

CITY OF FORT MEADE  
GENERAL EMPLOYEES' RETIREMENT PLAN

ACTUARIAL VALUATION  
AS OF OCTOBER 1, 2023

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



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

March 5, 2024

Board of Trustees  
City of Fort Meade  
General Employees' Pension Board

Re: City of Fort Meade General Employees' Retirement Plan

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Fort Meade General Employees' Retirement Plan. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. Use of the results for other purposes may not be applicable and may produce significantly different results.

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

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the City of Fort Meade, financial reports prepared by the custodian bank, and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

Additionally, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models that apply the funding rules to generate the results. All internally developed models are reviewed as part of the valuation process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

In our opinion, the Minimum Required Contribution set forth in this report constitutes a reasonable actuarially determined contribution under Actuarial Standard of Practice No. 4.

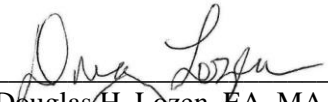
The undersigned are familiar with the immediate and long-term aspects of pension valuations, and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.


To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the City of Fort Meade, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the General Employees' Retirement Plan. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

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

Respectfully submitted,

Foster & Foster, Inc.

By:   
\_\_\_\_\_  
Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #23-7778

By:   
\_\_\_\_\_  
Kevin H. Peng, ASA, EA, MAAA  
Enrolled Actuary #23-7783

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Fort Meade General Employees' Retirement Plan, performed as of October 1, 2023, has been completed and the results are presented in this Report. The contribution amounts set forth herein are applicable to the plan/fiscal year ending September 30, 2024.

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

Valuation Date	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2023</u>
Minimum Required Contribution	\$341,876	\$301,995

<sup>1</sup> Please note that the City has access to a prepaid contribution of \$152,781.85 that is available to offset a portion of the above stated requirements for the fiscal year ending September 30, 2024.

As you can see, the Minimum Required Contribution shows an increase when compared to the results set forth in the October 1, 2022 actuarial valuation report. The increase is primarily attributable to a significant entry date adjustment for one member, a change in actuarial assumptions and methods as the result of a special experience study, and net unfavorable actuarial experience described below. This increase was partially offset by a reduction in Projected Annual Payroll associated with a decrease in the active member headcount from 49 to 44.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of actuarial loss included an investment return of 3.89% (Actuarial Asset Basis) which fell short of the 6.75% assumption and an average salary increase of 9.28%, exceeding the 3.00% assumption. These losses were offset in part by gains associated with inactive mortality experience and favorable turnover experience.

## CHANGES SINCE PRIOR VALUATION

### Plan Changes

There have been no changes in benefits since the prior valuation.

### Actuarial Assumption/Method Changes

As approved by the Board at their March 14, 2023 meeting, the following changes were made to the assumptions and methods as a results of the experience study dated March 8, 2023.

- Assumed investment return reduced from 6.75% to 6.50%, net of investment related expenses.
- Assumed individual salary increase rates increased for the first 15 years of Credited Service.
- Assumed Normal retirement rates were adjusted to be generally lower than previously assumed.
- Assumed withdrawal rates were changed to be based on unisex service rather than sex distinct age table. The overall rates are assumed to be greater in comparison to the prior assumption.
- All components of the UAAL established on or after October 1, 2023 are amortized over 15 years.
- A change in the cost method from the Frozen Entry Age Actuarial Cost Method to the Entry Age Normal Actuarial Cost Method.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Asmp/Mthd <u>10/1/2023</u>	Old Asmp/Mthd <u>10/1/2023</u>	<u>10/1/2022</u>
A. Participant Data			
Actives	44	44	49
Service Retirees	27	27	26
Beneficiaries	1	1	1
Disability Retirees	3	3	2
Terminated Vested	<u>15</u>	<u>15</u>	<u>17</u>
Total	90	90	95
Projected Annual Payroll	2,337,074	2,211,926	2,282,917
Annual Rate of Payments to:			
Service Retirees	325,488	325,488	331,743
Beneficiaries	5,275	5,275	5,275
Disability Retirees	33,307	33,307	22,300
Terminated Vested	109,831	109,831	117,698
B. Assets			
Actuarial Value (AVA) <sup>1</sup>	5,661,435	5,661,435	5,542,288
Market Value (MVA) <sup>1</sup>	5,258,060	5,258,060	4,935,208
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	3,213,864	3,145,758	2,844,220
Disability Benefits	257,924	199,545	205,625
Death Benefits	88,275	63,647	68,734
Vested Benefits	263,697	116,451	101,047
Service Retirees	3,201,518	3,149,111	3,287,324
Beneficiaries	57,254	56,231	57,434
Disability Retirees	340,139	346,321	232,626
Terminated Vested	<u>893,133</u>	<u>867,105</u>	<u>883,297</u>
Total	8,315,804	7,944,169	7,680,307



