

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



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

January 2, 2019

Board of Trustees  
City of Cocoa  
Firefighters' Retirement Plan  
c/o Mr. Scott Baur  
The Resource Centers, LLC  
4360 Northlake Blvd, Suite 206  
Palm Beach Gardens, FL 33410

Re: City of Cocoa Firefighters' Retirement Plan

Dear Board:

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

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Chapters 112 and 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. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the City of Cocoa, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the

information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2017. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2018 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.

The undersigned 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 Cocoa, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Cocoa Firefighters' Retirement Plan. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

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

Respectfully submitted,

Foster & Foster, Inc.

By:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #17-7778

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SUMMARY OF REPORT

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

The contribution requirements, compared with those set forth in the September 11, 2018, Actuarial Impact Statement (determined as of October 1, 2017), are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2018 <u>9/30/2020</u>	10/1/2017 <u>9/30/2019</u>
Minimum Required Contribution % of Projected Annual Payroll	81.26%	72.67%
Member Contributions (Est.) % of Projected Annual Payroll	6.50%	6.50%
City And State Required Contribution % of Projected Annual Payroll	74.76%	66.17%
State Contribution (Est.) <sup>1</sup> % of Projected Annual Payroll	\$109,865 5.53%	\$109,865 5.53%
City Required Contribution <sup>2</sup> % of Projected Annual Payroll	69.23%	60.64%

<sup>1</sup> Represents the amount received in calendar 2018. As per a Mutual Consent Agreement between the Membership and the City, all State Monies received each year will be available to offset the City's required contribution.

<sup>2</sup> The required contribution from the combination of City and State sources for the year ending September 30, 2020, is 74.76% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 69.23% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received. Please note that the City has access to a prepaid contribution of \$583.56 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2019.

Experience since the prior valuation was more favorable than expected, on the basis of the Plan's actuarial assumptions. The primary sources of actuarial gain included average increases in pensionable compensation that were below the assumption by almost 3% and favorable turnover experience.

In spite of the net favorable experience for the year, the Minimum Required Contribution shows an increase when compared to the results determined in the October 1, 2017 actuarial valuation (as updated with the September 11, 2018 Actuarial Impact Statement). The increase is primarily attributable to assumed valuation payroll, which decreased from the prior valuation and was further decreased by assumption changes resulting in an increase in the number of assumed retirements. It should be noted that when the Minimum Required Contribution is translated into a dollar value, the anticipated amount has decreased from the prior year.

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:   
Paul M. Baugher, FSA, EA, MAAA

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

Since the prior valuation, the following benefit changes have been adopted, as noted in our September 11, 2018 Actuarial Impact Statement:

A change in the eligibility for Normal Retirement from the prior structure to the following:

<u>Hire Date</u>	<u>Normal Retirement Eligibility</u> <sup>1</sup>
Prior to January 1, 1999	Age 52
January 1, 1999 – November 8, 2015	Age 52 with 10 years of Credited Service
After November 8, 2015	Age 55 with 10 years of Credited Service

<sup>1</sup> In addition to the completion of twenty-five years of Credited Service, regardless of age.

### Actuarial Assumption/Method Changes

Based on the actuarial experience study dated August 15, 2018, the Board made the following changes to assumptions:

- Reduced interest rate to 7.90%. The Board also approved further reductions in this assumption to 7.60% (10/1/2019) and 7.50% (10/1/2020).
- Modified salary increase rates to use a service-based table.
- Updated retirement, termination, and disability rates.

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2017 <sup>1</sup>	61.42%
(2) Summary of Contribution Impact by component:	
Change in State Contribution Percentage	-0.78%
Change in Normal Cost Rate	0.37%
Change in Administrative Expense Percentage	1.46%
Payroll Change Effect on UAAL Amortization	3.84%
Investment Return (Actuarial Asset Basis)	0.26%
Salary Increases	-1.25%
Active Decrements	-1.23%
Inactive Mortality	0.42%
Assumption Change	4.67%
Other	<u>0.05%</u>
Total Change in Contribution	7.81%
(3) Contribution Determined as of October 1, 2018	69.23%

<sup>1</sup> Based on results of the September 11, 2018 Actuarial Impact Statement.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
<b>A. Participant Data</b>			
Actives	36	36	38
Service Retirees	29	29	28
DROP Retirees	5	5	4
Beneficiaries	4	4	3
Disability Retirees	7	7	8
Terminated Vested	<u>6</u>	<u>6</u>	<u>3</u>
<b>Total</b>	<b>87</b>	<b>87</b>	<b>84</b>
Total Annual Payroll	\$2,130,424	\$2,130,915	\$2,312,330
Payroll Under Assumed Ret. Age	1,986,574	2,130,915	2,312,330
Annual Rate of Payments to:			
Service Retirees	1,208,449	1,208,449	1,159,989
DROP Retirees	283,187	283,187	193,868
Beneficiaries	135,324	135,324	98,302
Disability Retirees	148,390	148,390	196,964
Terminated Vested	35,844	35,844	0
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	20,391,587	20,391,587	19,008,380
Market Value (MVA) <sup>1</sup>	20,295,657	20,295,657	18,371,272
<b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	10,446,585	9,126,729	10,606,510
Disability Benefits	736,212	374,232	386,708
Death Benefits	43,888	23,478	24,990
Vested Benefits	0	585,600	600,819
Refund of Contributions	2,318	44,096	47,652
Service Retirees	13,796,531	13,669,875	13,040,439
DROP Retirees <sup>1</sup>	4,116,655	4,077,236	2,849,546
Beneficiaries	1,099,121	1,089,225	662,809
Disability Retirees	1,843,605	1,823,256	2,427,122
Terminated Vested	419,149	415,294	7,852
Share Plan Balances <sup>1</sup>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total</b>	<b>32,504,064</b>	<b>31,229,021</b>	<b>30,654,447</b>

C. Liabilities - (Continued)	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
Present Value of Future Salaries	20,835,544	16,015,522	16,382,378
Present Value of Future Member Contributions	1,354,310	1,041,009	1,064,855
Normal Cost (Retirement)	418,355	396,924	424,801
Normal Cost (Disability)	58,432	42,390	44,887
Normal Cost (Death)	2,672	1,807	1,851
Normal Cost (Vesting)	0	29,599	30,628
Normal Cost (Refunds)	<u>1,201</u>	<u>7,099</u>	<u>8,175</u>
Total Normal Cost	480,660	477,819	510,342
Present Value of Future Normal Costs	4,793,419	3,355,515	3,418,797
Accrued Liability (Retirement)	6,192,560	6,320,599	7,752,043
Accrued Liability (Disability)	222,413	118,325	127,350
Accrued Liability (Death)	20,329	12,180	13,593
Accrued Liability (Vesting)	0	336,269	340,592
Accrued Liability (Refunds)	282	11,247	14,304
Accrued Liability (Inactives) <sup>1</sup>	21,275,061	21,074,886	18,987,768
Share Plan Balances <sup>1</sup>	<u>0</u>	<u>0</u>	<u>0</u>
Total Actuarial Accrued Liability (EAN AL)	27,710,645	27,873,506	27,235,650
Unfunded Actuarial Accrued Liability (UAAL)	7,319,058	7,481,919	8,227,270
Funded Ratio (AVA / EAN AL)	73.6%	73.2%	69.8%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2018</u>	Old Assump <u>10/1/2018</u>	<u>10/1/2017</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	21,275,061	21,074,886	18,987,768
Actives	2,494,349	2,494,722	3,577,619
Member Contributions	<u>1,314,253</u>	<u>1,314,253</u>	<u>1,595,019</u>
Total	25,083,663	24,883,861	24,160,406
Non-vested Accrued Benefits	<u>860,682</u>	<u>974,341</u>	<u>824,373</u>
Total Present Value Accrued Benefits (PVAB)	25,944,345	25,858,202	24,984,779
Funded Ratio (MVA / PVAB)	78.2%	78.5%	73.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	86,143	0	
New Accrued Benefits	0	475,464	
Benefits Paid	0	(1,539,253)	
Interest	0	1,937,212	
Other	<u>0</u>	<u>0</u>	
Total	86,143	873,423	

