

SPRINGFIELD POLICE PENSION FUND

GASB 67/68 ACTUARIAL VALUATION
AS OF MARCH 1, 2023



FOR THE FEBRUARY 29, 2024
FINANCIAL STATEMENT REPORTING

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GASB Statements 67 and 68 Actuarial Disclosures



Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

GASB 67: SPRINGFIELD POLICE PENSION FUND

Fiscal Year Ending: February 29, 2024

Actuarial Valuation Date: March 1, 2023

Data Date: February 28, 2023

Measurement Date: February 29, 2024

GASB 68: CITY OF SPRINGFIELD, ILLINOIS

Fiscal Year Ending: February 29, 2024

Actuarial Valuation Date: March 1, 2023

Data Date: February 28, 2023

Measurement Date: February 29, 2024

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August 30, 2024

LAUTERBACH & AMEN, LLP



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ACTUARIAL CERTIFICATION

This certification provides supplemental information as required by the Governmental Accounting Standards Board. The enclosed schedules were prepared by the undersigned to assist in the preparation of the Annual Financial Report. The assumptions and methods used in the preparation of this report meet the parameters set for the disclosures presented in the financial section as required by the Governmental Accounting Standards Board. Additional information is provided solely to assist the auditors in the preparation of the required footnote disclosures.

The results in this report are based on the demographic data and financial information submitted by the City of Springfield, Illinois, and may include results from the prior Actuary. We did not prepare the Actuarial Valuations for the years prior to March 1, 2016. If applicable, those valuations were prepared by the prior Actuary whose reports have been furnished to us, and our disclosures are based on those reports. An audit of the prior Actuary's results was not performed, but high-level reviews were completed for general reasonableness, as appropriate, based on the purpose of this valuation. The accuracy of the results is dependent on the precision and completeness of the underlying information.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events. The City of Springfield, Illinois selected certain assumptions, while others were the result of guidance and/or judgment from the Plan's Actuary or Advisors. We believe that the assumptions used in this valuation are reasonable and appropriate for the purposes for which they have been used.

In preparing the results, our Actuaries used commercially available software (ProVal) developed by Winklevoss Technologies, LLC. This software is widely used for the purpose of performing Actuarial Valuations. Our Actuaries coded the plan provisions, assumptions, methods, and demographic data summarized in this report, and reviewed the liability and cost outputs for reasonableness. We are not aware of any material weaknesses or limitations in the software, and have determined it is appropriate for performing this valuation.



To the best of our knowledge, all calculations are in accordance with the applicable accounting requirements, while the procedures followed and presentation of results conform to generally accepted actuarial principles and practices. The undersigned consultants of Lauterbach & Amen, LLP, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render this Actuarial Certification. There is no relationship between the Springfield Police Pension Fund or the City of Springfield, Illinois and Lauterbach & Amen, LLP that impairs our objectivity.

Respectfully Submitted,
LAUTERBACH & AMEN, LLP

Todd A. Schroeder, ASA, FCA, EA, MAAA

Robert L. Rietz, Jr., FCA, EA, MAAA



PLAN FIDUCIARY NET POSITION

Statement of Plan Fiduciary Net Position
Statement of Changes in Plan Fiduciary Net Position



STATEMENT OF PLAN FIDUCIARY NET POSITION

	<u>2/28/2023</u>	<u>2/29/2024</u>
Assets		
Cash and Cash Equivalents	\$ 6,451,052	\$ 7,805,691
Total Cash	<u>6,451,052</u>	<u>7,805,691</u>
Receivables:		
Other	<u>-</u>	<u>10,624</u>
Total Receivables	<u>-</u>	<u>10,624</u>
Investments:		
Pooled Investment Accounts	<u>188,742,521</u>	<u>206,051,096</u>
Total Investments	<u>188,742,521</u>	<u>206,051,096</u>
Total Assets	<u>195,193,573</u>	<u>213,867,411</u>
Liabilities		
Payables:		
Expenses Due/Unpaid	<u>8,431</u>	<u>8,679</u>
Total Liabilities	<u>8,431</u>	<u>8,679</u>
Plan Fiduciary Net Position	<u>\$ 195,185,142</u>	<u>\$ 213,858,732</u>

The Plan Fiduciary Net Position shown above is intended to be in accordance with GAAP and the Governmental Accounting Standards Board. The Fair Value of Investments has been provided by the reporting entity, and the results are being audited by an independent auditor. The level of the assets has been reviewed for reasonableness, but we make no representation as to the accuracy of the measurement of the Fair Value of Investments. The Statement of Plan Fiduciary Net Position for 2024 is based on audited financials.



