

CITY OF PENSACOLA
POLICE OFFICERS' RETIREMENT PLAN
ACTUARIAL VALUATION
AS OF OCTOBER 1, 2018
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2020
GASB 67/68 DISCLOSURE INFORMATION
AS OF SEPTEMBER 30, 2018



FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

February 26, 2019

Board of Trustees
City of Pensacola Police Officers' Retirement Fund
222 West Main Street
Pensacola, FL 32502

Re: City of Pensacola Police Officers' Retirement Plan

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Pensacola Police Officers' Retirement Plan. 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 valuation, 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 Pensacola, 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, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2018 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

The undersigned 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 Pensacola, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police Officers' Retirement Plan. 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.

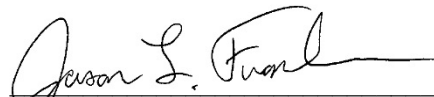
Respectfully submitted,

Foster & Foster, Inc.

By:



Drew D. Ballard, EA, MAAA
Enrolled Actuary #17-8193



Jason L. Franken, FSA, EA, MAAA
Enrolled Actuary #17-6888

TABLE OF CONTENTS

Section	Title	Page
I	Introduction	
	a. Summary of Report	5
	b. Changes Since Prior Valuation	6
	c. Comparative Summary of Principal Valuation Results	7
II	Valuation Information	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	13
	b. Projected Outstanding Amortization Bases	14
	c. Detailed Actuarial (Gain)/Loss Analysis	15
	d. Contribution Surplus Account Reconciliation	16
	e. Actuarial Assumptions and Methods	17
	f. Glossary	20
	g. Partial History of Premium Tax Refunds	22
	h. Excess State Monies Reserve	23
III	Trust Fund	24
IV	Member Statistics	
	a. Statistical Data	29
	b. Age and Service Distribution	30
	c. Valuation Participant Reconciliation	31
V	Summary of Current Plan	32
VI	Governmental Accounting Standards Board Statements No. 67 and No. 68 Disclosure Information	35

SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Pensacola Police Officers' Retirement Plan, performed as of October 1, 2018, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2020.

The contribution requirements, compared with those set forth in the October 1, 2017 actuarial valuation report, are as follows:

Valuation Date	10/1/2018	10/1/2017
Assumed Beginning of Year Contribution Date	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2019</u>
Minimum Required Contribution	\$5,034,324	\$5,202,559
Member Contributions (Est.)	211,529	218,946
City And State Required Contribution	4,822,795	4,983,613
State Contribution (Est.) ¹	572,693	572,693
City Required Contribution ²	\$4,250,102	\$4,410,920

¹ Represents the amount received in calendar 2018.

² The required contribution from the combination of City and State sources for the year ending September 30, 2019 is \$4,983,613. The City and State contribution for the fiscal year ending September 30, 2020 is \$4,822,795. These amounts are based on the City's policy of contributing on October 1. Additionally, the City has access to the September 30, 2018 Contribution Surplus Account Balance of \$668,864.64 to help offset a portion of the above stated requirements for fiscal 2019. Please see page 16 of this report for detail of the account balance reconciliation.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. The primary source of favorable experience was an investment return of 9.46% (Actuarial Asset Basis) which exceeded the 7.125% assumption. This gain was offset in part by losses associated with more retirements than expected and an average salary increase of 5.49% which exceeded the 4.00% assumption.

CHANGES SINCE PRIOR VALUATION

Plan Changes

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

Actuarial Assumption/Method Changes

In conjunction with this valuation, future changes to the Unfunded Actuarial Accrued Liability due to experience gains/losses, assumption/method changes, and benefit changes will be amortized over 15 years.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2018</u>	<u>10/1/2017</u>
A. Participant Data		
Actives	68	73
Service Retirees	118	116
DROP Retirees	11	9
Beneficiaries	27	28
Disability Retirees	15	15
Terminated Vested	<u>14</u>	<u>14</u>
 Total	 253	 255
 Covered Non-DROP Payroll	 3,911,400	 4,048,557
Annual Rate of Payments to:		
Service Retirees	5,373,497	5,200,542
DROP Retirees	617,617	479,952
Beneficiaries	617,247	613,575
Disability Retirees	267,256	261,503
Terminated Vested	130,199	130,199
B. Assets		
Actuarial Value (AVA) ¹	97,975,086	90,550,803
Market Value (MVA) ¹	101,955,040	93,617,461
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	27,295,830	27,377,156
Disability Benefits	2,711,707	2,780,241
Death Benefits	500,788	517,855
Vested Benefits	667,974	705,305
Refund of Contributions	24,365	30,608
Service Retirees	83,347,763	81,661,001
DROP Retirees ¹	12,051,298	9,267,968
Beneficiaries	6,944,446	7,047,670
Disability Retirees	3,626,834	3,617,795
Terminated Vested	<u>991,711</u>	<u>922,287</u>
 Total	 138,162,716	 133,927,886

C. Liabilities - (Continued)	<u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	27,571,531	29,191,213
Present Value of Future Member Contributions	1,433,720	1,517,943
Normal Cost (Retirement)	589,075	609,385
Normal Cost (Disability)	115,389	120,640
Normal Cost (Death)	19,474	20,592
Normal Cost (Vesting)	35,157	37,167
Normal Cost (Refunds)	<u>4,535</u>	<u>5,342</u>
Total Normal Cost	763,630	793,126
Present Value of Future Normal Costs	5,297,187	5,661,424
Accrued Liability (Retirement)	23,129,121	22,942,111
Accrued Liability (Disability)	1,902,025	1,906,467
Accrued Liability (Death)	364,508	369,973
Accrued Liability (Vesting)	496,873	518,108
Accrued Liability (Refunds)	10,950	13,082
Accrued Liability (Inactives) ¹	<u>106,962,052</u>	<u>102,516,721</u>
Total Actuarial Accrued Liability (EAN AL)	132,865,529	128,266,462
Funded Ratio (AVA / EAN AL)	73.7%	70.6%
Unfunded Actuarial Accrued Liability (UAAL)	34,890,443	37,715,659
Contribution Surplus Account	668,865	775,007
Total Amortization Charge	35,559,308	38,490,666
Amortization Amount	4,007,066	4,139,335

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits		
Inactives ¹	106,962,052	102,516,721
Actives	13,175,984	13,567,101
Member Contributions	<u>1,415,138</u>	<u>1,296,565</u>
Total	121,553,174	117,380,387
Non-vested Accrued Benefits	<u>3,584,276</u>	<u>3,412,082</u>
Total Present Value		
Accrued Benefits (PVAB)	125,137,450	120,792,469
Funded Ratio (MVA / PVAB)	81.5%	77.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
New Accrued Benefits	2,364,031	
Benefits Paid	(6,397,599)	
Interest	8,378,549	
Other	<u>0</u>	
Total	4,344,981	

Valuation Date	10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2019</u>
E. Pension Cost		
Normal Cost ²	\$794,175	\$824,851
Administrative Expenses ²	72,800	72,800
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2018) ²	4,167,349	4,304,908
Minimum Required Contribution	5,034,324	5,202,559
Expected Member Contributions ²	211,529	218,946
Expected City and State Contribution	4,822,795	4,983,613
F. Past Contributions		
Plan Years Ending:	<u>9/30/2018</u>	
City and State Requirement	5,236,129	
Actual Contributions Made:		
Members (excluding buyback)	209,565	
City	4,528,544	
State	<u>572,693</u>	
Total	5,310,802	
G. Net Actuarial (Gain)/Loss	(780,024)	

¹ The asset values and liabilities include accumulated DROP Plan Balances as of 9/30/2018 and 9/30/2017.

