

CITY OF HIALEAH  
EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2018

CONTRIBUTIONS APPLICABLE TO  
THE FISCAL YEAR ENDED SEPTEMBER 30, 2020

June 28, 2019

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 these valuations may not be applicable for any other purposes.

The valuations have 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 these valuations, 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 valuations, 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, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2018 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

By: 

Patrick T. Donlan, ASA, EA, MAAA  
Enrolled Actuary #17-6595

PTD/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, 2018, 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, 2020. The contributions have been developed assuming that the City will make their contribution on December 31, 2019.

The contribution requirements, compared with those developed in the September 17, 2018 Actuarial Impact Statement (determined as of October 1, 2017), are as follows:

Valuation Date	10/1/2018	10/1/2017
Applicable Fiscal Year End	<u>9/30/2020</u>	<u>9/30/2019</u>
Total Required Contribution	\$38,851,280	\$35,944,060
% of Projected Annual Payroll	75.66%	69.08%
Less Member Contributions	3,589,303	3,235,224
% of Projected Annual Payroll	6.99%	6.22%
Equals Required City & State	35,261,977	32,708,836
% of Projected Annual Payroll	68.67%	62.86%
State Contribution <sup>1</sup>	461,877	461,877
% of Projected Annual Payroll	0.90%	0.89%
Balance from City	<b>34,800,100</b>	<b>32,246,959</b>
% of Projected Annual Payroll	67.77%	61.97%

<sup>1</sup> 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. The primary reason for this increase was the change of assumptions that the Board approved at a recent meeting. A small reason for the increase in the funding requirements when expressed as a percentage of payroll is that the Projected Annual Payroll decreased by about 1%. This reduction in payroll makes the amortization of the Unfunded Actuarial Accrued Liability represent a larger percentage of projected payroll. This impact was approximately 0.5% of payroll. Additionally, there was net unfavorable actuarial experience during past year, as compared to the assumptions. The primary components of unfavorable experience included losses related to lower than expected mortality, several employees buying back credited service to retire, retirements being earlier than anticipated, and the fact that Members' Annuity Savings accounts were credited with 8.46% and the assumed rate is 8.00%. Adding to these losses was the impact of a 7.92% return on the Actuarial Value of Assets, which

was less than the assumed rate. Partially offsetting these losses was the effect of 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 30. The net actuarial losses increased the funding requirements by approximately 0.7% of payroll. Additionally, as a result of an Experience Study, the Board authorized the use of new assumptions in this valuation as outlined in the Changes Since Prior Report section that immediately follows.

**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, 2018, accumulated contributions to the ASF for all Members totaled \$122,453,448.73. Of this amount, accumulated active member contributions totaled \$60,646,484 and accumulated retiree contributions (including accumulated contributions for non-active, non-retired members) totaled \$61,806,965. The arithmetic average of the annual yields on the market value of assets for the period October 1, 2013 through September 30, 2018 is 7.76%. Therefore, accumulated member contribution and DROP accounts should be credited with interest at the rate of 7.76% for the 2018/2019 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

## CHANGES SINCE PRIOR REPORT

### **Plan changes since prior valuation**

An ordinance provided amended benefits for Police Officers (not General Employees and Firefighters) effective September 25, 2018. The benefit reductions are different based upon age and service as of the effective date. Additionally, a police officer member who separates from city employment prior to vesting may obtain a refund of member contributions made on and after October 1, 2018, with interest at the rate of 3.0% per annum, in lieu of receiving any future service benefits from the retirement system.

- 1.) **Tier 1A – Those Members eligible for Normal Retirement as of March 2, 2014** – The only changes will be 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 – September 30, 2019: 2.0% of pensionable Salary  
October 1, 2019 – September 30, 2020: 4.0% of pensionable Salary  
October 1, 2020 and forward: 6.0% of pensionable Salary

- 2.) **Tier 1B – Those Members eligible for Normal Retirement as of September 25, 2018** – The only changes will be 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 – September 30, 2019: 6.0% of pensionable Salary  
October 1, 2019 – September 30, 2020: 8.0% of pensionable Salary  
October 1, 2020 and forward: 10.0% of pensionable Salary

- 3.) **Tier 1C – Those Members with at least 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have at least 20 years of Credited Service, will have only four changes. First, they will have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to September 25, 2018, and 2.75% for each year of Credited Service earned on and after that date, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, will be 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

- 4.) **Tier 1D – Those Members with 16 to 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have less than 20 years of Credited Service, will have only four changes. First, they will have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned up to 20 years, and 2.75% for each year of Credited Service earned above 20 years, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, will be 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

- 5.) **Tier 1E – Those Members with 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 16 years of actual service with the City, but had not attained 66 points, will have the same member contribution rate changes as Tier 1B and the following benefit changes.

A.) All benefits accrued as of September 24, 2018 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before September 25, 2018 (Normal Retirement at 20 years of Credited Service with age plus service at least 70 for this group (76 for Tier 2), unreduced 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 September 24, 2018. The frozen benefits cannot commence until a Member terminates employment with the City. All Police Officers will be 100% vested in this frozen benefit. This means that even if a Police Officer terminates employment with the City on October 1, 2018 after being hired on September 20, 2018, they would receive an unreduced “frozen” benefit at age 55, albeit that benefit will equal 5 days of Credited Service times 2.75% times their Average Final Compensation at September 24, 2018.

B.) Benefits earned on and after September 25, 2018 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before September 25, 2018, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after September 25, 2018 shall be 2.75% per year, with a maximum benefit of 79.5% of Average Final Compensation (AFC). The 79.5% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after September 25, 2018. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated. Provided, however, that the minimum benefit (including the basic pension) shall be 2.75% of average final compensation for all years of credited service.
- 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 5 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 September 24, 2018.
- 3.) The Normal Retirement Date shall be the earlier of 1.) age 55 with 10 years of Credited Service, 2.) age 52 with 25 years of Credited Service, or 3.) 27 years of Credited Service, regardless of age. 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 were provided base pay for all Police Officers as of September 30, 2017.
- 5.) There shall be no Cost of Living Adjustments (COLA’s) on benefits based on credited service earned on or after September 25, 2018.
- 6.) Members shall not be eligible to purchase additional Credited Service on or after September 25, 2018, except that upon reaching 25 years of service, this group may purchase up to 2 years of service.
- 7.) Members may enter the DROP upon attaining the earlier of 1.) age 52 with 25 years of credited service, or 2.) 27 years of service, regardless of age, and may participate in the DROP for a maximum of 5 years.
- 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 no reduction.

- 6.) **Tier 1F – Those Members with 10 - 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 10 years of actual service with the City, but had not completed 16 years of actual service and had not attained 66 points, will have the exact same changes as Tier 1E, except that they would not be allowed to purchase any service after September 25, 2018.
- 7.) **Tier 1G – Those Members with less than 10 years of service as of September 25, 2018, who were hired before March 2, 2014** – Those Members who, as of September 25, 2018, completed at less than 10 years of actual service with the City, and had not attained 66 points, will have the exact same changes as Tier 1F, except that they would not have the normal retirement provision of the completion of 27 years of service, regardless of age mentioned in 5(B)(3) and 5(B)(7) listed above.
- 8.) **Tier 2 – Those Members who were hired on or after March 2, 2014** – These Members will have the exact same changes as Tier 1G, except that they have no Basic Pension and the minimum age plus service for the “frozen” benefit is 76 points instead of 70. Additionally, the Vested or Deferred benefits are payable at age 59 ½. Lastly, the COLA on the “frozen” benefit is 1.0% per year, instead of 2.0%.

Additionally, the current Police Officer DROP Members at the time the ordinance is adopted would have the opportunity to extend their DROP period an additional two years.

The impact of these changes on the funding requirements was outlined in our Actuarial Impact Statement dated September 17, 2018.

**Actuarial assumption/method changes since prior valuation**

As a result of the above benefit changes, the following assumed retirement rates now apply to the following Tiers of Police Officers:

- **Retirement (Tier 1E and 1F Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1 <sup>st</sup> year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service	100.0%

- **Retirement (Tier 1G and Tier 2 Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1 <sup>st</sup> year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service between age 52 and 60	40.0%
28 years of service between age 52 and 60	50.0%
29 years of service between age 52 and 60	60.0%
30 years of service	100.0%

As a result of an Experience Study prepared January 29, 2019, the Board approved the following assumption changes to be made in conjunction with this October 1, 2018 actuarial valuation report:

- The investment return assumption was changed from 8.0% to 7.8%, net of investment related expenses.
- The assumed rates of individual salary increase were change to a service based assumption for each group of employees as follows:

General Employees

<u>Yrs of Service</u>	<u>Expected Salary Increase</u>
< 1	15.0%
1-4	7.0%
5-14	6.0%
15-19	5.0%
20+	4.5%

Police Officers

No changes

Firefighters

<u>Yrs of Service</u>	<u>Expected Salary Increase</u>
< 1	10.0%
1-4	6.0%
5-9	5.5%
10-24	4.0%
25+	3.0%

- The assumed rates of retirement were amended to the following rates:

Firefighters

<u>Yrs of Service</u>	<u>Expected Probability of Retirement</u>
< 20	0.0%
20-22	7.5%
23-24	12.5%
25	50.0%
26-29	33.3%
30+	100.0%

General Employees

For fully or partially grandfathered employees, the assumption is 10% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability and each year after that until age 70 is a 35% probability and a 100% probability at age 70.

There is no change to the assumption for non-grandfathered employees.

Police Officers

For fully or partially grandfathered employees (Tiers 1A – 1D), the assumption is 5% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability, the second year will be 35%, each year after will be 30% with 100% at total points (age + service) of 79. Also, once a member reaches age 65, the assumption will be 100%.

There is no change to the assumption for non-grandfathered employees.

- The assumed rates of withdrawal (pre-retirement separation) were changed to the following rates:

Firefighters

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
< 5	11.0%
5-12	2.5%
13+	0.0%

General Employees

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
< 1	15.0%
1	12.5
2	10.0
3-4	8.5
5-6	7.0
7-8	6.0
9-10	5.0
11-12	4.0
13-14	3.0
15-20	2.0
21+	0.0

Police Officers

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
< 2	20.0%
2-3	17.5
4-5	7.5
6-9	5.0
10-14	4.5
15-17	2.5
18+	0.0

- The assumed rates of Disability retirement were reduced for each employee group as follows:

Group	Adjustment
Firefighters	Reduced rates 33%
General Employees	Reduced rates 50%
Police Officers	Reduced rates 30%

The impact of these changes is shown in the Comparative Summary of Principal Valuation Results that follows.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

Total Plan

	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	816	816	849
Service Retirees	1,318	1,318	1,302
DROP Retirees	40	40	33
Beneficiaries	53	53	45
Disability Retirees	176	176	179
Terminated Vested	<u>248</u>	<u>248</u>	<u>204</u>
<b>Total</b>	<b>2,651</b>	<b>2,651</b>	<b>2,612</b>
<b>Total Annual Payroll</b>	<b>\$52,399,109</b>	<b>\$52,369,013</b>	<b>\$52,779,099</b>
<b>Payroll Under Assumed Ret. Age</b>	<b>\$51,351,940</b>	<b>\$51,593,343</b>	<b>\$52,028,552</b>
<b>Annual Rate of Payments to:</b>			
Service Retirees	53,580,873	53,580,873	52,124,662
DROP Retirees	3,001,960	3,001,960	2,409,968
Beneficiaries	1,498,237	1,498,237	1,095,810
Disability Retirees	5,247,426	5,247,426	5,270,205
Terminated Vested	2,057,416	2,057,416	1,801,448
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	696,946,890	696,946,890	679,218,799
Market Value (MVA) <sup>1</sup>	706,113,130	706,113,130	679,986,360
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	222,836,614	187,933,323	193,706,753
Disability Benefits	8,968,013	13,352,669	13,580,720
Death Benefits	2,720,048	2,625,136	2,758,017
Vested Benefits	3,571,177	10,390,351	11,692,247
Refund of Contributions	1,061,342	1,449,824	1,350,448
Service Retirees	563,727,012	554,467,861	542,763,779
DROP Retirees <sup>1</sup>	43,947,180	43,242,925	33,902,473
Beneficiaries	10,176,605	10,051,341	7,139,929
Disability Retirees	43,029,134	42,468,166	43,263,750
Terminated Vested	11,353,198	10,993,831	10,240,580
Annuity Savings/Reserve	<u>122,453,449</u>	<u>122,453,449</u>	<u>125,780,204</u>
<b>Total</b>	<b>1,033,843,772</b>	<b>999,428,876</b>	<b>986,178,900</b>

