

CITY OF NAPLES
FIREFIGHTERS' PENSION AND RETIREMENT SYSTEM
ACTUARIAL VALUATION
AS OF OCTOBER 1, 2022
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING SEPTEMBER 30, 2024
GASB 67/68 DISCLOSURE INFORMATION
AS OF SEPTEMBER 30, 2022



December 8, 2022

Board of Trustees
City of Naples
Firefighters' Pension Board

Re: City of Naples Firefighters' Pension and Retirement System

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Naples Firefighters' Pension and Retirement System. Included are the related results for GASB Statements No. 67 and No. 68. The funding 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. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and may produce significantly different results.

The valuations have 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 reflect 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 valuations, 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 valuations, we have relied on personnel, plan design, and asset information supplied by the City of Naples, 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 and accounting 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.

The total pension liability, net pension liability, and certain sensitivity information shown in this report are based on an actuarial valuation performed as of October 1, 2021. The total pension liability was rolled-forward from the valuation date to the plan's fiscal year ending September 30, 2022 using generally accepted actuarial principles. It is our opinion that the assumptions used for this purpose are internally consistent, reasonable, and comply with the requirements under GASB No. 67 and No. 68.


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 Naples, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Firefighters' Pension and Retirement System. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.


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

Respectfully submitted,

Foster & Foster, Inc.

By: 

Douglas H. Lozen, EA, MAAA
Enrolled Actuary #20-7778

By: 

Sara E. Carlson, ASA, EA, MAAA
Enrolled Actuary #20-8546

Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Naples Firefighters' Pension and Retirement System, performed as of October 1, 2022, 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 contribution requirements, compared with those set forth in the October 1, 2021 actuarial valuation report, are as follows:

Valuation Date Applicable to Fiscal Year Ending	10/1/2022 <u>9/30/2024</u>	10/1/2021 <u>9/30/2023</u>
Minimum Required Contribution % of Projected Annual Payroll	56.07%	62.94%
Member Contributions (Est.) % of Projected Annual Payroll	4.30%	4.38%
City And State Required Contribution % of Projected Annual Payroll	51.77%	58.56%
State Contribution (Est.) ¹ % of Projected Annual Payroll	\$609,491 12.86%	\$609,491 12.86%
City Required Contribution ² % of Projected Annual Payroll	38.91%	45.70%

¹ Represents the amount received in calendar 2022. As per a Mutual Consent Agreement between the Membership and the City, all State Monies received each year will be available to offset the City's required contribution.

² The required contribution from the combination of City and State sources for the year ending September 30, 2024, is 51.77% of the actual payroll realized in that year. As a budgeting tool, the City may contribute 38.91% of each Member's Salary and then make a one-time adjustment to account for the actual State Monies received. Please note that a shortfall contribution of \$782,059.30 is due in addition to the above stated requirements for the fiscal year ending September 30, 2023.

As you can see, the Minimum Required Contribution, represented as a percentage of payroll, shows a decrease when compared to the results determined in the October 1, 2021 actuarial valuation. The decrease is mainly attributable to a significant increase in the pensionable payroll and a decrease in the Unfunded Actuarial Accrued Liability due to the contribution policy. This decrease was offset in part by unfavorable actuarial experience, as described below.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an average salary increase of 18.57% which exceeded the 4.89% assumption and an investment return of 5.52% (Actuarial Asset Basis) which fell short of the 7.00% assumption. There were no significant sources of actuarial gain.

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.

CONTRIBUTION IMPACT OF ANNUAL CHANGES

(1) Contribution Determined as of October 1, 2021	42.07%
(2) Summary of Contribution Impact by component:	
Change in State Contribution Percentage	3.63%
Change in Normal Cost Rate	-1.25%
Change in Administrative Expense Percentage	-0.28%
Payroll Change Effect on UAAL Amortization	-7.00%
Investment Return (Actuarial Asset Basis)	2.70%
Salary Increases	3.14%
Active Decrements	-0.26%
Inactive Mortality	-0.43%
Interest Crediting on Share Plan Balances	-0.44%
UAAL Amortization Impact from Contribution Policy	-3.20%
Assumption Change	0.00%
Other	<u>0.23%</u>
Total Change in Contribution	-3.16%
(3) Contribution Determined as of October 1, 2022	38.91%

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2022</u>	<u>10/1/2021</u>
A. Participant Data		
Actives	57	52
Service Retirees	51	52
DROP Retirees	1	2
Beneficiaries	3	2
Disability Retirees	2	2
Terminated Vested	<u>2</u>	<u>6</u>
 Total	 123	 116
 Payroll Under Assumed Ret. Age	 4,739,773	 3,779,597
 Annual Rate of Payments to:		
Service Retirees	3,649,761	3,544,059
DROP Retirees	61,471	121,032
Beneficiaries	136,973	120,466
Disability Retirees	78,391	77,005
Terminated Vested	10,957	10,957
 B. Assets		
Actuarial Value (AVA) ¹	68,397,936	66,205,992
Market Value (MVA) ¹	61,581,033	72,140,839
 C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	24,944,697	21,144,577
Disability Benefits	1,253,256	1,093,624
Death Benefits	111,771	96,219
Vested Benefits	765,438	661,284
Refund of Contributions	32,117	25,097
Service Retirees	56,277,926	55,362,946
DROP Retirees ¹	1,119,325	2,862,408
Beneficiaries	1,997,333	1,814,918
Disability Retirees	1,020,450	1,013,202
Terminated Vested	61,184	53,713
Share Plan Balances ¹	<u>651,176</u>	<u>822,034</u>
 Total	 88,234,673	 84,950,022

C. Liabilities - (Continued)	<u>10/1/2022</u>	<u>10/1/2021</u>
Present Value of Future Salaries	40,092,428	32,987,081
Present Value of Future Member Contributions	1,723,974	1,444,834
Normal Cost (Retirement)	871,949	735,111
Normal Cost (Disability)	99,609	85,192
Normal Cost (Death)	7,199	5,968
Normal Cost (Vesting)	52,236	43,666
Normal Cost (Refunds)	6,383	4,587
Total Normal Cost	<u>1,037,376</u>	<u>874,524</u>
Present Value of Future Normal Costs	7,898,993	6,898,233
Accrued Liability (Retirement)	18,307,658	15,337,803
Accrued Liability (Disability)	484,326	419,542
Accrued Liability (Death)	54,151	47,619
Accrued Liability (Vesting)	357,970	313,241
Accrued Liability (Refunds)	4,181	4,363
Accrued Liability (Inactives) ¹	60,476,218	61,107,187
Share Plan Balances ¹	651,176	822,034
Total Actuarial Accrued Liability (EAN AL)	<u>80,335,680</u>	<u>78,051,789</u>
Unfunded Actuarial Accrued Liability (UAAL)	11,937,744	11,845,797
Funded Ratio (AVA / EAN AL)	85.1%	84.8%

D. Actuarial Present Value of Accrued Benefits	<u>10/1/2022</u>	<u>10/1/2021</u>
Vested Accrued Benefits		
Inactives + Share Plan Balances ¹	61,127,394	61,929,221
Actives	9,909,695	8,327,045
Member Contributions	<u>1,796,553</u>	<u>1,603,406</u>
Total	72,833,642	71,859,672
Non-vested Accrued Benefits	<u>4,741,183</u>	<u>4,503,211</u>
Total Present Value Accrued Benefits (PVAB)	77,574,825	76,362,883
Funded Ratio (MVA / PVAB)	79.4%	94.5%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	732,729	
Benefits Paid	(4,701,632)	
Interest	5,180,845	
Other	<u>0</u>	
Total	1,211,942	

Valuation Date	10/1/2022	10/1/2021
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2023</u>

E. Pension Cost

Normal Cost (with interest) % of Total Annual Payroll ²	21.89	23.14
Administrative Expenses (with interest) % of Total Annual Payroll ²	1.74	2.02
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 26 years (as of 10/1/2022, with interest) % of Total Annual Payroll ²	32.44	37.78
Minimum Required Contribution % of Total Annual Payroll ²	56.07	62.94
Expected Member Contributions % of Total Annual Payroll ²	4.30	4.38
Expected City and State Contribution % of Total Annual Payroll ²	51.77	58.56

F. Past Contributions

Plan Years Ending:	<u>9/30/2022</u>
City and State Requirement	3,182,159
Actual Contributions Made:	
Members (excluding buyback)	203,771
City	2,572,668
State	<u>609,491</u>
Total	3,385,930

G. Net Actuarial (Gain)/Loss 1,736,016

¹ The asset values and liabilities include accumulated DROP and Share Plan Balances as of 9/30/2022 and 9/30/2021.

