

OKALOOSA ISLAND  
FIRE DISTRICT  
FIREFIGHTERS' RETIREMENT TRUST FUND

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2015

CONTRIBUTIONS APPLICABLE TO THE DISTRICT'S  
PLAN/FISCAL YEAR ENDED SEPTEMBER 30, 2017

February 24, 2016

Board of Trustees  
Okaloosa Island Fire District  
Firefighters' Retirement Trust Fund  
105 Santa Rosa Blvd.  
Ft. Walton Beach, FL 32548

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Okaloosa Island Fire District Firefighters' 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 175, 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.

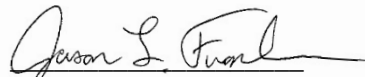
To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the Okaloosa Island Fire District, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Okaloosa Island Fire District Firefighters' 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:



Jason L. Franken, F.S.A.

Enrolled Actuary #14-6888

JLF/lke

Enclosures

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## INTRODUCTORY DISCUSSION

The regular annual actuarial valuation of the Okaloosa Island Fire District Firefighters' Retirement Trust Fund, performed as of October 1, 2015, has been completed, and the results are presented in this Report. The results of this valuation are applicable to the plan/fiscal year ended September 30, 2017.

The contribution requirements, compared with those developed in the October 1, 2014 actuarial valuation, are as follows:

Valuation Date	10/1/2015	10/1/2014
Applicable Fiscal Year End	<u>9/30/2017</u>	<u>9/30/2016</u>
Total Required Contribution % of Total Annual Payroll	76.9%	79.6%
Member Contributions (Est.) % of Total Annual Payroll	8.0%	8.0%
Required District and State Cont. % of Total Annual Payroll	68.9%	71.6%
State Contributions % of Total Annual Payroll	43,485 3.8%	43,485 3.8%
Balance from District % of Total Annual Payroll	65.1%	67.8%

The required contribution from the combination of District and State sources for the year ending September 30, 2017, is 68.9% of the actual payroll realized in that year. As a budgeting tool, the District may contribute 65.1% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received.

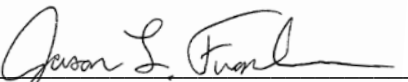
Please note the District has a contribution shortfall of \$85,867.44 in addition to the above stated requirements for fiscal 2016.

During the past 12 months, the actuarial experience was more favorable than expected, on the basis of the Plan's actuarial assumptions. The principal components of favorable experience included an 8.74% investment return (Actuarial Asset basis) that exceeded the 7.75% assumption, and average increases in Pensionable Earnings that were below the assumed rate. For a detailed analysis that displays the actuarial gain/loss by component, please refer to page 15 of this report.

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:   
Jason L. Franken, FSA, EA, MAAA

By:   
Drew D. Ballard, EA, MAAA

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2014	66.4%
(2) Summary of Contribution Impact by component:	
Change in Available State Money	1.2%
Investment Return (Actuarial Asset Basis)	-0.3%
Salary Increases	-2.0%
Payroll Change	-0.7%
Payroll Growth Assumption	0.0%
Amortization Base Payoffs	0.0%
New Entrants	0.1%
Active Decrements	0.0%
Inactive Mortality	0.2%
Data Corrections	0.0%
Assumption Change	0.0%
Other	<u>0.2%</u>
Total Change in Contribution	-1.3%
(3) Contribution Determined as of October 1, 2015	65.1%

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in Plan provisions since the prior valuation.

### Actuarial Assumption/Method Changes

There have been no changes in assumptions or methods since the prior valuation.



COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2015</u>	<u>10/1/2014</u>
A. Participant Data		
Number Included		
Actives	18	17
Service Retirees	11	11
Beneficiaries	0	0
Disability Retirees	1	1
Terminated Vested	<u>1</u>	<u>1</u>
Total	31	30
Total Annual Payroll		
	\$1,149,018	\$1,093,476
Payroll Under Assumed Ret. Age		
	1,149,018	1,093,476
Annual Rate of Payments to:		
Service Retirees	633,426	626,783
Beneficiaries	0	0
Disability Retirees	12,939	12,939
Terminated Vested	0	0
B. Assets		
Actuarial Value	6,546,079	5,853,835
Market Value	6,432,159	6,371,444
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	7,314,069	6,920,980
Disability Benefits	82,155	75,342
Death Benefits	38,938	41,031
Vested Benefits	561,916	578,681
Refund of Contributions	58,761	58,662
Service Retirees	8,618,103	8,568,404
Beneficiaries	0	0
Disability Retirees	138,327	140,476
Terminated Vested	62	62
Excess State Monies Reserve	<u>0</u>	<u>0</u>
Total	16,812,331	16,383,638