C. Liabilities - (Continued)	Total Plan		
	New Assum	Old Assum	
	<u>10/1/2018</u>	<u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	387,585,910	385,238,821	392,898,748
Normal Cost (Retirement)	5,870,417	4,977,205	5,203,924
Normal Cost (Disability)	527,992	792,084	807,579
Normal Cost (Death)	99,271	94,589	99,073
Normal Cost (Vesting)	722,913	942,494	989,036
Normal Cost (Refunds)	<u>150,434</u>	<u>120,503</u>	<u>103,156</u>
Total Normal Cost	7,371,027	6,926,875	7,202,768
Present Value of Future Normal Costs	55,234,898	52,324,815	53,446,055
Accrued Liability (Retirement)	175,407,202	150,321,695	155,651,791
Accrued Liability (Disability)	4,755,957	7,120,216	7,390,319
Accrued Liability (Death)	1,943,469	1,921,804	2,030,900
Accrued Liability (Vesting)	1,357,197	3,679,618	4,223,210
Accrued Liability (Refunds)	458,471	383,155	345,910
Accrued Liability (Inactives) <sup>1</sup>	672,233,129	661,224,124	637,310,511
Annuity Savings	<u>122,453,449</u>	<u>122,453,449</u>	<u>125,780,204</u>
Total Actuarial Accrued Liability (AL)	978,608,874	947,104,061	932,732,845
Unfunded Actuarial Accrued Liability (UAAL)	281,661,984	250,157,171	253,514,046
Funded Ratio (AVA / AL)	71.2%	73.6%	72.8%

	Total Plan		
D. Actuarial Present Value of Accrued Benefits	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives <sup>1</sup>	672,233,129	661,224,124	637,310,511
Actives	105,714,815	100,763,862	101,428,772
Member Contributions	<u>128,100,632</u>	<u>128,100,632</u>	<u>131,427,387</u>
Total	906,048,576	890,088,618	870,166,670
Non-vested Accrued Benefits	<u>45,754,265</u>	<u>33,945,847</u>	<u>36,032,256</u>
Total Present Value Accrued Benefits (PVAB)	951,802,841	924,034,465	906,198,926
Funded Ratio (MVA / PVAB)	74.2%	76.4%	75.0%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	27,768,376	0	
New Accrued Benefits	0	23,410,262	
Benefits Paid	0	(75,067,920)	
Interest	0	69,493,197	
Other	<u>0</u>	<u>0</u>	
Total	27,768,376	17,835,539	

Total Plan

	New Assum	Old Assum	
Valuation Date	10/1/2018	10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2020</u>	<u>9/30/2019</u>

E. Pension Cost

Normal Cost <sup>2</sup>	\$8,096,577	\$7,608,706	\$7,930,109
% of Total Annual Payroll	15.77	14.75	15.24
Administrative Expenses <sup>2</sup>	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 10/1/2018) <sup>2</sup>	30,754,703	28,361,867	28,013,951
% of Total Annual Payroll	59.89	54.97	53.84
Total Required Contribution	38,851,280	35,970,573	35,944,060
% of Total Annual Payroll	75.66	69.72	69.08
Expected Member Contributions <sup>3</sup>	3,589,303	3,595,443	3,235,224
% of Total Annual Payroll	6.99	6.97	6.22
Expected City and State Contribution	35,261,977	32,375,130	32,708,836
% of Total Annual Payroll	68.67	62.75	62.86

<sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2018 and 9/30/2017.

<sup>2</sup> Contributions are adjusted for 15 months of interest.

<sup>3</sup> The left column represents the Member Contributions for fiscal 2020. They will increase by 2.0% of Salary the following year for Police Officers.

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>
2018	281,661,984
2019	273,449,004
2020	264,595,411
2027	213,337,886
2034	120,534,627
2041	28,209,779
2048	0

General Employees

	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	343	343	377
Service Retirees	830	830	830
DROP Retirees	0	0	0
Beneficiaries	34	34	29
Disability Retirees	56	56	58
Terminated Vested	<u>116</u>	<u>116</u>	<u>108</u>
Total	1,379	1,379	1,402
Total Annual Payroll	\$18,022,014	\$17,967,769	\$17,587,465
Payroll Under Assumed Ret. Age	17,564,747	17,514,668	17,250,636
Annual Rate of Payments to:			
Service Retirees	27,153,134	27,153,134	27,006,902
DROP Retirees	0	0	0
Beneficiaries	719,331	719,331	504,695
Disability Retirees	1,021,053	1,021,053	1,048,524
Terminated Vested	911,456	911,456	872,609
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	62,304,091	49,114,193	46,249,053
Disability Benefits	1,066,860	2,304,543	2,286,045
Death Benefits	532,132	584,472	573,772
Vested Benefits	1,695,651	3,490,681	4,277,014
Refund of Contributions	396,226	876,763	935,142
Service Retirees	281,507,272	276,928,433	277,737,150
DROP Retirees <sup>1</sup>	0	0	0
Beneficiaries	5,816,079	5,737,774	3,729,732
Disability Retirees	7,671,957	7,575,755	7,962,026
Terminated Vested	5,729,376	5,562,823	5,679,037
Annuity Savings/Reserve	<u>41,829,792</u>	<u>41,829,792</u>	<u>45,333,756</u>
Total	408,549,436	394,005,229	394,762,727

General Employees

C. Liabilities - (Continued)	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	135,870,931	131,418,965	141,144,926
Normal Cost (Retirement)	1,507,446	1,090,504	1,131,046
Normal Cost (Disability)	53,151	100,190	104,746
Normal Cost (Death)	18,650	17,775	18,422
Normal Cost (Vesting)	550,876	538,672	568,043
Normal Cost (Refunds)	<u>14,947</u>	<u>30,684</u>	<u>35,894</u>
Total Normal Cost	2,145,070	1,777,825	1,858,151
Present Value of Future Normal Costs	14,055,286	12,497,109	13,451,839
Accrued Liability (Retirement)	50,615,306	41,303,072	38,263,415
Accrued Liability (Disability)	653,771	1,569,507	1,497,911
Accrued Liability (Death)	377,695	447,880	428,136
Accrued Liability (Vesting)	237,423	442,053	557,772
Accrued Liability (Refunds)	55,479	111,031	121,953
Accrued Liability (Inactives) <sup>1</sup>	300,724,684	295,804,785	295,107,945
Annuity Savings/Reserve	<u>41,829,792</u>	<u>41,829,792</u>	<u>45,333,756</u>
Total Actuarial Accrued Liability (AL)	394,494,150	381,508,120	381,310,888
Unfunded Actuarial Accrued Liability (UAAL)	116,021,157	103,035,127	107,306,564
Funded Ratio (AVA / AL)	70.6%	73.0%	71.9%

General Employees

D. Actuarial Present Value of Accrued Benefits	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives <sup>1</sup>	300,724,684	295,804,785	295,107,945
Actives	33,536,072	30,846,039	28,704,301
Member Contributions	<u>43,896,081</u>	<u>43,896,081</u>	<u>47,400,045</u>
Total	378,156,837	370,546,905	371,212,291
Non-vested Accrued Benefits	<u>14,486,932</u>	<u>7,723,013</u>	<u>7,720,962</u>
Total Present Value			
Accrued Benefits (PVAB)	392,643,769	378,269,918	378,933,253
Funded Ratio (MVA / PVAB)	71.9%	74.6%	72.4%

Police Officers

	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	272	272	274
Service Retirees	321	321	317
DROP Retirees	7	7	6
Beneficiaries	12	12	9
Disability Retirees	46	46	48
Terminated Vested	<u>107</u>	<u>107</u>	<u>78</u>
<b>Total</b>	<b>765</b>	<b>765</b>	<b>732</b>
Total Annual Payroll	\$17,752,542	\$17,752,542	\$18,028,984
Payroll Under Assumed Ret. Age	17,349,573	17,616,904	17,892,969
Annual Rate of Payments to:			
Service Retirees	16,255,391	16,255,391	15,889,281
DROP Retirees	542,313	542,313	438,781
Beneficiaries	514,352	514,352	326,560
Disability Retirees	1,342,129	1,342,129	1,411,959
Terminated Vested	894,487	894,487	728,031
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	70,768,242	59,565,545	59,921,537
Disability Benefits	4,011,303	5,774,641	5,787,122
Death Benefits	706,321	753,911	804,204
Vested Benefits	1,694,204	5,076,014	5,501,901
Refund of Contributions	553,231	500,173	373,623
Service Retirees	174,328,788	171,427,591	168,994,955
DROP Retirees <sup>1</sup>	7,792,731	7,664,372	6,642,671
Beneficiaries	2,602,181	2,577,091	1,575,295
Disability Retirees	11,758,791	11,597,212	12,414,819
Terminated Vested	4,284,318	4,134,649	3,640,896
Annuity Savings/Reserve	<u>33,268,606</u>	<u>33,268,606</u>	<u>31,575,608</u>
<b>Total</b>	<b>311,768,716</b>	<b>302,339,805</b>	<b>297,232,631</b>

Police Officers

C. Liabilities - (Continued)	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	125,197,166	130,373,937	133,673,901
Normal Cost (Retirement)	1,787,640	1,591,398	1,675,324
Normal Cost (Disability)	240,756	355,246	354,381
Normal Cost (Death)	25,371	27,014	28,640
Normal Cost (Vesting)	137,569	277,201	287,740
Normal Cost (Refunds)	<u>99,878</u>	<u>70,087</u>	<u>51,421</u>
Total Normal Cost	2,291,214	2,320,946	2,397,506
Present Value of Future Normal Costs	17,557,241	17,805,693	18,414,463
Accrued Liability (Retirement)	56,293,857	47,785,746	47,442,132
Accrued Liability (Disability)	2,057,188	2,847,435	2,908,843
Accrued Liability (Death)	510,083	554,405	593,277
Accrued Liability (Vesting)	991,247	2,436,883	2,847,935
Accrued Liability (Refunds)	323,685	240,122	181,737
Accrued Liability (Inactives) <sup>1</sup>	200,766,809	197,400,915	193,268,636
Annuity Savings/Reserve	<u>33,268,606</u>	<u>33,268,606</u>	<u>31,575,608</u>
Total Actuarial Accrued Liability (AL)	294,211,475	284,534,112	278,818,168
Unfunded Actuarial Accrued Liability (UAAL)	85,846,196	76,168,833	74,750,197
Funded Ratio (AVA / AL)	70.8%	73.2%	73.2%

Police Officers

D. Actuarial Present Value of Accrued Benefits	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives <sup>1</sup>	200,766,809	197,400,915	193,268,636
Actives	34,189,543	32,197,258	28,589,383
Member Contributions	<u>34,969,192</u>	<u>34,969,192</u>	<u>33,276,194</u>
Total	269,925,544	264,567,365	255,134,213
Non-vested Accrued Benefits	<u>15,560,064</u>	<u>12,441,565</u>	<u>13,283,506</u>
Total Present Value			
Accrued Benefits (PVAB)	285,485,608	277,008,930	268,417,719
Funded Ratio (MVA / PVAB)	74.0%	76.2%	102.2%

Firefighters

	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	201	201	198
Service Retirees	167	167	155
DROP Retirees	33	33	27
Beneficiaries	7	7	7
Disability Retirees	74	74	73
Terminated Vested	<u>25</u>	<u>25</u>	<u>18</u>
<b>Total</b>	<b>507</b>	<b>507</b>	<b>478</b>
Total Annual Payroll	\$16,624,552	\$16,648,702	\$17,162,650
Payroll Under Assumed Ret. Age	16,437,621	16,461,770	16,884,947
Annual Rate of Payments to:			
Service Retirees	10,172,348	10,172,348	9,228,479
DROP Retirees	2,459,647	2,459,647	1,971,187
Beneficiaries	264,555	264,555	264,555
Disability Retirees	2,884,244	2,884,244	2,809,723
Terminated Vested	251,473	251,473	200,808
<b>C. Liabilities</b>			
<b>Present Value of Benefits</b>			
<b>Actives</b>			
Retirement Benefits	89,764,281	79,253,586	87,536,163
Disability Benefits	3,889,850	5,273,485	5,507,552
Death Benefits	1,481,596	1,286,753	1,380,041
Vested Benefits	181,323	1,823,656	1,913,333
Refund of Contributions	111,885	72,888	41,683
Service Retirees	107,890,953	106,111,837	96,031,675
DROP Retirees <sup>1</sup>	36,154,449	35,578,553	27,259,801
Beneficiaries	1,758,346	1,736,476	1,834,902
Disability Retirees	23,598,386	23,295,199	22,886,905
Terminated Vested	1,339,504	1,296,359	920,647
Annuity Savings/Reserve	<u>47,355,051</u>	<u>47,355,051</u>	<u>48,870,840</u>
<b>Total</b>	<b>313,525,624</b>	<b>303,083,843</b>	<b>294,183,542</b>