² Contributions developed as of 10/1/2022 are expressed as a percentage of total annual payroll at 10/1/2022 of \$4,739,773.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2022	11,937,744
2023	11,127,952
2024	10,261,477
2030	4,343,234
2036	800,920
2039	144,514
2048	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2022	18.57%	4.89%
Year Ended 9/30/2021	4.47%	4.98%
Year Ended 9/30/2020	6.04%	5.09%
Year Ended 9/30/2019	5.70%	5.08%
Year Ended 9/30/2018	9.03%	5.06%

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

	<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended 9/30/2022	-12.85%	5.52%	7.00%
Year Ended 9/30/2021	22.07%	9.92%	7.00%
Year Ended 9/30/2020	4.50%	7.49%	7.30%
Year Ended 9/30/2019	3.94%	7.33%	7.40%
Year Ended 9/30/2018	10.43%	8.80%	7.50%

(iii) Average Annual Payroll Growth

(a) Payroll as of:	10/1/2022	\$4,739,773
	10/1/2012	3,545,457
(b) Total Increase		33.69%
(c) Number of Years		10.00
(d) Average Annual Rate		2.95%

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 #20-7778

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, 2021	\$11,845,797
(2) Sponsor Normal Cost developed as of October 1, 2021	708,978
(3) Expected administrative expenses for the year ended September 30, 2022	76,475
(4) Expected interest on (1), (2) and (3)	881,511
(5) Sponsor contributions to the System during the year ended September 30, 2022	3,182,159
(6) Expected interest on (5)	128,874
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2022 (1)+(2)+(3)+(4)-(5)-(6)	10,201,728
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	1,736,016
(10) Unfunded Actuarial Accrued Liability as of October 1, 2022	11,937,744

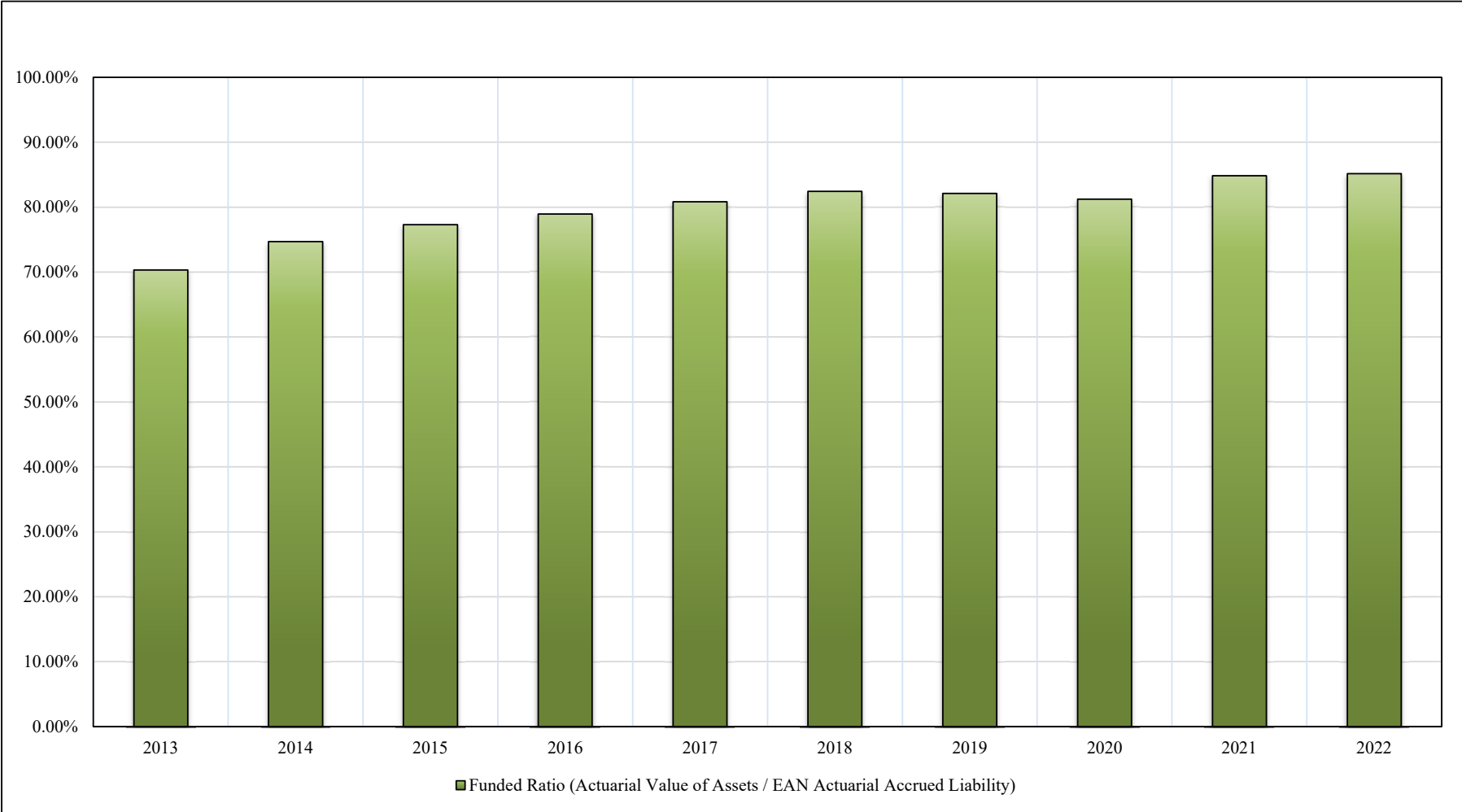
<u>Type of Base</u>	<u>Date Established</u>	<u>Years Remaining</u>	<u>10/1/2022 Amount</u>	<u>Amortization Amount</u>
	10/1/1997	5	655,280	149,361
	10/1/1999	7	1,216,731	210,998
	10/1/2000	8	(597,254)	(93,477)
	10/1/2002	10	2,718,705	361,759
	10/1/2003	11	1,560,895	194,538
Actuarial Loss	10/1/2004	11	1,789,346	223,011
Amendment	10/1/2004	11	(6,248)	(779)
Actuarial Gain	10/1/2005	11	(213,774)	(26,643)
Assum. Change	10/1/2005	11	843,673	105,149
Actuarial Gain	10/1/2006	11	(335,682)	(41,837)
Assum. Change	10/1/2006	11	896,196	111,695
Actuarial Loss	10/1/2007	11	1,263,666	157,494
Assum./Method Change	10/1/2007	11	91,885	11,452
Amendment	10/1/2007	11	614,453	76,581
Actuarial Loss	10/1/2008	11	2,702,069	336,766
Actuarial Gain	10/1/2009	11	(43,110)	(5,373)
Assumption Changes	10/1/2009	11	(1,169,666)	(145,779)
Actuarial Loss	10/1/2010	11	1,409,235	175,637
Actuarial Loss	10/1/2011	11	1,165,866	145,305

