Fire Protection & Law Enforcement Impact Fee Update Study

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Fire Protection & Law Enforcement Impact Fee Update Study

DRAFT Report
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City of Lakeland
Fire Protection & Law Enforcement Impact Fee Study

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I. Introduction

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 2015. To comply with the City's impact fee ordinance requirements and reflect the most current data, the City is interested in updating impact fee technical studies for the following service areas:

- Fire Protection
- Law Enforcement
- Parks, Recreation, and Cultural Facilities
- Transportation

The City retained Tindale Oliver to prepare a technical study that would document current cost, credit, and demand components associated with providing capital facilities mentioned previously along with resulting fee schedules. The technical studies ensure that the City's impact fee program is in compliance with legal requirements of fees being based on most recent and localized data. This technical report presents findings of the fire and law impact fee studies. The technical reports for the parks, recreation, and cultural facilities, and transportation impact fee update are provided under separate covers. It should be noted that figures calculated in this study represent the technically supported maximum level of impact fees that the City could charge; however, the City may choose to discount the fees as a policy decision.

Methodology

In developing the City's impact fee program, a consumption-based impact fee methodology is utilized, which is also the City's current adopted methodology and is commonly used 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 per unit in the case of the Fire Protection and Law Enforcement impact fee program areas.

A consumption-based impact fee charges new growth the proportionate share of the cost of providing additional infrastructure available for use by new growth. Unlike a "needs-based" approach, the consumption-based approach ensures that the impact fee is set at a rate that existing deficiencies cannot be corrected with impact fee revenues. As such, the City does not need to go through the process of estimating the portion of each capacity expansion project that may be related to existing deficiencies. In addition, per legal requirements, a credit is subtracted

from the total cost to account for the value of future tax contributions of the new development toward any capacity expansion projects through other revenue sources. Contributions used to calculate the credit component include estimates of future non-impact fee revenues generated by the new development that will be 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 demand component is measured in terms of population per unit in the case of fire rescue and law enforcement facility impact fees.

Legal Standard Overview

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

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

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

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

- **HB 227 in 2009: The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.**

- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of Community Affairs (now the Department of Economic Opportunity) and Florida Department of Transportation (FDOT) to conduct studies on "mobility fees," which were completed in 2010.
- **HB 7207 in 2011:** Required a dollar-for-dollar credit, for purposes of concurrency compliance, for impact fees paid and other concurrency mitigation required.
- **HB 319 in 2013:** Applied mostly to concurrency management authorities, but also encouraged local governments to adopt alternative mobility systems using a series of tools identified in section 163.31801 (5)(f), Florida Statutes.
- **HB 207 in 2019:** Included the following changes to the Impact Fee Act along with additional clarifying language:
    1. Impact fees cannot be collected prior to building permit issuance; and
    2. Impact fee revenues cannot be used to pay debt service for previously approved projects unless the expenditure is reasonably connected to, or has a rational nexus with, the increased impact generated by the new residential and commercial construction.
- **HB 7103 in 2019:** Addressed multiple issues related to affordable housing/linkage fees, impact fees, and building services fees. In terms of impact fees, the bill required that when local governments increase their impact fees, the outstanding impact fee credits for developer contributions should also be increased. This requirement will operate prospectively. This bill also allowed local governments to waive/reduce impact fees for affordable housing projects without having to offset the associated revenue loss.

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

<u>Impact Fee Definition</u>

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

Impact Fee vs. Tax

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

This technical report has been prepared to support legal compliance with existing case law and statutory requirements and documents the methodology used for impact fee calculations for each fee in the following sections, including 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. Fire Protection Impact Fee

This section provides the results of the fire protection impact fee analysis. Several elements addressed in this section include:

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

These elements are summarized in the remainder of this section.

Facility 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. Fire 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. 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 II-1 presents the fire protection facility inventory, including the building and land values. The building values for the fire stations are based on construction costs trends since the last technical study, insurance values of current 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 $97,000 per acre for impact fee calculations. Appendix B provides further detail on both building and land cost estimates.

Table II-1
Fire Protection Land & Buildings Inventory [1]

Description	Address	Year Acquired/ Built	Number of Bays	Acreage	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	$57,230	$3,162,000	$3,219,230
Fire Station #1	755 E. Rose Street	1997	6	1.11	21,825	$107,670	$5,892,750	$6,000,420
Fire Station #2	2104 S. Florida Avenue	2001	2	0.66	5,564	$64,020	$1,502,280	$1,566,300
Fire Station #3	110 W. Bella Vista	1978	3	1.88	7,730	$182,360	$2,087,100	$2,269,460
Fire Station #4	215 N. Brunnell Parkway	1972	4	2.07	12,950	$200,790	$3,496,500	$3,697,290
Fire Station #4 Support Building	215 N. Brunnell Parkway	2003	N/A	N/A	4,200	N/A	$567,000	$567,000
Fire Station #5	3101 Lakeland Highlands Rd	1986	2	0.95	5,435	$92,150	$1,467,450	$1,559,600
Fire Station #6	5050 State Road 33 North	2004	2	1.97	5,600	$191,090	$1,512,000	$1,703,090
Fire Station #7[5]	3150 Drane Field Rd	2014	3	N/A	9,540	N/A	$2,575,800	$2,575,800
Fire Training Tower	901 Granada Street	1980	N/A	4.25	2,303	$412,250	$310,905	$723,155
Total Asset Value				**13.48**	**87,795**	**$1,307,560**	**$22,573,785**	**$23,881,345**
Number of Stations								**7**
Total Asset Value per Station[6]								**$3,411,621**

1) Source: City of Lakeland Fire Department
2) Total land value based on an estimated value of $97,000 per acre. This unit cost estimate is based on an evaluation of land value trends, vacant land sales and values in Lakeland as well as the value of land where the existing buildings/stations are located. Appendix B provides further information.
3) For fire stations, a unit cost of $270 per square foot is used. The building cost for the administration building is estimated at $250 per square foot, and for training/support facilities, it was estimated at $135 per square foot. Appendix B provides further information.
4) Sum of land value (Item 2) and building value (Item 3)
5) Fire Station #7 is a 15,900-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 be dedicated to 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 value for all stations and facilities divided by the number of stations owned and operated by the City of Lakeland

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 II-2, the total asset value of fire vehicles and associated equipment is $12.2 million, or $1.7 million per station. Vehicles and equipment dedicated to serve only the airport are excluded from the inventory.

Table II-2
Fire Rescue and Equipment Inventory (1)

Description	# Units	Unit Cost	Total Vehicle & Equipment Value(2)
Uniform/Bunker Gear	153	$6,500	$994,500
Rescue Truck & Equipment	5	$100,000	$500,000
Staff Car	10	$23,034	$230,340
BC2 and Captain Vehicle and Equipment	4	$44,752	$179,008
Chevy Equinox	1	$23,000	$23,000
Chevy Silverado	2	$23,000	$46,000
Ford Superduty Truck	1	$55,000	$55,000
Pierce Heavy Rescue & Equipment	1	$900,000	$900,000
Pierce Pumper & Equipment	8	$725,000	$5,800,000
Pierce Telesquirt/Skyboom & Equipment	2	$850,000	$1,700,000
Pierce Aerial (100' Ladder) & Equipment	1	$1,300,000	$1,300,000
Mako Air Trailer	1	$50,000	$50,000
Rescue Boat	1	$23,000	$23,000
Electrical Power Fan	10	$5,000	$50,000
Extrication	10	$32,000	$320,000
Thermal Imaging Camera	10	$5,000	$50,000
Total Equipment & Vehicle Value(3)			**$12,220,848**
Number of Stations(4)			**7**
Average Equipment & Vehicle Value Per Station(5)			**$1,745,835**

1) Source: City of Lakeland Fire Department, excludes vehicles and equipment 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 II-1
5) Total asset value (Item 3) divided by the number of stations (Item 4)

Service Area and Population

The Lakeland Fire Department provides fire protection services throughout the city. As such, the proper benefit district is the entire city. In this technical study, the current 2019 weighted and functional population estimates are used. Because simply using weighted (permanent, plus weighted seasonal) population estimates does not fully address all of the benefactors of fire protection services, the "functional" weekly 24-hour population approach is used to establish a common unit of demand across different land uses. Functional population accounts for residents, visitors and workers traveling in and out of the city throughout the day and calculates the presence of population at different land uses during the day. Appendix A provides further detail on the population analysis conducted.

