

CITY OF PALM COAST  
VOLUNTEER FIREFIGHTERS' RETIREMENT TRUST FUND

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2017

CONTRIBUTIONS APPLICABLE TO THE PLAN/  
FISCAL YEAR ENDED SEPTEMBER 30, 2019

January 22, 2018

Board of Trustees  
City of Palm Coast  
Firefighters' Pension Board  
124 Bullard Parkway  
Palm Coast, FL 33617

Re: City of Palm Coast Volunteer Firefighters' Retirement Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Palm Coast Volunteer Firefighters' Retirement Trust Fund. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapters 112 and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuations, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Palm Coast, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2016. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2017 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

The undersigned is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Palm Coast, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Palm Coast Volunteer 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:



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

DHL/lke  
Enclosures

## TABLE OF CONTENTS

Section	Title	Page
I	<u>Introduction</u>	
	a. Summary of Report	5
	b. Changes Since Prior Valuation	7
	c. Comparative Summary of Principal Valuation Results	8
II	<u>Valuation Information</u>	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	14
	b. Detailed Actuarial (Gain)/Loss Analysis	16
	c. Actuarial Assumptions and Methods	17
	d. Valuation Notes	19
	e. Partial History of Premium Tax Refunds	20
III	Trust Fund	21
IV	<u>Member Statistics</u>	
	a. Statistical Data	26
	b. Age and Service Distribution	27
	c. Valuation Participant Reconciliation	28
V	Summary of Plan Provisions	29
VI	Governmental Accounting Standards Board Statements Disclosure Information	32

## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Palm Coast Volunteer Firefighters' Retirement Trust Fund, performed as of October 1, 2017, 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, 2019.

The contribution requirements, compared with those set forth in October 1, 2016 Actuarial Valuation Report, are as follows:

Valuation Date	10/1/2017	10/1/2016
Applicable Plan/Fiscal Yr. End	<u>9/30/2019</u>	<u>9/30/2018</u>
Total Required Contribution <sup>1</sup>	\$149,747	\$146,847
Member Contributions (Est.)	0	0
City and State Required Contribution	149,747	146,847
State Contribution <sup>2</sup>	200,000	200,000
Balance from City <sup>3</sup>	0	0

<sup>1</sup> The City must contribute an amount equal to the applicable Normal Cost (adjusted for interest), less the applicable State Contribution. The Total Required Contribution for the fiscal years ending September 30, 2018 and September 30, 2019 reflects this statutory funding requirement (Chapter 112.66(13)).

<sup>2</sup> Mutual Consent reached per Chapter 2015-39, Laws of Florida. Annual State Monies in excess of \$200,000 are allocated to the Share Plan.

<sup>3</sup> There City has access to a \$301,147.26 reserve in the event its contribution requirement is ever greater than \$0.

Experience since the prior valuation was more favorable than expected relative to the Plan's actuarial assumptions. The primary sources of actuarial gain included a 7.22% investment return (Actuarial Asset basis), exceeding the 7.00% assumption, and favorable turnover experience. These gains were partially offset by no inactive mortality.

Additionally, this valuation reflects a statutory change in the mortality assumption.

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 any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

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

By:   
\_\_\_\_\_  
Christine M. O'Neal, FSA, EA, MAAA

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

Ordinance 2017-9, adopted and effective July 17, 2017, amended the Plan for changes to the definition of Spouse, in addition to certain no-cost items pertaining to eligibility for Disability benefits, and actuarial calculations associated with changes to a join pensioner.

Ordinance 2017-21, adopted November 21, 2017, and effective retroactively to September 30, 2017, increased the level of Chapter 175 Premium Tax Revenue utilized for the Share Plan and City funding offset to \$200,000.

Letters of No Actuarial Impact were submitted for the above Ordinances.

### Actuarial Assumption/Method Changes

Pursuant to the provisions of Chapter 2015-157, Laws of Florida, the mortality assumption reflects a change from the rates utilized by the Florida Retirement System in the July 1, 2015 valuation to those utilized in the July 1, 2016 valuation for special risk participants.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2017</u>	<u>10/1/2016</u>
<b>A. Participant Data</b>		
Actives	39	37
Service Retirees	22	21
Beneficiaries	1	1
Disability Retirees	0	0
Terminated Vested	<u>3</u>	<u>2</u>
 Total	 65	 61
 Total Annual Payroll	 \$0	 \$0
Payroll Under Assumed Ret. Age	0	0
 Annual Rate of Payments to:		
Service Retirees	119,190	115,060
Beneficiaries	3,600	3,600
Disability Retirees	0	0
Terminated Vested	11,700	7,800
 <b>B. Assets</b>		
Actuarial Value (AVA) <sup>1</sup>	3,905,224	3,599,205
Market Value (MVA) <sup>1</sup>	4,040,315	3,537,093
 <b>C. Liabilities</b>		
Present Value of Benefits		
Actives		
Retirement Benefits	1,166,426	1,061,721
Disability Benefits	23,459	21,116
Death Benefits	11,729	17,270
Vested Benefits	180,954	171,059
Refund of Contributions	0	0
Service Retirees	963,740	943,547
Beneficiaries	6,753	9,802
Disability Retirees	0	0
Terminated Vested	13,079	13,210
Share Plan Balances <sup>1</sup>	823,203	761,497
City Reserve <sup>1</sup>	<u>301,147</u>	<u>301,147</u>
 Total	 3,490,490	 3,300,369



