City Of Starke Police Officers' Retirement System

ACTUARIAL VALUATION AS OF OCTOBER 1, 2022

This Valuation Determines the Annual Contribution for the System Year October 1, 2023 through September 30, 2024 to be paid in System Year October 1, 2023 to September 30, 2024

June 30, 2023

City of Starke Police Officers'
Retirement System

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June 30, 2023

Board of Trustees
City of Starke Police Officers' Retirement System
c/o Mr. Scott Baur
Resource Centers, LLC
4360 Northlake Blvd., Suite 206
Palm Beach Gardens, FL 33410

Dear Board Members:

We are pleased to present our October 1, 2022 Actuarial Valuation Report for the City of Starke Police Officers' Retirement System (System). The purpose of this report is to indicate appropriate contribution levels, monitor minimum funding requirements, comment on the actuarial stability of the System and to satisfy State and accounting requirements. Gabriel, Roeder, Smith & Company (GRS), as System actuary, is authorized to prepare an annual Actuarial Valuation under Section 78-143 of the System. This Report is prepared for and at the request of the Board of Trustees.

This Report consists of this cover letter, executive summary and risk assessment followed by detailed Tables I through XVIII, the State Required Exhibit on Table XIX and the Glossary on Table XX. The Tables contain basic System cost figures plus significant details on the benefits, liabilities and experience of the System. We suggest you thoroughly review the report at your convenience and contact us with any questions that may arise.

The findings in this report are based on data or other information through September 30, 2022. The valuation was based upon information furnished by Board concerning System benefits, plan provisions and active members, terminated members, retirees and beneficiaries. We received financial information as of September 30, 2022 concerning fund assets from the Board.

We do not audit the Member census data and asset information that is provided to us; however, we perform certain reasonableness checks. The System is responsible for the accuracy of the data.

In our opinion the benefits provided for under the current System will be sufficiently funded through the payment of the amount as indicated in this and future Actuarial Valuation reports. This valuation assumed the continuing ability of the plan sponsors to make the contributions necessary to fund this plan. A determination regarding whether or not the plan sponsor is actually able to do so is outside our scope of expertise and was not performed. We will continue to update you on the future payment requirements for the System through our actuarial reports. These reports will also continue to monitor the future experience of the System.

The actuarial assumptions used in this Actuarial Valuation are as adopted by the Board of Trustees. The economic and non-prescribed demographic actuarial assumptions are based on the results of an actuarial experience study for the period October 1, 2014 – September 30, 2019. The mortality assumptions are prescribed by statute. Each assumption represents an estimate of future System experience.

If all actuarial assumptions are met and if all future minimum required contributions are paid, System assets will be sufficient to pay all System benefits, future contributions are expected to remain relatively stable as a percent of payroll and the funded status is expected to improve. System minimum required contributions are determined in compliance with the requirements of the Florida Protection of Public Employee Retirement Benefits Act and Police Officers Retirement Chapter 185 with normal cost determined as a level percent of covered payroll and a level percent amortization payment using a maximum amortization period of 20 years.

The Unfunded Actuarial Accrued Liability (UAAL) may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions. The UAAL would be different if it reflected the market value of assets rather than the actuarial value of assets.

The GASB Net Pension Liability and System Fiduciary Net Position as a Percentage of Total Pension Liability may not be appropriate for assessing the sufficiency of System assets to meet the estimated cost of settling benefit obligations but may be appropriate for assessing the need for or the amount of future contributions.

This report should not be relied on for any purpose other than the purpose described in the primary communication. Determinations of the financial results associated with the benefits described in this report in a manner other than the intended purpose may produce significantly different results.

This report was prepared using our proprietary valuation model and related software which in our professional judgment has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

This report has been prepared by actuaries who have substantial experience valuing public employee retirement systems. To the best of our knowledge the information contained in this report is accurate and fairly presents the actuarial position of the System as of the valuation date. All calculations have been made in conformity with generally accepted actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board and with applicable statutes.

This report was prepared at the request of the Board and is intended for use by the Board and those designated or approved by the Board. This Report may be provided to parties other than the Board only in its entirety and only with the permission of the Board. GRS is not responsible for unauthorized use of this report.

The signing actuaries are independent of the System sponsor.

The undersigned are Members of the American Academy of Actuaries and meet the qualification standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. We are available to respond to any questions with regards to matters covered in this report.

Sincerely,
Gabriel, Roeder, Smith & Company

Michelle Jones

Shelly L. Jones, A.S.A., E.A.
Consultant and Actuary

Jennifer Borregard

Jennifer M. Borregard, E.A.
Consultant and Actuary

EXECUTIVE SUMMARY

Retirement System Costs

Our Actuarial Valuation as of October 1, 2022 develops the required minimum Retirement System payment for fiscal year beginning **October 1, 2023** under the Florida Protection of Public Employee Retirement Benefits Act and Chapter 185. The minimum payment consists of payment of annual normal costs including expenses and amortization of the components of the unfunded actuarial accrued liability over various periods as prescribed by law. The minimum payment is **33.7% of covered payroll ($233,627)**. The figure in parentheses is the System cost expressed as an estimated dollar amount based on projected covered annual payroll for fiscal year beginning October 1, 2023 ($693,821).

This total cost is to be met by member, City and State contributions. We anticipate member contributions will be **1.0% of covered payroll** for fiscal year ending September 30, 2024 **($6,938)** and member pick-up contributions will be **5.0% of covered payroll** for fiscal year ending September 30, 2024 **($34,691)**. Allowable State contributions will be **$44,584** (**6.4% of covered payroll** for fiscal year ending September 30, 2024) based upon our understanding of current *Mutual Consent*. This leaves a base City requirement of **21.2% of covered payroll** for fiscal year ending September 30, 2024 **($147,414)**. The City contribution includes an interest adjustment and must be increased if fiscal year 2024 allowable State contributions are less than $44,584.

Changes in Actuarial Assumptions, Methods and System Benefits

A benefit increase of 5% was provided to current retired members, DROP participants and beneficiaries. The remaining System provisions are unchanged from the October 1, 2021 Actuarial Valuation and are summarized on Table X.

The actuarial assumptions and methods remain unchanged from the October 1, 2021 Actuarial Valuation and are outlined on Table XI.

Comparison of October 1, 2021 and October 1, 2022 Valuation Results

Table II of our report provides information of a comparative nature. The left columns of the Table indicate the costs as calculated for October 1, 2021. The center columns of the Table indicate the costs as calculated for October 1, 2022, prior to the update in System provisions. The right columns indicate the costs as calculated for October 1, 2022, after the update in System provisions.

Comparing the left and center columns of Table II shows the effect of System experience during the year. The number of active participants remained level while covered payroll increased by approximately 7%. Total System membership increased by approximately 3%. Total normal cost, the unfunded actuarial accrued liability and Net Base City minimum funding requirement all increased both as a percentage of covered payroll and as a dollar amount.

Comparing the center and right columns of Table II shows the effect of the update of the System provision. Total normal cost remained level both as a percentage of covered payroll and as a dollar amount. The Net

Base City minimum funding requirement and the unfunded actuarial accrued liability increased both as a percentage of covered payroll and as a dollar amount.

The value of vested accrued benefits exceeds System assets, resulting in a Vested Benefit Security Ratio (VBSR) of 91.3% (94.8% prior to System provision update) which is a decrease from 119.1% as of the October 1, 2021 Actuarial Valuation. The VBSR is measured on a market value of assets basis.

System Experience

Table VII indicates net System experience resulted in an actuarial loss of $229,911. This suggests actual overall experience was less favorable than expected.

Table XVII provides figures on recent System experience (salary, turnover and investment yield). Salary experience indicates actual salary increases averaged approximately 10.7%. This was more than the assumption for average salary increases of 6.7% and was generally a source of actuarial loss. Three, five and ten-year average annual salary increases are 12.6%, 12.9% and 7.0%, respectively.

Employee turnover this year was approximately 190% of the assumed assumptions. Employee turnover was generally an offsetting source of actuarial gain. Three, five and ten-year average annual turnover was approximately 200%, 230% and 230% of the assumed turnover, respectively.

The smoothed actuarial value investment return of 3.42% for fiscal 2022 was less than the System's assumption of 7.00% for investment return. Smoothed actuarial value investment return was an additional source of actuarial loss during the year. Three, five and ten-year average annual smoothed actuarial value investment returns are 6.14%, 6.29% and 6.5%, respectively. The one, three, five and ten-year average annual returns based upon market value are -13.96%, 2.71%, 3.85% and 5.3%, respectively.

Conclusion and Recommendations

The Market Value of Assets is less than the Actuarial Value of Assets by $559,234 as of the valuation date. This difference will be gradually recognized in the absence of future offsetting gains. In turn, the actuarially determined contribution rate will increase.

The required minimum City contribution is computed based on an assumption that the amount to be received from the State will be equal to the amount received in the prior year, subject to a maximum of $51,460. If the actual payment from the State falls below this assumed amount, then the City must increase its contribution by the difference.

The remainder of this report includes detailed actuarial valuation results, information relating to the pension fund, financial accounting information, miscellaneous employee data and a summary of plan provisions and actuarial assumptions and methods.

RISKS ASSOCIATED WITH MEASURING THE ACCRUED LIABILITIES AND ACTUARIALLY DETERMINED CONTRIBUTION

The determination of the accrued liability and the actuarially determined contribution requires the use of assumptions regarding future economic and demographic experience. Risk measures, as illustrated in this report, are intended to aid in the understanding of the effects of future experience differing from the assumptions used in the course of the actuarial valuation. Risk measures may also help with illustrating the potential volatility in the accrued liability and the actuarially determined contribution that result from the differences between actual experience and the actuarial assumptions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions due to changing conditions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period, or additional cost or contribution requirements based on the System's funded status); and changes in System provisions or applicable law. The scope of an actuarial valuation does not include an analysis of the potential range of such future measurements.

