

Retirement System of the City of Bartlett, Tennessee Defined Benefit Plan



Actuarial Valuation Report

Prepared as of January 1, 2025



April 2, 2025

Pension Board
City of Bartlett
6400 Stage Road
Bartlett, TN 38134

Members of the Board:

We are pleased to submit the results of the actuarial valuation of the Retirement System of the City of Bartlett (System) prepared as of January 1, 2025. The purpose of this report is to provide a summary of the funded status of the System as of January 1, 2025 and to recommend an Actuarially Determined Employer Contribution (ADEC) for the fiscal year ending June 30, 2026. The information needed for the City under the Governmental Accounting Standards Board Statements No. 67 and 68 (GASB 67 and 68) will be provided in separate reports. However, for informational purposes, we have also provided several accounting tables in Section VI.

On the basis of the valuation, it is recommended that the City make contributions to the System at the amount of \$5,552,240 for the fiscal year ending June 30, 2026. This represents an increase of \$763,940 from the contribution recommended for the fiscal year ending June 30, 2025. The promised benefits of the System are included in the calculated contribution amount which is developed using the Entry Age Normal (EAN) cost method. A five-year smoothed market value of plan assets method is used to calculate the actuarial value of assets.

Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions. The Transitional Unfunded Accrued Liability as of January 1, 2022 is being amortized within an 18-year period as of the valuation date. Future gains and losses in subsequent years are amortized within a closed 10-year period from the valuation it is established. The blended amortization period for these components of the unfunded accrued liability is 14.2 years.

Since the previous valuation, Resolution 9-25 amended the plan provisions to allow any excess in a participant's contributions paid into the System that has not been paid out in aggregate benefit payments at the participant's death to be paid out as a survivor benefit. There have been no other changes in actuarial assumptions or methods.



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The valuation was based upon data, furnished by the Retirement System staff, concerning active, inactive, and retired members along with pertinent financial information. While not verifying data at the source, the actuary performed tests for consistency and reasonableness. The valuation results depend on the integrity of the data. If any of the information is inaccurate or incomplete, our results may be different and our calculations may need to be revised. The complete cooperation of the Retirement System staff in furnishing materials requested is hereby acknowledged with appreciation.

This is to certify that the independent consulting actuary is a Member of the American Academy of Actuaries and has experience in performing valuations for public retirement systems, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the System and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the System.

In order to prepare the results in this report, we have utilized actuarial models that were developed to measure liabilities and develop actuarial costs. These models include tools that we have produced and tested, along with commercially available valuation software that we have reviewed to confirm the appropriateness and accuracy of the output. In utilizing these models, we develop and use input parameters and assumptions about future contingent events along with recognized actuarial approaches to develop the needed results.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; 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 plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.



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The actuarial computations presented in this report are for purposes of determining the recommended funding amount for the System. Use of these computations for purposes other than meeting these requirements may not be appropriate.

We trust that the report will meet the approval of the Board and will furnish the desired information concerning the financial condition of the System.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Edward J. Koebel'.

Edward J. Koebel, EA, FCA, MAAA
Chief Executive Officer

A handwritten signature in blue ink that reads 'Ben Mobley'.

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary



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SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the current and preceding valuations are summarized below.

Valuation Date	January 1, 2025	January 1, 2024
Investment Return Assumption	7.00%	7.00%
Active members:		
Number	215	231
Annualized compensation	\$ 16,547,237	\$ 16,690,387
Retired members and beneficiaries:		
Number	273	262
Annual allowances	\$ 7,555,916	\$ 7,053,974
Number of participants with deferred benefits	41	38
Accrued Liability	\$ 151,997,527	\$ 143,652,968
Assets:		
Market Value	\$ 112,100,828	\$ 102,631,134
Actuarial Value	114,523,536	110,259,000
Unfunded Accrued Liability on an Actuarial Value Basis	\$ 37,473,991	\$ 33,393,968
Weighted Amortization Period	14.2 years	16.1 years
Funded Ratio		
Market Value	73.8%	71.4%
Actuarial Value	75.3%	76.8%
Fiscal Year Ending	June 30, 2026	June 30, 2025
Actuarially determined employer contribution (ADEC):		
Normal Cost*	\$ 932,625	\$ 952,105
Accrued liability	4,256,384	3,522,942
Interest to middle of fiscal year	<u>363,231</u>	<u>313,253</u>
Total	\$ 5,552,240	\$ 4,788,300

