

CITY OF HIALEAH
EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2017

CONTRIBUTIONS APPLICABLE TO
THE FISCAL YEAR ENDED SEPTEMBER 30, 2019

May 25, 2018

Board of Trustees
City of Hialeah
Employees' Retirement System
501 Palm Ave.
Hialeah, FL 33010

Re: City of Hialeah Employees' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Hialeah Employees' Retirement System. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Please note that this valuation may not be applicable for any other purposes.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Chapters 112, 175 and 185, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Board of Trustees and the City of Hialeah, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2016. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2017 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

The undersigned is familiar with the immediate and long-term aspects of pension valuations and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Hialeah, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Hialeah Employees' Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact me at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By: 

Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #17-6901

BRH/lke
Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Hialeah Employees' Retirement System, performed as of October 1, 2017, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the fiscal year ending September 30, 2019. The contributions have been developed assuming that the City will make their contribution on December 31, 2018.

The contribution requirements, compared with those developed in the November 28, 2017 Actuarial Impact Statement (determined as of October 1, 2016), are as follows:

Valuation Date	10/1/2017	10/1/2016
Applicable Fiscal Year End	<u>9/30/2019</u>	<u>9/30/2018</u>
Total Required Contribution	\$36,859,401	\$34,391,014
% of Projected Annual Payroll	69.44%	59.90%
Less Member Contributions	3,269,276	3,255,633
% of Projected Annual Payroll	6.16%	5.67%
Equals Required City & State	33,590,125	31,135,381
% of Projected Annual Payroll	63.28%	54.23%
State Contribution ¹	461,877	461,877
% of Projected Annual Payroll	0.87%	0.87%
Balance from City	33,128,248	30,673,504
% of Projected Annual Payroll	62.41%	53.36%

¹ Represents the amount transferred from the Share Plan each year.

Summary

As can be seen, the Total Required Contribution has increased when expressed as a percentage of Projected Annual Payroll. There are three primary reasons for this increase. The first reason for the increase in the funding requirements when expressed as a percentage of payroll is that the Projected Annual Payroll decreased by 7.54%. This reduction in payroll makes the amortization of the Unfunded Actuarial Accrued Liability represent a larger percentage of projected payroll. This impact was approximately 4.2% of payroll. The second reason for the increase was a change to the previously mentioned payroll growth assumption from 1.00% to 0.00% in conjunction with this report. This change increased the funding requirements by 3.52% of payroll. Lastly, there was net unfavorable actuarial experience during past year, as compared to the assumptions. The primary components of unfavorable experience included losses related to several general employees buying back credit service to retire, retirements being earlier than anticipated, lower than expected mortality, and the fact that Members'

Annuity Savings accounts were credited with 9.93% and the assumed rate is 8.00%. Partially offsetting these losses was the impact of an 8.31% return on the Actuarial Value of Assets exceeding the assumed rate and average increases in pensionable compensation that were less than the assumed rate. For more detail on the actuarial gains and losses over the past year, please see page 21. The net actuarial losses increased the funding requirements by 1.68% of payroll.

Accumulated Annuity Savings Member Contributions

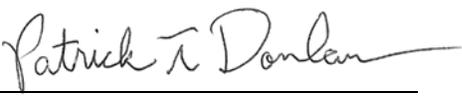
A portion of the Member contributions received by the Retirement System is used to fund the annuity portion of each Member's retirement allowance. Each such annuity may be taken as a lump sum at retirement and equals the actuarial equivalent of the member's accumulated contributions made to the Annuity Saving Fund (ASF). The actuarial accrued liability for this benefit for active members is set equal to their accumulated member contributions to the ASF. As of October 1, 2017, accumulated contributions to the ASF for all Members totaled \$125,780,203.82. Of this amount, accumulated active member contributions totaled \$63,487,464 and accumulated retiree contributions (including accumulated contributions for non-active, non-retired members) totaled \$62,292,740. The arithmetic average of the annual yields on the market value of assets for the period October 1, 2012 through September 30, 2017 is 8.46%. Therefore, accumulated member contribution and DROP accounts should be credited with interest at the rate of 8.46% for the 2017/2018 plan year.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees in order to discuss the Report and answer any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By: 
Bradley R. Heinrichs, FSA, EA, MAAA

By: 
Patrick T. Donlan, ASA, EA, MAAA

PLAN CHANGES SINCE PRIOR VALUATION

The following benefit reductions were made for the General Employees of the System effective December 1, 2017:

- 1.) **Fully Grandfathered** - For those Members eligible for Normal Retirement before December 1, 2017, the only change in benefits is that they will be required to make an additional 5.0% of Salary contribution to the retirement plan (this is separate from the contributions to the Annuity Savings Plan) beginning December 1, 2017. If the Member had already been contributing 4.0% of Salary, then their new Member Contribution Rate to the retirement plan will be 9.0% of Salary. If the Member had not been contributing to the retirement plan because they were eligible for Normal Retirement when the original retirement plan Member Contributions were enacted, then their new Member Contribution Rate to the retirement plan will be 5.0% of Salary.
- 2.) **Partially Grandfathered with at least 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have at least 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to December 1, 2017 and 2.0% for each year of Credited Service earned on and after that date, with a maximum benefit of 75% of Average Final Compensation.
- 3.) **Partially Grandfathered with less than 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have less than 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each of the first 20 years of Credited Service plus 2.0% for each year of Credited Service earned above 20 years, with a maximum benefit of 75% of Average Final Compensation.
- 4.) **Non-Grandfathered** – Those Members who, as of December 1, 2017, were not eligible for Normal Retirement, or had not completed at least 16 years of actual service with the City or had not attained 62 points, will have their Member Contribution Rate to the retirement plan increase effective December 1, 2017 from 4.0% to 9.0% of Salary and have the following benefit changes.
 - A.) All benefits accrued as of November 30, 2017 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before December 1, 2017 (Normal Retirement at 20 years of Credited Service with age plus service at least 70, Vested Retirement at 55 with 10 years of Credited Service, etc.). The frozen benefits will use Average Final Compensation and Credited Service determined as of November 30, 2017. The frozen benefits cannot commence until a Member terminates employment with the City. All Non-Grandfathered General Employees will be 100% vested in this frozen benefit. This means that the “frozen” benefit will be payable at the later of (1) age 55 with 10 years of service or (2) termination of employment with the City, with no reduction for partial vesting.
 - B.) Benefits earned on and after December 1, 2017 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before December 1, 2017, except as follows:
 - 1.) The benefit accrual rate for Credited Service earned on and after December 1, 2017 shall be 2.0% per year, with a maximum benefit of 75% of Average Final Compensation (AFC).

The 75% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after December 1, 2017. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated.

- 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 8 years of credited service; provided, in no event shall a Member's Average Final Compensation be less than the highest 3-year average as of December 1, 2017.
- 3.) The Normal Retirement Date shall be age 62 with 20 years of Credited Service. See the Actuarial Assumptions and Methods pages of this Report for the new assumed retirement rates for these employees.
- 4.) Compensation shall be base pay only. All other types of compensation shall be excluded for retirement purposes. To value for this provision we assumed that the pensionable compensation for each of these employees would be reduced by 6.1%.
- 5.) There shall be no Cost of Living Adjustments (COLA's) on benefits based on credited service earned on or after December 1, 2017.
- 6.) Members shall not be eligible to purchase additional Credited Service on or after December 1, 2017.
- 7.) Members shall become vested in the "future service" benefit upon reaching age 55 with 10 or more years of Credited Service. Once they reach age 55 the vesting percentage is 70% at 10 years of service plus 3% for each year between 10 and 20 years of service. However, a Member cannot begin to receive this deferred vested benefit until age 62. Members who do not attain age 55 with 10 years of Credited Service will receive a refund of their Member Contributions made to the retirement plan on and after December 1, 2017.
- 8.) Although not specifically outlined in the proposed ordinance, it is assumed that the Basic Pension will be considered as part of the "frozen" benefit so that it will receive the COLA's and will be paid at age 55 with 10 years of Credited Service with no reduction.

The impact of these changes on the funding requirements was outlined in our Actuarial Impact Statement dated November 28, 2017.

ACTUARIAL ASSUMPTION/METHOD CHANGES SINCE PRIOR VALUATION

As mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed from the rates used by the Florida Retirement System actuary in the July 1, 2015 actuarial valuation to the rates used in the July 1, 2016 actuarial valuation.

Additionally, as negotiated between the Board and the Division of Retirement, the payroll growth assumption utilized in amortizing the Unfunded Actuarial Accrued Liability was changed from 1.00% to 0.00% in this report.

Lastly, this year the Annuity Reserve Fund Balance is now included both in the Assets and Liabilities of the Plan. Last year, it was not included in either.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

Total Plan

	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
A. Participant Data			
Actives	848	848	939
Service Retirees	1,302	1,302	1,225
DROP Retirees	33	33	29
Beneficiaries	45	45	45
Disability Retirees	179	179	183
Terminated Vested	<u>205</u>	<u>205</u>	<u>145</u>
Total	2,612	2,612	2,566
Total Annual Payroll	\$53,745,085	\$53,745,085	\$58,296,965
Payroll Under Assumed Ret. Age	53,084,773	53,084,773	57,415,690
Annual Rate of Payments to:			
Service Retirees	52,124,662	52,124,662	48,383,714
DROP Retirees	2,409,968	2,409,968	2,069,322
Beneficiaries	1,095,810	1,095,810	980,470
Disability Retirees	5,270,205	5,270,205	5,304,680
Terminated Vested	1,818,474	1,818,474	1,302,014
B. Assets			
Actuarial Value (AVA) ¹	679,218,799	679,218,799	607,155,706
Market Value (MVA) ¹	679,986,360	679,986,360	591,081,423
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	199,568,882	199,568,882	219,511,947
Disability Benefits	12,566,220	12,566,220	13,184,134
Death Benefits	3,070,977	3,070,977	5,862,284
Vested Benefits	14,005,009	14,005,009	15,597,809
Refund of Contributions	1,304,255	1,304,255	1,164,797
Service Retirees	542,763,779	542,763,779	503,815,100
DROP Retirees ¹	33,902,473	33,902,473	29,303,172
Beneficiaries	7,139,929	7,139,929	6,722,064
Disability Retirees	43,263,750	43,263,750	44,302,227
Terminated Vested	10,276,341	10,276,341	7,219,318
Annuity Savings/Reserve	<u>125,780,204</u>	<u>125,780,204</u>	<u>71,684,033</u>
Total	993,641,819	993,641,819	918,366,885

Total Plan

C. Liabilities - (Continued)	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
Present Value of Future Salaries	402,008,012	402,008,012	420,930,999
Normal Cost (Retirement)	5,662,513	5,662,513	5,921,001
Normal Cost (Disability)	764,319	764,319	779,558
Normal Cost (Death)	116,449	116,449	224,145
Normal Cost (Vesting)	1,193,370	1,193,370	1,288,388
Normal Cost (Refunds)	<u>102,578</u>	<u>102,578</u>	<u>89,463</u>
Total Normal Cost	7,839,229	7,839,229	8,302,555
Present Value of Future Normal Costs	58,538,989	58,538,989	60,992,513
Accrued Liability (Retirement)	157,286,223	157,286,223	176,213,429
Accrued Liability (Disability)	6,873,568	6,873,568	7,448,397
Accrued Liability (Death)	2,204,435	2,204,435	4,199,985
Accrued Liability (Vesting)	5,366,441	5,366,441	5,889,699
Accrued Liability (Refunds)	245,687	245,687	576,948
Accrued Liability (Inactives) ¹	637,346,272	637,346,272	591,361,881
Annuity Savings	<u>125,780,204</u>	<u>125,780,204</u>	<u>71,684,033</u>
Total Actuarial Accrued Liability (AL)	935,102,830	935,102,830	857,374,372
Unfunded Actuarial Accrued Liability (UAAL)	255,884,031	255,884,031	250,218,666
Funded Ratio (AVA / AL)	72.6%	72.6%	70.8%

D. Actuarial Present Value of Accrued Benefits	Total Plan		
	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
Vested Accrued Benefits			
Inactives ¹	637,346,272	637,346,272	591,361,881
Actives	104,590,099	104,590,099	114,282,384
Member Contributions	<u>131,427,387</u>	<u>131,427,387</u>	<u>77,331,216</u>
Total	873,363,758	873,363,758	782,975,481
Non-vested Accrued Benefits	<u>32,879,344</u>	<u>32,879,344</u>	<u>36,292,313</u>
Total Present Value Accrued Benefits (PVAB)	906,243,102	906,243,102	819,267,794
Funded Ratio (MVA / PVAB)	75.0%	75.0%	72.1%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	0	0	
New Accrued Benefits	0	91,526,924	
Benefits Paid	0	(67,397,153)	
Interest	0	62,845,537	
Other	<u>0</u>	<u>0</u>	
Total	0	86,975,308	

Total Plan

	New Amort	Old Amort	
Valuation Date	10/1/2017	10/1/2017	10/1/2016
Applicable to Fiscal Year Ending	<u>9/30/2019</u>	<u>9/30/2019</u>	<u>9/30/2018</u>
E. Pension Cost			
Normal Cost ²	\$8,630,840	\$8,630,840	\$9,140,953
% of Total Annual Payroll	16.26	16.26	15.92
Administrative Expenses ²	0	0	0
% of Total Annual Payroll	0.00	0.00	0.00
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2017) ²	28,228,561	26,360,865	25,250,061
% of Total Annual Payroll	53.18	49.66	43.98
Total Required Contribution	36,859,401	34,991,705	34,391,014
% of Total Annual Payroll	69.44	65.92	59.90
Expected Member Contributions	3,269,276	3,269,276	3,255,633
% of Total Annual Payroll	6.16	6.16	5.67
Expected City and State Contribution	33,590,125	31,722,429	31,135,381
% of Total Annual Payroll	63.28	59.76	54.23

¹ The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2017 and 9/30/2016.

² Contributions developed as of 10/1/2015 and 10/1/2016 are adjusted for 15 months of interest.

Total Plan

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2017	255,884,031
2018	248,664,125
2019	240,866,629
2026	192,142,471
2033	108,388,740
2040	20,652,024
2047	0

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

General Employees

	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
A. Participant Data			
Actives	379	379	479
Service Retirees	830	830	767
DROP Retirees	0	0	0
Beneficiaries	29	29	30
Disability Retirees	58	58	62
Terminated Vested	<u>108</u>	<u>108</u>	<u>80</u>
Total	1,404	1,404	1,418
Total Annual Payroll	\$17,718,130	\$17,718,130	\$22,147,625
Payroll Under Assumed Ret. Age	17,405,099	17,405,099	21,635,356
Annual Rate of Payments to:			
Service Retirees	27,006,902	27,006,902	24,439,770
DROP Retirees	0	0	0
Beneficiaries	504,695	504,695	507,717
Disability Retirees	1,048,524	1,048,524	1,102,343
Terminated Vested	872,609	872,609	598,152
B. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	42,500,583	42,500,583	60,542,960
Disability Benefits	2,274,491	2,274,491	2,901,673
Death Benefits	566,788	566,788	1,176,492
Vested Benefits	4,899,994	4,899,994	6,209,045
Refund of Contributions	1,051,499	1,051,499	987,816
Service Retirees	277,737,150	277,737,150	249,301,363
DROP Retirees ¹	0	0	0
Beneficiaries	3,729,732	3,729,732	3,912,313
Disability Retirees	7,962,026	7,962,026	8,449,186
Terminated Vested	5,679,037	5,679,037	3,728,697
Annuity Savings	<u>44,215,187</u>	<u>44,215,187</u>	<u>25,198,901</u>
Total	390,616,487	390,616,487	362,408,446

General Employees

B. Liabilities - (Continued)	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
Present Value of Future Salaries	142,804,092	142,804,092	168,799,035
Normal Cost (Retirement)	1,174,761	1,174,761	1,539,847
Normal Cost (Disability)	114,374	114,374	143,048
Normal Cost (Death)	19,434	19,434	41,378
Normal Cost (Vesting)	685,576	685,576	778,935
Normal Cost (Refunds)	<u>44,116</u>	<u>44,116</u>	<u>45,004</u>
Total Normal Cost	2,038,261	2,038,261	2,548,212
Present Value of Future Normal Costs	14,589,860	14,589,860	17,935,287
Accrued Liability (Retirement)	34,293,890	34,293,890	50,071,196
Accrued Liability (Disability)	1,415,898	1,415,898	1,860,599
Accrued Liability (Death)	412,399	412,399	847,065
Accrued Liability (Vesting)	478,604	478,604	627,008
Accrued Liability (Refunds)	102,704	102,704	476,831
Accrued Liability (Inactives) ¹	295,107,945	295,107,945	265,391,559
Annuity Savings	<u>44,215,187</u>	<u>44,215,187</u>	<u>25,198,901</u>
Total Actuarial Accrued Liability (AL)	376,026,627	376,026,627	344,473,159

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS
Police Officers & Firefighters

	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
A. Participant Data			
Actives	469	469	460
Service Retirees	472	472	458
DROP Retirees	33	33	29
Beneficiaries	16	16	15
Disability Retirees	121	121	121
Terminated Vested	<u>97</u>	<u>97</u>	<u>65</u>
 Total	 1,208	 1,208	 1,148
 Total Annual Payroll	 \$36,026,954	 \$36,026,954	 \$36,149,340
Payroll Under Assumed Ret. Age	35,679,674	35,679,674	35,780,334
Annual Rate of Payments to:			
Service Retirees	25,117,761	25,117,761	23,943,944
DROP Retirees	2,409,968	2,409,968	2,069,322
Beneficiaries	591,115	591,115	472,753
Disability Retirees	4,221,682	4,221,682	4,202,337
Terminated Vested	945,866	945,866	703,862
B. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	157,068,299	157,068,299	158,968,987
Disability Benefits	10,291,728	10,291,728	10,282,461
Death Benefits	2,504,189	2,504,189	4,685,792
Vested Benefits	9,105,015	9,105,015	9,388,764
Refund of Contributions	252,756	252,756	176,981
Service Retirees	265,026,629	265,026,629	254,513,737
DROP Retirees ¹	33,902,473	33,902,473	29,303,172
Beneficiaries	3,410,197	3,410,197	2,809,751
Disability Retirees	35,301,725	35,301,725	35,853,041
Terminated Vested	4,597,303	4,597,303	3,490,621
Annuity Savings	<u>81,565,017</u>	<u>81,565,017</u>	<u>46,485,132</u>
 Total	 603,025,331	 603,025,331	 555,958,439