C. Liabilities - (Continued)	New Asmp/Mthd <u>10/1/2023</u>	Old Asmp/Mthd <u>10/1/2023</u>	<u>10/1/2022</u>
Present Value of Future Salaries	19,923,971	16,389,535	16,766,894
Normal Cost (Retirement)	138,279	n/a	n/a
Normal Cost (Disability)	12,153	n/a	n/a
Normal Cost (Death)	4,812	n/a	n/a
Normal Cost (Vesting)	<u>19,959</u>	<u>n/a</u>	<u>n/a</u>
Total Normal Cost	175,203	208,730	186,077
Present Value of Future Normal Costs (EAN)	1,463,091	1,280,671	1,386,444
Accrued Liability (Retirement)	2,080,141	2,055,651	1,640,950
Accrued Liability (Disability)	138,418	112,812	121,379
Accrued Liability (Death)	46,896	32,611	35,308
Accrued Liability (Vesting)	95,214	43,658	35,545
Accrued Liability (Refunds)	0	0	0
Accrued Liability (Inactives) <sup>1</sup>	<u>4,492,044</u>	<u>4,418,768</u>	<u>4,460,681</u>
Total Actuarial Accrued Liability (EAN AL)	6,852,713	6,663,500	6,293,863
Total Actuarial Accrued Liability (FIL)	n/a	6,397,558	6,313,665
Unfunded Actuarial Accrued Liability (UAAL)	1,191,278	736,123	771,377
Funded Ratio (AVA / EAN AL)	82.6%	85.0%	88.1%
Funded Ratio (AVA / FIL AL)	n/a	88.5%	87.8%

D. Actuarial Present Value of Accrued Benefits	New Asmp/Mthd <u>10/1/2023</u>	Old Asmp/Mthd <u>10/1/2023</u>	<u>10/1/2022</u>
Vested Accrued Benefits			
Inactives <sup>1</sup>	4,492,044	4,418,768	4,460,681
Actives	<u>1,099,748</u>	<u>1,084,004</u>	<u>873,462</u>
Total	5,591,792	5,502,772	5,334,143
Non-vested Accrued Benefits	<u>312,465</u>	<u>394,461</u>	<u>224,831</u>
Total Present Value Accrued Benefits (PVAB)	5,904,257	5,897,233	5,558,974
Funded Ratio (MVA / PVAB)	89.1%	89.2%	88.8%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	7,024	0	
Plan Experience	0	339,997	
Benefits Paid	0	(364,661)	
Interest	0	362,923	
Other	<u>0</u>	<u>0</u>	
Total	7,024	338,259	

	New Asmp/Mthd	Old Asmp/Mthd	
Valuation Date	10/1/2023	10/1/2023	10/1/2022
Applicable to Fiscal Year Ending	<u>9/30/2024</u>	<u>9/30/2024</u>	<u>9/30/2023</u>
E. Pension Cost			
Normal Cost <sup>1</sup>	\$180,897	\$215,775	\$198,128
Administrative Expenses <sup>1</sup>	38,150	38,196	31,652
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 10/1/2023) <sup>1</sup>	122,829	68,716	72,215
Minimum Required Contribution	341,876	322,687	301,995
Expected City Contribution	341,876	322,687	301,995
F. Past Contributions			
Plan Years Ending:	<u>9/30/2023</u>		
City Requirement	301,995		
Actual Contributions Made:			
City	301,995		
G. Net Actuarial (Gain)/Loss	N/A		

<sup>1</sup> Contributions developed as of 10/1/2023 displayed above an interest adjustment to account for the timing of sponsor contributions.

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

<u>Year</u>	<u>Projected Unfunded Actuarial Accrued Liability</u>
2023	1,191,278
2024	1,142,015
2025	1,089,550
2028	910,793
2032	613,336
2035	335,551
2038	0

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

	<u>Actual</u>	<u>Assumed</u>
Year Ended 9/30/2023	9.28%	3.00%
Year Ended 9/30/2022	16.56%	3.00%
Year Ended 9/30/2021	9.19%	3.00%
Year Ended 9/30/2020	6.06%	3.00%
Year Ended 9/30/2019	5.93%	3.00%

(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 9/30/2023	8.42%	3.89%	6.75%
Year Ended 9/30/2022	-13.29%	4.84%	6.75%
Year Ended 9/30/2021	19.31%	9.91%	7.00%
Year Ended 9/30/2020	6.33%	7.70%	7.00%
Year Ended 9/30/2019	5.14%	6.66%	7.00%

STATEMENT BY ENROLLED ACTUARY

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



Douglas H. Lozen, EA, MAAA  
Enrolled Actuary #23-7778

Please let us know when the report is approved by the Board and unless otherwise directed we will provide a copy of the report to the following office to comply with Chapter 112 Florida Statutes:

Mr. Keith Brinkman  
Bureau of Local  
Retirement Systems  
Post Office Box 9000  
Tallahassee, FL 32315-9000

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES  
(Before Method Change)

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2022	\$771,377
(2)	Sponsor Normal Cost developed as of October 1, 2022	186,077
(3)	Expected administrative expenses for the year ended September 30, 2023	29,727
(4)	Expected interest on (1), (2) and (3)	65,631
(5)	Sponsor contributions to the System during the year ended September 30, 2023	301,995
(6)	Expected interest on (5)	14,694
(7)	Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	736,123
(8)	Change to UAAL due to Assumption Change	189,213
(9)	Unfunded Actuarial Accrued Liability as of October 1, 2023	925,336