	New Assump	Old Assump	
Valuation Date	10/1/2018	10/1/2018	10/1/2017
Applicable to Fiscal Year Ending	<u>9/30/2020</u>	<u>9/30/2020</u>	<u>9/30/2019</u>

#### E. Pension Cost

Normal Cost (with interest)			
% of Total Annual Payroll <sup>2</sup>	25.15	23.32	22.95
Administrative Expenses (with interest)			
% of Total Annual Payroll <sup>2</sup>	4.63	4.32	2.86
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 20 years (as of 10/1/2018, with interest)			
% of Total Annual Payroll <sup>2</sup>	51.48	48.95	46.86
Minimum Required Contribution			
% of Total Annual Payroll <sup>2</sup>	81.26	76.59	72.67
Expected Member Contributions			
% of Total Annual Payroll <sup>2</sup>	6.50	6.50	6.50
Expected City and State Contribution			
% of Total Annual Payroll <sup>2</sup>	74.76	70.09	66.17

#### F. Past Contributions

Plan Years Ending:	<u>9/30/2018</u>
City and State Requirement	1,389,574
Actual Contributions Made:	
Members (excluding buyback)	142,644
City	1,279,709
State	<u>109,865</u>
Total	1,532,218

G. Net Actuarial (Gain)/Loss (416,540)

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

<sup>2</sup> Contributions developed as of 10/1/2018 are expressed as a percentage of total annual payroll at 10/1/2018 of \$1,986,574 after assumption changes and of \$2,130,915 before assumption changes.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2018	7,319,058
2019	6,835,766
2020	6,314,290
2025	3,535,449
2029	739,618
2034	171,909
2038	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2018	2.11%	5.00%
Year Ended 9/30/2017	4.62%	5.00%
Year Ended 9/30/2016	21.90%	5.00%
Year Ended 9/30/2015	4.95%	5.00%
Year Ended 9/30/2014	2.27%	5.00%

(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2018	11.12%	7.80%	8.00%
Year Ended 9/30/2017	12.23%	7.60%	8.00%
Year Ended 9/30/2016	8.85%	8.46%	8.00%
Year Ended 9/30/2015	-0.52%	10.95%	8.00%
Year Ended 9/30/2014	10.29%	11.12%	8.00%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2018	\$2,130,424
	10/1/2008	1,543,116
(b) Total Increase		38.06%
(c) Number of Years		10.00
(d) Average Annual Rate		3.28%

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.



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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

Mr. Steve Bardin  
Municipal Police and Fire  
Pension Trust Funds  
Division of Retirement  
Post Office Box 3010  
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2017	\$8,227,270
(2) Sponsor Normal Cost developed as of October 1, 2017	360,041
(3) Expected administrative expenses for the year ended September 30, 2018	63,579
(4) Expected interest on (1), (2) and (3)	689,528
(5) Sponsor contributions to the System during the year ended September 30, 2018	1,389,574
(6) Expected interest on (5)	52,385
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2018 (1)+(2)+(3)+(4)-(5)-(6)	7,898,459
(8) Change to UAAL due to Assumption Change	(162,861)
(9) Change to UAAL due to Actuarial (Gain)/Loss	(416,540)
(10) Unfunded Actuarial Accrued Liability as of October 1, 2018	7,319,058

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2018 Amount</u>	<u>Amortization Amount</u>
	10/1/1997	9	444,754	65,709
	10/1/1998	10	803,210	110,438
	10/1/1999	11	2,330	301
method change	10/1/2002	12	1,377,386	168,514
actuarial loss	10/1/2002	12	1,377,386	168,514
actuarial gain	10/1/2003	12	(661,280)	(80,903)
actuarial loss	10/1/2004	12	735,150	89,941
actuarial loss	10/1/2005	12	646,171	79,055
actuarial gain	10/1/2006	12	(225,233)	(27,556)
actuarial gain	10/1/2007	12	(576)	(70)
actuarial loss	10/1/2008	12	824,307	100,848
assum. change	10/1/2008	12	(82,591)	(10,104)
actuarial loss	10/1/2009	12	1,147,469	140,385
actuarial loss	10/1/2010	2	114,930	59,649
assum. change	10/1/2010	12	493,900	60,425
actuarial loss	10/1/2011	3	232,978	83,633
assum. change	10/1/2011	13	413,313	48,198
actuarial gain	10/1/2012	4	(75,774)	(21,156)
actuarial gain	10/1/2013	5	(253,339)	(58,650)

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2018 <u>Amount</u>	Amortization <u>Amount</u>
software change	10/1/2013	15	(478,603)	(51,505)
actuarial gain	10/1/2014	6	(286,135)	(57,190)
benefit change	10/1/2014	16	(432,756)	(45,023)
use of excess reserve	10/1/2014	16	(460,835)	(47,944)
actuarial gain	10/1/2015	7	(618)	(110)
actuarial loss	10/1/2016	8	566,403	91,000
assum. change	10/1/2016	18	1,076,442	105,712
actuarial loss	10/1/2017	9	514,308	75,985
benefit change	10/1/2017	19	85,762	8,217
actuarial gain	10/1/2018	10	(416,540)	(57,273)
assum. change	10/1/2018	20	<u>(162,861)</u>	<u>(15,259)</u>
			7,319,058	983,781

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2017	\$8,227,270
(2) Expected UAAL as of October 1, 2018	7,898,459
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	37,918
Salary Increases	(185,422)
Active Decrements	(182,328)
Inactive Mortality	62,437
Other	<u>(149,145)</u>
Increase in UAAL due to (Gain)/Loss	(416,540)
Assumption Changes	<u>(162,861)</u>
(4) Actual UAAL as of October 1, 2018	\$7,319,058

## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

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

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

#### *Healthy Inactive Lives:*

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

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

#### *Disabled Lives:*

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

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

The above assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2016 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

### Interest Rate

7.90% (prior year 8.00%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

### Salary Increases

10.0% in year 1  
5.0% in years 2 through 9  
4.5% in years 10 through 14  
4.0% in years 15 and up

Previously 5.0%. These rates were developed in an August 15, 2018 Experience Study.

### Administrative Expenses

\$88,571 annually, based on actual expenses incurred in the prior fiscal year.

Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Normal Retirement

Service < 25 Years

Age 52: 25%  
Ages 53-54: 0%  
Ages 55: 50%  
Ages 56+: 100%

Service of 25 Years

25-26 Years: 33%  
27+Years: 100%

Previously 100% at normal retirement eligibility. These rates were developed in an August 15, 2018 Experience Study.

Early Retirement

None (previously 5% per year of eligibility), as adopted with the August 15, 2018 Experience Study.

Disability Rate

See table below (1205 x 1.25; previously 1205). It is assumed that 75% of disablements and active Member deaths are service related. These rates were developed in an August 15, 2018 Experience Study.

Termination

7.0% in first two years of service, 0% thereafter (previously table below (1302)). These rates were developed in an August 15, 2018 Experience Study.

Cost-of-Living Adjustment

3.0% per year at age 65.

Funding Method

Entry Age Normal Actuarial Cost Method.

Asset Smoothing Methodology

The Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). Over time, this may result in a de minimis bias that is above or below the Market Value of Assets.

<u>Age</u>	<u>Previous % Terminating During the Year</u>	<u>Current % Becoming Disabled During the Year</u>
20	6.0%	0.18%
30	5.0	0.23
40	2.6	0.38
50	0.8	1.25

## GLOSSARY

Total Annual Payroll is the projected annual 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 determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

- (a) The normal cost accrual rate equals:
  - (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by
  - (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the actuarial value of assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1996	82,173.78	_____ %
1997	86,327.80	5.1%
1998	84,352.55	-2.3%
1999	87,996.18	4.3%
2000	114,583.87	30.2%
2001	110,212.34	-3.8%
2002	122,910.78	11.5%
2003	133,257.30	8.4%
2004	118,324.53	-11.2%
2005	122,186.63	3.3%
2006	113,756.00	-6.9%
2007	134,067.95	17.9%
2008	168,204.17	25.5%
2009	173,647.65	3.2%
2010	128,323.21	-26.1%
2011	130,443.76	1.7%
2012	136,225.85	4.4%
2013	131,315.43	-3.6%
2014	129,468.40	-1.4%
2015	128,299.11	-0.9%
2016	115,232.79	-10.2%
2017	130,749.37	13.5%
2018	109,865.33	-16.0%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	1,703,238.34	1,703,238.34
Cash	32.51	32.51
Total Cash and Equivalents	1,703,270.85	1,703,270.85
Receivables:		
Member Contributions in Transit	2,440.33	2,440.33
City Contributions in Transit	328,000.00	328,000.00
Investment Income	30,446.78	30,446.78
Total Receivable	360,887.11	360,887.11
Investments:		
U. S. Bonds and Bills	823,150.42	797,279.20
Federal Agency Guaranteed Securities	920,221.45	889,312.47
Corporate Bonds	1,520,701.86	1,450,826.94
Stocks	10,034,522.75	13,196,842.48
Mutual Funds:		
Equity	28,321.74	27,898.00
Pooled/Common/Commingled Funds:		
Real Estate	1,610,139.24	1,894,878.00
Total Investments	14,937,057.46	18,257,037.09
Total Assets	17,001,215.42	20,321,195.05
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	24,954.84	24,954.84
Prepaid City Contribution	583.56	583.56
Total Liabilities	25,538.40	25,538.40
NET POSITION RESTRICTED FOR PENSIONS	16,975,677.02	20,295,656.65

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

ADDITIONS

Contributions:		
Member		142,644.23
City		1,279,708.93
State		109,865.33
Total Contributions		1,532,218.49
Investment Income:		
Net Realized Gain (Loss)	1,116,418.19	
Unrealized Gain (Loss)	661,182.22	
Net Increase in Fair Value of Investments		1,777,600.41
Interest & Dividends		392,447.69
Less Investment Expense <sup>1</sup>		(150,058.47)
Net Investment Income		2,019,989.63
Total Additions		3,552,208.12
<u>DEDUCTIONS</u>		
Distributions to Members:		
Benefit Payments		1,464,694.04
Lump Sum DROP Distributions		50,064.54
Refunds of Member Contributions		24,494.01
Total Distributions		1,539,252.59
Administrative Expense		88,571.27
Total Deductions		1,627,823.86
Net Increase in Net Position		1,924,384.26
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		18,371,272.39
End of the Year		20,295,656.65

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

ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2018

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>	
09/30/2015	-0.52%	
09/30/2016	8.85%	
09/30/2017	12.23%	
09/30/2018	11.12%	
Annualized Rate of Return for prior four (4) years:		7.80%
(A) 10/01/2017 Actuarial Assets:		\$19,008,380.33
(I) Net Investment Income:		
1. Interest and Dividends	392,447.69	
2. Realized Gains (Losses)	1,116,418.19	
3. Change in Actuarial Value	120,004.25	
4. Investment Related Expenses	(150,058.47)	
Total		1,478,811.66
(B) 10/01/2018 Actuarial Assets:		\$20,391,586.62
Actuarial Asset Rate of Return = 2I/(A+B-I):		7.80%
10/01/2018 Limited Actuarial Assets:		\$20,391,586.62
10/01/2018 Market Value of Assets:		\$20,295,656.65
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		(\$37,918.25)

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

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

REVENUES

Contributions:		
Member	142,644.23	
City	1,279,708.93	
State	109,865.33	
 Total Contributions		 1,532,218.49
Earnings from Investments:		
Interest & Dividends	392,447.69	
Net Realized Gain (Loss)	1,116,418.19	
Change in Actuarial Value	120,004.25	
 Total Earnings and Investment Gains		 1,628,870.13

EXPENDITURES

Distributions to Members:		
Benefit Payments	1,464,694.04	
Lump Sum DROP Distributions	50,064.54	
Refunds of Member Contributions	24,494.01	
 Total Distributions		 1,539,252.59
Expenses:		
Investment related <sup>1</sup>	150,058.47	
Administrative	88,571.27	
 Total Expenses		 238,629.74
 Change in Net Assets for the Year		 1,383,206.29
 Net Assets Beginning of the Year		 19,008,380.33
 Net Assets End of the Year <sup>2</sup>		 20,391,586.62

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

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

DEFERRED RETIREMENT OPTION PLAN ACTIVITY  
October 1, 2017 to September 30, 2018

Beginning of the Year Balance	307,901.80
Plus Additions	212,680.44
Investment Return Earned	23,238.65
Less Distributions	(50,064.54)
End of the Year Balance	493,756.35

RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2018

(1)	Total Required Contribution Rate	69.82%
(2)	Pensionable Payroll Derived from Member Contributions	\$2,194,526.62
(3)	Total Required Contribution (1) x (2)	1,532,218.49
(4)	Less Actual Member Contributions	(142,644.23)
(5)	Less Allowable State Contribution	<u>(109,865.33)</u>
(6)	Equals Required City Contribution for Fiscal 2018	1,279,708.93
(7)	Less 2017 Prepaid Contribution	(4,625.09)
(8)	Less Actual City Contributions	<u>(1,275,667.40)</u>
(9)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2018	(\$583.56)