Police Officers & Firefighters

B. Liabilities - (Continued)	New Amort <u>10/1/2017</u>	Old Amort <u>10/1/2017</u>	<u>10/1/2016</u>
Present Value of Future Salaries	259,203,919	259,203,919	252,131,964
Normal Cost (Retirement)	4,487,753	4,487,753	4,381,154
Normal Cost (Disability)	649,945	649,945	636,510
Normal Cost (Death)	97,015	97,015	182,767
Normal Cost (Vesting)	507,794	507,794	509,453
Normal Cost (Refunds)	<u>58,462</u>	<u>58,462</u>	<u>44,459</u>
Total Normal Cost	5,800,969	5,800,969	5,754,343
Present Value of Future Normal Costs	43,949,129	43,949,129	43,057,226
Accrued Liability (Retirement)	122,992,333	122,992,333	126,142,233
Accrued Liability (Disability)	5,457,669	5,457,669	5,587,798
Accrued Liability (Death)	1,792,036	1,792,036	3,352,920
Accrued Liability (Vesting)	4,887,838	4,887,838	5,262,691
Accrued Liability (Refunds)	142,982	142,982	100,117
Accrued Liability (Inactives) ¹	342,238,327	342,238,327	325,970,322
Annuity Savings	<u>81,565,017</u>	<u>81,565,017</u>	<u>46,485,132</u>
Total Actuarial Accrued Liability (AL)	559,076,202	559,076,202	512,901,213

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was 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, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #17-6901

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman
Bureau of Local
Retirement Systems
Post Office Box 9000
Tallahassee, FL 32315-9000

Mr. Steve Bardin
Municipal Police and Fire
Pension Trust Funds
Division of Retirement
Post Office Box 3010
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2016	\$250,218,666
(2)	Expected UAAL as of October 1, 2017	245,467,271
(3)	Change to UAAL due to Actuarial (Gain)/Loss	10,416,760
(4)	Unfunded Actuarial Accrued Liability as of October 1, 2017	255,884,031

Type of Base	Date Established	Years Remaining	10/1/2017 Amount	New Amortization Amount	Old Amortization Amount
Experience Loss	10/1/1993	6	514,793	\$103,109	\$100,785
Experience Gain	10/1/1994	7	(276,117)	(49,106)	(47,798)
Experience Loss	10/1/1995	8	1,211,701	195,235	189,259
Experience Gain	10/1/1996	9	(1,656,289)	(245,498)	(237,040)
Experience Gain	10/1/1997	10	(7,539,077)	(1,040,319)	(1,000,610)
Experience Gain	10/1/1998	11	(14,921,097)	(1,935,271)	(1,854,442)
Experience Gain	10/1/1999	12	(3,998,058)	(491,224)	(469,001)
Experience Gain	10/1/2000	13	(13,617,068)	(1,595,237)	(1,517,711)
Experience Loss	10/1/2001	14	23,884,300	2,682,491	2,543,431
Experience Loss	10/1/2002	15	23,610,853	2,554,116	2,413,721
Experience Loss	10/1/2003	16	32,556,557	3,405,683	3,208,200
Experience Loss	10/1/2004	17	7,710,759	782,709	735,045
Experience Gain	10/1/2005	18	(2,866,922)	(283,247)	(265,204)
Experience Loss	10/1/2006	19	37,453,093	3,611,020	3,371,237
Experience Loss	10/1/2007	20	15,761,212	1,486,402	1,383,833
Experience Loss	10/1/2008	21	32,655,622	3,018,597	2,802,740
Experience Loss	10/1/2009	22	30,053,771	2,727,994	2,526,346
Experience Loss	10/1/2010	23	34,966,960	3,121,843	2,883,850
Experience Loss	10/1/2011	24	24,859,704	2,186,226	2,014,692
Experience Loss	10/1/2012	25	30,292,623	2,627,570	2,415,786
Assumption Change	10/1/1994	7	4,249,111	755,682	735,553
Assumption Change	10/1/2003	16	(8,640,443)	(903,861)	(851,450)
Assumption Change	10/1/2006	19	(8,069,061)	(777,974)	(726,314)
Assumption Change	10/1/2007	20	3,874,663	365,410	340,195
Assumption Change	10/1/2008	21	700,839	64,784	60,151
Assumption Change	10/1/2011	24	8,792,274	773,215	712,547
Assumption Change	10/1/2012	25	969,006	84,051	77,277
Plan Amendment	10/1/1990	3	4,146,041	1,489,632	1,475,587
Plan Amendment	10/1/1991	4	572,982	160,181	157,949
Plan Amendment	10/1/1992	5	10,137,344	2,350,892	2,307,866
Plan Amendment	10/1/2004	17	2,792,984	283,512	266,247
Method Change	10/1/2005	18	(27,282,447)	(2,695,458)	(2,523,754)

Type of Base	Date Established	Years Remaining	10/1/2017 Amount	New Amort Amortization Amount	Old Amort Amortization Amount
Method Change	10/1/2006	19	(20,074,860)	(1,935,507)	(1,806,983)
Plan Amendment	10/1/2012	25	3,646,502	316,296	290,802
Assumption Change	10/1/2013	26	1,003,499	85,954	78,850
Experience Loss	10/1/2013	26	6,275,046	537,487	493,061
Plan Amendment	10/1/2013	26	133,828	11,463	10,516
Assumption Change	10/1/2014	27	1,030,787	87,281	79,895
Experience Gain	10/1/2014	27	(8,330,796)	(705,403)	(645,707)
Assumption Change	10/1/2015	28	1,051,946	88,138	80,513
Experience Loss	10/1/2015	28	5,278,226	442,242	403,979
Assumption Change	10/1/2016	29	20,969,242	1,740,030	1,586,325
Benefit Change	10/1/2016	29	(15,067,003)	(1,250,262)	(1,139,820)
Actuarial Loss	10/1/2016	29	6,650,241	551,838	503,091
Actuarial Loss	10/1/2017	30	<u>10,416,760</u>	<u>856,754</u>	<u>779,582</u>
			255,884,031	25,639,470	23,943,077

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2016	\$250,218,666	
(2) Expected UAAL as of October 1, 2017	245,467,271	
(3) Summary of Actuarial (Gain)/Loss, by component:		Approximate Impact On Funding Requirements (Prior to Payroll Growth Change) (% of Payroll)
Investment Return (Actuarial Asset Basis) ¹	(1,979,721)	-0.31%
Active Decrements (excluding mortality) ²	9,777,959	1.52%
Mortality (active and inactive)	1,426,338	0.22%
Salary Increases	(2,284,797)	-0.35%
(Gain)/Loss on Member Contribution Accounts ³	2,440,750	0.38%
Update to Mortality Assumption	393,830	0.06%
Other	<u>1,036,231</u>	<u>0.16%</u>
Increase in UAAL due to (Gain)/Loss	10,416,760	1.68%
(4) Actual UAAL as of October 1, 2017	\$255,884,031	

¹ The actual return on the Market Value of Assets was 11.22% versus an expected 8.00%. This gain will be recognized over a 5 year period. The return on the Actuarial Value of Assets considers the gains and losses realized over the last 5 years. This return on the Actuarial Value of Assets was 8.31% and exceeded the 8.00% assumed rate.

² This loss is partially attributable to Members buying time to reach Normal Retirement as well as the fact that more Members retired earlier than expected during the past year.

³ Actual interest credited to employee contributions versus an assumed return of 8.00%.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2017

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash and Short Term Investments	27,182,010
 Total Cash and Equivalents	 27,182,010
Receivables:	
Contributions	730,428
Other Receivables	206,695
From Broker for Investments Sold	1,241,571
Investment Income	1,589,220
 Total Receivable	 3,767,914
Investments:	
U. S. Bonds and Bills	56,627,379
Federal Agency Guaranteed Securities	88,580,774
Corporate Bonds	98,939,861
Municipal Obligations	1,007,125
Stocks	350,674,116
Limited Partnerships	16,570,947
Mutual Funds	15,201,489
Real Estate Investment Trusts	15,141,941
 Total Investments	 642,743,632
 Loans to Members	 9,442,631
 Total Assets	 683,136,187
 <u>LIABILITIES</u>	
Payables:	
Accounts Payable and Accrued Expenses	141,461
To Broker for Investments Purchased	3,008,366
 Total Liabilities	 3,149,827
 NET POSITION RESTRICTED FOR PENSIONS	 679,986,360

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2017
Market Value Basis

ADDITIONS

Contributions:		
Member to Pension Reserve	2,152,895.00	
Buy-Back	2,569,143.00	
City	29,197,532.00	
Member to Annuity Savings	3,594,508.00	
State	461,877.00	
 Total Contributions		 37,975,955.00
Investment Income:		
Net Increase in Fair Value of Investments	56,675,012.00	
Interest & Dividends	14,485,064.00	
Less Investment Expense ¹	(1,082,410.00)	
 Net Investment Income		 70,077,666.00
 Revision in methodology to include Annuity Reserve Fund		 48,248,469.00
 Total Additions		 156,302,090.00
 <u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	56,611,939.00	
Lump Sum DROP Distributions	2,156,091.23	
Refunds of Member Contributions	8,629,123.00	
 Total Distributions		 67,397,153.23
 Administrative Expense		 0.00
 Total Deductions		 67,397,153.23
 Net Increase in Net Position		 88,904,936.77
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		591,081,423.00
End of the Year		679,986,359.77

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION
September 30, 2017

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/(Loss)	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2017	2018	2019	2020	2021
09/30/2013	25,240,867	0	0	0	0	0
09/30/2014	11,791,700	2,358,340	0	0	0	0
09/30/2015	(43,309,518)	(17,323,806)	(8,661,902)	0	0	0
09/30/2016	183,216	109,930	73,287	36,644	0	0
09/30/2017	19,528,871	15,623,097	11,717,323	7,811,549	3,905,775	0
Total		767,561	3,128,708	7,848,193	3,905,775	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including DROP and ARF, 09/30/2016	639,345,256
Contributions	37,975,955
Benefit Payments & Admin Expenses	(67,397,153)
Expected Investment Earnings ¹	50,548,795
Actual Net Investment Earnings	70,077,666
2017 Actuarial Investment Gain/(Loss)	<u>19,528,871</u>

¹ Expected Investment Earnings = $0.08 * 639,345,256 + (28,467,104 + 461,877) * ((1.08)^{.75} - 1) + (2,152,895 + 2,569,143 + 3,594,508) * ((1.08)^{.5} - 1) - 67,397,153 * ((1.08)^{.5} - 1)$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2017	679,986,360
(2) Gains/(Losses) Not Yet Recognized	767,561
(3) Actuarial Value of Assets, 09/30/2017, (1) - (2)	<u>679,218,799</u>
(A) 09/30/2016 Actuarial Assets, including DROP and ARF:	655,419,539
(I) Net Investment Income:	
1. Interest and Dividends	14,485,064
2. Change in Actuarial Value	39,833,168
3. Investment Expenses	(1,082,410)
Total	<u>53,235,822</u>
(B) 09/30/2017 Actuarial Assets, including DROP and ARF:	679,218,799
Actuarial Asset Rate of Return = $2I/(A+B-I)$:	8.31%
Market Value of Assets Rate of Return:	11.22%
10/01/2017 Limited Actuarial Assets:	679,218,799
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	1,979,721

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2017
 Actuarial Asset Basis

REVENUES

Contributions:		
Member to Pension Reserve	2,152,895.00	
Buy-Back	2,569,143.00	
City	29,197,532.00	
Member to Annuity Savings	3,594,508.00	
State	461,877.00	
 Total Contributions		 37,975,955.00
Earnings from Investments:		
Interest & Dividends	14,485,064.00	
Change in Actuarial Value	39,833,168.00	
 Total Earnings and Investment Gains		 54,318,232.00
 Revision in methodology to include Annuity Reserve Fund		 48,248,469.00
 EXPENDITURES		
Distributions to Members:		
Benefit Payments	56,611,939.00	
Lump Sum DROP Distributions	2,156,091.23	
Refunds of Member Contributions	8,629,123.00	
 Total Distributions		 67,397,153.23
Expenses:		
Investment related ¹	1,082,410.00	
Administrative	0.00	
 Total Expenses		 1,082,410.00
 Change in Net Assets for the Year		 72,063,092.77
 Net Assets Beginning of the Year		 607,155,706.00
 Net Assets End of the Year ²		 679,218,798.77

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

²Net Assets may be limited for actuarial consideration.

HISTORICAL ASSET INFORMATION

Plan Year Beg.	Market Value as of <u>October 1</u>	Actuarial Value as of <u>October 1</u>	Benefit Payments Including Refunds	Admin. Expenses	City and Member Contributions	Market Value Return	Actuarial Value Return	5-Yr Avg Market Value Return ¹
2002	402,138,764	452,978,637	34,633,468	0	13,166,091	14.92%	1.87%	5.88%
2003	439,086,771	439,793,566	38,269,509	0	15,762,562	10.26%	5.84%	5.44%
2004	460,467,837	442,293,992	37,862,782	0	20,143,384	9.54%	8.66%	4.70%
2005	485,852,494	462,096,761	39,774,335	0	21,394,652	7.39%	12.54%	7.39%
2006	502,694,862	500,501,443	42,212,123	0	20,361,974	11.97%	9.02%	10.82%
2007	539,707,290	522,796,029	46,565,110	0	24,238,313	-11.29%	5.01%	5.57%
2008	457,700,275	526,091,435	42,228,083	0	26,212,878	4.12%	4.22%	4.35%
2009	460,192,910	531,939,481	58,831,319	0	26,378,462	10.55%	4.14%	4.55%
2010	474,586,014	520,812,767	52,358,388	0	28,774,094	1.55%	2.85%	3.38%
2011	458,164,049	511,757,155	53,688,160	0	30,692,390	18.60%	3.69%	4.71%
2012	518,259,961	507,232,353	55,971,498	0	30,615,200	12.64%	8.80%	9.49%
2013 ²	608,462,135	575,310,893	63,299,504	0	32,602,743	9.89%	10.94%	10.65%
2014 ³	598,324,146	563,527,028	66,047,848	0	34,377,895	0.46%	8.66%	8.63%
2015 ³	569,997,557	578,960,969	61,753,388	0	33,700,984	8.08%	9.13%	9.93%
2016 ³	591,081,423	607,155,706	67,397,153	0	37,514,078	11.22%	8.31%	8.46%
2017 ²	679,986,360	679,218,799						

¹ Credited rate of return on accumulated member contributions and DROP accounts for ensuing plan year.

² 10/1/2013 and 10/1/2017 assets include DROP and ARF Reserves.

³ 10/1/2014, 10/1/2015 and 10/1/2016 assets include DROP, but not ARF Reserve.

**Age - Service - Salary Table
(All Active Members)**

Age	Credited Service									Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
< 25	25	13								38
Avg. Pay	\$45,233	\$45,795								\$45,425
25 - 29	17	30	11	3						61
Avg. Pay	\$46,060	\$45,883	\$54,370	\$64,007						\$48,354
30 - 34	8	26	32	51	2					119
Avg. Pay	\$47,085	\$48,514	\$51,824	\$64,902	\$77,986					\$56,827
35 - 39	1	10	14	69	32	1				127
Avg. Pay	\$44,564	\$44,908	\$52,514	\$68,047	\$65,208	\$117,117				\$63,999
40 - 44		2	10	54	61	25				152
Avg. Pay		\$41,216	\$47,330	\$66,442	\$74,411	\$72,192				\$68,997
45 - 49		3	16	63	36	31	1			150
Avg. Pay		\$27,703	\$39,371	\$64,887	\$72,748	\$93,645	\$110,864			\$69,558
50 - 54	3	5	7	32	21	19	3	1		91
Avg. Pay	\$25,610	\$30,037	\$31,022	\$57,419	\$60,392	\$86,188	\$101,615	\$88,127		\$61,322
55 - 59	1	7	7	26	16	10	3	1		71
Avg. Pay	\$27,066	\$34,055	\$47,352	\$49,711	\$58,409	\$80,524	\$88,586	\$100,915		\$56,279
60 - 64		2	5	8	6	1				22
Avg. Pay		\$21,751	\$31,681	\$54,407	\$56,390	\$140,213				\$50,714
65 - 69			3	6	1				2	12
Avg. Pay			\$17,340	\$46,104	\$63,271				\$73,737	\$44,949
70+		1	1	2	1					5
Avg. Pay		\$24,272	\$11,604	\$49,419	\$202,155					\$67,373
Total	55	99	106	314	176	87	7	2	2	848
	\$44,345	\$43,476	\$45,901	\$63,101	\$69,359	\$85,149	\$97,352	\$94,521	\$73,737	\$61,386

**ACTIVE DATA
(General Employees)**

Historical Average Age & Service

<u>Valuation Date</u>	<u>Average Service Earned</u>	<u>Average Attained Age</u>	<u>Valuation Date</u>	<u>Average Service Earned</u>	<u>Average Attained Age</u>
10/1/2004	8.6	43.2	10/1/2011	10.9	44.9
10/1/2005	9.0	43.9	10/1/2012	11.3	45.0
10/1/2006	9.9	44.6	10/1/2013	9.8	45.5
10/1/2007	10.1	45.0	10/1/2014	10.4	45.8
10/1/2008	10.3	45.6	10/1/2015	11.1	46.2
10/1/2009	10.8	45.6	10/1/2016	12.3	46.5
10/1/2010	10.6	45.0	10/1/2017	12.2	46.4