* Includes administrative expenses





SECTION I – SUMMARY OF PRINCIPAL RESULTS

2. Comments on the valuation results as of January 1, 2025 are given in Section IV and further discussion of the contributions is set out in Section V.
3. Schedule B shows the development of the actuarial value of assets. The estimated investment return for the plan year ending January 1, 2025 on an actuarial value basis was 5.73%, compared to the assumed investment rate of return for the period of 7.00%.
4. Schedule D of this report outlines the full set of actuarial assumptions and methods used in the valuation. There have been no changes since the previous valuation.
5. The major benefit and contribution provisions of the System as reflected in the valuation are summarized in Schedule E. Since the previous valuation, Resolution 9-25 amended the plan provisions to allow any excess in a participant's contributions paid into the System that has not been paid out in aggregate benefit payments at the participant's death to be paid out as a survivor benefit.
6. As shown in the Summary of Principal Results, the funded ratio is the ratio of assets to the accrued liability and is different based on market value of assets. The funded ratio is an indication of progress in funding the promised benefits. Since the ratio is less than 100%, there is a need for additional contributions toward payment of the unfunded accrued liability. In addition, this funded ratio does not have any relationship to measuring sufficiency if the plan had to settle its liabilities.





SECTION II – MEMBERSHIP DATA

1. Data regarding the membership of the System for use as a basis of the valuation were furnished by the City. The following table summarizes the active membership as of January 1, 2025 upon which the valuation was based.

ACTIVE MEMBERS AS OF JANUARY 1, 2025

Number	Payroll	Salary	Group Averages	
			Age	Service
215	\$16,547,237	\$76,964	50.7	20.4

2. The following table shows the number of retired members and beneficiaries as of January 1, 2025 together with the amount of their annual retirement benefits payable under the System as of that date.

RETIRED MEMBERS AND BENEFICIARIES AS OF JANUARY 1, 2025

Type of Retirement	Number	Annual Benefits	Group Averages	
			Benefit	Age
Service	199	\$6,170,079	\$31,005	70.4
Disability	25	610,749	24,430	58.0
Survivors	49	775,088	15,818	69.5
Total	273	\$7,555,916	\$27,677	69.1

In addition, there are 41 participants entitled to deferred annual benefits totaling \$657,064.

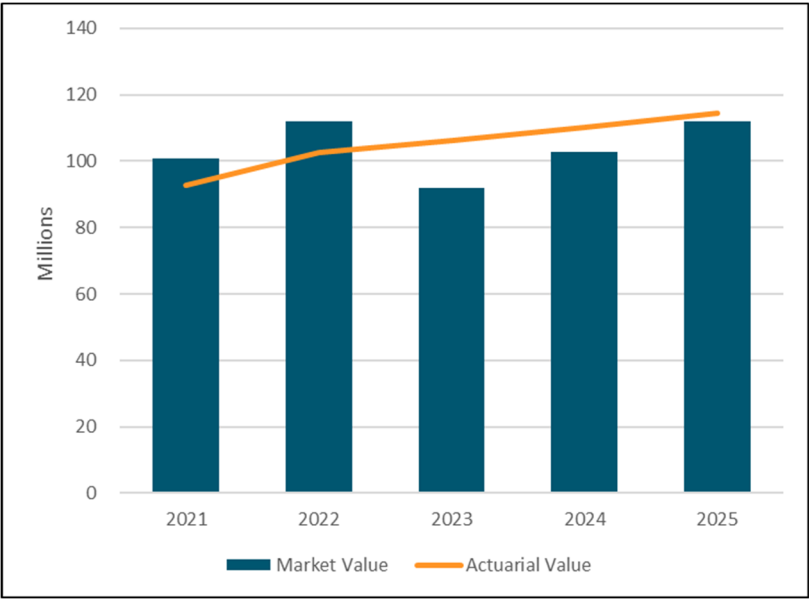
3. Table 1 of Schedule F shows the reconciliation of membership data from last year to this year. Table 2 shows the distribution by age and years of membership service of the number of active members included in the valuation, while Table 3 shows the number and annual benefits of retired members and beneficiaries included in the valuation, distributed by age.