Level of Service

For impact fee calculation purposes, level of service (LOS) for fire protection services is expressed in terms of stations per 10,000 residents. Using this method, the City of Lakeland's current LOS is 15,975 weighted residents per station or 0.626 stations per 10,000 residents. As mentioned previously, for fire impact fees, 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 is 0.521 stations per 10,000 functional residents. Table II-3 summarizes the calculation of the City's current LOS using both weighted and functional population.

Table II-3
Level of Service (2019)

Variable	Year 2019	
	Weighted Population	Functional Population
Population[1]	111,828	134,389
Number of Stations[2]	7	7
Population/Functional Residents per Station[3]	15,975	19,198
LOS (Stations per 10,000 Residents)[4]	**0.626**	**0.521**

1) Source: Appendix A, Tables A-1 and A-7
2) Source: City of Lakeland
3) Population/functional 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 (2019) LOS for fire protection services. If the City decides to adopt a standard lower than the existing achieved LOS, the impact fee calculations presented in this section need to be revised to reflect the adopted standard.

Table II-4 summarizes a 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 2018, 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 other communities.

Table II-4
Level of Service Comparison

Jurisdiction	Service Area Population (2018)[1]	Number of Stations[2]	Residents per Station[3]	LOS (Stations) per 1,000 Residents[4]
Hillsborough County	964,883	44	21,929	0.046
Orange County	855,307	42	20,364	0.049
City of Bartow	19,342	1	19,342	0.052
Pasco County	470,721	26	18,105	0.055
City of Tampa	378,531	22	17,206	0.058
City of Gainesville	131,217	8	16,402	0.061
City of Orlando	285,099	18	15,839	0.063
City of Lakeland	**105,586**	**7**	15,084	**0.066**
City of Winter Haven	42,828	3	14,276	0.070
Osceola County	233,608	17	13,742	0.073
City of Plant City	38,938	3	12,979	0.077
Okeechobee County	35,559	3	11,853	0.084
Polk County	413,182	46	8,982	0.111
City of Lake Wales	15,791	2	7,896	0.127
Manatee County	299,207	39	7,672	0.130
Lake County	163,352	22	7,425	0.135
Hardee County	17,498	3	5,833	0.171
Highlands County	102,525	21	4,882	0.205
State of Florida	**20,840,986**	**1,871**	**11,139**	**0.090**

1) Source: University of Florida Bureau of Economic and Business Research (BEBR) April 1, 2018 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 II-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 value of $3.4 million per station and an average vehicle and equipment value of $1.7 million per station. Given that a portion of debt service for Station 7 is being repaid with impact fee revenues, this amount is subtracted from the asset value. The result is a total asset value of $5.1 million per station.

In addition, Table II-5 includes the total impact cost per functional resident for fire protection services in the City of Lakeland, which is calculated at $266 per functional resident.

Table II-5
Total Impact Cost per Functional Resident

Variable	Figure	Percent of Total(8)
Building, Land & Content Value per Station(1)	$3,411,621	66%
Vehicle & Equipment Value per Station(2)	$1,745,835	34%
Total Asset Value per Station(3)	**$5,157,456**	**100%**
Less: Adjustment for Debt Service(4)	$43,308	
Total Owned Value per Station(5)	**$5,114,148**	
LOS (Stations/10,000 Functional Residents)(6)	0.521	
Total Impact Cost per Functional Resident(7)	**$266.45**	

1) Source: Table II-1
2) Source: Table II-2
3) Sum of land and building value per station (Item 1) and vehicle and equipment value per station (Item 2)
4) A portion of debt service for Station 7 is being repaid with impact fees; therefore, associated balance of principal is removed from the inventory.
5) Total asset value per station (Item 3) less adjustment for debt service (Item 4)
6) Source: Table II-3
7) Total owned value per station (Item 5) multiplied by the LOS (Item 4) and divided by 10,000
8) Distribution of total value

Credit Component

To avoid overcharging new development for the fire impact fee, a review of the capital financing program for fire protection services was 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 protection 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.

Capital Expansion Expenditure Credit

To calculate the capital expansion expenditure credit per functional resident, the historical capital expansion projects and those programmed in the CIP were reviewed. During the time period from 2014 through 2028, the City allocated an average non-impact fee funding of $315,800 per year toward fire protection capital facilities. The annual capital expansion expenditures for fire protection services was divided by the average annual functional residents for the same time period. As shown, in Table II-6 the average capital expenditure cost per functional resident resulted in $2.27.

Table II-6
Fire Protection Capital Expenditure Credit [1]

Description	Fiscal Year															Total/ Average
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	
General Fund																
Fire Department Memorial Base	--	--	$10,000	--	--	--	--	--	--	--	--	--	--	--	--	$10,000
Building Exhaust Fans	--	--	--	$20,000	--	--	--	--	--	--	--	--	--	--	--	$20,000
Fire Station #7 Furnishings[2]	--	$41,706	$3,913	--	--	--	--	--	--	--	--	--	--	--	--	$45,619
Fire Station #7[2]	$757,605	$398,437	($104)	--	$81,103	$81,104	$81,104	$81,104	$81,250	$0	$0	$0	$0	$0	$0	$1,561,603
Refurbish Training Facility	--	--	--	--	$449,422	$2,650,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,099,422
Total Capital Expansion Expenditures	**$757,605**	**$440,143**	**$13,809**	**$20,000**	**$530,525**	**$2,731,104**	**$81,104**	**$81,104**	**$81,250**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$4,736,644**
Average Annual Capital Expansion Expenditures[3]																**$315,776**
Functional Population[4]	**125,742**	**126,748**	**128,015**	**130,063**	**131,754**	**134,389**	**137,077**	**139,270**	**141,498**	**143,762**	**146,062**	**148,399**	**150,328**	**152,282**	**154,262**	
Average Annual Functional Population[5]																**139,310**
Capital Expenditure per Functional Resident[6]																**$2.27**

1) Source: City of Lakeland 10-Year Capital Improvement Plan
2) The capital expenditures shown are only for the portion of Fire Station #7 that is included in the inventory (Table II-1) (60%)
3) Average annual capital expenditures over the 15-year period
4) Source: Appendix A; Table A-7
5) Average annual functional population over the 15-year period
6) Average annual capital expansion expenditures (Item 3) divided by average annual functional population (Item 5)

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 one loan issued to fund the construction of Station #7 using General Fund revenues. The loan for Station #7 will be repaid through FY 2023 using a combination of impact fee and general fund revenues. 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 service payments funded with General Fund dollars. The portion repaid with impact fees was subtracted from the inventory value since only the new development will be paying this portion.

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 II-7, the resulting credit for fire protection facilities-related debt is $0.88 per functional resident.

Table II-7
Fire Protection Debt Service Credit

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 #7[4]	9	4	4.00%	$123,825	140,402	$0.88
Total Debt Service Credit per Functional Resident						**$0.88**

1) Source: City of Lakeland
2) Source: Appendix A; Table A-7
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 II-1)

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 II-8.

The first section of this table identifies the total impact cost as approximately $266 per functional resident. The second section of the table identifies the revenue credits for the fire protection impact fee, which totals nearly $36 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 $230 per functional resident.