Historical Individual Salary Increases

<u>Valuation Date</u>	<u>Average Salary</u>	<u>Actual Salary Increase</u>	<u>Assumed Salary Increase</u>	<u>Valuation Date</u>	<u>Average Salary</u>	<u>Actual Salary Increase</u>	<u>Assumed Salary Increase</u>
10/1/2004	33,331	4.05%	N/A	10/1/2011	37,130	-8.53%	6.42%
10/1/2005	36,144	12.91%	N/A	10/1/2012	36,908	6.29%	6.39%
10/1/2006	34,069	6.19%	N/A	10/1/2013	40,260	11.74%	9.50%
10/1/2007	37,639	10.52%	N/A	10/1/2014	40,731	1.81%	0.00%
10/1/2008	40,044	8.37%	N/A	10/1/2015	42,488	5.51%	5.11%
10/1/2009	42,393	8.58%	N/A	10/1/2016	45,920	9.36%	5.11%
10/1/2010	42,405	3.43%	6.39%	10/1/2017	46,811	7.09%	5.17%

**Age - Service - Salary Table
(General Employees)**

Credited Service										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25		2								2
Avg. Pay		\$30,939								\$30,939
25 - 29	1	6	6	1						14
Avg. Pay	\$43,408	\$29,271	\$48,941	\$50,901						\$40,255
30 - 34	1	8	15	17						41
Avg. Pay	\$40,939	\$34,341	\$36,018	\$50,405						\$41,776
35 - 39		6	8	27	19					60
Avg. Pay		\$38,581	\$45,156	\$50,177	\$54,330					\$49,663
40 - 44		1	7	19	21	15				63
Avg. Pay		\$25,128	\$38,200	\$49,023	\$55,263	\$61,066				\$52,389
45 - 49		3	13	28	12	3				59
Avg. Pay		\$27,703	\$33,774	\$50,323	\$53,870	\$71,069				\$47,303
50 - 54	3	5	7	20	14	3				52
Avg. Pay	\$25,610	\$30,037	\$31,022	\$44,668	\$50,360	\$65,027				\$43,032
55 - 59	1	7	7	24	13	1				53
Avg. Pay	\$27,066	\$34,055	\$47,352	\$47,614	\$50,735	\$61,864				\$46,436
60 - 64		2	5	7	6					20
Avg. Pay		\$21,751	\$31,681	\$52,051	\$56,390					\$45,230
65 - 69			3	6	1					10
Avg. Pay			\$17,340	\$46,104	\$63,271					\$39,192
70+		1	1	2	1					5
Avg. Pay		\$24,272	\$11,604	\$49,419	\$202,155					\$67,373
Total	6	41	72	151	87	22				379
	\$31,374	\$31,910	\$37,115	\$48,867	\$55,260	\$63,007				\$46,811

ACTIVE DATA
(Police Officers & Firefighters)

Historical Average Age & Service

<u>Valuation Date</u>	<u>Average Service Earned</u>	<u>Average Attained Age</u>	<u>Valuation Date</u>	<u>Average Service Earned</u>	<u>Average Attained Age</u>
10/1/2004	10.2	37.0	10/1/2011	11.2	39.2
10/1/2005	10.0	36.7	10/1/2012	12.0	39.5
10/1/2006	10.3	37.7	10/1/2013	11.9	39.9
10/1/2007	9.8	37.3	10/1/2014	12.0	39.9
10/1/2008	10.6	38.3	10/1/2015	12.3	40.3
10/1/2009	11.0	38.8	10/1/2016	13.2	40.6
10/1/2010	11.2	39.1	10/1/2017	12.4	39.7

Historical Individual Salary Increases

<u>Valuation Date</u>	<u>Average Salary</u>	<u>Actual Salary Increase</u>	<u>Assumed Salary Increase</u>	<u>Valuation Date</u>	<u>Average Salary</u>	<u>Actual Salary Increase</u>	<u>Assumed Salary Increase</u>
10/1/2004	50,526	3.47%	N/A	10/1/2011	63,757	1.38%	7.64%
10/1/2005	52,680	11.42%	N/A	10/1/2012	69,104	2.36%	7.61%
10/1/2006	52,203	9.33%	N/A	10/1/2013	69,666	1.98%	0.00%
10/1/2007	54,530	11.26%	N/A	10/1/2014	69,589	2.25%	4.95%
10/1/2008	60,048	8.50%	N/A	10/1/2015	71,321	4.79%	5.15%
10/1/2009	62,564	7.09%	N/A	10/1/2016	74,958	6.46%	5.01%
10/1/2010	64,725	5.32%	7.60%	10/1/2017	73,164	2.70%	4.87%

**Age - Service - Salary Table
(Police Officers and Firefighters)**

Credited Service										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
< 25	25	11								36
Avg. Pay	\$45,233	\$48,496								\$46,230
25 - 29	16	24	5	2						47
Avg. Pay	\$46,226	\$50,036	\$60,886	\$70,560						\$50,767
30 - 34	7	18	17	34	2					78
Avg. Pay	\$47,962	\$54,812	\$65,772	\$72,150	\$77,986					\$64,738
35 - 39	1	4	6	42	13	1				67
Avg. Pay	\$44,564	\$54,397	\$62,326	\$79,535	\$81,106	\$117,117				\$76,837
40 - 44		1	3	35	40	10				89
Avg. Pay		\$57,304	\$68,634	\$75,898	\$84,464	\$88,880				\$80,753
45 - 49			3	35	24	28	1			91
Avg. Pay			\$63,626	\$76,538	\$82,187	\$96,064	\$110,864			\$83,987
50 - 54				12	7	16	3	1		39
Avg. Pay				\$78,670	\$80,456	\$90,156	\$101,615	\$88,127		\$85,710
55 - 59				2	3	9	3	1		18
Avg. Pay				\$74,864	\$91,659	\$82,597	\$88,586	\$100,915		\$85,264
60 - 64				1		1				2
Avg. Pay				\$70,898		\$140,213				\$105,555
65 - 69									2	2
Avg. Pay									\$73,737	\$73,737
70+										
Avg. Pay										
Total	49	58	34	163	89	65	7	2	2	469
	\$45,933	\$51,653	\$64,508	\$76,286	\$83,141	\$92,643	\$97,352	\$94,521	\$73,737	\$73,164

DATA RECONCILIATION
(Total Plan)

	<u>Active</u>	<u>Retired</u>	<u>DROP</u>	<u>Beneficiary</u>	<u>Vested</u>	<u>Disabled</u>	<u>Totals</u>
Prior Year	939	1,225	29	45	145	183	2,566
Active							
To Retiree	(89)	89					
To DROP Retiree	(11)		11				
To Vested	(31)				31		
To Death (No Benefits)	(1)						(1)
To Waiting for Refund	(20)				20		
Retiree							
To DROP Retiree		(3)	3				
To Beneficiary		(5)		5			
To Vested		(1)			1		
To Death (No Benefits)		(14)					(14)
DROP Retiree							
To Retiree		10	(10)				
Beneficiary							
To Death (No Benefits)				(4)			(4)
Expiring Certain Period				(1)			(1)
Vested							
To Retiree		1			(1)		
Disabled Retiree							
To Death (No Benefits)						(4)	(4)
Additions	61				9		70
Departures							
Current Year	848	1,302	33	45	205	179	2,612

DATA RECONCILIATION
(General Employees)

	<u>Active</u>	<u>Retiree</u>	<u>DROP</u>	<u>Beneficiary</u>	<u>Vested</u>	<u>Disabled</u>	<u>Totals</u>
Prior Year	479	767	0	30	80	62	1,418
Active							
To Retiree	(77)	77					
To Vested	(19)				19		
To Death (No Benefits)	(1)						(1)
To Waiting for Refund	(10)				10		
Retiree							
To Beneficiary		(2)		2			
To Death (No Benefits)		(13)					(13)
Beneficiary							
To Death (No Benefits)				(3)			(3)
Vested							
To Retiree		1			(1)		
Disabled Retiree							
To Death (No Benefits)						(4)	(4)
Additions	7						7
Departures							
Current Year	379	830	0	29	108	58	1,404

DATA RECONCILIATION
(Police Officers & Firefighters)

	<u>Active</u>	<u>Retired</u>	<u>DROP</u>	<u>Beneficiary</u>	<u>Vested</u>	<u>Disabled</u>	<u>Totals</u>
Prior Year	460	458	29	15	65	121	1,148
Active							
To Retiree	(12)	12					
To DROP Retiree	(11)		11				
To Vested	(12)				12		
To Waiting for Refund	(10)				10		
Retiree							
To DROP Retiree		(3)	3				
To Beneficiary		(3)		3			
To Vested		(1)			1		
To Death (No Benefits)		(1)					(1)
DROP Retiree							
To Retiree		10	(10)				
Beneficiary							
To Death (No Benefits)				(1)			(1)
Expiring Certain Period				(1)			(1)
Additions	54				9		63
Departures							
Current Year	469	472	33	16	97	121	1,208

ACTUARIAL ASSUMPTIONS AND METHODS

1. Actuarial Cost Method

The entry age normal cost method was used to determine all liabilities, except that the liability associated with member contributions has been assumed to be equal to those contributions.

Prior to October 1, 1998, fiscal year City contributions made in excess of required valuation year contributions were credited to the temporary funding credit.

Beginning October 1, 1998, fiscal year contributions made in excess of required valuation year contributions are included in the experience gain or loss for the year. Experience gains and losses are amortized over a 15-year period.

Beginning October 1, 2007, the method of amortizing experience gains and losses of the System was changed from a 15-year to a 30-year level dollar method. The amortization amounts for outstanding gain and loss bases as of October 1, 2007 were recalculated to extend the amortization period an additional 15 years (for a total of 30 years).

Beginning October 1, 2008, the method of amortizing all outstanding unfunded liability bases was changed from a level dollar method to an increasing amortization based on a level percent of payroll. The aggregate payroll is assumed to increase at 4.00% per year, limited to average payroll growth for the previous 10 years.

Beginning October 1, 2011, the method of amortizing all outstanding unfunded liability bases was changed to an increasing amortization based on a level percent of payroll where the aggregate payroll is assumed to increase at 3.50% per year.

Beginning October 1, 2015, the method of amortizing all outstanding unfunded liability bases was changed to an increasing amortization based on a level percent of payroll where the aggregate payroll is assumed to increase at 2.00% per year.

Beginning October 1, 2016, the method of amortizing all outstanding unfunded liability bases was changed to an increasing amortization based on a level percent of payroll where the aggregate payroll is assumed to increase at 1.00% per year.

Beginning October 1, 2017, the method of amortizing all outstanding unfunded liability bases was changed to be a level dollar amount (0.0% increases).

2. Decrements

- **Mortality**

Police Officers and Firefighters

Healthy Active Lives:

Female: RP2000 Generational, 100% Combined Healthy (previously Annuitant) White Collar, Scale BB

Male: RP2000 Generational, 10% Combined Healthy (previously Annuitant) White Collar / 90%

Combined Healthy (previously Annuitant) Blue Collar, Scale BB

Healthy Inactive Lives:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB

Male: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB

Disabled Lives:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale

General Employees

Healthy Active Lives:

Female: RP2000 Generational, 100% White Collar, Scale BB

Male: RP2000 Generational, 50% White Collar / 50% Blue Collar, Scale BB

Healthy Inactive Lives:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB

Disabled Lives:

Female: 100% RP2000 Disabled Female set forward two years

Male: 100% RP2000 Disabled Male setback four years

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman’s July 1, 2016 FRS valuation report. Previously the rates from the July 1, 2015 FRS valuation report were utilized. We feel these assumptions sufficiently accommodate future mortality improvements.

- Disability (General Employees)**

Representative values of the assumed annual rates of disability among General employee members in active service are set forth in the following table:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
20	0.024%	35	0.104%	50	0.360%	65	0.784%
25	0.040%	40	0.152%	55	0.608%	70	0.688%
30	0.056%	45	0.224%	60	0.880%	75	0.592%

- Disability (Police Officers and Firefighters)**

85% of all disabilities are assumed to be in the line of duty and 15% are assumed not to be in the line of duty. Representative values of the assumed annual rates of disability among Police Officer and Firefighter members in active service are set forth in the following table:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
20	0.096%	35	0.248%	50	0.896%	65	2.192%
25	0.120%	40	0.384%	55	1.328%	70	2.624%
30	0.152%	45	0.584%	60	1.760%	75	3.056%

- **Permanent Withdrawal from Active Status (used for members with less than six years of service)**

Representative values of the assumed annual rates of withdrawal among members in active service who have less than six years of service are set forth in the following tables:

General Employees

Years of Service	Rate
0	12.5%
1	12.5%
2	7.5%
3	7.5%
4	7.5%
5	7.5%

Police Officers

Years of Service	Rate
0	12.0%
1	12.0%
2	9.0%
3	7.5%
4	6.0%
5	5.0%

Firefighters

Years of Service	Rate
0	12.5%
1	9.5%
2	5.0%
3	4.0%
4	3.0%
5	2.5%

- **Permanent Withdrawal from Active Status (used for members with at least six years of service)**

Representative values of the assumed annual rates of withdrawal among members in active service who have at least six years of service are set forth in the following tables:

General Employees

Age	Rate
25	5.0%
30	5.0%
35	5.0%
40	5.0%
45	5.0%
50	5.0%
55	3.0%
60	2.0%

Police Officers

Age	Rate
25	5.0%
30	4.5%
35	4.0%
40	4.0%
45	4.0%
50	1.0%
55	1.0%
60	1.0%

Firefighters

Age	Rate
25	2.0%
30	2.0%
35	2.0%
40	2.0%
45	2.0%
50	1.0%
55	1.0%
60	1.0%

- **Retirement (General Employees who's retirement date was not affected by the December 1, 2017 changes)**

Representative values of the assumed annual rates of retirement among eligible General Employee members are shown in the tables below:

a) General Employees with less than 25 years of eligible service:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
45	0%	52	5%	59	15%	66	25%
46	0%	53	5%	60	15%	67	35%
47	0%	54	5%	61	5%	68	45%
48	0%	55	15%	62	15%	69	85%
49	0%	56	15%	63	5%	70	100%
50	10%	57	15%	64	5%		
51	5%	58	15%	65	75%		

b) General Employees with 25 years of eligible service:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
45	0%	52	30%	59	40%	66	50%
46	0%	53	30%	60	40%	67	60%
47	0%	54	30%	61	40%	68	70%
48	0%	55	40%	62	50%	69	80%
49	0%	56	40%	63	30%	70	100%
50	50%	57	40%	64	30%		
51	30%	58	40%	65	80%		

c) General Employees with more than 25 years of eligible service:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
45	0%	52	10%	59	20%	66	30%
46	0%	53	10%	60	20%	67	40%
47	0%	54	10%	61	10%	68	50%
48	0%	55	20%	62	20%	69	90%
49	0%	56	20%	63	10%	70	100%
50	15%	57	20%	64	10%		
51	10%	58	20%	65	80%		

- Retirement (General Employees who's retirement date was affected by the December 1, 2017 changes)**

Representative values of the assumed annual rates of retirement among eligible General Employee members are shown in the tables below:

<u>Age</u>	<u>Years of Service</u>				
	<u>Less than 20 Years</u>	<u>20 Years</u>	<u>21 - 24 Years</u>	<u>25 Years</u>	<u>More than 25 Years</u>
<50	0%	0%	0%	0%	0%
50-54	0%	5%	5%	5%	5%
55-61	10%	10%	10%	10%	10%
62	15%	50%	50%	50%	50%
63-64	5%	50%	5%	30%	10%
65	75%	75%	75%	80%	80%
66	25%	25%	25%	50%	30%
67	35%	35%	35%	60%	40%
68	45%	45%	45%	70%	50%
69	85%	85%	85%	80%	90%
70+	100%	100%	100%	100%	100%

- Retirement (Police Officers and Firefighters)**

Representative values of the assumed annual rates of retirement among eligible Police Officer and Firefighter members are shown in the table below:

Service	Age < 65		Age ≥ 65
	Police Officers	Firefighters	
<15	0%	0%	100%
15-19	5%	2.5%	100%
20	25%	20%	100%
21-24	10%	10%	100%
25	50%	40%	100%
26	30%	30%	100%
27	40%	40%	100%
28	50%	45%	100%
29	60%	50%	100%
30+	100%	100%	100%

3. Interest Rates

8.00% per annum net of investment related expenses.

4a. Salary Increases (General Employees)

Representative values of the assumed annual rates of increase in salaries for General employees are shown in the table below:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
20	9.0%	35	6.0%	50	4.0%	65	4.0%
25	8.0%	40	5.0%	55	4.0%	70	4.0%
30	7.0%	45	4.5%	60	4.0%	75	4.0%

4b. Salary Increases (Police Officers and Firefighters)

Representative values of the assumed annual rates of increase in salaries for Police Officers and Firefighters are shown in the table below:

Service	Police Officers	Firefighters
0	9.0%	9.0%
1	8.5%	8.5%
2	8.0%	8.0%
3	7.5%	7.5%
4	7.0%	7.0%
5	6.5%	6.5%
6 – 9	6.0%	6.0%
10	6.0%	5.0%
11	5.0%	4.5%
12 – 22	4.0%	4.0%
23+	4.0%	3.0%

5. Expenses

Annual administrative expenses, exclusive of investment expenses and commissions, are assumed to be payable by the City outside of the pension trust. In addition, the interest rate set forth in item 3 above is assumed to be net of investment expenses and commissions.

6. Assets

The actuarial value of assets (AVA) is equal to the market value of assets adjusted to reflect a five year phase-in of the difference between the expected versus actual return on the AVA. The AVA is limited to an 80%-120% corridor of the market value of assets.

7. Funding Period (Pursuant to Chapter 112, Florida Statutes)

The annual payment towards the unfunded actuarial accrued liability has been determined as a level dollar amount (previously as a level percent of payroll with a 1.00% increase assumption).

8. Refund of ASF Member Contributions

It is assumed that all members take a refund of their accumulated ASF employee contributions upon retiring from the System.