C. Liabilities - (Continued)	<u>10/1/2017</u>	<u>10/1/2016</u>
Present Value of Future Salaries	0	0
Present Value of Future Member Contributions	0	0
Normal Cost (Retirement)	110,915	110,107
Normal Cost (Disability)	2,899	2,719
Normal Cost (Death)	1,337	1,843
Normal Cost (Vesting)	20,367	18,224
Normal Cost (Refunds)	<u>0</u>	<u>0</u>
Total Normal Cost	135,518	132,893
Present Value of Future Normal Costs	640,709	583,976
Accrued Liability (Retirement)	649,741	590,205
Accrued Liability (Disability)	10,586	9,484
Accrued Liability (Death)	6,161	8,315
Accrued Liability (Vesting)	75,371	79,186
Accrued Liability (Refunds)	0	0
Accrued Liability (Inactives)	983,572	966,559
Share Plan Balances <sup>1</sup>	823,203	761,497
City Reserve <sup>1</sup>	<u>301,147</u>	<u>301,147</u>
Total Actuarial Accrued Liability (EAN AL)	2,849,781	2,716,393
Unfunded Actuarial Accrued Liability (UAAL)	(1,055,443)	(882,812)
Funded Ratio (AVA / EAN AL)	137.0%	132.5%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2017</u>	<u>10/1/2016</u>
Vested Accrued Benefits		
Inactives + Share Plan Balances <sup>1</sup>	1,806,775	1,728,056
Actives	483,158	332,943
Member Contributions	<u>0</u>	<u>0</u>
Total	2,289,933	2,060,999
Non-vested Accrued Benefits	<u>113,738</u>	<u>208,904</u>
Total Present Value		
Accrued Benefits (PVAB)	2,403,671	2,269,903
Funded Ratio (MVA / PVAB)	168.1%	155.8%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
New Accrued Benefits	143,160	
Benefits Paid	(162,594)	
Interest	153,202	
Other	<u>0</u>	
Total	133,768	

Valuation Date	10/1/2017	10/1/2016
Applicable to Fiscal Year Ending	<u>9/30/2019</u>	<u>9/30/2018</u>

E. Pension Cost

Normal Cost <sup>2</sup>	\$149,747	\$146,847
Administrative Expenses <sup>2</sup>	28,059	32,147
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 30 years (as of 10/1/2017) <sup>2</sup>	(92,813)	(76,865)
Total Required Contribution	84,993	102,129
Expected Member Contributions <sup>2</sup>	0	0
Expected City and State Contribution	84,993	102,129

F. Past Contributions

Plan Years Ending:	<u>9/30/2017</u>
City and State Requirement	109,250
Actual Contributions Made:	
Members (excluding buyback)	0
City	0
State	<u>200,000</u> <sup>3</sup>
Total	200,000

G. Net Actuarial (Gain)/Loss (81,069)

<sup>1</sup> The asset values and liabilities include accumulated Share Plan Balances and City Reserve as of 9/30/2017 and 9/30/2016.

<sup>2</sup> The funding rate as of October 1, 2017 includes a 1.5 year interest load.

<sup>3</sup> Reflects Mutual Consent

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2017	(1,055,443) <sup>1</sup>

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2017	N/A	N/A
Year Ended	9/30/2016	N/A	N/A
Year Ended	9/30/2015	N/A	N/A

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2017	7.22%	7.00%
Year Ended	9/30/2016	6.75%	7.65%
Year Ended	9/30/2015	8.60%	7.65%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2017	\$0
	10/1/2017	0
(b) Total Increase		0.00%
(c) Number of Years		0.00
(d) Average Annual Rate		0.00%

<sup>1</sup> Since the City may not offset its funding obligation with a negative amortization payment, no projection of the UAAL is provided with this valuation.

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



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

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

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

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, 2016	(\$882,812)
(2) Sponsor Normal Cost developed as of October 1, 2016	132,893
(3) Expected administrative expenses for the year ended September 30, 2017	29,092
(4) Expected interest on (1), (2) and (3)	(51,476)
(5) Sponsor contributions to the System during the year ended September 30, 2017	200,000
(6) Expected interest on (5)	2,071
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2017 (1)+(2)+(3)+(4)-(5)-(6)	(974,374)
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	(81,069)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2017	(1,055,443)

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2017 Amount</u>	<u>Amortization Amount</u>
method change	10/1/2005	18	743,541	69,082
actuarial gain	10/1/2006	19	(289,946)	(26,218)
actuarial gain	10/1/2007	20	(598,027)	(52,757)
benefit change	10/1/2007	20	3,305	292
actuarial gain	10/1/2008	21	(191,716)	(16,536)
method change	10/1/2008	21	(126,851)	(10,941)
actuarial loss	10/1/2009	22	96,542	8,157
actuarial loss	10/1/2010	23	12,284	1,018
assumption	10/1/2010	23	15,815	1,311
benefit change	10/1/2010	23	(205,403)	(17,030)
actuarial gain	10/1/2011	24	(21,512)	(1,753)
actuarial gain	10/1/2012	25	(115,645)	(9,274)
assumption	10/1/2012	25	41,122	3,298
actuarial gain	10/1/2013	26	(124,166)	(9,813)
software change	10/1/2013	26	65,696	5,192
actuarial gain	10/1/2014	27	(217,642)	(16,969)
actuarial gain	10/1/2015	28	(278,773)	(21,466)
assumptions	10/1/2016	29	207,245	15,776
actuarial loss	10/1/2016	29	9,757	743

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2017 <u>Amount</u>	Amortization <u>Amount</u>
actuarial gain	10/1/2017	30	<u>(81,069)</u>	<u>(6,106)</u>
			(1,055,443)	(83,994)

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2016	(\$882,812)
(2) Expected UAAL as of October 1, 2017	(974,374)
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(7,965)
Active Decrements	(73,129)
Inactive Mortality	19,762
Other	<u>(19,737)</u>
Increase in UAAL due to (Gain)/Loss	(81,069)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2017	(\$1,055,443)



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rates

#### *Healthy Lives:*

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

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

#### *Healthy Inactive Lives:*

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

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

#### *Disabled Lives:*

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

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

The 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, 2016 FRS actuarial valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Previously, the special risk rates from the July 1, 2015 FRS actuarial valuation report were used.