Table II-8
Net Fire Protection Impact Cost

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Functional Resident[1]	**$266.45**	
Impact Credit		
Capital Expenditure per Functional Resident[2]		$2.27
Capitalization Rate		4.0%
Capitalization Period (in years)		25
Capital Expansion Credit per Functional Resident[3]		**$35.46**
Debt Service Credit per Functional Resident[4]		**$0.88**
Total Capital Expenditure Credit[5]		**$36.34**
Net Impact Cost		
Net Impact Cost per Functional Resident[6]	**$230.11**	

1) Source: Table II-5
2) Source: Table II-6
3) Present value of annual credit per resident (Item 2) over a 25-year period with a capitalization rate of 4%. The capitalization rate is estimated based on the interest rate being paid by the City for recent bond issues.
4) Source: Table II-7
5) Sum of capital expansion credit per functional resident (Item 3) and debt service per functional resident (Item 4)
6) Total impact cost per functional resident (Item 1) less total capital expenditure credit (Item 5)

Calculated Fire Protection Impact Fee

Table II-9 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. The net cost per resident declined by approximately 20 percent due primarily to an increase in credit component and higher population estimates, which reduces the cost per resident. All other changes in the fee schedule are due to the fluctuations in the demand component.

Table II-9
Lakeland 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	1.73	**$398**	$486	-18%	-$88
Multi Family	du	1.22	**$281**	$367	-23%	-$86
Mobile Home	du	0.87	**$200**	$228	-12%	-$28
Hotel/Motel	room	0.93	**$214**	$202	6%	$12
Congregate Care Facility	du	1.26	**$290**	$253	15%	$37
Nursing Home/Assisted Living Facility (ALF)	bed	1.41	**$324**	$205	58%	$119
Non-Residental						
Industrial	1,000 sf	0.38	**$87**	$131	-34%	-$44
Office	1,000 sf	1.10	**$253**	$287	-12%	-$34
Retail/Commercial	1,000 sfgla	1.87	**$430**	$594	-28%	-$164
Recreational	1,000 sf	2.23	**$513**	$603	-15%	-$90
Institutional	1,000 sf	1.16	**$267**	$287	-7%	-$20
Hospital	1,000 sf	1.60	**$368**	$390	-6%	-$22
Funeral Home	1,000 sf	0.84	**$193**	$219	-12%	-$26
Mini-Warehouse	1,000 sf	0.05	**$12**	$17	-29%	-$5

1) Source: Appendix A, Table A-8 for residential land uses and Appendix A, Table A-9 for nonresidential land uses
2) Calculated impact fee determined by multiplying the net impact cost per functional resident ($230.11) from Table II-8 by the functional resident coefficient (Item 1) for each land use
3) City of Lakeland fire protection impact fee schedule at the time of publication of this study
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)

Fire Protection Impact Fee Comparison

Table II-10 presents a comparison of fire impact fee rates for several communities.

Table II-10
Lakeland Fire Protection Impact Fee Schedule Comparison

Land Use	Unit[2]	Lakeland Calculated[3]	Lakeland Existing[4]	City of Ocala[5]	City of Palm Bay[6]	City of Plant City[7]	City of Winter Haven[8]	Hillsborough County[9]	Orange County[10]	Polk County[11]
Date of Last Update		2019	2015	2019	2014	2006	2006	1985	2017	2015
Adoption Percentage[1]		N/A	100%	100%	100%	100%	100%	N/A	100%	100%
Residential:										
Single Family (2,000 sf)	du	$398	$486	$308	$283	$363	$542	$49	$319	$308
Non-Residential:										
Light Industrial	1,000 sf	$87	$131	$86	$139	$139	$196	$9	$78	$50
Office (50,000 sq. ft.)	1,000 sf	$253	$287	$156	$153	$262	$196	$41	$254	$279
Retail (125,000 sq. ft.)	1,000 sf	$430	$594	$270	$205	$343	$196	$23	$289	$364

1) Represents the portion of the maximum calculated fee for each respective jurisdiction that was adopted. Fees may have been lowered/increased through annual indexing or policy discounts.
2) du = dwelling unit
3) Source: Table II-9
4) Source: City of Lakeland Community Development Department
5) Source: City of Ocala Growth Management Department, effective October 1, 2019.
6) Source: City of Palm Bay Growth Management Department. Fees shown are for the office land use tier of less than 100,000 square and for the retail land use tier of 100,000 – 199,000 square feet.
7) Source: City of Plant City Planning & Zoning Division. Fees shown for the 1,501 – 2,499 square feet tier of single family homes; 30,001 – 100,000 square feet tier for office land use; and 100,001 – 1,000,000 square feet tier for the retail land use.
8) Source: City of Winter Haven Building Department. Fees are indexed annually.
9) Source: Hillsborough County Development Services Department
10) Source: Orange County Planning & Development Department
11) Source: Polk County Building & Construction Department, amount includes an EMS fee.

Revenue Estimates

Based on the building permit activity since 2005 and population projections through 2045, provided in Appendix A, Table A-1, it is estimated that the fire protection impact fee will generate a total of **$3.66 million** or an average of approximately **$333,000 annually** in revenue between 2020 and 2030. These revenue projections are presented in Table II-11. The figures are in 2019 dollars and do not take into account any potential updates or indexing of the fees.

These revenue projections represent the revenue potential through 2030 based on the average historical residential permitting and the projected population growth rate. A ratio of historical residential to non-residential revenue collections was used to estimate the non-residential revenues. As a point of reference, fire protection impact fee revenue averaged approximately $300,000 per year over the past four years.

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 II-11
Annual Impact Fee Revenue Estimates

Year	Residential	Non-Residential	Total
2020	$184,700	$123,100	**$307,800**
2021	$187,900	$125,200	**$313,100**
2022	$191,000	$127,400	**$318,400**
2023	$194,200	$129,500	**$323,700**
2024	$197,400	$131,600	**$329,000**
2025	$200,600	$133,700	**$334,300**
2026	$203,000	$135,300	**$338,300**
2027	$205,400	$136,900	**$342,300**
2028	$208,200	$138,800	**$347,000**
2029	$210,900	$140,600	**$351,500**
2030	$213,700	$142,500	**$356,200**
Total	**$2,197,000**	**$1,464,600**	**$3,661,600**
Annual Avg.	**$199,700**	**$133,100**	**$332,900**

Source: Estimated based on average historical permitting and projected population growth

III. Law Enforcement Impact Fee

This section provides the results of the law enforcement impact fee analysis. Several elements addressed in this section include:

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

These elements are summarized in the remainder of this section.

Facility 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 III-1 presents the inventory of the LPD's law enforcement facilities and the land and building asset value for each, along with the calculated average asset value per sworn police officer.

Table III-1
Law Enforcement Buildings and Land Inventory [1]

Facility Description	Address	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	$459,750	$21,780,630	$22,240,380
Police Training Facility	3131 Centurian Drive	N/A	6.00	N/A	$450,000	N/A	$450,000
Firing Range Canopy		1970	N/A	2,000	N/A	$200,000	$200,000
Classroom/Office		1970	N/A	3,632	N/A	$363,200	$363,200
Portable Classroom		1970	N/A	1,035	N/A	$103,500	$103,500
Portable Restroom		1975	N/A	140	N/A	$14,000	$14,000
Storage Shed #1		1990	N/A	510	N/A	$51,000	$51,000
Storage Shed #2		1990	N/A	48	N/A	$4,800	$4,800
Observation Tower		1990	N/A	784	N/A	$78,400	$78,400
New Training Building		2013	N/A	6,000	N/A	$1,050,000	$1,050,000
Impound Lot	821 E.Oleander St.	2007	1.38	9,440	$103,500	$944,000	$1,047,500
			13.51	**104,258**	**$1,013,250**	**$24,589,530**	
Total Asset Value[5]							**$25,602,780**
Number of Sworn Officers[6]							**249**
Total Asset Value per Officer[7]							**$102,822**

1) Source: City of Lakeland
2) Land value is estimated at $75,000 per acre. This estimate is based on an evaluation of land value trends, vacant land sales and values as well as value of land where existing law enforcement buildings are located. Appendix B provides further information.
3) Building structure and contents asset value based on construction cost trends since the last study, insurance values and data from other jurisdictions, and are estimated at $270 per square foot for the police station, $175 per square foot for the new training building, and $100 per square foot for support facilities. Appendix B provides further information.
4) Sum of the land value (Item 2) and building value (Item 3) for each facility
5) Total asset value of land, buildings, and contents (Item 4)
6) Source: City of Lakeland
7) Total asset value of land, buildings, and contents (Item 5) divided by the number of sworn officers (Item 6)

Estimated value of LPD buildings and contents are based on construction cost trends since the last study, 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 land value trends, recent vacant land sales, the value of vacant parcels of similar size, and the value of parcels where existing buildings are located. Based on the information provided, land value was estimated at $75,000 per acre, as presented in Table III-1. Appendix B provides further details regarding 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 III-2, the total value of the law enforcement vehicles and equipment is approximately $19.9 million, or almost $80,000 per officer.