C. Liabilities - (Continued)	<u>10/1/2015</u>	<u>10/1/2014</u>
Present Value of Future Salaries	10,562,072	10,615,851
Present Value of Future Member Contributions	844,966	849,268
Normal Cost (Retirement)	261,075	243,360
Normal Cost (Disability)	5,448	4,175
Normal Cost (Death)	1,888	1,833
Normal Cost (Vesting)	27,865	31,520
Normal Cost (Refunds)	<u>10,576</u>	<u>9,959</u>
Total Normal Cost	306,852	290,847
Present Value of Future Normal Costs	2,736,367	2,732,375
Accrued Liability (Retirement)	4,955,152	4,573,880
Accrued Liability (Disability)	33,715	34,894
Accrued Liability (Death)	22,371	23,770
Accrued Liability (Vesting)	290,606	291,709
Accrued Liability (Refunds)	17,628	18,068
Accrued Liability (Inactives)	8,756,492	8,708,942
Excess State Monies Reserve	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability	14,075,964	13,651,263
Unfunded Actuarial Accrued Liability (UAAL)	7,529,885	7,797,428
Funded Ratio (AVA / AL)	46.5%	42.9%
 D. Actuarial Present Value of Accrued Benefits		
Vested Accrued Benefits		
Inactives	8,756,492	8,708,942
Actives	2,176,536	1,672,799
Member Contributions	<u>676,093</u>	<u>600,663</u>
Total	11,609,121	10,982,404
Non-vested Accrued Benefits	<u>462,647</u>	<u>567,132</u>
Total Present Value Accrued Benefits	12,071,768	11,549,536
Funded Ratio (MVA / PVAB)	53.3%	55.2%
 Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
New Accrued Benefits	306,318	
Benefits Paid	(653,839)	
Interest	869,753	
Other	<u>0</u>	
Total	522,232	

Valuation Date	10/1/2015	10/1/2014
Applicable to Fiscal Year Ending	<u>9/30/2017</u>	<u>9/30/2016</u>

E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll <sup>1</sup>	27.7	27.6
Administrative Expenses (with interest) % of Total Annual Payroll <sup>1</sup>	1.8	2.3
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2015, with interest) % of Total Annual Payroll <sup>1</sup>	47.4	49.7
Total Required Contribution % of Total Annual Payroll <sup>1</sup>	76.9	79.6
Expected Member Contributions % of Total Annual Payroll <sup>1</sup>	8.0	8.0
Expected District & State Contribution % of Total Annual Payroll <sup>1</sup>	68.9	71.6

F. Past Contributions

Plan Years Ending: 9/30/2015

Total Required Contribution	837,639
District and State Requirement	752,275

Actual Contributions Made:

Members (excluding buyback)	85,365
District	708,789
State	<u>43,485</u>
Total	837,639

G. Net Actuarial (Gain)/Loss (339,703)

<sup>1</sup> Contributions developed as of 10/1/2015 are expressed as a percentage of total annual payroll at 10/1/2015 of \$1,149,018.

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

<u>Year</u>	<u>Projected Unfunded Accrued Liability</u>
2015	7,529,885
2016	7,548,501
2017	7,548,792
2024	6,834,375
2031	4,082,556
2045	0

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2015	-0.38%	7.00%
Year Ended	9/30/2014	2.41%	7.00%
Year Ended	9/30/2013	0.14%	7.00%

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

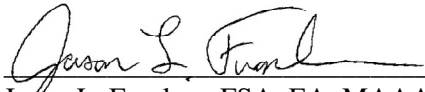
		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2015	8.74%	7.75%
Year Ended	9/30/2014	9.16%	7.75%
Year Ended	9/30/2013	8.86%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2015	\$1,149,018
	10/1/2005	579,869
(b) Total Increase		98.15%
(c) Number of Years		10.00
(d) Average Annual Rate		7.08%

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.



Jason L. Franken, FSA, EA, MAAA  
Enrolled Actuary #14-6888

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, 2014	\$7,797,428
(2) Sponsor Normal Cost developed as of October 1, 2014	203,369
(3) Expected administrative expenses for the year ended September 30, 2015	24,204
(4) Expected interest on (1), (2) and (3)	621,000
(5) Sponsor contributions to the System during the year ended September 30, 2015	752,275
(6) Expected interest on (5)	24,138
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2015 (1)+(2)+(3)+(4)-(5)-(6)	7,869,588
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	(339,703)
(10) Unfunded Accrued Liability as of October 1, 2015	7,529,885

Type of Base	Date Established	Years Remaining	10/1/2015 Amount	Amortization Amount
Benefit Improv.	10/1/1999	14	\$171,452	\$15,701
Benefit Improv.	10/1/2001	16	291,179	24,192
Benefit Improv.	10/1/2002	17	872,145	69,430
Method Change	10/1/2006	21	907,924	62,774
Actuarial Loss	10/1/2006	21	882,476	61,015
Actuarial Loss	10/1/2007	22	292,515	19,641
Actuarial Loss	10/1/2008	23	603,535	39,433
Assum Change	10/1/2008	23	211,306	13,806
Method Change	10/1/2008	23	(103,881)	(6,787)
Benefit Improv.	10/1/2008	23	2,078,832	135,823
Actuarial Loss	10/1/2009	24	1,000,552	63,722
Benefit Improv.	10/1/2009	24	291,540	18,567
Actuarial Loss	10/1/2010	25	351,007	21,826
Assum Changes	10/1/2010	25	479,427	29,811
Actuarial Loss	10/1/2011	26	476,782	28,987
Actuarial Gain	10/1/2012	27	(78,759)	(4,688)
Actuarial Gain	10/1/2013	28	(610,642)	(35,634)
Actuarial Gain	10/1/2014	29	(247,802)	(14,192)
Actuarial Gain	10/1/2015	30	<u>(339,703)</u>	<u>(19,114)</u>
			7,529,885	524,313

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2014	\$7,797,428
(2) Expected UAAL as of October 1, 2015	7,869,588
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(59,095)
Salary Increases	(384,938)
Active Decrements	(8,796)
Inactive Mortality	31,748
Other	<u>81,378</u>
Increase in UAAL due to (Gain)/Loss	(339,703)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2015	\$7,529,885