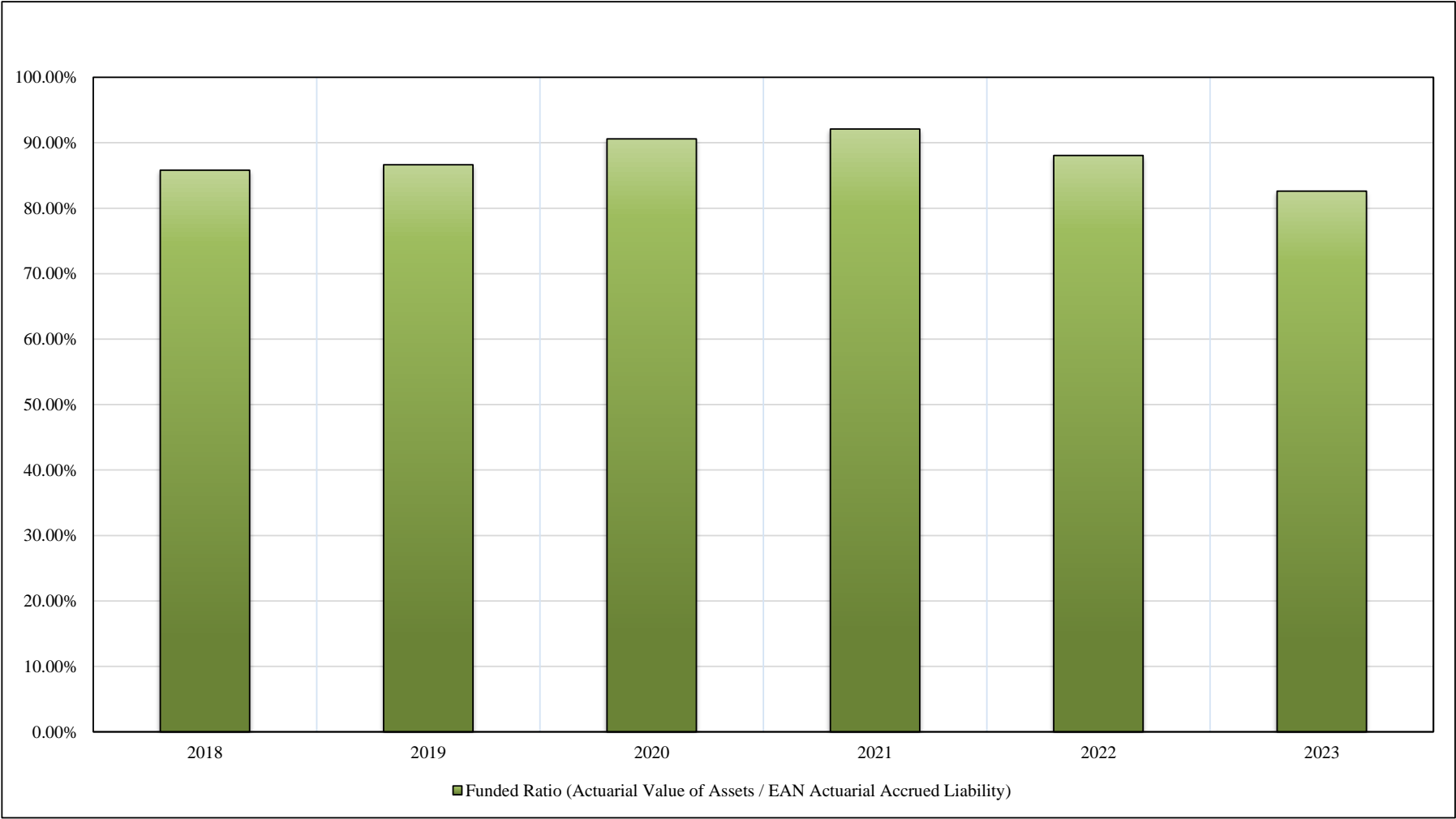
Type of Base	Date Established	Years Remaining	10/1/2023 Amount	Amortization Amount
Prior Base #1		5	42,880	9,689
Prior Base #2		17	115,004	10,680
Assump Change	10/1/2016	23	259,951	20,738
Benefit Change	10/1/2017	24	18,068	1,415
Assump Change	10/1/2018	25	239,742	18,455
Assump Change	10/1/2020	27	(85,107)	(6,355)
Assump Change	10/1/2021	28	132,798	9,783
Benefits Change	10/1/2021	28	(1,242)	(91)
Benefits Change	10/1/2021	28	14,029	1,033
Assump Change	10/1/2023	30	189,213	13,605
			925,336	78,952

RECONCILIATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITIES  
(After Method Change)

