

CITY OF MADISON
POLICE OFFICERS' AND FIREFIGHTERS' RETIREMENT TRUST FUND
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



February 16, 2023

Board of Trustees
City of Madison
Firefighters and Police Officers' Pension Board

Re: City of Madison Police Officers' and Firefighters' Retirement Trust Fund

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Madison Police Officers' and Firefighters' Retirement Trust Fund. 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, 175, and 185, 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 Madison, 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 Madison, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Police Officers' and Firefighters' Retirement 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: 
Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #20-6595

By: 
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Enrolled Actuary #20-8780

Enclosures ptd/lke

TABLE OF CONTENTS

Section	Title	Page
I	Introduction	
	a. Summary of Report	5
	b. Changes Since Prior Valuation	6
	c. Comparative Summary of Principal Valuation Results	7
II	Valuation Information	
	a. Reconciliation of Unfunded Actuarial Accrued Liabilities	13
	b. Detailed Actuarial (Gain)/Loss Analysis	14
	c. History of Funding Progress	15
	d. Actuarial Assumptions and Methods	16
	e. Glossary	19
	f. Discussion of Risk	20
	g. Partial History of Premium Tax Refunds	23
III	Trust Fund	24
IV	Member Statistics	
	a. Statistical Data	30
	b. Age and Service Distribution	31
	c. Valuation Participant Reconciliation	32
V	Summary of Current Plan	33
VI	Governmental Accounting Standards Board Statements No. 67 and No. 68 Disclosure Information	36

SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Madison Police Officers' and Firefighters' Retirement Trust Fund, 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 January 9, 2023 actuarial impact statement, are as follows:

Valuation Date	10/1/2022	10/1/2021
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2023</u>
Minimum Required Contribution	\$416,501	\$432,329
Member Contributions (Est.)	61,730	69,239
City And State Required Contribution	354,771	363,090
State Contribution (Est.) ¹	49,425	49,425
City Required Contribution ²	\$305,346	\$313,665

¹ Represents the amount received in calendar 2022. The amounts shown reflect the “default” calculation under Chapter 2015-39, Laws of Florida. This requirement is effective October 1, 2015 for non-collectively bargained Plans without a mutual consent agreement between the city and Plan Membership regarding the use of State Monies. The base amount of State Monies for Fire is \$22,405.75 and the base amount for Police is \$25,895.45. Future State Monies in excess of these amounts will be allocated equally between the City for funding and the Share Plan for the Membership. Please note that because of the delay in receipt of State Monies, the Plan could receive two sets of State Monies in fiscal 2023, which would increase the available State Monies for that particular year.

² Please note that the City has access to a prepaid contribution of \$35,482.60 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2023.

The Minimum Required Contribution reflects a decrease compared to the results determined in the January 9, 2023 actuarial impact statement. The decrease is largely attributable to a decrease in the number of active members in the Plan and a reduction in the levels of administrative expenses. The decrease was offset in part by unfavorable Plan experience on the basis of the Plan’s actuarial assumptions. Sources of actuarial loss included an investment return of 4.35% (Actuarial Asset Basis) which fell short of the 7.00% assumption, an average salary increase of 8.62% which exceeded the 6.00% assumption, and inactive mortality experience. There were no significant sources of actuarial gain.

CHANGES SINCE PRIOR VALUATION

Plan Changes

Ordinance No. 2022-5 amended the Plan as follows:

- Effective October 1, 2022, the member contribution rate for firefighters was decreased from 7.1% to 5.0%.
- Effective October 1, 2022, all current and future retired firefighters, and their beneficiaries, who are currently receiving or eligible to receive normal retirement benefits shall receive an annual cost of living adjustment (COLA) of 1.35%.
 - o Firefighters retiring on or after October 1, 2022 shall receive an annual COLA on each yearly anniversary of their retirement date beginning on the later of the first day of the 61st month following their normal retirement date or the first day of the 61st month following termination of DROP participation.
 - o Firefighters who retired prior to October 1, 2022 shall receive an annual COLA on each yearly anniversary of their retirement date beginning on the later of the first day of the month following their normal retirement date, the first day of the 61st month following their normal retirement date, or the first day of the 61st month following termination of DROP participation. There are no retroactive COLAs.

The impact of these changes on the funding requirements to the Plan can be found in our Actuarial Impact Statement dated January 9, 2023.

Actuarial Assumption/Method Changes

There have been no assumption or method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	<u>10/1/2022</u>	<u>10/1/2021</u>
A. Participant Data		
Actives	22	26
Service Retirees	13	13
DROP Retirees	0	0
Beneficiaries	0	0
Disability Retirees	0	0
Terminated Vested	<u>2</u>	<u>8</u>
Total	44	47
 Payroll Under Assumed Ret. Age	 \$1,127,130	 \$1,245,761
 Annual Rate of Payments to:		
Service Retirees	410,523	402,170
DROP Retirees	0	0
Beneficiaries	0	0
Disability Retirees	0	0
Terminated Vested	0	0
 B. Assets		
Actuarial Value (AVA) ¹	6,536,067	6,265,463
Market Value (MVA) ¹	5,606,545	6,752,478
 C. Liabilities		
Present Value of Benefits		
Actives		
Retirement Benefits	3,455,740	3,151,532
Disability Benefits	80,836	81,840
Death Benefits	17,505	17,745
Vested Benefits	308,402	342,636
Refund of Contributions	98,716	117,828
Service Retirees	5,195,876	5,161,401
DROP Retirees ¹	0	0
Beneficiaries	0	0
Disability Retirees	0	0
Terminated Vested	40,333	33,052
Share Plan Balances ¹	<u>9,452</u>	<u>9,871</u>
Total	9,206,860	8,915,905

C. Liabilities - (Continued)	<u>10/1/2022</u>	<u>10/1/2021</u>
Present Value of Future Salaries	6,589,138	7,721,998
Present Value of Future Member Contributions	329,457	386,100
Normal Cost (Retirement)	115,488	126,877
Normal Cost (Disability)	9,467	9,756
Normal Cost (Death)	1,050	1,092
Normal Cost (Vesting)	15,816	22,468
Normal Cost (Refunds)	15,941	18,533
Total Normal Cost	<u>157,762</u>	<u>178,726</u>
Present Value of Future Normal Costs	874,444	1,047,550
Accrued Liability (Retirement)	2,799,910	2,385,405
Accrued Liability (Disability)	34,759	31,279
Accrued Liability (Death)	11,397	11,092
Accrued Liability (Vesting)	204,246	199,255
Accrued Liability (Refunds)	36,443	37,000
Accrued Liability (Inactives) ¹	5,236,209	5,194,453
Share Plan Balances ¹	9,452	9,871
Total Actuarial Accrued Liability (EAN AL)	<u>8,332,416</u>	<u>7,868,355</u>
Unfunded Actuarial Accrued Liability (UAAL)	1,796,349	1,602,892
Funded Ratio (AVA / EAN AL)	78.4%	79.6%