Examples of risk that may reasonably be anticipated to significantly affect the system's future financial condition include:

1. Investment risk – actual investment returns may differ from expected returns;
2. Asset / Liability mismatch – changes in asset values may not match changes in liabilities, thereby altering the gap between the accrued liability and assets and consequently altering the funded status and the actuarially determined contribution requirements;
3. Contribution risk – actual contributions may differ from expected future contributions. For example, actual contributions may not be made in accordance with the System's funding policy or material changes may occur in the anticipated number of covered employees, covered payroll or other relevant contribution base;
4. Salary and Payroll risk – actual salaries and total payroll may differ from expected, resulting in actual future accrued liability and the actuarially determined contributions differing from expected;
5. Longevity risk – members may live longer or shorter than expected and receive pensions for a period of time other than assumed;
6. Other demographic risks – members may terminate, retire or become disabled at times or with benefits other than assumed resulting in actual future accrued liability and the actuarially determined contributions differing from expected.

The effects of certain trends in experience can generally be anticipated. For example if the investment return since the most recent actuarial valuation is less (or more) than the assumed rate, the actuarially determined contribution can be expected to increase (or decrease). Likewise if longevity is improving (or worsening), increases (or decreases) in the actuarially determined contribution can be anticipated.

The actuarially determined contribution rate shown on page four may be considered as a minimum contribution rate that complies with the Board's funding policy. The timely receipt of the actuarially determined contributions is critical to support the financial health of the System. Users of this report should be aware that contributions made at the actuarially determined rate do not necessarily guarantee benefit security.

System Maturity Measures

Risks facing a pension system evolve over time. A young system with virtually no investments and paying few benefits may experience little investment risk. An older system with a large number of members in pay status and a significant trust may be much more exposed to investment risk. Generally accepted system maturity measures include the following:

	2021	2022
Ratio of the market value of assets to payroll	8.46	6.60
Ratio of actuarial accrued liability to payroll	8.02	8.16
Ratio of actives to retirees and beneficiaries	1.25	1.15
Ratio of net cash flow to market value of assets	-2.5%	-3.1%
Duration of the actuarial accrued liability	12.85	12.93

Ratio of Market Value of Assets to Payroll

The relationship between assets and payroll is a useful indicator of the potential volatility of the actuarially determined contributions. For example, if the market value of assets is 2.0 times the payroll, a return on assets 5% different than assumed would equal 10% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in the actuarially determined contributions as a percentage of payroll.

Ratio of Actuarial Accrued Liability to Payroll

The relationship between actuarial accrued liability and payroll is a useful indicator of the potential volatility of the actuarially determined contributions for a fully funded system. A funding policy that targets a funded ratio of 100% is expected to result in the ratio of assets to payroll and the ratio of liability to payroll converging over time.

The ratio of liability to payroll may also be used as a measure of sensitivity of the liability itself. For example, if the actuarial accrued liability is 2.5 times payroll, a change in liability 2% other than assumed would equal 5% of payroll. A higher (lower) or increasing (decreasing) level of this maturity measure generally indicates a higher (lower) or increasing (decreasing) volatility in liability (and also the actuarially determined contributions) as a percentage of payroll.

Ratio of Actives to Retirees and Beneficiaries

A young system with many active members and few retirees will have a high ratio of active to retirees. A mature open system may have close to the same number of actives to retirees resulting in a ratio near 1.0. A super-mature or closed system may have significantly more retirees than actives resulting in a ratio below 1.0.

Ratio of Net Cash Flow to Market Value of Assets

A positive net cash flow means contributions exceed benefits and expenses. A negative cash flow means existing funds are being used to make payments. A certain amount of negative net cash flow is generally expected to occur when benefits are prefunded through a qualified trust. Large negative net cash flows as a percent of assets may indicate a super-mature system or a need for additional contributions.

Duration of Actuarial Accrued Liability

The duration of the actuarial accrued liability may be used to approximate the sensitivity to a 1% change in the assumed rate of return. For example, a duration of 10 indicates the liability would increase approximately 10% if the assumed rate of return were lowered 1%.

Additional Risk Assessment

Additional risk assessment is outside the scope of the annual actuarial valuation. Additional assessment may include scenario tests, sensitivity tests, stochastic modeling, stress tests and a comparison of the present value of accrued benefits at low-risk discount rates with the actuarial accrued liability.

Summary of Retirement System Costs as of October 1, 2022

	Prior System Cost Data	Prior System % of Payroll	Current System Cost Data	Current System % of Payroll
A. Participant Data Summary (Table III)				
1. Active employees	15	N/A	15	N/A
2. Terminated vested	4	N/A	4	N/A
3. Receiving benefits (including DROPs)	13	N/A	13	N/A
4. Annual payroll of active employees	$ 681,553	100.0%	$ 681,553	100.0%
B. Total Normal Costs				
1. Age retirement benefits	$ 98,348	14.4%	$ 98,348	14.4%
2. Termination benefits	23,686	3.5%	23,686	3.5%
3. Death benefits	1,620	0.2%	1,620	0.2%
4. Disability benefits	3,057	0.4%	3,057	0.4%
5. Estimated expenses	52,000	7.6%	52,000	7.6%
6. Total annual normal costs	$ 178,711	26.2%	$ 178,711	26.2%
C. Total Actuarial Accrued Liability				
1. Age retirement benefits active employees	$ 823,490	120.8%	$ 823,490	120.8%
2. Termination benefits active employees	47,895	7.0%	47,895	7.0%
3. Death benefits active employees	13,706	2.0%	13,706	2.0%
4. Disability benefits active employees	18,616	2.7%	18,616	2.7%
5. Retired or terminated vested participants receiving benefits including DROP participants	3,358,304	492.7%	3,519,176	516.3%
6. Terminated vested participants entitled to future benefits	664,777	97.5%	664,777	97.5%
7. Deceased participants whose beneficiaries are receiving benefits	95,551	14.0%	100,291	14.7%
8. Disabled participants receiving benefits	301,970	44.3%	317,004	46.5%
9. Miscellaneous liability	6,601	1.0%	6,601	1.0%
10. Share Plan liability	49,381	7.2%	49,381	7.2%
11. Total actuarial accrued liability	$ 5,380,291	789.4%	$ 5,560,937	815.9%
D. Smoothed Actuarial Value of Assets (Table VI)	$ 5,057,793	742.1%	$ 5,057,793	742.1%
E. Unfunded Actuarial Accrued Liability (C-D)	$ 322,498	47.3%	$ 503,144	73.8%

Summary of Retirement System Costs as of October 1, 2022

	Prior System		Current System	
	Cost Data	% of Payroll	Cost Data	% of Payroll
F. Minimum Required Contribution				
1. Total normal cost	$ 178,711	26.2%	$ 178,711	26.2%
2. Amortization of unfunded liability	28,631	4.2%	42,549	6.2%
3. Interest adjustment	7,766	1.1%	8,236	1.2%
4. Total required contribution	$ 215,108	31.6%	$ 229,496	33.7%
G. Expected Payroll of Active Employees for 2023 / 2024 Year ($681,553 x 1.018)	$ 693,821	100.0%	$ 693,821	101.8%
H. Contribution Sources (percent of expected 2023 / 2024 payroll)				
1. Expected City				
a. Base	$ 132,767		$ 147,414	
b. Member *pick-up*	34,691		34,691	
c. Total expected City	$ 167,458	24.1%	$ 182,105	26.2%
2. Expected State	44,584	6.4%	44,584	6.4%
3. Expected Member	6,938	1.0%	6,938	1.0%
4. Total expected minimum required contribution	$ 218,980	31.6%	$ 233,627	33.7%
I. Actuarial Gain / (Loss) (Table VII)	$ (229,911)	(33.7%)	$ (229,911)	(33.7%)
J. Actuarial Present Value of Vested Accrued Benefits				
1. Retired, terminated vested, beneficiaries and disabled receiving benefits including DROP participants	$ 3,755,825	551.1%	$ 3,936,471	577.6%
2. Terminated vested participants entitled to future benefits and miscellaneous	671,378	98.5%	671,378	98.5%
3. Active participants entitled to future benefits	268,075	39.3%	268,075	39.3%
4. Share Plan liability	49,381	7.2%	49,381	7.2%
5. Total actuarial present value of vested accrued benefits	$ 4,744,659	696.2%	$ 4,925,305	722.7%
K. Market Value of Assets (Table V)	$ 4,498,559	660.0%	$ 4,498,559	660.0%
L. Unfunded Actuarial Present Value of Vested Accrued Benefits (J. - K., not less than zero)	$ 246,100	36.1%	$ 426,746	62.6%
M. Vested Benefit Security Ratio (K. ÷ J.)	94.8%	N/A	91.3%	N/A

Comparison of Cost Data of October 1, 2021 and October 1, 2022 Valuations

	October 1, 2021		Prior System October 1, 2022		Current System October 1, 2022	
	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation	Cost Data	% of Annual Compensation
A. Participants						
1. Active employees	15	N/A	15	N/A	15	N/A
2. Terminated vested	4	N/A	4	N/A	4	N/A
3. Receiving benefits (including DROPs)	12	N/A	13	N/A	13	N/A
4. Annual payroll of active employees	$ 638,744	100.0%	$ 681,553	100.0%	$ 681,553	100.0%
5. Projected annual payroll of active employees	$ 648,325	101.5%	$ 693,821	101.8%	$ 693,821	101.8%
B. Total Normal Costs	$ 161,358	25.3%	$ 178,711	26.2%	$ 178,711	26.2%
C. Total Actuarial Accrued Liability	$ 5,122,169	801.9%	$ 5,380,291	789.4%	$ 5,560,937	815.9%
D. Smoothed Actuarial Value of Assets	$ 5,048,226	790.3%	$ 5,057,793	742.1%	$ 5,057,793	742.1%
E. Unfunded Actuarial Accrued Liability	$ 73,943	11.6%	$ 322,498	47.3%	$ 503,144	73.8%
F. Net Base City Cost	$ 88,635	13.7% [1]	$ 132,767	19.1% [2]	$ 147,414	21.2% [2]
G. Actuarial Gain / (Loss)	$ 144,185	22.6%	$ (229,911)	(33.7%)	$ (229,911)	(33.7%)
H. Unfunded Actuarial Present Value of Vested Accrued Benefits	$ 0	0.0%	$ 246,100	36.1%	$ 426,746	62.6%
I. Vested Benefit Security Ratio	119.1%	N/A	94.8%	N/A	91.3%	N/A

[1] Percent of expected 2022-2023 covered payroll ($648,325)
[2] Percent of expected 2023-2024 covered payroll ($693,821)