(1)	Unfunded Actuarial Accrued Liability as of October 1, 2022	\$771,377
(2)	Sponsor Normal Cost developed as of October 1, 2022	186,077
(3)	Expected administrative expenses for the year ended September 30, 2023	29,727
(4)	Expected interest on (1), (2) and (3)	65,631
(5)	Sponsor contributions to the System during the year ended September 30, 2023	301,995
(6)	Expected interest on (5)	14,694
(7)	Unfunded Actuarial Accrued Liability as of September 30, 2023 (1)+(2)+(3)+(4)-(5)-(6)	736,123
(8)	Change to UAAL due to Assumption Change	189,213
(9)	Change to UAAL due to Method Change	265,942
(10)	Unfunded Actuarial Accrued Liability as of October 1, 2023 (7)+(8)+(9)	1,191,278

Type of <u>Base</u>	Date <u>Established</u>	Years <u>Remaining</u>	10/1/2023 <u>Amount</u>	Amortization <u>Amount</u>
EAN Cost Method	10/1/2023	15	1,191,278	118,963

# HISTORY OF FUNDING PROGRESS





## ACTUARIAL ASSUMPTIONS AND METHODS

### Mortality Rate

#### *Healthy Active Lives:*

**Female:** PubG.H-2010 (Below Median) for Employees.

**Male:** PubG.H-2010 (Below Median) for Employees, set back one year.

#### *Healthy Retiree Lives:*

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

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

PubG.H-2010 for Disabled Retirees, set forward three years.

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

The previously described mortality assumption rates were mandated by Chapter 2015-157, Laws of Florida. This law mandates the use of the assumptions used in either of the two most recent valuations of the Florida Retirement System (FRS). The above rates are those outlined in Milliman's July 1, 2021 FRS valuation report for non-special-risk employees, with appropriate adjustments made based on plan demographics.

### Interest Rate

6.50% (prior year 6.75%) per year compounded annually, net of investment related expenses. This is supported by the target asset allocation of the trust and the expected long-term return by asset class.

### Salary Increases

See table later in this section. Service based annual amount to assumed retirement age; This assumption was adopted based on the March 8, 2023 actuarial experience study.

Payroll Growth

None.

Administrative Expenses

\$36,949 annually, based on the average of actual expenses incurred in the prior two fiscal years.

Amortization Method

New UAAL amortization bases are amortized over 15 (previously 30) years; bases established prior to the valuation date are adjusted proportionally to match the Expected Unfunded Actuarial Accrued Liability as of the valuation date, in order to align prior year bases with the portion of the current year UAAL associated with prior year sources.

The amortization payment is subject to a minimum based on a 30-year amortization of the UAAL, if the UAAL is positive, in order to comply with Actuarial Standard of Practice No. 4.

Actuarial Asset Method

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

Funding Method

Entry Age Normal Actuarial Cost Method (Previously, Frozen Entry Age Normal). The following loads are applied for determining the minimum required contribution:

Interest - A half year, based on current 6.50% assumption.

Salary - None.

Retirement Age

Years After Normal Eligibility	Probability of Retirement
0	50%
1	50%
2+	100%

Previously, 100% at first eligibility for normal retirement. This assumption was adopted based on the March 8, 2023 actuarial experience study.

Termination Rates

See table later in this section. Unisex and service-based table. (Previously, Age and gender-based). This assumption was adopted based on the March 8, 2023 actuarial experience study.

Disability Rates

Age and gender-based, see sample rates below.

% Becoming Disabled During the Year		
Age	Male	Female
20	0.03%	0.03%
25	0.04%	0.05%
30	0.05%	0.08%
35	0.07%	0.14%
40	0.12%	0.21%
45	0.20%	0.32%
50	0.36%	0.53%
55	0.72%	0.95%
60	1.26%	1.16%
65	1.75%	1.36%

This assumption was carried over from the prior actuary and adopted based on the March 8, 2023 actuarial experience study.

No disablements are assumed to be service-related.

Marriage

100% of active participants are assumed to be married, with spouses assumed to be the same age.

Low-Default-Risk Obligation Measure

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

Service	% Terminating During the Year		Service	Salary Scale	
	Current Year Rate	Prior Year Rate		Current Year Rate	Prior Year Rate
0	17.0%	15.0%	0	7.00%	3.00%
1	15.0%	15.4%	1-5	6.00%	3.00%
2-5	12.5%	11.4%	6-10	5.00%	3.00%
6-7	6.0%	5.9%	11-15	4.00%	3.00%
8-9	3.5%	3.4%	16+	3.00%	3.00%
10-24	2.0%	1.8%			
25+	0.0%	1.4%			

## GLOSSARY

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

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

(a) The normal cost accrual rate equals:

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

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

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

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

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

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

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

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

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

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

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

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

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

## DISCUSSION OF RISK

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

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

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

- Investment Return: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.
- Salary Increases: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.
- Demographic Assumptions: Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

## Impact of Plan Maturity on Risk

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

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

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 104.4% on October 1, 2020 to 95.7% on October 1, 2023, indicating that the plan has been maturing during the period.
- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 65.6%. 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 decreased from 90.6% on October 1, 2020 to 82.6% on October 1, 2023.
- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, increased from -4.2% on October 1, 2020 to -1.9% on October 1, 2023. The current Net Cash Flow Ratio of -1.9% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

