

CITY OF PALM BAY
POLICE AND FIREFIGHTERS' PENSION FUND (FIREFIGHTERS)
ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2025



March 28, 2024

Board of Trustees
City of Palm Bay Police & Firefighters' Pension Fund
Conlan Professional Center
1501 Robert J. Conlan Blvd. NE Suite 260
Palm Bay, FL 32905-3567

Re: City of Palm Bay Police and Firefighters' Pension Fund (Firefighters)

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Palm Bay Police and Firefighters' Pension Fund (Firefighters). The 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. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuation has 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 reflects 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 valuation, 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 valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the City of Palm Bay, 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.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

In our opinion, the Minimum Required Contribution set forth in this report constitutes a reasonable actuarially determined contribution under Actuarial Standard of Practice No. 4.

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 Palm Bay, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police and Firefighters' Pension Fund (Firefighters). 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: 
Bradley R. Heinrichs, FSA, EA, MAAA
Enrolled Actuary #23-6901

By: 
Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #23-6595

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Palm Bay Police and Firefighters' Pension Fund (Firefighters), performed as of October 1, 2023, 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, 2025.

The contribution requirements, compared with those set forth in the October 1, 2022 actuarial valuation report, are as follows:

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2025</u>	<u>9/30/2024</u>
Minimum Required Contribution	\$5,757,794	\$4,970,291
Member Contributions (Est.)	747,994	720,499
City And State Required Contribution	5,009,800	4,249,792
State Contribution (Est.) ¹	926,703	926,703
City Required Contribution (Est.) ²	\$4,083,097	\$3,323,089

¹ Represents the amount received in calendar 2023. As per a Mutual Consent Agreement between the Membership and the City, State Monies received each year up to \$825,324 will be available to offset the City's required contribution. Firefighter monies received in excess of \$825,324 will be equally shared between the City and the Firefighter Share Plan.

² Please note that the City has access to a prepaid contribution of \$377,173.76 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2024.

As you can see, the Minimum Required Contribution shows an increase when compared to the results set forth in the October 1, 2022 actuarial valuation report. The increase is attributable to unfavorable actuarial experience as described below.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 2.86% (Actuarial Asset Basis) which fell short of the 7.50% assumption, an average salary increase of 6.84% which exceeded the 4.80% assumption, and inactive mortality experience. There were no significant sources of actuarial gain.

CHANGES SINCE PRIOR VALUATION

Plan Changes

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

Actuarial Assumption/Method Changes

There have been no assumption or method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2023</u>	<u>10/1/2022</u>
A. Participant Data		
Actives	122	120
Service Retirees	82	77
DROP Retirees	4	7
Beneficiaries	3	3
Disability Retirees	10	10
Terminated Vested	<u>2</u>	<u>3</u>
Total	223	220
Projected Annual Payroll	7,844,932	7,560,882
Annual Rate of Payments to:		
Service Retirees	5,590,069	5,140,671
DROP Retirees	302,184	499,522
Beneficiaries	139,902	136,482
Disability Retirees	402,692	400,522
Terminated Vested	2,988	2,988
B. Assets		
Actuarial Value (AVA) ¹	103,258,662	103,685,322
Market Value (MVA) ¹	91,403,520	88,645,343
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	51,431,898	47,916,961
Disability Benefits	2,936,262	3,051,430
Death Benefits	832,087	844,757
Vested Benefits	1,548,823	1,457,997
Refund of Contributions	216,372	222,592
Service Retirees	77,740,895	72,317,421
DROP Retirees ¹	7,737,092	11,087,856
Beneficiaries	1,842,627	1,832,611
Disability Retirees	5,189,869	5,344,055
Terminated Vested	61,362	58,852
Share Plan Balances ¹	<u>103,846</u>	<u>4,870</u>
Total	149,641,133	144,139,402

C. Liabilities - (Continued)	<u>10/1/2023</u>	<u>10/1/2022</u>
Present Value of Future Salaries	70,526,142	67,197,492
Present Value of Future Member Contributions	6,178,090	5,886,500
Normal Cost (Retirement)	1,715,266	1,631,012
Normal Cost (Disability)	221,136	244,004
Normal Cost (Death)	72,111	77,318
Normal Cost (Vesting)	93,232	83,946
Normal Cost (Refunds)	40,070	40,234
Total Normal Cost	<u>2,141,815</u>	<u>2,076,514</u>
Present Value of Future Normal Costs	18,441,013	17,815,618
Accrued Liability (Retirement)	36,406,738	33,632,770
Accrued Liability (Disability)	1,053,693	1,038,046
Accrued Liability (Death)	199,287	190,310
Accrued Liability (Vesting)	832,951	786,944
Accrued Liability (Refunds)	31,760	30,049
Accrued Liability (Inactives) ¹	92,571,845	90,640,795
Share Plan Balances ¹	103,846	4,870
Total Actuarial Accrued Liability (EAN AL)	<u>131,200,120</u>	<u>126,323,784</u>
Unfunded Actuarial Accrued Liability (UAAL)	27,941,458	22,638,462
Funded Ratio (AVA / EAN AL)	78.7%	82.1%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2023</u>	<u>10/1/2022</u>
Vested Accrued Benefits		
Inactives + Share Plan Balances ¹	92,675,691	90,645,665
Actives	16,405,808	16,009,678
Member Contributions	5,490,446	5,143,875
Total	<u>114,571,945</u>	<u>111,799,218</u>
Non-vested Accrued Benefits	<u>6,035,165</u>	<u>5,230,349</u>
Total Present Value Accrued Benefits (PVAB)	120,607,110	117,029,567
Funded Ratio (MVA / PVAB)	75.8%	75.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	2,471,253	
Benefits Paid	(7,393,665)	
Interest	8,499,955	
Other	0	
Total	<u>3,577,543</u>	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2025</u>	<u>9/30/2024</u>
E. Pension Cost		
Normal Cost ²	\$2,331,240	\$2,258,871
Administrative Expenses ²	281,283	257,745
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 26 years (as of 10/1/2023) ²	3,145,271	2,453,675
Minimum Required Contribution	5,757,794	4,970,291
Expected Member Contributions ²	747,994	720,499
Expected City and State Contribution	5,009,800	4,249,792
F. Past Contributions		
Plan Years Ending:	<u>9/30/2023</u>	
City and State Requirement	3,543,555	
Actual Contributions Made:		
City	2,616,852	
State	<u>926,703</u>	
Total	3,543,555	
G. Net Actuarial (Gain)/Loss	5,482,758	

¹ The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2023 and 9/30/2022.

