NORTH BAY FIRE DISTRICT
FIREFIGHTERS' PENSION TRUST FUND

ACTUARIAL VALUATION
AS OF OCTOBER 1, 2023

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

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

November 21, 2023

Board of Trustees
North Bay Fire District
Firefighters’ Pension Board

Re: North Bay Fire District Firefighters' Pension Trust Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the North Bay Fire District Firefighters' Pension Trust Fund. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuation has been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflects laws and regulations issued to date pursuant to the provisions of Chapters 112 and 175, Florida Statutes, as well as applicable federal laws and regulations. In our opinion, the assumptions used in the valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, 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 North Bay Fire District, 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 Standards 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 North Bay Fire District, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Pension Trust Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

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

Respectfully submitted,

Foster & Foster, Inc.

By: ______________________________
Joseph L. Griffin, ASA, EA, MAAA
Enrolled Actuary #23-6938

By: ______________________________
Luke M. Schoenhofen, FSA, EA, MAAA
Enrolled Actuary #23-8968

JLG/lke

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the North Bay Fire District Firefighters' Pension Trust Fund, performed as of October 1, 2023, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2025.

The contribution requirements, compared with those set forth in the August 1, 2023 actuarial impact statement, are as follows:

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	9/30/2025	9/30/2024
Minimum Required Contribution	$465,074	$440,443
Member Contributions (Est.)	80,710	79,906
District And State Required Contribution	**384,364**	**360,537**
State Contribution (Est.) [1]	163,596	163,596
District Required Contribution (Est.) [2]	$220,768	$196,941

[1] Represents the amount received in calendar 2023. As per a Mutual Consent Agreement between the Membership and the District, all State Monies received each year will be available to offset the District's required contribution.

[2] Please note that the District has access to a prepaid contribution of $155,412.09 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2024.

As you can see, the Minimum Required Contribution shows an increase when compared to the results set forth in the August 1, 2023 actuarial impact statement. The increase is mainly attributable to an increase in the normal cost and expected administrative expenses.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial gain included an average salary increase of 1.59% which fell short of the 5.28% assumption and more turnover than expected. These gains were offset in part by a loss associated with an investment return of 4.55% (Actuarial Asset Basis) which fell short of the 7.25% assumption.

CHANGES SINCE PRIOR VALUATION

Plan Changes

Since the prior valuation, Resolution No. 23-01 was adopted on August 8, 2023 which included the following changes. The impact of these changes is outlined in the August 1, 2023 Actuarial Impact Statement.

1. The member contribution rate has increased from 5.00% to 6.00%.
2. The normal retirement date changed from age 52 with 25 years of service to 25 years of service regardless of age. The normal retirement date of age 55 with 10 years of service remains unchanged.
3. The benefit rate changed from 3.50% per year of credited service, to 3.50% per year of credited service through September 30, 2023 and 3.75% per year of credited service on and after October 1, 2023. A member is permitted to buy an increased multiplier of one quarter percent (0.25%) for all service accrued prior to October 1, 2023, by paying the full actuarial cost of the service being purchased.
4. The required distribution date is changed from age 70½ to age 73, provided the member had not already attained age 72 by December 31, 2022.
5. The number of years that the benefit payable to the spouse beneficiary eligible for pre-retirement death benefits is increased from 10 years to 15 years.
6. Non-rebuttable conclusive cancer presumption provisions were added in accordance with Section 112.1816, Florida Statues.

The Excess State Monies Reserve of $128,294 as of October 1, 2022 was used to partially offset the increase in liability associated with the changes described above. Additionally, the increase in Unfunded Accrued Actuarial Liability was amortized over 25 years.

Actuarial Assumption/Method Changes

As a result of the change in normal retirement date listed above, we assumed 100% retirement at the earlier of age 55 with 10 years of service and 25 years of service regardless of age.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	10/1/2023	10/1/2022
A. Participant Data		
Actives	16	16
Service Retirees	3	2
Beneficiaries	1	1
Disability Retirees	3	3
Terminated Vested	7	7
Total	30	29
Projected Annual Payroll	1,223,026	1,220,835
Annual Rate of Payments to:		
Service Retirees	113,064	91,282
Beneficiaries	57,356	57,356
Disability Retirees	38,524	38,524
Terminated Vested	42,122	65,201
B. Assets		
Actuarial Value (AVA) [1]	7,520,310	7,068,920
Market Value (MVA) [1]	6,998,258	6,288,965
C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	7,601,218	7,226,167
Disability Benefits	69,360	71,429
Death Benefits	39,724	40,036
Vested Benefits	498,017	516,240
Refund of Contributions	24,551	28,401
Service Retirees	1,346,985	1,075,849
Beneficiaries	661,070	668,158
Disability Retirees	438,810	451,762
Terminated Vested	249,355	490,864
Share Plan Balances [1]	0	0
Total	10,929,090	10,568,906