SECTION III – ASSETS

1. As of January 1, 2025, the total market value of assets amounted to \$112,100,828. The estimated investment return on a market value basis for the plan year was 11.29%. Schedule C shows the receipts and disbursements of the System for the year preceding the valuation date and a reconciliation of the System balances at market value.
2. The market related actuarial value of assets using a 5-year smoothing technique of investment gains and losses is \$114,523,536. The estimated investment return for the plan year ending January 1, 2025 on an actuarial value of assets basis was 5.73%, which can be compared to the investment return assumed for the period of 7.00%. Schedule B shows the development of the actuarial value of assets as of January 1, 2025.
3. Below is the five-year history of asset values and asset returns for this Plan.



Calendar Year	Market Value of Assets Return	Actuarial Value of Assets Return
2020	16.03%	10.24%
2021	11.80%	11.66%
2022	-16.33%	5.12%
2023	14.14%	6.11%
2024	11.29%	5.73%





SECTION IV – COMMENTS ON VALUATION

1. Schedule A of this report outlines the results of the actuarial valuation. The valuation was prepared in accordance with the actuarial assumptions and the actuarial cost method, which are described in Schedule D.
2. The valuation shows that the total actuarial accrued liability of the System amounts to \$151,997,527. Against these liabilities, the System has present assets for valuation purposes of \$114,523,536. When this amount is deducted from the actuarial accrued liability of \$151,997,527, there remains \$37,473,991 as the Unfunded Actuarial Accrued Liability (UAAL).
3. The employer's contributions to the System consist of normal cost contributions and accrued liability contributions. The normal cost is equal to the actuarial present value of benefits accruing during the current year. The valuation indicates that an employer normal cost contribution of \$807,625 is required. Estimated budgeted administrative expenses are included in the normal cost. The administrative expenses for the fiscal year ending June 30, 2026 are estimated to be \$125,000. Therefore, the total employer normal cost is determined to be \$932,625.
4. The UAAL as of January 1, 2022 (Transitional UAAL) will be amortized as a level dollar amount over a closed 22-year period from that date. There are 18 years remaining on the amortization of the Transitional UAAL. In each subsequent valuation, all benefit changes, assumption and method changes and experience gains and/or losses that have occurred since the previous valuation will determine a New Incremental UAAL. Each New Incremental UAAL will be amortized as a level dollar amount over a closed 10-year period from the date it is established.





SECTION IV – COMMENTS ON VALUATION

5. The following table shows the components of the total UAAL and the derivation of the UAAL contribution:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

	<u>Beginning Balance UAAL</u>	<u>Remaining Balance UAAL</u>	<u>Remaining Amortization Period (years)</u>	<u>Amortization Payment</u>
Transitional 1/1/2022	\$24,971,702	\$23,197,429	18	\$2,155,249
1/1/2023 Demographic Experience	5,921,549	5,034,374	8	787,940
1/1/2023 Change in Assumptions	4,021,383	3,418,894	8	535,098
1/1/2024 Demographic Experience	335,592	311,303	9	44,655
1/1/2025 Demographic Experience	5,511,991	<u>5,511,991</u>	10	<u>733,442</u>
Total UAAL		\$37,473,991		\$4,256,384
Blended Amortization Period (years)				14.2

6. Therefore, when the total normal contribution including administrative expenses of \$932,625 is added to the UAAL contribution rate of \$4,256,384 and interest to the middle of the fiscal year of \$363,231, the total contribution required for the fiscal year ending June 30, 2026 is \$5,552,240.
7. The unfunded actuarial accrued liability (UAAL) increased approximately \$4.080 million for the plan year ending January 1, 2025 and the funding ratio decreased from 76.8% to 75.3% on an actuarial value basis. The primary contributor to the increase in the UAAL was a \$1.8 million loss due to larger than expected salary increases for active members (average salaries increased by 6.5%). There was also a \$1.4 million dollar loss due to the investment return on an actuarial value basis for the year being less than expected (5.73% vs. 7.00%).





