

CITY OF OCALA
POLICE OFFICERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2019

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2021

GASB 67/68 DISCLOSURE INFORMATION
AS OF SEPTEMBER 30, 2019



FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

March 4, 2020

Board of Trustees
City of Ocala
Police Officers' Retirement System
402 S. Pine Ave.
Ocala, FL 34471-1174

Re: City of Ocala Police Officers' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Ocala Police Officers' 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. Use of the results for other purposes may not be applicable and may produce significantly different results.

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 reflect laws and regulations issued to date pursuant to the provisions of Chapters 112 and 185, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the 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. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Ocala, financial reports prepared by the custodian bank, 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, 2018. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2019 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 are familiar with the immediate and long-term aspects of pension valuations, and meet 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 Ocala, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police Officers' Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

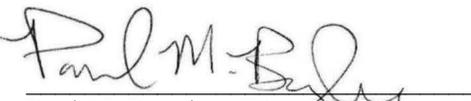
If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

By: 

Douglas H. Lozen, EA, MAAA
Enrolled Actuary #17-7778

By: 

Paul M. Baugher, FSA, EA, MAAA

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Ocala Police Officers' Retirement System, performed as of October 1, 2019, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2021. Based on a beginning-of-year funding method, the City's contribution is due in full each October 1.

The contribution requirements, compared with those set forth in the October 1, 2018 actuarial valuation report (as modified for a beginning-of-year funding method), are as follows:

Valuation Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2021</u>	<u>9/30/2020</u>
Minimum Required Contribution		
% of Projected Annual Payroll	39.95%	40.96%
Member Contributions (Est.)		
% of Projected Annual Payroll	8.00%	8.00%
City And State Required Contribution		
% of Projected Annual Payroll	31.95%	32.96%
State Contribution (Est.) ¹	\$636,601	\$636,601
% of Projected Annual Payroll	5.72%	5.72%
City Required Contribution ²		
% of Projected Annual Payroll	26.23%	27.24%

¹ Represents the amount received in calendar 2019. Based on the August 22, 2018 Memorandum of Understanding, the City and FOP agreed that no changes will be made to the use of Chapter 185 Premium Tax Revenue (State Monies) until the next Collective Bargaining Session. Accordingly, the City has access to all annual State Monies to assist with Plan funding.

² The required contribution from the combination of City and State sources for the year ending September 30, 2021, is 31.95% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 26.23% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received. The net Funding Standard Account balance of \$1,553,869 is available to assist with the City's contribution requirement for the year ending September 30, 2020.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 5.93% (Actuarial Asset Basis) which fell short of the 7.85% assumption and less turnover than expected. These losses were offset in part by a gain associated with use of the funding standard account and inactive mortality experience.

CHANGES SINCE PRIOR VALUATION

Plan Changes

There have been no changes in benefits since the prior valuation.

Actuarial Assumption/Method Changes

The interest rate was decreased from 7.85% to 7.70%. Also, in conjunction with this valuation of the plan, a beginning-of-year funding method is utilized, retroactively applied to results of the October 1, 2018 valuation.

CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2018	27.06% *
(2) Summary of Contribution Impact by component:	
Change in State Contribution Percentage	0.18%
Change in Normal Cost Rate	-0.45%
Change in Administrative Expense Percentage	-0.15%
Payroll Change Effect on UAAL Amortization	-2.43%
Investment Return (Actuarial Asset Basis)	1.74%
Salary Increases	-0.21%
Active Decrements	0.35%
Inactive Mortality	-0.24%
Contribution Timing	-1.32%
Assumption Change	1.64%
Other	<u>0.06%</u>
Total Change in Contribution	-0.83%
(3) Contribution Determined as of October 1, 2019	26.23%

* Modified to reflect a beginning-of-year funding method.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
A. Participant Data			
Actives	170	170	155
Service Retirees	94	94	93
DROP Retirees	8	8	11
Beneficiaries	16	16	16
Disability Retirees	5	5	5
Terminated Vested	<u>19</u>	<u>19</u>	<u>16</u>
Total	312	312	296
Total Annual Payroll	\$11,137,356	\$11,137,356	\$9,896,055
Payroll Under Assumed Ret. Age	11,137,356	11,137,356	9,896,055
Annual Rate of Payments to:			
Service Retirees	3,848,047	3,848,047	3,790,744
DROP Retirees	443,635	443,635	585,970
Beneficiaries	238,949	238,949	245,757
Disability Retirees	113,201	113,201	113,201
Terminated Vested	184,110	184,110	184,110
B. Assets			
Actuarial Value (AVA) ¹	77,337,155	77,337,155	74,025,974
Market Value (MVA) ¹	75,092,803	75,092,803	73,797,839
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	47,100,299	45,964,079	40,630,680
Disability Benefits	2,241,490	2,193,721	2,075,166
Death Benefits	240,165	235,323	222,134
Vested Benefits	4,054,047	3,916,420	3,817,847
Refund of Contributions	524,807	522,447	398,774
Service Retirees	41,259,212	40,731,625	40,484,783
DROP Retirees ¹	7,601,944	7,533,764	9,681,504
Beneficiaries	1,997,616	1,975,596	1,685,473
Disability Retirees	1,114,771	1,101,757	1,117,228
Terminated Vested	1,541,901	1,513,987	1,385,926
Share Plan Balances ¹	0	0	0
Funding Standard Account	<u>1,553,869</u>	<u>1,553,869</u>	<u>2,079,386</u>
Total	109,230,121	107,242,588	103,578,901

C. Liabilities - (Continued)	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
Present Value of Future Salaries	80,784,751	80,132,498	72,529,743
Present Value of Future Member Contributions	6,462,780	6,410,600	5,802,379
Normal Cost (Retirement)	1,382,609	1,333,984	1,223,939
Normal Cost (Disability)	163,071	159,709	143,974
Normal Cost (Death)	11,622	11,298	10,149
Normal Cost (Vesting)	251,298	241,476	227,048
Normal Cost (Refunds)	<u>87,237</u>	<u>87,121</u>	<u>68,355</u>
Total Normal Cost	1,895,837	1,833,588	1,673,465
Present Value of Future Normal Costs	13,019,313	12,483,302	11,484,747
Accrued Liability (Retirement)	37,410,684	36,694,206	32,036,985
Accrued Liability (Disability)	1,140,658	1,124,256	1,083,341
Accrued Liability (Death)	160,682	158,689	151,664
Accrued Liability (Vesting)	2,354,545	2,296,526	2,333,787
Accrued Liability (Refunds)	74,926	75,011	54,077
Accrued Liability (Inactives) ¹	53,515,444	52,856,729	54,354,914
Share Plan Balances ¹	0	0	0
Funding Standard Account	<u>1,553,869</u>	<u>1,553,869</u>	<u>2,079,386</u>
Total Actuarial Accrued Liability (EAN AL)	96,210,808	94,759,286	92,094,154
Unfunded Actuarial Accrued Liability (UAAL)	18,873,653	17,422,131	18,068,180
Funded Ratio (AVA / EAN AL)	80.4%	81.6%	80.4%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances ¹	53,515,444	52,856,729	54,354,914
Actives	21,606,982	21,043,275	17,005,170
Member Contributions	<u>6,884,848</u>	<u>6,884,848</u>	<u>6,153,073</u>
Total	82,007,274	80,784,852	77,513,157
Non-vested Accrued Benefits	<u>2,899,259</u>	<u>2,847,029</u>	<u>2,976,432</u>
Total Present Value			
Accrued Benefits (PVAB)	84,906,533	83,631,881	80,489,589
Funded Ratio (MVA / PVAB)	88.4%	89.8%	91.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	1,274,652	0	
Plan Experience	0	2,517,671	
Benefits Paid	0	(5,478,770)	
Interest	0	6,103,391	
Other	<u>0</u>	<u>0</u>	
Total	1,274,652	3,142,292	