Table III-2
Vehicle and Equipment Value [1]

Description	Number of Units	Unit Cost	Total Cost[2]
Uniform & Equipment	249	$5,491	$1,367,259
Laptop Computer	249	$2,150	$535,350
Radio MT2000 & Charger	249	$4,848	$1,207,152
Light Tower	3	$6,549	$19,647
Flat Bed Trailer	2	$3,500	$7,000
Cargo Trailer	5	$7,997	$39,985
Dive Boat & Trailer	1	$40,000	$40,000
Observation Tower Trailer	1	$116,000	$116,000
HD Road King Motorcycle	7	$30,000	$210,000
Low Speed Utility Vehicle	2	$12,000	$24,000
Low Speed Utility Vehicle	2	$12,000	$24,000
Confiscated Vehicle Nissan	1	$5,000	$5,000
Vehicle S10	1	$5,000	$5,000
GMC Yukon	1	$17,000	$17,000
Confiscated Vehicle Expedition	2	$10,000	$20,000
Bearcat Armored Vehicle	1	$450,000	$450,000
MRAP	1	$750,000	$750,000
Command Bus	1	$350,000	$350,000
Marked Patrol Units	195	$52,000	$10,140,000
PSA Interceptor	7	$40,000	$280,000
UM Police Vehicle	85	$24,869	$2,113,865
UM SIS Vehicles	9	$52,000	$468,000
CSU Fusion	4	$23,000	$92,000
Trail Blazer	1	$5,000	$5,000
Expedition	1	$17,000	$17,000
F150	5	$29,617	$148,085
F250	1	$35,000	$35,000
Marked F350	1	$32,000	$32,000
Chevy Truck 1500	1	$33,217	$33,217
Crime Scene Van Safari	1	$21,000	$21,000
Crime Scene Van T150	1	$28,000	$28,000
Passenger Van T350	1	$33,000	$33,000
Cargo Minivan Transit Connect	3	$19,894	$59,682
Marked Pickup Utility Bed & Top F350	1	$39,850	$39,850
Surveillance Van E350	1	$150,000	$150,000
Cargo Van E250	1	$30,000	$30,000
Marked Chevy Tahoe K9	12	$57,000	$684,000
Marked Chevy Tahoe	6	$51,000	$306,000
Total Vehicle & Equipment Cost			**$19,903,092**
Number of Officers[3]			249
Vehicle & Equipment Cost per Officer[4]			**$79,932**

1) Source: City of Lakeland
2) Number of units multiplied by the unit cost for each item
3) Source: City of Lakeland
4) Total vehicle and equipment cost divided by the number of officers (Item 3)

Service Area and Population

The City of Lakeland Police Department provides law enforcement services throughout the City. As such, the proper benefit district is the entire City. In this technical study, the current 2019 weighted and functional population estimates are used. Because simply using weighted (permanent plus weighted seasonal) population estimates does not fully address all of the benefactors of law enforcement services, the "functional" weekly 24-hour population approach is used to establish a common unit of demand across different land uses. Functional population accounts for residents, visitors and workers traveling in and out of the city throughout the day and calculates the presence of population at different land uses during the day. Appendix A provides further explanation of the population analysis conducted.

Level of Service

Based on sworn officer counts provided by the City of Lakeland, as well as, population estimates produced in Appendix A, the 2019 level of service (LOS) is 2.23 sworn officers per 1,000 weighted seasonal residents. Table III-3 presents the calculation of the existing LOS.

While the 2019 LOS is 2.23 sworn officers per 1,000 weighted residents, in order to calculate the law enforcement impact fee, the LOS needs to be calculated in terms of sworn officers per 1,000 functional residents. As shown in Table III-3, the current LOS of law enforcement services is 1.85 sworn officers per 1,000 functional residents, which is used in the calculation of the law enforcement impact fee.

Table III-3
Level of Service (2019)

Calculation Step	Year 2019	
	Weighted Population	Functional Population
Population[1]	111,828	134,389
Number of Officers[2]	249	249
Population/Functional Residents per Officer[3]	449	540
LOS (Officers per 1,000 Residents)[4]	**2.23**	**1.85**

1) Source: Appendix A, Table A-1 for weighted seasonal population and Appendix A, Table A-7 for functional population
2) Source: City of Lakeland
3) Population (Item 1) divided by number of officers (Item 2)
4) Number of officers (Item 2) divided by the population (Item 1) and multiplied by 1,000

Table III-4 presents a comparison of the City of Lakeland's LOS to that of other Florida municipalities that are nearby or have similar population levels. The LOS comparison is based on the permanent population for 2018, as this is the most recent population and officer count data available for all jurisdictions. For consistency purposes, all data was retrieved from the Florida Department of Law Enforcement (FDLE) Criminal Justice Agency Profile Report. As reported by the FDLE, the Lakeland's LOS is in the mid- to high-range among other communities reviewed.

Table III-4
Level of Service Comparison

Jurisdiction	Service Area Population (2018)[1]	Number of Officers[2]	LOS (Officers per 1,000 Residents)[3]
Pasco County	473,334	511	1.08
Hillsborough County	964,883	1,185	1.23
Lake County	174,139	227	1.30
Manatee County	300,806	408	1.36
Polk County	436,005	596	1.37
City of Plant City	38,935	67	1.72
Highlands County	77,619	135	1.74
Osceola County	233,608	416	1.78
Orange County	855,353	1,568	1.83
Hardee County	19,294	37	1.92
City of Gainesville	131,217	277	2.11
Okeechobee County	35,559	77	2.17
City of Lakeland	**105,586**	**239**	**2.26**
City of Bartow	19,342	44	2.27
City of Winter Haven	42,828	107	2.50
City of Orlando	285,099	771	2.70
City of Tampa	378,531	1,081	2.86
City of Lake Wales	15,791	48	3.04

1) Source: FDLE Criminal Justice Agency Profile Report; PD Ratios, 2018. Population figures represent 2018 population estimates developed by the University of Florida, Bureau of Economic and Business Research (BEBR).
2) Source: FDLE Criminal Justice Agency Profile Report; PD Ratios, 2018.
3) Number of officers (Item 2) divided by permanent population (Item 1) and multiplied by 1,000

Cost Component

Table III-5 summarizes the asset value for law enforcement-related land, buildings, vehicles and equipment, which average nearly $103,000 per officer for land and buildings and $80,000 per officer for vehicles and equipment. This result is a total asset value of $183,000 per officer.

In addition, Table III-5 presents the total impact cost for law enforcement services in City of Lakeland of $338 per functional resident.