SECTION V – CONTRIBUTIONS PAYABLE

The following table summarizes the employer contributions which were determined by the January 1, 2025 valuation and are recommended for use in the fiscal year ending June 30, 2026.

CITY ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTIONS (ADEC) FOR FISCAL YEAR ENDING JUNE 30, 2026

CONTRIBUTION	
Normal Cost*	\$932,625
Accrued Liability	4,256,384
Interest to middle of fiscal year	<u>363,231</u>
Total	\$5,552,240

*Includes administrative expenses.





SECTION VI – ACCOUNTING INFORMATION

Governmental Accounting Standards Board Statements (GASB) has issued Statements No. 67 and 68 which replaced Statement No. 25 and 27 for plan years beginning after June 15, 2013. The information required under the new GASB Statements will be issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF JANUARY 1, 2025**

GROUP	TOTAL
Retired participants and beneficiaries currently receiving benefits	273
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	41
Active Participants	<u>215</u>
Total	529





SECTION VI – ACCOUNTING INFORMATION

2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b – a) / c)
1/01/2022	\$102,641,439	\$127,613,141	\$24,971,702	80.4%	\$17,702,771	141.1%
1/01/2023*	106,129,136	140,503,102	34,373,966	75.5	16,592,613	207.2
1/01/2024	110,259,000	143,652,968	33,393,968	76.8	16,690,387	200.1
1/01/2025	114,523,536	151,997,527	37,473,991	75.3	16,547,237	226.5

* Reflects changes in assumptions.

3. Another such item is the schedule of employer contributions as shown below.

SCHEDULE OF EMPLOYER CONTRIBUTIONS

FISCAL YEAR ENDING	ESTIMATED ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTION (ADEC)	PERCENT CONTRIBUTED
6/30/2023	\$3,478,234	100%
6/30/2024	4,863,077	100%
6/30/2025	4,788,300	100%
6/30/2026	5,552,240	N/A





SECTION VI – ACCOUNTING INFORMATION

4. Additional information as of January 1, 2025 follows:

Valuation date	1/01/2025
Actuarial cost method	Entry Age Normal
Amortization period	Level dollar, closed
Remaining amortization period	14.2 years
Asset valuation method	Five-year smoothed market value
Actuarial assumptions:	
Investment rate of return (includes inflation)	7.00%
Projected salary increases	3.50%





SECTION VII – EXPERIENCE

Actual experience will never (except by coincidence) coincide exactly with assumed experience. It is assumed that gains and losses will be in balance over a period of years, but sizable year to year fluctuations are common. Detail on the derivation of the experience gain/(loss) for the year ended January 1, 2025 is shown below.

(1)	UAAL* as of January 1, 2024	\$	33,393,968
(2)	Expected accrued liability contribution		<u>3,522,941</u>
(3)	Expected UAAL before changes: [(1) – (2)] * 1.07	\$	31,962,000
(4)	Change due to plan amendments		37,907
(5)	Change due to actuarial assumptions		0.0
(6)	Change due to actuarial methods		<u>0.0</u>
(7)	Expected UAAL after changes: (3) + (4) + (5) + (6)	\$	31,999,907
(8)	Actual UAAL as of January 1, 2025	\$	37,473,991
(9)	Gain/(loss): (7) – (8)	\$	(5,474,084)
(10)	Gain/(loss) as percent of actuarial accrued liabilities for prior year (\$143,652,968)		(3.8)%

*Unfunded actuarial accrued liability.

Valuation Date June 30	Actuarial Gain/(Loss) as a % of Beginning Accrued Liabilities
2024	(0.2)%
2025	(3.8)%





SECTION VIII – RISK ASSESSMENT

Overview

Actuarial Standards of Practice (ASOP) No. 51, issued by the Actuarial Standards Board, provides guidance on assessing and disclosing risks related to pension plan funding. This guidance is binding on all credentialed actuaries practicing in the United States. This standard was issued as final in September 2017 with application to measurement dates on or after November 1, 2018.

The term “risk” frequently has a negative connotation, but from an actuarial perspective, it may be thought of as simply the fact that what actually happens in the real world will not always match what was expected, based on actuarial assumptions. Of course, when actual experience is better than expected, the favorable risk is easily absorbed. The risk of unfavorable experience will likely be unpleasant, and so there is an understandable focus on aspects of risk that are negative.