D. Actuarial Present Value of	<u>10/1/2022</u>	<u>10/1/2021</u>
Accrued Benefits		
Vested Accrued Benefits		
Inactives + Share Plan Balances ¹	5,245,661	5,204,324
Actives	1,548,081	1,308,290
Member Contributions	<u>371,473</u>	<u>332,670</u>
Total	7,165,215	6,845,284
Non-vested Accrued Benefits	<u>175,953</u>	<u>127,741</u>
Total Present Value		
Accrued Benefits (PVAB)	7,341,168	6,973,025
Funded Ratio (MVA / PVAB)	76.4%	96.8%
Increase (Decrease) in Present Value of		
Accrued Benefits Attributable to:		
Plan Amendments	0	
Assumption Changes	0	
Plan Experience	318,682	
Benefits Paid	(423,817)	
Interest	473,278	
Other	<u>0</u>	
Total	368,143	

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 ²	\$172,803	\$198,670
Administrative Expenses ²	34,845	50,829
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2022) ²	208,853	182,830
Minimum Required Contribution	416,501	432,329
Expected Member Contributions ²	61,730	69,239
Expected City and State Contribution	354,771	363,090
F. Past Contributions		
Plan Years Ending:	<u>9/30/2022</u>	
City and State Requirement	382,549	
Actual Contributions Made:		
City	334,738	
State	<u>47,811</u>	
Total	382,549	
G. Net Actuarial (Gain)/Loss	303,604	

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 displayed above have been adjusted to account for assumed salary increase and interest components.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2022	1,796,349
2023	1,718,073
2024	1,634,317
2027	1,346,202
2031	858,754
2034	396,102
2037	0

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

		<u>Actual</u>	<u>Assumed</u>
Year Ended	9/30/2022	8.62%	5.75%
Year Ended	9/30/2021	8.29%	6.00%
Year Ended	9/30/2020	4.66%	6.00%
Year Ended	9/30/2019	10.02%	6.00%

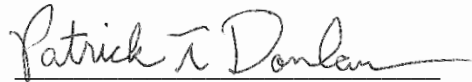
(ii) 5 Year Comparison of Investment Return on Market Value and Actuarial Value

		<u>Market Value</u>	<u>Actuarial Value</u>	<u>Assumed</u>
Year Ended	9/30/2022	-17.05%	4.35%	7.00%
Year Ended	9/30/2021	18.03%	9.77%	7.60%
Year Ended	9/30/2020	8.16%	7.83%	7.75%
Year Ended	9/30/2019	4.57%	6.90%	See Below *

* For Fiscal Year ending September 30, 2019, the assumed rate of return was 8.00% for Police Officers, and 7.75% for Firefighters.

STATEMENT BY ENROLLED ACTUARY

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



Patrick T. Donlan, EA, ASA, MAAA
Enrolled Actuary #20-6595

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

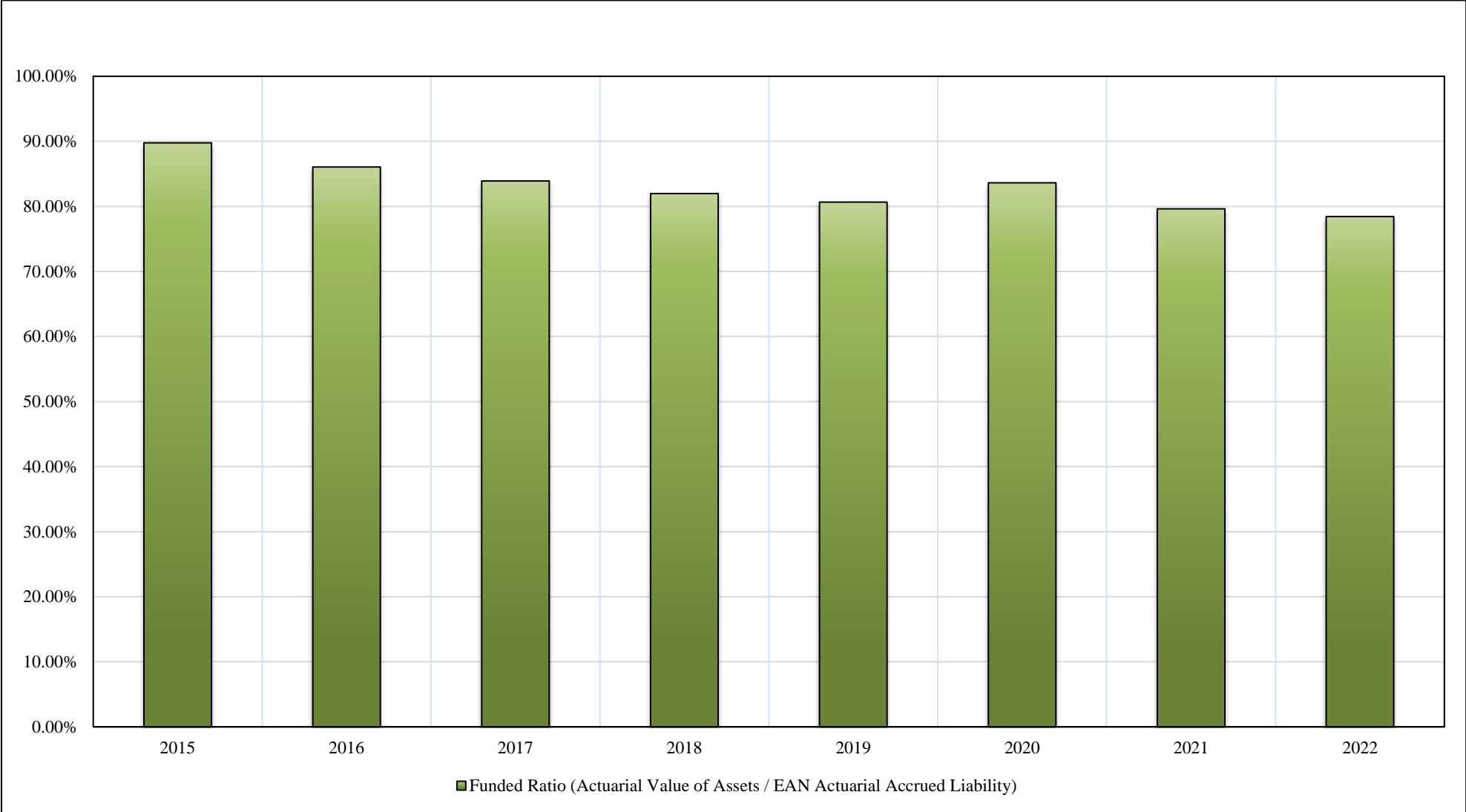
(1) Unfunded Actuarial Accrued Liability as of October 1, 2021	\$1,602,892
(2) Sponsor Normal Cost developed as of October 1, 2021	116,438
(3) Expected administrative expenses for the year ended September 30, 2022	45,726
(4) Expected interest on (1), (2) and (3)	121,954
(5) Sponsor contributions to the System during the year ended September 30, 2022	382,549
(6) Expected interest on (5)	11,716
(7) Expected Unfunded Actuarial Accrued Liability as of September 30, 2022 (1)+(2)+(3)+(4)-(5)-(6)	1,492,745
(8) Change to UAAL due to Assumption Change	0
(9) Change to UAAL due to Actuarial (Gain)/Loss	303,604
(10) Unfunded Actuarial Accrued Liability as of October 1, 2022	1,796,349

