



Orange County Fire Rescue

Impact Fee Update Study

FINAL REPORT

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Prepared for:

Orange County

201 South Rosalind Avenue
Orlando, FL 32801
ph (407) 836-5884

Prepared by:

Tindale Oliver

1000 N. Ashley Dr., #400
Tampa, Florida, 33602
ph (813) 224-8862
fax (813) 226-2106
E-mail: nkamp@tindaleoliver.com
363036-00.16

**Orange County
Fire Rescue Impact Fee Update Study
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Introduction

Fire rescue impact fees are used to fund capital expansion projects for fire rescue service related facilities, land, vehicles and capital equipment required to support the additional demand created by new growth. Orange County's fire rescue impact fees were last updated in 2012. It is the policy of the County to update the impact fee technical studies frequently to ensure the fees are based on the most current and localized data. As such, Orange County retained Tindale Oliver to prepare an update study to reflect changes to the cost, credit, and demand components since the last technical study. It should be noted that figures calculated in this study represent the technically defensible level of impact fees that the County could charge; however, the Board of County Commission may choose to discount the fees as a policy decision.

Methodology

The methodology used to update the fire rescue impact fee is a consumption-based impact fee methodology, which has also been used to calculate the current adopted fire impact fee for the County as well as several fire/EMS impact fees throughout Florida, including, but not limited to, fees in Collier, Charlotte, Palm Beach, Indian River and Brevard Counties. A consumption-based impact fee is intended to charge new growth the proportionate share of cost associated with providing fire rescue facilities available for use by new growth.

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 County's Capital Improvement Plan, Capital Improvement Element, or another planning document/Master Plan.

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

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

- **HB 227 in 2009:** The Florida legislation statutorily clarified that in any action challenging an impact fee, the government has the burden of proving by a preponderance of the evidence that the imposition or amount of the fee meets the requirements of state legal precedent or the Impact Fee Act and that the court may not use a deferential standard.
- **SB 360 in 2009:** Allowed fees to be decreased without the 90-day notice period required to increase the fees and purported to change the standard of legal review associated with impact fees. SB 360 also required the Florida Department of Community Affairs (now the Department of Economic Opportunity) and Florida Department of Transportation (FDOT) to conduct studies on “mobility fees,” which were completed in 2010.

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

Impact Fee Definition

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

Impact Fee vs. Tax

- An impact fee is generally regarded as a regulatory function established as a condition for improving property and is not established for the primary purpose of generating revenue, 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. The technical report also documents the methodology components for the fire rescue impact fee, including an evaluation of the inventory, service area, cost, credit, and demand components. Information supporting this analysis was obtained from the County and other sources, as indicated. The study's methodology is documented in the following sections of this technical report:

- Facility Inventory
- Service Area
- Cost Component
- Credit Component
- Net Impact Cost
- Demand Component
- Calculated Fire Rescue Impact Fee Schedule
- Impact Fee Schedule Comparison
- Indexing

These various elements are summarized in the remainder of this report, with the result being the calculated fire rescue impact fee schedule.

Facility Inventory

Orange County Fire Rescue (OCFR) provides fire rescue services from 38 fire stations as well as from three ancillary facilities that are owned and operated by the County. In addition to the owned facilities, OCFR provides fire rescue related services from three additional fire stations that are leased. For impact fee calculation purposes, only the County owned fire stations and other support buildings are included in the building inventory.

Table 1 shows a summary of the OCFR building inventory included in the impact fee calculations. As presented, the inventory includes a total of 352,000 square feet of building space located on 93 acres of land.

The building value estimates are based on recent fire station construction cost, estimates/bids for future stations in Orange County, insurance values of the existing stations, information from other Florida jurisdictions, and discussions with architects regarding cost of building a fire station in Orange County. The land value estimates are based on land values of existing facilities, vacant land values and sales of parcels with similar characteristics, and discussions with County staff.

A more detailed explanation of building and land value estimates is included in Appendix A.