Table III-5
Total Law Enforcement Impact Cost per Functional Resident

Variable	Figure	Percent of Total(6)
Building, Land & Content Value per Officer(1)	$102,822	56%
Vehicle & Equipment Value per Officer(2)	$79,932	44%
Total Asset Value per Officer(3)	**$182,754**	**100%**
LOS (Officers/1,000 Functional Residents)(4)	1.85	
Total Impact Cost per Functional Resident(5)	**$338.09**	

1) Source: Table III-1
2) Source: Table III-2
3) Sum of building & land value (Item 1) and the vehicle & equipment value (Item 2)
4) Source: Table III-3
5) Total asset value per officer (Item 3) multiplied by the LOS (Item 4), divided by 1,000
6) Distribution of asset value

Credit Component

To avoid overcharging new development, a review of the capital financing program for law enforcement services was completed. The purpose of this review is to determine any potential revenue generated by future development that is likely to 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.

To calculate the capital expansion expenditure credit per functional resident, capital expansion projects completed over the past five years were reviewed.

Next, the total capital expansion expenditure per functional resident is calculated by dividing the average annual expenditures of $23,600 by the average annual functional population from 2014 through 2018. This calculation results in $0.18 per functional resident and is presented in Table III-6.

Table III-6
Law Enforcement Historical Capital Expansion Expenditures (1)

Description	Fiscal Year					Total
	2014	2015	2016	2017	2018	
Public Improvement Fund & Federally Shared Assets						
ICOR Robot	--	--	--	--	$118,047	$118,047
Total Capital Expansion Expenditures	**$0**	**$0**	**$0**	**$0**	**$118,047**	**$118,047**
Average Annual Capital Expansion Expenditures (2)						**$23,609**
Functional Population (3)	**125,742**	**126,748**	**128,015**	**130,063**	**131,754**	
Average Annual Functional Population (4)						**128,464**
Capital Expenditure per Functional Resident (5)						**$0.18**

1) Source: City of Lakeland
2) Average annual capital expenditures over the 5-year period
3) Source: Appendix A; Table A-7
4) Average annual functional population over the 5-year period
5) Average annual capital expansion expenditures (Item 2) divided by average annual functional population (Item 4)

Net Law Enforcement 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 $338 per functional resident. The second section of the table identifies the revenue credits for the Law Enforcement impact fee, which totals nearly $3 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 $335 per functional resident.

Table III-7
Law Enforcement Net Impact Cost per Functional Resident

Variable	Impact Cost	Revenue Credits
Impact Cost		
Total Impact Cost per Functional Resident[1]	**$338.09**	
Impact Credit		
Capital Expenditure per Functional Resident[2]		$0.18
Capitalization Rate		4.0%
Capitalization Period (in years)		25
Capital Expansion Credit per Functional Resident[3]		**$2.81**
Net Impact Cost		
Net Impact Cost per Functional Resident[4]	**$335.28**	

1) Source: Table III-5
2) Source: Table III-6
3) Present value of annual credit per resident (Item 2) over a 25-year period with a capitalization rate of 4%. The capitalization rate is estimated based on the interest rate being paid by the City for recent bond issues.
4) Total impact cost (Item 1) less total capital improvement credit (Item 3)

Calculated Law Enforcement Impact Fee Schedule

Table III-8 presents the calculated law enforcement impact fee schedule developed for the City of Lakeland for both residential and non-residential land uses, based on the net impact cost per functional resident previously presented in Table III-7. Net impact cost per resident had a slight increase of 2 percent. All other changes in fee levels are due to changes in the demand component since the last study.

Law Enforcement Impact Fee Schedule Comparison

As part of the work effort in developing the City of Lakeland's law enforcement impact fee schedule, the City's calculated impact fee schedule was compared to the adopted fee schedule of those similar in population level or nearby jurisdictions. Table III-9 presents this comparison.

Table III-8
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	1.73	**$580**	$563	3%	$17
Multi Family	du	1.22	**$409**	$425	-4%	-$16
Mobile Home	du	0.87	**$292**	$263	11%	$29
Hotel/Motel	room	0.93	**$312**	$234	33%	$78
Congregate Care Facility	du	1.26	**$422**	$293	44%	$129
Nursing Home/Assisted Living Facility (ALF)	bed	1.41	**$473**	$237	100%	$236
Non-Residental						
Industrial	1,000 sf	0.38	**$127**	$151	-16%	-$24
Office	1,000 sf	1.10	**$369**	$332	11%	$37
Retail/Commercial	1,000 sfgla	1.87	**$627**	$688	-9%	-$61
Recreational	1,000 sf	2.23	**$748**	$698	7%	$50
Institutional	1,000 sf	1.16	**$389**	$332	17%	$57
Hospital	1,000 sf	1.60	**$536**	$451	19%	$85
Funeral Home	1,000 sf	0.84	**$282**	$253	11%	$29
Mini-Warehouse	1,000 sf	0.05	**$17**	$20	-15%	-$3

1) Source: Appendix A, Table A-8 for residential land uses and Table A-9 for nonresidential land uses
2) Total impact cost per functional resident ($335.28) from Table III-7 multiplied by the functional population coefficient (Item 1) for each land use
3) City of Lakeland law enforcement impact fee schedule
4) Percent change of the City's calculated impact fee (Item 2) from the adopted impact fee (Item 3)
5) Calculated impact fee (Item 2) less adopted impact fee (Item 3)

Table III-9
Law Enforcement Impact Fee Schedule Comparison

Land Use	Unit[2]	Lakeland Calculated[3]	Lakeland Existing[4]	City of Palm Bay[5]	City of Plant City[6]	City of Winter Haven[7]	Orange County[8]	Polk County[9]
Date of Last Update		2019	2015	2014	2006	2006	2017	2015
Adoption Percentage[1]		N/A	100%	100%	100%	100%	100%	100%
Residential:								
Single Family (2,000 sf)	du	$580	$563	$38	$538	$337	$478	$259
Non-Residential:								
Light Industrial	1,000 sf	$127	$151	$18	$205	$453	$140	$75
Office (50,000 sq. ft.)	1,000 sf	$369	$332	$49	$388	$453	$253	$500
Retail (125,000 sq. ft.)	1,000 sf	$627	$688	$66	$506	$453	$750	$515

1) Represents the portion of the maximum calculated fee for each respective jurisdiction that was adopted. Fees may have been lowered/increased through annual indexing or policy discounts.
2) du = dwelling unit
3) Source: Table III-8
4) Source: City of Lakeland Community Development Department
5) Source: City of Palm Bay Growth Management Department. Fees shown are for the office land use tier of less than 100,000 square and for the retail land use tier of 100,000 – 199,000 square feet.
6) Source: City of Plant City Planning & Zoning Division. Fees shown for single family land use tier of 1,501 – 2,499 square feet, office land use tier of 30,001 – 100,000 square feet, and retail land use tier of 100,001 – 1,000,000 square feet.
7) Source: City of Winter Haven Building Department. Fees are indexed annually.
8) Source: Orange County Planning & Development Department, rate for manufacturing is shown for light industrial
9) Source: Polk County Building & Construction Department

Revenue Estimates

Based on historical building permit activity since 2005 and population projections through 2045, it is estimated that the law enforcement impact fee will generate a total of approximately **$5.34 million**, or an average of approximately **$485,000 annually** in revenue between 2020 and 2030. These revenue projections are presented in Table III-10. The figures are in 2019 dollars and do not take into account any potential updates or indexing of the fees.

These revenue projections represent the revenue potential through 2030 based on the average historical residential permitting and the projected population growth rate. A ratio of historical residential to non-residential revenue collections was used to estimate the non-residential revenues. As a point of reference, law enforcement impact fee revenue averaged approximately $385,000 per year over the past four years.