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2022 <u>Amount</u>	Amortization <u>Amount</u>
Actuarial Gain	10/1/2012	11	(743,004)	(92,603)
Amendment	10/1/2012	11	(3,887,841)	(484,552)
Actuarial Gain	10/1/2013	11	(143,304)	(17,860)
Actuarial Gain	10/1/2014	11	(969,085)	(120,780)
Assumption Change	10/1/2014	11	(74,764)	(9,318)
Actuarial Gain	10/1/2015	11	(469,007)	(58,454)
Assumption Change	10/1/2016	11	1,164,615	145,149
Actuarial Gain	10/1/2016	11	(852,749)	(106,280)
Actuarial Gain	10/1/2017	11	(158,893)	(19,803)
Actuarial Gain	10/1/2018	6	(166,996)	(32,743)
Assump Change	10/1/2018	16	442,630	43,790
Benefit Change	10/1/2018	26	(3,098)	(245)
Actuarial Loss	10/1/2019	7	251,980	43,697
Assump Change	10/1/2019	17	700,535	67,058
Actuarial Loss	10/1/2020	8	362,774	56,778
Assump Change	10/1/2020	18	1,573,870	146,227
Actuarial Gain	10/1/2021	9	(1,388,201)	(199,131)
Actuarial Loss	10/1/2022	10	<u>1,736,016</u>	<u>231,000</u>
			11,937,744	1,537,788

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2021	\$11,845,797
(2) Expected UAAL as of October 1, 2022	10,201,728
 (3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	963,443
Salary Increases	1,118,821
Active Decrements	(93,708)
Inactive Mortality	(154,635)
Interest Crediting on Share Plan Balances	(155,783)
Other	<u>57,878</u>
Increase in UAAL due to (Gain)/Loss	1,736,016
Assumption Changes	<u>0</u>
(4) Actual UAAL as of October 1, 2022	\$11,937,744

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 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

7.00% 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

Salary Scale	
Service	Rate
< 1	6.00%
2 - 9	5.50%
10 - 14	5.00%
15 - 19	4.50%
20+	4.00%

These rates were incorporated with the October 1, 2014 valuation as the result of the October 31, 2014 Experience Study.

Normal Retirement Age

Hired prior to 6/1/13: Earlier of 1) age 55, 2) the completion of 25 years of credited service, or 3) age 50 with 20 years of credited service. See below table for Members age 50 with 20 years of service:

Years after first eligibility for Normal Retirement	Assumed retirement rate
0-1	50%
2 or more	100%

100% assumed retirement upon first eligibility for Members age 55 or older, or with at least 25 years of Credited Service.

Hired after 5/31/2013: 100% assumed retirement upon the earlier of 1) age 55 with completion of 8 years of credited service, or 2) the completion of 25 years of credited service.

The above rates were adopted as the result of the August 4, 2017 Experience Study.

Early Retirement Age

Hired prior to 6/1/13: Age 50, regardless of years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 10% per year.

Hired after 5/31/13: Attainment of age 50 and the completion of 8 years of credited service. Members are assumed to retire with an immediate subsidized benefit at the rate of 5% per year.

The above rates were adopted as the result of the August 4, 2017 Experience Study.

Termination

Service	% Terminating During the Year	
	Hired Prior to 6/1/2013	Hired After 5/31/2013
0	20.0%	20.0%
1	10.0%	10.0%
2	4.0%	4.0%
3	4.0%	4.0%
4	2.0%	4.0%
5	1.0%	4.0%
6	1.0%	4.0%
7	1.0%	2.0%
8+	1.0%	1.0%

The above rates were adopted as the result of the August 4, 2017 Experience Study.

Disability

Age	% Becoming Disabled During the Year	
	Age	Rate
20		0.14%
25		0.15%
30		0.18%
35		0.23%
40		0.30%
45		0.51%
50		1.00%
55		1.55%
59+		2.09%

It is assumed that 90% of Disability Retirements are service-related. This assumption is in line with the national average for municipal defined benefit pension programs.

Post-Retirement COLA

3% per year beginning at age 50 for Service Retirees, Disability Retirees, and surviving Beneficiaries. No COLA for Vested Terminated Members or benefits accrued after May 31, 2013

Funding Method

Entry Age Normal Actuarial Cost Method.

Actuarial Asset Method

All assets are valued at market value with an adjustment made 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.

Payroll Growth

0.00% for purposes of amortizing the Unfunded Actuarial Accrued Liability. This assumption cannot exceed the ten-year average payroll growth, in compliance with Part VII of Chapter 112, Florida Statutes.

Administrative Expenses

\$82,441 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

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

Experience: 10 Years.

Assumption/Method Changes: 20 Years.

Benefit Changes: 30 Years.

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.

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.

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 140.5% on October 1, 2012 to 98.3% on October 1, 2022, 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 75.3%. 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 66.9% on October 1, 2012 to 85.1% on October 1, 2022.
- 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 3.2% on October 1, 2012 to -2.3% on October 1, 2022. The current Net Cash Flow Ratio of -2.3% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

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

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2017</u>	<u>10/1/2012</u>
<u>Support Ratio</u>				
Total Actives	57	52	46	52
Total Inactives ¹	58	59	54	37
Actives / Inactives ¹	98.3%	88.1%	85.2%	140.5%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	61,581,033	72,140,839	53,951,029	33,747,106
Total Annual Payroll	4,988,167	3,998,288	3,092,717	3,709,681
MVA / Total Annual Payroll	1,234.5%	1,804.3%	1,744.5%	909.7%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	60,476,218	61,107,187	52,467,294	26,222,350
Total Accrued Liability (EAN)	80,335,680	78,051,789	65,416,505	48,436,140
Inactive AL / Total AL	75.3%	78.3%	80.2%	54.1%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	68,397,936	66,205,992	52,873,585	32,388,216
Total Accrued Liability (EAN)	80,335,680	78,051,789	65,416,505	48,436,140
AVA / Total Accrued Liability (EAN)	85.1%	84.8%	80.8%	66.9%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow ²	(1,402,833)	(2,102,892)	(554,152)	1,091,752
Market Value of Assets (MVA)	61,581,033	72,140,839	53,951,029	33,747,106
Ratio	-2.3%	-2.9%	-1.0%	3.2%

¹ Excludes terminated participants awaiting a refund of member contributions.

² Determined as total contributions minus benefit payments and administrative expenses.

PARTIAL HISTORY OF PREMIUM TAX REFUNDS

<u>Received During Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	301,079.01	_____ %
1999	455,798.85	51.4%
2000	554,631.15	21.7%
2001	575,860.11	3.8%
2002	655,065.93	13.8%
2003	806,425.83	23.1%
2004	857,886.93	6.4%
2005	902,412.83	5.2%
2006	977,382.61	8.3%
2007	1,028,721.85	5.3%
2008	1,223,271.11	18.9%
2009	1,390,851.74	13.7%
2010	893,185.02	-35.8%
2011	765,598.10	-14.3%
2012	834,617.96	9.0%
2013	811,882.25	-2.7%
2014	871,999.13	7.4%
2015	721,101.37	-17.3%
2016	581,196.08	-19.4%
2017	509,867.99	-12.3%
2018	539,925.23	5.9%
2019	544,970.87	0.9%
2020	603,786.08	10.8%
2021	623,357.61	3.2%
2022	609,491.05	-2.2%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2022

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Checking Account	6,042.66	6,042.66
Prepaid Expenses	6,202.90	6,202.90
Money Market	1,949,586.00	1,949,586.00
Cash	(1,079.70)	(1,079.70)
 Total Cash and Equivalents	 1,960,751.86	 1,960,751.86
Receivables:		
Member Contributions in Transit	7,968.76	7,968.76
Additional City Contributions	782,059.30	782,059.30
State Contributions	15,451.31	15,451.31
 Total Receivable	 805,479.37	 805,479.37
Investments:		
Fixed Income	11,107,658.13	10,161,578.46
Equities	33,561,720.87	36,759,404.91
Mutual Funds:		
Equity	6,231,706.12	6,378,641.63
Pooled/Common/Commingled Funds:		
Real Estate	4,045,684.14	5,519,170.82
 Total Investments	 54,946,769.26	 58,818,795.82
 Total Assets	 57,713,000.49	 61,585,027.05
 <u>LIABILITIES</u>		
Payables:		
Prepaid Member Contribution	3,994.42	3,994.42
 Total Liabilities	 3,994.42	 3,994.42
 NET POSITION RESTRICTED FOR PENSIONS	 57,709,006.07	 61,581,032.63

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2022
Market Value Basis

ADDITIONS

Contributions:

Member	203,770.68
Buy-Back	1,269.91
City	2,572,667.51
State	609,491.05

Total Contributions 3,387,199.15

Investment Income:

Net Realized Gain (Loss)	2,512,306.30
Unrealized Gain (Loss)	(12,764,853.36)
Net Increase in Fair Value of Investments	(10,252,547.06)
Interest & Dividends	1,425,385.55
Less Investment Expense ¹	(329,812.43)

Net Investment Income (9,156,973.94)

Total Additions (5,769,774.79)

DEDUCTIONS

Distributions to Members:

Benefit Payments	3,767,115.70
Lump Sum DROP Distributions	858,824.22
Lump Sum Share Distributions	65,558.65
Refunds of Member Contributions	10,133.17

Total Distributions 4,701,631.74

Administrative Expense 88,399.51

Total Deductions 4,790,031.25

Net Increase in Net Position (10,559,806.04)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 72,140,838.67

End of the Year 61,581,032.63

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

ACTUARIAL ASSET VALUATION

September 30, 2022

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.