**Table 1
Orange County Fire Rescue Land and Building Inventory**

Facility ⁽¹⁾	Address ⁽¹⁾	Year Built ⁽¹⁾	# Bays - Enclosed / Open ⁽¹⁾	Fire Rescue Building Square Footage ⁽¹⁾	Total Acres ⁽¹⁾	Building Value ⁽²⁾	Land Value ⁽³⁾	Total Building and Land Value ⁽⁴⁾
Station 20	3200 Washington Street	1962	5 - E	4,881	0.47	\$1,708,350	\$86,950	\$1,795,300
Station 27	2248 Novella Eliza Lane	2006	2 - E	5,763	0.69	\$2,017,050	\$127,650	\$2,144,700
Station 28	3250 Clarcona Road	1988	2 - O	1,184	1.76	\$414,400	\$325,600	\$740,000
Station 29	225 E Kelly Park Road	1989	2 - O	2,792	4.78	\$977,200	\$884,300	\$1,861,500
Station 30	20 S Hastings Street	1991	3 - E	13,103	1.52	\$4,586,050	\$281,200	\$4,867,250
Station 33	1700 S Apopka Vineland Road	2001	2 - E	6,580	2.00	\$2,303,000	\$370,000	\$2,673,000
Station 34	4000 Winter Garden Vineland Road	1985	2 - E	5,378	1.35	\$1,882,300	\$249,750	\$2,132,050
Station 35	7435 Winter Garden Vineland Road	2009	3 - E	10,667	5.63	\$3,733,450	\$1,041,550	\$4,775,000
Station 36	12252 Winter Garden Vineland Road	1986	3 - E	8,092	1.37	\$2,832,200	\$253,450	\$3,085,650
Station 37 ⁽⁵⁾	540 E Oakland Avenue	2004	2 - E	6,616	0.84	\$2,315,600	\$155,400	\$2,471,000
Station 40	5570 Beggs Road	1981	2 - E	7,550	3.45	\$2,642,500	\$638,250	\$3,280,750
Station 41	4412 Fairview Avenue	1990	3 - E	10,288	0.49	\$3,600,800	\$90,650	\$3,691,450
Station 42	5420 Silver Star Road	1973	4 - E	9,220	0.45	\$3,227,000	\$83,250	\$3,310,250
Station 43	2700 N Apopka Vineland Road	2003	2 - E	6,676	1.68	\$2,336,600	\$310,800	\$2,647,400
Station 50	1415 29th Street	1981	3 - E	7,548	0.93	\$2,641,800	\$172,050	\$2,813,850
Station 51	1700 W Oak Ridge Road	1964	2 - E	10,216	1.48	\$3,575,600	\$273,800	\$3,849,400
Station 52	4765 W Sand Lake Road	1980	3 - E	6,000	1.74	\$2,100,000	\$321,900	\$2,421,900
Station 53	1270 La Quinta Drive	1977	2 - E	3,471	1.00	\$1,214,850	\$185,000	\$1,399,850
Station 54	6500 Central Florida Parkway	1999	4 - E	14,499	4.83	\$5,074,650	\$893,550	\$5,968,200
Station 55	801 Greenway Professional Ct	2007	2 - E	7,082	1.08	\$2,478,700	\$199,800	\$2,678,500
Station 56	13303 International Drive	2004	2 - E	7,595	1.67	\$2,658,250	\$308,950	\$2,967,200
Station 58	2900 Deerfield Boulevard	2002	2 - E	6,445	1.72	\$2,255,750	\$318,200	\$2,573,950
Station 63	2450 N Goldenrod Road	2000	2 - E	5,998	9.39	\$2,099,300	\$1,737,150	\$3,836,450
Station 65 ⁽⁶⁾	4999 N Orion Boulevard	2000	2 - E	6,188	N/A	\$2,165,800	N/A	\$2,165,800
Station 66	996 N Semoran Boulevard	1970	3 - E	5,370	0.64	\$1,879,500	\$118,400	\$1,997,900
Station 70	1027 E Wallace Road	1999	2 - E	6,120	2.00	\$2,142,000	\$370,000	\$2,512,000
Station 71	4405 St Florian Way	1976	3 - E	8,480	1.72	\$2,968,000	\$318,200	\$3,286,200
Station 72	3705 Conway Road	1994	2 - E	10,030	3.16	\$3,510,500	\$584,600	\$4,095,100
Station 73	811 1st Street	1955	2 - E	3,018	0.33	\$1,056,300	\$61,050	\$1,117,350
Station 76	11351 S Narcoossee Road	1983	2 - E	5,196	1.43	\$1,818,600	\$264,550	\$2,083,150
Station 77	11501 Moss Park Rd	2007	2 - E	7,180	5.00	\$2,513,000	\$925,000	\$3,438,000
Station 80	1841 Bonneville Drive	1973	6 - E	13,290	2.07	\$4,651,500	\$382,950	\$5,034,450
Station 81	901 S Econlockhatchee Trail	2007	3 - E	10,931	4.30	\$3,825,850	\$795,500	\$4,621,350

Table 1 (Continued)
Orange County Fire Rescue Land and Building Inventory

Facility ⁽¹⁾	Address ⁽¹⁾	Year Built ⁽¹⁾	# Bays - Enclosed / Open ⁽¹⁾	Fire Rescue Building Square Footage ⁽¹⁾	Total Acres ⁽¹⁾	Building Value ⁽²⁾	Land Value ⁽³⁾	Total Building and Land Value ⁽⁴⁾
Station 82	500 Story Partin Road	1991	2 - E	10,312	1.79	\$3,609,200	\$331,150	\$3,940,350
Station 83	11950 Lake Underhill Road	1989	4 - E	13,308	2.00	\$4,657,800	\$370,000	\$5,027,800
Station 84	1221 N Fort Christmas Road	2013	2 - E	10,060	4.77	\$3,521,000	\$882,450	\$4,403,450
Station 85	13801 Townsend Drive	2004	2 - E	6,700	1.24	\$2,345,000	\$229,400	\$2,574,400
Station 86	3202 Babitt Av	1997	2 - O	3,939	4.34	\$1,378,650	\$802,900	\$2,181,550
Headquarters ⁽⁷⁾	6590 Amory Ct	1994	N/A	46,228	5.11	\$10,170,160	\$945,350	\$11,115,510
Supply	400 Gaston Foster	1967	4-E	14,550	1.64	\$1,891,500	\$303,400	\$2,194,900
Fire Warehouse	1382 N. Chickasaw Tr.	1970	1-E	3,408	0.61	\$443,040	\$112,850	\$555,890
Total Value				351,952	92.47	\$113,222,800	\$17,106,950	\$130,329,750
Weighted Average Building Value per Square Foot⁽⁸⁾						\$322		
Land Value per Acre⁽⁹⁾							\$185,000	

- 1) Source: Orange County Fire Rescue
- 2) Fire Rescue building square footage multiplied by the estimated building value per square foot of \$350 for fire stations, \$220 for the Headquarters building, and \$130 for both the supply and Fire Warehouse building. Appendix A provides further detail on the unit cost estimates.
- 3) Total acres (Item 1) multiplied by land value per acre (Item 9)
- 4) Sum of building value (Item 2) and land value (Item 3)
- 5) Fire station is jointly owned with the Town of Oakland with the County owning 60% of building and 50% of land. The building square footage and land included represents the 60% and 50% shares owned by the County.
- 6) Land is owned by the University of Central Florida and is excluded from impact fee calculations.
- 7) Acreage figure represents the portion of the total parcel acreage associated with fire rescue services. Calculated by the ratio of the fire rescue building square footage to total gross square footage of all buildings on the parcel and multiplying by the total acreage.
- 8) Total building value divided by total square footage
- 9) Source: Appendix A

In addition to the land and buildings inventory, OCFR also has the necessary equipment and vehicles to perform its fire rescue services duties. **Table 2** summarizes the total equipment and vehicle inventory value. As shown, the asset value of fire rescue services related equipment and vehicles is estimated to total \$83.2 million.

