CITY PENSION FUND FOR FIREFIGHTERS AND POLICE OFFICERS IN THE CITY OF MIAMI BEACH

CHAPTER 112.664, F.S. COMPLIANCE REPORT

In Connection with the October 1, 2016 Funding Actuarial Valuation Report and the Fund's Financial Reporting for the Year Ended September 30, 2016

GRS

GRS Retirement Consulting

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June 19, 2017

Ms. Donna Brito
Executive Director
City Pension Fund for Firefighters and Police Officers
in the City of Miami Beach
1691 Michigan Avenue, Suite 355
Miami Beach, Florida 33139

Re: October 1, 2016 Chapter 112.664 Compliance Report

Dear Donna:

Gabriel, Roeder, Smith & Company (GRS) has been engaged by the Board of Trustees (Board) of the City Pension Fund for Firefighters and Police Officers in the City of Miami Beach (Fund) to prepare a disclosure report to satisfy the requirements set forth in Chapter 112.664, F.S. and as further required pursuant to Chapter 60T-1.0035, F.A.C.

This report was prepared at the request of the Board and is intended for use by the Board and those designated or approved by the Board. This report may be provided to parties other than the Board only in its entirety and only with the permission of the Board.

The purpose of the report is to provide the required information specified in Chapter 112.664, F.S. and to supplement this information with additional exhibits. This report should not be relied on for any purpose other than the purpose described above.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: Fund experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Fund's funded status); and changes in Fund provisions or applicable law. The scope of this engagement does not include an analysis of the potential range of such measurements.

This report was based upon information furnished by the City and the Board concerning Fund benefits, Fund provisions and Fund members as used in the corresponding Actuarial Valuation Reports for the Valuation Dates indicated. Financial information was provided by the City and Board as of September 30, 2016. We reviewed the information provided for internal and year-to-year consistency, but did not audit the data. The Board is responsible for the accuracy of the data.

Except where specific assumptions are required by Chapter 112.664, F.S, this report was prepared using actuarial assumptions adopted by the Board as described in Section C. The Board's demographic assumptions are based on the results of an actuarial experience study for the period October 1, 2009 through September 30, 2014. The Board's investment return assumption is based upon input from the Investment Consultant and based upon a Capital Market Assumption Study completed in 2014. The mortality assumptions are prescribed by statute. The Board's assumptions represent an estimate of future Fund experience.

The investment return assumption of 2% higher than the investment return assumption utilized in the Actuarial Valuation Report does not represent an estimate of future Fund experience nor observation of the estimates inherent in market data. This assumption is provided as a counterpart to the Chapter 112.664, F.S. requirement to utilize an investment return assumption of 2% lower than the investment return assumption utilized in the Actuarial Valuation Report. The inclusion of the additional 2% higher assumption shows a more complete assessment of the range of potential results as opposed to the *one-sided* range required by statute.

If all actuarial assumptions are met and if all current and future minimum required contributions are paid Fund assets will be sufficient to pay all Fund benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expect to improve. Fund minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act and for Fire and Police Retirement Chapters 175 and 185 with normal cost determined as a level percent of covered payroll and a level percent of pay amortization payment using a maximum amortization period of 30 years.

The Fund's funded ratio as of October 1, 2016 is 71.4% defined as the ratio of the market value of Fund assets to the actuarial accrued liability.

The Fund's funded ratio and the GASB Net Pension Liability may not be appropriate for assessing the sufficiency of Fund assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. The signing actuaries are independent of the Fund sponsor.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and presents the actuarial position of the Fund as of the valuation date as required by statute. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

With respect to the reporting standards for defined benefit retirement plans or systems contained in Section 112.664(1), F.S., the actuarial disclosures required under this section were prepared and completed by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, meet the requirements of Section 112.664(1), F.S., and Section 60T-1.0035, F.A.C.

Respectfully submitted,

GABRIEL, ROEDER, SMITH AND COMPANY

By L. F. Wilson

Lawrence F. Wilson, M.A.A.A
Enrolled Actuary No. 17-02802
Senior Consultant & Actuary

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Enrolled Actuary No. 17-07624
Consultant & Actuary

Date: June 19, 2017

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SECTION A

CHAPTER 112.664, F.S. RESULTS

Net Pension Liability

Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68

	Measurement Date	September 30, 2016
A.	Total Pension Liability (TPL)	
	Service Cost	$ 17,803,602
	Interest	82,627,847
	Benefit Changes	0
	Difference Between Actual and Expected Experience	14,588,712
	Assumption Changes	2,447,885
	Benefit Payments	(54,861,660)
	Contribution Refunds	0
	Other	0
	Net Change in Total Pension Liability	$ 62,606,386
	Total Pension Liability (TPL) - (beginning of year)	1,041,447,645
	Total Pension Liability (TPL) - (end of year)	$ 1,104,054,031
B.	Fund Fiduciary Net Position	
	Contributions - City	$ 34,850,092
	Contributions - State	120,549
	Contributions - Member	5,984,397
	Net Investment Income	70,539,300
	Benefit Payments	(54,861,660)
	Contribution Refunds	0
	Administrative Expenses	(826,044)
	Other	0
	Net Change in Fund Fiduciary Net Position	$ 55,806,634
	Fund Fiduciary Net Position - (beginning of year)	750,617,498
	Fund Fiduciary Net Position - (end of year)	$ 806,424,132
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	$ 297,629,899
	Valuation Date	October 1, 2015

Certain Key Assumptions

Investment Return Assumption 7.9%

Mortality Table:

Healthy Members: RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with Blue Collar Adjustment and projected 15 years from valuation date for pre-retirement mortality and 7 years from valuation date for post-retirement mortality with Scale AA. Disabled Members: RP 2000 Disabled Mortality Tables, separate rates for males and females, without projection for future mortality improvements.

Net Pension Liability

Using Assumptions Required Under 112.664(1)(a), F.S.

Measurement Date		September 30, 2016
A. Total Pension Liability (TPL)		
Service Cost	$	18,541,760
Interest		85,279,511
Benefit Changes		0
Difference Between Actual and Expected Experience		13,857,258
Assumption Changes		2,694,905
Benefit Payments		(54,861,660)
Contribution Refunds		0
Other		0
Net Change in Total Pension Liability	$	65,511,774
Total Pension Liability (TPL) - (beginning of year)		1,074,759,284
Total Pension Liability (TPL) - (end of year)	$	1,140,271,058
B. Fund Fiduciary Net Position		
Contributions - City	$	34,850,092
Contributions - State		120,549
Contributions - Member		5,984,397
Net Investment Income		70,539,300
Benefit Payments		(54,861,660)
Contribution Refunds		0
Administrative Expenses		(826,044)
Other		0
Net Change in Fund Fiduciary Net Position	$	55,806,634
Fund Fiduciary Net Position - (beginning of year)		750,617,498
Fund Fiduciary Net Position - (end of year)	$	806,424,132
C. Net Pension Liability (NPL) - (end of year): (A) - (B)	$	333,846,926
Valuation Date		October 1, 2015

Certain Key Assumptions

Investment Return Assumption 7.9%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

Net Pension Liability
Using Assumptions Required Under 112.664(1)(b), F.S.