### Low Default-Risk Obligation Measure

ASOP No. 4, Measuring Pension Obligations and Determining Pension Plan Costs or Contributions, was revised as of December 2021 to include a “low-default-risk obligation measure” (LDROM). This liability measure is consistent with the determination of the actuarial accrued liability shown on page 9 in terms of member data, plan provisions, and assumptions/methods, under the Entry Age Normal Cost Method, except that the interest rate is tied to low-default-risk fixed income securities. The S&P Municipal Bond 20 Year High Grade Rate Index (daily rate closest to, but not later than, the measurement date) was selected to represent a current market rate of low risk but longer-term investments that could be included in a low-risk asset portfolio. The interest rate used in this valuation was 4.87%, resulting in an LDROM of \$8,149,748. The LDROM should not be considered the “correct” liability measurement; it simply shows a possible outcome if the Board elected to hold a very low risk asset portfolio. The Board actually invests the pension plan’s contributions in a diversified portfolio of stocks and bonds and other investments with the objective of maximizing investment returns at a reasonable level of risk. Consequently, the difference between the plan’s Actuarial Accrued Liability disclosed earlier in this section and the LDROM can be thought of as representing the expected taxpayer savings from investing in the plan’s diversified portfolio compared to investing only in high quality bonds.

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

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



PLAN MATURITY MEASURES AND OTHER RISK METRICS

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>
<u>Support Ratio</u>				
Total Actives	44	49	44	47
Total Inactives	46	46	46	45
Actives / Inactives	95.7%	106.5%	95.7%	104.4%
 <u>Asset Volatility Ratio</u>				
Market Value of Assets (MVA)	5,258,060	4,935,208	5,927,788	5,123,385
Total Annual Payroll	2,337,074	2,282,917	1,839,555	1,774,898
MVA / Total Annual Payroll	225.0%	216.2%	322.2%	288.7%
 <u>Accrued Liability (AL) Ratio</u>				
Inactive Accrued Liability	4,492,044	4,460,681	4,484,286	4,433,619
Total Accrued Liability (EAN)	6,852,713	6,293,863	5,942,275	5,689,460
Inactive AL / Total AL	65.6%	70.9%	75.5%	77.9%
 <u>Funded Ratio</u>				
Actuarial Value of Assets (AVA)	5,661,435	5,542,288	5,472,794	5,154,180
Total Accrued Liability (EAN)	6,852,713	6,293,863	5,942,275	5,689,460
AVA / Total Accrued Liability (EAN)	82.6%	88.1%	92.1%	90.6%
 <u>Net Cash Flow Ratio</u>				
Net Cash Flow <sup>1</sup>	(100,036)	(197,491)	(198,342)	(214,757)
Market Value of Assets (MVA)	5,258,060	4,935,208	5,927,788	5,123,385
Ratio	-1.9%	-4.0%	-3.3%	-4.2%

<sup>1</sup> Determined as total contributions minus benefit payments and administrative expenses.

STATEMENT OF FIDUCIARY NET POSITION  
SEPTEMBER 30, 2023

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Cash	75,487.30
Total Cash and Equivalents	75,487.30
Receivables:	
City Contributions in Transit	24,298.40
Total Receivable	24,298.40
Investments:	
Pooled/Common/Commingled Funds:	
Fixed Income	1,520,529.59
Equity	3,105,762.58
Real Estate	690,169.46
Total Investments	5,316,461.63
Total Assets	5,416,247.33
<u>LIABILITIES</u>	
Payables:	
Administrative Expenses	5,405.00
Prepaid City Contribution	152,781.85
Total Liabilities	158,186.85
NET POSITION RESTRICTED FOR PENSIONS	5,258,060.48

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

ADDITIONS

Contributions:

City	301,995.00	
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Total Contributions		301,995.00
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Investment Income:

Net Increase in Fair Value of Investments	433,604.53	
Less Investment Expense <sup>1</sup>	(10,716.11)	

Net Investment Income		422,888.42
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Total Additions		724,883.42
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DEDUCTIONS

Distributions to Members:

Benefit Payments	364,661.24	
Lump Sum DROP Distributions	0.00	

Total Distributions		364,661.24
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Administrative Expense		37,369.84
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Total Deductions		402,031.08
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Net Increase in Net Position		322,852.34
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NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year		4,935,208.14
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End of the Year		5,258,060.48
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<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION  
September 30, 2023

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

Plan Year Ending	Gain/(Loss)	<u>Gains/Losses Not Yet Recognized</u>				
		Amounts Not Yet Recognized by Valuation Year				
		2023	2024	2025	2026	2027
09/30/2019	(91,751)	0	0	0	0	0
09/30/2020	(33,964)	(6,792)	0	0	0	0
09/30/2021	639,477	255,792	127,897	0	0	0
09/30/2022	(1,198,539)	(719,123)	(479,415)	(239,707)	0	0
09/30/2023	83,435	66,748	50,061	33,374	16,687	0
<b>Total</b>		<b>(403,375)</b>	<b>(301,457)</b>	<b>(206,333)</b>	<b>16,687</b>	<b>0</b>