*** Please note that we (Foster & Foster, Inc.) are using the assumptions adopted by the Board as guided by the prior actuary and don't have the necessary data to assess the reasonableness of the assumptions.**

SUMMARY OF PLAN PROVISIONS

Section 1 – Traditional Benefits that apply to certain longer service Members (Please see the exceptions in Section 2)

1. Retirement Allowance

The Member's Retirement Allowance is equal to the sum of the following:

- (1) An Annuity, which is the actuarial equivalent of his Accumulated Member Contributions;
- (2) A Basic Pension, which is equal to \$1,800 (for those Members who have attained their Normal Retirement Age) or \$2,800 (for all other Members); and
- (3) A Service Pension, which is equal to 3.00% of Final Average Compensation multiplied by service up to 25 years (for those Members who have at least 20 years of service and whose age plus service equals at least 70) or 2.00% of Final Average Compensation multiplied by service up to 30 years (for all other Members).
- (4) An additional benefit equal to 1.50% of Average Final Compensation for each year of Credited Service that exceeds 25 years, up to a maximum additional benefit of 4.50% of Average Final Compensation. It is assumed that this benefit applies only to Normal Retirees (full benefits) and not to Vested or Deferred Retirees who get the 2.00% benefit accrual rate up to 30 years of service.

2. Normal Retirement Age and Allowance

- **Age**
 - Age 50 upon attainment of 10 years of service or any age upon attainment of 20 years of service (for those Members hired prior to January 27, 1970);
 - Age 55 upon attainment of 15 years of service or any age upon attainment of 20 years of service (for those Members hired after January 26, 1970 but prior to January 1, 1974);
 - or
 - Any age with age plus service equal to at least 70 and with at least 20 years of service (for all other Members)
- **Amount**
 - Retirement Allowance
- **Form of Payment (applicable to the Annuity only)**
 - Life annuity (normal form of payment); or
 - Lump sum payment equal to Accumulated Member Contributions (optional).
- **Form of Payment (applicable to the Basic and Service Pensions only)**
 - Five-year certain and life annuity for General employees, and ten-year certain and life annuity for Firefighters and Police Officers (normal form of payment);
 - Normal form of payment actuarially adjusted to benefit payable during lifetime of member only (optional) (does not apply to General employees);

 - Normal form of payment actuarially reduced to 50% joint and survivor annuity with the reduced benefit payable upon the death of either the Member or his beneficiary (optional);
 - Normal form of payment actuarially reduced to 66 2/3% joint and survivor annuity (optional);
 - Normal form of payment actuarially reduced to 75% joint and survivor annuity (optional) (does not apply to General employees);
 - Normal form of payment actuarially reduced 100% joint and survivor annuity (optional);
 - Normal form of payment actuarially reduced 100% joint and survivor annuity with spouse as

beneficiary and with a “pop-up” feature. A “pop-up” benefit increases to the amount of the unreduced pension upon the death of the beneficiary (optional).

3. Early Retirement Eligibility and Allowance

- **Age**
Age 55 with at least 10 years of service for General employees, and age 50 with at least 10 years of service for Firefighters and Police Officers.
- **Amount**
100% of the Member’s Annuity. In addition, for General employees, the member’s Basic and Service Pensions multiplied by his Vested Interest, payable at age 55. Firefighters and Police Officers can commence their early retirement benefit at age 50 with a 3.00% per year reduction from normal retirement.
- **Form of Payment**
Same as for Normal Retirement

4. Disability Retirement Eligibility and Allowance

- **Condition**
The Member must be totally and permanently incapacitated for duty in his classified position as an employee of the City, as determined by both the Board of Trustees and by a medical committee consisting of one doctor appointed by the Board of Trustees and one doctor selected by the Member.
- **Amount**
The Member’s accrued Retirement Allowance and, for Firefighters and Police Officers, subject to a minimum of:
25% of Average Final Compensation, for non-duty disability, after 10 years of service,
and
42% of Average Final Compensation, for duty related disability, with no service requirement.
- **Form of Payment**
Same as for Normal Retirement

5. Deferred Retirement (Vested) Eligibility and Allowance

- **Age**
Any age with at least 10 years of service.
- **Amount**
100% of the Member’s Annuity. In addition, for General employees, the member’s Basic and Service Pensions multiplied by his Vested Interest, payable at age 55. Firefighters and Police Officers can commence their vested benefit at age 50 with a 3.00% per year reduction from normal retirement.
- **Form of Payment**
Same as for Normal Retirement

6. Pre-Retirement Death Benefit

In the case of the death of a General employee Member prior to retirement, his beneficiary will receive a five-year certain annuity determined as if the Member had retired on the day before his death and elected a five-year certain and life annuity. In lieu of this five-year certain annuity, the beneficiary of the General employee may elect to receive ½ of the same amount payable over a ten-year period. For Firefighters and Police Officers, the Member's vested accrued benefit deferred to early (reduced) or normal retirement and payable for a minimum of 10 years. Alternatively, if the Member had attained his Normal or Early Retirement Age and had elected an optional form of payment, then his spouse will receive benefits as dictated by the option elected.

7. Vested Interest

A General employee member earns a Vested Interest in his Basic and Service Pensions in accordance with the following schedule. Firefighters and Police Officer Members earn a 100% Vested Interest with 10 years of service.

Years of Service	Vested Interest
Less than 10	0%
10	70%
11	73%
12	76%
13	79%
14	82%
15	85%
16	88%
17	91%
18	94%
19	97%
20 or more	100%

8. Average Final Compensation

Average compensation for the highest three years of service (not necessarily consecutive), where compensation includes base salary plus any longevity or special assignment pay and any pay received in connection with Florida's law enforcement special incentive program or Firefighters supplemental compensation program.

9. Membership Requirements

All classified employees of the City of Hialeah, Florida participate in the plan, including: (1) all full-time employees (except as provided by law), and (2) those part-time employees working 22½ hours or more per week who elect to participate after one year of continuous employment. Membership does not include any person whose services are compensated on a fee or contractual basis, the Board of Trustees' medical committee, elected or appointed officials who are not in classified service, and persons employed on a temporary or provisional basis for less than nine months.

Effective April 1, 2012, the Plan is closed to new general employee members hired on or after April 1, 2012. New general employees will instead participate in a defined contribution plan.

10. Accumulated Member Contributions

The Accumulated Member Contributions are the Member's Contributions accumulated with interest at the annual rates established by the Board of Trustees. Prior to the 1995/1996 plan year, interest was credited at the annual yield on the actuarial value of assets. Beginning with the 1995/1996 plan year, interest will be credited at the arithmetic average of the annual yields on the market value of assets for the preceding five years. Interest is credited each September 30 on the balance of the Accumulated Member Contributions as of the preceding October 1 as well as on additional Member Contributions made during the plan year. Members may borrow against their Accumulated Member Contributions as of the preceding October 1, subject to the restrictions set forth in the law.

11. Member Contributions

1.) All members must contribute 7.00% of compensation per year into the Annuity Savings Fund (with the exception that they may redirect some of these contributions to satisfy the additional requirements that follow).

2.) All members who were not eligible for Normal Retirement on the date the ordinance took effect will also be required to make the following additional contribution towards the pension portion of the Plan (to help offset the City's funding requirements)

a. Non-Police Officers and Firefighters:

5.00% of pensionable compensation from May 15, 2014 to September 30, 2014.

4.00% of pensionable compensation from October 1, 2014 forward, except that:

This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.

This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

b. Firefighters:

5.00% of pensionable compensation from October 1, 2013 to September 30, 2014

(4.00% of pensionable compensation if hired on or after November 15, 2013).

4.00% of pensionable compensation from October 1, 2014 forward, except that:

This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.

This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

c. Police Officers:

- 5.00% of pensionable compensation from March 2, 2014 to September 30, 2014 (4.00% of pensionable compensation if hired on or after March 2, 2014).
- 4.00% of pensionable compensation from October 1, 2014 forward, except that:
 - This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.
 - This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

If a Police Officer or Firefighter terminates employment before they are vested, then they will receive a refund of these additional contributions. Non-Police Officers and Firefighters will not receive a refund of these contributions.

12. Share Plans Contributions

Effective with the year beginning October 1, 2005, the Firefighters' and Police Officers' share plans will make contributions to fund the cost of the minimum benefits under Chapter 99-1, Florida Statutes.

13. Cost-of-Living Adjustment

Members (including participants in the DROP and excluding beneficiaries and those Members who are receiving a Deferred Retirement Allowance) receive an automatic level 2.00% cost-of-living adjustment in their Basic and Service Pensions as of each anniversary of retirement or the first of the month following their 52nd birthday and limited to 10 such increases (for a total increase of 20%).

14. Deferred Retirement Option Program

Effective March 1, 2007 for Police Officers and Firefighters and February 19, 2008 for General employees, members are eligible to participate in a Deferred Retirement Option Program (DROP) upon the completion of 25 years of membership service credit provided that the sum of the member's age and service is equal to at least 70. The member's monthly retirement benefit (basic plus service pension), based on final average earnings and service upon entering the DROP, will be paid to the member's DROP account. At the end of each fiscal year, interest will be credited to the DROP account at the same rate credited to the annuity savings account.

Member contributions cease upon entering the DROP and the member shall be ineligible for disability benefits provided by the System. Upon termination of employment or death, the DROP account balance will be paid in a cash lump sum. The maximum period of participation in the DROP is 36 months and members cannot buy service in order to be eligible for the DROP.

General employees who are members of the retirement system are prohibited from entering the DROP on or after April 2, 2012.

15. Plan Effective Date

The Plan was initially effective on January 1, 1956.

16. Actuarial Equivalence

For purposes of computing optional forms of benefit payments and for purposes of computing any adjustments called for under the terms of the Plan, when such interest rate and mortality assumptions are not otherwise provided:

<u>Interest Rate Assumption:</u>	The interest Rate assumption currently adopted by the Board is 7.00%.
<u>Mortality Assumption:</u>	The mortality factors or table currently adopted by the Board is the male rates from 1971 Group Annuity Mortality Table for participants and the female rates from the 1971 Group Annuity Mortality Table for beneficiaries.

17. City Contribution Policy

The City contributes to the Retirement System in accordance with the requirements of Part VII, Chapter 112 of the Florida Statutes. Effective August 25, 2009, the City implemented a contribution floor such that the City's contribution to the Retirement System will be at least 22% of the member payroll. The City may increase or decrease the floor by up to 2.00% of member payroll once every five years, if supported by an actuarial study. The floor shall not be less than 16% or more than 28% of member payroll.

Section 2 – Updated Benefits that apply to certain shorter service Members

(Benefits are the same as Section 1 except as noted)

For Police Officers hired on or after March 14, 2014, the Basic Pension is eliminated and the Service Pension minimum Age plus Service is changed from 70 points to 76 points to receive the Normal (full) Retirement Benefit and DROP eligibility. Additionally, the Vested or Deferred Benefits payable for these Members is payable at age 59 ½. Lastly, the automatic Cost of Living Adjustments for these Members is reduced from 2.00% per year to 1.00% per year.

For Firefighters hired on or after November 15, 2013, the Basic Pension is eliminated and the Service Pension minimum Age plus Service is changed from 70 points to 76 points to receive the Normal (full) Retirement Benefit and DROP eligibility. Additionally, the Vested or Deferred Benefits payable for these Members is payable at age 59 ½. Lastly, the automatic Cost of Living Adjustments for these Members is reduced from 2.00% per year to 1.00% per year.

The following benefit reductions were made for the General Employees of the System effective December 1, 2017:

- 1.) **Fully Grandfathered** - For those Members eligible for Normal Retirement before December 1, 2017, the only change in benefits is that they will be required to make an additional 5.0% of Salary contribution to the retirement plan (this is separate from the contributions to the Annuity Savings Plan) beginning December 1, 2017. If the Member had already been contributing 4.0% of Salary, then their new Member Contribution Rate to the retirement plan will be 9.0% of Salary. If the Member had not been contributing to the retirement plan because they were eligible for Normal Retirement when the original retirement plan Member Contributions were enacted, then their new Member Contribution Rate to the retirement plan will be 5.0% of Salary.

- 2.) **Partially Grandfathered with at least 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have at least 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to December 1, 2017 and 2.0% for each year of Credited Service earned on and after that date, with a maximum benefit of 75% of Average Final Compensation.

- 3.) **Partially Grandfathered with less than 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have less than 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each of the first 20 years of Credited Service plus 2.0% for each year of Credited Service earned above 20 years, with a maximum benefit of 75% of Average Final Compensation.

- 4.) **Non-Grandfathered** – Those Members who, as of December 1, 2017, were not eligible for Normal Retirement, or had not completed at least 16 years of actual service with the City or had not attained 62 points, will have their Member Contribution Rate to the retirement plan increase effective December 1, 2017 from 4.0% to 9.0% of Salary and have the following benefit changes.
 - A.) All benefits accrued as of November 30, 2017 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before December 1, 2017 (Normal Retirement at 20 years of Credited Service with age plus service at least 70, Vested Retirement at 55 with 10 years of Credited Service, etc.). The frozen benefits will use Average Final Compensation and Credited Service determined as of November 30, 2017. The frozen benefits cannot commence until a Member terminates employment with the City. All Non-Grandfathered General Employees will be 100% vested in this frozen benefit. This means that the “frozen” benefit will be payable at the later of (1) age 55 with 10 years of service or (2) termination of employment with the City, with no reduction for partial vesting.

 - B.) Benefits earned on and after December 1, 2017 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before December 1, 2017, except as follows:
 - 1.) The benefit accrual rate for Credited Service earned on and after December 1, 2017 shall be 2.0% per year, with a maximum benefit of 75% of Average Final Compensation (AFC). The 75% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after December 1, 2017. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated.

 - 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 8 years of credited service; provided, in no event shall a Member’s Average Final Compensation be less than the highest 3-year average as of December 1, 2017.

 - 3.) The Normal Retirement Date shall be age 62 with 20 years of Credited Service. See the Actuarial Assumptions and Methods pages of this Report for the new assumed retirement rates for these employees.

 - 4.) Compensation shall be base pay only. All other types of compensation shall be excluded

for retirement purposes. To value for this provision we assumed that the pensionable compensation for each of these employees would be reduced by 6.1%.

- 5.) There shall be no Cost of Living Adjustments (COLA's) on benefits based on credited service earned on or after December 1, 2017.
- 6.) Members shall not be eligible to purchase additional Credited Service on or after December 1, 2017.
- 7.) Members shall become vested in the "future service" benefit upon reaching age 55 with 10 or more years of Credited Service. Once they reach age 55 the vesting percentage is 70% at 10 years of service plus 3% for each year between 10 and 20 years of service. However, a Member cannot begin to receive this deferred vested benefit until age 62. Members who do not attain age 55 with 10 years of Credited Service will receive a refund of their Member Contributions made to the retirement plan on and after December 1, 2017.
- 8.) Although not specifically outlined in the proposed ordinance, it is assumed that the Basic Pension will be considered as part of the "frozen" benefit so that it will receive the COLA's and will be paid at age 55 with 10 years of Credited Service with no reduction.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2017

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash and Short Term Investments	27,182,010
Total Cash and Equivalents	27,182,010
Receivables:	
Contributions	730,428
Other Receivables	206,695
From Broker for Investments Sold	1,241,571
Investment Income	1,589,220
Total Receivable	3,767,914
Investments:	
U. S. Bonds and Bills	56,627,379
Federal Agency Guaranteed Securities	88,580,774
Corporate Bonds	98,939,861
Municipal Obligations	1,007,125
Stocks	350,674,116
Limited Partnerships	16,570,947
Mutual Funds	15,201,489
Pooled/Common/Commingled Funds:	
Real Estate Investment Trusts	15,141,941
Total Investments	642,743,632
Loans to Members	9,442,631
Total Assets	683,136,187
<u>LIABILITIES</u>	
Payables:	
Accounts Payable and Accrued Expenses	141,461
To Broker for Investments Purchased	3,008,366
Total Liabilities	3,149,827
NET POSITION RESTRICTED FOR PENSIONS	679,986,360

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2017
Market Value Basis

ADDITIONS

Contributions:

Member to Pension Reserve	2,152,895	
Buy-Back	2,569,143	
City	29,197,532	
Member to Annuity Savings	3,594,508	
State	461,877	
 Total Contributions		 37,975,955
 Investment Income:		
Net Increase in Fair Value of Investments	56,675,012	
Interest & Dividends	14,485,064	
Less Investment Expense ¹	(1,082,410)	
 Net Investment Income		 70,077,666
 Revision in methodology to include Annuity Reserve Fund		 48,248,469
 Total Additions		 156,302,090

DEDUCTIONS

Distributions to Members:

Benefit Payments	56,611,939	
Lump Sum DROP Distributions	2,156,091	
Refunds of Member Contributions	8,629,123	
 Total Distributions		 67,397,153
 Administrative Expense		 0
 Total Deductions		 67,397,153
 Net Increase in Net Position		 88,904,937
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		591,081,423
 End of the Year		 679,986,360

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2017)

Plan Description

Plan Administration

There is created a Board of Trustees in whom is vested the general administration, management and responsibility for the proper operation of the retirement system. The Board of Trustees shall consist of seven trustees appointed and elected in the following manner:

- (1) One trustee shall be appointed by the mayor. This trustee shall be an elector of the city.
- (2) One trustee shall be appointed by the city council. This trustee shall be an elector of the city.
- (3) Four trustees shall be appointed, one from each group; management, AFSCME Local, IAFF Local, and PBA. The appointee must be an active member of the retirement system or of the deferred retirement option program (DROP). Term of office for each trustee so elected shall be for a two-year period, and the trustee shall be voted into office and elected as determined by each group.
- (4) The seventh trustee shall be elected from the membership by majority vote by the trustees appointed pursuant to subsections (a)(1) through (3) of this section as soon as practicable after their appointment. This appointee shall be an elector of the city. The trustee so appointed shall serve for two years.

All classified employees of the City of Hialeah, Florida participate in the plan, including: (1) all full-time employees (except as provided by law), and (2) those part-time employees working 22½ hours or more per week who elect to participate after one year of continuous employment.

