

CITY OF PENSACOLA  
FIREFIGHTERS' RELIEF AND PENSION 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

February 22, 2021

Board of Trustees  
City of Pensacola  
Firefighters' Pension Board

Re: City of Pensacola Firefighters' Relief and Pension Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Pensacola Firefighters' Relief and Pension 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 Pensacola, 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.

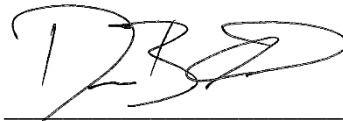
To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Pensacola, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Relief and Pension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



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

By:



Tyler A. Koftan, EA, MAAA  
Enrolled Actuary #20-8685

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## SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Pensacola Firefighters' Relief and Pension 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	10/1/2020	10/1/2019
Applicable to Fiscal Year Ending	<u>9/30/2022</u>	<u>9/30/2021</u>
Minimum Required Contribution	\$2,534,578	\$2,389,601
Member Contributions (Est.)	634,934	552,249
City And State Required Contribution	1,899,644	1,837,352
State Contribution (Est.) <sup>1</sup>	526,021	526,021
City Required Contribution <sup>2</sup>	\$1,373,623	\$1,311,331

<sup>1</sup> As requested by the Division of Retirement, the required contribution from the combination of City and State sources for the year ending September 30, 2021 is \$1,837,352. The City and State contribution for the fiscal year ending September 30, 2022 is \$1,899,644 based on the City's policy of contributing on October 1st. This approach saves approximately \$75,000 over the prior approach of contributing uniformly over the year.

As you can see, the Minimum Required Contribution shows an increase when compared to the results in the October 1, 2019 actuarial valuation report. The increase is attributable to a rise in normal cost due to a growth in active population, and a statutorily required change of actuarial assumptions. The increase was offset in part by net favorable experience realized by the plan, described below.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included a COLA rate of 1.50% which was lower than assumed, an investment return of 8.61% (Actuarial Asset Basis) which exceeded the 7.75% assumption, and inactive mortality experience. These gains were offset in part by a loss associated with an average salary increase of 9.14% which exceeded the 5.88% assumption.

## 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.

## CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2019	1,319,249
(2) Summary of Contribution Impact by component:	
Change in State Contribution	(7,918)
Change in Normal Cost	180,795
Change in Administrative Expense	(9,858)
COLAs Lower Than Expected	(151,757)
Investment Return (Actuarial Asset Basis)	(116,187)
Salary Increases	93,628
Active Decrements	4,206
Inactive Mortality	(56,529)
Change in Expected Member Contributions	(82,685)
Assumption Change	205,415
Other	<u>(4,736)</u>
Total Change in Contribution	54,374
(3) Contribution Determined as of October 1, 2020	1,373,623

## 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	110	110	101
Service Retirees	99	99	95
DROP Retirees	12	12	17
Beneficiaries	30	30	30
Disability Retirees	49	49	52
Terminated Vested	<u>3</u>	<u>3</u>	<u>3</u>
Total	303	303	298
Total Annual Payroll	\$5,588,485	\$5,588,485	\$4,809,863
Payroll Under Assumed Ret. Age	5,445,400	5,445,400	4,734,037
Annual Rate of Payments to:			
Service Retirees	5,705,481	5,705,481	5,424,049
DROP Retirees	653,614	653,614	893,517
Beneficiaries	947,171	947,171	985,961
Disability Retirees	1,692,451	1,692,451	1,788,878
Terminated Vested	47,923	47,923	47,923
<b>B. Assets</b>			
Actuarial Value (AVA) <sup>1</sup>	125,614,142	125,614,142	122,582,727
Market Value (MVA) <sup>1</sup>	126,722,487	126,722,487	120,827,640
<b>C. Liabilities</b>			
Present Value of Benefits			
Actives			
Retirement Benefits	30,629,735	30,307,435	25,565,922
Disability Benefits	2,702,615	2,645,944	2,345,219
Death Benefits	323,916	401,899	354,663
Vested Benefits	514,355	493,901	435,387
Refund of Contributions	150,394	150,447	133,231
Service Retirees	76,206,388	75,150,894	71,574,379
DROP Retirees <sup>1</sup>	11,421,896	11,299,157	15,629,496
Beneficiaries	8,746,703	8,801,724	9,476,881
Disability Retirees	18,115,314	17,723,525	19,020,941
Terminated Vested	<u>470,892</u>	<u>468,447</u>	<u>435,148</u>
Total	149,282,208	147,443,373	144,971,267



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	57,992,415	57,958,988	50,611,999
Present Value of Future Member Contributions	6,379,166	6,375,489	5,567,320
Normal Cost (Retirement)	1,187,823	1,174,342	1,029,453
Normal Cost (Disability)	175,675	171,994	155,753
Normal Cost (Death)	22,438	26,941	24,146
Normal Cost (Vesting)	27,920	26,778	23,554
Normal Cost (Refunds)	<u>24,910</u>	<u>24,912</u>	<u>20,908</u>
Total Normal Cost	1,438,766	1,424,967	1,253,814
Present Value of Future Normal Costs	14,787,532	14,634,354	12,904,635
Accrued Liability (Retirement)	18,254,434	18,076,970	14,801,426
Accrued Liability (Disability)	952,770	935,127	819,788
Accrued Liability (Death)	89,187	124,903	107,375
Accrued Liability (Vesting)	151,497	142,581	127,594
Accrued Liability (Refunds)	85,595	85,691	73,604
Accrued Liability (Inactives) <sup>1</sup>	<u>114,961,193</u>	<u>113,443,747</u>	<u>116,136,845</u>
Total Actuarial Accrued Liability (EAN AL)	134,494,676	132,809,019	132,066,632
Unfunded Actuarial Accrued Liability (UAAL)	8,880,534	7,194,877	9,483,905
Funded Ratio (AVA / EAN AL)	93.4%	94.6%	92.8%

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 <sup>1</sup>	114,961,193	113,443,747	116,136,845
Actives	4,780,259	4,645,684	3,483,609
Member Contributions	<u>4,252,144</u>	<u>4,252,144</u>	<u>3,722,130</u>
Total	123,993,596	122,341,575	123,342,584
Non-vested Accrued Benefits	<u>4,260,542</u>	<u>4,280,168</u>	<u>3,804,586</u>
Total Present Value			
Accrued Benefits (PVAB)	128,254,138	126,621,743	127,147,170
Funded Ratio (MVA / PVAB)	98.8%	100.1%	95.0%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	1,632,395	0	
Plan Experience	0	(610,022)	
Benefits Paid	0	(9,404,872)	
Interest	0	9,489,467	
Other	<u>0</u>	<u>0</u>	
Total	1,632,395	(525,427)	

	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 <sup>2</sup>	\$1,525,092	\$1,510,465	\$1,329,670
Administrative Expenses <sup>2</sup>	78,648	78,648	88,506
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 18 years (as of 10/1/2020) <sup>2</sup>	930,838	740,050	971,425
Minimum Required Contribution	2,534,578	2,329,163	2,389,601
Expected Member Contributions <sup>2</sup>	634,934	634,934	552,249
Expected City and State Contribution	1,899,644	1,694,229	1,837,352

F. Past Contributions

Plan Years Ending:	<u>9/30/2020</u>
City and State Requirement	1,711,806
Actual Contributions Made:	
City	1,194,940
State	<u>526,021</u>
Total	1,720,961

G. Net Actuarial (Gain)/Loss (2,081,712)

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

<sup>2</sup> Contributions developed as of 10/1/2020 displayed above have been adjusted to account for assumed salary increases.

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	8,880,534
2021	8,622,570
2022	8,344,614
2026	7,000,022
2030	5,187,597
2034	2,744,729
2038	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2020	9.14%	5.88%
Year Ended 9/30/2019	6.74%	5.79%
Year Ended 9/30/2018	2.80%	5.67%
Year Ended 9/30/2017	7.62%	7.04%
Year Ended 9/30/2016	-3.74%	7.15%

(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	11.12%	8.61%	7.75%
Year Ended 9/30/2019	2.83%	6.26%	7.75%
Year Ended 9/30/2018	9.20%	7.87%	7.75%
Year Ended 9/30/2017	11.14%	8.54%	7.75%
Year Ended 9/30/2016	9.18%	9.34%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2020	\$5,445,400
	10/1/2010	5,009,434
(b) Total Increase		8.70%
(c) Number of Years		10.00
(d) Average Annual Rate		0.84%

## 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.



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

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	\$9,483,905
(2)	Sponsor Normal Cost developed as of October 1, 2019	733,070
(3)	Expected administrative expenses for the year ended September 30, 2020	83,457
(4)	Expected interest on (1), (2) and (3)	795,050
(5)	Sponsor contributions to the System during the year ended September 30, 2020	1,720,961
(6)	Expected interest on (5)	97,932
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2020 (1)+(2)+(3)+(4)-(5)-(6)	9,276,589
(8)	Change to UAAL due to Assumption Change	1,685,657
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(2,081,712)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2020	8,880,534

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2020 <u>Amount</u>	Amortization <u>Amount</u>
Fresh Start	10/1/2018	18	7,980,066	776,592
Benefits Change	10/1/2018	13	1,323	153
Actuarial Loss	10/1/2019	14	1,295,200	143,694
Actuarial Gain	10/1/2020	15	(2,081,712)	(222,279)
Assump Change	10/1/2020	15	<u>1,685,657</u>	<u>179,989</u>
			8,880,534	878,149

## DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

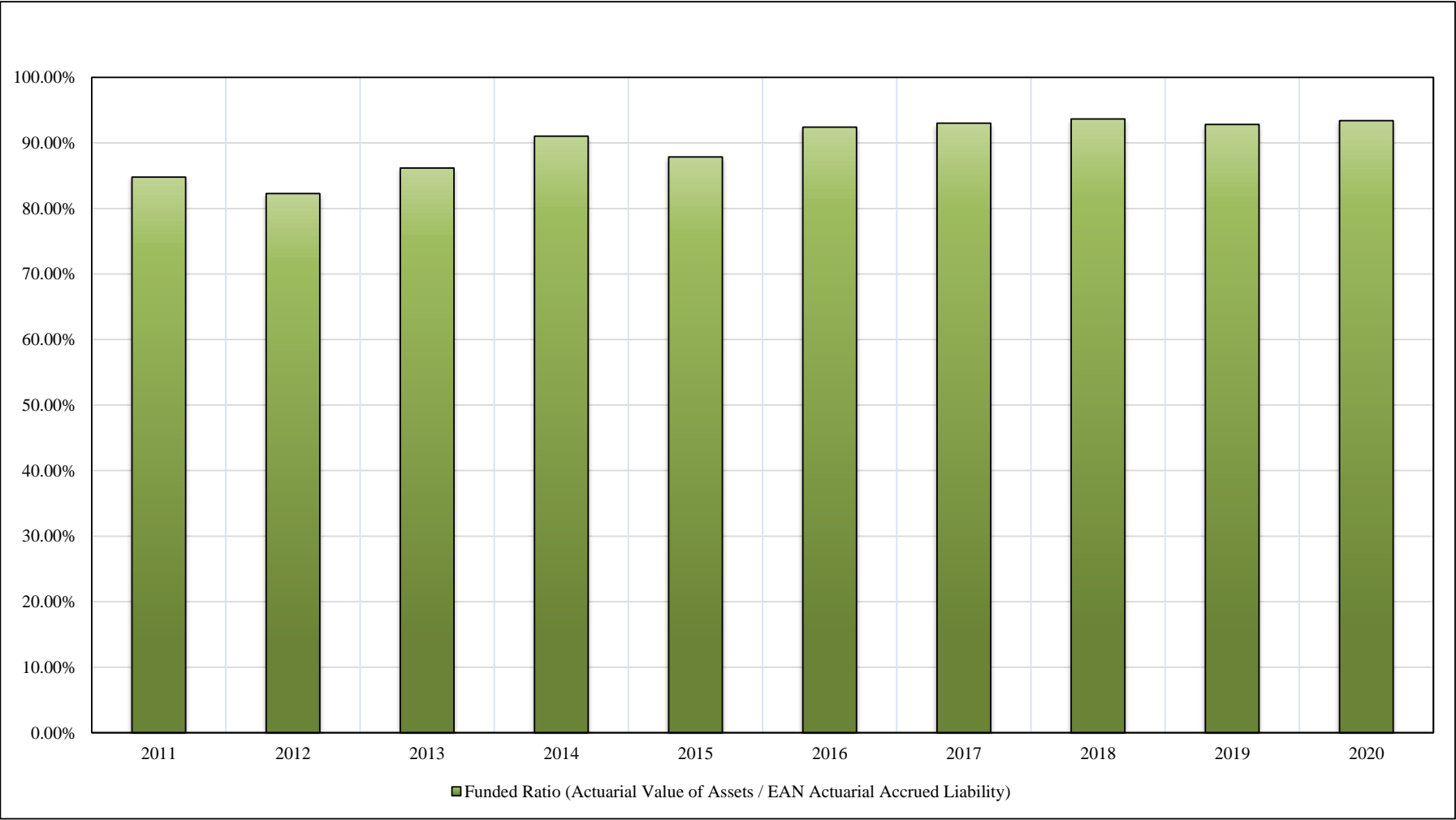
(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2019	\$9,483,905
(2) Expected UAAL as of October 1, 2020	9,276,589
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(1,026,533)
Salary Increases	827,225
Active Decrements	37,159
Inactive Mortality	(499,444)
COLAs Lower Than Expected	(1,340,807)
Other	<u>(79,312)</u>
Increase in UAAL due to (Gain)/Loss	(2,081,712)
Assumption Changes	<u>1,685,657</u>
(4) Actual UAAL as of October 1, 2020	\$8,880,534

**PROJECTED UNFUNDED ACTUARIAL ACCRUED LIABILITY**

<u>Plan Year</u>	<u>Fiscal Year</u>	<u>Expected UAAL</u>	<u>Expected Amortization Payment UAAL</u>	<u>Expected UAAL on 9/30</u>
9/30/2020	9/30/2022	8,880,534	878,149	8,622,570
9/30/2021	9/30/2023	8,622,570	878,149	8,344,614
9/30/2022	9/30/2024	8,344,614	878,149	8,045,117
9/30/2023	9/30/2025	8,045,117	878,149	7,722,408
9/30/2024	9/30/2026	7,722,408	878,149	7,374,689
9/30/2025	9/30/2027	7,374,689	878,149	7,000,022
9/30/2026	9/30/2028	7,000,022	878,149	6,596,318
9/30/2027	9/30/2029	6,596,318	878,149	6,161,327
9/30/2028	9/30/2030	6,161,327	878,149	5,692,625
9/30/2029	9/30/2031	5,692,625	878,149	5,187,597
9/30/2030	9/30/2032	5,187,597	878,149	4,643,430
9/30/2031	9/30/2033	4,643,430	878,149	4,057,091
9/30/2032	9/30/2034	4,057,091	878,157	3,425,302
9/30/2033	9/30/2035	3,425,302	877,990	2,744,729
9/30/2034	9/30/2036	2,744,729	734,311	2,166,225
9/30/2035	9/30/2037	2,166,225	776,592	1,497,330
9/30/2036	9/30/2038	1,497,330	776,592	776,595
9/30/2037	9/30/2039	776,595	776,595	0
9/30/2038	9/30/2040	0	0	0



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 (Above Median) for Healthy Retirees, set forward one year. Prior year assumption: RP2000 Generational, 100% Annuitant White Collar, Scale BB.

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

**Male:** PubG.H-2010 (Above 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

7.75% 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

See table later in this section. This is based on the experience study dated October 9, 2017.

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.

Cost-of-Living Adjustment

1.25% for those hired on or after June 20, 2015.  
2.00% for those retiring after June 10, 2015 and hired before that date.  
2.875% per year for those retiring prior to June 10, 2015.

Administrative Expenses

\$74,196 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Termination Rates

See table later in this section. This is based on the experience study dated October 9, 2017.

Disability Rates

See table later in this section. This is based on the experience study dated October 9, 2017. 90.0% of disabilities are assumed to be In Line of Duty (ILOD).

Assumed Retirement Age

See table later in this section. This is based on the experience study dated October 9, 2017.

Marriage

100% are assumed married with husbands 3 years older than wives.

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 actuarial value investment return) over a five-year period.

Funding Method

Entry Age Normal Actuarial Cost Method. A load based on the salary increase at the current 6.00% assumption is used to develop the dollar funding requirements. There is no interest adjustment to reflect the October 1<sup>st</sup> deposit.

Amortization Method

New UAAL amortization bases are amortized over 15 years.

Assumption Tables

% Terminating During the Year		% Becoming Disabled During the Year		Salary Scale	
Service	Rate	Age	Rate	Service	Rate
0	10.0%	20	0.12%	0 - 1	8.00%
1	8.0%	25	0.13%	2 - 9	6.50%
2	6.0%	30	0.15%	10 - 19	5.00%
3	4.0%	35	0.25%	20+	4.00%
4-5	2.0%	40	0.36%		
6	1.8%	45	1.06%		
7	1.5%	50	1.76%		
8	1.3%	55	2.10%		
9	1.0%	60	2.44%		
10+	0.50%				

% Retiring During the Year (10-23 Years of Service)		% Retiring During the Year (24 - 26 Years of Service)	
Age	Rate	Age	Rate
50	5.0%	<=55	80.0%
51	10.0%	56+	100.0%
52 - 55	25.0%	Year (>=27 Years of Service)	
56+	100.0%	Age	Rate
		Any	100.0%

## 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.

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.

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 is the current year's cost for benefits yet to be funded. Under the Entry Age Normal cost method, it is determined for each participant as the present value of future benefits, determined as of the Member's entry age, amortized as a level percentage of compensation over the anticipated number of years of participation, determined as of the entry age.

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.

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.

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 stayed about the same from October 1, 2011 to October 1, 2020, indicating that the plan's maturity level has not significantly changed 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 85.5%. 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 increased from 84.8% on October 1, 2011 to 93.4% 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 -3.1% on October 1, 2011 to -5.7% on October 1, 2020. The current Net Cash Flow Ratio of -5.7% 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>10/1/2011</u>	<u>10/1/2015</u>	<u>10/1/2019</u>	<u>10/1/2020</u>
<u>Support Ratio</u>				
Total Actives	93	86	101	110
Total Inactives <sup>1</sup>	179	192	196	192
Actives / Inactives <sup>1</sup>	52.0%	44.8%	51.5%	57.3%

### Asset Volatility Ratio

Market Value of Assets (MVA)	84,408,126	108,697,588	120,827,640	126,722,487
Total Annual Payroll	4,695,857	4,277,804	4,809,863	5,588,485
MVA / Total Annual Payroll	1,797.5%	2,541.0%	2,512.1%	2,267.6%

### Accrued Liability (AL) Ratio

Inactive Accrued Liability	85,309,165	109,124,223	116,136,845	114,961,193
Total Accrued Liability (EAN)	113,273,781	126,009,635	132,066,632	134,494,676
Inactive AL / Total AL	75.3%	86.6%	87.9%	85.5%

### Funded Ratio

Actuarial Value of Assets (AVA)	96,039,185	110,711,895	122,582,727	125,614,142
Total Accrued Liability (EAN)	113,273,781	126,009,635	132,066,632	134,494,676
AVA / Total Accrued Liability (EAN)	84.8%	87.9%	92.8%	93.4%

### Net Cash Flow Ratio

Net Cash Flow <sup>2</sup>	(2,601,012)	(2,072,688)	(8,098,217)	(7,215,673)
Market Value of Assets (MVA)	84,408,126	108,697,588	120,827,640	126,722,487
Ratio	-3.1%	-1.9%	-6.7%	-5.7%

<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

Received During <u>Fiscal Year</u>	<u>Amount</u>	Increase from <u>Previous Year</u>
1998	435,288.82	_____%
1999	446,175.43	2.5%
2000	430,632.86	-3.5%
2001	398,542.75	-7.5%
2002	467,483.17	17.3%
2003	426,820.13	-8.7%
2004	587,798.91	37.7%
2005	579,685.92	-1.4%
2006	674,181.18	16.3%
2007	766,923.14	13.8%
2008	799,134.89	4.2%
2009	530,169.21	-33.7%
2010	638,919.66	20.5%
2011	635,647.22	-0.5%
2012	667,019.50	4.9%
2013	666,509.03	-0.1%
2014	742,106.25	11.3%
2015	698,091.40	-5.9%
2016	628,070.73	-10.0%
2017	538,659.52	-14.2%
2018	546,910.96	1.5%
2019	518,103.44	-5.3%
2020	526,021.01	1.5%

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2020

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	117,232.88	117,232.88
Money Market	2,156,816.07	2,156,816.07
Cash	(258,508.66)	(258,508.66)
Total Cash and Equivalents	2,015,540.29	2,015,540.29
Receivables:		
Member Contributions in Transit	24,556.99	24,556.99
City Contributions in Transit	223.26	223.26
Investment Income	235,117.00	235,117.00
Total Receivable	259,897.25	259,897.25
Investments:		
U. S. Bonds and Bills	5,979,408.52	5,997,463.27
Federal Agency Guaranteed Securities	4,248,009.89	4,496,350.97
Corporate Bonds	28,603,409.42	32,006,810.44
Equities	37,147,385.08	55,977,171.13
Mutual Funds:		
Infrastructure	2,013,543.50	1,812,571.01
Equity	6,661,993.77	6,579,171.05
Pooled/Common/Commingled Funds:		
Equity	11,061,534.41	10,073,420.09
Real Estate	6,601,455.19	7,637,571.34
Total Investments	102,316,739.78	124,580,529.30
Total Assets	104,592,177.32	126,855,966.84
<u>LIABILITIES</u>		
Payables:		
Investment Expenses	128,361.65	128,361.65
Administrative Expenses	5,118.00	5,118.00
Total Liabilities	133,479.65	133,479.65
NET POSITION RESTRICTED FOR PENSIONS	104,458,697.67	126,722,487.19

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

**ADDITIONS**

Contributions:

Member	543,443.37
City	1,194,940.05
State	526,021.01

Total Contributions	2,264,404.43
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Investment Income:

Miscellaneous Income	1,058.80	
Net Realized Gain (Loss)	3,943,878.22	
Unrealized Gain (Loss)	7,196,380.33	
Net Increase in Fair Value of Investments		11,141,317.35
Interest & Dividends		2,655,040.01
Less Investment Expense <sup>1</sup>		(685,837.85)

Net Investment Income	13,110,519.51
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Total Additions	15,374,923.94
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**DEDUCTIONS**

Distributions to Members:

Benefit Payments	8,301,792.13
Lump Sum DROP Distributions	1,089,701.85
Refunds of Member Contributions	13,377.78

Total Distributions	9,404,871.76
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Administrative Expense	75,205.26
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Total Deductions	9,480,077.02
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Net Increase in Net Position	5,894,846.92
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**NET POSITION RESTRICTED FOR PENSIONS**

Beginning of the Year	120,827,640.27
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End of the Year	126,722,487.19
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<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 five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth 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>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2020	2021	2022	2023	2024
09/30/2016	1,505,867	0	0	0	0	0
09/30/2017	3,696,630	739,326	0	0	0	0
09/30/2018	1,835,358	734,142	367,070	0	0	0
09/30/2019	(5,795,160)	(3,477,096)	(2,318,064)	(1,159,032)	0	0
09/30/2020	3,889,966	3,111,973	2,333,980	1,555,987	777,994	0
Total		1,108,345	382,986	396,955	777,994	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, 09/30/2019	120,827,640
Actuarial Value of Assets, 09/30/2019	122,582,727
Contributions Less Benefit Payments & Admin Expenses	(7,215,673)
Expected Investment Earnings on Actuarial Value*	9,220,554
Actual Net Investment Earnings	13,110,520
2020 Actuarial Investment Gain/(Loss)	<u>3,889,966</u>

\*Expected Investment Earnings =  $0.0775 * [122,582,727 + 0.5 * (7,215,673)]$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2020	126,722,487
(2) Gains/(Losses) Not Yet Recognized	<u>1,108,345</u>
(3) Actuarial Value of Assets, 09/30/2020, (1) - (2)	125,614,142
(A) 09/30/2019 Actuarial Assets:	122,582,727
(I) Net Investment Income:	
1. Interest and Dividends	2,656,099
2. Realized Gain (Loss)	3,943,878
3. Unrealized Gain (Loss)	7,196,380
4. Change in Actuarial Value	(2,863,432)
5. Investment Expenses	<u>(685,838)</u>
Total	10,247,088
(B) 09/30/2020 Actuarial Assets:	125,614,142
Actuarial Asset Rate of Return = $2I/(A+B-I)$ :	8.61%
Market Value of Assets Rate of Return:	11.12%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	1,026,533

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

REVENUES

Contributions:		
Member	543,443.37	
City	1,194,940.05	
State	526,021.01	
Total Contributions		2,264,404.43
Earnings from Investments:		
Interest & Dividends	2,655,040.01	
Miscellaneous Income	1,058.80	
Net Realized Gain (Loss)	3,943,878.22	
Unrealized Gain (Loss)	7,196,380.33	
Change in Actuarial Value	(2,863,432.00)	
Total Earnings and Investment Gains		10,932,925.36

EXPENDITURES

Distributions to Members:		
Benefit Payments	8,301,792.13	
Lump Sum DROP Distributions	1,089,701.85	
Refunds of Member Contributions	13,377.78	
Total Distributions		9,404,871.76
Expenses:		
Investment related <sup>1</sup>	685,837.85	
Administrative	75,205.26	
Total Expenses		761,043.11
Change in Net Assets for the Year		3,031,414.92
Net Assets Beginning of the Year		122,582,727.27
Net Assets End of the Year <sup>2</sup>		125,614,142.19

<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	1,975,558.67
Plus Additions	729,760.48
Investment Return Earned	29,604.37
Less Distributions	(1,089,701.85)
End of the Year Balance	1,645,221.67

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT  
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2020

(1) Required City and State Contributions	\$1,711,806.00
(2) Less Allowable State Contribution	<u>(526,021.01)</u>
(3) Required City Contribution for Fiscal 2020	1,185,784.99
(4) Less 2019 Prepaid Contribution	0.00
(5) Less Actual City Contributions	<u>(1,194,940.05)</u>
(6) City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2020	(\$9,155.06)

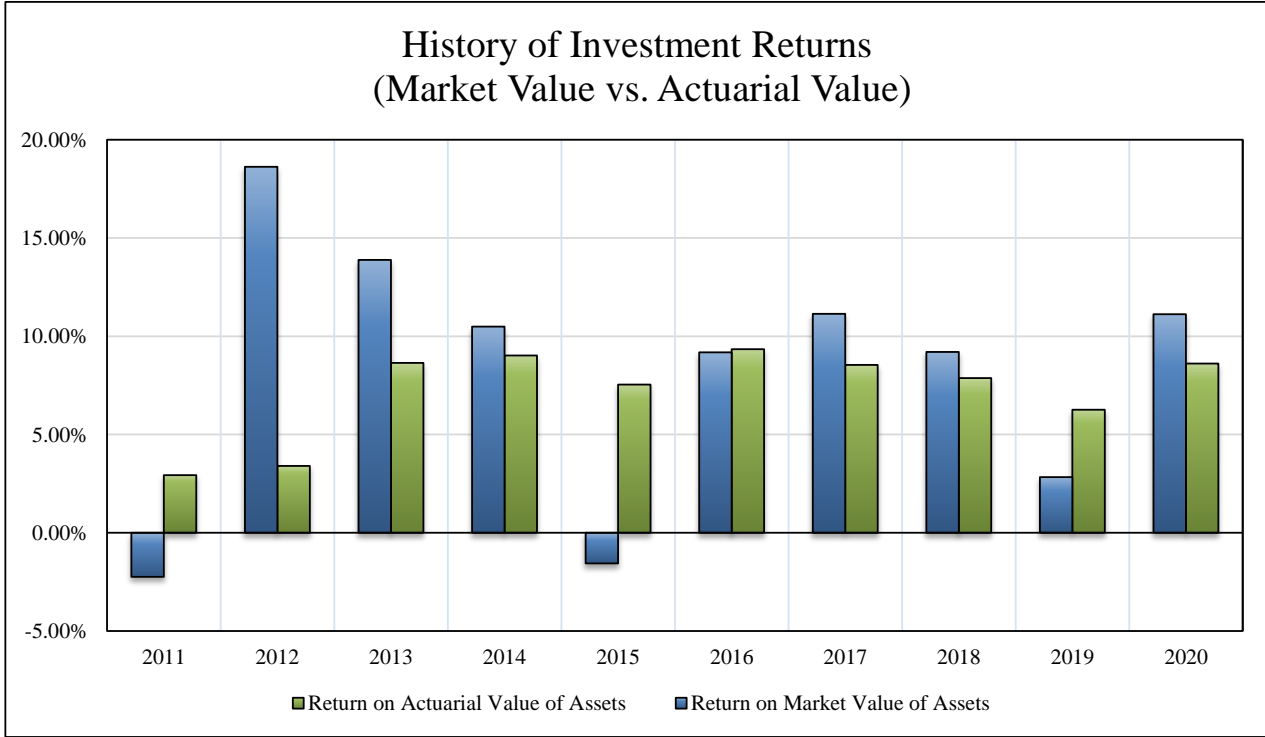
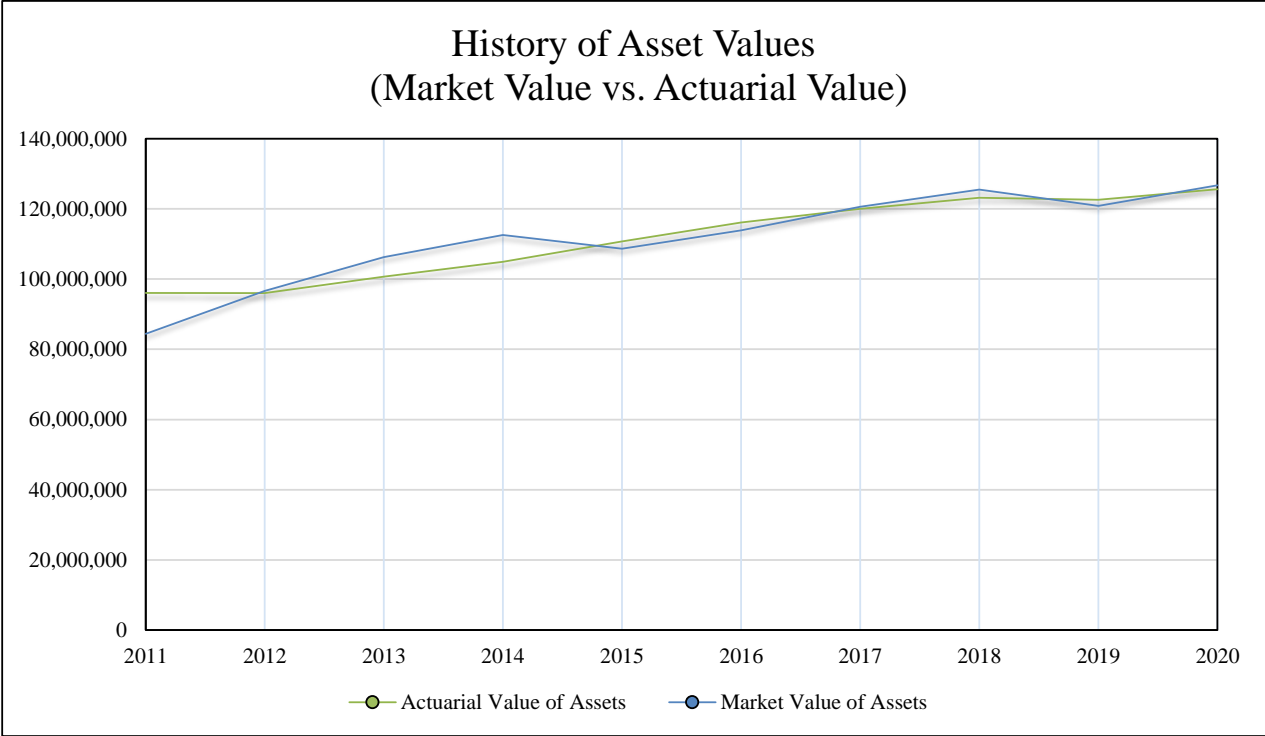


## RECENT COMPENSATION AND INVESTMENT EXPERIENCE

Valuation Date	Compensation		Investment Return*		
	% Increase (Decrease)	Assumed Increase	Market Value	Actuarial Value	Assumed
10/1/2020	9.14%	5.88%	11.12%	8.61%	7.75%
10/1/2019	6.74%	5.79%	2.83%	6.26%	7.75%
10/1/2018	2.80%	5.67%	9.20%	7.87%	7.75%
10/1/2017	7.62%	7.04%	11.14%	8.54%	7.75%
10/1/2016	(3.74%)	7.15%	9.18%	9.34%	7.75%
10/1/2015	11.22%	7.16%	(1.56%)	7.54%	8.00%
10/1/2014	5.98%	6.86%	10.49%	9.02%	8.00%
10/1/2013	(4.15%)	6.62%	13.88%	8.64%	8.00%
10/1/2012	6.19%	6.58%	18.62%	3.40%	8.00%
10/1/2011	6.55%	7.28%	(2.24%)	2.93%	8.00%
Last 5 Years	4.41%	6.30%	8.65%	8.12%	7.75%
Last 10 Years	4.72%	6.60%	8.08%	7.19%	7.87%

\*Computed as  $2I/(A+B-I)$ , where A is beginning value, B is ending value and I is investment return

# 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	97	102	101	110
Average Current Age	36.4	35.6	34.9	35.1
Average Age at Employment	26.2	26.3	26.4	26.4
Average Past Service	10.2	9.3	8.5	8.7
Average Annual Salary	\$47,539	\$46,444	\$47,622	\$50,804
<u>Service Retirees</u>				
Number	87	87	95	99
Average Current Age	66.2	66.5	66.5	66.5
Average Annual Benefit	\$54,619	\$56,094	\$57,095	\$57,631
<u>DROP Retirees</u>				
Number	17	19	17	12
Average Current Age	53.3	52.9	51.4	52.9
Average Annual Benefit	\$54,042	\$54,530	\$52,560	\$54,468
<u>Beneficiaries</u>				
Number	31	29	30	30
Average Current Age	76.5	76.4	76.4	77.2
Average Annual Benefit	\$30,222	\$31,588	\$32,865	\$31,572
<u>Disability Retirees</u>				
Number	54	55	52	49
Average Current Age	69.8	70.6	71.3	71.8
Average Annual Benefit	\$33,386	\$34,489	\$34,402	\$34,540
<u>Terminated Vested</u>				
Number	2	2	3	3
Average Current Age <sup>1</sup>	49.2	50.2	45.0	46.0
Average Annual Benefit <sup>2</sup>	\$31,115	\$31,115	\$23,962	\$23,962

<sup>1</sup> The Average Current Age and Average Annual Benefit exclude 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	3	3	3	1								10
25 - 29	4	5	3	5	1	3						21
30 - 34	2	4	5	6	2	4	3					26
35 - 39	1	1		2		4	9	3				20
40 - 44		1				1	4	4	1			11
45 - 49				1		1	3	4	5	1		15
50 - 54							1	3	1			5
55 - 59									2			2
60 - 64												0
65+												0
Total	10	14	11	15	3	13	20	14	9	1	0	110

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2019	101
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution received	(1)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>0</u>
g. Continuing participants	100
h. New entrants	<u>10</u>
i. Total active life participants in valuation	110

### 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	95	17	30	52	2	1	197
Retired	5	(5)	0	0	0	0	0
DROP	0	0	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	0	0	0
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	2	(2)	0	0	0
Death, No Survivor	(1)	0	(2)	(1)	0	0	(4)
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	99	12	30	49	2	1	193

SUMMARY OF CURRENT PLAN  
(Through Special Act Dated October 4, 2016)

<u>Eligibility</u>	Employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.
<u>Credited Service</u>	Complete years of service. For vested members, service also includes major fractional parts of a year.
<u>Salary</u>	<p>Regular wages, longevity pay, station or watch captain pay, special duty pay, bonuses, lump-sum payments not made at termination, inclusive of elective deferrals, deferred compensation or tax-sheltered annuity programs.</p> <p>Employees hired on or after June 10, 2015 have no overtime included in Salary.</p> <p>Employees who were non-vested as of June 10, 2015 a maximum of 200 hours of overtime per plan year (including additional regular pay) are included in Salary.</p> <p>Employees who were vested as of June 10, 2015, a maximum of 300 hours of overtime per plan year (including additional regular pay) are included in Salary.</p>
<u>Average Final Compensation</u>	<p>Average Salary for the best 2 years out of the last 5 years of Credited Service for Members with 20 or more years of Credited Service as of June 10, 2015.</p> <p>Average Salary for the last 5 years of Credited Service for Members with less than 20 years of Credited Service as of June 10, 2015.</p>
<u>Member Contributions</u>	11.00% 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 Chapter 112, Florida Statutes.
<u>Normal Retirement</u>	
Date	Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service.
Benefit	At 25 years of service, the retirement benefit is 75% of average final compensation. Otherwise, the benefit is 75% of first \$2,400 of average final compensation, plus

70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years.

Form of Benefit

If single, single life annuity (options available). If married, 75% joint and survivor annuity.

For Members hired on or after June 10, 2015 the form of benefit is a 10-year Certain and Life Annuity.

Early Retirement

Eligibility

Age 50 and 10 Years of Credited Service.

Benefit

Accrued benefit, reduced 3% per year.

Vesting

Schedule

100% after 10 years of Credited Service.

Benefit Amount

Accrued benefit multiplied by the number of years of service at termination (maximum 25 years) divided by 25 years. Payable at age 52.

Disability

Eligibility

Total and permanent disability.

Benefit

Service Incurred

The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 1% for each of the first 18 years, 2% for the next year and 4% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 42% of AFC.

Non-Service Incurred

The benefit is 75% of first \$2,400 of average final compensation, plus 70% of the next \$1,200 of average final compensation, plus 65% of any additional amount. This benefit is reduced by 2% for each of the first 18 years, 4% for the next year and 6% for each of the next 5 years by which service is less than 25 years. Minimum benefit is 25% of AFC.

Duration	Payable as a 75% joint and survivor benefit. Options available.
<u>Death Benefits</u>	
Pre-Retirement	
Vested	75% of monthly accrued benefit payable to designated beneficiary for life.
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>	
	<ul style="list-style-type: none"> <li>a. Two City Council appointees,</li> <li>b. Two Members of the Department elected by the membership, and</li> <li>c. Fifth Member elected by other 4 appointed by City Council.</li> </ul>
<u>Deferred Retirement Option Plan</u>	
Eligibility	Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).
Participation	Not to exceed 60 months.
Rate of Return	1.3% annually.
Form of Distribution	Cash lump sum (options available) at termination of employment.
<u>Cost-of-Living Adjustment</u>	
Eligibility	All members in payment status.
Increase	<p>Increased annually based on Consumer Price Index, limited to 3.00% per year for retirees who retired prior to June 10, 2015. The limit is 2.00% per year for retirees who are hired before June 10, 2015 and retire after June 10, 2015. The limit is 1.25% per year for Members who are hired on or after June 10, 2015.</p> <p>No increases are provided during DROP participation for Members who were hired after July 1, 1999 and enter DROP after June 10, 2015.</p>



STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2020

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	117,233
Money Market	2,156,816
Cash	(258,509)
Total Cash and Equivalents	2,015,540
Receivables:	
Member Contributions in Transit	24,557
City Contributions in Transit	223
Investment Income	235,117
Total Receivable	259,897
Investments:	
U. S. Bonds and Bills	5,997,463
Federal Agency Guaranteed Securities	4,496,351
Corporate Bonds	32,006,811
Equities	55,977,171
Mutual Funds:	
Infrastructure	1,812,571
Equity	6,579,171
Pooled/Common/Commingled Funds:	
Equity	10,073,420
Real Estate	7,637,571
Total Investments	124,580,529
Total Assets	126,855,966
<u>LIABILITIES</u>	
Payables:	
Investment Expenses	128,361
Administrative Expenses	5,118
Total Liabilities	133,479
NET POSITION RESTRICTED FOR PENSIONS	126,722,487

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

ADDITIONS

## Contributions:

Member	543,443	
City	1,194,940	
State	526,021	
Total Contributions		2,264,404
Investment Income:		
Net Increase in Fair Value of Investments	11,141,318	
Interest & Dividends	2,655,040	
Less Investment Expense <sup>1</sup>	(685,838)	
Net Investment Income		13,110,520
Total Additions		15,374,924

DEDUCTIONS

## Distributions to Members:

Benefit Payments	8,301,792	
Lump Sum DROP Distributions	1,089,702	
Refunds of Member Contributions	13,378	
Total Distributions		9,404,872
Administrative Expense		75,205
Total Deductions		9,480,077
Net Increase in Net Position		5,894,847
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		120,827,640
End of the Year		126,722,487

<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. Fifth Member elected by other four appointed by Commission.

### *Plan Membership as of October 1, 2019:*

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	194
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	101
	<u>298</u>

### *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 Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

### *Contributions*

Member Contributions: 11.00% 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 Chapter 112, Florida Statutes.

### *Investment Policy:*

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

Asset Class	Target Allocation
Domestic Equity	37.0%
International Equity	15.0%
Bonds	25.0%
Convertibles	10.0%
Private Real Estate	8.0%
Infrastructure	5.0%
Total	<u>100.0%</u>

### *Concentrations:*

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

### *Rate of Return:*

For the year ended September 30, 2020, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was 11.12 percent.

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

### Deferred Retirement Option Program

Eligibility: Satisfaction of Normal Retirement requirements (Earlier of Age 52 and 10 years of Credited Service, or 25 years of Credited Service).

Participation: Not to exceed 60 months.

Rate of Return: 1.3% annually.

The DROP balance as September 30, 2020 is \$1,645,222.

## 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	\$ 135,538,471
Plan Fiduciary Net Position	\$ (126,722,487)
Sponsor's Net Pension Liability	<u>\$ 8,815,984</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	93.50%

*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	2.70%
Salary Increases	Service based
Discount Rate	7.75%
Investment Rate of Return	7.75%

*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 (Above Median) for Healthy Retirees, set forward one year.

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

*Mortality Rate Beneficiary Lives:*

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

Male: PubG.H-2010 (Above 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 October 9, 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 2020 the inflation rate assumption of the investment advisor was 2.30%.

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, 2020 are summarized in the following table:

Asset Class	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	8.5%
International Equity	4.1%
Bonds	3.7%
Convertibles	7.9%
Private Real Estate	5.0%
Infrastructure	6.4%

<sup>1</sup> Source: Burgess Chambers

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.75 percent.

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

	1% Decrease 6.75%	Current Discount Rate 7.75%	1% Increase 8.75%
Sponsor's Net Pension Liability	\$ 24,324,778	\$ 8,815,984	\$ (4,041,589)

**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	1,258,728	1,290,959
Interest	9,985,729	9,887,893
Changes of benefit terms	-	(1,793)
Differences between Expected and Actual Experience	(511,791)	(87,339)
Changes of assumptions	1,918,859	-
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	(10,188,894)
Net Change in Total Pension Liability	3,246,653	900,826
Total Pension Liability - Beginning	132,291,818	131,390,992
Total Pension Liability - Ending (a)	<u>\$ 135,538,471</u>	<u>\$ 132,291,818</u>
Plan Fiduciary Net Position		
Contributions - Employer	1,194,940	1,140,100
Contributions - State	526,021	518,103
Contributions - Employee	543,443	505,660
Net Investment Income	13,110,520	3,440,824
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	(10,188,894)
Administrative Expense	(75,205)	(73,186)
Net Change in Plan Fiduciary Net Position	5,894,847	(4,657,393)
Plan Fiduciary Net Position - Beginning	120,827,640	125,485,033
Plan Fiduciary Net Position - Ending (b)	<u>\$ 126,722,487</u>	<u>\$ 120,827,640</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 8,815,984</u>	<u>\$ 11,464,178</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	93.50%	91.33%
Covered Payroll	\$ 4,939,900	\$ 4,596,890
Net Pension Liability as a percentage of Covered Payroll	178.46%	249.39%

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

*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.

*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.

## 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	\$ 1,711,806	\$ 1,720,961	\$ (9,155)	\$ 4,939,900	34.84%
09/30/2019	\$ 1,644,078	\$ 1,658,203	\$ (14,125)	\$ 4,596,890	36.07%

#### Notes to Schedule

Valuation Date: 10/01/2018 (AIS 01/15/2020)

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 Pensacola Firefighters' Relief and Pension 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	11.12%
09/30/2019	2.83%



## NOTES TO THE FINANCIAL STATEMENTS

(For the Year Ended September 30, 2021)

### *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 four appointed by Commission.

Employees who are classified as full-time 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	194
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3
Active Plan Members	101
	<u>298</u>

### *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 Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

### *Contributions*

Member Contributions: 11.00% 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 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, 2020 through September 30, 2021.

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	2.70%
Salary Increases	Service based
Discount Rate	7.75%
Investment Rate of Return	7.75%

*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 (Above Median) for Healthy Retirees, set forward one year.

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

*Mortality Rate Beneficiary Lives:*

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

Male: PubG.H-2010 (Above 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 October 9, 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 2020 the inflation rate assumption of the investment advisor was 2.30%.

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, 2020 are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return <sup>1</sup>
Domestic Equity	37.0%	8.5%
International Equity	15.0%	4.1%
Bonds	25.0%	3.7%
Convertibles	10.0%	7.9%
Private Real Estate	8.0%	5.0%
Infrastructure	5.0%	6.4%
Total	100.0%	

<sup>1</sup> Source: Burgess Chambers

*Discount Rate:*

The Discount Rate used to measure the Total Pension Liability was 7.75 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, 2020	\$ 132,291,818	\$ 120,827,640	\$ 11,464,178
Changes for a Year:			
Service Cost	1,258,728	-	1,258,728
Interest	9,985,729	-	9,985,729
Differences between Expected and Actual Experience	(511,791)	-	(511,791)
Changes of assumptions	1,918,859	-	1,918,859
Changes of benefit terms	-	-	-
Contributions - Employer	-	1,194,940	(1,194,940)
Contributions - State	-	526,021	(526,021)
Contributions - Employee	-	543,443	(543,443)
Net Investment Income	-	13,110,520	(13,110,520)
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	(9,404,872)	-
Administrative Expense	-	(75,205)	75,205
Net Changes	3,246,653	5,894,847	(2,648,194)
Reporting Period Ending at September 30, 2021	\$ 135,538,471	\$ 126,722,487	\$ 8,815,984

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.75%	7.75%	8.75%
Sponsor's Net Pension Liability	\$ 24,324,778	\$ 8,815,984	\$ (4,041,589)

*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, 2020**

For the year ended September 30, 2020, the Sponsor has recognized a Pension Expense of \$2,503,175.

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	130,018	930,454
Changes of assumptions	241,964	-
Net difference between Projected and Actual Earnings on Pension Plan investments	1,814,298	-
Employer and State Contributions subsequent to the measurement date	1,720,961	-
Total	<u>\$ 3,907,241</u>	<u>\$ 930,454</u>

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State Contributions subsequent to the measurement date has been 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	\$ (847,717)
2022	\$ 108,642
2023	\$ 818,277
2024	\$ 1,176,624
2025	\$ -
Thereafter	\$ -

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND  
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS  
FISCAL YEAR SEPTEMBER 30, 2021**

For the year ended September 30, 2021, the Sponsor will recognize a Pension Expense of \$320,182.

On September 30, 2021, 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	65,009	461,836
Changes of assumptions	1,535,088	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	1,129,850
Employer and State Contributions subsequent to the measurement date	TBD	-
Total	<u>TBD</u>	<u>\$ 1,591,686</u>

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, 2021.

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:

2022	\$ (415,141)
2023	\$ 294,494
2024	\$ 652,841
2025	\$ (523,783)
2026	\$ -
Thereafter	\$ -

# SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

## Last 2 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2021 09/30/2020	09/30/2020 09/30/2019
Total Pension Liability		
Service Cost	1,258,728	1,290,959
Interest	9,985,729	9,887,893
Changes of benefit terms	-	(1,793)
Differences between Expected and Actual Experience	(511,791)	(87,339)
Changes of assumptions	1,918,859	-
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	(10,188,894)
Net Change in Total Pension Liability	3,246,653	900,826
Total Pension Liability - Beginning	132,291,818	131,390,992
Total Pension Liability - Ending (a)	<u>\$135,538,471</u>	<u>\$132,291,818</u>
Plan Fiduciary Net Position		
Contributions - Employer	1,194,940	1,140,100
Contributions - State	526,021	518,103
Contributions - Employee	543,443	505,660
Net Investment Income	13,110,520	3,440,824
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	(10,188,894)
Administrative Expense	(75,205)	(73,186)
Net Change in Plan Fiduciary Net Position	5,894,847	(4,657,393)
Plan Fiduciary Net Position - Beginning	120,827,640	125,485,033
Plan Fiduciary Net Position - Ending (b)	<u>\$126,722,487</u>	<u>\$120,827,640</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 8,815,984</u>	<u>\$ 11,464,178</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	93.50%	91.33%
Covered Payroll	\$ 4,939,900	\$ 4,596,890
Net Pension Liability as a percentage of Covered Payroll	178.46%	249.39%

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

#### *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.

#### *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.

## 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	\$ 1,711,806	\$ 1,720,961	\$ (9,155)	\$ 4,939,900	34.84%
09/30/2019	\$ 1,644,078	\$ 1,658,203	\$ (14,125)	\$ 4,596,890	36.07%

#### Notes to Schedule

Valuation Date: 10/01/2018 (AIS 01/15/2020)

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 Pensacola Firefighters' Relief and Pension Fund prepared by Foster & Foster Actuaries and Consultants.

## 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, 2020

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 5,905,959	\$ 6,274,539	\$ 4,475,321	\$ -
Employer and State Contributions made after 09/30/2019	-	-	1,720,961	-
Total Pension Liability Factors:				
Service Cost	1,290,959	-	-	1,290,959
Interest	9,887,893	-	-	9,887,893
Changes in benefit terms	(1,793)	-	-	(1,793)
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(87,339)	87,339	-	-
Current year amortization of experience difference	-	(998,622)	(65,009)	(933,613)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(241,964)	241,964
Benefit Payments, including Refunds of Employee Contributions	(10,188,894)	-	-	-
Net change	900,826	(911,283)	1,413,988	10,485,410
Plan Fiduciary Net Position:				
Contributions - Employer	1,140,100	-	(1,140,100)	-
Contributions - State	518,103	-	(518,103)	-
Contributions - Employee	505,660	-	-	(505,660)
Projected Net Investment Income	9,411,284	-	-	(9,411,284)
Difference between projected and actual earnings on Pension Plan investments	(5,970,460)	-	5,970,460	-
Current year amortization	-	(1,470,732)	(3,332,255)	1,861,523
Benefit Payments, including Refunds of Employee Contributions	(10,188,894)	-	-	-
Administrative Expenses	(73,186)	-	-	73,186
Net change	(4,657,393)	(1,470,732)	980,002	(7,982,235)
Ending Balance	\$ 11,464,178	\$ 3,892,524	\$ 6,869,311	\$ 2,503,175

PRELIMINARY COMPONENTS OF PENSION EXPENSE  
FISCAL YEAR SEPTEMBER 30, 2021

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 11,464,178	\$ 3,892,524	\$ 6,869,311	\$ -
Employer and State Contributions made after 09/30/2020	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	1,258,728	-	-	1,258,728
Interest	9,985,729	-	-	9,985,729
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(511,791)	511,791	-	-
Current year amortization of experience difference	-	(980,409)	(65,009)	(915,400)
Change in assumptions about future economic or demographic factors or other inputs	1,918,859	-	1,918,859	-
Current year amortization of change in assumptions	-	-	(625,735)	625,735
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	-	-	-
Net change	3,246,653	(468,618)	1,228,115	10,954,792
Plan Fiduciary Net Position:				
Contributions - Employer	1,194,940	-	(1,194,940)	-
Contributions - State	526,021	-	(526,021)	-
Contributions - Employee	543,443	-	-	(543,443)
Projected Net Investment Income	9,084,535	-	-	(9,084,535)
Difference between projected and actual earnings on Pension Plan investments	4,025,985	4,025,985	-	-
Current year amortization	-	(2,275,929)	(1,194,092)	(1,081,837)
Benefit Payments, including Refunds of Employee Contributions	(9,404,872)	-	-	-
Administrative Expenses	(75,205)	-	-	75,205
Net change	5,894,847	1,750,056	(2,915,053)	(10,634,610)
Ending Balance	\$ 8,815,984	\$ 5,173,962	TBD	\$ 320,182

\* Employer and State Contributions subsequent to the measurement date made after September 30, 2020 but made on or before September 30, 2021 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)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ (4,025,985)	5	\$ -	\$ (805,197)	\$ (805,197)	\$ (805,197)	\$ (805,197)	\$ (805,197)	\$ -	\$ -	\$ -	\$ -
2019	\$ 5,970,460	5	\$ 1,194,092	\$ 1,194,092	\$ 1,194,092	\$ 1,194,092	\$ 1,194,092	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,791,736)	5	\$ (358,347)	\$ (358,347)	\$ (358,347)	\$ (358,347)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (3,873,220)	5	\$ (774,644)	\$ (774,644)	\$ (774,644)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (1,688,706)	5	\$ (337,741)	\$ (337,741)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ 10,690,815	5	\$ 2,138,163	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 1,861,523	\$ (1,081,837)	\$ (744,096)	\$ 30,548	\$ 388,895	\$ (805,197)	\$ -	\$ -	\$ -	\$ -

## 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	\$ 1,918,859	5	\$ -	\$ 383,771	\$ 383,772	\$ 383,772	\$ 383,772	\$ 383,772	\$ -	\$ -	\$ -	\$ -
2017	\$ 967,856	4	\$ 241,964	\$ 241,964	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 241,964	\$ 625,735	\$ 383,772	\$ 383,772	\$ 383,772	\$ 383,772	\$ -	\$ -	\$ -	\$ -

## 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)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
2020	\$ (511,791)	5	\$ -	\$ (102,359)	\$ (102,358)	\$ (102,358)	\$ (102,358)	\$ (102,358)	\$ -	\$ -	\$ -	\$ -
2019	\$ (87,339)	5	\$ (17,467)	\$ (17,468)	\$ (17,468)	\$ (17,468)	\$ (17,468)	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 260,034	4	\$ 65,009	\$ 65,009	\$ 65,009	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (3,442,328)	4	\$ (860,582)	\$ (860,582)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (482,293)	4	\$ (120,573)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			<u>\$ (933,613)</u>	<u>\$ (915,400)</u>	<u>\$ (54,817)</u>	<u>\$ (119,826)</u>	<u>\$ (119,826)</u>	<u>\$ (102,358)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>