### Termination Rates

See table on following page (1304B). These rates are conservative compared to long-term plan experience.

### Disability Rates

See table on following page (1201); 75% of disabled lives are assumed to be service-related. This assumption is consistent with other Florida public safety plans.

Retirement Age

The earlier of attainment of age 55 with 10 years of credited service, age 52 with 25 years of credited service, or age 62 with 5 years of credited service. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year. This assumption is consistent with historical plan experience.

Interest Rate

7.00% per year, compounded annually, net of investment-related expenses. This assumption is reasonable, given the plan’s investment policy and long-term target returns by asset class.

Early Retirement

Commencing with attainment of Early Retirement Status (age 50 with 10 years of service), members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. This assumption is reasonable for the existing plan provisions regarding Early Retirement.

Payroll Growth

None.

Administrative Expenses

\$25,393, based on actual expenses incurred during the prior fiscal year.

Funding Method

Entry Age Normal Actuarial Cost Method.

An interest load of 1.5 years (at the current valuation assumption of 7.00%) has been applied for the determination of Sponsor funding requirement.

Asset Valuation Method

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

<u>Age</u>	<u>% Terminating During the Year</u>	<u>% Becoming Disabled During the Year</u>
20	14.4%	0.03%
30	12.5	0.04
40	7.7	0.07
50	3.5	0.18

## VALUATION NOTES

Total Annual Payroll not applicable.

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.

Unfunded Actuarial Accrued Liability (UAAL) is a liability which arises when a pension plan is initially established or improved and such establishment or improvement is applicable to all years of past service. Under the Entry Age Normal Actuarial Cost Method, there is also a new UAAL created each year equal to the actuarial gain or loss for that year.

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.

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

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
2003	14,328.55	_____%
2004	62,129.98	333.6%
2005	96,546.34	55.4%
2006	128,816.42	33.4%
2007	242,231.00	88.0%
2008	380,757.00	57.2%
2009	499,181.00	31.1%
2010	339,246.90	-32.0%
2011	359,373.51	5.9%
2012	377,962.48	5.2%
2013	364,571.49	-3.5%
2014	381,967.45	4.8%
2015	324,642.30	-15.0%
2016	273,487.45	-15.8%
2017	232,596.92	-15.0%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2017

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash	16,161.26
Total Cash and Equivalents	16,161.26
Investments:	
Mutual Funds:	
Fixed Income	1,567,642.29
Equity	2,456,511.64
Total Investments	4,024,153.93
Total Assets	4,040,315.19
 <u>LIABILITIES</u>	
Total Liabilities	0.00
 NET POSITION RESTRICTED FOR PENSIONS	 4,040,315.19

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
 FOR THE YEAR ENDED SEPTEMBER 30, 2017  
 Market Value Basis

ADDITIONS

Contributions:		
State	232,596.92	
Total Contributions		232,596.92
Investment Income:		
Earnings/(Losses) as disclosed in FMPTF statement	465,858.04	
Less Investment Expense <sup>1</sup>	(7,246.19)	
Net Investment Income		458,611.85
Total Additions		691,208.77
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments	121,757.19	
Lump Sum Share Distributions	40,836.77	
Total Distributions		162,593.96
Administrative Expense		25,392.74
Total Deductions		187,986.70
Net Increase in Net Position		503,222.07
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		3,537,093.12
End of the Year		4,040,315.19

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

ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2017

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 <sup>1</sup>	
09/30/2014	8.26%	
09/30/2015	-0.18%	
09/30/2016	8.02%	
09/30/2017	13.21%	
Annualized Rate of Return for prior four (4) years:		7.22%
(A) 10/01/2016 Actuarial Assets:		\$3,599,205.25
(I) Net Investment Income:		
1. Interest and Dividends	465,858.04	
2. Realized Gains (Losses)	0.00	
3. Change in Actuarial Value	(197,202.86)	
4. Investment Related Expenses	(7,246.19)	
Total		261,408.99
(B) 10/01/2017 Actuarial Assets:		\$3,905,224.46
Actuarial Asset Rate of Return = 2I/(A+B-I):		7.22%
10/01/2017 Limited Actuarial Assets:		\$3,905,224.46
10/01/2017 Market Value of Assets:		\$4,040,315.19
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		\$7,965.37

<sup>1</sup>Market Value Basis, net of investment related expenses.

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2017  
 Actuarial Asset Basis

REVENUES		
Contributions:		
State	232,596.92	
Total Contributions		232,596.92
Earnings from Investments:		
Earnings/(Losses) as disclosed in FMPTF statement	465,858.04	
Change in Actuarial Value	(197,202.86)	
Total Earnings and Investment Gains		268,655.18
EXPENDITURES		
Distributions to Members:		
Benefit Payments	121,757.19	
Lump Sum Share Distributions	40,836.77	
Total Distributions		162,593.96
Expenses:		
Investment related <sup>1</sup>	7,246.19	
Administrative	25,392.74	
Total Expenses		32,638.93
Change in Net Assets for the Year		306,019.21
Net Assets Beginning of the Year		3,599,205.25
Net Assets End of the Year <sup>2</sup>		3,905,224.46

<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.



SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY  
October 1, 2016 through September 30, 2017

9/30/2016 Balance	\$761,497
Prior Year Adjustment	(27,072)
Plus Additions	32,597
Investment Return Earned (est.)	97,018
Administrative Fees	0
Less Distributions	(40,837)
9/30/2017 Balance (est.)	\$823,203

STATISTICAL DATA

	<u>10/1/2014</u>	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>
<u>Actives</u>				
Number	36	31	37	39
Average Current Age	41.1	43.2	43.4	41.5
Average Age at Employment	38.7	40.1	40.4	38.6
Average Past Service	2.4	3.1	3.0	2.9
<u>Service Retirees</u>				
Number	20	21	21	22
Average Current Age	74.0	74.5	75.5	75.9
Average Annual Benefit	\$5,536	\$5,479	\$5,479	\$5,418
<u>Beneficiaries</u>				
Number	1	1	1	1
Average Current Age	82.4	83.4	84.4	85.4
Average Annual Benefit	\$3,600	\$3,600	\$3,600	\$3,600
<u>Disability Retirees</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Terminated Vested</u>				
Number	1	1	2	3
Average Current Age	28.0	29.0	28.7	29.2
Average Annual Benefit	\$3,900	\$3,900	\$3,900	\$3,900

## 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	4	3	0	0	0	0	0	0	0	0	0	7
25 - 29	2	0	0	0	1	0	0	0	0	0	0	3
30 - 34	5	0	1	0	0	0	0	0	0	0	0	6
35 - 39	0	1	0	0	0	0	1	0	0	0	0	2
40 - 44	2	0	1	1	0	1	1	0	0	0	0	6
45 - 49	2	0	0	0	0	1	0	0	0	0	0	3
50 - 54	0	1	0	0	0	1	0	0	0	0	0	2
55 - 59	0	0	1	0	0	3	0	0	0	0	0	4
60 - 64	0	0	0	0	0	1	2	0	0	0	0	3
65+	0	1	0	1	0	1	0	0	0	0	0	3
<b>Total</b>	<b>15</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39</b>

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2016	37
b. Terminations	
i. Vested (partial or full) with deferred benefits	(1)
ii. Non-vested or full lump sum distribution received	(12)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	<u>(1)</u>
f. Continuing participants	23
g. New entrants	<u>16</u>
h. Total active life participants in valuation	39

### 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>	<u>Vested Deferred</u>	<u>Total</u>
a. Number prior valuation	21	1	0	2	24
Retired	1	0	0	0	1
Vested Deferred	0	0	0	1	1
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	22	1	0	3	26

SUMMARY OF PLAN PROVISIONS  
(Through Ordinance No. 2017-21)

Credited Service Total years and fractional parts of years of service with the City as Firefighter. Credited Service is based on “Length of Service Award Pension Program – Qualification Criteria.”

Normal Retirement

Date Earlier of age 62 with the completion of 5 years of Credited Service, age 55 with the completion of 10 years of Credited Service, or age 52 with the completion of 25 years of Credited Service.

Benefit (Monthly) \$65.00 times Credited Service.

Form of Benefit 10 Year Certain and Life thereafter (options available).

Early Retirement

Date Age 50 & 10 years of Credited Service.

Benefit Amount Accrued benefit, reduced 3% per year, from age 55 or age 62.

Disability

Eligibility

Service Incurred Covered from Date of Employment.

Non-Service Incurred Ten 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.

Duration Payable for life (with 120 payments guaranteed) or until recovery (as determined by the Board).

Death

Eligibility	Five years of Credited Service.
Benefit	Accrued benefit paid to Beneficiary for ten years, beginning at the Member's Normal Retirement Date (unreduced) or Early Retirement Date (reduced).
Post-Retirement	According to option selected, if any.

Vesting (Termination)

Eligibility	Five years of Credited Service.
Benefit	Accrued benefit payable at the Member's election, on his otherwise Early or Normal Retirement Date.

Contributions

Premium Tax	1.85% tax on premiums for fire insurance policies.
City	Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability over 30 years.

Supplement Benefit (Share Accounts)

Initial Crediting	80% of the \$1,505,738 Excess State Monies Reserve, established as of September 30, 2014, is allocated to eligible participants.
Annual Crediting	Annual Premium tax revenues received by the City in excess of the \$200,000 applicable frozen amount shall be allocated to participant accounts on a pro-rata basis (based on Credited Service).
Investment earnings	Eligible Share Accounts shall be credited or debited annually, based on the Plan's net-of-fees investment performance for the immediately preceding Plan Year.
Maximum Benefit	\$3,000 combined for benefits payable under the "Length of Service Award Pension Program" and allocations pursuant to the Supplement Benefit program.
Vesting	Five years of Credited Service.
Eligibility for Distribution	Eligible for Normal or Early Retirement.

Board of Trustees

- a. Two appointees of City Council;
- b. Two Firefighters elected by the members of the department; and
- c. Fifth member elected by the other four and appointed by Council (as a ministerial duty).