## ACTUARIAL ASSUMPTIONS AND METHODS

<u>Mortality Rate</u>	RP-2000 Mortality Table (Combined Healthy) with no projection. Disabled lives are set forward five years. We feel this assumption sufficiently accommodates expected mortality improvements.
<u>Interest Rate</u>	7.75% 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.
<u>Retirement Age</u>	Age 55 and 10 years of Credited Service, or age 52 and 25 years of Credited Service. Also, any Member who has reached Normal Retirement is assumed to continue employment for one additional year. We feel this is reasonable based on plan provisions.
<u>Early Retirement</u>	Commencing with the earliest Early Retirement Age (50), Members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year. We feel this is reasonable based on plan provisions.
<u>Disability Rate</u>	See table below (1201). It is assumed that 75% of Disability Retirees are service related. This assumption is consistent with those used by other plans containing Florida municipal Firefighters.
<u>Termination Rate</u>	See table below (1304A). This assumption is consistent with those used by other plans containing Florida municipal Firefighters.
<u>Salary Increases</u>	7.00% per year until the assumed retirement age; see table below. We feel this assumption is reasonable based upon long-term expectations.
<u>Administrative Expenses</u>	\$19,947 annually, based on prior year's actual expenses.
<u>Payroll Increase</u>	3.50% per year. This is in compliance with Part VII of Chapter 112, Florida Statutes.
<u>Funding Method</u>	Entry Age Normal Actuarial Cost Method.
<u>Actuarial Asset Method</u>	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric four-year average Market Value return (net of fees). It is possible that over time this technique will produce an insignificant bias above or below Market Value of Assets.



	<u>% Becoming Disabled During the Year</u>	<u>% Terminating During the Year</u>	<u>Current Salary as a % of Salary at Age 57</u>
20	0.03%	9.3%	8.2%
30	0.04%	7.9%	16.1%
40	0.07%	4.3%	31.7%
50	0.18%	1.1%	62.3%

## VALUATION NOTES

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

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	4,098.53	_____%
1999	20,782.77	407.1%
2000	8,815.32	-57.6%
2001	11,419.94	29.5%
2002	14,476.74	26.8%
2003	18,698.15	29.2%
2004	16,018.82	-14.3%
2005	19,156.56	19.6%
2006	28,570.91	49.1%
2007	43,058.82	50.7%
2008	54,556.78	26.7%
2009	38,584.60	-29.3%
2010	53,131.49	37.7%
2011	52,025.28	-2.1%
2012	51,623.31	-0.8%
2013	54,472.08	5.5%
2014	56,846.21	4.4%
2015	43,485.34	-23.5%

EXCESS STATE MONIES RESERVE

Firefighters' Distribution

	Regular Distribution			Special Distribution		
	<u>Actual State Contribution</u>	<u>Applicable "Frozen" Amount</u>	<u>Excess State Monies Reserve</u>	<u>Actual State Contribution</u>	<u>"Frozen" Amount</u>	<u>Excess State Monies Reserve</u>
1998	\$4,098.53	\$4,098.53	\$0.00	\$0.00	\$0.00	\$0.00
1999	20,782.77	4,098.53	16,684.24	0.00	0.00	0.00
2000	8,815.32	20,431.53	0.00	0.00	0.00	0.00
2001	11,419.94	20,431.53	0.00	0.00	0.00	0.00
2002	14,476.74	20,431.53	0.00	0.00	0.00	0.00
2003	18,698.15	20,431.53	0.00	0.00	0.00	0.00
2004	16,018.82	20,431.53	0.00	0.00	0.00	0.00
2005	19,156.56	20,431.53	0.00	0.00	0.00	0.00
2006	28,570.91	20,431.53	8,139.38	0.00	0.00	0.00
2007	43,058.82	113,574.53	0.00	0.00	0.00	0.00
2008	50,306.76	109,324.51	0.00	4,250.02	4,250.02	0.00
2009	26,273.65	275,197.58	0.00	12,310.95	12,310.95	0.00
2010	53,131.49	287,508.53	0.00	0.00	0.00	0.00
2011	52,025.28	287,508.53	0.00	0.00	0.00	0.00
2012	51,623.31	287,508.53	0.00	0.00	0.00	0.00
2013	54,472.08	287,508.53	0.00	0.00	0.00	0.00
2014	56,846.21	287,508.53	0.00	0.00	0.00	0.00
2015	43,485.34	287,508.53	<u>0.00</u>	0.00	0.00	<u>0.00</u>
			24,823.62			0.00
Accumulated Regular Excess			24,823.62			
Accumulated Special Excess			<u>0.00</u>			
Total Excess State Monies			24,823.62			
Less Amounts Used to Help Fund 3.0% B.R. & Supplement:			(24,823.62)			
Equals Current State Monies Reserve			\$0.00			