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-10
Annual Impact Fee Revenue Estimates

Year	Residential	Non-Residential	Total
2020	$269,100	$179,400	**$448,500**
2021	$273,800	$182,500	**$456,300**
2022	$278,400	$185,600	**$464,000**
2023	$283,000	$188,700	**$471,700**
2024	$287,700	$191,800	**$479,500**
2025	$292,300	$194,900	**$487,200**
2026	$295,800	$197,200	**$493,000**
2027	$299,300	$199,500	**$498,800**
2028	$303,300	$202,200	**$505,500**
2029	$307,400	$204,900	**$512,300**
2030	$311,500	$207,600	**$519,100**
Total	**$3,201,600**	**$2,134,300**	**$5,335,900**
Annual Avg.	**$291,100**	**$194,000**	**$485,100**

Source: Estimated based on average historical permitting and projected population growth

APPENDIX A
Population

Appendix A: Population

The fire protection and law enforcement impact fee programs included in this report require the use of population data in calculating current levels of service, performance standards, and credit calculations. With this in mind, a consistent approach to developing population estimates and projections is an important component of the data compilation process. To accurately determine demand for services, not only the residents, or permanent population of the City, but also the seasonal residents and visitors were considered. Seasonal residents include visitors to hotel and motel facilities, visitors to RV parks, visitors that stay with relatives and friends, and part-time residents, which are defined as living in the City of Lakeland for less than six months each year. Therefore, for purposes of calculating future demand for capital facilities for each impact fee program area, the weighted seasonal population will be used in all population estimates and projections. References to population contained in this report pertain to the weighted seasonal population, unless otherwise noted.

Table A-1 presents the population trend for City of Lakeland. The projections indicate that the current weighted seasonal population of the City is approximately 111,800 and is estimated to increase to 149,300 by 2045.

Table A-1
Weighted Seasonal Population Trends and Projections

Year	Lakeland
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	102,534
2014	104,563
2015	105,383
2016	106,410
2017	108,152
2018	109,606
2019	**111,828**
2020	114,020
2021	115,889
2022	117,790
2023	119,722
2024	121,686
2025	123,684
2026	125,244
2027	126,822
2028	128,419
2029	130,037
2030	131,670
2031	133,000
2032	134,343
2033	135,700
2034	137,071
2035	138,435
2036	139,569
2037	140,714
2038	141,867
2039	143,031
2040	144,187
2041	145,196
2042	146,213
2043	147,236
2044	148,266
2045	149,320

Source: Appendix A, Table A-10

Apportionment of Demand by Residential Unit Type and Size

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

- Single Family detached;
- Multi-Family; and
- Mobile Home.

Table A-2 presents the number of persons per housing type for the residential categories identified above in Lakeland. This analysis includes all housing units, both occupied and vacant.

Table A-2
Persons per Housing Unit by Housing Type (City of Lakeland, 2017)

Housing Type	Population(1)	Housing Units(2)	Residents / Housing Units(3)
Single Family (detached)	65,597	25,892	2.53
Multi-Family	27,129	15,258	1.78
Mobile Home	10,364	8,148	1.27
Congregate Care Facility(4)	54,708	41,150	1.33

1) Source: 2017 ACS, Table B25033 (adjusted for seasonal population)
2) Source: 2017 ACS, Table DP04
3) Population (Item 1) divided by housing units (Item 2)
4) 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.

Functional Population

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 will have the 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 city 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)[1]. 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 the City of Lakeland's functional population, an analysis of the City's population and employment characteristics was conducted. Tables A-3 and A-4 present this analysis for Lakeland. Based on this analysis, people in the city, on average, spend 16.6 hours each day at their place of residence. This corresponds to approximately 69 percent of each 24-hour day at their place of residence and the other 31 percent away from home.

[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)

Table A-3
Population & Employment Characteristics

Item/Calculation Step	Figure
Total workers living in Lakeland[1]	40,115
Total Census Population (2010)[2]	97,422
Total workers as a percent of population[3]	**41.2%**
School age population (5-17 years) (2010)[4]	14,419
School age population as a percent of population[5]	**14.8%**
Population net of workers and school age population[6]	42,888
Other population as a percent of total population[7]	**44.0%**

1) Source: Census Transportation Planning Package (CTPP), 2010
2) Source: 2010 U.S Census, Table P-1
3) Total workers (Item 1) divided by population (Item 2)
4) Source: 2010 U.S Census, Table QT-P1
5) Total school age population (Item 4) divided by 2010 population (Item 2)
6) Total population (Item 2) less total workers (Item 1) and school age population (Item 4)
7) Population net of workers and school age population (Item 6) divided by 2010 population (Item 2)

Table A-4
Residential Coefficient for 24-Hour Functional Population

Population 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: Appendix A; Table A-3
3) Hours at residence (Item 1) multiplied by the percent of population (Item 2)
4) Sum of effective hours (Item 3)
5) Sum of effective hours (Item 4) divided by 24

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

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 estimated functional residents for residential land uses. Nelson and Nicholas originally introduced a

method for estimating functional resident population, which is now widely used in the industry. This method uses trip generation data from the Institute of Transportation Engineers' (ITE) Trip Generation Manual and Tindale Oliver's Trip Characteristics Database, information of 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).
- 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 A-5 shows the functional population coefficients for residential and non-residential uses in the City of Lakeland. The functional population coefficients in Table A-5 were used to estimate the City's 2019 functional population in Table A-6.

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Table A-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									7.00	**0.683**
Natural Resources	N/A	9.00	3.05	1.53	1.32	1.38	0.09	1.00	7.00	**0.379**
Construction	110	9.00	3.05	1.53	1.32	1.38	0.09	1.00	5.00	**0.271**
Manufacturing	140	9.00	2.47	1.24	1.32	1.38	0.07	1.00	5.00	**0.270**
Transportation, Communication, Utilities	110	9.00	3.05	1.53	1.32	1.38	0.09	1.00	5.00	**0.271**
Wholesale Trade	150	9.00	5.05	2.53	1.32	1.38	0.15	1.00	5.00	**0.272**
Retail Trade	820	9.00	48.90	24.45	1.24	1.73	11.98	1.50	7.00	**1.124**
Finance, Insurance, Real Estate	710	9.00	3.28	1.64	1.24	1.73	0.80	1.00	5.00	**0.292**
Services[9]	N/A	9.00	28.38	14.19	1.24	1.73	6.95	1.00	6.00	**0.570**
Government[10]	730	9.00	7.45	3.73	1.24	1.73	1.83	1.00	7.00	**0.451**

1) Assumed

2) Trips per employee represents all trips divided by the number of employees and is based on Trip Generation 10th Edition (Institute of Transportation Engineers 2017) as follows:

ITE Code 110 at 3.05 weekday trips per employee, Volume 2 - Industrial Land Uses, page 11

ITE Code 140 at 2.47 weekday trips per employee, Volume 2 - Industrial Land Uses, page 58

ITE Code 150 at 5.05 weekday trips per employee, Volume 2 - Industrial Land Uses, page 77

ITE Code 710 at 3.28 weekday trips per employee, Volume 2 Office Land Uses, page 12

ITE Code 730 at 7.45 weekday trips per employee, Volume 2 Office Land Uses, page 180

ITE Code 820 based on blended average of trips by retail center size calculated below, adapted from Volume 2 - Retail Land Uses, page 138.

Trips per retail employee from the following table:

Retail Scale	*Assumed Center Size*	*Trip Rate*	*Sq Ft per Employee[11]*	*Trips per Employee*	*Share*	*Weighted Trips*
Neighborhood <50k sq.ft.	50	75.05	802	60	45.0%	27.00
Community 50k-250k sq.ft.	250	44.84	975	44	35.0%	15.40
Regional 250k-500k sq.ft.	500	35.92	1,043	37	15.0%	5.55
Super Reg. 500k-1000k sq.ft.	1,000	28.78	676	19	5.0%	0.95
Sum of Weighted Trips/1k sq.ft.						48.90

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) Table A-7 for residential and the equation below to determine the Functional Population Coefficient per Employee for all land-use categories except residential includes the following:

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

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, 10th 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 A-6
Citywide Functional Population (2019)

Population Category	Lakeland Baseline Data[1]	Functional Resident Coefficient[2]	Functional Population[3]
2019 Weighted Population	111,828	0.683	76,379
Employment Category			
Natural Resources	292	0.379	111
Construction	4,237	0.271	1,148
Manufacturing	4,931	0.270	1,331
Transportation, Communication, and Utilities	7,519	0.271	2,038
Wholesale Trade	4,134	0.272	1,124
Retail Trade	16,312	1.124	18,335
Finance, Insurance, and Real Estate	12,481	0.292	3,644
Services	47,690	0.570	27,183
Government Services	6,864	0.451	3,096
Total Employment by Category Population[4]			58,010
2019 Total Functional Population[5]			**134,389**

1) Source: Table A-1 for population and 2018 Woods & Poole for employment data
2) Source: Table A-5
3) Functional population is calculated by multiplying the Lakeland baseline data (Item 1) by the functional resident coefficient (Item 2)
4) Total employment 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 and the employment functional population

Table A-7 presents the City's annual functional population figures from 2000 through 2045, based on the 2019 functional population figure from Table A-6 and the annual population growth rates from the population figures previously presented in Table A-1.