² Contributions developed as of 10/1/2018 displayed above have been adjusted to account for assumed salary increase components.

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

<u>Year</u>	<u>Projected Outstanding Amortization Bases</u>
2018	35,559,308
2019	33,800,340
2020	31,916,045
2023	25,418,679
2027	14,380,602
2030	3,861,633
2033	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2018	5.49%	4.00%
Year Ended 9/30/2017	4.39%	4.00%
Year Ended 9/30/2016	3.03%	4.00%
Year Ended 9/30/2015	4.85%	4.00%
Year Ended 9/30/2014	7.53%	4.00%

(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 9/30/2018	9.92%	9.46%	7.125%
Year Ended 9/30/2017	13.48%	9.18%	7.125%
Year Ended 9/30/2016	10.96%	7.25%	7.125%
Year Ended 9/30/2015	-2.83%	6.23%	7.250%
Year Ended 9/30/2014	8.78%	11.01%	7.500%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2018	\$3,995,706
	10/1/2008	7,577,663
(b) Total Increase		-47.27%
(c) Number of Years		10.00
(d) Average Annual Rate		-6.20%

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.



Drew D. Ballard, EA, MAAA
Enrolled Actuary #17-8193

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, 2017	\$37,715,659
(2) Sponsor Normal Cost developed as of October 1, 2017	582,601
(3) Expected administrative expenses for the year ended September 30, 2018	70,000
(4) Expected interest on (1), (2) and (3)	2,731,245
(5) Sponsor contributions to the System during the year ended September 30, 2018	5,101,237
(6) Expected interest on (5)	327,801
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2018 (1)+(2)+(3)+(4)-(5)-(6)	35,670,467
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	(780,024)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2018	34,890,443
(11) Contribution Surplus Account as of October 1, 2018	668,865
(12) Total Amortization Charge as of October 1, 2018	35,559,308

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2018 Amount</u>	<u>Amortization Amount</u>
		13	36,339,332	4,087,645
Actuarial Gain	10/1/2018	15	<u>(780,024)</u>	<u>(80,579)</u>
			35,559,308	4,007,066

PROJECTED OUTSTANDING AMORTIZATION BASES

<u>Plan Year</u>	<u>Fiscal Year</u>	<u>Expected Outstanding Amortization Bases</u>	<u>Expected Amortization Payment</u>	<u>Expected Outstanding Amortization Bases on 9/30</u>
9/30/2018	9/30/2020	35,559,308	4,007,066	33,800,340
9/30/2019	9/30/2021	33,800,340	4,007,066	31,916,045
9/30/2020	9/30/2022	31,916,045	4,007,066	29,897,494
9/30/2021	9/30/2023	29,897,494	4,007,066	27,735,121
9/30/2022	9/30/2024	27,735,121	4,007,066	25,418,679
9/30/2023	9/30/2025	25,418,679	4,007,066	22,937,191
9/30/2024	9/30/2026	22,937,191	4,007,066	20,278,896
9/30/2025	9/30/2027	20,278,896	4,007,066	17,431,198
9/30/2026	9/30/2028	17,431,198	4,007,066	14,380,602
9/30/2027	9/30/2029	14,380,602	4,007,066	11,112,651
9/30/2028	9/30/2030	11,112,651	4,007,066	7,611,858
9/30/2029	9/30/2031	7,611,858	4,007,066	3,861,633
9/30/2030	9/30/2032	3,861,633	4,007,059	(155,788)
9/30/2031	9/30/2033	(155,788)	(80,579)	(80,568)
9/30/2032	9/30/2034	(80,568)	(80,568)	0

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2017	\$37,715,659
(2) Expected UAAL as of October 1, 2018	35,670,467
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(2,103,566)
Salary Increases	429,773
Active Decrements	1,003,085
Inactive Mortality	11,436
Other	<u>(120,752)</u>
Increase in UAAL due to (Gain)/Loss	(780,024)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2018	\$34,890,443

CONTRIBUTION SURPLUS ACCOUNT RECONCILIATION
October 1, 2017 through September 30, 2018

(1) 9/30/2017 Contribution Surplus Account Balance	775,006.58
(2) Minimum Required City and State Contribution for Plan Year Beginning 10/1/2017	5,236,129.00
(3) City Contributions Deposited on or around 10/1/2017	4,528,544.00
(4) State Contributions Deposited on 8/16/2018	572,693.45
(5) Shortfall Contribution for Plan Year Beginning 10/1/2017 (with interest) {[(2) - (3)] x 1.07125} - [(4) x (1 + (0.07125 * (46/365)))]	180,164.51
(6) Actual Non-Investment Expenses for Plan Year Beginning 10/1/2017	52,447.28
(7) Expected Non-Investment Expenses for Plan Year Beginning 10/1/2017	70,000.00
(8) Interest at 7.125%	56,469.85
(9) 9/30/2018 Contribution Surplus Account Balance (1) - (5) - [(6) - (7)] + (8)	668,864.64

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.

15% of active deaths are assumed to be service-incurred.

Interest Rate

7.125% 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

4.00% compounded annually. This assumption was utilized by the prior actuary.

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.

Administrative Expenses

\$70,000 annually. This assumption was utilized by the prior actuary.

Retirement Rates

<u>Service</u>	<u>Age</u>	<u>Probability of Retirement</u>
< 25 Years	45 – 49	5.0%
	50 – 56	10.0%
	57	50%
	58	70%
	59	90%
25 Years	60	100%
	45 – 57	50%
	58	70%
26 – 29 Years	59	90%
	60	100%
	45 – 56	25%
	57	50%
30 + Years	58	70%
	59	90%
	60	100%
	All Ages	100%

The assumed rates of retirement were utilized by the prior actuary.

Termination Rates

<u>Age</u>	<u>Probability of Termination</u>
25 – 39	6.00%
40 – 44	2.00%
45 +	0.00%

The assumed rates of termination were utilized by the prior actuary.

Disability Rates

<u>Age</u>	<u>Probability of Disablement</u>
25	0.2387%
30	0.2800%
35	0.3867%
40	0.5733%
45	1.0600%
50	1.8467%
55	3.0600%
60	4.7867%
65	0.0000%

45% of disabilities are assumed to be in Line of Duty. The disability assumptions were utilized by the prior actuary.

Marriage

80% of active participants are assumed to be married with spouses three years younger. This assumption was utilized by the prior actuary.

Actuarial Asset Method

Five-year smoothing.

Funding Method

Entry Age Normal Actuarial Cost Method.

The following loads are applied for determination of the Sponsor dollar funding requirement for the following year:

Interest – None; assuming an October 1 deposit.

Salary – A full year, based on the current 4.00% assumption.

GLOSSARY

Total Annual Payroll is the projected annual rate of pay as of the valuation date for 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.

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.