	Measurement Date	September 30, 2016
A.	Total Pension Liability (TPL)	
	Service Cost	$ 30,031,182
	Interest	83,422,895
	Benefit Changes	0
	Difference Between Actual and Expected Experience	19,232,546
	Assumption Changes	4,777,655
	Benefit Payments	(54,861,660)
	Contribution Refunds	0
	Other	0
	Net Change in Total Pension Liability	$ 82,602,618
	Total Pension Liability (TPL) - (beginning of year)	1,386,163,848
	Total Pension Liability (TPL) - (end of year)	$ 1,468,766,466
B.	Fund Fiduciary Net Position	
	Contributions - City	$ 34,850,092
	Contributions - State	120,549
	Contributions - Member	5,984,397
	Net Investment Income	70,539,300
	Benefit Payments	(54,861,660)
	Contribution Refunds	0
	Administrative Expenses	(826,044)
	Other	0
	Net Change in Fund Fiduciary Net Position	$ 55,806,634
	Fund Fiduciary Net Position - (beginning of year)	750,617,498
	Fund Fiduciary Net Position - (end of year)	$ 806,424,132
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	$ 662,342,334
	Valuation Date	October 1, 2015

Certain Key Assumptions

Investment Return Assumption 5.9%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

Net Pension Liability

Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

	Measurement Date		September 30, 2016
A.	Total Pension Liability (TPL)		
	Service Cost	$	11,971,302
	Interest		84,921,321
	Benefit Changes		0
	Difference Between Actual and Expected Experience		10,435,476
	Assumption Changes		1,539,461
	Benefit Payments		(54,861,660)
	Contribution Refunds		0
	Other		0
	Net Change in Total Pension Liability	$	54,005,900
	Total Pension Liability (TPL) - (beginning of year)		866,658,732
	Total Pension Liability (TPL) - (end of year)	$	920,664,632
B.	Fund Fiduciary Net Position		
	Contributions - City	$	34,850,092
	Contributions - State		120,549
	Contributions - Member		5,984,397
	Net Investment Income		70,539,300
	Benefit Payments		(54,861,660)
	Contribution Refunds		0
	Administrative Expenses		(826,044)
	Other		0
	Net Change in Fund Fiduciary Net Position	$	55,806,634
	Fund Fiduciary Net Position - (beginning of year)		750,617,498
	Fund Fiduciary Net Position - (end of year)	$	806,424,132
C.	Net Pension Liability (NPL) - (end of year): (A) - (B)	$	114,240,500
	Valuation Date		October 1, 2015

Certain Key Assumptions

Investment Return Assumption 9.9%

Mortality Table:

RP-2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with fully generational mortality improvements projected to each future payment date with Scale AA.

Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Financial Reporting Assumptions per GASB Statements No. 67 and No. 68
and Using Assumptions Required Under 112.664(1)(a), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2017	$ 786,797,752	$ 59,002,917	$ 65,684,259	$ 780,116,410
2018	780,116,410	58,449,488	66,372,916	772,192,982
2019	772,192,982	57,727,965	68,741,079	761,179,868
2020	761,179,868	56,767,279	71,028,897	746,918,250
2021	746,918,250	55,554,636	73,244,126	729,228,760
2022	729,228,760	54,069,335	75,544,280	707,753,815
2023	707,753,815	52,298,042	77,578,779	682,473,078
2024	682,473,078	50,225,420	79,674,523	653,023,975
2025	653,023,975	47,832,483	81,606,070	619,250,388
2026	619,250,388	45,099,004	83,563,066	580,786,326
2027	580,786,326	42,005,460	85,326,461	537,465,325
2028	537,465,325	38,535,797	86,967,294	489,033,828
2029	489,033,828	34,664,972	88,607,842	435,090,958
2030	435,090,958	30,360,576	90,270,486	375,181,048
2031	375,181,048	25,595,842	91,741,021	309,035,869
2032	309,035,869	20,348,249	93,054,270	236,329,848
2033	236,329,848	14,591,008	94,239,572	156,681,284
2034	156,681,284	8,296,211	95,248,031	69,729,464
2035	69,729,464	1,753,901	96,136,038	-
2036	-	-	96,823,465	-
2037	-	-	97,213,276	-
2038	-	-	97,597,726	-
2039	-	-	97,817,350	-
2040	-	-	97,874,004	-
2041	-	-	97,755,341	-
2042	-	-	97,480,760	-
2043	-	-	97,044,937	-
2044	-	-	96,448,131	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 18.67

Certain Key Assumptions

Investment return assumption 7.85%

Mortality Table:

For healthy participants during employment, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP 2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, 60% RP 2000 Disabled Male Mortality Table setback four years / 40% RP 2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP 2000 Disabled Female Mortality Table set forward two years / 40% RP 2000 Annuitant Female Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Members or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(b), F.S.

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2017	$ 786,797,752	$ 43,964,376	$ 65,684,259	$ 765,077,869
2018	765,077,869	42,672,131	66,372,916	741,377,084
2019	741,377,084	41,211,245	68,741,079	713,847,250
2020	713,847,250	39,528,884	71,028,897	682,347,237
2021	682,347,237	37,616,548	73,244,126	646,719,659
2022	646,719,659	35,460,082	75,544,280	606,635,461
2023	606,635,461	33,051,248	77,578,779	562,107,930
2024	562,107,930	30,380,555	79,674,523	512,813,962
2025	512,813,962	27,436,184	81,606,070	458,644,076
2026	458,644,076	24,205,772	83,563,066	399,286,782
2027	399,286,782	20,677,978	85,326,461	334,638,299
2028	334,638,299	16,844,499	86,967,294	264,515,504
2029	264,515,504	12,690,782	88,607,842	188,598,444
2030	188,598,444	8,197,407	90,270,486	106,525,365
2031	106,525,365	3,349,939	91,741,021	18,134,283
2032	18,134,283	61,995	93,054,270	-
2033	-	-	94,239,572	-
2034	-	-	95,248,031	-
2035	-	-	96,136,038	-
2036	-	-	96,823,465	-
2037	-	-	97,213,276	-
2038	-	-	97,597,726	-
2039	-	-	97,817,350	-
2040	-	-	97,874,004	-
2041	-	-	97,755,341	-
2042	-	-	97,480,760	-
2043	-	-	97,044,937	-
2044	-	-	96,448,131	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 15.17

Certain Key Assumptions

Investment return assumption 5.85%

Mortality Table:

For healthy participants during employment, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP 2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, 60% RP 2000 Disabled Male Mortality Table setback four years / 40% RP 2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP 2000 Disabled Female Mortality Table set forward two years / 40% RP 2000 Annuitant Female Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Members or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

Asset and Benefit Payment Projection
Not Reflecting Any Future Contributions
Using Assumptions Required Under 112.664(1)(a), F.S. Plus 2% on Investment Return Assumption