Characteristics of Participants in Actuarial Valuation as of October 1, 2022

A. Active System Participants Summary

1. Active participants fully vested		1
2. Active participants partially vested		0
3. Active participants non-vested		14
4. Total active participants		15
5. Annual rate of pay of active participants	$	681,553

B. Retired and Terminated Vested Participant Summary

1. Retired or terminated vested participants receiving benefits including DROP participants	11
2. Terminated vested participants entitled to future benefits	4
3. Deceased participants whose beneficiaries are receiving benefits	1
4. Disabled participants receiving benefits	1

C. Projected Annual Retirement Benefits

1. Retired or terminated vested receiving benefits including DROP participants	$	284,122
2. Terminated vested entitled to future benefits		90,978
3. Beneficiaries of deceased participants		13,626
4. Disabled participants		23,152

Statement of System Assets as of October 1, 2022

			Market Value
A.	Cash	$	210,984
B.	General Investments		
	1. Cash Equivalents	$	160,505
	2. Corporate Bonds	$	1,674,757
	3. Common Stocks	$	0
	4. Mutual Funds	$	2,467,092
C.	Receivables		
	1. City Contribution Receivable	$	0
	2. State Contribution Receivable	$	0
	3. Employee Contribution Receivable	$	0
	4. Accrued Interest	$	0
	5. Prepaid Other	$	977
D.	Payable		
	1. Account Payable	$	15,756
	2. Due to Other Funds	$	0
E.	Total System Assets (A + B + C - D)	$	4,498,559

Reconciliation of System Assets *

A.	Total Market Value of Assets as of October 1, 2021			$ 5,402,166
	Adjustment to Total Market Value of Assets as of October 1, 2021			5,388
	Adjusted Total Market Value of Assets as of October 1, 2021			$ 5,407,554
B.	Receipts During Period			
	1. Contributions			
	a. Employee	$	7,707	
	b. Employee (picked up by City)		38,534	
	c. City		114,182	
	d. State		0	
	e. Total	$	160,423	
	2. Investment Income			
	a. Interest, dividends and other	$	93,360	
	b. Investment expenses		(17,500)	
	c. Net investment income	$	75,860	
	3. Net realized gains / (losses)		0	
	4. Net unrealized gains / (losses)	$	(819,031)	
	5. Total receipts during period			$ (582,748)
C.	Disbursements During Period			
	1. Pension payments	$	250,719	
	2. DROP distributions		0	
	3. Share Plan distributions		4,378	
	4. Contribution refunds		2,442	
	5. Administrative expenses		68,708	
	6. Total disbursements during period			$ 326,247
D.	Total Market Value of Assets as of September 30, 2022			$ 4,498,559
E.	Share Plan			
	1. Balance as of October 1, 2021	$	55,260	
	2. Adjustments		(1,501)	
	3. Increase from State funds received		0	
	4. Investment gains / (losses) during year		0	
	5. Administrative fees		0	
	6. Distributions		(4,378)	
	7. Balance as of September 30, 2022			$ 49,381
F.	Reconciliation of DROP Account Balances			
	1. DROP account balances as of October 1, 2021	$	66,832	
	2. Benefit payments into DROP accounts during year		57,395	
	3. Investment gains / (losses) during year		3,896	
	4. Distributions from DROP accounts during year		0	
	5. DROP account balances as of September 30, 2022			$ 128,123

* Based on draft financial information provided by the Board in the Annual State Report

Development of Smoothed Actuarial Value of Assets as of September 30

	2021	2022	2023	2024	2025
A. Preliminary smoothed actuarial value from prior year	$ 4,752,105	$ 5,048,226	$ 5,057,793		
B. Market value beginning of year	4,628,123	5,402,166	4,498,559		
C. Market value end of year	5,402,166	4,498,559			
D. Non-investment net cash flow	(115,955)	(160,436)			
E. Investment return					
1. Total market value return: C. - B. - D.	889,998	(743,171)			
2. Amount for immediate recognition (7.00%)	328,589	347,761			
3. Amount for phased-in recognition: E.1. - E.2.	561,409	(1,090,932)			
F. Phased-in recognition of investment return					
1. Current year: 25% of E.3.	140,352	(272,733)			
2. First prior year	(21,742)	140,352	(272,733)		
3. Second prior year	(23,636)	(21,742)	140,352	(272,733)	
4. Third prior year	(11,487)	(23,635)	(21,740)	140,353	(272,733)
5. Total phased-in recognition of investment return	83,487	(177,758)	(154,121)	(132,380)	(272,733)
G. Total smoothed actuarial value end of year					
1. Preliminary total smoothed actuarial value end of year: A. + D. + E.2. + F.5.	5,048,226	5,057,793			
2. Upper corridor limit: 120% of C.	6,482,599	5,398,271			
3. Lower corridor limit: 80% of C.	4,321,733	3,598,847			
4. Total smoothed actuarial value end of year: G.1., not more than G.2., nor less than G.3.	5,048,226	5,057,793			
H. Difference between total market value and total smoothed actuarial value	353,940	(559,234)			
I. Smoothed actuarial value rate of return	8.78%	3.42%			
J. Market value rate of return	19.47%	(13.96%)			

Actuarial Gain / (Loss) for
System Year Ended September 30, 2022 *

A. Derivation of Actuarial Gain / (Loss)

1. City and State net normal cost previous valuation	$	123,034
2. Unfunded actuarial accrued liability previous valuation		73,943
3. City and State net contributions previous year		114,182
4. Interest on:		
(a) City and State net normal cost	$	8,612
(b) Unfunded actuarial accrued liability		5,176
(c) City and State net contributions		3,996
(d) Net total: (a) + (b) - (c)	$	9,792
5. Increase / (decrease) in unfunded actuarial accrued liability due to System amendment	$	180,646
6. Expected unfunded actuarial accrued liability current year: (1. + 2. - 3. + 4. + 5.)	$	273,233
7. Actual unfunded actuarial accrued liability current year		503,144
8. Actuarial gain / (loss): (6. - 7.)	$	(229,911)

B. Approximate Portion of Gain / (Loss) due to Investments

1. Smoothed actuarial value of net assets previous year	$	4,992,966
2. Net contributions during period		160,423
3. Benefits and admin expenses during period		321,869
4. Expected net appreciation for period		343,857
5. Expected smoothed actuarial value of assets current year: (1. + 2. - 3. + 4.)	$	5,175,377
6. Actual smoothed actuarial value of net assets current year	$	5,008,412
7. Approximate gain / (loss) due to investments: (6. - 5.)	$	(166,965)

C. Approximate Portion of Gain / (Loss) due to Liabilities: A. - B.	$	(62,946)

* Net of Share Plan

Amortization of Unfunded Actuarial Accrued Liability

A. Actuarial Accrued Liability Remaining Unfunded

Date	Unfunded Liability	Amortization Payment
October 1, 2022	$ 503,144	$ 42,549
October 1, 2023	$ 492,837	$ 43,315
October 1, 2024	$ 480,988	$ 44,095
October 1, 2025	$ 467,475	$ 44,888
October 1, 2026	$ 452,167	$ 45,696
…		
…		
October 1, 2042	$ 0	$ 0

B. Covered Payroll History

Date	Covered Payroll *	Annual Increase
October 1, 2022	$ 681,553	6.7%
October 1, 2021	$ 638,744	23.3%
October 1, 2020	$ 518,166	(12.9%)
October 1, 2019	$ 595,104	2.0%
October 1, 2018	$ 583,577	(0.1%)
October 1, 2017	$ 583,921	16.0%
October 1, 2016	$ 503,408	(6.0%)
October 1, 2015	$ 535,576	3.5%
October 1, 2014	$ 517,538	(2.6%)
October 1, 2013	$ 531,436	(6.9%)
October 1, 2012	$ 571,086	N/A

Ten-Year Average Annual Increase 1.8%

* Excludes DROP payroll

Accounting Disclosure Exhibit

	10/01/2021	Prior System 10/01/2022	Current System 10/01/2022
I. Number of System Members			
a. Receiving benefits including DROPs	12	13	13
b. Terminated due deferred benefits	4	4	4
c. Active System members	15	15	15
d. Total	31	32	32
II. Financial Accounting Standards Board Allocation As of October 1, 2022			
A. Statement of Accumulated System Benefits			
1. Actuarial present value of accumulated vested System benefits			
a. Participants currently receiving benefits including DROP participants	$ 3,437,413	$ 3,755,825	$ 3,936,471
b. Other participants (including Share Plan)	1,097,665	988,834	988,834
c. Total	$ 4,535,078	$ 4,744,659	$ 4,925,305
2. Actuarial present value of accumulated non-vested System benefits	151,049	177,443	177,443
3. Total actuarial present value of accumulated System benefits	$ 4,686,127	$ 4,922,102	$ 5,102,748

B. Statement of Change in Accumulated System Benefits

1. Actuarial present value of accumulated System benefits as of October 1, 2021	$ 4,686,127
2. Increase (decrease) during year attributable to:	
a. System amendment	$ 180,646
b. Change in actuarial assumptions	0
c. Benefits paid including refunds and DROP and Share Plan distributions	(257,539)
d. Other, including benefits accumulated, increase for interest due to decrease in the discount period	493,514
e. Net increase	$ 416,621
3. Actuarial present value of accumulated System benefits as of October 1, 2022	$ 5,102,748

C. Significant Matters Affecting Calculations

1. Assumed rate of return used in determining actuarial present values	7.00%
2. Change in System provisions	See Table X, Item P.
3. Change in actuarial assumptions	None

