

CITY OF NAPLES  
POLICE OFFICERS' RETIREMENT TRUST FUND

ACTUARIAL VALUATION REPORT  
AS OF OCTOBER 1, 2016

CONTRIBUTIONS APPLICABLE TO THE CITY'S  
PLAN/FISCAL YEAR ENDED SEPTEMBER 30, 2018

November 29, 2016

Board of Trustees  
City of Naples Police Officers' Retirement Trust Fund  
c/o City of Naples Finance Department  
735 8<sup>th</sup> Street, South  
Naples, FL 34102

Re: City of Naples  
Police Officers' Retirement Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Naples Police Officers' Retirement Trust Fund. The 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. Please note that this valuation may not be applicable for any other purposes.

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

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Board of Trustees, 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 undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

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

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

Respectfully submitted,

Foster & Foster, Inc.

By:



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Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #14-7778

DHL/lke

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Naples Police Officers' Retirement Trust Fund, performed as of October 1, 2016, has been completed, and the results are presented in this Report. The contribution amounts set forth herein are applicable to the City's plan/fiscal year ending September 30, 2018. Funding requirements are projected for a lump sum City deposit on October 1, 2017, based on the Board's adoption of a Beginning of Year Funding Method.

The funding requirements, compared with the amounts developed in the October 1, 2015 Actuarial Valuation, are as follows:

Valuation Date	10/1/16	10/1/15
Applicable Plan Year End	<u>9/30/18</u>	<u>9/30/17</u>
Total Required Contribution		
% of Total Annual Payroll	65.67%	63.26%
Less Member Contributions (Est.)		
% of Total Annual Payroll	4.52%	4.65%
City and State Required Contribution		
% of Total Annual Payroll	61.15%	58.61%
Less State Contribution (est.) <sup>1 2</sup>	610,146	610,146
% of Total Annual Payroll	14.95%	14.95%
Less City Incentive Contribution	0	0
% of Total Annual Payroll	0.00%	0.00%
Balance from City <sup>1</sup>		
% of Total Annual Payroll	46.20%	43.66%

<sup>1</sup> The City may use up to \$737,941.37 in State Contributions for determining its minimum funding requirements. For budgeting purposes, the required Sponsor Contribution (City and State) is 61.15% of Pensionable Earnings for the fiscal year ending September 30, 2018. The precise City requirement for the year is this amount, less actual State Contributions (up to the maximum \$737,941.37). Additionally, there is a City receivable contribution of \$11,484.99 required for the fiscal year ending September 30, 2016. The Division of Retirement requires an interest charge of \$71.78 for each complete month after

September 30, 2015 until this deposit is made, based on the 7.50% valuation assumption for interest return.

<sup>2</sup> In absence of mutual consent between the City and Union upon the beginning of the next Collective Bargaining Agreement, the level of State Contributions will be determined according to Chapter 2015-39, Laws of Florida.

Experience since the prior valuation has been more favorable than expected on the basis of the Plan's actuarial assumptions. The primary sources of favorable experience included a 9.89% investment return (Actuarial Asset Basis), exceeding the 7.50% assumption, average increases in pensionable compensation that were less than the assumption by 1.94%, and greater than expected retiree mortality. These gains were partially offset by lower than expected employee turnover and earlier than expected Normal Retirements. Please see page 15 for additional details regarding Plan experience for fiscal 2016.


In spite of a net actuarial gain for the year, Plan funding requirements, when expressed as a percentage of payroll, have increased as a result of reductions in Total Annual Payroll and the payroll growth assumption utilized for amortization of the Unfunded Actuarial Accrued Liability (UAAL). Furthermore, changing the assumed rates of mortality to the mandated assumptions used by the Florida Retirement System offset the net actuarial gain by \$632,914 (see page 15).

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

Respectfully submitted,

FOSTER & FOSTER, INC.

By:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA

By:   
\_\_\_\_\_  
Sara E. Baumer

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2015	44.93%
(2) Summary of Contribution Impact by component:	
Change in Available State Money	-2.2%
Change in City Incentive Contribution	0.9%
Investment Return (Actuarial Asset Basis)	-2.0%
Salary Increases	-0.2%
Payroll Change Effect on UAAL Amortization	2.7%
Change in Normal Cost Rate	-1.4%
Change in Administrative Expense Percentage	-0.4%
New Entrants	0.0%
Active Decrements	2.0%
Inactive Mortality	-1.6%
Data Corrections	0.0%
Assumption Change	1.6%
Other	<u>1.7%</u>
	1.27%
(3) Contribution Determined as of October 1, 2016	46.20%

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

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

### Actuarial Assumption/Method Changes

- As a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed from the RP-2000 Combined Healthy Table to the assumptions used by the Florida Retirement System. This change is described in the Actuarial Assumptions and Methods section of this report and the impact on the funding requirements is disclosed in the Comparative Summary of Principal Valuation Results that follows.
- The payroll growth assumption, utilized for purposes of amortizing the Unfunded Actuarial Accrued Liability, was lowered from 0.7% to 0.0% per year. This reduction complies with the requirements of Part VII of Chapter 112, Florida Statutes, whereby the use of a payroll growth assumption is limited to the Plan's actual ten-year payroll growth average, determined as of the valuation date.



COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2016</u>	Old Assump <u>10/1/2016</u>	<u>10/1/2015</u>
<b>A. Participant Data</b>			
Number Included			
Actives	58	58	60
Service Retirees	57	57	57
DROP Retirees	12	12	9
Beneficiaries	7	7	7
Disability Retirees	3	3	2
Terminated Vested	<u>15</u>	<u>15</u>	<u>16</u>
 Total	 152	 152	 151
 Total Annual Payroll	 4,082,422	 4,082,422	 4,326,363
 Annual Rate of Payments to:			
Service Retirees	2,508,248	2,508,248	2,446,092
DROP Retirees	859,818	859,818	695,522
Beneficiaries	158,777	158,777	157,350
Disability Retirees	134,525	134,525	92,613
Terminated Vested	189,551	189,551	176,954
 <b>B. Assets</b>			
Actuarial Value <sup>1</sup>	46,117,717	46,117,717	42,113,491
Market Value <sup>1</sup>	45,732,479	45,732,479	42,500,716
 <b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	16,678,427	16,909,769	19,427,337
Disability Benefits	907,020	1,003,950	993,959
Death Benefits	339,107	112,688	123,413
Vested Benefits	1,018,667	1,045,114	1,026,647
Refund of Contributions	41,605	41,775	34,159
Service Retirees	31,627,665	31,118,709	29,979,670
DROP Retirees <sup>1</sup>	14,165,333	14,058,633	10,900,902
Beneficiaries	1,662,477	1,605,253	1,588,418
Disability Retirees	1,640,990	1,670,185	1,154,709
Terminated Vested	1,940,832	1,942,450	1,690,204
Excess State Monies Reserve	<u>0</u>	0	<u>0</u>
 Total	 70,022,123	 69,508,526	 66,919,418