STATISTICAL DATA

	<u>10/1/2015</u>	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>
<u>Actives</u>				
Number	40	39	38	36
Average Current Age	38.8	38.8	39.7	39.4
Average Age at Employment	28.5	29.0	29.4	30.2
Average Past Service	10.3	9.8	10.3	9.2
Average Annual Salary	\$49,247	\$58,641	\$60,851	\$59,178
<u>Service Retirees</u>				
Number	27	28	28	29
Average Current Age	68.5	68.4	69.4	69.7
Average Annual Benefit	\$39,499	\$41,170	\$41,428	\$41,671
<u>DROP Retirees</u>				
Number	3	3	4	5
Average Current Age	53.7	51.6	51.7	51.8
Average Annual Benefit	\$51,152	\$49,558	\$48,467	\$56,637
<u>Beneficiaries</u>				
Number	3	3	3	4
Average Current Age	62.6	63.6	64.6	60.8
Average Annual Benefit	\$32,623	\$32,678	\$32,767	\$33,831
<u>Disability Retirees</u>				
Number	7	8	8	7
Average Current Age	59.1	58.3	59.3	62.1
Average Annual Benefit	\$20,886	\$22,854	\$24,621	\$21,199
<u>Terminated Vested</u>				
Number	0	0	0	6
Average Current Age <sup>1</sup>	N/A	N/A	N/A	50.2
Average Annual Benefit <sup>1</sup>	N/A	N/A	N/A	\$35,844

<sup>1</sup> The Average Current Age and Average Annual Benefit excludes participants awaiting a refund of contributions.

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0	0	0
25 - 29	1	0	0	0	2	0	0	0	0	0	0	3
30 - 34	1	0	1	1	0	2	5	0	0	0	0	10
35 - 39	0	1	0	1	0	2	2	1	0	0	0	7
40 - 44	2	0	0	0	0	0	3	2	0	0	0	7
45 - 49	0	0	1	0	0	1	0	0	1	0	0	3
50 - 54	0	0	0	1	0	0	2	0	0	1	0	4
55 - 59	0	0	0	0	0	0	0	1	0	0	0	1
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	1	0	0	0	0	0	1
Total	4	1	2	3	2	6	12	4	1	1	0	36

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2017	38
b. Terminations	
i. Vested (partial or full) with deferred benefits	(3)
ii. Non-vested or full lump sum distribution received	(1)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>(2)</u>
g. Continuing participants	32
h. New entrants	<u>4</u>
i. Total active life participants in valuation	36

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

	Service Retirees, Vested Receiving	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested Deferred	Total
	<u>Benefits</u>	<u>Benefits</u>	<u>Benefits</u>	<u>Benefits</u>	<u>Deferred</u>	<u>Total</u>
a. Number prior valuation	28	4	3	8	3	46
Retired	1	(1)	0	0	0	0
DROP	0	2	0	0	0	2
Vested Deferred	0	0	0	0	4	4
Death, With Survivor	0	0	1	(1)	0	0
Death, No Survivor	0	0	0	0	0	0
Disabled	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	(1)	(1)
Rehires	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0
b. Number current valuation	29	5	4	7	6	51

## SUMMARY OF CURRENT PLAN

<u>Original Effective Date</u>	May 13, 1958.
<u>Latest Ordinance</u>	Ordinance No. 09-2018.
<u>Eligibility</u>	Full time certified Firefighters from date of employment, including probationary period.  Mandatory as a condition of employment.
<u>Credited Service</u>	Total aggregate length of time employed by the City as a Firefighter, whether continuous or not, so long as Member contributions attributable to such periods of service remain in Fund in the event of termination of employment with the City and subsequent reemployment within 5 years.
<u>Average Monthly Earnings</u>	Average earnings (see below) for the highest 3 consecutive years during the 10 years immediately preceding retirement or termination. For Members hired on or after October 27, 2015, average earnings for the highest 5 years during the 10 years immediately preceding retirement or termination.
<u>Earnings</u>	W-2 Earnings plus tax deferred and tax-exempt items of income, for earnings prior to October 27, 2015. Earnings after that date shall mean regular base pay including state funded incentives, holiday pay, driver and paramedic (solo or nonsolo) pay, and overtime pay up to 100 hours per fiscal year. Payments for non-City events, overtime pay in excess of 100 hours per fiscal year, and payments for sick and annual leave in excess of the hours accrued as of August 8, 2013 are excluded.
<u>Member Contribution</u>	6.5% of Compensation.
<u>Interest on Member Contributions</u>	4.5% per year.
<u>City Contributions</u>	Amount required after Member contributions and State premium tax refunds in order to pay current costs and amortize unfunded past service cost over 30 years.

## Normal Retirement

### Date

Hired prior to January 1, 1999

Earlier of age 52 or the completion of 25 years of Credited Service.

Hired January 1, 1999 to November 8, 2015

Earlier of age 52 with 10 years of service or the completion of 25 years of Credited Service.

Hired after November 8, 2015

Earlier of age 55 with 10 years of service or the completion of 25 years of Credited Service.

### Benefit

3.00% of Average Monthly Earnings times Years of Credited Service.

### Form of Benefit

Ten Year Certain and Life Annuity (options available).

## Early Retirement

### Eligibility

Age 50 and 10 Years of Credited Service.

### Benefit

Accrued benefit, reduced 3% per year.

## Delayed Retirement

Allowable beyond age 70 with consent of the Board. Benefit continued to accrue.

## Cost-of-Living Adjustment for Retirees

Up to 3% per year beginning at age 65.

## Vesting (Termination of Employment)

### Less than 10 Years

Refund of Member Contributions, with interest.

### 10 Years or More

Accrued pension payable at Normal Retirement, or, on a reduced basis at Early Retirement, or refund of contributions with interest.

## Disability

### Eligibility

Total and permanent; not able to perform any useful duties or service for Fire Department. Board can require periodic re-examination.

### Waiting Period

#### Service Connected

At expiration of sick pay and accrued vacation pay.

#### Non-Service Connected

6 months from date of disability.

### Exclusions

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

### Benefit

#### Service Connected

Accrued benefit (at the 3% benefit rate) with a minimum of 42% of Average Monthly Earnings.

#### Non-Service Connected

25% of pay on date of disability.

Duration	Benefit payable for life (with 120 payments guaranteed) or until recovery, as determined by the Board (optional forms of payment available).
<u>Pre-Retirement Death</u> If Not Vested	Refund of contributions plus 4.5% interest.
After Vested	Accrued Benefit (determined using a 2.0% Benefit Multiplier Rate) payable to Beneficiary for 120 months at the Normal Retirement Date (unreduced), Early Retirement Date (reduced as for Early Retirement), or immediately (actuarially reduced for commencement prior to the Early Retirement Date).
<u>Death After Retirement</u>	Benefit payable in accordance with optional form of pension selected at time of retirement.
<u>Chapter 175 Share Accounts</u>	<p>Effective September 30, 2015, a share plan was established pursuant to Chapter 175, Florida Statutes.</p> <p>The City and IAFF Local 2416 have mutually agreed that share plan will not be funded during the 2015 - 2018 collective bargaining agreement.</p>
<u>Board of Trustees</u>	<p>a) Two City Council appointees,</p> <p>b) Two Members of the System elected by a majority of the other covered Firefighters, and</p> <p>c) A fifth Member elected by the other 4 and appointed by Council.</p>

Deferred Retirement Option Plan

Eligibility

Satisfaction of Normal Retirement requirements.

