BLOOMINGTON FIRE DEPARTMENT RELIEF ASSOCIATION PENSION TRUST

Actuarial Valuation as of January 1, 2025

Prepared by

John M. Chmielewski, FSA
Consulting Actuary

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Certification

As part of our engagement with the Bloomington Fire Department, we have performed an actuarial valuation of the Bloomington Fire Department Relief Association Pension Trust ("Plan") as of January 1, 2025. Our findings are set forth in this actuary's report. The main purposes of this valuation are to determine the contribution sufficiency of the Plan, to review the Plan's experience since the prior valuation, and to assess the funded position of the Plan.

The calculations in this report have been made on a basis consistent with our understanding of the Plan's funding policy, the plan provisions as summarized in this report, and the Standards for Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement. Determinations for purposes other than meeting these requirements, such as for financial reporting in accordance with GASB standards, may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

We believe that the measures of funded status contained herein are appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations and for assessing the need for or the amount of future contributions. Note that a Plan's funded status is dependent on the selection of both the actuarial cost method and the asset smoothing method; different measurements would result if, for instance, an Actuarial Value of Assets were used in place of the Market Value of Assets.

Actuarial assumptions, including interest rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the Plan, who is responsible for selecting the Plan's funding policy, actuarial cost methods, asset valuation methods, and actuarial assumptions. Certain actuarial assumptions and methods used in this valuation are prescribed by the Statutes and are noted herein. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The Plan is solely responsible for communicating to Milliman any changes thereto. All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods (other than those set by statute) which, in our professional opinion, are individually reasonable (taking into account the experience of the Plan and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated future experience affecting the Plan and are expected to have no significant bias.

This valuation is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, 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 modifications to contribution calculations based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of the actuarial assignment, we did not perform an analysis of the potential range of future measurements.

Certification

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the Plan and the Plan's accountant. This information includes, but is not limited to, benefit provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised.

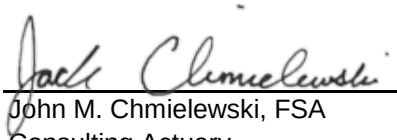
Milliman's work is prepared solely for the use and benefit of the Plan. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions: (a) the Plan may provide a copy of Milliman's work, in its entirety, to the Plan's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan; and (b) the Plan may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law. No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with our understanding of the requirements of Sections 356.20 through 356.23 and Section 69.77, Minnesota Statutes ("the Statutes"), the Standards for Actuarial Work established by the State of Minnesota Legislative Commission on Pensions and Retirement ("LCPR"), generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States, published by the American Academy of Actuaries. I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. In addition, John M. Chmielewski, FSA meets the requirements of 'approved actuary' under Section 356.215, Subdivision 1, Paragraph (c) of Minnesota Statutes.



John M. Chmielewski, FSA
Consulting Actuary

Report Highlights

	January 1, 2024	January 1, 2025
Contributions as a % of Payroll		
Relief Association financial requirements - Section 69.77	5.59%	(1.89%)
Minimum City of Bloomington Obligation - Section 69.77	(1.73%)	(10.14%)
Funding Ratios		
1. Accrued Benefit Funding Ratio		
a. Current Assets (Table 1)	$217,564,624	$233,425,875
b. Current Benefit Obligations (Table 6)	187,407,098	196,023,979
c. Funding Ratio	116.09%	119.08%
2. Accrued Liability Funding Ratio		
a. Current Assets (Table 1)	$217,564,624	$233,425,875
b. Actuarial Liability (Table 7)	186,990,493	195,805,192
c. Funding Ratio	116.35%	119.21%
3. Projected Benefit Funding Ratio (Table 6)		
a. Current and Expected Future Assets	$248,979,309	$262,599,021
b. Current and Expected Future Benefit Obligations	218,405,178	224,978,338
c. Funding Ratio	114.00%	116.72%
Plan Participants		
1. Active Members		
a. Number (Table 3)	97	90
b. Projected Annual Benchmark Earnings	$11,012,464	$10,724,400
c. Average Annual Benchmark Earnings	113,531	119,160
d. Average Age	41.0	41.6
e. Average Service	10.5	11.2
f. Additional Members on Leave of Absence	0	0
2. Others (Table 4)		
a. Service Retirements	184	186
b. Disability Retirements	3	6
c. Survivors	41	41
d. Deferred Retirements	11	8
e. Terminated Other Non-Vested	0	0
f. Total	239	241

Commentary

Purpose

The purpose of this valuation is to determine the financial status of the Plan. To achieve this purpose, an actuarial valuation is made at the beginning of each fiscal year as required by Section 69.77 of Minnesota Statutes.