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2017

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash	16,161
Total Cash and Equivalents	16,161
Total Receivable	0
Investments:	
Mutual Funds:	
Fixed Income	1,567,642
Equity	2,456,512
Total Investments	4,024,154
Total Assets	4,040,315
Total Liabilities	0
NET POSITION RESTRICTED FOR PENSIONS	4,040,315



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2017  
Market Value Basis

ADDITIONS

## Contributions:

State	232,597	
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Total Contributions		232,597
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## Investment Income:

Earnings/(Losses) as disclosed in FMPTF statement	465,858	
Less Investment Expense <sup>1</sup>	(7,246)	

Net Investment Income		458,612
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Total Additions		691,209
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DEDUCTIONS

## Distributions to Members:

Benefit Payments	121,757	
Lump Sum Share Distributions	40,837	

Total Distributions		162,594
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Administrative Expense		25,393
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Total Deductions		187,987
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Net Increase in Net Position		503,222
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## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year		3,537,093
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End of the Year		4,040,315
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<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, 2017)

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 appointees of City Council;
- b. Two Firefighters elected by the members of the department; and
- c. Fifth member elected by the other four and appointed by Council (as a ministerial duty).

*Plan Membership as of October 1, 2016:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	22
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2
Active Plan Members	37
	61
	61

*Benefits Provided*

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

Normal Retirement:

Date: Earlier of age 62 with the completion of 5 years of Credited Service, age 55 with the completion of 10 years of Credited Service, or age 52 with the completion of 25 years of Credited Service.

Benefit: \$65.00 times Credited Service.

Early Retirement:

Date: Age 50 & 10 years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year, from age 55 or age 62.

Disability:

Eligibility: Service Incurred: Covered from Date of Employment.

Non-Service Incurred: 10 years of Credited Service.

Benefit: Benefit accrued to date of disability.

Pre-Retirement Death Benefits:

Eligibility: Five years of Credited Service.

Benefit: Accrued benefit paid to beneficiary for ten years, beginning at the Member's Normal Retirement Date (unreduced) or Early Retirement Date (reduced).

Vesting (Termination):

Eligibility: Five years of Credited Service.

Accrued benefit payable at the Member's election, on his otherwise Early or Normal Retirement Date.

Supplement Benefit (Share Accounts):

Initial Crediting: 80% of the \$1,505,738 Excess State Monies Reserve, established as of September 30, 2014, is allocated to eligible participants.

Annual Crediting: Annual Premium tax revenues received by the City in excess of the \$144,307 applicable frozen amount shall be allocated to participant accounts on a pro-rata basis (based on Credited Service).

Investment earnings: Eligible Share Accounts shall be credited or debited annually, based on the Plan's net-of-fees investment performance for the immediately preceding Plan Year.

Maximum Benefit: \$3,000 combined for benefits payable under the "Length of Service Award Pension Program" and allocations pursuant to the Supplement Benefit program.

Vesting: Five years of Credited Service.

*Contributions*

Premium Tax: 1.85% tax on premiums for fire insurance policies.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability over 30 years.

## GASB 67

### Investments

#### *Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2017:

<u>Asset Class</u>	<u>Target Allocation</u>
Core Bonds	12%
Core Plus	18%
U.S. Large Cap Equity	34%
U.S. Small Cap Equity	11%
Non - U.S. Equity	15%
Core Real Estate	10%
<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, 2017, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 13.21 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, 2017 were as follows:

Total Pension Liability	\$ 2,883,753
Plan Fiduciary Net Position	\$ (4,040,315)
Sponsor's Net Pension Liability	<u>\$ (1,156,562)</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	140.11%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2016 updated to September 30, 2017 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	N/A
Discount Rate	7.00%
Investment Rate of Return	7.00%

*Mortality Rate Healthy Lives:*

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

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

*Mortality Rate Disabled Lives:*

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

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

The date of the most recent experience study for which significant assumptions are based upon is not available.

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

For 2017 the inflation rate assumption of the investment advisor was 2.90%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2017 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Core Bonds	1.40%
Core Plus	1.70%
U.S. Large Cap Equity	5.10%
U.S. Small Cap Equity	5.60%
Non - U.S. Equity	5.60%
Core Real Estate	4.50%

## GASB 67

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 percent.

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

	1% Decrease 6.00%	Current Discount Rate 7.00%	1% Increase 8.00%
Sponsor's Net Pension Liability	\$ (970,474)	\$ (1,156,562)	\$ (1,309,776)

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

	09/30/2017	09/30/2016	09/30/2015
Total Pension Liability			
Service Cost	132,449	97,464	104,091
Interest	170,580	169,505	94,316
Change in Excess State Money	-	-	-
Share Plan Allocation	32,597	129,180	180,335
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	23,865	(57,517)	(65,491)
Changes of assumptions	-	185,644	-
Benefit Payments, including Refunds of Employee Contributions	(162,594)	(513,703)	(543,000)
Net Change in Total Pension Liability	196,897	10,573	(229,749)
Total Pension Liability - Beginning	2,686,856	2,676,283	2,906,032
Total Pension Liability - Ending (a)	<u>\$ 2,883,753</u>	<u>\$ 2,686,856</u>	<u>\$ 2,676,283</u>
Plan Fiduciary Net Position			
Contributions - State	232,597	273,487	324,642
Net Investment Income	458,612	262,259	(6,801)
Benefit Payments, including Refunds of Employee Contributions	(162,594)	(513,703)	(543,000)
Administrative Expense	(25,393)	(29,092)	(41,443)
Net Change in Plan Fiduciary Net Position	503,222	(7,049)	(266,602)
Plan Fiduciary Net Position - Beginning	3,537,093	3,544,142	3,810,744
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,040,315</u>	<u>\$ 3,537,093</u>	<u>\$ 3,544,142</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (1,156,562)</u>	<u>\$ (850,237)</u>	<u>\$ (867,859)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	140.11%	131.64%	132.43%
Covered Employee Payroll	N/A	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A	N/A

**Notes to Schedule:**

Ordinance 2015-10, adopted August 4, 2015, and effective March 3, 2015, amended the "Reserve Amount" utilized for the initial Share Plan allocation. A letter of no actuarial impact was submitted for this amendment.