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2022 <u>Amount</u>	Amortization <u>Amount</u>
Asmp/Mthd Change	10/1/2021	14	1,132,705	121,046
Benefits Change	10/1/2021	14	360,040	38,475
Actuarial Loss	10/1/2022	15	303,604	31,153
			1,796,349	190,674

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of October 1, 2021	\$1,602,892
(2) Expected UAAL as of October 1, 2022	1,492,745
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	166,490
Salary Increases	53,231
Active Decrements	3,201
Inactive Mortality	41,637
Interest Crediting on Share Plan Balances	(2,254)
Other	<u>41,299</u>
Increase in UAAL due to (Gain)/Loss	<u>303,604</u>
(4) Actual UAAL as of October 1, 2022	\$1,796,349

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 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

7.00% 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.

Administrative Expenses

\$31,812 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Asset Valuation 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.

ACTUARIAL ASSUMPTIONS AND METHODS (CONTINUED)

Amortization Method

New UAAL amortization bases are amortized over 15 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.

Funding Method

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

- Interest - a half year, based on current 7.00% assumption.
- Salary - A full year, based on current 5.83% assumption.

Salary Increases

Salary Scale		
Service	Police	Fire
<1	15.00%	6.00%
1-4	5.50%	6.00%
5-9	5.00%	6.00%
10+	4.50%	6.00%

Projected salary at retirement is increased individually to account for non-regular compensation. This assumption is based on the results of an experience study dated April 27, 2022.

Retirement Age

% Retiring During the Year (Years after Normal Retirement Eligibility)	
Years	Rate
0	50%
1	25%
2	25%
3	25%
4	25%
5	100%

This assumption is based on the results of an experience study dated April 27, 2022.

Early Retirement

Commencing with the earliest Early Retirement Age (50), members are assumed to retire with an immediate subsidized benefit at the rate of 3% per year (prior year 5% per year). This assumption is based on the results of an experience study dated April 27, 2022.

ACTUARIAL ASSUMPTIONS AND METHODS (CONTINUED)

Disability Rate

% Becoming Disabled During the Year	
Age	Rate
20	0.03%
30	0.04%
40	0.07%
50	0.18%

Sample rates above. This assumption is based on the results of an experience study dated April 27, 2022. 75% of Police Officer disablements and 90% of Firefighter disablements are assumed to be service related.

Termination Rate

% Terminating During the Year		
Service	Police	Fire
<1	20.0%	15.0%
1-4	15.0%	15.0%
5-9	12.0%	15.0%
10-14	5.0%	10.0%
15+	5.0%	2.0%

This assumption is based on the results of an experience study dated April 27, 2022. Prior year different service-based table.

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 184.6% on October 1, 2012 to 169.2% 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 62.8%. 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 stayed approximately the same from October 1, 2012 to 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, stayed approximately the same from October 1, 2012 to October 1, 2022. The current Net Cash Flow Ratio of -0.05% 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	22	26	26	24
Total Inactives ¹	13	13	16	13
Actives / Inactives ¹	169.2%	200.0%	162.5%	184.6%

Asset Volatility Ratio

Market Value of Assets (MVA)	5,606,545	6,752,478	5,042,077	4,504,313
Total Annual Payroll	1,127,130	1,245,761	1,090,703	896,848
MVA / Total Annual Payroll	497.4%	542.0%	462.3%	502.2%

Accrued Liability (AL) Ratio

Inactive Accrued Liability	5,236,209	5,194,453	4,848,213	3,333,395
Total Accrued Liability (EAN)	8,332,416	7,868,355	6,257,462	5,818,660
Inactive AL / Total AL	62.8%	66.0%	77.5%	57.3%

Funded Ratio

Actuarial Value of Assets (AVA)	6,536,067	6,265,463	5,250,589	4,512,541
Total Accrued Liability (EAN)	8,332,416	7,868,355	6,257,462	5,818,660
AVA / Total Accrued Liability (EAN)	78.4%	79.6%	83.9%	77.6%

Net Cash Flow Ratio

Net Cash Flow ²	(2,637)	4,333	(137,326)	4,237
Market Value of Assets (MVA)	5,606,545	6,752,478	5,042,077	4,504,313
Ratio	-0.05%	0.1%	-2.7%	0.1%

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 <u>Fiscal Year</u>	<u>Amount</u>	<u>Increase from Previous Year</u>
1998	37,898.91	_____%
1999	34,557.51	-8.8%
2000	34,768.58	0.6%
2001	37,152.37	6.9%
2002	38,342.38	3.2%
2003	41,377.45	7.9%
2004	69,202.94	67.2%
2005	65,086.66	-5.9%
2006	48,525.20	-25.4%
2007	53,346.66	9.9%
2008	58,469.41	9.6%
2009	56,481.44	-3.4%
2010	45,066.87	-20.2%
2011	27,275.68	-39.5%
2012	65,040.73	138.5%
2013	43,805.46	-32.6%
2014	46,444.36	6.0%
2015	47,834.93	3.0%
2016	47,659.42	-0.4%
2017	20,362.83	-57.3%
2018	27,289.37	34.0%
2019	100,947.98	269.9%
2020	-	-100.0%
2021	48,695.25	N/A
2022	49,078.14	0.8%

