Hours ⁽⁷⁾	Days Per Week ⁽⁸⁾	Work Week Residents Per Unit ⁽⁹⁾
Residential										
Single Family Detached	du	210	2.51							1.71
Multi-Family	du	220	1.89							1.29
Mobile Home	du	240	1.17							0.80
Transient/Assisted, Group										
Hotel/Motel	room	310/320	1.62	64%	1.04	12	0.50	9	7	0.71
Assisted Living Facility (ALF)/Nursing Home	bed	254/620	1.00	88%	0.88	16	0.36	9	7	0.72
ACFL/Congregate Care Facility	du	253	1.33	88%	1.17	16	0.30	9	7	0.89
<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 II-2; estimates for the hotel/motel land use is City of Lakeland Chamber of Commerce data provided for the 2009 Impact Fee Study. One person per bed is assumed for nursing homes. Estimate for Congregate Care Facility 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: Lakeland Convention and Visitors Bureau. Source for nursing home/ALF occupancy rate is the average occupancy rate for FL for the past five years data are available (2007-2011) provided by the Kaiser Family Foundation.</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: $\frac{[(\text{Adjusted Residents per Unit} \times \text{Hours at Place} \times \text{Days per Week}) + (\text{Workers Per Unit} \times \text{Work Hours Per Day} \times \text{Days per Week})]}{(24 \text{ Hours per Day} \times 7 \text{ Days per Week})}$ </p>										

**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⁾
Industrial ⁽¹²⁾	1,000 sf	n/a	3.96	2.47	1.60	1.98	9	1.38	1.13	0.94	5.00	0.46
Office ⁽¹³⁾	1,000 sf	710	11.12	3.32	3.35	5.56	9	1.28	3.77	1.00	5.00	1.01
Retail/Commercial	1,000 sf	820	42.70	n/a	2.50	21.35	9	1.73	34.44	0.80	7.00	2.09
Institutional ⁽¹⁴⁾	1,000 sf	n/a	24.43	20.11	1.21	12.22	9	1.27	14.31	1.43	5.40	1.01
Recreational ⁽¹⁵⁾	1,000 sf	n/a	23.48	n/a	1.16	11.74	9	2.39	26.90	1.50	7.00	2.12
Hospital	1,000 sf	610	13.22	4.50	2.94	6.61	9	1.42	6.45	1.00	7.00	1.37
Funeral Home	1,000 sf	n/a	9.32	n/a	1.21	4.66	9	1.90	7.64	1.00	7.00	0.77
Mini-Warehouse	1,000 sf	151	2.15	61.90	0.03	1.08	9	1.38	1.46	0.75	7.00	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 proposed 2014 Multi-Modal Transportation Fee calculated for the City of Lakeland
- (3) Trips per worker 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) Trips per Unit and Trips per Employee for the Industrial category are based on General Light Industrial (ITE LUC 110), General Heavy Industrial (ITE LUC 120), Manufacturing (ITE LUC 140), and Warehouse (ITE LUC 150)
- (13) Trip rate is for 200,000 square feet
- (14) Trips per Unit and Trips per Employee are based on Hospital (ITE LUC 610), Private Elementary School (ITE LUC 520), Private Middle School (ITE LUC 522), Private High School (ITE LUC 530), Church (ITE LUC 560), and Day Care Center (ITE LUC 565)
- (15) Trips per Unit and Trips per Employee are based on Racquetball/Tennis Club (ITE LUC 491) and Heath Club/Dance Studio (ITE LUC 492)

III. Fire Protection

Fire protection impact fees are used to fund the capital construction and expansion of land, facilities and capital equipment required to support the additional fire department assets required to serve new growth. This section of the report presents the results of the fire protection impact fee update study for the City of Lakeland and will serve as the technical support document for the calculated fire protection impact fee schedule.

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

- Capital Asset Inventory
- Service Area, Population and Benefit Districts
- Level of Service
- Cost Component
- Credit Component
- Net Fire Protection Impact Cost
- Calculated Fire Protection Impact Fee Schedule
- Impact Fee Schedule Comparison
- Impact Fee Alternative Schedules
- Revenue Estimates

These major elements are summarized in the remainder of this section, with the result being the calculated fire protection impact fee schedule.

Capital Asset Inventory

The City of Lakeland is currently served by seven fire stations that are used to provide fire protection services. The City also owns a fire administration building and fire training facility that are included in the inventory. The City's newest fire station, Station #7, is located at the Lakeland Linder Regional Airport. This station was specifically designed and constructed to serve both the airport and the surrounding community and replaces the former station that exclusively served the airport. Based on discussions with Lakeland Fire Department staff, it was determined that approximately 40 percent of capital assets associated with Station #7 are exclusively to serve the airport property. Therefore, only 60 percent of the asset value of

this station is included in the impact fee inventory as it represents the portion of the asset that provides a direct benefit in services to City residents.

Table III-1 presents the fire protection capital asset inventory, including the building and land values. The building values for the fire stations are based on the recent construction costs for Station #7, insurance values of fire stations, and construction cost data collected from other jurisdictions. The building values for the support and training buildings are based on insurance value information provided by the City's Risk Management Department. All building values include the value of building contents and are comparable to values for similar buildings observed in other jurisdictions.

The land value per acre for the City's fire protection facilities is determined based on information obtained from the Polk County Property Appraiser's database regarding vacant land sales of up to 5 acres within the last three years as well as the value of all vacant property with similar size and land use characteristics. In addition, changes in land values in Lakeland since the last study and the current estimated value of parcels where existing stations and buildings are located are also considered. Based on this information, land value is estimated at \$90,000 per acre for impact fee calculations. Appendix B provides further detail on both building and land cost estimates.

Table III-1
Fire Protection Capital Asset Inventory⁽¹⁾

Description	Address	Year Acquired/ Built	Number of Bays	Number of Acres	Square Feet	Land Value ⁽²⁾	Building Value ⁽³⁾	Total Building & Land Value ⁽⁴⁾
Fire Administration Building	730 E. Main Street	1960	N/A	0.59	12,648	\$53,100	\$2,845,800	\$2,898,900
Fire Station #1	755 E. Rose Street	1997	6	1.11	21,825	\$99,900	\$5,347,125	\$5,447,025
Fire Station #2	2104 S. Florida Avenue	2001	2	0.66	5,564	\$59,400	\$1,363,180	\$1,422,580
Fire Station #3	110 W. Bella Vista	1978	3	1.88	7,730	\$169,200	\$1,893,850	\$2,063,050
Fire Station #4	215 N. Brunnell Parkway	1972	4	2.07	12,950	\$186,300	\$3,172,750	\$3,359,050
Fire Station #4 Support Building	215 N. Brunnell Parkway	2003	N/A	N/A	4,200	N/A	\$525,000	\$525,000
Fire Station #5	3101 Lakeland Highlands Road	1986	2	0.95	5,435	\$85,500	\$1,331,575	\$1,417,075
Fire Station #6	5050 State Road 33 North	2004	2	1.97	5,600	\$177,300	\$1,372,000	\$1,549,300
Fire Station #7 ⁽⁵⁾	3150 Drane Field Rd.	2014	3	N/A	9,360	N/A	\$2,293,200	\$2,293,200
Fire Training Facility	901 Granada Street	1968	N/A	4.25	2,595	\$382,500	\$324,375	\$706,875
Fire Training Tower	901 Granada Street	1980	N/A	N/A	2,303	N/A	\$287,875	\$287,875
Fire Training Support Building	901 Granada Street	1968	N/A	N/A	875	N/A	\$109,375	\$109,375
Total Asset Value				13.48	91,085	\$1,213,200	\$20,866,105	\$22,079,305
Number of Stations								7
Total Land, Contents, and Building Value per Station⁽⁶⁾								\$3,154,186

(1) Source: City of Lakeland Fire Department

(2) Land value per acre is estimated at \$90,000 based on an evaluation of vacant land sales and values in Lakeland as well as the value of land where the existing buildings/stations are located. Refer to Appendix B for more information.

