

2016 Coral Gables Impact Fee Study

Carson Bise, AICP

City Commission Meeting

Coral Gables, Florida

February 28, 2017

Bethesda, MD | 301.320.6900

Bradenton, FL | 443.280.0723

TischlerBise.com

2016 Methods and Cost Components

Type of Infrastructure	Service Area	Cost Recovery (past)	Incremental Expansion (present)	Plan-Based (future)	Cost Allocation
<i>Police</i>	Citywide			Police Buildings and Site Expansion	Functional Population and Inbound Vehicle Trips to Nonresidential Development
<i>Fire</i>	Citywide			Fire Buildings and Site Expansion	Functional Population and Jobs
<i>Municipal Facilities</i>	Citywide		Buildings and Land		Functional Population and Jobs
<i>Parks and Recreation</i>	Citywide		Active Parks, Passive/Linear Parks and Recreation Buildings (improvements and land)		Daytime Population and Jobs
<i>Mobility</i>	Citywide			Multimodal Roadway and Streetscape Improvements	Functional Population and Jobs
<i>Sanitary Sewer</i>	Citywide	Collection System		Capacity Projects (average cost allocation)	Average Day Wastewater Flow

Cost Recovery (past)

- Oversized facilities
- Funds can be used for debt service

Incremental Expansion (present)

- Formula-based approach documents level-of-service with both quantitative and qualitative measures

Plan-Based (future)

- Common for utilities but can be used for other public facilities with non-impact fee funding

2007 Impact Fee Schedule

	<i>Police</i>	<i>Fire and EMS</i>	<i>General Government</i>	<i>Parks</i>	<i>TOTAL</i>
<u>Residential</u>	Per Housing Unit				
Single Family	\$1,142	\$2,790	\$1,466	\$6,602	\$12,000
Multi: Low-Rise	\$680	\$1,661	\$873	\$3,931	\$7,145
Multi: Mid-Rise	\$700	\$1,711	\$899	\$4,049	\$7,359
Multi: High-Rise	\$577	\$1,410	\$741	\$3,336	\$6,064
<u>Nonresidential</u>	Per Square Foot of Gross Floor Area				
820 Com / Shop Ctr 25,000 GSF or less	\$1.09	\$0.76	\$0.75	N/A	\$2.60
820 Com / Shop Ctr 25,001-50,000 GSF	\$0.95	\$0.66	\$0.64	N/A	\$2.25
820 Com / Shop Ctr 50,001-100,000 GSF	\$0.79	\$0.57	\$0.56	N/A	\$1.93
820 Com / Shop Ctr 100,001-200,000 GSF	\$0.68	\$0.51	\$0.50	N/A	\$1.69
820 Com / Shop Ctr 200,001-400,000 GSF	\$0.58	\$0.46	\$0.45	N/A	\$1.48
710 Office / Inst 10,000 GSF or less	\$0.40	\$1.03	\$1.00	N/A	\$2.43
710 Office / Inst 10,001-25,000 GSF	\$0.32	\$0.95	\$0.93	N/A	\$2.20
710 Office / Inst 25,001-50,000 GSF	\$0.28	\$0.90	\$0.88	N/A	\$2.05
710 Office / Inst 50,001-100,000 GSF	\$0.24	\$0.85	\$0.83	N/A	\$1.91
720 Medical-Dental Office	\$0.64	\$0.93	\$0.91	N/A	\$2.48
610 Hospital	\$0.31	\$0.77	\$0.76	N/A	\$1.84
770 Business Park	\$0.23	\$0.72	\$0.71	N/A	\$1.66
110 Light Industrial	\$0.12	\$0.53	\$0.52	N/A	\$1.17
140 Manufacturing	\$0.07	\$0.41	\$0.40	N/A	\$0.88
150 Warehousing	\$0.09	\$0.29	\$0.29	N/A	\$0.67
151 Mini-Warehouse	\$0.04	\$0.01	\$0.01	N/A	\$0.06
<u>Other Nonresidential</u>					
320 Lodging (per room)	\$100	\$101	\$99	N/A	\$299
520 Elementary School (per student)	\$23	\$18	\$18	N/A	\$59
530 Secondary School (per student)	\$30	\$21	\$20	N/A	\$71
565 Day Care (per student)	\$79	\$37	\$36	N/A	\$152

Coral Gables also collects a sanitary sewer capacity fee by water meter size. Minimum fee is \$713 for smallest meter size.