C. Liabilities - (Continued)	10/1/2023	10/1/2022
Present Value of Future Salaries	9,839,305	10,460,664
Present Value of Future Member Contributions	590,358	627,640
Normal Cost (Retirement)	288,629	282,425
Normal Cost (Disability)	4,987	4,939
Normal Cost (Death)	2,405	2,403
Normal Cost (Vesting)	25,711	26,406
Normal Cost (Refunds)	4,432	4,518
Total Normal Cost	326,164	320,691
Present Value of Future Normal Costs	2,689,053	2,806,022
Accrued Liability (Retirement)	5,220,187	4,758,080
Accrued Liability (Disability)	29,579	28,745
Accrued Liability (Death)	21,572	20,061
Accrued Liability (Vesting)	265,864	262,109
Accrued Liability (Refunds)	6,615	7,256
Accrued Liability (Inactives)	2,696,220	2,686,633
Share Plan Balances [1]	0	0
Total Actuarial Accrued Liability (EAN AL)	8,240,037	7,762,884
Unfunded Actuarial Accrued Liability (UAAL)	719,727	693,964
Funded Ratio (AVA / EAN AL)	91.3%	91.1%

D. Actuarial Present Value of Accrued Benefits

Actuarial Present Value of Accrued Benefits	10/1/2023	10/1/2022
Vested Accrued Benefits		
Inactives + Share Plan Balances [1]	2,696,220	2,686,633
Actives	2,950,519	2,577,728
Member Contributions	513,967	466,531
Total	6,160,706	5,730,892
Non-vested Accrued Benefits	521,017	390,713
Total Present Value Accrued Benefits (PVAB)	6,681,723	6,121,605
Funded Ratio (MVA / PVAB)	104.7%	102.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	321,534	
Benefits Paid	(198,053)	
Interest	436,637	
Other	0	
Total	560,118	

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	9/30/2025	9/30/2024
E. Pension Cost		
Normal Cost [2]	$358,736	$349,829
Administrative Expenses [2]	36,633	25,263
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 24 years (as of 10/1/2023) [2]	69,705	65,351
Minimum Required Contribution	465,074	440,443
Expected Member Contributions [2]	80,710	79,906
Expected District and State Contribution	384,364	360,537
F. Past Contributions		
Plan Years Ending:	9/30/2023	
District and State Requirement	301,585	
Actual Contributions Made:		
District	137,988	
State	163,596	
Total	301,584	
G. Net Actuarial (Gain)/Loss	(18,054)	

[1] The asset values and liabilities include accumulated 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	719,727
2024	703,937
2025	687,002
2031	556,254
2036	396,527
2042	142,976
2047	0

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

		Actual	Assumed
Year Ended	9/30/2023	1.59%	5.28%
Year Ended	9/30/2022	2.51%	6.16%
Year Ended	9/30/2021	13.22%	6.25%
Year Ended	9/30/2020	9.57%	6.60%
Year Ended	9/30/2019	7.77%	6.62%

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

		Market Value	Actuarial Value	Assumed
Year Ended	9/30/2023	9.28%	4.55%	7.25%
Year Ended	9/30/2022	-14.88%	5.52%	7.25%
Year Ended	9/30/2021	21.45%	10.20%	7.50%
Year Ended	9/30/2020	9.82%	7.30%	7.50%
Year Ended	9/30/2019	5.15%	7.23%	7.75%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2023	$1,223,026
	10/1/2013	863,351
(b) Total Increase		41.66%
(c) Number of Years		10.00
(d) Average Annual Rate		3.54%

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.

Joseph L. Griffin, ASA, EA, MAAA
Enrolled Actuary #23-6938

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

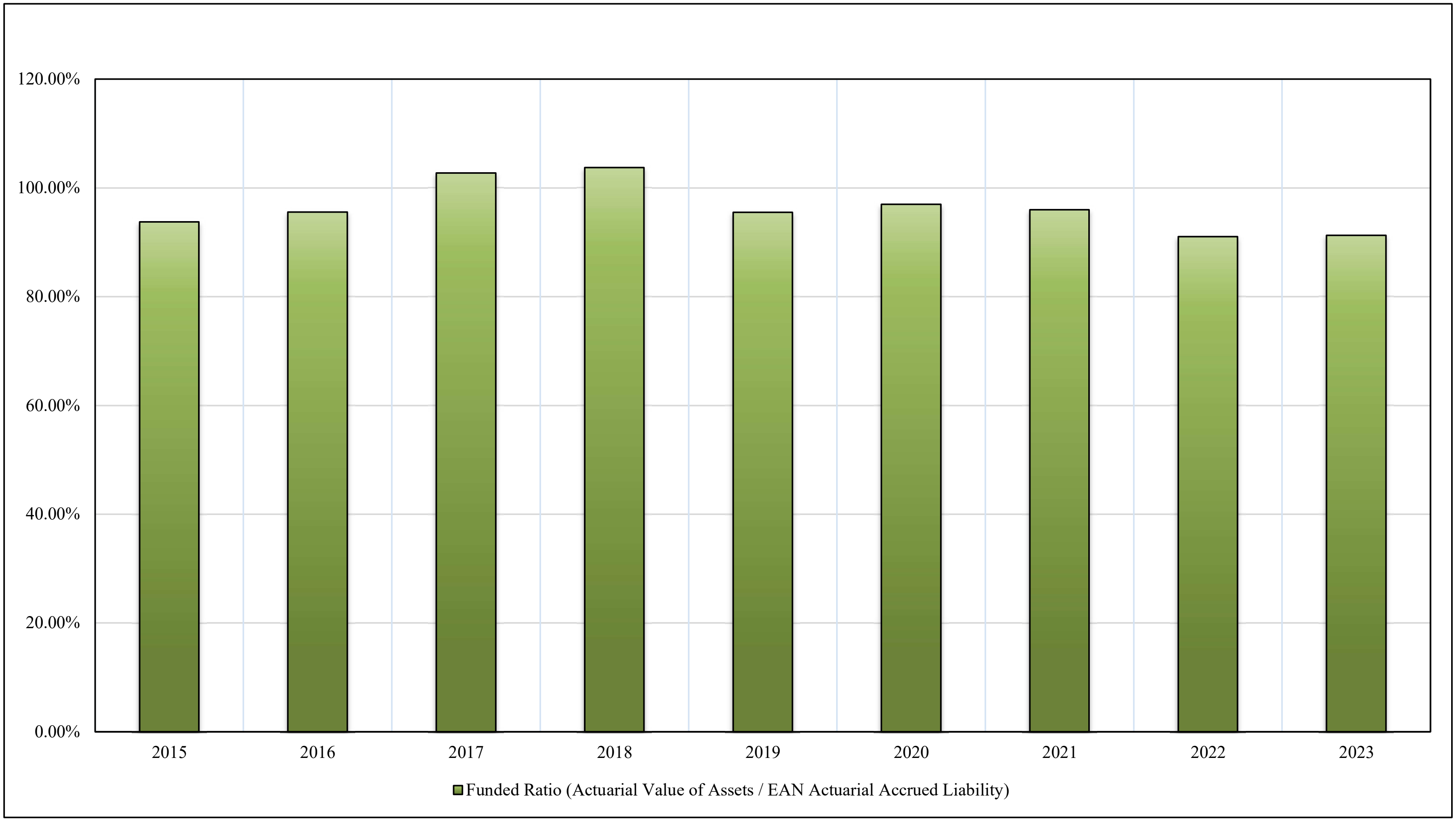
(1)	Unfunded Actuarial Accrued Liability as of October 1, 2022	$693,964
(2)	Sponsor Normal Cost developed as of October 1, 2022	259,649
(3)	Expected administrative expenses for the year ended September 30, 2023	23,159
(4)	Expected interest on (1), (2) and (3)	69,976
(5)	Sponsor contributions to the System during the year ended September 30, 2023	301,585
(6)	Expected interest on (5)	7,382
(7)	Expected Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	737,781
(8)	Change to UAAL due to Assumption Change	0
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(18,054)
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2023	719,727

Type of Base	Date Established	Years Remaining	10/1/2023 Amount	Amortization Amount
Initial Base	10/1/2017	14	(87,122)	(9,428)
Actuarial Loss	10/1/2018	15	58,311	6,064
Method Change	10/1/2018	15	(94,935)	(9,873)
Benefits Change	10/1/2018	15	(189)	(20)
Actuarial Loss	10/1/2019	16	177,714	17,832
Assump Change	10/1/2019	16	120,943	12,136
Actuarial Gain	10/1/2020	17	(27,303)	(2,653)
Assump Change	10/1/2020	17	(36,705)	(3,566)
Actuarial Gain	10/1/2021	18	(56,236)	(5,307)
Assump Change	10/1/2021	18	212,692	20,072
Actuarial Loss	10/1/2022	19	72,255	6,641
Benefits Change	10/1/2022	24	398,356	33,098
Actuarial Gain	10/1/2023	20	(18,054)	(1,620)
			719,727	63,376

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2022	$693,964
(2)	Expected UAAL as of October 1, 2023	737,781
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	195,589
	Salary Increases	(136,030)
	Active Decrements	(39,015)
	Inactive Mortality	13,830
	Other	(52,428)
	Increase in UAAL due to (Gain)/Loss	(18,054)
	Assumption Changes	0
(4)	Actual UAAL as of October 1, 2023	$719,727

HISTORY OF FUNDING PROGRESS



ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate	*Healthy Active Lives:* **Female:** PubS.H-2010 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.
Interest Rate	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.
Salary Increases	8.0% for the first 4 years of Credited Service and 5.0% thereafter. This assumption was adopted based on the June 6, 2017 actuarial experience study.

<u>Payroll Growth</u>	0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.
<u>Administrative Expenses</u>	$33,307 annually, based on the average of actual expenses incurred in the prior two fiscal years.
<u>Amortization Method</u>	New UAAL amortization bases are amortized over 20 years. 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.
<u>Retirement Age</u>	Earlier of Age 55 and 10 years of service or 25 years of service regardless of age. Also, any Member who has reached Normal Retirement is assumed to continue employment for one additional year. We feel this assumption is reasonable based on the plan provisions.
<u>Early Retirement</u>	Commencing with the earliest Early Retirement Age (50), Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year. We feel this assumption is reasonable based on the plan provisions.
<u>Disability Rate</u>	See table later in this section. It is assumed that 90% of disablements and active Member deaths are service related. This assumption was developed from those used by other plans containing Florida municipal Firefighters.
<u>Termination Rate</u>	See table later in this section. This assumption was developed from those used by other plans containing Florida municipal Firefighters.
<u>Funding Method</u>	Entry Age Normal Actuarial Cost Method. The following loads are applied for determining the minimum required contribution: Interest – To reflect payments made at the end of each quarter, based on the current 7.25% assumption. Salary - A full year, based on current 5.22% assumption.
<u>Asset Valuation Method</u>	All assets are valued at market value with an adjustment to uniformly spread actuarial investment gains and losses (as measured by actual market value investment return against expected market value investment return) over a five-year period.

Low-Default-Risk Obligation Measure

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

% Terminating During the Year		% Becoming Disabled During the Year	
Age	Rate	Age	Rate
20	6.0%	20	0.03%
25	5.7%	25	0.03%
30	5.0%	30	0.04%
35	3.8%	35	0.05%
40	2.6%	40	0.07%
45	1.6%	45	0.10%
50	0.8%	50	0.18%
55	0.3%	55	0.36%
60	0.2%	60	0.90%
65	0.2%	65+	2.22%
70	0.2%		

GLOSSARY

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

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

(a) The normal cost accrual rate equals:

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

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

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

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

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

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

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

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

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

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

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

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

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

DISCUSSION OF RISK

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

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

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

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

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

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

Impact of Plan Maturity on Risk

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

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

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 500.0% on October 1, 2015 to 177.8% on October 1, 2023, indicating that the plan has been maturing during the period.

- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 32.7%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors may result in lower volatility in contribution requirements when compared to a more 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 93.8% on October 1, 2015 to 91.3% on October 1, 2023.

- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from 5.0% on October 1, 2015 to 1.7% on October 1, 2023. The current Net Cash Flow Ratio of 1.7% 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, including the use of 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 $11,348,557. 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	10/1/2015
Support Ratio				
Total Actives	16	16	17	15
Total Inactives [1]	9	9	7	3
Actives / Inactives [1]	177.8%	177.8%	242.9%	500.0%
Asset Volatility Ratio				
Market Value of Assets (MVA)	6,998,258	6,288,965	4,920,195	3,389,301
Total Annual Payroll	1,223,026	1,220,835	1,004,426	874,609
MVA / Total Annual Payroll	572.2%	515.1%	489.9%	387.5%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	2,696,220	2,686,633	1,878,622	733,616
Total Accrued Liability (EAN)	8,240,037	7,762,884	4,742,129	3,771,686
Inactive AL / Total AL	32.7%	34.6%	39.6%	19.5%
Funded Ratio				
Actuarial Value of Assets (AVA)	7,520,310	7,068,920	4,920,195	3,536,301
Total Accrued Liability (EAN)	8,240,037	7,762,884	4,742,129	3,771,686
AVA / Total Accrued Liability (EAN)	91.3%	91.1%	103.8%	93.8%
Net Cash Flow Ratio				
Net Cash Flow [2]	122,046	148,129	164,877	169,592
Market Value of Assets (MVA)	6,998,258	6,288,965	4,920,195	3,389,301
Ratio	1.7%	2.4%	3.4%	5.0%