(3) For the seven fire stations, a cost per square foot of \$245 is used, based on the cost to build the City's new Fire Station #7, insurance values, and cost data from other Florida jurisdictions on recently constructed stations. Cost for administration building, training facility and support buildings are based on the City's Insurance Summary Report.

(4) Sum of land value (Item 2) and building value (Item 3)

(5) Fire Station #7 is a 15,600-square foot station with five vehicle bays and serves both the Lakeland Linder Regional Airport and surrounding community. The land is owned by the Airport and therefore is not included in the inventory. Based on discussions with Lakeland Fire Department, it is estimated that 60 percent of the Fire Station #7 will serve the community and the remaining 40 percent will serve the airport. For impact fee purposes, only the 60 percent of the station's assets that serve the greater community is included in the inventory.

(6) Total asset value divided by number of stations

In addition to land and buildings, the City’s fire protection inventory includes the necessary vehicles and equipment to perform their duties. As presented in Table III-2, the total asset value of fire vehicles and associated equipment is \$10.6 million, or \$1.5 million per station. Vehicles and equipment dedicated to serve only the airport are excluded from the inventory. Per the City of Lakeland, a capital asset is defined as having a value of greater than \$1,500 and a minimum of one-year useful life.

**Table III-2
Fire Vehicle & Equipment Inventory⁽¹⁾**

Description	# Units	Unit Cost	Total Vehicle & Equipment Value ⁽²⁾
Uniform/Bunker Gear	138	\$3,747	\$517,086
Rescue Truck & Equipment	5	\$140,290	\$701,450
Staff Car	10	\$20,800	\$208,000
Chevy Silverado	2	\$34,000	\$68,000
Ford Expedition 2	2	\$30,000	\$60,000
Chevy Equinox	1	\$21,000	\$21,000
Pickup Truck	2	\$21,000	\$42,000
Ford Superduty Truck	1	\$55,000	\$55,000
Pierce Heavy Rescue & Equipment	1	\$800,000	\$800,000
Pierce Pumper & Equipment	7	\$675,000	\$4,725,000
Pierce Telesquirt/Skyboom & Equipment	3	\$729,000	\$2,187,000
Pierce Aerial (100' Ladder) & Equipment	1	\$1,100,000	\$1,100,000
Mako Air Trailer	1	\$50,000	\$50,000
Zodiac Rescue Boat	1	\$18,000	\$18,000
Total Equipment & Vehicle Value⁽³⁾			\$10,552,536
Number of Stations⁽⁴⁾			7
Average Equipment & Vehicle Value Per Station⁽⁵⁾			\$1,507,505

(1) Source: City of Lakeland Fire Department, excludes vehicles and equipment are used only to serve the airport

(2) Number of units multiplied by the unit cost for each item

(3) Sum of total equipment and vehicle values

(4) Source: Table III-1

(5) Total asset value (Item 3) divided by the number of stations (Item 4)

Service Area, Population, and Benefit Districts

The Lakeland Fire Department provides services to all city residents, workers, and visitors. 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 2014 is used, which is provided in Section II, Table II-6.

Level of Service

Typically, level of service (LOS) for fire protection services is expressed in terms of stations per 10,000 residents for impact fee calculation purposes. Using this method, the City of Lakeland's current LOS is 1 station per 14,702 weighted seasonal residents or 0.680 stations per 10,000 residents. As mentioned previously, for impact fee calculations, the LOS is measured using functional population to capture workers, visitors, and residents at each land use for which a fire protection impact fee is calculated. In terms of functional population, the current LOS also is 0.635 stations per 10,000 functional residents. Table III-3 summarizes the calculation of the City's current LOS using both weighted and functional population.

**Table III-3
Current (2014) Level of Service**

Calculation Step	Year 2014	
	Weighted Population	Functional Population
Population ⁽¹⁾	102,915	110,206
Number of Stations ⁽²⁾	7	7
Population/Functional Residents per Station ⁽³⁾	14,702	15,744
LOS⁽⁴⁾ (Stations per 10,000 Residents)	0.680	0.635

- (1) Source: The 2014 weighted population figure is from Section II, Table II-1; the 2014 functional population figure is from Section II, Table II-6
- (2) Source: Table III-1
- (3) Population (Item 1) divided by number of stations (Item 2)
- (4) Number of stations (Item 2) divided by population/functional population (Item 1), multiplied by 10,000

Subsequent impact fee calculations are based on the current (2014) LOS for fire protection services. Since the City does not currently have an adopted LOS for fire protection services, it is recommended that the 2014 LOS be adopted as the standard for impact fee purposes through the necessary amendments to the City's Comprehensive Plan. If the City decides to

adopt a standard lower than the existing LOS, the impact fee calculations presented in this section need to be revised to reflect the adopted standard.

Table III-4 summarizes an LOS comparison between the City of Lakeland, select other Florida municipalities and counties, and the State of Florida. 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 2013, as this is the most recent population data available for all jurisdictions. As presented in this table, Lakeland’s LOS is in the mid-range of these other communities.

**Table III-4
Level of Service Comparison**

Jurisdiction	Service Area Population (2013) ⁽¹⁾	Number of Stations ⁽²⁾	Residents per Station ⁽³⁾	LOS (Stations) per 1,000 Residents ⁽⁴⁾
Hillsborough County	869,181	42	20,695	0.048
Orange County	772,657	41	18,845	0.053
City of Gainesville	124,391	7	17,770	0.056
City of Plant City	35,313	2	17,657	0.057
City of Bartow	17,475	1	17,475	0.057
Okeechobee County	34,212	2	17,106	0.058
City of Lakeland (Existing)	98,773	6	16,462	0.061
Pasco County	432,770	27	16,029	0.062
City of Tampa	346,609	22	15,755	0.063
City of Orlando	250,415	17	14,730	0.068
City of Winter Haven	36,280	3	12,093	0.083
Polk County	381,496	32	11,922	0.084
Osceola County	185,825	16	11,614	0.086
Manatee County	261,682	32	8,178	0.122
Lake County	155,998	21	7,428	0.135
City of Lake Wales	14,522	2	7,261	0.138
Hardee County	17,941	3	5,980	0.167
Highlands County	99,092	21	4,719	0.212
State of Florida	19,259,543	1,721	11,191	0.089

(1) Source: University of Florida Bureau of Economic and Business Research (BEBR) April 1, 2013 Final Population Estimates

(2) U.S. Fire Administration; National Fire Department Census

(3) Service area population (Item 1) divided by the number of stations (Item 2)

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

Cost Component

Table III-5 summarizes the capital asset value for fire protection land, buildings, vehicles, and equipment. The City of Lakeland Fire Department operates seven stations with an average land and building equipment value of \$3.2 million per station and an average vehicle and equipment value of \$1.5 million per station. Given that a portion of the debt service for Station 7 is being repaid with impact fee revenues, this amount is subtracted from the cost to not to overcharge the new development. The result is a total asset value of \$4.6 million per station.

In addition, the following table presents the total impact cost per functional resident for fire protection services in the City of Lakeland, which is \$291 per functional resident.