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2015

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	275,603.83	275,603.83
Total Cash and Equivalents	275,603.83	275,603.83
Receivables:		
Member Contributions in Transit	3,247.78	3,247.78
District Contributions in Transit	100,000.00	100,000.00
Additional District Contributions	85,867.44	85,867.44
State Contributions	43,485.34	43,485.34
Investment Income	19,292.30	19,292.30
Total Receivable	251,892.86	251,892.86
Investments:		
U. S. Bonds and Bills	642,294.27	666,660.45
Federal Agency Guaranteed Securities	9,561.09	10,854.58
Corporate Bonds	937,009.02	935,342.70
Stocks	3,260,251.92	3,431,650.35
Mutual Funds:		
Fixed Income	902,686.65	860,788.99
Total Investments	5,751,802.95	5,905,297.07
Total Assets	6,279,299.64	6,432,793.76
<u>LIABILITIES</u>		
Payables:		
Prepaid Member Contribution	634.33	634.33
Total Liabilities	634.33	634.33
NET POSITION RESTRICTED FOR PENSIONS	6,278,665.31	6,432,159.43

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2015  
Market Value Basis

ADDITIONS

Contributions:		
Member		85,364.50
Buy-Back		8,928.00
District		708,789.28
State		43,485.34
Total Contributions		846,567.12
Investment Income:		
Net Realized Gain (Loss)	329,133.66	
Unrealized Gain (Loss)	(576,891.35)	
Net Increase in Fair Value of Investments		(247,757.69)
Interest & Dividends		183,325.00
Less Investment Expense <sup>1</sup>		(47,633.50)
Net Investment Income		(112,066.19)
Total Additions		734,500.93
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments		632,579.16
Refunds of Member Contributions		21,259.97
Total Distributions		653,839.13
Administrative Expense		19,946.57
Total Deductions		673,785.70
Net Increase in Net Position		60,715.23
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		6,371,444.20
End of the Year		6,432,159.43

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

ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2015

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

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return*	
09/30/2012	16.71%	
09/30/2013	10.45%	
09/30/2014	10.46%	
09/30/2015	-1.79%	
Annualized Rate of Return for prior four (4) years:		8.74%
(A) 10/01/2014 Actuarial Assets:		\$5,853,834.53
(I) Net Investment Income:		
1. Interest and Dividends	183,325.00	
2. Realized Gains (Losses)	329,133.66	
3. Change in Actuarial Value	54,637.68	
4. Investment Related Expenses	(47,633.50)	
Total		519,462.84
(B) 10/01/2015 Actuarial Assets:		\$6,546,078.79
Actuarial Asset Rate of Return = 2I/(A+B-I):		8.74%
10/01/2015 Limited Actuarial Assets:		\$6,546,078.79
10/01/2015 Market Value of Assets:		\$6,432,159.43
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		\$59,095.38

\*Market Value Basis, net of investment related expenses.

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2015  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	85,364.50	
Buy-Back	8,928.00	
District	708,789.28	
State	43,485.34	
 Total Contributions		 846,567.12
Earnings from Investments:		
Interest & Dividends	183,325.00	
Net Realized Gain (Loss)	329,133.66	
Change in Actuarial Value	54,637.68	
 Total Earnings and Investment Gains		 567,096.34
	 EXPENDITURES	
Distributions to Members:		
Benefit Payments	632,579.16	
Refunds of Member Contributions	21,259.97	
 Total Distributions		 653,839.13
Expenses:		
Investment related <sup>1</sup>	47,633.50	
Administrative	19,946.57	
 Total Expenses		 67,580.07
 Change in Net Assets for the Year		 692,244.26
 Net Assets Beginning of the Year		 5,853,834.53
 Net Assets End of the Year <sup>2</sup>		 6,546,078.79

<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.



RECONCILIATION OF DISTRICT'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2015

(1) Total Required Contribution Rate	78.5%
(2) Pensionable Payroll Derived from Member Contributions	\$1,067,056.20
(3) Total Required Contribution (1) x (2)	837,639.12
(4) Less Actual Member Contributions	(85,364.50)
(5) Less Allowable State Contribution	<u>(43,485.34)</u>
(6) Equals Required District Contribution for Fiscal 2015	708,789.28
(7) Less 2014 Prepaid Contribution	0.00
(8) Less Actual District Contributions	<u>(622,921.84)</u>
(9) Equals District's Shortfall/(Prepaid) Contribution as of September 30, 2015	<u>\$85,867.44</u>

STATISTICAL DATA <sup>1</sup>

	<u>10/1/2012</u>	<u>10/1/2013</u>	<u>10/1/2014</u>	<u>10/1/2015</u>
<u>Actives</u>				
Number	18	17	17	18
Average Current Age	36.6	35.3	36.3	37.8
Average Age at Employment	25.9	26.4	26.8	27.7
Average Past Service	10.7	8.9	9.5	10.1
Average Annual Salary	\$60,800	\$64,197	\$64,322	\$63,834
<u>Service Retirees</u>				
Number			11	11
Average Current Age			59.0	60.0
Average Annual Benefit			\$56,980	\$57,584
<u>Beneficiaries</u>				
Number			0	0
Average Current Age			N/A	N/A
Average Annual Benefit			N/A	N/A
<u>Disability Retirees</u>				
Number			1	1
Average Current Age			65.0	66.0
Average Annual Benefit			\$12,939	\$12,939
<u>Terminated Vested</u>				
Number			1	1
Average Current Age			32.6	33.6
Average Annual Benefit			\$0	\$0

<sup>1</sup> Prior to 10/1/2013, averages were salary weighted.