Valuation Date Applicable to Fiscal Year Ending	New Assump 10/1/2019 <u>9/30/2021</u>	Old Assump 10/1/2019 <u>9/30/2021</u>	10/1/2018 <u>9/30/2020</u> ³
E. Pension Cost			
Normal Cost (with interest) % of Total Annual Payroll ²	17.02	16.46	16.91
Administrative Expenses (with interest) % of Total Annual Payroll ²	0.76	0.76	0.91
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 25 years (as of 10/1/2019, with interest) % of Total Annual Payroll ²	22.17	21.09	23.14
Minimum Required Contribution % of Total Annual Payroll ²	39.95	38.31	40.96
Expected Member Contributions % of Total Annual Payroll ²	8.00	8.00	8.00
Expected City and State Contribution % of Total Annual Payroll ²	31.95	30.31	32.96

F. Past Contributions

Plan Years Ending: 9/30/2019

City and State Requirement 4,250,055

Actual Contributions Made:

Members (excluding buyback)	823,654
City	3,014,876
FSA Application	598,578
State	<u>636,601</u>
Total	5,073,709

G. Net Actuarial (Gain)/Loss 1,379,437

¹ The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2019 and 9/30/2018.

² Contributions developed as of 10/1/2019 are expressed as a percentage of total annual payroll at 10/1/2019 of \$11,137,356.

³ Modified to reflect a beginning-of-year funding method.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2019	18,873,653
2020	17,667,520
2021	16,368,516
2027	8,227,614
2033	1,777,659
2044	0

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2019	6.19%	5.40%
Year Ended 9/30/2018	6.91%	5.38%
Year Ended 9/30/2017	8.44%	5.40%
Year Ended 9/30/2016	6.97%	5.42%
Year Ended 9/30/2015	2.42%	5.36%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2019	3.14%	5.93%	7.85%
Year Ended 9/30/2018	9.04%	7.45%	7.85%
Year Ended 9/30/2017	10.82%	8.35%	8.00%
Year Ended 9/30/2016	8.95%	9.78%	8.00%
Year Ended 9/30/2015	-1.76%	7.78%	8.00%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2019	\$11,137,356
	10/1/2009	8,024,058
(b) Total Increase		38.80%
(c) Number of Years		10.00
(d) Average Annual Rate		3.33%

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.



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #17-7778

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

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

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

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2018	\$18,068,180
(2) Sponsor Normal Cost developed as of October 1, 2018	881,781
(3) Expected administrative expenses for the year ended September 30, 2019	89,863
(4) Expected interest on (1), (2) and (3)	1,491,099
(5) Sponsor contributions to the System during the year ended September 30, 2019	4,250,055
(6) Expected interest on (5)	238,174
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2019 (1)+(2)+(3)+(4)-(5)-(6)	16,042,694
(8) Change to UAAL due to Assumption Change	1,451,522
(9) Change to UAAL due to Actuarial (Gain)/Loss	1,379,437
(10) Unfunded Actuarial Accrued Liability as of October 1, 2019	18,873,653

Type of Base	Date Established	Years Remaining	10/1/2019 Amount	Amortization Amount
method change	10/1/2004	15	2,686,579	286,115
prior losses	10/1/2004	9	2,138,575	313,913
plan amendment	10/1/2004	15	2,935,703	312,646
actuarial loss	10/1/2005	9	1,947,008	285,793
actuarial loss	10/1/2006	9	621,502	91,228
plan amendment	10/1/2006	17	1,385,507	138,223
actuarial gain	10/1/2007	9	(90,950)	(13,350)
assumption change	10/1/2007	18	80,900	7,849
method change	10/1/2008	9	359,366	52,750
actuarial loss	10/1/2009	10	2,051,035	279,983
actuarial gain	10/1/2010	11	(169,296)	(21,700)
assumption change	10/1/2010	11	1,049,414	134,509
actuarial loss	10/1/2011	2	397,646	206,194
assumption change	10/1/2011	12	44,604	5,410
actuarial loss	10/1/2012	3	654,236	234,441
actuarial gain	10/1/2013	4	(436,955)	(121,677)
actuarial gain	10/1/2014	5	(148,575)	(34,278)
plan amendment	10/1/2014	25	(850,509)	(72,092)
actuarial gain	10/1/2015	6	(347,077)	(69,077)
assumption change	10/1/2016	17	1,564,783	156,108
actuarial gain	10/1/2016	7	(959,595)	(169,382)
actuarial loss	10/1/2017	8	656,201	104,821
assumption change	10/1/2017	18	623,939	60,535
actuarial gain	10/1/2018	9	(151,347)	(22,216)
actuarial loss	10/1/2019	10	1,379,437	188,304
assumption change	10/1/2019	20	<u>1,451,522</u>	<u>134,221</u>
			18,873,653	2,469,271

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2018	\$18,068,180
(2) Expected UAAL as of October 1, 2019	16,042,694
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	1,411,827
Salary Increases	(167,768)
Active Decrements	285,445
Inactive Mortality	(192,577)
Other	<u>42,510</u>
Increase in UAAL due to (Gain)/Loss	1,379,437
Assumption Changes	<u>1,451,522</u>
(4) Actual UAAL as of October 1, 2019	\$18,873,653

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate

Healthy Active Lives:

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

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

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 for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.70% (prior year 7.85%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

<u>Credited Service</u>	<u>Salary Scale</u>
Less than 3 Years	6.50%
3-9	6.00%
10-19	5.00%
20-24	4.50%
25+	4.00%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Normal Retirement

Less than 25 years of Credited Service

<u>Age</u>	<u>Probability of Retirement</u>
52-55	50%
56	75%
57+	100%

25 or more years of Credited Service

<u>Age</u>	<u>Probability of Retirement</u>
Less than 51	50%
51-54	25%
55+	100%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Early Retirement

Commencing with the earliest Retirement Age, Members are assumed to retire with an immediate subsidized benefit at the rate of 10% (previously 5%) per year. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Termination Rate

Less than 5 years of Credited Service

<u>Age</u>	<u>Probability of Termination</u>
Less than 40	10.00%
40-44	9.00%
45-49	8.00%
50-54	7.00%
55-59	6.00%
60+	5.00%

5 or more years of Credited Service

<u>Age</u>	<u>Probability of Termination</u>
Less than 20	8.00%
20-24	7.00%
25-29	6.00%
30-34	5.00%
35-39	4.00%
40+	3.00%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Disability Rate

See table below; 75% of disablements are assumed to be service related. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

<u>Age</u>	<u>% Becoming Disabled During the Year</u>
20	0.14%
30	0.18%
40	0.30%
50	1.00%

Partial Lump Sums

For valuation purposes, no future retirees are assumed to opt for a partial lump sum.

Funding Method

Entry Age Normal Actuarial Cost Method.

Administrative Expenses

\$84,778 annually, based on the average of actual expenses incurred in the prior two fiscal years. Previously, the actual expense in the prior fiscal year was used. Using a two-year average results in a less volatile estimate than the prior method.

Asset Valuation Method

Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 5-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

Amortization Method

New UAAL amortization bases are established according to the following amortization periods:

Experience: 10 Years.