FYE	Market Value of Assets (BOY)	Expected Investment Return	Projected Benefit Payments	Market Value of Assets (EOY)
2017	$ 786,797,752	$ 74,045,342	$ 65,684,259	$ 795,158,835
2018	795,158,835	74,832,693	66,372,916	803,618,612
2019	803,618,612	75,541,443	68,741,079	810,418,976
2020	810,418,976	76,090,966	71,028,897	815,481,045
2021	815,481,045	76,473,084	73,244,126	818,710,003
2022	818,710,003	76,670,175	75,544,280	819,835,898
2023	819,835,898	76,674,084	77,578,779	818,931,203
2024	818,931,203	76,474,760	79,674,523	815,731,440
2025	815,731,440	76,058,006	81,606,070	810,183,376
2026	810,183,376	75,408,606	83,563,066	802,028,916
2027	802,028,916	74,512,658	85,326,461	791,215,113
2028	791,215,113	73,361,209	86,967,294	777,609,028
2029	777,609,028	71,934,736	88,607,842	760,935,922
2030	760,935,922	70,204,999	90,270,486	740,870,435
2031	740,870,435	68,151,215	91,741,021	717,280,629
2032	717,280,629	65,758,558	93,054,270	689,984,917
2033	689,984,917	63,007,597	94,239,572	658,752,942
2034	658,752,942	59,878,214	95,248,031	623,383,125
2035	623,383,125	56,347,588	96,136,038	583,594,675
2036	583,594,675	52,392,275	96,823,465	539,163,485
2037	539,163,485	47,995,303	97,213,276	489,945,512
2038	489,945,512	43,127,115	97,597,726	435,474,901
2039	435,474,901	37,750,210	97,817,350	375,407,761
2040	375,407,761	31,830,618	97,874,004	309,364,375
2041	309,364,375	25,331,584	97,755,341	236,940,618
2042	236,940,618	18,212,284	97,480,760	157,672,142
2043	157,672,142	10,427,258	97,044,937	71,054,463
2044	71,054,463	2,283,990	96,448,131	-

Number of years for which current market value of assets are adequate to sustain the payment of expected retirement benefits reflecting no contributions from the City, Members or State: 27.75

Certain Key Assumptions

Investment return assumption 9.85%

Mortality Table:

For healthy participants during employment, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For healthy participants post employment, RP 2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB. For disabled male participants, 60% RP 2000 Disabled Male Mortality Table setback four years / 40% RP 2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP 2000 Disabled Female Mortality Table set forward two years / 40% RP 2000 Annuitant Female Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements.

Note: As required in Section 112.664(c) of the Florida Statutes, the projection of Fund assets does not include future contributions from the City, Members or State. For this reason, this projection should not be viewed as representative of the amount of time the Fund can sustain benefit payments. Under the Government Accounting Standards Board standards which include City, Member and State contributions, the Fund is expected to be able to pay all future benefit payments.

ACTUARIALLY DETERMINED CONTRIBUTION	Valuation Assumptions and 112.664(1)(a), F.S. Assumptions		112.664(1)(b), F.S. Assumptions		112.664(1)(a), F.S. Assumptions Plus 2% on Investment Return Assumption	
A. Valuation Date	October 1, 2016		October 1, 2016		October 1, 2016	
B. Actuarial Determined Contribution to Be Paid During Fiscal Year Ending	September 30, 2018		September 30, 2018		September 30, 2018	
C. Annual Payroll of Active Employees	$ 58,277,802		$ 58,277,802		$ 58,277,802	
D. Total Minimum Funding Requirement						
1. Total Normal Cost	$ 18,357,026		$ 29,282,691		$ 12,174,852	
2. Annual Payment to Amortize Unfunded Actuarial Liability	23,796,708		37,122,955		10,806,861	
3. Interest Adjustment	218,858		166,180		269,618	
4. Expected Service Buyback	174,833		174,833		174,833	
5. Total Minimum Funding Requirement	$ 42,547,425		$ 66,746,659		$ 23,426,164	
E. Expected Payroll of Active Employees for Following Plan Year ($ / % of pay)	$ 59,793,025	102.60%	$ 59,793,025	102.60%	$ 59,793,025	102.60%
F. Expected Contribution Sources ($ / % of pay)						
1. City	$ 37,519,388	62.75%	$ 62,347,802	104.27%	$ 17,900,974	29.94%
2. Member	6,013,721	10.06%	6,013,721	10.06%	6,013,721	10.06%
3. State	120,549	0.20%	120,549	0.20%	120,549	0.20%
4. Total	$ 43,653,658	73.01%	$ 68,482,072	114.53%	$ 24,035,244	40.20%

Unfunded Actuarial Accrued Liabilities Bases and Amortization Payments

	Amortization Base	Current Unfunded Liabilities	Amortization Payment: Valuation and 112.664(1)(a), F.S. Assumptions	Amortization Payment: 112.664(1)(b), F.S. Assumptions	Amortization Payment: 112.664(1)(a), F.S. Assumptions Plus 2%	Remaining Funding Period
10/01/2001	Initial Unfunded Liability	$ 11,615,365	$ 1,073,010	$ 954,578	$ 1,196,127	15 years
10/01/2002	Method Update	13,263,564	1,173,966	1,036,665	1,317,148	16 years
10/01/2003	Fund Amendment	1,148,856	97,791	85,725	110,411	17 years
10/01/2003	Actuarial (Gain) / Loss	34,589,592	2,944,269	2,581,001	3,324,227	17 years
10/01/2004	Actuarial (Gain) / Loss	37,240,788	3,058,484	2,661,931	3,474,420	18 years
10/01/2005	Method Update	(33,129,706)	(2,632,789)	(2,275,300)	(3,008,742)	19 years
10/01/2005	Assumption Update	6,663,720	529,560	457,655	605,179	19 years
10/01/2005	Actuarial (Gain) / Loss	24,745,791	1,966,527	1,699,505	2,247,340	19 years
10/01/2006	Method Update	(4,992,445)	(384,894)	(330,330)	(442,419)	20 years
10/01/2006	Actuarial (Gain) / Loss	21,611,293	1,666,130	1,429,931	1,915,144	20 years
10/01/2007	Actuarial (Gain) / Loss	25,238,220	1,891,985	1,612,719	2,187,085	21 years
10/01/2008	Assumption Update	6,020,272	439,751	372,335	511,143	22 years
10/01/2008	Actuarial (Gain) / Loss	33,228,549	2,427,179	2,055,080	2,821,226	22 years
10/01/2009	Assumption Update	23,662,017	1,687,279	1,419,222	1,971,718	23 years
10/01/2009	Actuarial (Gain) / Loss	68,100,179	4,856,053	4,084,573	5,674,678	23 years
10/01/2010	Assumption Update	4,584,517	319,677	267,153	375,513	24 years
10/01/2010	Actuarial (Gain) / Loss	17,324,716	1,208,046	1,009,562	1,419,049	24 years
10/01/2011	Fund Amendment	(3,112,225)	(212,540)	(176,493)	(250,927)	25 years
10/01/2011	Assumption Update	17,187,321	1,173,756	974,685	1,385,748	25 years
10/01/2011	Actuarial (Gain) / Loss	30,573,042	2,087,894	1,733,782	2,464,988	25 years
10/01/2012	Assumption Update	7,844,447	525,408	433,579	623,350	26 years
10/01/2012	Actuarial (Gain) / Loss	26,411,265	1,768,982	1,459,807	2,098,742	26 years
10/01/2012	Fund Amendment	(20,186,044)	(1,352,028)	(1,115,726)	(1,604,061)	26 years
10/01/2013	Actuarial (Gain) / Loss	1,564,896	102,931	84,421	122,701	27 years
10/01/2013	Method Update	(64,919,844)	(4,270,082)	(3,502,214)	(5,090,244)	27 years
10/01/2014	Actuarial (Gain) / Loss	(5,990,856)	(387,423)	(315,846)	(463,974)	28 years
10/01/2014	Assumption Update	5,790,953	374,496	305,307	448,492	28 years
10/01/2015	Actuarial (Gain) / Loss	8,719,805	555,027	449,816	667,680	29 years
10/01/2015	Assumption Update	2,469,061	157,159	127,368	189,057	29 years
10/01/2015	Fund Amendment	(8,401,652)	(534,776)	(433,404)	(643,319)	29 years
10/01/2016	Actuarial (Gain) / Loss	(11,275,664)	(707,123)	(569,764)	(854,352)	30 years
10/01/2016	Assumption Update	34,969,254	2,193,003	1,767,010	2,649,603	30 years
10/01/2016	Assumption Change - 112.664(1)(b), F.S. Assumptions	332,050,053	N/A	16,778,622	N/A	30 years
10/01/2016	Assumption Change - 112.664(1)(a), F.S. Assumptions Plus 2%	(219,558,886)	N/A	N/A	(16,635,870)	30 years

SECTION B

SUMMARY OF FUND PROVISIONS

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

A. Relevant Provisions:

The Fund was created under Chapter 23414, Laws of Florida, Special Act of 1945, as amended by Ordinance No. 2016-4035 adopted September 27, 2016.