**Table III-5
Total Impact Cost per Functional Resident**

Component	Figure	Percent of Total ⁽⁶⁾
Building, Land, and Content Value per Station ⁽¹⁾	\$3,154,186	68%
Equipment and Vehicle Cost per Station ⁽²⁾	<u>\$1,507,505</u>	<u>32%</u>
Total Cost per Station⁽³⁾	\$4,661,691	100%
Less: Adjustment for Debt Service ⁽⁴⁾	<u>(\$83,216)</u>	
Total Owned Value per Station⁽⁵⁾	\$4,578,475	
LOS (Stations/10,000 Functional Residents)⁽⁶⁾	0.635	
Total Impact Cost per Functional Resident⁽⁷⁾	\$290.73	

(1) Source: Table III-1

(2) Source: Table III-2

(3) Sum of land and building value per station (Item 1) and vehicle and equipment value per station (Items 2)

(4) A portion of debt service for Station 7 is being repaid with impact fees; therefore, associated balance of debt removed from inventory

(5) Source: Table III-3

(6) Total asset value per station (Item 3) multiplied by the LOS (Item 4) and divided by 10,000

(7) Distribution of total cost

Credit Component

To avoid overcharging new development for the fire impact fee, a review of the capital financing program for fire protection services is completed. The purpose of this review is to determine any potential revenue credits generated by new development that could be used for capital facilities, land, and vehicle/equipment expansion of the fire program. Revenue credits are used to reduce the total cost per functional resident so that new development is not overcharged for its capital revenue contributions used to expand the fire protection infrastructure.

A review of capacity expansion expenditures that were paid with cash over the past five years and in the 10-year CIP indicates that the City funds all expansion projects with either impact fee revenues or by issuing bonds. As such, a credit for cash expenditures is not needed.

Debt Service Credit

Any outstanding bond issues related to the expansion of the City's fire protection facilities also will result in a credit to the impact fee.

The City of Lakeland is currently repaying two loans issued to fund the construction of Station #1 (Central Station) and Station #7 using impact fee and General Fund revenues. The loan for Station #1 will be repaid in FY 2014 and the loan for Station #7 will be repaid through FY 2021. Given that only 60 percent of the asset value for Station #7 is included in the impact fee inventory, a credit is only given for 60 percent of the debt repayments that will be funded with the General Fund.

To calculate the credit for each loan, the present value of the total remaining payments of the bond issue is calculated and then divided by the average annual functional population estimated over the remaining life of the bond issue. As presented in Table III-6, the resulting credit for fire protection facilities-related debt is \$6 per functional resident.

**Table III-6
Bond Debt Credit Analysis**

Bond Issue	Total Number of Years of Debt Issue⁽¹⁾	Years Remaining⁽¹⁾	Interest Rate⁽¹⁾	Present Value of Total Remaining Debt Service⁽¹⁾	Average Annual Functional Population During Remaining Bond Issue Period⁽²⁾	Credit per Functional Resident⁽³⁾
Fire Station #1	12	1	Variable	\$302,625	110,206	\$2.75
Fire Station #7 ⁽⁴⁾	9	8	4.00%	\$416,710	117,103	\$3.56
Total Debt Service Credit per Functional Resident						\$6.31

(1) Source: City of Lakeland

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

(3) Present value of remaining payments divided by the average annual functional population during the remaining bond issue period (Item 3)

(4) The remaining debt service shown is only for the portion of Fire Station #7 that is included in the inventory (60%) (Table III-1) and paid back with the General Fund

Net Fire Protection Impact Cost

The net impact fee per functional resident is the difference between the Cost Component and the Credit Component, resulting in the net impact cost per functional resident, as shown in Table III-7.

The first section of this table identifies the total impact cost as approximately \$291 per functional resident. The second section of the table identifies the revenue credits for the fire protection impact fee, which total nearly \$6 per functional resident.

The net impact cost per functional resident (third section of the table) is the difference between the total impact cost and the total revenue credit and is approximately \$284 per functional resident.

Table III-7
Net Impact Cost per Functional Resident

Impact Cost / Credit Element	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Functional Resident ⁽¹⁾	\$290.73	
Impact Credit		
Debt Service Credit per Functional Resident ⁽²⁾		\$6.31
Net Impact Cost		
Net Impact Cost per Functional Resident ⁽³⁾	\$284.42	

(1) Source: Table III-5

(2) Source: Table III-6

(3) Total impact cost per functional resident (Item 1) less the debt service credit per functional resident (Item 2)

Calculated Fire Protection Impact Fee Schedule

Table III-8 presents the calculated fire protection impact fee schedule developed for the City of Lakeland for residential and non-residential land uses, based on the net impact cost per functional resident presented in Table III-7.

**Table III-8
Calculated Fire Protection Impact Fee Schedule**

Land Use	Impact Unit	Functional Resident Coefficient ⁽¹⁾	Calculated Impact Fee ⁽²⁾	Adopted Impact Fee ⁽³⁾	Percent Change ⁽⁴⁾	Difference Between Calculated and Adopted Fee ⁽⁵⁾
Residential						
Single Family Detached	du	1.71	\$486	\$349	39%	\$137
Multi Family	du	1.29	\$367	\$263	40%	\$104
Mobile Home	du	0.80	\$228	\$163	40%	\$65
Hotel / Motel	room	0.71	\$202	\$155	30%	\$47
Assisted Living Facility (ALF)/Nursing Home	bed	0.72	\$205	\$197	4%	\$8
Congregate Care Facility	du	0.89	\$253	n/a	n/a	n/a
Non-Residential						
Industrial	1,000 sf	0.46	\$131	\$100	31%	\$31
Office	1,000 sf	1.01	\$287	\$207	39%	\$80
Retail/Commercial	1,000 gla	2.09	\$594	\$491	21%	\$103
Recreational	1,000 sf	2.12	\$603	\$425	42%	\$178
Institutional	1,000 sf	1.01	\$287	\$210	37%	\$77
Hospital	1,000 sf	1.37	\$390	\$331	18%	\$59
Mini-Warehouse	1,000 sf	0.06	\$17	\$14	21%	\$3
Funeral Home	1,000 sf	0.77	\$219	n/a	n/a	n/a

- (1) Source: Section II, Table II-7 for residential land uses and Section II, Table II-8 for nonresidential land uses
(2) Calculated impact fee determined by multiplying the net impact cost per functional resident (\$284.42) from Table III-7 by the functional resident coefficient (Item 1) for each land use
(3) City of Lakeland fire protection impact fee schedule (adopted at 82%); the rate for retail is for developments up to 100,000 gla
(4) Percent change of the City's calculated impact fee (Item 1) from the adopted impact fee (Item 2)
(5) Calculated impact fee (Item 2) less adopted impact fee (Item 3)
n/a – Indicates a new land use category, which was previously charged based on the fee for a similar land use.

Impact Fee Schedule Comparison

As part of the work effort in updating the City of Lakeland Fire Protection impact fee program, a comparison of fire impact fee schedules was completed for selected jurisdictions. Table III-9 presents the comparison of fire impact fees in the City of Lakeland and the other jurisdictions.