Firefighters

C. Liabilities - (Continued)	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	126,517,813	123,445,919	118,079,920
Normal Cost (Retirement)	2,575,331	2,295,303	2,397,554
Normal Cost (Disability)	234,085	336,648	348,452
Normal Cost (Death)	55,251	49,800	52,012
Normal Cost (Vesting)	34,468	126,621	133,253
Normal Cost (Refunds)	<u>35,609</u>	<u>19,732</u>	<u>15,841</u>
Total Normal Cost	2,934,744	2,828,104	2,947,112
Present Value of Future Normal Costs	23,622,374	22,022,013	21,579,752
Accrued Liability (Retirement)	68,498,038	61,232,878	69,946,245
Accrued Liability (Disability)	2,044,998	2,703,274	2,983,565
Accrued Liability (Death)	1,055,691	919,519	1,009,487
Accrued Liability (Vesting)	128,527	800,682	817,503
Accrued Liability (Refunds)	79,307	32,002	42,220
Accrued Liability (Inactives) <sup>1</sup>	170,741,638	168,018,424	148,933,930
Annuity Savings/Reserve	<u>47,355,051</u>	<u>47,355,051</u>	<u>48,870,840</u>
Total Actuarial Accrued Liability (AL)	289,903,250	281,061,830	272,603,790
Unfunded Actuarial Accrued Liability (UAAL)	79,794,632	70,953,212	71,457,287
Funded Ratio (AVA / AL)	72.5%	74.8%	73.8%

Firefighters

D. Actuarial Present Value of Accrued Benefits	New Assum <u>10/1/2018</u>	Old Assum <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives <sup>1</sup>	170,741,638	168,018,424	148,933,930
Actives	37,989,200	37,720,564	44,135,088
Member Contributions	<u>49,235,359</u>	<u>49,235,359</u>	<u>50,751,148</u>
Total	257,966,197	254,974,347	243,820,166
Non-vested Accrued Benefits	<u>15,707,270</u>	<u>13,781,269</u>	<u>15,027,789</u>
Total Present Value Accrued Benefits (PVAB)	273,673,467	268,755,616	258,847,955
Funded Ratio (MVA / PVAB)	77.7%	79.1%	106.0%

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  
(Total Plan)

(1) Unfunded Actuarial Accrued Liability as of October 1, 2017	\$253,514,046
(2) Expected UAAL as of October 1, 2017	246,315,062
(3) Change to UAAL due to Actuarial (Gain)/Loss	3,842,109
(4) Change to UAAL due to Assumption Changes	31,504,813
(5) Unfunded Actuarial Accrued Liability as of October 1, 2018	281,661,984

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2018 Amount</u>	<u>New Assum Amortization Amount</u>	<u>Old Assum Amortization Amount</u>
Experience Loss	10/1/1993	5	444,619	102,756	103,109
Experience Gain	10/1/1994	6	(245,172)	(48,899)	(49,106)
Experience Loss	10/1/1995	7	1,097,783	194,261	195,235
Experience Gain	10/1/1996	8	(1,523,654)	(244,090)	(245,498)
Experience Gain	10/1/1997	9	(7,018,659)	(1,033,598)	(1,040,319)
Experience Gain	10/1/1998	10	(14,024,692)	(1,921,407)	(1,935,271)
Experience Gain	10/1/1999	11	(3,787,381)	(487,371)	(491,225)
Experience Gain	10/1/2000	12	(12,983,577)	(1,581,675)	(1,595,237)
Experience Loss	10/1/2001	13	22,897,954	2,657,979	2,682,491
Experience Loss	10/1/2002	14	22,741,276	2,529,207	2,554,116
Experience Loss	10/1/2003	15	31,482,944	3,370,449	3,405,683
Experience Loss	10/1/2004	16	7,482,294	774,163	782,709
Experience Gain	10/1/2005	17	(2,790,369)	(279,998)	(283,247)
Experience Loss	10/1/2006	18	36,549,439	3,567,677	3,611,020
Experience Loss	10/1/2007	19	15,416,795	1,467,799	1,486,402
Experience Loss	10/1/2008	20	32,007,987	2,979,327	3,018,596
Experience Loss	10/1/2009	21	29,511,839	2,691,210	2,727,994
Experience Loss	10/1/2010	22	34,392,726	3,078,323	3,121,843
Experience Loss	10/1/2011	23	24,487,356	2,154,790	2,186,226
Experience Loss	10/1/2012	24	29,878,257	2,588,681	2,627,570
Assumption Change	10/1/1994	6	3,772,903	752,497	755,682
Assumption Change	10/1/2003	15	(8,355,509)	(894,510)	(903,861)
Assumption Change	10/1/2006	18	(7,874,374)	(768,636)	(777,974)
Assumption Change	10/1/2007	19	3,789,993	360,837	365,410
Assumption Change	10/1/2008	20	686,939	63,941	64,784
Assumption Change	10/1/2011	23	8,660,584	762,097	773,215
Assumption Change	10/1/2012	24	955,751	82,807	84,051
Plan Amendment	10/1/1990	2	2,868,922	1,488,305	1,489,633
Plan Amendment	10/1/1991	3	445,825	159,899	160,181
Plan Amendment	10/1/1992	4	8,409,368	2,344,777	2,350,892

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2018 <u>Amount</u>	New Assum Amortization <u>Amount</u>	Old Assum Amortization <u>Amount</u>
Plan Amendment	10/1/2004	16	2,710,230	280,417	283,512
Method Change	10/1/2005	17	(26,553,948)	(2,664,539)	(2,695,458)
Method Change	10/1/2006	18	(19,590,501)	(1,912,275)	(1,935,507)
Plan Amendment	10/1/2012	24	3,596,622	311,615	316,296
Assumption Change	10/1/2013	25	990,949	84,648	85,955
Experience Loss	10/1/2013	25	6,196,564	529,315	537,488
Plan Amendment	10/1/2013	25	132,154	11,289	11,463
Assumption Change	10/1/2014	26	1,018,986	85,920	87,281
Experience Gain	10/1/2014	26	(8,235,424)	(694,404)	(705,403)
Assumption Change	10/1/2015	27	1,040,913	86,731	88,138
Experience Loss	10/1/2015	27	5,222,863	435,181	442,242
Assumption Change	10/1/2016	28	20,767,549	1,711,632	1,740,030
Benefit Change	10/1/2016	28	(14,922,080)	(1,229,857)	(1,250,262)
Actuarial Loss	10/1/2016	28	6,586,275	542,831	551,838
Actuarial Loss	10/1/2017	29	10,324,806	842,478	856,754
Data Corrections	10/1/2017	29	5,165,054	421,456	428,597
Benefit Change	10/1/2017	29	(6,139,357)	(500,956)	(509,445)
Assumption Change	10/1/2017	29	(1,374,760)	(112,177)	(114,078)
Actuarial Loss	10/1/2018	30	3,842,109	310,636	316,004
Assumption Change	10/1/2018	30	31,504,813	2,547,175	-
			<u>281,661,984</u>	<u>27,998,714</u>	<u>25,760,549</u>

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2017	\$253,514,046	
(2) Expected UAAL as of October 1, 2018	246,315,062	
(3) Summary of Actuarial (Gain)/Loss, by component:		Approximate Impact On Funding Requirements (Prior to Interest Rate Change) (% of Payroll)
Investment Return (Actuarial Asset Basis) <sup>1</sup>	549,860	0.10%
Active Decrements (excluding mortality) <sup>2</sup>	894,494	0.16%
Mortality (active and inactive)	1,946,879	0.34%
Salary Increases	(362,221)	-0.06%
(Gain)/Loss on Member Contribution Accounts <sup>3</sup>	593,437	0.10%
Other	<u>219,660</u>	0.04%
Increase in UAAL due to (Gain)/Loss	3,842,109	0.68%
Assumption Changes	<u>31,504,813</u>	5.53%
(4) Actual UAAL as of October 1, 2018	\$281,661,984	

<sup>1</sup> The actual return on the Market Value of Assets was 9.17% 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 7.92% and was less than the 8.00% assumed rate.

<sup>2</sup> 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.

<sup>3</sup> Actual interest credited to employee contributions versus an assumed return of 8.00%.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash and Short Term Investments	20,918,998
Total Cash and Equivalents	20,918,998
Receivables:	
Contributions	259,996
Other Receivables	215,853
From Broker for Investments Sold	12,142
Investment Income	1,654,764
Total Receivable	2,142,755
Investments:	
U. S. Bonds and Bills	59,077,400
Federal Agency Guaranteed Securities	85,474,496
Corporate Bonds	95,086,147
Municipal Obligations	983,750
Stocks	396,867,186
Limited Partnerships	17,424,970
Mutual Funds	15,166,362
Real Estate Investment Trusts	14,191,283
Total Investments	684,271,594
Loans to Members	8,863,589
Total Assets	716,196,936
<u>LIABILITIES</u>	
Payables:	
Accounts Payable and Accrued Expenses	77,323
To Broker for Investments Purchased	6,483
Prepaid City Contribution	10,000,000
Total Liabilities	10,083,806
NET POSITION RESTRICTED FOR PENSIONS	706,113,130

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

Contributions:		
Member to Pension Reserve	2,792,321.00	
Buy-Back	3,658,285.00	
City	30,432,760.00	
Member to Annuity Savings	3,399,514.00	
State	461,877.00	
 Total Contributions		 40,744,757.00
Investment Income:		
Net Increase in Fair Value of Investments	48,348,627.00	
Interest & Dividends	14,777,078.00	
Less Investment Expense <sup>1</sup>	(1,941,673.00)	
 Net Investment Income		 61,184,032.00
 Total Additions		 101,928,789.00

DEDUCTIONS

Distributions to Members:		
Benefit Payments	59,458,722.00	
Lump Sum DROP Distributions	640,600.00	
Refunds of Member Contributions	14,968,598.00	
 Total Distributions		 75,067,920.00
 Administrative Expense		 734,099.00
 Total Deductions		 75,802,019.00
 Net Increase in Net Position		 26,126,770.00
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		679,986,360.00
 End of the Year		 706,113,130.00

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
September 30, 2018

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				
		2018	2019	2020	2021	2022
09/30/2014	11,791,700	0	0	0	0	0
09/30/2015	(43,309,518)	(8,661,902)	0	0	0	0
09/30/2016	183,216	73,287	36,644	0	0	0
09/30/2017	19,528,871	11,717,323	7,811,549	3,905,775	0	0
09/30/2018	7,546,915	6,037,532	4,528,149	3,018,765	1,509,383	0
<b>Total</b>		<b>9,166,240</b>	<b>12,376,342</b>	<b>6,924,540</b>	<b>1,509,383</b>	<b>0</b>

Development of Investment Gain/(Loss)

Market Value of Assets, including DROP and ARF, 09/30/2017	679,986,360
Contributions	40,744,757
Benefit Payments & Admin Expenses	(75,802,019)
Expected Investment Earnings <sup>1</sup>	53,637,117
Actual Net Investment Earnings	61,184,032
2018 Actuarial Investment Gain/(Loss)	<u>7,546,915</u>

<sup>1</sup> Expected Investment Earnings =  $0.08 * 679,986,360 + (30,432,760 + 461,877) * ((1.08)^{.75} - 1) + (2,532,325 + 3,658,285 + 3,399,514) * ((1.08)^{.5} - 1) - 75,802,019 * ((1.08)^{.5} - 1)$

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2018	706,113,130
(2) Gains/(Losses) Not Yet Recognized	9,166,240
(3) Actuarial Value of Assets, 09/30/2018, (1) - (2)	<u>696,946,890</u>
(A) 09/30/2017 Actuarial Assets, including DROP and ARF:	679,218,799
(I) Net Investment Income:	
1. Interest and Dividends	14,777,078
2. Change in Actuarial Value	39,949,948
3. Investment Expenses	(1,941,673)
Total	<u>52,785,353</u>
(B) 09/30/2018 Actuarial Assets, including DROP and ARF & Prepaid City:	706,946,890
Actuarial Asset Rate of Return = $2I/(A+B-I)$ :	7.92%
Market Value of Assets Rate of Return:	9.17%
10/01/2018 Limited Actuarial Assets (not including Prepaid Contribution):	696,946,890
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(549,860)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2018  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member to Pension Reserve	2,792,321.00	
Buy-Back	3,658,285.00	
City	30,432,760.00	
Member to Annuity Savings	3,399,514.00	
State	461,877.00	
<b>Total Contributions</b>		<b>40,744,757.00</b>
Earnings from Investments:		
Interest & Dividends	14,777,078.00	
Change in Actuarial Value	39,949,948.00	
<b>Total Earnings and Investment Gains</b>		<b>54,727,026.00</b>

EXPENDITURES

Distributions to Members:		
Benefit Payments	59,458,722.00	
Lump Sum DROP Distributions	640,600.00	
Refunds of Member Contributions	14,968,598.00	
<b>Total Distributions</b>		<b>75,067,920.00</b>
Expenses:		
Investment related <sup>1</sup>	1,941,673.00	
Administrative	734,099.00	
<b>Total Expenses</b>		<b>2,675,772.00</b>
<b>Change in Net Assets for the Year</b>		<b>17,728,091.00</b>
<b>Net Assets Beginning of the Year</b>		<b>679,218,799.00</b>
<b>Net Assets End of the Year<sup>2</sup></b>		<b>696,946,890.00</b>

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

## HISTORICAL ASSET INFORMATION

Plan Year	Market Value as of <u>October 1</u>	Actuarial Value as of <u>October 1</u>	Benefit Payments Including <u>Refunds</u>	Admin. <u>Expenses</u>	City and Member <u>Contributions</u>	Market Value <u>Return</u>	Actuarial Value <u>Return</u>	5-Yr Avg Market Value <u>Return</u> <sup>1</sup>
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 <sup>2</sup>	608,462,135	575,310,893	63,299,504	0	32,602,743	9.89%	10.94%	10.65%
2014 <sup>3</sup>	598,324,146	563,527,028	66,047,848	0	34,377,895	0.46%	8.66%	8.63%
2015 <sup>3</sup>	569,997,557	578,960,969	61,753,388	0	33,700,984	8.08%	9.13%	9.93%
2016 <sup>3</sup>	591,081,423	607,155,706	67,397,153	0	37,514,078	11.22%	8.31%	8.46%
2017 <sup>2</sup>	679,986,360	679,218,799	75,067,920	0	40,282,880	9.17%	7.92%	7.76%
2018	706,113,130	696,946,890						

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

<sup>2</sup> 10/1/2013, 10/1/2017 and later assets include DROP and ARF Reserves.