B. Eligibility Requirements:

Any full-time employee of the City who is certified as a Firefighter or Police Officer as a condition of employment.

C. Membership Tiers:

Tier 1 - Members hired prior to July 14, 2010
Tier 2 - Members hired on or after July 14, 2010 but prior to September 30, 2013
Tier 3 - Members hired on or after September 30, 2013 but prior to June 8, 2016 for the Fire Department and July 20, 2016 for the Police Department
Tier 4 - Members hired on or after June 8, 2016 for the Fire Department and July 20, 2016 for the Police Department

D. Credited Service:

All periods of employment as an Employee for which contributions have been made to the Fund together with all service in the uniformed services of the United States required to be included.

E. Pre-Employment Service:

Effective September 30, 2013 members with at least 5 years of service but not more than 10 years may contribute an additional amount of 10.0% for those hired prior to September 30, 2013 and 10.5% for those hired on or after September 30, 2013 to receive credit for pre-employment military service. A member may purchase up to 2 total years of additional service credit at the 3% accrual rate for time spent on active military duty. The total of all combinations of pre-employment benefit purchased cannot exceed a 12% increase in accrual.

Pre-employment benefit service must be purchased within 36 months for Police Officers and 24 months for Firefighters following September 30, 2013, or upon completion of 5 years of creditable pension service under the pension fund, whichever occurs later.

Effective September 30, 2013, members will no longer be able to purchase an increase in benefit multiplier or pre-employee public safety service credit as a Police Officer or Firefighter.

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

F. Pensionable Pay:

Salary is defined as base pay, longevity pay, overtime, shift differential and extra compensation allowance such as uniform allowance and any pays which are negotiated as pensionable. Effective July 14, 2010, off-duty pay is pensionable for any member who is eligible for overtime and receives off-duty compensation through the City. Effective September 30, 2013, overtime is limited to 300 hours a year.

1. Overtime and Off-Duty pay included in pension computation for Police Officers:

   - Off-Duty and overtime pay not exceeding 300 hours per calendar year is limited in each year to an amount that is equal to 11% of highest annualized pay rate for the same salary rank that the member is in at time of retirement.
   - The 11% limitation shall not apply to any member who holds the rank of sergeant or lieutenant on September 30, 2013, or any Police Officer promoted to the rank of sergeant prior to the date the 2013 Certified Police Sergeant Promotional Register expired in 2015. For these members, the inclusion of overtime and / or off duty in the member's salary shall be limited in each year to an amount which is equal to 70% of the difference between the member's annualized pay rate at retirement and the highest annualized pay rate for the next higher salary rank. For any of these members who self-demote they will become subject to the eleven percent (11%) limitation on overtime and off-duty compensation.

2. Overtime and Off-Duty pay included in pension computation for Firefighters:

   - Off-Duty and overtime pay not exceeding 300 hours per calendar year is limited in each year to an amount that is equal to 11% of highest annualized pay rate for the same salary rank that the member is in at time of retirement.

G. Final Average Monthly Earnings (FAME):

Tier 1 and eligible to retire prior to September 30, 2015 - the greater of the average of the 2 highest paid years prior to date of retirement or the 2 last paid years after taking into consideration the overtime limit.

Tier 1 and eligible to retire on or after September 30, 2015 - the greater of the average of the 3 highest paid years prior to date of retirement or the 3 last paid years after taking into consideration the overtime limit.

Tier 2 - the greater of the average of the 3 highest paid years prior to date of retirement or the 3 last paid years after taking into consideration the overtime limit.

Tier 3 - the greater of the average of the 5 highest paid years prior to date of retirement or the 5 last paid years after taking into consideration the overtime limit.

Tier 4 - the average of the 5 highest paid years prior to date of retirement taking into consideration the overtime limit.

H. Normal Retirement:

1. Eligibility:

Tier 1 and eligible to retire prior to September 30, 2013 - the earlier of attainment of age 50 or Rule of 70

Tier 1 and eligible to retire on or after September 30, 2013 - the earlier of attainment of age 50 or Rule of 70 (must attain age 47)

Tier 2 and Tier 3 - the earlier of attainment of age 50 with 5 years of creditables service or Rule of 70 (must attain age 48)

Tier 4 - the earlier of attainment of age 52 with 5 years of creditables service or Rule of 70 (must attain age 48)

2. Benefit:

Tier 1 and eligible to retire prior to September 30, 2013:
3% x FAME x Credited Service up to 15 years plus 4% x Credited Service after 15 years
Benefit shall not exceed 90% of FAME.

Tier 1 and eligible to retire on or after September 30, 2013 but prior to September 30, 2015:
3% x FAME x Credited Service up to 20 years plus 4% x Credited Service after 20 years
Benefit shall not exceed 85% of FAME (exception if exceeded 85% as of September 30, 2013).

Tier 1 and eligible to retire on or after September 30, 2015, Tier 2, Tier 3 and Tier 4:
3% x FAME x Credited Service up to 20 years plus 4% x Credited Service after 20 years
Benefit shall not exceed 85% of FAME.

A member's benefit multiplier for credited service earned before October 1, 2013 shall not be reduced.

I. Deferred Retirement:

1. Eligibility:

Any first day of the month past Normal Retirement Date.

2. Benefit:

Benefit calculated as for Normal Retirement based upon service and pay to Deferred Retirement Date.

J. Disability Retirement:

1. Eligibility:

   Totally and permanently disabled meaning incapacity to perform regular duty as Firefighter or Police Officer (and completion of at least 5 years of Credited Service for non-service incurred disability).

2. Benefit:

   Accrued benefit (minimum of 85% of current salary at time of disability for service incurred disability).

K. Death Benefit:

1. Service Incurred:

   Greater of accrued benefit or 85% of compensation payable as a monthly benefit to the widow until death or remarriage, to a Domestic Partner until death, marriage or entry into another Domestic Partnership, to unmarried children in equal shares until age 18 (until age 22 if a full-time student or until recovery from handicap if handicapped), or to dependent parents in equal shares.

2. Non-Service Incurred:

   For members with at least 5 years of service, accrued benefit is payable for the first 12 months after death and 75% of the accrued benefit is payable thereafter (with a minimum benefit of 25% of average monthly salary); Benefits are payable to the widow until death or remarriage, to a Domestic Partner until death, marriage or entry into another Domestic Partnership, to unmarried children in equal shares until age 18 (until age 22 if a full-time student or until recovery from handicap or until marriage if handicapped), or to dependent parents in equal shares. However, if the member has been married for less than 10 years, benefits are payable to the spouse only for the life expectancy of the deceased member at time of death.

L. Withdrawal Benefit:

1. Eligibility:

   Any age prior to 50 with at least 5 years of service for members who terminate employment on or after September 30, 2013.

