

CITY OF OVIEDO  
FIREFIGHTERS' PENSION TRUST FUND  
ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2020  
CONTRIBUTIONS APPLICABLE TO THE  
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2022  
GASB 67/68 DISCLOSURE INFORMATION  
AS OF SEPTEMBER 30, 2020



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

December 28, 2020

Board of Trustees  
City of Oviedo  
Firefighters' Pension Board

Re: City of Oviedo Firefighters' Pension Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Oviedo Firefighters' Pension 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.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. 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 Oviedo, 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, 2019. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2020 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.

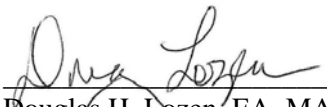
The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the 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 Oviedo, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Pension 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 #20-7778

By:   
Drew D. Ballard, EA, MAAA  
Enrolled Actuary #20-8193

## TABLE OF CONTENTS

Section	Title	Page
I	Introduction	
	a. Summary of Report	5
	b. Changes Since Prior Valuation	7
	c. Comparative Summary of Principal Valuation Results	8
II	Valuation Information	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	14
	b. History of Funding Progress	15
	c. Actuarial Assumptions and Methods	16
	d. Glossary	19
	e. Discussion of Risk	20
	f. Partial History of Premium Tax Refunds	23
III	Trust Fund	24
IV	Member Statistics	
	a. Statistical Data	32
	b. Age and Service Distribution	33
	c. Valuation Participant Reconciliation	34
V	Summary of Current Plan	35
VI	Governmental Accounting Standards Board Statements No. 67 and No. 68 Disclosure Information	38

## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Oviedo Firefighters' Pension Trust Fund, performed as of October 1, 2020, 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, 2022.

The contribution requirements, compared with those set forth in the October 1, 2019 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2020 <u>9/30/2022</u>	10/1/2019 <u>9/30/2021</u>
Minimum Required Contribution % of Projected Annual Payroll	26.6%	28.3%
Member Contributions (Est.) % of Projected Annual Payroll	7.0%	7.0%
City And State Required Contribution % of Projected Annual Payroll	19.6%	21.3%
State Contribution (Est.) <sup>1</sup> % of Projected Annual Payroll	\$273,286 8.8%	\$273,286 8.8%
City Required Contribution <sup>2</sup> % of Projected Annual Payroll	10.8%	12.5%

<sup>1</sup> Represents the amount received in calendar 2020. As per a Mutual Consent Agreement between the Membership and the City, the City may use annual State Monies up to the amount received in fiscal 2013 (\$273,286.09). Annual monies received in excess of this amount will be equally shared between the City (as a credit toward the Unfunded Actuarial Accrued Liability) and the Share Plan.

<sup>2</sup> The required contribution from the combination of City and State sources for the year ending September 30, 2022, is 19.6% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 10.8% 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 \$59,773.30 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2021.

As you can see, the Minimum Required Contribution shows a decrease when compared to the results determined in the October 1, 2019 actuarial valuation report. The decrease is attributable to an increase in valuation payroll (thereby reducing payment for the Unfunded Actuarial Accrued Liability when expressed as a percentage of payroll), in addition to changes in actuarial assumptions as described on the following page.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. The primary source of actuarial loss was an average salary increase of 7.16% which exceeded the 4.91% assumption. This loss was offset in part by a gain associated with more turnover than expected.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

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

### Actuarial Assumption/Method Changes

As mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

There have been no method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
<b>A. Participant Data</b>			
Actives	50	50	50
Service Retirees	9	9	8
DROP Retirees	2	2	2
Beneficiaries	1	1	1
Disability Retirees	2	2	2
Terminated Vested	9	9	8
 Total	 73	 73	 71
 Total Annual Payroll	 \$3,260,344	 \$3,260,344	 \$3,164,278
Payroll Under Assumed Ret. Age	3,097,012	3,097,012	2,917,854
 Annual Rate of Payments to:			
Service Retirees	472,276	472,276	425,405
DROP Retirees	155,834	155,834	155,834
Beneficiaries	22,877	22,877	22,877
Disability Retirees	32,718	32,718	32,718
Terminated Vested	162,344	162,344	93,542
 <b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	17,093,616	17,093,616	15,622,872
Market Value (MVA) <sup>1</sup>	16,955,134	16,955,134	15,212,801
 <b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	14,890,544	15,069,050	14,538,378
Disability Benefits	224,797	213,929	205,147
Death Benefits	95,314	130,946	124,129
Vested Benefits	497,539	500,336	488,149
Refund of Contributions	48,177	48,215	43,994
Service Retirees	5,426,535	5,546,352	4,989,250
DROP Retirees <sup>1</sup>	2,541,729	2,565,133	2,319,331
Beneficiaries	278,290	283,505	285,433
Disability Retirees	384,471	381,354	383,899
Terminated Vested	866,447	878,478	569,058
Share Plan Balances <sup>1</sup>	3,992	3,992	0
 Total	 25,257,835	 25,621,290	 23,946,768



C. Liabilities - (Continued)	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
Present Value of Future Salaries	33,284,945	33,257,220	31,829,638
Present Value of Future Member Contributions	2,329,946	2,328,005	2,228,075
Total Normal Cost	438,635	444,013	411,959
Present Value of Future Normal Costs (EAN)	5,282,316	5,336,140	5,083,740
Accrued Liability (Retirement)	10,060,587	10,194,204	9,886,048
Accrued Liability (Disability)	97,963	94,087	89,533
Accrued Liability (Death)	55,025	76,122	72,041
Accrued Liability (Vesting)	256,305	257,748	264,954
Accrued Liability (Refunds)	4,175	4,174	3,481
Accrued Liability (Inactives) <sup>1</sup>	9,497,472	9,654,822	8,546,971
Share Plan Balances <sup>1</sup>	<u>3,992</u>	<u>3,992</u>	<u>0</u>
Total Actuarial Accrued Liability (EAN AL)	19,975,519	20,285,149	18,863,028
Total Actuarial Accrued Liability (FIL)	20,543,630	20,853,260	19,452,882
Unfunded Actuarial Accrued Liability (UAAL)	3,450,014	3,759,644	3,830,010
Funded Ratio (AVA / EAN AL)	85.6%	84.3%	82.8%
Funded Ratio (AVA / FIL AL)	83.2%	82.0%	80.3%

D. Actuarial Present Value of Accrued Benefits	New Assump <u>10/1/2020</u>	Old Assump <u>10/1/2020</u>	<u>10/1/2019</u>
Vested Accrued Benefits			
Inactives + Share Plan Balances <sup>1</sup>	9,501,464	9,658,814	8,546,971
Actives	4,344,143	4,439,033	4,323,652
Member Contributions	<u>2,011,679</u>	<u>2,011,679</u>	<u>1,992,173</u>
Total	15,857,286	16,109,526	14,862,796
Non-vested Accrued Benefits	<u>407,470</u>	<u>412,932</u>	<u>392,620</u>
Total Present Value			
Accrued Benefits (PVAB)	16,264,756	16,522,458	15,255,416
Funded Ratio (MVA / PVAB)	104.2%	102.6%	99.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	(257,702)	0	
Plan Experience	0	691,298	
Benefits Paid	0	(533,420)	
Interest	0	1,109,164	
Other	<u>0</u>	<u>0</u>	
Total	(257,702)	1,267,042	