Table 2
Orange County Fire Rescue Vehicle and Equipment Value

Vehicle Type ⁽¹⁾	Vehicle Value (per Unit) ⁽¹⁾	Equipment Value per Vehicle ⁽¹⁾	Total Value per Vehicle ⁽²⁾	Number of Vehicles ⁽¹⁾	Total Value ⁽³⁾
Pumper (Engine)	\$425,000	\$172,000	\$597,000	55	\$32,835,000
Aerials	\$1,100,000	\$172,000	\$1,272,000	11	\$13,992,000
Tanker	\$295,000	\$55,000	\$350,000	7	\$2,450,000
Squads	\$815,000	\$192,000	\$1,007,000	5	\$5,035,000
Wood Truck	\$229,300	\$13,000	\$242,300	12	\$2,907,600
Rescue Vehicles	\$190,000	\$120,000	\$310,000	60	\$18,600,000
Boats	\$12,000	\$3,928	\$15,928	10	\$159,280
Special Units	\$138,294	-	\$138,294	34	\$4,702,000
Cars/Vans	\$19,094	-	\$19,094	134	\$2,558,657
Total				328	\$83,239,537

1) Source: Orange County Fire Rescue

2) Sum of vehicle unit value and equipment value per vehicle

3) Total value per vehicle (Item 2) multiplied by the number of vehicles

Service Area

OCFR provides fire rescue services in the unincorporated county, the City of Belle Isle, City of Edgewood, and the Town of Oakland. Therefore, the proper benefit district for the provision of fire rescue services is the unincorporated county, the City of Belle Isle, City of Edgewood, and the Town of Oakland.

Cost Component

The cost component of the study evaluates the cost of all capital items, including buildings, land, and vehicles and equipment. **Table 3** provides a summary of all capital costs, which amounts to approximately \$214 million.

Also shown within Table 3 is the total impact cost per call for OCFR. As presented, the total impact cost is calculated as \$2,058 per call, which is calculated by dividing the total asset value of \$214 million by the average annual number of fire related calls over the past four years (2013-16). This high cost per call is reflective of fire departments' utilization levels. Industry standards suggest that fire personnel should not be utilized more than 30 percent of the available time to prevent fatigue, allow for availability in the case of simultaneous incidents and personnel training for effective fire services that meet the response time goals. Compared to the 2012 study, cost per call increased by almost 55 percent due primarily to high construction costs and land values being experienced in the Central Florida market.

Table 3
Total Impact Cost

Component	Cost	Percent of Total Value ⁽⁶⁾
Building Value ⁽¹⁾	\$113,222,800	53.0%
Land Value ⁽¹⁾	\$17,106,950	8.0%
Vehicle and Equipment Value ⁽²⁾	\$83,239,537	39.0%
Total Asset Value⁽³⁾	\$213,569,287	100.0%
Average Annual Number of Calls ⁽⁴⁾	103,787	
Total Impact Cost per Call⁽⁵⁾	\$2,057.77	

1) Source: Table 1

2) Source: Table 2

3) Sum of building, land, and vehicle and equipment value (Items 1 and 2)

4) Source: Orange County Fire Rescue, average number of annual calls based on call data from 2013 through 2016

5) Total asset value (Item 3) divided by the average annual number of calls (Item 4)

6) Distribution of building, land, and vehicle and equipment values

Credit Component

To avoid overcharging new development for the fire rescue impact fee, a review of the capital financing program for fire facilities and capital assets was completed. The purpose of this review was to determine any non-impact fee revenue generated by new development that is being used for capital facility (buildings, land, vehicles and equipment) expansion of the fire rescue program. Revenue credits would then apply against the cost per call so that new development is not overcharged for capital expansion projects.

Capital Expansion Expenditures Credit

To calculate the capital expansion expenditure per call, the historical capital expansion projects and those programmed in the CIP are reviewed. During the time period from 2012 and 2021, the County allocated an average annual non-impact fee funding of \$4.7 million towards expansion of fire rescue facilities. The average annual expenditure was then divided by the average annual number of calls over the past four years. As shown in **Table 4**, the result is an average annual expansion cost of \$44.98 per call.

Once the capital expansion credit is calculated, because the fire rescue capacity projects were partially funded with ad valorem revenues, an adjustment was made to account for the fact that new homes tend to pay higher taxes per dwelling unit. This adjustment factor was estimated based on a comparison of the average taxable value of new homes to that of all homes. As presented in Table 4, the adjusted capital expansion credit amounts to \$51.35 per call, which is used for credit calculations of residential land uses.

It is important to note approximately 60 percent of the funding during this 10-year period is from the INVEST program, which is unlikely to be a recurring revenue source. Given this, the calculated credit represents a generous credit, resulting in a conservative impact fee.

The credit included in this study is approximately 490 percent, or almost six times, higher than that in the 2012 study.

**Table 4
Capital Expansion Credit**

Description ⁽¹⁾	FY 2012/13	FY 2013/14	FY 2014/15	FY 15/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	Total
General Fund											
Facilities Improvements	\$0	\$0	\$0	\$0	\$824,983	\$160,000	\$0	\$0	\$0	\$0	\$984,983
Subtotal - General Fund	\$0	\$0	\$0	\$0	\$824,983	\$160,000	\$0	\$0	\$0	\$0	\$984,983
INVEST Projects											
Fire Station 67	\$0	\$0	\$0	\$0	\$6,413,625	\$0	\$0	\$0	\$0	\$0	\$6,413,625
Fire Station 68	\$0	\$0	\$0	\$0	\$2,463,236	\$1,460,000	\$1,766,000	\$0	\$0	\$0	\$5,689,236
Fire Station 87	\$0	\$0	\$0	\$0	\$3,663,301	\$2,046,000	\$0	\$0	\$0	\$0	\$5,709,301
Fire Apparatus & Equipment	\$0	\$0	\$0	\$0	\$4,202,640	\$357,000	\$0	\$0	\$0	\$0	\$4,559,640
Fire Training Facility	\$0	\$0	\$0	\$0	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$5,000,000
Subtotal - Invest Projects	\$0	\$0	\$0	\$0	\$17,742,802	\$4,863,000	\$2,766,000	\$1,000,000	\$1,000,000	\$0	\$27,371,802
Miscellaneous Construction Projects											
Facilities Improvements	\$0	\$0	\$26,310	\$3,107	\$0	\$0	\$0	\$0	\$0	\$0	\$29,417
Fire Equipment	\$0	\$0	\$0	\$2,542,360	\$0	\$0	\$0	\$0	\$0	\$0	\$2,542,360
Fire Station 67	\$0	\$0	\$0	\$32,375	\$0	\$0	\$0	\$0	\$0	\$0	\$32,375
Fire Station 68	\$0	\$0	\$0	\$36,764	\$0	\$0	\$0	\$0	\$0	\$0	\$36,764
Fire Station 87	\$0	\$0	\$0	\$16,699	\$0	\$0	\$0	\$0	\$0	\$0	\$16,699
Subtotal - Miscellaneous Construction Projects Fund	\$0	\$0	\$26,310	\$2,631,305	\$0	\$0	\$0	\$0	\$0	\$0	\$2,657,615
OC Fire Prot. & EMS/MSTU											
Enhance CAD	\$333,630	\$959,680	\$160,972	\$40,613	\$500,000	\$0	\$0	\$0	\$0	\$0	\$1,994,895
Facilities Improvements	\$554,206	\$176,024	\$807,477	\$737,936	\$4,231,816	\$1,000,000	\$1,000,000	\$1,000,000	\$1,500,000	\$1,500,000	\$12,507,459
Fire Station 28	\$11,966	\$10,963	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,929
Fire Station 32	\$64,959	\$65,967	\$70,692	\$79,382	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$85,000	\$791,000
Fire Station 84	\$265,601	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$265,601
Fire Training Facility	\$0	\$26,238	\$61,925	\$0	\$2,250	\$0	\$0	\$0	\$0	\$0	\$90,413
Subtotal - OC Fire Prot. & EMS/MSTU	\$1,230,362	\$1,238,872	\$1,101,066	\$857,931	\$4,819,066	\$1,085,000	\$1,085,000	\$1,085,000	\$1,585,000	\$1,585,000	\$15,672,297
Total Capital Expansion Expenditures	\$1,230,362	\$1,238,872	\$1,127,376	\$3,489,236	\$23,386,851	\$6,108,000	\$3,851,000	\$2,085,000	\$2,585,000	\$1,585,000	\$46,686,697
Average Annual Capital Expenditures ⁽²⁾											\$4,668,670
Average Annual Number of Calls (2013-16) ⁽³⁾											103,787
Annual Capital Expansion Expenditure per Call⁽⁴⁾											\$44.98
- Portion Funded with Ad Valorem Tax Revenues ⁽⁵⁾											\$15.93
- Portion Funded with Other Revenues ⁽⁶⁾											\$29.05
Credit Adjustment Factor for Residential Land Uses ⁽⁷⁾											1.40
Adjusted Annual Capital Improvement Credit per Call⁽⁸⁾											\$51.35