C. Liabilities - (Continued)	New Assump <u>10/1/2016</u>	Old Assump <u>10/1/2016</u>	<u>10/1/2015</u>
Present Value of Future Salaries	28,393,122	28,711,676	27,922,078
Present Value of Future Member Contributions	1,283,369	1,297,768	1,298,377
Normal Cost (Retirement)	464,997	476,369	561,224
Normal Cost (Disability)	81,137	89,823	103,777
Normal Cost (Death)	15,823	5,425	6,292
Normal Cost (Vesting)	96,583	100,035	100,273
Normal Cost (Refunds)	<u>8,970</u>	<u>8,387</u>	<u>8,387</u>
Total Normal Cost	667,510	680,039	779,953
Present Value of Future Normal Costs	4,053,543	4,172,860	4,229,189
Accrued Liability (Retirement)	13,785,167	13,920,192	16,373,128
Accrued Liability (Disability)	372,919	405,330	395,788
Accrued Liability (Death)	247,416	79,362	89,279
Accrued Liability (Vesting)	520,083	529,860	513,432
Accrued Liability (Refunds)	5,698	5,692	4,699
Accrued Liability (Inactives) <sup>1</sup>	51,037,297	50,395,230	45,313,903
Excess State Monies Reserve	<u>0</u>	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability	65,968,580	65,335,666	62,690,229
Unfunded Actuarial Accrued Liability (UAAL)	19,850,863	19,217,949	20,576,738
Funded Ratio (AVA / AL)	69.9%	70.6%	67.2%

D. Actuarial Present Value of Accrued Benefits

Vested Accrued Benefits			
Inactives <sup>1</sup>	51,037,297	50,395,230	45,313,903
Actives	10,053,380	10,092,928	13,892,252
Member Contributions	<u>2,328,816</u>	<u>2,328,816</u>	<u>2,465,315</u>
Total	63,419,493	62,816,974	61,671,470
Non-vested Accrued Benefits	<u>1,628,972</u>	<u>1,641,001</u>	<u>508,709</u>
Total Present Value Accrued Benefits	65,048,465	64,457,975	62,180,179
Funded Ratio (MVA / PVAB)	70.3%	70.9%	68.4%

Increase (Decrease) in Present Value of  
Accrued Benefits Attributable to:

Plan Amendments	0	0	
Assumption Changes	590,490	0	
New Accrued Benefits	0	611,558	
Benefits Paid	0	(2,888,940)	
Interest	0	4,555,178	
Other	<u>0</u>	<u>0</u>	
Total	590,490	2,277,796	

	New Assump	Old Assump	
Valuation Date	10/1/2016	10/1/2016	10/1/2015
Applicable to Fiscal Year Ending	<u>9/30/2018</u>	<u>9/30/2018</u>	<u>9/30/2017</u>

E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll <sup>2</sup>	16.35	16.66	18.03
Administrative Expenses (with interest) % of Total Annual Payroll <sup>2</sup>	2.10	2.10	2.49
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2016) % of Total Annual Payroll <sup>2</sup>	47.22	45.30	42.74
Total Required Contribution % of Total Annual Payroll <sup>2</sup>	65.67	64.06	63.26
Expected Member Contributions % of Total Annual Payroll <sup>2</sup>	4.52	4.52	4.65
Expected City & State Contribution % of Total Annual Payroll <sup>2</sup>	61.15	59.54	58.61

F. Past Contributions

Plan Years Ending:	<u>9/30/2016</u>
Total Required Contribution	2,809,486
City and State Requirement	2,595,706
Actual Contributions Made:	
Members (excluding buyback)	210,895
City	1,985,560
State	<u>610,146</u>
Total	2,806,601

G. Net Actuarial (Gain)/Loss (888,298)

<sup>1</sup> The asset values and liabilities for DROP Members include accumulated DROP Balances as of 9/30/2016 and 9/30/2015.

<sup>2</sup> Contributions developed as of 10/1/2016 are expressed as a percentage of total annual payroll at 10/1/2016 of \$4,082,422.

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

<u>Year</u>	<u>Projected Unfunded Accrued Liability</u>
2016	19,850,863
2017	19,266,104
2018	18,637,491
2021	16,454,364
2026	11,578,249
2031	5,658,955
2046	0

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	3.23%	5.17%
Year Ended	9/30/2015	2.97%	5.08%
Year Ended	9/30/2014	3.70%	6.84%

(ii) 3 Year Comparison of Investment Return on Actuarial Value

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	9.89%	7.50%
Year Ended	9/30/2015	9.52%	7.50%
Year Ended	9/30/2014	11.38%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2016	\$4,082,422
	10/1/2006	4,238,516
(b) Total Increase		-3.7%
(c) Number of Years		10.00
(d) Average Annual Rate		-0.4%

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 #14-7778

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

Ms. Sarah Carr  
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, 2015	\$20,576,738
(2) Sponsor Normal Cost developed as of October 1, 2015	578,777
(3) Expected administrative expenses for the year ended September 30, 2016	107,547
(4) Expected interest on (1), (2) and (3)	1,590,697
(5) Sponsor contributions to the System during the year ended September 30, 2016	2,595,706
(6) Expected interest on (5)	151,806
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2016 (1)+(2)+(3)+(4)-(5)-(6)	20,106,247
(8) Change to UAAL due to Assumption Change	632,914
(9) Change to UAAL due to Actuarial (Gain)/Loss	(888,298)
(10) Unfunded Accrued Liability as of October 1, 2016	19,850,863

Type of <u>Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2016 Amount</u>	<u>Amortization Amount</u>
	10/1/1997	11	\$1,161,514	\$147,699
	10/1/1999	13	1,829,445	209,432
	10/1/2000	14	(848,246)	(92,950)
	10/1/2002	16	3,547,140	360,954
	10/1/2003	17	1,971,754	194,424
Actuarial Loss	10/1/2004	18	2,245,552	215,216
Amendment	10/1/2004	18	(7,842)	(752)
Actuarial Gain	10/1/2005	19	(266,739)	(24,915)
Assum. Change	10/1/2005	19	1,052,706	98,329
Actuarial Gain	10/1/2006	20	(416,733)	(38,026)
Assum. Change	10/1/2006	20	1,112,589	101,522
Actuarial Loss	10/1/2007	21	1,561,770	139,512
Assum./Method Change	10/1/2007	21	113,563	10,145
Amendment	10/1/2007	21	759,408	67,838
Actuarial Loss	10/1/2008	22	3,326,214	291,429
Actuarial Loss	10/1/2009	23	2,499,155	215,126
Assumption Changes	10/1/2009	23	1,827,466	157,307
Actuarial Loss	10/1/2010	24	2,807,415	237,782
Actuarial Loss	10/1/2011	25	3,265,355	272,500
Benefit Changes	10/1/2011	25	(6,333,511)	(528,543)
Actuarial Loss	10/1/2012	26	1,308,023	107,683
Actuarial Gain	10/1/2013	27	(758,173)	(61,643)
Actuarial Gain	10/1/2014	28	(1,201,373)	(96,563)
Assumption Change	10/1/2014	28	135,906	10,924
Actuarial Gain	10/1/2015	29	(586,111)	(46,615)
Actuarial Gain	10/1/2016	30	(888,298)	(69,966)
Assumption Change	10/1/2016	30	<u>632,914</u>	<u>49,851</u>
			19,850,863	1,927,700

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2015	\$20,576,738
(2) Expected UAAL as of October 1, 2016	20,106,247
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(1,008,716)
Salary Increases	(102,010)
Active Decrements	1,049,749
Inactive Mortality	(811,902)
Other	<u>(15,419)</u>
Increase in UAAL due to (Gain)/Loss	(888,298)
Assumption Changes	<u>632,914</u>
(4) Actual UAAL as of October 1, 2016	\$19,850,863

## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rates

#### *Healthy Lives:*

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

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

#### *Disabled Lives:*

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

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

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

### Normal Retirement Age

Hired prior to 4/1/2012: Earlier of 1) age 50 or 2) the completion of 25 years of credited service. The retirement rate for Members who have reached 25 years of service is 100%. See table on next page for additional rates.