2. Benefit:

   Return of employee contributions or accrued benefit upon attainment of age 50. If a member withdrawals with less than 10 years of service and passes away prior to the normal retirement date the return of employee contributions is the only benefit.

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

M. Employee Contributions:

10.0% of salary per year (on a pre-tax basis) for members hired prior to September 30, 2013 and 10.5% of salary per year (on a pre-tax basis) for members hired on or after September 30, 2013; If contributions are refunded to the member or to his beneficiaries, then interest is credited at the rate of 3% per annum.

N. Normal Form of Payment of Retirement Income:

For members except those retiring prior to November 5, 2003, the normal form of payment is a 75% joint and survivor annuity with a specified beneficiary as provided under the plan. The specified beneficiary will receive a survivor annuity equal to 100% of the total benefit for one year following the death of the member and thereafter the greater of 75% of the total benefit or 25% of the average monthly salary for the two highest paid years. However, upon death, if the member has been married for less than 10 years, the survivor annuity is payable only for the life expectancy of the deceased member at time of death.

The members may also elect the actuarial equivalent of the 10 year certain and life annuity, with a designated beneficiary, any of the following optional forms of payment:

- 75% joint and contingent survivor annuity with a designated beneficiary
- 66 ⅔% joint and contingent annuity with a designated beneficiary
- 50% joint and contingent annuity with a designated beneficiary
- 25% joint and contingent annuity with a designated beneficiary
- 10 year certain and life annuity with a designated beneficiary

Members who retired prior to November 5, 2003 were subject to different normal and optional forms of payment.

O. Deferred Retirement Option Program (DROP):

Police Officers and Firefighters are eligible to participate in a Deferred Retirement Option Program (DROP) upon meeting eligibility for a normal service retirement.

Operations of the DROP:

- The member's monthly retirement benefit, based on final average earnings and service, will be calculated as of the date prior to them entering the DROP.
- The member's monthly pension will be deposited into the selected investment vehicles.
- The member will cease to accrue additional pension benefits (with the exception of the COLA under the pension plan).
- The member will no longer be eligible for Disability or Service Connected Death benefits from the Pension Plan.
- Member contributions to the Pension Plan will cease upon entering the DROP.

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

- Upon entering the DROP, the member will select the length of the DROP period. The maximum period of participation in the DROP is 36 months for members who enter the DROP prior to September 1, 2012 and 60 months for members who enter the DROP on or after September 1, 2012. Notwithstanding the above, participation may not continue beyond the date when the member's combined years of creditable service and time in the DROP equals 352 months for members who enter the DROP prior to September 1, 2012 and 456 months for members who enter the DROP on or after September 1, 2012.

  Members who enter the DROP on or before September 30, 2015 may extend their DROP participation period by 12 months for a total maximum DROP participation period not to exceed seventy-two (72) months.

  Members who enter the DROP on or after October 1, 2015 but prior to June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members may extend their DROP participation period by up to 36 months for a total maximum DROP participation period not to exceed ninety-six (96) months.

  Members who enter the DROP on or after June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members may participate in DROP for a period not to exceed ninety-six (96) months.

- The member will not have access or be able to borrow against any of the funds accumulated in their DROP account.

- The member may sever employment with the City at any time during the DROP period. Such separation will terminate their participation in the DROP.

- No payment will be made from the DROP account until the member severs employment with the City.

- Following severance of employment, the funds in the DROP will be paid under the options the member selected. The member will also start receiving their monthly pension which was previously being deposited in the DROP.

- A 2.5% COLA (1.5% per year for participants hired on or after July 14, 2010) is paid annually on the anniversary date of the member's retirement. For members who enter the DROP after September 1, 2012 and before September 30, 2013 - no cost of living adjustment for the third and fourth annual anniversary date, if the member participates in the DROP for six months or longer.

  Members hired before June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members who elect to extend or enter the DROP and participate for more than 5 years will have no COLA adjustment applied for years six (6), seven (7), and eight (8) while participating in the DROP. Members hired on or after June 8, 2016 for Fire Department members and July 20, 2016 for Police Department members will receive a zero percent (0%) COLA for the first (1st), second (2nd), third (3rd) and fourth (4th) annual adjustment dates while participating in the DROP.

P. Cost-of-Living Adjustment:

Effective October 1, 2010, benefits are increased by 2.5% per year (1.5% per year for participants hired on or after July 14, 2010), compounded annually, on the anniversary date of each member's retirement. Members whose grandfathered Base Plan benefit is greater than the benefit otherwise provided by this plan will receive the applicable cost-of-living adjustment on that basis (2% a year beginning the October three years after retirement) until such time as the benefit from this plan with 2.5% cost-of-living exceeds that comparable grandfathered Base Plan benefit.

For members retired prior to October 1, 2010, benefit increases occur on the first of October each year.

Q. Changes Since Previous Actuarial Valuation (These changes were made for the Actuarial Impact Statement but are shown here for informational purposes.)

Membership Tiers were:

Tier 1 - Members hired prior to July 14, 2010
Tier 2 - Members hired on or after July 14, 2010 but prior to September 30, 2013
Tier 3 - Members hired on or after September 30, 2013

Pre-Employment Service was:

Effective September 30, 2013 members with at least 5 years of service may contribute an additional amount of 10.0% for those hired prior to September 30, 2013 and 10.5% for those hired on or after September 30, 2013 to receive credit for pre-employment military service. A member may purchase up to 2 total years of additional service credit at the 3% accrual rate for time spent on active military duty. The total of all combinations of pre-employment benefit purchased cannot exceed a 12% increase in accrual.

Pre-employment benefit service must be purchased within 36 months following September 30, 2013, or upon completion of 5 years of creditable pension service under the pension fund, whichever occurs later.

Effective September 30, 2013, members will no longer be able to purchase an increase in benefit multiplier or pre-employee public safety service credit as a Police Officer or Firefighter.

Pensionable Pay was:

Salary is defined as base pay, longevity pay, overtime, shift differential and extra compensation allowance such as uniform allowance and any pays which are negotiated as pensionable. Effective July 14, 2010, off-duty pay is pensionable for any member who is eligible for overtime and receives off-duty compensation through the City. Effective September 30, 2013, overtime is limited to 300 hours a year.

1. Overtime and Off-Duty pay included in pension computation for Police Officers:

- Off-Duty and overtime pay not exceeding 300 hours per calendar year is limited in each year to an amount that is equal to 11% of highest annualized pay rate for the same salary rank that the member is in at time of retirement.

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

Q. Changes Since Previous Actuarial Valuation (continued)

- The 11% limitation shall not apply to any member who holds the rank of sergeant or lieutenant on September 30, 2013, or any Police Officer promoted to the rank of sergeant prior to the date the 2013 Certified Police Sergeant Promotional Register expired in 2015. For these members, the inclusion of overtime and / or off duty in the member's salary shall be limited in each year to an amount which is equal to 70% of the difference between the member's annualized pay rate at retirement and the highest annualized pay rate for the next higher salary rank.

2. Overtime and Off-Duty pay included in pension computation for Firefighters:

- Off-Duty and overtime pay not exceeding 300 hours per calendar year is limited in each year to an amount that is equal to 11% of highest annualized pay rate for the same salary rank that the member is in at time of retirement.

Final Average Monthly Earnings (FAME) were:

Tier 1 and eligible to retire prior to September 30, 2015 - the greater of the average of the 2 highest paid years prior to date of retirement or the 2 last paid years after taking into consideration the overtime limit.