Plan Year Ending	Gain/Loss	<u>Gains/(Losses) Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2022	2023	2024	2025	2026
09/30/2018	1,608,046	0	0	0	0	0
09/30/2019	(1,963,300)	(392,660)	0	0	0	0
09/30/2020	(1,626,906)	(650,763)	(325,382)	0	0	0
09/30/2021	9,218,376	5,531,026	3,687,351	1,843,676	0	0
09/30/2022	(14,130,632)	(11,304,506)	(8,478,380)	(5,652,254)	(2,826,128)	0
Total		(6,816,903)	(5,116,411)	(3,808,578)	(2,826,128)	0

Development of Investment Gain/(Loss)

Market Value of Assets, including Prepaid Contributions, 09/30/2021	72,144,572
Contributions Less Benefit Payments & Admin Expenses	(2,184,630)
Expected Investment Earnings*	4,973,658
Actual Net Investment Earnings	<u>(9,156,974)</u>
2022 Actuarial Investment Gain/(Loss)	(14,130,632)

*Expected Investment Earnings = 0.07 * [72,144,572 + 0.5 * (2,184,630)]

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2022	61,581,033
(2) Gain/(Loss) Not Yet Recognized	<u>(6,816,903)</u>
(3) Actuarial Value of Assets, 09/30/2022, (1) - (2)	68,397,936

(A) 09/30/2021 Actuarial Assets, including Prepaid Contributions: 66,209,725

(I) Net Investment Income:

1. Interest and Dividends	1,425,386
2. Realized Gain (Loss)	2,512,306
3. Unrealized Gain (Loss)	(12,764,853)
4. Change in Actuarial Value	12,751,750
5. Investment Expenses	<u>(329,812)</u>
Total	3,594,776

(B) 09/30/2022 Actuarial Assets, including Prepaid, less Shortfall, Contributions 67,619,871

Actuarial Asset Rate of Return = 2I/(A+B-I): 5.52%

Market Value of Assets Rate of Return: -12.85%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) (963,443)

10/01/2022 Limited Actuarial Assets (not including Prepaid): 68,397,936

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
 SEPTEMBER 30, 2022
 Actuarial Asset Basis

REVENUES

Contributions:		
Member	203,770.68	
Buy-Back	1,269.91	
City	2,572,667.51	
State	609,491.05	
 Total Contributions		 3,387,199.15
Earnings from Investments:		
Interest & Dividends	1,425,385.55	
Net Realized Gain (Loss)	2,512,306.30	
Unrealized Gain (Loss)	(12,764,853.36)	
Change in Actuarial Value	12,751,750.00	
 Total Earnings and Investment Gains		 3,924,588.49

EXPENDITURES

Distributions to Members:		
Benefit Payments	3,767,115.70	
Lump Sum DROP Distributions	858,824.22	
Lump Sum Share Distributions	65,558.65	
Refunds of Member Contributions	10,133.17	
 Total Distributions		 4,701,631.74
Expenses:		
Investment related ¹	329,812.43	
Administrative	88,399.51	
 Total Expenses		 418,211.94
 Change in Net Assets for the Year		 2,191,943.96
 Net Assets Beginning of the Year		 66,205,991.67
 Net Assets End of the Year ²		 68,397,935.63

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

²Net Assets may be limited for actuarial consideration.

DEFERRED RETIREMENT OPTION PLAN ACTIVITY
October 1, 2021 to September 30, 2022

Beginning of the Year Balance	922,739.66
Plus Additions	77,170.85
Investment Return Earned	2,431.92
Less Distributions	(858,824.22)
End of the Year Balance	143,518.21

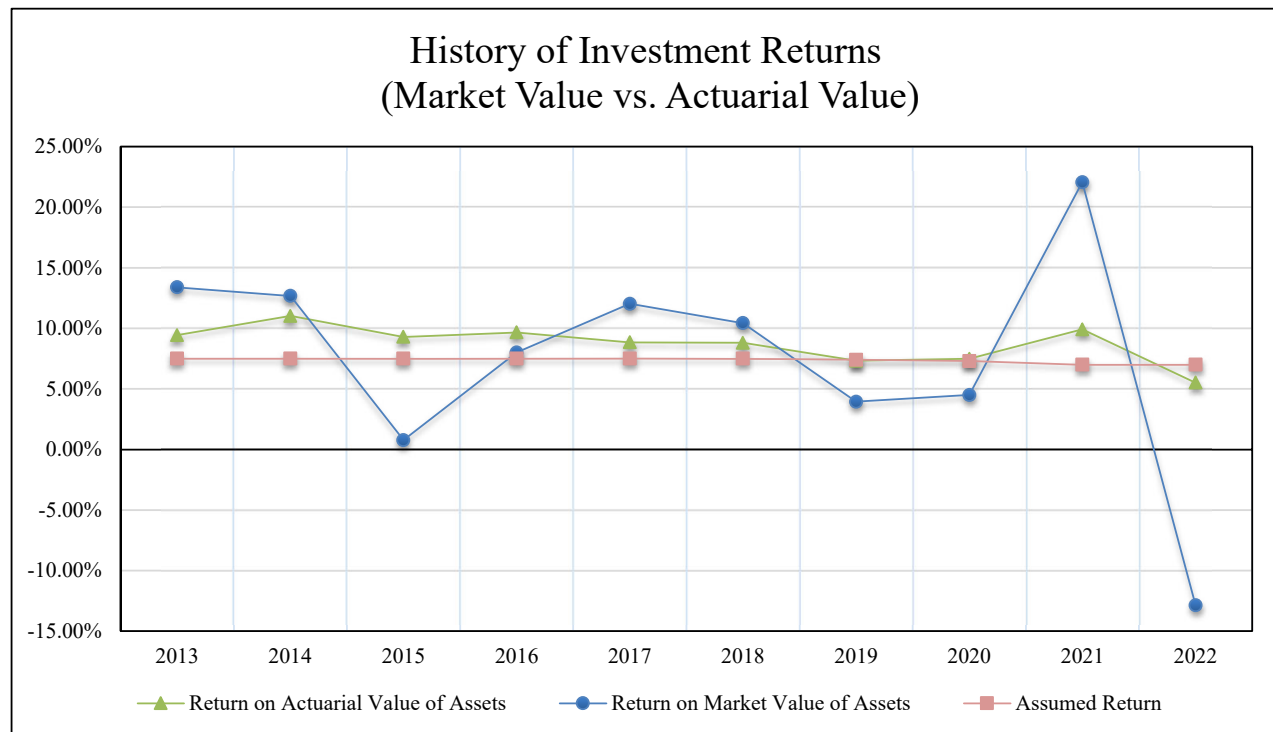
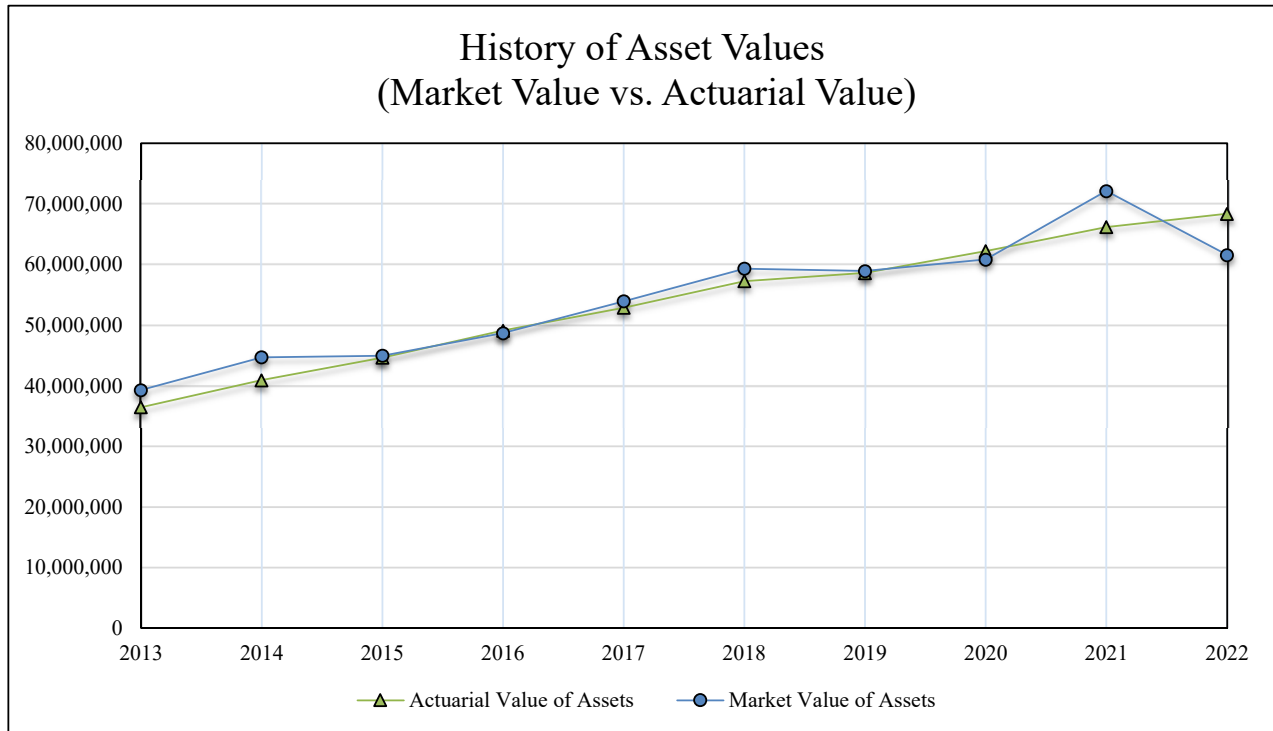
SUPPLEMENTAL CHAPTER 175 SHARE PLAN ACTIVITY
October 1, 2021 through September 30, 2022