**Table III-9
Fire Protection Impact Fee Schedule Comparison⁽¹⁾**

Land Use	Unit ⁽²⁾	City of Lakeland		Polk County ⁽⁵⁾	Hillsborough County ⁽⁶⁾	Pasco County ⁽⁷⁾	Lake County ⁽⁸⁾	Orange County ⁽⁹⁾	Osceola County ⁽¹⁰⁾	Okeechobee County ⁽¹¹⁾	Highlands County ⁽¹²⁾	Manatee County ⁽¹³⁾	City of Lake Wales ⁽¹⁴⁾	City of Winter Haven ⁽¹⁵⁾	City of Plant City ⁽¹⁶⁾
		Calculated ⁽³⁾	Existing ⁽⁴⁾												
Date of Last Update		2014	2010	2009	1996	2003	2003	2011	2007	2012	2006	2011	2011	2006	2006
Assessed Portion of Calculated ⁽¹⁾		100%	82%	0%	100%	11%	95%	n/a	100%	100%	0%	100%	100%	100%	100%
Residential:															
Single Family (2,000 sf)	du	\$486	\$349	\$0	\$49	\$27	\$390	\$270	\$165	\$394	\$0	\$319	\$593	\$484	\$363
Non-Residential:															
Light Industrial	1,000 sf	\$131	\$100	\$0	\$16	\$36	\$104	\$50	\$50	\$82	\$0	\$76	\$700	\$161	\$139
Office (50,000 sq ft)	1,000 sf	\$287	\$207	\$0	\$41	\$36	\$1,301	\$117	\$90	\$191	\$0	\$133	\$1,010	\$161	\$262
Retail (125,000 sq ft)	1,000 sf	\$594	\$461	\$0	\$22	\$36	\$1,301	\$297	\$300	\$408	\$0	\$128	\$610	\$161	\$343

(1) Represents the portion of the maximum fee for each respective city/county that is currently charged. Fees may have been lowered through indexing or policy discounts

(2) du = Dwelling Unit

(3) Source: Table III-8

(4) Source: City of Lakeland Community Development Department

(5) Source: Polk County Building & Construction Department. Fees shown reflect only the fire portion of fee. Polk County impact fee moratorium extended through July 2015

(6) Source: Hillsborough County Development Services

(7) Source: Pasco County Central Permitting Department. Fees shown reflect only the fire combat portion of the fee

(8) Source: Lake County Department of Growth Management

(9) Source: Orange County Concurrency Office. Adopted fees are greater than originally calculated fees due to indexing.

(10) Source: Osceola County Office of Impact Fees. It should be noted that the fire impact fees are complemented with special assessments.

(11) Source: Okeechobee County BCC; Fire ONLY

(12) Source: Municode; Highlands County Code of Ordinances, Section 13-28. Fees shown reflect only the fire portion of the fee. An impact fee moratorium in effect through June 30, 2014

(13) Source: Manatee County Impact Fee Administration. Fees shown reflect the "public safety" fee for a residential dwelling unit with 0-2 bedrooms

(14) Source: City of Lake Wales Planning and Development Department; fees are indexed to the Consumer Price Index (CPI). Fees for non-residential usage provided as a \$/sf. Fees reflected are this figure, multiplied by 1,000

(15) Source: City of Winter Haven; fee has been indexed since adoption in 2006

(16) Source: Plant City Planning and Zoning Division

Impact Fee Alternative Schedules

The fire protection impact fees calculated for the City of Lakeland and presented in Table III-8 represent the maximum technically calculated fees, based on the findings of this technical report. The City Commission does have the option to adopt an impact fee schedule that is less than the calculated fees. Table III-10 presents two alternative impact fee schedules compared to the calculated fees from Table III-9. The two scenarios, where the calculated fees are reduced to 63% of the calculated amount and 82% of the calculated amount, respectively, are based on comparing the calculated City of Lakeland single family fee to the average adopted single family fees from the other communities provided in Table III-9.

Table III-10
Alternative Impact Fee Schedules⁽¹⁾

Land Use	Unit	Adopted Impact Fee ⁽¹⁾	Calculated Impact Fee @ 63.0%	Calculated Impact Fee @ 82.0%	Calculated Impact Fee @ 100%
Single Family Detached	du	\$349	\$306	\$399	\$486
Recreational	1,000 sf	\$425	\$380	\$494	\$603
Institutional	1,000 sf	\$210	\$181	\$235	\$287
Office	1,000 sf	\$207	\$181	\$235	\$287
Retail/Commercial	1,000 sf	\$461	\$374	\$487	\$594
Industrial	1,000 sf	\$100	\$83	\$107	\$131

(1) Source: City of Lakeland Community Development

Note: The average of the other community's impact fees shown in Table III-9 (excluding communities where fees are currently in moratorium) was calculated as \$305 per dwelling unit, which equates to approximately 63% of the City of Lakeland calculated single family fee of \$486 per dwelling unit. The first scenario (fourth column) illustrates the City of Lakeland fire protection fees at 63% of the calculated amount. Fee levels resulting by the application of adoption percentage of the current fees, 82%, is illustrated in the fifth column. The calculated fees at 100% are from Table III-8 and are provided in the last column of this table.

Revenue Estimates

Based on the population projections provided in Section II, Table II-1, it is estimated that the fire protection impact fee will generate a total of \$5.4 million, or an average of \$0.5 million annually in revenue between 2014 and 2025. These revenue projections are presented in Table III-11. Figures are in 2014 dollars and do not take into account any update or indexing of the fees.

The revenue projections provided in the following table represent the revenue potential over the 11-year period based on the projected population growth. No analysis of actual building permit activity or vacancy rates has been conducted as part of this study. As a point of reference, fire protection impact fee revenues averaged approximately \$100,000 per year over the past four years or 20 percent of estimated revenues based on population growth projections.

For impact fee purposes, revenue projections serve only as an overall guideline in planning future infrastructure needs. In their simplest form, impact fees charge each unit of new growth for the net cost (total cost less credits) of infrastructure needed to serve that unit of growth. If the growth rates remain high, the City will have more impact fee revenues to fund growth related projects sooner rather than later. If the growth rate slows down, less revenue will be generated, and the timing and need for future infrastructure improvements will be later rather than sooner.

**Table III-11
Annual Impact Fee Revenue Estimates**

Year	Population ⁽¹⁾	New Population ⁽²⁾	Estimated Revenues ⁽³⁾
2014	102,915		
2015	104,886	1,971	\$600,307
2016	106,658	1,772	\$539,698
2017	108,460	1,802	\$548,835
2018	110,294	1,834	\$558,581
2019	112,159	1,865	\$568,023
2020	114,064	1,905	\$580,206
2021	115,341	1,277	\$388,936
2022	116,633	1,292	\$393,504
2023	117,939	1,306	\$397,768
2024	119,261	1,322	\$402,642
2025	120,622	1,361	\$414,520
Total Revenue thru 2025			\$5,393,020
Average Annual Revenue			\$490,275
Fee per Resident⁽⁴⁾			\$304.57

- (1) Source: Section II, Table II-1
- (2) Additional population per year
- (3) New population (Item 2) multiplied by fee per resident (Item 4)
- (4) To convert the fee per functional resident to fee per resident, the net fee per functional resident (from Table III-7) is multiplied by the functional population figure from Table III-3 and divided by the population figure from Table III-3

IV. Law Enforcement

Law enforcement impact fees are used to fund the capital construction and expansion of land, facilities, vehicles, and equipment required to support additional law enforcement service demand created by new growth. This section of the report presents the results of the law enforcement impact fee update study for the City of Lakeland 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, Population and Benefit Districts
- Level of Service
- Cost Component
- Credit Component
- Net Law Enforcement Impact Cost
- Calculated Law Enforcement Impact Fee Schedule
- Impact Fee Schedule Comparison
- Impact Fee Alternative Schedule
- Revenue Estimates

These major elements are summarized in the remainder of this section, with the result being the calculated law enforcement impact fee schedule.

Capital Asset Inventory

Lakeland Police Department (LPD) currently operates out of one police station and one training facility. The City of Lakeland also owns a police-related vehicle impound lot. Table IV-1 presents the inventory of the LPD's law enforcement facilities and the land and building asset value for each, along with the calculate average asset value per sworn police officer.

**Table IV-1
Law Enforcement Land & Buildings Inventory⁽¹⁾**

Facility Description	Location	Year Acquired/ Built	Acreage	Square Feet	Land Value ⁽²⁾	Building Value ⁽³⁾	Total Building & Land Value ⁽⁴⁾
Lakeland Police Station	219 N. Massachusetts Ave.	1993	6.13	80,669	\$429,100	\$20,973,940	\$21,403,040
Police Training Facility	3030 E. Lake Parker Dr.	N/A	6.00	N/A	\$420,000	N/A	\$420,000
Firing Range Canopy		1970	N/A	2,000	N/A	\$180,000	\$180,000
Classroom/Office		1970	N/A	3,632	N/A	\$326,880	\$326,880
Portable Classroom		1970	N/A	1,035	N/A	\$93,150	\$93,150
Portable Restroom		1975	N/A	140	N/A	\$12,600	\$12,600
Storage Shed #1		1990	N/A	510	N/A	\$45,900	\$45,900
Storage Shed #2		1990	N/A	48	N/A	\$4,320	\$4,320
Observation Tower		1990	N/A	784	N/A	\$70,560	\$70,560
New Training Building		2013	N/A	6,000	N/A	\$990,000	\$990,000
Impound Lot		821 E.Oleander St.	2007	1.38	9,440	\$96,600	\$849,600
Total			13.51	104,258	\$945,700	\$23,546,950	\$24,492,650
Number of Sworn Officers⁽⁵⁾							208
Total Cost per Officer⁽⁶⁾							\$117,753

(1), (5) Source: City of Lakeland

(2) Land value is estimated at \$70,000 per acre. This estimate is based on an evaluation of vacant land sales and values in Lakeland as well as the value of land where the existing buildings/station are located. Refer to Appendix B for more information.

(3) Building structure and contents asset value based on information provided by the City's Risk Management Department on insurance values and data from other jurisdictions.

(4) Sum of the land value (Item 2) and building value (Item 3) for each facility

(6) Total asset value of land, buildings, and contents (Item 4) divided by the number of sworn officers (Item 5)

Asset values for LPD's buildings and contents are based on insurance value information from the City's Risk Management Department as well as information from other jurisdictions. The land value per acre for the City's law enforcement facilities is determined based on information obtained from the Polk County Property Appraiser's database regarding vacant land sales within the last three years, the value of vacant parcels of similar size, and the value of parcels where existing buildings are located. Based on the information provided, an average land value of \$70,000 per acre is used, as presented in Table IV-1. Appendix B provides further details regarding the unit cost estimates.

In addition to land and buildings, LPD's inventory includes the necessary vehicles and equipment to perform their duties. As presented in Table IV-2, the total value of the law enforcement vehicles and equipment is approximately \$11.7 million, or \$56,400 per officer. Per the City of Lakeland, a capital asset is defined as having a minimum value of \$1,500 and a minimum of one-year useful life.

**Table IV-2
Law Enforcement Vehicle & Equipment Inventory⁽¹⁾**

Description	Number of Units	Unit Cost	Total Cost ⁽²⁾
Uniform & Equipment	226	\$5,491	\$1,240,966
Laptop Computer	226	\$2,150	\$485,900
Radio MT2000 & Charger	226	\$4,848	\$1,095,648
K-9 Unit	8	\$35,000	\$280,000
Marked Crown Victoria	144	\$31,500	\$4,536,000
Unmarked Crown Victoria	14	\$29,500	\$413,000
Unmarked Impala	66	\$25,000	\$1,650,000
PSA Marked Car	8	\$29,000	\$232,000
PSA Marked Pool Car	1	\$25,000	\$25,000
Fleet Marked Pool Car	13	\$29,500	\$383,500
Fleet Unmarked Pool Car	7	\$29,500	\$206,500
Marked Pickup (Dive Team)	1	\$18,000	\$18,000
Marked Crime Prevention Cars	6	\$25,000	\$150,000
Confiscated Unmarked Car	14	\$5,000	\$70,000
Marked Traffic Motorcycle	7	\$15,000	\$105,000
Unmarked Truck	2	\$22,500	\$45,000
Marked Aviation Truck	1	\$33,000	\$33,000
Trailer	5	\$8,000	\$40,000
SPIVS	2	\$10,000	\$20,000
Van	7	\$18,000	\$126,000
Mobile Operations Center	1	\$50,000	\$50,000
Unmarked Victim Assistance Car	1	\$25,000	\$25,000
Unmarked Crime Scene Car	1	\$25,000	\$25,000
Armored Personnel Carrier	1	\$350,000	\$350,000
APC Tractor	1	\$95,000	\$95,000
APC Trailer	1	\$35,000	\$35,000
Total Vehicle & Equipment Cost			\$11,735,514
Number of Officers ⁽³⁾			208
Vehicle & Equipment Cost per Officer⁽⁴⁾			\$56,421

(1) Source: City of Lakeland

(2) Number of units multiplied by the unit cost for each item

(3) Source: Table IV-1

(4) Total vehicle and equipment cost divided by the number of officers (Item 3)

Service Area, Population and Benefit Districts

The City of Lakeland 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 Lakeland. Therefore, the citywide 24-hour functional population estimate for year 2014 is used, which is provided in Section II, Table 6.

Level of Service

Typically, the LOS for law enforcement is expressed in terms of officers per 1,000 residents. Using this method, the City of Lakeland’s 2014 LOS is 1 police officer per 495 residents or 2.02 officers per 1,000 residents. However, in order to calculate the law enforcement impact fee, the LOS needs to be calculated using functional population. In terms of functional population, the current LOS is 1.89 officers per 1,000 functional residents. Table IV-3 summarizes the calculation of the current LOS using both weighted seasonal and functional population.

**Table IV-3
Current (2014) Level of Service**

Calculation Step	Year 2014	
	Weighted Population	Functional Population
Population ⁽¹⁾	102,915	110,206
Number of Officers ⁽²⁾	208	208
Population/Functional Residents per Officer ⁽³⁾	495	530
LOS⁽⁴⁾ (Officers per 1,000 Residents)	2.02	1.89

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

(2) Source: Table IV-1

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

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

Table IV-4 provides a comparison of LOS between Lakeland and other Florida jurisdictions based on most recent data available from the Florida Department of Law Enforcement. As shown, Lakeland’s LOS is in the mid-range of other jurisdictions.

**Table IV-4
Level of Service Comparison**

Jurisdiction	Service Area Population (2012) ⁽¹⁾	Number of Officers ⁽²⁾	LOS (Officers per 1,000 Residents) ⁽³⁾
Pasco County	430,872	424	0.98
Highlands County	77,041	99	1.29
Lake County	165,664	215	1.30
Hillsborough County	854,465	1,122	1.31
Manatee County	259,732	339	1.31
Okeechobee County	34,227	47	1.37
Polk County	398,796	560	1.40
Hardee County	19,760	31	1.57
City of Plant City	34,963	63	1.80
Orange County	754,501	1,375	1.82
Osceola County	180,821	358	1.98
City of Lakeland	98,200	223	2.27
City of Bartow	17,316	40	2.31
City of Gainesville	123,903	294	2.37
City of Winter Haven	34,388	83	2.41
City of Tampa	341,771	971	2.84
City of Orlando	245,402	724	2.95
City of Lake Wales	14,323	44	3.07

(1) Source: Florida Department of Law Enforcement (FDLE) Criminal Justice Agency Profile Report, 2012. Population figures are consistent with BEBR 2012 population estimates.