These rates were incorporated with the October 1, 2007 valuation as the result of a prior Experience Study.

Hired after 3/31/2012: Earlier of 1) age 60 with completion of 8 years of credited service, or 2) the completion of 30 years of credited service. The retirement rate for Members who have reached 30 years of service is 100%. See table on next page for additional rates.

These rates were adopted in conjunction with the October 1, 2012 valuation. This assumption is reasonable, based on Plan provisions.



Early Retirement Age

Hired prior to 4/1/2012: Earlier of 1) age 45 or 2) the completion of 20 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

These rates were incorporated with the October 1, 2007 valuation as the result of a prior Experience Study.

Hired after 3/31/2012: Attainment of age 45 and the completion of 20 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

These rates were adopted in conjunction with the October 1, 2012 valuation. This assumption is reasonable, based on Plan provisions.

See table on following page. These rates were incorporated with the October 1, 2007 valuation as the result of a prior Experience Study.

Termination Rates

Disability Rates

See table on following page. This assumption is in line with the national average for municipal defined benefit pension programs.

Interest Rate

7.50% per year, compounded annually, net of investment related expenses. This assumption was adopted by the Board in conjunction with a revision to the October 1, 2009 valuation.

Salary Increases

See table on next page. These rates were incorporated with the October 1, 2014 valuation as the result of an Experience Study.

Administrative Expenses

\$85,620, based on actual Administrative Expenses incurred during the prior fiscal year.

Funding Method

Entry Age Normal Actuarial Cost Method.

Post-Retirement COLA

3% per year at ages 55 through 62 for Service Retirees and surviving Beneficiaries. No COLA for Disability Retirees, Vested Terminated Members, or Members hired after 3/31/2012.

Payroll Growth

0.0% per year for amortization of the Unfunded Actuarial Accrued Liability. The assumption was 0.7% for the 10/1/2015 valuation.

Actuarial Asset Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

% Increase in Salary

<u>Years of Service</u>	<u>Increase</u>
1	6.0%
2-9	5.5%
10-14	5.0%
15-19	4.5%
20+	4.0%

Disability Rates

<u>Age</u>	<u>% Becoming Disabled During the Year</u>
20	0.14%
25	0.15%
30	0.18%
35	0.23%
40	0.30%
45	0.51%
50	1.00%

It is assumed that 75% of disablements and active Member deaths are service related.

Retirement Rates

<u>Number of Years After First Eligibility For Normal Retirement</u>	<u>Probability of Normal Retirement</u>
0	30%
1	30%
2	30%
3	30%
4	30%
5	100%

Termination Rates

<u>Sample Ages</u>	<u>Years of Service</u>	<u>% of Active Members Separating Within Next Year</u>
ALL	0	20.0%
	1	16.0%
	2	14.0%
	3	12.0%
	4	10.0%
20	5+	10.0%
25		10.0%
30		8.8%
35		6.8%
40		4.8%
45+		3.2%

## VALUATION NOTES

Total Annual Payroll is the projected annual rate of pay for the fiscal year following 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.

Individual Entry Age Normal Actuarial Cost Method (Level Percent of Compensation) is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Accrued (Past Service) Liability. The actuarial accrued liability for active participants is the difference between the present value of future benefits and the present value of future Normal Costs. The actuarial accrued liability for inactive participants is the present value of future benefits.

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.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1993	348,798.49	_____%
1994	370,674.47	6.3%
1995	399,899.77	7.9%
1996	438,677.91	9.7%
1997	486,936.40	11.0%
1998	500,979.37	2.9%
1999	521,102.07	4.0%
2000	544,431.81	4.5%
2001	578,886.07	6.3%
2002	679,725.72	17.4%
2003	780,142.25	14.8%
2004	784,882.00	0.6%
2005	726,369.64	-7.5%
2006	773,953.70	6.6%
2007	740,322.92	-4.3%
2008	726,369.64	-1.9%
2009	625,279.98	-13.9%
2010	546,848.13	-12.5%
2011	553,719.90	1.3%
2012	519,408.75	-6.2%
2013	512,283.63	-1.4%
2014	540,981.00	5.6%
2015	551,656.38	2.0%
2016	610,146.10	10.6%

EXCESS STATE MONIES RESERVE

	<u>Actual State Contribution</u>	<u>Applicable "Frozen" Amount</u>	<u>Excess State Monies for Reserve</u>
1998	\$500,979.37	\$500,979.37	\$0.00
1999	521,102.07	500,979.37	20,122.70
2000	544,431.81	500,979.37	43,452.44
2001	578,886.07	500,979.37	77,906.70
2002	679,725.72	500,979.37	178,746.35
2003	780,142.25	662,446.37	117,695.88
2004	784,882.00	662,446.37	122,435.63
2005	726,369.64	662,446.37	63,923.27
2006	773,953.70	662,446.37	111,507.33
2007	740,322.92	662,446.37	77,876.55
2008	726,369.64	737,941.37	0.00
2009	625,279.98	737,941.37	0.00
2010	546,848.13	737,941.37	0.00
2011	553,719.90	737,941.37	0.00
2012	519,408.75	737,941.37	0.00
2013	512,283.63	737,941.37	0.00
2014	540,981.00	737,941.37	0.00
2015	551,656.38	737,941.37	0.00
2016	610,146.10	737,941.37	<u>0.00</u>
		Total:	813,666.85
	Less Excess Used in Ord. No. 03-10084		(320,228.19)
	Less Excess Used in Ord. No. 08-12124		(493,438.66)
	Total Excess State Monies Reserve:		0.00

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2016

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	936.95	936.95
Transfer in Transit	690,000.00	690,000.00
Money Market	2,163,296.00	2,163,296.00
Cash	247.02	247.02
 Total Cash and Equivalents	 2,854,479.97	 2,854,479.97
Receivables:		
Member Contributions in Transit	8,415.37	8,415.37
Member Contributions	29.77	29.77
Additional City Contributions	11,484.99	11,484.99
 Total Receivable	 19,930.13	 19,930.13
Investments:		
Fixed Income	8,745,942.12	8,850,110.90
Equities	25,123,786.43	29,787,686.64
Pooled/Common/Commingled Funds:		
Fixed Income	951,665.00	962,937.00
Hedge	1,160,000.00	1,195,348.41
Real Estate	1,550,000.00	2,062,350.27
 Total Investments	 37,531,393.55	 42,858,433.22
 Total Assets	 40,405,803.65	 45,732,843.32
 <u>LIABILITIES</u>		
Prepaid Member Contribution	364.71	364.71
 Total Liabilities	 364.71	 364.71
 NET POSITION RESTRICTED FOR PENSIONS	 40,405,438.94	 45,732,478.61

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2016  
Market Value Basis

ADDITIONS

Contributions:

Member	210,894.66
City	1,985,559.65
State	610,146.10

Total Contributions 2,806,600.41

Metlife Benefit & ADM Fee Reimbursements 3,638.60

Investment Income:

Net Realized Gain (Loss)	448,752.71	
Unrealized Gain (Loss)	2,289,887.15	
Net Increase in Fair Value of Investments		2,738,639.86
Interest & Dividends		888,053.09
Less Investment Expense <sup>1</sup>		(230,609.58)

Net Investment Income 3,396,083.37

Total Additions 6,206,322.38

DEDUCTIONS

Distributions to Members:

Benefit Payments	2,849,324.06
Lump Sum DROP Distributions	28,685.90
Refunds of Member Contributions	10,930.17

Total Distributions 2,888,940.13

Administrative Expense 85,619.96

Total Deductions 2,974,560.09

Net Increase in Net Position 3,231,762.29

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 42,500,716.32

End of the Year 45,732,478.61

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



ACTUARIAL ASSET VALUATION  
September 30, 2016

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

Plan Year Ending	Gain/Loss	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2016	2017	2018	2019	2020
09/30/2012	3,653,643	0	0	0	0	0
09/30/2013	1,981,363	396,273	0	0	0	0
09/30/2014	1,904,870	761,948	380,974	0	0	0
09/30/2015	(2,848,714)	(1,709,228)	(1,139,486)	(569,743)	0	0
09/30/2016	207,211	165,769	124,327	82,884	41,442	0
Total		(385,238)	(634,185)	(486,859)	41,442	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including Prepaid Contributions, 09/30/2015	42,699,824
Contributions Less Benefit Payments & Admin Expenses	(363,064)
Expected Investment Earnings*	3,188,872
Actual Net Investment Earnings	3,396,083
2016 Actuarial Investment Gain/(Loss)	<u>207,211</u>

\*Expected Investment Earnings =  $0.075 * [42,699,824 + 0.5 * (363,064)]$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2016	45,732,479
(2) Gains/(Losses) Not Yet Recognized	(385,238)
(3) Actuarial Value of Assets, 09/30/2016, (1) - (2)	<u>46,117,717</u>
(A) 09/30/2015 Actuarial Assets, including Prepaid Contributions:	42,312,599
(I) Net Investment Income:	
1. Interest and Dividends	888,053
2. Realized Gains (Losses)	448,753
3. Change in Actuarial Value	3,062,350
4. Investment Expenses	(230,610)
Total	<u>4,168,546</u>
(B) 09/30/2016 Actuarial Assets, including Prepaid Contributions:	46,118,081
Actuarial Assets Rate of Return = $2I/(A+B-I)$ :	9.89%
Market Value of Assets Rate of Return:	7.89%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	1,008,716
10/01/2016 Limited Actuarial Assets, not including Prepaid:	46,117,717

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2016  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	210,894.66	
City	1,985,559.65	
State	610,146.10	
 Total Contributions		 2,806,600.41
 Metlife Benefit & ADM Fee Reimbursements		 3,638.60
 Earnings from Investments:		
Interest & Dividends	888,053.09	
Net Realized Gain (Loss)	448,752.71	
Change in Actuarial Value	3,062,350.15	
 Total Earnings and Investment Gains		 4,399,155.95
	 EXPENDITURES	
Distributions to Members:		
Benefit Payments	2,849,324.06	
Lump Sum DROP Distributions	28,685.90	
Refunds of Member Contributions	10,930.17	
 Total Distributions		 2,888,940.13
 Expenses:		
Investment related <sup>1</sup>	230,609.58	
Administrative	85,619.96	
 Total Expenses		 316,229.54
 Change in Net Assets for the Year		 4,004,225.29
 Net Assets Beginning of the Year		 42,113,491.32
 Net Assets End of the Year <sup>2</sup>		 46,117,716.61

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

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

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2015 to September 30, 2016

Beginning of the Year Balance	1,350,094.28
Plus Additions	746,642.16
Investment Return Earned	22,626.59
Less Distributions	(28,685.90)
End of the Year Balance	2,090,677.13

Notes:

Additions and Investment Return for one member are based on the Normal Form.  
Adjustment, if necessary, will be made on the 2017 DROP Activity.

RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2016

(1) City and State Contribution Rate	56.46%
(2) Pensionable Payroll Derived from Member Contributions	\$4,597,424.29
(3) City and State Required Contribution (1) x (2)	2,595,705.75
(4) Less Allowable State Contribution	<u>(610,146.10)</u>
(5) Equals Required City Contribution for Fiscal 2016	1,985,559.65
(6) Less 2015 Prepaid Contribution	(199,107.54)
(7) Less City Incentive Contribution	0.00
(8) Less Actual City Contributions	<u>(1,774,967.12)</u>
(9) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2016	\$11,484.99

STATISTICAL DATA <sup>1</sup>

	<u>10/1/2013</u>	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2016</u>
<u>Actives - Hired on or before March 31, 2012</u>				
Number	60	53	47	41
Average Current Age	40.8	42.5	42.6	42.4
Average Age at Employment	29.5	30.0	29.6	29.1
Average Past Service	11.3	12.5	13.0	13.2
Average Annual Salary	\$76,091	\$71,501	\$74,791	\$73,360
<u>Actives - Hired after March 31, 2012</u>				
Number	7	9	13	17
Average Current Age	36.8	36.4	34.0	34.3
Average Age at Employment	35.9	35.0	32.6	32.4
Average Past Service	0.9	1.4	1.4	1.9
Average Annual Salary	\$68,444	\$71,052	\$62,402	\$63,215
<u>Service Retirees</u>				
Number	54	55	57	57
Average Current Age	60.6	61.3	61.7	61.9
Average Annual Benefit	\$42,251	\$43,653	\$42,914	\$44,004
<u>DROP Retirees</u>				
Number	4	5	9	12
Average Current Age	51.8	51.6	51.3	52.2
Average Annual Benefit	\$82,590	\$83,518	\$77,280	\$71,652
<u>Beneficiaries</u>				
Number	6	7	7	7
Average Current Age	63.3	63.2	64.2	65.2
Average Annual Benefit	\$24,237	\$22,281	\$22,479	\$22,682
<u>Disability Retirees</u>				
Number	2	2	2	3
Average Current Age	48.2	49.2	50.2	48.4
Average Annual Benefit	\$46,307	\$46,307	\$46,307	\$44,842
<u>Terminated Vested <sup>2</sup></u>				
Number	11	12	11	11
Average Current Age	44.7	44.8	44.5	46.6
Average Annual Benefit	\$14,476	\$10,651	\$16,087	\$17,232

<sup>1</sup> Prior to 10/1/2015, Active Member statistical data was weighted by salary.

<sup>2</sup> Excludes non-vested Members awaiting a refund of Member 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	1	0	0	0	0	0	0	0	0	0	0	1
25 - 29	2	2	1	0	2	0	0	0	0	0	0	7
30 - 34	1	3	0	0	0	3	4	0	0	0	0	11
35 - 39	0	1	0	0	0	1	6	0	0	0	0	8
40 - 44	0	0	1	1	1	3	3	3	0	0	0	12
45 - 49	1	0	0	0	0	0	4	6	2	1	0	14
50 - 54	0	0	0	0	0	0	1	0	0	1	0	2
55 - 59	0	0	0	0	1	0	1	0	0	0	0	2
60 - 64	0	0	0	0	0	1	0	0	0	0	0	1
65+	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>4</b>	<b>8</b>	<b>19</b>	<b>9</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>58</b>

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2015	60
b. Terminations	
i. Vested (partial or full) with deferred benefits <sup>1</sup>	(1)
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	(2)
f. DROP	(3)
g. Voluntary withdrawal	<u>0</u>
h. Continuing participants	53
i. New entrants	<u>5</u>
j. Total active life participants in valuation	58

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> <sup>1</sup>	<u>Total</u>
a. Number prior valuation	57	9	7	2	16	91
Retired	2	0	0	0	0	2
DROP	0	3	0	0	0	3
Vested Deferred	0	0	0	1	2	3
Death, With Survivor	0	0	0	0	0	0
Death, No Survivor	(2)	0	0	0	0	(2)
Disabled	0	0	0	0	(1)	(1)
Refund of Contributions	0	0	0	0	(2)	(2)
Rehires	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0
b. Number current valuation	57	12	7	3	15	94

<sup>1</sup> Includes nonvested Members awaiting a refund of Member Contributions.