Table A-7
Functional Population (2000-2045)

Year	Lakeland
2000	98,389
2001	103,702
2002	107,228
2003	111,303
2004	112,527
2005	113,877
2006	114,788
2007	117,084
2008	117,201
2009	118,021
2010	121,326
2011	121,690
2012	122,298
2013	123,276
2014	125,742
2015	126,748
2016	128,015
2017	130,063
2018	131,754
2019	**134,389**
2020	137,077
2021	139,270
2022	141,498
2023	143,762
2024	146,062
2025	148,399
2026	150,328
2027	152,282
2028	154,262
2029	156,267
2030	158,298
2031	159,881
2032	161,480
2033	163,095
2034	164,726
2035	166,373
2036	167,704
2037	169,046
2038	170,398
2039	171,761
2040	173,135
2041	174,347
2042	175,567
2043	176,796
2044	178,034
2045	179,280

Source: Table A-6 for 2019. Other years are based on growth rates of the weighted seasonal population; Table A-1

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 mentioned previously, different functional population coefficients need to be developed for each impact fee service area to be analyzed. For residential and transient land uses, these coefficients are displayed in Table A-8. The average number of persons per housing unit in Lakeland was calculated for the single family, multi-family, and mobile home land uses, based on information obtained from the 2017 ACS and the 2015 American Housing Survey. Besides the residential land uses, Table A-8 also includes transient land uses, such as hotels, motels, congregate care facilities (CCF), and nursing homes. Secondary sources, such as the Lakeland Area Chamber of Commerce, and the Florida Department of Elderly Affairs, are used to determine the occupancy rate for hotels, motels, congregate care facilities and nursing homes.

Non-Residential Land Uses

A similar approach is used to estimate functional residents for non-residential land uses. Table A-9 presents 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 impact fee programs and will be used in the calculation of the cost per unit for each land use category in the select impact fee schedules.

Once the functional residents are estimated, coefficients for transient and non-residential land uses are tested against the local population. In the case of Lakeland, this review suggested a need for almost a 25 percent increase in the related coefficients, which is incorporated into Tables A-8 and A-9.

Table A-8
Functional Residents for Residential and Transient Land Uses

Residential Land Use	Impact Unit	ITE LUC(1)	Residents/ Visitors Per Unit(2)	Occupancy Rate(3)	Adjusted Residents Per Unit(4)	Visitor Hours at Place(5)	Workers Per Unit(6)	Work Day Hours(7)	Days Per Week(8)	Work Week Residents Per Unit(9)	Adjusted Work Week Residents Per Unit(10)
Residential:											
Single Family (Detached)	du	210	2.53	-	-	-	-	-	-	1.73	1.73
Multi-Family (Apt, Duplex, Townhouse, Condo)	du	220/221/222	1.78	-	-	-	-	-	-	1.22	1.22
Mobile Home	du	240	1.27	-	-	-	-	-	-	0.87	0.87
Transient, Assisted, Group:											
Hotel/Motel	room	310	1.90	64%	1.22	12	0.36	9	7	0.75	0.93
Congregate Care Facility	du	253	1.33	89%	1.18	16	0.61	9	7	1.02	1.26
Nursing Home/Assisted Living Facility (ALF)	bed	620	1.00	89%	0.89	20	1.05	9	7	1.14	1.41

(1) Land use code from the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 10th Edition

(2) Estimates for the single family, multi-family, mobile home, and congregate care facility land use from Table A-2; estimates for the hotel/motel land use is based on data obtained from Lakeland Convention & Visitors Bureau; and the estimate used for nursing home is based on 1 person per bed.

(3) Source for hotel/motel occupancy: City of Lakeland Convention & Visitors Bureau, 2014 data. Source for nursing home occupancy rate is the Florida Department of Elderly Affairs, Broward County Profile, 2017 and 2018 data

(4) Residents per unit times occupancy rate (Item 3)

(5), (7), (8) Estimated

(6) Adapted from ITE Trip Generation Handbook, 10th Edition

(9) For residential this is Residents Per Unit times 0.683. For Transient, Assisted, and Group it is:

$$\frac{[(\text{Adjusted Residents per Unit X Hours at Place X Days per Week}) + (\text{Workers Per Unit X Work Hours Per Day X Days per Week})]}{(\text{24 Hours per Day X 7 Days per Week})}$$

(10) Adjusted to account for local community characteristics

Table A-9
Functional Residents for Non-Residential Land Uses

ITE LUC[1]	Land Use	Impact Unit	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]	Adjusted Functional Resident Coefficient[12]
	NON-RESIDENTIAL:												
n/a	Industrial[13]	1,000 sf	3.54	3.52	1.01	1.77	9	1.46	1.57	0.92	5.0	0.31	0.38
710	Office	1,000 sf	9.74	3.28	2.97	4.87	9	1.27	3.21	1.00	5.0	0.89	1.10
820	Retail/Commercial	1,000 sfgla	37.75	16.11	2.34	18.88	9	1.72	30.13	0.50	7.0	1.51	1.87
n/a	Recreational[14]	1,000 sf	24.27	36.48	0.67	12.14	9	2.10	24.82	1.50	7.0	1.80	2.23
n/a	Institutional[15]	1,000 sf	22.07	22.08	1.00	11.04	9	1.38	14.24	1.43	5.4	0.94	1.16
610	Hospital	1,000 sf	10.72	3.79	2.83	5.36	9	1.54	5.42	1.00	7.0	1.29	1.60
n/a	Funeral Home	1,000 sf	9.32	n/a	1.00	4.66	9	1.79	7.34	1.00	7.0	0.68	0.84
151	Mini-Warehouse	1,000 sf	1.49	61.90	0.02	0.75	9	1.46	1.08	0.75	7.0	0.04	0.05

Sources:
1) Land use code found in the Institute of Transportation Engineers (ITE) Trip Generation Handbook, 10th Edition
2) Land uses and trip generation rates consistent with those included in the Multi-Modal Transportation Impact Fee Update Study
3) Trips per employee from ITE Trip Generation Handbook, 10th 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) Adjusted to account for local community characteristics
13) Trips per Unit and Trips per Employee for the Industrial category are based on General Light Industrial (ITE LUC 110), Manufacturing (ITE LUC 140), and Warehouse (ITE LUC 150)
14) Trips per Unit and Trips per Employee are based on Racquetball/Tennis Club (ITE LUC 491) and Heath Club/Dance Studio (ITE LUC 492)
15) Trips per Unit and Trips per Employee are based on Hospital (ITE LUC 610), Elementary School (ITE LUC 520), Middle School (ITE LUC 522), High School (ITE LUC 530), Church (ITE LUC 560), and Day Care Center (ITE LUC 565)