Accounting Disclosure Exhibit

III. Net Pension Liability and Related Ratios (GASB No. 67 & No. 68)

Measurement date	9/30/2014	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	9/30/2020	9/30/2021	9/30/2022	Projected 9/30/2023 *
A. **Total Pension Liability (TPL)**										
Service Cost	$ 142,107	$ 137,664	$ 118,012	$ 114,569	$ 134,363	$ 129,963	$ 123,694	$ 93,494	$ 121,358	$ 126,711
Interest	273,487	295,404	301,631	319,489	325,988	334,716	344,138	340,890	352,817	388,435
Benefit Changes	0	0	0	0	0	0	0	0	0	180,646
Difference Between Actual and Expected Experience	74,610	(20,659)	(131,179)	36,635	6,707	60,234	(21,441)	(50,293)	(61,183)	44,277
Assumption Changes	0	0	329,557	(11,196)	0	0	(113,542)	157,458	0	0
Benefit Payments, including Refunds of Member Contributions	(170,730)	(148,844)	(195,249)	(186,296)	(499,920)	(288,921)	(281,497)	(265,825)	(257,539)	(277,160)
Net Change in Total Pension Liability	319,474	263,565	422,772	273,201	(32,862)	235,992	51,352	275,724	155,453	462,909
Total Pension Liability (TPL) - (beginning of year)	3,371,343	3,690,817	3,954,382	4,377,154	4,650,355	4,617,493	4,853,485	4,904,837	5,180,561	5,336,014
Total Pension Liability (TPL) - (end of year)	$ 3,690,817	$ 3,954,382	$ 4,377,154	$ 4,650,355	$ 4,617,493	$ 4,853,485	$ 4,904,837	$ 5,180,561	$ 5,336,014	$ 5,798,923
B. **System Fiduciary Net Position**										
Contributions - City and State	$ 211,844	$ 168,741	$ 170,839	$ 183,199	$ 215,652	$ 203,301	$ 192,906	$ 163,072	$ 114,182	$ 144,833
Contributions - Member Pick-up	26,674	27,922	26,654	30,465	32,934	34,275	31,492	34,696	38,534	34,078
Contributions - Member	5,525	5,784	5,544	6,093	6,587	6,855	8,049	6,783	7,707	6,815
Net Investment Income	289,838	(77,433)	384,891	352,649	260,044	215,415	239,968	889,998	(743,171)	309,879
Benefit Payments, including Refunds of Member Contributions	(170,730)	(148,844)	(195,249)	(186,296)	(499,920)	(288,921)	(281,497)	(265,825)	(257,539)	(277,160)
Administrative Expenses	(34,257)	(45,090)	(50,014)	(39,291)	(49,254)	(32,378)	(32,660)	(54,681)	(68,708)	(52,000)
Other	0	0	0	0	0	0	0	0	5,388	0
Net Change in System Fiduciary Net Position	328,894	(68,920)	342,665	346,819	(33,957)	138,547	158,258	774,043	(903,607)	166,445
System Fiduciary Net Position - (beginning of year)	3,415,817	3,744,711	3,675,791	4,018,456	4,365,275	4,331,318	4,469,865	4,628,123	5,402,166	4,498,559
System Fiduciary Net Position - (end of year)	$ 3,744,711	$ 3,675,791	$ 4,018,456	$ 4,365,275	$ 4,331,318	$ 4,469,865	$ 4,628,123	$ 5,402,166	$ 4,498,559	$ 4,665,004
C. **Net Pension Liability (NPL) - (end of year): (A) - (B)**	$ (53,894)	$ 278,591	$ 358,698	$ 285,080	$ 286,175	$ 383,620	$ 276,714	$ (221,605)	$ 837,455	$ 1,133,919
D. **System Fiduciary Net Position as a Percentage of TPL: (B) / (A)**	101.46 %	92.95 %	91.81 %	93.87 %	93.80 %	92.10 %	94.36 %	104.28 %	84.31 %	80.45 %
E. **Covered Employee Payroll ****	$ 530,286	$ 558,435	$ 533,076	$ 609,302	$ 658,688	$ 685,497	$ 629,846	$ 693,915	$ 770,685	$ 681,553
F. **NPL as a Percentage of Covered Employee Payroll: (C) / (E)**	(10.16)%	49.89 %	67.29 %	46.79 %	43.45 %	55.96 %	43.93 %	(31.94)%	108.66 %	166.37 %
G. Notes to Schedule:										
Valuation Date	10/1/2013	10/1/2014	10/1/2015	10/1/2016	10/1/2017	10/1/2018	10/1/2019	10/1/2020	10/1/2021	10/1/2022
Reporting Date (GASB No. 68)	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	9/30/2020	9/30/2021	9/30/2022	9/30/2023	9/30/2024

Update procedures used to roll forward TPL excluding DROP account balances, reserve for excess State funds and Share Plan to the measurement dates - actual DROP account balances, reserve for excess State funds and Share Plan as of measurement dates included in TPL.

See Table IX, Item V. for a history of benefit and assumption changes through measurement date September 30, 2021. No benefit or assumption changes for measurement date September 30, 2022. A benefit increase of 5% for retirees and no assumption changes for measurement date September 30, 2023.

* Projected - actual amounts will be available after fiscal year end.

** Reported payroll on which contributions to the System are based as provided under GASB No. 82.

Accounting Disclosure Exhibit

IV. Schedule of Employer Contributions (GASB No. 67 & No. 68)

Fiscal Year End 9/30	Actuarially Determined Contribution	Actual Contribution	Contribution Deficiency (Excess)	Covered Payroll [1,2]	Actual Contribution as a % of Covered Payroll
2013	$ 165,835	$ 169,837	$ (4,002)	$ 571,086	29.74%
2014	162,286	211,844	(49,558)	530,286	39.95%
2015	168,741	168,741	0	558,435	30.22%
2016	170,839	170,839	0	533,076	32.05%
2017	183,199	183,199	0	609,302	30.07%
2018	215,652	215,652	0	658,688	32.74%
2019	203,146	203,301	(155)	685,497	29.66%
2020	193,175	192,906	269	629,846	30.63%
2021	173,062	163,072	9,990	693,915	23.50%
2022	170,145	114,182	55,963	770,685	14.82%
2023 [3]	144,833	144,833	0	681,553	21.25%

[1] Projected prior to fiscal year ended September 30, 2014

[2] Reported payroll on which contributions to the System are based as provided under GASB No. 82

[3] Projected - actual amounts will be available after fiscal year end

Accounting Disclosure Exhibit

V. Notes to Schedule of Contributions (GASB No. 67 & No. 68)

Valuation Date:	Actuarially determined contributions are calculated as of October 1st - two year(s) prior the fiscal year end in which contributions are reported.

Methods and Assumptions Used to Determine Contribution Rates for Fiscal Year Ended September 30, 2022:

Actuarial Cost Method	Entry Age
Amortization Method	Level Percentage of Pay, Closed
Amortization Period	20 years
Asset Valuation Method	4-year smoothed market value
Inflation	2.5%
Payroll Growth Assumption	4.0% per annum - not greater than historical 10-year average (-1.4%) but not less than 0.0%.
Salary Increases	5.0% - 7.0%
Investment Rate of Return	7.00%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition
Mortality	For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018. For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Other Information:

Benefit Changes

2013: DROP plan added effective February 1, 2013, added early retirement upon attainment of age 50 with completion of 10 years of credited service, maximum of 42 hours of overtime included in pensionable salary.

Assumption Changes

2020: Interest return, employee withdrawal rates, salary increase factors, payroll growth assumption and retirement rates were updated. 2019: Mortality assumption was updated. 2016: Per Statute, pre-retirement mortality assumption updated. 2015: Mortality rates, investment rate of return, salary increase factors, withdrawal rates and retirement rates were updated. 2012: Administrative expenses updated to average of the preceding three fiscal years.

Accounting Disclosure Exhibit

VI. Discount Rate (GASB No. 67 & No. 68)

A discount rate of 7.00% was used to measure the TPL effective with the September 30, 2021 TPL. This discount rate was based on the expected rate of return on System investments of 7.00%. The projection of cash flows used to determine this discount rate assumes member contributions will be made at the current member contribution rate and employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member contribution rate. Based on these assumptions, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current System members. Therefore, the long-term expected rate of return on System investments was applied to all periods of projected benefit payments to determine the TPL.

VII. Sensitivity of the NPL to the Discount Rate Assumption (GASB No. 67 & No. 68)

Measurement date: September 30, 2022

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate	6.00%	7.00%	8.00%
NPL	$ 1,498,629	$ 837,455	$ 292,158

Measurement date: September 30, 2023 *

	1% Decrease	Current Discount Rate	1% Increase
Discount Rate	6.00%	7.00%	8.00%
NPL	$ 1,849,145	$ 1,133,919	$ 545,907

* Projected - actual amounts will be available after fiscal year end.

Accounting Disclosure Exhibit

VIII. Pension Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - Reporting Date (GASB No. 68)

Pension Expense for Fiscal Year Ending September 30, 2023	$	322,999

Summary of Outstanding Deferred Inflows and Outflows of Resources as of September 30, 2023

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience on liabilities	21,724	66,458
Changes of assumptions or other inputs	40,822	67,582
Net difference between projected and actual earnings on System investments	601,980	0
Total	$ 664,526	$ 134,040

Projected Deferred Outflows for City Contributions to Be Recognized after the Measurement Date	$	93,373

Summary of Deferred Outflows and Inflows of Resources that will be Recognized in Pension Expense in Future Years.

Year Ending 30-Sep	Amount
2024	$ 146,578
2025	94,245
2026	90,597
2027	204,612
2028	(5,546)
Thereafter	0

Accounting Disclosure Exhibit

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

IX. Components of Pension Expense (GASB No. 68)

Measurement Date	9/30/2014	9/30/2015	9/30/2016	9/30/2017	9/30/2018	9/30/2019	9/30/2020	9/30/2021	9/30/2022	Projected 9/30/2023 *
Service Cost	$ 142,107	$ 137,664	$ 118,012	$ 114,569	$ 134,363	$ 129,963	$ 123,694	$ 93,494	$ 121,358	$ 126,711
Interest on Total Pension Liability	273,487	295,404	301,631	319,489	325,988	334,716	344,138	340,890	352,817	388,435
Current-Period Benefit Changes	0	0	0	0	0	0	0	0	0	180,646
Contributions - Member	(32,199)	(33,706)	(32,198)	(36,558)	(39,521)	(41,130)	(39,541)	(41,479)	(46,241)	(40,893)
Projected Earnings on Plan Investments	(274,828)	(299,917)	(264,964)	(291,127)	(305,825)	(311,234)	(321,103)	(319,910)	(372,348)	(309,879)
Administrative Expenses	34,257	45,090	50,014	39,291	49,254	32,378	32,660	54,681	68,708	52,000
Other Changes in System Fiduciary Net Position	0	0	0	0	0	0	0	0	5,388	0
Recognition of Beginning Deferred Outflows / (Inflows) due to Liabilities	9,444	6,862	35,613	39,588	40,636	51,203	32,712	71,461	39,683	16,385
Recognition of Beginning Deferred Outflows / (Inflows) due to Assets	(3,002)	72,468	48,483	36,179	45,335	67,501	8,256	(81,777)	153,634	144,476
Total Pension Expense	$ 149,266	$ 223,865	$ 256,591	$ 221,431	$ 250,230	$ 263,397	$ 180,816	$ 117,360	$ 322,999	$ 557,881