Development of Investment Gain/Loss

Market Value of Assets, including Prepaid Contributions, 09/30/2022	5,068,596
Contributions Less Benefit Payments & Admin Expenses	(80,643)
Expected Investment Earnings*	339,453
Actual Net Investment Earnings	422,888
2023 Actuarial Investment Gain/(Loss)	83,435

\*Expected Investment Earnings =  $0.0675 * 5,068,596 - 80,643 * [(1 + 0.0675)^{0.5} - 1]$

Development of Actuarial Value of Assets

(1) Market Value of Assets, 09/30/2023	5,258,060
(2) Gains/(Losses) Not Yet Recognized	(403,375)
(3) Actuarial Value of Assets, 09/30/2023, (1) - (2)	5,661,435
(4) Limited Actuarial Value of Assets, 09/30/2023	5,661,435

(A) 09/30/2022 Actuarial Assets, including Prepaid Contributions: 5,675,676

(I) Net Investment Income:

1. Net Increase in Fair Value of Investments	433,605
2. Change in Actuarial Value	(203,705)
3. Investment Expenses	(10,716)
Total	219,183

(B) 09/30/2023 Actuarial Assets, including Prepaid Contributions: 5,814,217

Actuarial Assets Rate of Return =  $2I/(A+B-I)$ : 3.89%  
Market Value of Assets Rate of Return: 8.42%

Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis) (161,203)

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

REVENUES

Contributions:		
City	301,995.00	
Total Contributions		301,995.00
Earnings from Investments:		
Net Increase in Fair Value of Investments	433,604.53	
Change in Actuarial Value	(203,705.00)	
Total Earnings and Investment Gains		229,899.53

EXPENDITURES

Distributions to Members:		
Benefit Payments	364,661.24	
Lump Sum DROP Distributions	0.00	
Total Distributions		364,661.24
Expenses:		
Investment related <sup>1</sup>	10,716.11	
Administrative	37,369.84	
Total Expenses		48,085.95
Change in Net Assets for the Year		119,147.34
Net Assets Beginning of the Year		5,542,288.14
Net Assets End of the Year <sup>2</sup>		5,661,435.48