*Changes of assumptions:*

For measurement date 09/30/2016, amounts reported as changes of assumptions resulted from the following changes:

- As a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.
- The investment rate of return was lowered from 7.65% to 7.00% per year, compounded annually, net of investment-related-expenses.

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

	09/30/2014	09/30/2013
Total Pension Liability		
Service Cost	113,712	105,631
Interest	103,447	95,623
Change in Excess State Money	237,659	-
Share Plan Allocation	-	-
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	-	-
Benefit Payments, including Refunds of Employee Contributions	(110,810)	(103,288)
Net Change in Total Pension Liability	344,008	97,966
Total Pension Liability - Beginning	2,562,024	2,464,058
Total Pension Liability - Ending (a)	<u>\$ 2,906,032</u>	<u>\$ 2,562,024</u>
Plan Fiduciary Net Position		
Contributions - State	381,967	364,571
Net Investment Income	270,512	324,552
Benefit Payments, including Refunds of Employee Contributions	(110,810)	(103,288)
Administrative Expense	(60,987)	(25,630)
Net Change in Plan Fiduciary Net Position	480,682	560,205
Plan Fiduciary Net Position - Beginning	3,330,062	2,769,857
Plan Fiduciary Net Position - Ending (b)	<u>\$ 3,810,744</u>	<u>\$ 3,330,062</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (904,712)</u>	<u>\$ (768,038)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	131.13%	129.98%
Covered Employee Payroll	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

	09/30/2017	09/30/2016	09/30/2015	09/30/2014	09/30/2013
Actuarially Determined Contribution	109,250	117,326	127,816	130,671	120,718
Contributions in relation to the Actuarially Determined Contributions	200,000	144,307	127,816	130,671	120,718
Contribution Deficiency (Excess)	\$ (90,750)	\$ (26,981)	\$ -	\$ -	\$ -
Covered Employee Payroll	N/A	N/A	N/A	N/A	N/A
Contributions as a percentage of Covered Employee Payroll	N/A	N/A	N/A	N/A	N/A

Notes to Schedule

Valuation Date: 10/01/2015

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

Methods and assumptions used to determine contribution rates:

Funding Method: Entry Age Normal Actuarial Cost Method. An interest load of 1.5 years (at the current valuation assumption of 7.65%) has been applied for the determination of Sponsor funding requirement.

Amortization Method: Level dollar.

Remaining Amortization Period: 30 Years (as of 10/01/2015).

Mortality: RP-2000 Table with no projection. Disabled lives set forward 5 years. Based on studies of other public safety plans, we believe this assumption sufficiently accommodates expected future mortality improvements.

Termination Rates: See table on following page (1304B). These rates are conservative compared to long-term plan experience.

Disability Rates: See table on following page (1201); 75% of disabled lives are assumed to be service-related. This assumption is consistent with other Florida public safety plans.

Retirement Age: The earlier of attainment of age 55 with 10 years of credited service, age 52 with 25 years of credited service, or age 62 with 5 years of credited service. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year.

The above assumption is consistent with historical plan experience.

Interest Rate: 7.65% per year, compounded annually, net of investment-related expenses. This assumption is reasonable, given the plan's investment policy and long-term target returns by asset class.

Early Retirement: Commencing with attainment of Early Retirement Status (age 50 with 10 years of service), members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

The above assumption is reasonable for the existing plan provisions regarding Early Retirement.

Payroll Growth: None.

Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.



## GASB 67

Termination and Disability Rate Table:

Age	% Terminating During the Year	% Becoming Disabled During the
20	14.40%	0.03%
30	12.50%	0.04%
40	7.70%	0.07%
50	3.50%	0.18%

SCHEDULE OF INVESTMENT RETURNS  
Last 10 Fiscal Years

	<u>09/30/2017</u>	<u>09/30/2016</u>	<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	13.21%	8.02%	-0.18%	8.26%	11.24%

**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2017)

General Information about the Pension Plan

*Plan Description*

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

- a. Two appointees of City Council;
- b. Two Firefighters elected by the members of the department; and
- c. Fifth member elected by the other four and appointed by Council (as a ministerial duty).

All volunteer firefighters as of February 17, 2009, and all future new volunteer firefighters, shall become members of this system as a condition of employment or upon being added to the roll of volunteer firefighters by the fire chief. All volunteer firefighters are therefore eligible for plan benefits as provided for in the plan document and by applicable law.

*Plan Membership as of October 1, 2016:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	22
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	2
Active Plan Members	37
	61
	61

*Benefits Provided*

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

Normal Retirement:

Date: Earlier of age 62 with the completion of 5 years of Credited Service, age 55 with the completion of 10 years of Credited Service, or age 52 with the completion of 25 years of Credited Service.

Benefit: \$65.00 times Credited Service.

Early Retirement:

Date: Age 50 & 10 years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year, from age 55 or age 62.

Disability:

Eligibility: Service Incurred: Covered from Date of Employment.

Non-Service Incurred: 10 years of Credited Service.

Benefit: Benefit accrued to date of disability.

Pre-Retirement Death Benefits:

Eligibility: Five years of Credited Service.

Benefit: Accrued benefit paid to beneficiary for ten years, beginning at the Member's Normal Retirement Date (unreduced) or Early Retirement Date (reduced).

Vesting (Termination):

Eligibility: Five years of Credited Service.

Accrued benefit payable at the Member's election, on his otherwise Early or Normal Retirement Date.