* Projected - actual amounts will be available after measurement date

Accounting Disclosure Exhibit

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

X. Recognition of Deferred Outflows and (Inflows) due to Liabilities - Measurement Date (GASB No. 68)

Recognition of Deferred Outflows due to Differences Between Actual and Expected Experience on Liabilities

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 9/30/2022	Recognition Amount for 2021 / 2022	Balance as of 9/30/2022
2014 / 2015	$ 0	8.0	0.0	$ 0	$ 0
2015 / 2016	$ 0	6.9	0.0	$ 0	$ 0
2016 / 2017	$ 36,635	6.4	0.4	$ 5,724	$ 2,291
2017 / 2018	$ 6,707	6.4	1.4	$ 1,048	$ 1,467
2018 / 2019	$ 60,234	5.7	1.7	$ 10,567	$ 17,966
2019 / 2020	$ 0	7.3	4.3	$ 0	$ 0
2020 / 2021	$ 0	2.7	0.7	$ 0	$ 0
2021 / 2022	$ 0	3.0	2.0	$ 0	$ 0
			TOTAL	$ 17,339	$ 21,724

Recognition of Deferred (Inflows) due to Differences Between Actual and Expected Experience on Liabilities

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 9/30/2022	Recognition Amount for 2021 / 2022	Balance as of 9/30/2022
2014 / 2015	$ (20,659)	8.0	0.0	$ (2,585)	$ 0
2015 / 2016	$ (131,179)	6.9	0.0	$ (17,113)	$ 0
2016 / 2017	$ 0	6.4	0.4	$ 0	$ 0
2017 / 2018	$ 0	6.4	1.4	$ 0	$ 0
2018 / 2019	$ 0	5.7	1.7	$ 0	$ 0
2019 / 2020	$ (21,441)	7.3	4.3	$ (2,937)	$ (12,630)
2020 / 2021	$ (50,293)	2.7	0.7	$ (18,627)	$ (13,039)
2021 / 2022	$ (61,183)	3.0	2.0	$ (20,394)	$ (40,789)
			TOTAL	$ (61,656)	$ (66,458)

Recognition of Deferred Outflows due to Changes of Assumptions or Other Inputs

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 9/30/2022	Recognition Amount for 2021 / 2022	Balance as of 9/30/2022
2014 / 2015	$ 0	8.0	0.0	$ 0	$ 0
2015 / 2016	$ 329,557	6.9	0.0	$ 42,985	$ 0
2016 / 2017	$ 0	6.4	0.4	$ 0	$ 0
2017 / 2018	$ 0	6.4	1.4	$ 0	$ 0
2018 / 2019	$ 0	5.7	1.7	$ 0	$ 0
2019 / 2020	$ 0	7.3	4.3	$ 0	$ 0
2020 / 2021	$ 157,458	2.7	0.7	$ 58,318	$ 40,822
2021 / 2022	$ 0	3.0	2.0	$ 0	$ 0
			TOTAL	$ 101,303	$ 40,822

Accounting Disclosure Exhibit

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

X. Recognition of Deferred Outflows and (Inflows) due to Liabilities - Measurement Date (GASB No. 68) (cont'd)

Recognition of Deferred (Inflows) due to Changes of Assumptions or Other Inputs

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 9/30/2022	Recognition Amount for 2021 / 2022	Balance as of 9/30/2022
2014 / 2015	$ 0	8.0	0.0	$ 0	$ 0
2015 / 2016	$ 0	6.9	0.0	$ 0	$ 0
2016 / 2017	$ (11,196)	6.4	0.4	$ (1,749)	$ (702)
2017 / 2018	$ 0	6.4	1.4	$ 0	$ 0
2018 / 2019	$ 0	5.7	1.7	$ 0	$ 0
2019 / 2020	$ (113,542)	7.3	4.3	$ (15,554)	$ (66,880)
2020 / 2021	$ 0	2.7	0.7	$ 0	$ 0
2021 / 2022	$ 0	3.0	2.0	$ 0	$ 0
			TOTAL	$ (17,303)	$ (67,582)

XI. Recognition of Deferred Outflows and (Inflows) due to Assets - Measurement Date (GASB No. 68)

Recognition of Deferred Outflows / (Inflows) due to Difference Between Projected and Actual Earnings on Pension Plan Investments

Established	Initial Balance	Initial Recognition Period	Remaining Recognition Period as of 9/30/2022	Recognition Amount for 2021 / 2022	Balance as of 9/30/2022
2017 / 2018	$ 45,781	5	0	$ 9,157	$ 0
2018 / 2019	$ 95,819	5	1	$ 19,164	$ 19,163
2019 / 2020	$ 81,135	5	2	$ 16,227	$ 32,454
2020 / 2021	$ (570,088)	5	3	$ (114,018)	$ (342,052)
2021 / 2022	$ 1,115,519	5	4	$ 223,104	$ 892,415
			TOTAL	$ 153,634	$ 601,980

Outline of Principal Provisions of the Retirement System

A. <u>Normal Retirement:</u>

1. <u>Eligibility</u>

   Earlier of:
   (a) Attainment of age 55 with completion of 10 years of credited service.
   (b) Completion of 25 years of credited service.

2. <u>Mandatory Retirement Age</u>

   Age 60. Extensions granted with employer consent.

3. <u>Amount of Pension</u>

   Total credited service times 3.75% of Final Average Salary. Maximum 100% of Final Average Salary.

4. <u>Normal Form</u>

   The normal form of pension is a 10 year Certain and Life. Upon his or her death, 100% of the reduced benefit is continued for the remainder of the Certain period, if any. Optional forms are available on an actuarial equivalent basis.

5. <u>Final Average Salary</u>

   Highest 3 consecutive years out of last 10. Salary includes base pay plus longevity pay and up to 42 hours of overtime per calendar year. Lump sum payments paid at the time of retirement are not included in the determination of final average salary.

B. <u>Early Retirement:</u>

1. <u>Eligibility</u>

   Attainment of age 50 with completion of 10 years of credited service.

2. <u>Amount of Pension</u>

   Computed as a normal retirement but reduced 3.0% for each year (0.25% for each month) that early retirement precedes the date the member would have been eligible for normal retirement.

Outline of Principal Provisions of the Retirement System

C. <u>Deferred Retirement:</u>

1. <u>Eligibility</u>

   10 or more years of credited service. Pension begins at age 55 or reduced benefits at age 50.

2. <u>Benefit</u>

   Computed as a normal retirement pension but based upon credited service and Final Average Salary at time of termination.

D. <u>Duty Disability Retirement:</u>

1. <u>Eligibility</u>

   No age or service requirement. Must be in receipt of worker's compensation.

2. <u>Benefit</u>

   Computed as a normal retirement pension. Minimum benefit shall be 42% of Final Average Salary. Worker's compensation payments are offset, to the extent permitted by law.

E. <u>Non-Duty Disability Retirement:</u>

1. <u>Eligibility</u>

   10 or more years of credited service.

2. <u>Benefit</u>

   Computed as a normal retirement pension. Minimum benefit shall be 42% of Final Average Salary. Worker's compensation payments are offset, to the extent permitted by law.

F. <u>Death Before Retirement:</u>

1. <u>Eligibility</u>

   10 or more years of credited service.

2. <u>Benefit</u>

   Computed as a normal retirement pension but actuarially reduced in accordance with a 100% joint and survivor election.

Outline of Principal Provisions of the Retirement System

G. Deferred Retirement Option Plan (DROP):

Effective February 1, 2013, members may elect to freeze their retirement benefit at normal eligibility, and continue working for a maximum of 5 years. The retirement benefit will be calculated as of the date the member elects the DROP. This retirement benefit will be accumulated with interest in an amount equal to 50% of the net investment return for the System for the preceding fiscal year up to a maximum of 4% during the DROP period in a DROP account. At actual termination, the member can rollover the DROP account balance or receive the balance directly with appropriate tax consequences. The retirement benefit calculated as of the date the DROP election becomes payable directly to the retiree or beneficiary thereafter. Member pick-up contributions will cease at the date of DROP election. Disability and death before retirement provisions will no longer apply to members who enter the DROP. Members will be assessed administrative fees.

H. Post-Retirement Cost-of-Living Adjustments:

Effective October 1, 1994 all current retired members and beneficiaries received an increase in their pension of $75 / month. Effective October 1, 2001 all current retired members and beneficiaries received an increase in their pension. The increase was based on their original benefit, using a multiplier of 3.75% rather than their original multiplier. Effective October 1, 2022 all current retired members, DROP participants and beneficiaries received a pension increase of 5%.

I. Annual Holiday Bonus:

$100

J. Member Contributions:

1.00% of annual salary. This amount is refunded upon termination. The City currently picks-up the former 5.00% member contribution. For all employees hired prior to December 31, 1999, this amount is refunded upon termination of membership with 3 or more years of credited service in the absence of a pension. For all employees hired after December 31, 1999, this amount is refunded upon termination of membership with 10 or more years of credited service in the absence of a pension. Should a member die and no pension becomes or will become available, picked-up member contributions will be refunded even if the required years of service have not been attained.

If you terminate employment and receive a refund of contributions, you forfeit any rights to future benefits from the Retirement System. The taxable portion of any refund you receive is subject to an automatic 20% withholding for Federal income tax purposes, and a possible 10% excise tax. These taxes can be avoided, however, if you roll the taxable portion over to an Individual Retirement Account (IRA) or another qualified employer plan. This rollover will result in no tax being due until you begin withdrawing funds from the IRA or other qualified employer plan. The rollover of the distribution, however, MUST be made directly by the System to your chosen IRA or other qualified employer plan.

Outline of Principal Provisions of the Retirement System

K. City Contributions:

Actuarially determined amounts which together with member contributions and premium tax monies are sufficient to at least cover the requirements of the funding objective.

L. Premium Tax Monies:

A distribution of casualty insurance premium tax monies collected by the State pursuant to Chapter 185, Florida Statutes.