Tier 1 and eligible to retire on or after September 30, 2015 - the greater of the average of the 3 highest paid years prior to date of retirement or the 3 last paid years after taking into consideration the overtime limit.

Tier 2 - the greater of the average of the 3 highest paid years prior to date of retirement or the 3 last paid years after taking into consideration the overtime limit.

Tier 3 - the greater of the average of the 5 highest paid years prior to date of retirement or the 5 last paid years after taking into consideration the overtime limit.

Normal Retirement was:

1. Eligibility:

Tier 1 and eligible to retire prior to September 30, 2013 - the earlier of attainment of age 50 or Rule of 70

Tier 1 and eligible to retire on or after September 30, 2013 - the earlier of attainment of age 50 or Rule of 70 (must attain age 47)

Tier 2 and Tier 3 - the earlier of attainment of age 50 or Rule of 70 (must attain age 48)

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

Q. Changes Since Previous Actuarial Valuation (continued)

2. Benefit:

   Tier 1 and eligible to retire prior to September 30, 2013:
   3% x FAME x Credited Service up to 15 years plus 4% x Credited Service after 15 years
   Benefit shall not exceed 90% of FAME.

   Tier 1 and eligible to retire on or after September 30, 2013 but prior to September 30, 2015:
   3% x FAME x Credited Service up to 20 years plus 4% x Credited Service after 20 years
   Benefit shall not exceed 85% of FAME (exception if exceeded 85% as of September 30, 2013).

   Tier 1 and eligible to retire on or after September 30, 2015, Tier 2 and Tier 3:
   3% x FAME x Credited Service up to 20 years plus 4% x Credited Service after 20 years
   Benefit shall not exceed 85% of FAME.

   A member's benefit multiplier for credited service earned before October 1, 2013 shall not be reduced.

Deferred Retirement Option Program (DROP) was:

Police Officers and Firefighters are eligible to participate in a Deferred Retirement Option Program (DROP) upon meeting any one of the following criteria:

- the attainment of age 50 or
- the sum of the member's age and creditable service equal to at least 70 (minimum age may apply)

Operations of the DROP were:

- The member's monthly retirement benefit, based on final average earnings and service, will be calculated as of the date prior to them entering the DROP.
- The member's monthly pension will be deposited into the selected investment vehicles.
- The member will cease to accrue additional pension benefits (with the exception of the COLA under the pension plan).
- The member will no longer be eligible for Disability or Service Connected Death benefits from the Pension Plan.
- Member contributions to the Pension Plan will cease upon entering the DROP.
- Upon entering the DROP, the member will select the length of the DROP period. The maximum period of participation in the DROP is 36 months for members who enter the DROP prior to September 1, 2012 and 60 months for members who enter the DROP on or after September 1, 2012. Notwithstanding the above, participation may not continue beyond the date when the member's combined years of creditable service and time in the DROP equals 352 months for members who enter the DROP prior to September 1, 2012 and 408 months for members who enter the DROP on or after September 1, 2012.

Outline of Principal Provisions of the Retirement Plan
(as of October 1, 2016)

Q. Changes Since Previous Actuarial Valuation (continued)

- The member will not have access or be able to borrow against any of the funds accumulated in their DROP account.
- The member may sever employment with the City at any time during the DROP period. Such separation will terminate their participation in the DROP.
- No payment will be made from the DROP account until the member severs employment with the City.
- Following severance of employment, the funds in the DROP will be paid under the options the member selected. The member will also start receiving their monthly pension which was previously being deposited in the DROP.
- A 2.5% COLA (1.5% per year for participants hired on or after July 14, 2010) is paid annually on the anniversary date of the member's retirement. For members who enter the DROP after September 1, 2012 and before September 30, 2013 - no cost of living adjustment for the third and fourth annual anniversary date, if the member participates in the DROP for six months or longer. Any member who exits the DROP within 6 months following the date of DROP entry, shall be eligible for the 2.5% COLA annually on the anniversary date of the member's retirement.

SECTION C

ACTUARIAL ASSUMPTIONS AND COST METHODS USED FOR FUNDING

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2016)

A. Mortality

For healthy participants during employment, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For healthy participants post employment, RP 2000 Annuitant Mortality Tables, separate rates for males and females, with 90% Blue Collar Adjustment / 10% White Collar Adjustment and fully generational mortality improvements projected to each future decrement date with Scale BB.

For disabled male participants, 60% RP 2000 Disabled Male Mortality Table setback four years / 40% RP 2000 Annuitant Male Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements. For disabled female participants, 60% RP 2000 Disabled Female Mortality Table set forward two years / 40% RP 2000 Annuitant Female Mortality Table with White Collar Adjustment with no setback, without projected mortality improvements.

Sample Ages (2016)	Pre-retirement Future Life Expectancy (Years) Male	Pre-retirement Future Life Expectancy (Years) Female	Post-retirement Future Life Expectancy (Years) Male	Post-retirement Future Life Expectancy (Years) Female
45	39.94	43.35	38.50	43.13
50	34.73	38.12	33.74	37.91
55	29.61	32.95	29.10	32.74
60	24.73	27.88	24.52	27.72
62	22.86	25.91	22.74	25.80

Sample Ages (2036)	Pre-retirement Future Life Expectancy (Years) Male	Pre-retirement Future Life Expectancy (Years) Female	Post-retirement Future Life Expectancy (Years) Male	Post-retirement Future Life Expectancy (Years) Female
45	42.10	45.36	40.67	45.16
50	36.93	40.18	35.95	39.99
55	31.85	35.06	31.35	34.86
60	27.00	30.03	26.81	29.89
62	25.12	28.06	25.01	27.97

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2016)

B. Investment Return

7.85%, compounded annually, net of investment expenses includes inflation at 3.0%.

C. Expenses

Prior year's actual administrative expenses.

D. Employee Withdrawal Rates

Representative values of the assumed annual rates of withdrawal among members in active service are as follows:

Age	Withdrawal Rate	Age	Withdrawal Rate
20	2.00%	35	1.25%
25	1.75%	40	1.00%
30	1.50%	45	0.75%

E. Disability Rates

Representative values of the assumed annual rates of disability among members in active service are as follows:

Age	Disability Rates	Age	Disability Rate
20	0.07%	45	0.58%
25	0.11%	50	0.99%
30	0.16%	55	1.42%
35	0.22%	60	2.00%
40	0.32%	64	2.69%

35% of disabilities are assumed to be non-service incurred - 65% service incurred.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2016)

F. Salary Increase Factors

Representative values of the assumed annual rates of future salary increase are as follows:

Age	Merit Salary Increase	Age	Merit Salary Increase
20	3.7%	45	2.7%
25	7.7%	50	2.7%
30	6.7%	55	2.7%
35	3.7%	60	1.7%
40	2.7%	64	0.7%

In addition to the average assumed salary increase rates shown above the expected cost of living increases are as follows:

FYE	COLA Salary Increase	Weighted Average Increase*
2017	1.76%	5.79%
2018	3.00%	6.84%
2019	2.79%	6.43%
2020 and thereafter	2.18%	5.64%

The cost of living increases shown above are based on a 1% increase as of April 1, 2016, 3% increase as of July 1, 2017 and 3% increase as of July 1, 2018 contained in the collective bargaining agreement and long term expected increases of 2.18% annually each July.

* The weighted average increase shown is based on aging of the current active census demographics.