## 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	1	0	0	0	0	0	0	0	0	0	0	1
30 - 34	0	0	0	0	0	6	2	0	0	0	0	8
35 - 39	0	1	0	0	0	1	1	0	0	0	0	3
40 - 44	0	0	0	0	0	0	1	0	0	0	0	1
45 - 49	0	0	0	0	0	1	0	1	0	0	0	2
50 - 54	0	0	0	0	0	0	0	1	0	1	0	2
55 - 59	0	1	0	0	0	0	0	0	0	0	0	1
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>18</b>

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2014	17
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	<u>0</u>
f. Continuing participants	16
g. New entrants	<u>2</u>
h. Total active life participants in valuation	18

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

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	11	0	1	1	13
Retired	0	0	0	0	0
Vested Deferred	0	0	0	0	0
Death, With Survivor	0	0	0	0	0
Death, No Survivor	0	0	0	0	0
Disabled	0	0	0	0	0
Refund of Contributions	0	0	0	0	0
Rehires	0	0	0	0	0
Expired Annuities	0	0	0	0	0
Data Corrections	0	0	0	0	0
b. Number current valuation	11	0	1	1	13

SUMMARY OF PLAN PROVISIONS  
(Through Resolution No. 01-14)

<u>Eligibility</u>	Full-time employees who are classified as full-time certified firefighters shall participate in the System as a condition of employment.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the District as a Firefighter.
<u>Salary</u>	W-2 compensation (excluding lump sum payments of unused sick and vacation pay) plus tax exempt, tax sheltered, and tax deferred items of income.
<u>Average Final Compensation</u>	Average Salary for the best 3 years during the 5 years immediately preceding retirement or termination.
<u>Member Contributions</u>	8.0% of Salary.
<u>District and State Contributions</u>	Remaining amount required in order to pay current costs and amortize any unfunded past service cost as provided in Part VII of Chapter 112, F.S.
<u>Normal Retirement</u>	
Date	Earlier of: 1) Age 55 and 10 years of Credited Service, or 2) Age 52 and 25 years of Credited Service.
Benefit	3.5% of Average Final Compensation <u>times</u> Credited Service.
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Early Retirement</u>	
Eligibility	Age 50 and 10 Years of Credited Service.
Benefit	Accrued benefit, reduced 3% for each year prior to Normal Retirement.
<u>Supplemental Monthly Benefit</u>	Normal and Early service retirees receive \$250 (reduced for Early) for life.
<u>Cost-of-Living Increase</u>	Normal or Early Retirees who retire after 3/18/2009 and their Beneficiaries or Joint Annuitants receive annual 3% benefit increases beginning the first 10/1 following 5 years of retirement.

Vesting

Schedule 100% after 10 years of Credited Service.

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

Disability

Eligibility

Service Incurred Covered from Date of Employment.

Non-Service Incurred 10 years of Credited Service.

Exclusions Disability resulting from use of drugs, illegal participation in riots, service in military, etc.

Benefit Benefit accrued to date of disability but not less than 42% of Average Final Compensation (if Service Incurred).

Duration Payable for life and ten years certain or until recovery (as determined by the Board). Options available.

Death Benefits

Pre-Retirement

Vested Monthly accrued benefit payable to designated beneficiary for 10 years.

Non-Vested Refund of accumulated contributions without interest.

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

Board of Trustees

Two District appointees, two Members of the Department elected by the membership, and a fifth Member elected by other 4 and appointed by the District.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2015

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	275,604
Total Cash and Equivalents	275,604
Receivables:	
Member Contributions in Transit	3,248
District Contributions in Transit	100,000
Additional District Contributions	85,868
State Contributions	43,485
Investment Income	19,292
Total Receivable	251,893
Investments:	
U. S. Bonds and Bills	666,660
Federal Agency Guaranteed Securities	10,855
Corporate Bonds	935,343
Stocks	3,431,650
Mutual Funds:	
Fixed Income	860,789
Total Investments	5,905,297
Total Assets	6,432,794
Total Liabilities	0
NET POSITION RESTRICTED FOR PENSIONS	6,432,794

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2015  
Market Value Basis

ADDITIONS

## Contributions:

Member	85,999	
Buy-Back	8,928	
District	708,789	
State	43,485	
 Total Contributions		 847,201
 Investment Income:		
Net Increase in Fair Value of Investments	(247,758)	
Interest & Dividends	183,325	
Less Investment Expense <sup>1</sup>	(47,633)	
 Net Investment Income		 (112,066)
 Total Additions		 735,135

DEDUCTIONS

## Distributions to Members:

Benefit Payments	632,579	
Lump Sum DROP Distributions	0	
Refunds of Member Contributions	21,260	
 Total Distributions		 653,839
 Administrative Expense		 19,947
 Total Deductions		 673,786
 Net Increase in Net Position		 61,349
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		6,371,445
 End of the Year		 6,432,794

<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, 2015)

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 District appointees,
- b. Two Members of the Department elected by the membership,
- c. Fifth Member elected by other four and appointed by District.

*Plan Membership as of October 1, 2014:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	17
	30
	30

*Benefits Provided*

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

Normal Retirement:

Date: Earlier of: 1) Age 55 and 10 years of Credited Service, or 2) Age 52 and 25 years of Credited Service.

Benefit: 3.5% of Average Final Compensation times Credited Service.

Early Retirement:

Eligibility: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year prior to Normal Retirement.

Supplemental Monthly Benefit:

Normal and Early service retirees receive \$250 (reduced for Early) for life.

Cost-of-Living Increase:

Normal or Early Retirees who retire after 03/18/2009 and their Beneficiaries or Joint Annuitants receive annual 3% benefit increases beginning the first 10/1 following 5 years of retirement.