POLICE OFFICERS' RETIREMENT TRUST FUND  
SUMMARY OF PLAN PROVISIONS

<u>Eligibility</u>	Full-time employees who are classified as full-time sworn Police Officers participate in the Plan as a condition of employment.
<u>Credited Service</u>	Total years and completed months of uninterrupted service with the City as a Police Officer.
<u>Salary</u>	Total pay, plus additional compensation received. Effective 3/31/2012, future accrued leave lump sum payouts shall not exceed the lesser of \$6,700 and the value accrued prior to 10/1/2011.
<u>Final Average Compensation</u>	Average Salary for the best three (3) years of service. Benefits accrued after 3/31/2012 shall be based on Average Salary for the best eight (8) years of service, however, in no event will the future Final Average Compensation be less than the amount determined as of 3/31/2012 under the prior 3 year average definition.
<u>Normal Retirement</u>	
Date	<u>Hired prior to 4/1/2012:</u> Earlier of age 50 or 25 years of Credited Service, regardless of age.  <u>Hired after 3/31/2012:</u> Earlier of age 60 with the completion of 8 years of Credited Service, or the completion of 30 years of Credited Service, regardless of age.
Benefit	<u>Hired prior to 4/1/2012:</u> Frozen accrued benefit as of 3/31/2012, plus a future service benefit of 3.0% of Final Average Compensation for each year of Credited Service beyond 3/31/2012  <u>Hired after 3/31/2012:</u> 3.0% of Final Average Compensation for all years of Credited Service.
Form of Benefit	Ten Year Certain and Life Annuity (options available).



## Early Retirement

Date	<p><u>Hired prior to 4/1/2012:</u> Earlier of age 45 or 20 years of Credited Service, regardless of age.</p> <p><u>Hired after 3/31/2012:</u> Attainment of age 45 and the completion of 20 years of Credited Service.</p>
Benefit	Accrued benefit, reduced 3% (5% for Members hired after 3/31/2012) for each year prior to Normal Retirement.

## Vesting

Schedule	100% after 5 years (8 years for Members hired after 3/31/2012) of Credited Service.
Benefit Amount	<p>Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.</p> <p>Non-vested members receive a refund of member contributions accumulated with 5.5% interest.</p>

## Disability

Eligibility	Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.
Benefit	Accrued benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).
Duration	Payable for life with 10 years certain or until recovery (as determined by the Board).

Death Benefits

Pre-Retirement

Vested

Actuarially reduced accrued benefit payable to designated beneficiary for life with 10 years certain.

Non-Vested

Refund of member contributions, with 5.5% interest.

Post-Retirement

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

Member Contributions

5.0% of Salary. Members hired after 3/31/2012 contribute 3.0% of Salary.

City and State Contributions

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Cost of Living Adjustment

Eligibility

Normal and Early service Retirees and Beneficiaries. COLA is not payable to Disability, Vested Terminated Retirees, or any Member hired after 3/31/2012.

Amount

3.0% increase per year following one year of payments and the retiree's 55<sup>th</sup> birthday, ceasing on the retiree's 62<sup>nd</sup> birthday.

Board of Trustees

Two Council appointees, two Members of the Plan elected by the membership, and a fifth Member elected by other 4 and appointed by Council as a ministerial duty.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2016

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	937
Transfer in Transit	690,000
Money Market	2,163,296
Cash	247
Total Cash and Equivalents	2,854,480
Receivables:	
Member Contributions in Transit	8,415
Member Contributions	30
Additional City Contributions	11,485
Total Receivable	19,930
Investments:	
Fixed Income	8,850,111
Equities	29,787,687
Pooled/Common/Commingled Funds:	
Fixed Income	962,937
Hedge	1,195,349
Real Estate	2,062,350
Total Investments	42,858,434
Total Assets	45,732,844
Total Liabilities	0
NET POSITION RESTRICTED FOR PENSIONS	45,732,844

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2016  
Market Value Basis

ADDITIONS

## Contributions:

Member	211,259	
City	1,985,560	
State	610,146	
 Total Contributions		 2,806,965
 Metlife Benefit & ADM Fee Reimbursements		 3,639
 Investment Income:		
Net Increase in Fair Value of Investments	2,738,640	
Interest & Dividends	888,053	
Less Investment Expense <sup>1</sup>	(230,609)	
 Net Investment Income		 3,396,084
 Total Additions		 6,206,688

DEDUCTIONS

## Distributions to Members:

Benefit Payments	2,849,324	
Lump Sum DROP Distributions	28,686	
Refunds of Member Contributions	10,930	
 Total Distributions		 2,888,940
 Administrative Expense		 85,620
 Total Deductions		 2,974,560
 Net Increase in Net Position		 3,232,128
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		42,500,716
 End of the Year		 45,732,844

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

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2016)

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 Council appointees;
- b. Two Members of the Plan elected by the Membership, and a
- c. Fifth Member elected by other four and appointed by Council as a ministerial duty.

*Plan Membership as of October 1, 2015:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	75
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	16
Active Plan Members	60
	151

*Benefits Provided*

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

Normal Retirement:

Date: Hired prior to 4/1/2012: Earlier of age 50 or 25 years of Credited Service, regardless of age.

Hired after 3/31/2012: Earlier of age 60 with the completion of 8 years of Credited Service, or the completion of 30 years of Credited Service, regardless of age.

Benefit: Hired prior to 4/1/2012: Frozen accrued benefit as of 3/31/2012, plus a future service benefit of 3.0% of Final Average Compensation for each year of Credited Service beyond 3/31/2012.

Hired after 3/31/2012: 3.0% of Final Average Compensation for all years of Credited Service.

Early Retirement:

Date: Hired prior to 4/1/2012: Earlier of age 45 or 20 years of Credited Service, regardless of age.

Hired after 3/31/2012: Attainment of age 45 and the completion of 20 years of Credited Service.

Benefit: Accrued benefit, reduced 3% (5% for Members hired after 3/31/2012) for each year prior to Normal Retirement.

Vesting:

Schedule: 100% after 5 years (8 years for Members hired after 3/31/2012) of Credited Service.

Benefit: Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

Non-vested members receive a refund of member contributions accumulated with 5.5% interest.

Disability:

Eligibility: Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.

Benefit: Accrued benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).

Pre-Retirement Death Benefits:

Vested: Actuarially reduced accrued benefit payable to designated beneficiary for life with 10 years certain.

Non-Vested: Refund of Member contributions, with 5.5% interest.

