

CITY OF NORTH PORT  
FIREFIGHTERS' PENSION - LOCAL OPTION TRUST FUND  
ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2019  
CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2021  
GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2019



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

February 28, 2020

Board of Trustees  
City of North Port  
Firefighters' Pension Board

Re: City of North Port Firefighters' Pension - Local Option Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of North Port Firefighters' Pension - Local Option 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. Due to the limited scope of the valuations, 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 North Port, 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, 2018. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2019 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 are familiar with the immediate and long-term aspects of pension valuations, and meet 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 North Port, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Pension - Local Option 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 us at 239-433-5500.

Respectfully submitted,

Foster & Foster, Inc.

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

By:   
\_\_\_\_\_  
Sara E. Carlson, ASA, EA, MAAA  
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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of North Port Firefighters' Pension - Local Option Trust Fund, performed as of October 1, 2019, 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, 2021.

The contribution requirements, compared with those set forth in the January 28, 2020 actuarial impact statement (determined as of October 1, 2018), are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2019 <u>9/30/2021</u>	10/1/2018 <u>9/30/2020</u>
Minimum Required Contribution % of Projected Annual Payroll	32.59%	26.93%
Member Contributions (Est.) % of Projected Annual Payroll	10.60%	10.60%
City And State Required Contribution % of Projected Annual Payroll	21.99%	16.33%
State Contribution (Est.) <sup>1</sup> % of Projected Annual Payroll	\$250,000 6.81%	\$250,000 6.81%
Preliminary City Required Contribution <sup>1</sup> % of Projected Annual Payroll	15.18%	9.52%
Balance from City <sup>1</sup> % of Projected Annual Payroll	<b>18.00%</b>	<b>18.00%</b>

<sup>1</sup> The City may use up to \$250,000 in State Contributions for determining its minimum funding requirements (per Mutual Consent established between the City and the Membership). However, by Local Ordinance, the City's minimum required contribution is 18.00% of Active Member Pensionable Payroll.

As you can see, the Minimum Required Contribution shows an increase when compared to the prior year results. The increase is attributable to lowering the investment return assumption. The increase was offset in part by the impact of the 18% minimum City contribution over the otherwise actuarially determined City contribution.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included less turnover than expected and more retirements than expected. These losses were offset in part by gains associated with an average salary increase of 4.74% which fell short of the 5.62% assumption and an investment return of 7.74% (Actuarial Asset Basis) which exceeded the 7.50% assumption.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

Chapter 2019-21, Laws of Florida was signed into effect granting certain disability benefits to firefighters participating in an employer-sponsored retirement plan. Effective July 1, 2019, "the retirement plan must consider the firefighter totally and permanently disabled in the line of duty if he or she meets the retirement plan's definition of totally and permanently disabled due to the diagnosis of cancer or circumstances that arise out of the treatment of cancer." For this purpose, "cancer" is as defined in Section 112.1816(1), Florida Statutes.

Please note that the benefit change only relates to the disability benefits for the Pension Fund and do not provide for other additional benefits that are provided for in Florida Statutes Section 112.1816.

### Actuarial Assumption/Method Changes

Since the prior valuation, the investment rate of return assumption was lowered from 7.50% to 7.25%, net of investment-related expenses.

Additionally, the expected percentage of disabilities that are in line-of-duty increased from 75% to 90%, as a result of the plan change described above.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
A. Participant Data			
Actives	38	38	42
Service Retirees	25	25	21
DROP Retirees	3	3	4
Beneficiaries	2	2	2
Disability Retirees	2	2	2
Terminated Vested	<u>38</u>	<u>38</u>	<u>37</u>
 Total	 108	 108	 108
 Total Annual Payroll	 \$3,672,140	 \$3,672,140	 \$3,919,097
Payroll Under Assumed Ret. Age	3,672,140	3,672,140	3,919,097
Annual Rate of Payments to:			
Service Retirees	1,422,596	1,422,596	1,069,324
DROP Retirees	175,164	175,164	253,094
Beneficiaries	162,408	162,408	157,677
Disability Retirees	81,494	81,494	81,494
Terminated Vested	599,628	599,628	563,186
B. Assets			
Actuarial Value (AVA) <sup>1</sup>	51,179,068	51,179,068	48,598,254
Market Value (MVA) <sup>1</sup>	51,201,586	51,201,586	50,458,542
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	19,847,629	18,923,144	20,520,679
Disability Benefits	204,122	196,939	201,645
Death Benefits	160,757	156,483	160,242
Vested Benefits	5,467,769	5,187,665	5,209,085
Refund of Contributions	7,854	7,850	21,585
Service Retirees	19,302,123	18,822,779	13,979,616
DROP Retirees <sup>1</sup>	2,907,917	2,838,592	4,548,019
Beneficiaries	2,066,058	2,014,905	1,995,069
Disability Retirees	880,713	861,813	871,950
Terminated Vested	6,548,055	6,338,357	5,712,223
Share Plan Balances <sup>1</sup>	<u>1,806,009</u>	<u>1,806,009</u>	<u>1,902,599</u>
 Total	 59,199,006	 57,154,536	 55,122,712



C. Liabilities - (Continued)	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
Present Value of Future Salaries	27,280,964	26,978,616	28,358,489
Present Value of Future Member Contributions	2,891,782	2,859,733	3,006,000
Normal Cost (Retirement)	576,822	541,611	581,130
Normal Cost (Disability)	13,412	12,970	14,057
Normal Cost (Death)	6,310	6,076	6,774
Normal Cost (Vesting)	254,389	238,515	241,619
Normal Cost (Refunds)	<u>3,482</u>	<u>3,471</u>	<u>7,598</u>
Total Normal Cost	854,415	802,643	851,178
Present Value of Future Normal Costs	5,918,349	5,493,861	5,763,783
Accrued Liability (Retirement)	15,701,684	15,076,223	16,497,994
Accrued Liability (Disability)	108,898	105,913	106,005
Accrued Liability (Death)	114,963	112,898	114,250
Accrued Liability (Vesting)	3,840,870	3,679,806	3,621,857
Accrued Liability (Refunds)	3,367	3,380	9,347
Accrued Liability (Inactives) <sup>1</sup>	31,704,866	30,876,446	27,106,877
Share Plan Balances <sup>1</sup>	<u>1,806,009</u>	<u>1,806,009</u>	<u>1,902,599</u>
Total Actuarial Accrued Liability (EAN AL)	53,280,657	51,660,675	49,358,929
Unfunded Actuarial Accrued Liability (UAAL)	2,101,589	481,607	760,675
Funded Ratio (AVA / EAN AL)	96.1%	99.1%	98.5%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2019</u>	Old Assump <u>10/1/2019</u>	<u>10/1/2018</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	33,510,875	32,682,455	29,009,476
Actives	7,968,276	7,475,466	8,462,122
Member Contributions	<u>3,788,219</u>	<u>3,788,219</u>	<u>3,970,322</u>
Total	45,267,370	43,946,140	41,441,920
Non-vested Accrued Benefits	<u>667,997</u>	<u>631,334</u>	<u>800,798</u>
Total Present Value			
Accrued Benefits (PVAB)	45,935,367	44,577,474	42,242,718
Funded Ratio (MVA / PVAB)	111.5%	114.9%	119.4%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	1,357,893	0	
Plan Experience	0	1,831,080	
Benefits Paid	0	(2,568,220)	
Interest	0	3,071,896	
Other	<u>0</u>	<u>0</u>	
Total	1,357,893	2,334,756	