Supplement Benefit (Share Accounts):

Initial Crediting: 80% of the \$1,505,738 Excess State Monies Reserve, established as of September 30, 2014, is allocated to eligible participants.

Annual Crediting; Annual Premium tax revenues received by the City in excess of the \$144,307 applicable frozen amount shall be allocated to participant accounts on a pro-rata basis (based on Credited Service).

Investment earnings: Eligible Share Accounts shall be credited or debited annually, based on the Plan's net-of-fees investment performance for the immediately preceding Plan Year.

Maximum Benefit: \$3,000 combined for benefits payable under the "Length of Service Award Pension Program" and allocations pursuant to the Supplement Benefit program.

Vesting: Five years of Credited Service.

*Contributions*

Premium Tax: 1.85% tax on premiums for fire insurance policies.

City: Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability over 30 years.

Net Pension Liability

The measurement date is September 30, 2017.

The measurement period for the pension expense was October 1, 2016 to September 30, 2017.

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

The Sponsor's Net Pension Liability was measured as of September 30, 2017.

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, 2016 updated to September 30, 2017 using the following actuarial assumptions:

Inflation	3.00%
Salary Increases	N/A
Discount Rate	7.00%
Investment Rate of Return	7.00%

*Mortality Rate Healthy Lives:*

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

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

*Mortality Rate Disabled Lives:*

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

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

The date of the most recent experience study for which significant assumptions are based upon is not available.

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

For 2017 the inflation rate assumption of the investment advisor was 2.90%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2017 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Core Bonds	12%	1.40%
Core Plus	18%	1.70%
U.S. Large Cap Equity	34%	5.10%
U.S. Small Cap Equity	11%	5.60%
Non - U.S. Equity	15%	5.60%
Core Real Estate	10%	4.50%
<u>Total</u>	<u>100%</u>	

## GASB 68

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 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)
Balances at September 30, 2016	\$ 2,686,856	\$ 3,537,093	\$ (850,237)
Changes for a Year:			
Service Cost	132,449	-	132,449
Interest	170,580	-	170,580
Share Plan Allocation	32,597	-	32,597
Differences between Expected and Actual Experience	23,865	-	23,865
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - State	-	232,597	(232,597)
Net Investment Income	-	458,612	(458,612)
Benefit Payments, including Refunds of Employee Contributions	(162,594)	(162,594)	-
Administrative Expense	-	(25,393)	25,393
Net Changes	196,897	503,222	(306,325)
Balances at September 30, 2017	\$ 2,883,753	\$ 4,040,315	\$ (1,156,562)

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ (970,474)	\$ (1,156,562)	\$ (1,309,776)

*Pension Plan Fiduciary Net Position.*

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

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

For the year ended September 30, 2017, the Sponsor will recognize a Pension Expense of \$146,845.

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	19,092	67,254
Changes of assumptions	111,387	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	53,071
<b>Total</b>	<b>\$ 130,479</b>	<b>\$ 120,325</b>

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		\$ 34,983
2019		\$ 34,983
2020		\$ (22,694)
2021		\$ (37,118)
2022		\$ -
Thereafter		\$ -

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

	09/30/2017	09/30/2016	09/30/2015
Total Pension Liability			
Service Cost	132,449	97,464	104,091
Interest	170,580	169,505	94,316
Change in Excess State Money	-	-	-
Share Plan Allocation	32,597	129,180	180,335
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	23,865	(57,517)	(65,491)
Changes of assumptions	-	185,644	-
Benefit Payments, including Refunds of Employee Contributions	(162,594)	(513,703)	(543,000)
Net Change in Total Pension Liability	196,897	10,573	(229,749)
Total Pension Liability - Beginning	2,686,856	2,676,283	2,906,032
Total Pension Liability - Ending (a)	<u>\$ 2,883,753</u>	<u>\$ 2,686,856</u>	<u>\$ 2,676,283</u>
Plan Fiduciary Net Position			
Contributions - State	232,597	273,487	324,642
Net Investment Income	458,612	262,259	(6,801)
Benefit Payments, including Refunds of Employee Contributions	(162,594)	(513,703)	(543,000)
Administrative Expense	(25,393)	(29,092)	(41,443)
Net Change in Plan Fiduciary Net Position	503,222	(7,049)	(266,602)
Plan Fiduciary Net Position - Beginning	3,537,093	3,544,142	3,810,744
Plan Fiduciary Net Position - Ending (b)	<u>\$ 4,040,315</u>	<u>\$ 3,537,093</u>	<u>\$ 3,544,142</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (1,156,562)</u>	<u>\$ (850,237)</u>	<u>\$ (867,859)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	140.11%	131.64%	132.43%
Covered Employee Payroll	N/A	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A	N/A

**Notes to Schedule:**

Ordinance 2015-10, adopted August 4, 2015, and effective March 3, 2015, amended the "Reserve Amount" utilized for the initial Share Plan allocation. A letter of no actuarial impact was submitted for this amendment.

*Changes of assumptions:*

For measurement date 09/30/2016, amounts reported as changes of assumptions resulted from the following changes:

- As a result of Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the assumptions used by the Florida Retirement System for special risk employees.
- The investment rate of return was lowered from 7.65% to 7.00% per year, compounded annually, net of investment-related-expenses.