9/30/2021 Balance (est.)	822,034.00
Prior Year Adjustment	(4,452.51)
Plus Additions	0.00
Investment Return Earned (Est.)	(100,847.00)
Less Distributions	<u>(65,558.65)</u>
9/30/2022 Balance (Est.)	651,175.84

RECONCILIATION OF CITY SHORTFALL/(PREPAID) CONTRIBUTION
FOR THE FISCAL YEAR ENDED (FYE) SEPTEMBER 30, 2022

(1)	City and State Required Contribution Rate	67.30%
(2)	Pensionable Payroll	\$4,728,318.81
(3)	City and State Required Contribution (1) x (2)	3,182,158.56
(4)	Less Allowable State Contribution	<u>(609,491.05)</u>
(5)	Equals Required City Contribution for Fiscal 2022	2,572,667.51
(6)	Less 2021 Prepaid Contribution	0.00
(7)	Less Actual City Contributions	<u>(1,790,608.21)</u>
(8)	Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2022	\$782,059.30

HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>	<u>10/1/2019</u>
<u>Actives - Hired on or before May 31, 2013</u>				
Number	31	31	31	32
Average Current Age	43.3	42.3	41.3	40.6
Average Age at Employment	26.5	26.5	26.5	26.5
Average Past Service	16.8	15.8	14.8	14.1
Average Annual Salary	\$104,483	\$81,420	\$80,415	\$80,056
<u>Actives - Hired after May 31, 2013</u>				
Number	26	21	18	19
Average Current Age	30.4	30.8	30.2	29.1
Average Age at Employment	27.2	27.6	27.5	27.4
Average Past Service	3.2	3.2	2.7	1.7
Average Annual Salary	\$67,277	\$59,789	\$59,659	\$56,531
<u>Service Retirees</u>				
Number	51	52	47	47
Average Current Age	63.0	62.4	62.4	61.4
Average Annual Benefit	\$71,564	\$68,155	\$64,139	\$62,511
<u>DROP Retirees</u>				
Number	1	2	6	6
Average Current Age	52.6	53.2	52.7	52.5
Average Annual Benefit	\$61,471	\$60,516	\$81,741	\$79,664
<u>Beneficiaries</u>				
Number	3	2	2	1
Average Current Age	60.1	62.7	61.7	60.8
Average Annual Benefit	\$45,658	\$60,233	\$58,098	\$67,687
<u>Disability Retirees</u>				
Number	2	2	2	2
Average Current Age	52.0	51.0	50.0	49.0
Average Annual Benefit	\$39,196	\$38,503	\$38,126	\$37,171
<u>Terminated Vested</u>				
Number	9	6	7	6
Average Current Age ¹	40.0	39.0	43.9	42.9
Average Annual Benefit ¹	\$10,957	\$10,957	\$37,236	\$37,489

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	2	1										3
25 - 29	3	1			2	2						8
30 - 34	3	2		3	1	6	1					16
35 - 39					1	1	1	3				6
40 - 44						2	2	4	2			10
45 - 49							2	1	7			10
50 - 54								1		1		2
55 - 59						1			1			2
60 - 64												0
65+												0
Total	8	4	0	3	4	12	6	9	10	1	0	57

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2021	52
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 received	(2)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	0
f. DROP	<u>0</u>
g. Continuing participants	49
h. New entrants / Rehires	<u>8</u>
i. Total active life participants in valuation	57

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

	Service Retirees, Vested Receiving <u>Benefits</u>	DROP <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	Vested (Due Refund)	<u>Total</u>
a. Number prior valuation	52	2	2	2	1	5	64
Retired	1	(1)	0	0	0	0	0
DROP	0	0	0	0	0	0	0
Vested (Deferred Annuity)	0	0	0	0	0	0	0
Vested (Due Refund)	0	0	0	0	0	1	1
Hired/Terminated in Same Year	0	0	0	0	0	2	2
Death, With Survivor	(1)	0	1	0	0	0	0
Death, No Survivor	(1)	0	0	0	0	0	(1)
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	0	0
Rehires	0	0	0	0	0	0	0
Expired Annuities	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
b. Number current valuation	51	1	3	2	1	8	66

SUMMARY OF CURRENT PLAN
(Through Ordinance No. 2018-14265)

<u>Eligibility</u>	Full-time employees who are classified as certified Firefighters participate in the Plan as a condition of employment.
<u>Credited Service</u>	Total years and completed days of uninterrupted service with the City as a Firefighter.
<u>Salary</u>	Base compensation, excluding overtime pay, holiday pay, and fringe benefits.
<u>Final Average Compensation</u>	Average of compensation paid during the five (5) highest years of the last ten years of service. The average cannot be less than the three-year average (consecutive years) determined as of May 31, 2013.
<u>Normal Retirement</u>	
Date	Earlier of 1) age 55, 2) age 50 and the completion of 20 years of Credited Service, or 3) the completion of 25 years of credited service, regardless of age. For Members hired after May 31, 2013, the Normal Retirement Date is the earlier of 1) Age 55 with 8 years of Credited Service, or 2) the completion of 25 years of Credited Service, regardless of Age.
Benefit	The sum of the following: a.) 4% of Final Average Compensation (using a three-year average, determined as of May 31, 2013) for each year of Credited Service through May 31, 2013, plus b.) 3% of Final Average Compensation (using a five-year average) for Credited Service after May 31, 2013. Members who had attained Normal Retirement eligibility as of May 31, 2013 continue to accrued benefits under Plan provisions in effect prior to Ordinance 13-13283.
Form of Benefit	Ten Year Certain and Life Annuity (options available).