Risk usually can be reduced or eliminated at some cost. Consumers, for example, buy auto and home insurance to reduce the risk of accidents or catastrophes. Another way to express this concept, however, is that there is generally some reward for assuming risk. Thus, retirement plans invest not just in US Treasury bonds which have almost no risk, but also in equities which are considerably riskier – because they have an expected reward of a higher return that justifies the risk.

Under ASOP 51, the actuary is called on to identify the significant risks to the pension plan and provide information to help those sponsoring and administering the plan understand the implications of these risks. In this section, we identify some of the key risks for the System and provide information to help interested parties better understand these risks.





SECTION VIII – RISK ASSESSMENT

Investment Risk

The investment return on assets is the most obvious risk – and usually the largest risk – to funding a pension plan. To illustrate the magnitude of this risk, if the market value return is 10% below assumed, or negative 3.00% (7.00% minus 10.00%) for the System, there would be an increase in the expected Required Contribution amount of approximately \$289,000 above the amount required based on a 7.00% return.

Sensitivity Measures

Valuations are generally performed with a single set of assumptions that reflects the best estimate of future conditions, in the opinion of the actuary and typically the governing board. Note that under actuarial standards of practice, the set of economic assumptions used for funding must be consistent. To enhance the understanding of the importance of an assumption, a sensitivity test can be performed where the valuation results are recalculated using a different assumption or set of assumptions.

The following table contains the key measures for the System using the valuation assumption for investment return of 7.00%, along with the results if the assumption were 6.00% or 8.00%. In this analysis, only the investment return assumption is changed. Consequently, there may be inconsistencies between the investment return and other economic assumptions such as inflation or payroll increases. In addition, simply because the valuation results under alternative assumptions are shown here, it should not be implied that CavMac believes that either assumption (6.00% or 8.00%) would comply with actuarial standards of practice.

As of January 1, 2025	Current Discount Rate (7.00%)	-1% Discount Rate (6.00%)	+1% Discount Rate (8.00%)
Accrued Liability	\$151,997,527	\$171,395,418	\$135,808,612
Unfunded Liability	\$37,473,991	\$56,871,882	\$21,285,076
Funded Ratio (AVA)	75.3%	66.8%	84.3%
ADEC	\$5,552,240	\$8,453,257	\$3,017,411





SECTION VIII – RISK ASSESSMENT

Mortality Risk

The mortality assumption is a significant assumption for valuation results, second only to the investment assumption in most situations. The System's mortality assumption utilizes a mortality table (with separate rates for males and females, as well as different rates by status) and a projection scale for how the mortality table is expected to improve through time. This approach is the current state of the art in retirement actuarial practice, made possible by the increase in computational power over the past 20 years.

The future, however, is not known, and actual mortality improvements may occur at a faster rate than expected, or at a slower rate than expected (or even decline). Although changes in mortality will affect the benefits paid, this assumption is carefully studied during the regular experience studies that the System conducts so that incremental changes can be made to smoothly reflect unfolding experience.

Contribution Risk

The System is primarily funded by member and employer contributions to the trust fund, together with the earnings on those accumulated contributions. Each year in the valuation, the Required Contribution Rate is determined, based on the System's funding policy. This rate is the sum of the rates for the normal cost for the plan, the amortization of the UAAL, and the administrative expenses. Since the System is obligated to make 100% of the Required Contribution Rate by statute, there is no contribution risk.





SECTION VIII – RISK ASSESSMENT

Liquidation Risk

Under the revised Actuarial Standards of Practice (ASOP) No. 4 effective for valuations after February 15, 2023, we must now include a low-default-risk obligation measure of the System's liability in our funding valuation report. This is an informational disclosure as described below and would not be appropriate for assessing the funding progress or health of this plan.

This measure uses the unit credit cost method and reflects all the assumptions and provisions of the funding valuation except that the discount rate is derived from considering low-default-risk fixed income securities. We considered the FTSE Pension Discount Curve based on market bond rates published by the Society of Actuaries as of December 31, 2024 and with the 30-year spot rate used for all durations beyond 30. Using these assumptions, we calculate a low-default-risk obligation measure liability of approximately \$161.9 Million.