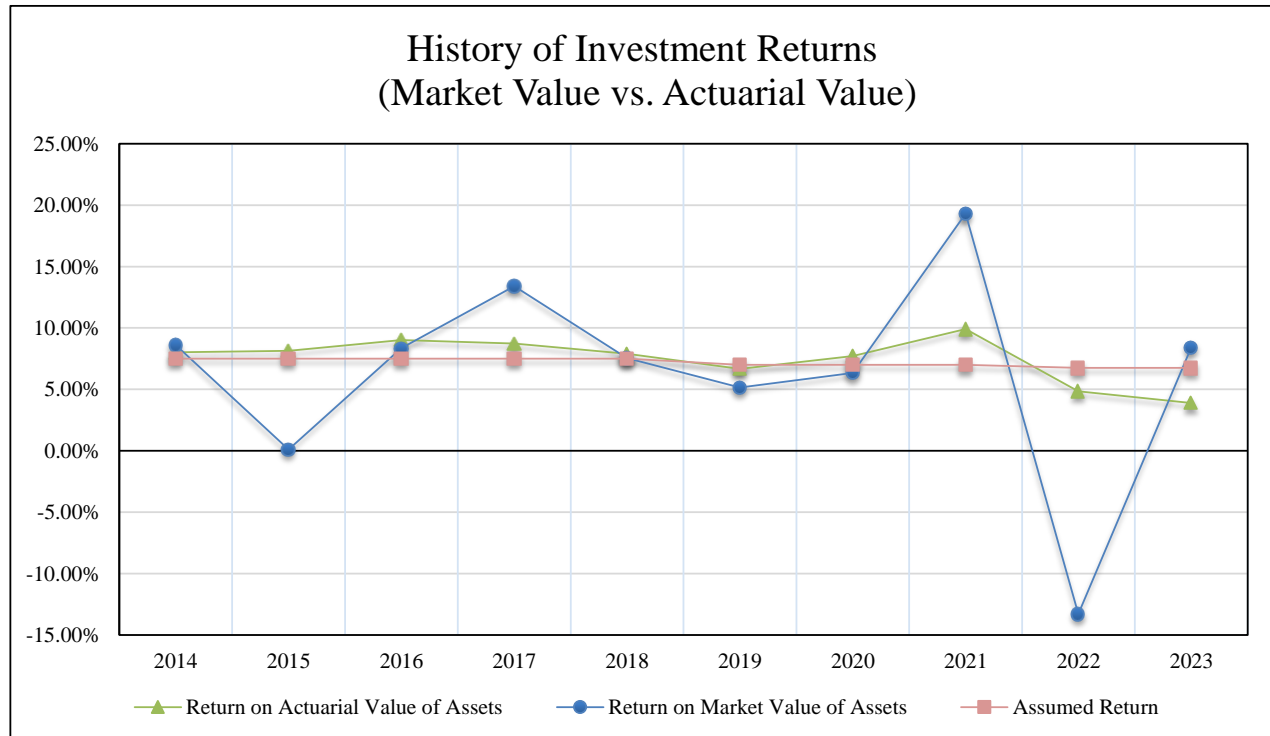
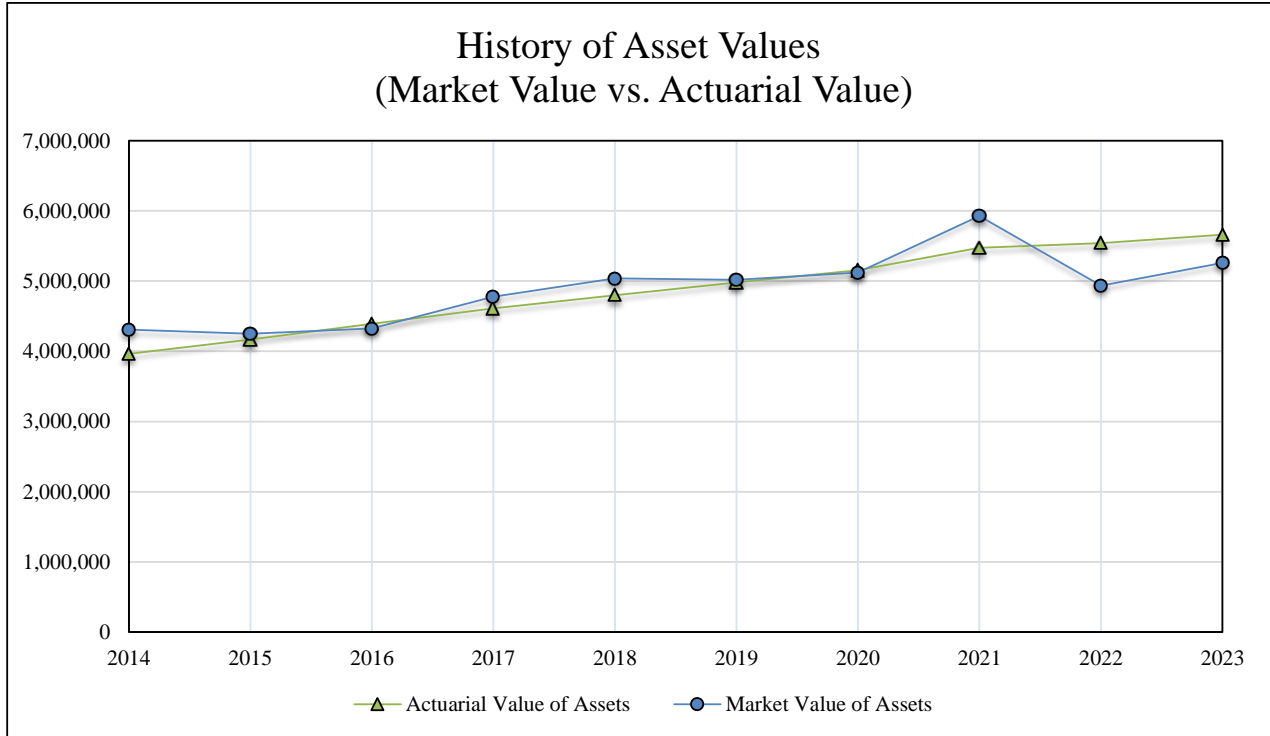
<sup>1</sup>Investment related expenses include investment advisory, custodial and performance monitoring fees.

<sup>2</sup>Net Assets may be limited for actuarial consideration.

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

(1) Required City Contributions	\$301,995.00
(2) Less 2022 Prepaid Contribution	(133,388.29)
(3) Less Actual City Contributions	<u>(321,388.56)</u>
(4) Equals City's Shortfall/(Prepaid) Contribution as of September 30, 2023	(\$152,781.85)

# HISTORY OF ASSET VALUES AND INVESTMENT RETURNS



STATISTICAL DATA

	<u>10/1/2023</u>	<u>10/1/2022</u>	<u>10/1/2021</u>	<u>10/1/2020</u>
<u>Actives</u>				
Number	44	49	44	47
Average Current Age	45.6	45.5	44.0	40.7
Average Age at Employment	39.5	40.3	38.9	35.7
Average Past Service	6.1	5.2	5.1	5.0
Average Annual Salary	\$53,115	\$46,590	\$41,808	\$37,764
<u>Service Retirees</u>				
Number	27	26	29	29
Average Current Age	73.2	72.8	72.5	72.0
Average Annual Benefit	\$12,055	\$12,759	\$11,885	\$12,326
<u>Beneficiaries</u>				
Number	1	1	0	0
Average Current Age	70.1	69.1	N/A	N/A
Average Annual Benefit	\$5,275	\$5,275	N/A	N/A
<u>Disability Retirees</u>				
Number	3	2	2	2
Average Current Age	61.0	64.2	63.2	62.2
Average Annual Benefit	\$11,102	\$11,150	\$11,150	\$11,150
<u>Terminated Vested</u>				
Number	15	17	15	14
Average Current Age	59.1	59.0	57.9	56.5
Average Annual Benefit	\$7,322	\$6,923	\$6,943	\$7,177