Early Retirement

Date	Age 50, regardless of years of Credited Service. Members hired after May 31, 2013 attain Early Retirement eligibility at age 50 with 8 years of Credited Service.
Benefit	Accrued benefit, reduced 3% for each year Early Retirement precedes the earlier of age 55, or the completion of 20 years of Credited Service, regardless of age. For Members hired after May 31, 2013, the reduction is 3% for each year Early Retirement precedes the earlier of age 55 and 8 years of Credited Service, or the completion of 25 years of Credited Service, regardless of age.

Vesting

Schedule	100% after 5 years of Credited Service. Members hired after May 31, 2013 are fully vested upon the completion of 8 years of Credited Service.
Benefit Amount	Member will receive the vested portion of his (her) accrued benefit payable at age 55 (unreduced), or age 50, reduced as for Early Retirement. Non-vested Members receive a refund of Member contributions accumulated with 5.5% interest.

Disability

Eligibility	Total and permanent as determined by the Board of Trustees. Members are covered from Date of Employment.
Benefit	Accrued Benefit to date of disability but not less than 42% of Final Average Compensation (Service Incurred), or 25% of Final Average Compensation (Non-Service Incurred).
Duration	Payable for life with 10 years certain or until recovery (as determined by the Board).

Death Benefits

Pre-Retirement

Vested

Accrued benefit, actuarially reduced for commencement prior to age 55. The benefit is determined as if the participant had retired immediately prior to death and had chosen the 100% joint survivor option.

Non-Vested

Refund of Member contributions, with 5.5% interest.

Post-Retirement

Benefits payable to beneficiary in accordance with option selected at retirement.

Cost of Living Adjustment

Eligibility

Normal and Early service Retirees and Beneficiaries, including Disability Retirees. Vested, terminated Members are not eligible for the COLA.

Amount

3.0% increase per year following the retiree's 50th birthday.

COLAs are not applicable to benefits accrued after May 31, 2013.

Member Contributions

5.0% of Compensation. The contribution rate is 3% for Members hired after May 31, 2013.

City and State Contributions

Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Deferred Retirement Option Plan

Eligibility

Normal Retirement eligibility.

Participation

Not to exceed 60 months.

Rate of Return

1.3% annual effective rate, compounded monthly.

Form of Distribution

Cash lump sum at termination of employment.

Board of Trustees

Two Council appointees, two Members of the Plan elected by the Membership, and a fifth Member elected by other 4 and appointed by Council as a ministerial duty.

Chapter 175 Share Accounts

Effective October 1, 2009, an initial amount of \$663,717.06 was allocated to all members who were employed as of that date. Based on the current Collective Bargaining Agreement, no future State Monies are scheduled for allocation to the Share Plan.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2022

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	6,043
Prepaid Expenses	6,203
Money Market	1,949,586
Cash	(1,080)
 Total Cash and Equivalents	 1,960,752
Receivables:	
Member Contributions in Transit	7,969
Additional City Contributions	782,059
State Contributions	15,451
 Total Receivable	 805,479
Investments:	
Fixed Income	10,161,578
Equities	36,759,405
Mutual Funds:	
Equity	6,378,642
Pooled/Common/Commingled Funds:	
Real Estate	5,519,171
 Total Investments	 58,818,796
 Total Assets	 61,585,027
 Total Liabilities	 0
 NET POSITION RESTRICTED FOR PENSIONS	 61,585,027

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED SEPTEMBER 30, 2022
Market Value Basis

ADDITIONS

Contributions:

Member	204,032
Buy-Back	1,270
City	2,572,668
State	609,491

Total Contributions	3,387,461
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Investment Income:

Net Increase in Fair Value of Investments	(10,252,547)
Interest & Dividends	1,425,385
Less Investment Expense ¹	(329,812)

Net Investment Income	(9,156,974)
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Total Additions	(5,769,513)
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DEDUCTIONS

Distributions to Members:

Benefit Payments	3,767,116
Lump Sum DROP Distributions	858,824
Lump Sum Share Distributions	65,559
Refunds of Member Contributions	10,133

Total Distributions	4,701,632
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Administrative Expense	88,400
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Total Deductions	4,790,032
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Net Increase in Net Position	(10,559,545)
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NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year	72,144,572
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End of the Year	61,585,027
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¹Investment related expenses include investment advisory, custodial and performance monitoring fees.

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2022)

Plan Administration

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two Council appointees;
- b. Two Members of the Plan elected by the Membership, and a
- c. Fifth Member elected by other four and appointed by Council as a ministerial duty.

Plan Membership as of October 1, 2021:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	58
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	6
Active Plan Members	52
	116

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2021 Actuarial Valuation Report for the City of Naples Firefighters' Pension and Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Member Contributions: 5.0% of Compensation. The contribution rate is 3% for Members hired after May 31, 2013.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Investment Policy:

The following was the Board's adopted asset allocation policy as of September 30, 2022:

Asset Class	Target Allocation
Domestic Equity	52.50%
International Equity	10.00%
Fixed Income	17.50%
Private Real Estate	10.00%
MLP/Energy Infrastructure	10.00%
Total	100.00%

Concentrations:

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's Fiduciary Net Position.

Rate of Return:

For the year ended September 30, 2022, the annual money-weighted rate of return on Pension Plan investments, net of Pension Plan investment expense, was -12.85 percent.

The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Deferred Retirement Option Program

Eligibility: Normal Retirement eligibility.

Participation: Not to exceed 60 months.

Rate of Return: 1.3% annual effective rate, compounded monthly.

The DROP balance as September 30, 2022 is \$143,518.

NET PENSION LIABILITY OF THE SPONSOR

The components of the Net Pension Liability of the Sponsor on September 30, 2022 were as follows:

Total Pension Liability	\$ 79,524,960
Plan Fiduciary Net Position	<u>\$ (61,585,027)</u>
Sponsor's Net Pension Liability	<u>\$ 17,939,933</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	77.44%

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2021 updated to September 30, 2022 using the following actuarial assumptions:

Inflation	2.30%
Salary Increases	Service based
Discount Rate	7.00%
Investment Rate of Return	7.00%

Mortality Rate Healthy 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.

Mortality Rate 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.

Mortality 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.

Mortality Rate Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The above 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.

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

The most recent actuarial experience study used to review the other significant assumptions was dated August 4, 2017.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2022 the inflation rate assumption of the investment advisor was 2.26%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2022 are summarized in the following table:

<u>Asset Class</u>	<u>Long Term Expected Real Rate of Return¹</u>
Domestic Equity	5.59%
International Equity	4.44%
Fixed Income	1.26%
Private Real Estate	4.34%
MLP/Energy Infrastructure	4.48%

¹ Source: Morgan Stanley. Based secular annualized return and volatility estimates are based on a 20-year-plus time horizon.

Please note that long term expected return of the total portfolio is greater than simply multiplying each of the above "Long Term Expected Real Rate of Returns" by their target allocation % and adding them together. Not only is the time horizon longer for an actuarial valuation relative to the time horizon over which the above projected returns were generated, but also there is an additional correlation resulting from a diversified portfolio that will provide additional returns.