Report Highlights

The financial status of the Plan can be measured by three different funding ratios:

The Accrued Benefit Funding Ratio is a measure of current funding status and, when viewed over a period of years, presents a view of the funding progress. It is based upon benefits that have been earned by service to the valuation date. The 2025 ratio is 119.08%, compared to 116.09% in 2024.

The Accrued Liability Funding Ratio is also a measure of funding status and funding progress. It is based on the actuarial cost method that has historically been used by the State. The 2025 ratio is 119.21%, which is an increase from 116.35% in 2024.

The Projected Benefit Funding Ratio is a measure of the adequacy or deficiency in the contribution level. The 2025 ratio is 116.72%, which shows that the current statutory contributions have a surplus over full funding.

Asset Information (Tables 1 and 2)

The actuarial value of assets is determined as the market value of the Special Fund as of December 31, 2024, less liabilities payable as of December 31, 2024. The calculation of the actuarial value of assets is shown in Table 1.

The term “Actuarial Value of Assets” is used to indicate that the value was determined for use in this actuarial valuation. Since Minnesota Statutes refer to this value as “Current Assets”, the latter phrase will be used in some sections of this report.

Actuarial Balance Sheet (Table 6)

An actuarial balance sheet provides a method for evaluating current and future levels of funding. The current benefit obligation used to measure current funding level is calculated as follows:

For active members – a benchmark salary and service are projected to retirement to determine benefits for each member and the ratio of credited service to total service establishes the portion of the projected benefit to be used in calculating the current funding level.

For non-active members - the discounted value of benefits.

Commentary

Actuarial Cost Method (Table 7)

The approach used by the Bloomington Fire Department Relief Association to determine funding requirements is the “Entry Age Normal” actuarial cost method. The primary characteristic of this method is that it allocates costs as a level of percentage of benchmark payroll.

A comparison of this actuarial method (Table 7) to the actuarial balance sheet (Table 6) illustrates the two techniques for allocating liabilities of active members to the past and to the future. As noted in the prior section, the balance sheet allocates benefits and the corresponding liabilities on the basis of service. The method used in Table 7 allocates liabilities so that the cost each year will be a constant percentage of payroll. Both approaches, however, calculate the value of all future benefits the same way (see line F of Table 6 and line A5, column 1, of Table 7).

An Unfunded Actuarial Liability, Table 7, line B3, is computed under the Entry Age Normal actuarial cost method by comparing the liabilities allocated to past service (Actuarial Liability) to the current assets.

For the first plan year in which current assets are less than the Actuarial Liability, an initial base is established equal to the initial Unfunded Actuarial Liability (UAL) and is amortized as a level dollar amount over 20 years. For subsequent years in which the UAL exceeds $0, bases will be established for actuarial losses, assumption changes, and plan amendments to be amortized over 20 years as a level dollar amount from the date of the establishment of the base and will be incorporated into the required contribution development.

If however, current assets exceed the Actuarial Liability, a supplemental credit equal to 10% of the excess is used to offset the normal cost and expense components of the required contribution. In addition, all previously unamortized bases that existed at the beginning of the plan year prior to the attainment of current assets exceeding the Actuarial Liability shall be considered fully amortized at the end of that prior plan year.

Sources of Actuarial Gains and Losses (Table 8)

The assumptions used in making the calculations using the entry age normal actuarial cost method are based on long-term expectations. Each year, the actual experience will deviate from the long-term expectation. For an analysis of the major components of the actuarial gain or loss refer to Table 8.

Commentary

Determination of Minimum Bloomington Obligation (Table 9)

This report determines the Minimum Bloomington Obligation. This amount is the Relief Association's Financial Requirement, less the amounts paid by State of Minnesota contributions.

The required contributions, set forth in Chapter 69, consist of:

A normal cost based on the entry age normal actuarial cost method.

A supplemental contribution for amortizing any unfunded actuarial accrued liability (the Plan is allowed a credit toward required contributions equal to 10% of the unfunded actuarial accrued liability, if it is negative) as of the valuation date.

An allowance for expenses.

Table 9 shows the calculation of the current year minimum obligation of ($1,087,449) for the City of Bloomington.

Plan Changes

All plan provisions are the same as those used in the prior valuation. Table 15 contains a summary of current plan provisions.

Changes in Actuarial Assumptions

All actuarial assumptions are the same as those used in the prior valuation. Table 14 contains a summary of all actuarial assumptions.

Changes in Actuarial Methods

All actuarial methods are the same as those used in the prior valuation. Table 13 contains a summary of all actuarial methods.

Other Significant Changes

None.

Table 1
Accounting Balance Sheet

	Market Values as of:	January 1, 2024	January 1, 2025
A.	**Assets**		
	1. Cash, Equivalents, Short-Term Securities	$2,046,387	$4,456,132
	2. Investments		
	a. Fixed Income	81,281,841	86,965,342
	b. Equity	124,171,751	132,338,733
	c. Real Estate	10,685,497	10,313,244
	3. Other Assets	8,880	15,188
B.	**Total Assets**	218,194,356	234,088,639
C.	**Amounts Currently Payable**	(629,732)	(662,764)
D.	**Assets Available for Benefits**		
	1. Total Assets	217,564,624	233,425,875
	2. Unrestricted Fund Balance	0	0
	3. Total Assets Available for Benefits	217,564,624	233,425,875
E.	**Total Amounts Currently Payable and Assets Available for Benefits**	218,194,356	234,088,639
F.	**Determination of Actuarial Value of Assets**		
	1. Market Value of Assets Available for Benefits (D.3)	217,564,624	233,425,875
	2. Actuarial Value of Assets (F.1)	217,564,624	233,425,875

Table 2
Change in Assets Available for Benefits

		Market Value
A.	**Assets Available at January 1, 2024**	$217,564,624
B.	**Operating Revenues**	
	1. Member Contributions	0
	2. State of Minnesota Contributions	884,039
	3. City of Bloomington Contributions	1,279,208
	4. Investment Income	612,710
	5. Investment Expenses	(574,769)
	6. Net Gain / (Loss)	21,774,125
	7. Other	0
	8. Net Change in Unrealized Gain / (Loss)	0
	9. Total Operating Revenue	23,975,313
C.	**Operating Expenses**	
	1. Service Retirements	(7,973,234)
	2. Disability Benefits[1]	0
	3. Survivor Benefits[1]	0
	4. Refunds	0
	5. Administrative Expenses	(140,828)
	6. Total Operating Expenses	(8,114,062)
D.	**Other Changes in Reserves**	0
E.	**Assets Available at January 1, 2025**	233,425,875

[1] Included in Item C.1

Table 3
Active Members

	January 1, 2024	January 1, 2025
Count	97	90
Average Age	41.0	41.6
Average Service	10.5	11.2
Total Payroll	$11,012,464	$10,724,400
Average Payroll	113,531	119,160

The table below illustrates the age and years of service of the active membership:

	Years of Service							
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**	**Total**
< 25	1							1
25-29	1	2						3
30-34	1	6	1					8
35-39	6	13	5	3				27
40-44	1	6	4	10				21
45-49	2	2	5	11	4			24
50-54			1	3				4
55-59				1				1
60-64		1						1
65+								0
Total	12	30	16	28	4	0	0	90

Table 4
Inactive Members

	January 1, 2024	January 1, 2025
Deferred Retirements		
Number	11	8
Average Age	47.4	47.3
Retirees		
Number	184	186
Total Annual Benefit	$6,416,209	$6,864,984
Average Annual Benefit	34,871	36,909
Average Age	66.8	66.9
Disabled Retirees		
Number	3	6
Total Annual Benefit	$48,649	$165,996
Average Annual Benefit	16,216	27,666
Average Age	44.1	44.7
Surviving Spouse and Child		
Number	41	41
Total Annual Benefit	$1,103,603	$1,168,650
Average Annual Benefit	26,917	28,504
Average Age	78.1	78.7

Table 5
Reconciliation of Membership from Prior Valuation

	Actives	Deferred Vested	Retirees	Disabled Retirees	Surviving Spouse and Child	Total
Count as of January 1, 2024	97	11	184	3	41	336
Terminated						
- no benefits due	(1)	-	-	-	-	(1)
- refund due	-	-	-	-	-	
- paid refund	-	-	-	-	-	0
- vested benefits due	(1)	1	-	-	-	0
Retired	(2)	(4)	6	-	-	0
- disability adjustment*	(3)	-	-	3	-	0
Died						
- with beneficiary	-	-	(2)	-	2	0
- no beneficiary	-	-	(2)	-	(2)	(4)
Benefits expired	-	-	-	-	-	0
New member	-	-	-	-	-	0
Rehired	-	-	-	-	-	0
New Alternate Payee	-	-	-	-	-	0
Correction	-	-	-	-	-	0
Count as of December 31, 2024	90	8	186	6	41	331
Vested	4					
Non-Vested	86					

*The retiree counts above include 34 annuitants as of December 31, 2024, who originally retired with a disability benefit. For valuation mortality purposes, these 34 annuitants reflect disabled mortality. For benefit purposes, they have reached Normal Retirement and are considered regular service retirement annuitants.

Table 6
Actuarial Balance Sheet

A.	**Current Assets (Table 1 Line F.2)**			$233,425,875
B.	**Expected Future Assets**			
	1. Present Value of Expected Future Statutory Supplemental Contributions			0
	2. Present Value of Future Normal Costs			29,173,146
	3. Total Expected Future Assets (B.1 + B.2)			29,173,146
C.	**Total Current and Expected Future Assets (A + B.3)**			262,599,021
D.	**Current Benefit Obligations**	**Non-Vested**	**Vested**	**Total**
	1. Benefit Recipients			
	a. Retirement Annuities		$106,657,281	106,657,281
	b. Disability Benefits		26,005,905	26,005,905
	c. Surviving Spouse and Child Benefits		11,104,196	11,104,196
	2. Deferred Retirements		7,913,497	7,913,497
	3. Former Members Without Vested Rights		0	0
	4. Active Members			
	a. Retirement Annuities	$33,977,676	4,147,664	38,125,340
	b. Disability Benefits[1]	5,519,714	0	5,519,714
	c. Surviving Spouse and Child Benefits	383,277	0	383,277
	d. Deferred Retirements[1]	314,769	0	314,769
	e. Refund Liability Due to Death or Withdrawal	0	0	0
	5. Total Current Benefit Obligations	40,195,436	155,828,543	196,023,979
E.	**Expected Future Benefit Obligations**			28,954,359
F.	**Total Current and Expected Future Benefit Obligations (D.5 + E)**			224,978,338
G.	**Current Unfunded Actuarial Liability (D.5 - A)**			(37,401,896)
H.	**Current and Future Unfunded Actuarial Liability (F - C)**			(37,620,683)

[1] Vested benefits for these obligations are included in the vested benefits of Item D.4.a.

Table 7
Determination of Unfunded Actuarial Liability (UAL) and Supplemental Contribution Rate

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Future Normal Costs	Actuarial Accrued Liability
A. Actuarial Liability			
1. Active Members			
a. Retirement Benefits	$61,616,585	$21,905,673	$39,710,912
b. Disability Benefits	10,534,240	6,600,674	3,933,566
c. Surviving Spouse and Child Benefits	700,374	507,264	193,110
d. Deferred Retirements	446,260	159,535	286,725
e. Refund Liability Due to Death or Withdrawal	0	0	0
f. Total for Active Members	73,297,459	29,173,146	44,124,313
2. Deferred Retirements	7,913,497		7,913,497
3. Former Members Without Vested Rights	0		0
4. Annuitants	143,767,382		143,767,382
5. Total	224,978,338	29,173,146	195,805,192

B. Unfunded Actuarial Liability (UAL)	
1. Actuarial Liability (A.5)	195,805,192
2. Current Assets (Table 1 Line F.2)	233,425,875
3. Unfunded Actuarial Liability (B.1 - B.2)	(37,620,683)

C. Determination of Supplemental Contribution Rate	
1. Level Dollar Amortization Factor to December 31, 2043	N/A
2. Supplemental Contribution (B.3 ÷ C.1, not less than $0)	N/A
3. Supplemental Credit for Surplus Assets (10% of B.3)	(3,762,068)
4. Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date	10,724,400
5. Supplemental Contribution Rate (C.3 ÷ C.4)	(35.08%)

Table 8
Changes in Unfunded Actuarial Liability (UAL)

From one valuation to the next, the Accrued Liability and Actuarial Value of Assets may change in ways that were not anticipated by the actuarial assumptions that were used in the last valuation. If the Accrued Liability is lower than expected or the Actuarial Value of Assets is higher than expected, we say that the plan has experienced an 'actuarial gain', and if the Accrued Liability is higher than expected or the Actuarial Value of Assets is lower than expected, we say that the plan has experienced an 'actuarial loss'. The actuarial gains / losses that arose during 2024 are shown below, along with the impact of plan changes and changes in the actuarial assumptions and method.

		Actuarial Liability A	Market Value of Assets B	Unfunded Actuarial Liability = A - B
1.	Value as of January 1, 2024	$186,990,493	$217,564,624	($30,574,131)
2.	Normal Cost as of January 1, 2024	3,533,302		3,533,302
3.	Administrative Expenses during 2024		(140,828)	140,828
4.	State Contributions during 2024		884,039	(884,039)
5.	City Contributions during 2024		1,279,208	(1,279,208)
6.	Benefit Payments during 2024	(7,973,234)	(7,973,234)	0
7.	One year of interest on (1) thru (2) at 6.00%	11,431,428	13,053,877	(1,622,449)
8.	Half year of interest on (3) thru (6) at 6.00%	(239,197)	(172,736)	(66,461)
9.	Expected value as of January 1, 2025	193,742,792	224,494,950	(30,752,158)
10.	Actual value as of January 1, 2025 before any plan, assumption, or method changes	195,805,192	233,425,875	(37,620,683)
11.	Experience gains / losses (10 - 9)	2,062,400	8,930,925	(6,868,525)
12.	Impact of plan changes	0	0	0
13.	Impact of assumption changes	0	0	0
14.	Final value as of January 1, 2025	195,805,192	233,425,875	(37,620,683)

Table 9
Determination of Minimum Bloomington Obligation

	Percent of Benchmark Payroll	Dollar Amount
A. Relief Association Financial Requirements - Section 69.77		
1. Normal Cost		
a. Retirement Benefits	24.11%	$2,585,632
b. Disability Benefits	7.02%	752,338
c. Surviving Spouse and Child Benefits	0.55%	58,869
d. Deferred Retirements	0.15%	16,062
e. Refund Liability Due to Death or Withdrawal	-	-
f. Total	31.83%	3,412,901
2. Supplemental Contribution Amortization	(35.08%)	(3,762,068)
3. Allowance for Administrative Expenses	1.36%	145,757
4. Total	(1.89%)	(203,410)
B. Minimum Bloomington Obligation - Section 69.77		
1. State of Minnesota Contributions	8.24%	884,039
2. City of Bloomington Contributions (A.4 - B.1)	(10.14%)	(1,087,449)
Projected Annual Payroll for Fiscal Year Beginning on the Valuation Date		10,724,400

Table 10
Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets (A)	Actuarial Liability (B)	Unfunded Actuarial Liability (B) - (A)	Funded Ratio (A) ÷ (B)
01/01/1999	$98,908,878	$64,855,595	($34,053,283)	152.51%
01/01/2000	110,084,568	66,819,827	(43,264,741)	164.75%
01/01/2001	103,718,180	71,967,391	(31,750,789)	144.12%
01/01/2002	93,960,664	76,035,748	(17,924,916)	123.57%
01/01/2003	78,447,409	81,361,778	2,914,369	96.42%
01/01/2004	91,904,999	83,388,410	(8,516,589)	110.21%
01/01/2005	101,341,890	88,034,799	(13,307,091)	115.12%
01/01/2009	105,139,140	84,681,811	(20,457,329)	124.16%
01/01/2007	116,978,895	87,345,954	(29,632,941)	133.93%
01/01/2008	122,158,440	93,293,969	(28,864,471)	130.94%
01/01/2009	88,639,493	97,105,335	8,465,842	91.28%
01/01/2010	98,707,362	99,697,775	990,413	99.01%
01/01/2011	111,072,465	105,372,331	(5,700,134)	105.41%
01/01/2012	110,822,777	107,951,877	(2,870,900)	102.66%
01/01/2013	122,544,915	124,210,384	1,665,469	98.66%
01/01/2014	143,611,691	129,441,911	(14,169,780)	110.95%
01/01/2015	152,114,148	133,798,748	(18,315,400)	113.69%
01/01/2016	147,828,626	132,836,377	(14,992,249)	111.29%
01/01/2017	155,275,402	139,574,319	(15,701,083)	111.25%
01/01/2018	175,842,396	145,849,298	(29,993,098)	120.56%
01/01/2019	164,824,810	152,647,541	(12,177,269)	107.98%
01/01/2020	190,049,465	163,326,778	(26,722,687)	116.36%
01/01/2021	214,574,924	167,869,894	(46,705,030)	127.82%
01/01/2022	232,172,612	176,468,883	(55,703,729)	131.57%
01/01/2023	196,688,096	180,654,061	(16,034,035)	108.88%
01/01/2024	217,564,624	186,990,493	(30,574,131)	116.35%
01/01/2025	233,425,875	195,805,192	(37,620,683)	119.21%

The actuarial value of assets is the fair value of investments, adjusted for receivables and payables.

The table above presents multi-year trend information about whether the actuarial value of assets is increasing or decreasing over time, relative to the actuarial liability for benefits. The results do not incorporate any legal or contractual funding limitations.

Table 11
Low Default Risk Obligation Measure

If the plan were invested 100% in US Cash, it would impact the selection of a reasonable interest rate assumption and therefore the measurement of the Actuarial Liability, Funded Ratio, and ultimately the Plan's annual contributions; the volatility of the contributions would also change based on the risk level of the portfolio:

	100% US Cash *	Plan's Interest Rate Assumption
Expected long-term return (median)	3.23%	6.00%
Expected risk level (standard deviation)	1.13%	11.27%
Actuarial Liability on January 1, 2025 **	$288,375,000	$195,805,192
Funded Ratio on January 1, 2025 ***	81%	119%

* This would be considered a "low-default-risk obligation measure" (LDROM) using the language of Actuarial Standards of Practice #4.

** Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the interest rate; the plan's duration on the valuation date, as measured for GASB 68 purposes, was used to estimate the impact of the interest rate difference relative to the valuation interest rate assumption.

*** Measured using the Market Value of Assets

Table 12
Risk Disclosure

The purpose of this section is to identify, assess, and provide illustrations of significant Plan risks.

Investment Risk

Definition: The potential that investment returns will be different than expected.

Identification: To the extent that actual investment returns differ from the assumed investment return, the Plan's future assets, funding contributions, and funded status may differ significantly from those presented in this valuation.

Liquidity Risk

Definition: The potential that assets must be liquidated at a loss earlier than planned in order to pay for the Plan's benefits and operating costs. This risk is heightened for plans with negative cash flow, in which contributions do not exceed benefit payments plus expenses.

Identification: This Plan has high cash flow requirements because the sum of benefit payments plus expenses is significantly larger than contributions. As a result, there is a significant risk that assets may need to be liquidated at a loss before planned in order to pay benefits and expenses.

Demographic Risks

Definition: The potential that mortality or other demographic experience will be different than expected.

Identification: The pension liabilities reported herein have been calculated by assuming that participants will follow certain patterns of demographic experience (e.g., mortality, withdrawal, disability, retirement, etc.). If actual demographic experience or future demographic assumptions are different from what is assumed to occur in this valuation, future pension liabilities, funding contributions, and funded status may differ significantly from those presented in this valuation.

Contribution Risk

Definition: The possibility that actual future contributions deviate from expected future contributions.

Identification: The Plan is subject to the contribution risk that the actuarially determined contributions will not be made. If contributions are deferred to the future, investment income is lost in the intervening period and the Plan becomes more expensive.

Maturity Metrics as of January 1, 2025

Asset Volatility Ratio: Market Value of Assets compared to Payroll	21.8
Accrued Liability for members in pay status compared to total Accrued Liability	73%
Benefit Payments compared to Market Value of Assets	3%
Benefit Payments compared to State and City Contributions	369%
Duration of Accrued Liability (based on GASB 68 sensitivity disclosures)	15

Table 13
Actuarial Methods

Actuarial Cost Method	Entry age normal cost method with normal costs expressed as a level percentage of earnings from each member's date of joining the Association to the member's assumed retirement age, as mandated by the Statutes.
Asset Valuation Method	Market value, as mandated by the Statutes. Trusteed funds are reported by the Plan's accountant.
City of Bloomington Contributions	Relief Association financial requirements less State of Minnesota Contributions. See Table 9 for development.
State of Minnesota Contributions	Prior year State of Minnesota Fire Aid and Supplemental Fire Aid contributions
Payment on the Unfunded Actuarial Liability	For the first plan year in which current assets are less than the Actuarial Liability, an initial base is established equal to the initial Unfunded Actuarial Liability (UAL) and is amortized as a level dollar amount over 20 years. For subsequent years in which the UAL exceeds $0, bases will be established for any actuarial losses, assumption changes, and plan amendments, and amortized over 20 years as a level dollar amount from the date of the establishment of the base and will be incorporated into the required contribution development. Otherwise, 10% of the excess of current assets over the Actuarial Liability is treated as a supplemental credit and any amortization bases that existed prior to the plan's current assets exceeding the Actuarial Liability are considered fully amortized.[1]

[1] Per Minnesota Session Laws 1994, Regular Session, Chapter 541, Section 2. It is Milliman's understanding that this Bloomington special law provision remains valid.

Table 14
Actuarial Assumptions

Each of the assumptions used in this valuation, other than those mandated by statute, was set based on industry standard published tables and data, the particular characteristics of the plan, relevant information from the plan sponsor or other sources about future expectations, and our professional judgment regarding future plan experience. We believe the assumptions are reasonable for the contingencies they are measuring, and are not anticipated to produce significant cumulative actuarial gains or losses over the measurement period.

Interest Rate

6.00%, as mandated by the Statutes.

Inflation

2.75%

Administrative Expenses

Prior year administrative expenses (excluding investment expenses) increased by 3.5%, as mandated by the Statutes.

Benchmark salary

Each member is assumed to earn the same salary as Bloomington police patrol officers of the highest grade:

2025	$9,930
2024	$9,594
2023	$9,097

Index Salary Increases

4.00% (for certain Bloomington Patrol Officers)

Cost of Living Increases

Based on increases in Index Salary.

Mortality

RP-2014 employee and healthy annuitant mortality tables projected back to 2006 base year using Projection Scale MP-2014, and then projected forward generationally using Projection Scale MP-2017. Post-retirement male rates are adjusted by a factor of 0.96.

The mortality assumption includes a margin for future improvements in longevity. Effective July 1, 2018, the actuary for the PERA plan updated the mortality and other assumptions based upon an experience study. The actuary for the PERA plan further modified the mortality assumption effective July 1, 2022 to use an updated mortality table (PubS-2010) and mortality improvement scale (MP-2021). We will continue to monitor the Plan's mortality experience, the assumptions for the PERA Police and Fire Plan, and experience studies from the Society of Actuaries.

Table 14 (continued)
Actuarial Assumptions

Turnover and Disability

Graded rates as shown below, expressed as the number of occurrences per 10,000.

Age	Withdrawal	Disability
20	300	24
21	290	24
22	280	24
23	270	24
24	260	24
25	250	24
26	240	24
27	230	24
28	220	24
29	210	24
30	200	24
31	190	24
32	180	24
33	170	24
34	160	26
35	150	30
36	140	34
37	130	40
38	120	46
39	110	52
40	100	58
41	90	64
42	80	74
43	70	84
44	60	96
45	50	110
46	40	128
47	30	142
48	20	158
49	10	174
50+	0	0

Retirement

All members are assumed to retire after attaining age 50 and completing 20 years of service. This assumption is set based on Plan provisions and actual past retirement experience.

Duty assumption

75% of disabilities and preretirement deaths are assumed to be on-duty and 25% are assumed to be non-duty.

Table 14 (continued)
Actuarial Assumptions

Family Composition

100% of active members are assumed to be married. Female spouses are assumed to be three years younger than male spouses. Duty-related death benefits are increased by 10% for estimated dependent child survivor benefits.

Missing data

We have reviewed the submitted participant data for reasonableness and consistency with data submitted for prior valuations. We have not audited this data, and the results of this valuation may change based on the accuracy of the underlying data. In cases where submitted data was missing or incomplete, we applied the following assumptions:

Date of birth	Average age of participant group based on prior year's valuation report.
Date of hire	Current valuation date minus years of service.
Years of service	Years of service on last year's valuation plus one year.
Gender	Male.
Deferred benefit	Equal to one-third of current year average indexed earnings. Current rate is $3,180.

Table 15
Summary of Plan Provisions

This exhibit summarizes the major provisions of the Plan. It is not intended to be, nor should it be interpreted as a complete statement of all plan provisions. All eligibility requirements and benefit amounts shall be determined in strict accordance with the plan document itself. To the extent that this summary does not accurately reflect the plan provisions, then the results of this valuation may not be accurate.

Eligibility	Members in good and regular standing of the Bloomington Fire Department Relief Association, and who have actively served as fire fighters in the Bloomington Fire Department for at least one month.	
Membership Dues	No membership dues are paid to the Special Fund.	
Index Salary	The average of the monthly salary for the preceding three years, including the current year of a patrol officer of the highest grade in the employ of the City of Bloomington.	
Basic Benefit	One third of the index salary. All benefits under the plan increase each time a pay increase is granted to the Bloomington Police Department.	
Normal Retirement	Eligibility	Age 50 with 20 years of service.
	Amount	Basic benefit.
	Form of payment	Fully subsidized 75% Joint and survivor if married, life annuity if single.
Disability	Eligibility	Inability to perform the duties of a firefighter.
	Duty related amount	Basic benefit is payable at time of disability. This benefit is payable during the period of disability. After attainment of age 50 and 20 combined years of service and disability payments, no evidence of disability is required for the benefit to continue.
	Non-duty related amount	The basic benefit is multiplied by 5% for each year of service up to the date of disability (maximum 20 years). This benefit is payable during the period of disability. After attainment of age 50 and 20 combined years of service and disability payments, no evidence of disability is required for the benefit to continue.
	Form of payment	Same as for retirement.

Table 15 (continued)
Summary of Plan Provisions

Preretirement Death Benefit For Surviving Spouse	Duty-related amount	75% of the basic benefit is payable for the surviving spouse's remaining unmarried lifetime. Benefits cease on remarriage of the surviving spouse.
	Non-duty related amount	75% of the basic benefit multiplied by 5% for each year of service up to the date of death to a maximum of 20 years. This benefit is payable for the surviving spouse's remaining unmarried lifetime. Benefits cease on remarriage of the surviving spouse.
Preretirement Death Benefit For Minor Children	Eligibility	An active or inactive member who dies and leaves surviving minor children.
	Amount	12% of the basic benefit is payable to each surviving minor child until attainment of age 18 or marriage. If there is no surviving spouse, the minor children are eligible for 100% of the basic benefit. The maximum benefit paid to all family members will not exceed 100% of the basic benefit.
Preretirement Lump Sum Death Benefit	$500 is payable on the death of any active or inactive member.	
Termination Benefit	Eligibility	20 years of service.
	Amount	The basic benefit is payable at age 50.