CITY OF SOUTH PASADENA
FIREFIGHTERS' RETIREMENT SYTEM

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2024

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2026

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

June 2, 2025

Board of Trustees
City of South Pasadena
Firefighters' Pension Board

Re: City of South Pasadena Firefighters' Retirement Sytem

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of South Pasadena Firefighters' Retirement Sytem. 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 South Pasadena, 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 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 South Pasadena, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Retirement Sytem. 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 South Pasadena Firefighters' Retirement Sytem, 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 Applicable to Fiscal Year Ending	10/1/2024 9/30/2026	10/1/2023 9/30/2025
Minimum Required Contribution	$841,745	$734,386
Member Contributions (Est.)	106,663	99,214
City And State Required Contribution	735,082	635,172
State Contribution (Est.) [1]	57,152	57,152
City Required Contribution (Est.) [2]	$677,930	$578,020

[1] Represents the amount received for fiscal 2024. According to the default provision of Chapter 2015-39, Laws of Florida, the maximum amount of premium tax distributions that the City can consider each year to offset its requirement is $47,102.09. Any premium tax distributions above that amount will be split 50/50 with the Members. Please note that this default arrangement can be superseded by a Mutual Consent Agreement.

[2] Please note that the City has access to a prepaid contribution of $5,001.93 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2025.

As you can see, the Minimum Required Contribution shows an increase when compared to the results set forth in the October 1, 2023 actuarial valuation report. The increase attributable to unfavorable plan experience, as described below, as well as assumption/method changes.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an average salary increase of 6.20% which exceeded the 4.63% assumption, inactive mortality experience, and unfavorable turnover experience. These losses were offset in part by a gain associated with an investment return of 7.51% (Actuarial Asset Basis) which exceeded the 7.25% assumption.

CHANGES SINCE PRIOR VALUATION

Plan Changes

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

Actuarial Assumption/Method Changes

As a result of an experience study dated October 14, 2024, the Board of Trustees has implemented the following changes to the assumptions and methods in conjunction with this actuarial valuation report (see Assumptions and Methods section of this report for full detail):

- Amended spread period for Entry Age Normal Cost Method to be from date of employment instead of first valuation date.
- Reduced investment return assumption from 7.25% to 7.00% per year, net of investment related expenses.
- Salary Increases – Increased rates for Members with service between 5 and 9 years and reduced rates for Members in their first year of service.
- Withdrawal Rates – Generally decreased rate for Members with less than 1 year of service.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Asmp/Mthd 10/1/2024	Old Asmp/Mthd 10/1/2024	10/1/2023
A. Participant Data			
Actives	20	20	19
Service Retirees	12	12	11
DROP Retirees	0	0	1
Beneficiaries	4	4	4
Disability Retirees	1	1	1
Terminated Vested	2	2	2
Total	39	39	38
Projected Annual Payroll	1,633,318	1,626,651	1,522,492
Annual Rate of Payments to:			
Service Retirees	601,265	601,265	522,147
DROP Retirees	0	0	79,118
Beneficiaries	72,144	72,144	72,144
Disability Retirees	15,064	15,064	15,064
Terminated Vested	0	0	0
B. Assets			
Actuarial Value (AVA) [1]	8,730,750	8,730,750	8,257,011
Market Value (MVA) [1]	9,177,883	9,177,883	7,664,274
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	7,408,270	6,923,272	5,951,990
Disability Benefits	190,056	177,115	162,280
Death Benefits	35,173	32,821	30,339
Vested Benefits	507,907	458,403	420,446
Refund of Contributions	50,991	50,412	44,852
Service Retirees	6,164,066	6,042,850	5,192,642
DROP Retirees [1]	0	0	1,008,497
Beneficiaries	595,428	585,715	602,561
Disability Retirees	117,296	115,580	118,351
Terminated Vested	37,912	37,912	37,912
Share Plan Balances [1]	35,436	35,436	21,932
Total	15,142,535	14,459,516	13,591,802

C. Liabilities - (Continued)	New Assump 10/1/2024	Old Assump 10/1/2024	10/1/2023
Present Value of Future Salaries	14,418,776	13,694,440	12,317,291
Present Value of Future Member Contributions	865,127	821,666	739,037
Normal Cost (Retirement)	236,180	233,713	217,509
Normal Cost (Disability)	12,863	12,970	12,238
Normal Cost (Death)	1,721	1,727	1,632
Normal Cost (Vesting)	29,987	28,882	26,694
Normal Cost (Refunds)	9,791	11,460	10,748
Total Normal Cost	290,542	288,752	268,821
Present Value of Future Normal Costs	2,464,079	2,304,290	2,060,475
Accrued Liability (Retirement)	5,356,737	5,012,613	4,257,888
Accrued Liability (Disability)	81,782	74,152	68,429
Accrued Liability (Death)	20,195	18,626	17,393
Accrued Liability (Vesting)	260,023	228,657	204,422
Accrued Liability (Refunds)	9,581	3,685	1,300
Accrued Liability (Inactives) [1]	6,914,702	6,782,057	6,959,963
Share Plan Balances [1]	35,436	35,436	21,932
Total Actuarial Accrued Liability (EAN AL)	12,678,456	12,155,226	11,531,327
Unfunded Actuarial Accrued Liability (UAAL)	3,947,706	3,424,476	3,274,316
Funded Ratio (AVA / EAN AL)	68.9%	71.8%	71.6%

D. Actuarial Present Value of Accrued Benefits	New Assump 10/1/2024	Old Assump 10/1/2024	10/1/2023
Vested Accrued Benefits			
Inactives + Share Plan Balances [1]	6,950,138	6,817,493	6,981,895
Actives	0	2,666,380	2,193,175
Member Contributions	779,178	779,178	680,421
Total	7,729,316	10,263,051	9,855,491
Non-vested Accrued Benefits	3,300,845	502,676	426,905
Total Present Value Accrued Benefits (PVAB)	11,030,161	10,765,727	10,282,396
Funded Ratio (MVA / PVAB)	83.2%	85.3%	74.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	264,434	0	
Plan Experience	0	511,611	
Benefits Paid	0	(746,686)	
Interest	0	718,406	
Other	0	0	
Total	264,434	483,331	

	New Assump	Old Assump	
Valuation Date	10/1/2024	10/1/2024	10/1/2023
Applicable to Fiscal Year Ending	9/30/2026	9/30/2026	9/30/2025
E. Pension Cost			
Normal Cost [2]	$316,228	$313,492	$291,965
Administrative Expenses [2]	65,943	65,778	58,596
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 24 years (as of 10/1/2024) [2]	459,574	413,472	383,825
Minimum Required Contribution	841,745	792,742	734,386
Expected Member Contributions [2]	106,663	105,961	99,214
Expected City and State Contribution	735,082	686,781	635,172
F. Past Contributions			
Plan Years Ending:	9/30/2024		
City and State Requirement	552,676		
Actual Contributions Made:			
City	495,524		
State	57,152		
Total	552,676		
G. Net Actuarial (Gain)/Loss	237,348		

[1] The asset values and liabilities include accumulated DROP and 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:

Year	Projected Unfunded Actuarial Accrued Liability
2024	3,947,706
2025	3,772,244
2026	3,584,501
2032	2,344,038
2037	1,214,706
2043	213,885
2048	0

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

		Actual	Assumed
Year Ended	9/30/2024	6.20%	4.63%
Year Ended	9/30/2023	8.76%	4.49%
Year Ended	9/30/2022	5.86%	4.65%
Year Ended	9/30/2021	5.00%	4.84%
Year Ended	9/30/2020	5.65%	5.04%

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

		Market Value	Actuarial Value	Assumed
Year Ended	9/30/2024	21.90%	7.51%	7.25%
Year Ended	9/30/2023	10.39%	4.17%	7.25%
Year Ended	9/30/2022	-16.38%	2.65%	7.25%
Year Ended	9/30/2021	18.73%	9.02%	7.50%
Year Ended	9/30/2020	7.46%	7.56%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2024	$1,633,318
	10/1/2014	700,338
(b) Total Increase		133.22%
(c) Number of Years		10.00
(d) Average Annual Rate		8.84%

STATEMENT BY ENROLLED ACTUARY

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

Patrick T. Donlan

Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #23-8193

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

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

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

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2023	$3,274,316
(2)	Sponsor Normal Cost developed as of October 1, 2023	177,471
(3)	Expected administrative expenses for the year ended September 30, 2024	53,951
(4)	Expected interest on (1), (2) and (3)	252,210
(5)	Sponsor contributions to the System during the year ended September 30, 2024	552,676
(6)	Expected interest on (5)	18,144
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2024 (1)+(2)+(3)+(4)-(5)-(6)	3,187,128
(8)	Change to UAAL due to Assumption Change	523,230
(9)	Change to UAAL due to Actuarial (Gain)/Loss	237,348
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2024	3,947,706

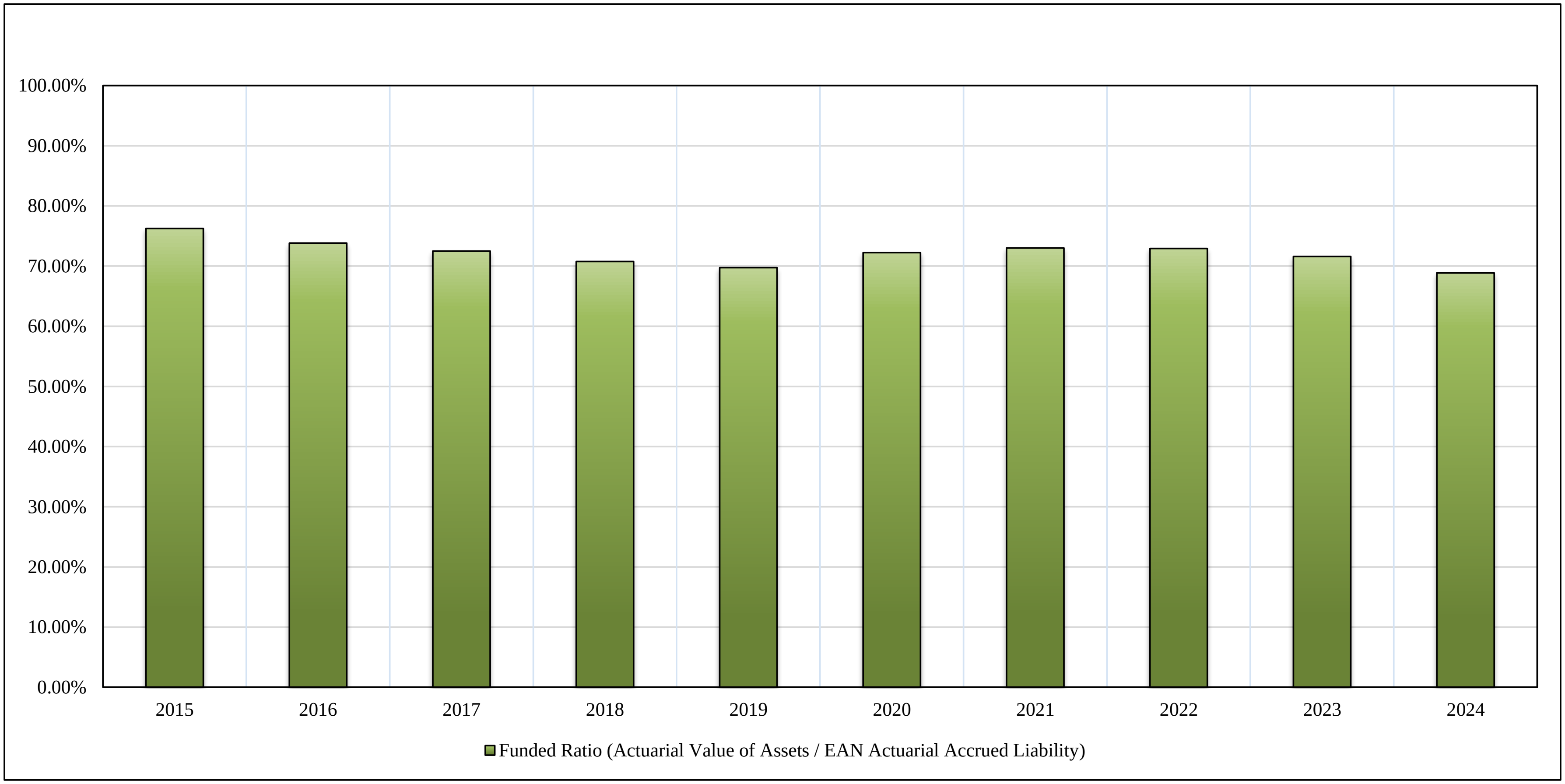
Type of Base	Date Established	Years Remaining	10/1/2024 Amount	Amortization Amount
Benefits Change	10/1/1999	5	289,861	66,070
Method Change	10/1/2000	6	(70,777)	(13,877)
Method Change	10/1/2004	10	179,659	23,906
Prior Losses	10/1/2004	10	179,659	23,906
Actuarial Loss	10/1/2005	11	75,163	9,368
Actuarial Gain	10/1/2006	12	(32,766)	(3,855)
Benefits Change	10/1/2006	12	195,689	23,026
Actuarial Loss	10/1/2007	13	6,140	687
Actuarial Loss	10/1/2008	14	297,364	31,778
Method Change	10/1/2008	14	89,052	9,516
Actuarial Loss	10/1/2009	15	248,154	25,464
Actuarial Gain	10/1/2010	16	(41,571)	(4,113)
Assump Change	10/1/2010	16	107,477	10,633
Actuarial Loss	10/1/2011	17	260,473	24,934
Actuarial Gain	10/1/2012	18	(55,203)	(5,129)
Actuarial Gain	10/1/2013	19	(99,682)	(9,014)
Assump Change	10/1/2013	19	(10,017)	(906)
Actuarial Gain	10/1/2014	20	(9,010)	(795)
Actuarial Gain	10/1/2015	21	(234,366)	(20,214)
Assump Change	10/1/2016	22	291,899	24,663
Actuarial Loss	10/1/2016	22	130,097	10,992
Actuarial Loss	10/1/2017	23	127,193	10,546
Chapter 15-39	10/1/2017	11	(5,919)	(738)
Actuarial Loss	10/1/2018	24	135,652	11,054
Benefits Change	10/1/2018	24	(355)	(29)

Type of Base	Date Established	Years Remaining	10/1/2024 Amount	Amortization Amount
Actuarial Loss	10/1/2019	15	52,718	5,409
Asmp/Mthd Change	10/1/2019	15	246,790	25,324
Actuarial Loss	10/1/2020	16	153,737	15,210
Assump Change	10/1/2020	16	(211,055)	(20,880)
Actuarial Gain	10/1/2021	17	(16,314)	(1,562)
Assump Change	10/1/2021	17	239,907	22,965
Actuarial Loss	10/1/2022	18	182,676	16,972
Actuarial Loss	10/1/2023	19	484,803	43,838
Actuarial Loss	10/1/2024	20	237,348	20,938
Assump Change	10/1/2024	20	523,230	46,158
			3,947,706	422,245

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2023	$3,274,316
(2)	Expected UAAL as of October 1, 2024	3,187,128
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	(21,299)
	Salary Increases	90,045
	Active Decrements	80,089
	Inactive Mortality	84,752
	Interest Crediting on Share Plan Balances	3,142
	Other	619
	Increase in UAAL due to (Gain)/Loss	237,348
	Assumption Changes	523,230
(4)	Actual UAAL as of October 1, 2024	$3,947,706

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. 75% of active deaths are assumed to be service-incurred.
Interest Rate	7.00% (prior year 7.25%) 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.

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	$60,587 annually, based on the average of actual expenses incurred in the prior two fiscal years.
Amortization Method	New UAAL amortization bases are amortized over 20 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 7.00% assumption. Salary - A full year, based on current 5.16% assumption.
Actuarial Asset Method	Each year, the prior Actuarial Value of Assets is brought forward utilizing the historical geometric four-year average Market Value return (net of fees). It is possible that over time this technique will produce an insignificant bias above or below Market Value of Assets.
Salary Increases	The below rates were approved in conjunction with an actuarial experience study dated October 2024.

Salary Scale	
Service	Current Rate
0-4	6.00%
5-9	5.50%
10+	4.00%

Normal Retirement

Eligibility Year	Retirement Rate
First Year Eligible for 52/25 NR	50.00%
All Other Years Prior to Age 55	10.00%
Age 55 and 10 Years	100.00%

The assumed rates were reviewed and confirmed in conjunction with an actuarial experience study dated October 2024.

Early Retirement

Commencing with eligibility for Early Retirement Age (Age 50 with 10 years of service), members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. This assumption was reviewed and confirmed in conjunction with an actuarial experience study dated October 2024.

Termination Rate

The below rates were approved in conjunction with an actuarial experience study dated October 2024.

% Terminating During the Year	
Service	Current Rate
0	20.0%
1-4	10.0%
5+	2.5%

Disability Rate

The below rates were approved in conjunction with an actuarial experience study dated October 2024.

% Becoming Disabled During the Year	
Age	Current Rate
25	0.06%
35	0.10%
45	0.20%
55	0.72%

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 increased from 68.8% on October 1, 2014 to 117.6% on October 1, 2024, indicating that the plan has experienced a significant growth in active population.

- 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 54.5%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.

- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has decreased from 72.8% on October 1, 2014 to 68.9% 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 -4.3% on October 1, 2014 to -1.5% on October 1, 2024. The current Net Cash Flow Ratio of -1.5% 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 $17,807,296. 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

	10/1/2024	10/1/2023	10/1/2019	10/1/2014
Support Ratio				
Total Actives	20	19	20	11
Total Inactives [1]	17	17	16	16
Actives / Inactives [1]	117.6%	111.8%	125.0%	68.8%
Asset Volatility Ratio				
Market Value of Assets (MVA)	9,177,883	7,664,274	6,597,595	6,598,999
Total Annual Payroll	1,831,011	1,604,995	1,400,614	700,338
MVA / Total Annual Payroll	501.2%	477.5%	471.1%	942.3%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	6,914,702	6,959,963	5,952,953	6,796,638
Total Accrued Liability (EAN)	12,678,456	11,531,327	9,565,007	8,553,696
Inactive AL / Total AL	54.5%	60.4%	62.2%	79.5%
Funded Ratio				
Actuarial Value of Assets (AVA)	8,730,750	8,257,011	6,670,579	6,226,849
Total Accrued Liability (EAN)	12,678,456	11,531,327	9,565,007	8,553,696
AVA / Total Accrued Liability (EAN)	68.9%	71.6%	69.7%	72.8%
Net Cash Flow Ratio				
Net Cash Flow [2]	(141,469)	11,067	(108,958)	(282,012)
Market Value of Assets (MVA)	9,177,883	7,664,274	6,597,595	6,598,999
Ratio	-1.5%	0.1%	-1.7%	-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	18,358.98	_____%
1999	15,404.78	-16.1%
2000	20,398.66	32.4%
2001	15,665.47	-23.2%
2002	17,473.59	11.5%
2003	24,449.11	39.9%
2004	23,159.20	-5.3%
2005	23,985.75	3.6%
2006	29,318.23	22.2%
2007	62,144.01	112.0%
2008	67,904.60	9.3%
2009	97,210.07	43.2%
2010	43,307.02	-55.5%
2011	46,133.32	6.5%
2012	41,874.62	-9.2%
2013	47,102.09	12.5%
2014	48,975.41	4.0%
2015	48,347.46	-1.3%
2016	50,450.02	4.3%
2017	43,206.15	-14.4%
2018	44,492.30	3.0%
2019	-	-100.0%
2020	83,006.88	N/A
2021	44,537.74	-46.3%
2022	53,001.84	19.0%
2023	66,042.05	24.6%
2024	67,201.56	1.8%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2024

ASSETS	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	200,438.88	200,438.88
Checking Account	189.83	189.83
Prepaid Expenses	3,750.00	3,750.00
Cash	19,245.18	19,245.18
Total Cash and Equivalents	223,623.89	223,623.89
Receivables:		
Member Contributions in Transit	7,801.18	7,801.18
Prior Year Member Contributions	3,544.52	3,544.52
State Contributions	67,201.56	67,201.56
Investment Income	14,125.69	14,125.69
Total Receivable	92,672.95	92,672.95
Investments:		
U. S. Bonds and Bills	328,204.89	313,233.96
Federal Agency Guaranteed Securities	785,421.71	738,754.89
Corporate Bonds	1,050,007.27	994,007.03
Mutual Funds:		
Equity	4,226,636.45	6,071,762.68
Pooled/Common/Commingled Funds:		
Real Estate	800,334.15	758,629.87
Total Investments	7,190,604.47	8,876,388.43
Total Assets	7,506,901.31	9,192,685.27
LIABILITIES		
Payables:		
Investment Expenses	8,686.31	8,686.31
Administrative Expenses	1,113.59	1,113.59
Prepaid City Contribution	5,001.93	5,001.93
Total Liabilities	14,801.83	14,801.83
NET POSITION RESTRICTED FOR PENSIONS	7,492,099.48	9,177,883.44

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

ADDITIONS			
Contributions:			
Member		99,285.84	
City		495,524.17	
State		67,201.56	
Total Contributions			662,011.57
Investment Income:			
Net Realized Gain (Loss)	22,299.67		
Unrealized Gain (Loss)	1,453,886.45		
Net Increase in Fair Value of Investments		1,476,186.12	
Interest & Dividends		221,888.94	
Less Investment Expense[1]		(42,996.05)	
Net Investment Income			1,655,079.01
Total Additions			2,317,090.58
DEDUCTIONS			
Distributions to Members:			
Benefit Payments		629,133.90	
Lump Sum DROP Distributions		116,323.99	
Lump Sum Share Distributions		1,227.88	
Refunds of Member Contributions		0.00	
Total Distributions			746,685.77
Administrative Expense			56,795.17
Total Deductions			803,480.94
Net Increase in Net Position			1,513,609.64
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			7,664,273.80
End of the Year			9,177,883.44

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

ACTUARIAL ASSET VALUATION
SEPTEMBER 30, 2024

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]
09/30/2021	18.73%
09/30/2022	-16.38%
09/30/2023	10.39%
09/30/2024	21.90%

Annualized Rate of Return for prior four (4) years: 7.51%

(A) 10/01/2023 Actuarial Assets, including Prepaid Contributions:		$8,262,012.72
(I) Net Investment Income:		
1. Interest and Dividends	221,888.94	
2. Realized Gain (Loss)	22,299.67	
3. Unrealized Gain (Loss)	1,453,886.45	
4. Change in Actuarial Value	(1,039,870.32)	
5. Investment Related Expenses	(42,996.05)	
Total		615,208.69
(B) 10/01/2024 Actuarial Assets, including Prepaid Contributions:		$8,735,751.87
Actuarial Asset Rate of Return = 2I/(A+B-I), based on Unlimited Actuarial Assets:		7.51%
10/01/2024 Limited Actuarial Assets		$8,730,749.94
10/01/2024 Market Value of Assets		$9,177,883.44
Actuarial Asset Rate of Return, based on Limited Actuarial Assets:		7.51%
Actuarial Gain/(Loss) due to Investment Return (Limited Actuarial Asset Basis)		$21,298.84

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

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

REVENUES		
Contributions:		
Member	99,285.84	
City	495,524.17	
State	67,201.56	
Total Contributions		662,011.57
Earnings from Investments:		
Interest & Dividends	221,888.94	
Net Realized Gain (Loss)	22,299.67	
Unrealized Gain (Loss)	1,453,886.45	
Change in Actuarial Value	(1,039,870.32)	
Total Earnings and Investment Gains		658,204.74
EXPENDITURES		
Distributions to Members:		
Benefit Payments	629,133.90	
Lump Sum DROP Distributions	116,323.99	
Lump Sum Share Distributions	1,227.88	
Refunds of Member Contributions	0.00	
Total Distributions		746,685.77
Expenses:		
Investment related[1]	42,996.05	
Administrative	56,795.17	
Total Expenses		99,791.22
Change in Net Assets for the Year		473,739.32
Net Assets Beginning of the Year		8,257,010.62
Net Assets End of the Year[2]		8,730,749.94

[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, 2023 to September 30, 2024

Beginning of the Year Balance	45,685.83
Plus Additions	59,338.62
Investment Return Earned	11,299.54
Less Distributions	(116,323.99)
End of the Year Balance	0.00

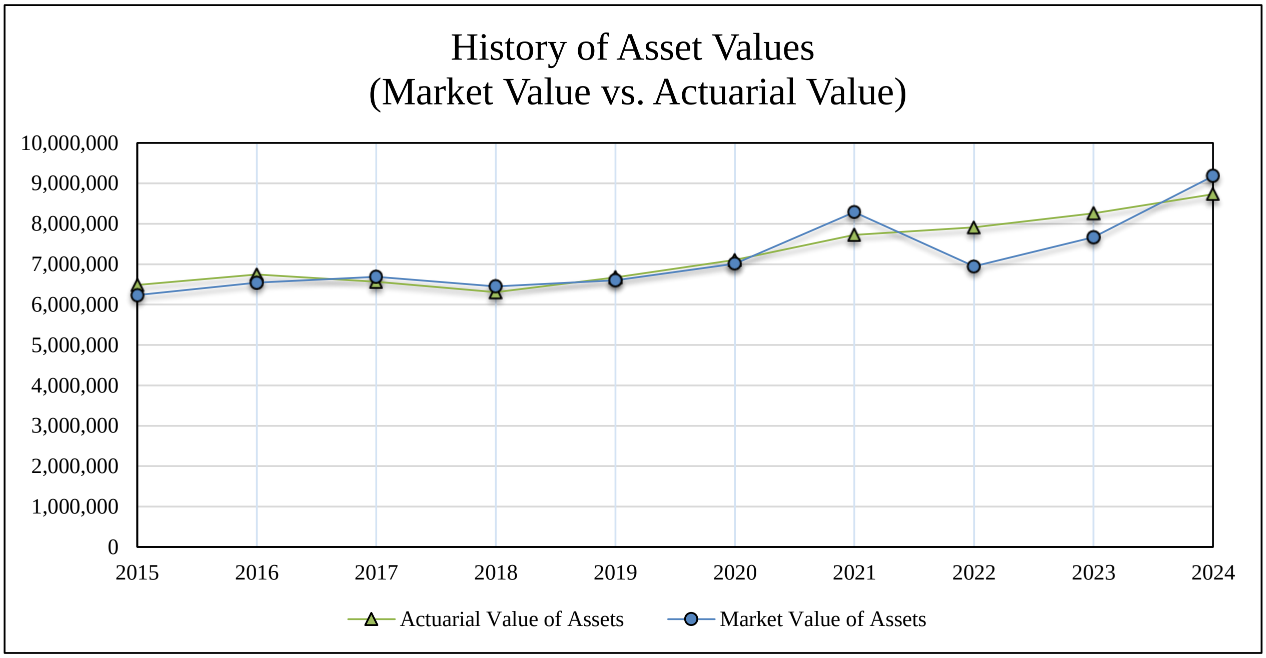
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2023 through September 30, 2024

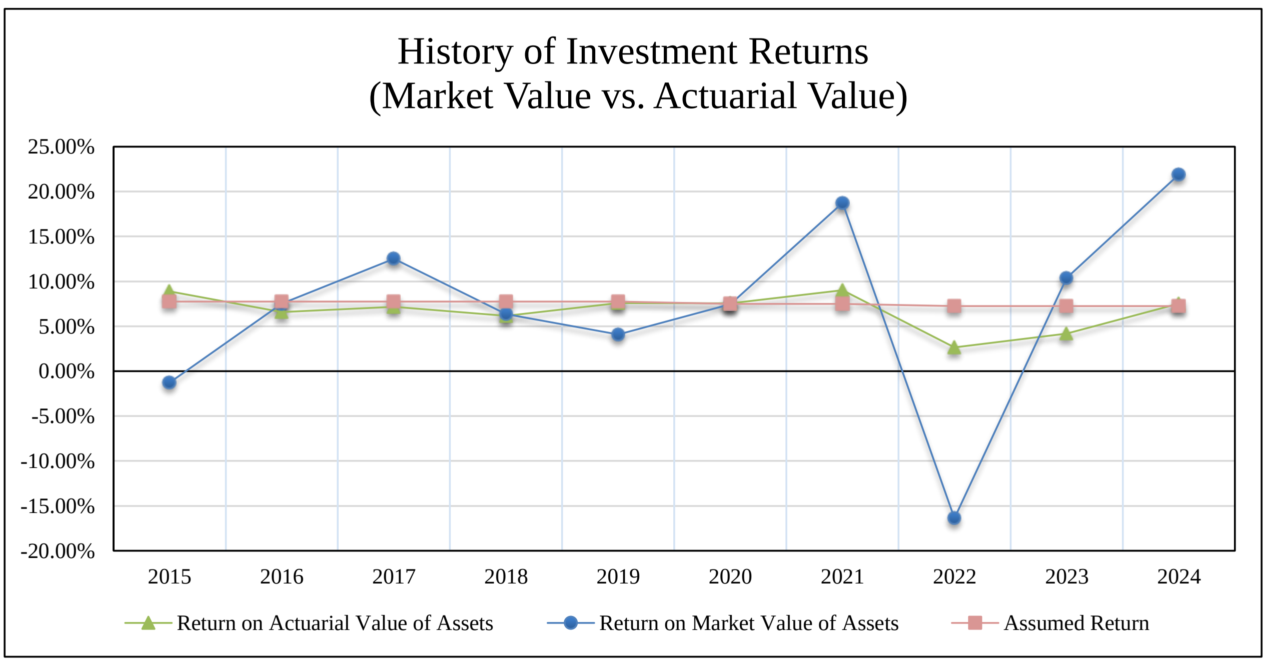
9/30/2023 Balance	21,932.05
Prior Year Adjustment	36.07
Plus Additions	10,049.73
Investment Return Earned	4,645.79
Administrative Fees	0.00
Less Distributions	(1,227.88)
9/30/2024 Balance	35,435.76

RECONCILIATION OF CITY SHORTFALL/(PREPAID) CONTRIBUTION
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2024

(1)	Required City and State Contributions	$552,676.00
(2)	Less Allowable State Contribution	(57,151.83)
(3)	Required City Contribution for Fiscal 2024	495,524.17
(4)	Less 2023 Prepaid Contribution	(5,002.10)
(5)	Less Actual City Contributions	(495,524.00)
(6)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2024	($5,001.93)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2024	10/1/2023	10/1/2022	10/1/2021
Actives				
Number	20	19	19	19
Average Current Age	40.5	39.6	42.0	41.4
Average Age at Employment	30.6	30.2	30.6	30.7
Average Past Service	9.9	9.4	11.4	10.7
Average Annual Salary	$91,551	$84,473	$82,270	$78,188
Service Retirees				
Number	12	11	10	11
Average Current Age	68.4	68.5	68.5	69.2
Average Annual Benefit	$50,105	$47,468	$47,234	$44,056
DROP Retirees				
Number	0	1	0	0
Average Current Age	N/A	55.6	N/A	N/A
Average Annual Benefit	N/A	$79,118	N/A	N/A
Beneficiaries				
Number	4	4	4	2
Average Current Age	75.0	74.0	73.0	80.7
Average Annual Benefit	$18,036	$18,036	$18,036	$19,255
Disability Retirees				
Number	1	1	1	3
Average Current Age	69.2	68.2	67.2	70.3
Average Annual Benefit	$15,064	$15,064	$15,064	$20,913
Terminated Vested				
Number	2	2	1	1
Average Current Age [1]	N/A	N/A	N/A	N/A
Average Annual Benefit [1]	N/A	N/A	N/A	N/A

[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
25 - 29			1									1
30 - 34		2				2						4
35 - 39	1		1			3	1					6
40 - 44												0
45 - 49						1		1	2			4
50 - 54									1			1
55 - 59						1		2				3
60 - 64												0
65+												0
Total	1	3	2	0	0	7	1	3	3	0	0	20

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2023	19
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Refund of member contributions or full lump sum distribution	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	19
h. New entrants / Rehires	1
i. Total active life participants in valuation	20

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	11	1	4	1	0	2	19
Retired	1	(1)					0
DROP							0
Vested (Deferred Annuity)							0
Vested (Due Refund)							0
Hired/Terminated in Same Year							0
Death, With Survivor							0
Death, No Survivor							0
Disabled							0
Refund of Contributions							0
Rehires							0
Expired Annuities							0
Data Corrections							0
b. Number current valuation	12	0	4	1	0	2	19

SUMMARY OF CURRENT PLAN

Eligibility	Employees who are classified as full-time Firefighters shall participate in the Fund as a condition of employment.
Credited Service	Total years and fractional parts of years of employment with the City as a Firefighter.
Salary	Fixed monthly remuneration, plus any amount paid under the supplemental compensation program for non-shift work.
Average Final Compensation	Average Salary for the best 5 years during the 10 years immediately preceding retirement or termination.
Member Contributions	6.0% of Salary.
City and State Contributions	Remaining amount necessary to pay current costs and amortize past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.
Normal Retirement	
Date	Earlier of age 55 and 10 years of Credited Service, or age 52 and 25 years of Credited Service.
Benefit	3.00% of Average Final Compensation for all years 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 3.0% per year.
Vesting	
Schedule	100% after 10 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at the otherwise Normal Retirement Date.

Disability

Eligibility	
Service Incurred	Covered from Date of Employment.
Non-Service Incurred	10 years of Credited Service.
Exclusions	Disability resulting from use of drugs, illegal participation in riots, service in military, etc.
Benefit	Benefit accrued to date of disability but not less than 42% of Average Final Compensation (Service Incurred).
Duration	Payable for life (with a 10-year guarantee) or until recovery (as determined by the Board). Options available.

Death Benefits

Pre-Retirement	
Vested	Monthly accrued benefit payable to designated beneficiary for 10 years.
Non-Vested	Refund of accumulated contributions without interest.
Post-Retirement	Benefits payable to beneficiary in accordance with option selected at retirement.

Board of Trustees

a. Two Commission appointees,

b. Two Members of the Fund elected by the membership, and

c. Fifth Member elected by other 4 and appointed by Commission.

Deferred Retirement Option Plan

Eligibility	Satisfaction of Normal Retirement requirements.
Participation	Not to exceed 60 months.
Rate of Return	Member can elect 1) Actual net rate of investment return (total return net of brokerage commissions, management fees, and transaction costs), or 2) Fixed interest of 3.0% per annum compounded monthly.
Form of Distribution	Cash lump sum (options available) at termination of employment.