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

	1% Decrease	Current Discount Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ 28,062,332	\$ 17,939,933	\$ 9,602,671

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 2 Fiscal Years

	09/30/2022	09/30/2021
Total Pension Liability		
Service Cost	874,440	827,646
Interest	5,348,578	5,215,303
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	117,668	539,454
Changes of assumptions	-	-
Contributions - Buy Back	1,270	16,509
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	(4,781,924)
Net Change in Total Pension Liability	1,640,324	1,816,988
Total Pension Liability - Beginning	77,884,636	76,067,648
Total Pension Liability - Ending (a)	<u>\$ 79,524,960</u>	<u>\$ 77,884,636</u>
Plan Fiduciary Net Position		
Contributions - Employer	2,572,668	1,949,767
Contributions - State	609,491	623,358
Contributions - Employee	204,032	169,498
Contributions - Buy Back	1,270	16,509
Net Investment Income	(9,156,974)	13,403,712
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	(4,781,924)
Administrative Expense	(88,400)	(76,482)
Net Change in Plan Fiduciary Net Position	(10,559,545)	11,304,438
Plan Fiduciary Net Position - Beginning	72,144,572	60,840,134
Plan Fiduciary Net Position - Ending (b)	<u>\$ 61,585,027</u>	<u>\$ 72,144,572</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 17,939,933</u>	<u>\$ 5,740,064</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.44%	92.63%
Covered Payroll	\$ 4,728,319	\$ 3,782,903
Net Pension Liability as a percentage of Covered Payroll	379.41%	151.74%

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2022	\$ 3,182,159	\$ 3,182,159	\$ -	\$ 4,728,319	67.30%
09/30/2021	\$ 2,266,338	\$ 2,573,125	\$ (306,787)	\$ 3,782,903	68.02%

Notes to Schedule

Valuation Date: 10/01/2020

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates can be found in the October 1, 2020 Actuarial Valuation for the City of Naples Firefighters' Pension and Retirement System prepared by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS
Last 2 Fiscal Years

Fiscal Year Ended	Annual Money-Weighted Rate of Return Net of Investment Expense
09/30/2022	-12.85%
09/30/2021	22.07%

NOTES TO THE FINANCIAL STATEMENTS
(For the Year Ended September 30, 2023)

Plan Description

The Plan is a single-employer defined benefit pension plan administered by the Plan's Board of Trustees comprised of:

- a. Two Council appointees;
- b. Two Members of the Plan elected by the Membership, and a
- c. Fifth Member elected by other four and appointed by Council as a ministerial duty.

Full-time employees who are classified as certified Firefighters participate in the Plan as a condition of employment.

Plan Membership as of October 1, 2021:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	58
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	6
Active Plan Members	52
	116
	116

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the October 1, 2021 Actuarial Valuation Report for the City of Naples Firefighters' Pension and Retirement System prepared by Foster & Foster Actuaries and Consultants.

Contributions

Member Contributions: 5.0% of Compensation. The contribution rate is 3% for Members hired after May 31, 2013.

City and State Contributions: Remaining amount required in order to pay current costs and amortize unfunded past service cost, if any, over 30 years.

Net Pension Liability

The measurement date is September 30, 2022.

The measurement period for the pension expense was October 1, 2021 to September 30, 2022.

The reporting period is October 1, 2022 through September 30, 2023.

The Sponsor's Net Pension Liability was measured as of September 30, 2022.

The Total Pension Liability used to calculate the Net Pension Liability was determined as of that date.

Actuarial Assumptions:

The Total Pension Liability was determined by an actuarial valuation as of October 1, 2021 updated to September 30, 2022 using the following actuarial assumptions:

Inflation	2.30%	
Salary Increases	Service based	
Discount Rate	7.00%	
Investment Rate of Return	7.00%	

Mortality Rate Healthy 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.

Mortality Rate 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.

Mortality 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.

Mortality Rate Disabled Lives:

80% PubG.H-2010 for Disabled Retirees / 20% PubS.H-2010 for Disabled Retirees.

All rates are projected generationally with Mortality Improvement Scale MP-2018. We feel this assumption sufficiently accommodates future mortality improvements.

The above 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.

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

The most recent actuarial experience study used to review the other significant assumptions was dated August 4, 2017.

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

For 2022 the inflation rate assumption of the investment advisor was 2.26%.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation as of September 30, 2022 are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long Term Expected Real Rate of Return¹</u>
Domestic Equity	52.50%	5.59%
International Equity	10.00%	4.44%
Fixed Income	17.50%	1.26%
Private Real Estate	10.00%	4.34%
<u>MLP/Energy Infrastructure</u>	<u>10.00%</u>	<u>4.48%</u>
Total	<u>100.00%</u>	

¹ Source: Morgan Stanley. Based secular annualized return and volatility estimates are based on a 20-year-plus time horizon.

Please note that long term expected return of the total portfolio is greater than simply multiplying each of the above “Long Term Expected Real Rate of Returns” by their target allocation % and adding them together. Not only is the time horizon longer for an actuarial valuation relative to the time horizon over which the above projected returns were generated, but also there is an additional correlation resulting from a diversified portfolio that will provide additional returns.

Discount Rate:

The Discount Rate used to measure the Total Pension Liability was 7.00 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments was applied to all periods of projected benefit payments to determine the Total Pension Liability.

CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(a)	(b)	(a)-(b)
Reporting Period Ending September 30, 2022	\$ 77,884,636	\$ 72,144,572	\$ 5,740,064
Changes for a Year:			
Service Cost	874,440	-	874,440
Interest	5,348,578	-	5,348,578
Differences between Expected and Actual Experience	117,668	-	117,668
Changes of assumptions	-	-	-
Changes of benefit terms	-	-	-
Contributions - Employer	-	2,572,668	(2,572,668)
Contributions - State	-	609,491	(609,491)
Contributions - Employee	-	204,032	(204,032)
Contributions - Buy Back	1,270	1,270	-
Net Investment Income	-	(9,156,974)	9,156,974
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	(4,701,632)	-
Administrative Expense	-	(88,400)	88,400
Net Changes	1,640,324	(10,559,545)	12,199,869
Reporting Period Ending September 30, 2023	\$ 79,524,960	\$ 61,585,027	\$ 17,939,933

Sensitivity of the Net Pension Liability to changes in the Discount Rate.

	Current		
	1% Decrease	Discount Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ 28,062,332	\$ 17,939,933	\$ 9,602,671

Pension Plan Fiduciary Net Position.

Detailed information about the pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

**FINAL PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED
INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2022**

For the year ended September 30, 2022, the Sponsor has recognized a Pension Expense of \$1,161,156.

On September 30, 2022, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	1,229,718	109,931
Changes of assumptions	1,565,304	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	5,934,846
Employer and State contributions subsequent to the measurement date	3,182,159	-
Total	\$ 5,977,181	\$ 6,044,777

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date has been recognized as a reduction of the net Pension Liability in the year ended September 30, 2022.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:	
2023	\$ (429,222)
2024	\$ (112,020)
2025	\$ (972,729)
2026	\$ (1,735,784)
2027	\$ -
Thereafter	\$ -

**PRELIMINARY PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND
DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
FISCAL YEAR SEPTEMBER 30, 2023**

For the year ended September 30, 2023, the Sponsor will recognize a Pension Expense of \$3,532,266.

On September 30, 2023, the Sponsor reported Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between Expected and Actual Experience	849,471	-
Changes of assumptions	911,735	-
Net difference between Projected and Actual Earnings on Pension Plan investments	6,838,801	-
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ -

The outcome of the Deferred Outflows of resources related to pensions resulting from Employer and State contributions subsequent to the measurement date will be recognized as a reduction of the net Pension Liability in the year ended September 30, 2023.

Other amounts reported as Deferred Outflows of Resources and Deferred Inflows of Resources related to pensions will be recognized in Pension Expense as follows:

Year ended September 30:		
2024	\$	2,743,115
2025	\$	1,882,406
2026	\$	1,119,351
2027	\$	2,855,135
2028	\$	-
Thereafter	\$	-

Payable to the Pension Plan

On September 30, 2022, the Sponsor reported a payable of \$782,059 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2022.

SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
Last 2 Fiscal Years

Reporting Period Ending Measurement Date	09/30/2023 09/30/2022	09/30/2022 09/30/2021
Total Pension Liability		
Service Cost	874,440	827,646
Interest	5,348,578	5,215,303
Changes of benefit terms	-	-
Differences between Expected and Actual Experience	117,668	539,454
Changes of assumptions	-	-
Contributions - Buy Back	1,270	16,509
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	(4,781,924)
Net Change in Total Pension Liability	1,640,324	1,816,988
Total Pension Liability - Beginning	77,884,636	76,067,648
Total Pension Liability - Ending (a)	<u>\$ 79,524,960</u>	<u>\$ 77,884,636</u>
Plan Fiduciary Net Position		
Contributions - Employer	2,572,668	1,949,767
Contributions - State	609,491	623,358
Contributions - Employee	204,032	169,498
Contributions - Buy Back	1,270	16,509
Net Investment Income	(9,156,974)	13,403,712
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	(4,781,924)
Administrative Expense	(88,400)	(76,482)
Net Change in Plan Fiduciary Net Position	(10,559,545)	11,304,438
Plan Fiduciary Net Position - Beginning	72,144,572	60,840,134
Plan Fiduciary Net Position - Ending (b)	<u>\$ 61,585,027</u>	<u>\$ 72,144,572</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 17,939,933</u>	<u>\$ 5,740,064</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.44%	92.63%
Covered Payroll	\$ 4,728,319	\$ 3,782,903
Net Pension Liability as a percentage of Covered Payroll	379.41%	151.74%

SCHEDULE OF CONTRIBUTIONS

Last 2 Fiscal Years

Fiscal Year Ended	Actuarially Determined Contribution	Contributions in relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a percentage of Covered Payroll
09/30/2022	\$ 3,182,159	\$ 3,182,159	\$ -	\$ 4,728,319	67.30%
09/30/2021	\$ 2,266,338	\$ 2,573,125	\$ (306,787)	\$ 3,782,903	68.02%

Notes to Schedule

Valuation Date: 10/01/2020

Actuarially determined contribution rates are calculated as of October 1, two years prior to the end of the fiscal year in which contributions are reported.

Methods and assumptions used to determine contribution rates can be found in the October 1, 2020 Actuarial Valuation for the City of Naples Firefighters' Pension and Retirement System prepared by Foster & Foster Actuaries and Consultants.

EXPENSE DEVELOPMENT AND AMORTIZATION SCHEDULES

The following information is not required to be disclosed but is provided for informational purposes.

FINAL COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2022

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 15,227,514	\$ 1,299,924	\$ 8,698,775	\$ -
Employer and State contributions made after 09/30/2021	-	-	3,182,159	-
Total Pension Liability Factors:				
Service Cost	827,646	-	-	827,646
Interest	5,215,303	-	-	5,215,303
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	16,509	-	-	16,509
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	539,454	-	539,454	-
Current year amortization of experience difference	-	(109,931)	(530,341)	420,410
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(860,237)	860,237
Benefit Payments, including Refunds of Employee Contributions	(4,781,924)	-	-	-
Net change	<u>1,816,988</u>	<u>(109,931)</u>	<u>2,331,035</u>	<u>7,340,105</u>
Plan Fiduciary Net Position:				
Contributions - Employer	1,949,767	-	(1,949,767)	-
Contributions - State	623,358	-	(623,358)	-
Contributions - Employee	169,498	-	-	(169,498)
Contributions - Buy Back	16,509	-	-	(16,509)
Projected Net Investment Income	4,185,335	-	-	(4,185,335)
Difference between projected and actual earnings on Pension Plan investments	9,218,377	9,218,377	-	-
Current year amortization	-	(2,602,130)	(718,041)	(1,884,089)
Benefit Payments, including Refunds of Employee Contributions	(4,781,924)	-	-	-
Administrative Expenses	(76,482)	-	-	76,482
Net change	<u>11,304,438</u>	<u>6,616,247</u>	<u>(3,291,166)</u>	<u>(6,178,949)</u>
Ending Balance	<u>\$ 5,740,064</u>	<u>\$ 7,806,240</u>	<u>\$ 7,738,644</u>	<u>\$ 1,161,156</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2023

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 5,740,064	\$ 7,806,240	\$ 7,738,644	\$ -
Employer and State contributions made after 09/30/2022	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	874,440	-	-	874,440
Interest	5,348,578	-	-	5,348,578
Changes in benefit terms	-	-	-	-
Contributions - Buy Back	1,270	-	-	1,270
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	117,668	-	117,668	-
Current year amortization of experience difference	-	(109,931)	(497,915)	387,984
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(653,569)	653,569
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	-	-	-
Net change	<u>1,640,324</u>	<u>(109,931)</u>	<u>(1,033,816)</u>	<u>7,265,841</u>
Plan Fiduciary Net Position:				
Contributions - Employer	2,572,668	-	(2,572,668)	-
Contributions - State	609,491	-	(609,491)	-
Contributions - Employee	204,032	-	-	(204,032)
Contributions - Buy Back	1,270	-	-	(1,270)
Projected Net Investment Income	5,001,030	-	-	(5,001,030)
Difference between projected and actual earnings on Pension Plan investments	(14,158,004)	-	14,158,004	-
Current year amortization	-	(2,165,284)	(3,549,641)	1,384,357
Benefit Payments, including Refunds of Employee Contributions	(4,701,632)	-	-	-
Administrative Expenses	(88,400)	-	-	88,400
Net change	<u>(10,559,545)</u>	<u>(2,165,284)</u>	<u>7,426,204</u>	<u>(3,733,575)</u>
Ending Balance	<u>\$ 17,939,933</u>	<u>\$ 5,531,025</u>	<u>TBD</u>	<u>\$ 3,532,266</u>

* Employer Contributions subsequent to the measurement date made after September 30, 2022 but made on or before September 30, 2023 need to be added.

AMORTIZATION SCHEDULE - INVESTMENTS

Increase (Decrease) in Pension Expense Arising from the Recognition of the of Differences Between Projected and Actual Earnings on Pension Plan Investments

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2022	\$ 14,158,004	5	\$ -	\$ 2,831,600	\$ 2,831,601	\$ 2,831,601	\$ 2,831,601	\$ 2,831,601	\$ -	\$ -	\$ -	\$ -
2021	\$ (9,218,377)	5	\$ (1,843,677)	\$ (1,843,675)	\$ (1,843,675)	\$ (1,843,675)	\$ (1,843,675)	\$ -	\$ -	\$ -	\$ -	\$ -
2020	\$ 1,626,905	5	\$ 325,381	\$ 325,381	\$ 325,381	\$ 325,381	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 1,963,300	5	\$ 392,660	\$ 392,660	\$ 392,660	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (1,608,047)	5	\$ (321,609)	\$ (321,609)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (2,184,218)	5	\$ (436,844)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (1,884,089)	\$ 1,384,357	\$ 1,705,967	\$ 1,313,307	\$ 987,926	\$ 2,831,601	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - CHANGES OF ASSUMPTIONS

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions

Plan Year Ending	Changes of Assumptions	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2020	\$ 1,862,522	5	\$ 372,504	\$ 372,504	\$ 372,504	\$ 372,504	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 833,634	5	\$ 166,727	\$ 166,727	\$ 166,727	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 571,688	5	\$ 114,338	\$ 114,338	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 1,240,006	6	\$ 206,668	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 860,237	\$ 653,569	\$ 539,231	\$ 372,504	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

AMORTIZATION SCHEDULE - EXPERIENCE

Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience

Plan Year Ending	Differences Between Expected and Actual Experience	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2022	\$ 117,668	5	\$ -	\$ 23,532	\$ 23,534	\$ 23,534	\$ 23,534	\$ 23,534	\$ -	\$ -	\$ -	\$ -
2021	\$ 539,454	5	\$ 107,890	\$ 107,891	\$ 107,891	\$ 107,891	\$ 107,891	\$ -	\$ -	\$ -	\$ -	\$ -
2020	\$ 325,848	5	\$ 65,170	\$ 65,170	\$ 65,170	\$ 65,170	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 1,506,608	5	\$ 301,322	\$ 301,322	\$ 301,322	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (549,657)	5	\$ (109,931)	\$ (109,931)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 182,694	5	\$ 36,539	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ 116,520	6	\$ 19,420	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 420,410	\$ 387,984	\$ 497,917	\$ 196,595	\$ 131,425	\$ 23,534	\$ -	\$ -	\$ -	\$ -