Vesting:

Schedule: 100% after 10 years of Credited Service.

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

Disability Retirement:

Eligibility Service Incurred: Covered from Date of Employment

Non-Service Incurred: 10 years of Credited Service.

Benefit accrued to date of disability but not less than 42% of Average Final Compensation (if Service Incurred).

Death Benefits Pre-Retirement:

Vested: Monthly accrued benefit payable to designated beneficiary for 10 years.

Non-Vested: Refund of accumulated contributions without interest.

*Contributions*

Member Contributions: 8.0% of Salary.

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

## GASB 67

### Investments

#### *Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2015:

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic Equity	45%
International Equity	15%
Core Fixed Income	35%
Global Fixed Income	5%
<u>Total</u>	<u>100%</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, 2015, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was -1.79 percent.

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

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2015 were as follows:

Total Pension Liability	\$ 14,238,541
Plan Fiduciary Net Position	\$ (6,432,794)
Sponsor's Net Pension Liability	<u>\$ 7,805,747</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	45.18%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2014 updated to September 30, 2015 using the following actuarial assumptions.

Inflation	3.00%
Salary Increases	7.00%
Discount Rate	7.75%
Investment Rate of Return	7.75%

Mortality Rate: RP-2000 Mortality Table (Combined Healthy) with no projection. Disabled lives are set forward five years. We feel this assumption sufficiently accommodates expected mortality improvements.

The significant assumptions are based upon the most recent actuarial experience study dated August 26th, 2008 for the period 1993-2007.

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.

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, 2015 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return</u>
Domestic Equity	7.5%
International Equity	8.5%
Core Fixed Income	2.5%
Global Fixed Income	3.5%

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 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
	<u>6.75%</u>	<u>7.75%</u>	<u>8.75%</u>
Sponsor's Net Pension Liability	\$ 9,810,974	\$ 7,805,747	\$ 6,162,149

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

	09/30/2015	09/30/2014	09/30/2013
Total Pension Liability			
Service Cost	292,647	290,356	269,472
Interest	1,067,883	1,017,277	968,929
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(290,489)	-	-
Changes of assumptions	-	-	-
Contributions - Buy Back	8,928	-	-
Benefit Payments, including Refunds of Employee Contributions	(653,839)	(660,031)	(610,868)
Net Change in Total Pension Liability	425,130	647,602	627,533
Total Pension Liability - Beginning	13,813,411	13,165,809	12,538,276
Total Pension Liability - Ending (a)	<u>\$ 14,238,541</u>	<u>\$ 13,813,411</u>	<u>\$ 13,165,809</u>
Plan Fiduciary Net Position			
Contributions - Employer	708,789	673,090	723,752
Contributions - State	43,485	56,846	54,472
Contributions - Employee	85,999	79,884	83,456
Contributions - Buy Back	8,928	-	-
Net Investment Income	(112,066)	579,975	525,540
Benefit Payments, including Refunds of Employee Contributions	(653,839)	(660,031)	(610,868)
Administrative Expense	(19,947)	(24,204)	(24,161)
Net Change in Plan Fiduciary Net Position	61,349	705,560	752,191
Plan Fiduciary Net Position - Beginning	6,371,445	5,665,885	4,913,694
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,432,794</u>	<u>\$ 6,371,445</u>	<u>\$ 5,665,885</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 7,805,747</u>	<u>\$ 7,441,966</u>	<u>\$ 7,499,924</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	45.18%	46.13%	43.03%
Covered Employee Payroll*	\$ 1,119,731	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	697.11%	N/A	N/A

\*For the Fiscal years 2013 and 2014, the Covered Employee Payroll figures were not available.

SCHEDULE OF CONTRIBUTIONS

Last 10 Fiscal Years

	09/30/2015	09/30/2014	09/30/2013
Actuarially Determined Contribution	752,274	729,936	778,224
Contributions in relation to the Actuarially Determined Contributions	752,274	729,936	778,224
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered Employee Payroll*	\$ 1,119,731	N/A	N/A
Contributions as a percentage of Covered Employee Payroll	67.18%	N/A	N/A

\*For the Fiscal years 2013 and 2014, the Covered Employee Payroll figures were not available.

Notes to Schedule

Valuation Date: 10/01/2013  
 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 (as of 10/01/2013).  
 Inflation: 3.0% per year.  
 Mortality: RP 2000 Combined Healthy Mortality Table, with no projection. Disabled lives are set forward 5 years. Based on a study of over 650 public safety funds, this table reflects a 10% margin for future mortality improvements.  
 Interest Rate: 7.75% per year, compounded annually, net of investment related expenses.  
 Retirement Age: Age 55 and 10 years of Credited Service, or age 52 and 25 years of Credited Service. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year.  
 Early Retirement: Commencing with the earliest Early Retirement Age (50), members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year.  
 Disability Rates: See table on following page (1201). It is assumed that 75% of Disability Retirees are service related.  
 Termination Rates: See table on following page (1304A).  
 Salary Increases: 7.00% per year until the assumed retirement age.  
 Payroll Increase: 3.5% per year.  
 Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). It is possible that over time this technique will produce an insignificant bias above or below Market Value of Assets.