	New Assump	Old Assump	
Valuation Date	10/1/2019	10/1/2019	10/1/2018
Applicable to Fiscal Year Ending	<u>9/30/2021</u>	<u>9/30/2021</u>	<u>9/30/2020</u>

#### E. Pension Cost

Normal Cost (with interest)			
% of Total Annual Payroll <sup>2</sup>	24.11	22.68	22.53
Administrative Expenses (with interest)			
% of Total Annual Payroll <sup>2</sup>	2.23	2.24	2.28
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2019, with interest)			
% of Total Annual Payroll <sup>2</sup>	6.25	1.52	2.12
Minimum Required Contribution			
% of Total Annual Payroll <sup>2</sup>	32.59	26.44	26.93
Expected Member Contributions			
% of Total Annual Payroll <sup>2</sup>	10.60	10.60	10.60
Expected City and State Contribution			
% of Total Annual Payroll <sup>2</sup>	21.99	15.84	16.33

#### F. Past Contributions

Plan Years Ending:	<u>9/30/2019</u>
City and State Requirement	588,557
Actual Contributions Made:	
Members (excluding buyback)	401,719
City	682,166
State	<u>250,000</u>
Total	1,333,885

G. Net Actuarial (Gain)/Loss 65,920

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2019 and 9/30/2018.

<sup>2</sup> Contributions developed as of 10/1/2019 are expressed as a percentage of total annual payroll at 10/1/2019 of \$3,672,140.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2019	2,101,589
2020	2,016,239
2021	1,924,702
2024	1,608,313
2028	1,068,590
2031	552,171
2034	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2019	4.74%	5.62%
Year Ended 9/30/2018	8.90%	5.68%
Year Ended 9/30/2017	6.52%	7.50%
Year Ended 9/30/2016	2.94%	7.50%
Year Ended 9/30/2015	2.87%	7.50%

(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 9/30/2019	3.75%	7.74%	7.50%
Year Ended 9/30/2018	9.32%	7.04%	7.50%
Year Ended 9/30/2017	10.78%	6.92%	8.00%
Year Ended 9/30/2016	7.24%	7.76%	8.00%
Year Ended 9/30/2015	1.09%	10.24%	8.00%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2019	\$3,672,140
	10/1/2009	5,994,613
(b) Total Increase		-38.74%
(c) Number of Years		10.00
(d) Average Annual Rate		-4.78%

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

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, 2018	\$760,675
(2) Sponsor Normal Cost developed as of October 1, 2018	435,754
(3) Expected administrative expenses for the year ended September 30, 2019	86,198
(4) Expected interest on (1), (2) and (3)	92,965
(5) Sponsor contributions to the System during the year ended September 30, 2019	932,166
(6) Expected interest on (5)	27,739
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2019 (1)+(2)+(3)+(4)-(5)-(6)	415,687
(8) Change to UAAL due to Assumption Change	1,619,982
(9) Change to UAAL due to Actuarial (Gain)/Loss	65,920
(10) Unfunded Actuarial Accrued Liability as of October 1, 2019	2,101,589

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2019 Amount</u>	<u>Amortization Amount</u>
Consolidation	10/1/2018	14	736,958	79,753
Benefit Change	10/1/2018	14	(5,407)	(585)
Actuarial Loss	10/1/2019	15	65,920	6,855
Reconciliation Base	10/1/2019	15	(315,864)	(32,848)
Assump Change	10/1/2019	15	<u>1,619,982</u>	<u>168,470</u>
			2,101,589	221,645

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2018	\$760,675
(2) Expected UAAL as of October 1, 2019	415,687
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(115,270)
Salary Increases	(274,333)
Active Decrements	692,067
Inactive Mortality	97,785
Reconciliation Base	(315,864)
Other	<u>(18,465)</u>
Increase in UAAL due to (Gain)/Loss	65,920
Assumption Changes	<u>1,619,982</u>
(4) Actual UAAL as of October 1, 2019	\$2,101,589

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, 2018 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

Interest Rate

7.25% (prior year 7.50%) 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

<u>Service</u>	<u>Increase</u>
<10	7.0%
10-14	5.5%
15-19	5.0%
20+	4.5%

This assumption was adopted with the May 10, 2017 actuarial experience study.

Projected salary at retirement is increased by the frozen dollar value of sick and annual leave as of July 5, 2012.



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.

Administrative Expenses

\$79,152 annually, based on the average of actual expenses incurred in the prior two fiscal years. Previously, the actual expense in the prior fiscal year was used. Using a two-year average results in a less volatile estimate than the prior method.

Retirement Age

<u>Service</u>	<u>Age</u>	<u>Assumed Rate</u>
<25	50-51	10.0%
	52-53	25.0%
	54-57	50.0%
	58+	100.0%
25+	50	5.0%
	51	50.0%
	52+	100.0%

This assumption was adopted in conjunction with the May 10, 2017 actuarial experience study.

Termination Rate

<u>Service</u>	<u>Age</u>	<u>Rate</u>
<5	20-24	10.0%
	25-29	7.0%
	30-49	6.0%
	50-54	1.0%
	55+	0.1%
5+	20-44	6.0%
	45-49	5.0%
	50-54	1.0%
	55+	0.1%

This assumption was adopted with the May 10, 2017 actuarial experience study.

Disability Rate

See sample rates in table below. It is assumed that 90% (prior year 75%) of disablements are service related. These rates are consistent with the other Florida municipal special risk retirement Plans and was determined reasonable with the May 10, 2017 actuarial experience study.

<u>Age</u>	<u>% Becoming Disabled During the Year</u>
20	0.03%
30	0.04
40	0.07
50	0.18

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.

Funding Method

Entry Age Normal Actuarial Cost Method.

Amortization Method

New UAAL amortization bases are amortized over 15 years.

## GLOSSARY

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

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

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

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

- (a) The normal cost accrual rate equals (i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by (ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.
- (b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.
- (c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.
- (d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

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.

## DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

### Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 119.5% on October 1, 2016 to 77.6% on October 1, 2019, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 59.5%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 101.2% on October 1, 2016 to 96.1% on October 1, 2019.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from 1.7% on October 1, 2016 to -2.2% on October 1, 2019. The current Net Cash Flow Ratio of -2.2% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks in this section as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Support Ratio</u>				
Total Actives	49	44	42	38
Total Inactives <sup>1</sup>	41	44	45	49
Actives / Inactives <sup>1</sup>	119.5%	100.0%	93.3%	77.6%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	42,346,454	47,046,321	50,458,542	51,201,586
Total Annual Payroll	4,073,329	3,776,235	3,919,097	3,672,140
MVA / Total Annual Payroll	1,039.6%	1,245.9%	1,287.5%	1,394.3%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	21,101,100	26,552,074	27,106,877	31,704,866
Total Accrued Liability (EAN)	42,608,830	46,397,844	49,358,929	53,280,657
Inactive AL / Total AL	49.5%	57.2%	54.9%	59.5%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	43,129,328	46,276,059	48,598,254	51,179,068
Total Accrued Liability (EAN)	42,608,830	46,397,844	49,358,929	53,280,657
AVA / Total Accrued Liability (EAN)	101.2%	99.7%	98.5%	96.1%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	717,314	154,724	(904,961)	(1,136,643)
Market Value of Assets (MVA)	42,346,454	47,046,321	50,458,542	51,201,586
Ratio	1.7%	0.3%	-1.8%	-2.2%

<sup>1</sup> Excludes terminated participants awaiting a refund of member contributions.