M. Forfeiture of Retirement Benefits:

Retirement benefits granted by the Retirement System are subject to forfeiture if an employee is convicted of an offense specified in Section 112.3173 and 185.185, Florida Statutes, pursuant to the procedures set forth in the cited statutes.

N. Claims Procedure:

Claims for benefits should be filed with the Board of Trustees at the City Clerk's office. If the claim is denied, you will be notified and informed of the procedure to request a hearing before the Board of Trustees. An applicant for benefits must appeal said denial within 60 days of being informed of the denial by filing an appeal with the Board at the City Clerk's office. If no appeal is filed within the time period then the denial shall be final.

O. Disclaimer:

The preceding summary briefly describes the principal benefits of the Retirement System. Detailed benefit conditions and limitations are contained in the Retirement Ordinance which established the System. The Internal Revenue Code, Florida Statutes, and the Ordinance all govern the operation of the System and should be consulted before you take any action concerning your participation or benefits. In the case of any conflict between this summary and the provisions of the Ordinance or other applicable law, the Ordinance or other applicable law will prevail. Copies of the Ordinance are available at the City Clerk's office.

P. Change From Previous Valuation:

Post-Retirement Cost-of-Living Adjustments was:

Effective October 1, 1994 all current retired members and beneficiaries received an increase in their pension of $75 / month. Effective October 1, 2001 all current retired members and beneficiaries received an increase in their pension. The increase was based on their original benefit, using a multiplier of 3.75% rather than their original multiplier.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation

A. Mortality

For healthy participants during employment, PUB-2010 Headcount Weighted Safety Employee Female Mortality Table and Safety Below Median Employee Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For healthy participants post employment, PUB-2010 Headcount Weighted Safety Healthy Retiree Female Mortality Table and Safety Below Median Healthy Retiree Male Mortality Table, both set forward 1 year, with fully generational mortality improvements projected to each future decrement date with Scale MP-2018.

For disabled participants, 80% PUB-2010 Headcount Weighted General Disabled Retiree Mortality Table / 20% PUB-2010 Headcount Weighted Safety Disabled Retiree Mortality Table, separate rates for males and females, without projected mortality improvements.

Sample Ages (2022)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Men	Women	Men	Women
55	30.62	34.47	27.78	31.35
60	25.66	29.40	23.18	26.55
62	23.73	27.39	21.44	24.71

Sample Ages (2042)	Pre-retirement Future Life Expectancy (Years)		Post-retirement Future Life Expectancy (Years)	
	Men	Women	Men	Women
55	32.25	35.96	29.67	33.18
60	27.23	30.84	24.97	28.30
62	25.27	28.81	23.18	26.42

B. Interest to be Earned by Fund

7.0%, compounded annually, net of investment expenses - includes inflation at 2.5%.

C. Allowances for Expenses or Contingencies

Administrative expenses are projected to continue at the same dollar amount as the average of the preceding three fiscal years, rounded to the nearest thousand.

D. Employee Withdrawal Rates

The rates do not apply to members eligible to retire and do not include separation on account of death or disability. This estimate measures the probabilities of members remaining in employment.

Actuarial Assumptions and Actuarial Cost Methods Used in the Valuation

D. Employee Withdrawal Rates (Cont'd)

Sample Ages	Years of Service	Withdrawal Rates Per 100 Employees
ALL	0 - 1	25.0
	2 - 3	20.0
	4	15.0
Under 25	5 & Over	20.0
25 - 29		18.0
30 - 34		16.0
35 - 39		14.0
40 - 44		5.0
45 & Over		1.0

E. Disability Rates

These estimates represent the probabilities of active members becoming disabled.

	Percent Becoming Disabled Within Next Year	
Sample Ages	Male	Female
20	0.07%	0.03%
25	0.09%	0.05%
30	0.10%	0.07%
35	0.14%	0.13%
40	0.21%	0.19%
45	0.32%	0.28%
50	0.52%	0.45%
55	0.92%	0.76%
60	1.53%	1.10%

F. Salary Increase Factors

Employee salaries are estimated to increase between the date of hire and date of retirement. Salary increases occur in recognition of (i) individual merit and seniority, (ii) inflation-related depreciation of the purchasing power of salaries, and (iii) competition from other employers for personnel.

Age	Salary Increase
Under 45	7%
45 & Over	5%

General increase in wage level due to inflation is 3.0%.

G. Payroll Growth Assumption

4.0% per annum - not greater than historical 10-year average (1.8%) but not less than 0.0%.

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

H. Retirement Rates

These rates are used to measure the probabilities of an eligible member retiring during the next year.

Retirement Ages	Percent Retiring
< 64	22%
64	20%
65	100%

A Police Officer is eligible for retirement after 25 years of credited service or after attaining age 55 with 10 or more years of credited service.

A Police Officer is eligible for early retirement after attaining age 50 with 10 or more years of credited service.

Benefits accruing after age 65 are offset by actuarial gains from the deferred retirement.

I. Smoothed Asset Valuation Method

The method used for determining the smoothed actuarial value of assets phases in the deviation between the expected and actual return on assets at the rate of 25% per year. The smoothed actuarial value of assets is further adjusted to the extent necessary to remain within the corridor whose lower and upper limits are 80% and 120%, respectively, of the fair market value of system assets.

J. Cost Method

Normal Retirement, Termination, Disability, and Death Benefits: Entry-Age-Normal Cost Method.
Under this method the normal cost for each active employee is the amount which is calculated to be a level percentage of pay that would be required annually from his entry age to his assumed retirement age to fund his estimated benefits, assuming the System had always been in effect. The normal cost for the System is the sum of such amounts for all employees. The actuarial accrued liability as of any valuation date for each active employee or inactive employee who is eligible to receive benefits under the System is the excess of the actuarial present value of estimated future benefits over the actuarial present value of current and future normal costs. The unfunded actuarial accrued liability as of any valuation date is the excess of the actuarial accrued liability over System assets.

Vested Normal Retirement, Termination, Disability, and Death Benefits: Unit Credit Cost Method
Under this method, the actuarial present value of vested accrued benefits is an amount calculated to be the sum of the present values of each individual's vested accrued or earned benefit under the Plan as of the valuation date. Each individual's calculation is based on pay and service as of the valuation date.

K. Disclosure of Assumptions

The investment return, salary increases, payroll growth assumption, withdrawal and retirement rates were updated based on the most recent experience study performed for the five years ending September 30, 2019. The mortality rates are based upon the July 1, 2022 FRS Actuarial Valuation, as required under F.S., Chapter 2015-157.

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

L. Changes From Previous Valuation

None.

M. Technical Assumptions

1. Pay Increase Timing:
   Beginning of (Fiscal) year.

2. Decrement Timing:
   Decrements are assumed to occur mid-year.

3. Eligibility Testing:
   Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

4. Benefit Service:
   Exact fractional service is used to determine the amount of benefit payable.

5. Decrement Relativity:
   Decrement rates are used directly from tabular rates - no adjustment for multiple decrement table effects.

6. Decrement Operation:
   Disability and mortality decrements do not operate during the first 5 years of service. Disability and withdrawal do not operate during years of retirement eligibility.

7. Incidence of Contributions:
   Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

8. Marriage Assumption:
   100% of members are assumed to be married. Male spouses are assumed to be three years older than female spouses.

9. Actuarial Equivalence Basis for Optional Forms of Payment:
   7.5% interest and the RP 2000 Combined Healthy Male Mortality Table with Blue Collar adjustment projected to the fiscal year that contains the benefit commencement date for participants and the RP 2000 Combined Healthy Female Mortality Table projected to the fiscal year that contains the benefit commencement date for beneficiaries. Disabled lives are set forward 5 years.

Actuarial Assumptions and Actuarial Cost Methods
Used in the Valuation

M. Technical Assumptions (Cont'd)

10. Duty and Non-Duty Related Assumption

    50% are assumed in-service and 50% are assumed non-service for pre-retirement death and disability benefits.

11. Vested members

    Vested members who terminate with a benefit worth less than 100% of their accumulated member contribution balance were assumed to withdraw the balance and forfeit their vested benefit.

12. Salary

    Salary reported for the actuarial valuation includes all amounts included in the final average compensation for benefit purposes.

Distribution by Attained Age Groups and Service Groups as of October 1, 2022

Attained Age Group	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 & Over	Total
	COMPLETED YEARS OF SERVICE							
Under 25	3	-	-	-	-	-	-	3
25 - 29	3	-	-	-	-	-	-	3
30 - 34	3	-	-	-	-	-	-	3
35 - 39	2	1	-	-	-	-	-	3
40 - 44	-	-	-	-	-	-	-	0
45 - 49	1	1	1	-	-	-	-	3
50 - 54	-	-	-	-	-	-	-	0
55 - 59	-	-	-	-	-	-	-	0
60 - 64	-	-	-	-	-	-	-	0
65 & Over	-	-	-	-	-	-	-	0
TOTAL	12	2	1	0	0	0	0	15

	10/01/2021	10/01/2022
Average Attained Age	35.92 years	33.11 years
Average Hire Age	32.20 years	29.85 years
Average Pay	$ 42,583	$ 45,437
Percent Female	0.0%	6.7%

Statistics for Participants Entitled to Deferred Benefits and Participants Receiving Benefits

A. Entitled to Deferred Benefits

Current Age Group	Count	Total Annual Benefit	Average Annual Benefit
Less than 40	0	$ -	$ -
40 - 44	1	18,239	18,239
45 - 49	2	45,670	22,835
50 - 54	1	27,069	27,069
55 - 59	-	-	-
60 - 64	-	-	-
65 & Over	-	-	-
TOTAL	4	$ 90,978	$ 22,745

B. Receiving Benefits (including DROPs)

Current Age Group	Count	Total Annual Benefit	Average Annual Benefit
Less than 50	1	$ 23,152	$ 23,152
50 - 54	0	-	-
55 - 59	6	191,795	31,966
60 - 64	1	22,568	22,568
65 - 69	2	32,891	16,446
70 - 74	1	27,341	27,341
75 - 79	2	23,153	11,577
80 - 84	0	-	-
85 & Over	0	-	-
TOTAL	13	$ 320,900	$ 24,685

