

TOWN OF MEDLEY
POLICE OFFICERS' RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2016

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

March 2, 2017

Board of Trustees
Town of Medley
Police Officers' Retirement System
7331 NW 74th St.
Medley, FL 33166

Re: Town of Medley
Police Officers' Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the Town of Medley Police Officers' Retirement System. 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(s). 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 Town, 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.

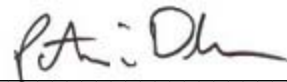
To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the Town of Medley, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Town of Medley Police Officers'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

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

Respectfully submitted,

Foster & Foster, Inc.

By:



Patrick T. Donlan, ASA, MAAA
Enrolled Actuary #14-6595

PTD/lke

Enclosures

TABLE OF CONTENTS

Section	Title	Page
I	<u>Introduction</u>	
	a. Introductory Discussion	5
	b. Changes Since Prior Valuation	7
	c. Comparative Summary of Principal Valuation Results	8
II	<u>Valuation Results</u>	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	14
	b. Actuarial Assumptions and Methods	15
	c. Glossary	17
	d. Partial History of Premium Tax Refunds	18
III	Trust Fund	19
IV	<u>Member Statistics</u>	
	a. Statistical Data	24
	b. Age and Service Distribution	25
	c. Member Reconciliation	26
V	Summary of Plan Provisions	27
VI	Governmental Accounting Standards Board Disclosure Information	29

INTRODUCTORY DISCUSSION

The regular annual actuarial valuation of the Town of Medley Police Officers' Retirement System, performed as of October 1, 2016, has been completed, and the results are presented in this Report. The results of this valuation are applicable to the Town's fiscal year ended September 30, 2018.

The contribution requirements developed in this valuation, compared with the amounts developed in the October 1, 2015 valuation are as follows:

Valuation Date	10/1/2016	10/1/2015
Applicable Plan/Fiscal Year End	<u>9/30/2018</u>	<u>9/30/2017</u>
Sponsor Required Contribution		
% of Pensionable Payroll	30.6%	31.1%
Applicable State Contribution ¹		
% of Pensionable Payroll	110,857 3.5%	110,857 3.5%
Balance From Town ²		
% of Pensionable Payroll	27.1%	27.6%

¹ Amount shown represents actual State Monies received in fiscal 2016. The Town may use contributions of up to \$703,459 for fiscal 2017, if received, in determining their requirement, based on “traditional” interpretation of Chapter 99-1, Florida Statutes.

² For budgeting purposes, the required Sponsor Contribution is 30.6% of Pensionable Earnings for the fiscal year ending September 30, 2018. The precise Town requirement for the year is this amount, less actual State Contributions (up to the maximum \$703,459). Please note, however, that it is our understanding that the current Union Contract expires September 30, 2017. When a new contract is entered into, then either Mutual Consent or the default methodology will determine the amount of State Monies available to offset Town funding requirements. Additionally, please note that there is a prepaid Town contribution of \$1,257,925.54 (see Page 23) which may be used to help offset the above stated requirement for fiscal 2017.

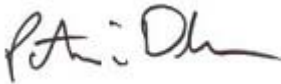
As can be seen, the Sponsor Required Contribution has decreased when expressed as a percentage of Pensionable Payroll. This decrease is a result of net favorable actuarial experience during the past year. The primary components of favorable experience included an 8.23% investment return (Actuarial Asset

Basis) that exceeded the 7.50% assumption and favorable retirement experience. These gains were partially offset by losses due to higher than expected salary increases and no inactive mortality experience. Please note that the funding requirements would have reduced further, were it not for the assumption changes outlined on the following page.

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: 
Patrick T. Donlan, ASA, MAAA

By: 
Julie E. Franken, EA, MAAA

CHANGES SINCE PRIOR VALUATION

Plan Changes

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

Actuarial Assumption/Method Changes

The valuation reflects the following assumption changes:

- The assumed rates of mortality were changed to match those used by the FRS for special risk employees in their July 1, 2015 valuation report.
- The withdrawal rates were increased 10%, based on results of the September 1, 2016 experience study.

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>
A. Participant Data			
Actives	38	38	37
Service Retirees	14	14	14
Beneficiaries	1	1	1
Disability Retirees	0	0	0
Terminated Vested	<u>2</u>	<u>2</u>	<u>2</u>
 Total	 55	 55	 54
 Total Annual Payroll	 \$3,158,981	 \$3,158,981	 \$2,885,418
Payroll Under Assumed Ret. Age	3,158,981	3,158,981	2,885,418
 Annual Rate of Payments to:			
Service Retirees	921,506	921,506	920,824
Beneficiaries	52,072	52,072	52,072
Disability Retirees	0	0	0
Terminated Vested	55,943	55,943	55,943
 B. Assets			
Actuarial Value (AVA)	19,850,369	19,850,369	18,192,002
Market Value (MVA)	20,890,026	20,890,026	18,843,266
 C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	15,869,070	15,722,267	14,148,000
Disability Benefits	696,974	799,313	750,562
Death Benefits	142,768	72,719	65,866
Vested Benefits	581,206	538,818	497,643
Refund of Contributions	59,346	54,830	53,182
Service Retirees	10,631,160	10,228,528	10,368,646
Beneficiaries	560,833	524,902	534,783
Disability Retirees	0	0	0
Terminated Vested	587,875	583,809	542,644
Excess State Monies Reserve	<u>0</u>	<u>0</u>	<u>0</u>
 Total	 29,129,232	 28,525,186	 26,961,326