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2022

<u>ASSETS</u>	COST VALUE	MARKET VALUE
Cash and Cash Equivalents:		
Prepaid Benefits	33,370.84	33,370.84
Money Market	21,472.76	21,472.76
Cash	232,067.27	232,067.27
 Total Cash and Equivalents	 286,910.87	 286,910.87
Receivables:		
Member Contributions in Transit	4,717.13	4,717.13
City Contributions in Transit	25,002.45	25,002.45
State Contributions	49,078.14	49,078.14
Pensioner Repayment	468.88	468.88
Investment Income	19,365.97	19,365.97
 Total Receivable	 98,632.57	 98,632.57
Investments:		
U. S. Bonds and Bills	143,098.89	124,306.71
Federal Agency Guaranteed Securities	61,167.84	52,614.30
Corporate Bonds	829,151.65	689,747.81
Stocks	3,337,724.54	3,046,350.95
Mutual Funds:		
Fixed Income	333,420.64	310,261.70
Equity	1,239,801.97	1,061,075.82
 Total Investments	 5,944,365.53	 5,284,357.29
 Total Assets	 6,329,908.97	 5,669,900.73
 <u>LIABILITIES</u>		
Payables:		
Administrative Expenses	27,615.14	27,615.14
Lump Sum Accrued Bfts to Volunteers	257.53	257.53
Prepaid City Contribution	35,482.60	35,482.60
 Total Liabilities	 63,355.27	 63,355.27
 NET POSITION RESTRICTED FOR PENSIONS	 6,266,553.70	 5,606,545.46

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

ADDITIONS

Contributions:

Member	69,920.00
City	334,737.62
State	49,078.14

Total Contributions 453,735.76

Investment Income:

Net Realized Gain (Loss)	36,479.06
Unrealized Gain (Loss)	(1,445,559.26)
Net Increase in Fair Value of Investments	(1,409,080.20)
Interest & Dividends	317,596.75
Less Investment Expense ¹	(51,811.47)

Net Investment Income (1,143,294.92)

Total Additions (689,559.16)

DEDUCTIONS

Distributions to Members:

Benefit Payments	399,981.20
Lump Sum DROP Distributions	0.00
Lump Sum Share Distributions	0.00
Refunds of Member Contributions	23,835.93

Total Distributions 423,817.13

Administrative Expense 32,556.37

Total Deductions 456,373.50

Net Increase in Net Position (1,145,932.66)

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 6,752,478.12

End of the Year 5,606,545.46

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
09/30/2020	21,775	8,710	4,355	0	0	0
09/30/2021	592,438	355,462	236,974	118,486	0	0
09/30/2022	(1,617,118)	(1,293,694)	(970,270)	(646,846)	(323,422)	0
Total		(929,522)	(728,941)	(528,360)	(323,422)	0

<u>Development of Investment Gain/Loss</u>	
Market Value of Assets, 09/30/2021	6,752,478
Contributions Less Benefit Payments & Admin Expenses	32,845
Expected Investment Earnings*	473,823
Actual Net Investment Earnings	(1,143,295)
2022 Actuarial Investment Gain/(Loss)	<u>(1,617,118)</u>

*Expected Investment Earnings = $0.07 * (6,752,478 + 0.5 * 32,845)$

<u>Development of Actuarial Value of Assets</u>	
(1) Market Value of Assets, 09/30/2022	5,606,545
(2) Gains/(Losses) Not Yet Recognized	(929,522)
(3) Actuarial Value of Assets, 09/30/2022, (1) - (2)	<u>6,536,067</u>
(A) 09/30/2021 Actuarial Assets:	6,265,463
(I) Net Investment Income:	
1. Interest and Dividends	317,597
2. Realized Gain (Loss)	36,479
3. Unrealized Gain (Loss)	(1,445,559)
4. Change in Actuarial Value	1,416,537
5. Investment Expenses	(51,811)
Total	<u>273,242</u>
(B) 09/30/2022 Actuarial Assets, including Prepaid Contributions:	6,571,550
Actuarial Assets Rate of Return = $2I/(A+B-I)$:	4.35%
Market Value of Assets Rate of Return:	-17.05%
10/01/2022 Limited Actuarial Assets (not including Prepaid):	6,536,067
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(166,490)

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

REVENUES

Contributions:		
Member	69,920.00	
City	334,737.62	
State	49,078.14	
 Total Contributions		 453,735.76
Earnings from Investments:		
Interest & Dividends	317,596.75	
Net Realized Gain (Loss)	36,479.06	
Unrealized Gain (Loss)	(1,445,559.26)	
Change in Actuarial Value	1,416,537.00	
 Total Earnings and Investment Gains		 325,053.55

EXPENDITURES

Distributions to Members:		
Benefit Payments	399,981.20	
Lump Sum DROP Distributions	0.00	
Lump Sum Share Distributions	0.00	
Refunds of Member Contributions	23,835.93	
 Total Distributions		 423,817.13
Expenses:		
Investment related ¹	51,811.47	
Administrative	32,556.37	
 Total Expenses		 84,367.84
 Change in Net Assets for the Year		 270,604.34
 Net Assets Beginning of the Year		 6,265,463.12
 Net Assets End of the Year ²		 6,536,067.46

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

²Net Assets may be limited for actuarial consideration.

SUPPLEMENTAL CHAPTER 185 SHARE PLAN ACTIVITY
October 1, 2021 through September 30, 2022

9/30/2021 Balance (Est.)	9,870.92
Prior Year Adjustment	(498.35)
Plus Additions ¹	1,677.86
Investment Return Earned (Est.)	(1,598.02)
Administrative Fees (Est.)	0.00
Less Distributions	<u>0.00</u>
9/30/2022 Balance (Est.)	9,452.41

¹ Please note, this allocation of State Monies technically happens in fiscal 2023 because the State Report was not approved by September 30, 2022. However, the Members will get the credit in fiscal 2022 for the purposes of determining earnings. In fiscal 2022, the Plan received \$29,251.17 in State Monies for Police, and \$21,851.31 in State Monies for Fire.