(2) Source: FDLE Criminal Justice Agency Profile Report, 2012

(3) Number of officers (Item 2) divided by the service area population (Item 1) multiplied by 1,000

Cost Component

Table IV-5 summarizes the asset value for law enforcement-related land, buildings, vehicles and equipment, which average nearly \$118,000 per officer for land and buildings and \$56,000 per officer for vehicles and equipment. This results in a total asset value of \$174,200 per officer.

In addition, the following table presents the total impact cost per functional resident for law enforcement services in City of Lakeland of \$329 per functional resident.

**Table IV-5
Total Impact Cost per Functional Resident**

Cost Component	Figure
Building & Land Value per Officer ⁽¹⁾	\$117,753
Vehicle & Equipment Value per Officer ⁽²⁾	\$56,421
Total Asset Value per Officer⁽³⁾	\$174,174
LOS (Officers/1,000 Functional Residents) ⁽⁴⁾	1.89
Total Impact Cost per Functional Resident⁽⁵⁾	\$329.19

(1) Source: Table IV-1

(2) Source: Table IV-2

(3) Sum of building & land asset value (Item 1) and the vehicle & equipment asset value (Item 2)

(4) Source: Table IV-3

(5) Total asset value per officer (Item 4) multiplied by the LOS (Item 5), divided by 1,000

Credit Component

To avoid overcharging new development, a review of the capital financing program for law enforcement services is completed. The purpose of this review is to determine any potential revenue credits generated by new development that could be used for capital facilities, land, vehicle, and equipment expansion of the law enforcement program. Revenue credits are then applied against the total cost per functional resident so that new development is not charged twice for capital revenue contributions used to expand the law enforcement program.

A review of the City of Lakeland’s capacity expansion expenditures over the past five years and the current 10-year CIP indicates that all planned law enforcement-related capital expansion projects will be funded with impact fee revenue. Therefore, a revenue credit is not necessary.

Calculated Law Enforcement Impact Fee Schedule

The law enforcement impact fee schedule was calculated for residential and nonresidential land uses and is provided in Table IV-6.

Table IV-6
Calculated Law Enforcement Impact Fee Schedule

Land Use	Impact Unit	Functional Resident Coefficient ⁽¹⁾	Calculated Impact Fee ⁽²⁾	Adopted Impact Fee ⁽³⁾	Percent Change ⁽⁴⁾	Difference in Calculated and Adopted Fee ⁽⁵⁾
Residential						
Single Family Detached	du	1.71	\$563	\$591	-5%	-\$28
Multi Family	du	1.29	\$425	\$445	-4%	-\$20
Mobile Home	du	0.80	\$263	\$275	-4%	-\$12
Hotel / Motel	room	0.71	\$234	\$262	-11%	-\$28
Assisted Living Facility (ALF)/Nursing Home	bed	0.72	\$237	\$333	-29%	-\$96
ACLF/Congregate Care Facility	du	0.89	\$293	n/a	n/a	n/a
Non-Residential						
Industrial	1,000 sf	0.46	\$151	\$170	-11%	-\$19
Office	1,000 sf	1.01	\$332	\$350	-5%	-\$18
Retail/Commercial	1,000 gla	2.09	\$688	\$832	-17%	-\$144
Hospital	1,000 sf	1.37	\$451	\$560	-19%	-\$109
Mini-Warehouse	1,000 sf	0.06	\$20	\$24	-17%	-\$4
Recreational	1,000 sf	2.12	\$698	\$720	-3%	-\$22
Institutional	1,000 sf	1.01	\$332	\$356	-7%	-\$24
Funeral Home	1,000 sf	0.77	\$253	n/a	n/a	n/a

- (1) Source: Section II, Table II-7 for residential land uses and Table II-8 for nonresidential land uses
 - (2) Total impact cost per functional resident (\$329.19) from Table IV-5 multiplied by the functional population coefficient (Item 1) for each land use
 - (3) City of Lakeland law enforcement impact fee schedule (adopted at 93%); retail rate is for developments up to 100,000 gla.
 - (4) Percent change of the City's calculated impact fee (Item 1) from the adopted impact fee (Item 2)
 - (5) Calculated impact fee (Item 2) less adopted impact fee (Item 3)
- n/a – Indicates a new land use category, which was previously charged based on the fee for a similar land use.

Impact Fee Schedule Comparison

As part of the work effort in updating the City of Lakeland's Law Enforcement impact fee program, a comparison of law enforcement impact fee schedules was completed for selected jurisdictions. Table IV-7 presents the comparison of law enforcement impact fees in Lakeland and the other jurisdictions.

**Table IV-7
Law Enforcement Impact Fee Schedule Comparison⁽¹⁾**

Land Use	Unit ⁽²⁾	City of Lakeland		Polk County ⁽⁵⁾	Orange County ⁽⁶⁾	Highlands County ⁽⁷⁾	Manatee County ⁽⁸⁾	City of Lake Wales ⁽⁹⁾	City of Winter Haven ⁽¹⁰⁾	City of Plant City ⁽¹¹⁾
		Calculated ⁽³⁾	Existing ⁽⁴⁾							
Date of Last Update		2014	2010	2005	2012	2006	2011	2011	2006	2006
Assessed Portion of Calculated ⁽¹⁾		100%	93%	0%	100%	0%	100%	100%	100%	100%
Residential:										
Single Family (2,000 sf)	du	\$563	\$591	\$0	\$271	\$0	\$599	\$463	\$301	\$478
Non-Residential:										
Light Industrial	1,000 sf	\$151	\$170	\$0	\$118	n/a	\$142	\$40	\$395	\$205
Office (50,000 sq ft)	1,000 sf	\$332	\$350	\$0	\$109	n/a	\$606	\$70	\$395	\$388
Retail (125,000 sq ft)	1,000 sf	\$688	\$781	\$0	\$494	n/a	\$516	\$1,900	\$395	\$506

(1) Represents the portion of the maximum fee for each respective city/county that is currently charged. Fees may have been lowered through indexing or policy discounts.

(2) du = Dwelling Unit

(3) Source: Table IV-6

(4) Source: City of Lakeland Community Development Department

(5) Source: Polk County Building and Construction Department. Impact fee moratorium extended through July 2015.

(6) Source: Orange County Concurrency Office

(7) Source: Municode; Highlands County Code of Ordinances, Section 13-28. Impact fee moratorium in effect through June 30, 2014.

(8) Source: Manatee County Impact Fee Administration

(9) Source: City of Lake Wales Planning and Development Department; fee is indexed to the CPI. Fees for non-residential usage land uses are provided in \$/sf. Adopted fees are multiplied by 1,000 to illustrate the fees provided in this table.

(10) Source: City of Winter Haven. Fees have been indexed since adoption in 2006.

(11) Source: City of Plant City Planning & Zoning Department

Impact Fee Alternative Schedules

The law enforcement impact fees calculated for the City of Lakeland and presented in Table IV-6 represent the maximum technically calculated fees, based on the findings of this report. The City Commission does have the option to adopt an impact fee schedule that is less than the calculated fees. Table IV-8 presents two alternative impact fee schedules compared to the calculated fees from Table IV-6. The two scenarios, where the calculated fees are reduced to 75% of the calculated amount and 93% of the calculated amount, respectively, are based on comparing the calculated City of Lakeland single family fee to the average adopted single family fees from the other communities provided in Table IV-7.