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	22,755,063	23,361,085	22,096,975
Present Value of Future Member Contributions	1,137,753	1,168,054	1,104,849
FIL Normal Cost (Sponsor)	261,106	272,135	237,505
Present Value of Future Normal Costs (EAN)	4,622,962	4,784,912	4,612,287
Total Actuarial Accrued Liability (AL)	26,110,656	25,344,658	24,037,626
Unfunded Actuarial Accrued Liability (UAAL)	6,260,287	5,494,289	5,845,624
Funded Ratio (AVA / AL)	76.0%	78.3%	75.7%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2016</u>	Old Assump <u>10/1/2016</u>	<u>10/1/2015</u>
Vested Accrued Benefits			
Inactives	11,779,868	11,337,239	11,446,073
Actives	8,140,124	7,952,700	7,110,666
Member Contributions	<u>979,188</u>	<u>979,188</u>	<u>831,354</u>
Total	20,899,180	20,269,127	19,388,093
Non-vested Accrued Benefits	<u>1,125,090</u>	<u>1,116,415</u>	<u>999,063</u>
Total Present Value Accrued Benefits (PVAB)	22,024,270	21,385,542	20,387,156
Funded Ratio (MVA / PVAB)	94.9%	97.7%	92.4%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	638,728	0	
New Accrued Benefits	0	479,261	
Benefits Paid	0	(973,409)	
Interest	0	1,492,534	
Other	<u>0</u>	<u>0</u>	
Total	638,728	998,386	

	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

Sponsor Normal Cost (with interest) % of Total Annual Payroll ¹	8.6	8.9	8.5
Administrative Expenses (with interest) % of Total Annual Payroll ¹	1.1	1.1	1.3
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2016, with interest) % of Total Annual Payroll ¹	20.9	18.9	21.3
Required Town and State Contribution % of Total Annual Payroll ¹	30.6	28.9	31.1

F. Past Contributions

Plan Years Ending:	<u>9/30/2016</u>
Town and State Requirement	1,014,144
Actual Contributions Made:	
Members (excluding buyback)	147,834
Town	903,287
State	<u>110,857</u> ²
Total	1,161,978

G. Net Actuarial (Gain)/Loss

N/A

¹ Contributions developed as of 10/1/2016 are expressed as a percentage of total annual payroll at 10/1/2016 of \$3,158,981.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2016	6,260,287
2017	6,045,517
2018	5,814,639
2025	3,633,686
2032	1,124,722
2039	550,846
2046	0

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	7.56%	5.26%
Year Ended	9/30/2015	4.03%	5.22%
Year Ended	9/30/2014	3.80%	5.20%

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2016	8.23%	7.50%
Year Ended	9/30/2015	10.33%	7.50%
Year Ended	9/30/2014	9.69%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2016	\$3,158,981
	10/1/2006	2,183,767
(b) Total Increase		44.66%
(c) Number of Years		10.00
(d) Average Annual Rate		3.76%

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.



Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #14-6595

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	\$5,845,624
(2) Sponsor Normal Cost developed as of October 1, 2015	237,505
(3) Expected administrative expenses for the year ended September 30, 2016	35,551
(4) Expected interest on (1), (2) and (3)	457,568
(5) Sponsor contributions to the System during the year ended September 30, 2016	1,014,144
(6) Expected interest on (5)	67,815
(7) Unfunded Actuarial Accrued Liability as of September 30, 2016 (1)+(2)+(3)+(4)-(5)-(6)	5,494,289
(8) Change to UAAL due to Assumption Change	765,998
(9) Unfunded Actuarial Accrued Liability as of October 1, 2016	6,260,287

<u>Date</u> <u>Established</u>	<u>Years</u> <u>Remaining</u>	<u>10/1/2016</u> <u>Amount</u>	<u>Amortization</u> <u>Amount</u>
10/1/2010	14	\$4,538,558	\$497,330
10/1/2011	25	550,460	45,937
10/1/2013	27	405,271	32,950
10/1/2016	30	<u>765,998</u>	<u>60,333</u>
		6,260,287	636,550

ACTUARIAL ASSUMPTIONS AND METHODS

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

Disabled Lives:

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

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

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

Previously, the RP 2000 Combined Healthy – Sex Distinct with disabled lives set forward 5 years was utilized.

75% of active deaths are assumed to happen in the line of duty.