## 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	1	1										2
25 - 29	1	2		1	1							5
30 - 34	1		1	1		3						6
35 - 39		1										1
40 - 44	2		1					1				4
45 - 49	2		2			1						5
50 - 54	1		1	1		2	3	1				9
55 - 59		1	1	1							2	5
60 - 64		2	1	2								5
65+		1							1			2
<b>Total</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>44</b>

## VALUATION PARTICIPANT RECONCILIATION

### 1. Active lives

a. Number in prior valuation 10/1/2022	49
b. Terminations	
i. Vested (partial or full) with deferred annuity	0
ii. Vested in refund of member contributions only	0
iii. Non-Vested Terminations	(12)
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	(1)
e. Retired	0
g. Continuing participants	36
h. New entrants / Rehires	<u>8</u>
i. Total active life participants in valuation	44

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

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested (Deferred Annuity)	<u>Total</u>
a. Number prior valuation	26	1	2	17	46
Retired	2			(2)	0
Vested (Deferred Annuity)					0
Hired/Terminated in Same Year					0
Death, With Survivor					0
Death, No Survivor	(1)				(1)
Disabled			1		1
Rehires					0
Expired Annuities					0
Data Corrections					0
b. Number current valuation	27	1	3	15	46

SUMMARY OF CURRENT PLAN  
(Through Ordinance 2022-08)

<u>Effective Date</u>	January 1, 1969														
<u>Participation</u>	All full-time permanent general employees of the City of Fort Meade become members on the first day of the month following, or coinciding with, their date of employment.														
<u>Credited Service</u>	Years and fractional parts of years completed to the nearest full month.														
<u>Average Monthly Earnings</u>	Average of total cash remuneration (including overtime and payments for accrued vacation and longevity, but excluding bonuses) during the last 5 years prior to retirement or termination.														
<u>Normal Retirement</u>															
Eligibility	<p>The earlier of:</p> <ol style="list-style-type: none"> <li>1) Age 65 with at least 5 years of Credited Service; or</li> <li>2) Age 62 with at least 30 years of Credited Service; or</li> <li>3) Age 60 with at least 35 years of Credited Service; or</li> <li>4) Completion of 40 years of Credited Service, regardless of age; or</li> <li>5) Completion of 5 years of Credit Service based on the entry age in the following schedule:</li> </ol> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">Entry Age</th> <th style="text-align: center;">Retirement Age</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">60 and under</td> <td style="text-align: center;">65</td> </tr> <tr> <td style="text-align: center;">61</td> <td style="text-align: center;">66</td> </tr> <tr> <td style="text-align: center;">62</td> <td style="text-align: center;">67</td> </tr> <tr> <td style="text-align: center;">63</td> <td style="text-align: center;">68</td> </tr> <tr> <td style="text-align: center;">64</td> <td style="text-align: center;">69</td> </tr> <tr> <td style="text-align: center;">65 and over</td> <td style="text-align: center;">70</td> </tr> </tbody> </table>	Entry Age	Retirement Age	60 and under	65	61	66	62	67	63	68	64	69	65 and over	70
Entry Age	Retirement Age														
60 and under	65														
61	66														
62	67														
63	68														
64	69														
65 and over	70														
Benefit Amount	1.5% of Average Final Compensation times Credited Service.														
Form of Benefit	Single Life Annuity (options available).														

Early Retirement

Eligibility	Age 60 and 20 Years of Credited Service.
Benefit Amount	Benefit determined as for Normal Retirement, but reduced 5% for each year that Early Retirement precedes age 65.

Disability

Service Connected

Eligibility	The participant must have become disabled in the line of duty due to a sickness or injury which renders him or her unable to perform his or her own occupation with the City.
Benefit	The greater of:  1) Monthly accrued benefit; or  2) 30% of salary in effect at the time of disablement.

Non-Service Connected

Eligibility	10 years of Credited Service and the participant must be disabled due to a sickness or injury which renders him or her unable to perform his or her own occupation with the City.
Benefit	Monthly accrued benefit.

Vesting (Termination of Employment)

Eligibility	At least 5 years of Credited Service.
Benefit Amount	Accrued benefit payable at age 65 unreduced or accrued benefit reduced 5% for each year commencement precedes age 65.

Pre-Retirement Death

Prior to Normal Retirement Eligibility

Benefit	Single lump sum payment to the spouse of the participant equal to the actuarially equivalent value of 75% of the participant's vested accrued benefit.
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On or After Normal Retirement Eligibility

Benefit	66 2/3% of the participant's accrued 66 2/3% joint and contingent annuity payable to the spouse for life. The spouse may elect to receive the 75% lump sum benefit that is payable in the case of a pre-retirement death prior to reaching Normal Retirement eligibility.
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Deferred Retirement Option Plan

Eligibility	Later of Age 62 or Normal Retirement eligibility.
Participation	Not to exceed 36 months.
Rate of Return	6.0% per annum.
Form of Distribution	Cash lump sum (options available) at termination of employment.