This amount approximates the termination liability if the plan (or all covered employment) ended on the valuation date and all of the accrued benefits had to be paid with cash-flow matched bonds. This assurance of funded status and benefit security is typically more relevant for corporate plans than for governmental plans since governments rarely have the need or option to completely terminate a plan.





SCHEDULE A – VALUATION RESULTS

VALUATION RESULTS AS OF JANUARY 1, 2025

	Total Liability	Accrued Liability
Active Members		
Retirement	\$ 72,699,160	\$ 63,615,868
Death	1,740,672	1,217,896
Disability	2,177,622	1,456,228
Termination	<u>2,522,022</u>	<u>821,017</u>
Total	\$ 79,139,476	\$ 67,111,009
Retirees		
Retirement	\$ 66,392,054	\$ 66,392,054
Survivor	7,648,823	7,648,823
Disability	<u>7,159,141</u>	<u>7,159,141</u>
Total	\$ 81,200,018	\$ 81,200,018
Deferred Vested Members	<u>3,686,500</u>	<u>3,686,500</u>
Total Actuarial Values	\$ 164,025,994	\$ 151,997,527
Actuarial Value of Assets		<u>114,523,536</u>
Unfunded Actuarial Accrued Liability		\$ 37,473,991



SCHEDULE B – DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS



(1)	Actuarial Value of Assets as of January 1, 2024	\$ 110,259,000
(2)	Market Value of Assets as of January 1, 2025	\$ 112,100,828
(3)	Market Value of Assets as of January 1, 2024	\$ 102,631,134
(4)	Net Cash Flow During Plan Year	
(a)	Contributions	\$ 5,499,767
(b)	Benefit Payments and Refunds	(7,241,487)
(c)	Expenses	<u>(258,986)</u>
(d)	Net Cash Flow: (a) + (b) + (c)	\$ (2,000,706)
(5)	Investment Income	
(a)	Market Total: (2) – (3) – (4)d	\$ 11,470,400
(b)	Assumed Rate	7.00%
(c)	Amount for Immediate Recognition	\$ 7,115,339
(d)	Amount for Phased-In Recognition: (5)a – (5)c	\$ 4,355,061
(6)	Recognized Amounts for Plan Year	
(a)	Current Plan Year: 0.20 x (5)d	\$ 871,012
(b)	First Prior Year	1,298,434
(c)	Second Prior Year	(5,318,244)
(d)	Third Prior Year	834,430
(e)	Fourth Prior Year	<u>1,464,271</u>
(k)	Total Recognized Investment Gain/(Loss)	\$ (850,097)
(7)	Actuarial Value of Assets as of January 1, 2025 (1) + (4)d + (5)c + (6)k	\$ 114,523,536
(8)	Rate of Return on Actuarial Value	5.73%





SCHEDULE C – ASSET INFORMATION

<i>Receipts</i>	
(1) Employee Contributions	\$ 674,064
(2) Employer Contributions	4,825,703
(3) Investment Income	<u>11,470,400</u>
(4) Total Receipts	\$ 16,970,167
<i>Disbursements</i>	
(5) Retirement	\$ 7,241,487
(6) Refunds and Cashouts	0
(7) Expenses	<u>258,986</u>
(8) Total Disbursements	\$ 7,500,473
(9) Excess of Receipts Over Disbursements: (4) - (8)	\$ 9,469,694
<i>Reconciliation of Asset Balances</i>	
(10) Market Value at January 1, 2024	\$ 102,631,134
(11) Excess of Receipts Over Disbursements	<u>9,469,694</u>
(12) Market Value at January 1, 2025	\$ 112,100,828
(13) Estimated Rate of Return on Market Value of Assets	11.29%





SCHEDULE D – ACTUARIAL ASSUMPTIONS AND METHODS

Most of the actuarial assumptions and methods listed below were made effective as of January 1, 2023 by the previous actuary. CavMac has added the administrative expense load to the normal cost, the percentages for line of duty disability and death assumptions, and rates of disability listed below. The combined effect of the assumptions is expected to have no significant bias.

INVESTMENT RATE OF RETURN: 7.00% per year (net of investment expenses only).