Membership does not include any person whose services are compensated on a fee or contractual basis, the Board of Trustees' medical committee, elected or appointed officials who are not in classified service, and persons employed on a temporary or provisional basis for less than nine months.

Effective April 1, 2012, the Plan is closed to new general employee members hired on or after April 1, 2012. New general employees will instead participate in a defined contribution plan.

Plan Membership as of October 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,482
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	145
Active Plan Members	939
	2,566

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

**Section 1 – Traditional Benefits that apply to certain longer service Members
(Please see the exceptions in Section 2)**

1. Retirement Allowance

The Member’s Retirement Allowance is equal to the sum of the following:

- (1) An Annuity, which is the actuarial equivalent of his Accumulated Member Contributions;
- (2) A Basic Pension, which is equal to \$1,800 (for those Members who have attained their Normal Retirement Age) or \$2,800 (for all other Members); and
- (3) A Service Pension, which is equal to 3% of Final Average Compensation multiplied by service up to 25 years (for those Members who have at least 20 years of service and whose age plus service equals at least 70) or 2% of Final Average Compensation multiplied by service up to 30 years (for all other Members).
- (4) An additional benefit equal to 1.5% of Average Final Compensation for each year of Credited Service that exceeds 25 years, up to a maximum additional benefit of 4.5% of Average Final Compensation. It is assumed that this benefit applies only to Normal Retirees (full benefits) and not to Vested or Deferred Retirees who get the 2.0% benefit accrual rate up to 30 years of service.

2. Normal Retirement Age and Allowance:

Age: Age 50 upon attainment of 10 years of service or any age upon attainment of 20 years of service (for those Members hired prior to January 27, 1970);

Age 55 upon attainment of 15 years of service or any age upon attainment of 20 years of service (for those Members hired after January 26, 1970 but prior to January 1, 1974); or

Any age with age plus service equal to at least 70 and with at least 20 years of service (for all other Members).

Amount: Retirement Allowance.

Form of Payment (applicable to Annuity only): Life annuity (normal form of payment); or Lump sum payment equal to Accumulated Member Contributions (optional).

Form of Payment (applicable to the Basic and Service Pensions only): Five-year certain and life annuity for General employees, and ten-year certain and life annuity for Firefighters and Police Officers (normal form of payment);

Normal form of payment actuarially adjusted to benefit payable during lifetime of member only (optional) (does not apply to General employees);

Normal form of payment actuarially reduced to 50% joint and survivor annuity with the reduced benefit payable upon the death of either the Member or his beneficiary (optional); Normal form of payment actuarially reduced to 66 2/3% joint and survivor annuity (optional);

Normal form of payment actuarially reduced to 75% joint and survivor annuity (optional) (does not apply to General employees); Normal form of payment actuarially reduced 100% joint and survivor annuity (optional);

Normal form of payment actuarially reduced 100% joint and survivor annuity with spouse as beneficiary and with a “pop-up” feature. A “pop-up” benefit increases to the amount of the unreduced pension upon the death of the beneficiary (optional).

3. Early Retirement Eligibility and Allowance:

Age: Age 55 with at least 10 years of service for General employees, and age 50 with at least 10 years of service for Firefighters and Police Officers.

Amount: 100% of the Member’s Annuity. In addition, for General employees, the member’s Basic and Service Pensions multiplied by his Vested Interest, payable at age 55. Firefighters and Police Officers can commence their early retirement benefit at age 50 with a 3% per year reduction from normal retirement.

Form of Payment: Same as for Normal Retirement.

4. Disability Retirement Eligibility and Allowance:

Condition: The Member must be totally and permanently incapacitated for duty in his classified position as an employee of the City, as determined by both the Board of Trustees and by a medical committee consisting of one doctor appointed by the Board of Trustees and one doctor selected by the Member.

Amount: The Member’s accrued Retirement Allowance and, for Firefighters and Police Officers, subject to a minimum of: 25% of Average Final Compensation, for non-duty disability, after 10 years of service, and 42% of Average Final Compensation, for duty related disability, with no service requirement.

Form of Payment: Same as for Normal Retirement.

5. Deferred Retirement (Vested) Eligibility and Allowance:

Age: Any age with at least 10 years of service.

Amount: 100% of the Member’s Annuity. In addition, for General employees, the member’s Basic and Service Pensions multiplied by his Vested Interest, payable at age 55. Firefighters and Police Officers can commence their vested benefit at age 50 with a 3% per year reduction from normal retirement.

Form of Payment: Same as for Normal Retirement.

6. Pre-Retirement Death Benefit:

In the case of the death of a General employee Member prior to retirement, his beneficiary will receive a five-year certain annuity determined as if the Member had retired on the day before his death and elected a five-year certain and life annuity. In lieu of this five-year certain annuity, the beneficiary of the General employee may elect to receive ½ of the same amount payable over a ten-year period. For Firefighters and Police Officers, the Member’s vested accrued benefit deferred to early (reduced) or normal retirement and payable for a minimum of 10 years. Alternatively, if the Member had attained his Normal or Early Retirement Age and had elected an optional form of payment, then his spouse will receive benefits as dictated by the option elected.

7. Vested Interest:

A General employee member earns a Vested Interest in his Basic and Service Pensions in accordance with the following schedule. Firefighters and Police Officer Members earn a 100% Vested Interest with 10 years of service.

Years of Service	Vested Interest
Less than 10	0%
10	70%
11	73%
12	76%
13	79%
14	82%
15	85%
16	88%
17	91%
18	94%
19	97%
20 or more	100%

8. Average Final Compensation

Average compensation for the highest three years of service (not necessarily consecutive), where compensation includes base salary plus any longevity or special assignment pay and any pay received in connection with Florida’s law enforcement special incentive program or Firefighters supplemental compensation program.

9. Membership Requirements

All classified employees of the City of Hialeah, Florida participate in the plan, including: (1) all full-time employees (except as provided by law), and (2) those part-time employees working 22½ hours or more per week who elect to participate after one year of continuous employment. Membership does not include any person whose services are compensated on a fee or contractual basis, the Board of Trustees’ medical committee, elected or appointed officials who are not in classified service, and persons employed on a temporary or provisional basis for less than nine months.

10. Accumulated Member Contributions

The Accumulated Member Contributions are the Member’s Contributions accumulated with interest at the annual rates established by the Board of Trustees. Prior to the 1995/1996 plan year, interest was credited at the annual yield on the actuarial value of assets. Beginning with the 1995/1996 plan year, interest will be credited at the arithmetic average of the annual yields on the market value of assets for the preceding five years. Interest is credited each September 30 on the balance of the Accumulated Member Contributions as of the preceding October 1 as well as on additional Member Contributions made during the plan year. Members may borrow against their Accumulated Member Contributions as of the preceding October 1, subject to the restrictions set forth in the law.

11. Member Contributions

- 1.) All members must contribute 7.00% of compensation per year into the Annuity Savings Fund (with the exception that they may redirect some of these contributions to satisfy the additional requirements that follow).
- 2.) All members who were not eligible for Normal Retirement on the date the ordinance took effect will also be required to make the following additional contribution towards the pension portion of the Plan (to help offset the City's funding requirements)

a. Non-Police Officers and Firefighters:

- 5.00% of pensionable compensation from May 15, 2014 to September 30, 2014.
- 4.00% of pensionable compensation from October 1, 2014 forward, except that:
This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.
This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

b. Firefighters:

- 5.00% of pensionable compensation from October 1, 2013 to September 30, 2014 (4.00% of pensionable compensation if hired on or after November 15, 2013).
- 4.00% of pensionable compensation from October 1, 2014 forward, except that:
This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.
This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

c. Police Officers:

- 5.00% of pensionable compensation from March 2, 2014 to September 30, 2014 (4.00% of pensionable compensation if hired on or after March 2, 2014).
 - 4.00% of pensionable compensation from October 1, 2014 forward, except that:
This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.
This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.
- If a Police Officer or Firefighter terminates employment before they are vested, then they will receive a refund of these additional contributions. Non-Police Officers and Firefighters will not receive a refund of these contributions.

12. Share Plans Contributions:

Effective with the year beginning October 1, 2005, the Firefighters' and Police Officers' share plans will make contributions to fund the cost of the minimum benefits under Chapter 99-1, Florida Statutes.

13. Cost-of-Living Adjustment:

Members (including participants in the DROP and excluding beneficiaries and those Members who are receiving a Deferred Retirement Allowance) receive an automatic level 2% cost-of-living adjustment in their Basic and Service Pensions as of each anniversary of retirement or the first of the month following their 52nd birthday and limited to 10 such increases (for a total increase of 20%).

**Section 2 – Updated Benefits that apply to certain shorter service Members
(Benefits are the same as Section 1 except as noted)**

For Police Officers hired on or after March 14, 2014, the Basic Pension is eliminated and the Service Pension minimum Age plus Service is changed from 70 points to 76 points to receive the Normal (full) Retirement Benefit and DROP eligibility. Additionally, the Vested or Deferred Benefits payable for these Members is payable at age 59½. Lastly, the automatic Cost of Living Adjustments for these Members is reduced from 2.0% per year to 1.0% per year.

For Firefighters hired on or after November 15, 2013, the Basic Pension is eliminated and the Service Pension minimum Age plus Service is changed from 70 points to 76 points to receive the Normal (full) Retirement Benefit and DROP eligibility. Additionally, the Vested or Deferred Benefits payable for these Members is payable at age 59½. Lastly, the automatic Cost of Living Adjustments for these Members is reduced from 2.0% per year to 1.0% per year.

The following benefit reductions were made for the General Employees of the System effective December 1, 2017:

1.) **Fully Grandfathered** - For those Members eligible for Normal Retirement before December 1, 2017, the only change in benefits is that they will be required to make an additional 5.0% of Salary contribution to the retirement plan (this is separate from the contributions to the Annuity Savings Plan) beginning December 1, 2017. If the Member had already been contributing 4.0% of Salary, then their new Member Contribution Rate to the retirement plan will be 9.0% of Salary. If the Member had not been contributing to the retirement plan because they were eligible for Normal Retirement when the original retirement plan Member Contributions were enacted, then their new Member Contribution Rate to the retirement plan will be 5.0% of Salary.

2.) **Partially Grandfathered with at least 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have at least 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to December 1, 2017 and 2.0% for each year of Credited Service earned on and after that date, with a maximum benefit of 75% of Average Final Compensation.

3.) **Partially Grandfathered with less than 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have less than 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each of the first 20 years of Credited Service plus 2.0% for each year of Credited Service earned above 20 years, with a maximum benefit of 75% of Average Final Compensation

4.) **Non-Grandfathered** – Those Members who, as of December 1, 2017, were not eligible for Normal Retirement, or had not completed at least 16 years of actual service with the City or had not attained 62 points, will have their Member Contribution Rate to the retirement plan increase effective December 1, 2017 from 4.0% to 9.0% of Salary and have the following benefit changes.

A.) All benefits accrued as of November 30, 2017 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before December 1, 2017 (Normal Retirement at 20 years of Credited Service with age plus service at least 70, Vested Retirement at 55 with 10 years of Credited Service, etc.). The frozen benefits will use Average Final Compensation and Credited Service determined as of November 30, 2017. The frozen benefits cannot commence until a Member terminates employment with the City. All Non-Grandfathered General Employees will be 100% vested in this frozen benefit. This means that the “frozen” benefit will be payable at the later of (1) age 55 with 10 years of service or (2) termination of employment with the City, with no reduction for partial vesting.

B.) Benefits earned on and after December 1, 2017 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before December 1, 2017, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after December 1, 2017 shall be 2.0% per year, with a maximum benefit of 75% of Average Final Compensation (AFC). The 75% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after December 1, 2017. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated.
- 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 8 years of credited service; provided, in no event shall a Member’s Average Final Compensation be less than the highest 3-year average as of December 1, 2017.
- 3.) The Normal Retirement Date shall be age 62 with 20 years of Credited Service. See the Actuarial Assumptions and Methods pages of this Report for the new assumed retirement rates for these employees.
- 4.) Compensation shall be base pay only. All other types of compensation shall be excluded for retirement purposes. To value for this provision we assumed that the pensionable compensation for each of these employees would be reduced by 6.1%.

5.) There shall be no Cost of Living Adjustments (COLA's) on benefits based on credited service earned on or after December 1, 2017.

6.) Members shall not be eligible to purchase additional Credited Service on or after December 1, 2017.

7.) Members shall become vested in the "future service" benefit upon reaching age 55 with 10 or more years of Credited Service. Once they reach age 55 the vesting per-centage is 70% at 10 years of service plus 3% for each year between 10 and 20 years of service. However, a Member cannot begin to receive this deferred vested benefit until age 62. Members who do not attain age 55 with 10 years of Credited Service will receive a refund of their Member Contributions made to the retirement plan on and after December 1, 2017.

8.) Although not specifically outlined in the proposed ordinance, it is assumed that the Basic Pension will be considered as part of the "frozen" benefit so that it will receive the COLA's and will be paid at age 55 with 10 years of Credited Service with no reduction.

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2017:

Asset Class	Target Allocation
Domestic Equity	50%
International Equity	5%
Domestic Bonds	40%
Other	5%
Total	100%

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended September 30, 2017, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 11.22 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Effective March 1, 2007 for Police Officers and Firefighters and February 19, 2008 for General employees, members are eligible to participate in a Deferred Retirement Option Program (DROP) upon the completion of 25 years of membership service credit provided that the sum of the member's age and service is equal to at least 70. The member's monthly retirement benefit (basic plus service pension), based on final average earnings and service upon entering the DROP, will be paid to the member's DROP account. At the end of each fiscal year, interest will be credited to the DROP account at the same rate credited to the annuity savings account.

Member contributions cease upon entering the DROP and the member shall be ineligible for disability benefits provided by the System. Upon termination of employment or death, the DROP account balance will be paid in a cash lump sum. The maximum period of participation in the DROP is 36 months and members cannot buy service in order to be eligible for the DROP.

General employees who are members of the retirement system are prohibited from entering the DROP on or after April 2, 2012.

The DROP balance as September 30, 2017 is \$3,747,550.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2017 were as follows:

Total Pension Liability	\$ 919,250,162
Plan Fiduciary Net Position	<u>\$ (679,986,360)</u>
Sponsor's Net Pension Liability	<u>\$ 239,263,802</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	73.97%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2016 updated to September 30, 2017 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	3.00% - 9.00%
Discount Rate	8.00%
Investment Rate of Return	8.00%

Mortality Rate Healthy Lives Police Officers and Firefighters:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 10% Annuitant White Collar /90% Annuitant Blue Collar, Scale BB.

Mortality Rate Disabled Lives Police Officers and Firefighters:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.

Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

Mortality Rate Healthy Lives General Employees:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

Mortality Rate Disabled Lives General Employees:

Female: 100% RP2000 Disabled Female set forward two years.

Male: 100% RP2000 Disabled Male setback four years.

The date of the most recent experience study for which significant assumptions are based upon is not available.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2017, the inflation rate assumption of the investment advisor was 2.30%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2017 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return¹</u>
Domestic Equity	7.10%
International Equity	7.40%
Domestic Bonds	2.10%
Other	4.20%

¹ 10 Year Long-term projections

GASB 67

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 8.00 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease	Current Discount Rate	1% Increase
	7.00%	8.00%	9.00%
Sponsor's Net Pension Liability	<u>\$ 321,464,874</u>	<u>\$ 239,263,802</u>	<u>\$ 169,830,548</u>

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years

	<u>09/30/2017</u>	<u>09/30/2016</u>
Total Pension Liability		
Service Cost	8,302,554	8,887,641
Interest	65,295,454	62,786,218
Change in Annuity Savings Fund	3,594,508	4,032,235
Change in Annuity Reserve Fund	48,248,469	-
Changes of benefit terms	(15,079,464)	-
Differences between Expected and Actual Experience	17,047,994	13,256,782
Changes of assumptions	-	21,734,473
Contributions - Buy Back	2,569,143	907,919
Benefit Payments, including Refunds of Employee Contributions	<u>(67,397,153)</u>	<u>(61,753,388)</u>
Net Change in Total Pension Liability	62,581,505	49,851,880
Total Pension Liability - Beginning	<u>856,668,657</u>	<u>806,816,777</u>
Total Pension Liability - Ending (a)	<u><u>\$919,250,162</u></u>	<u><u>\$856,668,657</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	29,197,532	26,327,799
Contributions - State	461,877	461,877
Contributions - Employee	2,152,895	2,433,031
Contributions - Buy Back	2,569,143	907,919
Contributions - Annuity Savings Fund	3,594,508	4,032,235
Net Investment Income	70,077,666	48,674,393
Benefit Payments, including Refunds of Employee Contributions	(67,397,153)	(61,753,388)
Revision in methodology to include Annuity Reserve Fund	<u>48,248,469</u>	<u>-</u>
Net Change in Plan Fiduciary Net Position	88,904,937	21,083,866
Plan Fiduciary Net Position - Beginning	<u>591,081,423</u>	<u>569,997,557</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$679,986,360</u></u>	<u><u>\$591,081,423</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$239,263,802</u></u>	<u><u>\$265,587,234</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	73.97%	69.00%
Covered Employee Payroll ¹	\$ 55,447,024	\$ 54,783,012
Net Pension Liability as a percentage of Covered Employee Payroll	431.52%	484.80%

Notes to Schedule:

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82.

Changes of benefit terms:

For measurement date 09/30/2017, amounts reported as changes of benefit terms were made for the General Employees of the System effective December 1, 2017:

1.) **Fully Grandfathered** - For those Members eligible for Normal Retirement before December 1, 2017, the only change in benefits is that they will be required to make an additional 5.0% of Salary contribution to the retirement plan (this is separate from the contributions to the Annuity Savings Plan) beginning December 1, 2017.

If the Member had already been contributing 4.0% of Salary, then their new Member Contribution Rate to the retirement plan will be 9.0% of Salary. If the Member had not been contributing to the retirement plan because they were eligible for Normal Retirement when the original retirement plan Member Contributions were enacted, then their new Member Contribution Rate to the retirement plan will be 5.0% of Salary.