Assumption/Method Changes: 20 Years.

Benefit Changes: 30 Years.

GLOSSARY

Total Annual Payroll is the projected annual rate of pay beginning as of the valuation date of all covered Members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Normal (Current Year's) Cost is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals:
 - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
 - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.
- (d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the actuarial value of assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has increased from 104.7% on October 1, 2016 to 127.8% on October 1, 2019, indicating that the plan has experienced a significant growth in active population.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 55.6%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 77.0% on October 1, 2016 to 80.4% on October 1, 2019, due to net favorable experience realized by the plan during the period.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from -0.4% on October 1, 2016 to -1.4% on October 1, 2019. The current Net Cash Flow Ratio of -1.4% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Support Ratio</u>				
Total Actives	133	137	155	170
Total Inactives ¹	127	135	135	133
Actives / Inactives ¹	104.7%	101.5%	114.8%	127.8%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	62,806,327	68,327,835	73,797,839	75,092,803
Total Annual Payroll	8,085,751	8,719,016	9,896,055	11,137,356
MVA / Total Annual Payroll	776.8%	783.7%	745.7%	674.2%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	52,594,032	55,224,849	54,354,914	53,515,444
Total Accrued Liability (EAN)	84,798,677	89,440,114	92,094,154	96,210,808
Inactive AL / Total AL	62.0%	61.7%	59.0%	55.6%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	65,304,365	69,510,664	74,025,974	77,337,155
Total Accrued Liability (EAN)	84,798,677	89,440,114	92,094,154	96,210,808
AVA / Total Accrued Liability (EAN)	77.0%	77.7%	80.4%	80.4%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow ²	(239,334)	(1,194,813)	(640,446)	(1,049,307)
Market Value of Assets (MVA)	62,806,327	68,327,835	73,797,839	75,092,803
Ratio	-0.4%	-1.7%	-0.9%	-1.4%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	370,841.81	_____ %
1999	389,759.63	5.1%
2000	382,862.87	-1.8%
2001	403,077.56	5.3%
2002	442,447.29	9.8%
2003	506,930.80	14.6%
2004	526,765.89	3.9%
2005	544,392.80	3.3%
2006	569,421.43	4.6%
2007	544,392.80	-4.4%
2008	544,392.80	0.0%
2009	514,489.49	-5.5%
2010	448,284.61	-12.9%
2011	429,239.39	-4.2%
2012	412,295.01	-3.9%
2013	413,332.50	0.3%
2014	440,294.47	6.5%
2015	471,519.76	7.1%
2016	516,594.42	9.6%
2017	530,025.97	2.6%
2018	584,333.68	10.2%
2019	636,601.20	8.9%

Funding Standard Account
(Non-Investment Related Expenses)

	<u>9/30/2016</u>	<u>9/30/2017</u>	<u>9/30/2018</u>	<u>9/30/2019</u>
(a) Expense Account Deficit Beginning of Year	616,274	677,195	736,894	796,149
(b) Expected Expenses	72,024	83,196	88,507	89,863
(c) Actual Expenses	83,196	88,507	89,863	84,778
(d) Expense Account Deficit End of Year	677,195	736,894	796,149	853,362

Funding Standard Account
(Contribution Surplus)

	<u>9/30/2016</u>	<u>9/30/2017</u>	<u>9/30/2018</u>	<u>9/30/2019 *</u>
Charges				
(a) Prior year's Accumulated Funding Deficiency	0	0	0	0
(b) Required City/State Contribution	3,617,929	3,444,934	3,922,405	4,250,055
(c) Interest on (a) & (b)	289,434	275,595	307,909	333,629
(d) Total Charges	3,907,363	3,720,529	4,230,314	4,583,684
Credits				
(e) Prior year's Credit Balance	1,144,185	1,456,396	2,113,297	2,875,535
(f) City/State Contributions	3,985,989	4,112,843	4,662,203	3,651,477
(g) Interest on (e) & (f)	233,585	264,587	330,349	463,903
(h) Total Credits	5,363,759	5,833,826	7,105,849	6,990,915
Balance				
(1) Accumulated Funding Deficiency (-) or Credit (+) Balance as of Plan Year End	1,456,396	2,113,297	2,875,535	2,407,231

* Modified to reflect a beginning-of-year funding method.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2019

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	1,080,459.86	1,080,459.86
Prepaid Expenses	670.00	670.00
Money Market	1,125,944.56	1,125,944.56
Total Cash and Equivalents	2,207,074.42	2,207,074.42
Receivables:		
From Broker for Investments Sold	27,818.78	27,818.78
Investment Income	128,696.34	128,696.34
Total Receivable	156,515.12	156,515.12
Investments:		
U. S. Bonds and Bills	8,231,520.33	8,468,854.20
Federal Agency Guaranteed Securities	3,117,660.26	3,156,059.31
Corporate Bonds	12,413,595.52	12,564,351.56
Stocks	9,857,454.01	13,569,033.74
Mutual Funds:		
Equity	15,181,953.67	25,865,464.57
Pooled/Common/Commingled Funds:		
Equity	6,138,673.18	5,381,082.66
Real Estate	3,238,800.04	3,793,996.52
Total Investments	58,179,657.01	72,798,842.56
Total Assets	60,543,246.55	75,162,432.10
<u>LIABILITIES</u>		
Payables:		
Refunds of Member Contributions	16,406.11	16,406.11
Investment Expenses	32,567.32	32,567.32
Administrative Expenses	1,295.00	1,295.00
To Broker for Investments Purchased	19,360.25	19,360.25
Total Liabilities	69,628.68	69,628.68
NET POSITION RESTRICTED FOR PENSIONS	60,473,617.87	75,092,803.42

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2019
Market Value Basis

ADDITIONS

Contributions:			
Member		823,653.98	
Buy-Back		34,025.00	
City		3,014,876.12	
State		636,601.20	
Total Contributions			4,509,156.30
Investment Income:			
Miscellaneous Income	132,921.11		
Net Realized Gain (Loss)	2,599,497.89		
Unrealized Gain (Loss)	(1,692,243.06)		
Net Increase in Fair Value of Investments		1,040,175.94	
Interest & Dividends		1,693,960.92	
Less Investment Expense ¹		(389,866.01)	
Net Investment Income			2,344,270.85
Total Additions			6,853,427.15
<u>DEDUCTIONS</u>			
Distributions to Members:			
Benefit Payments		4,183,937.53	
Lump Sum DROP Distributions		1,194,324.72	
Refunds of Member Contributions		100,507.56	
Total Distributions			5,478,769.81
Administrative Expense			79,692.61
Total Deductions			5,558,462.42
Net Increase in Net Position			1,294,964.73
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			73,797,838.69
End of the Year			75,092,803.42

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

ACTUARIAL ASSET VALUATION
SEPTEMBER 30, 2019

Actuarial Assets for funding purposes are developed by increasing the Actuarial Assets used in the most recent actuarial valuation of the Fund by the average annual market value rate of return (net of investment related expenses) for the past five years. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return ¹	
09/30/2015	-1.76%	
09/30/2016	8.95%	
09/30/2017	10.82%	
09/30/2018	9.04%	
09/30/2019	3.14%	
Annualized Rate of Return for prior five (5) years:		5.93%
(A) 10/01/2018 Actuarial Assets:		\$74,025,974.07
(I) Net Investment Income:		
1. Interest, Dividends, and Miscellaneous Income	1,826,882.03	
2. Realized Gains (Losses)	2,599,497.89	
3. Unrealized Gains (Losses)	(1,692,243.06)	
4. Change in Actuarial Value	2,016,216.37	
5. Investment Related Expenses	(389,866.01)	
Total		4,360,487.22
(B) 10/01/2019 Actuarial Assets:		\$77,337,155.17
Actuarial Asset Rate of Return = 2I/(A+B-I):		5.93%
10/01/2019 Limited Actuarial Assets:		\$77,337,155.17
10/01/2019 Market Value of Assets:		\$75,092,803.42
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		(\$1,411,827.23)

¹Market Value Basis, net of investment related expenses.