Table IV-8
Alternative Impact Fee Schedules⁽¹⁾

Land Use	Unit	Adopted Impact Fee ⁽¹⁾	Calculated Impact Fee @ 75%	Calculated Impact Fee @ 93%	Calculated Impact Fee @ 100%
Single Family Detached	du	\$591	\$422	\$524	\$563
Recreational	1,000 sf	\$720	\$524	\$649	\$698
Institutional	1,000 sf	\$356	\$249	\$309	\$332
Office	1,000 sf	\$350	\$249	\$309	\$332
Retail/Commercial	1,000 sf	\$781	\$516	\$640	\$688
Industrial	1,000 sf	\$170	\$113	\$140	\$151

(1) Source: City of Lakeland Community Development

Note: The average of the other community's impact fees shown in Table IV-6 (excluding communities where fees are currently in moratorium) is calculated to be \$422 per dwelling unit, which equates to 75% of the City of Lakeland calculated single family fee of \$563 per dwelling unit. The first scenario (fourth column) illustrates the City of Lakeland law enforcement fees at 75% of the calculated amount. Fee levels resulting from the application of the current adoption percentage, 93%, is illustrated in the fifth column. The calculated fees at 100% are from Table IV-6 and are provided in the last column of this table.

Revenue Estimates

Based on the population projections provided in Section II, Table II-1, it is estimated that the law enforcement impact fee will generate a total of \$6.2 million, or an average of \$0.6 million in revenue annually between 2014 and 2025. These revenue projections are presented in Table IV-9. Figures are in 2014 dollars and do not take into account indexing or update of the fees.

The revenue projections provided in the following table are based on estimated population growth and represent the revenue potential over the 11-year period based on the projected population growth. No analysis of actual building permit activity or vacancy rates has been conducted as part of this study. As a point of reference, law enforcement impact fee revenues averaged approximately \$160,000 per year over the past four years or approximately 30 percent of estimated revenues based on population growth projections.

For impact fee purposes, revenue projections serve only as an overall guideline in planning future infrastructure needs. In their simplest form, impact fees charge each unit of new growth for the net cost (total cost less credits) of infrastructure needed to serve that unit of growth. If the growth rates remain high, the City will have more impact fee revenues to fund growth related projects sooner rather than later. If the growth rate slows down, less revenue will be generated, and the timing and need for future infrastructure improvements will be later rather than sooner.

**Table IV-9
Annual Impact Fee Revenue Estimates**

Year	Population⁽¹⁾	New Population⁽²⁾	Estimated Revenues⁽³⁾
2014	102,915		
2015	104,886	1,971	\$694,797
2016	106,658	1,772	\$624,648
2017	108,460	1,802	\$635,223
2018	110,294	1,834	\$646,503
2019	112,159	1,865	\$657,431
2020	114,064	1,905	\$671,532
2021	115,341	1,277	\$450,155
2022	116,633	1,292	\$455,443
2023	117,939	1,306	\$460,378
2024	119,261	1,322	\$466,018
2025	120,622	1,361	\$479,766
Total Revenue			\$6,241,894
Average Annual Revenue			\$567,445
Fee per Resident⁽⁴⁾			\$352.51

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

(2) Additional population per year.

(3) New population (Item 2) multiplied by fee per resident (Item 4)

(4) To convert the fee per functional resident to a fee per resident, the fee per functional resident (from Table IV-6) is multiplied by the functional population figure from Table IV-3 and divided by the population figure from Table IV-3

APPENDIX A
Population Estimates & Functional Population
Supplemental Information

Table A-1
City of Lakeland
Permanent Population Projections

Year	Permanent Population
2000	78,452
2001	82,706
2002	85,517
2003	88,741
2004	89,731
2005	90,851
2006	91,623
2007	93,428
2008	93,508
2009	94,163
2010	97,422
2011	97,690
2012	98,200
2013	98,733
2014	99,533
2015	101,439
2016	103,153
2017	104,896
2018	106,669
2019	108,472
2020	110,315
2021	111,551
2022	112,800
2023	114,063
2024	115,341
2025	116,658

Notes:

- (1) City of Lakeland population figures for 2000-2013 are from the Bureau of Economic and Business Research (BEER), Florida Statistical Abstract
- (2) City of Lakeland population figures for 2015, 2020 and 2025 are provided by the City of Lakeland.
- (3) City of Lakeland population figures for the interim years are based on the annual growth rates between the major years (2015, 2020, and 2025).

Table A-2
City of Lakeland
Seasonal Population Projections

Year	Hotel/Motel	Seasonal, Occasional, Recreational	Seasonal Population
2000	2,667	4,722	7,389
2001	2,812	4,962	7,774
2002	2,908	5,131	8,039
2003	3,017	5,324	8,341
2004	3,051	5,384	8,435
2005	3,089	5,451	8,540
2006	3,082	5,497	8,579
2007	3,177	5,606	8,783
2008	3,179	5,610	8,789
2009	3,202	5,650	8,852
2010	3,312	4,299	7,611
2011	3,321	4,298	7,619
2012	3,339	4,321	7,660
2013	3,094	4,344	7,438
2014	3,086	4,379	7,465
2015	3,145	4,463	7,608
2016	3,198	4,539	7,737
2017	3,252	4,615	7,867
2018	3,307	4,693	8,000
2019	3,363	4,773	8,136
2020	3,420	4,854	8,274
2021	3,458	4,908	8,366
2022	3,497	4,963	8,460
2023	3,536	5,019	8,555
2024	3,576	5,075	8,651
2025	3,616	5,133	8,749

Notes:

- (1) The ratio of hotel/motel visitors to permanent population is calculated by multiplying the number of rooms within the Lakeland city limits, provided by the Lakeland Chamber of Commerce, by the estimated persons per room. For years 2000-2012, the ratio is 3.4 percent, based on total number of hotel/motel rooms used in the 2009 Lakeland Impact Fee Study. For years 2013 and later, the ratio is 3.1 percent, based on the number of total motel/hotel rooms in the city as of 2013.
- (2) The ratio of seasonal, occasional, and recreational population to permanent population is based on Census data. For years 2000-2009, the ratio is 6.0 percent, based on Census 2000 data. For 2010 and later, the ratio is 4.4, based on Census 2010 data.

Table A-3
City of Lakeland
Weighted Population Projections

Year	Total Weighted Seasonal Population
2000	81,769
2001	86,196
2002	89,126
2003	92,486
2004	93,518
2005	94,685
2006	95,473
2007	97,372
2008	97,454
2009	98,137
2010	100,884
2011	101,156
2012	101,685
2013	102,104
2014	102,915
2015	104,886
2016	106,658
2017	108,460
2018	110,294
2019	112,159
2020	114,064
2021	115,341
2022	116,633
2023	117,939
2024	119,261
2025	120,622

Notes:

- (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 hotel/motel seasonal residents per year from Table A-2, multiplied by a weighting factor of 0.5, or 6 months per year
- (3) 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 Lakeland Functional Population

Year	City of Lakeland Functional Population Projections
2000	87,607
2001	92,338
2002	95,478
2003	99,106
2004	100,196
2005	101,398
2006	102,209
2007	104,253
2008	104,357
2009	105,087
2010	108,029
2011	108,353
2012	108,895
2013	109,331
2014	110,206
2015	112,300
2016	114,209
2017	116,151
2018	118,126
2019	120,134
2020	122,176
2021	123,520
2022	124,879
2023	126,253
2024	127,642
2025	129,046

Notes:

- (1) 2014 functional population figure from Section II, Table II-6.
- (2) Interim years were interpolated based on annual population growth rates from the weighted average seasonal population in Table A-3.

APPENDIX B
Supplemental Cost Estimate Information

Building and Land Value Analysis

This Appendix provides a summary of building and land value estimates for the fire protection and law enforcement impact fee program areas.