Reconciliation of Employee Data

A.	Active Participants	
	1. Active participants previous year	15
	2. Retired during year	(1)
	3. Entered DROP	0
	4. Died during year	0
	5. Disabled during year	0
	6. Vested terminated during year	0
	7. Non-vested terminated during year	(5)
	8. New active participants	5
	9. Re-instated during year	1
	10. Active participants current year	15
B.	Participants Receiving Benefits	
	1. Participants receiving benefits previous year	11
	2. New retired participants	1
	3. Former DROPs now receiving benefits	0
	4. New terminated vested receiving benefits	0
	5. New disabled receiving benefits	0
	6. New beneficiaries receiving benefits	0
	7. Died or ceased payment during year	0
	8. Retired or terminated vested receiving benefits current year	12
C.	DROP Participants	
	1. DROP participants previous year	1
	2. Died during year	0
	3. Became disabled during year	0
	4. Employment terminated and retired during year	0
	5. Entered DROP during year	0
	6. DROP participants current year	1
D.	Terminated Vested Participants Entitled to Future Benefits	
	1. Terminated vested entitled previous year	4
	2. Died during year	0
	3. Commenced receiving benefits during year	0
	4. New terminated vested	0
	5. Terminated vested paid lump sum	0
	6. Adjustment	0
	7. Terminated vested entitled current year	4

Projected Retirement Benefits

Fiscal Year	Projected Total Annual Payout
2023	$ 336,295
2024	$ 337,164
2025	$ 362,200
2026	$ 359,310
2027	$ 361,389
2028	$ 365,787
2029	$ 371,236
2030	$ 376,532
2031	$ 399,216
2032	$ 427,737

The above projected payout of System benefits during the next ten years is based on assumptions involving all decrements. The actual payouts may differ from the above estimates depending upon the death, salary and retirement experience of the System. However, since the projected payment is recomputed each valuation date, there is an automatic correction to the extent that actual experience varies from expected experience.

Summary of Transaction Information

Valuation Date	Benefits Paid [1]	Administrative Expenses	Employee Contributions	City Contributions	City Contributions (Member *Pick-up*)	Total State Contributions	Smoothed Actuarial Value [2,3]
10/01/2022	$ 257,539	$ 68,708	$ 7,707	$ 114,182	$ 38,534	$ 0	$ 5,057,793
10/01/2021	265,825	54,681	6,783	107,282	34,696	55,790	5,048,226
10/01/2020	281,497	32,660	8,049	147,488	31,492	45,418	4,752,105
10/01/2019	288,921	32,378	6,855	147,537	34,275	55,764	4,550,287
10/01/2018	499,920	49,254	6,587	140,300	32,934	75,352	4,313,722
10/01/2017	186,296	39,291	6,093	112,112	30,465	71,087	4,367,584
10/01/2016	195,249	50,014	5,544	108,747	26,654	62,092	4,124,426
10/01/2015	148,844	45,090	5,784	112,245	27,922	56,496	3,943,032
10/01/2014	170,730	34,257	5,525	153,873	26,674	57,971	3,676,112
10/01/2013	129,795	37,002	6,078	108,390	29,295	61,447	3,376,180
10/01/2012	129,255	58,821	5,766	115,876	28,831	72,385	2,863,552
10/01/2011	130,078	20,881	6,191	86,187	30,878	59,178	2,674,491
10/01/2010	128,309	24,576	5,893	14,906	29,464	68,225	2,657,104
10/01/2009	127,082	21,060	6,193	0	30,967	71,647	2,621,033
10/01/2008	107,387	26,743	6,806	0	34,029	76,068	2,740,047
10/01/2007	106,732	11,180	6,573	0	32,868	80,389	2,632,673
10/01/2006	90,050	16,081	6,154	0	30,770	73,923	2,393,700
10/01/2005	97,329	23,103	6,039	0	30,197	70,830	2,179,343
10/01/2004	101,336	25,137	5,891	0	29,453	55,475	2,048,693
10/01/2003	86,784	38,090	5,656	0	35,076	43,160	2,010,037
10/01/2002	86,059	27,088	5,386	0	26,927	38,590	1,989,717
10/01/2001	48,847	33,174	6,322	0	25,110	39,015	2,020,284
10/01/2000	53,355	18,215	6,831	0	23,324	40,694	1,981,584

[1] Effective for fiscal year ending September 30, 2013, includes DROP and Share distributions and contribution refunds

[2] Effective for year ending September 30, 2013, includes DROP account balances

[3] Prior to October 1, 2009 and effective for fiscal year ended September 30, 2013, actuarial value includes the excess State contribution reserve

Recent Compensation, Termination and Investment Return Experience

Valuation Date	Compensation: % Increase (Decrease)	Compensation: Assumed Increase	Termination: Ratio of Actual to Expected	Investment Return[1]: Market Value	Investment Return[1]: Actuarial Value	Investment Return[1]: Assumed
10/01/2022	10.7%	6.7%	1.9	(13.96%)	3.42%	7.00%
10/01/2021	15.6%	6.5%	1.8	19.47%	8.78%	7.00%
10/01/2020	11.6%	4.7%	2.4	5.42%	6.29%	7.25%
10/01/2019	14.2%	4.7%	2.6	5.02%	7.33%	7.25%
10/01/2018	12.6%	4.6%	2.8	6.16%	5.69%	7.25%
10/01/2017	2.4%	4.5%	2.3	8.78%	6.04%	7.25%
10/01/2016	(1.6%)	4.6%	1.9	10.53%	5.70%	7.25%
10/01/2015	3.7%	6.9%	2.9	(2.1%)	7.0%	8.0%
10/01/2014	1.4%	7.1%	4.9	8.4%	7.7%	8.0%
10/01/2013	0.8%	7.1%	1.3	8.3%	7.4%	8.0%
Last 3 Periods	12.6%	6.0%	2.0	2.71%	6.14%	7.08%
Last 5 Periods	12.9%	5.4%	2.3	3.85%	6.29%	7.15%
Last 10 Periods	7.0%	5.7%	2.3	5.3%	6.5%	7.4%

[1] Computed as 2I/(A+B-I), where A is beginning value, B is ending value and I is investment return.

Employer Contribution Information

Valuation Date	Contribution Fiscal Year End	Minimum Required Employer Contributions		Actual City Contributions	Actual State Contributions	Actual Employer Contributions
10/01/2022	09/30/2024	$ 191,998	[1]	N/A	N/A	N/A
10/01/2021	09/30/2023	$ 144,833	[1]	N/A	N/A	N/A
10/01/2020	09/30/2022	$ 170,145	[2]	$ 114,182	$ 0	$ 114,182
10/01/2019	09/30/2021	$ 173,062	[2]	$ 107,282	$ 55,790	$ 163,072
10/01/2018	09/30/2020	$ 193,175	[2]	$ 147,488	$ 45,418	$ 192,906
10/01/2017	09/30/2019	$ 203,146	[2]	$ 147,537	$ 55,764	$ 203,301
10/01/2016	09/30/2018	$ 215,652	[2]	$ 140,300	$ 75,352	$ 215,652
10/01/2015	09/30/2017	$ 183,199	[2]	$ 112,112	$ 71,087	$ 183,199
10/01/2014	09/30/2016	$ 170,839	[2]	$ 108,747	$ 62,092	$ 170,839
10/01/2013	09/30/2015	$ 168,741	[2]	$ 112,245	$ 56,496	$ 168,741
10/01/2012	09/30/2014	$ 162,286	[2]	$ 153,873	$ 57,971	$ 211,844
10/01/2011	09/30/2013	$ 165,835	[2]	$ 108,390	$ 61,447	$ 169,837
10/01/2010	09/30/2012	$ 180,374	[2]	$ 115,876	$ 72,385	$ 188,261
10/01/2009	09/30/2011	$ 145,325	[2]	$ 86,187	$ 59,178	$ 145,365
10/01/2008	09/30/2010	$ 75,619	[2]	$ 14,906	$ 68,225	$ 83,131
10/01/2007	09/30/2009	$ 29,618	[2]	$ 0	$ 71,647	$ 71,647
10/01/2006	09/30/2008	$ 31,252		$ 0	$ 76,068	$ 76,068
10/01/2005	09/30/2007	$ 35,573		$ 0	$ 80,389	$ 80,389
10/01/2004	09/30/2006	$ 29,107		$ 0	$ 73,923	$ 73,923
10/01/2003	09/30/2005	$ 26,014		$ 0	$ 70,830	$ 70,830
10/01/2002	09/30/2004	$ 10,659		$ 0	$ 55,475	$ 55,475
10/01/2001	09/30/2003	$ 0		$ 0	$ 43,160	$ 43,160
10/01/2000	09/30/2002	$ 4,650		$ 0	$ 38,590	$ 38,590
10/01/1999	09/30/2001	$ 5,075		$ 0	$ 39,015	$ 39,015
10/01/1998	09/30/2000	$ 6,754		$ 0	$ 40,694	$ 40,694
10/01/1997	09/30/1999	$ 2,860		$ 0	$ 36,800	$ 36,800
10/01/1996	09/30/1998	$ 0		$ 0	$ 33,940	$ 33,940

[1] Projected

[2] Based upon percentage of payroll

Actuarial Valuation as of October 1, 2022

State Required Exhibit

	10/01/2021	Prior System 10/01/2022	Current System 10/01/2022
A. Participant Data			
1. Active participants	15	15	15
2. Retired participants and beneficiaries receiving benefits (including DROPs)	11	12	12
3. Disabled participants receiving benefits	1	1	1
4. Terminated vested participants	4	4	4
5. Annual payroll of active participants	$ 638,744	$ 681,553	$ 681,553
6. Projected payroll of active participants	$ 648,325	$ 693,821	$ 693,821
7. Annual benefits payable to those currently receiving benefits including DROP participants	$ 283,446	$ 320,900	$ 320,900
B. Value of Assets			
1. Smoothed Actuarial Value of Assets	$ 5,048,226	$ 5,057,793	$ 5,057,793
2. Market Value of Assets	$ 5,402,166	$ 4,498,559	$ 4,498,559
C. Liabilities			
1. Actuarial present value of future expected benefit payments for active members			
a. Retirement benefits	$ 1,588,292	$ 1,547,165	$ 1,547,165
b. Vesting benefits	175,228	213,603	213,603
c. Death benefits	25,138	25,756	25,756
d. Disability benefits	37,076	41,485	41,485
e. Total	$ 1,825,734	$ 1,828,009	$ 1,828,009
2. Actuarial present value of future expected benefit payments for terminated vested members	$ 619,040	$ 664,777	$ 664,777
3. Actuarial present value of future expected benefit payments for members currently receiving benefits			
a. Service retired including DROP participants	$ 3,035,083	$ 3,358,304	$ 3,519,176
b. Disability retired	303,389	301,970	317,004
c. Beneficiaries	98,941	95,551	100,291
d. Miscellaneous	4,122	6,601	6,601
e. Total	$ 3,441,535	$ 3,762,426	$ 3,943,072