Termination and Disability Rate Table:	% Becoming	
	Disabled During the Year	% Terminating During the Year
Age		
20	0.03%	9.3%
30	0.04%	7.9%
40	0.07%	4.3%
50	0.18%	1.1%

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

	<u>09/30/2015</u>	<u>09/30/2014</u>	<u>09/30/2013</u>
Annual Money-Weighted Rate of Return			
Net of Investment Expense	-1.79%	10.46%	10.45%

NOTES TO THE FINANCIAL STATEMENTS  
(For the Year Ended September 30, 2015)

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 District appointees,
- b. Two Members of the Department elected by the membership,
- c. Fifth Member elected by other four and appointed by District.

Full-time employees who are classified as full-time certified firefighters shall participate in the System as a condition of employment.

*Plan Membership as of October 1, 2014:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	12
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	1
Active Plan Members	17
	30
	30

*Benefits Provided*

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

Normal Retirement:

Date: Earlier of: 1) Age 55 and 10 years of Credited Service, or 2) Age 52 and 25 years of Credited Service.

Benefit: 3.5% of Average Final Compensation times Credited Service.

Early Retirement:

Eligibility: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year prior to Normal Retirement.

Supplemental Monthly Benefit:

Normal and Early service retirees receive \$250 (reduced for Early) for life.

Cost-of-Living Increase:

Normal or Early Retirees who retire after 03/18/2009 and their Beneficiaries or Joint Annuitants receive annual 3% benefit increases beginning the first 10/1 following 5 years of retirement.

Vesting:

Schedule: 100% after 10 years of Credited Service.

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

Disability Retirement:

Eligibility Service Incurred: Covered from Date of Employment

Non-Service Incurred: 10 years of Credited Service.

Benefit accrued to date of disability but not less than 42% of Average Final Compensation (if Service Incurred).

Death Benefits Pre-Retirement:

Vested: Monthly accrued benefit payable to designated beneficiary for 10 years.

Non-Vested: Refund of accumulated contributions without interest.

*Contributions*

Member Contributions: 8.0% of Salary.

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

Net Pension Liability

The measurement date is September 30, 2015.

The measurement period for the pension expense was October 1, 2014 to September 30, 2015.

The reporting period is October 1, 2015 through September 30, 2016.

The Sponsor's Net Pension Liability was measured as of September 30, 2015.

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, 2014 updated to September 30, 2015 using the following actuarial assumptions.

Inflation	3.00%
Salary Increases	7.00%
Discount Rate	7.75%
Investment Rate of Return	7.75%

Mortality Rate: RP-2000 Mortality Table (Combined Healthy) with no projection. Disabled lives are set forward five years. We feel this assumption sufficiently accommodates expected mortality improvements.

The significant assumptions are based upon the most recent actuarial experience study dated August 26th, 2008 for the period 1993-2007.

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.

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, 2015 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	45%	7.50%
International Equity	15%	8.50%
Core Fixed Income	35%	2.50%
Global Fixed Income	5%	3.50%
<u>Total</u>	<u>100%</u>	

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.75 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, 2015	\$ 13,813,411	\$ 6,371,445	\$ 7,441,966
Changes for a Year:			
Service Cost	292,647	-	292,647
Interest	1,067,883	-	1,067,883
Differences between Expected and Actual Experience	(290,489)	-	(290,489)
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	708,789	(708,789)
Contributions - State	-	43,485	(43,485)
Contributions - Employee	-	85,999	(85,999)
Contributions - Buy Back	8,928	8,928	-
Net Investment Income	-	(112,066)	112,066
Benefit Payments, including Refunds of Employee Contributions	(653,839)	(653,839)	-
Administrative Expense	-	(19,947)	19,947
Net Changes	425,130	61,349	363,781
Reporting Period Ending September 30, 2016	\$ 14,238,541	\$ 6,432,794	\$ 7,805,747

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.75%	7.75%	8.75%
Sponsor's Net Pension Liability	\$ 9,810,974	\$ 7,805,747	\$ 6,162,149

*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, 2016, the Sponsor will recognize a Pension Expense of \$840,870.

On September 30, 2016, 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	-	242,075
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	408,459	-
Employer and State contributions subsequent to the measurement date	-	
<b>Total</b>	<b>\$ 408,459</b>	<b>\$ 242,075</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, 2016.

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:	
2017	\$ 46,899
2018	\$ 46,900
2019	\$ 46,900
2020	\$ 74,100
2021	\$ (48,415)
Thereafter	\$ -

**Payable to the Pension Plan**

On September 30, 2015, the Sponsor reported a payable of \$85,867 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2015.

## SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

Last 10 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2016 09/30/2015	09/30/2015 09/30/2014	09/30/2014 09/30/2013
Total Pension Liability			
Service Cost	292,647	290,356	269,472
Interest	1,067,883	1,017,277	968,929
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(290,489)	-	-
Changes of assumptions	-	-	-
Contributions - Buy Back	8,928	-	-
Benefit Payments, including Refunds of Employee Contributions	(653,839)	(660,031)	(610,868)
Net Change in Total Pension Liability	425,130	647,602	627,533
Total Pension Liability - Beginning	13,813,411	13,165,809	12,538,276
Total Pension Liability - Ending (a)	<u>\$ 14,238,541</u>	<u>\$ 13,813,411</u>	<u>\$ 13,165,809</u>
Plan Fiduciary Net Position			
Contributions - Employer	708,789	673,090	723,752
Contributions - State	43,485	56,846	54,472
Contributions - Employee	85,999	79,884	83,456
Contributions - Buy Back	8,928	-	-
Net Investment Income	(112,066)	579,975	525,540
Benefit Payments, including Refunds of Employee Contributions	(653,839)	(660,031)	(610,868)
Administrative Expense	(19,947)	(24,204)	(24,161)
Net Change in Plan Fiduciary Net Position	61,349	705,560	752,191
Plan Fiduciary Net Position - Beginning	6,371,445	5,665,885	4,913,694
Plan Fiduciary Net Position - Ending (b)	<u>\$ 6,432,794</u>	<u>\$ 6,371,445</u>	<u>\$ 5,665,885</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 7,805,747</u>	<u>\$ 7,441,966</u>	<u>\$ 7,499,924</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	45.18%	46.13%	43.03%
Covered Employee Payroll*	\$ 1,119,731	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	697.11%	N/A	N/A