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

(1) Required City and State Contributions	\$382,549.00
(2) Less Allowable State Contribution	<u>(47,811.39)</u>
(3) Required City Contribution for Fiscal 2022	334,737.62
(4) Plus 2021 Shortfall Contribution	478.16
(5) Less Actual City Contributions	<u>(370,698.38)</u>
(6) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2022	(\$35,482.60)

STATISTICAL DATA

	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>	<u>10/1/2019</u>
<u>Actives</u>				
Number	22	26	22	24
Average Current Age	44.0	40.4	40.0	38.0
Average Age at Employment	36.7	34.7	33.7	32.7
Average Past Service	7.3	5.7	6.3	5.3
Average Annual Salary	\$51,233	\$47,914	\$45,887	\$43,842
<u>Service Retirees</u>				
Number	13	13	13	13
Average Current Age	65.2	64.2	63.2	69.2
Average Annual Benefit	\$31,579	\$30,936	\$30,792	\$29,982
<u>DROP Retirees</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Beneficiaries</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Disability Retirees</u>				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
<u>Terminated Vested</u>				
Number	9	8	4	6
Average Current Age ¹	N/A	N/A	N/A	46.3
Average Annual Benefit ¹	N/A	N/A	N/A	\$23,645

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												0
30 - 34		2	1		1	1						5
35 - 39		1	1			1		1				4
40 - 44	1					2			1			4
45 - 49			1									1
50 - 54				1				1				2
55 - 59		1					1			1		3
60 - 64			1		1	1						3
65+												0
Total	1	4	4	1	2	5	1	2	1	1	0	22

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 10/1/2021	26
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	(4)
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	21
h. New entrants / Rehires	<u>1</u>
i. Total active life participants in valuation	22

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

	Service Retirees, Vested Receiving	DROP Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested (Deferred Annuity)	Vested (Due Refund)	Total
a. Number prior valuation	13	0	0	0	0	8	21
Retired	0	0	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	1	1
Death, With Survivor	0	0	0	0	0	0	0
Death, No Survivor	0	0	0	0	0	0	0
Disabled	0	0	0	0	0	0	0
Refund of Contributions	0	0	0	0	0	(1)	(1)
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	13	0	0	0	0	9	22

SUMMARY OF CURRENT PLAN

<u>Credited Service</u>	Years and fractional parts of years of service with the City as a Police Officer or Firefighter.
<u>Salary</u>	Total compensation with overtime hours after July 1, 2011 limited to 300 hours and only includes accrued sick and annual leave payouts for service prior to July 1, 2011.
<u>Average Final Compensation</u>	Average salary during the 5 highest years during the last 10 year of full-time employment.
<u>Normal Retirement</u>	
Eligibility	Earlier of: a) Age 55 and 10 years of Credited Service, or b) 25 years of Credited Service, regardless of age.
Benefit Amount	3.0% of Average Final Compensation times Credited Service.
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 Amount	Accrued benefit, reduced 3% for each year prior to Normal Retirement.
<u>Disability</u>	
Eligibility	a. Non-Service Incurred: 10 years of Credited Service. b. Service Incurred: Covered from Date of Employment. c. Total and permanent disability as determined by the Board of Trustees.
Benefit Amount	Accrued benefit payable for life (with 120 months guaranteed) or until recovery, but not less than 42% of AFC for service incurred and 25% of AFC for non-service incurred disabilities.
Duration	Payable for life with ten years certain or until recovery (as determined by the Board). Options available.

SUMMARY OF CURRENT PLAN (CONTINUED)

Death Benefits

Pre-Retirement

Vested

Monthly accrued benefit payable to designated beneficiary for 10 years at Member's Normal or Early (reduced) Retirement Date.

Non-Vested

Refund of accumulated contributions without interest.

Post-Retirement

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

Vesting (Termination)

Less than 10 years of Contributing Service

Refund of Member Contributions without interest.

10 years or more

Accrued benefit payable at age 50 or later, on a reduced basis if to commence prior to Normal Retirement Date, or refund of Member Contributions.

Cost-of-Living Adjustment

Police

All retirees receive a 1.35% increase in monthly benefits each October 1st following 5 years of receiving payments.

Fire

Effective October 1, 2022, all retirees receive a 1.35% increase in monthly benefits each October 1st following 5 years of receiving payments (previously None).

Deferred Retirement Option Plan

Eligibility

Satisfaction of Normal Retirement requirements (earlier of a) Age 55 with 10 years of Credited Service, or b) 25 years of Credited Service, regardless of age).

Participation

Not to exceed 60 months.

Rate of Return

Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter.

Form of Distribution

Cash lump sum (options available) at termination of employment.

SUMMARY OF CURRENT PLAN (CONTINUED)

Chapter 185 Share Accounts

Allocation	Each year, 50% of premium tax monies received pursuant to Chapter 185, Florida Statutes in excess of \$25,895.45 will be allocated to individual Member Share accounts based on years of credited service with the City.
Investment Earnings	Net rate of investment return.
Distribution	Lump sum payment at retirement, termination, disability, or death.
Vesting Schedule	Same as for other benefits (see above).

Contributions

Employee	
• Police	5.0% of Salary.
• Fire	5.0% of Salary (previously 7.1% of Salary).
State	0.85% tax on premiums for casualty insurance.
City	4% of Salary (funding floor), plus remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided by Chapter 112, Florida Statutes.

Board of Trustees

Two City residents appointed by the City Commission, two police officers elected by majority of covered Members, and a fifth Member elected by other 4 and appointed by City Commission.

STATEMENT OF FIDUCIARY NET POSITION
SEPTEMBER 30, 2022

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Prepaid Benefits	33,371
Money Market	21,473
Cash	232,067
Total Cash and Equivalents	286,911
Receivables:	
Member Contributions in Transit	4,717
City Contributions in Transit	25,002
State Contributions	49,078
Pensioner Repayment	469
Investment Income	19,366
Total Receivable	98,632
Investments:	
U. S. Bonds and Bills	124,307
Federal Agency Guaranteed Securities	52,614
Corporate Bonds	689,748
Stocks	3,046,351
Mutual Funds:	
Fixed Income	310,262
Equity	1,061,076
Total Investments	5,284,358
Total Assets	5,669,901
<u>LIABILITIES</u>	
Payables:	
Administrative Expenses	27,615
Lump Sum Accrued Bfts to Volunteers	258
Total Liabilities	27,873
NET POSITION RESTRICTED FOR PENSIONS	5,642,028

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

ADDITIONS

Contributions:

Member	69,920	
City	370,220	
State	49,078	
 Total Contributions		 489,218
 Investment Income:		
Net Increase in Fair Value of Investments	(1,409,080)	
Interest & Dividends	317,597	
Less Investment Expense ¹	(51,812)	
 Net Investment Income		 (1,143,295)
 Total Additions		 (654,077)

DEDUCTIONS

Distributions to Members:

Benefit Payments	399,981	
Refunds of Member Contributions	23,836	
 Total Distributions		 423,817
 Administrative Expense		 32,556
 Total Deductions		 456,373
 Net Increase in Net Position		 (1,110,450)
 NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		6,752,478
 End of the Year		 5,642,028

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: Two City residents appointed by the City Commission, two police officers elected by the majority of covered Members, and a fifth Member elected by other 4 and appointed by City Commission.