Continued Changes of benefit terms:

2.) **Partially Grandfathered with at least 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have at least 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to December 1, 2017 and 2.0% for each year of Credited Service earned on and after that date, with a maximum benefit of 75% of Average Final Compensation.

3.) **Partially Grandfathered with less than 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have less than 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each of the first 20 years of Credited Service plus 2.0% for each year of Credited Service earned above 20 years, with a maximum benefit of 75% of Average Final Compensation.

4.) **Non-Grandfathered** – Those Members who, as of December 1, 2017, were not eligible for Normal Retirement, or had not completed at least 16 years of actual service with the City or had not attained 62 points, will have their Member Contribution Rate to the retirement plan increase effective December 1, 2017 from 4.0% to 9.0% of Salary and have the following benefit changes:

A.) All benefits accrued as of November 30, 2017 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before December 1, 2017 (Normal Retirement at 20 years of Credited Service with age plus service at least 70, Vested Retirement at 55 with 10 years of Credited Service, etc.). The frozen benefits will use Average Final Compensation and Credited Service determined as of November 30, 2017. The frozen benefits cannot commence until a Member terminates employment with the City. All Non-Grandfathered General Employees will be 100% vested in this frozen benefit. This means that the “frozen” benefit will be payable at the later of (1) age 55 with 10 years of service or (2) termination of employment with the City, with no reduction for partial vesting.

B.) Benefits earned on and after December 1, 2017 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before December 1, 2017, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after December 1, 2017 shall be 2.0% per year, with a maximum benefit of 75% of Average Final Compensation (AFC). The 75% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after December 1, 2017. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated.
- 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 8 years of credited service; provided, in no event shall a Member’s Average Final Compensation be less than the highest 3-year average as of December 1, 2017.
- 3.) The Normal Retirement Date shall be age 62 with 20 years of Credited Service. See the Actuarial Assumptions and Methods pages of the 10/01/2017 Valuation Report for the new assumed retirement rates for these employees.
- 4.) Compensation shall be base pay only. All other types of compensation shall be excluded for retirement purposes. To value for this provision we assumed that the pensionable compensation for each of these employees would be reduced by 6.1%.
- 5.) There shall be no Cost of Living Adjustments (COLA’s) on benefits based on credited service earned on or after December 1, 2017.
- 6.) Members shall not be eligible to purchase additional Credited Service on or after December 1, 2017.
- 7.) Members shall become vested in the “future service” benefit upon reaching age 55 with 10 or more years of Credited Service. Once they reach age 55 the vesting percentage is 70% at 10 years of service plus 3% for each year between 10 and 20 years of service. However, a Member cannot begin to receive this deferred vested benefit until age 62. Members who do not attain age 55 with 10 years of Credited Service will receive a refund of their Member Contributions made to the retirement plan on and after December 1, 2017.
- 8.) Although not specifically outlined in the proposed ordinance, it is assumed that the Basic Pension will be considered as part of the “frozen” benefit so that it will receive the COLA’s and will be paid at age 55 with 10 years of Credited Service with no reduction.

Changes of assumptions

For measurement date 09/30/2017, the Annuity Reserve Fund Balance is now included both in the Assets and Liabilities of the Plan. Last year, it was not included in either.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.30%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years

	<u>09/30/2015</u>	<u>09/30/2014</u>
Total Pension Liability		
Service Cost	9,104,164	8,982,779
Interest	61,082,848	60,285,831
Change in Annuity Savings Fund	3,887,151	4,064,028
Change in Annuity Reserve Fund	-	-
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	10,359,527	-
Changes of assumptions	-	-
Contributions - Buy Back	975,579	1,182,367
Benefit Payments, including Refunds of Employee Contributions	<u>(66,047,848)</u>	<u>(63,299,504)</u>
Net Change in Total Pension Liability	19,361,421	11,215,501
Total Pension Liability - Beginning	<u>787,455,356</u>	<u>776,239,855</u>
Total Pension Liability - Ending (a)	<u>\$806,816,777</u>	<u>\$787,455,356</u>
Plan Fiduciary Net Position		
Contributions - Employer	27,382,906	25,769,253
Contributions - State	461,877	461,877
Contributions - Employee	2,132,259	1,587,095
Contributions - Buy Back	975,579	1,182,367
Contributions - Annuity Savings Fund	3,887,151	4,064,028
Net Investment Income	2,881,487	58,702,102
Benefit Payments, including Refunds of Employee Contributions	(66,047,848)	(63,299,504)
Revision in methodology to include Annuity Reserve Fund	-	-
Net Change in Plan Fiduciary Net Position	<u>(28,326,589)</u>	<u>28,467,218</u>
Plan Fiduciary Net Position - Beginning	<u>598,324,146</u>	<u>569,856,928</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$569,997,557</u>	<u>\$598,324,146</u>
Net Pension Liability - Ending (a) - (b)	<u>\$236,819,220</u>	<u>\$189,131,210</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.65%	75.98%
Covered Employee Payroll ¹	\$ 57,948,210	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	408.67%	N/A

Notes to Schedule:

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2017	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution	29,659,409	26,477,463	26,210,070	26,231,130
Contributions in relation to the Actuarially Determined Contributions	29,659,409	26,789,676	27,844,783	26,231,130
Contribution Deficiency (Excess)	\$ -	\$ (312,213)	\$ (1,634,713)	\$ -
Covered Employee Payroll ¹	\$ 55,447,024	\$ 54,783,012	\$ 57,948,210	N/A
Contributions as a percentage of Covered Employee Payroll	53.49%	48.90%	48.05%	N/A

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82.

Notes to Schedule

Valuation Date: 10/01/2015
Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method: The entry age normal cost method was used to determine all liabilities, except that the liability associated with member contributions has been assumed to be equal to those contributions.
Prior to October 1, 1998, fiscal year City contributions made in excess of required valuation year contributions were credited to the temporary funding credit.
Beginning October 1, 1998, fiscal year contributions made in excess of required valuation year contributions are included in the experience gain or loss for the year. Experience gains and losses are amortized over a 15-year period.
Beginning October 1, 2007, the method of amortizing experience gains and losses of the System was changed from a 15-year to a 30-year level dollar method. The amortization amounts for outstanding gain and loss bases as of October 1, 2007 were recalculated to extend the amortization period an additional 15 years (for a total of 30 years).
Beginning October 1, 2008, the method of amortizing all outstanding unfunded liability bases was changed from a level dollar method to an increasing amortization based on a level percent of payroll. The aggregate payroll is assumed to increase at 4.0% per year, limited to average payroll growth for the previous 10 years.
Beginning October 1, 2011, the method of amortizing all outstanding unfunded liability bases was changed to an increasing amortization based on a level percent of payroll where the aggregate payroll is assumed to increase at 3.5% per year.

Remaining Amortization Period: 30 Years (as of 10/01/2015).

Decrements: **Pre-Retirement Mortality:**
RP-2000 Combined Mortality Table with a blue collar adjustment projected 15 years from valuation date.
Post-Retirement Healthy Mortality:
RP-2000 Combined Mortality Table with a blue collar adjustment projected 7 years from valuation date.
Post-Retirement Disabled Mortality:
RP-2000 Disabled Mortality Table.

Decrements:

Disability (General Employees)

Representative values of the assumed annual rates of disability among General employee members in active service are set forth in the following table:

Age	Rate	Age	Rate
20	0.024%	50	0.360%
25	0.040%	55	0.608%
30	0.056%	60	0.880%
35	0.104%	65	0.784%
40	0.152%	70	0.688%
45	0.224%	75	0.592%

Disability (Police Officers and Firefighters)

85% of all disabilities are assumed to be in the line of duty and 15% are assumed not to be in the line of duty. Representative values of the assumed annual rates of disability among Police Officer and Firefighter members in active service are set forth in the following table:

Age	Rate	Age	Rate
20	0.096%	50	0.896%
25	0.120%	55	1.328%
30	0.152%	60	1.760%
35	0.248%	65	2.192%
40	0.384%	70	2.624%
45	0.584%	75	3.056%

Permanent Withdrawal from Active Status (used for members with less than six years of service)

Representative values of the assumed annual rates of withdrawal among members in active service who have less than six years of service are set forth in the following tables:

<i>General Employees</i>		<i>Police Officers</i>	
Years of Service	Rate	Years of Service	Rate
0	12.5%	0	12.0%
1	12.5%	1	12.0%
2	7.5%	2	9.0%
3	7.5%	3	7.5%
4	7.5%	4	6.0%
5	7.5%	5	5.0%

<i>Firefighters</i>	
Years of Service	Rate
0	12.5%
1	9.5%
2	5.0%
3	4.0%
4	3.0%
5	2.5%

Decrements:

Permanent Withdrawal from Active Status (used for members with at least six years of service)

Representative values of the assumed annual rates of withdrawal among members in active service who have at least six years of service are set forth in the following tables:

<i>General Employees</i>		<i>Police Officers</i>	
Age	Rate	Age	Rate
25	5.0%	25	5.0%
30	5.0%	30	4.5%
35	5.0%	35	4.0%
40	5.0%	40	4.0%
45	5.0%	45	4.0%
50	5.0%	50	1.0%
55	3.0%	55	1.0%
60	2.0%	60	1.0%

<i>Firefighters</i>	
Age	Rate
25	2.0%
30	2.0%
35	2.0%
40	2.0%
45	2.0%
50	1.0%
55	1.0%
60	1.0%

Retirement (General Employees)

Representative values of the assumed annual rates of retirement among eligible General Employee members are shown in the tables below:

a) General Employees with less than 25 years of eligible service:

Age	Rate	Age	Rate
45	0%	58	15%
46	0%	59	15%
47	0%	60	15%
48	0%	61	5%
49	0%	62	15%
50	10%	63	5%
51	5%	64	5%
52	5%	65	75%
53	5%	66	25%
54	5%	67	35%
55	15%	68	45%
56	15%	69	85%
57	15%	70	100%

Decrements:

b) General Employees with 25 years of eligible service:

Age	Rate	Age	Rate
45	0%	58	40%
46	0%	59	40%
47	0%	60	40%
48	0%	61	40%
49	0%	62	50%
50	50%	63	30%
51	30%	64	30%
52	30%	65	80%
53	30%	66	50%
54	30%	67	60%
55	40%	68	70%
56	40%	69	80%
57	40%	70	100%

c) General Employees with more than 25 years of eligible service:

Age	Rate	Age	Rate
45	0%	58	20%
46	0%	59	20%
47	0%	60	20%
48	0%	61	10%
49	0%	62	20%
50	15%	63	10%
51	10%	64	10%
52	10%	65	80%
53	10%	66	30%
54	10%	67	40%
55	20%	68	50%
56	20%	69	90%
57	20%	70	100%

Retirement (Police Officers and Firefighters)

Representative values of the assumed annual rates of retirement among eligible Police Officer and Firefighter members are shown in the table below:

Service	Age < 65		Age ≥ 65
	Police Officers	Firefighters	
< 15	0%	0%	100%
15-19	5%	3%	100%
20	25%	20%	100%
21-24	10%	10%	100%
25	50%	40%	100%
26	30%	30%	100%
27	40%	40%	100%
28	50%	45%	100%
29	60%	50%	100%
30+	100%	100%	100%

Interest Rate:

8.00% per annum net of investment related expenses.

Salary Increases (General Employees)

Representative values of the assumed annual rates of increase in salaries for General employees are shown in the table below:

Age	Rate	Age	Rate
20	9.0%	50	4.0%
25	8.0%	55	4.0%
30	7.0%	60	4.0%
35	6.0%	65	4.0%
40	5.0%	70	4.0%
45	4.5%	75	4.0%

A 5.0% and 9.5% salary increase is assumed as of October 1, 2011 and October 1, 2012 respectively. These increases reflect the restoration of a 17% pay concession that occurred on March 21, 2011 (with pay being restored to pre-concession levels on April 1, 2012) as well as the cessation of mandatory furlough days (1 in every 10 days ending on March 20, 2011). Other than the restoration of the above concessions, no salary increases for fiscal 2012 through 2014 are assumed. Beginning with fiscal 2015, pay is assumed to increase at the rates provided in the table above.

Salary Increases (Police Officers and Firefighters)

Representative values of the assumed annual rates of increase in salaries for Police Officers and Firefighters are shown in the table below:

Service	Police Officers	Firefighters
0	9.0%	9.0%
1	8.5%	8.5%
2	8.0%	8.0%
3	7.5%	7.5%
4	7.0%	7.0%
5	6.5%	6.5%
6-9	6.0%	6.0%
10	6.0%	5.0%
11	5.0%	4.5%
12-22	4.0%	4.0%
23+	4.0%	3.0%

The pay scale for the Police Officer and Firefighters also reflects short term salary freezes through the end of fiscal 2013.

Assets:

The actuarial value of assets (AV A) is equal to the market value of assets adjusted to reflect a five year phase-in of the difference between the expected versus actual return on the AV A. The AVA is limited to an 80%-120% corridor of the market value of assets.

Funding Period (Pursuant to Chapter 112, Florida Statutes):

The annual payment towards the unfunded actuarial accrued liability has been determined as a level percent of pay. The aggregate payroll is assumed to increase at 3.5% per year as approved by the Division of Retirement.

Refund of Member Contributions:

It is assumed that all members take a refund of their accumulated employee contributions upon retiring from the System.

*** Please note that we (Foster & Foster, Inc.) are using the assumptions adopted by the Board as guided by the prior actuary and don't have the necessary data to assess the reasonableness of the assumptions.**

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

	<u>09/30/2017</u>	<u>09/30/2016</u>	<u>09/30/2015</u>	<u>09/30/2014</u>
Annual Money-Weighted Rate of Return				
Net of Investment Expense	11.22%	8.08%	0.46%	10.22%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2018)

General Information about the Pension Plan

Plan Description

There is created a Board of Trustees in whom is vested the general administration, management and responsibility for the proper operation of the retirement system. The Board of Trustees shall consist of seven trustees appointed and elected in the following manner:

- (1) One trustee shall be appointed by the mayor. This trustee shall be an elector of the city.
- (2) One trustee shall be appointed by the city council. This trustee shall be an elector of the city.
- (3) Four trustees shall be appointed, one from each group; management, AFSCME Local, IAFF Local, and PBA. The appointee must be an active member of the retirement system or of the deferred retirement option program (DROP). Term of office for each trustee so elected shall be for a two-year period, and the trustee shall be voted into office and elected as determined by each group.
- (4) The seventh trustee shall be elected from the membership by majority vote by the trustees appointed pursuant to subsections (a)(1) through (3) of this section as soon as practicable after their appointment. This appointee shall be an elector of the city. The trustee so appointed shall serve for two years.

All classified employees of the City of Hialeah, Florida participate in the plan, including: (1) all full-time employees (except as provided by law), and (2) those part-time employees working 22½ hours or more per week who elect to participate after one year of continuous employment.

Membership does not include any person whose services are compensated on a fee or contractual basis, the Board of Trustees' medical committee, elected or appointed officials who are not in classified service, and persons employed on a temporary or provisional basis for less than nine months.

Each person employed by the City Fire Department as a full-time Firefighter becomes a Member of the Plan as a condition of employment. All Firefighters are therefore eligible for plan benefits as provided for in the plan document by applicable law.

Plan Membership as of October 1, 2016:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,482
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	145
Active Plan Members	939
	2,566

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

**Section 1 – Traditional Benefits that apply to certain longer service Members
(Please see the exceptions in Section 2)**

1. Retirement Allowance

The Member's Retirement Allowance is equal to the sum of the following:

- (1) An Annuity, which is the actuarial equivalent of his Accumulated Member Contributions;
- (2) A Basic Pension, which is equal to \$1,800 (for those Members who have attained their Normal Retirement Age) or \$2,800 (for all other Members); and
- (3) A Service Pension, which is equal to 3% of Final Average Compensation multiplied by service up to 25 years (for those Members who have at least 20 years of service and whose age plus service equals at least 70) or 2% of Final Average Compensation multiplied by service up to 30 years (for all other Members).
- (4) An additional benefit equal to 1.5% of Average Final Compensation for each year of Credited Service that exceeds 25 years, up to a maximum additional benefit of 4.5% of Average Final Compensation. It is assumed that this benefit applies only to Normal Retirees (full benefits) and not to Vested or Deferred Retirees who get the 2.0% benefit accrual rate up to 30 years of service.

2. Normal Retirement Age and Allowance:

Age: Age 50 upon attainment of 10 years of service or any age upon attainment of 20 years of service (for those Members hired prior to January 27, 1970);

Age 55 upon attainment of 15 years of service or any age upon attainment of 20 years of service (for those Members hired after January 26, 1970 but prior to January 1, 1974); or

Any age with age plus service equal to at least 70 and with at least 20 years of service (for all other Members).

Amount: Retirement Allowance.

Form of Payment (applicable to Annuity only): Life annuity (normal form of payment); or Lump sum payment equal to Accumulated Member Contributions (optional).

Form of Payment (applicable to the Basic and Service Pensions only): Five-year certain and life annuity for General employees, and ten-year certain and life annuity for Firefighters and Police Officers (normal form of payment);

Normal form of payment actuarially adjusted to benefit payable during lifetime of member only (optional) (does not apply to General employees);

Normal form of payment actuarially reduced to 50% joint and survivor annuity with the reduced benefit payable upon the death of either the Member or his beneficiary (optional); Normal form of payment actuarially reduced to 66 2/3% joint and survivor annuity (optional);

Normal form of payment actuarially reduced to 75% joint and survivor annuity (optional) (does not apply to General employees);

Normal form of payment actuarially reduced 100% joint and survivor annuity (optional);

Normal form of payment actuarially reduced 100% joint and survivor annuity with spouse as beneficiary and with a “pop-up” feature. A “pop-up” benefit increases to the amount of the unreduced pension upon the death of the beneficiary (optional).

3. Early Retirement Eligibility and Allowance:

Age: Age 55 with at least 10 years of service for General employees, and age 50 with at least 10 years of service for Firefighters and Police Officers.

