CITY OF EUSTIS
MUNICIPAL FIREFIGHTERS' PENSION AND RETIREMENT SYSTEM

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2025

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

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February 13, 2024

Board of Trustees
City of Eustis
Firefighters' Pension Board

Re: City of Eustis Municipal Firefighters' Pension and Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Eustis Municipal Firefighters' Pension and Retirement System. 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 Eustis, 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 is familiar with the immediate and long-term aspects of pension valuations, and meets the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Eustis, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Municipal Firefighters' Pension and Retirement System. 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: Patrick T. Donlan

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

By: Dante Curcione

Dante Curcione

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Eustis Municipal Firefighters' Pension and Retirement System, 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 March 17, 2023 actuarial impact statement, are as follows:

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	9/30/2025	9/30/2024
Minimum Required Contribution		
% of Projected Annual Payroll	44.3%	46.1%
Member Contributions (Est.)		
% of Projected Annual Payroll	5.1%	5.6%
City And State Required Contribution		
% of Projected Annual Payroll	39.2%	40.5%
State Contribution (Est.) [1]	$128,474	$128,474
% of Projected Annual Payroll (Est.)	7.0%	7.0%
City Required Contribution (Est.) [2]		
% of Projected Annual Payroll (Est.)	32.2%	33.5%

[1] The State Contribution reflects the "default" calculation under Chapter 2015-39 Laws of Florida. It is important to note that the minimum allowable State Contibutions for purposes of offsetting the Ctiy's bottom line funding requirement is $75,664.26 of regular State Contributions and $18,365.05 of supplemental State Contributions (the amounts received in Calendar 2013). Future State Monies in excess of these amounts will be allocated equally between the City for annual funding and the Share Plan for the Membership. In 2023 the Fund received $181,284.58 in regular State Contributions and no supplemental State Contributions.

[2] The required contribution from the combination of City and State sources for the year ending September 30, 2025, is 39.2% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 32.2% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received. Please note that the City has access to a prepaid contribution of $35,339.09 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 a decrease when compared to the results set forth in the March 17, 2023 actuarial impact statement. The decrease is attributable to contribution timing (the City made contributions based on the October 1, 2021 valuation, which had a larger requirement than the October 1, 2022 actuarial valuation). The decrease was offset in part by an increase due to unfavorable experience 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 4.41% (Actuarial Asset Basis) which fell short of the 7.55% assumption, an average salary increase of 15.29% which exceeded the 7.47% assumption, and inactive mortality experience. These losses were offset in part by a gain associated with favorable turnover experience.

CHANGES SINCE PRIOR VALUATION

Plan Changes

- Beginning October 1, 2023, the Member Contribution Rate will be 16% of the City's required contribution each year as determined by the applicable actuarial valuation, subject to a minimum of 4.0% and a maximum of 7.5% and a maximum change each year of 1.0% Salary.
- The Benefit Accrual Rate will be 3.0% of Average Final Compensation for each year of Credited Service for all new members hired on or after January 24, 2023.
- The minimum benefit for Non-Service Incurred Disability, will be increased from the current 25% of Average Final Compensation to an amount of Average Final Compensation equal to 45.0% plus 2.0% each full year if credited service, up to a maximum of 65.0% of Average Final Compensation.

Actuarial Assumption/Method Changes

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

CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1)	Contribution Determined as of October 1, 2022 *(As set forth in the March 17, 2023 Actuarial Impact Statement)*	34.7%
(2)	Summary of Contribution Impact by component:	
	Change in State Contribution Percentage	-1.2%
	Change in Normal Cost Rate	-0.2%
	Change in Administrative Expense Percentage	0.5%
	Payroll Change Effect on UAAL Amortization	-0.5%
	Investment Return (Actuarial Asset Basis)	2.5%
	Salary Increases	1.8%
	Active Decrements	-3.8%
	Inactive Mortality	0.4%
	UAAL Amortization Impact from Contribution Policy	-3.0%
	Other	1.0%
	Total Change in Contribution	-2.5%
(3)	Contribution Determined as of October 1, 2023	32.2%

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	10/1/2023	10/1/2022
A. Participant Data		
Actives	25	27
Service Retirees	15	14
DROP Retirees	1	1
Beneficiaries	3	3
Disability Retirees	3	3
Terminated Vested	22	17
Total	69	65
Projected Annual Payroll	1,843,904	1,801,065
Annual Rate of Payments to:		
Service Retirees	496,918	426,232
DROP Retirees	71,202	71,202
Beneficiaries	95,825	95,825
Disability Retirees	76,298	76,298
Terminated Vested	211,016	174,047
B. Assets		
Actuarial Value (AVA) [1]	14,383,927	13,445,283
Market Value (MVA) [1]	12,951,208	11,211,633
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	7,383,217	7,225,939
Disability Benefits	555,036	601,010
Death Benefits	40,741	43,325
Vested Benefits	752,915	849,737
Refund of Contributions	84,704	68,741
Service Retirees	4,974,368	4,213,749
DROP Retirees [1]	1,276,819	1,174,954
Beneficiaries	1,053,971	1,064,915
Disability Retirees	784,285	812,133
Terminated Vested	866,212	1,084,041
Share Plan Balances [1]	196,823	129,392
Total	17,969,091	17,267,936

C. Liabilities - (Continued)

	10/1/2023	10/1/2022
Present Value of Future Salaries	14,617,358	14,555,496
Present Value of Future Member Contributions	745,485	815,108
Normal Cost (Retirement)	251,891	248,978
Normal Cost (Disability)	43,048	44,326
Normal Cost (Death)	1,756	1,745
Normal Cost (Vesting)	49,886	50,051
Normal Cost (Refunds)	15,454	12,639
Total Normal Cost	362,035	357,739
Present Value of Future Normal Costs	2,638,021	2,654,984
Accrued Liability (Retirement)	5,435,902	5,262,432
Accrued Liability (Disability)	251,942	276,516
Accrued Liability (Death)	26,757	29,149
Accrued Liability (Vesting)	447,617	553,977
Accrued Liability (Refunds)	16,374	11,694
Accrued Liability (Inactives) [1]	8,955,655	8,349,792
Share Plan Balances [1]	196,823	129,392
Total Actuarial Accrued Liability (EAN AL)	15,331,070	14,612,952
Unfunded Actuarial Accrued Liability (UAAL)	947,143	1,167,669
Funded Ratio (AVA / EAN AL)	93.8%	92.0%

D. Actuarial Present Value of Accrued Benefits

	10/1/2023	10/1/2022
Vested Accrued Benefits		
Inactives + Share Plan Balances [1]	9,152,478	8,479,184
Actives	2,735,174	2,772,447
Member Contributions	486,751	499,748
Total	12,374,403	11,751,379
Non-vested Accrued Benefits	552,834	417,055
Total Present Value Accrued Benefits (PVAB)	12,927,237	12,168,434
Funded Ratio (MVA / PVAB)	100.2%	92.1%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	479,368	
Benefits Paid	(616,027)	
Interest	895,462	
Other	0	
Total	758,803	

Valuation Date Applicable to Fiscal Year Ending	10/1/2023 9/30/2025	10/1/2022 9/30/2024
E. Pension Cost		
Normal Cost (with interest) % of Projected Annual Payroll [2]	20.4	20.6
Administrative Expenses (with interest) % of Projected Annual Payroll [2]	2.9	2.4
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2023, with interest) % of Projected Annual Payroll [2]	21.0	23.1
Minimum Required Contribution % of Projected Annual Payroll [2]	44.3	46.1
Expected Member Contributions % of Projected Annual Payroll [2]	5.1	5.6
Expected City and State Contribution % of Projected Annual Payroll [2]	39.2	40.5

F. Past Contributions

Plan Years Ending:	9/30/2023
City and State Requirement	861,012
Actual Contributions Made:	
Members (excluding buyback)	90,293
City	732,538
State	128,474
Total	951,305

G. Net Actuarial (Gain)/Loss 229,961

[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 are expressed as a percentage of Projected Annual Payroll at 10/1/2023 of $1,843,904.

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

Year	Projected Unfunded Actuarial Accrued Liability
2023	947,143
2024	618,016
2025	264,037
2028	203,761
2032	99,919
2035	69,029
2038	0

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

		Actual	Assumed
Year Ended	9/30/2023	15.29%	7.47%
Year Ended	9/30/2022	1.52%	6.24%
Year Ended	9/30/2021	4.49%	6.63%
Year Ended	9/30/2020	4.70%	6.52%
Year Ended	9/30/2019	7.05%	6.15%

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

		Market Value	Actuarial Value	Assumed
Year Ended	9/30/2023	12.43%	4.41%	7.55%
Year Ended	9/30/2022	-20.32%	2.74%	7.55%
Year Ended	9/30/2021	17.69%	10.71%	7.80%
Year Ended	9/30/2020	12.74%	8.98%	7.80%
Year Ended	9/30/2019	5.37%	7.77%	7.90%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	$1,843,904
	10/1/2013	1,315,897
(b) Total Increase		40.13%
(c) Number of Years		10.00
(d) Average Annual Rate		3.43%

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

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

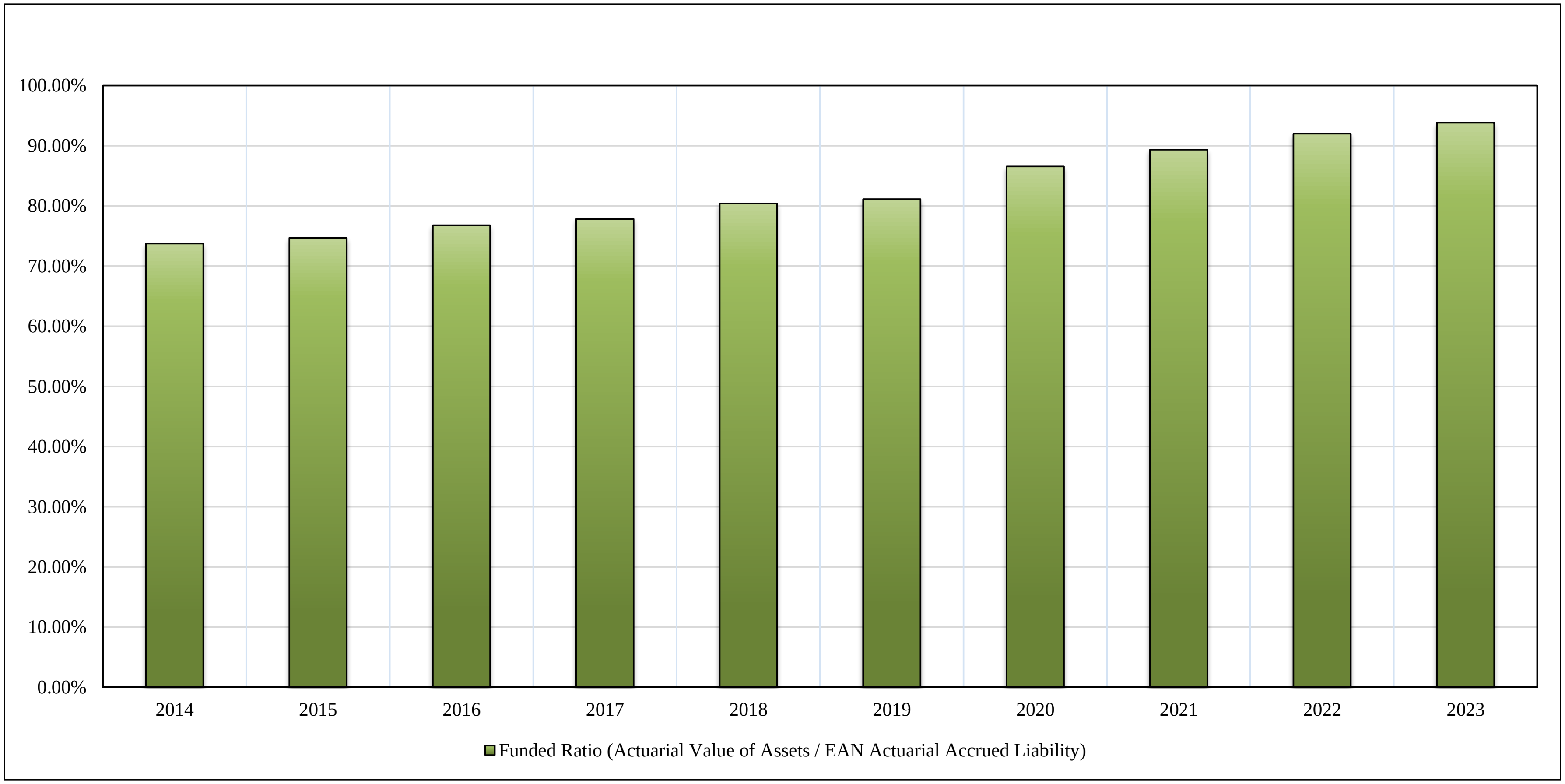
(1)	Unfunded Actuarial Accrued Liability as of October 1, 2022	$1,167,669
(2)	Sponsor Normal Cost developed as of October 1, 2022	285,696
(3)	Expected administrative expenses for the year ended September 30, 2023	41,428
(4)	Expected interest on (1), (2) and (3)	111,293
(5)	Sponsor contributions to the System during the year ended September 30, 2023	861,012
(6)	Expected interest on (5)	27,892
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	717,182
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	229,961
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2023	947,143

Type of Base	Date Established	Years Remaining	10/1/2023 Amount	Amortization Amount
Consolidation	10/1/2018	2	649,645	336,638
Actuarial Loss	10/1/2018	10	161,328	21,903
Assump Change	10/1/2018	10	(13,633)	(1,851)
Benefits Change	10/1/2018	10	(4,173)	(567)
Actuarial Loss	10/1/2019	11	70,780	9,018
Assump Change	10/1/2019	11	118,563	15,107
Actuarial Gain	10/1/2020	12	(169,921)	(20,479)
Assump Change	10/1/2020	12	(129,866)	(15,651)
Actuarial Gain	10/1/2021	13	(279,571)	(32,079)
Assump Change	10/1/2021	13	343,015	39,359
Actuarial Gain	10/1/2022	14	(28,476)	(3,128)
Benefits Change	10/1/2022	14	(509)	(56)
Actuarial Loss	10/1/2023	15	229,961	24,298
			947,143	372,512

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	$1,167,669
(2)	Expected UAAL as of October 1, 2023	717,182
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	428,496
	Salary Increases	309,932
	Active Decrements	(630,700)
	Inactive Mortality	69,299
	Interest Crediting on Share Plan Balances	6,329
	Other	46,605
	Increase in UAAL due to (Gain)/Loss	229,961
	Assumption Changes	0
(4)	Actual UAAL as of October 1, 2023	$947,143

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

Beneficiary Lives:

Female: PubG.H-2010 (Below Median) for Healthy Retirees.
Male: PubG.H-2010 (Below 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	7.55% 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. Projected average final salary at retirement is increased by 5.00% to account for final non-regular compensation. Effective with the October 1, 2018 valuation, this load is 0% for those hired on or after July 1, 2011. The current assumed salary increase rate resulted from a September 1, 2017 Experience Study.
Payroll Growth	0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.
Administrative Expenses	$50,775 annually, based on the average of actual expenses incurred in the prior two fiscal years.
Amortization Method	New UAAL amortization bases are amortized over 15 years. The amortization payment is subject to a minimum based on a 30-year amortization of the UAAL in order to comply with Actuarial Standard of Practice No. 4. 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.
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 7.55% assumption. Salary - None.
Asset Valuation Method	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric 4-year average Market Value return. It is possible that over time this technique will produce an insignificant bias above or below Market Value.

Disability Rates — See table later in this section. It is assumed that 90% of disabilities are in the line of duty. This is based on the results of an actuarial experience study issued September 1, 2017.

Termination Rates — See table later in this section. The current rates of termination resulted from a September 1, 2017 Experience Study.

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.

% Terminating During the Year		% Becoming Disabled During the Year		Salary Scale	
Service	Rate	Age	Rate	Service	Rate
0	25.0%	20	0.14%	0	15.00%
1-4	13.0%	25	0.15%	1	10.00%
5-9	9.0%	30	0.18%	2	8.00%
10-19	5.0%	35	0.23%	3	7.00%
20+	0.0%	40	0.30%	4	6.50%
		45	0.51%	5-9	6.25%
		50	1.00%	10-14	6.00%
		55	1.55%	15+	5.00%
		60	2.23%		
		65	2.79%		

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.

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.

- <u>Investment Return</u>: 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.

- <u>Salary Increases</u>: 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.

- <u>Demographic Assumptions:</u> 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 147.4% on October 1, 2013 to 86.2% 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 58.4%. 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 69.0% on October 1, 2013 to 93.8% 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, increased from -4.3% on October 1, 2013 to 2.6% on October 1, 2023. The current Net Cash Flow Ratio of 2.6% indicates that contributions are generally in excess of 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 8 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 $21,731,485. 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

	10/1/2023	10/1/2022	10/1/2018	10/1/2013
Support Ratio				
Total Actives	25	27	22	28
Total Inactives [1]	29	26	23	19
Actives / Inactives [1]	86.2%	103.8%	95.7%	147.4%
Asset Volatility Ratio				
Market Value of Assets (MVA)	12,951,208	11,211,633	9,979,983	6,404,958
Total Annual Payroll	1,843,904	1,801,065	1,493,747	1,315,897
MVA / Total Annual Payroll	702.4%	622.5%	668.1%	486.7%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	8,955,655	8,349,792	6,893,602	4,714,743
Total Accrued Liability (EAN)	15,331,070	14,612,952	12,420,877	8,785,968
Inactive AL / Total AL	58.4%	57.1%	55.5%	53.7%
Funded Ratio				
Actuarial Value of Assets (AVA)	14,383,927	13,445,283	9,987,004	6,059,345
Total Accrued Liability (EAN)	15,331,070	14,612,952	12,420,877	8,785,968
AVA / Total Accrued Liability (EAN)	93.8%	92.0%	80.4%	69.0%
Net Cash Flow Ratio				
Net Cash Flow [2]	336,839	167,092	304,305	(273,985)
Market Value of Assets (MVA)	12,951,208	11,211,633	9,979,983	6,404,958
Ratio	2.6%	1.5%	3.0%	-4.3%

[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

Received During Fiscal Year	Amount	Increase from Previous Year
1998	46,987.00	_____%
1999	37,705.21	-19.8%
2000	43,827.38	16.2%
2001	46,377.71	5.8%
2002	43,434.00	-6.3%
2003	54,751.82	26.1%
2004	53,532.74	-2.2%
2005	60,043.32	12.2%
2006	65,916.92	9.8%
2007	76,903.55	16.7%
2008	99,201.43	29.0%
2009	102,764.07	3.6%
2010	85,818.43	-16.5%
2011	85,151.47	-0.8%
2012	85,206.79	0.1%
2013	95,824.03	12.5%
2014	90,690.37	-5.4%
2015	101,738.84	12.2%
2016	115,997.48	14.0%
2017	108,561.04	-6.4%
2018	109,423.87	0.8%
2019	115,462.84	5.5%
2020	113,353.84	-1.8%
2021	128,427.79	13.3%
2022	133,561.65	4.0%
2023	181,284.58	35.7%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

ASSETS	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	650,664.55	650,664.55
Total Cash and Equivalents	650,664.55	650,664.55
Receivables:		
Investment Income	3,901.27	3,901.27
Total Receivable	3,901.27	3,901.27
Investments:		
Stocks	2,006,149.64	2,420,810.47
Mutual Funds:		
Fixed Income	5,444,839.02	4,658,963.01
Equity	4,484,040.72	5,253,957.72
Total Investments	11,935,029.38	12,333,731.20
Total Assets	12,589,595.20	12,988,297.02
LIABILITIES		
Payables:		
Investment Expenses	1,750.00	1,750.00
Prepaid City Contribution	35,339.09	35,339.09
Total Liabilities	37,089.09	37,089.09
NET POSITION RESTRICTED FOR PENSIONS	12,552,506.11	12,951,207.93

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

ADDITIONS			
Contributions:			
Member		90,292.59	
City		732,537.93	
State		181,284.58	
Total Contributions			1,004,115.10
Investment Income:			
Net Realized Gain (Loss)	(37,985.12)		
Unrealized Gain (Loss)	1,162,159.08		
Net Increase in Fair Value of Investments		1,124,173.96	
Interest & Dividends		319,599.80	
Less Investment Expense[1]		(41,037.60)	
Net Investment Income			1,402,736.16
Total Additions			2,406,851.26
DEDUCTIONS			
Distributions to Members:			
Benefit Payments		616,027.17	
Lump Sum DROP Distributions		0.00	
Lump Sum Share Distributions		0.00	
Refunds of Member Contributions		0.00	
Total Distributions			616,027.17
Administrative Expense			51,249.05
Total Deductions			667,276.22
Net Increase in Net Position			1,739,575.04
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			11,211,632.89
End of the Year			12,951,207.93

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

ACTUARIAL ASSET VALUATION
SEPTEMBER 30, 2023

Actuarial Assets for funding purposes are developed by increasing the Actuarial Assets used in the most recent actuarial valuation of the Fund by the average annual market value rate of return (net of investment related expenses) for the past four years. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Details of the derivation are set forth as follows:

Plan Year End	Rate of Return[1]
09/30/2020	12.74%
09/30/2021	17.69%
09/30/2022	-20.32%
09/30/2023	12.43%

Annualized Rate of Return for prior four (4) years: 4.41%

(A) 10/01/2022 Actuarial Assets:		$13,445,282.95
(I) Net Investment Income:		
1. Interest and Dividends	319,599.80	
2. Realized Gain (Loss)	(37,985.12)	
3. Unrealized Gain (Loss)	1,162,159.08	
4. Change in Actuarial Value	(800,931.10)	
5. Investment Related Expenses	(41,037.60)	
Total		601,805.06
(B) 10/01/2023 Actuarial Assets, including Prepaid Contributions:		$14,419,265.98

Actuarial Asset Rate of Return = 2I/(A+B-I), based on Unlimited Actuarial Assets: 4.41%

10/01/2023 Limited Actuarial Assets	$14,383,926.89
10/01/2023 Market Value of Assets	$12,951,207.93

Actuarial Asset Rate of Return, based on Limited Actuarial Assets: 4.41%

Actuarial Gain/(Loss) due to Investment Return (Limited Actuarial Asset Basis) ($428,496.12)

[1]Market Value Basis, net of investment related expenses.

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

REVENUES		
Contributions:		
Member	90,292.59	
City	732,537.93	
State	181,284.58	
Total Contributions		1,004,115.10
Earnings from Investments:		
Interest & Dividends	319,599.80	
Net Realized Gain (Loss)	(37,985.12)	
Unrealized Gain (Loss)	1,162,159.08	
Change in Actuarial Value	(800,931.10)	
Total Earnings and Investment Gains		642,842.66
EXPENDITURES		
Distributions to Members:		
Benefit Payments	616,027.17	
Lump Sum DROP Distributions	0.00	
Lump Sum Share Distributions	0.00	
Refunds of Member Contributions	0.00	
Total Distributions		616,027.17
Expenses:		
Investment related[1]	41,037.60	
Administrative	51,249.05	
Total Expenses		92,286.65
Change in Net Assets for the Year		938,643.94
Net Assets Beginning of the Year		13,445,282.95
Net Assets End of the Year[2]		14,383,926.89

[1]Investment related expenses include investment advisory, custodial and performance monitoring fees.
[2]Net Assets may be limited for actuarial consideration.

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

Beginning of the Year Balance	248,509.11
Plus Additions	71,201.52
Investment Return Earned	33,931.77
Less Distributions	0.00
End of the Year Balance	353,642.40

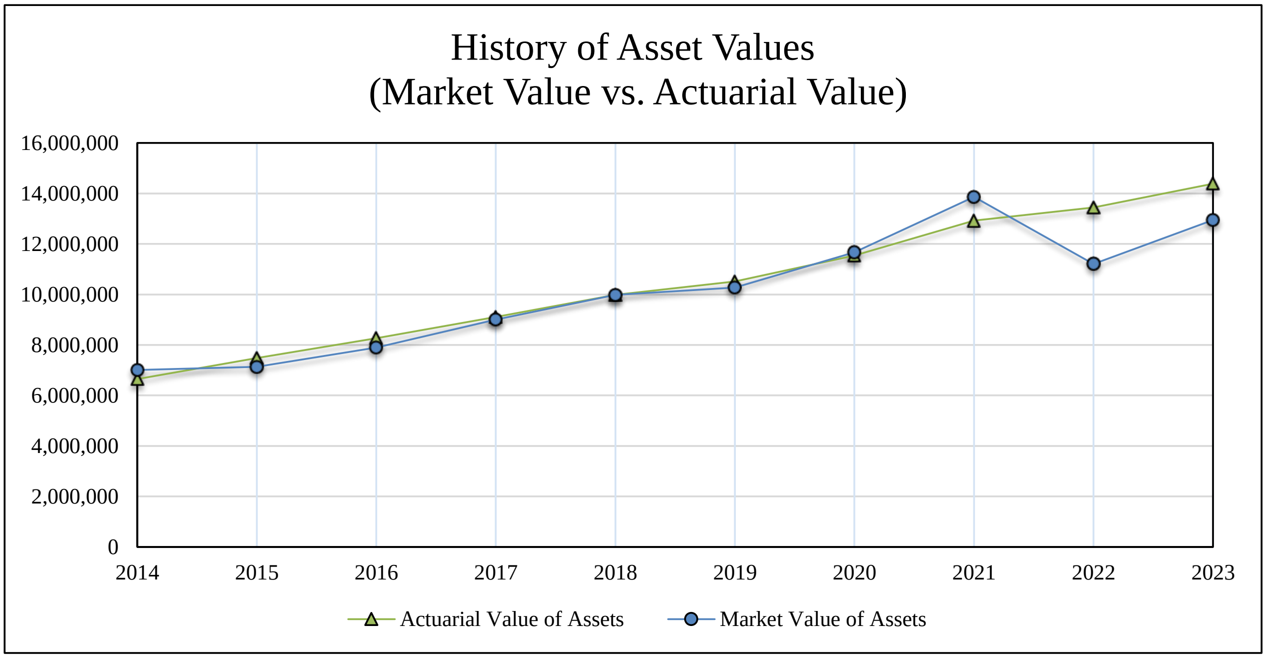
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2022 through September 30, 2023

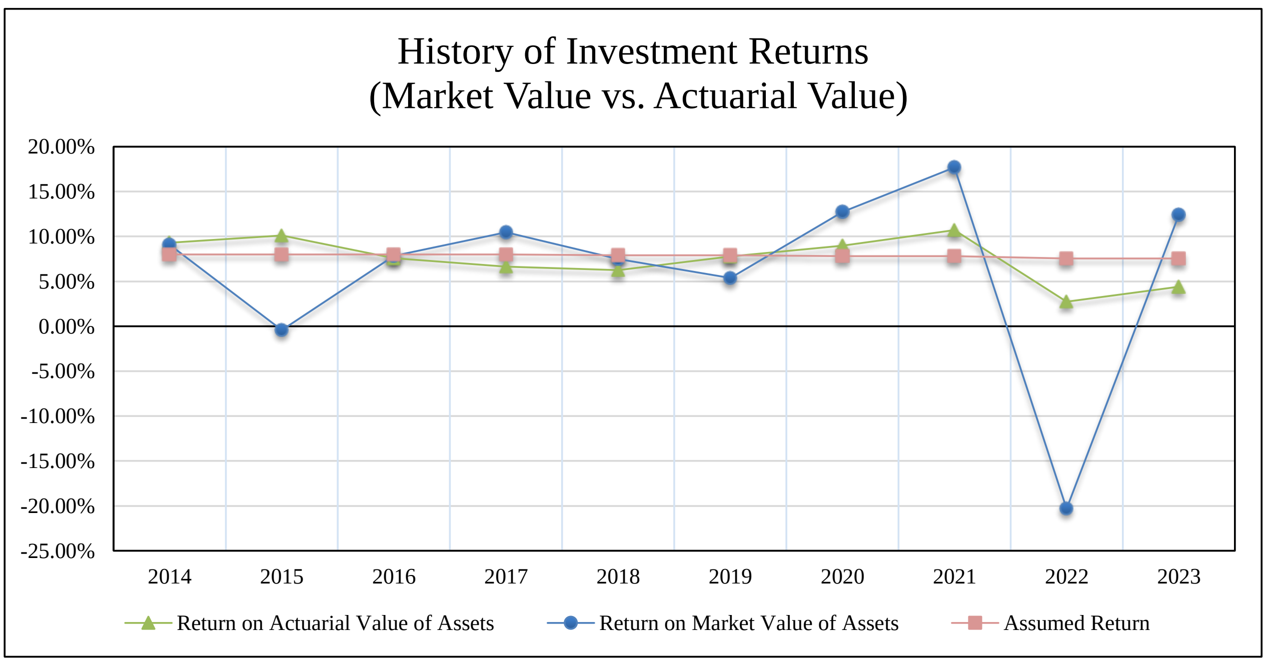
9/30/2022 Balance	129,391.58
Prior Year Adjustment	300.01
Plus Additions	52,810.16
Investment Return Earned (Est.)	16,121.00
Administrative Fees (Est.)	(1,800.00)
Less Distributions	0.00
9/30/2023 Balance (Est.)	196,822.75

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

(1)	City and State Required Contribution Rate	44.7%
(2)	Pensionable Payroll Derived from Member Contributions	$1,926,202.12
(3)	City and State Required Contribution (1) x (2)	861,012.35
(4)	Less Allowable State Contribution	(128,474.42)
(5)	Equals Required City Contribution for Fiscal 2023	732,537.93
(6)	Plus 2022 Shortfall Contribution	18,574.41
(7)	Less Actual City Contributions	(786,451.43)
(8)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2023	($35,339.09)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2023	10/1/2022	10/1/2021	10/1/2020
Actives				
Number	25	27	22	22
Average Current Age	35.6	36.2	37.4	36.4
Average Age at Employment	27.2	27.7	26.8	26.8
Average Past Service	8.4	8.5	10.6	9.6
Average Annual Salary	$73,756	$66,706	$72,341	$69,447
Service Retirees				
Number	15	14	15	16
Average Current Age	69.8	70.2	69.9	69.1
Average Annual Benefit	$33,128	$30,445	$29,633	$27,800
DROP Retirees				
Number	1	1	1	1
Average Current Age	59.7	58.7	57.7	56.7
Average Annual Benefit	$71,202	$71,202	$71,202	$71,202
Beneficiaries				
Number	3	3	2	2
Average Current Age	66.9	65.9	60.4	59.4
Average Annual Benefit	$31,942	$31,942	$41,067	$41,067
Disability Retirees				
Number	3	3	3	3
Average Current Age	53.6	52.6	51.6	50.6
Average Annual Benefit	$25,433	$25,433	$25,433	$25,433
Terminated Vested				
Number	22	17	14	16
Average Current Age [1]	42.5	44.9	50.6	49.2
Average Annual Benefit [1]	$30,145	$34,809	$33,908	$35,055

[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	1	1										2
25 - 29		3		1	1							5
30 - 34	2	1				1	2					6
35 - 39		1				2	1					4
40 - 44								3	1			4
45 - 49					1			1				2
50 - 54									1			1
55 - 59						1						1
60 - 64												0
65+												0
Total	3	6	0	1	2	4	3	4	2	0	0	25

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	27
b. Terminations	
i. Vested (partial or full) with deferred annuity	(3)
ii. Vested in refund of member contributions only	(2)
iii. Refund of member contributions or full lump sum distribution	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	0
g. Continuing participants	22
h. New entrants / Rehires	3
i. Total active life participants in valuation	25

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

	Service Retirees, Vested Receiving Benefits	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	Total
a. Number prior valuation	14	1	3	3	5	12	38
Retired	1				(1)		0
DROP							0
Vested (Deferred Annuity)					3		3
Vested (Due Refund)						2	2
Hired/Terminated in Same Year						1	1
Death, With Survivor							0
Death, No Survivor							0
Disabled							0
Refund of Contributions							0
Rehires							0
Expired Annuities							0
Data Corrections							0
b. Number current valuation	15	1	3	3	7	15	44

SUMMARY OF CURRENT PLAN
(Through Ordinance 23-04)

Eligibility	All regular uniformed members of the Fire Department; includes active volunteers. Optional participation for the Fire Chief.
Salary	Total Compensation for services rendered, including payments of accumulated leave at retirement. Salary on or after July l, 2011 will not include more than 300 hours of overtime nor payments for accumulated leave earned after that date.
Average Final Compensation (AFC)	One twelfth of the average of the 5 best years of the last 10 years of Salary (10 best of career for volunteers).
Credited Service	Years and fractional parts of years of service with the City as a Firefighter (with Member contributions when required).
Normal Retirement	
Date	The earlier of: a) age 55 and the completion of 10 years of Credited Service, or b) age 52 and the completion of 25 years of Credited Service.
Benefit	Members hired before January 24, 2023: 4.00% of AFC times Credited Service.
	Members hired on or after January 24, 2023: 3.00% of AFC times Credited Service.
Form of Benefit	10 Year Certain and Life Annuity (options available).
Early Retirement	
Date	Age 50 and 10 years of Credited Service.
Benefit	Determined as for Normal Retirement and reduced 3.00% per year.
Form of Benefit	10 Year Certain and Life Annuity (options available).

Disability Benefit

Eligibility	Total and permanent as determined by the Board (medical proof required).
Benefit	Benefit accrued to date of disability. Minimum benefit for Service Incurred is 65% of AFC, for Non-Service Incurred is 45% of AFC, and increased by 2% each full year of the member's service, up to the maximum rate of service of 65%.
Duration	Life, with 10 years guaranteed, or until recovery, as determined by the Board (options available).

Death Benefit

Pre-Retirement	
Not Vested	Refund of Member Contributions.
Vested	Beneficiary receives the benefit otherwise payable to the firefighter on the date the firefighter would have reached Normal or Early Retirement.
Post-Retirement	According to optional form of benefit selected.

Termination of Employment

Less than 10 years	Refund of Member Contributions without interest.
10 or more	Refund of Contributions or Accrued benefit payable at retirement age.

Member Contributions

Amount	2.00% of Salary: November 1, 2004 – October 31, 2005 3.00% of Salary: November 1, 2005 – October 31, 2006 4.00% of Salary: After October 31, 2006. 5.50% of Salary: After March 17, 2023. 5.60% of Salary: October 1, 2023 – September 30, 2024 5.10% of Salary: October 1, 2024 – September 30, 2025 Beginning October 1, 2023 the Member Contribution Rate will be 16% of the City's required contribution each year as determined by the applicable actuarial valuation, subject to a minimum 4.0% and a maximum of 7.5% and a maximum change each year of 1.0% of Salary.

Deferred Retirement Option Plan

Eligibility	Eligibility for Normal Retirement.
Participation	Not to exceed 60 months.
Rate of Return	At Member's election:
	(1) Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter, or
	(2) Interest Rate credited to Members of the Florida Retirement System DROP, compounded monthly.
	Members may elect to change form of return once during their DROP participation.
Form of Distribution	Cash lump sum (options available).