Plan Membership as of October 1, 2021:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	13
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	8
Active Plan Members	26
	47

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 Madison Police Officers' and Firefighters' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants. Incorporated are the benefit changes for measurement date September 30, 2022 as noted under the Notes to Schedule of Changes in Net Pension Liability and Ratios.

Contributions

Employee Police: 5.0% of Salary.

Employee Fire: 5.0% of Salary.

State: 0.85% tax on premiums for casualty insurance.

City: 4% of Salary (funding floor), plus remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided by Chapter 112, Florida Statutes.

Investment Policy:

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

Asset Class	Target Allocation
Large Cap Value	12.00%
Large Cap Growth	9.00%
Preferred Equity	17.00%
US Equities - Financial Sector	5.00%
International Equity	5.00%
Derivative Income	5.00%
Intermediate Core Fixed Income	9.00%
High Yield Bonds	9.00%
Strategic Fixed Income	9.00%
Floating Rate Bonds	5.00%
Emerging Market Bonds	6.00%
Alternatives	8.00%
Cash	1.00%
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.

GASB 67

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 -17.05 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: Satisfaction of Normal Retirement requirements (earlier of a) Age 55 with 10 years of Credited Service, or b) 25 years of Credited Service, regardless of age).

Participation: Not to exceed 60 months.

Rate of Return: Actual net rate of investment return (total return net of brokerage commissions, management fees and transaction costs) credited each fiscal quarter.

The DROP balance as September 30, 2022 is \$0.

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	\$ 8,092,393
Plan Fiduciary Net Position	\$ (5,642,028)
Sponsor's Net Pension Liability	<u>\$ 2,450,365</u>
Plan Fiduciary Net Position as a percentage of Total Pension Liability	<u>69.72%</u>

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 Active Lives:

Female: PubS.H-2010 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 (Below Median) for Healthy Retirees, set forward one year.

Mortality Rate Beneficiary Lives:

Female: PubG.H-2010 (Below Median) for Healthy Retirees.

Male: PubG.H-2010 (Below Median) for Healthy Retirees, set back 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 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.

The most recent actuarial experience study used to review the other significant assumptions was dated April 27, 2022.

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 2.00%.

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.

GASB 67

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>
Large Cap Value	4.05%
Large Cap Growth	8.45%
Preferred Equity	-1.25%
US Equities - Financial Sector	3.18%
International Equity	-3.48%
Derivative Income	8.00%
Intermediate Core Fixed Income	-2.84%
High Yield Bonds	-1.13%
Strategic Fixed Income	-1.35%
Floating Rate Bonds	2.42%
Emerging Market Bonds	-6.48%
Alternatives	0.31%
Cash	-1.69%

¹ Source: Ladenburg Thalmann Asset Management. Based on 5 year return from Morningstar.

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	\$ 3,491,034	\$ 2,450,365	\$ 1,595,151

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	181,383	222,628
Interest	541,770	528,080
Share Plan Allocation	1,267	1,820
Changes of benefit terms	386,122	-
Differences between Expected and Actual Experience	21,690	(157,646)
Changes of assumptions	-	274,528
Benefit Payments, including Refunds of Employee Contributions	(423,817)	(422,441)
Net Change in Total Pension Liability	708,415	446,969
Total Pension Liability - Beginning	7,383,978	6,937,009
Total Pension Liability - Ending (a)	<u>\$ 8,092,393</u>	<u>\$ 7,383,978</u>
Plan Fiduciary Net Position		
Contributions - Employer	370,220	337,850
Contributions - State	49,078	48,695
Contributions - Employee	69,920	63,719
Net Investment Income	(1,143,295)	1,027,648
Benefit Payments, including Refunds of Employee Contributions	(423,817)	(422,441)
Administrative Expense	(32,556)	(31,067)
Net Change in Plan Fiduciary Net Position	(1,110,450)	1,024,404
Plan Fiduciary Net Position - Beginning	6,752,478	5,728,074
Plan Fiduciary Net Position - Ending (b)	<u>\$ 5,642,028</u>	<u>\$ 6,752,478</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,450,365</u>	<u>\$ 631,500</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	69.72%	91.45%
Covered Payroll	\$ 1,201,487	\$ 1,105,548
Net Pension Liability as a percentage of Covered Payroll	203.94%	57.12%

Notes to Schedule:*Changes of benefit terms:*

For measurement date 09/30/2022, amounts reported as changes of benefit terms resulted from the following changes:

- Effective October 1, 2022, the member contribution rate for firefighters was decreased from 7.1% to 5.0%.
- Effective October 1, 2022, all current and future retired firefighters, and their beneficiaries, who are currently receiving or eligible to receive normal retirement benefits shall receive an annual cost of living adjustment (COLA) of 1.35%.

Changes of assumptions:

For measurement date 09/30/2021, as a result of an Experience Study prepared on April 27, 2022, the Board approved the following changes:

- The investment return assumption was reduced from 7.60% to 7.00%, net of investment related expenses.
- The salary increase assumption for Police Officers was change from a flat 6.00% to rates varying by years of Credited Service.
- The retirement rate assumption was changed, resulting in lower rates than previously assumed.
- The termination rate assumption was changed, generally resulting in more terminations than previously assumed.

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	\$ 382,549	\$ 418,031	\$ (35,482)	\$ 1,201,487	34.79%
09/30/2021	\$ 392,302	\$ 384,725	\$ 7,577	\$ 1,105,548	34.80%

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 report for the City of Madison Police Officers' and Firefighters' Retirement Trust Fund 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	-17.05%
09/30/2021	18.03%

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: Two City residents appointed by the City Commission, two police officers elected by the majority of covered Members, and a fifth Member elected by other 4 and appointed by City Commission.
Employees who are classified as full-time firefighters shall participate in the System as a condition of employment.

Plan Membership as of October 1, 2021:

Inactive Plan Members or Beneficiaries Currently Receiving Benefits	13
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	8
Active Plan Members	26
	47
	47

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 Madison Police Officers' and Firefighters' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants. Incorporated are the benefit changes for measurement date September 30, 2022 as noted under the Notes to Schedule of Changes in Net Pension Liability and Ratios.

Contributions

Employee Police:	5.0% of Salary.
Employee Fire:	5.0% of Salary.
State:	0.85% tax on premiums for casualty insurance.
City:	4% of Salary (funding floor), plus remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability as provided by Chapter 112, Florida Statutes.