<sup>2</sup> Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	52,606.60	_____%
1999	55,358.60	5.2%
2000	68,338.10	23.4%
2001	68,311.30	0.0%
2002	92,515.40	35.4%
2003	101,562.23	9.8%
2004	127,554.50	25.6%
2005	166,534.47	30.6%
2006	242,082.84	45.4%
2007	284,870.08	17.7%
2008	486,956.22	70.9%
2009	388,871.03	-20.1%
2010	400,984.42	3.1%
2011	399,175.25	-0.5%
2012	425,380.30	6.6%
2013	403,183.26	-5.2%
2014	387,316.25	-3.9%
2015	376,215.34	-2.9%
2016	371,775.04	-1.2%
2017	376,129.17	1.2%
2018	414,503.01	10.2%
2019	419,797.03	1.3%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	433,018.01	433,018.01
Cash	(25,143.59)	(25,143.59)
Total Cash and Equivalents	407,874.42	407,874.42
Receivables:		
City Contributions in Transit	147,402.08	147,402.08
Investment Income	22,106.99	22,106.99
Total Receivable	169,509.07	169,509.07
Investments:		
Mutual Funds:		
Fixed Income	15,583,157.32	15,619,816.81
Equity	24,788,043.04	29,652,672.05
Pooled/Common/Commingled Funds:		
Real Estate	4,468,478.75	5,364,208.77
Total Investments	44,839,679.11	50,636,697.63
Total Assets	45,417,062.60	51,214,081.12
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	6,855.83	6,855.83
Administrative Expenses	4,302.40	4,302.40
Prior Refund Payable	1,337.11	1,337.11
Total Liabilities	12,495.34	12,495.34
NET POSITION RESTRICTED FOR PENSIONS	45,404,567.26	51,201,585.78



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2019  
Market Value Basis

ADDITIONS

Contributions:			
Member		401,719.19	
City		682,165.61	
State		419,797.03	
Total Contributions			1,503,681.83
Investment Income:			
Net Realized Gain (Loss)	842,431.88		
Unrealized Gain (Loss)	(779,582.74)		
Net Increase in Fair Value of Investments		62,849.14	
Interest & Dividends		1,934,551.10	
Less Investment Expense <sup>1</sup>		(117,714.01)	
Net Investment Income			1,879,686.23
Total Additions			3,383,368.06

DEDUCTIONS

Distributions to Members:			
Benefit Payments		1,385,890.01	
Lump Sum DROP Distributions		856,802.37	
Lump Sum Share Distributions		325,527.29	
Refunds of Member Contributions		0.00	
Total Distributions			2,568,219.67
Administrative Expense			72,104.87
Total Deductions			2,640,324.54
Net Increase in Net Position			743,043.52
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			50,458,542.26
End of the Year			51,201,585.78

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

ACTUARIAL ASSET VALUATION  
SEPTEMBER 30, 2019

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>	
09/30/2016	7.24%	
09/30/2017	10.78%	
09/30/2018	9.32%	
09/30/2019	3.75%	
Annualized Rate of Return for prior four (4) years:		7.74%
(A) 10/01/2018 Actuarial Assets:		\$48,598,253.59
(I) Net Investment Income:		
1. Interest and Dividends	1,934,551.10	
2. Realized Gains (Losses)	842,431.88	
3. Unrealized Gains (Losses)	(779,582.74)	
4. Change in Actuarial Value	1,837,771.24	
5. Investment Related Expenses	(117,714.01)	
Total		3,717,457.47
(B) 10/01/2019 Actuarial Assets:		\$51,179,068.35
Actuarial Asset Rate of Return = 2I/(A+B-I):		7.74%
10/01/2019 Limited Actuarial Assets:		\$51,179,068.35
10/01/2019 Market Value of Assets:		\$51,201,585.78
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)		\$115,270.00

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

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2019  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	401,719.19	
City	682,165.61	
State	419,797.03	
 Total Contributions		 1,503,681.83
Earnings from Investments:		
Interest & Dividends	1,934,551.10	
Net Realized Gain (Loss)	842,431.88	
Unrealized Gain (Loss)	(779,582.74)	
Change in Actuarial Value	1,837,771.24	
 Total Earnings and Investment Gains		 3,835,171.48

EXPENDITURES

Distributions to Members:		
Benefit Payments	1,385,890.01	
Lump Sum DROP Distributions	856,802.37	
Lump Sum Share Distributions	325,527.29	
Refunds of Member Contributions	0.00	
 Total Distributions		 2,568,219.67
Expenses:		
Investment related <sup>1</sup>	117,714.01	
Administrative	72,104.87	
 Total Expenses		 189,818.88
 Change in Net Assets for the Year		 2,580,814.76
 Net Assets Beginning of the Year		 48,598,253.59
 Net Assets End of the Year <sup>2</sup>		 51,179,068.35

<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, 2018 to September 30, 2019

Beginning of the Year Balance	827,737.65
Plus Additions	281,767.25
Investment Return Earned	20,658.73
Less Distributions	(856,802.37)
End of the Year Balance	273,361.26

Note: Investment Return includes earnings from 2018 4th quarter.

SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY  
October 1, 2018 through September 30, 2019

9/30/2018 Balance	1,902,599.31
Plus Additions	169,797.03
Investment Return Earned (est.)	59,140.20
Administrative Fees	0.00
Less Distributions	(325,527.29)
9/30/2019 Balance (est.)	1,806,009.25

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2019

(0)	Total Required Contribution Rate	26.13%
(0)	Pensionable Payroll Derived from Member Contributions	\$3,789,803.68
(1)	Total Required Contribution (1) x (2)	990,275.70
(2)	Less Actual Member Contributions	(401,719.19)
(3)	Less Allowable State Contribution	<u>(250,000.00)</u>
(4)	Equals Required City Contribution for Fiscal 2019 <i>(Prior to 18% Minimum City Contribution by Ordinance)</i>	338,556.51
(5)	Less 2018 Prepaid Contribution	0.00
(6)	Less Actual City Contributions	<u>(682,165.61)</u>
(7)	City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2019	(\$343,609.10)

STATISTICAL DATA

	<u>10/1/2016</u>	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	49	44	42	38
Average Current Age	40.6	40.5	41.2	41.3
Average Age at Employment	28.1	27.4	27.1	27.0
Average Past Service	12.5	13.1	14.1	14.3
Average Annual Salary	\$83,129	\$85,824	\$93,312	\$96,635
<u>Service Retirees</u>				
Number	15	18	21	25
Average Current Age	61.9	60.1	60.8	60.9
Average Annual Benefit	\$43,475	\$45,871	\$50,920	\$56,904
<u>DROP Retirees</u>				
Number	4	6	4	3
Average Current Age	56.0	57.3	57.0	56.8
Average Annual Benefit	\$75,549	\$73,744	\$63,274	\$58,388
<u>Beneficiaries</u>				
Number	2	2	2	2
Average Current Age	51.8	52.8	53.8	54.8
Average Annual Benefit	\$75,203	\$76,543	\$78,839	\$81,204
<u>Disability Retirees</u>				
Number	2	2	2	2
Average Current Age	55.0	56.0	57.0	58.0
Average Annual Benefit	\$40,747	\$40,747	\$40,747	\$40,747
<u>Terminated Vested</u>				
Number	39	37	37	38
Average Current Age <sup>1</sup>	36.3	37.4	47.0	47.6
Average Annual Benefit <sup>2</sup>	\$36,284	\$34,418	\$35,199	\$35,272

<sup>1</sup> Effective 10/1/2018, the Average Current Age excludes participants awaiting a refund of contributions.