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.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	619,399.23	_____ %
1999	584,429.37	-5.6%
2000	579,318.13	-0.9%
2001	581,500.95	0.4%
2002	657,853.43	13.1%
2003	717,421.06	9.1%
2004	706,380.19	-1.5%
2005	662,758.94	-6.2%
2006	662,758.94	0.0%
2007	662,758.94	0.0%
2008	662,758.94	0.0%
2009	527,249.04	-20.4%
2010	486,189.84	-7.8%
2011	474,151.54	-2.5%
2012	477,013.80	0.6%
2013	473,910.37	-0.7%
2014	473,282.65	-0.1%
2015	512,807.52	8.4%
2016	533,483.40	4.0%
2017	542,276.76	1.6%
2018	572,693.45	5.6%

EXCESS STATE MONIES RESERVE

	<u>Actual</u> <u>State Contribution</u>	<u>Applicable</u> <u>"Frozen" Amount</u>	<u>Excess State</u> <u>Monies Reserve</u>
1999	\$584,429.37	\$619,399.23	\$0.00
2000	579,318.13	619,399.23	0.00
2001	581,500.95	619,399.23	0.00
2002	657,853.43	619,399.23	38,454.20
2003	717,421.06	619,399.23	98,021.83
2004	706,380.19	619,399.23	86,980.96
2005	662,758.94	619,399.23	43,359.71
2006	662,758.94	619,399.23	43,359.71
2007	662,758.94	619,399.23	43,359.71
2008	662,758.94	619,399.23	43,359.71
2009	527,249.04	619,399.23	0.00
2010	486,189.84	619,399.23	0.00
2011	474,151.54	619,399.23	0.00
2012	477,013.80	619,399.23	0.00
2013	473,910.37	619,399.23	0.00
2014	473,282.65	619,399.23	0.00
2015	512,807.52	619,399.23	0.00
2016	533,483.40	619,399.23	0.00
2017	542,276.76	619,399.23	0.00
2018	572,693.45	619,399.23	<u>0.00</u>
			396,895.83
			Less Amounts Used to Satisfy Minimum Required Contribution for 9/30/2016
			(90,161.93)
			Less Amounts Used to Satisfy Minimum Required Contribution for 9/30/2017
			<u>(306,733.90)</u>
			Equals Current State Monies Reserve
			\$0.00

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2018

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	135,921.78	135,921.78
Money Market	1,256,451.99	1,256,451.99
Cash	4,132.76	4,132.76
 Total Cash and Equivalents	 1,396,506.53	 1,396,506.53
Receivables:		
Member Contributions in Transit	4,113.83	4,113.83
City Contributions in Transit	79.11	79.11
Investment Income	214,297.63	214,297.63
 Total Receivable	 218,490.57	 218,490.57
Investments:		
U. S. Bonds and Bills	7,571,837.93	7,217,955.02
Federal Agency Guaranteed Securities	6,248,721.30	6,158,612.98
Corporate Bonds	9,431,047.24	9,011,953.48
Municipal Obligations	310,000.00	307,857.20
Stocks	45,033,882.43	58,572,437.28
Mutual Funds:		
Fixed Income	2,676,641.94	2,676,641.94
Pooled/Common/Commingled Funds:		
Equity	6,609,211.23	6,609,211.23
Real Estate	8,428,433.18	9,920,853.36
 Total Investments	 86,309,775.25	 100,475,522.49
 Total Assets	 87,924,772.35	 102,090,519.59
 <u>LIABILITIES</u>		
Payables:		
Investment Expenses	73,432.78	73,432.78
Administrative Expenses	1,106.60	1,106.60
To Broker for Investments Purchased	60,940.12	60,940.12
 Total Liabilities	 135,479.50	 135,479.50
 NET POSITION RESTRICTED FOR PENSIONS	 87,789,292.85	 101,955,040.09

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

ADDITIONS

Contributions:

Member	209,564.64
Buy-Back	47,123.20
City	4,528,544.00
State	572,693.45

Total Contributions 5,357,925.29

Investment Income:

Net Increase in Fair Value of Investments	7,603,352.72
Interest & Dividends	2,245,814.61
Less Investment Expense ¹	(419,467.59)

Net Investment Income 9,429,699.74

Total Additions 14,787,625.03

DEDUCTIONS

Distributions to Members:

Benefit Payments	6,204,206.69
Lump Sum DROP Distributions	184,270.44
Refunds of Member Contributions	9,121.42

Total Distributions 6,397,598.55

Administrative Expense 52,447.28

Total Deductions 6,450,045.83

Net Increase in Net Position 8,337,579.20

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 93,617,460.89

End of the Year 101,955,040.09

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

ACTUARIAL ASSET VALUATION

September 30, 2018

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	<u>Proponents for Calculation of Adjustment Factor</u>				Weighted Value
	Index	Market Yield in Following Year	Growth Factor	Relative Weight	
09/30/2014	100.00	-2.83%	1.31693	1	8.78
09/30/2015	97.17	10.96%	1.22934	2	15.93
09/30/2016	107.82	13.48%	1.14758	3	24.75
09/30/2017	122.35	9.92%	1.07125	4	34.95
09/30/2018	134.49		1.00000	5	44.83
Total				15	129.24

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2018	101,955,040
(2) Adjustment Factor, 129.24 divided by 134.49	0.9610
(3) Actuarial Value of Assets, 09/30/2018, (1) x (2)	<u>97,975,086</u>
(A) 09/30/2017 Actuarial Assets:	90,550,803
(I) Net Investment Income:	
1. Interest and Dividends	2,245,815
2. Change in Actuarial Value	6,690,057
3. Investment Expenses	<u>(419,468)</u>
Total	8,516,404
(B) 09/30/2018 Actuarial Assets:	97,975,086
Actuarial Assets Rate of Return = $2I/(A+B-I)$:	9.46%
Market Value of Assets Rate of Return:	9.92%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	2,103,566
10/01/2018 Limited Actuarial Assets:	97,975,086

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

REVENUES

Contributions:		
Member	209,564.64	
Buy-Back	47,123.20	
City	4,528,544.00	
State	572,693.45	
 Total Contributions		 5,357,925.29
Earnings from Investments:		
Interest & Dividends	2,245,814.61	
Change in Actuarial Value	6,690,056.73	
 Total Earnings and Investment Gains		 8,935,871.34
EXPENDITURES		
Distributions to Members:		
Benefit Payments	6,204,206.69	
Lump Sum DROP Distributions	184,270.44	
Refunds of Member Contributions	9,121.42	
 Total Distributions		 6,397,598.55
Expenses:		
Investment related ¹	419,467.59	
Administrative	52,447.28	
 Total Expenses		 471,914.87
 Change in Net Assets for the Year		 7,424,283.21
 Net Assets Beginning of the Year		 90,550,803.27
 Net Assets End of the Year ²		 97,975,086.48

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, 2017 to September 30, 2018

Beginning of the Year Balance	615,628.53
Plus Additions	541,604.44
Investment Return Earned	9,828.57
Less Distributions	(184,270.44)
End of the Year Balance	982,791.10