Interest Rate

7.5% per year compounded annually, net of investment related expenses. This is supported by the target asset class allocation of the trust and the expected long-term return by asset class.

Retirement Age

Earlier of Age 55 and 10 years of service or Age 52 and 25 years of service. Also, any member who has reached the above criteria is assumed to continue employment for one additional year. We feel that this assumption is reasonable based on Plan provisions.

Early Retirement

Commencing with the earliest Early Retirement Age (50), members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. We feel that this assumption is reasonable based on Plan provisions.

Disability Rates

See table below. It is assumed that 75% of disablements and active Member deaths are service related. This assumption was developed from those used by other plans containing Florida municipal Police Officers.

Termination Rate

See table below. This assumption was developed based on an experience study preformed September 1, 2016.

Salary Increases

APH Table S-5 + 2.5%; see table below. Projected salary in the year of retirement is increased 20% to account for non-regular compensation. This assumption is consistent with long term Plan experience.

Administrative Expenses

\$34,180 annually. This is equal to the non-investment-related expenses from the prior year.

Payroll Increase

N/A (UAAL amortized as level dollar).

Funding Method

Frozen Initial Liability Cost Method.

Acturial Asset Method

Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-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.

<u>Age</u>	<u>% Becoming Disabled During the Year</u>	<u>% Terminating During the Year</u>	<u>% of Salary Increase</u>
20	0.14%	6.60%	6.68% (age 25)
30	0.18%	5.50%	6.07%
40	0.30%	2.86%	5.22%
50	1.00%	0.88%	4.62%

GLOSSARY

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

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

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded.

Total Required Contribution is equal to the Normal Cost plus administrative expenses adjusted for interest according to the timing of contributions during the year.

Frozen Initial Liability Funding 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 Actuarial Accrued Liability (UAAL). The UAAL is reconciled each valuation with charges and credits as follows:

- (a) Charges: the Normal Cost for the prior year, in addition to interest (at the valuation assumption of 7.5%) on the Normal Cost and prior year's UAAL balance.
- (b) Credits: Sponsor contributions with interest at the valuation assumption of 7.5%.

New UAAL bases will be created only for changes in methods, assumptions, or benefits. Actuarial gains and losses are funded as part of the Normal Cost.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
2006	50,461.55	_____%
2007	58,214.43	15.4%
2008	44,764.83	-23.1%
2009	73,584.94	64.4%
2010	64,298.13	-12.6%
2011	56,266.95	-12.5%
2012	72,718.45	29.2%
2013	73,866.06	1.6%
2014	109,520.58	48.3%
2015	120,320.93	9.9%
2016	110,856.60	-7.9%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2016

<u>ASSETS</u>	MARKET VALUE
Investments:	
Mutual Funds:	
Fixed Income	6,378,526.88
Equity	15,769,425.05
Total Investments	22,147,951.93
Total Assets	22,147,951.93
 <u>LIABILITIES</u>	
Prepaid Town Contribution	1,257,925.54
Total Liabilities	1,257,925.54
 NET POSITION RESTRICTED FOR PENSIONS	 20,890,026.39

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

ADDITIONS

Contributions:		
Member	147,834.38	
Town	903,287.25	
State	110,856.60	
 Total Contributions		 1,161,978.23
Investment Income:		
Net Increase in Fair Value of Investments	1,894,371.02	
Less Investment Expense ¹	(2,000.00)	
 Net Investment Income		 1,892,371.02
 Total Additions		 3,054,349.25
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	973,408.87	
Refunds of Member Contributions	0.00	
 Total Distributions		 973,408.87
 Administrative Expense		 34,179.76
 Total Deductions		 1,007,588.63
 Net Increase in Net Position		 2,046,760.62
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		18,843,265.77
 End of the Year		 20,890,026.39

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

ACTUARIAL ASSET VALUATION
SEPTEMBER 30, 2016

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 ¹	
09/30/2013	15.36%	
09/30/2014	9.09%	
09/30/2015	-0.25%	
09/30/2016	9.31%	
Annualized Rate of Return for prior four (4) years:		8.23%
(A) 10/01/2015 Actuarial Assets:		\$18,192,002.42
(I) Net Investment Income:		
1. Interest and Dividends	0.00	
2. Realized Gains (Losses)	0.00	
3. Change in Actuarial Value	1,505,976.73	
4. Investment Related Expenses	(2,000.00)	
Total		1,503,976.73
(B) 10/01/2016 Actuarial Assets:		\$19,850,368.75
Actuarial Asset Rate of Return = 2I/(A+B-I):		8.23%
10/01/2016 Limited Actuarial Assets:		\$19,850,368.75
10/01/2016 Market Value of Assets:		\$20,890,026.39
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		\$133,402.55

¹Market Value Basis, net of investment related expenses.