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

	09/30/2014	09/30/2013
Total Pension Liability		
Service Cost	113,712	105,631
Interest	103,447	95,623
Change in Excess State Money	237,659	-
Share Plan Allocation	-	-
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	-	-
Changes of assumptions	-	-
Benefit Payments, including Refunds of Employee Contributions	(110,810)	(103,288)
Net Change in Total Pension Liability	344,008	97,966
Total Pension Liability - Beginning	2,562,024	2,464,058
Total Pension Liability - Ending (a)	<u>\$ 2,906,032</u>	<u>\$ 2,562,024</u>
Plan Fiduciary Net Position		
Contributions - State	381,967	364,571
Net Investment Income	270,512	324,552
Benefit Payments, including Refunds of Employee Contributions	(110,810)	(103,288)
Administrative Expense	(60,987)	(25,630)
Net Change in Plan Fiduciary Net Position	480,682	560,205
Plan Fiduciary Net Position - Beginning	3,330,062	2,769,857
Plan Fiduciary Net Position - Ending (b)	<u>\$ 3,810,744</u>	<u>\$ 3,330,062</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ (904,712)</u>	<u>\$ (768,038)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	131.13%	129.98%
Covered Employee Payroll	N/A	N/A
Net Pension Liability as a percentage of Covered Employee Payroll	N/A	N/A

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

	09/30/2017	09/30/2016	09/30/2015	09/30/2014	09/30/2013
Actuarially Determined Contribution	109,250	117,326	127,816	130,671	120,718
Contributions in relation to the Actuarially Determined Contributions	200,000	144,307	127,816	130,671	120,718
Contribution Deficiency (Excess)	\$ (90,750)	\$ (26,981)	\$ -	\$ -	\$ -
Covered Employee Payroll	N/A	N/A	N/A	N/A	N/A
Contributions as a percentage of Covered Employee Payroll	N/A	N/A	N/A	N/A	N/A

Notes to Schedule

Valuation Date: 10/01/2015

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

Methods and assumptions used to determine contribution rates:

Funding Method: Entry Age Normal Actuarial Cost Method. An interest load of 1.5 years (at the current valuation assumption of 7.65%) has been applied for the determination of Sponsor funding requirement.

Amortization Method: Level dollar.

Remaining Amortization Period: 30 Years (as of 10/01/2015).

Mortality: RP-2000 Table with no projection. Disabled lives set forward 5 years. Based on studies of other public safety plans, we believe this assumption sufficiently accommodates expected future mortality improvements.

Termination Rates: See table on following page (1304B). These rates are conservative compared to long-term plan experience.

Disability Rates: See table on following page (1201); 75% of disabled lives are assumed to be service-related. This assumption is consistent with other Florida public safety plans.

Retirement Age: The earlier of attainment of age 55 with 10 years of credited service, age 52 with 25 years of credited service, or age 62 with 5 years of credited service. Also, any member who has reached Normal Retirement is assumed to continue employment for one additional year.

The above assumption is consistent with historical plan experience.

Interest Rate: 7.65% per year, compounded annually, net of investment-related expenses. This assumption is reasonable, given the plan's investment policy and long-term target returns by asset class.

Early Retirement: Commencing with attainment of Early Retirement Status (age 50 with 10 years of service), members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

The above assumption is reasonable for the existing plan provisions regarding Early Retirement.

Payroll Growth: None.

Asset Valuation Method: Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

## GASB 68

Termination and Disability Rate Table:

Age	% Terminating During the Year	% Becoming Disabled During the
20	14.40%	0.03%
30	12.50%	0.04%
40	7.70%	0.07%
50	3.50%	0.18%

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

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ (850,237)	\$ 90,820	\$ 321,547	\$ -
<b>Total Pension Liability Factors:</b>				
Service Cost	132,449	-	-	132,449
Interest	170,580	-	-	170,580
Share Plan Allocation	32,597	-	-	32,597
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	23,865	-	23,865	-
Current year amortization of experience difference	-	(22,419)	(4,773)	(17,646)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(37,129)	37,129
Benefit Payments	(162,594)	-	-	-
Net change	<u>196,897</u>	<u>(22,419)</u>	<u>(18,037)</u>	<u>355,109</u>
<b>Plan Fiduciary Net Position:</b>				
Contributions - State	232,597	-	-	-
Projected Net Investment Income	249,158	-	-	(249,158)
Difference between projected and actual earnings on Pension Plan investments	209,454	209,454	-	-
Current year amortization	-	(42,176)	(57,677)	15,501
Benefit Payments	(162,594)	-	-	-
Administrative Expenses	(25,393)	-	-	25,393
Net change	<u>503,222</u>	<u>167,278</u>	<u>(57,677)</u>	<u>(208,264)</u>
Ending Balance	<u>\$ (1,156,562)</u>	<u>\$ 235,679</u>	<u>\$ 245,833</u>	<u>\$ 146,845</u>

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)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2015	\$ 288,386	5	\$ 57,677	\$ 57,677	\$ 57,677	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (1,433)	5	\$ (286)	\$ (287)	\$ (287)	\$ (287)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (209,454)	5	\$ (41,890)	\$ (41,891)	\$ (41,891)	\$ (41,891)	\$ (41,891)	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 15,501	\$ 15,499	\$ 15,499	\$ (42,178)	\$ (41,891)	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2016	\$ 185,644	5	\$ 37,129	\$ 37,129	\$ 37,129	\$ 37,129	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 37,129	\$ 37,129	\$ 37,129	\$ 37,129	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
2015	\$ (65,491)	6	\$ (10,915)	\$ (10,915)	\$ (10,915)	\$ (10,915)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (57,517)	5	\$ (11,504)	\$ (11,503)	\$ (11,503)	\$ (11,503)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 23,865	5	\$ 4,773	\$ 4,773	\$ 4,773	\$ 4,773	\$ 4,773	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (17,646)	\$ (17,645)	\$ (17,645)	\$ (17,645)	\$ 4,773	\$ -	\$ -	\$ -	\$ -	\$ -