<sup>3</sup> 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 (Membership)									Total
	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	
<b>&lt; 25</b>	21	23								44
Avg. Pay	\$44,237	\$47,797								\$46,098
<b>25 - 29</b>	25	33	8							66
Avg. Pay	\$44,353	\$50,267	\$52,936							\$48,351
<b>30 - 34</b>	9	29	34	24						96
Avg. Pay	\$45,105	\$48,446	\$58,112	\$67,176						\$56,238
<b>35 - 39</b>	6	10	16	69	31					132
Avg. Pay	\$44,337	\$49,111	\$57,166	\$68,887	\$69,002					\$64,879
<b>40 - 44</b>		2	3	49	47	36				137
Avg. Pay		\$44,037	\$55,762	\$66,309	\$78,493	\$75,106				\$72,244
<b>45 - 49</b>	1	2	15	44	50	28	1			141
Avg. Pay	\$44,564	\$32,492	\$44,987	\$64,122	\$75,566	\$91,842	\$120,040			\$71,458
<b>50 - 54</b>		5	8	25	20	19	5			82
Avg. Pay		\$25,245	\$30,189	\$60,603	\$61,217	\$90,513	\$80,002			\$63,743
<b>55 - 59</b>		4	12	27	20	11	1	1		76
Avg. Pay		\$32,548	\$39,665	\$56,627	\$50,865	\$84,764	\$96,923	\$100,915		\$56,351
<b>60 - 64</b>		1	3	7	8	2				21
Avg. Pay		\$11,167	\$67,650	\$43,574	\$59,107	\$111,614				\$57,867
<b>65 - 69</b>		1	4	3	4	1			2	15
Avg. Pay		\$11,349	\$22,037	\$42,730	\$62,400	\$53,858			\$73,510	\$45,211
<b>70+</b>		1	2	2		1				6
Avg. Pay		\$25,743	\$21,524	\$57,899		\$220,531				\$67,520
<b>Total</b>	62	111	105	250	180	98	7	1	2	816
	\$44,425	\$46,053	\$49,597	\$64,116	\$69,837	\$85,971	\$88,139	\$100,915	\$73,510	\$62,455

**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>
10/1/2005	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	13.4	* 46.4
10/1/2011	10.9	44.9	10/1/2018	14.4	* 47.8

\* Beginning 10/1/2017, the Average Service Earned is based upon eligibilty service.

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>
10/1/2005	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	46,481	7.15%	5.16%
10/1/2011	37,130	-8.53%	6.42%	10/1/2018	49,913	8.30%	5.04%

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

Credited Service (Membership)										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
<b>&lt; 25</b>		1								1
Avg. Pay		\$36,440								\$36,440
<b>25 - 29</b>		3	5							8
Avg. Pay		\$37,152	\$50,405							\$45,435
<b>30 - 34</b>		6	13	7						26
Avg. Pay		\$33,445	\$41,691	\$52,049						\$42,577
<b>35 - 39</b>		3	6	29	15					53
Avg. Pay		\$37,426	\$42,523	\$54,084	\$53,320					\$51,616
<b>40 - 44</b>		1	1	22	10	23				57
Avg. Pay		\$28,789	\$29,942	\$49,536	\$56,161	\$64,502				\$56,029
<b>45 - 49</b>		2	11	21	17	2				53
Avg. Pay		\$32,492	\$34,968	\$48,282	\$62,569	\$70,939				\$50,360
<b>50 - 54</b>		5	8	15	15	2	3			48
Avg. Pay		\$25,245	\$30,189	\$48,685	\$54,976	\$69,177	\$71,113			\$47,382
<b>55 - 59</b>		4	12	22	19	2				59
Avg. Pay		\$32,548	\$39,665	\$51,754	\$49,392	\$68,635				\$47,805
<b>60 - 64</b>		1	3	7	7	1				19
Avg. Pay		\$11,167	\$67,650	\$43,574	\$57,408	\$62,681				\$51,772
<b>65 - 69</b>		1	4	3	4	1				13
Avg. Pay		\$11,349	\$22,037	\$42,730	\$62,400	\$53,858				\$40,857
<b>70+</b>		1	2	2		1				6
Avg. Pay		\$25,743	\$21,524	\$57,899		\$220,531				\$67,520
<b>Total</b>		28	65	128	87	32	3			343
		\$30,689	\$38,698	\$50,425	\$55,628	\$69,941	\$71,113			\$49,913

**ACTIVE DATA  
(Police Officers)**

Historical Average Age & Service

Valuation Date	Average Service Earned	Average Attained Age
10/1/2017	10.8	37.2
10/1/2018	10.7	37.0

Historical Individual Salary Increases

Valuation Date	Average Salary	Actual Salary Increase	Assumed Salary Increase
10/1/2017	66,472	3.38%	5.18%
10/1/2018	66,050	3.35%	5.30%

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

Credited Service (Membership)										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
<b>&lt; 25</b>	15	20								35
Avg. Pay	\$44,447	\$47,584								\$46,240
<b>25 - 29</b>	10	21	3							34
Avg. Pay	\$44,696	\$48,785	\$57,155							\$48,321
<b>30 - 34</b>	6	17	12	13						48
Avg. Pay	\$44,152	\$50,092	\$62,052	\$70,352						\$57,826
<b>35 - 39</b>	4	3	7	20	10					44
Avg. Pay	\$44,804	\$49,424	\$62,661	\$73,151	\$78,104					\$68,413
<b>40 - 44</b>			1	15	26	11				53
Avg. Pay			\$60,164	\$73,431	\$83,136	\$91,850				\$81,764
<b>45 - 49</b>	1		2	7	16	10				36
Avg. Pay	\$44,564		\$66,844	\$72,098	\$78,039	\$92,329				\$79,301
<b>50 - 54</b>				4	3	8				15
Avg. Pay				\$73,478	\$72,478	\$88,432				\$81,254
<b>55 - 59</b>				2	1	2				5
Avg. Pay				\$72,290	\$78,841	\$75,231				\$74,777
<b>60 - 64</b>					1					1
Avg. Pay					\$71,000					\$71,000
<b>65 - 69</b>									1	1
Avg. Pay									\$66,448	\$66,448
<b>70+</b>										
Avg. Pay										
<b>Total</b>	36	61	25	61	57	31			1	272
	\$44,510	\$48,787	\$61,943	\$72,496	\$79,973	\$90,050			\$66,448	\$66,050

**ACTIVE DATA  
(Firefighters)**

Historical Average Age & Service

Valuation Date	Average Service Earned	Average Attained Age
10/1/2017	14.7	43.2
10/1/2018	12.8	41.3

Historical Individual Salary Increases

Valuation Date	Average Salary	Actual Salary Increase	Assumed Salary Increase
10/1/2017	82,910	2.22%	4.55%
10/1/2018	78,994	2.91%	4.72%

**Age - Service - Salary Table  
(Firefighters)**

Credited Service (Membership)										
Age	<1	1 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35+	Total
<b>&lt; 25</b>	6	2								8
Avg. Pay	\$43,711	\$55,600								\$46,683
<b>25 - 29</b>	15	9								24
Avg. Pay	\$44,125	\$58,098								\$49,365
<b>30 - 34</b>	3	6	9	4						22
Avg. Pay	\$47,010	\$58,784	\$76,578	\$83,325						\$68,920
<b>35 - 39</b>	2	4	3	20	6					35
Avg. Pay	\$43,404	\$57,639	\$73,631	\$86,087	\$93,037					\$80,520
<b>40 - 44</b>		1	1	12	11	2				27
Avg. Pay		\$59,286	\$77,180	\$88,156	\$87,821	\$104,961				\$87,788
<b>45 - 49</b>			2	16	17	16	1			52
Avg. Pay			\$78,236	\$81,421	\$86,235	\$94,151	\$120,040			\$87,532
<b>50 - 54</b>				6	2	9	2			19
Avg. Pay				\$81,817	\$91,138	\$97,104	\$93,336			\$91,252
<b>55 - 59</b>				3		7	1	1		12
Avg. Pay				\$81,922		\$92,096	\$96,923	\$100,915		\$90,689
<b>60 - 64</b>						1				1
Avg. Pay						\$160,548				\$160,548
<b>65 - 69</b>									1	1
Avg. Pay									\$80,572	\$80,572
<b>70+</b>										
Avg. Pay										
<b>Total</b>	26	22	15	61	36	35	4	1	1	201
	\$44,307	\$58,029	\$76,250	\$84,464	\$88,126	\$97,014	\$100,908	\$100,915	\$80,572	\$78,994

**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	849	1,302	33	45	204	179	2,612
Active							
To Retiree	(31)	31					
To DROP Retiree	(11)		11				
To Vested	(24)				24		
To Death (No Benefits)	(1)						(1)
To Waiting for Refund	(24)				24		
To NonVested Term	(2)						(2)
To Disabled Retiree	(2)					2	
Retiree							
To DROP Retiree							
To Beneficiary		(14)		14			
To Vested							
To Death (No Benefits)		(19)					(19)
DROP Retiree							
To Retiree		4	(4)				
Beneficiary							
To Death (No Benefits)				(1)			(1)
Expiring Certain Period				(5)			(5)
Reclassified Retiree		1					1
Vested							
To Retiree		13			(13)		
NVT Await Refund							
To NonVested Term					(1)		(1)
Disabled Retiree							
To Death (No Benefits)						(5)	(5)
Additions	62				10		72
Departures							
Current Year	816	1,318	40	53	248	176	2,651

**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	377	830	0	29	108	58	1,402
Active							
To Retiree	(13)	13					
To Vested	(10)				10		
To Death (No Benefits)	(1)						(1)
To Waiting for Refund	(8)				8		
To NonVested Term	(2)						(2)
Retiree							
To Beneficiary		(10)		10			
To Death (No Benefits)		(13)					(13)
Vested							
To Retiree		9			(9)		
NVT Await Refund							
To NonVested Term					(1)		(1)
Beneficiary							
Certain Period Ended				(5)			(5)
Reclassified Retiree		1					1
Disabled Retiree							
To Death (No Benefits)						(2)	(2)
Current Year	343	830	0	34	116	56	1,379

**DATA RECONCILIATION  
(Police Officers)**

	<u>Active</u>	<u>Retiree</u>	<u>DROP</u>	<u>Beneficiary</u>	<u>Vested</u>	<u>Disabled</u>	<u>Totals</u>
Prior Year	274	317	6	9	78	48	732
Active							
To Retiree	(8)	8					
To DROP	(2)		2				
To Vested	(12)				12		
To Waiting for Refund	(16)				16		
Retiree							
To Beneficiary		(4)		4			
To Death (No Benefits)		(5)			0		(5)
DROP							
To Retiree		1	(1)				
Beneficiary							
To Death (No Benefits)				(1)			(1)
TV							
To Retiree		4			(4)		
Disabled Retiree							
To Death						(2)	(2)
Hired/Term 18' Awaiting Ref					5		5
Additions	36						36
Departures							
Current Year	272	321	7	12	107	46	765

**DATA RECONCILIATION  
(Firefighters)**

	<u>Active</u>	<u>Retiree</u>	<u>DROP</u>	<u>Beneficiary</u>	<u>Vested</u>	<u>Disabled</u>	<u>Totals</u>
Prior Year	198	155	27	7	18	73	478
Active							
To Retiree	(10)	10					
To DROP	(9)		9				
To Vested	(2)				2		
To Disabled Retiree	(2)					2	
Retiree							
To Death		(1)					(1)
DROP							
To Retiree		3	(3)				
Disabled Retiree							
To Death						(1)	(1)
Hired/Term 18' Awaiting Ref					5		5
Additions	26						26
Departures							
Current Year	201	167	33	7	25	74	507

## 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).

Beginning October 1, 2017, the assets and Unfunded Actuarial Accrued Liabilities were allocated to each employee classification.