STATEMENT OF CHANGES IN PLAN FIDUCIARY NET POSITION

	<u>2/29/2024</u>
Additions	
Contributions	
Employer	\$ 14,293,826
Members	<u>2,418,786</u>
Total Contributions	<u>16,712,612</u>
Investment Income	
Net Appreciation in Fair Value of Investments	21,290,242
Interest and Dividends	1,501,449
Less Investment Expense	<u>(263,260)</u>
Net Investment Income	<u>22,528,431</u>
Total Additions	<u>39,241,043</u>
Deductions	
Benefit Payments and Refunds of Member Contributions	20,416,273
Administrative Expense	<u>151,180</u>
Total Deductions	<u>20,567,453</u>
Net Increase in Net Position	<u>18,673,590</u>
Plan Fiduciary Net Position	
Beginning of Year	<u>195,185,142</u>
End of Year	<u>\$ 213,858,732</u>

The changes in Plan Fiduciary Net Position shown above are intended to be in accordance with GAAP and the Governmental Accounting Standards Board. The Plan activity has been provided by the reporting entity, and the results are being audited by an independent auditor. The cash flows have been reviewed for reasonableness, but we make no representation as to the accuracy of the measurement of the Fair Value of Investments. The Statement of Changes in Plan Fiduciary Net Position for 2024 is based on audited financials.



ACTUARIAL PENSION LIABILITY INFORMATION

Statement of Total Pension Liability
Statement of Changes in Total Pension Liability
Statement of Changes in Net Pension Liability
Deferred Outflows and Inflows of Resources
Deferred Outflows and Inflows of Resources – Detail
Pension Expense Development



STATEMENT OF TOTAL PENSION LIABILITY

	<u>2/28/2023</u>	<u>2/29/2024</u>
Active Members	<u>\$ 100,132,456</u>	<u>\$ 90,130,482</u>
Inactive Members		
Terminated Members	4,745,190	4,430,542
Retired Members	283,927,932	285,551,350
Disabled Members	5,589,478	5,866,533
Other Beneficiaries	<u>9,884,432</u>	<u>11,230,756</u>
Total Inactive Members	<u>304,147,032</u>	<u>307,079,181</u>
Total Pension Liability	<u>\$ 404,279,488</u>	<u>\$ 397,209,663</u>

The Total Pension Liability (“TPL”) shown above is dependent on several factors such as Plan Provisions and Actuarial Assumptions used in this report. In addition, the calculation of the TPL may be dependent on the Plan Fiduciary Net Position shown in the prior section of this report. Changes in the Plan Fiduciary Net Position due to any factor, including adjustments on final audit, could change the TPL. The dependence of the TPL on the Plan Fiduciary Net Position is due to the role of the Plan Fiduciary Net Position (and the Plan’s Projected Fiduciary Net Position) on the determination of the Discount Rate used for the TPL.

The TPL has been determined for GASB 67/68 reporting purposes only. The resulting TPL is intended to be used in the financial statement reporting of the Plan and/or Employer. The resulting liability is not intended to be a representation of the Plan liability for other purposes, including but not limited to, determination of cash funding requirements and recommendations. The TPL is based on data as of the *Actuarial Valuation - Data Date* shown in this report. The TPL has been determined as of the Actuarial Valuation Date and based on the assumptions used in this report, and adjusted to the Measurement Date as needed.



STATEMENT OF CHANGES IN TOTAL PENSION LIABILITY

	<u>2/29/2024</u>
Changes in Total Pension Liability	
Service Cost	\$ 5,391,785
Interest	25,877,471
Changes of Benefit Terms*	-
Differences Between Expected and Actual Experience	4,563,994
Change in Assumptions	(22,486,802)
Benefit Payments and Refunds	<u>(20,416,273)</u>
Net Change in Total Pension Liability	(7,069,825)
Total Pension Liability - Beginning	<u>404,279,488</u>
Total Pension Liability - Ending (a)	<u>\$ 397,209,663</u>
 Plan Fiduciary Net Position - Ending (b)	 <u>\$ 213,858,732</u>
 Employer's Net Pension Liability - Ending (a) - (b)	 <u><u>\$ 183,350,931</u></u>
 Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	 53.84%
 Covered-Employee Payroll	 \$ 24,799,445
Employer's Net Pension Liability as a Percentage of Covered-Employee Payroll	739.33%

The Plan Fiduciary Net Position was detailed in the prior section of this report. The Employer's Net Pension Liability is the excess of the Total Pension Liability over the Plan Fiduciary Net Position.