SALARY INCREASES: 3.50% for all ages.

EXPENSES: Estimated budgeted administrative expenses of \$125,000 are added to the normal cost.

COST-OF-LIVING ADJUSTMENT: None.

DISABILITY ASSUMPTION: 90% of disability retirees are assumed to be ordinary and 10% of disability retirees are assumed to occur in the line of duty.

DEATH ASSUMPTION: 90% of active member deaths are assumed to be ordinary and 10% of active member deaths are assumed to occur in the line of duty.

PERCENT MARRIED: 80% of active members are assumed to be married with males three years older than their spouse.

ASSETS: Actuarial value, as developed in Schedule C. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected market value of assets, based on the assumed valuation rate of return. The amount recognized each year is 20% of the difference between market value and expected market value.

VALUATION METHOD: Entry age normal actuarial cost method.





SCHEDULE D – ACTUARIAL ASSUMPTIONS AND METHODS

RATES OF WITHDRAWAL AND DISABILITY: Representative values of the assumed rates of withdrawal and disability are as follows:

Age	Annual Rate of	
	Withdrawal	Disability
25	5.2704%	0.10%
30	4.8312	0.10
35	4.4736	0.10
40	3.8412	0.10
45	3.2149	0.16
50	1.5245	0.23
55	0.3344	0.31

RATES OF RETIREMENT: Members are assumed to retire at age 62 upon attaining retirement eligibility requirements.

RATES OF DEATH BEFORE RETIREMENT: The PubG-2010 Employee Mortality Table with generational mortality using the MP-2021 projection scale is used for members while in active service. Representative values of the assumed rates of death while in active service are as follows:

Age	Male*	Female*
20	0.037%	0.013%
25	0.028	0.009
30	0.036	0.015
35	0.047	0.023
40	0.066	0.036
45	0.098	0.056
50	0.149	0.083
55	0.219	0.123
60	0.319	0.186
65	0.468	0.296

*Base mortality rates as of 2010 before application of the improvement scale.





SCHEDULE D – ACTUARIAL ASSUMPTIONS AND METHODS

RATES OF DEATH AFTER RETIREMENT: Mortality rates for service retirees were based on the PubG-2010 Retiree Mortality Table. Mortality rates for disability retirees were based on the PubNS-2010 Disabled Retiree Mortality Table. Mortality rates for Contingent Survivors were based on the PubG-2010 Contingent Survivor Mortality Table. Mortality rates will be projected generationally using the MP-2021 projection scale to account for future improvements in life expectancy. Representative values of the assumed rates of death after retirement are as follows:

Age	Annual Rate of Death After Retirement*					
	Service Retirees		Contingent Survivors		Disabled Retirees	
	Male	Female	Male	Female	Male	Female
50	0.298%	0.222%	0.701%	0.320%	1.605%	1.483%
55	0.431	0.286	0.431	0.286	2.114	1.742
60	0.615	0.384	0.615	0.384	2.503	1.956
65	0.913	0.613	0.913	0.613	3.044	2.256
70	1.526	1.063	1.526	1.063	3.901	2.862
75	2.671	1.883	2.671	1.883	5.192	4.003
80	4.774	3.360	4.774	3.360	7.348	6.007
85	8.591	6.205	8.591	6.205	10.815	9.331

*Base mortality rates as of 2010 before application of the improvement scale.