Participation

Not to exceed 60 months.

Rate of Return

DROP Entry prior to April 1, 2012

At Participant's election (may change semi-annually), either:

- a) Actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal year quarter, or
- b) 7.99% fixed.

DROP Entry after March 31, 2012

At Participant's election (may change semi-annually), either:

- a) Actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal year quarter, or
- b) Net rate of investment return, not less than 4%, nor greater than 6.5%.

Form of Distribution

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

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2018

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	1,703,238
Cash	33
Total Cash and Equivalents	1,703,271
Receivables:	
Member Contributions in Transit	2,440
City Contributions in Transit	328,000
Investment Income	30,447
Total Receivable	360,887
Investments:	
U. S. Bonds and Bills	797,279
Federal Agency Guaranteed Securities	889,312
Corporate Bonds	1,450,827
Stocks	13,196,843
Mutual Funds:	
Equity	27,898
Real Estate	1,894,878
Total Investments	18,257,037
Total Assets	20,321,195
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	24,955
Unearned Revenue	583
Total Liabilities	25,538
NET POSITION RESTRICTED FOR PENSIONS	20,295,657

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

ADDITIONS

## Contributions:

Member	142,644	
City	1,279,709	
State	109,866	
 Total Contributions		 1,532,219
 Investment Income:		
Net Increase in Fair Value of Investments	1,777,600	
Interest & Dividends	392,448	
Less Investment Expense <sup>1</sup>	(150,058)	
 Net Investment Income		 2,019,990
 Total Additions		 3,552,209

DEDUCTIONS

## Distributions to Members:

Benefit Payments	1,464,694	
Lump Sum DROP Distributions	50,065	
Refunds of Member Contributions	24,494	
 Total Distributions		 1,539,253
 Administrative Expense		 88,571
 Total Deductions		 1,627,824
 Net Increase in Net Position		 1,924,385
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		18,371,272
 End of the Year		 20,295,657

<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, 2018)

Plan Description

*Plan Administration*

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

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered Firefighters, and
- c) A fifth Member elected by the other 4 and appointed by Council.

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	43
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	38
	84

*Benefits Provided*

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

Normal Retirement:

Date: Earlier of age 55 with 10 years of service or the completion of 25 years of Credited Service. Members with at least 10 years of Credited Service on October 27, 2015 as well as Members who were within 7 years of normal retirement eligibility on that date retain the normal retirement date previously in effect: earlier of age 52 and 10 years of Credited Service or the completion of 25 years of Credited Service.

Benefit: 3.00% of Average Monthly Earnings times Years of Credited Service.

Early Retirement:

Eligibility: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year.

Delayed Retirement:

Allowable beyond age 70 with consent of the Board. Benefit continued to accrue.

Cost-of-Living Adjustment for Retirees:

Up to 3% per year beginning at age 65.

Vesting (Termination of Employment):

Less than 10 years: Refund of Member Contributions, with interest.

10 years or more: Accrued pension payable at Normal Retirement, or, on a reduced basis at Early Retirement, or refund of contributions with interest.

Disability:

Eligibility: Total and permanent; not able to perform any useful duties or service for Fire Department. Board can require periodic re-examination.

Waiting Period Service Connected: At expiration of sick pay and accrued vacation pay.

Waiting Period Non-Service Connected: 6 months from date of disability.

Benefit Amount Service Connected: Accrued benefit (at the 3% benefit rate) with a minimum of 42% of Average Monthly Earnings.

Benefit Amount Non-Service Connected: 25% of pay on date of disability.

Pre-Retirement Death Benefits:

If Not Vested: Refund of contributions plus 4.5% interest.

After Vested: Accrued Benefit (determined using a 2.0% Benefit Multiplier Rate) payable to Beneficiary for 120 months at the Normal Retirement Date (unreduced), Early Retirement Date (reduced as for Early Retirement), or immediately (actuarially reduced for commencement prior to the Early Retirement Date).

Chapter 175 Share Accounts

Effective September 30, 2015, a share plan was established pursuant to Chapter 175, Florida Statutes. The City and IAFF Local 2416 have mutually agreed that share plan will not be funded during the 2015 - 2018 collective bargaining agreement.

*Contributions*

Member Contribution: 6.5% of Compensation.  
 Interest on Member Contributions: 4.5% per year.  
 City Contributions: Amount required after Member contributions and State premium tax refunds in order to pay current costs and amortize unfunded past service cost over 30 years.

**Investments**

*Investment Policy:*

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

<u>Asset Class</u>	<u>Target Allocation</u>
Large Cap Equity	40.0%
Smid Cap Equity	20.0%
International Equity	10.0%
Fixed Income	20.0%
Real Estate	10.0%
Total	100.0%

*Concentrations:*

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

*Rate of Return:*

For the year ended September 30, 2018, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 11.12 percent.

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

Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements.

Participation: Not to exceed 60 months.

Rate of Return DROP Entry prior to April 1, 2012: At Participant's election (may change semi-annually), either:

- a) Actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal year quarter, or
- b) 7.99% fixed

DROP Entry after March 31, 2012:

At Participant's election (may change semi-annually), either:

- a) Actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal year quarter, or
- b) Net rate of investment return, not less than 4%, nor greater than 6.5%.

The DROP balance as September 30, 2018 is \$493,756.

## NET PENSION LIABILITY OF THE SPONSOR

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

Total Pension Liability	\$ 28,085,627
Plan Fiduciary Net Position	\$ (20,295,657)
Sponsor's Net Pension Liability	\$ 7,789,970
Plan Fiduciary Net Position as a percentage of Total Pension Liability	72.26%

*Actuarial Assumptions:*

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

Inflation	3.00%
Salary Increases	Service based
Discount Rate	7.90%
Investment Rate of Return	7.90%

*Mortality Rate Healthy Active Lives:*

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

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

*Mortality Rate 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

*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 August 15, 2018.

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

For 2018 the inflation rate assumption of the investment advisor was 3.00%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Large Cap Equity	6.07%
Smid Cap Equity	8.65%
International Equity	4.25%
Fixed Income	1.39%
Real Estate	6.35%

## GASB 67

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.90 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
	6.90%	7.90%	8.90%
Sponsor's Net Pension Liability	\$ 11,188,702	\$ 7,789,970	\$ 4,989,715

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

	09/30/2018	09/30/2017	09/30/2016
Total Pension Liability			
Service Cost	517,114	497,902	437,785
Interest	2,105,795	1,964,536	1,793,566
Change in Excess State Money	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	556,795	786,130	494,099
Changes of assumptions	(129,772)	-	1,122,630
Benefit Payments, including Refunds of Employee Contributions	(1,539,253)	(1,464,836)	(2,077,311)
Net Change in Total Pension Liability	1,510,679	1,783,732	1,770,769
Total Pension Liability - Beginning	26,574,948	24,791,216	23,020,447
Total Pension Liability - Ending (a)	<u>\$ 28,085,627</u>	<u>\$ 26,574,948</u>	<u>\$ 24,791,216</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,279,709	1,306,976	1,391,074
Contributions - State	109,866	130,749	115,233
Contributions - Employee	142,644	146,845	152,199
Net Investment Income	2,019,990	1,977,411	1,340,094
Benefit Payments, including Refunds of Employee Contributions	(1,539,253)	(1,464,836)	(2,077,311)
Administrative Expense	(88,571)	(63,579)	(84,495)
Net Change in Plan Fiduciary Net Position	1,924,385	2,033,566	836,794
Plan Fiduciary Net Position - Beginning	18,371,272	16,337,706	15,500,912
Plan Fiduciary Net Position - Ending (b)	<u>\$ 20,295,657</u>	<u>\$ 18,371,272</u>	<u>\$ 16,337,706</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 7,789,970</u>	<u>\$ 8,203,676</u>	<u>\$ 8,453,510</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	72.26%	69.13%	65.90%
Covered Employee Payroll <sup>1</sup>	\$ 2,194,527	\$ 2,259,154	\$ 2,341,531
Net Pension Liability as a percentage of Covered Employee Payroll	354.97%	363.13%	361.02%

**Notes to Schedule:**

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

*Changes of Assumptions:*

For measurement date 09/30/2018, amounts reported as changes of assumptions resulted from an actuarial experience dated August 15, 2018, the Board made the following changes:

- Reduced interest rate to 7.90%
- Modified salary increase rates to use a service-based table
- Updated retirement, termination, and disability rates

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

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

	09/30/2015	09/30/2014	09/30/2013
Total Pension Liability			
Service Cost	428,719	433,714	401,587
Interest	1,712,414	1,731,706	1,667,954
Change in Excess State Money	-	34,809	-
Changes of benefit terms	(1,070,557)	-	-
Differences between Expected and Actual Experience	7,133	-	-
Changes of assumptions	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,309,918)	(1,352,119)	(1,257,399)
Net Change in Total Pension Liability	(232,209)	848,110	812,142
Total Pension Liability - Beginning	23,252,656	22,404,546	21,592,404
Total Pension Liability - Ending (a)	<u>\$ 23,020,447</u>	<u>\$ 23,252,656</u>	<u>\$ 22,404,546</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,442,906	1,720,919	1,396,736
Contributions - State	128,299	129,468	131,315
Contributions - Employee	140,228	134,687	123,350
Net Investment Income	(79,330)	1,370,989	1,803,503
Benefit Payments, including Refunds of Employee Contributions	(1,309,918)	(1,352,119)	(1,257,399)
Administrative Expense	(95,930)	(56,334)	(64,198)
Net Change in Plan Fiduciary Net Position	226,255	1,947,610	2,133,308
Plan Fiduciary Net Position - Beginning	15,274,657	13,327,047	11,193,739
Plan Fiduciary Net Position - Ending (b)	<u>\$ 15,500,912</u>	<u>\$ 15,274,657</u>	<u>\$ 13,327,047</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 7,519,535</u>	<u>\$ 7,977,998</u>	<u>\$ 9,077,499</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	67.34%	65.69%	59.48%
Covered Employee Payroll <sup>1</sup>	\$ 2,257,178	\$ 2,072,106	\$ 1,897,692
Net Pension Liability as a percentage of Covered Employee Payroll	333.14%	385.02%	478.34%

**Notes to Schedule:**

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

*Changes of Benefit Terms:*

For measurement date 09/30/2015, amounts reported as benefit changes were resulted from:

1. For Members hired on or after October 27, 2015, Average Final Compensation period was increased from the 3 highest consecutive years to the 5 highest years of service of the 10 years immediately preceding retirement. The impact of this change will be reflected in future GASB results.
2. Effective October 27, 2015, the definition of Salary was amended to mean base pay including state funded incentives, holiday pay, driver and paramedic (solo or non-solo) pay, and overtime pay up to 100 hours per fiscal year; but excluding payments for non-City events (special details) and overtime pay in excess of 100 hours per fiscal year. Additionally, in order to comply with the regulations set forth in Senate Bill 1128, Salary will include the lesser of the amount of sick and vacation leave time accrued as of August 8, 2013, or the actual amount of sick and vacation leave time for which the retiree receives payment at the time of retirement.

*Continued Changes of Benefit Terms:*

3. A provision was incorporated that allows the fire chief to opt out of the Plan provided that such election is made within the first 30 days of employment as chief.

4. Effective September 30, 2015, all funds in the excess premium tax reserve shall be applied to reduce the unfunded actuarial accrued liability of the Plan. All premium tax revenues received pursuant to Chapter 175, Florida Statutes, beginning with the fiscal year ending September 30, 2015, and each fiscal year thereafter, shall be applied to reduce the City's annual required contribution.

5. For Members with less than 10 years of Credited Service as of the Effective Date of the Ordinance and Members hired after the Effective Date of the Ordinance, increasing the Normal Retirement Date from the earlier of the attainment of age 52 with 10 years of service or the completion of 25 years of service to the earlier of the attainment of age 55 with 10 years of service or the completion of 25 years of service. However, for those members who have attained age 45 and are within 7 years of attaining normal retirement, the Normal Retirement eligibility requirements shall remain unchanged.

6. Providing for creation of a Share Plan in order to comply with Chapter 2015-39, Laws of Florida. Please note the City and the IAFF Local 2416 have mutually agreed that the share plan will not be funded during the term of the 2015-2018 collective bargaining agreement.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Employee Payroll <sup>1</sup>	Total Contributions as a percentage of Covered Employee Payroll
09/30/2018	\$ 1,389,575	\$ 1,389,575	\$ -	\$ 2,194,527	63.32%
09/30/2017	\$ 1,437,725	\$ 1,437,725	\$ -	\$ 2,259,154	63.64%
09/30/2016	\$ 1,506,307	\$ 1,506,307	\$ -	\$ 2,341,531	64.33%
09/30/2015	\$ 1,571,205	\$ 1,571,205	\$ -	\$ 2,257,178	69.61%
09/30/2014	\$ 1,815,579	\$ 1,815,579	\$ -	\$ 2,072,106	87.62%
09/30/2013	\$ 1,491,396	\$ 1,491,396	\$ -	\$ 1,897,692	78.59%

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

Notes to Schedule

Valuation Date: 10/01/2016  
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:

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

Interest Rate: 8.0% 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 (age 52 for Members unaffected by the change to normal retirement provisions described in Ordinance 14-2015) with 10 years of service or 25 years of credited service. Also, any Member who has reached Normal Retirement is assumed to continue employment for one additional year. We feel this assumption is reasonable based on the plan provisions.

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Early Retirement:	Commencing with a Member's eligibility for Early Retirement (Age 50 with 10 years of Service), Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. We feel this assumption is reasonable based on the 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 Firefighters.
Termination Rates:	See table below (1302). This assumption was developed from those used by other plans containing Florida municipal Firefighters.
Salary Increases:	5.0% per year until the assumed retirement Age. Projected salary at retirement is increased on an individual basis to account for non-regular compensation. We believe this assumption is reasonable compared to long term experience realized by the Plan.
Payroll Growth:	None.
Cost-of-Living Adjustment:	3.0% per year at age 65.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Asset Smoothing Methodology:	The Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). Over time, this may result in a deminimis bias that is above or below the Market Value of Assets.

### Termination and Disability Rate Table:

Age	% Terminating During the Year	% Becoming Disabled During the Year
20	6.0%	0.14%
30	5.0%	0.18%
40	2.6%	0.30%
50	0.8%	1.00%

**SCHEDULE OF INVESTMENT RETURNS**  
Last 10 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2018	11.12%
09/30/2017	12.23%
09/30/2016	9.03%
09/30/2015	-0.19%
09/30/2014	10.29%
09/30/2013	15.88%

## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2018)

### General Information about the Pension Plan

*Plan Description*

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

- a) Two City Council appointees,
- b) Two Members of the System elected by a majority of the other covered Firefighters, and
- c) A fifth Member elected by the other 4 and appointed by Council.

Each person employed by the City Fire Department as a full-time sworn Firefighter becomes a Member of the Plan as a condition of his employment, including during probationary period. All Firefighters are therefore eligible for plan benefits as provided for in the plan document and by applicable law.

*Plan Membership as of October 1, 2017:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	43
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	38
	84
	84

*Benefits Provided*

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

Normal Retirement:

Date: Earlier of age 55 with 10 years of service or the completion of 25 years of Credited Service. Members with at least 10 years of Credited Service on October 27, 2015 as well as Members who were within 7 years of normal retirement eligibility on that date retain the normal retirement date previously in effect: earlier of age 52 and 10 years of Credited Service or the completion of 25 years of Credited Service.

Benefit: 3.00% of Average Monthly Earnings times Years of Credited Service.

Early Retirement:

Eligibility: Age 50 and 10 Years of Credited Service.

Benefit: Accrued benefit, reduced 3% per year.

Delayed Retirement:

Allowable beyond age 70 with consent of the Board. Benefit continued to accrue.

Cost-of-Living Adjustment for Retirees:

Up to 3% per year beginning at age 65.

Vesting (Termination of Employment):

Less than 10 years: Refund of Member Contributions, with interest.

10 years or more: Accrued pension payable at Normal Retirement, or, on a reduced basis at Early Retirement, or refund of contributions with interest.

Disability:

Eligibility: Total and permanent; not able to perform any useful duties or service for Fire Department. Board can require periodic re-examination.

Waiting Period Service Connected: At expiration of sick pay and accrued vacation pay.

Waiting Period Non-Service Connected: 6 months from date of disability.

Benefit Amount Service Connected: Accrued benefit (at the 3% benefit rate) with a minimum of 42% of Average Monthly

Benefit Amount Non-Service Connected: 25% of pay on date of disability.

Pre-Retirement Death Benefits:

If Not Vested: Refund of contributions plus 4.5% interest.

After Vested: Accrued Benefit (determined using a 2.0% Benefit Multiplier Rate) payable to Beneficiary for 120 months at the Normal Retirement Date (unreduced), Early Retirement Date (reduced as for Early Retirement), or immediately (actuarially reduced for commencement prior to the Early Retirement Date).

Chapter 175 Share Accounts

Effective September 30, 2015, a share plan was established pursuant to Chapter 175, Florida Statutes. The City and IAFF Local 2416 have mutually agreed that share plan will not be funded during the 2015 - 2018 collective bargaining agreement.

*Contributions*

Member Contribution: 6.5% of Compensation.  
 Interest on Member Contributions: 4.5% per year.  
 City Contributions: Amount required after Member contributions and State premium tax refunds in order to pay current costs and amortize unfunded past service cost over 30 years.

Net Pension Liability

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

The Sponsor's Net Pension Liability was measured as of September 30, 2018.  
 The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

*Actuarial Assumptions:*

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

Inflation	3.00%
Salary Increases	Service based
Discount Rate	7.90%
Investment Rate of Return	7.90%

*Mortality Rate Healthy Active Lives:*

Female: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.  
 Male: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

*Mortality Rate 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

*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 August 15, 2018.

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

For 2018 the inflation rate assumption of the investment advisor was 3.00%.

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.

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Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2018 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return</u>
Large Cap Equity	40.0%	6.07%
Smid Cap Equity	20.0%	8.65%
International Equity	10.0%	4.25%
Fixed Income	20.0%	1.39%
Real Estate	10.0%	2.20%
Total	<u>100.0%</u>	

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.90 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)
Balance at September 30, 2017	\$ 26,574,948	\$ 18,371,272	\$ 8,203,676
Changes for a Year:			
Service Cost	517,114	-	517,114
Interest	2,105,795	-	2,105,795
Differences between Expected and Actual Experience	556,795	-	556,795
Changes of assumptions	(129,772)	-	(129,772)
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,279,709	(1,279,709)
Contributions - State	-	109,866	(109,866)
Contributions - Employee	-	142,644	(142,644)
Net Investment Income	-	2,019,990	(2,019,990)
Benefit Payments, including Refunds of Employee Contributions	(1,539,253)	(1,539,253)	-
Administrative Expense	-	(88,571)	88,571
Net Changes	1,510,679	1,924,385	(413,706)
Balance at September 30, 2018	\$ 28,085,627	\$ 20,295,657	\$ 7,789,970

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.90%	7.90%	8.90%
Sponsor's Net Pension Liability	\$ 11,188,702	\$ 7,789,970	\$ 4,989,715

*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, 2018, the Sponsor will recognize a Pension Expense of \$1,593,998.

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

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	1,134,740	-
Changes of assumptions	449,052	108,145
Net difference between Projected and Actual Earnings on Pension Plan investments	-	629,535
<b>Total</b>	<b>\$ 1,583,792</b>	<b>\$ 737,680</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:			
2019	\$	547,391	
2020	\$	283,259	
2021	\$	(16,056)	
2022	\$	(39,652)	
2023	\$	71,170	
Thereafter	\$	-	

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

	09/30/2018	09/30/2017	09/30/2016
Total Pension Liability			
Service Cost	517,114	497,902	437,785
Interest	2,105,795	1,964,536	1,793,566
Change in Excess State Money	-	-	-
Changes of benefit terms	-	-	-
Differences between Expected and Actual Experience	556,795	786,130	494,099
Changes of assumptions	(129,772)	-	1,122,630
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Total Pension Liability - Ending (a)	<u>\$ 28,085,627</u>	<u>\$ 26,574,948</u>	<u>\$ 24,791,216</u>
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*Changes of Assumptions:*

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Changes of assumptions	-	-	-
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Net Investment Income	(79,330)	1,370,989	1,803,503
Benefit Payments, including Refunds of Employee Contributions	(1,309,918)	(1,352,119)	(1,257,399)
Administrative Expense	(95,930)	(56,334)	(64,198)
Net Change in Plan Fiduciary Net Position	226,255	1,947,610	2,133,308
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Plan Fiduciary Net Position - Ending (b)	<u>\$ 15,500,912</u>	<u>\$ 15,274,657</u>	<u>\$ 13,327,047</u>
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Covered Employee Payroll <sup>1</sup>	\$ 2,257,178	\$ 2,072,106	\$ 1,897,692
Net Pension Liability as a percentage of Covered Employee Payroll	333.14%	385.02%	478.34%

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

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For measurement date 09/30/2015, amounts reported as benefit changes were resulted from:

1. For Members hired on or after October 27, 2015, Average Final Compensation period was increased from the 3 highest consecutive years to the 5 highest years of service of the 10 years immediately preceding retirement. The impact of this change will be reflected in future GASB results.
2. Effective October 27, 2015, the definition of Salary was amended to mean base pay including state funded incentives, holiday pay, driver and paramedic (solo or non-solo) pay, and overtime pay up to 100 hours per fiscal year; but excluding payments for non-City events (special details) and overtime pay in excess of 100 hours per fiscal year. Additionally, in order to comply with the regulations set forth in Senate Bill 1128, Salary will include the lesser of the amount of sick and vacation leave time accrued as of August 8, 2013, or the actual amount of sick and vacation leave time for which the retiree receives payment at the time of retirement.

*Continued Changes of Benefit Terms:*

3. A provision was incorporated that allows the fire chief to opt out of the Plan provided that such election is made within the first 30 days of employment as chief.
4. Effective September 30, 2015, all funds in the excess premium tax reserve shall be applied to reduce the unfunded actuarial accrued liability of the Plan. All premium tax revenues received pursuant to Chapter 175, Florida Statutes, beginning with the fiscal year ending September 30, 2015, and each fiscal year thereafter, shall be applied to reduce the City's annual required contribution.
5. For Members with less than 10 years of Credited Service as of the Effective Date of the Ordinance and Members hired after the Effective Date of the Ordinance, increasing the Normal Retirement Date from the earlier of the attainment of age 52 with 10 years of service or the completion of 25 years of service to the earlier of the attainment of age 55 with 10 years of service or the completion of 25 years of service. However, for those members who have attained age 45 and are within 7 years of attaining normal retirement, the Normal Retirement eligibility requirements shall remain unchanged.
6. Providing for creation of a Share Plan in order to comply with Chapter 2015-39, Laws of Florida. Please note the City and the IAFF Local 2416 have mutually agreed that the share plan will not be funded during the term of the 2015-2018 collective bargaining agreement.

**SCHEDULE OF CONTRIBUTIONS**  
Last 10 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Employee Payroll <sup>1</sup>	Total Contributions as a percentage of Covered Employee Payroll
09/30/2018	\$ 1,389,575	1,389,575	\$ -	\$ 2,194,527	63.32%
09/30/2017	\$ 1,437,725	\$ 1,437,725	\$ -	\$ 2,259,154	63.64%
09/30/2016	\$ 1,506,307	\$ 1,506,307	\$ -	\$ 2,341,531	64.33%
09/30/2015	\$ 1,571,205	\$ 1,571,205	\$ -	\$ 2,257,178	69.61%
09/30/2014	\$ 1,815,579	\$ 1,815,579	\$ -	\$ 2,072,106	87.62%
09/30/2013	\$ 1,491,396	\$ 1,491,396	\$ -	\$ 1,897,692	78.59%

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

Notes to Schedule

Valuation Date: 10/01/2016

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:

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

Interest Rate:

8.0% 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 (age 52 for Members unaffected by the change to normal retirement provisions described in Ordinance 14-2015) with 10 years of service or 25 years of credited service. Also, any Member who has reached Normal Retirement is assumed to continue employment for one additional year. We feel this assumption is reasonable based on the plan provisions.

Early Retirement:

Commencing with a Member’s eligibility for Early Retirement (Age 50 with 10 years of Service), Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. We feel this assumption is reasonable based on the plan provisions.

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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 Firefighters.
Termination Rates:	See table below (1302). This assumption was developed from those used by other plans containing Florida municipal Firefighters.
Salary Increases:	5.0% per year until the assumed retirement Age. Projected salary at retirement is increased on an individual basis to account for non-regular compensation. We believe this assumption is reasonable compared to long term experience realized by
Payroll Growth:	None.
Cost-of-Living Adjustment:	3.0% per year at age 65.
Funding Method:	Entry Age Normal Actuarial Cost Method.
Asset Smoothing Methodology:	The Actuarial Value of Assets is brought forward using the historical four-year geometric average of Market Value Returns (net-of-fees). Over time, this may result in a deminimis bias that is above or below the Market Value of Assets.

Termination and Disability Rate Table:

Age	% Terminating During the Year	Disabled During the Year
20	6.0%	0.14%
30	5.0%	0.18%
40	2.6%	0.30%
50	0.8%	1.00%

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

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

**COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2018**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 8,203,676	\$ 662,965	\$ 2,127,206	\$ -
Total Pension Liability Factors:				
Service Cost	517,114	-	-	517,114
Interest	2,105,795	-	-	2,105,795
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	556,795	-	556,795	-
Current year amortization of experience difference	-	-	(350,273)	350,273
Change in assumptions about future economic or demographic factors or other inputs	(129,772)	129,772	-	-
Current year amortization of change in assumptions	-	(21,627)	(224,526)	202,899
Benefit Payments, including Refunds of Employee Contributions	(1,539,253)	-	-	-
Net change	<u>1,510,679</u>	<u>108,145</u>	<u>(18,004)</u>	<u>3,176,081</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,279,709	-	-	-
Contributions - State	109,866	-	-	-
Contributions - Employee	142,644	-	-	(142,644)
Projected Net Investment Income	1,465,878	-	-	(1,465,878)
Difference between projected and actual earnings on Pension Plan investments	554,112	554,112	-	-
Current year amortization	-	(324,837)	(262,705)	(62,132)
Benefit Payments, including Refunds of Employee Contributions	(1,539,253)	-	-	-
Administrative Expenses	(88,571)	-	-	88,571
Net change	<u>1,924,385</u>	<u>229,275</u>	<u>(262,705)</u>	<u>(1,582,083)</u>
Ending Balance	<u><u>\$ 7,789,970</u></u>	<u><u>\$ 1,000,385</u></u>	<u><u>\$ 1,846,497</u></u>	<u><u>\$ 1,593,998</u></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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2014	\$ (281,760)	5	\$ (56,352)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 1,313,526	5	\$ 262,705	\$ 262,705	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (120,153)	5	\$ (24,031)	\$ (24,031)	\$ (24,031)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (668,148)	5	\$ (133,630)	\$ (133,630)	\$ (133,630)	\$ (133,630)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (554,112)	5	\$ (110,824)	\$ (110,822)	\$ (110,822)	\$ (110,822)	\$ (110,822)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (62,132)	\$ (5,778)	\$ (268,483)	\$ (244,452)	\$ (110,822)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

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

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2016	\$ 1,122,630	5.00	\$ 224,526	\$ 224,526	\$ 224,526	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (129,772)	6.00	\$ (21,627)	\$ (21,629)	\$ (21,629)	\$ (21,629)	\$ (21,629)	\$ (21,629)	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 202,899	\$ 202,897	\$ 202,897	\$ (21,629)	\$ (21,629)	\$ (21,629)	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2015	\$ 7,133	5	\$ 1,427	\$ 1,427	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 494,099	5	\$ 98,820	\$ 98,820	\$ 98,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 786,130	5	\$ 157,226	\$ 157,226	\$ 157,226	\$ 157,226	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 556,795	6	\$ 92,800	\$ 92,799	\$ 92,799	\$ 92,799	\$ 92,799	\$ 92,799	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 350,273	\$ 350,272	\$ 348,845	\$ 250,025	\$ 92,799	\$ 92,799	\$ -	\$ -	\$ -	\$ -	\$ -