G. Payroll Growth Assumption

The aggregate compensation used to compute the accrued liability contribution rate is assumed to increase at a rate of 3.5% per year - not greater than historical 10-year average (2.6% as of October 1, 2016).

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2016)

H. Retirement

All members are assumed to retire at age 50 with 26.25 years of service, but not later than age 65. Retirement is assumed to occur in accordance with the following rates:

Service	Rate of Retirement	
	Meeting Rule of 70	Not Meeting Rule of 70
Less than 20	20%	4%
20	25%	5%
21	30%	10%
22	35%	10%
23	40%	20%
24	50%	60%
25	70%	60%
26	100%	100%
More than 26	100%	100%

I. DROP Assumption

80% of all active participants will participate in the DROP.

Leave DROP	Enter DROP on or before September 30, 2015	Enter the DROP on or after October 1, 2015
Prior to 5 years	0%	0%
After 5 years	5%	5%
After 6 years	N/A	5%
After 7 years	N/A	10%
After 8 years	N/A	100%

The extension of the DROP may alter the retirement experience of the plan causing a change in the retirement rates assumption in the future.

DROP assumptions will need to be monitored in light of future DROP experience.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation
(as of October 1, 2016)

J. Overtime and Off-duty Pay Limitation

No members excluded from the eleven percent (11%) limitation on overtime and off-duty compensation are assumed to self-demote.

K. Loadings for Contingencies

Pre-Employment Service: A City contribution of 0.275% of annual pensionable payroll is assumed sufficient to provide for the purchase (or *buyback*) of pre-employment military service and any probationary service by the membership.

Transfers into Fund from other City pension systems: A City contribution of 0.025% of annual pensionable payroll is added to provide for the transfer of service under another City pension system.

L. Marital Assumptions

1. 77% of members are assumed married or entitled to benefits for dependents, including registered domestic partners.
2. Male spouses are assumed to be three years older than female spouses.

M. Smoothed Asset Valuation Method

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 20% per year. The smoothed actuarial value of assets will be further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of fund assets and whose upper limit is 120% of the fair market value of fund assets.

N. Actuarial Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Actuarial Cost Method.
Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his age at hire to his assumed retirement age to fund his estimated benefits, assuming the Fund had always been in effect. The normal cost for the Fund is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the Fund is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over the smoothed actuarial value of assets of the Fund.

O. Changes Since Previous Actuarial Impact Statement

Investment Return was:

7.90%, compounded annually, net of investment expenses.

Mortality was:

For healthy participants, RP 2000 Combined Healthy Participant Mortality Tables, separate rates for males and females, with Blue Collar Adjustment and projected 15 years from valuation date for pre-retirement mortality and 7 years from valuation date for post-retirement mortality with projection Scale AA.

For disabled participants, RP 2000 Disabled Mortality Tables, separate rates for males and females, without projection for future mortality improvement.

Assumption Change History
(as of October 1, 2016)

A. Effective October 1, 2002:

The actuarial cost method was changed from frozen initial liability to entry age.

The amortization of the unfunded accrued liability was changed from level dollar to level percentage of pay, with aggregate payroll assumed to increase at 3.50% per year.

B. Effective October 1, 2005:

The *fresh start* method was applied to the actuarial value of assets to begin a new five-year phase-in of realized and unrealized gains and losses.

The retirement rates were increased to reflect retirement experience for participants meeting the age 50 and *Rule of 70* eligibility criteria.

The loadings for contingencies and pre-employment service were increased from 5.00% to 7.00% and from 4.50% to 5.50% respectively.

C. Effective October 1, 2006:

The actuarial valuation system used by Buck Consultants was upgraded effective October 1, 2006. The gain resulting from this upgrade was amortized over 30 years.

D. Effective October 1, 2008:

The interest rate used to calculate all liabilities was reduced to 8.40% from 8.50%.

The salary scale used to project future pay increases was reduced by 50 basis points at each age to reflect the current and projected economic climate.

The loadings for contingencies were increased by 100 basis points (50 basis points for salary rates and 50 basis points for buybacks).

The retirement assumption was updated to reflect an increase in the level of retirements starting at age 45.

E. Effective October 1, 2009:

The interest rate used to calculate all liabilities was reduced from 8.40% to 8.30%.

The mortality rates were changed from the 1983 Group Annuity Mortality Table to the RP-2000 Combined Mortality Table with a blue collar adjustment for healthy lives and the RP-2000 Disabled Mortality Table for disabled participants.

A load of 20% was added to the projected base payroll to estimate the projected pensionable payroll used to determine the expected member contributions.

Assumption Change History
(as of October 1, 2016)

E. Effective October 1, 2009 (cont'd):

An experience study was performed on the fund over the 5 year period October 1, 2003 through October 1, 2008 and the following assumptions were changed to more accurately reflect fund experience:

- Retirement Rates: The retirement assumption was changed to reflect the results of the experience study.
- Withdrawal Rates: The withdrawal assumption was changed to reflect the results of the experience study.
- Salary Increase Rates: The salary increase assumption was changed to an average increase of 3.83% for fund year 2009 to reflect the freeze on COLA for the fund year and to an average increase of 6.00% for all subsequent fund years.
- Load for Overtime and Other Pays: The load for overtime and other pays was changed from 7.50% to 16.00% to reflect the results of the experience study.

F. Effective October 1, 2010:

The interest rate used to calculate all liabilities was reduced from 8.30% to 8.20%.

The freeze on the cost of living increase component of the salary scale was extended to March 31, 2012.

G. Effective October 1, 2011:

The interest rate used to calculate all liabilities was reduced from 8.20% to 8.10%.

The mortality tables for healthy pre and post retirement participants was projected 15 and 7 years respectively from the valuation date to reflect mortality improvements.

The contingency compensation load for overtime and other pays was increased from 16% to 18% to account for the expected increase in pensionable pay due to the inclusion of off duty pay in the computation of pensionable pay.

H. Effective October 1, 2012:

The interest rate used to calculate all liabilities was reduced from 8.10% to 8.00%.

The expected salary increases for FYE 2014 and 2015 were reduced by 2.17% to reflect a freeze in the cost of living increases and increased by 3.00% to reflect a 3.00% cost of living increase in FYE 2016.

Assumption Change History
(as of October 1, 2016)

H. Effective October 1, 2012 (cont'd):

The contingency compensation load for overtime and other pays was decreased from 18% to 16% to account for the expected decrease in pensionable pay due to the cap on overtime hours in the computation of pensionable pay.

The contingency pre-employment service load was decreased from 6.000% to 0.275% to account for the elimination of certain buybacks.

The expected salary increases were adjusted to account for the extension of ranges for Firefighter I, Police Officer, Sergeant of Police and Police Lieutenant effective April 1, 2015.

I. Effective October 1, 2013:

The asset valuation method was updated to phase in the deviation between the expected and actual return on assets at the rate of 20% per year - further adjusted to the extent necessary to fall within the corridor whose lower limit is 80% of the fair market value of plan assets and whose upper limit is 120% of the fair market value of plan assets.

The load for projected pensionable payroll was decreased from 20% to 16% to account for the expected decrease in pensionable pay due to the cap on overtime hours in the computation of pensionable pay.

J. Effective October 1, 2014:

The interest rate used to calculate all liabilities was reduced from 8.00% to 7.95%.

Payroll growth assumption is limited to 10-year average.

K. Effective October 1, 2015:

The interest rate used to calculate all liabilities was decreased from 7.95% to 7.90%.