Cost of Living Adjustment:

Eligibility: Normal and Early service Retirees and Beneficiaries. COLA is not payable to Disability, Vested Terminated Retirees, or any Member hired after 3/31/2012.

Amount: 3.0% increase per year following one year of payments and the retiree's 55th birthday, ceasing on the retiree's 62nd birthday.

*Contributions*

Member Contributions: 5.0% of Salary. Members hired after 3/31/2012 contribute 3.0% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Investments

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2016:

Asset Class	Target Allocation
Domestic Equity	55%
International Equity	10%
Fixed Income	20%
Real Estate	10%
Hedge Funds	5%
Total	100%

*Concentrations:*

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

*Rate of Return:*

For the year ended September 30, 2016, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 7.89 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: Police officers hired prior to April 1, 2012 shall be eligible to participate in the DROP upon attaining age 50 or 25 years of credited service.

Participation: Not to exceed 60 months.

Rate of Return: A Member's DROP account will earn interest at the rate of 1.3 percent per annum, compounded monthly.

The DROP balance as September 30, 2016 is \$2,090,677.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2016 were as follows:

Total Pension Liability	\$ 65,006,262
Plan Fiduciary Net Position	<u>\$ (45,732,844)</u>
Sponsor's Net Pension Liability	<u>\$ 19,273,418</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	70.35%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2015 updated to September 30, 2016 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	4.00% - 6.00%
Discount Rate	7.50%
Investment Rate of Return	7.50%

*Mortality Rate Healthy 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 date of the most recent experience study for which significant assumptions are based upon is not available.

The Long-Term Expected Rate of Return on Pension Plan investments was 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 2016 the inflation rate assumption of the investment advisor was 2.30%.

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

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	7.42%
International Equity	7.00%
Fixed Income	2.42%
Real Estate	3.64%
Hedge Funds	2.76%

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**Discount Rate:**

The Discount Rate used to measure the Total Pension Liability was 7.50 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
	6.50%	7.50%	8.50%
Sponsor's Net Pension Liability	\$ 26,584,887	\$ 19,273,418	\$ 13,189,709



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

	<u>09/30/2016</u>	<u>09/30/2015</u>	<u>09/30/2014</u>
Total Pension Liability			
Service Cost	943,492	1,007,847	944,053
Interest	4,579,101	4,448,873	4,254,147
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	163,041	(860,949)	-
Changes of assumptions	653,912	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(2,888,940)</u>	<u>(2,701,145)</u>	<u>(2,630,150)</u>
Net Change in Total Pension Liability	3,450,606	1,894,626	2,568,050
Total Pension Liability - Beginning	<u>61,555,656</u>	<u>59,661,030</u>	<u>57,092,980</u>
Total Pension Liability - Ending (a)	<u><u>\$ 65,006,262</u></u>	<u><u>\$ 61,555,656</u></u>	<u><u>\$ 59,661,030</u></u>
Plan Fiduciary Net Position			
Contributions - Employer	1,985,560	1,737,998	1,672,462
Contributions - State	610,146	551,656	540,981
Contributions - Employee	211,259	211,290	229,089
Net Investment Income	3,396,084	335,023	4,746,677
Benefit Payments, including Refunds of Employee Contributions	<u>(2,888,940)</u>	<u>(2,701,145)</u>	<u>(2,630,150)</u>
Administrative Expense	(85,620)	(107,547)	(73,395)
Other	<u>3,639</u>	<u>5,198</u>	<u>5,556</u>
Net Change in Plan Fiduciary Net Position	3,232,128	32,473	4,491,220
Plan Fiduciary Net Position - Beginning	<u>42,500,716</u>	<u>42,468,243</u>	<u>37,977,023</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$ 45,732,844</u></u>	<u><u>\$ 42,500,716</u></u>	<u><u>\$ 42,468,243</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 19,273,418</u></u>	<u><u>\$ 19,054,940</u></u>	<u><u>\$ 17,192,787</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.35%	69.04%	71.18%
Covered Employee Payroll <sup>1</sup>	\$ 4,597,424	\$ 5,164,848	\$ 4,786,859
Net Pension Liability as a percentage of Covered Employee Payroll	419.22%	368.94%	359.17%

**Notes to Schedule:**

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

*Changes of assumptions:*

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

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

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution	2,595,706	2,289,654	2,213,443
Contributions in relation to the Actuarially Determined Contributions	2,595,706	2,289,654	2,213,443
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered Employee Payroll <sup>1</sup>	\$ 4,597,424	\$ 5,164,848	\$ 4,786,859
Contributions as a percentage of Covered Employee Payroll	56.46%	44.33%	46.24%

<sup>1</sup> The Covered Employee 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: 10/01/2014  
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.  
 Amortization Method: Level Percentage of Pay, Closed.  
 Remaining Amortization Period: 30 Years.  
 Mortality: RP-2000 Table projected to Valuation Date using Schedule AA. Disabled lives are set forward 5 years.

Termination Rates: See table on next page.  
 Disability Rates: See table on next page.  
 Normal Retirement Age: Hired prior to 04/01/2012: Earlier of 1) age 50 or 2) the completion of 25 years of credited service. The retirement rate for Members who have reached 25 years of service is 100%. See table on next page for additional rates.  
 Hired after 03/31/2012: Earlier of 1) age 60 with completion of 8 years of credited service, or 2) the completion of 30 years of credited service. The retirement rate for Members who have reached 30 years of service is 100%. See table on next page for additional rates.

Early Retirement Age: Hired prior to 04/01/2012: Earlier of 1) age 45 or 2) the completion of 20 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.  
 Hired after 03/31/2012: Attainment of age 45 and the completion of 20 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

Interest Rate: 7.50% per year, compounded annually, net of investment related expenses.  
 Salary Increases: See table on next page.  
 Post Retirement COLA: 3% per year at ages 55 through 62 for Service Retirees and surviving Beneficiaries. No COLA for Disability Retirees, Vested Terminated Members, or Members hired after 03/31/2012.

Payroll Growth: 2.7% per year for amortization of the Unfunded Actuarial Accrued Liability. The assumption was 4.7% for the 10/01/2012 valuation.

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### Actuarial Asset Method:

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

### Disability Rates:

Age	% Becoming Disabled During the	
	Year	
20	0.14%	
25	0.15%	
30	0.18%	
35	0.23%	
40	0.30%	
45	0.51%	
50	1.00%	

It is assumed that 75% of disablements and active Member deaths are service related.

### % Increase in Salary:

Years of Service	Increase
1	6.0%
2 - 9	5.5%
10 - 14	5.0%
15 - 19	4.5%
20+	4.0%

### Retirement Rates:

Number of Years After First Eligibility For Normal Retirement	Probability of Normal Retirement
0	30%
1	30%
2	30%
3	30%
4	30%
5	100%

### Mortality Rates:

Age	Male	Female
50	0.17%	0.13%
55	0.28%	0.24%
60	0.54%	0.47%
65	1.05%	0.90%
70	1.80%	1.56%
75	3.11%	2.51%
80	5.59%	4.16%

### Termination Rates:

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	20.0%
	1	16.0%
	2	14.0%
	3	12.0%
	4	10.0%
20	5+	10.0%
25		10.0%
30		8.8%
35		6.8%
40		4.8%
45		3.2%

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

	<u>09/30/2016</u>	<u>09/30/2015</u>	<u>09/30/2014</u>
Annual Money-Weighted Rate of Return			
Net of Investment Expense	7.89%	0.79%	12.60%

NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2017)

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 Council appointees;
- b. Two Members of the Plan elected by the Membership, and a
- c. Fifth Member elected by other four and appointed by Council as a ministerial duty.