STATISTICAL DATA

	<u>10/1/2015</u>	<u>10/1/2017</u>	<u>10/1/2018</u>
<u>Actives</u>			
Number	88	73	68
Average Current Age	41.4	42.2	42.8
Average Age at Employment	27.5	27.2	27.1
Average Past Service	13.9	15.0	15.7
Average Annual Salary	\$51,593	\$56,580	\$58,760
<u>Service Retirees</u>			
Number	91	116	118
Average Current Age	64.3	64.2	64.8
Average Annual Benefit	\$42,663	\$44,832	\$45,538
<u>DROP Retirees</u>			
Number	21	9	11
Average Current Age	54.0	53.1	53.4
Average Annual Benefit	\$59,448	\$53,328	\$56,147
<u>Beneficiaries</u>			
Number	31	28	27
Average Current Age	72.7	73.4	74.0
Average Annual Benefit	\$20,626	\$21,913	\$22,861
<u>Disability Retirees</u>			
Number	16	15	15
Average Current Age	68.4	69.6	70.6
Average Annual Benefit	\$16,387	\$17,434	\$17,817
<u>Terminated Vested</u>			
Number	13	14	14
Average Current Age ¹	40.5	40.7	42.0
Average Annual Benefit ²	\$9,282	\$10,015	\$10,015

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	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	0	0	1	0	0	0	0	0	1
30 - 34	0	0	0	0	0	2	2	0	0	0	0	4
35 - 39	0	0	0	0	0	4	11	3	0	0	0	18
40 - 44	0	0	0	0	0	2	4	11	1	0	0	18
45 - 49	0	0	0	0	0	2	2	7	7	0	0	18
50 - 54	0	0	0	0	0	0	0	3	1	3	0	7
55 - 59	0	0	0	0	0	0	0	0	1	0	0	1
60 - 64	0	0	0	0	0	0	0	0	1	0	0	1
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	11	19	24	11	3	0	68

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2017	73
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
ii. Non-vested or full lump sum distribution received	(1)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. DROP	<u>(3)</u>
g. Continuing participants	68
h. New entrants	<u>0</u>
i. Total active life participants in valuation	68

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	116	9	28	15	14	182
Retired	2	(1)	0	0	0	1
DROP	0	3	0	0	0	3
Vested Deferred	0	0	0	0	0	0
Death, With Survivor	0	0	0	0	0	0
Death, No Survivor	(1)	0	(1)	0	0	(2)
Disabled	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0
Data Corrections	1	0	0	0	0	1
b. Number current valuation	118	11	27	15	14	185

SUMMARY OF CURRENT PLAN

<u>Eligibility</u>	Employees who are classified as full-time Police Officers hired prior to January 1, 2013 shall participate in the System as a condition of employment.
<u>Credited Service</u>	Aggregate number of years of service and fractional parts of years of service
<u>Compensation</u>	<p>Total cash compensation, educational incentive pay, court pay, automobile and/or meals and uniform expense, accumulated sick leave at retirement and vacation pay at retirement, special duty pay, shift differential pay, or special bonuses.</p> <p>Effective January 1, 2013, compensation shall be limited to an officer's base pay and senior officer pay exclusive of overtime for earnings on or after January 1, 2013, but shall include overtime which had been earned as of December 31, 2012.</p>
<u>Average Final Compensation</u>	<p>Average Compensation for the best 2 years out of the last 5 years of Credited Service for Members with 20 or more years of Credited Service as of January 1, 2013.</p> <p>Average Compensation for the last 5 years of Credited Service for Members with less than 20 years of Credited Service as of January 1, 2013.</p>
<u>Member Contributions</u>	5.20% of Salary.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.
<u>Normal Retirement</u>	
Date	Earlier of (1) Age 55 and 12 years of Credited Service, or (2) 25 years of Credited Service, regardless of Age.
Benefit	3.00% of Average Final Compensation for each full year of Credited Service.
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Early Retirement</u>	
Eligibility	Age 50 and 12 Years of Credited Service.
Benefit	Accrued benefit, reduced 3% per year for each year preceding age 55.

Vesting

Less than 12 years of
Credited Service

Refund of Member Contributions.

12 or more years of
Credited Service

Accrued benefit payable at the Member's otherwise
Normal Retirement Date
or
Refund of Member Contributions

Disability

Eligibility

Line of Duty

Total and permanent disability.

Non Line of Duty

Total and permanent disability with at least 12 years of
Credited Service.

Benefit

Line of Duty

3.00% of Average Final Compensation for each full year
of Credited Service. Minimum benefit is 42% of AFC.

Non Line of Duty

3.00% of Average Final Compensation for each full year
of Credited Service. Minimum benefit is 25% of AFC.

Form of Benefit

Payable as a 10-year Certain and Life Annuity. Options
available.

Death Benefits

Pre-Retirement

Line of Duty

3.00% of Average Final Compensation for each full year
of Credited Service. Minimum benefit is 42% of AFC.

Non Line of Duty

For members with 12 or more years of Credited Service:
3.00% of Average Final Compensation for each full year
of Credited Service. Minimum benefit is 25% of AFC.

For members with less than 12 years of Credited
Service: Refund of accumulated contributions without
interest.

Post-Retirement

Benefits payable to beneficiary in accordance with
option selected at retirement.

Board of Trustees

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member chosen by a majority of the other four trustees

Deferred Retirement Option Plan

Eligibility

Satisfaction of Retirement requirements.

Participation

Not to exceed 60 months.

Rate of Return

Members who entered DROP
Prior to January 1, 2013

4.00% annual interest.

Members who entered DROP
On or after January 1, 2013

1.30% annual interest.

Form of Distribution

Cash lump sum (options available) at termination of employment.

Cost-of-Living Adjustment

Eligibility

All members in payment status.

Increase

Increased annually effective each January 1st based on Consumer Price Index as of the previous September 30th, limited to 3.00% per year for retirees and DROP participants. The limit is 2.00% per year after 10 years of benefit payments for retirees who retire on or after January 1, 2013. Additionally, Members who entered the DROP on or after January 1, 2013 shall not receive any cost-of-living adjustments while participating in the DROP.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	135,922
Money Market	1,256,452
Cash	4,133
Total Cash and Equivalents	1,396,507
Receivables:	
Member Contributions in Transit	4,114
City Contributions in Transit	79
Investment Income	214,298
Total Receivable	218,491
Investments:	
U. S. Bonds and Bills	7,217,955
Federal Agency Guaranteed Securities	6,158,613
Corporate Bonds	9,011,954
Municipal Obligations	307,857
Stocks	58,572,437
Mutual Funds:	
Fixed Income	2,676,642
Pooled/Common/Commingled Funds:	
Equity	6,609,211
Real Estate	9,920,853
Total Investments	100,475,522
Total Assets	102,090,520
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	73,433
Administrative Expenses	1,107
To Broker for Investments Purchased	60,940
Total Liabilities	135,480
NET POSITION RESTRICTED FOR PENSIONS	101,955,040

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

ADDITIONS

Contributions:

Member	209,565	
Buy-Back	47,123	
City	4,528,544	
State	572,693	
 Total Contributions		 5,357,925
 Investment Income:		
Net Increase in Fair Value of Investments	7,603,353	
Interest & Dividends	2,245,815	
Less Investment Expense ¹	(419,468)	
 Net Investment Income		 9,429,700
 Total Additions		 14,787,625

DEDUCTIONS

Distributions to Members:

Benefit Payments	6,204,207	
Lump Sum DROP Distributions	184,271	
Lump Sum Share Distributions	0	
Refunds of Member Contributions	9,121	
 Total Distributions		 6,397,599
 Administrative Expense		 52,447
 Total Deductions		 6,450,046
 Net Increase in Net Position		 8,337,579
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		93,617,461
 End of the Year		 101,955,040

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

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

Plan Description

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member chosen by a majority of the other four.

Employees who are classified as full-time Police Officers hired prior to January 1, 2013 shall participate in the System as a condition of employment.