	New Assump	Old Assump	
Valuation Date	10/1/2020	10/1/2020	10/1/2019
Applicable to Fiscal Year Ending	<u>9/30/2022</u>	<u>9/30/2022</u>	<u>9/30/2021</u>

#### E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll <sup>2</sup>	14.7	14.9	14.6
Administrative Expenses (with interest) % of Total Annual Payroll <sup>2</sup>	1.8	1.8	2.0
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 28 years (as of 10/1/2020, with interest) % of Total Annual Payroll <sup>2</sup>	10.1	11.0	11.7
Minimum Required Contribution % of Total Annual Payroll <sup>2</sup>	26.6	27.7	28.3
Expected Member Contributions % of Total Annual Payroll <sup>2</sup>	7.0	7.0	7.0
Expected City and State Contribution % of Total Annual Payroll <sup>2</sup>	19.6	20.7	21.3

#### F. Past Contributions

Plan Years Ending:	<u>9/30/2020</u>
Total Required Contribution	830,896
City and State Requirement	611,414
Actual Contributions Made:	
Members (excluding buyback)	219,482
City	338,128
State	<u>273,286</u>
Total	830,896

#### G. Net Actuarial (Gain)/Loss

N/A

<sup>1</sup> The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2020 and 9/30/2019.

<sup>2</sup> Contributions developed as of 10/1/2020 are expressed as a percentage of total annual payroll at 10/1/2020 of \$3,097,012.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2020	3,450,014
2021	3,382,606
2022	3,310,210
2029	2,629,062
2035	1,703,001
2042	156,497
2048	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2020	7.16%	4.91%
Year Ended 9/30/2019	10.56%	5.69%
Year Ended 9/30/2018	5.07%	5.55%
Year Ended 9/30/2017	3.42%	5.31%
Year Ended 9/30/2016	3.34%	5.72%

(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 9/30/2020	9.68%	7.65%	7.40%
Year Ended 9/30/2019	2.10%	7.30%	7.75%
Year Ended 9/30/2018	8.74%	7.76%	7.75%
Year Ended 9/30/2017	13.41%	7.06%	7.75%
Year Ended 9/30/2016	5.00%	5.63%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2020	\$3,097,012
	10/1/2010	2,859,247
(b) Total Increase		8.32%
(c) Number of Years		10.00
(d) Average Annual Rate		0.80%

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 #20-7778

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

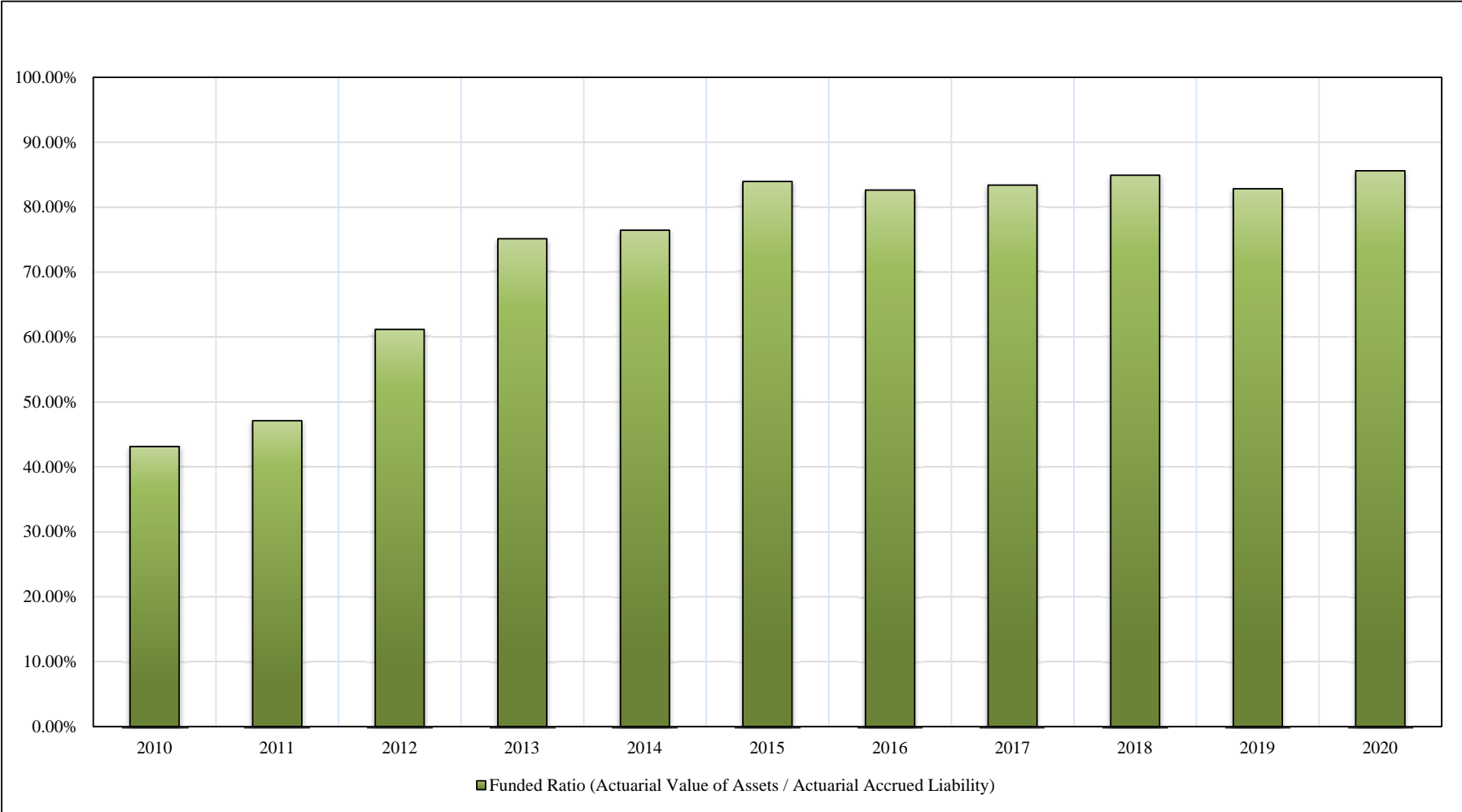
## RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1) Unfunded Actuarial Accrued Liability as of October 1, 2019	\$3,830,010
(2) Sponsor Normal Cost developed as of October 1, 2019	207,709
(3) Expected administrative expenses for the year ended September 30, 2020	56,130
(4) Expected interest on (1), (2) and (3)	300,868
(5) Sponsor contributions to the System during the year ended September 30, 2020 <sup>1</sup>	615,406
(6) Expected interest on (5)	19,667
(7) Unfunded Actuarial Accrued Liability as of September 30, 2020 (1)+(2)+(3)+(4)-(5)-(6)	3,759,644
(8) Change to UAAL due to Assumption Change	(309,630)
(9) Unfunded Actuarial Accrued Liability as of October 1, 2020	3,450,014

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2020 Amount</u>	<u>Amortization Amount</u>
Initial Liability	4/1/2002	21	1,915,069	169,889
Amendment	10/1/2005	15	388,048	40,678
Amendment	10/1/2006	16	451,758	45,714
Amendment	10/1/2008	18	628,891	59,903
Assumption	10/1/2010	20	182,746	16,564
Assumption	10/1/2014	24	972,341	81,728
Assumption	10/1/2015	15	(965,735)	(101,236)
Method	10/1/2015	15	(382,930)	(40,142)
Assumption	10/1/2016	16	303,886	30,751
Amendment	10/1/2018	28	(3,250)	(259)
Assumption	10/1/2019	19	268,820	24,948
Assumption	10/1/2020	20	(309,630)	(28,065)
			3,450,014	300,473

<sup>1</sup> Includes portion of State Monies received in excess of \$273,286.09 which are applied to reduce UAAL.

# HISTORY OF FUNDING PROGRESS



## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** PubS.H-2010 (Below Median) for Employees, set forward one year. Prior year assumption: RP2000 Generational, 100% Combined Healthy White Collar, Scale BB.

**Male:** PubS.H-2010 (Below Median) for Employees, set forward one year. Prior year assumption: RP2000 Generational, 10% Combined Healthy White Collar / 90% Combined Healthy Blue Collar, Scale BB.

#### *Healthy Retiree Lives:*

**Female:** PubS.H-2010 for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

**Male:** PubS.H-2010 (Below Median) for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

#### *Beneficiary Lives:*

**Female:** PubG.H-2010 (Below Median) for Healthy Retirees. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

**Male:** PubG.H-2010 (Below Median) for Healthy Retirees, set back one year. Prior year assumption: RP2000 Generational, 10% Annuitant White Collar / 90% Annuitant Blue Collar, Scale BB.

#### *Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

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

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

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.



The previously described mortality 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, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

Interest Rate

7.40% 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>Salary Scale</u>	
<u>Service</u>	<u>Rate</u>
0	10.00%
1-4	5.50%
5-15	5.00%
16+	3.00%

The assumed rates were approved in conjunction with an actuarial experience study dated July 2019.

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

\$53,414 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over the following amortization periods:

Assumption/Method Changes: 20 Years.

Benefit Changes: 30 Years.

Funding Method

Frozen Entry Age Actuarial Cost Method.

Normal Retirement

Members are assumed to retire with 50% probability in the first two years of eligibility and are assumed to retire with 100% probability thereafter. This assumption was approved in conjunction with an actuarial experience study dated July 2019.

Early Retirement

Commencing with the earliest Early Retirement Age (age 50 with 10 years of Credited Service), Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. This assumption was approved in conjunction with an actuarial experience study dated July 2019.

Disability Rate

Age-based; sample rates below. It is assumed that 90% of disablements are service related. The assumed rates are consistent with those utilized by other Florida public safety plans.

% Becoming Disabled	
During the Year	
Age	Rate
25	0.03%
35	0.05%
45	0.10%
65	2.22%

Termination Rates

% Terminating	
During the Year	
Service	Rate
0	20.0%
1-5	4.0%
6-19	2.0%
20+	0.0%

The assumed rates were approved in conjunction with an actuarial experience study dated July 2019.

Actuarial Asset Method

All assets are valued at market value with an adjustment made to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a four-year period.

## GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

Normal (Current Year's) Cost Rate is determined in the aggregate as the ratio of (a) and (b) as follows:

- (a) The present value of benefits for all Plan participants, less the actuarial value of assets, less the Unfunded Actuarial Accrued Liability (UAAL).
- (b) The present value of future compensation over the anticipated number of years of participation, determined as of the valuation date.

The Normal Cost dollar requirement is the ratio of (a) and (b), multiplied by the Total Annual Payroll as of the valuation date

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

Total Annual Payroll is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members.

Frozen Initial Liability Funding Method (Level Percent of Compensation) is the method used to determine required contributions under the Plan. The use of this method involves the systematic funding of the Normal Cost (described above) and the Unfunded Actuarial Accrued Liability (UAAL). The UAAL is reconciled each valuation with charges and credits as follows:

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

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

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.

## 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 financial impact on the plan's normal cost of the experience differing from assumptions; this gain or loss is spread over a period of time determined by the average future working lifetime of the current active membership as of the valuation date. 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 normal cost 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 2500.0% on October 1, 2010 to 250.0% on October 1, 2020, 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 47.5%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in lower volatility in contribution requirements when compared to a more 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 increased from 43.1% on October 1, 2010 to 85.6% on October 1, 2020.
- 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 20.3% on October 1, 2010 to 1.5% on October 1, 2020. The current Net Cash Flow Ratio of 1.5% indicates that contributions are generally 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>10/1/2010</u>	<u>10/1/2015</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Support Ratio</u>				
Total Actives	50	52	50	50
Total Inactives <sup>1</sup>	2	8	17	20
Actives / Inactives <sup>1</sup>	2500.0%	650.0%	294.1%	250.0%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	4,192,656	10,787,652	15,212,801	16,955,134
Total Annual Payroll	2,859,247	3,090,252	3,164,278	3,260,344
MVA / Total Annual Payroll	146.6%	349.1%	480.8%	520.0%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	313,801	2,603,091	8,546,971	9,497,472
Total Accrued Liability (EAN)	9,718,074	13,336,768	18,863,028	19,975,519
Inactive AL / Total AL	3.2%	19.5%	45.3%	47.5%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	4,192,656	11,195,572	15,622,872	17,093,616
Total Accrued Liability (EAN)	9,718,074	13,336,768	18,863,028	19,975,519
AVA / Total Accrued Liability (EAN)	43.1%	83.9%	82.8%	85.6%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>2</sup>	850,521	407,206	(70,566)	257,822
Market Value of Assets (MVA)	4,192,656	10,787,652	15,212,801	16,955,134
Ratio	20.3%	3.8%	-0.5%	1.5%

<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>
2003	106,867.02	N/A
2004	98,319.59	-8.0%
2005	131,124.94	33.4%
2006	150,235.20	14.6%
2007	147,560.86	-1.8%
2008	209,595.71	42.0%
2009	245,233.78	17.0%
2010	204,825.95	-16.5%
2011	264,069.77	28.9%
2012	273,592.19	3.6%
2013	273,286.09	-0.1%
2014	280,765.05	2.7%
2015	281,878.94	0.4%
2016	257,616.09	-8.6%
2017	234,633.10	-8.9%
2018	257,160.00	9.6%
2019	261,738.13	1.8%
2020	281,270.15	7.5%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2020

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	368,390.94	368,390.94
Total Cash and Equivalents	368,390.94	368,390.94
Total Receivable	0.00	0.00
Investments:		
Mutual Funds:		
Fixed Income	3,911,117.56	4,025,969.03
Equity	10,112,136.01	11,241,903.85
Pooled/Common/Commingled Funds:		
Real Estate	1,308,504.54	1,392,136.96
Total Investments	15,331,758.11	16,660,009.84
Total Assets	15,700,149.05	17,028,400.78
 <u>LIABILITIES</u>		
Payables:		
Investment Expenses	7,275.00	7,275.00
Administrative Expenses	6,218.90	6,218.90
Prepaid City Contribution	59,773.30	59,773.30
Total Liabilities	73,267.20	73,267.20
NET POSITION RESTRICTED FOR PENSIONS	15,626,881.85	16,955,133.58



STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2020  
Market Value Basis

ADDITIONS

Contributions:			
Member		219,481.84	
City		338,127.61	
State		281,270.15	
Total Contributions			838,879.60
Investment Income:			
Net Realized Gain (Loss)	200,426.48		
Unrealized Gain (Loss)	937,005.84		
Net Increase in Fair Value of Investments		1,137,432.32	
Interest & Dividends		383,153.48	
Less Investment Expense <sup>1</sup>		(36,075.00)	
Net Investment Income			1,484,510.80
Total Additions			2,323,390.40

DEDUCTIONS

Distributions to Members:			
Benefit Payments		492,717.33	
Lump Sum DROP Distributions		27,544.21	
Lump Sum Share Distributions		0.00	
Refunds of Member Contributions		13,158.48	
Total Distributions			533,420.02
Administrative Expense			47,637.78
Total Deductions			581,057.80
Net Increase in Net Position			1,742,332.60
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			15,212,800.98
End of the Year			16,955,133.58

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

ACTUARIAL ASSET VALUATION  
September 30, 2020

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a four year period. In the first year, 25% of the gain or loss is recognized. In the second year 50%, in the third year 75%, and in the fourth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Plan Year Ending	Gain/Loss	<u>Gain/(Loss) Not Yet Recognized</u>			
		Amounts Not Yet Recognized by Valuation Year			
		2020	2021	2022	2023
09/30/2017	666,604	0	0	0	0
09/30/2018	128,398	32,098	0	0	0
09/30/2019	(854,560)	(427,280)	(213,640)	0	0
09/30/2020	342,267	256,700	171,133	85,566	0
Total		(138,482)	(42,507)	85,566	0

Development of Investment Gain/(Loss)

Market Value of Assets, including Prepaid Contributions, 09/30/2019	15,341,053
Contributions Less Benefit Payments & Administrative Expenses	189,343
Expected Investment Earnings*	1,142,244
Actual Net Investment Earnings	1,484,511
2020 Actuarial Investment Gain/(Loss)	342,267

\*Expected Investment Earnings =  $0.074 * (15,341,053 + 0.5 * 189,343)$

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2020	16,955,134
(2) Gain/(Loss) Not Yet Recognized	(138,482)
(3) Actuarial Value of Assets, 09/30/2020, (1) - (2)	17,093,616

(A) 09/30/2019 Actuarial Assets, including Prepaid Contributions: 15,751,124

(I) Net Investment Income:	
1. Interest and Dividends	383,153
2. Realized Gain (Loss)	200,426
3. Unrealized Gain (Loss)	937,006
4. Change in Actuarial Value	(271,589)
5. Investment Expenses	(36,075)
Total	1,212,922

(B) 09/30/2020 Actuarial Assets, including Prepaid Contributions: 17,153,389

Actuarial Asset Rate of Return =  $2I/(A+B-I)$ : 7.65%  
Market Value of Assets Rate of Return: 9.68%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) 40,333

10/01/2020 Limited Actuarial Assets, not including Prepaid: 17,093,616

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
 SEPTEMBER 30, 2020  
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	219,481.84	
City	338,127.61	
State	281,270.15	
 Total Contributions		 838,879.60
Earnings from Investments:		
Interest & Dividends	383,153.48	
Net Realized Gain (Loss)	200,426.48	
Unrealized Gain (Loss)	937,005.84	
Change in Actuarial Value	(271,589.00)	
 Total Earnings and Investment Gains		 1,248,996.80

EXPENDITURES

Distributions to Members:		
Benefit Payments	492,717.33	
Lump Sum DROP Distributions	27,544.21	
Lump Sum Share Distributions	0.00	
Refunds of Member Contributions	13,158.48	
 Total Distributions		 533,420.02
Expenses:		
Investment related <sup>1</sup>	36,075.00	
Administrative	47,637.78	
 Total Expenses		 83,712.78
 Change in Net Assets for the Year		 1,470,743.60
 Net Assets Beginning of the Year		 15,622,871.98
 Net Assets End of the Year <sup>2</sup>		 17,093,615.58

<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, 2019 to September 30, 2020

Beginning of the Year Balance	323,043.36
Plus Additions	183,175.13
Investment Return Earned	101,799.31
Less Distributions	(27,544.21)
End of the Year Balance	580,473.59

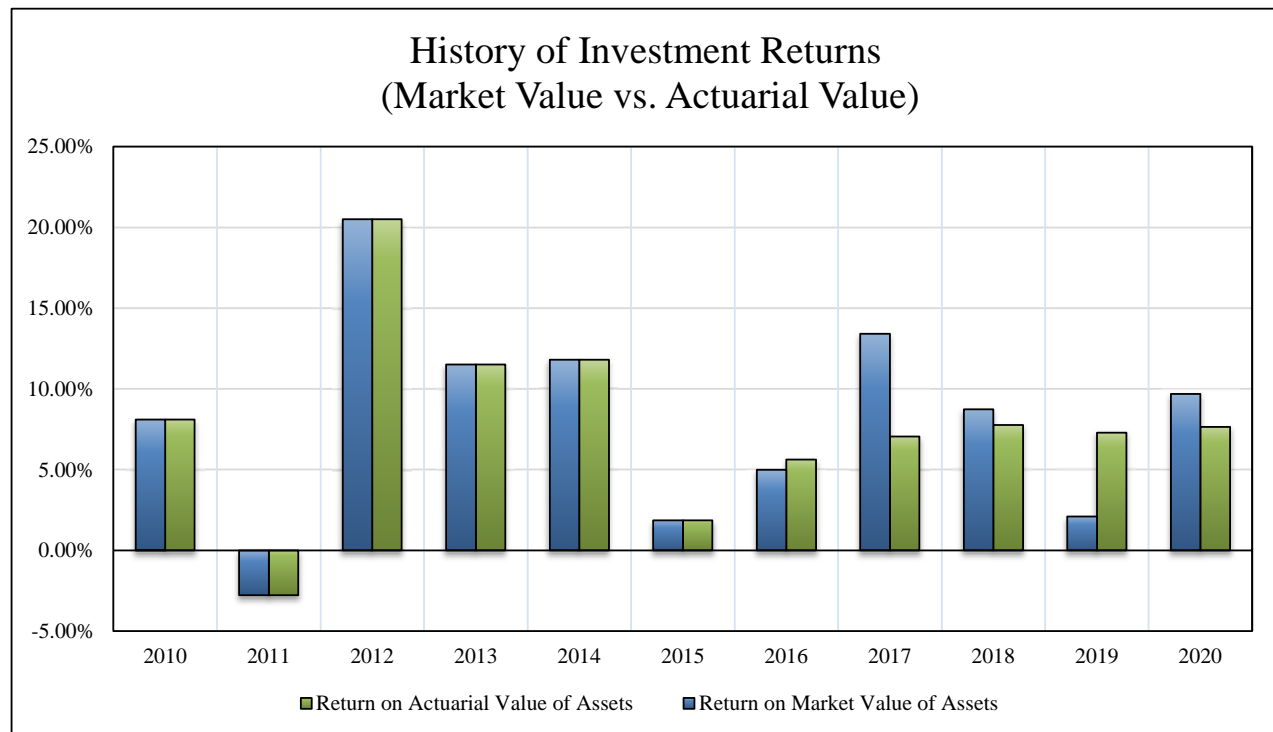
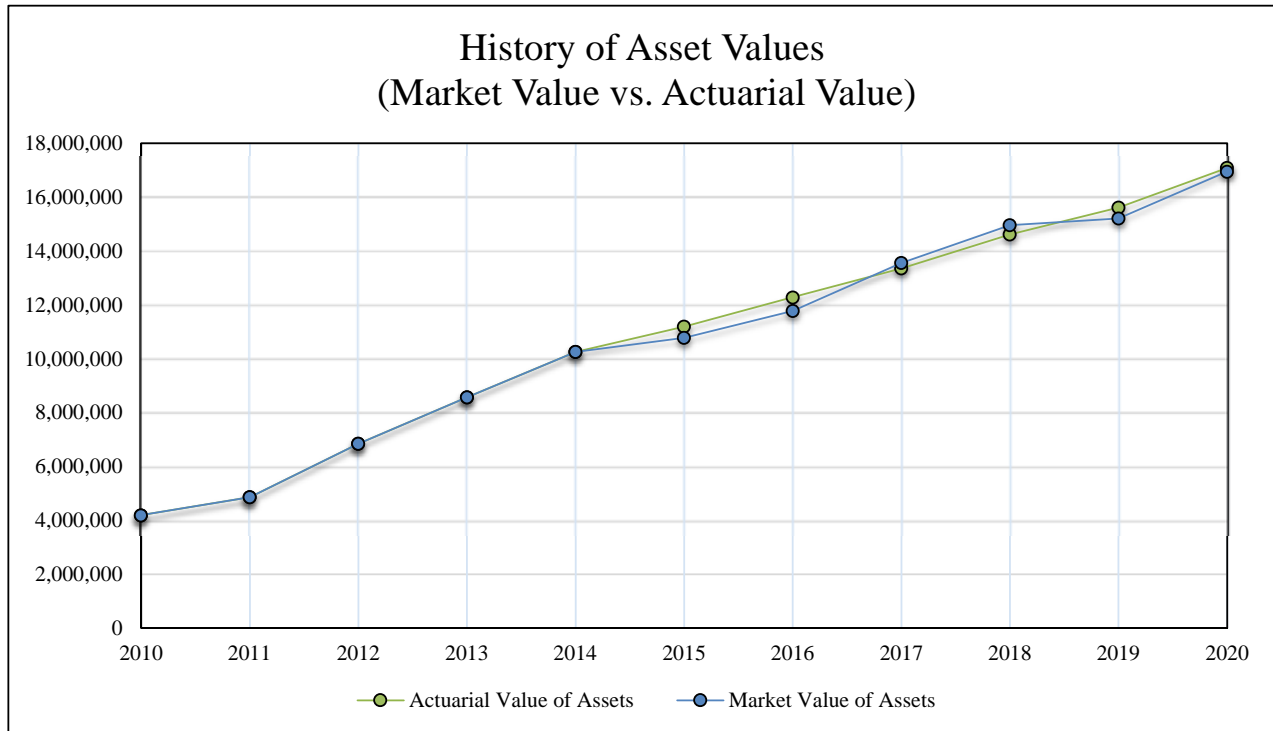
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY  
October 1, 2019 through September 30, 2020

9/30/2019 Balance	0.00
Plus Additions	3,992.03
Investment Return Earned	0.00
Administrative Fees	0.00
Less Distributions	<u>0.00</u>
9/30/2020 Balance	3,992.03

RECONCILIATION OF CITY'S SHORTFALL/(PREPAID) CONTRIBUTION  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2020

(1) Total Required Contribution Rate	26.5%
(2) Pensionable Payroll Derived from Member Contributions	\$3,135,454.86
(3) Total Required Contribution (1) x (2)	830,895.54
(4) Less Actual Member Contributions	(219,481.84)
(5) Less Allowable State Contribution	<u>(273,286.09)</u>
(6) Equals Required City Contribution for Fiscal 2020	338,127.61
(7) Less 2019 Prepaid Contribution	(128,252.32)
(8) Less Actual City Contributions	<u>(269,648.59)</u>
(9) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2020	(\$59,773.30)

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



## STATISTICAL DATA

	<u>10/1/2017</u>	<u>10/1/2018</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Actives</u>				
Number	51	49	50	50
Average Current Age	36.7	36.4	36.7	36.5
Average Age at Employment	24.9	24.8	24.8	24.8
Average Past Service	11.8	11.6	11.9	11.7
Average Annual Salary	\$58,768	\$59,015	\$63,286	\$65,207
<u>Service Retirees</u>				
Number	6	7	8	9
Average Current Age	58.4	60.4	61.1	61.6
Average Annual Benefit	\$46,701	\$46,669	\$53,176	\$52,475
<u>DROP Retirees</u>				
Number	2	3	2	2
Average Current Age	61.1	55.5	55.3	56.3
Average Annual Benefit	\$72,601	\$84,851	\$77,917	\$77,917
<u>Beneficiaries</u>				
Number	1	1	1	1
Average Current Age	50.5	51.5	52.5	53.5
Average Annual Benefit	\$22,877	\$22,877	\$22,877	\$22,877
<u>Disability Retirees</u>				
Number	2	2	2	2
Average Current Age	48.8	49.8	50.8	51.8
Average Annual Benefit	\$16,359	\$16,359	\$16,359	\$16,359
<u>Terminated Vested</u>				
Number	3	5	8	9
Average Current Age <sup>1</sup>	39.4	41.7	43.1	42.7
Average Annual Benefit <sup>1</sup>	\$14,491	\$19,781	\$23,386	\$27,057

<sup>1</sup> 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			2	1								3
25 - 29	3	4	1			5						13
30 - 34				1	1	3	1					6
35 - 39						1	2	6				9
40 - 44							1	8				9
45 - 49								1		1		2
50 - 54								4	2			6
55 - 59								1			1	2
60 - 64												0
65+												0
Total	3	4	3	2	1	9	4	20	2	1	1	50

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2019	50
b. Terminations	
i. Vested (partial or full) with deferred annuity	(2)
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	(1)
f. DROP	<u>0</u>
g. Continuing participants	47
h. New entrants	<u>3</u>
i. Total active life participants in valuation	<u>50</u>

### 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	8	2	1	2	4	4	21
Retired	1	0	0	0	0	0	1
DROP	0	0	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	2	0	2
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	(1)	(1)
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	9	2	1	2	6	3	23

## SUMMARY OF CURRENT PLAN

<u>Eligibility</u>	Employees who are classified as full-time or Volunteer Firefighters shall participate in the System as a condition of employment.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the City as a Firefighter.
<u>Salary</u>	Fixed compensation received from the City of Oviedo.
<u>Average Final Compensation</u>	Average Salary for the highest 5 years during the 10 years immediately preceding retirement or termination (determined separately for full-time and volunteer service).
<u>Member Contributions</u>	7.0% of Salary.
<u>City and State Contributions</u>	Remaining amount necessary to pay current costs and amortize past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.
<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	3.0% of Average Final Compensation for each year of Credited Service.
Form of Benefit	Ten Year Certain and Life Annuity (options available)
<u>Early Retirement</u>	
Eligibility	Age 50 and 10 Years of Credited Service.
Benefit	Accrued benefit, reduced 3.0% per year.
<u>Vesting</u>	
Schedule	100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

## Disability

### Eligibility

Service Incurred

Covered from Date of Employment.

Non-Service Incurred

10 years of Credited Service.

### Exclusions

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

### Benefit

Benefit accrued to date of disability but not less than 42% of Average Final Compensation (Service Incurred) or 25% of Average Final Compensation (Not Service Incurred).

### Duration

Payable for life (with a 10 year guarantee) 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 at the otherwise Normal or Early Retirement Date.

Non-Vested

Refund of accumulated contributions without interest

### Post-Retirement

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

## Deferred Retirement Option Plan

### Eligibility

Satisfaction of Normal Retirement requirements.

### Participation

Not to exceed 36 months.

### Rate of Return

At the Member's election, either 1.) net investment return credited each quarter (not less than 0%, nor greater than 10%), or 2.) a fixed annual effective rate of 3.0%, compounded and credited monthly. The Member has the option of changing the investment crediting option once during the period of DROP participation.

### Distribution

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

Supplemental Benefit:  
Chapter 175 Share Accounts

Effective September 30, 2016, excess Premium tax monies received pursuant to Chapter 175, Florida Statutes will be allocated to individual Member (including DROP participants) share accounts based on years of Credited Service.

Excess Monies

To assist with Plan funding, the City may use the amount of Premium Tax Monies received in fiscal 2013 (\$273,286.09) plus 50% of annual monies received in excess of this amount (to reduce the UAAL, otherwise the City's required contribution if no UAAL). The remaining 50% excess is allocated to the Share Plan, beginning with the fiscal year ending September 30, 2016.

Investment Earnings

Plan earnings, net of investment-related expenses.

Expenses

Based on expenses related to administration of the Share Plan, debited against individual accounts on a pro-rata basis.

Board of Trustees

- 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 Commission.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2020

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	368,391
Total Cash and Equivalents	368,391
Total Receivable	0
Investments:	
Mutual Funds:	
Fixed Income	4,025,969
Equity	11,241,904
Real Estate	1,392,137
Total Investments	16,660,010
Total Assets	17,028,401
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	7,275
Administrative Expenses	6,219
Total Liabilities	13,494
NET POSITION RESTRICTED FOR PENSIONS	17,014,907

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION  
FOR THE YEAR ENDED SEPTEMBER 30, 2020  
Market Value Basis

ADDITIONS

## Contributions:

Member	219,482	
City	269,649	
State	281,270	
<b>Total Contributions</b>		<b>770,401</b>
 Investment Income:		
Net Increase in Fair Value of Investments	1,137,432	
Interest & Dividends	383,153	
Less Investment Expense <sup>1</sup>	(36,075)	
<b>Net Investment Income</b>		<b>1,484,510</b>
<b>Total Additions</b>		<b>2,254,911</b>

DEDUCTIONS

## Distributions to Members:

Benefit Payments	492,717	
Lump Sum DROP Distributions	27,544	
Lump Sum Share Distributions	0	
Refunds of Member Contributions	13,158	
<b>Total Distributions</b>		<b>533,419</b>
 Administrative Expense		 47,638
<b>Total Deductions</b>		<b>581,057</b>
<b>Net Increase in Net Position</b>		<b>1,673,854</b>
 <b>NET POSITION RESTRICTED FOR PENSIONS</b>		
Beginning of the Year		15,341,053
End of the Year		17,014,907

<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, 2020)

*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. A fifth Member elected by other four and appointed by Commission.

*Plan Membership as of October 1, 2019:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	13
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	8
Active Plan Members	50
	71
	71

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2019 Actuarial Valuation Report for the City of Oviedo Firefighters' Pension Trust Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions 7.0% of Salary.

City and State Contributions: Remaining amount necessary to pay current costs and amortize past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.

*Investments*

*Investment Policy:*

The following was the Board's adopted asset allocation policy as of September 30, 2020:

Asset Class	Target Allocation
All Cap Value Equity	27.50%
Broad Growth Equity	27.50%
International Equity	15.00%
Fixed Income (Core)	15.00%
Global Bond	5.00%
Real Estate	10.00%
Total	100.00%

*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, 2020 the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 9.68 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 more than 36 months.

Rate of Return: At the Member's election, either 1.) net investment return credited each quarter (not less than 0%, nor greater than 10%), or 2.) a fixed annual effective rate of 3.0%, compounded and credited monthly. The Member has the option of changing the investment crediting option once during the period of DROP participation.

The DROP balance as September 30, 2020 is \$580,474.



NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2020 were as follows:

Total Pension Liability	\$ 19,693,953
Plan Fiduciary Net Position	<u>\$ (17,014,907)</u>
Sponsor's Net Pension Liability	<u>\$ 2,679,046</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	86.40%

*Actuarial Assumptions:*

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2019 updated to September 30, 2020 using the following actuarial assumptions:

Inflation	2.50%
Salary Increases	Service based
Discount Rate	7.40%
Investment Rate of Return	7.40%

*Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

*Mortality Rate Healthy Retiree Lives:*

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Below Median) for Healthy Retirees, set forward one year.

*Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 (Below Median) for Healthy Retirees.

Male: PubG.H-2010 (Below Median) for Healthy Retirees, set back one year.

*Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality 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, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

The most recent actuarial experience study used to review the other significant assumptions was dated July 30, 2019.

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 2020 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.

## GASB 67

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2020 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return<sup>1</sup></u>
All Cap Value Equity	7.50%
Broad Growth Equity	7.50%
International Equity	8.50%
Fixed Income (Core)	2.50%
Global Bond	3.50%
Real Estate	4.50%

<sup>1</sup> Source: AndCo Consulting

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.40 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
	6.40%	7.40%	8.40%
Sponsor's Net Pension Liability	\$ 5,333,385	\$ 2,679,046	\$ 478,852

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS  
Last 2 Fiscal Years

	09/30/2020	09/30/2019
Total Pension Liability		
Service Cost	494,781	524,937
Interest	1,369,446	1,348,592
Share Plan Allocation	3,992	-
Changes of benefit terms	-	(3,069)
Differences between Expected and Actual Experience	397,351	(171,332)
Changes of assumptions	(316,151)	79,551
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	(533,419)	(760,089)
Net Change in Total Pension Liability	1,416,000	1,018,590
Total Pension Liability - Beginning	18,277,953	17,259,363
Total Pension Liability - Ending (a)	<u>\$ 19,693,953</u>	<u>\$ 18,277,953</u>
Plan Fiduciary Net Position		
Contributions - Employer	269,649	258,593
Contributions - State	281,270	261,738
Contributions - Employee	219,482	210,482
Net Investment Income	1,484,510	313,502
Benefit Payments, including Refunds of Employee Contributions	(533,419)	(760,089)
Administrative Expense	(47,638)	(59,189)
Net Change in Plan Fiduciary Net Position	1,673,854	225,037
Plan Fiduciary Net Position - Beginning	15,341,053	15,116,016
Plan Fiduciary Net Position - Ending (b)	<u>\$ 17,014,907</u>	<u>\$ 15,341,053</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,679,046</u>	<u>\$ 2,936,900</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.40%	83.93%
Covered Payroll	\$ 3,135,455	\$ 3,006,876
Net Pension Liability as a percentage of Covered Payroll	85.44%	97.67%

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

*Changes of 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. Also, the expected percentage of disabilities that are in line-of-duty has been increased, as a result of the plan change described above.

*Changes of assumptions:*

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted from an Experience Study dated July 30, 2019, the following changes were approved by the Board of Trustees:

- The investment return assumption has been lowered from 7.75% per year to 7.40% per year, net of investment related expenses.
- The service-based rates for assumed salary increases have been lowered.
- The assumed normal retirement age has been amended from 100% at first eligibility to 50% in the first two years of eligibility and 100% thereafter.
- The service-based rates of assumed termination have been amended.

## SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2020	\$ 611,414	\$ 542,935	\$ 68,479	\$ 3,135,455	17.32%
09/30/2019	\$ 538,231	\$ 520,331	\$ 17,900	\$ 3,006,876	17.30%

Notes to Schedule

Valuation Date: 10/01/2018

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 can be found in the October 1, 2018 Actuarial Valuation for the City of Oviedo Firefighters Pension Trust Fund prepared by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS  
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2020	9.68%
09/30/2019	2.10%

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

*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. A fifth Member elected by other four and appointed by Commission.

Employees who are classified as full-time or Volunteer Firefighters shall participate in the System as a condition of employment.

*Plan Membership as of October 1, 2019:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	13
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	8
Active Plan Members	50
	71

*Benefits Provided*

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

A summary of the benefit provisions can be found in the October 1, 2019 Actuarial Valuation Report for the City of Oviedo Firefighters' Pension Trust Fund prepared by Foster & Foster Actuaries and Consultants.

*Contributions*

Member Contributions 7.0% of Salary.

City and State Contributions: Remaining amount necessary to pay current costs and amortize past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.

**Net Pension Liability**

The measurement date is September 30, 2020.

The measurement period for the pension expense was October 1, 2019 to September 30, 2020.

The reporting period is October 1, 2019 through September 30, 2020.

The Sponsor's Net Pension Liability was measured as of September 30, 2020.

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, 2019 updated to September 30, 2020 using the following actuarial assumptions:

Inflation	2.50%	
Salary Increases	Service based	
Discount Rate	7.40%	
Investment Rate of Return	7.40%	

## GASB 68

### *Mortality Rate Healthy Active Lives:*

Female: PubS.H-2010 (Below Median) for Employees, set forward one year.

Male: PubS.H-2010 (Below Median) for Employees, set forward one year.

### *Mortality Rate Healthy Retiree Lives:*

Female: PubS.H-2010 for Healthy Retirees, set forward one year.

Male: PubS.H-2010 (Below Median) for Healthy Retirees, set forward one year.

### *Mortality Rate Beneficiary Lives:*

Female: PubG.H-2010 (Below Median) for Healthy Retirees.

Male: PubG.H-2010 (Below Median) for Healthy Retirees, set back one year.

### *Mortality Rate Disabled Lives:*

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The previously described mortality 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, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

The most recent actuarial experience study used to review the other significant assumptions was dated July 30, 2019.

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 2020 the inflation rate assumption of the investment advisor was 2.50%.

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

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2020 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return <sup>1</sup>
All Cap Value Equity	27.50%	7.50%
Broad Growth Equity	27.50%	7.50%
International Equity	15.00%	8.50%
Fixed Income (Core)	15.00%	2.50%
Global Bond	5.00%	3.50%
Real Estate	10.00%	4.50%
Total	100.00%	

<sup>1</sup> Source: AndCo Consulting

### Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.40 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	Plan Fiduciary	Net Pension
	Liability	Net Position	Liability
	(a)	(b)	(a)-(b)
Balance at September 30, 2019	\$ 18,277,953	\$ 15,341,053	\$ 2,936,900
Changes for a Year:			
Service Cost	494,781	-	494,781
Interest	1,369,446	-	1,369,446
Share Plan Allocation	3,992	-	3,992
Differences between Expected and Actual Experience	397,351	-	397,351
Changes of assumptions	(316,151)	-	(316,151)
Changes of benefit terms	-	-	-
Contributions - Employer	-	269,649	(269,649)
Contributions - State	-	281,270	(281,270)
Contributions - Employee	-	219,482	(219,482)
Net Investment Income	-	1,484,510	(1,484,510)
Benefit Payments, including Refunds of Employee Contributions	(533,419)	(533,419)	-
Administrative Expense	-	(47,638)	47,638
Net Changes	1,416,000	1,673,854	(257,854)
Balance at September 30, 2020	\$ 19,693,953	\$ 17,014,907	\$ 2,679,046

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.40%	7.40%	8.40%
Sponsor's Net Pension Liability	\$ 5,333,385	\$ 2,679,046	\$ 478,852

*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  
FISCAL YEAR SEPTEMBER 30, 2020**

For the year ended September 30, 2020 the Sponsor will recognize a Pension Expense of \$485,490.

On September 30, 2020 the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	<u>Deferred Outflows of Resources</u>	<u>Deferred Inflows of Resources</u>
Differences between Expected and Actual Experience	357,615	930,528
Changes of assumptions	348,013	284,535
Net difference between Projected and Actual Earnings on Pension Plan investments	54,243	-
Total	<u>\$ 759,871</u>	<u>\$ 1,215,063</u>

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	\$ (129,716)
2022	\$ 3,605
2023	\$ 29,286
2024	\$ (141,626)
2025	\$ (73,173)
Thereafter	\$ (143,568)

## SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2020	\$ 611,414	\$ 542,935	\$ 68,479	\$ 3,135,455	17.32%
09/30/2019	\$ 538,231	\$ 520,331	\$ 17,900	\$ 3,006,876	17.30%

Notes to Schedule

Valuation Date: 10/01/2018

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 can be found in the October 1, 2018 Actuarial Valuation for the City of Oviedo Firefighters Pension Trust Fund prepared by Foster & Foster Actuaries and Consultants.

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

Last 2 Fiscal Years

Measurement Date <sup>1</sup>	09/30/2020	09/30/2019
Total Pension Liability		
Service Cost	494,781	524,937
Interest	1,369,446	1,348,592
Share Plan Allocation	3,992	-
Changes of benefit terms	-	(3,069)
Differences between Expected and Actual Experience	397,351	(171,332)
Changes of assumptions	(316,151)	79,551
Contributions - Buy Back	-	-
Benefit Payments, including Refunds of Employee Contributions	(533,419)	(760,089)
Net Change in Total Pension Liability	1,416,000	1,018,590
Total Pension Liability - Beginning	18,277,953	17,259,363
Total Pension Liability - Ending (a)	<u>\$ 19,693,953</u>	<u>\$ 18,277,953</u>
Plan Fiduciary Net Position		
Contributions - Employer	269,649	258,593
Contributions - State	281,270	261,738
Contributions - Employee	219,482	210,482
Net Investment Income	1,484,510	313,502
Benefit Payments, including Refunds of Employee Contributions	(533,419)	(760,089)
Administrative Expense	(47,638)	(59,189)
Net Change in Plan Fiduciary Net Position	1,673,854	225,037
Plan Fiduciary Net Position - Beginning	15,341,053	15,116,016
Plan Fiduciary Net Position - Ending (b)	<u>\$ 17,014,907</u>	<u>\$ 15,341,053</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,679,046</u>	<u>\$ 2,936,900</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	86.40%	83.93%
Covered Payroll	\$ 3,135,455	\$ 3,006,876
Net Pension Liability as a percentage of Covered Payroll	85.44%	97.67%

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

<sup>1</sup> Effective for the City's fiscal year ending 09/30/2019, the GASB 68 measurement date of the Pension Expense has been approved and changed from 09/30/2018 to 09/30/2019.

*Changes of 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. Also, the expected percentage of disabilities that are in line-of-duty has been increased, as a result of the plan change described above.

*Changes of assumptions:*

For measurement date 09/30/2020, as mandated by Chapter 2015-157, Laws of Florida, the assumed rates of mortality were changed to the rates used in Milliman's July 1, 2019 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

For measurement date 09/30/2019, amounts reported as changes of assumptions resulted from an Experience Study dated July 30, 2019, the following changes were approved by the Board of Trustees:

- The investment return assumption has been lowered from 7.75% per year to 7.40% per year, net of investment related expenses.
- The service-based rates for assumed salary increases have been lowered.
- The assumed normal retirement age has been amended from 100% at first eligibility to 50% in the first two years of eligibility and 100% thereafter.
- The service-based rates of assumed termination have been amended.

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, 2020**

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 2,936,900	\$ 1,406,756	\$ 1,143,989	
Total Pension Liability Factors:				
Service Cost	494,781	-	-	494,781
Interest	1,369,446	-	-	1,369,446
Share Plan Allocation	3,992	-	-	3,992
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	397,351	-	397,351	-
Current year amortization of experience difference	-	(132,546)	(39,736)	(92,810)
Change in assumptions about future economic or demographic factors or other inputs	(316,151)	316,151	-	-
Current year amortization of change in assumptions	-	(31,616)	(51,253)	19,637
Benefit Payments, including Refunds of Employee Contributions	(533,419)	-	-	-
Net change	<u>1,416,000</u>	<u>151,989</u>	<u>306,362</u>	<u>1,795,046</u>
Plan Fiduciary Net Position:				
Contributions - Employer	269,649	-	-	-
Contributions - State	281,270	-	-	-
Contributions - Employee	219,482	-	-	(219,482)
Projected Net Investment Income	1,142,244	-	-	(1,142,244)
Difference between projected and actual earnings on Pension Plan investments	342,266	342,266	-	-
Current year amortization	-	(227,455)	(231,987)	4,532
Benefit Payments, including Refunds of Employee Contributions	(533,419)	-	-	-
Administrative Expenses	(47,638)	-	-	47,638
Net change	<u>1,673,854</u>	<u>114,811</u>	<u>(231,987)</u>	<u>(1,309,556)</u>
Ending Balance	<u>\$ 2,679,046</u>	<u>\$ 1,673,556</u>	<u>\$ 1,218,364</u>	<u>\$ 485,490</u>

AMORTIZATION SCHEDULE - INVESTMENT

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)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ (342,266)	5	\$ (68,454)	\$ (68,453)	\$ (68,453)	\$ (68,453)	\$ (68,453)	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 854,561	5	\$ 170,912	\$ 170,912	\$ 170,912	\$ 170,912	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (128,398)	5	\$ (25,680)	\$ (25,680)	\$ (25,680)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (666,604)	5	\$ (133,321)	\$ (133,321)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 305,374	5	\$ 61,075	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 4,532	\$ (56,542)	\$ 76,779	\$ 102,459	\$ (68,453)	\$ -	\$ -	\$ -	\$ -	\$ -



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)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ (316,151)	10	\$ (31,616)	\$ (31,615)	\$ (31,615)	\$ (31,615)	\$ (31,615)	\$ (31,615)	\$ (31,615)	\$ (31,615)	\$ (31,615)	\$ (31,615)
2019	\$ 79,551	10	\$ 7,955	\$ 7,955	\$ 7,955	\$ 7,955	\$ 7,955	\$ 7,955	\$ 7,955	\$ 7,955	\$ 7,955	\$ -
2016	\$ 295,018	12	\$ 24,585	\$ 24,585	\$ 24,585	\$ 24,585	\$ 24,585	\$ 24,585	\$ 24,585	\$ 24,585	\$ -	\$ -
2015	\$ 224,555	12	\$ 18,713	\$ 18,713	\$ 18,713	\$ 18,713	\$ 18,713	\$ 18,713	\$ 18,713	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 19,637	\$ 19,638	\$ 19,638	\$ 19,638	\$ 19,638	\$ 19,638	\$ 19,638	\$ 925	\$ (23,660)	\$ (31,615)

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)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience											
			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029		
2020	\$ 397,351	10	\$ 39,736	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735	\$ 39,735
2019	\$ (171,332)	10	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ (17,133)	\$ -
2018	\$ (154,031)	11	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ (14,003)	\$ -
2017	\$ (127,274)	11	\$ (11,571)	\$ (11,571)	\$ (11,571)	\$ (11,570)	\$ (11,570)	\$ (11,570)	\$ (11,570)	\$ (11,570)	\$ (11,570)	\$ (11,570)	\$ -	\$ -
2016	\$ (736,901)	12	\$ (61,407)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ (61,408)	\$ -	\$ -
2015	\$ (341,180)	12	\$ (28,432)	\$ (28,432)	\$ (28,432)	\$ (28,432)	\$ (28,432)	\$ (28,432)	\$ (28,432)	\$ (28,432)	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (92,810)	\$ (92,812)	\$ (92,812)	\$ (92,811)	\$ (92,811)	\$ (92,811)	\$ (92,811)	\$ (92,811)	\$ (64,379)	\$ 8,599	\$ 39,735	\$ 39,735