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2019
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	823,653.98	
Buy-Back	34,025.00	
City	3,014,876.12	
State	636,601.20	
Total Contributions		4,509,156.30
Earnings from Investments:		
Interest & Dividends	1,693,960.92	
Miscellaneous Income	132,921.11	
Net Realized Gain (Loss)	2,599,497.89	
Unrealized Gain (Loss)	(1,692,243.06)	
Change in Actuarial Value	2,016,216.37	
Total Earnings and Investment Gains		4,750,353.23

EXPENDITURES

Distributions to Members:		
Benefit Payments	4,183,937.53	
Lump Sum DROP Distributions	1,194,324.72	
Refunds of Member Contributions	100,507.56	
Total Distributions		5,478,769.81
Expenses:		
Investment related ¹	389,866.01	
Administrative	79,692.61	
Total Expenses		469,558.62
Change in Net Assets for the Year		3,311,181.10
Net Assets Beginning of the Year		74,025,974.07
Net Assets End of the Year²		77,337,155.17

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

²Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2018 to September 30, 2019

Beginning of the Year Balance	3,024,968.67
Plus Additions	526,880.06
Investment Return Earned	184,742.99
Less Distributions	(1,194,324.72)
End of the Year Balance	2,542,267.00

STATISTICAL DATA

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	133	137	155	170
Average Current Age	39.3	39.1	37.8	37.4
Average Age at Employment	27.5	27.8	27.5	27.2
Average Past Service	11.8	11.3	10.3	10.2
Average Annual Salary	\$60,795	\$63,642	\$63,846	\$65,514
<u>Service Retirees</u>				
Number	76	89	93	94
Average Current Age	66.0	63.1	65.4	66.1
Average Annual Benefit	\$37,695	\$39,502	\$40,761	\$40,937
<u>DROP Retirees</u>				
Number	21	14	11	8
Average Current Age	53.1	54.6	55.7	56.6
Average Annual Benefit	\$55,473	\$56,364	\$53,270	\$55,454
<u>Beneficiaries</u>				
Number	18	17	16	16
Average Current Age	68.0	67.9	69.7	69.3
Average Annual Benefit	\$15,500	\$13,487	\$15,360	\$14,934
<u>Disability Retirees</u>				
Number	5	5	5	5
Average Current Age	51.2	52.2	53.2	54.2
Average Annual Benefit	\$22,640	\$22,640	\$22,640	\$22,640
<u>Terminated Vested</u>				
Number	12	12	16	19
Average Current Age ¹	52.2	49.9	48.0	49.0
Average Annual Benefit ²	\$22,499	\$18,415	\$18,411	\$18,411

¹ Effective 10/1/2018, the Average Current Age excludes participants awaiting a refund of contributions.

² The Average Annual Benefit excludes participants awaiting a refund of contributions.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24	9	8	3									20
25 - 29	6	9	3		2	3						23
30 - 34	3	6	4		5	6	8					32
35 - 39	1	2	1		3	4	5	5				21
40 - 44	2	2				2	2	7	5			20
45 - 49	1		1			2	5	8	14	1		32
50 - 54						1	2	1	11	5		20
55 - 59						1	1					2
60 - 64												0
65+												0
Total	22	27	12	0	10	19	23	21	30	6	0	170

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2018	155
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	(2)
iii. Refund of member contributions or full lump sum distribution received	(6)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>0</u>
g. Continuing participants	147
h. New entrants	<u>23</u>
i. Total active life participants in valuation	170

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving Benefits	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	93	11	16	5	10	6	141
Retired	0	0	0	0	0	0	0
DROP	3	(3)	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	0	0	0
Vested (Due Refund)	0	0	0	0	0	2	2
Hired/Terminated in Same Year	0	0	0	0	0	2	2
Death, With Survivor	(1)	0	1	0	0	0	0
Death, No Survivor	(1)	0	(1)	0	0	0	(2)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	(1)	(1)
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	94	8	16	5	10	9	142

SUMMARY OF CURRENT PLAN
(Through Ordinance 2019-56)

CREDITED SERVICE	Years and fractional parts of years of service with the City as a Police Officer.
SALARY	Total compensation for services rendered, including overtime, but excluding special detail pay, bonuses and unused vacation and sick time, plus tax deferred, tax sheltered and tax exempt items of income. Pensionable Overtime is limited to 300 hours per year for benefits accrued after October 31, 2015.
AVERAGE FINAL COMPENSATION	Average Salary during the best 5 years of the 10 years preceding termination.
NORMAL RETIREMENT	
Eligibility	Earlier of 1) Age 52 and 10 years of Credited Service, or 2) 25 years of Credited Service, regardless of age.
Benefit Amount	3.33% of Average Final Compensation times Credited Service. For Members not within 5 years of Normal Retirement as of November 1, 2015, the benefit accrual is 3.00% of Average Final Compensation for Credited Service earned after October 31, 2015.
Form of Benefit	Payable for life, with 120 monthly payments guaranteed. Options available.
EARLY RETIREMENT	
Eligibility	Age 50 and 10 years of Credited Service.
Benefit Amount	Accrued benefit, reduced 3% per year prior to Normal Retirement.

SUPPLEMENTAL BENEFIT

Eligibility	Normal and Early Retirees and their Joint Pensioners or Beneficiaries, <u>excluding</u> vested terminated persons.
Monthly Benefit Amount	\$10.00 for each full year of Credited Service. For Members not within 5 years of Normal Retirement as of November 1, 2015, Credited Service for the Supplemental Benefit ceases as of October 31, 2015.

DISABILITY

Eligibility	Service Incurred - Covered from Date of Employment. Non-Service Incurred - 10 years of Credited Service.
Benefit	Benefit accrued to date of disability, but not less than 42% of Average Final Compensation (Service Incurred), or 25% of Average Final Compensation (Non-Service Incurred).
Duration	Payable for life (with 10 year guarantee) or until recovery (as determined by the Board). Optional forms available.

PRE-RETIREMENT DEATH

(Non-Vested Members)	Refund of Member contributions to designated beneficiary.
(Vested Members)	Accrued benefit payable at Member's otherwise Early or Normal Retirement Date to beneficiary for 10 years.

VESTING (TERMINATION)

Less than 10 years of Service	Refund of Member Contributions.
10 years or more	Accrued benefit payable at otherwise Normal Retirement Date, based upon Credited Service in place on the date of termination, or refund of Member Contributions in lieu of a future benefit.

CONTRIBUTIONS

Employee	8.00% of Salary.
Premium Tax	0.85% tax on casualty insurance premiums.
City	Remaining amount necessary for payment of Normal (current year's) cost plus any additional amount necessary to fund any past service liability as provided in Part VII of Chapter 112, Florida Statutes.