Plan Membership as of October 1, 2017:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	168
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	14
Active Plan Members	73
	255

Benefits Provided

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

Normal Retirement:

Date: Earlier of (1) Age 55 and 12 years of Credited Service, or (2) 25 years of Credited Service, regardless of Age.

Benefit: 3.00% of Average Final Compensation for each full year of Credited Service.

Early Retirement:

Eligibility: Age 50 and 12 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year for each year preceding age 55.

Vesting:

Less than 12 years of Credited Service: Refund of Member Contributions.

12 or more years of Credited Service: Accrued benefit payable at the Member's otherwise Normal Retirement Date or Refund of Member Contributions.

Disability:

Eligibility Line of Duty: Total and permanent disability.

Eligibility Non Line of Duty: Total and permanent disability with at least 12 years of Credited Service.

Benefit Line of Duty: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 42% of AFC.

Benefit Non Line of Duty: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 25% of AFC.

Death Benefits Pre-Retirement:

Line of Duty: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 42% of AFC.

None Line of Duty: For members with 12 or more years of Credited Service: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 25% of AFC. For members with less than 12 years of Credited Service:

Refund of accumulated contributions without interest.

Cost-of-Living Adjustment:

Eligibility: All members in payment status.

Increased annually effective each January 1st based on Consumer Price Index as of the previous September 30th, limited to 3.00% per year for retirees and DROP participants. The limit is 2.00% per year after 10 years of benefit payments for retirees who retire on or after January 1, 2013. Additionally, Members who entered the DROP on or after January 1, 2013 shall not receive any cost-of-living adjustments while participating in the DROP.

Contributions

Member: 5.20% of Salary.

City and State: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.

GASB 67

Investments

Investment Policy:

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

<u>Asset Class</u>	<u>Target Allocation</u>
All Cap Value Equity	22.5%
Broad Growth Equity	22.5%
Foreign Equity Securities	15.0%
Broad Market Fixed Income	22.5%
Global Bond	2.5%
Real Estate	10.0%
TIPS	5.0%
<u>Total</u>	<u>100.0%</u>

Concentrations:

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

Rate of Return:

For the year ended September 30, 2018, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 9.92 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 Member who entered DROP Prior to January 1, 2013: 4.00% annual interest.

Rate of Return Member who entered DROP On or after January 1, 2013: 1.30% annual interest.

The DROP balance as September 30, 2018 is \$982,791.

NET PENSION LIABILITY OF THE SPONSOR

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

Total Pension Liability	\$ 131,409,206
Plan Fiduciary Net Position	\$ (101,955,040)
Less reserve accounts	\$ 371,687
Sponsor's Net Pension Liability	<u>\$ 29,825,853</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	77.59%

Actuarial Assumptions:

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

Inflation	2.50%
Salary Increases	4.00%
Discount Rate	7.125%
Investment Rate of Return	7.125%

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.

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 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 most recent actuarial experience study used to review the other significant assumptions was not available.

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

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

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

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, 2018 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
All Cap Value Equity	7.50%
Broad Growth Equity	7.50%
Foreign Equity Securities	8.50%
Broad Market Fixed Income	2.50%
Global Bond	3.50%
Real Estate	4.50%
TIPS	2.50%

GASB 67

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.125 percent.

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

	1% Decrease	Current Discount Rate	1% Increase
	6.125%	7.125%	8.125%
Sponsor's Net Pension Liability	\$ 47,642,419	\$ 29,825,853	\$ 15,326,353

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

	09/30/2018	09/30/2017	09/30/2016 ¹
Total Pension Liability			
Service Cost	816,071	761,793	912,596
Interest	8,949,790	8,977,910	8,876,315
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	-	(2,653,681)	-
Changes of assumptions	-	-	-
Contributions - Buy Back	47,123	41,367	-
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	(8,755,072)	(7,539,629)
Net Change in Total Pension Liability	\$ 3,415,385	\$ (1,627,683)	\$ 2,249,282
Total Pension Liability - Beginning	\$ 127,993,821	\$ 129,621,504	\$ 127,372,222
Total Pension Liability - Ending (a)	\$ 131,409,206	\$ 127,993,821	\$ 129,621,504
Plan Fiduciary Net Position			
Contributions - Employer	4,528,544	4,331,190	3,830,736
Contributions - State	572,693	542,277	533,483
Contributions - Employee	209,565	218,457	227,357
Contributions - Buy Back	47,123	41,367	-
Net Investment Income	9,429,700	11,614,044	8,651,676
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	(8,755,072)	(7,539,629)
Administrative Expense	(52,447)	(115,371)	(93,853)
Net Change in Plan Fiduciary Net Position	8,337,579	7,876,892	5,609,770
Plan Fiduciary Net Position - Beginning	93,617,461	85,740,569	80,130,799
	\$ 101,955,040	\$ 93,617,461	\$ 85,740,569
Less reserve accounts	\$ 371,687	\$ 775,007	\$ 1,168,510
Plan Fiduciary Net Position - Ending (b)	\$ 101,583,353	\$ 92,842,454	\$ 84,572,059
Net Pension Liability - Ending (a) - (b)	\$ 29,825,853	\$ 35,151,367	\$ 45,049,445
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.59%	73.14%	65.2%
Covered Payroll	\$ 4,030,069	\$ 4,201,063	\$ 4,372,250
Net Pension Liability as a percentage of Covered Payroll	740.08%	836.73%	2964.6%

Notes to Schedule:

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

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

	<u>09/30/2015¹</u>	<u>09/30/2014¹</u>
Total Pension Liability		
Service Cost	818,742	860,340
Interest	8,390,513	8,151,071
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	312,274	866,959
Changes of assumptions	6,217,609	3,431,350
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(6,446,003)</u>	<u>(5,994,107)</u>
Net Change in Total Pension Liability	<u>\$ 9,293,135</u>	<u>\$ 7,315,613</u>
Total Pension Liability - Beginning	<u>\$118,079,087</u>	<u>\$110,763,474</u>
Total Pension Liability - Ending (a)	<u><u>\$127,372,222</u></u>	<u><u>\$118,079,087</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	3,830,839	3,825,656
Contributions - State	512,808	473,283
Contributions - Employee	240,097	156,000
Contributions - Buy Back	-	12,024
Net Investment Income	(2,362,487)	6,881,022
Benefit Payments, including Refunds of Employee Contributions	(6,446,003)	(5,994,107)
Administrative Expense	<u>(82,441)</u>	<u>(69,051)</u>
Net Change in Plan Fiduciary Net Position	<u>(4,307,187)</u>	<u>5,284,827</u>
Plan Fiduciary Net Position - Beginning	<u>84,437,986</u>	<u>79,153,159</u>
	<u>\$ 80,130,799</u>	<u>\$ 84,437,986</u>
Less reserve accounts	<u>\$ 1,203,293</u>	<u>\$ 1,097,405</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 78,927,506</u>	<u>\$ 83,340,581</u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 48,444,716</u></u>	<u><u>\$ 34,738,506</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	62.0%	70.6%
Covered Payroll	\$ 4,423,864	\$ 4,377,970
Net Pension Liability as a percentage of Covered Payroll	2879.2%	2697.1%

Notes to Schedule:

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

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

	<u>09/30/2013¹</u>	<u>09/30/2012¹</u>
Total Pension Liability		
Service Cost	1,282,649	1,605,230
Interest	8,164,809	7,835,535
Changes of benefit terms	(5,724,271)	-
Differences between Expected and Actual Experience	1,943,060	(2,734,414)
Changes of assumptions	3,373,204	2,145,252
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(4,605,472)</u>	<u>(3,967,087)</u>
Net Change in Total Pension Liability	\$ 4,433,979	\$ 4,884,516
Total Pension Liability - Beginning	<u>\$106,329,495</u>	<u>\$101,444,979</u>
Total Pension Liability - Ending (a)	<u><u>\$110,763,474</u></u>	<u><u>\$106,329,495</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	2,485,715	3,025,714
Contributions - State	473,910	477,014
Contributions - Employee	61,590	29,199
Contributions - Buy Back	237,089	763,031
Net Investment Income	9,839,718	11,504,769
Benefit Payments, including Refunds of Employee Contributions	(4,605,472)	(3,967,087)
Administrative Expense	<u>(74,488)</u>	<u>(73,465)</u>
Net Change in Plan Fiduciary Net Position	8,418,062	11,759,175
Plan Fiduciary Net Position - Beginning	<u>70,735,097</u>	<u>58,975,922</u>
	\$ 79,153,159	\$ 70,735,097
Less reserve accounts	<u>\$ 1,019,927</u>	<u>\$ 847,359</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 78,133,232</u>	<u>\$ 69,887,738</u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 32,630,242</u></u>	<u><u>\$ 36,441,757</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.5%	65.7%
Covered Payroll	\$ 4,870,112	\$ 5,296,929
Net Pension Liability as a percentage of Covered Payroll	2274.4%	2007.4%

Notes to Schedule:

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

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	Contributions as a percentage of Covered Payroll
09/30/2018	\$5,236,129	\$5,236,129	\$ -	\$4,030,069	129.93%
09/30/2017	\$5,236,129	\$5,236,129	\$ -	\$4,201,063	124.64%
09/30/2016 ¹	\$5,256,803	\$5,256,803	\$ -	\$4,372,250	120.23%
09/30/2015 ¹	\$4,452,427	\$4,452,427	\$ -	\$4,423,864	100.65%
09/30/2014 ¹	\$4,298,939	\$4,298,939	\$ -	\$4,466,862	96.24%
09/30/2013 ¹	\$2,832,155	\$2,832,155	\$ -	\$4,870,112	58.15%
09/30/2012 ¹	\$3,356,717	\$3,356,717	\$ -	\$5,296,929	63.37%
09/30/2011 ¹	\$4,017,967	\$4,017,967	\$ -	\$6,766,158	59.38%
09/30/2010 ¹	\$3,133,416	\$3,133,416	\$ -	\$6,966,752	44.98%
09/30/2009 ¹	\$3,278,441	\$3,278,441	\$ -	\$7,093,224	46.22%

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

Notes to Schedule

Valuation Date: 10/01/2015

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

Methods and assumptions used to determine contribution rates:

Funding Method: Entry Age Normal Actuarial Cost Method.

Assets: Five year Smoothing.

Annual Investment Yield: 7.125% compounded annually.

Salary Scale: 4.0% compounded annually.

Increase in Benefits: 2.5% per year after retirement.

Mortality: Pre- and Post-Retirement:

All using RP-2000 Generational, Scale BB with

Female: 100% Annuitant White Collar

Male: 10% Annuitant White Collar/90% Annuitant Blue collar

Post-Disablement:

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.

Probability of Death: Line of Duty: 15%; Non-Line of Duty: 85%

Turnover: No vested refunds or disability recoveries.

Age	Probability of Disability	Probability of Withdrawal
25-35	0.002387-0.003867	0.060
40	0.005733	0.020
55	0.030600	0.000

Probability of Disability: Line of Duty: 45%; Non-Line of Duty: 55%

Percent Married: 80% of active participants married with spouses three years younger. Inactives and DROP participant status is same as reported tax status.

GASB 67

Retirement:

The greater of the rates below:

<u>Service</u>	<u>Annual Rate</u>
25 YOS	0.50
26-29 YOS	0.25
30 YOS	1.00

<u>Age</u>	<u>Annual Rate</u>
45-49	0.05
50-56	0.10
57	0.50
58	0.70
59	0.90
60	1.00

SCHEDULE OF INVESTMENT RETURNS
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2018	9.92%
09/30/2017	13.48%
09/30/2016 ¹	11.11%
09/30/2015 ¹	-2.34%
09/30/2014 ¹	9.00%
09/30/2013 ¹	14.64%
09/30/2012 ¹	20.16%
09/30/2011 ¹	1.77%
09/30/2010 ¹	9.70%
09/30/2009 ¹	0.79%

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

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

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:

- a. Two City Council appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member chosen by a majority of the other four.

Employees who are classified as full-time Police Officers hired prior to January 1, 2013 shall participate in the System as a condition of employment.

Plan Membership as of October 1, 2017:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	168
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	14
Active Plan Members	73
	255

Benefits Provided

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

Normal Retirement:

Date: Earlier of (1) Age 55 and 12 years of Credited Service, or (2) 25 years of Credited Service, regardless of Age.

Benefit: 3.00% of Average Final Compensation for each full year of Credited Service.

Early Retirement:

Eligibility: Age 50 and 12 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year for each year preceding age 55.

Vesting:

Less than 12 years of Credited Service: Refund of Member Contributions.

12 or more years of Credited Service: Accrued benefit payable at the Member's otherwise Normal Retirement Date or Refund of Member Contributions.

Disability:

Eligibility Line of Duty: Total and permanent disability.

Eligibility Non Line of Duty: Total and permanent disability with at least 12 years of Credited Service.

Benefit Line of Duty: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 42% of AFC.

Benefit Non Line of Duty: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 25% of AFC.

Death Benefits Pre-Retirement:

Line of Duty: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 42% of AFC.

None Line of Duty: For members with 12 or more years of Credited Service: 3.00% of Average Final Compensation for each full year of Credited Service. Minimum benefit is 25% of AFC. For members with less than 12 years of Credited Service: Refund of accumulated contributions without interest.

Cost-of-Living Adjustment:

Eligibility: All members in payment status.

Increased annually effective each January 1st based on Consumer Price Index as of the previous September 30th, limited to 3.00% per year for retirees and DROP participants. The limit is 2.00% per year after 10 years of benefit payments for retirees who retire on or after January 1, 2013. Additionally, Members who entered the DROP on or after January 1, 2013 shall not receive any cost-of-living adjustments while participating in the DROP.

Contributions

Member: 5.20% of Salary.

City and State: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.

Net Pension Liability

The measurement date is September 30, 2018.

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

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

The Sponsor's Net Pension Liability was measured as of September 30, 2018.

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

Actuarial Assumptions:

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

Inflation	2.50%
Salary Increases	4.00%
Discount Rate	7.125%
Investment Rate of Return	7.125%

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.

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 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 most recent actuarial experience study used to review the other significant assumptions was not available.

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

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

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

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, 2018 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
All Cap Value Equity	22.50%	7.50%
Broad Growth Equity	22.50%	7.50%
Foreign Equity Securities	15.00%	8.50%
Broad Market Fixed Income	22.50%	2.50%
Global Bond	2.50%	3.50%
Real Estate	10.00%	4.50%
TIPS	5.00%	2.50%
Total	100.00%	

GASB 68

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.125 percent.

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

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2018	\$ 127,993,821	\$ 92,842,454	\$ 35,151,367
Changes for a Year:			
Service Cost	816,071	-	816,071
Interest	8,949,790	-	8,949,790
Differences between Expected and Actual Experience	-	-	-
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	4,528,544	(4,528,544)
Contributions - State	-	572,693	(572,693)
Contributions - Employee	-	209,565	(209,565)
Contributions - Buy Back	47,123	47,123	-
Net Investment Income	-	9,429,700	(9,429,700)
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	(6,397,599)	-
Administrative Expense	-	(52,447)	52,447
Change in reserve accounts	-	403,320	(403,320)
Net Changes	3,415,385	8,740,899	(5,325,514)
Reporting Period Ending September 30, 2019	\$ 131,409,206	\$ 101,583,353	\$ 29,825,853

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.125%	7.125%	8.125%
Sponsor's Net Pension Liability	\$ 47,642,419	\$ 29,825,853	\$ 15,326,353

Pension Plan Fiduciary Net Position.

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

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

For the year ended September 30, 2018, the Sponsor has recognized a Pension Expense of \$4,993,766.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	88,165	1,769,120
Changes of assumptions	1,352,629	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	2,962,878
Employer and State contributions subsequent to the measurement date	5,101,237	-
Total	\$ 6,542,031	\$ 4,731,998

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

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

Year ended September 30:	
2020	\$ 385,951
2021	\$ (880,327)
2022	\$ (1,669,195)
2023	\$ (1,127,633)
2024	\$ -
Thereafter	\$ -

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

For the year ended September 30, 2019, the Sponsor will recognize a Pension Expense of \$2,400,366.

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	-	884,560
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	5,031,287
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 5,915,847

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	\$ (1,440,000)
2021	\$ (2,228,868)
2022	\$ (1,687,306)
2023	\$ (559,673)
2024	\$ -
Thereafter	\$ -

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

Reporting Period Ending	09/30/2019	09/30/2018	09/30/2017
Measurement date	09/30/2018	09/30/2017	09/30/2016 ¹
Total Pension Liability			
Service Cost	816,071	761,793	912,596
Interest	8,949,790	8,977,910	8,876,315
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	-	(2,653,681)	-
Changes of assumptions	-	-	-
Contributions - Buy Back	47,123	41,367	-
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	(8,755,072)	(7,539,629)
Net Change in Total Pension Liability	\$ 3,415,385	\$ (1,627,683)	\$ 2,249,282
Total Pension Liability - Beginning	\$ 127,993,821	\$ 129,621,504	\$ 127,372,222
Total Pension Liability - Ending (a)	\$ 131,409,206	\$ 127,993,821	\$ 129,621,504
Plan Fiduciary Net Position			
Contributions - Employer	4,528,544	4,331,190	3,830,736
Contributions - State	572,693	542,277	533,483
Contributions - Employee	209,565	218,457	227,357
Contributions - Buy Back	47,123	41,367	-
Net Investment Income	9,429,700	11,614,044	8,651,676
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	(8,755,072)	(7,539,629)
Administrative Expense	(52,447)	(115,371)	(93,853)
Net Change in Plan Fiduciary Net Position	8,337,579	7,876,892	5,609,770
Plan Fiduciary Net Position - Beginning	93,617,461	85,740,569	80,130,799
	\$ 101,955,040	\$ 93,617,461	\$ 85,740,569
Less reserve accounts	\$ 371,687	\$ 775,007	\$ 1,168,510
Plan Fiduciary Net Position - Ending (b)	\$ 101,583,353	\$ 92,842,454	\$ 84,572,059
Net Pension Liability - Ending (a) - (b)	\$ 29,825,853	\$ 35,151,367	\$ 45,049,445
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.59%	73.14%	65.2%
Covered Payroll	\$ 4,030,069	\$ 4,201,063	\$ 4,372,250
Net Pension Liability as a percentage of Covered Payroll	740.08%	836.7%	2964.6%

Notes to Schedule:

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

Reporting Period Ending	09/30/2016	09/30/2015
Measurement date	09/30/2015 ¹	09/30/2014 ¹
Total Pension Liability		
Service Cost	818,742	860,340
Interest	8,390,513	8,151,071
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	312,274	866,959
Changes of assumptions	6,217,609	3,431,350
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	(6,446,003)	(5,994,107)
Net Change in Total Pension Liability	\$ 9,293,135	\$ 7,315,613
Total Pension Liability - Beginning	<u>\$118,079,087</u>	<u>\$110,763,474</u>
Total Pension Liability - Ending (a)	<u><u>\$127,372,222</u></u>	<u><u>\$118,079,087</u></u>
Plan Fiduciary Net Position		
Contributions - Employer	3,830,839	3,825,656
Contributions - State	512,808	473,283
Contributions - Employee	240,097	156,000
Contributions - Buy Back	-	12,024
Net Investment Income	(2,362,487)	6,881,022
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Administrative Expense	(82,441)	(69,051)
Net Change in Plan Fiduciary Net Position	(4,307,187)	5,284,827
Plan Fiduciary Net Position - Beginning	84,437,986	79,153,159
	<u>\$ 80,130,799</u>	<u>\$ 84,437,986</u>
Less reserve accounts	<u>\$ 1,203,293</u>	<u>\$ 1,097,405</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 78,927,506</u>	<u>\$ 83,340,581</u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 48,444,716</u></u>	<u><u>\$ 34,738,506</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	62.0%	70.6%
Covered Payroll	\$ 4,423,864	\$ 4,377,970
Net Pension Liability as a percentage of Covered Payroll	2879.2%	2697.1%

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SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending	09/30/2014	09/30/2013
Measurement date	09/30/2013 ¹	09/30/2012 ¹
Total Pension Liability		
Service Cost	1,282,649	1,605,230
Interest	8,164,809	7,835,535
Changes of benefit terms	(5,724,271)	-
Differences between Expected and Actual Experience	1,943,060	(2,734,414)
Changes of assumptions	3,373,204	2,145,252
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	(4,605,472)	(3,967,087)
Net Change in Total Pension Liability	\$ 4,433,979	\$ 4,884,516
Total Pension Liability - Beginning	<u>\$106,329,495</u>	<u>\$101,444,979</u>
Total Pension Liability - Ending (a)	<u><u>\$110,763,474</u></u>	<u><u>\$106,329,495</u></u>
 Plan Fiduciary Net Position		
Contributions - Employer	2,485,715	3,025,714
Contributions - State	473,910	477,014
Contributions - Employee	61,590	29,199
Contributions - Buy Back	237,089	763,031
Net Investment Income	9,839,718	11,504,769
Benefit Payments, including Refunds of Employee Contributions	(4,605,472)	(3,967,087)
Administrative Expense	(74,488)	(73,465)
Net Change in Plan Fiduciary Net Position	8,418,062	11,759,175
Plan Fiduciary Net Position - Beginning	<u>70,735,097</u>	<u>58,975,922</u>
	\$ 79,153,159	\$ 70,735,097
Less reserve accounts	\$ 1,019,927	\$ 847,359
Plan Fiduciary Net Position - Ending (b)	<u>\$ 78,133,232</u>	<u>\$ 69,887,738</u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 32,630,242</u></u>	<u><u>\$ 36,441,757</u></u>
 Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.5%	65.7%
Covered Payroll	\$ 4,870,112	\$ 5,296,929
Net Pension Liability as a percentage of Covered Payroll	2274.4%	2007.4%

Notes to Schedule:

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

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	Contributions as a percentage of Covered Payroll
09/30/2018	\$5,236,129	\$5,236,129	\$ -	\$4,030,069	129.93%
09/30/2017	\$5,236,129	\$5,236,129	\$ -	\$4,201,063	124.64%
09/30/2016 ¹	\$5,256,803	\$5,256,803	\$ -	\$4,372,250	120.23%
09/30/2015 ¹	\$4,452,427	\$4,452,427	\$ -	\$4,423,864	100.65%
09/30/2014 ¹	\$4,298,939	\$4,298,939	\$ -	\$4,466,862	96.24%
09/30/2013 ¹	\$2,832,155	\$2,832,155	\$ -	\$4,870,112	58.15%
09/30/2012 ¹	\$3,356,717	\$3,356,717	\$ -	\$5,296,929	63.37%
09/30/2011 ¹	\$4,017,967	\$4,017,967	\$ -	\$6,766,158	59.38%
09/30/2010 ¹	\$3,133,416	\$3,133,416	\$ -	\$6,966,752	44.98%
09/30/2009 ¹	\$3,278,441	\$3,278,441	\$ -	\$7,093,224	46.22%

¹ These results were provided by the prior actuary, Pension Board Consultants, Inc., Atlanta, Georgia.

Notes to Schedule

Valuation Date: 10/01/2015

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

Methods and assumptions used to determine contribution rates:

Funding Method: Entry Age Normal Actuarial Cost Method.

Assets: Five year Smoothing.

Annual Investment Yield: 7.125% compounded annually.

Salary Scale: 4.0% compounded annually.

Increase in Benefits: 2.5% per year after retirement.

Mortality: Pre- and Post-Retirement:

All using RP-2000 Generational, Scale BB with

Female: 100% Annuitant White Collar

Male: 10% Annuitant White Collar/90% Annuitant Blue collar

Post-Disablement:

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.

Probability of Death: Line of Duty: 15%; Non-Line of Duty: 85%

Turnover: No vested refunds or disability recoveries.

Age	Probability of Disability	Probability of Withdrawal
25-35	0.002387-0.003867	0.060
40	0.005733	0.020
55	0.0306	0.000

Probability of Disability: Line of Duty: 45%; Non-Line of Duty: 55%

Percent Married: 80% of active participants married with spouses three years younger. Inactives and DROP participant status is same as reported tax status.

GASB 68

Retirement:

The greater of the rates below:

<u>Service</u>	<u>Annual Rate</u>
25 YOS	0.50
26-29 YOS	0.25
30 YOS	1.00

<u>Age</u>	<u>Annual Rate</u>
45-49	0.05
50-56	0.10
57	0.50
58	0.70
59	0.90
60	1.00

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

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

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2018

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 45,049,445	\$ -	\$ 11,600,640	\$ -
Employer and State Contributions made after 09/30/2017	-	-	5,101,237	-
Total Pension Liability Factors:				
Service Cost	761,793	-	-	761,793
Interest	8,977,910	-	-	8,977,910
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	41,367	-	-	41,367
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(2,653,681)	2,653,681	-	-
Current year amortization of experience difference	-	(884,561)	(293,547)	(591,014)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(2,487,826)	2,487,826
Benefit Payments, including Refunds of Employee Contributions	(8,755,072)	-	-	-
Net change	<u>(1,627,683)</u>	<u>1,769,120</u>	<u>(2,781,373)</u>	<u>11,677,882</u>
Plan Fiduciary Net Position:				
Contributions - Employer	4,331,190	-	(4,331,190)	-
Contributions - State	542,277	-	(542,277)	-
Contributions - Employee	218,457	-	-	(218,457)
Contributions - Buy Back	41,367	-	-	(41,367)
Projected Net Investment Income	5,975,880	-	-	(5,975,880)
Difference between projected and actual earnings on Pension Plan investments	5,638,164	5,638,164	-	-
Current year amortization	-	(1,127,632)	(957,352)	(170,280)
Benefit Payments, including Refunds of Employee Contributions	(8,755,072)	-	-	-
Administrative Expenses	(115,371)	-	-	115,371
Other: Change in reserve accounts	393,503	-	-	(393,503)
Net change	<u>8,270,395</u>	<u>4,510,532</u>	<u>(5,830,819)</u>	<u>(6,684,116)</u>
Ending Balance	<u>\$ 35,151,367</u>	<u>\$ 6,279,652</u>	<u>\$ 8,089,685</u>	<u>\$ 4,993,766</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 35,151,367	\$ 6,279,652	\$ 8,089,685	\$ -
Employer and State Contributions made after 09/30/2018	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	816,071	-	-	816,071
Interest	8,949,790	-	-	8,949,790
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	47,123	-	-	47,123
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	-	-	-	-
Current year amortization of experience difference	-	(884,560)	(88,165)	(796,395)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(1,352,629)	1,352,629
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	-	-	-
Net change	<u>3,415,385</u>	<u>(884,560)</u>	<u>(1,440,794)</u>	<u>10,369,218</u>
Plan Fiduciary Net Position:				
Contributions - Employer	4,528,544	-	(4,528,544)	-
Contributions - State	572,693	-	(572,693)	-
Contributions - Employee	209,565	-	-	(209,565)
Contributions - Buy Back	47,123	-	-	(47,123)
Projected Net Investment Income	6,631,337	-	-	(6,631,337)
Difference between projected and actual earnings on Pension Plan investments	2,798,363	2,798,363	-	-
Current year amortization	-	(1,687,304)	(957,350)	(729,954)
Benefit Payments, including Refunds of Employee Contributions	(6,397,599)	-	-	-
Administrative Expenses	(52,447)	-	-	52,447
Other: Change in reserve accounts	403,320	-	-	(403,320)
Net change	<u>8,740,899</u>	<u>1,111,059</u>	<u>(6,058,587)</u>	<u>(7,968,852)</u>
Ending Balance	<u>\$ 29,825,853</u>	<u>\$ 6,506,151</u>	<u>TBD</u>	<u>\$ 2,400,366</u>

* Employer and State Contributions subsequent to the measurement date made after September 30, 2018 but made on or before September 30, 2019 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2016	\$ (2,505,006)	5	\$ 957,352	\$ 957,350	\$ 1,131,866	\$ (541,562)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (5,638,164)	5	\$(1,127,632)	\$(1,127,633)	\$(1,127,633)	\$(1,127,633)	\$(1,127,633)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (2,798,363)	5	\$ -	\$ (559,671)	\$ (559,673)	\$ (559,673)	\$ (559,673)	\$ (559,673)	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			<u>\$ (170,280)</u>	<u>\$ (729,954)</u>	<u>\$ (555,440)</u>	<u>\$ (2,228,868)</u>	<u>\$ (1,687,306)</u>	<u>\$ (559,673)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

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

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2016	\$ 3,840,455	4	\$ 2,487,826	\$ 1,352,629	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 2,487,826	\$ 1,352,629	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORITZATION SCHEDULE - EXPERIENCE

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

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2016	\$ 381,712	4	\$ 293,547	\$ 88,165	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (2,653,681)	3	\$ (884,561)	\$ (884,560)	\$ (884,560)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (591,014)	\$ (796,395)	\$ (884,560)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -