Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

Bartlett
TENNESSEE
HOMETOWN PROUD

Report of the Actuary on the Annual Valuation of the Retirement System of the City of Bartlett – Defined Benefit Plan

Prepared as of January 1, 2024

www.CavMacConsulting.com

Cavanaugh Macdonald
CONSULTING, LLC
The experience and dedication you deserve

April 12, 2024

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, 2024. The purpose of this report is to provide a summary of the funded status of the System as of January 1, 2024 and to recommend an Actuarially Determined Employer Contribution (ADEC) for the fiscal year ending June 30, 2025. 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 $4,788,300 for the fiscal year ending June 30, 2025. This represents a decrease of $74,777 from the contribution recommended for the fiscal year ending June 30, 2024. 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 a 19.0-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 16.1 years.

Since the previous valuation, there have been no changes to the actuarial assumptions or plan provisions.

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. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

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.

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,

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

Ben Mobley, ASA, FCA, MAAA
Consulting Actuary

EJK/BDM:dc

Table of Contents

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, 2024**	**January 1, 2023***
Investment Return Assumption	**7.00%**	**7.00%**
Active members:		
Number	231	259
Annualized compensation	$ 16,690,387	$ 16,592,613
Retired members and beneficiaries:		
Number	262	244
Annual allowances	$ 7,053,974	N/A
Number of participants with deferred benefits	38	40
Accrued Liability	$ 143,652,968	$ 140,503,102
Assets:		
Market Value	$ 102,631,134	$ 92,055,963
Actuarial Value	110,259,000	106,129,136
Unfunded Accrued Liability on an Actuarial Value Basis	$ 33,393,968	$ 34,373,966
Weighted Amortization Period	16.1 years	17.4 years
Funded Ratio		
Market Value	71.4%	65.5%
Actuarial Value	76.8%	75.5%
Fiscal Year Ending	**June 30, 2025**	**June 30, 2024**
Actuarially determined employer contribution (ADEC):		
Normal Cost**	$ 952,105	$ 1,066,645
Accrued liability	3,522,942	3,478,287
Interest to middle of fiscal year	313,253	340,415
Total	$ 4,788,300	$ 4,863,077

* 2023 results calculated by previous actuary

** Includes administrative expenses for the 2024 valuation

Section I – Summary of Principal Results

2. Comments on the valuation results as of January 1, 2024 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, 2024 on an actuarial value basis was 6.11%, 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. There have been no changes since the previous valuation.

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, 2024 upon which the valuation was based.

ACTIVE MEMBERS
AS OF JANUARY 1, 2024

Number	Payroll	Group Averages		
		Salary	Age	Service
231	$16,690,387	$72,253	50.0	19.5

2. The following table shows the number of retired members and beneficiaries as of January 1, 2024 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, 2024

Type of Retirement	Number	Annual Benefits	Group Averages	
			Benefit	Age
Service	198	$5,900,642	$29,801	70.1
Disability	24	540,275	22,511	58.2
Survivors	40	613,057	15,326	70.1
Total	262	$7,053,974	26,924	69.0

In addition, there are 38 participants entitled to deferred annual benefits totaling $559,320.

3. Table 1 of Schedule F shows the distribution by age and years of membership service of the number of active members included in the valuation, while Table 2 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, 2024, the total market value of assets amounted to $102,631,134, as reported by the System. The estimated investment return on a market value basis for the plan year was 14.14%. 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 $110,259,000. The estimated investment return for the plan year ending January 1, 2024 on an actuarial value of assets basis was 6.11%, 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, 2024.

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 $143,652,968. Against these liabilities, the System has present assets for valuation purposes of $110,259,000. When this amount is deducted from the actuarial accrued liability of $143,652,968, there remains $33,393,968 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 $827,105 is required. Estimated budgeted administrative expenses are included in the normal cost. The administrative expenses for the fiscal year ending June 30, 2025 are estimated to be $125,000. Therefore, the total employer normal cost is determined to be $952,105.

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 19.0 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 rate:

TOTAL UAAL AND UAAL CONTRIBUTION RATE

	Beginning Balance UAAL	Remaining Balance UAAL	Remaining Amortization Period (years)	Amortization Payment
Transitional 1/1/2022	$24,971,702	$23,835,089	19	$2,155,249
1/1/2023 Demographic Experience	5,921,549	5,492,962	9	787,940
1/1/2023 Change in Assumptions	4,021,383	3,730,325	9	535,098
1/1/2024 Demographic Experience	335,592	335,592	10	44,655
Total UAAL		$33,393,968		$3,522,942
Blended Amortization Period (years)				16.1

6. Therefore, when the total normal contribution including administrative expenses of $952,105 is added to the UAAL contribution rate of 3,522,942 and interest to the middle of the fiscal year of $313,253, the total contribution required for the fiscal year ending June 30, 2025 is $4,788,300.

7. The unfunded actuarial accrued liability (UAAL) decreased approximately $980.0 thousand for the plan year ending January 1, 2024 and the funding ratio increased from 75.5% to 76.8% on an actuarial value basis.

Section V – Contributions Payable

The following table summarizes the employer contributions which were determined by the January 1, 2024 valuation and are recommended for use in the fiscal year ending June 30, 2025.

CITY ACTUARIALLY DETERMINED EMPLOYER CONTRIBUTIONS (ADEC)
FOR FISCAL YEAR ENDING JUNE 30, 2025

CONTRIBUTION	
Normal Cost*	$952,105
Accrued Liability	3,522,942
Interest to middle of fiscal year	313,253
Total	$4,788,300

*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, 2024

GROUP	TOTAL
Retired participants and beneficiaries currently receiving benefits	262
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	38
Active Participants	231
Total	531

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

* 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	N/A

Section VI – Accounting Information

4. Additional information as of January 1, 2024 follows:

Valuation date	1/01/2024
Actuarial cost method	Entry Age Normal
Amortization period	Level dollar, closed
Remaining amortization period	16.1 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, 2024 is shown below.

(1)	UAAL* as of January 1, 2023	$	34,373,966
(2)	Expected accrued liability contribution		3,478,287
(3)	Expected UAAL before changes: [(1) – (2)] * 1.07	$	33,058,376
(4)	Change due to plan amendments		0.0
(5)	Change due to actuarial assumptions		0.0
(6)	Change due to actuarial methods		0.0
(7)	Expected UAAL after changes: (3) + (4) + (5) + (6)	$	33,058,376
(8)	Actual UAAL as of January 1, 2024	$	33,393,968
(9)	Gain/(loss): (7) – (8)	$	(335,592)
(10)	Gain/(loss) as percent of actuarial accrued liabilities for prior year ($140,503,102)		(0.2)%

*Unfunded actuarial accrued liability.

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

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 $259,000 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, 2024	Current Discount Rate (7.00%)	-1% Discount Rate (6.00%)	+1% Discount Rate (8.00%)
Accrued Liability	$143,652,968	$162,192,440	$128,203,081
Unfunded Liability	$33,393,968	$51,933,440	$17,944,081
Funded Ratio (AVA)	76.8%	68.0%	86.0%
ADEC	$4,788,300	$7,595,698	$2,341,207

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, 2023 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 $167.2 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, 2024

	Total Liability	Accrued Liability
Active Members		
Retirement	$ 70,861,193	$ 61,321,604
Death	1,754,568	1,210,892
Disability	2,172,457	1,426,772
Termination	2,622,188	886,309
Total	$ 77,410,406	$ 64,845,577
Retirees		
Retirement	$ 63,315,964	$ 63,315,964
Survivor	6,205,046	6,205,046
Disability	6,187,646	6,187,646
Total	$ 75,708,656	$ 75,708,656
Deferred Vested Members	3,098,735	3,098,735
Total Actuarial Values	$ 156,217,797	$ 143,652,968
Actuarial Value of Assets		110,259,000
Unfunded Actuarial Accrued Liability		$ 33,393,968

Schedule B – Development of the Actuarial Value of Assets

(1)	Actuarial Value of Assets as of January 1, 2023	$	106,129,136
(2)	Market Value of Assets as of January 1, 2024	$	102,631,134
(3)	Market Value of Assets as of January 1, 2023	$	92,055,963
(4)	Net Cash Flow During Plan Year		
	(a) Contributions	$	4,857,598
	(b) Benefit Payments and Refunds		(6,829,242)
	(c) Expenses		(310,741)
	(d) Net Cash Flow: (a) + (b) + (c)	$	(2,282,385)
(5)	Investment Income		
	(a) Market Total: (2) – (3) – (4)d	$	12,857,556
	(b) Assumed Rate		7.00%
	(c) Amount for Immediate Recognition	$	6,365,385
	(d) Amount for Phased-In Recognition: (5)a – (5)c	$	6,492,171
(6)	Recognized Amounts for Plan Year		
	(a) Current Year (2024): 0.20 x (5)d	$	1,298,434
	(b) First Prior Year (2023)		(5,318,244)
	(c) Second Prior Year (2022)		834,430
	(d) Third Prior Year (2021)		1,464,271
	(e) Fourth Prior Year (2020)		1,767,973
	(k) Total Recognized Investment Gain/(Loss)	$	46,864
(7)	Actuarial Value of Assets as of January 1, 2024 (1) + (4)d + (5)c + (6)k	$	110,259,000
(8)	Rate of Return on Actuarial Value		6.11%

Schedule C – Asset Information

Receipts		
(1) Employee Contributions		$ 686,922
(2) Employer Contributions		4,170,676
(3) Investment Income		12,857,556
(4) Total Receipts		$ 17,715,154
Disbursements		
(5) Retirement	$ 6,829,242	
(6) Refunds and Cashouts	0	
(7) Expenses	310,741	
(8) Total Disbursements		$ 7,139,983
(9) Excess of Receipts Over Disbursements: (4) - (8)		$ 10,575,171
Reconciliation of Asset Balances		
(10)Market Value at January 1, 2023		$ 92,055,963
(11)Excess of Receipts Over Disbursements		10,575,171
(12)Market Value at January 1, 2024		$ 102,631,134
(13)Estimated Rate of Return on Market Value of Assets		14.14%

Schedule D – Outline of 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.

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.

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

Schedule D – Outline of Actuarial Assumptions and Methods

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

RATES OF DEATHS 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.

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 System 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 System 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

SCHEDULE OF ACTIVE MEMBERS BY AGE AND SERVICE
AS OF JANUARY 1, 2024

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			9	1						10	$ 637,764
35 to 39			16	8						24	1,687,568
40 to 44			10	29	3					42	3,157,107
45 to 49			7	11	15	8				41	3,032,492
50 to 54			5	5	8	18	6			42	3,083,799
55 to 59			6	13	9	7	4	2		41	2,949,040
60 to 64			4	6	5	1	3	3		22	1,497,291
65 to 69			2	3	2					7	433,394
70 & up			1	1						2	211,932
Total			60	77	42	34	13	5		231	$ 16,690,387

Average Age:	50.0
Average Service:	19.5
Average Salary:	$72,253

Schedule F – Tables of Membership Data

TABLE 2

SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES
AS OF JANUARY 1, 2024

Attained Age	Number of Members	Total Annual Benefits	Average Annual Benefit
Under 50	4	$ 109,107	$ 27,277
50 – 54	6	122,898	20,483
55 – 59	36	1,275,292	35,425
60 – 64	42	1,313,601	31,276
65 – 69	60	1,722,110	28,702
70 – 74	47	1,253,374	26,668
75 – 79	42	818,828	19,496
80 & Over	25	438,764	17,551
Total	262	$ 7,053,974	$ 26,924

Average Age: 69.0