DEFERRED RETIREMENT OPTION PLAN

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Not to exceed 60 months.
Rate of Return	<p>At member's election (may change method once during DROP participation) either: a) 6.5% annual rate, or b) Net Investment Return (total return less brokerage commission, transaction costs and management fees) credited each fiscal quarter.</p> <p>For Members not within 5 years of Normal Retirement eligibility as of November 1, 2015, the net-of-fees earnings for DROP balances established on or after November 1, 2015 is limited to a maximum of 3% and minimum of 1%.</p>
Distribution	Cash lump sum (options available) at termination of employment.

BOARD OF TRUSTEES

Two City residents appointed by the City Council, two Police Officers elected by majority of covered members, and a fifth member elected by other 4 and appointed by City Council (as a ministerial duty).

SUPPLEMENTAL BENEFIT: CHAPTER 185 SHARE ACCOUNTS

Effective September 30, 2015, excess Premium tax monies received pursuant to Chapter 185, Florida Statutes will be allocated to individual Member (including DROP participants) share accounts based on years of Credited Service.

Investment Earnings	Plan earnings, net of investment-related expenses.
Expenses	Based on expenses related to administration of the Share Plan, debited against individual accounts on a pro-rata basis.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	1,080,460
Prepaid Expenses	670
Money Market	1,125,944
Total Cash and Equivalents	2,207,074
Receivables:	
From Broker for Investments Sold	27,819
Investment Income	128,696
Total Receivable	156,515
Investments:	
U. S. Bonds and Bills	8,468,854
Federal Agency Guaranteed Securities	3,156,059
Corporate Bonds	12,564,352
Stocks	13,569,034
Mutual Funds:	
Equity	25,865,465
Pooled/Common/Commingled Funds:	
Equity	5,381,083
Real Estate	3,793,996
Total Investments	72,798,843
Total Assets	75,162,432
<u>LIABILITIES</u>	
Payables:	
Refunds of Member Contributions	16,406
Investment Expenses	32,568
Administrative Expenses	1,295
To Broker for Investments Purchased	19,360
Total Liabilities	69,629
NET POSITION RESTRICTED FOR PENSIONS	75,092,803

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2019
Market Value Basis

ADDITIONS

Contributions:

Member	823,654	
Buy-Back	34,025	
City	3,014,876	
State	636,601	
 Total Contributions		 4,509,156
 Investment Income:		
Net Increase in Fair Value of Investments	1,040,176	
Interest & Dividends	1,693,961	
Less Investment Expense ¹	(389,866)	
 Net Investment Income		 2,344,271
 Total Additions		 6,853,427

DEDUCTIONS

Distributions to Members:

Benefit Payments	4,183,937	
Lump Sum DROP Distributions	1,194,325	
Lump Sum PLOP Distributions	0	
Refunds of Member Contributions	100,508	
 Total Distributions		 5,478,770
 Administrative Expense		 79,693
 Total Deductions		 5,558,463
 Net Increase in Net Position		 1,294,964
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		73,797,839
 End of the Year		 75,092,803

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

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

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two City residents appointed by the City Council, two Police Officers elected by majority of covered Members, and a fifth Member elected by other four and appointed by City Council (as a ministerial duty).

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	125
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	16
Active Plan Members	155
	296

Benefits Provided

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

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Ocala Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Employee: 8.00% of Salary.

Premium Tax: 0.85% tax on casualty insurance premiums.

City: Remaining amount necessary for payment of Normal (current year's) cost plus any additional amount necessary to fund any past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Investments

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2019:

Asset Class	Target Allocation
Domestic Equity	37.5%
International Equity	15.0%
Bonds	27.5%
Convertibles	10.0%
Private Real Estate	5.0%
MLPs	5.0%
Total	100.0%

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, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 3.14 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

Eligibility: Satisfaction of Normal Retirement requirements.

Participation: Not to exceed 60 months.

Rate of Return: At member's election (may change method once during DROP participation) either: a) 6.5% annual rate, or b) Net Investment Return (total return less brokerage commission, transaction costs and management fees) credited each fiscal quarter.

For Members not within 5 years of Normal Retirement eligibility as of November 1, 2015, the net-of-fees earnings for DROP balances established on or after November 1, 2015 is limited to a maximum of 3% and minimum of 1%.

The DROP balance as September 30, 2019 is \$2,542,267.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2019 were as follows:

Total Pension Liability	\$ 93,778,252
Plan Fiduciary Net Position	\$ (75,092,803)
Sponsor's Net Pension Liability	\$ 18,685,449
Plan Fiduciary Net Position as a percentage of Total Pension Liability	80.07%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	Service based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rate Healthy Active Lives:

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:

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:

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.

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 for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated May 5, 2017.

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 2019 the inflation rate assumption of the investment advisor was 2.40%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.3%
International Equity	2.7%
Bonds	3.6%
Convertibles	6.3%
Private Real Estate	4.9%
MLPs	8.6%

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Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.70 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 6.70%	Current Discount Rate 7.70%	1% Increase 8.70%
Sponsor's Net Pension Liability	\$ 31,645,632	\$ 18,685,449	\$ 12,359,320

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	1,741,664	1,558,052	1,579,043
Interest	6,952,007	6,630,559	6,600,886
Change in Funding Standard Account	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(450,176)	1,433,941	(252,579)
Changes of assumptions	1,421,185	-	(35,707)
Contributions - Buy Back	34,025	-	-
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Net Change in Total Pension Liability	4,219,935	3,678,744	2,003,450
Total Pension Liability - Beginning	89,558,317	85,879,573	83,876,123
Total Pension Liability - Ending (a)	<u>\$ 93,778,252</u>	<u>\$ 89,558,317</u>	<u>\$ 85,879,573</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,014,876	4,077,869	3,582,817
Contributions - State	636,601	584,334	530,026
Contributions - Employee	823,654	731,022	669,044
Contributions - Buy Back	34,025	-	-
Net Investment Income	2,344,271	6,110,450	6,716,321
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Administrative Expense	(79,693)	(89,863)	(88,507)
Net Change in Plan Fiduciary Net Position	1,294,964	5,470,004	5,521,508
Plan Fiduciary Net Position - Beginning	73,797,839	68,327,835	62,806,327
Plan Fiduciary Net Position - Ending (b)	<u>\$ 75,092,803</u>	<u>\$ 73,797,839</u>	<u>\$ 68,327,835</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 18,685,449</u>	<u>\$ 15,760,478</u>	<u>\$ 17,551,738</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	80.07%	82.40%	79.56%
Covered Payroll ¹	\$ 10,295,675	\$ 9,137,770	\$ 8,363,052
Net Pension Liability as a percentage of Covered Payroll	181.49%	172.48%	209.87%

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

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	1,629,468	1,639,535	1,688,742
Interest	6,316,211	6,207,407	5,940,330
Change in Funding Standard Account	-	-	56,039
Changes of benefit terms	(1,150,613)	-	-
Differences between Expected and Actual Experience	(727,086)	(971,456)	-
Changes of assumptions	1,741,528	-	-
Contributions - Buy Back	-	83,865	-
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Net Change in Total Pension Liability	2,995,181	2,896,433	3,153,131
Total Pension Liability - Beginning	80,880,942	77,984,509	74,831,378
Total Pension Liability - Ending (a)	<u>\$ 83,876,123</u>	<u>\$ 80,880,942</u>	<u>\$ 77,984,509</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,469,395	3,111,881	2,961,297
Contributions - State	516,594	471,520	440,294
Contributions - Employee	672,201	629,554	632,728
Contributions - Buy Back	-	83,865	-
Net Investment Income	5,151,384	(1,046,879)	5,733,534
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Administrative Expense	(83,196)	(72,024)	(72,694)
Net Change in Plan Fiduciary Net Position	4,912,051	(885,001)	5,163,179
Plan Fiduciary Net Position - Beginning	57,894,276	58,779,277	53,616,098
Plan Fiduciary Net Position - Ending (b)	<u>\$ 62,806,327</u>	<u>\$ 57,894,276</u>	<u>\$ 58,779,277</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 21,069,796</u>	<u>\$ 22,986,666</u>	<u>\$ 19,205,232</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.88%	71.58%	75.37%
Covered Payroll ¹	\$ 8,402,515	\$ 9,288,611	\$ 7,909,106
Net Pension Liability as a percentage of Covered Payroll	250.76%	247.47%	242.82%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Changes of benefit terms:

For measurement date 09/30/2016, amounts reported as changes of benefit terms resulted from Ordinance 2016-23, adopted and effective March 1, 2016, provided for the following changes:

1. Active Members not within five years of Normal Retirement as of November 1, 2015

- a. The benefit accrual rate is reduced from 3.33% to 3.00% of Average Final Compensation for Credited Service accrued after October 31, 2015.
- b. Elimination of the Supplemental Benefit.
- c. The net-of-fees DROP earnings are limited to a maximum of 3% and minimum of 1% for DROP Balances established on or after November 1, 2015.

2. Active Members within five years of Normal Retirement as of November 1, 2015

No changes in benefits.

3. For all active Members, overtime pay for pensionable purposes is limited to 300 hours per year for benefits accrued after October 31, 2015.
4. Establishment of a Share Plan.

Changes of assumptions:

For measurement date 09/30/2019, the investment rate of return was lowered from 7.85% to 7.70% per year compounded annually, net of investment-related expenses.

For measurement date 09/30/2017, as a result of the Experience Study dated May 5, 2017, the Board has adopted the following assumption changes:

- Payroll Growth
- Salary Increases
- Investment Return
- Mortality Rates
- Normal and Early Retirement Rates
- Withdrawal Rates

Details of the above noted assumption changes can be found in the Actuarial Assumptions and Methods of the Actuarial Valuation Report as of October 1, 2017.

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 2.70%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

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 ¹	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 4,250,054	\$ 3,651,477	\$ 598,577	\$ 10,295,675	35.47%
09/30/2018	\$ 4,076,359	\$ 4,662,203	\$ (585,844)	\$ 9,137,770	51.02%
09/30/2017	\$ 3,582,731	\$ 4,112,843	\$ (530,112)	\$ 8,363,052	49.18%
09/30/2016	\$ 3,762,646	\$ 3,985,989	\$ (223,343)	\$ 8,402,515	47.44%
09/30/2015	\$ 3,505,831	\$ 3,583,401	\$ (77,570)	\$ 9,288,611	38.58%
09/30/2014	\$ 3,345,551	\$ 3,345,551	\$ -	\$ 7,909,106	42.30%

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2017

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:

Mortality Rate:

Healthy Inactive Lives:

Female: RP 2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP 2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Healthy Active Lives:

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.

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.

The assumed rates of mortality 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 the July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

7.85% per year compounded annually, net of investment-related expenses. This assumption is supported by the Plan's investment policy strategy and long-term expected returns by asset class.

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Normal Retirement

<u>Less than 25 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
52-55	50%
56	75%
57+	100%
<u>25 or more years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
Less than 51	50%
51-55	25%
55+	100%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Early Retirement:

Commencing with the earliest Retirement Age, Members are assumed to retire with an immediate subsidized benefit at the rate of 10% per year. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Termination Rate:

<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 40	10.00%
40-44	9.00%
45-49	8.00%
50-54	7.00%
55-59	6.00%
60+	5.00%
<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 20	8%
20-24	7%
25-29	6%
30-34	5%
35-39	4%
40+	3%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Disability Rate:

See table below; 75% of disablements are assumed to be service related. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

<u>% Becoming Disabled During the</u>	
<u>Age</u>	<u>Year</u>
20	0.14%
30	0.18%
40	0.30%
50	1.00%

Salary Increases:

<u>Credited Service</u>	<u>Salary Scale</u>
Less than 3 Years	6.5%
3-9	6.0%
10-19	5.0%
20-24	4.5%
25+	4.0%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

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Payroll Increase:	None for amortization of the Unfunded Actuarial Accrued Liability. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.
Partial Lump Sums:	For valuation purposes, no future retirees are assumed to opt for a partial lump sum.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	27 Years (as of 10/01/2017 valuation).
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 5-year average Market Value return and is then diminished by the Funding Standard Account Credit Balance and further adjusted for the Administrative Expense Account. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	3.14%
09/30/2018	9.04%
09/30/2017	10.82%
09/30/2016	8.95%
09/30/2015	-1.76%
09/30/2014	10.63%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2020)

General Information about the Pension Plan

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of: Two City residents appointed by the City Council, two Police Officers elected by majority of covered Members, and a fifth Member elected by other four and appointed by City Council (as a ministerial duty). Each person employed by the City Police Department as a full-time Police Officer becomes a member of the System as a condition of his employment. All Police Officers are therefore eligible for plan benefits as provided for in the plan document and by applicable law.

Plan Membership as of October 1, 2018:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	125
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	16
Active Plan Members	155
	296
	296

Benefits Provided

The Plan provides retirement, termination, disability and death benefits. A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of Ocala Police Officers' Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Employee: 8.00% of Salary.
 Premium Tax: 0.85% tax on casualty insurance premiums.
 City: Remaining amount necessary for payment of Normal (current year's) cost plus any additional amount necessary to fund any past service liability as provided in Part VII of Chapter 112, Florida Statutes.

Net Pension Liability

The measurement date is September 30, 2019.
 The measurement period for the pension expense was October 1, 2018 to September 30, 2019.
 The reporting period is October 1, 2019 through September 30, 2020.

The Sponsor's Net Pension Liability was measured as of September 30, 2019.
 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, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.70%
Salary Increases	Service based
Discount Rate	7.70%
Investment Rate of Return	7.70%

Mortality Rate Healthy Active Lives:

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:

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:

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.

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 for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated May 5, 2017.

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 2019 the inflation rate assumption of the investment advisor was 2.40%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	37.5%	7.3%
International Equity	15.0%	2.7%
Bonds	27.5%	3.6%
Convertibles	10.0%	6.3%
Private Real Estate	5.0%	4.9%
MLPs	5.0%	8.6%
Total	100.0%	

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.70 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, 2019	\$ 89,558,317	\$ 73,797,839	\$ 15,760,478
Changes for a Year:			
Service Cost	1,741,664	-	1,741,664
Interest	6,952,007	-	6,952,007
Differences between Expected and Actual Experience	(450,176)	-	(450,176)
Changes of assumptions	1,421,185	-	1,421,185
Changes of benefit terms	-	-	-
Contributions - Employer	-	3,014,876	(3,014,876)
Contributions - State	-	636,601	(636,601)
Contributions - Employee	-	823,654	(823,654)
Contributions - Buy Back	34,025	34,025	-
Net Investment Income	-	2,344,271	(2,344,271)
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,478,770)	-
Administrative Expense	-	(79,693)	79,693
Net Changes	4,219,935	1,294,964	2,924,971
Reporting Period Ending September 30, 2020	\$ 93,778,252	\$ 75,092,803	\$ 18,685,449

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.70%	7.70%	8.70%
Sponsor's Net Pension Liability	\$ 31,645,632	\$ 18,685,449	\$ 12,359,320

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, 2019**

For the year ended September 30, 2019, the Sponsor has recognized a Pension Expense of \$2,767,832.