## 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, 2018 FRS valuation report. 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	0.012%	35	0.052%	50	0.180%	65	0.392%
25	0.020%	40	0.076%	55	0.304%	70	0.344%
30	0.028%	45	0.112%	60	0.440%	75	0.296%

- **Disability (Police Officers)**

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 members in active service are set forth in the following table:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
20	0.067%	35	0.174%	50	0.627%	65	1.534%
25	0.084%	40	0.269%	55	0.930%	70	1.837%
30	0.106%	45	0.409%	60	1.232%	75	2.139%

- **Disability (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 Firefighter members in active service are set forth in the following table:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
20	0.064%	35	0.165%	50	0.597%	65	1.461%
25	0.080%	40	0.256%	55	0.885%	70	1.749%
30	0.101%	45	0.389%	60	1.173%	75	2.037%

- **Permanent Withdrawal from Active Status**

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>		<i>Firefighters</i>	
Years of Service	Rate	Years of Service	Rate	Years of Service	Rate
0	15.0%	0-1	20.0%	0-4	11.0%
1	12.5%	2-3	17.5%	5-12	2.5%
2	10.0%	4-5	7.5%	13+	0.0%
3-4	8.5%	6-9	5.0%		
5-6	7.0%	10-14	4.5%		
7-8	6.0%	15-17	2.5%		
9-10	5.0%	18+	0.0%		
11-12	4.0%				
13-14	3.0%				
15-20	2.0%				
21+	0.0%				

- Terminated deferred Police Officers and Firefighters are assumed to draw their benefits at age 55.

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

10% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability and each year after that until age 70 is a 35% probability and a 100% probability at age 70.

- **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:

Age	Years of Service				
	Less than 20 Years	20 Years	21 - 24 Years	25 Years	More than 25 Years
<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 (Tier 1A – 1D Police Officers)**

For fully or partially grandfathered employees, the assumption is 5% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability, the second year will be 35%, each year after will be 30% with 100% at total points (age + service) of 79. Also, once a member reaches age 65, the assumption will be 100%.

- **Retirement (Tier 1E and 1F Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1 <sup>st</sup> year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service	100.0%

- **Retirement (Tier 1G and Tier 2 Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1 <sup>st</sup> year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service between age 52 and 60	40.0%
28 years of service between age 52 and 60	50.0%
29 years of service between age 52 and 60	60.0%
30 years of service	100.0%

- **Retirement (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
<20	0%	100%
20-22	7.5%	100%
23-24	12.5%	100%
25	50%	100%
26-29	33.3%	100%
30+	100%	100%

### 3. Interest Rates

7.8% per annum net of investment related expenses.

### 4b. Salary Increases (Police Officers and Firefighters)

Assumed annual rates of increase in salaries are shown in the table below:

Service	General	Police Officers	Firefighters
0	15.0%	9.0%	9.0%
1	7.0%	8.5%	6.0%
2	7.0%	8.0%	6.0%
3	7.0%	7.5%	6.0%
4	7.0%	7.0%	6.0%
5	6.0%	6.5%	5.5%
6 – 9	6.0%	6.0%	5.5%
10	5.5%	6.0%	4.0%
11	5.5%	5.0%	4.0%
12 – 14	5.5%	4.0%	4.0%
15 – 19	5.0%	4.0%	4.0%
20 - 24	4.5%	4.0%	4.0%
25+	4.5%	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 primarily using the assumptions adopted by the Board as guided by the prior actuary and are in the process of preparing an Experience Study.**

## 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 52<sup>nd</sup> 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 RP 2014 Mortality Table for Healthy Annuitants, projected from the base year 2014 to the year of retirement using Mortality improvement scale MP-2016, with the resulting rates blended using 50% male and 50% female rates (previously 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 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 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 following benefit reductions were made for the Police Officers of the System effective September 25, 2018:***

The benefit reductions are different based upon age and service as of the effective date. Additionally, a police officer member who separates from city employment prior to vesting may obtain a refund of member contributions made on and after October 1, 2018, with interest at the rate of 3.0% per annum, in lieu of receiving any future service benefits from the retirement system.

- 1.) **Tier 1A – Those Members eligible for Normal Retirement as of March 2, 2014** – The only changes are 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:
  - October 1, 2018 – September 30, 2019: 2.0% of pensionable Salary
  - October 1, 2019 – September 30, 2020: 4.0% of pensionable Salary
  - October 1, 2020 and forward: 6.0% of pensionable Salary
- 2.) **Tier 1B – Those Members eligible for Normal Retirement as of September 25, 2018** – The only changes are 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:
  - October 1, 2018 – September 30, 2019: 6.0% of pensionable Salary
  - October 1, 2019 – September 30, 2020: 8.0% of pensionable Salary
  - October 1, 2020 and forward: 10.0% of pensionable Salary
- 3.) **Tier 1C – Those Members with at least 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have at least 20 years of Credited Service, had only four changes. First, they have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service

Retirement Benefit will be 3.0% for each year of Credited Service earned prior to September 25, 2018, and 2.75% for each year of Credited Service earned on and after that date, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, is 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

- 4.) **Tier 1D – Those Members with 16 to 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, had completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and had less than 20 years of Credited Service, have only four changes. First, they have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned up to 20 years, and 2.75% for each year of Credited Service earned above 20 years, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, is 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.
- 5.) **Tier 1E – Those Members with 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 16 years of actual service with the City, but had not attained 66 points, will have the same member contribution rate changes as Tier 1B and the following benefit changes.

A.) All benefits accrued as of September 24, 2018 are “frozen”. The frozen benefits will be payable under the same terms as were in effect before September 25, 2018 (Normal Retirement at 20 years of Credited Service with age plus service at least 70 for this group (76 for Tier 2), unreduced 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 September 24, 2018. The frozen benefits cannot commence until a Member terminates employment with the City. All Police Officers are 100% vested in this frozen benefit. This means that even if a Police Officer terminates employment with the City on October 1, 2018 after being hired on September 20, 2018, they would receive an unreduced “frozen” benefit at age 55, albeit that benefit will equal 5 days of Credited Service times 2.75% times their Average Final Compensation at September 24, 2018.

B.) Benefits earned on and after September 25, 2018 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before September 25, 2018, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after September 25, 2018 shall be 2.75% per year, with a maximum benefit of 79.5% of Average Final Compensation (AFC). The 79.5% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after September 25, 2018. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated. Provided, however, that the minimum benefit (including the basic pension) shall be 2.75% of average final compensation for all years of credited service.
- 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 5 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 September 24, 2018.
- 3.) The Normal Retirement Date shall be the earlier of 1.) age 55 with 10 years of Credited Service, 2.) age 52 with 25 years of Credited Service, or 3.) 27 years of Credited Service,

regardless of age. 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.
  - 5.) There shall be no Cost of Living Adjustments (COLA's) on benefits based on credited service earned on or after September 25, 2018.
  - 6.) Members shall not be eligible to purchase additional Credited Service on or after September 25, 2018, except that upon reaching 25 years of service, this group may purchase up to 2 years of service.
  - 7.) Members may enter the DROP upon attaining the earlier of 1.) age 52 with 25 years of credited service, or 2.) 27 years of service, regardless of age, and may participate in the DROP for a maximum of 5 years.
  - 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 no reduction.
- 
- 6.) **Tier 1F – Those Members with 10 - 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 10 years of actual service with the City, but had not completed 16 years of actual service and had not attained 66 points, will have the exact same changes as Tier 1E, except that they would not be allowed to purchase any service after September 25, 2018.
  - 7.) **Tier 1G – Those Members with less than 10 years of service as of September 25, 2018, who were hired before March 2, 2014** – Those Members who, as of September 25, 2018, completed less than 10 years of actual service with the City, and had not attained 66 points, have the exact same changes as Tier 1F, except that they do not have the normal retirement provision of the completion of 27 years of service, regardless of age mentioned in 5(B)(3) and 5(B)(7) listed above.
  - 8.) **Tier 2 – Those Members who were hired on or after March 2, 2014** – These Members have the exact same changes as Tier 1G, except that they have no Basic Pension and the minimum age plus service for the "frozen" benefit is 76 points instead of 70. Additionally, the Vested or Deferred benefits are payable at age 59 ½. Lastly, the COLA on the "frozen" benefit is 1.0% per year, instead of 2.0%.

Additionally, the current Police Officer DROP Members at the time the ordinance is adopted had the opportunity to extend their DROP period an additional two years.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash and Short Term Investments	20,918,998
Total Cash and Equivalents	20,918,998
Receivables:	
Contributions	259,996
Other Receivables	215,853
From Broker for Investments Sold	12,142
Investment Income	1,654,764
Total Receivable	2,142,755
Investments:	
U. S. Bonds and Bills	59,077,400
Federal Agency Guaranteed Securities	85,474,496
Corporate Bonds	95,086,147
Municipal Obligations	983,750
Stocks	396,867,186
Limited Partnerships	17,424,970
Mutual Funds	15,166,362
Pooled/Common/Commingled Funds:	
Real Estate Investment Trusts	14,191,283
Total Investments	684,271,594
Loans to Members	8,863,589
Total Assets	716,196,936
<u>LIABILITIES</u>	
Payables:	
Accounts Payable and Accrued Expenses	77,323
To Broker for Investments Purchased	6,483
Total Liabilities	83,806
NET POSITION RESTRICTED FOR PENSIONS	716,113,130

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2018  
Market Value Basis

ADDITIONS

## Contributions:

Member to Pension Reserve	2,792,321	
Buy-Back	3,658,285	
City	40,432,760	
Member to Annuity Savings	3,399,514	
State	461,877	
 Total Contributions		 50,744,757
 Investment Income:		
Net Increase in Fair Value of Investments	48,348,627	
Interest & Dividends	14,777,078	
Less Investment Expense <sup>1</sup>	(1,941,673)	
 Net Investment Income		 61,184,032
 Total Additions		 111,928,789

DEDUCTIONS

## Distributions to Members:

Benefit Payments	59,458,722	
Lump Sum DROP Distributions	640,600	
Refunds of Member Contributions	14,968,598	
 Total Distributions		 75,067,920
 Administrative Expense		 734,099
 Total Deductions		 75,802,019
 Net Increase in Net Position		 36,126,770
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		679,986,360
 End of the Year		 716,113,130

<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

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

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, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,559
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	204
Active Plan Members	849
	2,612

*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 3.00% 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 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%).

**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 2.00% 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 59½. 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 per-cent age 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 following benefit reductions were made for the Police Officers of the System effective September 25, 2018:***

The benefit reductions are different based upon age and service as of the effective date. Additionally, a police officer member who separates from city employment prior to vesting may obtain a refund of member contributions made on and after October 1, 2018, with interest at the rate of 3.0% per annum, in lieu of receiving any future service benefits from the retirement system.

**1.) Tier 1A – Those Members eligible for Normal Retirement as of March 2, 2014** – The only changes are 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 – September 30, 2019: 2.0% of pensionable Salary

October 1, 2019 – September 30, 2020: 4.0% of pensionable Salary

October 1, 2020 and forward: 6.0% of pensionable Salary

**2.) Tier 1B – Those Members eligible for Normal Retirement as of September 25, 2018** – The only changes are 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 – September 30, 2019: 6.0% of pensionable Salary

October 1, 2019 – September 30, 2020: 8.0% of pensionable Salary

October 1, 2020 and forward: 10.0% of pensionable Salary

**3.) Tier 1C – Those Members with at least 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have at least 20 years of Credited Service, had only four changes. First, they have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to September 25, 2018, and 2.75% for each year of Credited Service earned on and after that date, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, is 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

**4.) Tier 1D – Those Members with 16 to 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, had completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and had less than 20 years of Credited Service, have only four changes. First, they have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned up to 20 years, and 2.75% for each year of Credited Service earned above 20 years, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, is 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

5.) **Tier 1E – Those Members with 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 16 years of actual service with the City, but had not attained 66 points, will have the same member contribution rate changes as Tier 1B and the following benefit changes.

A.) All benefits accrued as of September 24, 2018 are “frozen”. The frozen benefits will be payable under the same terms as were in effect before September 25, 2018 (Normal Retirement at 20 years of Credited Service with age plus service at least 70 for this group (76 for Tier 2), unreduced 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 September 24, 2018. The frozen benefits cannot commence until a Member terminates employment with the City. All Police Officers are 100% vested in this frozen benefit. This means that even if a Police Officer terminates employment with the City on October 1, 2018 after being hired on September 20, 2018, they would receive an unreduced “frozen” benefit at age 55, albeit that benefit will equal 5 days of Credited Service times 2.75% times their Average Final Compensation at September 24, 2018.

B.) Benefits earned on and after September 25, 2018 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before September 25, 2018, except as follows:

1.) The benefit accrual rate for Credited Service earned on and after September 25, 2018 shall be 2.75% per year, with a maximum benefit of 79.5% of Average Final Compensation (AFC). The 79.5% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after September 25, 2018. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated. Provided, however, that the minimum benefit (including the basic pension) shall be 2.75% of average final compensation for all years of credited service.

2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 5 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 September 24, 2018.

3.) The Normal Retirement Date shall be the earlier of 1.) age 55 with 10 years of Credited Service, 2.) age 52 with 25 years of Credited Service, or 3.) 27 years of Credited Service, regardless of age. 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.

5.) There shall be no Cost of Living Adjustments (COLA’s) on benefits based on credited service earned on or after September 25, 2018.

6.) Members shall not be eligible to purchase additional Credited Service on or after September 25, 2018, except that upon reaching 25 years of service, this group may purchase up to 2 years of service.

7.) Members may enter the DROP upon attaining the earlier of 1.) age 52 with 25 years of credited service, or 2.) 27 years of service, regardless of age, and may participate in the DROP for a maximum of 5 years.

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 no reduction.

6.) **Tier 1F – Those Members with 10 - 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 10 years of actual service with the City, but had not completed 16 years of actual service and had not attained 66 points, will have the exact same changes as Tier 1E, except that they would not be allowed to purchase any service after September 25, 2018.

7.) **Tier 1G – Those Members with less than 10 years of service as of September 25, 2018, who were hired before March 2, 2014** – Those Members who, as of September 25, 2018, completed less than 10 years of actual service with the City, and had not attained 66 points, have the exact same changes as Tier 1F, except that they do not have the normal retirement provision of the completion of 27 years of service, regardless of age mentioned in 5(B)(3) and 5(B)(7) listed above.

8.) **Tier 2 – Those Members who were hired on or after March 2, 2014** – These Members have the exact same changes as Tier 1G, except that they have no Basic Pension and the minimum age plus service for the “frozen” benefit is 76 points instead of 70. Additionally, the Vested or Deferred benefits are payable at age 59 ½. Lastly, the COLA on the “frozen” benefit is 1.0% per year, instead of 2.0%.

Additionally, the current Police Officer DROP Members at the time the ordinance is adopted had the opportunity to extend their DROP period an additional two years.

**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.

**Investments**

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2018:

<u>Asset Class</u>	<u>Target Allocation</u>
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, 2018, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 9.17 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, 2018 is \$6,035,088.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2018 were as follows:

Total Pension Liability	\$ 978,102,041
Plan Fiduciary Net Position	<u>\$ (716,113,130)</u>
Sponsor's Net Pension Liability	<u>\$ 261,988,911</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	73.21%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	Service based
Discount Rate	7.80%
Investment Rate of Return	7.80%

*Mortality Rate Healthy Active Lives Police Officers and Firefighters:*

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

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

*Mortality Rate Healthy Inactive 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 Active Lives General Employees:*

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

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

*Mortality Rate Healthy Inactive 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 most recent actuarial experience study used to review the other significant assumptions was dated January 29, 2019.

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 2018, the inflation rate assumption of the investment advisor was 2.50%.

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, 2018 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	7.25%
International Equity	7.25%
Domestic Bonds	3.25%
Other	4.50%

<sup>1</sup> 10 Year Long-term projections

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.80 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
	6.80%	7.80%	8.80%
Sponsor's Net Pension Liability	\$ 348,929,249	\$ 261,988,911	\$ 188,705,326

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

	09/30/2018	09/30/2017	09/30/2016
Total Pension Liability			
Service Cost	7,202,768	8,302,554	8,887,641
Interest	70,617,995	65,295,454	62,786,218
Change in Annuity Savings Fund	3,399,514	3,594,508	4,032,235
Change in Annuity Reserve Fund	-	48,248,469	-
Changes of benefit terms	(6,194,034)	(15,079,464)	-
Differences between Expected and Actual Experience	21,250,857	17,047,994	13,256,782
Changes of assumptions	33,984,415	-	21,734,473
Contributions - Buy Back	3,658,285	2,569,143	907,919
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	(67,397,153)	(61,753,388)
Net Change in Total Pension Liability	58,851,880	62,581,505	49,851,880
Total Pension Liability - Beginning	919,250,162	856,668,657	806,816,777
Total Pension Liability - Ending (a)	<u>\$978,102,042</u>	<u>\$919,250,162</u>	<u>\$856,668,657</u>
Plan Fiduciary Net Position			
Contributions - Employer	40,432,760	29,197,532	26,327,799
Contributions - State	461,877	461,877	461,877
Contributions - Employee	2,792,321	2,152,895	2,433,031
Contributions - Buy Back	3,658,285	2,569,143	907,919
Contributions - Annuity Savings Fund	3,399,514	3,594,508	4,032,235
Net Investment Income	61,184,032	70,077,666	48,674,393
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	(67,397,153)	(61,753,388)
Administrative Expense	(734,099)	-	-
Other	-	48,248,469	-
Net Change in Plan Fiduciary Net Position	36,126,770	88,904,937	21,083,866
Plan Fiduciary Net Position - Beginning	679,986,360	591,081,423	569,997,557
Plan Fiduciary Net Position - Ending (b)	<u>\$716,113,130</u>	<u>\$679,986,360</u>	<u>\$591,081,423</u>
Net Pension Liability - Ending (a) - (b)	<u>\$261,988,912</u>	<u>\$239,263,802</u>	<u>\$265,587,234</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	73.21%	73.97%	69.00%
Covered Payroll <sup>1</sup>	\$ 51,863,886	\$ 55,447,024	\$ 54,783,012
Net Pension Liability as a percentage of Covered Payroll	505.15%	431.52%	484.80%

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

*Changes of benefit terms:*

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from an ordinance provided amended benefits for Police Officers (not General Employees and Firefighters) effective September 25, 2018.

The benefit reductions are different based upon age and service as of the effective date. Additionally, a police officer member who separates from city employment prior to vesting may obtain a refund of member contributions made on and after October 1, 2018, with interest at the rate of 3.0% per annum, in lieu of receiving any future service benefits from the retirement system.

1.) **Tier 1A – Those Members eligible for Normal Retirement as of March 2, 2014** - The only changes will be 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 - September 30, 2019:2.0% of pensionable Salary

October 1, 2019 - September 30, 2020:4.0% of pensionable Salary

October 1, 2020 and forward:6.0% of pensionable Salary

2.) **Tier 1B – Those Members eligible for Normal Retirement as of September 25, 2018** – The only changes will be 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 - September, 2019:6.0% of pensionable Salary

October 1, 2019 - September, 2020:8.0% of pensionable Salary

October 1, 2020 and forward:10.0% of pensionable Salary

3.) **Tier 1C – Those Members with at least 20 years of service and 66 points as of September 25, 2018** –

Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have at least 20 years of Credited Service, will have only four changes. First, they will have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to September 25, 2018, and 2.75% for each year of Credited Service earned on and after that date, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, will be 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

4.) **Tier 1D – Those Members with 16 to 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have less than 20 years of Credited Service, will have only four changes. First, they will have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned up to 20 years, and 2.75% for each year of Credited Service earned above 20 years, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, will be 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

5.) **Tier 1E – Those Members with 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 16 years of actual service with the City, but had not attained 66 points, will have the same member contribution rate changes as Tier 1B and the following benefit changes.

A.) All benefits accrued as of September 24, 2018 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before September 25, 2018 (Normal Retirement at 20 years of Credited Service with age plus service at least 70 for this group (76 for Tier 2), unreduced 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 September 24, 2018. The frozen benefits cannot commence until a Member terminates employment with the City. All Police Officers will be 100% vested in this frozen benefit. This means that even if a Police Officer terminates employment with the City on October 1, 2018 after being hired on September 20, 2018, they would receive an unreduced “frozen” benefit at age 55, albeit that benefit will equal 5 days of Credited Service times 2.75% times their Average Final Compensation at September 24, 2018.

*Continued Changes of benefit terms:*

B.) Benefits earned on and after September 25, 2018 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before September 25, 2018, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after September 25, 2018 shall be 2.75% per year, with a maximum benefit of 79.5% of Average Final Compensation (AFC). The 79.5% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after September 25, 2018. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated. Provided, however, that the minimum benefit (including the basic pension) shall be 2.75% of average final compensation for all years of credited service.
- 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 5 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 September 24, 2018.
- 3.) The Normal Retirement Date shall be the earlier of 1.) age 55 with 10 years of Credited Service, 2.) age 52 with 25 years of Credited Service, or 3.) 27 years of Credited Service, regardless of age. 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 were provided base pay for all Police Officers as of September 30, 2017.
- 5.) There shall be no Cost of Living Adjustments (COLA’s) on benefits based on credited service earned on or after September 25, 2018.
- 6.) Members shall not be eligible to purchase additional Credited Service on or after September 25, 2018, except that upon reaching 25 years of service, this group may purchase up to 2 years of service.
- 7.) Members may enter the DROP upon attaining the earlier of 1.) age 52 with 25 years of credited service, or 2.) 27 years of service, regardless of age, and may participate in the DROP for a maximum of 5 years.
- 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 no reduction.

6.) **Tier 1F – Those Members with 10 - 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 10 years of actual service with the City, but had not completed 16 years of actual service and had not attained 66 points, will have the exact same changes as Tier 1E, except that they would not be allowed to purchase any service after September 25, 2018.

7.) **Tier 1G – Those Members with less than 10 years of service as of September 25, 2018, who were hired before March 2, 2014** – Those Members who, as of September 25, 2018, completed at less than 10 years of actual service with the City, and had not attained 66 points, will have the exact same changes as Tier 1F, except that they would not have the normal retirement provision of the completion of 27 years of service, regardless of age mentioned in 5(B)(3) and 5(B)(7) listed above.

8.) **Tier 2 – Those Members who were hired on or after March 2, 2014** – These Members will have the exact same changes as Tier 1G, except that they have no Basic Pension and the minimum age plus service for the “frozen” benefit is 76 points instead of 70. Additionally, the Vested or Deferred benefits are payable at age 59 ½. Lastly, the COLA on the “frozen” benefit is 1.0% per year, instead of 2.0%.

Additionally, the current Police Officer DROP Members at the time the ordinance is adopted would have the opportunity to extend their DROP period an additional two years.

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 09/30/2018, amounts reported as changes of assumptions reflected the following changes:

As a results of the benefit changes, the following assumed retirement rates now apply to the following Tiers of Police Officers:

• **Retirement (Tier 1E and 1F Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1st year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service	100.0%

• **Retirement (Tier 1G and Tier 2 Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1st year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service between age 52 and 60	40.0%
28 years of service between age 52 and 60	50.0%
29 years of service between age 52 and 60	60.0%
30 years of service	100.0%

As a result of an Experience Study prepared January 29, 2019, the Board approved the following assumption changes:

- The investment return assumption was changed from 8.0% to 7.8%, net of investment related expenses.
- The assumed rates of individual salary increase were change to a service based assumption for each group of employees as follows:

General Employees

<u>Yrs of Service</u>	<u>Expected Salary Increase</u>
<1	15.0%
1-4	7.0%
5-14	6.0%
15+	5.0%

Police Officers

No changes.

Firefighters

<u>Yrs of Service</u>	<u>Expected Salary Increase</u>
<1	10.0%
1-4	6.0%
5-9	5.5%
10+	4.0%

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### *Continued Changes of assumptions*

- The assumed rates of retirement were amended to the following rates:

#### Firefighters

<u>Yrs of Service</u>	<u>Expected Probability of Retirement</u>
<20	0.0%
20-22	7.5%
23-24	12.5%
25	50.0%
26-29	33.3%
30+	100.0%

#### General Employees

For fully or partially grandfathered employees, the assumption is 10% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability and each year after that until age 70 is a 35% probability and a 100% probability at age 70.

There is no change to the assumption for non-grandfathered employees.

#### Police Officers

For fully or partially grandfathered employees (Tiers 1A – 1D), the assumption is 5% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability and each year after that until age 65 is a 35% probability and a 100% probability at age 65.

There is no change to the assumption for non-grandfathered employees.