An experience study was performed on the fund over the 5 year period October 1, 2009 through September 30, 2014 and the following assumptions were changed to more accurately reflect fund experience:

- Withdrawal Rates: The withdrawal assumption was updated to reflect the results of the experience study.
- Disability Incidence: The disability incidence assumption was changed to 65% service incurred / 35% non-service incurred.
- The load for compensation and projected pensionable payroll was replaced with actual pensionable pay.
- Retirement Rates: The retirement assumption was updated to reflect the results of the experience study.

Updated DROP assumptions to reflect updated DROP provisions.

A City contribution of 0.025% of annual pensionable payroll is added to provide for the transfer of service under another City pension system.

The salary increase assumptions were updated to better reflect anticipated merit and COLA increases.

Assumption Change History
(as of October 1, 2016)

L. Effective October 1, 2016:

The interest rate used to calculate all liabilities was reduced from 7.90% to 7.85%.

The mortality assumption was updated to use the mortality assumptions used by the Florida Retirement System (FRS) as required under F.S., Chapter 2015-157 based upon the July 1, 2016 FRS Actuarial Valuation.

SECTION D

GLOSSARY

GLOSSARY

Actuarial Accrued Liability	The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.
Actuarial Assumptions	Assumptions about future fund experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.
Actuarial Cost Method	A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.
Actuarial Equivalent	Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.
Actuarial Present Value	The amount of funds required to provide a payment or series of payments in the future. It is determined by discounting the future payments with an assumed interest rate and with the assumed probability each payment will be made.
Actuarial Present Value of Future Benefits	The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
Actuarial Valuation	The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a fund. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.
Actuarial Value of Assets	The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of fund assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

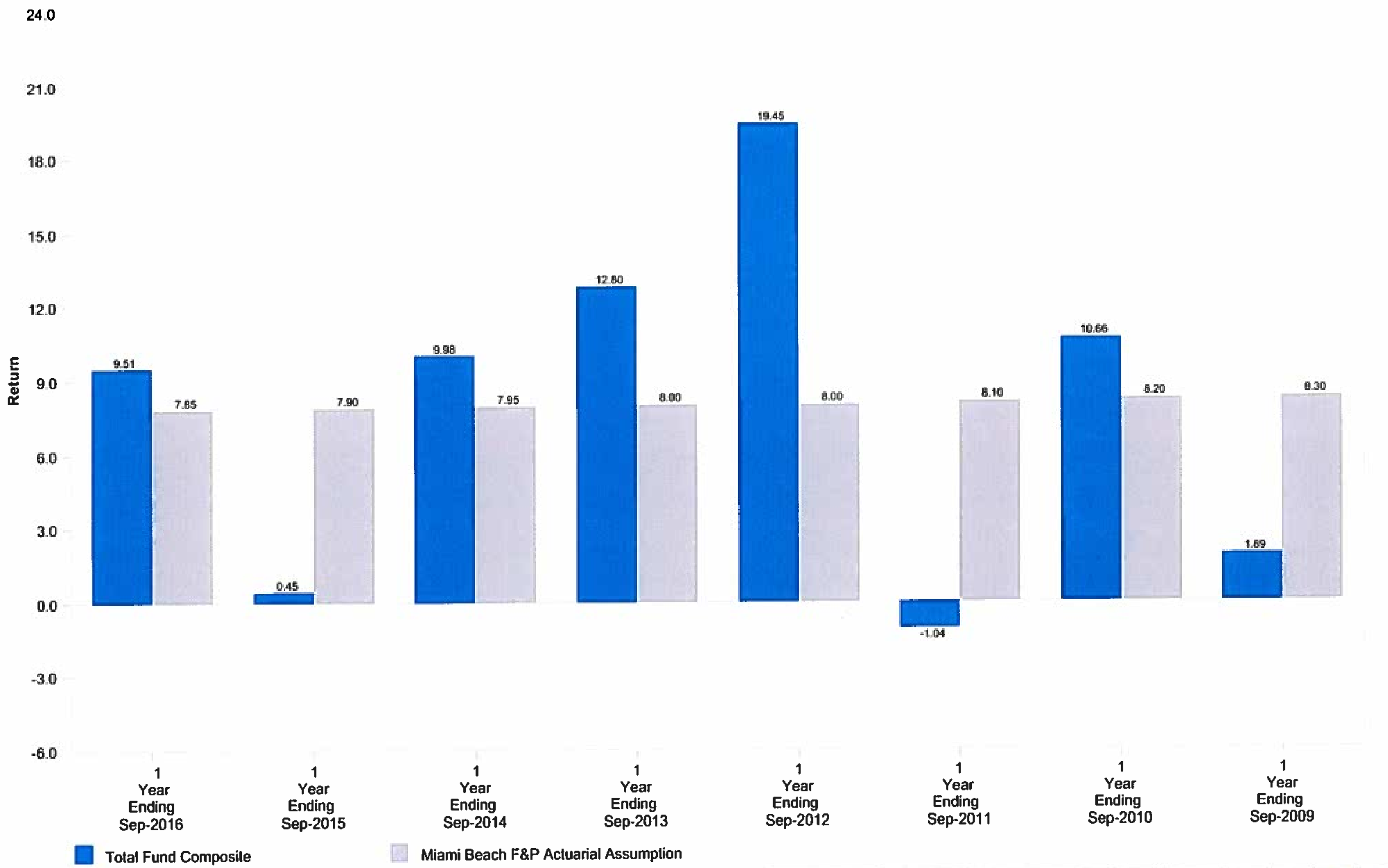
Amortization Method	A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.
Amortization Payment	That portion of the fund contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.
Amortization Period	The period used in calculating the Amortization Payment.
Annual Required Contribution	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered fund compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.
Closed Amortization Period	A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.
Employer Normal Cost	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Equivalent Single Amortization Period	For funds that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For funds that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.
Experience Gain/Loss	A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.
Funded Ratio	The ratio of the Actuarial Value of Assets to the Actuarial Accrued Liability.

GASB	Governmental Accounting Standards Board.
GASB No. 67 and GASB No. 68	These are the governmental accounting standards that set the accounting rules for public retirement funds and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the funds themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement funds.
Normal Cost	The annual cost assigned, under the Actuarial Cost Method, to the current fund year.
Open Amortization Period	An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.
Unfunded Actuarial Accrued Liability	The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.
Valuation Date	The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

Miami Beach Police and Fire
60t DISCLOSURE

Valuation Date	Fiscal Year Ending	Plan Return (net)	Assumed Rate	Plan Allocation			
				Equity	Fixed	Alternatives	Cash
10/01/2016	9/30/2016	9.51%	7.85%	56.90%	36.60%	5.40%	1.10%
10/01/2015	9/30/2015	0.45%	7.90%	54.10%	38.80%	5.40%	1.70%
10/01/2014	9/30/2014	9.98%	7.95%	55.50%	36.50%	4.90%	3.10%
10/01/2013	9/30/2013	12.80%	8.00%	61.00%	33.00%	3.40%	2.60%
10/01/2012	9/30/2012	19.45%	8.00%	56.90%	36.60%	3.30%	3.20%
10/01/2011	9/30/2011	-1.04%	8.10%	56.90%	36.80%	3.50%	2.80%
10/01/2010	9/30/2010	10.66%	8.20%	56.40%	39.80%	2.90%	0.90%
10/01/2009	9/30/2009	1.89%	8.30%	52.10%	43.90%	3.00%	1.00%

Comparative Performance Net of Fees



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