Actuarial Valuation as of October 1, 2022

State Required Exhibit

	10/01/2021	Prior System 10/01/2022	Current System 10/01/2022
4. Reserve for Share Plan	$ 55,260	$ 49,381	$ 49,381
5. Total actuarial present value of future expected benefit payments	$ 5,941,569	$ 6,304,593	$ 6,485,239
6. Actuarial accrued liabilities	$ 5,122,169	$ 5,380,291	$ 5,560,937
7. Unfunded actuarial accrued liabilities	$ 73,943	$ 322,498	$ 503,144

D. Statement of Accumulated System Benefits

	10/01/2021	Prior System 10/01/2022	Current System 10/01/2022
1. Actuarial present value of accumulated vested benefits			
a. Participants currently receiving benefits including DROP participants	$ 3,437,413	$ 3,755,825	$ 3,936,471
b. Other participants (Share Plan)	1,097,665	988,834	988,834
c. Total	$ 4,535,078	$ 4,744,659	$ 4,925,305
2. Actuarial present value of accumulated non-vested System benefits	151,049	177,443	177,443
3. Total actuarial present value of accumulated System benefits	$ 4,686,127	$ 4,922,102	$ 5,102,748

E. Statement of Change in Accumulated System Benefits

1. Actuarial present value of accumulated System benefits as of October 1, 2021	$ 4,686,127
2. Increase (decrease) during year attributable to:	
a. System amendment	$ 180,646
b. Change in actuarial assumptions	0
c. Benefits paid including refunds and DROP and Share Plan distributions	(257,539)
d. Other, including benefits accumulated and increase for interest due to decrease in the discount period	493,514
e. Net increase	$ 416,621
3. Actuarial present value of accumulated System benefits as of October 1, 2022	$ 5,102,748

Actuarial Valuation as of October 1, 2022

State Required Exhibit

	10/01/2021	Prior System 10/01/2022	Current System 10/01/2022
F. Pension Cost			
1. Total normal cost	$ 161,358	$ 178,711	$ 178,711
2. Payment required to amortize unfunded liability	8,381	28,631	42,549
3. Interest adjustment	6,610	7,766	8,236
4. Total required contribution	$ 176,349	$ 215,108	$ 229,496
5. Item 4 as a percentage of payroll	27.6%	31.6%	33.7%
6. Estimated employee contributions	$ 6,483	$ 6,938	$ 6,938
7. Item 6 as a percentage of projected payroll	1.0%	1.0%	1.0%
8. Estimated State contributions	$ 51,460	$ 44,584	$ 44,584
9. Item 8 as a percentage of projected payroll	7.9%	6.4%	6.4%
10. Estimated pick-up employee contributions by City	$ 32,416	$ 34,691	$ 34,691
11. Item 10 as a percentage of projected payroll	5.0%	5.0%	5.0%
12. Net amount payable by City	$ 88,635	$ 132,767	$ 147,414
13. Item 12 as a percentage of projected payroll	13.7%	19.1%	21.2%
G. Past Contributions			
1. Total contribution required (prior valuation % of pay)	$ 216,386	$ 185,726	$ 185,726
2. Actual contributions made:			
a. Employees	$ 7,707	N/A	N/A
b. State (net)	0	N/A	N/A
c. City (Member Pick-Up)	38,534	N/A	N/A
d. City	114,182	N/A	N/A
e. Total	$ 160,423	N/A	N/A
H. Net Actuarial Gain (Loss)	$ 144,185	$ (229,911)	$ (229,911)
I. Disclosure of Following Items:			
1. Actuarial present value of future salaries - attained age	$ 4,025,524	$ 4,594,838	$ 4,594,838
2. Actuarial present value of future employee contributions - attained age	$ 241,531	$ 275,690	$ 275,690
3. Actuarial present value of future contributions from other sources	N/A	N/A	N/A
4. Amount of active members' accumulated contributions	$ 126,401	$ 120,550	$ 120,550
5. Actuarial present value of future salaries and future benefits at entry age	N/A	N/A	N/A
6. Actuarial present value of future employee contributions at entry age	N/A	N/A	N/A

State Required Exhibit

	Unfunded Actuarial Accrued Liabilities	Current Unfunded Liabilities	Amortization Payment	Remaining Funding Period
10/01/2014	Combined Bases *	$ (5,993)	$ (806)	9 years
10/01/2015	Actuarial Loss / (Gain)	(57,266)	(5,838)	13 years
10/01/2015	Assumption Changes	170,685	17,400	13 years
10/01/2016	Actuarial Loss / (Gain)	51,984	5,031	14 years
10/01/2016	Assumption Changes	(6,569)	(636)	14 years
10/01/2017	Actuarial Loss / (Gain)	7,717	713	15 years
10/01/2018	Actuarial Loss / (Gain)	86,432	7,646	16 years
10/01/2019	Actuarial Loss / (Gain)	(37,941)	(3,228)	17 years
10/01/2019	Assumption Changes	(88,480)	(7,527)	17 years
10/01/2020	Actuarial Loss / (Gain)	(19,300)	(1,584)	18 years
10/01/2020	Assumption Changes	163,864	13,450	18 years
10/01/2021	Actuarial Loss / (Gain)	(172,546)	(13,703)	19 years
10/01/2022	Actuarial Loss / (Gain)	229,911	17,713	20 years
10/01/2022	System Amendment	180,646	13,918	20 years
	TOTAL	$ 503,144	$ 42,549	

* Combined per Internal Revenue Code Regulation 1.412(b)-1

This Actuarial Valuation and / or cost determination was prepared and completed by us or under our direct supervision, and we acknowledge responsibility for the results. To the best of our knowledge, the results are complete and accurate, and in our 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 System and / or paid from the System's assets for which liabilities or current costs have not been established or other wise provided for in the valuation. All known events or trends which may require material increase in System costs or required contribution rates have been taken into account in the valuation.

Michelle Jones

Shelly L. Jones, A.S.A., E.A.
Enrollment Number: 23-08646

Jennifer Borregard

Jennifer M. Borregard, E.A.
Enrollment Number: 23-07624

Dated: June 30, 2023

Glossary

Actuarial Accrued Liability. The difference between the Actuarial Present Value of Future Benefits, and the Actuarial Present Value of Future Normal Costs.

Actuarial Assumptions. Assumptions about future plan experience that affect costs or liabilities, such as: mortality, withdrawal, disablement, and retirement; future increases in salary; future rates of investment earnings; future investment and administrative expenses; characteristics of members not specified in the data, such as marital status; characteristics of future members; future elections made by members and other items.

Actuarial Cost Method. A procedure for allocating the Actuarial Present Value of Future Benefits between the Actuarial Present Value of Future Normal Costs and the Actuarial Accrued Liability.

Actuarial Equivalent. Of equal Actuarial Present Value, determined as of a given date and based on a given set of Actuarial Assumptions.

Actuarial Present Value of Future Benefits. The Actuarial Present Value of amounts which are expected to be paid at various future times to active members, retired members, beneficiaries receiving benefits and inactive, non-retired members entitled to either a refund or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.

Actuarial Valuation. The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a plan. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB No. 67.

Actuarial Value of Assets. The value of the assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets or a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially required contribution.

Amortization Method. A method for determining the Amortization Payment. The most common methods used are level dollar and level percentage of payroll. Under the Level Dollar method, the Amortization Payment is one of a stream of payments, all equal, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the Amortization Payment is one of a stream of increasing payments, whose Actuarial Present Value is equal to the UAAL. Under the Level Percentage of Pay method, the stream of payments increases at the rate at which total covered payroll of all active members is assumed to increase.

Glossary

Amortization Payment. That portion of the plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Amortization Period. The period used in calculating the Amortization Payment.

Annual Required Contribution. The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation. The annual required contribution consists of the Employer Normal Cost and Amortization Payment plus interest adjustment.

Closed Amortization Period. A specific number of years that is reduced by one each year, and declines to zero with the passage of time. For example if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc.

Employer Normal Cost. The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.

Equivalent Single Amortization Period. For plans that do not establish separate amortization bases (separate components of the UAAL), this is the same as the Amortization Period. For plans that do establish separate amortization bases, this is the period over which the UAAL would be amortized if all amortization bases were combined upon the current UAAL payment.

Experience Gain/Loss. A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions, during the period between two actuarial valuations. To the extent that actual experience differs from that assumed, Unfunded Actuarial Accrued Liabilities emerge which may be larger or smaller than projected. Gains are due to favorable experience, e.g., the assets earn more than projected, salaries do not increase as fast as assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. Losses are the result of unfavorable experience, i.e., actual results that produce Unfunded Actuarial Accrued Liabilities which are larger than projected.

GASB. Governmental Accounting Standards Board.

Glossary

GASB No. 67 and GASB No. 68. These are the governmental accounting standards that set the accounting rules for public retirement plans and the employers that sponsor or contribute to them. Statement No. 67 sets the accounting rules for the plans themselves, while Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement plans.

Normal Cost. The annual cost assigned, under the Actuarial Cost Method, to the current plan year.

Open Amortization Period. An open amortization period is one which is used to determine the Amortization Payment but which does not change over time. In other words, if the initial period is set as 30 years, the same 30-year period is used in determining the Amortization Period each year. In theory, if an Open Amortization Period is used to amortize the Unfunded Actuarial Accrued Liability, the UAAL will never completely disappear, but will become smaller each year, either as a dollar amount or in relation to covered payroll.

Unfunded Actuarial Accrued Liability. The difference between the Actuarial Accrued Liability and Actuarial Value of Assets.

Valuation Date. The date as of which the Actuarial Present Value of Future Benefits are determined. The benefits expected to be paid in the future are discounted to this date.

Vested Benefit Security Ratio. The ratio of the Market Value of Assets to the Actuarial Present Value of Vested Accrued Benefits.