Full-time employees who are classified as full-time sworn Police Officers participate in the Plan as a condition of employment.

*Plan Membership as of October 1, 2015:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	75
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	16
Active Plan Members	60
	151
	151

*Benefits Provided*

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

Normal Retirement:

Date: Hired prior to 4/1/2012: Earlier of age 50 or 25 years of Credited Service, regardless of age.

Hired after 3/31/2012: Earlier of age 60 with the completion of 8 years of Credited Service, or the completion of 30 years of Credited Service, regardless of age.

Benefit: Hired prior to 4/1/2012: Frozen accrued benefit as of 3/31/2012, plus a future service benefit of 3.0% of Final Average Compensation for each year of Credited Service beyond 3/31/2012.

Hired after 3/31/2012: 3.0% of Final Average Compensation for all years of Credited Service.

Early Retirement:

Date: Hired prior to 4/1/2012: Earlier of age 45 or 20 years of Credited Service, regardless of age.

Hired after 3/31/2012: Attainment of age 45 and the completion of 20 years of Credited Service.

Benefit: Accrued benefit, reduced 3% (5% for Members hired after 3/31/2012) for each year prior to Normal Retirement.

Vesting:

Schedule: 100% after 5 years (8 years for Members hired after 3/31/2012) of Credited Service.

Benefit: Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

Non-vested members receive a refund of member contributions accumulated with 5.5% interest.

Disability:

Eligibility: Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.

Benefit: Accrued benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).

Pre-Retirement Death Benefits:

Vested: Actuarially reduced accrued benefit payable to designated beneficiary for life with 10 years certain.

Non-Vested: Refund of Member contributions, with 5.5% interest.

Cost of Living Adjustment:

Eligibility: Normal and Early service Retirees and Beneficiaries. COLA is not payable to Disability, Vested Terminated Retirees, or any Member hired after 3/31/2012.

Amount: 3.0% increase per year following one year of payments and the retiree's 55th birthday, ceasing on the retiree's 62nd birthday.

*Contributions*

Member Contributions: 5.0% of Salary. Members hired after 3/31/2012 contribute 3.0% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Net Pension Liability

The measurement date is September 30, 2016.

The measurement period for the pension expense was October 1, 2015 to September 30, 2016.

The reporting period is October 1, 2016 through September 30, 2017.

The Sponsor's Net Pension Liability was measured as of September 30, 2016.

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, 2015 updated to September 30, 2016 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	4.00% - 6.00%
Discount Rate	7.50%
Investment Rate of Return	7.50%

*Mortality Rate Healthy 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 date of the most recent experience study for which significant assumptions are based upon is not available.

The Long-Term Expected Rate of Return on Pension Plan investments was 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 2016 the inflation rate assumption of the investment advisor was 2.30%.

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

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2016 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	55%	7.42%
International Equity	10%	7.00%
Fixed Income	20%	2.42%
Real Estate	10%	3.64%
Hedge Funds	5%	2.76%
Total	<u>100%</u>	

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.50 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, 2016	\$ 61,555,656	\$ 42,500,716	\$ 19,054,940
Changes for a Year:			
Service Cost	943,492	-	943,492
Interest	4,579,101	-	4,579,101
Differences between Expected and Actual Experience	163,041	-	163,041
Changes of assumptions	653,912	-	653,912
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,985,560	(1,985,560)
Contributions - State	-	610,146	(610,146)
Contributions - Employee	-	211,259	(211,259)
Net Investment Income	-	3,396,084	(3,396,084)
Benefit Payments, including Refunds of Employee Contributions	(2,888,940)	(2,888,940)	-
Administrative Expense	-	(85,620)	85,620
Other Changes	-	3,639	(3,639)
Net Changes	3,450,606	3,232,128	218,478
Reporting Period Ending September 30, 2017	\$ 65,006,262	\$ 45,732,844	\$ 19,273,418

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.50%	7.50%	8.50%
Sponsor's Net Pension Liability	\$ 26,584,887	\$ 19,273,418	\$ 13,189,709

*Pension Plan Fiduciary Net Position.*

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

**PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS**

For the year ended September 30, 2017, the Sponsor will recognize a Pension Expense of \$2,340,490.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	108,694	286,983
Changes of assumptions	435,942	-
Net difference between Projected and Actual Earnings on Pension Plan investments	768,005	-
Employer and State contributions subsequent to the measurement date	TBD	-
<b>Total</b>	<b>TBD</b>	<b>\$ 286,983</b>

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, 2017.

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

Year ended September 30:			
2018		\$	128,445
2019		\$	415,428
2020		\$	524,748
2021		\$	(42,963)
2022		\$	-
Thereafter		\$	-

**Payable to the Pension Plan**

On September 30, 2016, the Sponsor reported a payable of \$11,485 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2016.



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

Reporting Period Ending Measurement Date	09/30/2017 <u>09/30/2016</u>	09/30/2016 <u>09/30/2015</u>	09/30/2015 <u>09/30/2014</u>
Total Pension Liability			
Service Cost	943,492	1,007,847	944,053
Interest	4,579,101	4,448,873	4,254,147
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	163,041	(860,949)	-
Changes of assumptions	653,912	-	-
Benefit Payments, including Refunds of Employee Contributions	<u>(2,888,940)</u>	<u>(2,701,145)</u>	<u>(2,630,150)</u>
Net Change in Total Pension Liability	3,450,606	1,894,626	2,568,050
Total Pension Liability - Beginning	<u>61,555,656</u>	<u>59,661,030</u>	<u>57,092,980</u>
Total Pension Liability - Ending (a)	<u><u>\$ 65,006,262</u></u>	<u><u>\$ 61,555,656</u></u>	<u><u>\$ 59,661,030</u></u>
Plan Fiduciary Net Position			
Contributions - Employer	1,985,560	1,737,998	1,672,462
Contributions - State	610,146	551,656	540,981
Contributions - Employee	211,259	211,290	229,089
Net Investment Income	3,396,084	335,023	4,746,677
Benefit Payments, including Refunds of Employee Contributions	<u>(2,888,940)</u>	<u>(2,701,145)</u>	<u>(2,630,150)</u>
Administrative Expense	<u>(85,620)</u>	<u>(107,547)</u>	<u>(73,395)</u>
Other	<u>3,639</u>	<u>5,198</u>	<u>5,556</u>
Net Change in Plan Fiduciary Net Position	3,232,128	32,473	4,491,220
Plan Fiduciary Net Position - Beginning	<u>42,500,716</u>	<u>42,468,243</u>	<u>37,977,023</u>
Plan Fiduciary Net Position - Ending (b)	<u><u>\$ 45,732,844</u></u>	<u><u>\$ 42,500,716</u></u>	<u><u>\$ 42,468,243</u></u>
Net Pension Liability - Ending (a) - (b)	<u><u>\$ 19,273,418</u></u>	<u><u>\$ 19,054,940</u></u>	<u><u>\$ 17,192,787</u></u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	70.35%	69.04%	71.18%
Covered Employee Payroll <sup>1</sup>	\$ 4,597,424	\$ 5,164,848	\$ 4,786,859
Net Pension Liability as a percentage of Covered Employee Payroll	419.22%	368.94%	359.17%