Amount: 100% of the Member’s Annuity. In addition, for General employees, the member’s Basic and Service Pensions multiplied by his Vested Interest, payable at age 55. Firefighters and Police Officers can commence their early retirement benefit at age 50 with a 3% per year reduction from normal retirement.

Form of Payment: Same as for Normal Retirement.

4. Disability Retirement Eligibility and Allowance:

Condition: The Member must be totally and permanently incapacitated for duty in his classified position as an employee of the City, as determined by both the Board of Trustees and by a medical committee consisting of one doctor appointed by the Board of Trustees and one doctor selected by the Member.

Amount: The Member’s accrued Retirement Allowance and, for Firefighters and Police Officers, subject to a minimum of: 25% of Average Final Compensation, for non-duty disability, after 10 years of service, and 42% of Average Final Compensation, for duty related disability, with no service requirement.

Form of Payment: Same as for Normal Retirement.

5. Deferred Retirement (Vested) Eligibility and Allowance:

Age: Any age with at least 10 years of service.

Amount: 100% of the Member’s Annuity. In addition, for General employees, the member’s Basic and Service Pensions multiplied by his Vested Interest, payable at age 55. Firefighters and Police Officers can commence their vested benefit at age 50 with a 3% per year reduction from normal retirement.

Form of Payment: Same as for Normal Retirement.

6. Pre-Retirement Death Benefit:

In the case of the death of a General employee Member prior to retirement, his beneficiary will receive a five-year certain annuity determined as if the Member had retired on the day before his death and elected a five-year certain and life annuity. In lieu of this five-year certain annuity, the beneficiary of the General employee may elect to receive ½ of the same amount payable over a ten-year period. For Firefighters and Police Officers, the Member’s vested accrued benefit deferred to early (reduced) or normal retirement and payable for a minimum of 10 years. Alternatively, if the Member had attained his Normal or Early Retirement Age and had elected an optional form of payment, then his spouse will receive benefits as dictated by the option elected.

7. Vested Interest:

A General employee member earns a Vested Interest in his Basic and Service Pensions in accordance with the following schedule. Firefighters and Police Officer Members earn a 100% Vested Interest with 10 years of service.

Years of Service	Vested Interest
Less than 10	0%
10	70%
11	73%
12	76%
13	79%
14	82%
15	85%
16	88%
17	91%
18	94%
19	97%
20 or more	100%

8. Average Final Compensation

Average compensation for the highest three years of service (not necessarily consecutive), where compensation includes base salary plus any longevity or special assignment pay and any pay received in connection with Florida’s law enforcement special incentive program or Firefighters supplemental compensation program.

9. Membership Requirements

All classified employees of the City of Hialeah, Florida participate in the plan, including: (1) all full-time employees (except as provided by law), and (2) those part-time employees working 22½ hours or more per week who elect to participate after one year of continuous employment. Membership does not include any person whose services are compensated on a fee or contractual basis, the Board of Trustees’ medical committee, elected or appointed officials who are not in classified service, and persons employed on a temporary or provisional basis for less than nine months.

10. Accumulated Member Contributions

The Accumulated Member Contributions are the Member’s Contributions accumulated with interest at the annual rates established by the Board of Trustees. Prior to the 1995/1996 plan year, interest was credited at the annual yield on the actuarial value of assets. Beginning with the 1995/1996 plan year, interest will be credited at the arithmetic average of the annual yields on the market value of assets for the preceding five years. Interest is credited each September 30 on the balance of the Accumulated Member Contributions as of the preceding October 1 as well as on additional Member Contributions made during the plan year. Members may borrow against their Accumulated Member Contributions as of the preceding October 1, subject to the restrictions set forth in the law.

11. Member Contributions

1.) All members must contribute 7.00% of compensation per year into the Annuity Savings Fund (with the exception that they may redirect some of these contributions to satisfy the additional requirements that follow).

2.) All members who were not eligible for Normal Retirement on the date the ordinance took effect will also be required to make the following additional contribution towards the pension portion of the Plan (to help offset the City's funding requirements)

a. Non-Police Officers and Firefighters:

5.00% of pensionable compensation from May 15, 2014 to September 30, 2014.

4.00% of pensionable compensation from October 1, 2014 forward, except that:

This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.

This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

b. Firefighters:

5.00% of pensionable compensation from October 1, 2013 to September 30, 2014 (4.00% of pensionable compensation if hired on or after November 15, 2013).

4.00% of pensionable compensation from October 1, 2014 forward, except that:

This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.

This will drop to 0.00% of pensionable compensation if the Funded Ratio exceeds 100%.

c. Police Officers:

5.00% of pensionable compensation from March 2, 2014 to September 30, 2014 (4.00% of pensionable compensation if hired on

4.00% of pensionable compensation from October 1, 2014 forward, except that:

This will drop to 3.00% of pensionable compensation if the Funded Ratio is between 80% and 100%.

If a Police Officer or Firefighter terminates employment before they are vested, then they will receive a refund of these additional contributions. Non-Police Officers and Firefighters will not receive a refund of these contributions.

12. Share Plans Contributions:

Effective with the year beginning October 1, 2005, the Firefighters' and Police Officers' share plans will make contributions to fund the cost of the minimum benefits under Chapter 99-1, Florida Statutes.

13. Cost-of-Living Adjustment:

Members (including participants in the DROP and excluding beneficiaries and those Members who are receiving a Deferred Retirement Allowance) receive an automatic level 2% cost-of-living adjustment in their Basic and Service Pensions as of each anniversary of retirement or the first of the month following their 52nd birthday and limited to 10 such increases (for a total increase of 20%).

**Section 2 – Updated Benefits that apply to certain shorter service Members
(Benefits are the same as Section 1 except as noted)**

For Police Officers hired on or after March 14, 2014, the Basic Pension is eliminated and the Service Pension minimum Age plus Service is changed from 70 points to 76 points to receive the Normal (full) Retirement Benefit and DROP eligibility. Additionally, the Vested or Deferred Benefits payable for these Members is payable at age 59½. Lastly, the automatic Cost of Living Adjustments for these Members is reduced from 2.0% per year to 1.0% per year.

For Firefighters hired on or after November 15, 2013, the Basic Pension is eliminated and the Service Pension minimum Age plus Service is changed from 70 points to 76 points to receive the Normal (full) Retirement Benefit and DROP eligibility. Additionally, the Vested or Deferred Benefits payable for these Members is payable at age 59½. Lastly, the automatic Cost of Living Adjustments for these Members is reduced from 2.0% per year to 1.0% per year.

The following benefit reductions were made for the General Employees of the System effective December 1, 2017:

1.) **Fully Grandfathered** - For those Members eligible for Normal Retirement before December 1, 2017, the only change in benefits is that they will be required to make an additional 5.0% of Salary contribution to the retirement plan (this is separate from the contributions to the Annuity Savings Plan) beginning December 1, 2017. If the Member had already been contributing 4.0% of Salary, then their new Member Contribution Rate to the retirement plan will be 9.0% of Salary. If the Member had not been contributing to the retirement plan because they were eligible for Normal Retirement when the original retirement plan Member Contributions were enacted, then their new Member Contribution Rate to the retirement plan will be 5.0% of Salary.

2.) **Partially Grandfathered with at least 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have at least 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to December 1, 2017 and 2.0% for each year of Credited Service earned on and after that date, with a maximum benefit of 75% of Average Final Compensation.

3.) **Partially Grandfathered with less than 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have less than 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each of the first 20 years of Credited Service plus 2.0% for each year of Credited Service earned above 20 years, with a maximum benefit of 75% of Average Final Compensation.

4.) **Non-Grandfathered** – Those Members who, as of December 1, 2017, were not eligible for Normal Retirement, or had not completed at least 16 years of actual service with the City or had not attained 62 points, will have their Member Contribution Rate to the retirement plan increase effective December 1, 2017 from 4.0% to 9.0% of Salary and have the following benefit changes.

A.) All benefits accrued as of November 30, 2017 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before December 1, 2017 (Normal Retirement at 20 years of Credited Service with age plus service at least 70, Vested Retirement at 55 with 10 years of Credited Service, etc.). The frozen benefits will use Average Final Compensation and Credited Service determined as of November 30, 2017. The frozen benefits cannot commence until a Member terminates employment with the City. All Non-Grandfathered General Employees will be 100% vested in this frozen benefit. This means that the “frozen” benefit will be payable at the later of (1) age 55 with 10 years of service or (2) termination of employment with the City, with no reduction for partial vesting.

B.) Benefits earned on and after December 1, 2017 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before December 1, 2017, except as follows:

1.) The benefit accrual rate for Credited Service earned on and after December 1, 2017 shall be 2.0% per year, with a maximum benefit of 75% of Average Final Compensation (AFC). The 75% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after December 1, 2017. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated.

2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 8 years of credited service; provided, in no event shall a Member’s Average Final Compensation be less than the highest 3-year average as of December 1, 2017.

3.) The Normal Retirement Date shall be age 62 with 20 years of Credited Service. See the Actuarial Assumptions and Methods pages of this Report for the new assumed retirement rates for these employees.

4.) Compensation shall be base pay only. All other types of compensation shall be excluded for retirement purposes. To value for this provision we assumed that the pensionable compensation for each of these employees would be reduced by 6.1%.

- 5.) There shall be no Cost of Living Adjustments (COLA's) on benefits based on credited service earned on or after December 1, 2017.
- 6.) Members shall not be eligible to purchase additional Credited Service on or after December 1, 2017.
- 7.) Members shall become vested in the "future service" benefit upon reaching age 55 with 10 or more years of Credited Service. Once they reach age 55 the vesting per-centage is 70% at 10 years of service plus 3% for each year between 10 and 20 years of service. However, a Member cannot begin to receive this deferred vested benefit until age 62. Members who do not attain age 55 with 10 years of Credited Service will receive a refund of their Member Contributions made to the retirement plan on and after December 1, 2017.
- 8.) Although not specifically outlined in the proposed ordinance, it is assumed that the Basic Pension will be considered as part of the "frozen" benefit so that it will receive the COLA's and will be paid at age 55 with 10 years of Credited Service with no reduction.

Net Pension Liability

The measurement date is September 30, 2017.
 The measurement period for the pension expense was October 1, 2016 to September 30, 2017.
 The reporting period is October 1, 2017 through September 30, 2018.

The Sponsor's Net Pension Liability

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2016 updated to September 30, 2017 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	3.00% - 9.00%
Discount Rate	8.00%
Investment Rate of Return	8.00%

Mortality Rate Healthy Lives Police Officers and Firefighters:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.
 Male: RP2000 Generational, 10% Annuitant White Collar /90% Annuitant Blue Collar, Scale BB.

Mortality Rate Disabled Lives Police Officers and Firefighters:

Female: 60% RP2000 Disabled Female set forward two years / 40% Annuitant White Collar with no setback, no projection scale.
 Male: 60% RP2000 Disabled Male setback four years / 40% Annuitant White Collar with no setback, no projection scale.

Mortality Rate Healthy Lives General Employees:

Female: RP2000 Generational, 100% Annuitant White Collar, Scale BB.
 Male: RP2000 Generational, 50% Annuitant White Collar / 50% Annuitant Blue Collar, Scale BB.

Mortality Rate Disabled Lives General Employees:

Female: 100% RP2000 Disabled Female set forward two years.
 Male: 100% RP2000 Disabled Male setback four years.

The date of the most recent experience study for which significant assumptions are based upon is not available.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2017, the inflation rate assumption of the investment advisor was 2.30%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2017 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return¹</u>
Domestic Equity	50%	7.10%
International Equity	5%	7.40%
Domestic Bonds	40%	2.10%
Other	5%	4.20%
<u>Total</u>	<u>100%</u>	

¹ 10 Year Long-term projections

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 8.00 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2017	\$ 856,668,657	\$ 591,081,423	\$ 265,587,234
Changes for a Year:			
Service Cost	8,302,554	-	8,302,554
Interest	65,295,454	-	65,295,454
Change in Annuity Savings Fund	3,594,508	-	3,594,508
Change in Annuity Reserve Fund	48,248,469	-	48,248,469
Differences between Expected and Actual Experience	17,047,994	-	17,047,994
Changes of assumptions	-	-	-
Changes of benefit terms	(15,079,464)	-	(15,079,464)
Contributions - Employer	-	32,792,040	(32,792,040)
Contributions - State	-	461,877	(461,877)
Contributions - Employee	-	2,152,895	(2,152,895)
Contributions - Buy Back	2,569,143	2,569,143	-
Net Investment Income	-	70,077,666	(70,077,666)
Benefit Payments, including Refunds of Employee Contributions	(67,397,153)	(67,397,153)	-
Administrative Expense	-	-	-
Revision in methodology to include Annuity Reserve Fund	-	48,248,469	(48,248,469)
Net Changes	62,581,505	88,904,937	(26,323,432)
Reporting Period Ending September 30, 2018	<u>\$ 919,250,162</u>	<u>\$ 679,986,360</u>	<u>\$ 239,263,802</u>

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current Discount		
	1% Decrease	Rate	1% Increase
	7.00%	8.00%	9.00%
Sponsor's Net Pension Liability	\$ 321,464,874	\$ 239,263,802	\$ 169,830,548

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2017**

For the year ended September 30, 2017, the Sponsor has recognized a Pension Expense of \$41,129,335.

On September 30, 2017, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	15,122,352	-
Changes of assumptions	16,300,854	-
Net difference between Projected and Actual Earnings on Pension Plan investments	17,169,925	-
Employer and State contributions subsequent to the measurement date	29,659,409	-
Total	\$ 78,252,540	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date has been recognized as a reduction of the Net Pension Liability in the year ended September 30, 2017.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:		
2018		\$ 16,384,689
2019		\$ 16,384,689
2020		\$ 16,659,395
2021		\$ (835,642)
2022		\$ -
Thereafter		\$ -

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2018**

For the year ended September 30, 2018, the Sponsor will recognize a Pension Expense of \$26,109,069.

On September 30, 2018, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	22,004,271	-
Changes of assumptions	10,867,235	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	7,051,467
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 7,051,467

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2018.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2019	\$ 15,853,088
2020	\$ 16,127,794
2021	\$ (1,367,243)
2022	\$ (4,793,600)
2023	\$ -
Thereafter	\$ -

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years

Reporting Period Ending	09/30/2018	09/30/2017
Measurement Date	<u>09/30/2017</u>	<u>09/30/2016</u>
Total Pension Liability		
Service Cost	8,302,554	8,887,641
Interest	65,295,454	62,786,218
Change in Annuity Savings Fund	3,594,508	4,032,235
Change in Annuity Reserve Fund	48,248,469	-
Changes of benefit terms	(15,079,464)	-
Differences between Expected and Actual Experience	17,047,994	13,256,782
Changes of assumptions	-	21,734,473
Contributions - Buy Back	2,569,143	907,919
Benefit Payments, including Refunds of Employee Contributions	<u>(67,397,153)</u>	<u>(61,753,388)</u>
Net Change in Total Pension Liability	62,581,505	49,851,880
Total Pension Liability - Beginning	<u>856,668,657</u>	<u>806,816,777</u>
Total Pension Liability - Ending (a)	<u><u>\$919,250,162</u></u>	<u><u>\$856,668,657</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	29,197,532	26,327,799
Contributions - State	461,877	461,877
Contributions - Employee	2,152,895	2,433,031
Contributions - Buy Back	2,569,143	907,919
Contributions - Annuity Savings Fund	3,594,508	4,032,235
Net Investment Income	70,077,666	48,674,393
Benefit Payments, including Refunds of Employee Contributions	<u>(67,397,153)</u>	<u>(61,753,388)</u>
Revision in methodology to include Annuity Reserve Fund	48,248,469	-
Net Change in Plan Fiduciary Net Position	88,904,937	21,083,866
Plan Fiduciary Net Position - Beginning	<u>591,081,423</u>	<u>569,997,557</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$679,986,360</u></u>	<u><u>\$591,081,423</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$239,263,802</u></u>	<u><u>\$265,587,234</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	73.97%	69.00%
Covered Employee Payroll ¹	\$ 55,447,024	\$ 54,783,012
Net Pension Liability as a percentage of Covered Employee Payroll	431.52%	484.80%

Notes to Schedule:

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82.

Changes of benefit terms:

For measurement date 09/30/2017, amounts reported as changes of benefit terms were made for the General Employees of the System effective December 1, 2017:

1.) **Fully Grandfathered** - For those Members eligible for Normal Retirement before December 1, 2017, the only change in benefits is that they will be required to make an additional 5.0% of Salary contribution to the retirement plan (this is separate from the contributions to the Annuity Savings Plan) beginning December 1, 2017.

If the Member had already been contributing 4.0% of Salary, then their new Member Contribution Rate to the retirement plan will be 9.0% of Salary. If the Member had not been contributing to the retirement plan because they were eligible for Normal Retirement when the original retirement plan Member Contributions were enacted, then their new Member Contribution Rate to the retirement plan will be 5.0% of Salary.

Continued Changes of benefit terms:

2.) **Partially Grandfathered with at least 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have at least 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to December 1, 2017 and 2.0% for each year of Credited Service earned on and after that date, with a maximum benefit of 75% of Average Final Compensation.

3.) **Partially Grandfathered with less than 20 years of service** – Those Members who, as of December 1, 2017, have completed at least 16 years of actual service with the City, have attained 62 points (age plus service equals 62), and have less than 20 years of Credited Service, will have only two changes to benefits. First, their Member Contribution Rate to the retirement plan will increase effective December 1, 2017 from 4.0% to 9.0% of Salary. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each of the first 20 years of Credited Service plus 2.0% for each year of Credited Service earned above 20 years, with a maximum benefit of 75% of Average Final Compensation.

4.) **Non-Grandfathered** – Those Members who, as of December 1, 2017, were not eligible for Normal Retirement, or had not completed at least 16 years of actual service with the City or had not attained 62 points, will have their Member Contribution Rate to the retirement plan increase effective December 1, 2017 from 4.0% to 9.0% of Salary and have the following benefit changes:

A.) All benefits accrued as of November 30, 2017 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before December 1, 2017 (Normal Retirement at 20 years of Credited Service with age plus service at least 70, Vested Retirement at 55 with 10 years of Credited Service, etc.). The frozen benefits will use Average Final Compensation and Credited Service determined as of November 30, 2017. The frozen benefits cannot commence until a Member terminates employment with the City. All Non-Grandfathered General Employees will be 100% vested in this frozen benefit. This means that the “frozen” benefit will be payable at the later of (1) age 55 with 10 years of service or (2) termination of employment with the City, with no reduction for partial vesting.