<sup>2</sup> The Average Annual Benefit excludes participants awaiting a refund of contributions.

## AGE AND SERVICE DISTRIBUTION

### PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19												0
20 - 24												0
25 - 29												0
30 - 34						1	3					4
35 - 39							12	1				13
40 - 44						2	7					9
45 - 49							4	3	2	2		11
50 - 54												0
55 - 59							1					1
60 - 64												0
65+												0
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>27</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>38</b>



## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2018	42
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. DROP	<u>(1)</u>
g. Continuing participants	38
h. New entrants	<u>0</u>
i. Total active life participants in valuation	38

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	21	4	2	2	16	21	66
Retired	4	(2)	0	0	0	0	2
DROP	0	1	0	0	0	0	1
Vested (Deferred Annuity)	0	0	0	0	1	0	1
Vested (Due Refund)	0	0	0	0	0	0	0
Hired/Terminated in Same Year	0	0	0	0	0	0	0
Death, With Survivor	0	0	0	0	0	0	0
Death, No Survivor	0	0	0	0	0	0	0
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	25	3	2	2	17	21	70

SUMMARY OF CURRENT PLAN  
(Through Ordinance 2018-17)

<u>Original Plan Effective Date</u>	November 5, 1974
<u>Latest Amendment</u>	April 24, 2018
<u>Eligibility</u>	Full-time employees who are classified as full-time Firefighters shall participate in the System as a condition of employment. Firefighters on or after May 10, 2016 shall participate in the Florida Retirement System. Members active on May 10, 2016 had the option of participating prospectively in the Florida Retirement System.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the City as a firefighter.
<u>Salary</u>	W-2 Compensation plus tax deferred or tax sheltered items of income. Effective July 5, 2012 Salary includes up to 300 hours of overtime per fiscal year and only the dollar value of accrued sick and annual leave as of July 5, 2012 is included.
<u>Average Final Compensation</u>	Average Salary for the highest 5 years. Previously, there was a ten-year lookback period for determining this average.
<u>Member Contributions</u>	10.6% of Salary.
<u>City and State Contributions</u>	Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Florida Statutes, Chapter 112. In no event will the City's contribution be less than 18% of the total salary of plan Members.
<u>Normal Retirement</u>	
Date	Earlier of age 55 and 10 years of Credited Service or age 52 and 25 years of Credited Service.
Benefit	3.50% of Average Final Compensation <u>times</u> Credited Service (3.0% for those hired on and after October 12, 2012).
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Cost of Living Allowance</u>	Service retirees, vested terminated members, and their beneficiaries receive annual 3.0% benefit increases beginning at age 55 and ceasing at age 63.

Early Retirement

Eligibility Age 50 and 10 Years of Credited Service.

Benefit Accrued benefit, reduced according to the following schedule:

<u>Credited Service at time of Termination or Retirement</u>	<u>Percent per Year Reduction</u>
Less than 15 years	3%
At least 15, but less than 20 years	2%
20 or more years	1%

Vesting

Schedule 100% after 10 years of Credited Service.

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

Disability

Eligibility

Service Incurred Covered from Date of Employment.

Non-Service Incurred 10 years of Credited Service.

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

Benefit Benefit accrued to date of disability. For Service Incurred, not less than 42% of Average Final Compensation.

Duration Payable as a 10 Year Certain and Life Annuity or until recovery (as determined by the Board; optional forms available).

Death Benefits

Pre-Retirement

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

Non-Vested Refund of accumulated contributions, without

Non-Vested	Refund of accumulated contributions, without interest.
Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.
<u>Board of Trustees</u>	
	a. Two Commission appointees,
	b. Two Members of the Department elected by the membership, and
	c. Fifth Member elected by other 4 and appointed by the City Commission.
<u>Deferred Retirement Option Plan</u>	
Eligibility	Satisfaction of Normal Retirement requirements (earlier of (1) Age 55 with 10 years of Credited Service, or (2) Age 52 with 25 years of Credited Service).
Participation	Not to exceed 60 months.
Rate of Return	At the Member's election: (1) 1.0% annual rate, or (2) actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal quarter. One change between the above options is allowed.
Form of Distribution	Cash lump sum (options available) at termination of employment.
<u>Supplemental Retirement Benefit</u>	
Initial Crediting	The Share Account of each active firefighter and retiree who was an employee and a member of the Plan between December 1, 2005 and September 30, 2012 shall receive one share for each month of credited service from date of hire through September 30, 2012.
Annual Crediting	For plan years beginning October 1, 2012 and later, premium tax revenues received by the City each year in excess of the \$250,000 applicable frozen amount shall be allocated to each Members share account.
Investment earnings	Effective December 31, 2013, and each December 31 thereafter, each share account shall be credited or debited with earnings or losses based upon the amount in the share account at the close of the immediately preceding plan year at a rate equal to the net of fees return for the Pension Plan for the preceding plan year.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2019

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	433,018
Cash	(25,144)
Total Cash and Equivalents	407,874
Receivables:	
City Contributions in Transit	147,402
Investment Income	22,107
Total Receivable	169,509
Investments:	
Mutual Funds:	
Fixed Income	15,619,817
Equity	29,652,672
Real Estate	5,364,209
Total Investments	50,636,698
Total Assets	51,214,081
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	6,856
Administrative Expenses	4,302
Prior Refund Payable	1,337
Total Liabilities	12,495
NET POSITION RESTRICTED FOR PENSIONS	51,201,586

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2019  
Market Value Basis

ADDITIONS

## Contributions:

Member	401,719
City	682,166
State	419,797

Total Contributions	1,503,682
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## Investment Income:

Net Increase in Fair Value of Investments	62,849
Interest & Dividends	1,934,551
Less Investment Expense <sup>1</sup>	(117,714)

Net Investment Income	1,879,686
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Total Additions	3,383,368
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DEDUCTIONS

## Distributions to Members:

Benefit Payments	1,385,890
Lump Sum DROP Distributions	856,802
Lump Sum Share Distributions	325,527
Refunds of Member Contributions	0

Total Distributions	2,568,219
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Administrative Expense	72,105
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Total Deductions	2,640,324
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Net Increase in Net Position	743,044
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## NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	50,458,542
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End of the Year	51,201,586
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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, 2019)

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 Commission appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other 4 and appointed by the City Commission.

Full-time employees who are classified as full-time Firefighters shall participate in the System as a condition of employment. Officers hired after July 1, 2016 shall participate in the Florida Retirement System. Members active on July 1, 2016 had the option of participating prospectively in the Florida Retirement System.

*Plan Membership as of October 1, 2018:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	29
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	37
Active Plan Members	42
	108

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of North Port Firefighters' Pension - Local Option Trust Fund prepared by Foster & Foster Actuaries and Consultants.

Incorporated are the benefit changes for measurement date 09/30/2019 as noted under the Notes to Schedule of Changes in Net Pension Liability and Related Ratios.

*Contributions*

Member Contributions: 10.6% of Salary.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Florida Statutes, Chapter 112. In no event will the City's contribution be less than 18% of the total salary of plan Members.

**Investments**

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2019:

Asset Class	Target Allocation
Domestic Equity	47.5%
International Equity	10.0%
Broad Market Fixed Income	22.5%
Global Fixed Income	5.0%
Real Estate	10.0%
GTAA	5.0%
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.

## GASB 67

### *Rate of Return:*

For the year ended September 30, 2019, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 3.75 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 (earlier of (1) Age 55 with 10 years of Credited Service, or (2) Age 52 with 25 years of Credited Service).

Participation: Not to exceed 60 months.

Rate of Return: At the Member's election: (1) 1.0% annual rate, or (2) actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), credited each fiscal quarter. One change between the above options is allowed.

The DROP balance as September 30, 2019 is \$273,361<sup>1</sup>.

<sup>1</sup> Investment Return includes earnings from 2018 4th quarter.



## NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2019 were as follows:

Total Pension Liability	\$ 52,450,230
Plan Fiduciary Net Position	\$ (51,201,586)
Sponsor's Net Pension Liability	<u>\$ 1,248,644</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>97.62%</u>

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.25%
Investment Rate of Return	7.25%

*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 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, 2018 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated May 10, 2017.

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 2019 the inflation rate assumption of the investment advisor was 2.50%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return
Domestic Equity	7.50%
International Equity	8.50%
Broad Market Fixed Income	2.50%
Global Fixed Income	3.50%
Real Estate	4.50%
GTAA	3.50%

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### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.25 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
	6.25%	7.25%	8.25%
Sponsor's Net Pension Liability	\$ 8,410,574	\$ 1,248,644	\$ (4,610,498)

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

Last 10 Fiscal Years

	09/30/2019	09/30/2018	09/30/2017
Total Pension Liability			
Service Cost	917,681	904,670	1,264,321
Interest	3,566,667	3,351,560	3,620,964
Share Plan Allocation	169,797	164,503	126,129
Changes of benefit terms	(5,208)	-	-
Differences between Expected and Actual Experience	864,392	876,960	(2,641,499)
Changes of assumptions	1,577,924	-	(831,381)
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	(2,306,593)	(1,200,337)
Net Change in Total Pension Liability	4,523,034	2,991,100	338,197
Total Pension Liability - Beginning	47,927,196	44,936,096	44,597,899
Total Pension Liability - Ending (a)	<u>\$ 52,450,230</u>	<u>\$ 47,927,196</u>	<u>\$ 44,936,096</u>
Plan Fiduciary Net Position			
Contributions - Employer	682,166	675,521	651,310
Contributions - State	419,797	414,503	376,129
Contributions - Employee	401,719	397,806	394,793
Contributions - Buy Back	-	-	-
Net Investment Income	1,879,686	4,317,182	4,545,143
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	(2,306,593)	(1,200,337)
Administrative Expense	(72,105)	(86,198)	(86,264)
Net Change in Plan Fiduciary Net Position	743,044	3,412,221	4,680,774
Plan Fiduciary Net Position - Beginning	50,458,542	47,046,321	42,365,547
Plan Fiduciary Net Position - Ending (b)	<u>\$ 51,201,586</u>	<u>\$ 50,458,542</u>	<u>\$ 47,046,321</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,248,644</u>	<u>\$ (2,531,346)</u>	<u>\$ (2,110,225)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	97.62%	105.28%	104.70%
Covered Payroll <sup>1</sup>	\$ 3,789,804	\$ 3,752,890	\$ 3,724,458
Net Pension Liability as a percentage of Covered Payroll	32.95%	-67.45%	-56.66%

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

Last 10 Fiscal Years

	09/30/2016	09/30/2015	09/30/2014
Total Pension Liability			
Service Cost	1,693,631	1,716,153	1,686,083
Interest	3,400,658	3,048,515	2,767,378
Share Plan Allocation	121,775	126,215	137,316
Changes of benefit terms	174,592	-	-
Differences between Expected and Actual Experience	(2,262,386)	555,367	-
Changes of assumptions	1,378,943	-	-
Contributions - Buy Back	2,808	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,104,257)	(1,288,806)	(924,447)
Net Change in Total Pension Liability	3,405,764	4,157,444	3,666,330
Total Pension Liability - Beginning	41,192,135	37,034,691	33,368,361
Total Pension Liability - Ending (a)	<u>\$ 44,597,899</u>	<u>\$ 41,192,135</u>	<u>\$ 37,034,691</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,019,928	1,103,147	1,250,193
Contributions - State	371,775	376,215	387,316
Contributions - Employee	529,101	554,392	585,968
Contributions - Buy Back	2,808	-	-
Net Investment Income	2,819,641	411,906	2,992,901
Benefit Payments, including Refunds of Employee Contributions	(1,104,257)	(1,288,806)	(924,447)
Administrative Expense	(82,948)	(72,760)	(63,829)
Net Change in Plan Fiduciary Net Position	3,556,048	1,084,094	4,228,102
Plan Fiduciary Net Position - Beginning	38,809,499	37,725,405	33,497,303
Plan Fiduciary Net Position - Ending (b)	<u>\$ 42,365,547</u>	<u>\$ 38,809,499</u>	<u>\$ 37,725,405</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,232,352</u>	<u>\$ 2,382,636</u>	<u>\$ (690,714)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	94.99%	94.22%	101.87%
Covered Payroll <sup>1</sup>	\$ 5,136,900	\$ 5,806,134	\$ 5,689,014
Net Pension Liability as a percentage of Covered Payroll	43.46%	41.04%	-12.14%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios**

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

*Changes in benefit terms:*

For measurement date 09/30/2019, amounts reported as changes of benefit terms resulted from the provisions of Chapter 112.1816, Florida Statutes. The Statutes state that, effective July 1, 2019, a death or disability (under the Plan's definition of total and permanent disability) for a Firefighter due to the diagnosis of cancer or circumstances that arise out of the treatment of cancer will be treated as duty-related.

For measurement date 09/30/2016, amounts reported as changes of benefit terms resulted from Ordinance No. 2016-02:

1. A definition of Average Final Compensation using the five years that provides the highest average. The ten-year lookback period for determination of this average is eliminated.
2. Provide for a reduction in the Early Retirement Penalty from 3% per year to the following schedule:

<u>Credited Service at time of Termination or Retirement</u>	<u>Percent per Year Reduction</u>
Less than 15 years	3%
At least 15, but less than 20 years	2%
20 or more years	1%

3. An increase in the Member Contribution Rate from 10.3% to 10.6%.
4. Future new hires shall participate in the Florida Retirement System (FRS).

*Changes of assumptions:*

For measurement date 09/30/2019, the investment return was lowered from 7.50% to 7.25% net of investment related expenses.

For measurement date 09/30/2017, amounts reported as changes of assumptions resulted from the following changes based on the May 10, 2017 actuarial experience study:

1. The investment return was lowered from 8.00% to 7.50% net of investment related expenses.
2. The salary scale was changed from a flat rate to one based on service.
3. The retirement rates were changed to age and service rates.
4. The withdrawal rates were changed to age and service rates.
5. The mortality rates were changed to those used in the July 1, 2016 Florida Retirement System (FRS) valuation report for special risk lives.

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

The inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by Plan's investment consultant.

**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 Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 932,165	\$ 932,166	\$ (1)	\$ 3,789,804	24.60%
09/30/2018	\$ 925,520	\$ 925,521	\$ (1)	\$ 3,752,890	24.66%
09/30/2017	\$ 920,402	\$ 901,310	\$ 19,092	\$ 3,724,458	24.20%
09/30/2016	\$ 1,250,835	\$ 1,269,928	\$ (19,093)	\$ 5,136,900	24.72%
09/30/2015	\$ 1,353,147	\$ 1,353,147	\$ -	\$ 5,806,134	23.31%
09/30/2014	\$ 1,500,193	\$ 1,500,193	\$ -	\$ 5,689,014	26.37%

<sup>1</sup> The Covered 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: 10/01/2017

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 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 assumed rates of mortality were mandated by Chapter 2015157, Laws of Florida. This law mandates the use of the mortality assumptions 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.

Interest Rate:

7.5% per year compounded annually, net of investment-related expenses. This assumption is supported by the Plan's investment policy and long-term expected returns by asset class.

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Retirement Age:	Service	Age	Assumed Rate
<25		50-51	10.0%
		52-53	25.0%
		54-57	50.0%
		58+	100.0%
25+		50	5.0%
		51	50.0%
		52	100.0%

This assumption was adopted in conjunction with the May 10, 2017 actuarial experience study.

**Disability Rates:** See table below (1201). It is assumed that 75% of disablements are service related. These rates are consistent with the other Florida municipal special risk retirement Plans and was determined reasonable with the May 10, 2017 actuarial experience study.

Age	% Becoming Disabled During the Year
20	0.03%
30	0.04%
40	0.07%
50	0.18%

Termination Rates:	Service	Age	Assumed Rate
<5		20-24	10.0%
		25-29	7.0%
		30-49	6.0%
		50-54	1.0%
		55+	0.1%
5+		20-44	6.0%
		45-49	5.0%
		50-54	1.0%
		55+	0.1%

This assumption was adopted with the May 10, 2017 actuarial experience study.

Salary Increases:	Service	Increase
<10		7.0%
10-14		5.5%
15-19		5.0%
20+		4.5%

This assumption was adopted with the May 10, 2017 actuarial experience study.

**Post Retirement COLA:** 3.0% from age 55 until 63.  
**Payroll Growth:** None. This assumption is supported given that the Plan is closed to new hires.  
**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.  
**Funding Method:** Entry Age Normal Actuarial Cost Method.  
**Amortization Method:** Level Percentage of Pay, Closed.  
**Remaining Amortization Period:** 28 Years (as of 10/01/2017).

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

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2019	3.75%
09/30/2018	9.32%
09/30/2017	10.78%
09/30/2016	7.24%
09/30/2015	1.09%
09/30/2014	8.84%



**NOTES TO THE FINANCIAL STATEMENTS**  
(For the Year Ended September 30, 2020)

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 Commission appointees,
- b. Two Members of the Department elected by the membership, and
- c. Fifth Member elected by other 4 and appointed by the City Commission.

Full-time employees who are classified as full-time Firefighters shall participate in the System as a condition of employment. Officers hired after July 1, 2016 shall participate in the Florida Retirement System. Members active on July 1, 2016 had the option of participating prospectively in the Florida Retirement System.

*Plan Membership as of October 1, 2018:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	29
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	37
Active Plan Members	42
	108
	108

*Benefits Provided*

The Plan provides retirement, termination, disability and death benefits. A summary of the benefit provisions can be found in the October 1, 2018 Actuarial Valuation Report for the City of North Port Firefighters' Pension - Local Option Trust Fund prepared by Foster & Foster Actuaries and Consultants. Incorporated are the benefit changes for measurement date 09/30/2019 as noted under the Notes to Schedule of Changes in Net Pension Liability and Related Ratios.

*Contributions*

Member Contributions: 10.6% of Salary.  
 City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Florida Statutes, Chapter 112. In no event will the City's contribution be less than 18% of the total salary of plan Members.

Net Pension Liability

The measurement date is September 30, 2019.  
 The measurement period for the pension expense was October 1, 2018 to September 30, 2019.  
 The reporting period is October 1, 2019 through September 30, 2020.

The Sponsor's Net Pension Liability was measured as of September 30, 2019.  
 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, 2018 updated to September 30, 2019 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.25%
Investment Rate of Return	7.25%

*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 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, 2018 FRS valuation report for special risk employees. We feel this assumption sufficiently accommodates future mortality improvements.

The most recent actuarial experience study used to review the other significant assumptions was dated May 10, 2017.

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 2019 the inflation rate assumption of the investment advisor was 2.50%.

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

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2019 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	47.5%	7.50%
International Equity	10.0%	8.50%
Broad Market Fixed Income	22.5%	2.50%
Global Fixed Income	5.0%	3.50%
Real Estate	10.0%	4.50%
GTAA	5.0%	3.50%
Total	100.0%	

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.25 percent.

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

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2019	\$ 47,927,196	\$ 50,458,542	\$ (2,531,346)
Changes for a Year:			
Service Cost	917,681	-	917,681
Interest	3,566,667	-	3,566,667
Share Plan Allocation	169,797	-	169,797
Differences between Expected and Actual Experience	864,392	-	864,392
Changes of assumptions	1,577,924	-	1,577,924
Changes of benefit terms	(5,208)	-	(5,208)
Contributions - Employer	-	682,166	(682,166)
Contributions - State	-	419,797	(419,797)
Contributions - Employee	-	401,719	(401,719)
Contributions - Buy Back	-	-	-
Net Investment Income	-	1,879,686	(1,879,686)
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	(2,568,219)	-
Administrative Expense	-	(72,105)	72,105
Net Changes	4,523,034	743,044	3,779,990
Reporting Period Ending September 30, 2020	\$ 52,450,230	\$ 51,201,586	\$ 1,248,644

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.25%	7.25%	8.25%
Sponsor's Net Pension Liability	\$ 8,410,574	\$ 1,248,644	\$ (4,610,498)

*Pension Plan Fiduciary Net Position.*

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

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED  
INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2019**

For the year ended September 30, 2019, the Sponsor has recognized a Pension Expense of \$71,308.

On September 30, 2019, 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	966,255	2,829,006
Changes of assumptions	919,296	415,690
Net difference between Projected and Actual Earnings on Pension Plan investments	-	695,968
Employer and State Contributions subsequent to the measurement date	1,101,963	-
Total	\$ 2,987,514	\$ 3,940,664

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date was recognized as a reduction of the Net Pension Liability in the year ended September 30, 2019.

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

Year ended September 30:	
2020	\$ (490,539)
2021	\$ (1,017,142)
2022	\$ (211,837)
2023	\$ (200,982)
2024	\$ (36,453)
Thereafter	\$ (98,160)

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2020**

For the year ended September 30, 2020, the Sponsor will recognize a Pension Expense of \$1,273,538.

On September 30, 2020, 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	1,261,570	1,917,255
Changes of assumptions	1,818,030	207,845
Net difference between Projected and Actual Earnings on Pension Plan investments	598,802	-
Employer and State Contributions subsequent to the measurement date	TBD	-
<b>Total</b>	<b>TBD</b>	<b>\$ 2,125,100</b>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ended September 30, 2020.

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

Year ended September 30:			
2021	\$	169,380	
2022	\$	974,685	
2023	\$	171,434	
2024	\$	335,963	
2025	\$	(98,160)	
Thereafter	\$	-	

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

Reporting Period Ending Measurement Date	09/30/2020 09/30/2019	09/30/2019 09/30/2018	09/30/2018 09/30/2017
Total Pension Liability			
Service Cost	917,681	904,670	1,264,321
Interest	3,566,667	3,351,560	3,620,964
Share Plan Allocation	169,797	164,503	126,129
Changes of benefit terms	(5,208)	-	-
Differences between Expected and Actual Experience	864,392	876,960	(2,641,499)
Changes of assumptions	1,577,924	-	(831,381)
Contributions - Buy Back	-	-	-
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	(2,306,593)	(1,200,337)
Net Change in Total Pension Liability	4,523,034	2,991,100	338,197
Total Pension Liability - Beginning	47,927,196	44,936,096	44,597,899
Total Pension Liability - Ending (a)	<u>\$ 52,450,230</u>	<u>\$ 47,927,196</u>	<u>\$ 44,936,096</u>
Plan Fiduciary Net Position			
Contributions - Employer	682,166	675,521	651,310
Contributions - State	419,797	414,503	376,129
Contributions - Employee	401,719	397,806	394,793
Contributions - Buy Back	-	-	-
Net Investment Income	1,879,686	4,317,182	4,545,143
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	(2,306,593)	(1,200,337)
Administrative Expense	(72,105)	(86,198)	(86,264)
Net Change in Plan Fiduciary Net Position	743,044	3,412,221	4,680,774
Plan Fiduciary Net Position - Beginning	50,458,542	47,046,321	42,365,547
Plan Fiduciary Net Position - Ending (b)	<u>\$ 51,201,586</u>	<u>\$ 50,458,542</u>	<u>\$ 47,046,321</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 1,248,644</u>	<u>\$ (2,531,346)</u>	<u>\$ (2,110,225)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	97.62%	105.28%	104.70%
Covered Payroll <sup>1</sup>	\$ 3,789,804	\$ 3,752,890	\$ 3,724,458
Net Pension Liability as a percentage of Covered Payroll	32.95%	-67.45%	-56.66%

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

Last 10 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2017 09/30/2016	09/30/2016 09/30/2015	09/30/2015 09/30/2014
Total Pension Liability			
Service Cost	1,693,631	1,716,153	1,686,083
Interest	3,400,658	3,048,515	2,767,378
Share Plan Allocation	121,775	126,215	137,316
Changes of benefit terms	174,592	-	-
Differences between Expected and Actual Experience	(2,262,386)	555,367	-
Changes of assumptions	1,378,943	-	-
Contributions - Buy Back	2,808	-	-
Benefit Payments, including Refunds of Employee Contributions	(1,104,257)	(1,288,806)	(924,447)
Net Change in Total Pension Liability	3,405,764	4,157,444	3,666,330
Total Pension Liability - Beginning	41,192,135	37,034,691	33,368,361
Total Pension Liability - Ending (a)	<u>\$ 44,597,899</u>	<u>\$ 41,192,135</u>	<u>\$ 37,034,691</u>
Plan Fiduciary Net Position			
Contributions - Employer	1,019,928	1,103,147	1,250,193
Contributions - State	371,775	376,215	387,316
Contributions - Employee	529,101	554,392	585,968
Contributions - Buy Back	2,808	-	-
Net Investment Income	2,819,641	411,906	2,992,901
Benefit Payments, including Refunds of Employee Contributions	(1,104,257)	(1,288,806)	(924,447)
Administrative Expense	(82,948)	(72,760)	(63,829)
Net Change in Plan Fiduciary Net Position	3,556,048	1,084,094	4,228,102
Plan Fiduciary Net Position - Beginning	38,809,499	37,725,405	33,497,303
Plan Fiduciary Net Position - Ending (b)	<u>\$ 42,365,547</u>	<u>\$ 38,809,499</u>	<u>\$ 37,725,405</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,232,352</u>	<u>\$ 2,382,636</u>	<u>\$ (690,714)</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	94.99%	94.22%	101.87%
Covered Payroll <sup>1</sup>	\$ 5,136,900	\$ 5,806,134	\$ 5,689,014
Net Pension Liability as a percentage of Covered Payroll	43.46%	41.04%	-12.14%

**Notes to Schedule of Changes in Net Pension Liability and Related Ratios**

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

*Changes in benefit terms:*

For measurement date 09/30/2019, amounts reported as changes of benefit terms resulted from the provisions of Chapter 112.1816, Florida Statutes. The Statutes state that, effective July 1, 2019, a death or disability (under the Plan's definition of total and permanent disability) for a Firefighter due to the diagnosis of cancer or circumstances that arise out of the treatment of cancer will be treated as duty-related.

For measurement date 09/30/2016, amounts reported as changes of benefit terms resulted from Ordinance No. 2016-02:

1. A definition of Average Final Compensation using the five years that provides the highest average. The ten-year lookback period for determination of this average is eliminated.
2. Provide for a reduction in the Early Retirement Penalty from 3% per year to the following schedule:

<u>Credited Service at time of Termination or Retirement</u>	<u>Percent per Year Reduction</u>
Less than 15 years	3%
At least 15, but less than 20 years	2%
20 or more years	1%

3. An increase in the Member Contribution Rate from 10.3% to 10.6%.
4. Future new hires shall participate in the Florida Retirement System (FRS).

*Changes of assumptions:*

For measurement date 09/30/2019, the investment return was lowered from 7.50% to 7.25% net of investment related expenses.

For measurement date 09/30/2017, amounts reported as changes of assumptions resulted from the following changes based on the May 10, 2017 actuarial experience study:

1. The investment return was lowered from 8.00% to 7.50% net of investment related expenses.
2. The salary scale was changed from a flat rate to one based on service.
3. The retirement rates were changed to age and service rates.
4. The withdrawal rates were changed to age and service rates.
5. The mortality rates were changed to those used in the July 1, 2016 Florida Retirement System (FRS) valuation report for special risk lives.

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

The inflation assumption rate was lowered from 3.00% to 2.50%, matching the long-term inflation assumption utilized by Plan's investment consultant.



**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 Payroll <sup>1</sup>	Contributions as a percentage of Covered Payroll
09/30/2019	\$ 932,165	\$ 932,166	\$ (1)	\$ 3,789,804	24.60%
09/30/2018	\$ 925,520	\$ 925,521	\$ (1)	\$ 3,752,890	24.66%
09/30/2017	\$ 920,402	\$ 901,310	\$ 19,092	\$ 3,724,458	24.20%
09/30/2016	\$ 1,250,835	\$ 1,269,928	\$ (19,093)	\$ 5,136,900	24.72%
09/30/2015	\$ 1,353,147	\$ 1,353,147	\$ -	\$ 5,806,134	23.31%
09/30/2014	\$ 1,500,193	\$ 1,500,193	\$ -	\$ 5,689,014	26.37%

<sup>1</sup> The Covered 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: 10/01/2017

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 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 assumed rates of mortality were mandated by Chapter 2015157, Laws of Florida.

This law mandates the use of the mortality assumptions 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.

Interest Rate:

7.5% per year compounded annually, net of investment-related expenses. This assumption is supported by the Plan's investment policy and long-term expected returns by asset class.

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Retirement Age:

Service	Age	Assumed Rate
<25	50-51	10.0%
	52-53	25.0%
	54-57	50.0%
	58+	100.0%
25+	50	5.0%
	51	50.0%
	52	100.0%

This assumption was adopted in conjunction with the May 10, 2017 actuarial experience study.

Disability Rates:

See table below (1201). It is assumed that 75% of disablements are service related. These rates are consistent with the other Florida municipal special risk retirement Plans and was determined reasonable with the May 10, 2017 actuarial experience study.

Age	% Becoming Disabled During the Year
20	0.03%
30	0.04%
40	0.07%
50	0.18%

Termination Rates:

Service	Age	Assumed Rate
<5	20-24	10.0%
	25-29	7.0%
	30-49	6.0%
	50-54	1.0%
	55+	0.1%
5+	20-44	6.0%
	45-49	5.0%
	50-54	1.0%
	55+	0.1%

This assumption was adopted with the May 10, 2017 actuarial experience study.

Salary Increases:

Service	Increase
<10	7.0%
10-14	5.5%
15-19	5.0%
20+	4.5%

This assumption was adopted with the May 10, 2017 actuarial experience study.

Post Retirement COLA:

3.0% from age 55 until 63.

Payroll Growth:

None. This assumption is supported given that the Plan is closed to new hires.

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.

Funding Method:

Entry Age Normal Actuarial Cost Method.

Amortization Method:

Level Percentage of Pay, Closed.

Remaining Amortization Period:

28 Years (as of 10/01/2017).

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

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

FINAL COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ (2,110,225)	\$ 5,337,414	\$ 3,774,730	\$ -
Employer and State Contributions made after 09/30/2018	-	-	1,101,963	-
Total Pension Liability Factors:				
Service Cost	904,670	-	-	904,670
Interest	3,351,560	-	-	3,351,560
Share Plan Allocation	164,503	-	-	164,503
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	876,960	-	876,960	-
Current year amortization of experience difference	-	(911,751)	(280,948)	(630,803)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	(207,845)	(153,216)	(54,629)
Benefit Payments, including Refunds of Employee Contributions	(2,306,593)	-	-	-
Net change	<u>2,991,100</u>	<u>(1,119,596)</u>	<u>1,544,759</u>	<u>3,735,301</u>
Plan Fiduciary Net Position:				
Contributions - Employer	675,521	-	(675,521)	-
Contributions - State	414,503	-	(414,503)	-
Contributions - Employee	397,806	-	-	(397,806)
Projected Net Investment Income	3,494,538	-	-	(3,494,538)
Difference between projected and actual earnings on Pension Plan investments	822,644	822,644	-	-
Current year amortization	-	(447,365)	(589,518)	142,153
Benefit Payments, including Refunds of Employee Contributions	(2,306,593)	-	-	-
Administrative Expenses	(86,198)	-	-	86,198
Net change	<u>3,412,221</u>	<u>375,279</u>	<u>(1,679,542)</u>	<u>(3,663,993)</u>
Ending Balance	<u>\$ (2,531,346)</u>	<u>\$ 4,593,097</u>	<u>\$ 3,639,947</u>	<u>\$ 71,308</u>

**PRELIMINARY COMPONENTS OF PENSION EXPENSE**  
**FISCAL YEAR SEPTEMBER 30, 2020**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ (2,531,346)	\$ 4,593,097	\$ 3,639,947	\$ -
Employer and State Contributions made after 09/30/2019	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	917,681	-	-	917,681
Interest	3,566,667	-	-	3,566,667
Share Plan Allocation	169,797	-	-	169,797
Changes in benefit terms	(5,208)	-	-	(5,208)
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	864,392	-	864,392	-
Current year amortization of experience difference	-	(911,751)	(569,077)	(342,674)
Change in assumptions about future economic or demographic factors or other inputs	1,577,924	-	1,577,924	-
Current year amortization of change in assumptions	-	(207,845)	(679,190)	471,345
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	-	-	-
Net change	<u>4,523,034</u>	<u>(1,119,596)</u>	<u>1,194,049</u>	<u>4,777,608</u>
Plan Fiduciary Net Position:				
Contributions - Employer	682,166	-	(682,166)	-
Contributions - State	419,797	-	(419,797)	-
Contributions - Employee	401,719	-	-	(401,719)
Contributions - Buy Back	-	-	-	-
Projected Net Investment Income	3,741,767	-	-	(3,741,767)
Difference between projected and actual earnings on Pension Plan investments	(1,862,081)	-	1,862,081	-
Current year amortization	-	(394,624)	(961,935)	567,311
Benefit Payments, including Refunds of Employee Contributions	(2,568,219)	-	-	-
Administrative Expenses	(72,105)	-	-	72,105
Net change	<u>743,044</u>	<u>(394,624)</u>	<u>(201,817)</u>	<u>(3,504,070)</u>
Ending Balance	<u>\$ 1,248,644</u>	<u>\$ 3,078,877</u>	<u>TBD</u>	<u>\$ 1,273,538</u>

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2019 but made on or before September 30, 2020 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

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

Plan Year Ending	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 1,862,081	5	\$ -	\$ 372,417	\$ 372,416	\$ 372,416	\$ 372,416	\$ 372,416	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (822,644)	5	\$ (164,528)	\$ (164,529)	\$ (164,529)	\$ (164,529)	\$ (164,529)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (1,150,474)	5	\$ (230,095)	\$ (230,095)	\$ (230,095)	\$ (230,095)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 314,575	5	\$ 62,915	\$ 62,915	\$ 62,915	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 2,633,014	5	\$ 526,603	\$ 526,603	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2014	\$ (263,708)	5	\$ (52,742)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 142,153	\$ 567,311	\$ 40,707	\$ (22,208)	\$ 207,887	\$ 372,416	\$ -	\$ -	\$ -	\$ -	\$ -

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)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 1,577,924	3	\$ -	\$ 525,974	\$ 525,975	\$ 525,975	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (831,381)	4	\$ (207,845)	\$ (207,845)	\$ (207,845)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 1,378,943	9	\$ 153,216	\$ 153,216	\$ 153,216	\$ 153,216	\$ 153,216	\$ 153,216	\$ 153,216	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (54,629)	\$ 471,345	\$ 471,346	\$ 679,191	\$ 153,216	\$ 153,216	\$ 153,216	\$ -	\$ -	\$ -	\$ -

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)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2019	\$ 864,392	3	\$ -	\$ 288,130	\$ 288,131	\$ 288,131	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 876,960	4	\$ 219,240	\$ 219,240	\$ 219,240	\$ 219,240	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (2,641,499)	4	\$ (660,375)	\$ (660,375)	\$ (660,375)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (2,262,386)	9	\$ (251,376)	\$ (251,376)	\$ (251,376)	\$ (251,376)	\$ (251,376)	\$ (251,376)	\$ (251,376)	\$ -	\$ -	\$ -	\$ -
2015	\$ 555,367	9	\$ 61,708	\$ 61,707	\$ 61,707	\$ 61,707	\$ 61,707	\$ 61,707	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (630,803)	\$ (342,674)	\$ (342,673)	\$ 317,702	\$ (189,669)	\$ (189,669)	\$ (251,376)	\$ -	\$ -	\$ -	\$ -