² Contributions developed as of 10/1/2023 displayed above have been adjusted to account for assumed salary increase and interest components.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2023	27,941,458
2024	26,930,639
2025	25,844,007
2031	17,382,058
2037	4,987,087
2043	1,326,615
2049	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2023	6.84%	4.80%
Year Ended 9/30/2022	6.70%	4.78%
Year Ended 9/30/2021	3.59%	4.79%
Year Ended 9/30/2020	3.71%	5.44%
Year Ended 9/30/2019	5.79%	5.49%

(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 9/30/2023	7.01%	2.86%	7.50%
Year Ended 9/30/2022	-18.62%	4.11%	7.65%
Year Ended 9/30/2021	20.31%	11.04%	7.65%
Year Ended 9/30/2020	11.37%	8.50%	7.75%
Year Ended 9/30/2019	4.03%	8.06%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	\$7,844,932
	10/1/2013	4,622,580
(b) Total Increase		69.71%
(c) Number of Years		10.00
(d) Average Annual Rate		5.43%

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.



Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #23-6595

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, 2022	\$22,638,462
(2) Sponsor Normal Cost developed as of October 1, 2022	1,414,181
(3) Expected administrative expenses for the year ended September 30, 2023	236,937
(4) Expected interest on (1), (2) and (3)	1,812,833
(5) Sponsor contributions to the System during the year ended September 30, 2023	3,543,555
(6) Expected interest on (5)	100,158
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	22,458,700
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	5,482,758
(10) Unfunded Actuarial Accrued Liability as of October 1, 2023	27,941,458

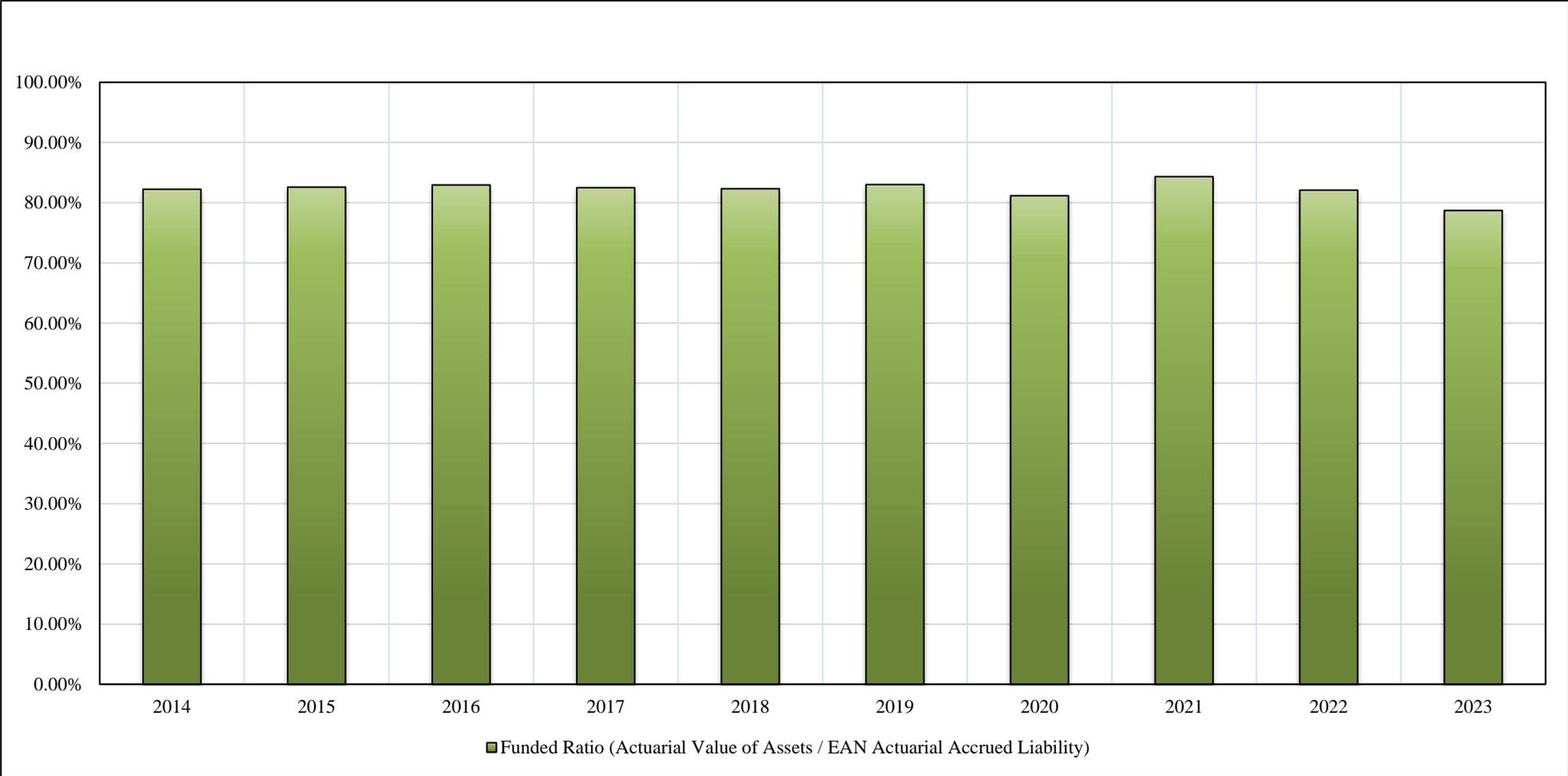
<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2023 Amount</u>	<u>Amortization Amount</u>
A	10/1/2003	10	2,770	375
B	10/1/2004	11	314	40
C	10/1/2005	12	36,592	4,400
D	10/1/2005	12	9,354	1,125
E	10/1/2006	13	(684)	(78)
F	10/1/2006	13	23,569	2,698
Actuarial Loss	10/1/2007	14	4,180,765	458,124
Actuarial Loss	10/1/2008	15	2,435,833	256,697
Actuarial Loss	10/1/2009	16	3,048,834	310,247
Actuarial Loss	10/1/2010	17	1,357,417	133,848
Method Change	10/1/2010	17	(2,185,622)	(215,513)
Benefit Change	10/1/2010	17	(192,343)	(18,966)
Actuarial Loss	10/1/2011	18	2,189,124	209,808
Assumption Change	10/1/2011	18	3,488,192	334,311
Actuarial Gain	10/1/2012	19	(988,417)	(92,324)
Actuarial Gain	10/1/2013	20	(1,350,567)	(123,237)
Actuarial Loss	10/1/2014	21	453,894	40,546
Assumption Change	10/1/2015	22	2,146,683	188,083
Actuarial Gain	10/1/2015	22	(1,382,415)	(121,121)
Actuarial Loss	10/1/2016	23	516,516	44,461
Actuarial Loss	10/1/2017	24	1,399,521	118,536
Actuarial Loss	10/1/2018	25	1,213,638	101,280
Benefits Change	10/1/2018	25	(24,601)	(2,053)
Actuarial Loss	10/1/2019	26	419,153	34,507
Asmp/Mthd Change	10/1/2020	12	3,180,839	382,523

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2023 <u>Amount</u>	Amortization <u>Amount</u>
Actuarial Gain	10/1/2020	12	(152,728)	(18,367)
Benefits Change	10/1/2020	12	476,969	57,360
Actuarial Gain	10/1/2021	13	(2,380,539)	(272,520)
Actuarial Loss	10/1/2022	14	2,373,469	260,082
Assump Change	10/1/2022	14	2,163,170	237,038
Actuarial Loss	10/1/2023	15	5,482,758	577,792
			<u>27,941,458</u>	<u>2,889,702</u>

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	\$22,638,462
(2) Expected UAAL as of October 1, 2023	22,458,700
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	4,742,942
Salary Increases	576,108
Active Decrements	(100,409)
Inactive Mortality	416,978
Interest Crediting on Share Plan and DROP Balances	(21,689)
Other	<u>(131,172)</u>
Increase in UAAL due to (Gain)/Loss	5,482,758
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2023	\$27,941,458

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.

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

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.

Beneficiary Lives:

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

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

Disabled Lives:

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

All rates for healthy lives 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, 2021 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

90% of active deaths are assumed to be service-incurred.

Interest Rate

7.50% per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increase – Individual

See table later in this section. This assumption was adopted based on the July 7, 2020 experience study.

<u>Payroll Growth</u>	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.
<u>Termination</u>	See table later in this section. This assumption was adopted based on the July 7, 2020 experience study.
<u>Disability</u>	See sample rates in the table later in this section. This assumption was adopted based on the July 7, 2020 experience study. 90% of Disabilities are assumed to be service connected.
<u>Service Retirement</u>	See table later in this section. This assumption was adopted based on the July 7, 2020 experience study.
<u>Form of Payment:</u>	10-Year Certain and Continuous annuity.
<u>Percentage Married At Retirement</u>	100% of active members are assumed married at retirement.
<u>Spouse Ages:</u>	For active members reaching retirement, wives are assumed to be three years younger than husbands. Where spousal information was included for retirees, that information was used. If the age of the spouse was not provided, we have assumed that all spouses are still alive, and that female spouses are three years younger than their husbands.
<u>Administrative Expenses</u>	\$258,427 annually, based on the average of actual expenses incurred in the prior two fiscal years.
<u>Amortization Method</u>	<p>New UAAL amortization bases are amortized over 15 years.</p> <p>The amortization payment is subject to a minimum based on a 30-year amortization of the UAAL, if the UAAL is positive, in order to comply with Actuarial Standard of Practice No. 4.</p> <p>Bases established prior to the valuation date are adjusted proportionally to match the Expected Unfunded Actuarial Accrued Liability as of the valuation date, in order to align prior year bases with the portion of the current year UAAL associated with prior year sources.</p>

Funding Method

Entry Age Normal Actuarial Cost Method. The following loads are applied for determining the minimum required contribution:

Interest - A half year, based on current 7.50% assumption.

Salary - A full year, based on current 4.91% assumption.

Actuarial Value of Assets:

The market value of assets is adjusted to recognize, over a four-year period, investment earnings greater than (or less than) the assumed investment return. The Actuarial Value of Assets shall not be more than 120% nor less than 80% of the market value of assets. Details are shown in the Asset Information Section of the report.

Assumption Tables

% Terminating During the Year		% Becoming Disabled During the Year	
Service	Rate	Age	Rate
<5	6.00%	20	0.14%
5-9	2.50%	25	0.15%
10+	2.00%	30	0.18%
		35	0.23%
		40	0.30%
		45	0.51%
		50	1.00%
		55	1.55%
		60	2.09%

Salary Scale		% Retiring During the Year		
Age	Rate	Service	Age	Rate
<25	7.25%	<10	55-59	20.00%
25 -29	6.25%		60+	100.00%
30 - 34	5.25%	10-19	50-54	5.00%
35 - 39	4.75%		55	75.00%
40 - 44	4.25%		56-57	50.00%
45 +	4.00%		58+	100.00%
		20-24	45-54	5.00%
			55	75.00%
			56-57	50.00%
			58+	100.00%
		25	45-55	75.00%
			56-57	50.00%
			58+	100.00%
		26-27	45-57	50.00%
			58+	100.00%
		28+	Any	100.00%

Low-Default-Risk Obligation Measure

Based on the Entry Age Normal Actuarial Cost Method and an interest rate of 4.87% per year compounded annually, net of investment related expenses. This rate is consistent with the Yield to Maturity of the S&P Municipal Bond 20-Year High Grade Rate Index as of September 30, 2023. All other assumptions for the Low-Default-Risk Obligation Measure are consistent with the assumptions shown in this section unless otherwise noted.

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.

Payroll Under Assumed Ret. Age is the projected annual rate of pay for the fiscal year beginning on the valuation date of all covered Members, excluding any Members who are assumed to retire with 100% probability on the valuation date.

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

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current 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 decreased from 129.6% on October 1, 2013 to 122.0% on October 1, 2023, 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 70.6%. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 81.4% on October 1, 2013 to 78.7% on October 1, 2023.
- 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 -0.1% on October 1, 2013 to -3.7% on October 1, 2023. The current Net Cash Flow Ratio of -3.7% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

Low Default-Risk Obligation Measure

ASOP No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, was revised as of December 2021 to include a “low-default-risk obligation measure” (LDROM). This liability measure is consistent with the determination of the actuarial accrued liability shown on page 10 in terms of member data, plan provisions, and assumptions/methods, under the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20 Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.87%, resulting in an LDROM of \$185,409,724. The LDROM should not be considered the “correct” liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. The Board actually invests the pension plan’s contributions in a diversified portfolio of stocks and bonds and other investments with the objective of maximizing investment returns at a reasonable level of risk. Consequently, the difference between the plan’s Actuarial Accrued Liability disclosed earlier in this section and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan’s diversified portfolio compared to investing only in high quality bonds.

The actuarial valuation reports the funded status and develops contributions based on the expected return of the plan’s investment portfolio. If instead, the plan switched to investing exclusively in high quality bonds, the LDROM illustrates that reported funded status would be lower (which also implies that the Actuarially Determined Contributions would be higher), perhaps significantly. Unnecessarily high contribution requirements in the near term may not be affordable and could imperil plan sustainability and benefit security.

It is important to note that the actuary has identified the risks above 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>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2018</u>	<u>10/1/2013</u>
<u>Support Ratio</u>				
Total Actives	122	120	108	92
Total Inactives ¹	100	98	93	71
Actives / Inactives ¹	122.0%	122.4%	116.1%	129.6%
<u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	91,403,520	88,645,343	86,389,740	69,842,203
Total Annual Payroll	7,999,361	7,707,559	6,154,611	5,108,209
MVA / Total Annual Payroll	1,142.6%	1,150.1%	1,403.7%	1,367.3%
<u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	92,571,845	90,640,795	79,444,988	54,042,631
Total Accrued Liability (EAN)	131,200,120	126,323,784	102,741,678	80,642,063
Inactive AL / Total AL	70.6%	71.8%	77.3%	67.0%
<u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	103,258,662	103,685,322	84,569,885	65,649,384
Total Accrued Liability (EAN)	131,200,120	126,323,784	102,741,678	80,642,063
AVA / Total Accrued Liability (EAN)	78.7%	82.1%	82.3%	81.4%
<u>Net Cash Flow Ratio</u>				
Net Cash Flow ²	(3,350,639)	(2,169,128)	(2,697,155)	(85,623)
Market Value of Assets (MVA)	91,403,520	88,645,343	86,389,740	69,842,203
Ratio	-3.7%	-2.4%	-3.1%	-0.1%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	137,359.61	_____ %
1999	183,210.18	33.4%
2000	194,012.88	5.9%
2001	202,046.08	4.1%
2002	241,347.74	19.5%
2003	267,090.23	10.7%
2004	304,874.85	14.1%
2005	361,705.29	18.6%
2006	442,391.15	22.3%
2007	562,486.88	27.1%
2008	724,397.17	28.8%
2009	610,510.09	-15.7%
2010	603,953.91	-1.1%
2011	595,169.63	-1.5%
2012	614,483.16	3.2%
2013	622,785.72	1.4%
2014	639,517.60	2.7%
2015	590,203.45	-7.7%
2016	559,910.41	-5.1%
2017	506,773.86	-9.5%
2018	522,880.25	3.2%
2019	497,478.45	-4.9%
2020	526,140.72	5.8%
2021	549,528.93	4.4%
2022	580,173.81	5.6%
2023	1,028,081.17	77.2%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Short Term Investments	1,421,401.87
Deposits	852.03
Prepaid Expenses	14,771.98
Cash	25,982.26
 Total Cash and Equivalents	 1,463,008.14
Receivables:	
Accounts Receivable	1,053,597.22
From General Trust Fund	376.22
From Broker for Investments Sold	529,201.47
Investment Income	197,490.04
 Total Receivable	 1,780,664.95
Investments:	
Federal Agency Guaranteed Securities	8,828,001.73
Corporate Bonds	19,685,566.87
Stocks	23,085,560.57
Pooled/Common/Commingled Funds:	
Equity	24,618,605.41
Real Estate	12,933,262.55
 Total Investments	 89,150,997.13
 Total Assets	 92,394,670.22
 <u>LIABILITIES</u>	
Payables:	
DROP Distributions	105,329.35
Accounts Payable	124,576.61
To Broker for Investments Purchased	384,070.34
Prepaid City Contribution	377,173.76
 Total Liabilities	 991,150.06
 NET POSITION RESTRICTED FOR PENSIONS	 91,403,520.16

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2023
Market Value Basis

ADDITIONS

Contributions:		
Member		683,713.29
City		2,616,852.41
State		1,028,081.17
Total Contributions		4,328,646.87
Investment Income:		
Miscellaneous Income	3,918.55	
Realized & Unrealized Gain (Loss)	4,682,689.18	
Net Increase in Fair Value of Investments		4,686,607.73
Interest & Dividends		1,875,162.54
Less Investment Expense ¹		(452,954.46)
Net Investment Income		6,108,815.81
Total Additions		10,437,462.68

DEDUCTIONS

Distributions to Members:		
Benefit Payments		5,782,035.73
Lump Sum DROP Distributions		1,502,557.45
Lump Sum Share Distributions		718.18
Refunds of Member Contributions		108,353.20
Total Distributions		7,393,664.56
Administrative Expense		285,620.51
Total Deductions		7,679,285.07
Net Increase in Net Position		2,758,177.61
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		88,645,342.55
End of the Year		91,403,520.16

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION
September 30, 2023

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>Gains/(Losses) Not Yet Recognized</u>			
		Amounts Not Yet Recognized by Valuation Year			
		2023	2024	2025	2026
09/30/2020	3,122,532	0	0	0	0
09/30/2021	11,825,856	2,956,464	0	0	0
09/30/2022	(28,978,053)	(14,489,027)	(7,244,514)	0	0
09/30/2023	(430,106)	(322,579)	(215,052)	(107,525)	0
Total		(11,855,142)	(7,459,566)	(107,525)	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, including Prepaid Contributions, 09/30/2022	88,699,375
Contributions Less Benefit Payments & Admin Expenses	(3,027,497)
Expected Investment Earnings*	6,538,922
Actual Net Investment Earnings	6,108,816
2023 Actuarial Investment Gain/(Loss)	<u>(430,106)</u>

*Expected Investment Earnings = 0.075 * [88,699,375 + 0.5 * (3,027,497)]

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2023	91,403,520
(2) Gains/(Losses) Not Yet Recognized	<u>(11,855,142)</u>
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	103,258,662
(4) Limited Actuarial Value of Assets, 09/30/2023	103,258,662
 (A) 09/30/2022 Actuarial Assets:	 103,739,355
 (I) Net Investment Income:	
1. Interest and Dividends	1,879,081
2. Realized & Unrealized Gain (Loss)	4,682,689
3. Change in Actuarial Value	(3,184,837)
4. Investment Expenses	<u>(452,954)</u>
Total	2,923,979
 (B) 09/30/2023 Actuarial Assets, including Prepaid Contributions:	 103,635,836
 Actuarial Asset Rate of Return = 2I/(A+B-I):	 2.86%
Market Value of Assets Rate of Return:	7.01%
 10/01/2023 Limited Actuarial Assets (not including Prepaid):	 103,258,662
 Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	 (4,742,942)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2023
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	683,713.29	
City	2,616,852.41	
State	1,028,081.17	
Total Contributions		4,328,646.87
Earnings from Investments:		
Interest & Dividends	1,875,162.54	
Miscellaneous Income	3,918.55	
Realized & Unrealized Gain (Loss)	4,682,689.18	
Change in Actuarial Value	(3,184,837.00)	
Total Earnings and Investment Gains		3,376,933.27

EXPENDITURES

Distributions to Members:		
Benefit Payments	5,782,035.73	
Lump Sum DROP Distributions	1,502,557.45	
Lump Sum Share Distributions	718.18	
Refunds of Member Contributions	108,353.20	
Total Distributions		7,393,664.56
Expenses:		
Investment related ¹	452,954.46	
Administrative	285,620.51	
Total Expenses		738,574.97
Change in Net Assets for the Year		(426,659.39)
Net Assets Beginning of the Year		103,685,321.55
Net Assets End of the Year²		103,258,662.16

¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

²Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2022 to September 30, 2023

Beginning of the Year Balance	4,121,707.89
Plus Additions	511,487.47
Investment Return Earned	298,853.57
Less Distributions	(1,502,557.45)
End of the Year Balance	3,429,491.48

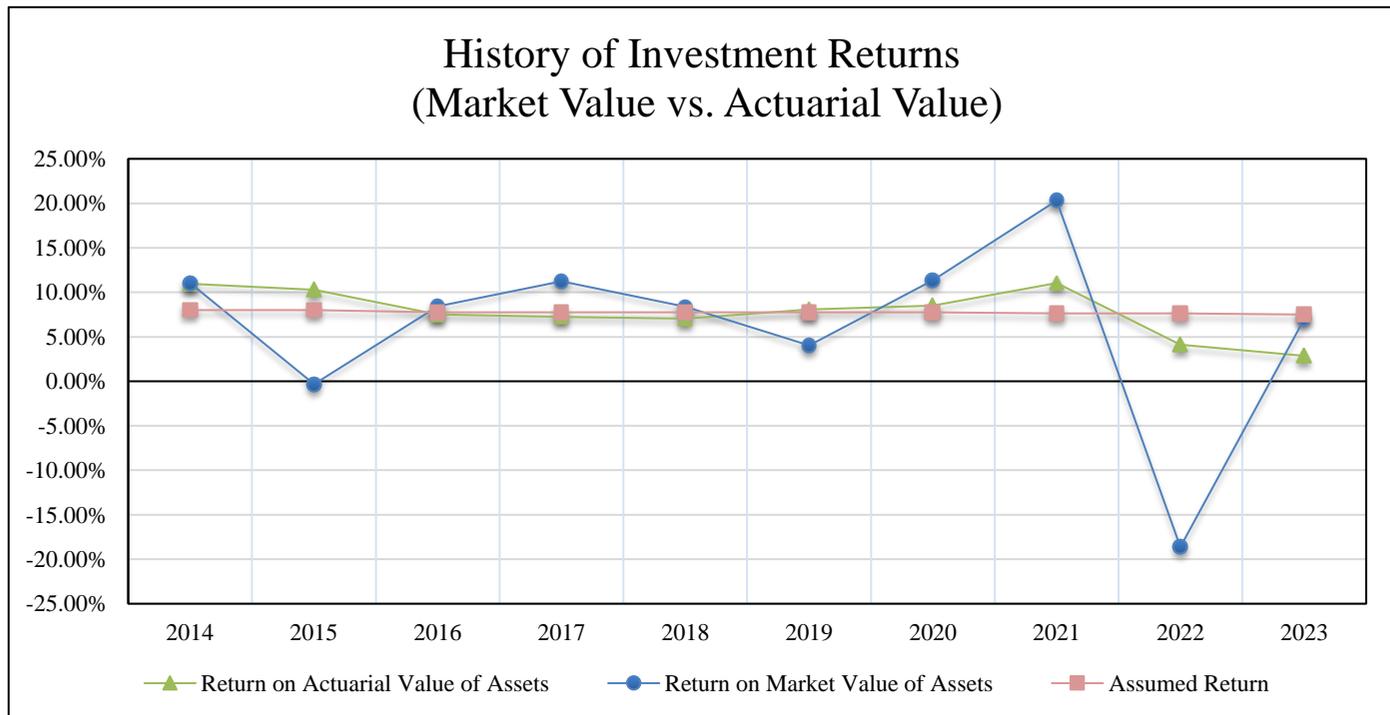
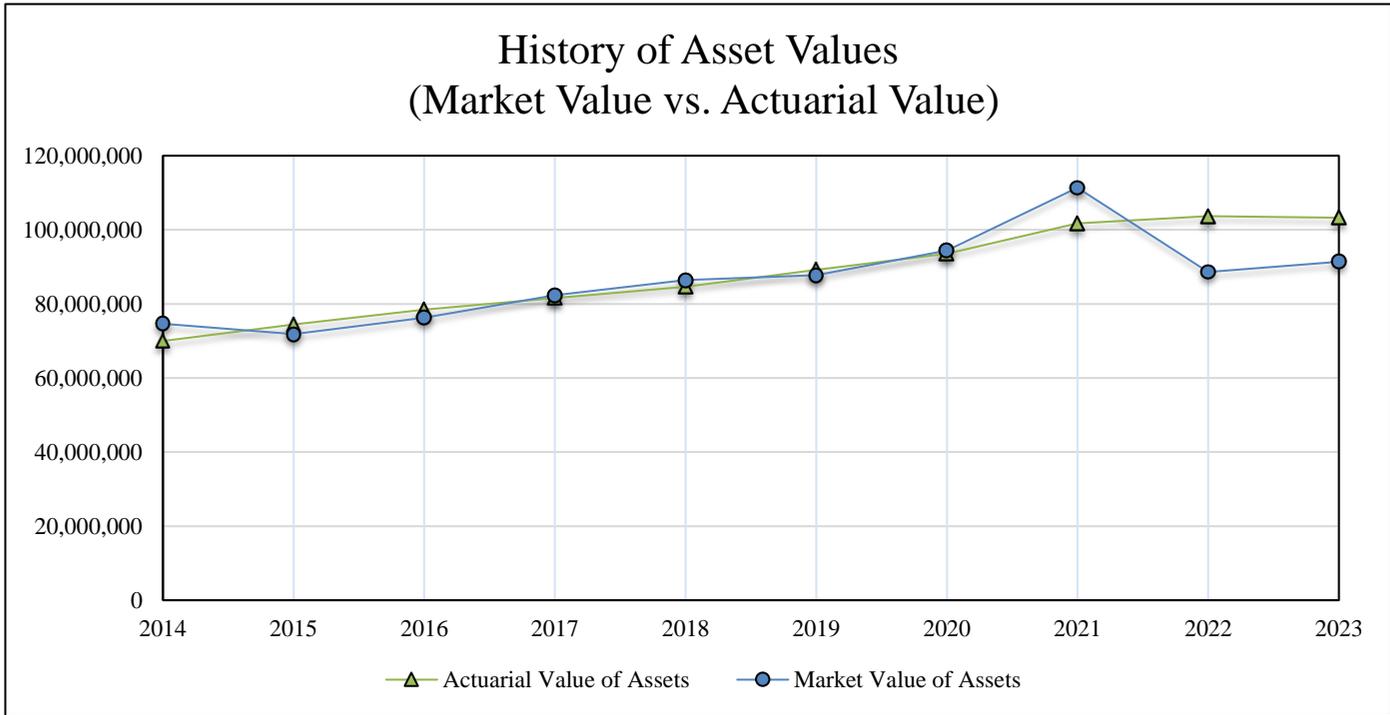
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2022 through September 30, 2023

9/30/2022 Balance	4,870.33
Prior Year Adjustment	0.00
Plus Additions	101,378.58
Investment Return Earned	315.54
Administrative Fees	(2,000.00)
Less Distributions	<u>(718.18)</u>
9/30/2023 Balance	103,846.27

RECONCILIATION OF CITY SHORTFALL/(PREPAID) CONTRIBUTION
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2023

(1) Required City and State Contributions	\$3,543,555.00
(2) Less Allowable State Contribution	<u>(926,702.59)</u>
(3) Required City Contribution for Fiscal 2023	2,616,852.41
(4) Less 2022 Prepaid Contribution	(54,032.77)
(5) Less Actual City Contributions	<u>(2,939,993.40)</u>
(6) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2023	(\$377,173.76)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>
<u>Actives</u>				
Number	122	120	107	105
Average Current Age	37.3	38.0	37.6	38.1
Average Age at Employment	27.0	28.0	27.4	27.5
Average Past Service	10.3	10.0	10.2	10.6
Average Annual Salary	\$65,569	\$64,230	\$62,066	\$62,446
<u>Service Retirees</u>				
Number	82	77	72	68
Average Current Age	63.3	62.7	62.4	62.0
Average Annual Benefit	\$68,172	\$66,762	\$64,933	\$64,238
<u>DROP Retirees</u>				
Number	4	7	12	10
Average Current Age	56.9	57.5	55.2	55.4
Average Annual Benefit	\$75,546	\$71,360	\$75,304	\$75,506
<u>Beneficiaries</u>				
Number	3	3	3	3
Average Current Age	69.9	68.9	67.9	66.9
Average Annual Benefit	\$46,634	\$45,494	\$44,387	\$43,312
<u>Disability Retirees</u>				
Number	10	10	10	9
Average Current Age	62.6	61.6	60.6	60.9
Average Annual Benefit	\$40,269	\$40,052	\$38,966	\$38,644
<u>Terminated Vested</u>				
Number	2	3	5	7
Average Current Age ¹	49.1	48.1	51.1	50.0
Average Annual Benefit ¹	\$2,988	\$2,988	\$24,612	\$27,134

¹ 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	4	1	3									8
25 - 29	5	4	5	1	4	1						20
30 - 34		4			2	13	2					21
35 - 39	1	1	1		1	10	10	4				28
40 - 44						1	8	5	2			16
45 - 49						2	4	6	3	4		19
50 - 54							1	1	3			5
55 - 59					1	1		1	1	1		5
60 - 64												0
65+												0
Total	10	10	9	1	8	28	25	17	9	5	0	122

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	120
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	(6)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(2)
f. DROP	<u>0</u>
g. Continuing participants	112
h. New entrants / Rehires	<u>10</u>
i. Total active life participants in valuation	122

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	77	7	3	10	1	2	100
Retired	5	(3)					2
DROP							0
Vested (Deferred Annuity)							0
Vested (Due Refund)							0
Hired/Terminated in Same Year							0
Death, With Survivor							0
Death, No Survivor							0
Disabled							0
Refund of Contributions						(1)	(1)
Rehires							0
Expired Annuities							0
Data Corrections							0
b. Number current valuation	82	4	3	10	1	1	101

SUMMARY OF CURRENT PLAN

The following summary is intended to state the plan of benefits valued in this report. It is not intended as a restatement or summary of benefits for any other purposes.

Membership: Effective May 2, 1974, any full-time firefighter or police officer having permanent status becomes a Plan Member immediately upon hire.

Collective Bargaining Agreements: Certain employees covered by the Plan are members of the Palm Bay Professional Firefighters (PBPF), IAFF, Local 2446.

Average Final Compensation (AFC): 1/12 of the average annual compensation of the best five years of the last ten years of credited service prior to retirement, DROP, termination or death.

Compensation: Base pay, excluding overtime, bonuses, and any other non-regular compensation received by a Member.

For firefighter Members, Compensation also includes holiday pay. Effective October 1, 2021, longevity pay is also included.

Credited Service: Years and complete months of uninterrupted service. Service is not considered to be interrupted by authorized leave of absence, vacation, or service (voluntary or involuntary) in the Armed Forces of the United States, with certain stipulations.

Service is not considered to be interrupted for purposes of vesting or eligibility where leave is granted pursuant to the Family and Medical Leave Act. The Member may receive Credited Service for purposes of benefit accrual if the Member contributes the employee contributions (with interest) that would have been contributed during the period of absence within 90 days after the member's return from leave.

Members may voluntarily leave accumulated contributions in the fund for a period of five years after leaving the employ of the police or fire department pending the possibility of being re-employed without losing credit for that time.

Re-employed Members do not receive credit for time where accumulated contributions were withdrawn.

Members may purchase up to 4 years of service for prior military or sworn firefighter service/law enforcement experience (for which no benefit is payable). Firefighters must pay the full actuarial cost at the time of purchase.

NORMAL RETIREMENT

Fire Eligibility:
(Normal Retirement Date)

The earlier of (1) age 55 (with 10 years of service if hired on or after March 15, 2012) or (2) upon completion of 25 years of Credited Service, regardless of age.

Members are 100% vested upon Normal Retirement Benefit eligibility.

Firefighter Benefit:

For firefighters with less than 20 years service:

2.00% x Credited Service prior to October 1, 1991, plus 2.50% x AFC x Credited Service on and after October 1, 1991.

For firefighters with 20 or more years of service:

3.00% x AFC x Credited Service for the first 20 years of Credited Service (3.20% if hired on or after March 15, 2012), plus 5.00% x AFC x Credited Service over 20 years (3.20% if hired on or after March 15, 2012).

In addition, Firefighters receive a Supplemental Benefit of \$189 per month payable over the life of the retiree only. Firefighters who retire on or after October 1, 2006, receive \$458 per month, instead of \$189.

In addition, Firefighters who terminate after October 1, 2008, receive a Supplemental Benefit equal to \$25 per month times years of Credited Service accrued prior to March 15, 2012, plus \$12 per month times years of Credited Service earned after March 15, 2012. The benefit is \$25 per month for all years of Credited Service for those firefighters eligible for Normal Retirement on March 15, 2012. This benefit will be payable for the life of the retiree, but shall cease when the member attains the age of Medicare eligibility.

Maximum Benefit:

100% of Average Final Compensation for firefighters hired before March 15, 2012 and 90% of Average Final Compensation for firefighters hired after that date, exclusive of the Supplemental Benefits.

Normal Form of Benefit:

10-year Certain and Continuous annuity.

COLA:

Firefighters that retire on or after September 30, 2001 are eligible to receive a 3.00% (2.00% if hired on or after March 15, 2012) annual increase each September 30th after having been retired for six years (the supplemental benefits are not increased).

EARLY RETIREMENT

Eligibility:

Members may retire and receive the Early Retirement Benefit on the first day of any month prior to their Normal Retirement Date after attaining the earlier of (1) age 45 and completion of 20 years of Credited Service, or (2) age 50 and completion of 10 years of Credited Service.

Benefit: The monthly Early Retirement Benefit payable is reduced by 3.00% each year the Early Retirement Benefit commences prior to the Normal Retirement Date.

The Supplemental Benefits payable to firefighters are not reduced for early commencement.

Normal Form of Benefit:

10-year Certain and Continuous annuity.

COLA:

Firefighters that retire on or after September 30, 2001 are eligible to receive a 3.00% (2.00% if hired on or after March 15, 2012) annual increase each September 30th after having been retired for six years (the supplemental benefits are not increased).

DEFERRED RETIREMENT OPTION PLAN (DROP)

Eligibility - Fire:

The earlier of the completion of 25 years of Credited Service, regardless of age, or age 55 and the completion of 10 years of Credited Service.

Benefit:

Once the DROP is entered into, monthly benefits are frozen and no further Participant Contributions are made. The benefit payable under the DROP is calculated as described upon the Normal Retirement Benefit. Upon DROP participation, monthly benefits that would have been payable had the Member terminated employment and elected to receive monthly pension payments are paid into the DROP account.

Maximum DROP Period:

Members are limited to 60 months of DROP participation.

Interest Rate Credited To DROP Account:

DROP account interest crediting is posted quarterly based on the actual pension fund returns, net of money manager fees and other expenses.

Normal Form of DROP Account:

At the end of a Member's participation in the DROP, the distribution of the accumulated DROP account is payable in the following forms of distribution: (1) Annual installments payable each December (no less than 10% or \$10,000, whichever is greater), (2) Rollover to another qualified retirement plan, or (3) Lump sum balance paid directly to the Member.

Normal Form of Monthly Benefit:

10-year Certain and Continuous annuity.
Cost of Living Adjustments, if any, are applicable to the benefit of the Member while in the DROP.

COLA:

Firefighters that retire on or after September 30, 2001 are eligible to receive a 3.00% (2.00% if hired on or after March 15, 2012) annual increase each September 30th after having been retired for six years (the supplemental benefits are not increased).

DISABILITY RETIREMENT

Eligibility:

In Line of Duty: Immediate.
Not In Line of Duty: 10 years.
DROP participants are not eligible for this benefit.

Disabled Definition:

Unable, by reason of medically determinable physical or mental impairment, to render useful and efficient service as a police officer or firefighter.

Benefit:

In Line of Duty Disability: 75% of Average Final Compensation, but not less than the accrued Normal Retirement Benefit. For firefighters hired after March 15, 2012 the minimum Line of Duty Disability benefit will be 66% of Average Final Compensation.

Not In Line of Duty Disability: 25% of Average Final Compensation, but not less than the accrued Normal Retirement Benefit.

Normal Form of Benefit:

10-year Certain and Continuous annuity, ceasing upon recovery prior to Normal Retirement Eligibility.

In addition, Firefighters who become Disabled after October 1, 2008, receive a Supplemental Benefit equal to \$25 per month times years of Credited Service accrued prior to March 15, 2012, plus \$12 per month times years of Credited Service earned after March 15, 2012. The benefit is \$25 per month for all years of Credited Service for those firefighters eligible for Normal Retirement on March 15, 2012. This benefit will be payable for the life of the retiree, but shall cease when the member attains the age of Medicare eligibility.

COLA:

Firefighters that retire on or after September 30, 2001 are eligible to receive a 3.00% annual increase each September 30th after having been retired for six years. Firefighters that are hired after March 15, 2012 will receive a 2.00% annual increase each September 30th after six years of retirement.

DEATH WHILE IN SERVICE (FIREFIGHTER)

Benefit:

Effective October 1, 2006, the beneficiary of any member whose death was directly caused by performance of the member's duty as a firefighter (as approved by the Board) shall be entitled to a monthly pension equal to the greater of the member's accrued benefit or 75% of the member's average final compensation.

Normal Form of Benefit:

Life annuity to the designated beneficiary.

COLA: Beneficiaries of Firefighters that die on or after September 30, 2001 are eligible to receive a 3.00% annual increase each September 30th after having been retired for six years. Beneficiaries of Firefighters that are hired after March 15, 2012 will receive a 2.00% annual increase each September 30th after six years of retirement.

DEATH WHILE NOT IN SERVICE WITH MORE THAN 10 YEARS OF SERVICE(FIREFIGHTER)

Benefit: Effective October 1, 2006, the beneficiary of any member who had at least 10 years of Credited Service, whose death was not directly caused by performance of the member's duty as a firefighter, shall be entitled to a monthly pension equal to the greater of the member's accrued benefit or 25% of the member's average final compensation.

COLA: Beneficiaries of Firefighters that die on or after September 30, 2001 are eligible to receive a 3.00% annual increase each September 30th after having been retired for six years. Beneficiaries of Firefighters that are hired after March 15, 2012 will receive a 2.00% annual increase each September 30th after six years of retirement.

WITHDRAWAL – LESS THAN 5 YEARS OF CREDITED SERVICE (10 YEARS IF HIRED ON OR AFTER MARCH 15, 2012)

Eligibility : First day of work, up to 5 years (10 years if hired on or after March 15, 2012) of Credited Service.

Benefit: Accumulated contributions with 0.00% interest.

Form of Benefit: Lump Sum.

WITHDRAWAL – AFTER EARNING AT LEAST 5 YEARS OF CREDITED SERVICE (10 YEARS IF HIRED ON OR AFTER MARCH 15, 2012)

Eligibility: At least 5 years (10 years if hired on or after March 15, 2012) of Credited Service.

Benefit: Participants who terminate employment prior to their Normal Retirement Date are entitled to their Normal Retirement Benefit calculated based on Credited Service and Average Final Compensation at their date of termination, multiplied by the Vesting Percentage, with deferred commencement at their Normal Retirement Date. This benefit is payable on a reduced basis as described under Early Retirement.

In addition, Firefighters who terminate after October 1, 2008, receive a Supplemental Benefit equal to \$25 per month times years of Credited Service accrued prior to March 15, 2012, plus \$12 per month times years of Credited Service earned after March 15, 2012. The benefit is \$25 per month for all years of Credited Service for those firefighters eligible for Normal Retirement on March 15, 2012. This benefit will be payable for the life of the retiree, but shall cease when the member attains the age of Medicare eligibility.

Vesting Percentage:

<u>Completed Years of Credited Service</u>	<u>Vesting Percentage</u>
<5	0%
5	50%
6	60%
7	70%
8	80%
9	90%
10 +	100%

Form of Benefit:

10-year Certain and Continuous annuity.

COLA:

Firefighters that terminate on or after September 30, 2001 are eligible to receive a 3.00% annual increase each September 30th after having been retired for six years. Firefighters that are hired after March 15, 2012 will receive a 2.00% annual increase each September 30th after six years of retirement.

MEMBER CONTRIBUTIONS

Contributions:

Firefighters are required to contribute 8.76% of compensation effective October 1, 2008.

**Interest Crediting
Rate:**

3.0% per year.

DATA SOURCES

Asset Data:

The asset information is taken from audited statements furnished by the Retirement Office.

Member Data:

The member data is supplied by the Retirement Office. It is reviewed for reasonableness and consistency, but no audit was performed. Foster & Foster, Inc. is not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.

Furlough Impact:

For the 2012 actuarial valuation report, individual Salaries were adjusted up by a ratio of the total number of normal work days in a year divided by the number of days actually worked after taking mandatory furloughs.

SHARE PLAN

<u>Initial Allocation as of October 1, 2015</u>	\$7,840.02
<u>Future Allocations</u>	½ of Annual State Monies received above \$825,324
<u>Earnings</u>	Annually equal to the net of fees return for the overall Trust Fund.
<u>Expenses</u>	Members share in actual expenses specific to the Share Plan administration.