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	1,075,455	636,673
Changes of assumptions	696,612	21,423
Net difference between Projected and Actual Earnings on Pension Plan investments	-	721,870
Employer and State Contributions subsequent to the measurement date	3,651,477	-
Total	\$ 5,423,544	\$ 1,379,966

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	\$	852,391	
2021	\$	(104,457)	
2022	\$	(201,463)	
2023	\$	(154,370)	
2024	\$	-	
Thereafter	\$	-	

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2020**

For the year ended September 30, 2020, the Sponsor will recognize a Pension Expense of \$3,925,891.

On September 30, 2020, 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	716,970	606,589
Changes of assumptions	1,485,254	14,282
Net difference between Projected and Actual Earnings on Pension Plan investments	1,461,305	-
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 620,871

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, 2020.

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:

2021	\$ 771,280
2022	\$ 674,274
2023	\$ 721,367
2024	\$ 875,737
2025	\$ -
Thereafter	\$ -

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

Reporting Period Ending	09/30/2020	09/30/2019	09/30/2018
Measurement Date	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	1,741,664	1,558,052	1,579,043
Interest	6,952,007	6,630,559	6,600,886
Change in Funding Standard Account	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(450,176)	1,433,941	(252,579)
Changes of assumptions	1,421,185	-	(35,707)
Contributions - Buy Back	34,025	-	-
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Net Change in Total Pension Liability	4,219,935	3,678,744	2,003,450
Total Pension Liability - Beginning	89,558,317	85,879,573	83,876,123
Total Pension Liability - Ending (a)	<u>\$ 93,778,252</u>	<u>\$ 89,558,317</u>	<u>\$ 85,879,573</u>
 Plan Fiduciary Net Position			
Contributions - Employer	3,014,876	4,077,869	3,582,817
Contributions - State	636,601	584,334	530,026
Contributions - Employee	823,654	731,022	669,044
Contributions - Buy Back	34,025	-	-
Net Investment Income	2,344,271	6,110,450	6,716,321
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	(5,943,808)	(5,888,193)
Administrative Expense	(79,693)	(89,863)	(88,507)
Net Change in Plan Fiduciary Net Position	1,294,964	5,470,004	5,521,508
Plan Fiduciary Net Position - Beginning	73,797,839	68,327,835	62,806,327
Plan Fiduciary Net Position - Ending (b)	<u>\$ 75,092,803</u>	<u>\$ 73,797,839</u>	<u>\$ 68,327,835</u>
 Net Pension Liability - Ending (a) - (b)	<u>\$ 18,685,449</u>	<u>\$ 15,760,478</u>	<u>\$ 17,551,738</u>
 Plan Fiduciary Net Position as a percentage of the Total Pension Liability	80.07%	82.40%	79.56%
Covered Payroll ¹	\$ 10,295,675	\$ 9,137,770	\$ 8,363,052
Net Pension Liability as a percentage of Covered Payroll	181.49%	172.48%	209.87%

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending	09/30/2017	09/30/2016	09/30/2015
Measurement Date	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	1,629,468	1,639,535	1,688,742
Interest	6,316,211	6,207,407	5,940,330
Change in Funding Standard Account	-	-	56,039
Changes of benefit terms	(1,150,613)	-	-
Differences between Expected and Actual Experience	(727,086)	(971,456)	-
Changes of assumptions	1,741,528	-	-
Contributions - Buy Back	-	83,865	-
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Net Change in Total Pension Liability	2,995,181	2,896,433	3,153,131
Total Pension Liability - Beginning	80,880,942	77,984,509	74,831,378
Total Pension Liability - Ending (a)	<u>\$ 83,876,123</u>	<u>\$ 80,880,942</u>	<u>\$ 77,984,509</u>
Plan Fiduciary Net Position			
Contributions - Employer	3,469,395	3,111,881	2,961,297
Contributions - State	516,594	471,520	440,294
Contributions - Employee	672,201	629,554	632,728
Contributions - Buy Back	-	83,865	-
Net Investment Income	5,151,384	(1,046,879)	5,733,534
Benefit Payments, including Refunds of Employee Contributions	(4,814,327)	(4,062,918)	(4,531,980)
Administrative Expense	(83,196)	(72,024)	(72,694)
Net Change in Plan Fiduciary Net Position	4,912,051	(885,001)	5,163,179
Plan Fiduciary Net Position - Beginning	57,894,276	58,779,277	53,616,098
Plan Fiduciary Net Position - Ending (b)	<u>\$ 62,806,327</u>	<u>\$ 57,894,276</u>	<u>\$ 58,779,277</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 21,069,796</u>	<u>\$ 22,986,666</u>	<u>\$ 19,205,232</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	74.88%	71.58%	75.37%
Covered Payroll ¹	\$ 8,402,515	\$ 9,288,611	\$ 7,909,106
Net Pension Liability as a percentage of Covered Payroll	250.76%	247.47%	242.82%

Notes to Schedule of Changes in Net Pension Liability and Related Ratios

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Changes of benefit terms:

For measurement date 09/30/2016, amounts reported as changes of benefit terms resulted from Ordinance 2016-23, adopted and effective March 1, 2016, provided for the following changes:

1. Active Members not within five years of Normal Retirement as of November 1, 2015

- a. The benefit accrual rate is reduced from 3.33% to 3.00% of Average Final Compensation for Credited Service accrued after October 31, 2015.
- b. Elimination of the Supplemental Benefit.
- c. The net-of-fees DROP earnings are limited to a maximum of 3% and minimum of 1% for DROP Balances established on or after November 1, 2015.

2. Active Members within five years of Normal Retirement as of November 1, 2015

No changes in benefits.

3. For all active Members, overtime pay for pensionable purposes is limited to 300 hours per year for benefits accrued after October 31, 2015.
4. Establishment of a Share Plan.

Changes of assumptions:

For measurement date 09/30/2019, the investment rate of return was lowered from 7.85% to 7.70% per year compounded annually, net of investment-related expenses.

For measurement date 09/30/2017, as a result of the Experience Study dated May 5, 2017, the Board has adopted the following assumption changes:

- Payroll Growth
- Salary Increases
- Investment Return
- Mortality Rates
- Normal and Early Retirement Rates
- Withdrawal Rates

Details of the above noted assumption changes can be found in the Actuarial Assumptions and Methods of the Actuarial Valuation Report as of October 1, 2017.

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 2.70%, matching the long-term inflation assumption utilized by the Plan's investment consultant.

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 ¹	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 4,250,054	\$ 3,651,477	\$ 598,577	\$ 10,295,675	35.47%
09/30/2018	\$ 4,076,359	\$ 4,662,203	\$ (585,844)	\$ 9,137,770	51.02%
09/30/2017	\$ 3,582,731	\$ 4,112,843	\$ (530,112)	\$ 8,363,052	49.18%
09/30/2016	\$ 3,762,646	\$ 3,985,989	\$ (223,343)	\$ 8,402,515	47.44%
09/30/2015	\$ 3,505,831	\$ 3,583,401	\$ (77,570)	\$ 9,288,611	38.58%
09/30/2014	\$ 3,345,551	\$ 3,345,551	\$ -	\$ 7,909,106	42.30%

¹ The Covered Payroll numbers shown are in compliance with GASB 82, except for the 09/30/2015 measurement period which includes DROP payroll.

Notes to Schedule

Valuation Date: 10/01/2017

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:

Mortality Rate:

Healthy Inactive Lives:

Female: RP 2000 Generational, 100% Annuitant White Collar, Scale BB.