- The assumed rates of withdrawal (pre-retirement separation) were changed to the following rates:

#### Firefighters

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
<5	11.0%
5-12	2.5%
13+	0.0%

#### General Employees

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
<1	15.0%
1	12.5%
2	10.0%
3-4	8.5%
5-6	7.0%
7-8	6.0%
9-10	5.0%
11-12	4.0%
13-14	3.0%
15-20	2.0%
21+	0.0%

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### *Continued Changes of assumptions*

#### Police Officers

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
<2	20.0%
2-3	17.5%
4-5	7.5%
6-9	5.0%
10-14	4.5%
15-17	2.5%
18+	0.0%

- The assumed rates of Disability retirement were reduced for each employee group as follows:

<u>Group</u>	<u>Adjustment</u>
Firefighters	Reduced rates 33%
General Employees	Reduced rates 50%
Police Officers	Reduced rates 30%

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

	09/30/2015	09/30/2014
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	(66,047,848)	(63,299,504)
Net Change in Total Pension Liability	19,361,421	11,215,501
Total Pension Liability - Beginning	787,455,356	776,239,855
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)
Administrative Expense	-	-
Other	-	-
Net Change in Plan Fiduciary Net Position	(28,326,589)	28,467,218
Plan Fiduciary Net Position - Beginning	598,324,146	569,856,928
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 Payroll <sup>1</sup>	\$ 57,948,210	N/A
Net Pension Liability as a percentage of Covered Payroll	408.67%	N/A

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2018	\$ 30,894,637	\$ 40,894,637	\$ (10,000,000)	\$ 51,863,886	78.85%
09/30/2017	\$ 29,659,409	\$ 29,659,409	\$ -	\$ 55,447,024	53.49%
09/30/2016	\$ 26,477,463	\$ 26,789,676	\$ (312,213)	\$ 54,783,012	48.90%
09/30/2015	\$ 26,210,070	\$ 27,844,783	\$ (1,634,713)	\$ 57,948,210	48.05%
09/30/2014	\$ 26,231,130	\$ 26,231,130	\$ -	N/A	N/A

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

Notes to Schedule

Valuation Date: 10/01/2016

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 4.00% 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.

Decrements:

**Police Officers and Firefighters Mortality:**

*Healthy 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 Mortality:**

*Healthy 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, 2015 FRS valuation report. We feel these assumptions sufficiently accommodate future mortality improvements.

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%

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%

## GASB 67

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.
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 1.00% per year as approved by the Division of Retirement.
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.**

**SCHEDULE OF INVESTMENT RETURNS**  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2018	9.17%
09/30/2017	11.22%
09/30/2016	8.08%
09/30/2015	0.46%
09/30/2014	10.22%

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2019)

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.

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, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	1,559
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	204
Active Plan Members	849
	2,612
	2,612

*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 3.00% 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 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%).

**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 2.00% 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 59½. 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 at-tained 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 retire-ment 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-cent age 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 following benefit reductions were made for the Police Officers of the System effective September 25, 2018:***

The benefit reductions are different based upon age and service as of the effective date. Additionally, a police officer member who separates from city employment prior to vesting may obtain a refund of member contributions made on and after October 1, 2018, with interest at the rate of 3.0% per annum, in lieu of receiving any future service benefits from the retirement system.

1.) **Tier 1A – Those Members eligible for Normal Retirement as of March 2, 2014** – The only changes are 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

- October 1, 2018 – September 30, 2019: 2.0% of pensionable Salary
- October 1, 2019 – September 30, 2020: 4.0% of pensionable Salary
- October 1, 2020 and forward: 6.0% of pensionable Salary

2.) **Tier 1B – Those Members eligible for Normal Retirement as of September 25, 2018** – The only changes are 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

- October 1, 2018 – September 30, 2019: 6.0% of pensionable Salary
- October 1, 2019 – September 30, 2020: 8.0% of pensionable Salary
- October 1, 2020 and forward: 10.0% of pensionable Salary

3.) **Tier 1C – Those Members with at least 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have at least 20 years of Credited Service, had only four changes. First, they have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to September 25, 2018, and 2.75% for each year of Credited Service earned on and after that date, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, is 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

4.) **Tier 1D – Those Members with 16 to 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, had completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and had less than 20 years of Credited Service, have only four changes. First, they have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned up to 20 years, and 2.75% for each year of Credited Service earned above 20 years, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, is 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

5.) **Tier 1E – Those Members with 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 16 years of actual service with the City, but had not attained 66 points, will have the same member contribution rate changes as Tier 1B and the following benefit changes.

A.) All benefits accrued as of September 24, 2018 are “frozen”. The frozen benefits will be payable under the same terms as were in effect before September 25, 2018 (Normal Retirement at 20 years of Credited Service with age plus service at least 70 for this group (76 for Tier 2), unreduced 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 September 24, 2018. The frozen benefits cannot commence until a Member terminates employment with the City. All Police Officers are 100% vested in this frozen benefit. This means that even if a Police Officer terminates employment with the City on October 1, 2018 after being hired on September 20, 2018, they would receive an unreduced “frozen” benefit at age 55, albeit that benefit will equal 5 days of Credited Service times 2.75% times their Average Final Compensation at September 24, 2018.

B.) Benefits earned on and after September 25, 2018 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before September 25, 2018, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after September 25, 2018 shall be 2.75% per year, with a maximum benefit of 79.5% of Average Final Compensation (AFC). The 79.5% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after September 25, 2018. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated. Provided, however, that the minimum benefit (including the basic pension) shall be 2.75% of average final compensation for all years of credited service.
  - 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 5 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 September 24, 2018.
  - 3.) The Normal Retirement Date shall be the earlier of 1.) age 55 with 10 years of Credited Service, 2.) age 52 with 25 years of Credited Service, or 3.) 27 years of Credited Service, regardless of age. 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.
  - 5.) There shall be no Cost of Living Adjustments (COLA's) on benefits based on credited service earned on or after September 25, 2018.
  - 6.) Members shall not be eligible to purchase additional Credited Service on or after September 25, 2018, except that upon reaching 25 years of service, this group may purchase up to 2 years of service.
  - 7.) Members may enter the DROP upon attaining the earlier of 1.) age 52 with 25 years of credited service, or 2.) 27 years of service, regardless of age, and may participate in the DROP for a maximum of 5 years.
  - 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 no reduction.
- 6.) **Tier 1F – Those Members with 10 - 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 10 years of actual service with the City, but had not completed 16 years of actual service and had not attained 66 points, will have the exact same changes as Tier 1E, except that they would not be allowed to purchase any service after September 25, 2018.
- 7.) **Tier 1G – Those Members with less than 10 years of service as of September 25, 2018**, who were hired before March 2, 2014 – Those Members who, as of September 25, 2018, completed less than 10 years of actual service with the City, and had not attained 66 points, have the exact same changes as Tier 1F, except that they do not have the normal retirement provision of the completion of 27 years of service, regardless of age mentioned in 5(B)(3) and 5(B)(7) listed above.
- 8.) **Tier 2 – Those Members who were hired on or after March 2, 2014** – These Members have the exact same changes as Tier 1G, except that they have no Basic Pension and the minimum age plus service for the "frozen" benefit is 76 points instead of 70. Additionally, the Vested or Deferred benefits are payable at age 59 ½. Lastly, the COLA on the "frozen" benefit is 1.0% per year, instead of 2.0%.

Additionally, the current Police Officer DROP Members at the time the ordinance is adopted had the opportunity to extend their DROP period an additional two years.

#### **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.

Net Pension Liability

The measurement date is September 30, 2018.

The measurement period for the pension expense was October 1, 2017 to September 30, 2018.

The reporting period is October 1, 2018 through September 30, 2019.

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, 2017 updated to September 30, 2018 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	Service based
Discount Rate	7.80%
Investment Rate of Return	7.80%

*Mortality Rate Healthy Active Lives Police Officers and Firefighters:*

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

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

*Mortality Rate Healthy Inactive 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 Active Lives General Employees:*

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

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

*Mortality Rate Healthy Inactive 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 most recent actuarial experience study used to review the other significant assumptions was dated January 29, 2019.

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 2018, the inflation rate assumption of the investment advisor was 2.50%.

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, 2018 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return<sup>1</sup></u>
Domestic Equity	50%	7.25%
International Equity	5%	7.25%
Domestic Bonds	40%	3.25%
Other	5%	4.50%
<u>Total</u>	<u>100%</u>	

<sup>1</sup> 10 Year Long-term projections

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.80 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, 2018	\$ 919,250,162	\$ 679,986,360	\$ 239,263,802
Changes for a Year:			
Service Cost	7,202,768	-	7,202,768
Interest	70,617,995	-	70,617,995
Change in Annuity Savings Fund	3,399,514	-	3,399,514
Differences between Expected and Actual Experience	21,250,857	-	21,250,857
Changes of assumptions	33,984,415	-	33,984,415
Changes of benefit terms	(6,194,034)	-	(6,194,034)
Contributions - Employer	-	43,832,274	(43,832,274)
Contributions - State	-	461,877	(461,877)
Contributions - Employee	-	2,792,321	(2,792,321)
Contributions - Buy Back	3,658,285	3,658,285	-
Net Investment Income	-	61,184,032	(61,184,032)
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	(75,067,920)	-
Administrative Expense	-	(734,099)	734,099
Net Changes	58,851,880	36,126,770	22,725,110
Reporting Period Ending September 30, 2019	\$ 978,102,042	\$ 716,113,130	\$ 261,988,912

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.80%	7.80%	8.80%
Sponsor's Net Pension Liability	\$ 348,929,249	\$ 261,988,912	\$ 188,705,326

*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, 2018**

For the year ended September 30, 2018, the Sponsor has recognized 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	40,894,637	-
<b>Total</b>	<b>\$ 73,766,143</b>	<b>\$ 7,051,467</b>

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, 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		\$	-	

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2019**

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$44,276,313.

On September 30, 2019, 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	27,776,336	-
Changes of assumptions	30,921,929	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	13,534,792
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 13,534,792

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, 2019.

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:	
2020	\$ 28,379,129
2021	\$ 10,884,092
2022	\$ 7,457,735
2023	\$ (1,557,483)
2024	\$ -
Thereafter	\$ -

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

Reporting Period Ending Measurement Date	09/30/2019 09/30/2018	09/30/2018 09/30/2017	09/30/2017 09/30/2016
Total Pension Liability			
Service Cost	7,202,768	8,302,554	8,887,641
Interest	70,617,995	65,295,454	62,786,218
Change in Annuity Savings Fund	3,399,514	3,594,508	4,032,235
Change in Annuity Reserve Fund	-	48,248,469	-
Changes of benefit terms	(6,194,034)	(15,079,464)	-
Differences between Expected and Actual Experience	21,250,857	17,047,994	13,256,782
Changes of assumptions	33,984,415	-	21,734,473
Contributions - Buy Back	3,658,285	2,569,143	907,919
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	(67,397,153)	(61,753,388)
Net Change in Total Pension Liability	58,851,880	62,581,505	49,851,880
Total Pension Liability - Beginning	919,250,162	856,668,657	806,816,777
Total Pension Liability - Ending (a)	<u>\$978,102,042</u>	<u>\$919,250,162</u>	<u>\$856,668,657</u>
Plan Fiduciary Net Position			
Contributions - Employer	40,432,760	29,197,532	26,327,799
Contributions - State	461,877	461,877	461,877
Contributions - Employee	2,792,321	2,152,895	2,433,031
Contributions - Buy Back	3,658,285	2,569,143	907,919
Contributions - Annuity Savings Fund	3,399,514	3,594,508	4,032,235
Net Investment Income	61,184,032	70,077,666	48,674,393
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	(67,397,153)	(61,753,388)
Administrative Expense	(734,099)	-	-
Revision in methodology to include Annuity Reserve Fund	-	48,248,469	-
Net Change in Plan Fiduciary Net Position	36,126,770	88,904,937	21,083,866
Plan Fiduciary Net Position - Beginning	679,986,360	591,081,423	569,997,557
Plan Fiduciary Net Position - Ending (b)	<u>\$716,113,130</u>	<u>\$679,986,360</u>	<u>\$591,081,423</u>
Net Pension Liability - Ending (a) - (b)	<u>\$261,988,912</u>	<u>\$239,263,802</u>	<u>\$265,587,234</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	73.21%	73.97%	69.00%
Covered Payroll <sup>1</sup>	\$ 51,863,886	\$ 55,447,024	\$ 54,783,012
Net Pension Liability as a percentage of Covered Employee Payroll	505.15%	431.52%	484.80%

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

*Changes of benefit terms:*

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from an ordinance provided amended benefits for Police Officers (not General Employees and Firefighters) effective September 25, 2018.

The benefit reductions are different based upon age and service as of the effective date. Additionally, a police officer member who separates from city employment prior to vesting may obtain a refund of member contributions made on and after October 1, 2018, with interest at the rate of 3.0% per annum, in lieu of receiving any future service benefits from the retirement system.

1.) **Tier 1A – Those Members eligible for Normal Retirement as of March 2, 2014** - The only changes will be 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 - September 30, 2019:2.0% of pensionable Salary

October 1, 2019 - September 30, 2020:4.0% of pensionable Salary

October 1, 2020 and forward:6.0% of pensionable Salary

2.) **Tier 1B – Those Members eligible for Normal Retirement as of September 25, 2018** – The only changes will be 1.) the maximum DROP participation period is extended from 3 years to 5 years and 2.) they will make the following member contributions to the defined benefit pension plan:

October 1, 2018 - September, 2019:6.0% of pensionable Salary

October 1, 2019 - September, 2020:8.0% of pensionable Salary

October 1, 2020 and forward:10.0% of pensionable Salary

3.) **Tier 1C – Those Members with at least 20 years of service and 66 points as of September 25, 2018** –

Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have at least 20 years of Credited Service, will have only four changes. First, they will have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned prior to September 25, 2018, and 2.75% for each year of Credited Service earned on and after that date, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, will be 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

4.) **Tier 1D – Those Members with 16 to 20 years of service and 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, have completed at least 16 years of actual service with the City, have attained 66 points (age plus service equals 66), and have less than 20 years of Credited Service, will have only four changes. First, they will have the same member contribution changes as Tier 1B. Second, the benefit accrual rate for the Normal Service Retirement Benefit will be 3.0% for each year of Credited Service earned up to 20 years, and 2.75% for each year of Credited Service earned above 20 years, with a maximum benefit of 79.5% of Average Final Compensation. Also, the minimum benefit, regardless of type of retirement, will be 2.75% of Average Final Compensation for each year of Credited Service. Lastly, the maximum DROP participation period is extended from 3 years to 5 years.