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 Active Lives:

Female: PubS.H-2010 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 (Below Median) for Healthy Retirees, set forward one year.

Mortality Rate Beneficiary Lives:

Female: PubG.H-2010 (Below Median) for Healthy Retirees.

Male: PubG.H-2010 (Below Median) for Healthy Retirees, set back 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 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.

The most recent actuarial experience study used to review the other significant assumptions was dated April 27, 2022.

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 2.00%.

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.

GASB 68

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:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return ¹
Large Cap Value	12.00%	4.05%
Large Cap Growth	9.00%	8.45%
Preferred Equity	17.00%	-1.25%
US Equities - Financial Sector	5.00%	3.18%
International Equity	5.00%	-3.48%
Derivative Income	5.00%	8.00%
Intermediate Core Fixed Income	9.00%	-2.84%
High Yield Bonds	9.00%	-1.13%
Strategic Fixed Income	9.00%	-1.35%
Floating Rate Bonds	5.00%	2.42%
Emerging Market Bonds	6.00%	-6.48%
Alternatives	8.00%	0.31%
Cash	1.00%	-1.69%
Total	100.00%	

¹ Source: Ladenburg Thalmann Asset Management. Based on 5 year return from Morningstar.

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	\$ 7,383,978	\$ 6,752,478	\$ 631,500
Changes for a Year:			
Service Cost	181,383	-	181,383
Interest	541,770	-	541,770
Share Plan Allocation	1,267	-	1,267
Differences between Expected and Actual Experience	21,690	-	21,690
Changes of assumptions	-	-	-
Changes of benefit terms	386,122	-	386,122
Contributions - Employer	-	370,220	(370,220)
Contributions - State	-	49,078	(49,078)
Contributions - Employee	-	69,920	(69,920)
Net Investment Income	-	(1,143,295)	1,143,295
Benefit Payments, including Refunds of Employee Contributions	(423,817)	(423,817)	-
Administrative Expense	-	(32,556)	32,556
Net Changes	708,415	(1,110,450)	1,818,865
Reporting Period Ending September 30, 2023	\$ 8,092,393	\$ 5,642,028	\$ 2,450,365

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

	Current Discount		
	1% Decrease	Rate	1% Increase
	6.00%	7.00%	8.00%
Sponsor's Net Pension Liability	\$ 3,491,034	\$ 2,450,365	\$ 1,595,151

Pension Plan Fiduciary Net Position.

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

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	181,383	222,628
Interest	541,770	528,080
Share Plan Allocation	1,267	1,820
Changes of benefit terms	386,122	-
Differences between Expected and Actual Experience	21,690	(157,646)
Changes of assumptions	-	274,528
Benefit Payments, including Refunds of Employee Contributions	(423,817)	(422,441)
Net Change in Total Pension Liability	708,415	446,969
Total Pension Liability - Beginning	7,383,978	6,937,009
Total Pension Liability - Ending (a)	<u>\$ 8,092,393</u>	<u>\$ 7,383,978</u>
Plan Fiduciary Net Position		
Contributions - Employer	370,220	337,850
Contributions - State	49,078	48,695
Contributions - Employee	69,920	63,719
Net Investment Income	(1,143,295)	1,027,648
Benefit Payments, including Refunds of Employee Contributions	(423,817)	(422,441)
Administrative Expense	(32,556)	(31,067)
Net Change in Plan Fiduciary Net Position	(1,110,450)	1,024,404
Plan Fiduciary Net Position - Beginning	6,752,478	5,728,074
Plan Fiduciary Net Position - Ending (b)	<u>\$ 5,642,028</u>	<u>\$ 6,752,478</u>
Net Pension Liability - Ending (a) - (b)	<u>\$ 2,450,365</u>	<u>\$ 631,500</u>
Plan Fiduciary Net Position as a percentage of the Total Pension Liability	69.72%	91.45%
Covered Payroll	\$ 1,201,487	\$ 1,105,548
Net Pension Liability as a percentage of Covered Payroll	203.94%	57.12%

Notes to Schedule:

Changes of benefit terms:

For measurement date 09/30/2022, amounts reported as changes of benefit terms resulted from the following changes:

- Effective October 1, 2022, the member contribution rate for firefighters was decreased from 7.1% to 5.0%.
- Effective October 1, 2022, all current and future retired firefighters, and their beneficiaries, who are currently receiving or eligible to receive normal retirement benefits shall receive an annual cost of living adjustment (COLA) of 1.35%.

Changes of assumptions:

For measurement date 09/30/2021, as a result of an Experience Study prepared on April 27, 2022, the Board approved the following changes:

- The investment return assumption was reduced from 7.60% to 7.00%, net of investment related expenses.
- The salary increase assumption for Police Officers was change from a flat 6.00% to rates varying by years of Credited Service.
- The retirement rate assumption was changed, resulting in lower rates than previously assumed.
- The termination rate assumption was changed, generally resulting in more terminations than previously assumed.

SCHEDULE OF CONTRIBUTIONS

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	\$ 382,549	\$ 418,031	\$ (35,482)	\$ 1,201,487	34.79%
09/30/2021	\$ 392,302	\$ 384,725	\$ 7,577	\$ 1,105,548	34.80%

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 report for the City of Madison Police Officers' and Firefighters' Retirement Trust Fund prepared by Foster & Foster Actuaries and Consultants.

**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 \$202,839.

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	2,606	376,227
Changes of assumptions	302,508	-
Net difference between Projected and Actual Earnings on Pension Plan investments	-	349,247
Employer and State contributions subsequent to the measurement date	419,298	-
Total	\$ 724,412	\$ 725,474

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	\$ (79,712)
2024	\$ (92,097)
2025	\$ (106,825)
2026	\$ (141,726)
2027	\$ -
Thereafter	\$ -

Payable to the Pension Plan

On September 30, 2021, the Sponsor reported a payable of \$478 for the outstanding amount of contributions of the Pension Plan required for the year ended September 30, 2021.