Male: RP 2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

Healthy Active Lives:

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.

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.

The assumed rates of mortality 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 the July 1, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate:

7.85% per year compounded annually, net of investment-related expenses. This assumption is supported by the Plan's investment policy strategy and long-term expected returns by asset class.

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Normal Retirement

<u>Less than 25 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
52-55	50%
56	75%
57+	100%
<u>25 or more years of Credited Service</u>	
<u>Age</u>	<u>Probability of Retirement</u>
Less than 51	50%
51-55	25%
55+	100%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Early Retirement:

Commencing with the earliest Retirement Age, Members are assumed to retire with an immediate subsidized benefit at the rate of 10% per year. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Termination Rate:

<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 40	10.00%
40-44	9.00%
45-49	8.00%
50-54	7.00%
55-59	6.00%
60+	5.00%
<u>Less than 5 years of Credited Service</u>	
<u>Age</u>	<u>Probability of Termination</u>
Less than 20	8%
20-24	7%
25-29	6%
30-34	5%
35-39	4%
40+	3%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

Disability Rate:

See table below; 75% of disablements are assumed to be service related. This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

<u>Age</u>	<u>% Becoming Disabled During the Year</u>
20	0.14%
30	0.18%
40	0.30%
50	1.00%

Salary Increases:

<u>Credited Service</u>	<u>Salary Scale</u>
Less than 3 Years	6.5%
3-9	6.0%
10-19	5.0%
20-24	4.5%
25+	4.0%

This assumption was adopted by the Board, based on results of the May 5, 2017 Experience Study.

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Payroll Increase:	None for amortization of the Unfunded Actuarial Accrued Liability. This assumption was adopted by the Board, based on results of the May 5, 2017
Partial Lump Sums:	For valuation purposes, no future retirees are assumed to opt for a partial lump sum.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	27 Years (as of 10/01/2017 valuation).
Asset Valuation Method:	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 5-year average Market Value return and is then diminished by the Funding Standard Account Credit Balance and further adjusted for the Administrative Expense Account. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

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, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 17,551,738	\$ 3,058,206	\$ 8,009,399	\$ -
Employer and State Contributions made after 09/30/2018	-	-	3,651,477	-
Total Pension Liability Factors:				
Service Cost	1,558,052	-	-	1,558,052
Interest	6,630,559	-	-	6,630,559
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	1,433,941	-	1,433,941	-
Current year amortization of experience difference	-	(390,224)	(358,486)	(31,738)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	(7,141)	(348,306)	341,165
Benefit Payments, including Refunds of Employee Contributions	(5,943,808)	-	-	-
Net change	<u>3,678,744</u>	<u>(397,365)</u>	<u>4,378,626</u>	<u>8,498,038</u>
Plan Fiduciary Net Position:				
Contributions - Employer	4,077,869	-	(4,077,869)	-
Contributions - State	584,334	-	(584,334)	-
Contributions - Employee	731,022	-	-	(731,022)
Contributions - Buy Back	-	-	-	-
Projected Net Investment Income	5,338,598	-	-	(5,338,598)
Difference between projected and actual earnings on Pension Plan investments	771,852	771,852	-	-
Current year amortization	-	(901,588)	(1,151,139)	249,551
Benefit Payments, including Refunds of Employee Contributions	(5,943,808)	-	-	-
Administrative Expenses	(89,863)	-	-	89,863
Net change	<u>5,470,004</u>	<u>(129,736)</u>	<u>(5,813,342)</u>	<u>(5,730,206)</u>
Ending Balance	<u>\$ 15,760,478</u>	<u>\$ 2,531,105</u>	<u>\$ 6,574,683</u>	<u>\$ 2,767,832</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2020

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 15,760,478	\$ 2,531,105	\$ 6,574,683	\$ -
Employer and State Contributions made after 09/30/2019	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	1,741,664	-	-	1,741,664
Interest	6,952,007	-	-	6,952,007
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	34,025	-	-	34,025
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(450,176)	450,176	-	-
Current year amortization of experience difference	-	(480,260)	(358,485)	(121,775)
Change in assumptions about future economic or demographic factors or other inputs	1,421,185	-	1,421,185	-
Current year amortization of change in assumptions	-	(7,141)	(632,543)	625,402
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	-	-	-
Net change	<u>4,219,935</u>	<u>(37,225)</u>	<u>430,157</u>	<u>9,231,323</u>
Plan Fiduciary Net Position:				
Contributions - Employer	3,014,876	-	(3,014,876)	-
Contributions - State	636,601	-	(636,601)	-
Contributions - Employee	823,654	-	-	(823,654)
Contributions - Buy Back	34,025	-	-	(34,025)
Projected Net Investment Income	5,751,945	-	-	(5,751,945)
Difference between projected and actual earnings on Pension Plan investments	(3,407,674)	-	3,407,674	-
Current year amortization	-	(608,174)	(1,832,673)	1,224,499
Benefit Payments, including Refunds of Employee Contributions	(5,478,770)	-	-	-
Administrative Expenses	(79,693)	-	-	79,693
Net change	<u>1,294,964</u>	<u>(608,174)</u>	<u>(2,076,476)</u>	<u>(5,305,432)</u>
Ending Balance	<u>\$ 18,685,449</u>	<u>\$ 1,885,706</u>	<u>TBD</u>	<u>\$ 3,925,891</u>

* Employer and State Contributions subsequent to the measurement date made after September 30, 2019 but made on or before September 30, 2020 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 Projected and Actual Earnings	Recognition Period (Years)	<u>Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments</u>											
			2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
2019	\$ 3,407,674	5	\$ -	\$ 681,534	\$ 681,535	\$ 681,535	\$ 681,535	\$ 681,535	\$ 681,535	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (771,852)	5	\$ (154,372)	\$ (154,370)	\$ (154,370)	\$ (154,370)	\$ (154,370)	\$ (154,370)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (1,739,607)	5	\$ (347,921)	\$ (347,921)	\$ (347,921)	\$ (347,921)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (529,415)	5	\$ (105,883)	\$ (105,883)	\$ (105,883)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 5,755,696	5	\$ 1,151,139	\$ 1,151,139	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2014	\$ (1,467,060)	5	\$ (293,412)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 249,551	\$ 1,224,499	\$ 73,361	\$ 179,244	\$ 527,165	\$ 681,535	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 1,421,185	5	\$ -	\$ 284,237	\$ 284,237	\$ 284,237	\$ 284,237	\$ 284,237	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (35,707)	5	\$ (7,141)	\$ (7,141)	\$ (7,141)	\$ (7,141)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 1,741,528	5	\$ 348,306	\$ 348,306	\$ 348,306	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 341,165	\$ 625,402	\$ 625,402	\$ 277,096	\$ 284,237	\$ 284,237	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ (450,176)	5	\$ -	\$ (90,036)	\$ (90,035)	\$ (90,035)	\$ (90,035)	\$ (90,035)	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 1,433,941	4	\$ 358,486	\$ 358,485	\$ 358,485	\$ 358,485	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (252,579)	5	\$ (50,516)	\$ (50,516)	\$ (50,516)	\$ (50,516)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (727,086)	5	\$ (145,417)	\$ (145,417)	\$ (145,417)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (971,456)	5	\$ (194,291)	\$ (194,291)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (31,738)	\$ (121,775)	\$ 72,517	\$ 217,934	\$ (90,035)	\$ (90,035)	\$ -	\$ -	\$ -	\$ -	\$ -