B.) Benefits earned on and after December 1, 2017 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before December 1, 2017, except as follows:

1.) The benefit accrual rate for Credited Service earned on and after December 1, 2017 shall be 2.0% per year, with a maximum benefit of 75% of Average Final Compensation (AFC). The 75% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after December 1, 2017. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated.

2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 8 years of credited service; provided, in no event shall a Member’s Average Final Compensation be less than the highest 3-year average as of December 1, 2017.

3.) The Normal Retirement Date shall be age 62 with 20 years of Credited Service. See the Actuarial Assumptions and Methods pages of the 10/01/2017 Valuation Report for the new assumed retirement rates for these employees.

4.) Compensation shall be base pay only. All other types of compensation shall be excluded for retirement purposes. To value for this provision we assumed that the pensionable compensation for each of these employees would be reduced by 6.1%.

5.) There shall be no Cost of Living Adjustments (COLA’s) on benefits based on credited service earned on or after December 1, 2017.

6.) Members shall not be eligible to purchase additional Credited Service on or after December 1, 2017.

7.) Members shall become vested in the “future service” benefit upon reaching age 55 with 10 or more years of Credited Service. Once they reach age 55 the vesting percentage is 70% at 10 years of service plus 3% for each year between 10 and 20 years of service. However, a Member cannot begin to receive this deferred vested benefit until age 62. Members who do not attain age 55 with 10 years of Credited Service will receive a refund of their Member Contributions made to the retirement plan on and after December 1, 2017.

8.) Although not specifically outlined in the proposed ordinance, it is assumed that the Basic Pension will be considered as part of the “frozen” benefit so that it will receive the COLA’s and will be paid at age 55 with 10 years of Credited Service with no reduction.

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Changes of assumptions

For measurement date 09/30/2017, the Annuity Reserve Fund Balance is now included both in the Assets and Liabilities of the Plan. Last year, it was not included in either.

For measurement date 09/30/2016, as a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.

The inflation assumption rate was lowered from 3.00% to 2.30%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 10 Fiscal Years

Reporting Period Ending	09/30/2016	09/30/2015
Measurement Date	<u>09/30/2015</u>	<u>09/30/2014</u>
Total Pension Liability		
Service Cost	9,104,164	8,982,779
Interest	61,082,848	60,285,831
Change in Annuity Savings Fund	3,887,151	4,064,028
Change in Annuity Reserve Fund	-	-
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	10,359,527	-
Changes of assumptions	-	-
Contributions - Buy Back	975,579	1,182,367
Benefit Payments, including Refunds of Employee Contributions	<u>(66,047,848)</u>	<u>(63,299,504)</u>
Net Change in Total Pension Liability	19,361,421	11,215,501
Total Pension Liability - Beginning	<u>787,455,356</u>	<u>776,239,855</u>
Total Pension Liability - Ending (a)	<u><u>\$806,816,777</u></u>	<u><u>\$787,455,356</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	27,382,906	25,769,253
Contributions - State	461,877	461,877
Contributions - Employee	2,132,259	1,587,095
Contributions - Buy Back	975,579	1,182,367
Contributions - Annuity Savings Fund	3,887,151	4,064,028
Net Investment Income	2,881,487	58,702,102
Benefit Payments, including Refunds of Employee Contributions	(66,047,848)	(63,299,504)
Revision in methodology to include Annuity Reserve Fund	-	-
Net Change in Plan Fiduciary Net Position	<u>(28,326,589)</u>	<u>28,467,218</u>
Plan Fiduciary Net Position - Beginning	<u>598,324,146</u>	<u>569,856,928</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$569,997,557</u></u>	<u><u>\$598,324,146</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$236,819,220</u></u>	<u><u>\$189,131,210</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.65%	75.98%
Covered Employee Payroll ¹	\$ 57,948,210	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	408.67%	N/A

Notes to Schedule:

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2017	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution Contributions in relation to the Actuarially Determined Contributions	29,659,409	26,477,463	26,210,070	26,231,130
Contribution Deficiency (Excess)	\$ -	\$ (312,213)	\$ (1,634,713)	\$ -
Covered Employee Payroll ¹	\$ 55,447,024	\$ 54,783,012	\$ 57,948,210	N/A
Contributions as a percentage of Covered Employee Payroll	53.49%	48.90%	48.05%	N/A

¹ The Covered Employee Payroll numbers shown are in compliance with GASB 82.

Notes to Schedule

Valuation Date: 10/01/2015

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Actuarial Cost Method: The entry age normal cost method was used to determine all liabilities, except that the liability associated with member contributions has been assumed to be equal to those contributions.
 Prior to October 1, 1998, fiscal year City contributions made in excess of required valuation year contributions were credited to the temporary funding credit.
 Beginning October 1, 1998, fiscal year contributions made in excess of required valuation year contributions are included in the experience gain or loss for the year. Experience gains and losses are amortized over a 15-year period.
 Beginning October 1, 2007, the method of amortizing experience gains and losses of the System was changed from a 15-year to a 30-year level dollar method. The amortization amounts for outstanding gain and loss bases as of October 1, 2007 were recalculated to extend the amortization period an additional 15 years (for a total of 30 years).
 Beginning October 1, 2008, the method of amortizing all outstanding unfunded liability bases was changed from a level dollar method to an increasing amortization based on a level percent of payroll. The aggregate payroll is assumed to increase at 4.0% per year, limited to average payroll growth for the previous 10 years.
 Beginning October 1, 2011, the method of amortizing all outstanding unfunded liability bases was changed to an increasing amortization based on a level percent of payroll where the aggregate payroll is assumed to increase at 3.5% per year.

Remaining Amortization Period: 30 Years (as of 10/01/2015).

Decrements:

Pre-Retirement Mortality:
 RP-2000 Combined Mortality Table with a blue collar adjustment projected 15 years from valuation date.

Post-Retirement Healthy Mortality:
 RP-2000 Combined Mortality Table with a blue collar adjustment projected 7 years from valuation date.

Post-Retirement Disabled Mortality:
 RP-2000 Disabled Mortality Table.

Decrements:

Disability (General Employees)

Representative values of the assumed annual rates of disability among General employee members in active service are set forth in the following table:

Age	Rate	Age	Rate
20	0.024%	50	0.360%
25	0.040%	55	0.608%
30	0.056%	60	0.880%
35	0.104%	65	0.784%
40	0.152%	70	0.688%
45	0.224%	75	0.592%

Disability (Police Officers and Firefighters)

85% of all disabilities are assumed to be in the line of duty and 15% are assumed not to be in the line of duty. Representative values of the assumed annual rates of disability among Police Officer and Firefighter members in active service are set forth in the following table:

Age	Rate	Age	Rate
20	0.096%	50	0.896%
25	0.120%	55	1.328%
30	0.152%	60	1.760%
35	0.248%	65	2.192%
40	0.384%	70	2.624%
45	0.584%	75	3.056%

Permanent Withdrawal from Active Status (used for members with less than six years of service)

Representative values of the assumed annual rates of withdrawal among members in active service who have less than six years of service are set forth in the following tables:

<i>General Employees</i>		<i>Police Officers</i>	
Years of Service	Rate	Years of Service	Rate
0	12.5%	0	12.0%
1	12.5%	1	12.0%
2	7.5%	2	9.0%
3	7.5%	3	7.5%
4	7.5%	4	6.0%
5	7.5%	5	5.0%

<i>Firefighters</i>	
Years of Service	Rate
0	12.5%
1	9.5%
2	5.0%
3	4.0%
4	3.0%
5	2.5%

Decrements:

Permanent Withdrawal from Active Status (used for members with at least six years of service)

Representative values of the assumed annual rates of withdrawal among members in active service who have at least six years of service are set forth in the following tables:

<i>General Employees</i>		<i>Police Officers</i>	
Age	Rate	Age	Rate
25	5.0%	25	5.0%
30	5.0%	30	4.5%
35	5.0%	35	4.0%
40	5.0%	40	4.0%
45	5.0%	45	4.0%
50	5.0%	50	1.0%
55	3.0%	55	1.0%
60	2.0%	60	1.0%

<i>Firefighters</i>	
Age	Rate
25	2.0%
30	2.0%
35	2.0%
40	2.0%
45	2.0%
50	1.0%
55	1.0%
60	1.0%

Retirement (General Employees)

Representative values of the assumed annual rates of retirement among eligible General Employee members are shown in the tables below:

a) General Employees with less than 25 years of eligible service:

Age	Rate	Age	Rate
45	0%	58	15%
46	0%	59	15%
47	0%	60	15%
48	0%	61	5%
49	0%	62	15%
50	10%	63	5%
51	5%	64	5%
52	5%	65	75%
53	5%	66	25%
54	5%	67	35%
55	15%	68	45%
56	15%	69	85%
57	15%	70	100%

Decrements:

b) General Employees with 25 years of eligible service:

Age	Rate	Age	Rate
45	0%	58	40%
46	0%	59	40%
47	0%	60	40%
48	0%	61	40%
49	0%	62	50%
50	50%	63	30%
51	30%	64	30%
52	30%	65	80%
53	30%	66	50%
54	30%	67	60%
55	40%	68	70%
56	40%	69	80%
57	40%	70	100%

c) General Employees with more than 25 years of eligible service:

Age	Rate	Age	Rate
45	0%	58	20%
46	0%	59	20%
47	0%	60	20%
48	0%	61	10%
49	0%	62	20%
50	15%	63	10%
51	10%	64	10%
52	10%	65	80%
53	10%	66	30%
54	10%	67	40%
55	20%	68	50%
56	20%	69	90%
57	20%	70	100%

Retirement (Police Officers and Firefighters)

Representative values of the assumed annual rates of retirement among eligible Police Officer and Firefighter members are shown in the table below:

Service	Age < 65		Age ≥ 65
	Police Officers	Firefighters	
< 15	0%	0%	100%
15-19	5%	3%	100%
20	25%	20%	100%
21-24	10%	10%	100%
25	50%	40%	100%
26	30%	30%	100%
27	40%	40%	100%
28	50%	45%	100%
29	60%	50%	100%
30+	100%	100%	100%

Interest Rate:

8.00% per annum net of investment related expenses.

Salary Increases (General Employees) Representative values of the assumed annual rates of increase in salaries for General employees are shown in the table below:

Age	Rate	Age	Rate
20	9%	50	4%
25	8%	55	4%
30	7%	60	4%
35	6%	65	4%
40	5%	70	4%
45	5%	75	4%

A 5.0% and 9.5% salary increase is assumed as of October 1, 2011 and October 1, 2012 respectively. These increases reflect the restoration of a 17% pay concession that occurred on March 21, 2011 (with pay being restored to pre-concession levels on April 1, 2012) as well as the cessation of mandatory furlough days (1 in every 10 days ending on March 20, 2011). Other than the restoration of the above concessions, no salary increases for fiscal 2012 through 2014 are assumed. Beginning with fiscal 2015, pay is assumed to increase at the rates provided in the table above.

Salary Increases (Police Officers and Firefighters) Representative values of the assumed annual rates of increase in salaries for Police Officers and Firefighters are shown in the table below:

Service	Police Officers	Firefighters
0	9.0%	9.0%
1	8.5%	8.5%
2	8.0%	8.0%
3	7.5%	7.5%
4	7.0%	7.0%
5	6.5%	6.5%
6-9	6.0%	6.0%
10	6.0%	5.0%
11	5.0%	4.5%
12-22	4.0%	4.0%
23+	4.0%	3.0%

The pay scale for the Police Officer and Firefighters also reflects short term salary freezes through the end of fiscal 2013.

Assets: The actuarial value of assets (AV A) is equal to the market value of assets adjusted to reflect a five year phase-in of the difference between the expected versus actual return on the AV A. The AVA is limited to an 80%-120% corridor of the market value of assets.

Funding Period (Pursuant to Chapter 112, Florida Statutes): The annual payment towards the unfunded actuarial accrued liability has been determined as a level percent of pay. The aggregate payroll is assumed to increase at 3.5% per year as approved by the Division of Retirement.

Refund of Member Contributions: It is assumed that all members take a refund of their accumulated employee contributions upon retiring from the System.

*** Please note that we (Foster & Foster, Inc.) are using the assumptions adopted by the Board as guided by the prior actuary and don't have the necessary data to assess the reasonableness of the assumptions.**

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2017

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning Balance	\$ 236,819,220	\$ 8,593,767	\$ 69,548,219	\$ -
Employer and State contributions made after 09/30/2016	-	-	29,659,409	-
Total Pension Liability Factors:				
Service Cost	8,887,641	-	-	8,887,641
Interest	62,786,218	-	-	62,786,218
Change in Annuity Savings Fund	4,032,235	-	-	4,032,235
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	907,919	-	-	907,919
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	13,256,782	-	13,256,782	-
Current year amortization of experience difference	-	-	(5,904,078)	5,904,078
Change in assumptions about future economic or demographic factors or other inputs	21,734,473	-	21,734,473	-
Current year amortization of change in assumptions	-	-	(5,433,618)	5,433,618
Benefit Payments, including Refunds of Employee Contributions	(61,753,388)	-	-	-
Net change	49,851,880	-	53,312,968	87,951,709
Plan Fiduciary Net Position:				
Contributions - Employer	26,327,799	-	(26,327,799)	-
Contributions - State	461,877	-	(461,877)	-
Contributions - Employee	2,433,031	-	-	(2,433,031)
Contributions - Buy Back	907,919	-	-	(907,919)
Contributions - Annuity Savings Fund	4,032,235	-	-	(4,032,235)
Projected Net Investment Income	44,496,183	-	-	(44,496,183)
Difference between projected and actual earnings on Pension Plan investments	4,178,210	4,178,210	-	-
Current year amortization	-	(3,700,231)	(8,747,225)	5,046,994
Benefit Payments, including Refunds of Employee Contributions	(61,753,388)	-	-	-
Net change	21,083,866	477,979	(35,536,901)	(46,822,374)
Ending Balance	\$ 265,587,234	\$ 9,071,746	\$ 87,324,286	\$ 41,129,335

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2018

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 265,587,234	\$ 9,071,746	\$ 87,324,286	\$ -
Employer and State Contributions made after 09/30/2017	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	8,302,554	-	-	8,302,554
Interest	65,295,454	-	-	65,295,454
Change in Annuity Savings Fund	3,594,508	-	-	3,594,508
Change in Annuity Reserve Fund	48,248,469	-	-	48,248,469
Changes in benefit terms	(15,079,464)	-	-	(15,079,464)
Contributions - Buy Back	2,569,143	-	-	2,569,143
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	17,047,994	-	17,047,994	-
Current year amortization of experience difference	-	-	(10,166,075)	10,166,075
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(5,433,618)	5,433,618
Benefit Payments, including Refunds of Employee Contributions	(67,397,153)	-	-	-
Net change	<u>62,581,505</u>	<u>-</u>	<u>1,448,301</u>	<u>128,530,357</u>
Plan Fiduciary Net Position:				
Contributions - Employer	29,197,532	-	(29,197,532)	-
Contributions - State	461,877	-	(461,877)	-
Contributions - Employee	2,152,895	-	-	(2,152,895)
Contributions - Buy Back	2,569,143	-	-	(2,569,143)
Contributions - Annuity Savings Fund	3,594,508	-	-	(3,594,508)
Projected Net Investment Income	46,109,666	-	-	(46,109,666)
Difference between projected and actual earnings on Pension Plan investments	23,968,000	23,968,000	-	-
Current year amortization	-	(8,493,831)	(8,747,224)	253,393
Benefit Payments, including Refunds of Employee Contributions	(67,397,153)	-	-	-
Revision in methodology to incl. Annuity Reserve Fund	48,248,469	-	-	(48,248,469)
Net change	<u>88,904,937</u>	<u>15,474,169</u>	<u>(38,406,633)</u>	<u>(102,421,288)</u>
Ending Balance	<u>\$ 239,263,802</u>	<u>\$ 24,545,915</u>	<u>TBD</u>	<u>\$ 26,109,069</u>

* Employer and State Contributions subsequent to the measurement date made after September 30, 2017 but made on or before September 30, 2018 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between		Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	Expected	Actual Experience											
2014	\$	(14,322,943)	5	\$ (2,864,589)	\$ (2,864,589)	\$ (2,864,589)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$	43,736,122	5	\$ 8,747,225	\$ 8,747,224	\$ 8,747,224	\$ 8,747,224	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$	(4,178,210)	5	\$ (835,642)	\$ (835,642)	\$ (835,642)	\$ (835,642)	\$ (835,642)	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$	(23,968,000)	5	\$ -	\$ (4,793,600)	\$ (4,793,600)	\$ (4,793,600)	\$ (4,793,600)	\$ (4,793,600)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense				\$ 5,046,994	\$ 253,393	\$ 253,393	\$ 3,117,982	\$ (5,629,242)	\$ (4,793,600)	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	\$ 21,734,473	4	\$ 5,433,618	\$ 5,433,618	\$ 5,433,618	\$ 5,433,617	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 5,433,618	\$ 5,433,618	\$ 5,433,618	\$ 5,433,617	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
	Expected and Actual Experience	Recognition Period (Years)										
2015	\$ 10,359,527	4	\$ 2,589,882	\$ 2,589,882	\$ 2,589,882	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 13,256,782	4	\$ 3,314,196	\$ 3,314,196	\$ 3,314,196	\$ 3,314,196	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 17,047,994	4	\$ -	\$ 4,261,997	\$ 4,261,999	\$ 4,261,999	\$ 4,261,999	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 5,904,078	\$ 10,166,075	\$ 10,166,077	\$ 7,576,195	\$ 4,261,999	\$ -	\$ -	\$ -	\$ -	\$ -