[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	12,899.20	_____%
1999	16,762.16	29.9%
2000	19,060.35	13.7%
2001	22,546.42	18.3%
2002	24,345.00	8.0%
2003	30,197.67	24.0%
2004	32,799.43	8.6%
2005	38,385.97	17.0%
2006	44,709.46	16.5%
2007	65,574.57	46.7%
2008	104,942.35	60.0%
2009	107,950.54	2.9%
2010	91,832.55	-14.9%
2011	117,749.32	28.2%
2012	96,458.03	-18.1%
2013	108,137.86	12.1%
2014	122,408.31	13.2%
2015	103,271.36	-15.6%
2016	92,377.22	-10.5%
2017	70,246.48	-24.0%
2018	69,082.65	-1.7%
2019	67,868.16	-1.8%
2020	74,986.86	10.5%
2021	76,434.90	1.9%
2022	123,429.35	61.5%
2023	163,596.37	32.5%

EXCESS STATE MONIES RESERVE

	Regular Distribution			Special Distribution		
	Actual State Contribution	Applicable "Frozen" Amount	Excess State Monies Reserve	Actual State Contribution	Applicable "Frozen" Amount	Excess State Monies Reserve
1999	$16,762.16	$12,899.20	$3,862.96	$0.00	$0.00	$0.00
2000	19,060.35	12,899.20	6,161.15	0.00	0.00	0.00
2001	22,546.42	12,899.20	9,647.22	0.00	0.00	0.00
2002	24,345.00	12,899.20	11,445.80	0.00	0.00	0.00
2003	27,289.56	12,899.20	14,390.36	2,908.11	0.00	2,908.11
2004	27,556.80	12,899.20	14,657.60	5,242.63	0.00	5,242.63
2005	33,356.11	12,899.20	20,456.91	5,029.86	0.00	5,029.86
2006	36,014.94	12,899.20	23,115.74	8,694.52	0.00	8,694.52
2007	48,324.73	46,582.20	1,742.53	17,249.84	0.00	17,249.84
2008	63,785.35	46,582.20	17,203.15	41,157.00	0.00	41,157.00
2009	57,884.45	46,582.20	11,302.25	50,066.09	0.00	50,066.09
2010	61,001.04	61,001.04	0.00	30,831.51	25,276.16	5,555.35
2011	61,546.42	61,546.42	0.00	56,202.90	24,730.78	31,472.12
2012	62,513.71	62,513.71	0.00	33,944.32	23,763.49	10,180.83
2013	70,175.15	70,175.15	0.00	37,962.71	16,102.05	21,860.66
2014	78,818.70	78,818.70	0.00	43,589.61	7,458.50	36,131.11
2015	71,929.79	71,929.79	0.00	31,341.57	14,347.41	16,994.16
2016	73,789.47	71,929.79	1,859.68	18,587.75	14,347.41	4,240.34
2017	66,621.75	71,929.79	0.00	3,624.73	14,347.41	0.00
2018	66,343.88	66,343.88	0.00	2,738.77	2,738.77	0.00
2019	67,868.16	67,868.16	0.00	0.00	0.00	0.00
2020	73,934.58	73,934.58	0.00	1,052.28	1,052.28	0.00
2021	76,434.90	76,434.90	0.00	0.00	0.00	0.00
2022	122,770.03	122,770.03	0.00	659.32	659.32	0.00
2023	139,694.10	139,694.10	0.00	23,902.27	23,902.27	0.00
			135,845.35			256,782.62

Accumulated Regular Excess	135,845.35
Accumulated Special Excess	256,782.62
Total Excess State Monies	392,627.97
Less Excess Used in Funding Res. No. 07-01 (3.0% BR)	(93,822.60)
Less Excess Used in Funding Res. No. 10-01 (3.5% MR, 3 Yr AFC)	(170,511.12)
Less Excess Used in Funding Res. No. 23-01 (3.75% BR, 25&Out NRD)	(128,294.25)
Equals Current State Monies Reserve	$0.00

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2023

ASSETS	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Short Term Investments	78,000.71	78,000.71
Total Cash and Equivalents	78,000.71	78,000.71
Receivables:		
Member Contributions in Transit	2,351.98	2,351.98
District Contributions in Transit	44,461.40	44,461.40
State Contributions	163,596.37	163,596.37
Total Receivable	210,409.75	210,409.75
Investments:		
Mutual Funds:		
Fixed Income	1,914,119.69	1,586,569.52
Equity	4,263,890.20	4,570,832.23
Pooled/Common/Commingled Funds:		
Real Estate	671,720.91	715,142.50
Total Investments	6,849,730.80	6,872,544.25
Total Assets	7,138,141.26	7,160,954.71
LIABILITIES		
Payables:		
Investment Expenses	4,683.85	4,683.85
Administrative Expenses	2,600.80	2,600.80
Prepaid District Contribution	155,412.09	155,412.09
Total Liabilities	162,696.74	162,696.74
NET POSITION RESTRICTED FOR PENSIONS	6,975,444.52	6,998,257.97

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

<u>ADDITIONS</u>			
Contributions:			
Member		61,049.55	
District		137,988.41	
State		163,596.37	
Total Contributions			362,634.33
Investment Income:			
Net Realized Gain (Loss)	(51,178.64)		
Unrealized Gain (Loss)	471,633.33		
Net Increase in Fair Value of Investments		420,454.69	
Interest & Dividends		193,223.92	
Less Investment Expense[1]		(26,430.66)	
Net Investment Income			587,247.95
Total Additions			949,882.28
<u>DEDUCTIONS</u>			
Distributions to Members:			
Benefit Payments		198,053.46	
Refunds of Member Contributions		0.00	
Total Distributions			198,053.46
Administrative Expense			42,535.49
Total Deductions			240,588.95
Net Increase in Net Position			709,293.33
NET POSITION RESTRICTED FOR PENSIONS			
Beginning of the Year			6,288,964.64
End of the Year			6,998,257.97

[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	(129,695)	0	0	0	0	0
09/30/2020	116,223	23,243	0	0	0	0
09/30/2021	800,116	320,047	160,024	0	0	0
09/30/2022	(1,600,718)	(960,430)	(640,286)	(320,142)	0	0
09/30/2023	118,860	95,088	71,316	47,544	23,772	0
Total		(522,052)	(408,946)	(272,598)	23,772	0

Development of Investment Gain/Loss

Market Value of Assets, including Prepaid Contributions, 09/30/2022	6,354,613
Contributions Less Benefit Payments & Admin Expenses	211,809
Expected Investment Earnings*	468,388
Actual Net Investment Earnings	587,248
2023 Actuarial Investment Gain/(Loss)	118,860

*Expected Investment Earnings = 0.0725 * (6,354,613 + 0.5 * 211,809)

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2023	6,998,258
(2) Gains/(Losses) Not Yet Recognized	(522,052)
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	7,520,310
(4) Limited Actuarial Value of Assets, 09/30/2023	7,520,310
(A) 09/30/2022 Actuarial Assets, including Prepaid Contributions:	7,134,568
(I) Net Investment Income:	
1. Interest and Dividends	193,224
2. Realized Gain (Loss)	(51,179)
3. Unrealized Gain (Loss)	471,633
4. Change in Actuarial Value	(257,903)
5. Investment Expenses	(26,431)
Total	329,345
(B) 09/30/2023 Actuarial Assets, including Prepaid Contributions:	7,675,722
Actuarial Assets Rate of Return = 2I/(A+B-I):	4.55%
Market Value of Assets Rate of Return:	9.28%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(195,589)

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

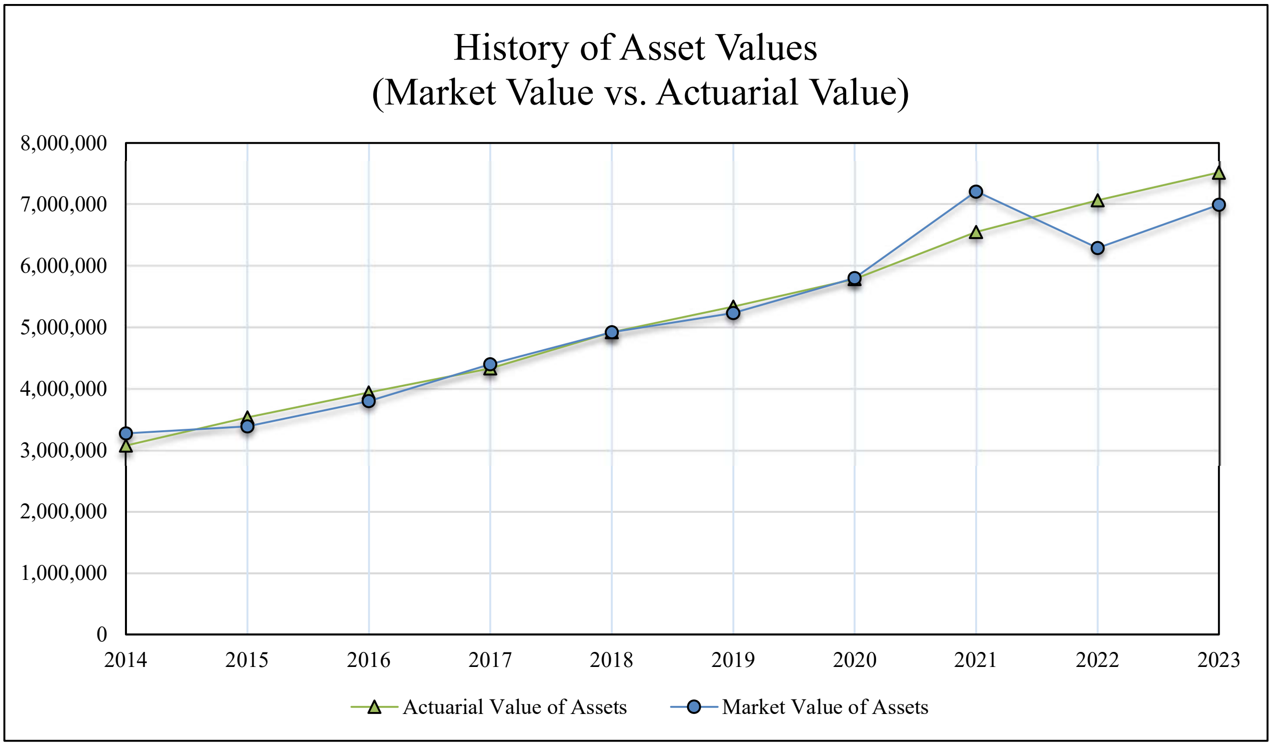
REVENUES		
Contributions:		
Member	61,049.55	
District	137,988.41	
State	163,596.37	
Total Contributions		362,634.33
Earnings from Investments:		
Interest & Dividends	193,223.92	
Net Realized Gain (Loss)	(51,178.64)	
Unrealized Gain (Loss)	471,633.33	
Change in Actuarial Value	(257,903.00)	
Total Earnings and Investment Gains		355,775.61
EXPENDITURES		
Distributions to Members:		
Benefit Payments	198,053.46	
Refunds of Member Contributions	0.00	
Total Distributions		198,053.46
Expenses:		
Investment related[1]	26,430.66	
Administrative	42,535.49	
Total Expenses		68,966.15
Change in Net Assets for the Year		451,390.33
Net Assets Beginning of the Year		7,068,919.64
Net Assets End of the Year[2]		7,520,309.97

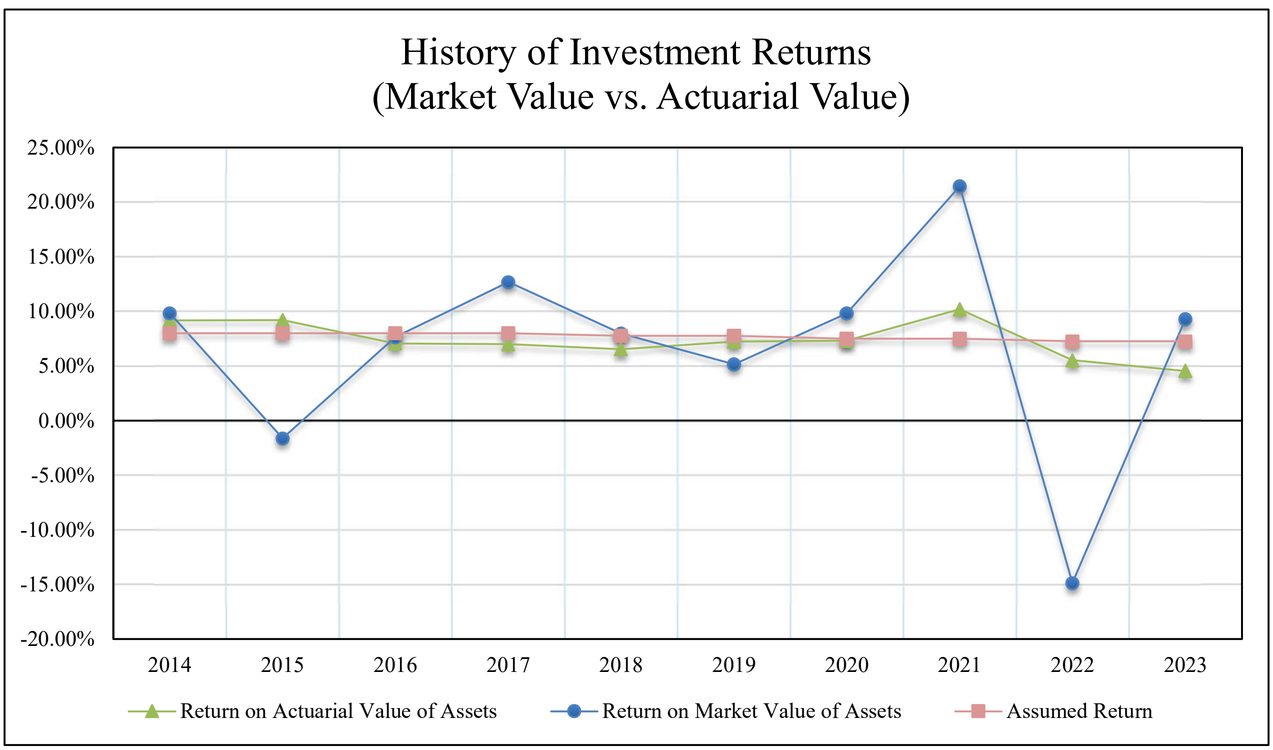
[1]Investment related expenses include investment advisory, custodial and performance monitoring fees.
[2]Net Assets may be limited for actuarial consideration.

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

(1)	Required District and State Contributions	$301,584.78
(2)	Less Allowable State Contribution	(163,596.37)
(3)	Required District Contribution for Fiscal 2023	137,988.41
(4)	Less 2022 Prepaid Contribution	(65,648.82)
(5)	Less Actual District Contributions	(227,751.68)
(6)	Equals District's Shortfall/(Prepaid) Contribution as of September 30, 2023	($155,412.09)

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS





STATISTICAL DATA

	10/1/2023	10/1/2022	10/1/2021	10/1/2020
Actives				
Number	16	16	15	16
Average Current Age	39.8	38.2	38.2	36.9
Average Age at Employment	28.5	27.5	27.8	28.0
Average Past Service	11.3	10.7	10.4	8.9
Average Annual Salary	$76,439	$76,302	$76,620	$66,148
Service Retirees				
Number	3	2	2	3
Average Current Age	61.8	64.0	63.0	61.3
Average Annual Benefit	$37,688	$45,641	$45,641	$49,546
Beneficiaries				
Number	1	1	1	0
Average Current Age	60.8	59.8	58.8	N/A
Average Annual Benefit	$57,356	$57,356	$57,356	N/A
Disability Retirees				
Number	3	3	3	3
Average Current Age	56.5	55.5	54.5	53.5
Average Annual Benefit	$12,841	$12,841	$12,841	$12,841
Terminated Vested				
Number	7	7	7	6
Average Current Age [1]	41.7	45.3	44.3	43.3
Average Annual Benefit [1]	$21,061	$21,734	$21,734	$21,734

[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												0
25 - 29		1										1
30 - 34						3						3
35 - 39						3		2				5
40 - 44	1					1		1				3
45 - 49						1				1		2
50 - 54								1				1
55 - 59										1		1
60 - 64												0
65+												0
Total	1	1	0	0	0	8	0	4	0	2	0	16

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2022	16
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	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. Continuing participants	15
g. New entrants / Rehires	1
h. Total active life participants in valuation	16

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

	Service Retirees, Vested Receiving Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	Total
a. Number prior valuation	2	1	3	3	4	13
Retired	1			(1)		
Vested (Deferred Annuity)						
Vested (Due Refund)					1	1
Hired/Terminated in Same Year						
Death, With Survivor						
Death, No Survivor						
Disabled						
Refund of Contributions						
Rehires						
Expired Annuities						
Data Corrections						
b. Number current valuation	3	1	3	2	5	14

SUMMARY OF CURRENT PLAN
(Through Resolution No. 23-01)

<u>Eligibility</u>	Full-time employees who are classified as full-time Firefighters shall participate in the System as a condition of employment.
<u>Credited Service</u>	Total years and fractional parts of years of employment with the District after June 1, 1997, as a Firefighter. Members may purchase service prior to June 1, 1997, by depositing amounts actuarially determined to fully fund the credits.
<u>Salary</u>	Fixed compensation, including tax-deferred and tax-exempt items of income.
<u>Average Final Compensation</u>	Average Salary for the highest 3 years during the 5 years immediately preceding retirement or termination.
<u>Member Contributions</u>	6.0% of Salary.
<u>District / State Contributions</u>	Remaining amounts required in order to pay current costs and amortize unfunded past service cost, if any, as provided in Part VII of Chapter 112, Florida Statutes.
<u>Normal Retirement</u>	
Date	Earlier of: 1) age 55 and 10 years of Credited Service, or 2) age 25 years of Credited Service regardless of age.
Benefit	3.5% of Average Final Compensation <u>times</u> Credited Service through September 30, 2023 plus 3.75% per year of Credited Service on and after October 1, 2023. A member is permitted to buy an increased multiplier of one quarter percent (0.25%) for all service accrued prior to October 1, 2023, by paying the full actuarial cost of the service being purchased.
Form of Benefit	Ten Year Certain and Life Annuity (options available).
<u>Early Retirement</u>	
Eligibility	Age 50 and 10 Years of Credited Service.
Benefit	Accrued benefit, reduced 3% per year prior to Normal Retirement Date.

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.
Benefit	Benefit accrued to date of disability but not less than 42% of Average Final Compensation (Service Incurred), or 25% of Average Final Compensation (Non-Service Incurred).
Duration	Payable for life with 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 15 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 District appointees,
	b. Two Members of the Department elected by the membership, and
	c. Fifth Member elected by other 4 and appointed by District.
Share Plan	A Share Plan exists, but is not currently funded.