

CITY OF SEMINOLE
MUNICIPAL FIREFIGHTERS' PENSION TRUST
FUND ACTUARIAL VALUATION
AS OF OCTOBER 1, 2024
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2026



January 2, 2025

Board of Trustees
City of Seminole
Firefighters' Pension Board

Re: City of Seminole Municipal Firefighter's Pension Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Seminole Municipal Firefighter's Pension Trust Fund. 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 Seminole, 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 Seminole, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Municipal Firefighter's Pension Trust Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 239-433-5500.

Respectfully submitted,


Foster & Foster, Inc.

By:



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #23-7778

By:



Kevin H. Peng, ASA, EA, MAAA
Enrolled Actuary #23-7783

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Seminole Municipal Firefighter's Pension Trust Fund, performed as of October 1, 2024, 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, 2026.

The contribution requirements, compared with those set forth in the October 1, 2023 actuarial valuation report, are as follows:

Valuation Date	10/1/2024	10/1/2023
Applicable to Fiscal Year Ending	<u>9/30/2026</u>	<u>9/30/2025</u>
Minimum Required Contribution	\$2,342,634	\$2,303,166
Member Contributions (Est.)	645,930	580,610
% of Projected Annual Payroll	10.00%	10.00%
City And State Required Contribution	1,696,704	1,722,556
State Contribution (Est.) ¹	308,570	308,570
City Required Contribution (Est.) ²	\$1,388,134	\$1,413,986
% of Projected Annual Payroll (Est.)	21.49%	24.35%

¹ Reflects amount received in calendar 2024. The City may use up to \$308,570.32 in State Contributions for determining its minimum funding requirements, based on the Mutual Consent Agreement signed by the City on June 28, 2016.

² The estimated City contribution requirement for the fiscal year ending September 30, 2026 is \$1,388,134, based on a State-approved dollar funding methodology adopted by the Board of Trustees, and estimated Member Contributions necessary to satisfy the cost-sharing provision of Ordinance 02- 2023. For purposes of this requirement, the actual Member Contribution Rate is currently at the 10.00 % for the fiscal years beginning October 1, 2024 and October 1, 2025. It is important to note

that this rate will require a recalculation with each valuation to reflect changes in Plan demographics, actuarial experience, and actual receipt of State Monies. As requested by the Board of Trustees, the above table includes expected Member and City contributions expressed as both a fixed dollar and percentage-of-payroll requirement. The City should budget based on the actual fixed dollar requirements as displayed in the table, adjusted as necessary for actual amount of State Contributions received annually.

As you can see, the Minimum Required Contribution shows a decrease when compared to the results set forth in the October 1, 2023 actuarial valuation report. The decrease is attributable to favorable plan experience as described in the next paragraph.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. The primary source of actuarial gain was an investment return of 8.52% (Actuarial Asset Basis) which exceeded the 6.75% assumption. There were no significant sources of actuarial loss.

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>10/1/2024</u>	<u>10/1/2023</u>
A. Participant Data		
Actives	77	70
Service Retirees	71	71
Beneficiaries	3	4
Disability Retirees	7	7
Terminated Vested	<u>18</u>	<u>18</u>
Total	176	170
Projected Annual Payroll	5,988,513	5,384,983
Annual Rate of Payments to:		
Service Retirees	2,778,599	2,737,026
Beneficiaries	76,969	126,708
Disability Retirees	235,137	235,137
Terminated Vested	73,772	45,346
B. Assets		
Actuarial Value (AVA) ¹	47,877,971	45,006,203
Market Value (MVA) ¹	50,913,177	43,245,557
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	26,831,418	24,553,065
Disability Benefits	2,101,272	1,928,970
Death Benefits	147,840	139,003
Vested Benefits	966,624	900,370
Refund of Contributions	397,273	345,858
Service Retirees	31,574,243	31,401,461
Beneficiaries	831,931	867,709
Disability Retirees	2,038,601	2,080,195
Terminated Vested	529,878	385,081
Share Plan Balances ¹	0	0
Excess State Monies Reserve	<u>88,863</u>	<u>57,502</u>
Total	65,507,943	62,659,214

C. Liabilities - (Continued)	<u>10/1/2024</u>	<u>10/1/2023</u>
Present Value of Future Salaries	54,378,949	48,865,600
Present Value of Future Member Contributions	5,437,895	4,886,560
Normal Cost (Retirement)	1,011,548	907,898
Normal Cost (Disability)	155,187	139,763
Normal Cost (Death)	8,627	7,711
Normal Cost (Vesting)	58,904	51,419
Normal Cost (Refunds)	69,965	61,323
Total Normal Cost	<u>1,304,231</u>	<u>1,168,114</u>
Present Value of Future Normal Costs	11,440,758	10,238,242
Accrued Liability (Retirement)	17,668,416	16,333,949
Accrued Liability (Disability)	721,119	692,713
Accrued Liability (Death)	80,314	77,932
Accrued Liability (Vesting)	466,004	457,816
Accrued Liability (Refunds)	67,816	66,614
Accrued Liability (Inactives)	34,974,653	34,734,446
Share Plan Balances ¹	0	0
Excess State Monies Reserve	88,863	57,502
Total Actuarial Accrued Liability (EAN AL)	<u>54,067,185</u>	<u>52,420,972</u>
Unfunded Actuarial Accrued Liability (UAAL)	6,189,214	7,414,769
Funded Ratio (AVA / EAN AL)	88.6%	85.9%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2024</u>	<u>10/1/2023</u>
Vested Accrued Benefits		
Inactives + Share Plan Balances ¹	34,974,653	34,734,446
Actives	8,090,850	7,179,962
Member Contributions	<u>4,570,135</u>	<u>4,222,872</u>
Total	47,635,638	46,137,280
Non-vested Accrued Benefits	<u>1,421,051</u>	<u>1,201,640</u>
Total Present Value Accrued Benefits (PVAB)	49,056,689	47,338,920
Funded Ratio (MVA / PVAB)	103.8%	91.4%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	1,762,911	
Benefits Paid	(3,134,722)	
Interest	3,089,580	
Other	<u>0</u>	
Total	1,717,769	

Valuation Date	10/1/2024	10/1/2023
Applicable to Fiscal Year Ending	<u>9/30/2026</u>	<u>9/30/2025</u>
E. Pension Cost		
Normal Cost ²	\$1,406,763	\$1,259,462
Administrative Expenses ²	97,749	94,437
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 28 years (as of 10/1/2024) ²	838,122	949,267
Minimum Required Contribution	2,342,634	2,303,166
Expected Member Contributions ²	645,930	580,610
Expected City and State Contribution	1,696,704	1,722,556
F. Past Contributions		
Plan Years Ending:	<u>9/30/2024</u>	
City and State Requirement	1,571,205	
Actual Contributions Made:		
City	1,337,680	
State	<u>308,570</u>	
Total	1,646,250	
G. Net Actuarial (Gain)/Loss	(737,838)	

¹ The asset values and liabilities include accumulated Share Plan Balances as of 9/30/2024 and 9/30/2023.

² Contributions developed as of 10/1/2024 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>
2024	6,189,214
2025	5,777,501
2026	5,337,996
2033	1,468,850
2035	554,261
2052	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2024	5.99%	4.27%
Year Ended 9/30/2023	13.88%	4.22%
Year Ended 9/30/2022	2.34%	4.25%
Year Ended 9/30/2021	9.64%	4.28%
Year Ended 9/30/2020	11.95%	4.74%

(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 9/30/2024	20.27%	8.52%	6.75%
Year Ended 9/30/2023	11.96%	4.83%	6.75%
Year Ended 9/30/2022	-12.71%	2.98%	6.75%
Year Ended 9/30/2021	20.16%	8.90%	7.00%
Year Ended 9/30/2020	6.11%	7.00%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2024	\$5,988,513
	10/1/2014	3,784,019
(b) Total Increase		58.26%
(c) Number of Years		10.00
(d) Average Annual Rate		4.70%

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Part VII, Chapter 112, Florida Statutes. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or required contribution rates have been taken into account in the valuation.



Douglas H. Lozen, EA, MAAA
Enrolled Actuary #23-7778

Please let us know when the report is approved by the Board and unless otherwise directed we will provide copies of the report to the following offices to comply with Chapter 112, Florida Statutes:

Mr. Keith Brinkman
Bureau of Local
Retirement Systems
Post Office Box 9000
Tallahassee, FL 32315-9000

Mr. Steve Bardin
Municipal Police and Fire
Pension Trust Funds
Division of Retirement
Post Office Box 3010
Tallahassee, FL 32315-3010

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

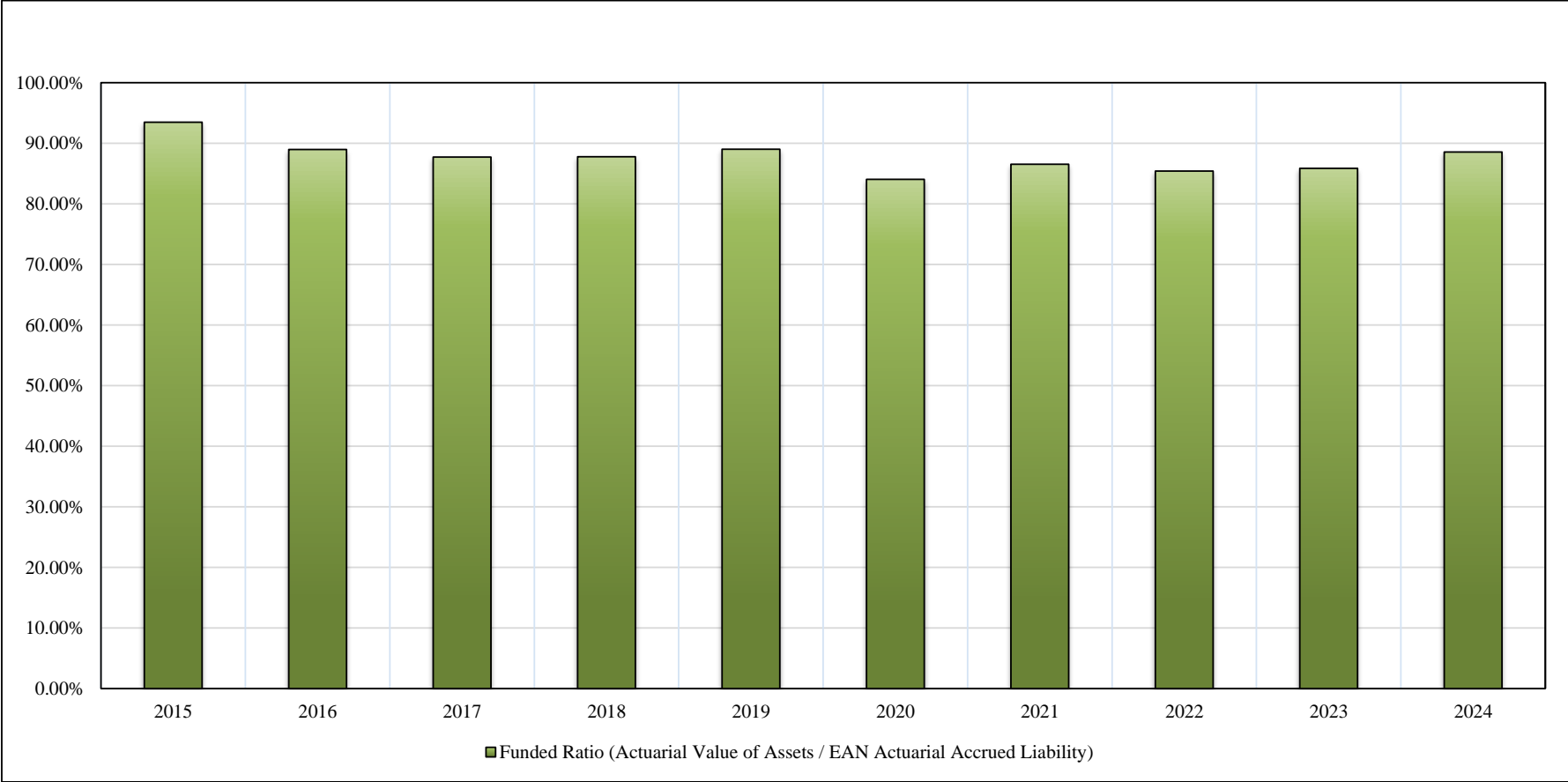
(1)	Unfunded Actuarial Accrued Liability as of October 1, 2023	\$7,414,769
(2)	Sponsor Normal Cost developed as of October 1, 2023	575,766
(3)	Expected administrative expenses for the year ended September 30, 2024	87,588
(4)	Expected interest on (1), (2) and (3)	542,317
(5)	Sponsor contributions to the System during the year ended September 30, 2024	1,646,250
(6)	Expected interest on (5)	47,138
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2024 (1)+(2)+(3)+(4)-(5)-(6)	6,927,052
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(737,838)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2024	6,189,214

<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2024 Amount</u>	<u>Amortization Amount</u>
Consolidation Base	10/1/2021	12	4,793,442	557,834
Actuarial Loss	10/1/2022	8	965,876	150,060
Benefits Change	10/1/2022	28	(4,485)	(338)
Actuarial Loss	10/1/2023	9	1,172,219	166,755
Actuarial Gain	10/1/2024	10	(737,838)	(97,275)
			6,189,214	777,036

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2023	\$7,414,769
(2) Expected UAAL as of October 1, 2024	6,927,052
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	(787,605)
Salary Increases	154,506
Active Decrements	(27,659)
Inactive Mortality	9,676
Other	<u>(86,756)</u>
Increase in UAAL due to (Gain)/Loss	(737,838)
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2024	\$6,189,214

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 for Healthy Retirees.

Male: PubG.H-2010 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, 2023 FRS valuation report for special risk employees, with appropriate adjustments made based on plan demographics.

Interest Rate

6.75% per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

Salary Increases

These rates are supported by an experience study issued August 30, 2020.

Salary Scale	
Service	Rate
0-4	5.00%
5-9	4.50%
10-19	4.00%
20+	3.00%

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.

Disability Rates

Sample rates below, supported by an experience study issued February 6, 2012. This assumption was reviewed and left unchanged as part of the August 30, 2020 Experience Study.

% Becoming Disabled During the Year	
Age	Rate
20	0.15%
25	0.15%
30	0.19%
35	0.23%
40	0.37%
45	0.51%
50	0.86%
55	1.20%

It is assumed that 90% of disablements and active Member deaths are service related.

Termination Rates

These rates are supported by an experience study issued August 30, 2020.

% Terminating During the Year	
Service	Rate
0	10.0%
1-4	8.0%
5-9	4.0%
10+	1.0%

Normal Retirement

These rates are supported by an experience study issued August 30, 2020.

Normal Retirement %		
During the Year		
Service	Age	Rate
10-24	55+	100.0%
25	all ages	50.0%
26+	all ages	100.0%

Early Retirement

Commencing upon eligibility for Early Retirement, Members are assumed to retire with an immediate benefit at the rate of 10% per year. These rates are supported by an experience study issued August 30, 2020.

Administrative Expenses

\$90,625 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Asset Smoothing Method

The total investment gain or loss for each plan year is recognized 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%. Investment gain/loss return is the difference between the actual rate of return on the Plan's assets and the assumed rate of return (based on the actuarial assumption for investment return).

Amortization Method

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

- Experience: 10 Years.
- Assumption/Method Changes: 20 Years.
- Benefit Changes: 30 Years.

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.

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 6.75% assumption.

Salary - A full year, based on current 4.34% assumption.

Low-Default-Risk Obligation Measure

Based on the Entry Age Normal Actuarial Cost Method and an interest rate of 4.06% 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, 2024. 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 stayed about the same from October 1, 2014 to October 1, 2024, indicating that the plan's maturity level has not significantly changed during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 64.7%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.
- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 92.2% on October 1, 2014 to 88.6% on October 1, 2024.
- 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 -4.7% on October 1, 2014 to -1.8% on October 1, 2024. The current Net Cash Flow Ratio of -1.8% 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 4.06%, resulting in an LDROM of \$74,172,768. 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>10/1/2024</u>	<u>10/1/2023</u>	<u>10/1/2019</u>	<u>10/1/2014</u>
<u>Support Ratio</u>				
Total Actives	77	70	69	65
Total Inactives ¹	84	84	86	76
Actives / Inactives ¹	91.7%	83.3%	80.2%	85.5%

Asset Volatility Ratio

Market Value of Assets (MVA)	50,913,177	43,245,557	38,096,060	38,183,827
Total Annual Payroll	6,091,710	5,482,728	4,244,752	3,784,019
MVA / Total Annual Payroll	835.8%	788.8%	897.5%	1,009.1%

Accrued Liability (AL) Ratio

Inactive Accrued Liability	34,974,653	34,734,446	32,466,210	27,940,094
Total Accrued Liability (EAN)	54,067,185	52,420,972	43,898,445	39,667,261
Inactive AL / Total AL	64.7%	66.3%	74.0%	70.4%

Funded Ratio

Actuarial Value of Assets (AVA)	47,877,971	45,006,203	39,076,408	36,586,409
Total Accrued Liability (EAN)	54,067,185	52,420,972	43,898,445	39,667,261
AVA / Total Accrued Liability (EAN)	88.6%	85.9%	89.0%	92.2%

Net Cash Flow Ratio

Net Cash Flow ²	(922,618)	(446,290)	(1,492,411)	(1,792,526)
Market Value of Assets (MVA)	50,913,177	43,245,557	38,096,060	38,183,827
Ratio	-1.8%	-1.0%	-3.9%	-4.7%

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	112,469.32	_____%
1999	113,818.16	1.2%
2000	128,878.44	13.2%
2001	116,963.19	-9.2%
2002	133,923.74	14.5%
2003	108,947.46	-18.6%
2004	112,489.97	3.3%
2005	122,249.97	8.7%
2006	143,804.85	17.6%
2007	213,428.93	48.4%
2008	267,699.88	25.4%
2009	279,195.37	4.3%
2010	299,896.05	7.4%
2011	267,503.49	-10.8%
2012	257,843.11	-3.6%
2013	270,629.80	5.0%
2014	264,239.33	-2.4%
2015	284,793.92	7.8%
2016	268,067.30	-5.9%
2017	255,334.53	-4.7%
2018	237,804.25	-6.9%
2019	250,613.57	5.4%
2020	248,135.50	-1.0%
2021	292,025.58	17.7%
2022	297,470.25	1.9%
2023	362,716.47	21.9%
2024	339,931.40	-6.3%

EXCESS STATE MONIES RESERVE

	Regular Distribution			Special Distribution		
	<u>Actual State Contribution</u>	<u>Applicable "Frozen" Amount</u>	<u>Excess State Monies Reserve</u>	<u>Actual State Contribution</u>	<u>Applicable "Frozen" Amount</u>	<u>Excess State Monies Reserve</u>
1998	\$112,469.32	\$112,469.32	\$0.00	\$0.00	\$0.00	\$0.00
1999	113,818.16	112,469.32	1,348.84	0.00	0.00	0.00
2000	128,878.44	112,469.32	16,409.12	0.00	0.00	0.00
2001	116,963.19	112,469.32	4,493.87	0.00	0.00	0.00
2002	133,923.74	112,469.32	21,454.42	0.00	0.00	0.00
2003	108,947.46	112,469.32	0.00	0.00	0.00	0.00
2004	112,489.97	112,469.32	20.65	0.00	0.00	0.00
2005	122,249.97	210,073.32	0.00	0.00	0.00	0.00
2006	143,804.85	210,073.32	0.00	0.00	0.00	0.00
2007	213,428.93	210,073.32	3,355.61	0.00	0.00	0.00
2008	267,699.88	308,570.32	0.00	0.00	0.00	0.00
2009	279,195.37	308,570.32	0.00	0.00	0.00	0.00
2010	299,896.05	308,570.32	0.00	0.00	0.00	0.00
2011	267,503.49	308,570.32	0.00	0.00	0.00	0.00
2012	257,843.11	308,570.32	0.00	0.00	0.00	0.00
2013	270,629.80	308,570.32	0.00	0.00	0.00	0.00
2014	264,239.33	308,570.32	0.00	0.00	0.00	0.00
2015	284,793.92	308,570.32	0.00	0.00	0.00	0.00
2016	268,067.30	308,570.32	0.00	0.00	0.00	0.00
2017	245,419.17	245,419.17	0.00	9,915.36	9,915.36	0.00
2018	236,948.23	236,948.23	0.00	856.02	856.02	0.00
2019	250,613.57	250,613.57	0.00	0.00	0.00	0.00
2020	248,135.50	248,135.50	0.00	0.00	0.00	0.00
2021	292,025.58	292,025.58	0.00	0.00	0.00	0.00
2022	297,470.25	297,470.25	0.00	0.00	0.00	0.00
2023	362,716.47	308,570.32	54,146.15	0.00	0.00	0.00
2024	339,931.40	308,570.32	31,361.08	0.00	0.00	0.00
			132,589.74			0.00
			132,589.74			
			0.00			
			132,589.74			
			(14,158.90)			
			(29,568.00)			
			\$88,862.84			

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2024

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Prepaid Benefits	257,558.79	257,558.79
Money Market	1,515,614.92	1,515,614.92
Cash	100,129.21	100,129.21
Total Cash and Equivalents	1,873,302.92	1,873,302.92
Receivables:		
From Broker for Investments Sold	194,499.89	194,499.89
Investment Income	116,757.47	116,757.47
Total Receivable	311,257.36	311,257.36
Investments:		
U. S. Bonds and Bills	2,896,663.86	2,967,835.16
Federal Agency Guaranteed Securities	1,446,420.36	1,431,289.97
Corporate Bonds	2,668,345.02	2,678,595.72
Equities	24,449,692.69	32,265,877.51
Mutual Funds:		
Equity	3,509,769.50	3,719,215.00
Pooled/Common/Commingled Funds:		
Equity	3,300,000.00	3,351,514.59
Real Estate	2,571,373.57	2,670,491.57
Total Investments	40,842,265.00	49,084,819.52
Total Assets	43,026,825.28	51,269,379.80
<u>LIABILITIES</u>		
Payables:		
Administrative Expenses	8,324.08	8,324.08
To Broker for Investments Purchased	347,878.99	347,878.99
Total Liabilities	356,203.07	356,203.07
NET POSITION RESTRICTED FOR PENSIONS	42,670,622.21	50,913,176.73

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2024
Market Value Basis

ADDITIONS

Contributions:			
Member		629,860.66	
Buy-Back		1,612.80	
City		1,337,680.00	
State		339,931.40	
Total Contributions			2,309,084.86
Investment Income:			
Net Realized Gain (Loss)	2,841,010.44		
Unrealized Gain (Loss)	4,852,531.74		
Net Increase in Fair Value of Investments		7,693,542.18	
Interest & Dividends		1,151,835.05	
Less Investment Expense ¹		(255,140.05)	
Net Investment Income			8,590,237.18
Total Additions			10,899,322.04
<u>DEDUCTIONS</u>			
Distributions to Members:			
Benefit Payments		3,084,413.71	
Lump Sum DROP Distributions		0.00	
Refunds of Member Contributions		50,307.81	
Total Distributions			3,134,721.52
Administrative Expense			96,980.55
Total Deductions			3,231,702.07
Net Increase in Net Position			7,667,619.97
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			43,245,556.76
End of the Year			50,913,176.73

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

ACTUARIAL ASSET VALUATION
September 30, 2024

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			
		2024	2025	2026	2027
09/30/2021	4,683,452	0	0	0	0
09/30/2022	(8,553,847)	(2,138,461)	0	0	0
09/30/2023	1,793,886	896,942	448,470	0	0
09/30/2024	5,702,300	4,276,725	2,851,150	1,425,575	0
Total		3,035,206	3,299,620	1,425,575	0

<u>Development of Investment Gain/(Loss)</u>	
Market Value of Assets, 09/30/2023	43,245,557
Contributions Less Benefit Payments & Admin Expenses	(922,617)
Expected Investment Earnings*	2,887,937
Actual Net Investment Earnings	8,590,237
2024 Actuarial Investment Gain/(Loss)	5,702,300

*Expected Investment Earnings = 0.0675 * [43,245,557 + 0.5 * (922,617)]

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2024	50,913,177
(2) Gains/(Losses) Not Yet Recognized	3,035,206
(3) Actuarial Value of Assets, 09/30/2024, (1) - (2)	47,877,971
(4) Limited Actuarial Value of Assets, 09/30/2024	47,877,971
 (A) 09/30/2023 Actuarial Assets:	 45,006,203
 (I) Net Investment Income:	
1. Interest and Dividends	1,151,835
2. Realized Gain (Loss)	2,841,010
3. Unrealized Gain (Loss)	4,852,532
4. Change in Actuarial Value	(4,795,852)
5. Investment Expenses	(255,140)
Total	3,794,385

(B) 09/30/2024 Actuarial Assets: 47,877,971

Actuarial Asset Rate of Return = 2I/(A+B-I): 8.52%
Market Value of Assets Rate of Return: 20.27%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) 787,605

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2024
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	629,860.66	
Buy-Back	1,612.80	
City	1,337,680.00	
State	339,931.40	
Total Contributions		2,309,084.86
Earnings from Investments:		
Interest & Dividends	1,151,835.05	
Net Realized Gain (Loss)	2,841,010.44	
Unrealized Gain (Loss)	4,852,531.74	
Change in Actuarial Value	(4,795,852.00)	
Total Earnings and Investment Gains		4,049,525.23

EXPENDITURES

Distributions to Members:		
Benefit Payments	3,084,413.71	
Lump Sum DROP Distributions	0.00	
Refunds of Member Contributions	50,307.81	
Total Distributions		3,134,721.52
Expenses:		
Investment related ¹	255,140.05	
Administrative	96,980.55	
Total Expenses		352,120.60
Change in Net Assets for the Year		2,871,767.97
Net Assets Beginning of the Year		45,006,202.76
Net Assets End of the Year²		47,877,970.73

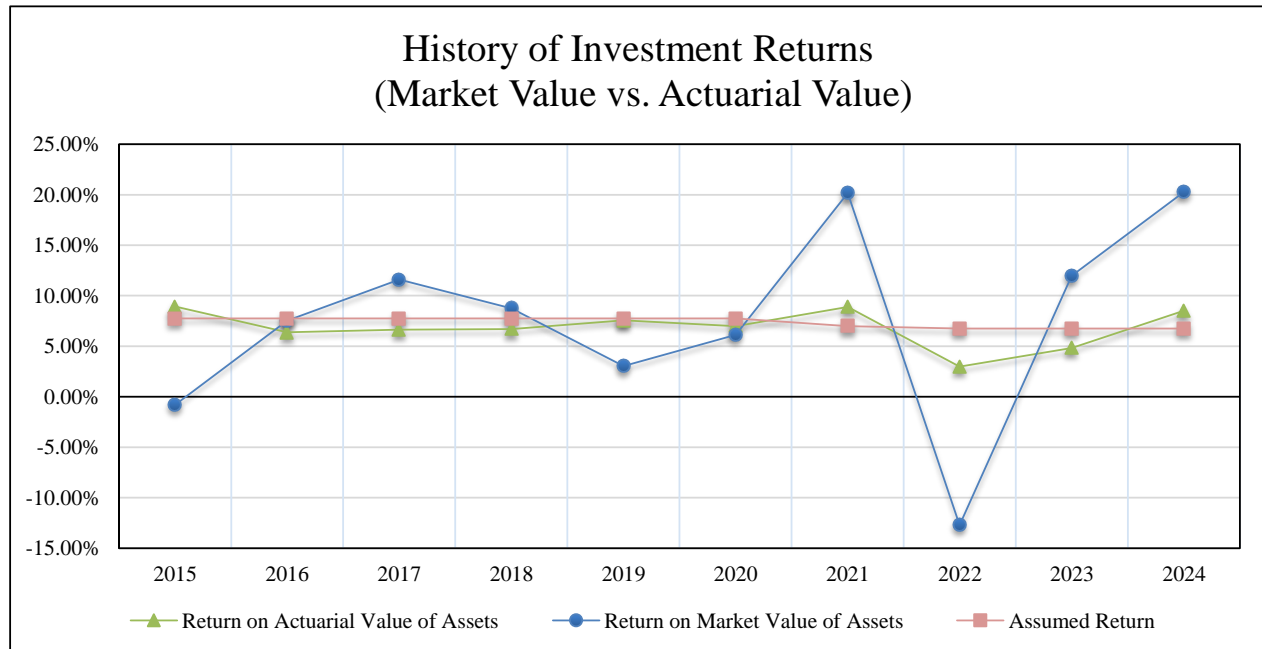
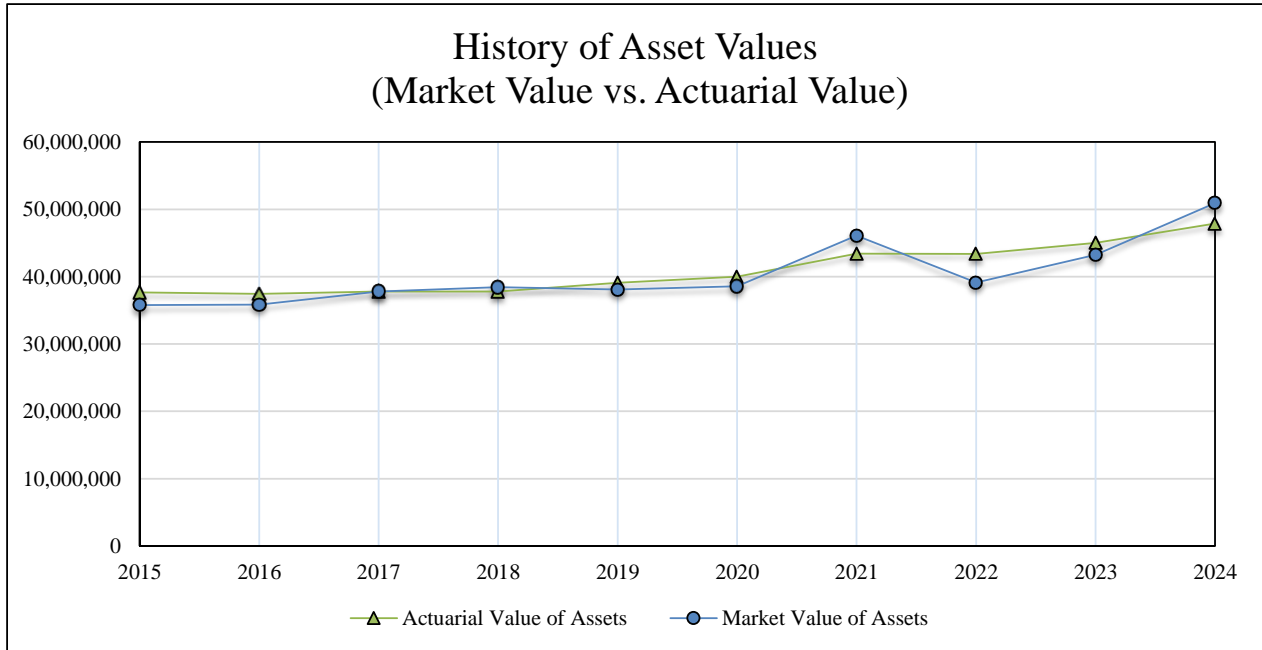
¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

²Net Assets may be limited for actuarial consideration.

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2024

(1) Required City and State Contributions	\$1,571,205.00
(2) Less Allowable State Contribution	<u>(308,570.32)</u>
(3) Required City Contribution for Fiscal 2024	1,262,634.68
(4) Less 2023 Prepaid Contribution	0.00
(5) Less Actual City Contributions	<u>(1,337,680.00)</u>
(6) City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2024	(\$75,045.32)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2024</u>	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2021</u>
<u>Actives</u>				
Number	77	70	75	74
Average Current Age	37.2	37.7	36.9	37.5
Average Age at Employment	28.3	28.3	28.4	28.7
Average Past Service	8.9	9.4	8.5	8.8
Average Annual Salary	\$79,113	\$78,325	\$68,567	\$69,945
<u>Service Retirees</u>				
Number	71	71	72	71
Average Current Age	65.5	64.6	63.8	63.3
Average Annual Benefit	\$39,135	\$38,550	\$38,255	\$38,059
<u>Beneficiaries</u>				
Number	3	4	3	3
Average Current Age	70.1	66.4	62.0	61.0
Average Annual Benefit	\$25,656	\$31,677	\$38,978	\$38,978
<u>Disability Retirees</u>				
Number	7	7	9	8
Average Current Age	66.7	65.7	69.4	69.9
Average Annual Benefit	\$33,591	\$33,591	\$30,370	\$28,235
<u>Terminated Vested</u>				
Number	18	18	13	10
Average Current Age ¹	41.9	41.4	41.6	49.3
Average Annual Benefit ¹	\$24,591	\$22,673	\$20,730	\$15,184

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	2										3
25 - 29	7	1	3	1	1	4						17
30 - 34	1	4	1	1	2	5	1					15
35 - 39	1			2		5	6					14
40 - 44				1		4	2					7
45 - 49						1	1	4	6			12
50 - 54			1					2	4	1		8
55 - 59												0
60 - 64					1							1
65+												0
Total	10	7	5	5	4	19	10	6	10	1	0	77

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2023	70
b. Terminations	
i. Vested (partial or full) with deferred annuity	(1)
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution	(1)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. Continuing participants	67
g. New entrants / Rehires	<u>10</u>
h. Total active life participants in valuation	<u>77</u>

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

	Service Retirees, Vested Receiving	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	71	4	7	2	16	100
Retired	1					1
Vested (Deferred Annuity)				1		1
Vested (Due Refund)						0
Hired/Terminated in Same Year						0
Death, With Survivor						0
Death, No Survivor	(1)					(1)
Disabled						0
Refund of Contributions					(1)	(1)
Rehires						0
Expired Annuities		(1)				(1)
Data Corrections						0
b. Number current valuation	71	3	7	3	15	99

SUMMARY OF CURRENT PLAN
(Through Ordinance 02-2024)

Eligibility Full-time employees who are classified as Firefighters shall participate in the System as a condition of employment.

Credited Service Total years and fractional parts of years of employment with the City as a Firefighter. Members may receive credit for up to 5 years of military service under certain circumstances.

Salary Salary means total compensation (including tax deferred items), but does not include lump sum payments of accrued sick leave or vacation time. Overtime in excess of 300 hours per fiscal year is not considered for calculation of pension benefits.

Average Final Compensation Average Salary for the best 5 years during the 10 years immediately preceding retirement or termination.

Member Contributions The Member Contribution Rate shall be adjusted with each actuarial valuation to ensure that the City and Members have equal funding requirements. The Member Contribution Rate shall not exceed 12.50% of Salary prior to October 1, 2022 and then the following schedule:

Period	Member Contribution Rate
10/1/2022 ~ 9/30/2023	12.00%
10/1/2023 ~ 9/30/2024	11.00%
10/1/2024 & thereafter	10.00%

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

Normal Retirement

Date Earlier of:

1) Age 55 and 10 years of Credited Service,
2) age 62, regardless of years of Credited Service, or
3) 25 years of Credited Service, regardless of age.

Monthly Benefit 3.00% of Average Final Compensation for each year of Credited Service.

Form of Benefit Ten Year Certain and Life Annuity (options available).

Early Retirement

Eligibility	Age 50 and 10 Years of Credited Service.
Benefit	Accrued benefit, reduced 3.00% for each year from age 55.

Vesting

Schedule	100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) benefit payable at age 55.

Disability

Eligibility	Covered from Date of Employment.
Exclusions	Disability resulting from use of drugs, illegal participation in riots, service in military, etc.
Benefit	
Service Incurred	42% plus 3.00% per year of Credited Service of final two years' Average Final Compensation. The maximum benefit is 75% of final two years' Average Final Compensation.
Non-Service Incurred	3.00% per year of Credited Service of final two years' Average Final Compensation. A minimum benefit of 2.00% per year of service of final Average Final Compensation, or if higher 25% of Average Final Compensation for Members with 10 or more years of Credited Service.
Duration	Payable for life with 10 years certain, or until recovery (as determined by the Board). Options are available.

Death Benefits

Pre-Retirement	
Vested	Monthly accrued benefit payable to designated Beneficiary for 10 years at Member's Normal or Early Retirement Date (spouse may elect a life annuity which is the Actuarial Equivalent).
Non-Vested	Refund of accumulated contributions without interest.
Post-Retirement	Benefits payable to Beneficiary in accordance with option selected at retirement.

Supplemental Benefit:
Chapter 175 Share Accounts

A “Share Plan” was adopted with Ordinance 10-2016 but is not currently funded. The methodology of allocating applicable State Monies will be agreed upon at a later date.