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

REVENUES

Contributions:		
Member	147,834.38	
Town	903,287.25	
State	110,856.60	
Total Contributions		1,161,978.23
Earnings from Investments:		
Change in Actuarial Value	1,505,976.73	
Total Earnings and Investment Gains		1,505,976.73

EXPENDITURES

Distributions to Members:		
Benefit Payments	973,408.87	
Refunds of Member Contributions	0.00	
Total Distributions		973,408.87
Expenses:		
Investment related ¹	2,000.00	
Administrative	34,179.76	
Total Expenses		36,179.76
Change in Net Assets for the Year		1,658,366.33
Net Assets Beginning of the Year		18,192,002.42
Net Assets End of the Year ²		19,850,368.75

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

²Net Assets may be limited for actuarial consideration.

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

(1) Total Required Contribution Rate	39.3%
(2) Pensionable Payroll Derived from Member Contributions	2,956,687.60
(3) Total Required Contribution (1) x (2)	1,161,978.23
(4) Less Actual Member Contributions	(147,834.38)
(5) Less Allowable State Contribution	<u>(110,856.60)</u>
(6) Equals Required Town Contribution for Fiscal 2016	903,287.25
(7) Less 2015 Prepaid Contribution	(1,111,184.95)
(8) Less Actual Town Contributions	<u>(1,050,027.84)</u>
(9) Equals Town's Shortfall/(Prepaid) Contribution as of September 30, 2016	(1,257,925.54)

STATISTICAL DATA

	<u>10/1/2013</u>	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2016</u>
<u>Actives</u>				
Number	37	37	37	38
Average Current Age	41.8	41.4	41.4	41.8
Average Age at Employment	30.6	30.8	31.0	30.6
Average Past Service	11.2	10.6	10.4	11.2
Average Annual Salary	\$77,828	\$77,880	\$77,984	\$83,131
<u>Service Retirees</u>				
Number		13	14	14
Average Current Age		59.9	60.1	61.1
Average Annual Benefit		\$64,974	\$65,773	\$65,822
<u>Beneficiaries</u>				
Number		0	1	1
Average Current Age		N/A	63.3	64.3
Average Annual Benefit		N/A	\$52,072	\$52,072
<u>Disability Retirees</u>				
Number		0	0	0
Average Current Age		N/A	N/A	N/A
Average Annual Benefit		N/A	N/A	N/A
<u>Terminated Vested</u>				
Number		3	2	2
Average Current Age		47.8	36.3	37.3
Average Annual Benefit ¹		\$50,306	\$55,943	\$55,943

¹ The Average Annual Benefit excludes participants awaiting a refund of contributions.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	1	0	0	0	0	0	0	0	0	0	0	1
25 - 29	0	2	1	0	0	1	0	0	0	0	0	4
30 - 34	0	1	0	0	1	1	0	0	0	0	0	3
35 - 39	0	0	1	2	0	3	1	0	0	0	0	7
40 - 44	0	1	1	0	0	3	1	1	0	0	0	7
45 - 49	0	0	0	0	0	2	1	0	4	1	0	8
50 - 54	0	0	0	1	0	1	0	0	1	0	2	5
55 - 59	0	0	0	0	0	0	0	0	1	0	0	1
60 - 64	0	0	0	0	0	0	0	1	0	1	0	2
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	4	3	3	1	11	3	2	6	2	2	38

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2015	37
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
ii. Non-vested or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	<u>0</u>
f. Continuing participants	37
g. New entrants	<u>1</u>
h. Total active life participants in valuation	38

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	14	1	0	2	17
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	14	1	0	2	17

POLICE OFFICERS'
RETIREMENT SYSTEM

<u>Eligibility</u>	Employees who are classified as full-time sworn police officers 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 Town as a Police Officer.
<u>Salary</u>	Total W-2 compensation plus tax exempt, tax sheltered, and tax deferred items of income (including overtime payments up to 300 hours per calendar year, but not including payments for extra duty or special detail work for second party employer). Additionally, Salary shall exclude payments for unused, accrued sick and annual leave hours earned on or after December 5, 2011.
<u>Average Final Compensation</u>	Average Salary for the best 5 years during the 10 years immediately preceding retirement or termination.
<u>Member Contributions</u>	5.0% of Salary.
<u>Town and State Contributions</u>	Remaining amount required in order to pay current costs and amortize any unfunded past service cost over 30 years.
<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	3.0% of Average Final Compensation <u>times</u> Credited Service (maximum 75% for those hired on and after October 1, 2008).
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>Vesting</u>	
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 (no imputing).
<u>Disability</u>	

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 under 2.5% benefit accrual rate but not less than 42% of Average Final Compensation (if Service Incurred) or 25% of Average Final Compensation (if not in-line-of-duty).

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 at otherwise Normal Retirement Date or Early Retirement Date (reduced).

Non-Vested

Refund of accumulated contributions without interest.