5.) **Tier 1E – Those Members with 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 16 years of actual service with the City, but had not attained 66 points, will have the same member contribution rate changes as Tier 1B and the following benefit changes.

A.) All benefits accrued as of September 24, 2018 will be “frozen”. The frozen benefits will be payable under the same terms as were in effect before September 25, 2018 (Normal Retirement at 20 years of Credited Service with age plus service at least 70 for this group (76 for Tier 2), unreduced 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 September 24, 2018. The frozen benefits cannot commence until a Member terminates employment with the City. All Police Officers will be 100% vested in this frozen benefit. This means that even if a Police Officer terminates employment with the City on October 1, 2018 after being hired on September 20, 2018, they would receive an unreduced “frozen” benefit at age 55, albeit that benefit will equal 5 days of Credited Service times 2.75% times their Average Final Compensation at September 24, 2018.

*Continued Changes of benefit terms:*

B.) Benefits earned on and after September 25, 2018 (“future service benefits”) shall accrue in accordance with the provisions of the retirement plan in effect before September 25, 2018, except as follows:

- 1.) The benefit accrual rate for Credited Service earned on and after September 25, 2018 shall be 2.75% per year, with a maximum benefit of 79.5% of Average Final Compensation (AFC). The 79.5% of AFC maximum applies to the Service Pension Benefits accrued both prior to and after September 25, 2018. The 1.5% additional benefit multiplier for service after 25 years shall be eliminated. The 25-year cap is also eliminated. Provided, however, that the minimum benefit (including the basic pension) shall be 2.75% of average final compensation for all years of credited service.
  - 2.) Average Final Compensation shall be the average of the highest annual Compensation received by a member during the highest 5 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 September 24, 2018.
  - 3.) The Normal Retirement Date shall be the earlier of 1.) age 55 with 10 years of Credited Service, 2.) age 52 with 25 years of Credited Service, or 3.) 27 years of Credited Service, regardless of age. 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 were provided base pay for all Police Officers as of September 30, 2017.
  - 5.) There shall be no Cost of Living Adjustments (COLA’s) on benefits based on credited service earned on or after September 25, 2018.
  - 6.) Members shall not be eligible to purchase additional Credited Service on or after September 25, 2018, except that upon reaching 25 years of service, this group may purchase up to 2 years of service.
  - 7.) Members may enter the DROP upon attaining the earlier of 1.) age 52 with 25 years of credited service, or 2.) 27 years of service, regardless of age, and may participate in the DROP for a maximum of 5 years.
  - 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 no reduction.
- 6.) **Tier 1F – Those Members with 10 - 16 years, but not 66 points as of September 25, 2018** – Those Members who, as of September 25, 2018, completed at least 10 years of actual service with the City, but had not completed 16 years of actual service and had not attained 66 points, will have the exact same changes as Tier 1E, except that they would not be allowed to purchase any service after September 25, 2018.
- 7.) **Tier 1G – Those Members with less than 10 years of service as of September 25, 2018**, who were hired before March 2, 2014 – Those Members who, as of September 25, 2018, completed at less than 10 years of actual service with the City, and had not attained 66 points, will have the exact same changes as Tier 1F, except that they would not have the normal retirement provision of the completion of 27 years of service, regardless of age mentioned in 5(B)(3) and 5(B)(7) listed above.
- 8.) **Tier 2 – Those Members who were hired on or after March 2, 2014** – These Members will have the exact same changes as Tier 1G, except that they have no Basic Pension and the minimum age plus service for the “frozen” benefit is 76 points instead of 70. Additionally, the Vested or Deferred benefits are payable at age 59 ½. Lastly, the COLA on the “frozen” benefit is 1.0% per year, instead of 2.0%.

Additionally, the current Police Officer DROP Members at the time the ordinance is adopted would have the opportunity to extend their DROP period an additional two years.

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 09/30/2018, amounts reported as changes of assumptions reflected the following changes:

As a results of the benefit changes, the following assumed retirement rates now apply to the following Tiers of Police Officers:

• **Retirement (Tier 1E and 1F Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1st year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service	100.0%

• **Retirement (Tier 1G and Tier 2 Police Officers)**

<u>Age and Service</u>	<u>Prob. of Retirement</u>
Age 50 with 10 or more years of service, but not elig. for Normal	5.0% per year.
1st year elig for Normal (if < 25 years of service)	75.0%
Less than 25 years of service between age 56 and 60	50.0%
Age 60 with at least 10 years of service	100.0%
25 years of service between age 52 and 60	50.0%
26 years of service between age 52 and 60	30.0%
27 years of service between age 52 and 60	40.0%
28 years of service between age 52 and 60	50.0%
29 years of service between age 52 and 60	60.0%
30 years of service	100.0%

As a result of an Experience Study prepared January 29, 2019, the Board approved the following assumption changes:

- The investment return assumption was changed from 8.0% to 7.8%, net of investment related expenses.
- The assumed rates of individual salary increase were change to a service based assumption for each group of employees as follows:

General Employees

<u>Yrs of Service</u>	<u>Expected Salary Increase</u>
<1	15.0%
1-4	7.0%
5-14	6.0%
15+	5.0%

Police Officers

No changes.

Firefighters

<u>Yrs of Service</u>	<u>Expected Salary Increase</u>
<1	10.0%
1-4	6.0%
5-9	5.5%
10+	4.0%

## GASB 68

### *Continued Changes of assumptions*

- The assumed rates of retirement were amended to the following rates:

#### Firefighters

<u>Yrs of Service</u>	<u>Expected Probability of Retirement</u>
<20	0.0%
20-22	7.5%
23-24	12.5%
25	50.0%
26-29	33.3%
30+	100.0%

#### General Employees

For fully or partially grandfathered employees, the assumption is 10% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability and each year after that until age 70 is a 35% probability and a 100% probability at age 70.

There is no change to the assumption for non-grandfathered employees.

#### Police Officers

For fully or partially grandfathered employees (Tiers 1A – 1D), the assumption is 5% per year upon reaching age 55 with 10 years of service, but before eligibility for Normal Retirement (Rule of 70 with 20 years of service). The first year eligible for Normal Retirement will be a 70% probability and each year after that until age 65 is a 35% probability and a 100% probability at age 65.

There is no change to the assumption for non-grandfathered employees.

- The assumed rates of withdrawal (pre-retirement separation) were changed to the following rates:

#### Firefighters

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
<5	11.0%
5-12	2.5%
13+	0.0%

#### General Employees

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
<1	15.0%
1	12.5%
2	10.0%
3-4	8.5%
5-6	7.0%
7-8	6.0%
9-10	5.0%
11-12	4.0%
13-14	3.0%
15-20	2.0%
21+	0.0%

## GASB 68

### *Continued Changes of assumptions*

#### Police Officers

<u>Yrs of Service</u>	<u>Expected Probability of Withdrawal</u>
<2	20.0%
2-3	17.5%
4-5	7.5%
6-9	5.0%
10-14	4.5%
15-17	2.5%
18+	0.0%

- The assumed rates of Disability retirement were reduced for each employee group as follows:

<u>Group</u>	<u>Adjustment</u>
Firefighters	Reduced rates 33%
General Employees	Reduced rates 50%
Police Officers	Reduced rates 30%

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 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	<u>(66,047,848)</u>	<u>(63,299,504)</u>
Administrative Expense	-	-
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 Payroll <sup>1</sup>	\$ 57,948,210	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	408.67%	N/A

**Notes to Schedule:**

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2018	\$ 30,894,637	\$ 40,894,637	\$ (10,000,000)	\$ 51,863,886	78.85%
09/30/2017	\$ 29,659,409	\$ 29,659,409	\$ -	\$ 55,447,024	53.49%
09/30/2016	\$ 26,477,463	\$ 26,789,676	\$ (312,213)	\$ 54,783,012	48.90%
09/30/2015	\$ 26,210,070	\$ 27,844,783	\$ (1,634,713)	\$ 57,948,210	48.05%
09/30/2014	\$ 26,231,130	\$ 26,231,130	\$ -	N/A	N/A

<sup>1</sup> The Covered Payroll numbers shown are in compliance with GASB 82.

Notes to Schedule

Valuation Date: 10/01/2016

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 4.00% 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.

Decrements:

**Police Officers and Firefighters Mortality:**

*Healthy 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

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

**General Employees Mortality:**

*Healthy 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, 2015 FRS valuation report. We feel these assumptions sufficiently accommodate future mortality improvements.

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%

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%

## GASB 68

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.
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 1.00% per year as approved by the Division of Retirement.
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.**

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

**The following information is not required to be disclosed but is provided for informational purposes.**

FINAL 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	-	-	40,894,637	-
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>42,342,938</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>\$ 91,260,591</u>	<u>\$ 26,109,069</u>

**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2019**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 239,263,802	\$ 24,545,915	\$ 91,260,591	\$ -
Employer and State Contributions made after 09/30/2018	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	7,202,768	-	-	7,202,768
Interest	70,617,995	-	-	70,617,995
Change in Annuity Savings Fund	3,399,514	-	-	3,399,514
Changes in benefit terms	(6,194,034)	-	-	(6,194,034)
Contributions - Buy Back	3,658,285	-	-	3,658,285
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	21,250,857	-	21,250,857	-
Current year amortization of experience difference	-	-	(15,478,792)	15,478,792
Change in assumptions about future economic or demographic factors or other inputs	33,984,415	-	33,984,415	-
Current year amortization of change in assumptions	-	-	(13,929,721)	13,929,721
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	-	-	-
Net change	<u>58,851,880</u>	<u>-</u>	<u>25,826,759</u>	<u>108,093,041</u>
Plan Fiduciary Net Position:				
Contributions - Employer	40,432,760	-	(40,432,760)	-
Contributions - State	461,877	-	(461,877)	-
Contributions - Employee	2,792,321	-	-	(2,792,321)
Contributions - Buy Back	3,658,285	-	-	(3,658,285)
Contributions - Annuity Savings Fund	3,399,514	-	-	(3,399,514)
Projected Net Investment Income	53,396,618	-	-	(53,396,618)
Difference between projected and actual earnings on Pension Plan investments	7,787,414	7,787,414	-	-
Current year amortization	-	(10,051,313)	(8,747,224)	(1,304,089)
Benefit Payments, including Refunds of Employee Contributions	(75,067,920)	-	-	-
Administrative Expenses	(734,099)	-	-	734,099
Net change	<u>36,126,770</u>	<u>(2,263,899)</u>	<u>(49,641,861)</u>	<u>(63,816,728)</u>
Ending Balance	<u>\$ 261,988,912</u>	<u>\$ 22,282,016</u>	<u>TBD</u>	<u>\$ 44,276,313</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2018 but made on or before September 30, 2019 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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
	Expected and Actual Experience												
2014	\$	(14,322,943)	5	\$ (2,864,589)	\$ (2,864,589)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$	43,736,122	5	\$ 8,747,224	\$ 8,747,224	\$ 8,747,224	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$	(4,178,210)	5	\$ (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)	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$	(7,787,414)	5	\$ -	\$ (1,557,482)	\$ (1,557,483)	\$ (1,557,483)	\$ (1,557,483)	\$ (1,557,483)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense				\$ 253,393	\$ (1,304,089)	\$ 1,560,499	\$ (7,186,725)	\$ (6,351,083)	\$ (1,557,483)	\$ -	\$ -	\$ -	\$ -

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2016	\$ 21,734,473	4	\$ 5,433,618	\$ 5,433,618	\$ 5,433,617	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 33,984,415	4	\$ -	\$ 8,496,103	\$ 8,496,104	\$ 8,496,104	\$ 8,496,104	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 5,433,618	\$ 13,929,721	\$ 13,929,721	\$ 8,496,104	\$ 8,496,104	\$ -	\$ -	\$ -	\$ -	\$ -

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 Expected and Actual Experience	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
2015	\$ 10,359,527	4	\$ 2,589,882	\$ 2,589,882	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 13,256,782	4	\$ 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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 21,250,857	4	\$ -	\$ 5,312,715	\$ 5,312,714	\$ 5,312,714	\$ 5,312,714	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 10,166,075	\$ 15,478,792	\$ 12,888,909	\$ 9,574,713	\$ 5,312,714	\$ -	\$ -	\$ -	\$ -	\$ -