**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 \$848,486.

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	18,875	248,672
Changes of assumptions	200,288	-
Net difference between Projected and Actual Earnings on Pension Plan investments	998,826	-
Employer and State contributions subsequent to the measurement date	TBD	-
Total	TBD	\$ 248,672

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	\$	236,750
2025	\$	222,022
2026	\$	187,121
2027	\$	323,424
2028	\$	-
Thereafter	\$	-

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	\$ 1,208,935	\$ 354,555	\$ 714,469	\$ -
Employer and State Contributions made after 09/30/2021	-	-	419,298	-
Total Pension Liability Factors:				
Service Cost	222,628	-	-	222,628
Interest	528,080	-	-	528,080
Share Plan Allocation	1,820	-	-	1,820
Changes in benefit terms	-	-	-	-
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	(157,646)	157,646	-	-
Current year amortization of experience difference	-	(127,553)	-	(127,553)
Change in assumptions about future economic or demographic factors or other inputs	274,528	-	274,528	-
Current year amortization of change in assumptions	-	-	(102,220)	102,220
Benefit Payments, including Refunds of Employee Contributions	(422,441)	-	-	-
Net change	<u>446,969</u>	<u>30,093</u>	<u>591,606</u>	<u>727,195</u>
Plan Fiduciary Net Position:				
Contributions - Employer	337,850	-	(337,850)	-
Contributions - State	48,695	-	(48,695)	-
Contributions - Employee	63,719	-	-	(63,719)
Projected Net Investment Income	435,210	-	-	(435,210)
Difference between projected and actual earnings on Pension Plan investments	592,438	592,438	-	-
Current year amortization	-	(120,605)	(64,111)	(56,494)
Benefit Payments, including Refunds of Employee Contributions	(422,441)	-	-	-
Administrative Expenses	(31,067)	-	-	31,067
Net change	<u>1,024,404</u>	<u>471,833</u>	<u>(450,656)</u>	<u>(524,356)</u>
Ending Balance	<u>\$ 631,500</u>	<u>\$ 856,481</u>	<u>\$ 855,419</u>	<u>\$ 202,839</u>

PRELIMINARY COMPONENTS OF PENSION EXPENSE
FISCAL YEAR SEPTEMBER 30, 2023

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning balance	\$ 631,500	\$ 856,481	\$ 855,419	\$ -
Employer and State Contributions made after 09/30/2022	-	-	TBD*	-
Total Pension Liability Factors:				
Service Cost	181,383	-	-	181,383
Interest	541,770	-	-	541,770
Share Plan Allocation	1,267	-	-	1,267
Changes in benefit terms	386,122	-	-	386,122
Differences between Expected and Actual Experience with regard to economic or demographic assumptions	21,690	-	21,690	-
Current year amortization of experience difference	-	(127,555)	(5,421)	(122,134)
Change in assumptions about future economic or demographic factors or other inputs	-	-	-	-
Current year amortization of change in assumptions	-	-	(102,220)	102,220
Benefit Payments, including Refunds of Employee Contributions	(423,817)	-	-	-
Net change	<u>708,415</u>	<u>(127,555)</u>	<u>(85,951)</u>	<u>1,090,628</u>
Plan Fiduciary Net Position:				
Contributions - Employer	370,220	-	(370,220)	-
Contributions - State	49,078	-	(49,078)	-
Contributions - Employee	69,920	-	-	(69,920)
Projected Net Investment Income	473,823	-	-	(473,823)
Difference between projected and actual earnings on Pension Plan investments	(1,617,118)	-	1,617,118	-
Current year amortization	-	(118,488)	(387,533)	269,045
Benefit Payments, including Refunds of Employee Contributions	(423,817)	-	-	-
Administrative Expenses	(32,556)	-	-	32,556
Net change	<u>(1,110,450)</u>	<u>(118,488)</u>	<u>810,287</u>	<u>(242,142)</u>
Ending Balance	<u>\$ 2,450,365</u>	<u>\$ 610,438</u>	<u>TBD</u>	<u>\$ 848,486</u>

* Employer and State Contributions subsequent to the measurement date made after 09/30/2022 but made on or before September 30, 2023 need to be added.

POLICE & FIRE 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 Projected and Actual Earnings	Recognition Period (Years)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
2022	\$ 1,617,118	5	\$ -	\$ 323,422	\$ 323,424	\$ 323,424	\$ 323,424	\$ 323,424	\$ -	\$ -	\$ -	\$ -
2021	\$ (592,438)	5	\$ (118,486)	\$ (118,488)	\$ (118,488)	\$ (118,488)	\$ (118,488)	\$ -	\$ -	\$ -	\$ -	\$ -
2020	\$ 58,099	P&F Combined	\$ 11,620	\$ 11,620	\$ 11,620	\$ 11,620	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 186,772	P&F Combined	\$ 37,354	\$ 37,354	\$ 37,354	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ 75,682	P&F Combined	\$ 15,137	\$ 15,137	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (10,597)	P&F Combined	\$ (2,119)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (56,494)	\$ 269,045	\$ 253,910	\$ 216,556	\$ 204,936	\$ 323,424	\$ -	\$ -	\$ -	\$ -

POLICE & FIRE 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
2021	\$ 274,528	4	\$ 68,632	\$ 68,632	\$ 68,632	\$ 68,632	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020	\$ 72,389	6	\$ 12,065	\$ 12,065	\$ 12,065	\$ 12,065	\$ 12,065	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ 71,544	P&F Combined	\$ 8,943	\$ 8,943	\$ 8,943	\$ 8,943	\$ 8,943	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ 193,535	P&F Combined	\$ 12,580	\$ 12,580	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ 102,220	\$ 102,220	\$ 89,640	\$ 89,640	\$ 21,008	\$ -	\$ -	\$ -	\$ -	\$ -

POLICE & FIRE 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	\$ 21,690	4	\$ -	\$ 5,421	\$ 5,423	\$ 5,423	\$ 5,423	\$ -	\$ -	\$ -	\$ -	\$ -
2021	\$ (157,646)	4	\$ (39,410)	\$ (39,412)	\$ (39,412)	\$ (39,412)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2020	\$ (273,293)	6	\$ (45,549)	\$ (45,549)	\$ (45,549)	\$ (45,549)	\$ (45,549)	\$ -	\$ -	\$ -	\$ -	\$ -
2019	\$ (106,914)	P&F Combined	\$ (20,196)	\$ (20,196)	\$ (20,196)	\$ (5,939)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2018	\$ (17,711)	P&F Combined	\$ (3,386)	\$ (3,386)	\$ (3,386)	\$ 1,303	\$ 1,303	\$ -	\$ -	\$ -	\$ -	\$ -
2017	\$ (55,369)	P&F Combined	\$ (8,614)	\$ (8,614)	\$ (3,680)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2016	\$ (347,128)	P&F Combined	\$ (2,828)	\$ (2,828)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2015	\$ (277,666)	P&F Combined	\$ (7,570)	\$ (7,570)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Net Increase (Decrease) in Pension Expense			\$ (127,553)	\$ (122,134)	\$ (106,800)	\$ (84,174)	\$ (38,823)	\$ -	\$ -	\$ -	\$ -	\$ -