Post-Retirement

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

Cost-of-Living Adjustment (COLA)

Effective January 1, 2015, all future retirees, including terminated vested members, disability retirees and pre-retirement death beneficiaries are entitled to a 1.0% annual COLA from benefit commencement date until the date the member attains or would have attained age 62.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2016

<u>ASSETS</u>	MARKET VALUE
Total Cash and Equivalents	0
Total Receivable	0
Investments:	
Mutual Funds:	
Fixed Income	6,378,527
Equity	15,769,425
Total Investments	22,147,952
Total Assets	22,147,952
Total Liabilities	0
NET POSITION RESTRICTED FOR PENSIONS	22,147,952

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

ADDITIONS

Contributions:

Member	147,834	
Town	1,050,000	
State	110,857	
 Total Contributions		 1,308,691
 Investment Income:		
Net Increase in Fair Value of Investments	1,894,371	
Less Investment Expense ¹	(2,000)	
 Net Investment Income		 1,892,371
 Total Additions		 3,201,062

DEDUCTIONS

Distributions to Members:

Benefit Payments	973,409	
Refunds of Member Contributions	0	
 Total Distributions		 973,409
 Administrative Expense		 34,179
 Total Deductions		 1,007,588
 Net Increase in Net Position		 2,193,474
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		19,954,478
 End of the Year		 22,147,952

¹Investment 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 Board of Trustees of the Town of Medley Police Officers' Retirement System. The Plan Administrator is responsible for the overall administration of the Plan. It has discretionary authority to construe the terms of the Plan and make determinations on questions that may affect eligibility for benefits. The Plan Administrator may also retain the services of attorneys, accountants, actuaries, investment advisors and other professionals.

Plan Membership as of October 1, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	15
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2
Active Plan Members	37
	54
	54

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: 3.0% of Average Final Compensation times Credited Service (maximum 75% for those hired on and after October 1, 2008).

Early Retirement:

Eligibility: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year prior to Normal 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 (no imputing).

Disability:

Eligibility: Service Incurred: Covered from Date of Employment. Non-Service Incurred: 10 years of Credited Service.

Benefit accrued to date of disability under 2.5% benefit accrual rate but not less than 42% of Average Final Compensation (if Service Incurred) or 25% of Average Final Compensation (if not in-line-of-duty).

Pre-Retirement Death Benefits:

Vested: Monthly accrued benefit payable to designated beneficiary for 10 years at otherwise Normal Retirement Date or Early Retirement Date (reduced).

Non-Vested: Refund of accumulated contributions without interest.

Cost-of-Living Adjustment (COLA):

Effective January 1, 2015, all future retirees, including terminated vested members, disability retirees and pre-retirement death beneficiaries are entitled to a 1.0% annual COLA from benefit commencement date until the date the member attains or would have attained age 62.

Contributions

Member Contributions: 5.0% of Salary.

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

Investments

Investment Policy:

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

<u>Asset Class</u>	<u>Target Allocation</u>
Domestic Equity	54%
International Equity	10%
Fixed Income	15%
Cash	15%
Real Estate Equity	6%
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 9.31 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, 2016 were as follows:

Total Pension Liability	\$ 24,281,295
Plan Fiduciary Net Position	\$ (22,147,952)
Sponsor's Net Pension Liability	<u>\$ 2,133,343</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>91.21%</u>

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	2.50%
Salary Increases	4.62% - 6.68%
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 most recent actuarial experience study used to review the other significant assumptions was dated September 1, 2016.

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 2.50%.

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

Best estimates of 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	5.75%
International Equity	5.75%
Fixed Income	0.75%
Cash	0.00%
Real Estate Equity	5.75%

GASB 67

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	\$ 4,952,912	\$ 2,133,343	\$ (226,477)

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

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	618,350	610,822	616,903
Interest	1,704,592	1,638,723	1,541,234
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(362,464)	(413,419)	-
Changes of assumptions	697,984	-	-
Benefit Payments, including Refunds of Employee Contributions	(973,409)	(957,396)	(747,028)
Net Change in Total Pension Liability	1,685,053	878,730	1,411,109
Total Pension Liability - Beginning	22,596,242	21,717,512	20,306,403
Total Pension Liability - Ending (a)	<u>\$ 24,281,295</u>	<u>\$ 22,596,242</u>	<u>\$ 21,717,512</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,050,000	2,067,552	1,165,048
Contributions - State	110,857	120,321	109,521
Contributions - Employee	147,834	141,697	141,619
Net Investment Income	1,892,371	(50,344)	1,596,653
Benefit Payments, including Refunds of Employee Contributions	(973,409)	(957,396)	(747,028)
Administrative Expense	(34,179)	(35,551)	(28,220)
Net Change in Plan Fiduciary Net Position	2,193,474	1,286,279	2,237,592
Plan Fiduciary Net Position - Beginning	19,954,478	18,668,199	16,430,607
Plan Fiduciary Net Position - Ending (b)	<u>\$ 22,147,952</u>	<u>\$ 19,954,478</u>	<u>\$ 18,668,199</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,133,343</u>	<u>\$ 2,641,764</u>	<u>\$ 3,049,313</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.21%	88.31%	85.96%
Covered Employee Payroll ¹	\$ 2,956,688	\$ 2,943,855	\$ 2,832,374
Net Pension Liability as a percentage of Covered Employee Payroll	72.15%	89.74%	107.66%