- 1) Source: Orange County Fire Rescue
- 2) Average capital expansion expenditures over the 10-year period
- 3) Source: Orange County Fire Rescue
- 4) Average annual capital expenditures (Item 2) divided by the average annual number of calls (Item 3)
- 5) Portion of expenditures per call that is funded with ad valorem tax dollars
- 6) Annual capital expansion expenditure per call (Item 4) less portion funded with ad valorem tax revenues (Item 5)

- 7) Adjustment factor to reflect higher ad valorem taxes paid by new homes
- 8) Portion of credit per call funded with ad valorem tax dollars (Item 5) multiplied by the credit adjustment factor for residential land uses (Item 7) plus the portion funded with other revenue dollars (Item 6)

Net Impact Cost

Table 5 summarizes the calculation of the net fire rescue impact cost per call, which is the difference between the total impact cost and the total capital improvement credit previously presented in Tables 3 and 4. The resulting net impact cost per call is \$1,164 for residential land uses and \$1,275 for non-residential land uses. Compared to the 2012 study, the net cost per call decreased by 2 percent for residential land uses and increased by 7 percent for non-residential land uses.

Table 5
Net Impact Cost

Impact Cost/ Credit Element	Per Call
Impact Cost	
Total Impact Cost⁽¹⁾	\$2,057.77
Revenue Credit	
Capital Improvement Credit ⁽²⁾ :	
- Residential Land Uses	\$51.35
- Non-residential Land Uses	\$44.98
Capitalization Rate	3.00%
Capitalization Period (in years)	25
Total Capital Improvement Credit ⁽³⁾	
- Residential Land Uses	\$894.17
- Non-residential Land Uses	\$783.24
Net Impact Cost	
Net Impact Cost ⁽⁴⁾ :	
- Residential Land Uses	\$1,163.60
- Non-residential Land Uses	\$1,274.53

1) Source: Table 3

2) Source: Table 4

3) Average annual capital improvement credit (Item 2) for a capitalization rate of 3% over 25 years

4) Total impact cost (Item 1) less total capital improvement credit (Item 3)

Demand Component

In determining the impact fee for each land use on a per call basis, it is necessary to determine the service delivery to residential and non-residential land uses.

In producing the call based demand, the average annual calls by land use between 2013 and 2016 were reviewed, which averaged 103,787 calls per year. Of the 103,787 total average annual calls, 77,110 calls were assigned to a land use. Of the remaining calls, 20,945 were related to outside activities, 193 were classified as “residential other,” 3,815 were not classified due to a lack of data, and 1,724 were from schools. In order to assign all calls to the appropriate land uses, the percentage distribution of assigned calls is utilized in allocating unassigned calls to a land use. Because public schools are not charged an impact fee, these calls are also redistributed. **Table 6** presents this analysis.

The final step in the call based demand calculations involves the calculation of calls per units of development, which are also presented in Table 6. In order to determine the number of units to each respective land use, a review of the Orange County Property Appraiser’s Database was conducted. Of the residential land uses, single family, duplex, mobile home, and multi-family homes are measured per dwelling unit. Hotel/motel is measured per room and is calculated based on the average living area square footage per room of 752, estimated based on a sample of existing hotels/motels. Non-residential land uses are measured by building square footage of living area.

**Table 6
Orange County Fire Rescue Call Based Demand Calculations**

Land Use	Unit	Average Annual Calls (2013-16) ⁽¹⁾	% Distribution (Assigned Residential Uses) ⁽²⁾	% Distribution (All Assigned Uses) ⁽³⁾	Distribution of Unassigned Calls ⁽⁴⁾	Total Calls ⁽⁵⁾	Revised Percentage ⁽⁶⁾	Units of Development ⁽⁷⁾	Calls per Unit ⁽⁸⁾
Calls Assigned to a Land Use									
Residential:									
Single Family Detached/Duplex/Mobile Home	du	44,857	73.3%	58.2%	15,557	60,414	58.2%	220,818	0.274
Multi Family	du	11,506	18.8%	14.9%	3,982	15,488	14.9%	82,421	0.188
Hotel/Motel	room	<u>4,813</u>	<u>7.9%</u>	<u>6.2%</u>	<u>1,657</u>	<u>6,470</u>	<u>6.2%</u>	45,279	0.143
Residential Total		61,176	100.0%	79.3%	21,196	82,372	79.3%		
Non-Residential:									
Commercial Retail/ Assembly	1,000 living area sf	7,216		9.4%	2,489	9,705	9.4%	42,670	0.227
Office/ Institutional	1,000 living area sf	7,725		10.0%	2,648	10,373	10.0%	52,248	0.199
Industrial	1,000 living area sf	437		0.6%	159	596	0.6%	9,805	0.061
Storage	1,000 living area sf	<u>556</u>		<u>0.7%</u>	<u>185</u>	<u>741</u>	<u>0.7%</u>	52,384	0.014
Non-Residential Total		15,934		20.7%	5,481	21,415	20.7%		
Total Assigned Calls		77,110		100.0%	26,677	103,787	100.0%		
Calls Not Assigned to a Land Use									
Residential Other	N/A	193							
Schools	N/A	1,724							
Other Outside	N/A	20,945							
Unclassified	N/A	<u>3,815</u>							
Total Unassigned Calls⁽⁹⁾		26,484							
Total Calls		103,787							

- 1) Source: Orange County Fire Rescue. Represents the average annual number of calls during the 2013 to 2016 time period.
- 2) Percent of assigned residential calls for each residential land use
- 3) Percent of all assigned calls (77,110) for each land use
- 4) Distribution of assigned residential calls (Item 2) multiplied by "Residential Other" calls plus the distribution of all assigned calls (Item 3) multiplied by the number of total unassigned calls (Item 9)
- 5) Average annual assigned calls (Item 1) plus the distribution of unassigned calls (Item 4)
- 6) Percent of total calls (103,787) for each land use
- 7) Source: Orange County Property Appraiser's Database. The number of hotel/motel rooms are estimated using an average of 752 livable square footage per room to convert total living area into hotel/motel rooms. This average square footage per room is based on a review of several existing hotels/motels.
- 8) Total calls (Item 5) divided by units of development (Item 7)
- 9) Sum of schools, other outside, and unclassified calls. Excludes residential other since the distribution of these calls are based on the percentage of residential uses only (see item (2)). Overall total, including residential other, would be 26,677.

Calculated Fire Rescue Impact Fee Schedule

Based on the analysis presented in this report, a fire rescue impact fee schedule was developed for residential and non-residential land uses. **Table 7** presents the total impact fee which is calculated by multiplying the net impact cost per call from Table 5 by the number of calls per unit from Table 6. As mentioned previously, net cost per call decreased by 2 percent for residential land uses and increased by 7 percent for non-residential land uses since the 2012 study. Any additional changes to the fee are due to the fluctuations in the demand component.

Table 7
Calculated Fire Recue Impact Fee Schedule

Land Use	Unit	Impact Cost per Call ⁽¹⁾	Calls per Unit ⁽²⁾	Total Impact Fee ⁽³⁾	Current Adopted Fee ⁽⁴⁾	Percent Change ⁽⁵⁾
Single Family Detached/Duplex/Mobile Home	du	\$1,163.60	0.274	\$319	\$270	18%
Multi Family	du	\$1,163.60	0.188	\$219	\$197	11%
Hotel/Motel	room	\$1,274.53	0.143	\$182	\$149	22%
Commercial Retail/ Assembly	1,000 living area sf	\$1,274.53	0.227	\$289	\$297	-3%
Office/ Institutional	1,000 living area sf	\$1,274.53	0.199	\$254	\$117	117%
Industrial	1,000 living area sf	\$1,274.53	0.061	\$78	\$50	56%
Storage	1,000 living area sf	\$1,274.53	0.014	\$18	\$49	-63%

1) Source: Table 5

2) Source: Table 6

3) Impact cost per call (Item 1) multiplied by the number of calls per unit (Item 2)

4) Source: Orange County Impact Fee Administration, Development Services

5) Percent change from the current adopted fee (Item 4) to the total impact fee (Item 3)

Impact Fee Schedule Comparison

As part of the work effort in updating the OCFR impact fee program, the County’s calculated impact fee schedule was compared to the adopted fee schedule and those in similar or nearby jurisdictions. **Table 8** presents this review. As shown, the calculated fees are within the range of the fees charged by the jurisdictions reviewed. Additionally, **Table 9** presents a comparison of the current adopted single family impact fee rate as well as the fully calculated rate for each of the Florida counties with fire rescue impact fees. As shown, Orange County’s adopted and calculated fees are within the range of counties charging fire rescue impact fees.

**Table 8
Fire Rescue Impact Fee Schedule Comparison**

Land Use	Unit ⁽¹⁾	Orange County		Brevard County ⁽⁴⁾	Hillsborough County ⁽⁵⁾	Lake County ⁽⁶⁾	Miami-Dade County ⁽⁷⁾	Osceola County ⁽⁸⁾	Polk County ⁽⁹⁾	Seminole County ⁽¹⁰⁾	Volusia County ⁽¹¹⁾
		Calculated Fees ⁽²⁾	Adopted Fees ⁽³⁾								
Date of Last Update		2017	2012	2000	1985	2003	2005	2006	2015	N/A	N/A
Adoption Percentage		100%	100%	100%	100%	95%	N/A	100%	50%	N/A	N/A
Residential :											
Single Family (2,000 sf)	du	\$319	\$270	\$93	\$49	\$390	\$415	\$165	\$154	\$172	\$300
Non-Residential :											
Light Industrial	1,000 sf	\$78	\$50	-	\$9	\$104	\$1,343	\$50	\$24	\$13	\$150
Office (50,000 sq ft)	1,000 sf	\$254	\$117	\$44	\$41	\$1,301	\$329	\$90	\$139	\$72	\$150
Retail (125,000 sq ft)	1,000 sf	\$289	\$297	\$129	\$22	\$1,301	\$443	\$300	\$181	\$160	\$150
Bank w/Drive-Thru	1,000 sf	\$289	\$297	\$105	\$41	\$1,301	\$443	\$300	\$181	\$72	\$150
Fast Food w/Drive-Thru	1,000 sf	\$289	\$297	\$552	\$23	\$1,301	\$443	\$1,390	\$181	\$320	\$150

- 1) du = dwelling unit
- 2) Source: Table 7
- 3) Source: Orange County Impact Fee Administration; Community, Environmental & Development Services Department
- 4) Source: Brevard County Planning & Development Department. Fees shown combine both the fire and EMS impact fee.
- 5) Source: Hillsborough County Development Services Department
- 6) Source: Lake County Growth Management Department
- 7) Source: Miami-Dade Zoning Development Services Division. Impact fees were adopted in 2005 with an annual adjustment based on the CPI starting in 2006/07.
- 8) Source: Osceola County Impact and Mobility Fee Office. Fire rescue fees were adopted at 100% in 2006 and indexed (@3.2%) to the adopted rates in 2007. No additional indexing has been applied since.
- 9) Source: Polk County Building and Construction Department. Fees shown combine both the fire and EMS impact fee.
- 10) Source: Seminole County Planning and Development Services Department
- 11) Source: Volusia County Growth and Resource Management Department

**Table 9
Fire Rescue, Single Family Impact Fee Schedule Comparison**

County	Date of Last Update Study	Adoption %	Single Family (2,000 sf du)	Single Family Fee @ 100% ⁽¹⁾
Hillsborough County ⁽²⁾	1985	100%	\$49	\$49
Brevard County ⁽³⁾	2000	100%	\$93	\$93
Monroe County ⁽⁴⁾	1992	100%	\$105	\$105
Glades County ^{(5)*}	2006/08	100%	\$118	\$118
Alachua County ⁽⁶⁾	2004	100%	\$152	\$152
Nassau County ⁽⁷⁾	2015	100%	\$158	\$158
Putnam County ^{(8)*}	2006	100%	\$159	\$159
Osceola County ⁽⁹⁾	2006	100%	\$165	\$159
Seminole County ⁽¹⁰⁾	N/A	N/A	\$172	\$172
Washington County ^{(11)*}	2006	100%	\$182	\$182
Jefferson County ⁽¹²⁾	2005	50%	\$110	\$220
Hernando County ⁽¹³⁾	1995	N/A	\$235	\$235
Orange County (Adopted Fee)⁽¹⁴⁾	2012	100%	\$270	\$270
Volusia County ⁽¹⁵⁾	N/A	N/A	\$300	\$300
Polk County ⁽¹⁶⁾	2015	50%	\$154	\$308
DeSoto County ^{(17)*}	2006	100%	\$313	\$313
Indian River County ⁽¹⁸⁾	2014	100%	\$314	\$314
Levy County ⁽¹⁹⁾	2005/14	0%/100%	\$53	\$315
Orange County (Calculated Fee)⁽²⁰⁾	2017	N/A	\$319	\$319
Manatee County ⁽²²⁾	2015	90%	\$289	\$321
Palm Beach County ⁽²²⁾	2015	N/A	\$0	\$324
Miami-Dade County ⁽²³⁾	2005	N/A	\$415	\$327
Bay County ⁽²⁴⁾	2005	50%	\$187	\$375
Citrus County ^{(25)*}	2014	100%	\$391	\$391
Lake County ⁽²⁶⁾	2003	95%	\$390	\$411
Pasco County ⁽²⁷⁾	2003	100%	\$420	\$420
Sarasota County ⁽²⁸⁾	2016	100%	\$452	\$452
Wakulla County ^{(29)*}	2006/07	100%	\$518	\$518
Lee County ⁽³⁰⁾	2012	92%/58%	\$487	\$559
Charlotte County ⁽³¹⁾	2014	40%	\$226	\$564
Martin County ⁽³²⁾	2012	100%	\$599	\$599
St. Lucie County ⁽³³⁾	2016	100%	\$617	\$617
St. Johns County ⁽³⁴⁾	2011	100%	\$748	\$657
Collier County ⁽³⁵⁾	2010/17	100%	\$1,342	\$1,342

* Indicates fees are currently under moratorium

Note: Counties surrounding Orange County are highlighted.

1) Fee shown is the fully calculated single family rate

2) Source: Hillsborough County Development Services Department. Fire impact fee shown.

- 3) Source: Brevard County Planning & Development Department. Fee shown combines both the fire (\$54) and EMS (\$39) impact fee.
- 4) Source: Monroe County Planning & Environmental Resources Department
- 5) Source: Glades County Planning Zoning Department. EMS impact fee shown. Study updated in 2006, with select variables updated in 2008. Fee is suspended through February 14, 2018.
- 6) Source: Alachua County Growth Management Department. Fire impact fee shown.
- 7) Source: Nassau County Planning and Economic Opportunity Department
- 8) Source: Putnam County Planning & Development Services. Fee shown combines the fire (\$88) and EMS (\$71) impact fee. Fees are currently suspended through February 2018.
- 9) Source: Osceola County Impact and Mobility Fee Office. Fire rescue fees were adopted at 100% (\$159) in 2006 and indexed (@3.2%) to the adopted rates in 2007. No additional indexing has been applied since.
- 10) Source: Seminole County Planning and Development Services Department
- 11) Source: Washington County Planning Department. Fee combines the fire (\$107) and EMS (\$75) impact fees. Residential impact fees are currently suspended.
- 12) Source: Jefferson County Planning Department. Fee shown combines the fire (\$48) and EMS (\$62) impact fees. Fees were adopted at 100% and have since been reduced to 50%.
- 13) Source: Hernando County Planning Department. Fee combines fire (\$209) and EMS (\$26) impact fees. Date of original study (1995) shown with internal updates based on the 1995 study conducted afterword's.
- 14) Source: Orange County Impact Fee Administration; Community, Environmental & Development Services Department
- 15) Source: Volusia County Growth and Resource Management Department
- 16) Source: Polk County Building and Construction Department. Fee shown combines the fire (\$121) and EMS (\$33) impact fees.
- 17) Source: DeSoto County Building Department. Fee is suspended through November 2017.
- 18) Source: Indian River County Planning Division. Emergency services impact fee shown.
- 19) Source: Levy County Community Development Department. The County adopted the fire impact fee structure in 2014 but set the rates at \$0. Fees shown combine the fire ('14 study, 0% adoption) and EMS rates ('05 study, 100% adoption).
- 20) Source: Table 7
- 21) Source: Manatee County Impact Fee Administration. Public safety (EMS) impact fee shown.
- 22) Source: Palm Beach County Planning, Zoning, and Building Department. Rate shown under single family fee at 100% reflects most recent on-going technical study.
- 23) Source: Miami-Dade Zoning Development Services Division. Impact fees were adopted in 2005 with an annual adjustment based on the CPI starting in 2006/07.
- 24) Source: Bay County Planning and Zoning Department. Fire protection impact fee shown. Fee was adopted at 100% and has since been reduced to 50% of the full calculated rate.
- 25) Source: Citrus County Growth Management Department. Fee shown combines both the fire (\$350) and EMS (\$41) impact fee. The fire impact fee is currently assessed while the EMS impact fee is suspended through April 2018.
- 26) Source: Lake County Growth Management Department
- 27) Source: Pasco County Central Permitting Department. Fee shown combines the fire combat (\$248) and rescue service (\$172) impact fees.
- 28) Source: Sarasota County Planning and Development Services Department. Fee shown combines the fire (\$281) and rescue and EMS (\$171) impact fees.
- 29) Source: Wakulla County Planning and Community Development. Fee shown combines the fire (\$344, last updated in 2007) and EMS (\$174, last updated in 2006) impact fees.
- 30) Source: Lee County Community Development Department. Fee shown combines the Bonita Springs Fire District's fire impact fee (\$437, adopted at 92%) and the County's EMS impact fee (\$50, adopted at 58%). Lee County's 18 fire districts' fire impact fees range from \$203 to \$474 for a single family home, in addition to the County's EMS fee of \$50.
- 31) Source: Charlotte County Community Development Department. Fire and EMS impact fee shown and includes the 2.46% administrative fee.
- 32) Source: Martin County Growth Management Department
- 33) Source: St. Lucie County Planning & Development Services Department
- 34) Source: St. Johns County Planning and Zoning. Fee was adopted in 2011 at 100% and is annually indexed based off construction costs.
- 35) Source: Collier County Impact Fee Administration Division. Fee shown combines the Ochopee Fire District's fire impact fee (\$1,200, adopted at 100%) last updated in 2010 and the County's EMS impact fee (\$142, adopted at 100%) last updated in 2017. Collier County's fire districts' fire impact fees range from \$240 to \$2,220 for a 2,000 sf single family home, in addition to the countywide EMS fee of \$142 per unit.

Indexing

In many cases, impact fees are reviewed periodically (every three to five years, etc.) as opposed to on an annual basis. If no adjustment to the impact fee schedule is made during this period, a situation can be created where major adjustments to the impact fee schedule likely become necessary due to the time between the adjustments. During periods of cost increases, the need for significant adjustments also creates major concerns in the development community. To address this issue, it is suggested that the fire rescue impact fees be adjusted for building, land, and equipment costs on an annual basis. The remainder of this section provides the method for calculating the combined index.

Land Cost

As shown in **Table 10**, between 2011 and 2016, just value of vacant land increased by an annual average of 5 percent in the OCFR service area. Given the high level of fluctuations in land values, it is recommended to review a longer period as well. A review of land value changes from 1976 to 2016 suggested an average increase of 5.6 percent per year. This figure is consistent with the increase experienced over the past five years. When the change in a shorter period suggests a large average annual increase (for example, 8 percent or greater), this average can be moderated by a longer-term period.

Table 10
Vacant Land Value Change

Year	Just Value	Percent Change
2011	\$1,641,314,527	-
2012	\$1,496,778,423	-8.8%
2013	\$1,509,902,184	0.9%
2014	\$1,735,938,714	15.0%
2015	\$1,870,384,160	7.7%
2016	\$2,051,845,487	9.7%
Average		4.9%

Source: Florida Department of Revenue, Ad Valorem Valuation and Tax Data files

Building Construction Cost

For building construction costs, a common index used is the national building cost index provided by Engineering-News Record. As shown in **Table 11**, the building cost index has remained fairly stable averaging 2 percent over the past five-years.

Table 11
Building Cost Index (National Average)

Year	Annual Avg	Percent Change
2011	5,058	-
2012	5,174	2.3%
2013	5,278	2.0%
2014	5,387	2.1%
2015	5,518	2.4%
2016	5,645	2.3%
Average		2.2%

Source: Engineering News-Record, Building Cost Index

Equipment Costs

For equipment costs, the Consumer Price Index (CPI) within the South Region is utilized for indexing purposes. **Table 12** presents the annual cost increase over the past five-years, which averaged 1 percent.

Table 12
Equipment Cost Index (South Region)

Year	Annual Avg	Percent Change
2011	139.2	-
2012	142.1	2.1%
2013	144.3	1.5%
2014	146.5	1.5%
2015	145.9	-0.4%
2016	147.3	1.0%
Average		1.1%

Source: Bureau of Labor Statistics, CPI-All Urban Consumers, All Items

Application

To index the fire rescue impact fee schedules previously presented in this report, the combined index should first be calculated, which is presented in **Table 13**. The second column summarizes the average cost increases presented previously in Tables 10, 11, and 12. The third column presents the percent of the total cost for each inventory component, which are then multiplied with the annual change to create the overall index. The combined index for the fire rescue impact fee is then applied to the calculated fees, as presented in **Table 14**.

Table 13
Indexing Application – Combined Index

Cost Component	Annual Change ⁽¹⁾	Percent of Total ⁽²⁾	Index ⁽³⁾
Land Cost	4.9%	8.0%	0.4%
Building Cost	2.2%	53.0%	1.2%
Vehicle/Equipment Cost	1.1%	39.0%	0.4%
Total			2.0%

1) Source: Tables 10, 11, and 12

2) Source: Table 3

3) Annual change (Item 1) multiplied by the percent of total (Item 2)

Table 14 presents the indexed fee schedule for the next four years using the overall index calculated and shown in Table 13, and the calculated impact fee previously shown in Table 7. It is recommended the calculated index be reviewed and recalculated annually, especially during time period when the costs fluctuate significantly.

**Table 14
Indexed Fees**

Land Use	Unit	Year 1 Calculated Impact Fee ⁽¹⁾	Year 2 ⁽²⁾	Year 3 ⁽³⁾	Year 4 ⁽⁴⁾	Year 5 ⁽⁵⁾
		Annual Index⁽⁶⁾	2.0%	2.0%	2.0%	2.0%
Single Family Detached/Duplex/Mobile Home	du	\$319	\$325	\$332	\$339	\$346
Multi Family	du	\$219	\$223	\$227	\$232	\$237
Hotel/Motel	room	\$182	\$186	\$190	\$194	\$198
Commercial Retail/ Assembly	1,000 living area sf	\$289	\$295	\$301	\$307	\$313
Office/ Institutional	1,000 living area sf	\$254	\$259	\$264	\$269	\$274
Industrial	1,000 living area sf	\$78	\$80	\$82	\$84	\$86
Storage	1,000 living area sf	\$18	\$18	\$19	\$19	\$19

- 1) Source: Table 7
- 2) Year 1 figures (Item 1) multiplied by (1+0.02), annual index (Item 6)
- 3) Year 2 figures (Item 2) multiplied by (1+0.02), annual index (Item 6)
- 4) Year 3 figures (Item 3) multiplied by (1+0.02), annual index (Item 6)
- 5) Year 4 figures (Item 4) multiplied by (1+0.02), annual index (Item 6)
- 6) Source: Table 13

Appendix A
Building and Land Value Analysis
Supplemental Information

Appendix A

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

Building Values

In determining the appropriate unit cost for building construction, the following analyses were conducted:

- A review of cost associated with recently built stations in Orange County;
- A review of recent bids/estimates for future stations in Orange County;
- A review of cost associated with recently built or bid fire stations in other Florida jurisdictions;
- Orange County station/building insurance values; and
- Discussions with architects regarding cost of building a fire station in Orange County.

The most recent station in Orange County was built in 2013, which was bid when construction costs were still low due to economic downturn. However, the County received five bids in May of 2017 for the upcoming Station 67. These bids had a tight range and averaged \$350 per square foot for construction cost only, and \$395 per square foot when design and furniture/fixture/equipment (ff&e) costs are included. The County also has estimates for three additional stations, which range from \$325 per square foot to \$340 per square foot for construction cost and \$370 per square foot to \$385 per square foot when design and ff&e costs are included.

Discussions with architects suggested that Central Florida is experiencing a high level of construction activity, including but not limited to, construction at the Airport and on I-4. This activity and relatively limited number of suppliers who are qualified to construct fire stations for the County are resulting in cost increases.

Current insurance values average approximately \$215 per square foot for station buildings and \$262 per square foot when contents were included. Insurance values tend to be lower than full value since certain components of the building, such as foundation, as well as costs related to architecture/design fees, site preparation, etc. are not part of the insured value.

Tindale Oliver also obtained cost information from several jurisdictions to supplement the local data. The bids and estimates received between 2011 and 2015 ranged from \$200 to \$300 per square foot.

Given this information, an average value of \$350 per square foot was used for fire stations, which includes all related costs, such as architectural services/design, site preparation, construction, permitting, and ff&e. **Table A-1** summarizes this information.

In the case of the administrative/office buildings and support services buildings, insurance values were used. These resulted in unit costs of \$220 per square foot for administrative/office buildings and \$130 per square foot for support buildings.

**Table A-1
Building Value per Square Foot**

Source	Year	Bldg Cost	Design/ FF&E	Total
<i>Insurance Values of Existing Stations:</i>				
Stations	2017	\$213	\$49	\$262
<i>Future Stations:</i>				
Station 67	2017 Bid	\$350	\$45	\$395
Station 87	2017 Est	\$327	\$43	\$370
Station 68	2017 Est	\$327	\$43	\$370
Station 32	2017 Est	\$341	\$44	\$385
Average		\$336	\$43	\$380
Other FL Jurisdictions	2011-2015	\$200 - \$300		
Used in the Study:				
- Stations	2017	\$350		
- Administrative Bldgs	2017	\$220		
- Support Bldgs	2017	\$130		

Note: Estimates for administrative and support buildings are based on insurance values

Land Values

In order to determine land value for future fire station land purchases, the following data/information was evaluated:

- The market (or just) value of parcels where current fire stations are located based on information provided by the Orange County Property Appraiser;

- Vacant land sales and market/just values of all vacant land in the fire rescue service area; and
- Land use characteristics of the areas where current fire stations are located and future stations are expected to be located.

The value of current parcels as reported by the Property Appraiser averages \$90,000 per acre with a range of \$3,300 per acre to \$543,000 per acre. A review of vacant land sales and vacant land values as reported by the Orange County Property Appraiser suggested a range of \$37,000 per acre to \$75,000 per acre for residential properties, \$134,000 per acre to \$391,000 per acre for commercial parcels, \$91,000 per acre to \$282,000 per acre for industrial properties, and \$20,000 per acre to \$30,000 per acre for agriculturally zoned properties.

Table A-2
Land Value per Acre

Acreage	Weighted Average Value per Acre				
	All	Vres	Vcom	Vind	Vag
<i>Vacant Land Sales (2013-2016)</i>					
0.5 - 5.00 acres	\$139,216	\$72,132	\$391,324	\$217,437	\$29,963
5.01 - 10 acres	\$166,301	\$74,962	\$278,944	\$281,882	\$19,814
Total (0.5 - 10 acres)	\$145,444	\$72,642	\$352,322	\$240,397	\$29,120
<i>Vacant Land Values (2017)</i>					
0.5 - 5.00 acres	\$73,724	\$38,668	\$208,296	\$117,626	\$19,773
5.01 - 10 acres	\$78,792	\$37,327	\$133,832	\$90,518	\$20,440
Total (0.5 - 10 acres)	\$74,944	\$38,442	\$179,801	\$106,519	\$19,855

Source: Orange County Property Appraiser

Unit costs obtained by land use are then applied to the distribution of the current inventory as well as future planned stations. **Table A-3** presents this analysis.

**Table A-3
Weighted Land Value per Acre**

Land Use	Value per Acre ⁽¹⁾	% of Current Inventory ⁽²⁾	% of Future Stations ⁽³⁾
Agricultural	\$25,000	25%	0%
Residential	\$50,000	55%	10%
Commercial/Industrial	\$300,000	20%	90%
Weighted Value ⁽⁴⁾		\$93,750	\$275,000
Used in the Study⁽⁵⁾			\$185,000

- 1) Estimated based on information presented in Table A-2
- 2) Source: Zoning of parcels where existing stations are located (excluding Planned Developments)
- 3) Source: Orange County Fire Station Location Study, 2015 (excluding Planned Developments)
- 4) Value per acre (Item 1) multiplied by the distribution of current and future fire stations (Items 2 and 3)
- 5) Used mid-point of weighted values calculated under the current inventory distribution (\$93,750) and future station location distribution (\$275,000).

Based on this analysis, an average land value estimate of \$185,000 is used for impact fee calculations purposes.