Building Values

For each program area, the following information was reviewed to estimate building values:

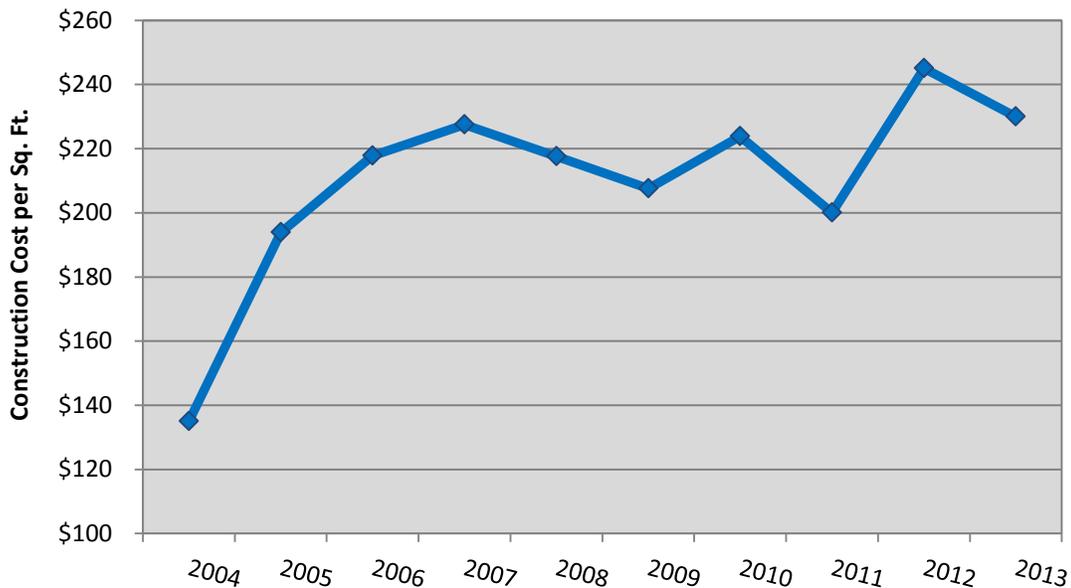
- Recent construction completed by City of Lakeland (if any);
- Estimates for any planned facilities;
- Insurance values of existing facilities;
- Data from other jurisdictions for recently completed facilities; and
- Discussions with architects/contractors as well as the City representatives.

The following paragraphs provide a summary for each program area.

Fire Protection Facilities

As part of this analysis, TOA contacted several Florida jurisdictions to obtain more recent cost information. The bids and estimates received since 2010 for facilities built or bid during 2010 through 2013 range from \$190 to \$300 per square foot (excluding furniture/fixture/equipment, site preparation cost, permits, fees and other similar expenses). The following chart presents the building construction cost trends based on bids, estimates, and other information obtained during the previous impact fee studies completed by TOA. As presented, the variation in station costs is relatively minor over the past few years.

**Figure B-1
Fire/EMS Station Construction Cost per Square Foot**



Source: Fire station construction cost data collected from Florida jurisdictions

In determining the appropriate unit cost for station construction in Lakeland, in addition to these trends, the following data was evaluated:

- The City is in the process of completing the construction of Station 7 at a cost of \$230 per square foot for building only and \$250 per square foot for building and contents.
- The insurance value of existing fire stations is \$230 per square foot for building value only and \$245 per square foot for building and content value. It is important to note insurance values are considered to provide estimates below the full cost since they typically do not take into consideration certain cost components, such as foundation, architectural/design cost, furniture/fixture/equipment, security features, etc.

Based on the information summarized in Table B-1, a unit cost of \$245 per square foot is used for fire station building value. This figure is based primarily on the current cost for Station 7 and insurance values. It is also consistent with information obtained from other Florida jurisdictions and architects.

**Table B-1
Fire Station Building Value**

Source	Year	Building Cost per Square Foot
Insurance Values of Existing Fire Stations ⁽¹⁾	2014	\$230 to \$245
Construction of Cost of Fire Station 7 ⁽²⁾	2014	\$230 to \$250
Recent Fire Station Construction in Other Florida Counties ⁽³⁾	2010-2013	\$190 - \$300
Estimates from Florida Architects ⁽⁴⁾	2013	\$230 - \$280
Used in the Study	2014	\$245

(1) Source: City of Lakeland, low end represents building only and the high end represents building and contents

(2) Source: City of Lakeland, low end represents building only and the high end represents building and contents

(3) Source: Individual jurisdictions

(4) Based on discussions with industry architects for a range of a typical fire station in Florida based on their experience (includes adjustment for ff&e, site preparation, permits, etc.)

In addition to fire stations, the fire protection services building inventory includes the Fire Administration Building, which has an insurance value of \$194 per square foot for building only and \$223 per square foot for building and content value. A unit value of \$225 per square foot is used for this building in the impact fee calculations. In the case of training and support buildings, the average insurance value is \$114 per square foot for buildings only and \$126 per square foot for buildings and content. An average value of \$125 per square foot is used for these facilities. As mentioned previously, insurance values represent a conservative approach.

Law Enforcement Facilities

The City of Lakeland’s law enforcement facilities includes the police station as well as the training and support facilities. Of these buildings, insurance value of the police station is \$219 per square foot for building only and \$260 per square foot for building and contents. In the case of the new training center, the insured value of the building is \$142 per square foot and \$167 per square foot including contents. Finally, the remaining training and support facilities average \$75 per square foot for building only and \$91 per square foot for building and contents. Given this information, the study used a unit value of \$260 per square foot for the police station, \$165 per square foot for the new training facility, and \$90 per square foot for other buildings. These estimates resulted in an average value of \$225 per square foot, which is within the range of law enforcement facility costs observed in other jurisdictions (\$175 per square foot to \$240 per square foot in recent studies).

Land Values

For each impact fee program area, land values were determined based on the following analysis, as data available:

- Recent land purchases for each program area (if any);
- Value of current parcels as reported by the Polk County Property Appraiser;
- Value of vacant land by size and by land use; and
- Vacant land sales over the past four years by size and by land use.

As shown in Table B-2, the land value and sales analysis suggested that sales data indicate higher values than estimates included in the Property Appraiser’s database for those vacant properties that have not been sold for a while. This may be due to a lag in the update of land values. The following paragraphs summarize the data used for each program area. In addition, commercial properties where fire stations tend to be located are more expensive than other land uses.

**Table B-2
Vacant Land Sales and Value Analysis**

Acreage	Vacant Land Sales 2010-2013 (per acre)			Vacant Land Values (per acre)		
	Count	Median	Average	Count	Median	Average
All Land Uses						
0.5 to 5	129	\$127,346	\$292,096	366	\$49,820	\$69,783
5.01 to 10	18	\$286,358	\$272,472	56	\$34,086	\$52,274
Vacant Commercial						
0.5 to 5	6	\$362,231	\$347,492	131	\$80,592	\$111,365
5.01 to 10	8	\$193,566	\$219,281	21	\$52,271	\$85,386

Source: Polk County Property Appraiser

Based on the information provided in the Property Appraiser database, the value of parcels where current fire protection service buildings are located range from \$7,500 per acre to \$610,000 per acre. In the case of law enforcement, the value of parcels in the inventory range from \$5,000 per acre to \$185,000 per acre. In addition, the changes in overall land values in Lakeland since the last update study suggest a 10-percent decrease in land values, which would reduce the land value used in the previous study to \$90,000 per acre. Given this information, an average land value of \$90,000 per acre is used for land associated with fire protection services, which is in the range of vacant commercial land values. For law

enforcement, an average value of \$70,000 per acre is used, which is consistent with the land values of smaller parcels for all land uses combined. This reflects the higher flexibility law enforcement buildings enjoy in terms of location compared to fire stations. While fire stations tend to be located at major intersections and non-residential areas, law enforcement facilities have more flexibility in terms of the location and can be built on more affordable land.