Notes to Schedule:

¹ 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, amounts reported as changes of assumptions resulted from the following changes:

- The assumed rates of mortality were changed to match those used by the FRS for special risk employees in their July 1, 2015 valuation report.
- The withdrawal rates were increased 10%, based on results of the September 1, 2016 experience study.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution	1,014,144	1,076,688	1,274,568
Contributions in relation to the Actuarially Determined Contributions	1,160,857	2,187,873	1,274,568
Contribution Deficiency (Excess)	\$ (146,713)	\$ (1,111,185)	\$ -
Covered Employee Payroll ¹	\$ 2,956,688	\$ 2,943,855	\$ 2,832,374
Contributions as a percentage of Covered Employee Payroll	39.26%	74.32%	45.00%

¹ 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 revised 05/20/2015
Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding Method: Frozen Initial Liability Cost Method.
Amortization Method: Level Dollar.
Remaining Amortization Period: 29 Years (as of 10/01/2014).
Mortality: RP-2000 Table with no projection. Based on a study of over 650 public safety funds, this table reflects a 10% margin for future mortality improvements.
Interest Rate: 7.5% per year compounded annually, net of investment related expenses.
Retirement Age: Earlier of Age 55 and 10 years of service or Age 52 and 25 years of service. Also, any member who has reached the above criteria 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 5% per year.
Disability Rates: See table below. It is assumed that 75% of disablements and active Member deaths are service related.
Termination Rates: See table below (1302).
Salary Increases: APH Table S-5 + 2.5%; see table below. Projected salary in the year of retirement is increased based on individual accruals to account for non-regular compensation.

Payroll Increase: N/A (UAAL amortized as level dollar).
Cost-of-Living Adjustment: 1.0% annually until attainment of age 62.
Actuarial Asset Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-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.

Termination and Disability Rate Table:	% Becoming Disabled During the Year	% Terminating During the Year
Age		
20	0.14%	6.00%
30	0.18%	5.00%
40	0.30%	2.60%
50	1.00%	0.80%

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	9.31%	-0.25%	9.09%

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 Board of Trustees of the Town of Medley Police Officers' Retirement System. The Plan Administrator is responsible for the overall administration of the Plan. It has discretionary authority to construe the terms of the Plan and make determinations on questions that may affect eligibility for benefits. The Plan Administrator may also retain the services of attorneys, accountants, actuaries, investment advisors and other professionals. Employees who are classified as full-time sworn police officers shall participate in the System as a condition of employment.

Plan Membership as of October 1, 2015:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	15
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2
Active Plan Members	37
	54
	54

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: 3.0% of Average Final Compensation times Credited Service (maximum 75% for those hired on and after October 1, 2008).

Early Retirement:

Eligibility: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% for each year prior to Normal 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 (no imputing).

Disability:

Eligibility: Service Incurred: Covered from Date of Employment. Non-Service Incurred: 10 years of Credited Service.

Benefit accrued to date of disability under 2.5% benefit accrual rate but not less than 42% of Average Final Compensation (if Service Incurred) or 25% of Average Final Compensation (if not in-line-of-duty).

Pre-Retirement Death Benefits:

Vested: Monthly accrued benefit payable to designated beneficiary for 10 years at otherwise Normal Retirement Date or Early Retirement Date (reduced).

Non-Vested: Refund of accumulated contributions without interest.

Cost-of-Living Adjustment (COLA):

Effective January 1, 2015, all future retirees, including terminated vested members, disability retirees and pre-retirement death beneficiaries are entitled to a 1.0% annual COLA from benefit commencement date until the date the member attains or would have attained age 62.

Contributions

Member Contributions: 5.0% of Salary.

Town and State Contributions: Remaining amount required in order to pay current costs and amortize any unfunded past service cost 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	2.50%
Salary Increases	4.62% - 6.68%
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 most recent actuarial experience study used to review the other significant assumptions was dated September 1, 2016.

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 2.50%.

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

Best estimates of 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:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	54%	5.75%
International Equity	10%	5.75%
Fixed Income	15%	0.75%
Cash	15%	0.00%
Real Estate Equity	6%	5.75%
Total	100%	

GASB 68

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	\$ 22,596,242	\$ 19,954,478	\$ 2,641,764
Changes for a Year:			
Service Cost	618,350	-	618,350
Interest	1,704,592	-	1,704,592
Differences between Expected and Actual Experience	(362,464)	-	(362,464)
Changes of assumptions	697,984	-	697,984
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,050,000	(1,050,000)
Contributions - State	-	110,857	(110,857)
Contributions - Employee	-	147,834	(147,834)
Net Investment Income	-	1,892,371	(1,892,371)
Benefit Payments, including Refunds of Employee Contributions	(973,409)	(973,409)	-
Administrative Expense	-	(34,179)	34,179
Net Changes	1,685,053	2,193,474	(508,421)
Reporting Period Ending September 30, 2017	\$ 24,281,295	\$ 22,147,952	\$ 2,133,343

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	\$ 4,952,912	\$ 2,133,343	\$ (226,477)

Pension Plan Fiduciary Net Position.