**Notes to Schedule:**

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

*Changes of assumptions:*

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

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

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution	2,595,706	2,289,654	2,213,443
Contributions in relation to the Actuarially Determined Contributions	2,595,706	2,289,654	2,213,443
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered Employee Payroll <sup>1</sup>	\$ 4,597,424	\$ 5,164,848	\$ 4,786,859
Contributions as a percentage of Covered Employee Payroll	56.46%	44.33%	46.24%

<sup>1</sup> The Covered Employee 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: 10/01/2014

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.
Amortization Method:	Level Percentage of Pay, Closed.
Remaining Amortization Period:	30 Years.
Mortality:	RP-2000 Table projected to Valuation Date using Schedule AA. Disabled lives are set forward 5 years.
Termination Rates:	See table on next page.
Disability Rates:	See table on next page.
Normal Retirement Age:	Hired prior to 04/01/2012: Earlier of 1) age 50 or 2) the completion of 25 years of credited service. The retirement rate for Members who have reached 25 years of service is 100%. See table on next page for additional rates. Hired after 03/31/2012: Earlier of 1) age 60 with completion of 8 years of credited service, or 2) the completion of 30 years of credited service. The retirement rate for Members who have reached 30 years of service is 100%. See table on next page for additional rates.
Early Retirement Age:	Hired prior to 04/01/2012: Earlier of 1) age 45 or 2) the completion of 20 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. Hired after 03/31/2012: Attainment of age 45 and the completion of 20 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.
Interest Rate:	7.50% per year, compounded annually, net of investment related expenses.
Salary Increases:	See table on next page.
Post Retirement COLA:	3% per year at ages 55 through 62 for Service Retirees and surviving Beneficiaries. No COLA for Disability Retirees, Vested Terminated Members, or Members hired after 03/31/2012.
Payroll Growth:	2.7% per year for amortization of the Unfunded Actuarial Accrued Liability. The assumption was 4.7% for the 10/01/2012 valuation.

**GASB 68**

Actuarial Asset Method: All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Disability Rates:

Age	% Becoming Disabled During the Year
20	0.14%
25	0.15%
30	0.18%
35	0.23%
40	0.30%
45	0.51%
50	1.00%

It is assumed that 75% of disablements and active Member deaths are service related.

% Increase in Salary:

Years of Service	Increase
1	6.00%
2 - 9	5.50%
10 - 14	5.00%
15 - 19	4.50%
20+	4.00%

Retirement Rates:

Number of Years After First Eligibility For Normal Retirement	Probability of Normal Retirement
0	30.00%
1	30.00%
2	30.00%
3	30.00%
4	30.00%
5	100.00%

Mortality Rates:

Age	Male	Female
50	0.17%	0.13%
55	0.28%	0.24%
60	0.54%	0.47%
65	1.05%	0.90%
70	1.80%	1.56%
75	3.11%	2.51%
80	5.59%	4.16%

Termination Rates:

Sample Ages	Years of Service	% of Active Members Separating Within Next Year
ALL	0	20.00%
	1	16.00%
	2	14.00%
	3	12.00%
	4	10.00%
20	5+	10.00%
25		10.00%
30		8.80%
35		6.80%
40		4.80%
45		3.20%

**FINAL COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2016**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 17,192,787	\$ 1,526,551	\$ 2,289,654	\$ -
Employer and State Contributions made after 09/30/2015	-	-	2,595,706	-
Total Pension Liability Factors:				
Service Cost	1,007,847	-	-	1,007,847
Interest	4,448,873	-	-	4,448,873
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(860,949)	860,949	-	-
Current year amortization of experience difference	-	(286,983)	-	(286,983)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments	(2,701,145)	-	-	(2,701,145)
Net change	<u>1,894,626</u>	<u>573,966</u>	<u>2,595,706</u>	<u>2,468,592</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,737,998	-	(1,737,998)	-
Contributions - State	551,656	-	(551,656)	-
Contributions - Employee	211,290	-	-	(211,290)
Net Investment Income	3,173,578	-	-	(3,173,578)
Difference between projected and actual earnings on Pension Plan investments	(2,838,555)	-	2,838,555	-
Current year amortization	-	(381,637)	(567,711)	186,074
Benefit Payments	(2,701,145)	-	-	2,701,145
Administrative Expenses	(107,547)	-	-	107,547
Other	5,198	-	-	(5,198)
Net change	<u>32,473</u>	<u>(381,637)</u>	<u>(18,810)</u>	<u>(395,300)</u>
Ending Balance	<u>\$ 19,054,940</u>	<u>\$ 1,718,880</u>	<u>\$ 4,866,550</u>	<u>\$ 2,073,292</u>

**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2017**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 19,054,940	\$ 1,718,880	\$ 4,866,550	\$ -
Employer and State Contributions made after 09/30/2016	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	943,492	-	-	943,492
Interest	4,579,101	-	-	4,579,101
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	163,041	-	163,041	-
Current year amortization of experience difference	-	(286,983)	(54,347)	(232,636)
Change in assumptions about future economic or demographic factors or other inputs	653,912	-	653,912	-
Current year amortization of change in assumptions	-	-	(217,970)	217,970
Benefit Payments	(2,888,940)	-	-	(2,888,940)
Net change	<u>3,450,606</u>	<u>(286,983)</u>	<u>544,636</u>	<u>2,618,987</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,985,560	-	(1,985,560)	-
Contributions - State	610,146	-	(610,146)	-
Contributions - Employee	211,259	-	-	(211,259)
Net Investment Income	3,181,269	-	-	(3,181,269)
Difference between projected and actual earnings on Pension Plan investments	214,815	214,815	-	-
Current year amortization	-	(424,601)	(567,711)	143,110
Benefit Payments	(2,888,940)	-	-	2,888,940
Administrative Expenses	(85,620)	-	-	85,620
Other	3,639	-	-	(3,639)
Net change	<u>3,232,128</u>	<u>(209,786)</u>	<u>(3,163,417)</u>	<u>(278,497)</u>
Ending Balance	<u>\$ 19,273,418</u>	<u>\$ 1,222,111</u>	<u>TBD</u>	<u>\$ 2,340,490</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2016 but made on or before September 30, 2017 needs 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)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ (1,908,189)	5	\$ (381,638)	\$ (381,637)	\$ (381,638)	\$ (381,638)	\$ (381,638)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 2,838,555	5	\$ -	\$ 567,711	\$ 567,711	\$ 567,711	\$ 567,711	\$ 567,711	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (214,815)	5	\$ -	\$ -	\$ (42,963)	\$ (42,963)	\$ (42,963)	\$ (42,963)	\$ (42,963)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (381,638)	\$ 186,074	\$ 143,110	\$ 143,110	\$ 143,110	\$ 524,748	\$ (42,963)	\$ -	\$ -	\$ -	\$ -

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ -	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ -	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 653,912	3	\$ -	\$ -	\$ 217,970	\$ 217,971	\$ 217,971	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ -	\$ 217,970	\$ 217,971	\$ 217,971	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ -	3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (860,949)	3	\$ -	\$ (286,983)	\$ (286,983)	\$ (286,983)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 163,041	3	\$ -	\$ -	\$ 54,347	\$ 54,347	\$ 54,347	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ (286,983)	\$ (232,636)	\$ (232,636)	\$ 54,347	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -