CITY OF KISSIMMEE
FIREFIGHTERS' RETIREMENT PLAN

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2024

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

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December 28, 2023

Board of Trustees
City of Kissimmee
Firefighters' Pension Board

Re: City of Kissimmee Firefighters' Retirement Plan

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Kissimmee Firefighters' Retirement Plan. 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.

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In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the City of Kissimmee, 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 Kissimmee, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Retirement Plan. 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: ______________________________

Tyler A. Koftan, EA, MAAA
Enrolled Actuary #23-8685

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Kissimmee Firefighters' Retirement Plan, performed as of October 1, 2023, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2024. The sponsor (City and State) contributions have been adjusted with interest and assumed salary increases to reflect a lump sum deposit on December 31, 2024.

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

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	9/30/2024	9/30/2023
Minimum Required Contribution	$3,969,696	$3,879,746
Member Contributions (Est.)	204,130	195,248
City And State Required Contribution	**3,765,566**	**3,684,498**
State Contribution (Est.) [1]	801,282	801,282
City Required Contribution (Est.)	$2,964,284	$2,883,216
% of Projected Annual Payroll (Est.) [2]	36.09%	35.57%

[1] Represents the amount received in calendar 2023. Per Ordinance 2868, the City may use up to $853,025 in State Contributions for determining its minimum funding requirements.

[2] Amounts shown as a percentage of payroll are for informational purposes, as the plan is funded on a dollar basis.

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

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 3.75% (Actuarial Asset Basis) which fell short of the 7.20% assumption and unfavorable turnover experience. These losses were offset in part by gains associated with an average salary increase of 2.08% which fell short of the 5.38% assumption and inactive mortality experience.

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

	10/1/2023	10/1/2022
A. Participant Data		
Actives	101	98
Service Retirees	64	63
DROP Retirees	4	5
Beneficiaries	4	4
Disability Retirees	6	6
Terminated Vested	31	31
Total	210	207
Projected Annual Payroll	7,767,947	7,670,384
Annual Rate of Payments to:		
Service Retirees	2,834,122	2,738,358
DROP Retirees	261,950	290,564
Beneficiaries	48,789	48,789
Disability Retirees	146,560	146,560
Terminated Vested	146,842	146,842
B. Assets		
Actuarial Value (AVA) [1]	52,630,501	50,442,256
Market Value (MVA) [1]	48,735,948	43,959,205
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	33,560,332	32,427,411
Disability Benefits	4,016,206	3,979,166
Death Benefits	461,830	444,245
Vested Benefits	532,951	492,234
Refund of Contributions	259,347	271,545
Service Retirees	33,355,834	32,040,820
DROP Retirees [1]	4,293,413	4,801,765
Beneficiaries	625,224	628,715
Disability Retirees	1,459,453	1,519,268
Terminated Vested	1,140,320	1,075,525
Share Plan Balances [1]	371,744	354,561
Total	80,076,654	78,035,255

C. Liabilities - (Continued)	10/1/2023	10/1/2022
Present Value of Future Salaries	70,778,412	69,534,545
Present Value of Future Member Contributions	1,613,748	1,536,713
Normal Cost (Retirement)	1,131,026	1,120,516
Normal Cost (Disability)	259,153	257,534
Normal Cost (Death)	26,850	25,872
Normal Cost (Vesting)	32,078	32,823
Normal Cost (Refunds)	52,286	48,442
Total Normal Cost	1,501,393	1,485,187
Present Value of Future Normal Costs	13,003,107	12,863,163
Accrued Liability (Retirement)	23,498,267	22,504,551
Accrued Liability (Disability)	1,711,785	1,677,614
Accrued Liability (Death)	214,074	204,265
Accrued Liability (Vesting)	334,156	289,161
Accrued Liability (Refunds)	69,277	75,847
Accrued Liability (Inactives) [1]	40,874,244	40,066,093
Share Plan Balances [1]	371,744	354,561
Total Actuarial Accrued Liability (EAN AL)	67,073,547	65,172,092
Unfunded Actuarial Accrued Liability (UAAL)	14,443,046	14,729,836
Funded Ratio (AVA / EAN AL)	78.5%	77.4%

D. Actuarial Present Value of

Accrued Benefits	10/1/2023	10/1/2022
Vested Accrued Benefits		
Inactives + Share Plan Balances [1]	41,245,988	40,420,654
Actives	13,596,388	12,867,957
Member Contributions	1,322,530	1,156,337
Total	56,164,906	54,444,948
Non-vested Accrued Benefits	2,387,371	1,988,060
Total Present Value Accrued Benefits (PVAB)	58,552,277	56,433,008
Funded Ratio (MVA / PVAB)	83.2%	77.9%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	1,677,241	
Benefits Paid	(3,495,317)	
Interest	3,937,345	
Other	0	
Total	2,119,269	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	9/30/2024	9/30/2023
E. Pension Cost		
Normal Cost [2]	$1,730,455	$1,710,643
Administrative Expenses [2]	75,211	70,374
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2023) [2]	2,164,030	2,098,729
Minimum Required Contribution	3,969,696	3,879,746
Expected Member Contributions [2]	204,130	195,248
Expected City and State Contribution	3,765,566	3,684,498
F. Past Contributions		
Plan Years Ending:	9/30/2023	
City and State Requirement	3,684,498	
Actual Contributions Made:		
City	2,883,216	
State	801,282	
Total	3,684,498	
G. Net Actuarial (Gain)/Loss	870,574	

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

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

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

Year	Projected Unfunded Actuarial Accrued Liability
2023	14,443,046
2024	13,470,184
2025	12,427,275
2028	8,825,997
2032	2,692,778
2035	787,734
2038	0

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

		Actual	Assumed
Year Ended	9/30/2023	2.08%	5.38%
Year Ended	9/30/2022	5.27%	5.45%
Year Ended	9/30/2021	9.27%	5.54%
Year Ended	9/30/2020	8.18%	5.71%
Year Ended	9/30/2019	7.72%	6.19%

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

		Market Value	Actuarial Value	Assumed
Year Ended	9/30/2023	10.69%	3.75%	7.20%
Year Ended	9/30/2022	-16.37%	4.52%	7.20%
Year Ended	9/30/2021	20.18%	9.73%	7.60%
Year Ended	9/30/2020	9.42%	7.61%	7.80%
Year Ended	9/30/2019	4.27%	5.37%	7.85%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	$7,767,947
	10/1/2013	4,309,440
(b) Total Increase		80.25%
(c) Number of Years		10.00
(d) Average Annual Rate		6.07%

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

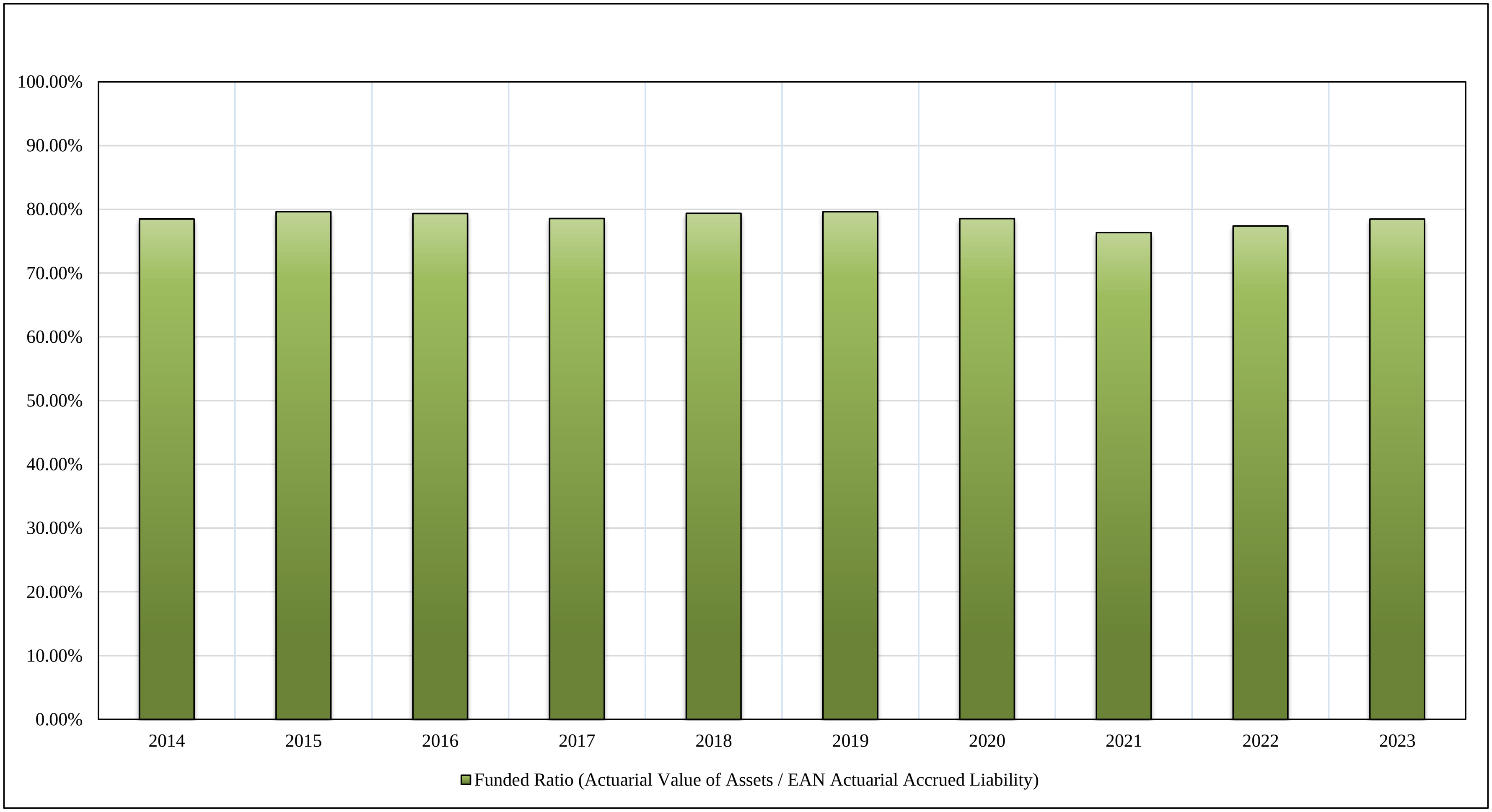
(1)	Unfunded Actuarial Accrued Liability as of October 1, 2022	$14,729,836
(2)	Sponsor Normal Cost developed as of October 1, 2022	1,315,672
(3)	Expected administrative expenses for the year ended September 30, 2023	61,099
(4)	Expected interest on (1), (2) and (3)	1,157,476
(5)	Sponsor contributions to the System during the year ended September 30, 2023	3,684,498
(6)	Expected interest on (5)	7,113
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	13,572,472
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	870,574
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2023	14,443,046

Type of Base	Date Established	Years Remaining	10/1/2023 Amount	Amortization Amount
Consolidation Base	10/1/2019	9	7,929,646	1,145,027
Actuarial Loss	10/1/2020	12	816,625	96,934
Assump Change	10/1/2020	12	931,238	110,539
Actuarial Loss	10/1/2021	13	469,891	53,043
Assump Change	10/1/2021	13	2,433,366	274,686
Actuarial Loss	10/1/2022	14	991,706	107,053
Actuarial Loss	10/1/2023	15	870,574	90,294
			14,443,046	1,877,576

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	$14,729,836
(2)	Expected UAAL as of October 1, 2023	13,572,472
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	1,747,110
	Salary Increases	(851,258)
	Active Decrements	441,174
	Inactive Mortality	(238,075)
	Other	(228,377)
	Increase in UAAL due to (Gain)/Loss	870,574
	Assumption Changes	0
(4)	Actual UAAL as of October 1, 2023	$14,443,046

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

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

Interest Rate

7.20% 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

Graded schedule based on service. This is based on an experience study performed for the period October 1, 2008 through September 30, 2015.

Salary Scale	
Service	Rate
0	12.0%
1	7.0%
2-9	2.5%
10-14	5.0%
15+	4.5%

Payroll Growth

None for amortization of the Unfunded Actuarial Accrued Liability.

Administrative Expenses

$65,255 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over 15 years; the amortization payment is subject to a minimum based on a 30-year amortization of the UAAL in order to comply with Actuarial Standard of Practice No. 4.

Bases established prior to the valuation date are adjusted proportionally to match the Expected Unfunded Actuarial Accrued Liability as of the valuation date, in order to align prior year bases with the portion of the current year UAAL associated with prior year sources.

Actuarial Value of Assets

The Actuarial Value of Assets utilizes a five-year smoothing methodology. The annual difference between expected and actual investment earnings (Market Value, net of investment-related expenses) is phased-in over a five-year period.

Funding Method

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

Interest - 1.25 years, based on current 7.20% assumption.

Salary - A full year, based on current 5.74% assumption.

Normal Retirement

Attainment of 1) age 50 with 10 years of Credited Service, or 2) the completion of 25 years of Credited Service, regardless of age. Retirement rates are as provided in the tables below.

a) Retirement with less than 25 years of Credited Service.

% Retiring During the Year (Based on Years Eligible for Normal Retirement)

Years	Rate
0	0%
1	40%
2	100%

b) For retirement with 25 or more years of Credited Service (regardless of age), 50% per year for each year of eligibility until 100% assumed retirement after 31 years of Credited Service.

The above rates are based on an Experience Study performed for the period October 1, 2008 through September 30, 2015.

For Members hired after December 31, 2012 (Tier 2), the Normal Retirement assumption is the attainment of 1) Age 55 with 10 years of Credited Service, 2) Age 52 with 25 years of Credited Service, or 3) the completion of 30 years of Credited Service, regardless of Age. Tier 2 Members eligible for Normal Retirement as of the valuation date are assumed to work one additional year.

The above rates were reviewed and left unchanged by the Board as part of the October 28, 2016 Experience Study.

Early Retirement

For Members hired before January 1, 2013: commencing at eligibility for Early Retirement (Age 40 with 10 years of Credited Service) a 0% assumption for each year from age 40 to 43, and a 3.0% assumption for each year from age 44 to 49.

For Members hired after December 31, 2012: Commencing at eligibility for Early Retirement (Age 50 with 10 years of Credited Service), Members are assumed to retire with an immediate benefit at the rate of 10% per year.

These assumptions are based on an Experience Study performed for the period October 1, 2008 through September 30, 2015.

Disability Rate

See sample rates in table below. Service-connected rate is assumed at 90%. This assumption was adopted in conjunction with an Experience Study performed for the period October 1, 1996 through October 1, 2009.

% Becoming Disabled During the Year	
Age	Rate
20	0.28%
30	0.36%
40	0.60%
50	2.00%

Termination

Graded schedule based on service. This is based on an experience study performed for the period October 1, 2008 through September 30, 2015.

% Terminating During the Year	
Service	Rate
0-1	20.0%
2	15.0%
3	12.5%
4-9	6.0%
10-14	2.5%
15+	0.0%

Low-Default-Risk Obligation Measure

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

GLOSSARY

Actuarial Value of Assets is the asset value used in the valuation to determine contribution requirements. It represents the plan's Market Value of Assets (see below), with adjustments according to the plan's Actuarial Asset Method. These adjustments produce a "smoothed" value that is likely to be less volatile from year to year than the Market Value of Assets.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

Market Value of Assets is the fair market value of plan assets as of the valuation date. This amount may be adjusted to produce an Actuarial Value of Assets for plan funding purposes.

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

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

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

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current plan participants.

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

Total Required Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over no more than 30 years. The required amount is adjusted for interest according to the timing of contributions during the year.

Unfunded Actuarial Accrued Liability (UAAL) is the difference between the actuarial accrued liability (described above) and the Actuarial Value of Assets. Under the Entry Age Normal Actuarial Cost Method, an actuarial gain or loss, based on actual versus expected UAAL, is determined in conjunction with each valuation of the plan.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined using various actuarial assumptions. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- <u>Investment Return</u>: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.

- <u>Salary Increases</u>: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.

- <u>Demographic Assumptions:</u> Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, closed plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature closed plans with a substantial inactive liability. Similarly, mature closed plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled "Plan Maturity Measures and Other Risk Metrics". Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has stayed about the same from October 1, 2013 to October 1, 2023, 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 60.9%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in larger increases in contribution requirements than would be needed for a less mature plan. Please note Chapter 112, Florida Statutes, requires that the plan sponsor contributes the minimum required contribution; thus, there is minimal solvency risk to the plan.

- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 74.5% on October 1, 2013 to 78.5% on October 1, 2023.

- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, stayed approximately the same from October 1, 2013 to October 1, 2023. The current Net Cash Flow Ratio of 0.6% indicates that contributions are generally 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 8 in terms of member data, plan provisions, and assumptions/methods, under the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20 Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.87%, resulting in an LDROM of $89,735,122. The LDROM should not be considered the "correct" liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. The Board actually invests the pension plan's contributions in a diversified portfolio of stocks and bonds and other investments with the objective of maximizing investment returns at a reasonable level of risk. Consequently, the difference between the plan's Actuarial Accrued Liability disclosed earlier in this section and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan's diversified portfolio compared to investing only in high quality bonds.

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

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	10/1/2023	10/1/2022	10/1/2018	10/1/2013
Support Ratio				
Total Actives	101	98	91	79
Total Inactives [1]	87	87	88	72
Actives / Inactives [1]	116.1%	112.6%	103.4%	109.7%
Asset Volatility Ratio				
Market Value of Assets (MVA)	48,735,948	43,959,205	41,058,358	34,253,783
Total Annual Payroll	8,011,706	7,915,380	6,052,258	4,469,257
MVA / Total Annual Payroll	608.3%	555.4%	678.4%	766.4%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	40,874,244	40,066,093	38,702,308	30,758,066
Total Accrued Liability (EAN)	67,073,547	65,172,092	52,183,552	43,601,320
Inactive AL / Total AL	60.9%	61.5%	74.2%	70.5%
Funded Ratio				
Actuarial Value of Assets (AVA)	52,630,501	50,442,256	41,417,469	32,469,353
Total Accrued Liability (EAN)	67,073,547	65,172,092	52,183,552	43,601,320
AVA / Total Accrued Liability (EAN)	78.5%	77.4%	79.4%	74.5%
Net Cash Flow Ratio				
Net Cash Flow [2]	292,965	675,670	(1,360,397)	252,368
Market Value of Assets (MVA)	48,735,948	43,959,205	41,058,358	34,253,783
Ratio	0.6%	1.5%	-3.3%	0.7%

[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

Received During Fiscal Year	Amount	Increase from Previous Year
1998	205,342.67	_____%
1999	190,081.11	-7.4%
2000	206,648.56	8.7%
2001	227,135.75	9.9%
2002	195,908.93	-13.7%
2003	266,159.10	35.9%
2004	286,590.69	7.7%
2005	319,987.56	11.7%
2006	424,152.57	32.6%
2007	414,241.84	-2.3%
2008	515,428.94	24.4%
2009	438,182.12	-15.0%
2010	435,295.66	-0.7%
2011	456,959.42	5.0%
2012	434,754.86	-4.9%
2013	466,927.24	7.4%
2014	417,152.79	-10.7%
2015	385,402.81	-7.6%
2016	337,166.27	-12.5%
2017	369,908.60	9.7%
2018	377,080.42	1.9%
2019	367,888.12	-2.4%
2020	400,751.36	8.9%
2021	452,453.81	12.9%
2022	572,572.24	26.5%
2023	801,282.01	39.9%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

ASSETS	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Money Market	510,900.50	510,900.50
Cash	2.56	2.56
Total Cash and Equivalents	510,903.06	510,903.06
Receivables:		
City Contributions in Transit	2,883,215.99	2,883,215.99
From Broker for Investments Sold	6,721.86	6,721.86
Investment Income	68,092.20	68,092.20
Total Receivable	2,958,030.05	2,958,030.05
Investments:		
Corporate Bonds	3,071,867.00	2,881,605.91
Stocks	16,048,181.35	22,294,202.24
Mutual Funds:		
Fixed Income	6,820,618.90	6,883,496.64
Equity	3,199,896.24	4,969,532.72
Pooled/Common/Commingled Funds:		
Real Estate	8,325,561.46	8,274,464.69
Total Investments	37,466,124.95	45,303,302.20
Total Assets	40,935,058.06	48,772,235.31
LIABILITIES		
Payables:		
Refunds of Member Contributions	4,535.31	4,535.31
To Broker for Investments Purchased	31,752.03	31,752.03
Total Liabilities	36,287.34	36,287.34
NET POSITION RESTRICTED FOR PENSIONS	40,898,770.72	48,735,947.97

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

ADDITIONS			
Contributions:			
Member		174,475.67	
City		2,883,215.99	
State		801,282.01	
Total Contributions			3,858,973.67
Investment Income:			
Net Realized Gain (Loss)	1,082,284.88		
Unrealized Gain (Loss)	2,716,932.35		
Net Increase in Fair Value of Investments		3,799,217.23	
Interest & Dividends		899,888.41	
Less Investment Expense[1]		(215,328.27)	
Net Investment Income			4,483,777.37
Total Additions			8,342,751.04
DEDUCTIONS			
Distributions to Members:			
Benefit Payments		2,949,530.45	
Lump Sum DROP Distributions		489,780.20	
Lump Sum Share Distributions		23,277.73	
Refunds of Member Contributions		32,728.38	
Total Distributions			3,495,316.76
Administrative Expense			70,691.80
Total Deductions			3,566,008.56
Net Increase in Net Position			4,776,742.48
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			43,959,205.49
End of the Year			48,735,947.97

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

ACTUARIAL ASSET VALUATION
September 30, 2023

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of Market Value of Assets.

Gains/Losses Not Yet Recognized

Plan Year Ending	Gain/(Loss)	Amounts Not Yet Recognized by Valuation Year 2023	2024	2025	2026	2027
09/30/2019	(1,515,053)	0	0	0	0	0
09/30/2020	495,478	99,094	0	0	0	0
09/30/2021	5,130,146	2,052,059	1,026,030	0	0	0
09/30/2022	(11,820,400)	(7,092,240)	(4,728,160)	(2,364,080)	0	0
09/30/2023	1,308,167	1,046,534	784,901	523,268	261,635	0
Total		(3,894,553)	(2,917,229)	(1,840,812)	261,635	0

Development of Investment Gain/Loss

Market Value of Assets, 09/30/2022	43,959,205
Contributions Less Benefit Payments & Admin Expenses	292,965
Expected Investment Earnings*	3,175,610
Actual Net Investment Earnings	4,483,777
2023 Actuarial Investment Gain/(Loss)	1,308,167

*Expected Investment Earnings = 0.072 * (43,959,205 + 0.5 * 292,965)

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2023	48,735,948
(2) Gains/(Losses) Not Yet Recognized	(3,894,553)
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	52,630,501
(4) Limited Actuarial Value of Assets, 09/30/2023	52,630,501
(A) 09/30/2022 Actuarial Assets:	50,442,256
(I) Net Investment Income:	
1. Interest and Dividends	899,888
2. Realized Gain (Loss)	1,082,285
3. Unrealized Gain (Loss)	2,716,932
4. Change in Actuarial Value	(2,588,498)
5. Investment Expenses	(215,328)
Total	1,895,279
(B) 09/30/2023 Actuarial Assets:	52,630,501
Actuarial Assets Rate of Return = 2I/(A+B-I):	3.75%
Market Value of Assets Rate of Return:	10.69%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(1,747,110)

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

REVENUES		
Contributions:		
Member	174,475.67	
City	2,883,215.99	
State	801,282.01	
Total Contributions		3,858,973.67
Earnings from Investments:		
Interest & Dividends	899,888.41	
Net Realized Gain (Loss)	1,082,284.88	
Unrealized Gain (Loss)	2,716,932.35	
Change in Actuarial Value	(2,588,498.00)	
Total Earnings and Investment Gains		2,110,607.64
EXPENDITURES		
Distributions to Members:		
Benefit Payments	2,949,530.45	
Lump Sum DROP Distributions	489,780.20	
Lump Sum Share Distributions	23,277.73	
Refunds of Member Contributions	32,728.38	
Total Distributions		3,495,316.76
Expenses:		
Investment related[1]	215,328.27	
Administrative	70,691.80	
Total Expenses		286,020.07
Change in Net Assets for the Year		2,188,244.48
Net Assets Beginning of the Year		50,442,256.49
Net Assets End of the Year[2]		52,630,500.97

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

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

Beginning of the Year Balance	1,000,323.01
Plus Additions	350,817.54
Investment Return Earned	87,844.38
Less Distributions	(489,780.20)
End of the Year Balance	949,204.73

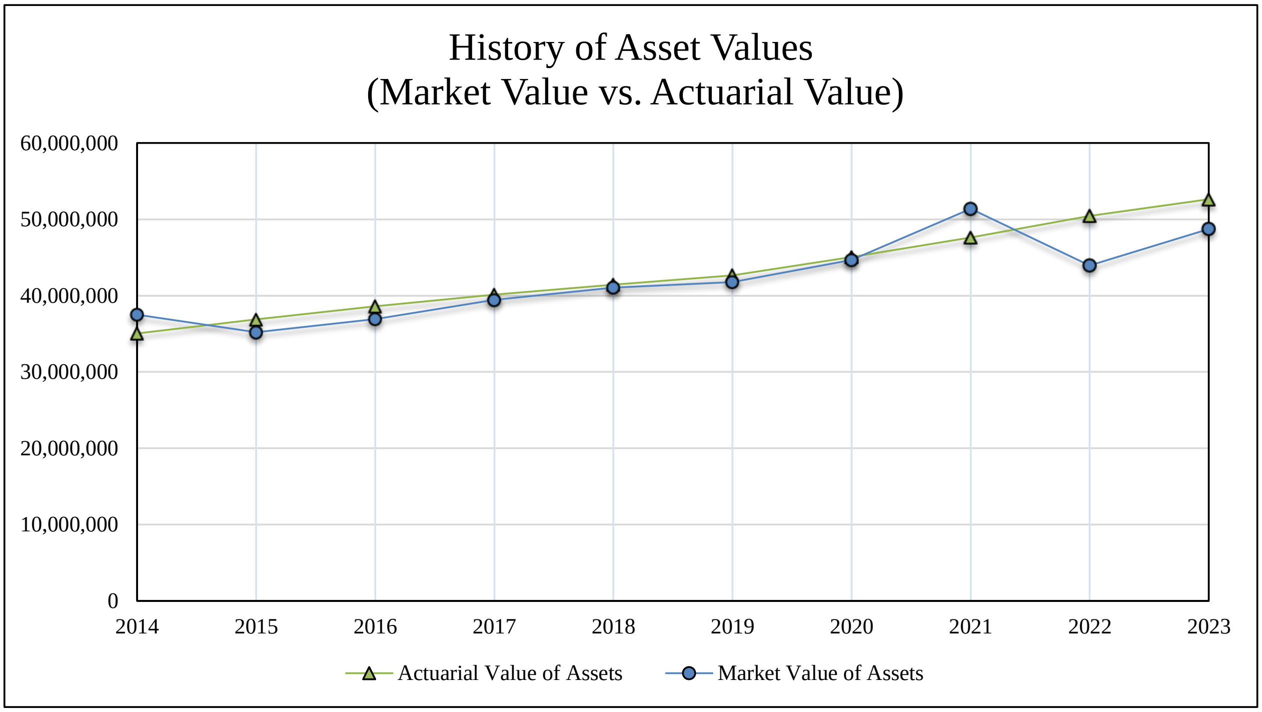
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2022 through September 30, 2023

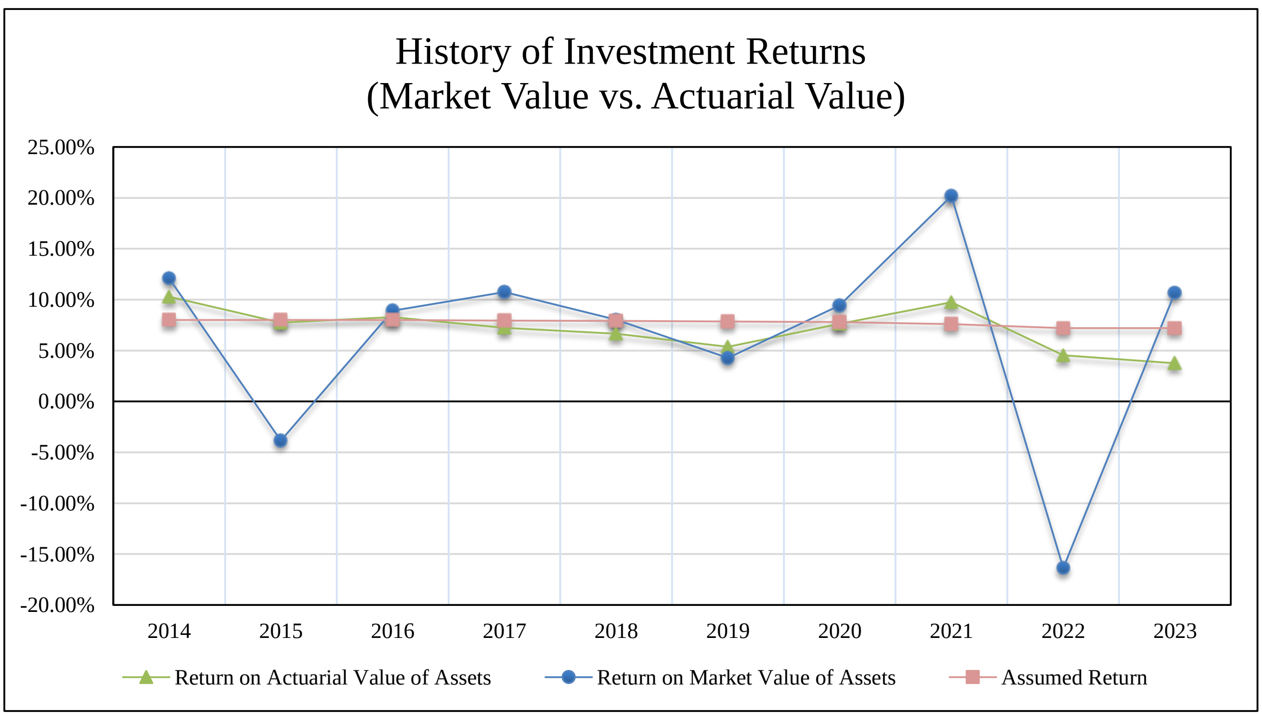
9/30/2022 Balance	354,560.65
Prior Year Adjustment	4,570.19
Plus Additions	0.00
Investment Return Earned (Est.)	35,903.00
Administrative Fees (Est.)	(11.79)
Less Distributions	(23,277.73)
9/30/2023 Balance (Est.)	371,744.32

CITY CONTRIBUTIONS IN EXCESS OF MINIMUM REQUIREMENT
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2023

(1)	Required City and State Contributions	$3,684,498.00
(2)	Less Allowable State Contribution	(801,282.01)
(3)	Required City Contribution for Fiscal 2023	2,883,215.99
(4)	Less 2022 Prepaid Contribution	0.00
(5)	Less Actual City Contributions	(2,883,215.99)
(6)	City Contributions in Excess of Minimum Requirement Applied to Reduce Unfunded Actuarial Accrued Liability as of September 30, 2023	$0.00

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2023	10/1/2022	10/1/2021	10/1/2020
Actives				
Number	101	98	97	95
Average Current Age	35.9	35.9	35.2	35.2
Average Age at Employment	27.0	27.3	27.4	27.5
Average Past Service	8.9	8.6	7.8	7.7
Average Annual Salary	$79,324	$80,769	$77,757	$74,671
Service Retirees				
Number	65	63	64	60
Average Current Age	63.5	64.5	63.9	62.3
Average Annual Benefit	$43,602	$43,466	$43,081	$40,691
DROP Retirees				
Number	4	5	5	6
Average Current Age	53.8	54.5	53.5	55.6
Average Annual Benefit	$65,488	$58,113	$58,113	$57,517
Beneficiaries				
Number	4	4	4	4
Average Current Age	50.7	49.7	48.7	47.7
Average Annual Benefit	$12,197	$12,197	$12,197	$12,197
Disability Retirees				
Number	6	6	6	6
Average Current Age	63.3	62.3	61.3	60.3
Average Annual Benefit	$24,427	$24,427	$24,427	$24,427
Terminated Vested				
Number	31	31	29	27
Average Current Age [1]	40.6	39.6	38.6	38.8
Average Annual Benefit [1]	$16,316	$16,316	$16,316	$17,009

[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	5	2										7
25 - 29	2	2	1	2	4	7						18
30 - 34	1		2	1		16						20
35 - 39					3	14	2	3				22
40 - 44	1		1			8	1	5	5			21
45 - 49						2	1	2	1	1		7
50 - 54							2	1	1			4
55 - 59				1				1				2
60 - 64												0
65+												0
Total	9	4	4	4	7	47	6	12	7	1	0	101

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	98
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	(1)
iii. Refund of member contributions or full lump sum distribution	(3)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. DROP	(1)
g. Continuing participants	92
h. New entrants / Rehires	9
i. Total active life participants in valuation	101

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	63	5	4	6	9	22	109
Retired	3	(2)					1
DROP		1					1
Vested (Deferred Annuity)							0
Vested (Due Refund)						1	1
Hired/Terminated in Same Year							0
Death, With Survivor							0
Death, No Survivor	(2)						(2)
Disabled							0
Refund of Contributions						(1)	(1)
Rehires							0
Expired Annuities							0
Data Corrections							0
b. Number current valuation	64	4	4	6	9	22	109

SUMMARY OF CURRENT PLAN
(Through Ordinance 3071)

<u>Eligibility</u>	All regular full-time firefighters become Members as a condition of employment.
<u>Credited Service</u>	Total number of years and fractional parts of years of continuous employment as a firefighter.
<u>Compensation</u>	Total compensation paid to a firefighter for services rendered to the City including overtime, longevity and incentive pay, but excluding lump sum sick leave, lump sum vacation, education reimbursement, car allowance and severance pay. Additionally, Salary shall not include overtime worked in addition to the normal work assignment in excess of 300 hours per calendar year for Members not eligible for Normal Retirement as of February 19, 2013.
<u>Average Final Compensation (AFC)</u>	Average Compensation during the best five years of the last ten years of Credited Service. Members eligible for Normal Retirement as of December 3, 2012 maintain an Average Final Compensation based on the highest 3 years of the 5 consecutive years of Credited Service at the time of termination or retirement. In no event will the AFC be less than the highest 3 years of the five consecutive years ending on December 3, 2012.
<u>Retirement Age</u>	
Normal	The earlier of 1) Age 55 and 10 years of Credited Service, 2), Age 52 and 25 years of Credited Service, and 3) the completion of 30 years of Credited Service, regardless of age. For Members hired prior to January 1, 2013, the Normal Retirement Date is the earlier of 1) Age 50 and 10 years of Credited Service, and 2) the completion of 25 years of Credited Service, regardless of age.
Early	Age 50 and 10 years of Credited Service. For Members hired prior to January 1, 2013, the requirement is Age 40 with 10 years of Credited Service.

Retirement Benefits

Normal	3.00% of AFC for each year of Credited Service, up to 30 years, and 2.00% for each year of Credited Service in excess of 30 years, subject to a maximum of 100% of AFC. For Members hired prior to January 1, 2013, the accrual rate is 3.23% for the first 30 years of Credited Service.
Early (Hired after 12/31/12)	Same as Normal Retirement, reduced prior to the Normal Retirement Date (determined as if the member had continued employment) as follows: • For commencement within five years of the Normal Retirement Date, 3% per year for each year that the Early Retirement Date precedes the Normal Retirement Date. • Actuarially reduced for benefits that commence more than five years prior to Normal Retirement eligibility.
Early (hired prior to 1/1/13)	Same as Normal Retirement, reduced actuarially for commencement of benefits prior to the Normal Retirement Date.
Delayed	Benefit continues to accrue.
Normal Form	Ten Year Certain and Life Annuity with other options available.

Disability Retirement

Eligibility	All Members are eligible for service connected disability benefits. Five years of Credited Service is required for non-service connected disability benefits.
Benefit	Accrued pension benefit with a minimum of 42% of AFC if service connected or 25% of AFC if non-service connected.

Death Benefits (Pre-Retirement)

Upon the death of a Member with at least five years of Credited Service before the Early or Normal Retirement Date, the Beneficiary will receive a monthly income, payable in the form of a ten year certain and life annuity, which can be provided by (a) or (b), whichever is greater, where:

(a) is the single-sum value of the Member's accrued pension, and

(b) is the smaller of (i) or (ii), where

(i.) is 24 times Average Compensation, and
(ii.) is 100 times the anticipated monthly normal retirement benefit.

Deferred Retirement Option Plan (DROP)

Eligibility	Same as for Normal Retirement.
Benefit	Same as calculated for Normal Retirement.
Participation	Up to 96 months, but not later than eight years from the date on which the Member first becomes eligible for Normal Retirement or age 58, whichever is later.
Investment Earnings	Depending on the option elected by the DROP participant, the Member's DROP account is credited with interest using one of the following: (a) no interest, or (b) the actual net rate of investment return realized by the system.

Termination Benefits

Effective December 3, 2012: Less than ten years of Credited Service – return of employee contributions with interest. Interest is currently credited at 4.50%, but only on those contributions made on or after October 1, 1986.

Effective December 3, 2012: Ten years or more of Credited Service – Accrued Benefit payable at age 50 or later (reduced for Early Retirement, as applicable), if contributions left in the fund, or refund of contributions with interest. For Members employed on December 3, 2012 with less than 10 years of Credited Service, the vesting percentage is provided in the below table:

Service as of 12/3/2012	**Vested %**
Less than 5 years	0%
5	25
6	30
7	35
8	40
9	45
10	100

Contributions

Employees	1.00% of Compensation. Members hired after December 31, 2012 contribute 3.00% of Compensation.
State	Premium tax refund per Chapter 175.
City	Remaining amount necessary according to State Laws.

Supplement Benefit (Share Accounts)

Initial Crediting	Pursuant to a Mutual Consent Agreement between the City and the IAFF, $554,645.94 from the Excess State Monies Reserve is allocated to eligible participants.
Annual Crediting	Annual Premium tax revenues received by the City in excess of the $853,025 applicable frozen amount shall be allocated to participant accounts using a Credited Service pro rata methodology.
Investment earnings	Eligible Share Accounts shall be credited or debited annually, based on the Plan's net-of-fees investment performance for the immediately preceding Plan Year.
Expenses	Allocated annually to participant accounts, based on the percentage of Share Plan balances to the fund's total asset value as of the same date.
Vesting	Ten years of Credited Service (unless eligible to draw benefits immediately upon termination of employment.)
Payment of Distribution	Upon termination of employment, eligible participants shall receive their Share Balance as soon as administratively feasible following the next valuation date.