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

GASB 68

FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2016

For the year ended September 30, 2016, the Sponsor recognized a Pension Expense of \$866,154. 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	-	354,360
Changes of assumptions	-	-
Net difference between Projected and Actual Earnings on Pension Plan investments	996,273	-
Employer and State Contributions subsequent to the measurement date	1,160,857	-
Total	\$ 2,157,130	\$ 354,360

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date was 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 recognize in Pension Expense as follows:

Year ended September 30:		Amount
2017	\$	144,027
2018	\$	144,025
2019	\$	144,025
2020	\$	212,088
2021	\$	(88,028)
Thereafter	\$	85,776

PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2017

For the year ended September 30, 2017, the Sponsor will recognize a Pension Expense of \$845,437.

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	-	605,984
Changes of assumptions	598,272	-
Net difference between Projected and Actual Earnings on Pension Plan investments	456,624	-
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	\$ 1,054,896	\$ 605,984

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		\$ 144,025
2019		\$ 144,025
2020		\$ 212,088
2021		\$ (88,028)
2022		\$ (11,129)
Thereafter		\$ 47,931

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

Reporting Period Ending	09/30/2017	09/30/2016	09/30/2015
Measurement Date	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	618,350	610,822	616,903
Interest	1,704,592	1,638,723	1,541,234
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	(362,464)	(413,419)	-
Changes of assumptions	697,984	-	-
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(973,409)	(957,396)	(747,028)
Net Change in Total Pension Liability	1,685,053	878,730	1,411,109
Total Pension Liability - Beginning	22,596,242	21,717,512	20,306,403
Total Pension Liability - Ending (a)	<u>\$ 24,281,295</u>	<u>\$ 22,596,242</u>	<u>\$ 21,717,512</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,050,000	2,067,552	1,165,048
Contributions - State	110,857	120,321	109,521
Contributions - Employee	147,834	141,697	141,619
Net Investment Income	1,892,371	(50,344)	1,596,653
Benefit Payments, including Refunds of Employee Contributions	(973,409)	(957,396)	(747,028)
Administrative Expense	(34,179)	(35,551)	(28,220)
Net Change in Plan Fiduciary Net Position	2,193,474	1,286,279	2,237,592
Plan Fiduciary Net Position - Beginning	19,954,478	18,668,199	16,430,607
Plan Fiduciary Net Position - Ending (b)	<u>\$ 22,147,952</u>	<u>\$ 19,954,478</u>	<u>\$ 18,668,199</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,133,343</u>	<u>\$ 2,641,764</u>	<u>\$ 3,049,313</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	91.21%	88.31%	85.96%
Covered Employee Payroll ¹	\$ 2,956,688	\$ 2,943,855	\$ 2,832,374
Net Pension Liability as a percentage of Covered Employee Payroll	72.15%	89.74%	107.66%

Notes to Schedule:

¹ 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, amounts reported as changes of assumptions resulted from the following changes:

- The assumed rates of mortality were changed to match those used by the FRS for special risk employees in their July 1, 2015 valuation report.
- The withdrawal rates were increased 10%, based on results of the September 1, 2016 experience study.

SCHEDULE OF CONTRIBUTIONS
Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Actuarially Determined Contribution	1,014,144	1,076,688	1,274,568
Contributions in relation to the Actuarially Determined Contributions	1,160,857	2,187,873	1,274,568
Contribution Deficiency (Excess)	<u>\$ (146,713)</u>	<u>\$ (1,111,185)</u>	<u>\$ -</u>
Covered Employee Payroll ¹	\$ 2,956,688	\$ 2,943,855	\$ 2,832,374
Contributions as a percentage of Covered Employee Payroll	39.26%	74.32%	45.00%

¹ 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 revised 05/20/2015
Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates:

Funding Method: Frozen Initial Liability Cost Method.
 Amortization Method: Level Dollar.
 Remaining Amortization Period: 29 Years (as of 10/01/2014).
 Mortality: RP-2000 Table with no projection. Based on a study of over 650 public safety funds, this table reflects a 10% margin for future mortality improvements.
 Interest Rate: 7.5% per year compounded annually, net of investment related expenses.
 Retirement Age: Earlier of Age 55 and 10 years of service or Age 52 and 25 years of service. Also, any member who has reached the above criteria 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 5% per year.
 Disability Rates: See table below. It is assumed that 75% of disablements and active Member deaths are service related.
 Termination Rates: See table below (1302).
 Salary Increases: APH Table S-5 + 2.5%; see table below. Projected salary in the year of retirement is increased based on individual accruals to account for non-regular compensation.
 Payroll Increase: N/A (UAAL amortized as level dollar).
 Cost-of-Living Adjustment: 1.0% annually until attainment of age 62.
 Actuarial Asset Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-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.