SCHEDULE E – SUMMARY OF MAIN PLAN PROVISIONS

Eligibility	Employees hired prior to July 1, 2014.
Average Monthly Compensation	Average over the highest consecutive thirty-six-month period.
Contributions	Employees contribute 4% of earnings to the retirement system.
Normal Retirement Benefit	
Eligibility	Age 55 with at least 25 years of credited service or age 65 with at least 5 years of credited service.
Benefit	2.5% of Average Monthly Compensation times months of service up to 300, plus 1% of Average Monthly Compensation for each month of service (up to 120) over 300 months. The minimum benefit is 455 per month for 15 years of service.
Early Retirement Benefit	
Eligibility	Age 55 with at least 15 years of credited service.
Benefit	Accrued normal retirement benefit reduced by 1/15 for each if the first five years and 1/30 for each additional year by which the annuity starting date precedes the participant's normal retirement date.
Termination of Employment	If employment is terminated prior to the completion of 5 years of credited service, a refund of the participant's contributions, without interest, is payable.
	If employment is terminated after completion of 5 years of credited service, a deferred vested benefit equal to the participant's accrued benefit at date of termination is paid commencing at normal retirement date. The participant may elect to withdraw their contributions, without interest, instead of receiving the deferred monthly benefit.
Line of Duty Disability Retirement	
Eligibility	A participant who becomes disabled while employed by the City as the direct proximate result of an injury arising out of and in the course of their employment.
Benefit	The greater of: 1) 60% of the participant's Average Monthly Compensation, or 2) The participant's benefit calculated under the same provisions as normal retirement benefit but reduced by any Worker's Compensation benefits paid





SCHEDULE E – SUMMARY OF MAIN PLAN PROVISIONS

Ordinary Disability Retirement

Eligibility	A participant who has received credit for at least 5 years of credited service and who, prior to satisfying the requirements for a normal retirement pension, becomes disabled while employed by the City not in the line of duty.
Benefit	90% of the Participant's normal retirement pension otherwise payable at Normal Retirement Date (based on the number of Months of Service credited to the Participant at their Disability date). In no event, however, shall a Participant's monthly Disability Pension be less than twenty-five percent (25%) of the Participant's Average Monthly Compensation.
Line of Duty Death Benefit	If death occurs in line-of-duty, a benefit equal to 100% of the participant's average annual compensation will be paid to the participant's spouse until death or remarriage or to children under age 18, if no living spouse.
Ordinary Death Benefit	If a participant dies after completing 5 years of credited service, a benefit based on the Joint and 100% Survivor Annuity will be paid to the participant's spouse until death or remarriage or to children under age 18, if no living spouse.
Normal Form of Payment	Life annuity with a 50% survivor benefit.





SCHEDULE F – TABLES OF MEMBERSHIP DATA

TABLE 1
RECONCILIATION OF DATA

	Actives	Retirees	Disabled	Beneficiaries	Vested Terms	Total
1. Headcounts as of January 1, 2024	231	198	24	40	38	531
2. Change in status during the year:						
a. Death	(1)	(10)	(2)	(2)		(15)
b. Disabled	(2)		2			
c. Retired	(10)	11			(1)	
d. Terminated Vested	(4)				4	
e. Terminated Non-Vested						
3. New member due to:						
a. New Hires						
b. Rehires						
c. Death of Participant				11		11
d. Adjustments	1		1			2
4. Headcounts as of January 1, 2025	215	199	25	49	41	529





SCHEDULE F – TABLES OF MEMBERSHIP DATA

TABLE 2

**SCHEDULE OF ACTIVE MEMBERS BY AGE AND SERVICE
AS OF JANUARY 1, 2025**

Attained Age	Completed Years of Service									Total	
	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	> 40	No.	Payroll
30 to 34			5	1						6	\$ 418,459
35 to 39			13	6						19	1,359,103
40 to 44			7	30	5					42	3,418,775
45 to 49			7	9	14	7				37	2,858,798
50 to 54			4	3	8	20	5			40	3,138,957
55 to 59			3	9	10	7	2	4		35	2,895,146
60 to 64			5	5	8	2	2	2		24	1,604,165
65 to 69			2	2	2	2	1	1		10	685,248
70 & up			1		1					2	168,586
Total			47	65	48	38	10	7		215	\$ 16,547,237

Average Age: 50.7
Average Service: 20.4
Average Salary: \$76,964





SCHEDULE F – TABLES OF MEMBERSHIP DATA

TABLE 3
SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES
AS OF JANUARY 1, 2025

<u>Attained Age</u>	<u>Number of Members</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefit</u>
Under 50	4	\$ 114,380	\$ 28,595
50 – 54	8	198,136	24,767
55 – 59	34	1,269,351	37,334
60 – 64	45	1,478,811	32,862
65 – 69	54	1,568,397	29,044
70 – 74	58	1,604,056	27,656
75 – 79	35	646,406	18,469
80 & Over	35	676,379	19,325
Total	273	\$ 7,555,916	\$ 27,677

Average Age: 69.1