Table A-10
Weighted Seasonal Population Projections

Year	Permanent Population[1]	Seasonal Population[2]	Total Weighted Season Pop.[3]
2000	78,452	3,317	81,769
2001	82,706	3,490	86,196
2002	85,517	3,609	89,126
2003	88,741	3,745	92,486
2004	89,731	3,787	93,518
2005	90,851	3,834	94,685
2006	91,623	3,850	95,473
2007	93,428	3,944	97,372
2008	93,508	3,946	97,454
2009	94,163	3,974	98,137
2010	97,422	3,462	100,884
2011	97,690	3,466	101,156
2012	98,200	3,485	101,685
2013	98,773	3,761	102,534
2014	100,728	3,835	104,563
2015	101,517	3,866	105,383
2016	102,507	3,903	106,410
2017	104,185	3,967	108,152
2018	105,586	4,020	109,606
2019	**107,726**	**4,102**	**111,828**
2020	109,837	4,183	114,020
2021	111,638	4,251	115,889
2022	113,469	4,321	117,790
2023	115,330	4,392	119,722
2024	117,222	4,464	121,686
2025	119,147	4,537	123,684
2026	120,649	4,595	125,244
2027	122,169	4,653	126,822
2028	123,708	4,711	128,419
2029	125,267	4,770	130,037
2030	126,840	4,830	131,670
2031	128,121	4,879	133,000
2032	129,415	4,928	134,343
2033	130,722	4,978	135,700
2034	132,043	5,028	137,071
2035	133,356	5,079	138,435
2036	134,449	5,120	139,569
2037	135,552	5,162	140,714
2038	136,663	5,204	141,867
2039	137,784	5,247	143,031
2040	138,898	5,289	144,187
2041	139,870	5,326	145,196
2042	140,849	5,364	146,213
2043	141,835	5,401	147,236
2044	142,828	5,438	148,266
2045	143,843	5,477	149,320

1) Source: 2000 through 2019 from the U.S. Census and the University of Florida, Bureau of Economic and Business Research (BEBR). Population projections for 2020 through 2045 are based on the BEBR Volume, 52, Bulletin 183, April 2019
2) Source: 2000 and 2010 U.S. Censes and the Lakeland Area Chamber of Commerce
3) Sum of permanent population (Item 1) and seasonal population (Item 2)

Appendix B
Building and Land Value Estimates
Supplemental Information

Appendix B: Building and Land Value Supplemental Information

This Appendix provides a summary of building and land value estimates for fire protection and law enforcement impact fees.

Building Values

For the fire protection and law enforcement program areas, the following information was reviewed to estimate building values:

- Recent/on-going construction by the City of Lakeland;
- Cost trends since the last study;
- Insurance values of existing facilities; and
- Data from other jurisdictions for recently completed facilities.

The following paragraphs provide a summary for the fire protection and law enforcement program areas**.**

Fire Protection

The City of Lakeland is planning to renovate and expand the training facility; however, there are no fire stations that were constructed since the last study or are being planned to be constructed over the next five years.

Engineering News Record building cost indices suggest an increase of approximately 11 percent on building cost since the last study.

The insurance values of existing fire stations average $240 per square foot, including contents, but excluding site preparation and landscaping cost, permits, fees and other similar expenses. It should be noted that insurance values are considered a conservative estimate because insurance companies exclude the value of the foundation and other more permanent parts of the structure since they would not have to be rebuilt if the structure was damaged or lost. Similarly, insured value of administrative facilities is $200 per square foot and $100 per square foot for support facilities.

Tindale Oliver supplemented the local data with cost estimates utilized in recently completed fire rescue impact fee studies. This analysis reviewed data from studies conducted between 2017 and 2018, which ranged from $250 to $350 per square foot for fire station construction.

Given this information, an average building value of $270 per square foot for fire stations, $250 per square foot for administrative facilities, and $135 per square foot are used for building costs. This figure results in a weighted average cost of $255 per square foot when all fire rescue buildings are considered and is representative of the local design characteristics and cost.

Table B-1 provides a summary of information considered in determining this figure for station cost.

Table B-1
Fire Protection Building Cost

Construction Cost Trends			
Facility Type	**2014 Estimate**	**Indexed 2014 Estimate**	**ENR Index (2014-18)**
Fire Stations	$245	$273	11.25%
Administrative Facilities	$225	$250	
Support Facilities	$125	$139	
Insurance Values			
Facility Type	**Building Value per Square Foot**	**Content Value per Square Foot**	**Total Value per Square Foot**
Fire Stations	$224	$14	$238
Administrative Facilities	$170	$29	$199
Support Facilities	$96	$6	$102
Other Florida Jurisdictions (2017-2018)			
Facility Type		**Range of Building Cost per Square Foot**	
Fire Stations		$250	$350
Used in the Study			
Facility Type	**Total Building Cost per Square Foot**		
Fire Stations			**$270**
Administrative Facilities			**$250**
Support Facilities			**$135**

Law Enforcement

The City of Lakeland has one police station as well as training and support facilities. There has not been any recent facility addition or there are not any bids/estimates for future construction at this time. A review of cost increases published by the Engineering News Record Building Cost Index suggest that the current building values will range from $100 per square foot for support facilities to $290 per square foot for the police station.

The current insurance values range from $100 per square foot for support facilities to $270 per square foot for the police station. In addition to the insurance values, cost estimates utilized in recently completed (2017 and 2018) law enforcement impact fee studies were reviewed. This review suggested a range of $200 per square foot to $225 per square foot for law enforcement primary building construction cost. Given this information, unit values of $270 per square foot for the police station, $175 per square foot for the training facility, and $100 per square foot for the support facilities were used. These resulted in a weighted average building cost of approximately $235 per square foot.

Table B-2
Law Enforcement Building Cost

Construction Cost Trends			
Facility Type	**2014 Estimate**	**Indexed 2014 Estimate**	**ENR Index (2014-18)**
Police Station	$260	$289	11.25%
New Training Facility	$165	$184	
Support Facilities	$90	$100	
Insurance Values			
Facility Type	**Building Value per Square Foot**	**Content Value per Square Foot**	**Total Value per Square Foot**
Police Station	$227	$41	$268
New Training Facility	$150	$25	$175
Support Facilities	$77	$21	$98
Other Florida Jurisdictions (2017-2018)			
Facility Type		**Range of Building Cost per**	
Primary Buildings		$200	$250
Used in the Study			
Facility Type	**Total Building Cost per Square Foot**		
Police Station			**$270**
New Training Facility			**$175**
Support Facilities			**$100**

Land Values

Land value estimates were based on the following analyses, as data available:

- Recent land purchases or appraisals for the related infrastructure (if any);
- Land value of current inventory as reported by the Polk County Property Appraiser (PCPA);
- Value of vacant land by size and by land use; and
- Vacant land sales between 2014 and 2017 by size and by land use.

The following information is considered in estimating land values for both fire rescue and law enforcement facilities:

- At this time, the City has no plans to purchase any new parcels for fire rescue or law enforcement facilities.
- According to the estimates published by Polk County Property Appraiser's Office, vacant land values increased by 16 percent since the last study.
- Vacant land sales of similarly sized parcels between 2014 and 2019 ranged from $100,000 per acre to $350,000 per acre for all vacant land use types. The values ranged from a median value of $212,000 per acre to average value of $500,000 per acre for commercial land. This analysis is presented in Table B-3.
- Similarly, the value of vacant land reported by the Property Appraiser ranged from a median value $70,000 per acre to approximately $175,000 per acre.

Given this information, a conservative increase factor of 8 percent was applied to land value estimates used in the last study. This adjustment resulted in land value of $97,000 per acre for fire protection land and $75,000 per acre for law enforcement facilities.

Table B-2
Fire Rescue and Law Enforcement Land Cost

Acreage	Vacant Land Sales (2014-2019)			Vacant Land Values (2019)		
	Count	Median	Average	Count	Median	Average
All Land Uses						
0 to 0.5	273	$98,626	$203,986	2,426	$69,695	$123,426
0.5 to 5	27	$202,603	$356,138	361	$69,179	$105,798
Commercial						
0 to 0.5	24	$212,053	$286,981	368	$165,518	$175,950
0.5 to 5	7	$475,185	$505,782	125	$137,173	$170,787

Source: Polk County Property Appraiser