Termination and Disability Rate Table:	% Becoming Disabled During the Year	% Terminating During the Year
	Age	Year
	20	0.14%
	30	0.18%
	40	0.30%
	50	1.00%

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2016

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 3,049,313	\$ 272,257	\$ 2,187,873	\$ -
Employer and State Contributions made after 09/30/2015	-	-	1,160,857	-
Total Pension Liability Factors:				
Service Cost	610,822	-	-	610,822
Interest	1,638,723	-	-	1,638,723
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(413,419)	413,419	-	-
Current year amortization of experience difference	-	(59,059)	-	(59,059)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	-	-
Benefit Payments	(957,396)	-	-	(957,396)
Net change	<u>878,730</u>	<u>354,360</u>	<u>1,160,857</u>	<u>1,233,090</u>
Plan Fiduciary Net Position:				
Contributions - Employer	2,067,552	-	(2,067,552)	-
Contributions - State	120,321	-	(120,321)	-
Contributions - Employee	141,697	-	-	(141,697)
Net Investment Income	1,450,238	-	-	(1,450,238)
Difference between projected and actual earnings on Pension Plan investments	(1,500,582)	-	1,500,582	-
Current year amortization	-	(68,065)	(300,117)	232,052
Benefit Payments	(957,396)	-	-	957,396
Administrative Expenses	(35,551)	-	-	35,551
Net change	<u>1,286,279</u>	<u>(68,065)</u>	<u>(987,408)</u>	<u>(366,936)</u>
Ending Balance	<u>\$ 2,641,764</u>	<u>\$ 558,552</u>	<u>\$ 2,361,322</u>	<u>\$ 866,154</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2017

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 2,641,764	\$ 558,552	\$ 2,361,322	\$ -
Employer and State Contributions made after 09/30/2016	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	618,350	-	-	618,350
Interest	1,704,592	-	-	1,704,592
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(362,464)	362,464	-	-
Current year amortization of experience difference	-	(110,840)	-	(110,840)
Change in assumptions about future economic or demographic factors or other inputs	697,984	-	697,984	-
Current year amortization of change in assumptions	-	-	(99,712)	99,712
Benefit Payments	(973,409)	-	-	(973,409)
Net change	1,685,053	251,624	598,272	1,338,405
Plan Fiduciary Net Position:				
Contributions - Employer	1,050,000	-	(1,050,000)	-
Contributions - State	110,857	-	(110,857)	-
Contributions - Employee	147,834	-	-	(147,834)
Net Investment Income	1,507,877	-	-	(1,507,877)
Difference between projected and actual earnings on Pension Plan investments	384,494	384,494	-	-
Current year amortization	-	(144,962)	(300,117)	155,155
Benefit Payments	(973,409)	-	-	973,409
Administrative Expenses	(34,179)	-	-	34,179
Net change	2,193,474	239,532	(1,460,974)	(492,968)
Ending Balance	\$ 2,133,343	\$ 1,049,708	TBD	\$ 845,437

* Employer and State Contributions subsequent to the measurement date made after September 30, 2016 but made on or before September 30, 2017 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
2014	\$ (340,322)	5	\$ (68,065)	\$ (68,065)	\$ (68,064)	\$ (68,064)	\$ (68,064)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 1,500,582	5	\$ -	\$ 300,117	\$ 300,117	\$ 300,116	\$ 300,116	\$ 300,116	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (384,494)	5	\$ -	\$ -	\$ (76,898)	\$ (76,899)	\$ (76,899)	\$ (76,899)	\$ (76,899)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (68,065)	\$ 232,052	\$ 155,155	\$ 155,153	\$ 155,153	\$ 223,217	\$ (76,899)	\$ -	\$ -	\$ -	\$ -

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	\$ -	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ -	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 697,984	7	\$ -	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ -	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ 99,712	\$ -	\$ -

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	\$ -	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (413,419)	7	\$ -	\$ (59,059)	\$ (59,060)	\$ (59,060)	\$ (59,060)	\$ (59,060)	\$ (59,060)	\$ (59,060)	\$ -	\$ -	\$ -
2016	\$ (362,464)	7	\$ -	\$ -	\$ (51,780)	\$ (51,780)	\$ (51,780)	\$ (51,781)	\$ (51,781)	\$ (51,781)	\$ (51,781)	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ -	\$ (59,059)	\$ (110,840)	\$ (110,840)	\$ (110,840)	\$ (110,841)	\$ (110,841)	\$ (110,841)	\$ (51,781)	\$ -	\$ -