\*For the Reporting Period Ending years 2014 and 2015, the Covered Employee Payroll figures were not available.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Reporting Period Ending	09/30/2016	09/30/2015	09/30/2014
Measurement Date	09/30/2015	09/30/2014	09/30/2013
Actuarially Determined Contribution	752,274	729,936	778,224
Contributions in relation to the Actuarially Determined Contributions	752,274	729,936	778,224
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -
Covered Employee Payroll*	\$ 1,119,731	N/A	N/A
Contributions as a percentage of Covered Employee Payroll	67.18%	N/A	N/A

\*For the Reporting Period Ending years 2014 and 2015, the Covered Employee Payroll figures were not available.

Notes to Schedule

Valuation Date: 10/01/2013

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 (as of 10/01/2013).  
 Inflation: 3.0% per year.  
 Mortality: RP 2000 Combined Healthy Mortality Table, with no projection. Disabled lives are set forward 5 years. Based on a study of over 650 public safety funds, this table reflects a 10% margin for future mortality improvements.  
 Interest Rate: 7.75% per year, compounded annually, net of investment related expenses.  
 Retirement Age: Age 55 and 10 years of Credited Service, or age 52 and 25 years of Credited Service. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year.  
 Early Retirement: Commencing with the earliest Early Retirement Age (50), members are assumed to retire with an immediate subsidized benefit at the rate of 2% per year.  
 Disability Rates: See table on following page (1201). It is assumed that 75% of Disability Retirees are service related.  
 Termination Rates: See table on following page (1304A).  
 Salary Increases: 7.00% per year until the assumed retirement age.  
 Payroll Increase: 3.5% per year.  
 Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). It is possible that over time this technique will produce an insignificant bias above or below Market Value of Assets.

Termination and Disability Rate Table:	% Becoming Disabled During the Year	% Terminating During the Year
Age	the Year	Year
20	0.03%	9.30%
30	0.04%	7.90%
40	0.07%	4.30%
50	0.18%	1.10%

FINAL COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2015

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 7,499,924	\$ -	\$ 729,936	\$ -
Employer and State Contributions made after 09/30/2014	-	-	752,274	-
Total Pension Liability Factors:				
Service Cost	290,356	-	-	290,356
Interest	1,017,277	-	-	1,017,277
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	-	-	-	-
Current year amortization of experience difference	-	-	-	-
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments	(660,031)	-	-	(660,031)
Net change	<u>647,602</u>	<u>-</u>	<u>752,274</u>	<u>647,602</u>
Plan Fiduciary Net Position:				
Contributions - Employer	673,090	-	(673,090)	-
Contributions - State	56,846	-	(56,846)	-
Contributions - Employee	79,884	-	-	(79,884)
Net Investment Income	443,973	-	-	(443,973)
Difference between projected and actual earnings on Pension Plan investments	136,002	136,002	-	-
Current year amortization	-	(27,201)	-	(27,201)
Benefit Payments	(660,031)	-	-	660,031
Administrative Expenses	(24,204)	-	-	24,204
Net change	<u>705,560</u>	<u>108,801</u>	<u>(729,936)</u>	<u>133,177</u>
Ending Balance	<u>\$ 7,441,966</u>	<u>\$ 108,801</u>	<u>\$ 752,274</u>	<u>\$ 780,779</u>

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

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 7,441,966	\$ 108,801	\$ 752,274	\$ -
Employer and State Contributions made after 09/30/2015	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	292,647	-	-	292,647
Interest	1,067,883	-	-	1,067,883
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	8,928	-	-	8,928
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(290,489)	290,489	-	-
Current year amortization of experience difference	-	(48,414)	-	(48,414)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments	(653,839)	-	-	(653,839)
Net change	<u>425,130</u>	<u>242,075</u>	<u>-</u>	<u>667,205</u>
Plan Fiduciary Net Position:				
Contributions - Employer	708,789	-	(708,789)	-
Contributions - State	43,485	-	(43,485)	-
Contributions - Employee	85,999	-	-	(85,999)
Contributions - Buy Back	8,928	-	-	(8,928)
Net Investment Income	500,507	-	-	(500,507)
Difference between projected and actual earnings on Pension Plan investments	(612,573)	-	612,573	-
Current year amortization	-	(27,201)	(122,514)	95,313
Benefit Payments	(653,839)	-	-	653,839
Administrative Expenses	(19,947)	-	-	19,947
Net change	<u>61,349</u>	<u>(27,201)</u>	<u>(262,215)</u>	<u>173,665</u>
Ending Balance	<u>\$ 7,805,747</u>	<u>\$ 323,675</u>	<u>TBD</u>	<u>\$ 840,870</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2015 but made on or before September 30, 2016 needs to be added.