Updated 2016 Impact Fee Schedule

Proposed

Police Facilities	Fire Facilities	Municipal Facilities	Parks and Recreation	Mobility Facilities	Administrative Charges	Proposed Total
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Residential (per housing unit by square feet of living space)

850 or less	\$126	\$142	\$430	\$3,377	\$763	\$41	\$4,879
851 to 1400	\$156	\$176	\$533	\$4,187	\$946	\$50	\$6,048
1401 to 2500	\$215	\$242	\$735	\$5,774	\$1,304	\$70	\$8,340
2501 to 3700	\$270	\$305	\$924	\$7,260	\$1,640	\$88	\$10,487
3701 to 4900	\$307	\$346	\$1,049	\$8,239	\$1,861	\$100	\$11,902
4901 or more	\$335	\$377	\$1,143	\$8,982	\$2,029	\$109	\$12,975

Nonresidential (per 1,000 square feet of building)

Retail & Restaurant	\$591	\$290	\$880	\$1,244	\$1,558	\$83	\$4,646
Institutional & Industrial	\$213	\$109	\$332	\$470	\$589	\$31	\$1,744
Office & Other Services	\$231	\$397	\$1,202	\$1,700	\$2,130	\$114	\$5,774

Impact Fee Increase or Decrease

**Increase/
Decrease**

Police Facilities Fire Facilities Municipal Facilities Parks and Recreation Mobility Facilities Administrative Charges **Cumulative Change**

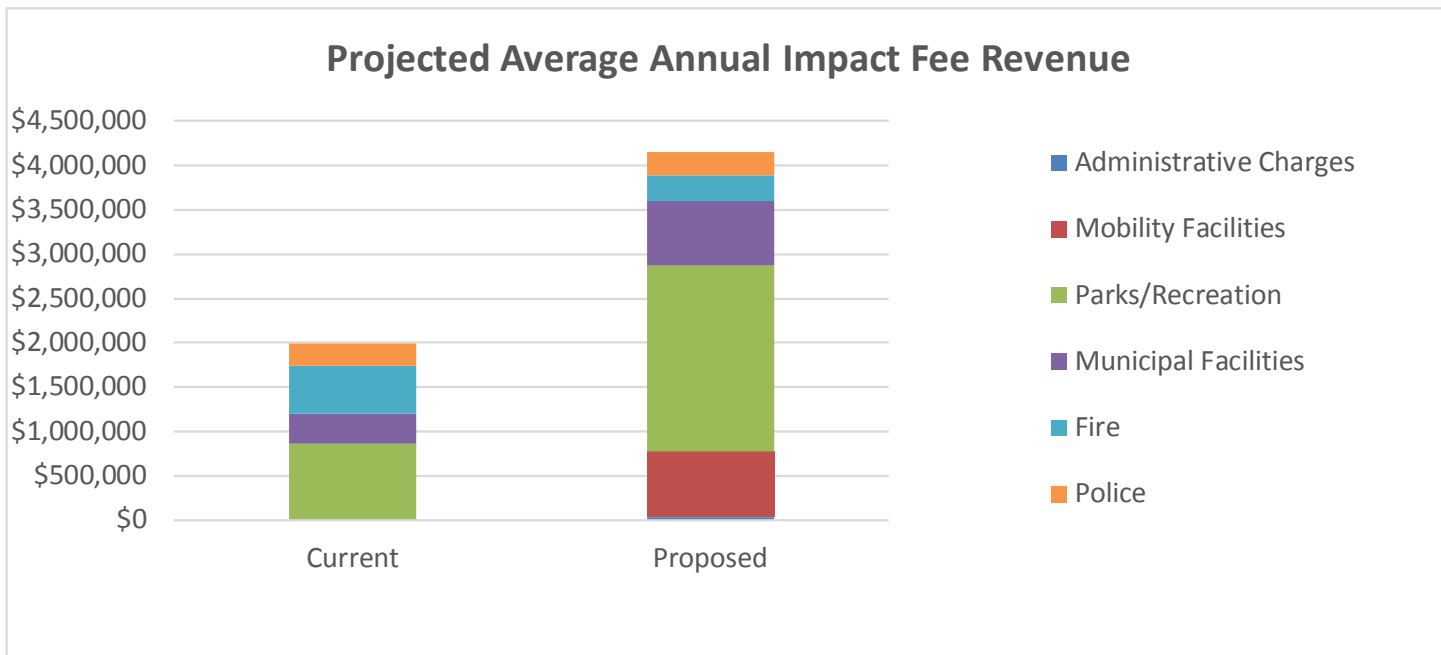
Residential (per housing unit by square feet of living space)

850 or less	-\$451	-\$1,268	-\$311	\$41	\$763	\$19	-\$1,207
851 to 1400	-\$421	-\$1,234	-\$208	\$851	\$946	\$28	-\$38
1401 to 2500	-\$362	-\$1,168	-\$6	\$2,438	\$1,304	\$48	\$2,254
2501 to 3700	-\$410	-\$1,356	\$51	\$3,329	\$1,640	\$62	\$3,316
3701 to 4900	-\$373	-\$1,315	\$176	\$4,308	\$1,861	\$55	\$4,712
4901 or more	-\$807	-\$2,413	-\$323	\$2,380	\$2,029	\$64	\$930

Nonresidential (per 1,000 square feet of building)

Retail & Restaurant	-\$499	-\$470	\$130	\$1,244	\$1,558	\$23	\$1,986
Institutional & Industrial	\$123	-\$181	\$42	\$470	\$589	\$21	\$1,064
Office & Other Services	-\$169	-\$633	\$202	\$1,700	\$2,130	\$64	\$3,294

2007 vs. 2016 Revenue Comparison



	Current	Proposed
Administrative Charges	\$13,000	\$38,000
Mobility Facilities	\$0	\$733,000
Parks/Recreation	\$850,000	\$2,101,000
Municipal Facilities	\$338,000	\$733,000
Fire	\$539,000	\$287,000
Police	\$248,000	\$255,000

Updated Fees for University of Miami

Police Facilities
Cost per
Inbound Vehicle
Trip

Net Capital Cost (94%)

Nonresidential (per 1,000 square feet of building)

Type	Avg Wkdy Veh Trip Ends	Trip Adjustment Factors	University of Miami Police Facilities Fees
Academic Buildings	5.19	33%	\$66

Fee Schedule per KSF for Academic Buildings (Type 1)	Cost per KSF Citywide and Type 2	
Police Facilities	\$66	\$213
Fire Facilities	\$109	\$109
Municipal Facilities	\$332	\$332
Parks and Recreation	\$0	\$470
Mobility Facilities	\$589	\$589
Administrative Charges	\$31	\$31
TOTAL	\$1,127	\$1,744
Current Impact Fee per KSF	\$650	
Increase/Decrease	\$477	

Cost per Person in Dorms		Cost per Person Citywide
Police Facilities (94%)	\$118	\$126
Fire Facilities	\$142	\$142
Municipal Facilities	\$430	\$430
Parks and Recreation	\$0	\$3,377
Mobility Facilities	\$763	\$763
Administrative Charges	\$41	\$41
Total Cost per Person	\$1,494	\$4,879
Current Cost per Student	\$2,056	
Increase/Decrease	-\$562	

Updated 2016 Sewer Capacity Fees

Sewer Capacity Fee (per connection)

<i>Meter Size (inches)*</i>	<i>Capacity Ratio**</i>	<i>Proposed Sewer Fee</i>	<i>Current Fee</i>	<i>Increase / (Decrease)</i>
0.75	1.00	\$850	\$713	\$137
1.00	1.67	\$1,420	\$1,071	\$349
1.50	3.33	\$2,831	\$1,890	\$941
2.00	5.33	\$4,532	\$2,902	\$1,630
3.00	10.67	\$9,073	\$6,322	\$2,751
4.00	16.67	\$14,175	\$10,687	\$3,488
6.00	33.33	\$28,342		
8.00	53.33	\$45,350		

** Sewer fees are based on water meter size.*

*** Source American Water Works Association, M6.*

Residential Impact Fee Structure

Proposing fees by dwelling size instead of unit type

- Living space (air conditioned square feet) from building permits
- Simplifies fee determination
- Addresses demographic data limitation (table B25033 categories are single detached and attached, two or more units per structure)

Coral Gables Population and Housing Characteristics

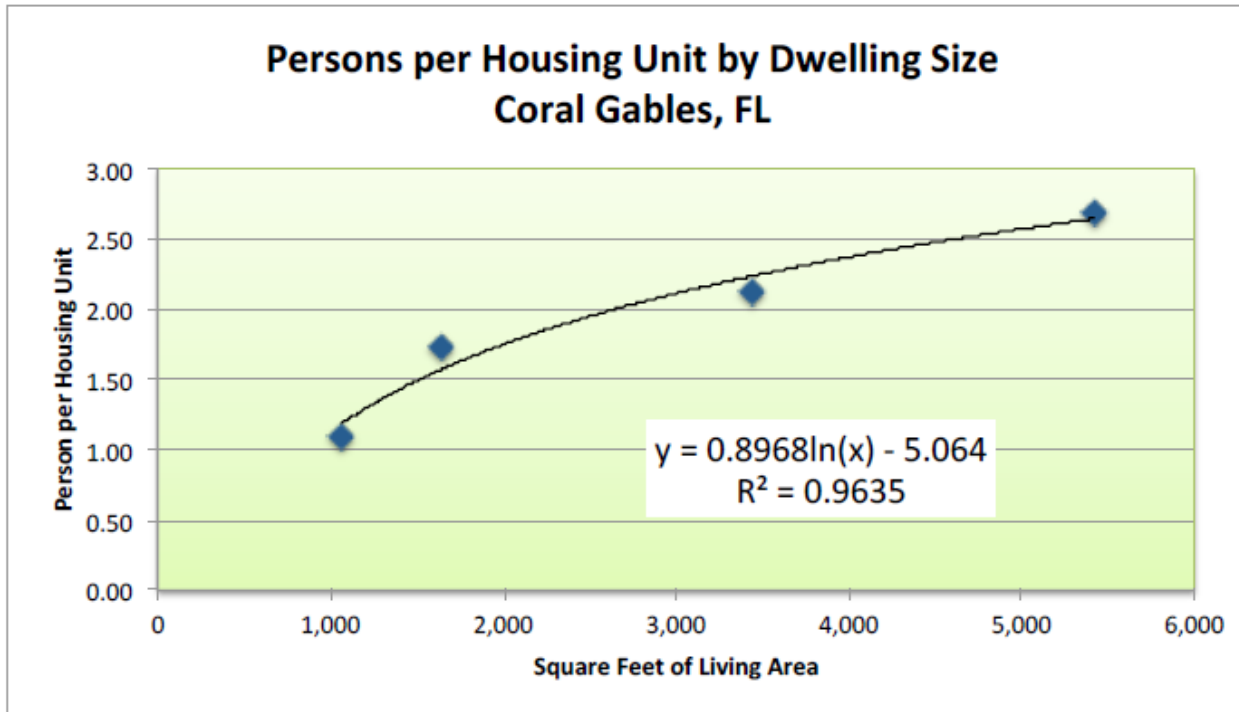
<i>Units in Structure</i>	<i>Persons</i>	<i>Households</i>	<i>Persons per Household</i>	<i>Housing Units</i>	<i>Persons per Housing Unit</i>	<i>Housing Mix</i>	<i>Vacancy Rate</i>
Single Unit ¹	32,966	11,195	2.94	12,306	2.68	60%	9%

Single unit includes detached, attached, and mobile homes.

Average Persons by Dwelling Size

Average persons per housing unit are derived from 2013 ACS PUMS data for Coral Gables. Average square feet of living space was derived from City building permits from 2013-15, except 1 bedroom, which is the mean size for all multifamily units constructed in the South Census Region in 2014.

Actual Averages per Hsg Unit			Fitted-Curve Values	
Bedrooms	Square Feet	Persons	Sq Ft Range	Persons
0-1	1,070	1.10	850 or less	1.00
2	1,641	1.74	851 to 1400	1.24
3	3,437	2.13	1401 to 2500	1.71
4+	5,418	2.68	2501 to 3700	2.15
			3701 to 4900	2.44
			4901 or more	2.66



Nonresidential Fee Structure

Recommending a simplified fee schedule

- 20 categories are harder to interpret and complicate change of use decisions
- Eliminating size thresholds helps small businesses that tend to be locally owned and operated
- Fees by floor area and other development units (e.g. hotel rooms) make it impossible to compare relative fee burden across all nonresidential categories

Functional Population

Infrastructure Cost Allocation Based on Functional Population

	<u>Demand Units in 2014</u>	<u>Demand Hours/Day</u>	<u>Person Hours</u>
Residential			
Population*	51,227		
64% Residents Not Working	32,777	20	655,540
36% Resident Workers**	18,450		
17% Worked in City**	3,156	14	44,184
83% Worked Outside City**	15,294	14	214,116
	Residential Subtotal		913,840
	Residential Share =>		57%
Nonresidential			
Non-working Residents	32,777	4	131,108
Jobs Located in City**	54,664		
6% Residents Working in City**	3,156	10	31,560
94% Non-Resident Workers (inflow commuters)	51,508	10	515,080
	Nonresidential Subtotal		677,748
	Nonresidential Share =>		43%
	TOTAL		1,591,588

* 2014 U.S. Census Bureau population estimate for Coral Gables, FL.
 ** 2014 Inflow/Outflow Analysis, OnTheMap web application, U.S. Census Bureau data for all jobs.

Updated Police Impact Fees

<i>Proposed Public Safety Building</i>		<i>Bldg Sq Ft</i>	<i>Percent of Total</i>
Police Department Area		54,298	47%
Fire Department Area		25,705	22%
Other Area		35,816	31%
TOTAL		115,819	
Cost for Building plus Parking Garage =>			\$30,000,000
Land Cost for Site Expansion =>			\$2,430,000
Total Cost =>			\$32,430,000
Total Cost divided by Square Feet of Building =>			\$280
<i>Source: Coral Gables Public Works Department.</i>			
Police Building Standards			
		<i>Residential</i>	<i>Nonresidential</i>
Proportionate Share (functional population)		57%	43%
Growth Indicator		<i>Residents</i>	<i>Avg Wkdy Veh Trips to Nonres Dev</i>
Service Units in FY35-36		63,791	171,438
Square Feet per Service Unit		0.49	0.14
Cost per Service Unit		\$126	\$42

	<i>Cost per Person</i>	<i>Cost per Inbound Vehicle Trip</i>
Police Building and Site Expansion	\$126	\$42

Residential (per housing unit)

<i>Square Feet of Living Space</i>	<i>Persons per Housing Unit</i>	<i>Proposed Police Facilities Fees</i>	<i>Current Fees</i>	
850 or less	1.00	\$126	\$577	-\$451
851 to 1400	1.24	\$156	\$577	-\$421
1401 to 2500	1.71	\$215	\$577	-\$362
2501 to 3700	2.15	\$270	\$680	-\$410
3701 to 4900	2.44	\$307	\$680	-\$373
4901 or more	2.66	\$335	\$1,142	-\$807

Nonresidential (per 1,000 square feet of building)

<i>Type</i>	<i>Avg Wkdy Veh Trip Ends</i>	<i>Trip Adjustment Factors</i>	<i>Proposed Police Facilities Fees</i>	<i>Current Fees</i>	<i>Increase/Decrease</i>
Retail & Restaurant	42.70	33%	\$591	\$1,090	-\$499
Institutional & Industrial	15.43	33%	\$213	\$90	\$123
Office & Other Services	11.03	50%	\$231	\$400	-\$169

Updated Fire Impact Fees

	Cost per Person	Cost per Job
Fire Department Buildings	\$142	\$111

Residential (per housing unit)

Square Feet of Living Space	Persons per Hsg Unit	Proposed Fire Facilities Fee	Current Fees
850 or less	1.00	\$142	\$1,410
851 to 1400	1.24	\$176	\$1,411
1401 to 2500	1.71	\$242	\$1,410
2501 to 3700	2.15	\$305	\$1,661
3701 to 4900	2.44	\$346	\$1,661
4901 or more	2.66	\$377	\$2,790

Nonresidential (per 1,000 square feet of building)

Type	Jobs per 1,000 Sq Ft	Proposed Fire Facilities Fee	Current Fees	Increase/Decrease
Retail & Restaurant	2.62	\$290	\$760	-\$470
Institutional & Industrial	0.99	\$109	\$290	-\$181
Office & Other Services	3.58	\$397	\$1,030	-\$633

Fire Stations	Square Feet	Project Cost
Planned Fire Station #1 *	25,705	\$7,197,000
Existing Fire Station #2	11,072	
Planned Fire Station #2 addition (two stories plus training tower) **	10,810	\$2,567,000
Existing Fire Station #3	14,063	
TOTAL	61,650	\$9,764,000

* Fire Station #1 building and site expansion cost is \$280 per square foot.

** AECOM 7/25/16 cost estimate, provided by Public Works, is approximately \$237 per additional square foot.

Allocation Factors for Fire Stations

Cost of Planned Buildings and Site Expansion per Square Foot	\$267
Residential Share	57%
Nonresidential Share	43%
FY 35-36 Residents	63,791
FY35-36 Jobs	66,806

Infrastructure Standards for Fire Stations

	Square Feet	Capital Cost
Residential (per person)	0.55	\$142
Nonresidential (per job)	0.40	\$111

-\$2,413

Updated Fees for Municipal Facilities

Municipal Sites	Building Square Feet	Building Cost*	Land Cost**
Planning Dept. (427 Biltmore Way)	2,400		
City Hall	6,892		
Public Works (72nd Ave)	87,035		
TOTAL	96,327	\$15,399,000	\$25,700,000

* Buildings cost is approximately \$160 per square foot.

** Municipal Facilities occupy 2.36 acres, with a cost estimate of \$10,890,000 per acre.

Allocation Factors for Municipal Facilities

Building plus Land Cost per Square Foot	\$427
Residential Share	57%
Nonresidential Share	43%
FY 15-16 Residents	52,259
FY15-16 Jobs	55,663

Infrastructure Standards for Municipal Facilities

	Square Feet	Capital Cost
Residential (per person)	1.05	\$430
Nonresidential (per job)	0.74	\$336

Buildings and Land	Cost per Person	Cost per Job
	\$430	\$336

Residential (per dwelling)

Square Feet of Finished Living Space	Persons per Dwelling	Proposed Municipal Facilities Fee	Current Fees	Increase/Decrease
850 or less	1.00	\$430	\$741	-\$311
851 to 1400	1.24	\$533	\$741	-\$208
1401 to 2500	1.71	\$735	\$741	-\$6
2501 to 3700	2.15	\$924	\$873	\$51
3701 to 4900	2.44	\$1,049	\$873	\$176
4901 or more	2.66	\$1,143	\$1,466	-\$323

Nonresidential (per 1,000 Square Feet)

Development Type	Jobs per 1,000 Sq Ft	Proposed Municipal Facilities Fee	Current Fees	Increase/Decrease
Retail & Restaurant	2.62	\$880	\$750	\$130
Institutional & Industrial	0.99	\$332	\$290	\$42
Office & Other Services	3.58	\$1,202	\$1,000	\$202

Updated Parks/Recreation Impact Fees

Daytime Population in 2014			Cumulative Impact Days per Year			Cost Allocation for Parks	
Jurisdiction	Residents*	Inflow Commuters*	Residential**	Nonresidential***	Total	Residential	Nonresidential
Coral Gables	51,227	51,508	18,697,855	2,465,019	21,162,874	88%	12%
* Data source is U.S. Census Bureau.			** residential days per year =>			365	
			*** nonresidential days per year				
Institutional jobs (12%) like University of Miami, assume 1 day per week x 32 weeks per year =>						32	
All other jobs (88%) assume 1 day per week x 50 weeks per year =>						50	

Fee Component	Cost per Person	Cost per Job
Active Park Improvements plus Land	\$1,407	\$198
Passive/Linear Park Improvements plus Land	\$1,466	\$206
Recreation Buildings plus Land	\$504	\$71
Revenue Credit	\$0	\$0
TOTAL	\$3,377	\$475

Residential (per dwelling)

Square Feet of Finished Living Space	Persons per Housing Unit	Proposed Parks & Recreation Fee	Current Fees	Increase/Decrease
850 or less	1.00	\$3,377	\$3,336	\$41
851 to 1400	1.24	\$4,187	\$3,336	\$851
1401 to 2500	1.71	\$5,774	\$3,336	\$2,438
2501 to 3700	2.15	\$7,260	\$3,931	\$3,329
3701 to 4900	2.44	\$8,239	\$3,931	\$4,308
4901 or more	2.66	\$8,982	\$6,602	\$2,380

Nonresidential (per 1,000 square feet of building)

Type	Jobs per 1,000 Square Feet	Proposed Parks & Recreation Fee	Current Fees	Increase/Decrease
Retail & Restaurant	2.62	\$1,244	\$0	\$1,244
Institutional & Industrial	0.99	\$470	\$0	\$470
Office & Other Services	3.58	\$1,700	\$0	\$1,700

Proposed Mobility Improvements

Mobility Projects to be Partially Funded by Impact Fees

FY17-21 CIP Page#	Description	Project Total	Growth Share	Growth Cost
111	Installation of Bike Paths	\$3,043,995	85%	\$2,600,000
127	Sidewalk Extensions	\$950,000	100%	\$950,000
155	Aragon Pedestrian and Bike Amenities	\$800,000	100%	\$800,000
115	Multimodal Transportation Plan	\$300,000	10%	\$30,000
128	Traffic Calming Program	\$2,225,000	10%	\$223,000
141	Miracle Mile Streetscape	\$22,188,200	10%	\$2,219,000
143	Giralda Ave Streetscape	\$4,730,000	10%	\$473,000
147	Ponce Median - 8th St to Flagler St	\$300,000	10%	\$30,000
157	S Dixie Hwy Corridor Master Plan	\$150,000	10%	\$15,000
Marginal Cost Subtotal		\$34,687,195	21%	\$7,340,000
Non-Growth Share of Mobility Projects to be Funded by Other Revenues =>				\$27,347,195
CIP Subtotal for Transportation & ROW =>		<u>\$61,704,114</u>		
Mobility Projects Share of Total =>		56%		

Proposed Mobility Fees

Growth Cost and Allocation per Service Unit

Growth Cost for Mobility Projects =>		\$7,340,000	
		2016	2026
Population		52,259	57,738
Jobs		55,663	60,962
Growth Share Based on Increase		10%	
	<i>Functional Population</i>	<i>2016 to 2026</i>	<i>Cost per Service</i>
	<i>Proportionate Share</i>	<i>Increase</i>	<i>Unit</i>
Population	57%	5,479	\$763
Jobs	43%	5,299	\$595

Residential

<i>Square Feet of Living Space</i>	<i>Development Unit</i>	<i>Persons per Housing Unit</i>	<i>Proposed Mobility Fee</i>
850 or less	Dwelling Unit	1.00	\$763
851 to 1400	Dwelling Unit	1.24	\$946
1401 to 2500	Dwelling Unit	1.71	\$1,304
2501 to 3700	Dwelling Unit	2.15	\$1,640
3701 to 4900	Dwelling Unit	2.44	\$1,861
4901 or more	Dwelling Unit	2.66	\$2,029

Nonresidential

<i>Type</i>	<i>Development Unit</i>	<i>Jobs per Development Unit</i>	<i>Proposed Mobility Fee</i>
Retail & Restaurant	1,000 Sq Ft	2.62	\$1,558
Institutional & Industrial	1,000 Sq Ft	0.99	\$589
Office & Other Services	1,000 Sq Ft	3.58	\$2,130

Updated Sanitary Sewer Cost Components

Basin Name	Gravity Mains Initial Cost (12-21 inch)	Pump Station Peak Capacity (MGD)	Pump Station Initial Cost	Force Mains Initial Cost
Total Peak Capacity		29.96		
Average Day Capacity*		7.49		
Total Cost	\$2,266,323		\$14,437,806	\$6,663,170
			Grand Total =>	\$23,367,299
Cost of Collection System per Average Day Gallon of Capacity =>				\$3.12

Data source: Sanitary Sewer Plan of Compliance, Hazen and Sawyer, March 2016.
 * assumes average day capacity is 25% of peak

CIP#	Fiscal Year =>	1 2015-16	2 2016-17	3 2017-18	4 2018-19	5 2019-20	Five-Year TOTAL
Capacity Projects to be Partially Funded by Impact Fees							
169	Inflow & Infiltration Abatement	\$1,882,827	\$0	\$0	\$0	\$0	\$1,882,827
171	Cross Connection Removal	\$290,457	\$165,000	\$165,000	\$165,000	\$165,000	\$950,457
	Subtotal	\$2,173,284	\$165,000	\$165,000	\$165,000	\$165,000	\$2,833,284
					Sewer Flow in 2020 (gal/avg day)		3,930,000
					Capital Cost per Gallon of Capacity		\$0.72
Projects Funded by Utility Rates							
165	Station F Rehabilitation	\$167,551	\$0	\$0	\$0	\$0	\$167,551
167	Major Repairs	\$1,436,113	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$5,836,113
173	County Volume Ordinance	\$2,198,947	\$0	\$0	\$0	\$0	\$2,198,947
175	Sewer Pipe Cameras	\$100,000	\$0	\$0	\$0	\$0	\$100,000
177	Pump Station1 Upgrade	\$250,000					\$250,000
178	Grease Trap Assessment	\$50,000					\$50,000
	Subtotal	\$4,202,611	\$1,100,000	\$1,100,000	\$1,100,000	\$1,100,000	\$8,602,611
	Total Sewer CIP	\$6,375,895	\$1,265,000	\$1,265,000	\$1,265,000	\$1,265,000	\$11,435,895

2016 Coral Gables Impact Fee Study

Carson Bise, AICP

City Commission Meeting

Coral Gables, Florida

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