Total Pension Liability may be dependent on the Plan Fiduciary Net Position. Changes in the Plan Fiduciary Net Position could change the determination of the Total Pension Liability. Any changes in the Plan Fiduciary Net Position, including adjustments on final audit, can have an impact on the Employer's Net Pension Liability that extends beyond the dollar-for-dollar change in the Plan Fiduciary Net Position.

Covered-Employee Payroll is based on the Covered-Employee Payroll for the Plan Members during the Fiscal Year.



A key demographic risk is mortality improvement differing from expected. While the actuarial assumptions reflect small, continuous improvements in mortality experience and these assumptions are refined upon the completion of each actuarial experience study, the risk arises because there is a possibility of a sudden shift in mortality experience. This report reflects the impact of COVID-19 experience that has been accounted for in the underlying demographic data. This report does not reflect the ongoing impact of COVID-19, which is likely to influence demographic and economic experience, at least in the short-term. We will continue to monitor these developments and their impact on the Plan. Actual future experience will be reflected in each subsequent Actuarial Valuation, as experience emerges.

*Public Act 102-0811 passed on May 13, 2022 and is effective as of January 1, 2023 for Article 3 Pension Funds. The Act establishes that a surviving spouse of a deceased police retiree may be eligible for a survivor's pension of up to 15 years of benefit payments if (a) the surviving spouse has attained age 62 and (b) if the police officer was married to the surviving spouse after retirement, and for at least 5 years prior to the officer's death. Previously, there was no survivor's pension for spouses married after retirement. In our opinion, under a prudent interpretation of the provisions, we believe the impact to be de minimis. The legal community has suggested some uncertainty about multiple provisions contained in the Act, and the IDOI Public Pension Division has not provided an interpretation. The client has not made an administrative interpretation as to how the provisions of the Act will impact future surviving spouses. Due to the uncertainty around the interpretation and the expected *de minimis* impact, we have not valued this contingency separately for active Members. However, for any current retirees who were married after retirement and have been married for at least 5 years, as well as any surviving spouses currently in receipt of benefits under this provision, we have valued the liability of the benefit granted.



STATEMENT OF CHANGES IN NET PENSION LIABILITY

The table below illustrates the changes in Net Pension Liability (“NPL”) from the prior Measurement Date to the current Measurement Date. Under Statement 68, the difference between the NPL from the prior Measurement Date to the current Measurement Date should be recognized as a component of Pension Expense, unless permitted to be recognized as a Deferred Outflow or Inflow of Resources.

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances Beginning at 3/1/2023	<u>\$ 404,279,488</u>	<u>\$ 195,185,142</u>	<u>\$ 209,094,346</u>
Changes for the Year:			
Service Cost	5,391,785	-	5,391,785
Interest	25,877,471	-	25,877,471
Actuarial Experience	4,563,994	-	4,563,994
Change in Assumptions	(22,486,802)	-	(22,486,802)
Changes of Benefit Terms	-	-	-
Contributions - Employer	-	14,293,826	(14,293,826)
Contributions - Members	-	2,418,786	(2,418,786)
Contributions - Other	-	-	-
Net Investment Income	-	22,528,431	(22,528,431)
Benefit Payments and Refunds	(20,416,273)	(20,416,273)	-
Administrative Expense	-	(151,180)	151,180
Net Changes	<u>\$ (7,069,825)</u>	<u>\$ 18,673,590</u>	<u>\$ (25,743,415)</u>
Balances Ending at 2/29/2024	<u><u>\$ 397,209,663</u></u>	<u><u>\$ 213,858,732</u></u>	<u><u>\$ 183,350,931</u></u>

The changes in Total Pension Liability shown above are described in the *Statement of Changes in Total Pension Liability* section of this report. The Plan Fiduciary Net Position was detailed in the prior section of this report. The Employer’s Net Pension Liability is the excess of the Total Pension Liability over the Plan Fiduciary Net Position.



DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES

The table below shows the cumulative amounts to be shown as Deferred Outflows and Inflows of Resources. Changes in Total Pension Liability related to the differences between expected and actual experience, or changes in assumptions regarding future events, are recognized in Pension Expense over the average future working career of all Members (active and inactive) in the Pension Plan. The net difference in projected and actual earnings on Pension Plan investments over the measurement period are recognized over a 5-year period. Amounts not yet recognized are summarized below:

	Deferred Outflows of Resources	Deferred Inflows of Resources	Total Deferred Amounts
Differences Between Expected and Actual Experience	\$ 8,737,733	\$ (7,268,394)	\$ 1,469,339
Change in Assumptions	20,656,817	(44,081,752)	(23,424,935)
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	15,870,137	(10,530,679)	5,339,458
Contributions Subsequent to the Measurement Date*	-	-	-
Total	<u>\$ 45,264,687</u>	<u>\$ (61,880,825)</u>	<u>\$ (16,616,138)</u>

*Contributions Subsequent to the Measurement Date may be recognized as a reduction to the Net Pension Liability. The amount is not known as of the date of this report. Subsequent to the Measurement Date, the following amounts will be recognized in Pension Expense in the upcoming years:

Year Ended	
February 28:	
2025	\$ (1,857,217)
2026	(1,680,417)
2027	(5,587,746)
2028	(6,163,140)
2029	(1,327,618)
Thereafter	\$ -



DEFERRED OUTFLOWS AND INFLOWS OF RESOURCES – DETAIL

The table below shows the annual detail amounts that have been summarized on the prior page. Under Statement 68, the level of detail shown on the prior page is sufficient for financial statement reporting. The detail shown below is primarily for tracking purposes.

Pension Expense Source	Date Established	Initial Period	Initial Balance	Remaining Period	2/29/2024 Expense Recognized	2/29/2024 Deferred Balance
Asset Gain	2/29/2024	5.00	\$ (9,000,390)	5.00	\$ (1,800,078)	\$ (7,200,312)
Change in Assumptions Gain	2/29/2024	5.40	(22,486,802)	5.40	(4,164,223)	(18,322,579)
Actuarial Loss	2/29/2024	5.40	4,563,994	5.40	845,185	3,718,809
Asset Loss	2/28/2023	5.00	25,022,850	4.00	5,004,570	15,013,710
Change in Assumptions Gain	2/28/2023	5.33	(24,113,864)	4.33	(4,524,178)	(15,065,508)
Actuarial Loss	2/28/2023	5.33	7,251,275	4.33	1,360,465	4,530,345
Asset Loss	2/28/2022	5.00	2,141,072	3.00	428,215	856,427
Change in Assumptions Gain	2/28/2022	5.30	(24,376,044)	3.30	(4,599,254)	(10,578,282)
Actuarial Gain	2/28/2022	5.30	(16,425,003)	3.30	(3,099,058)	(7,127,829)
Asset Gain	2/28/2021	5.00	(16,651,835)	2.00	(3,330,367)	(3,330,367)
Change in Assumptions Loss	2/28/2021	5.67	44,807,789	2.67	7,902,609	13,197,353
Actuarial Loss	2/28/2021	5.67	535,492	2.67	94,444	157,716
Asset Loss	2/29/2020	5.00	4,018,295	1.00	803,659	-
Change in Assumptions Loss	2/29/2020	6.82	27,952,499	2.82	4,098,607	7,459,464
Actuarial Loss	2/29/2020	6.82	1,239,833	2.82	181,794	330,863
Change in Assumptions Gain	2/28/2019	6.56	(1,351,671)	1.56	(206,048)	(115,383)
Actuarial Gain	2/28/2019	6.56	(1,646,679)	1.56	(251,019)	(140,565)
Change in Assumptions Gain	2/28/2018	6.43	(7,183,405)	0.43	(480,379)	-
Actuarial Loss	2/28/2018	6.43	184,291	0.43	12,319	-
Total			\$ (5,518,303)		\$ (1,722,737)	\$ (16,616,138)

Each detail amount shown above was established as of the Fiscal Year End shown and the full amount deferred has been determined as of that time. Any events that occur in subsequent Fiscal Years do not have an impact on the prior Fiscal Year. The bases are established independently each year.



PENSION EXPENSE DEVELOPMENT

The table below displays the Pension Expense development for the current year. The Pension Expense includes items that change the Net Pension Liability from one year to the next, netted out for amounts that are deferred under GASB pronouncement, plus any amounts that are being recognized that were deferred previously.

See below for the Pension Expense development:

	<u>2/29/2024</u>
Pension Expense/(Income) Under GASB 68	
Service Cost	\$ 5,391,785
Interest	25,877,471
Changes of Benefit Terms	-
Contributions - Members	(2,418,786)
Contributions - Other	-
Expected Investment Income	(13,528,041)
Administrative Expense	151,180
Other Changes	-
Initial Pension Expense/(Income)	<u>\$ 15,473,609</u>
Recognition of Outflow/(Inflow) of Resources Due to Liabilities	(2,828,736)
Recognition of Outflow/(Inflow) of Resources Due to Assets	<u>1,105,999</u>
Total Pension Expense/(Income)	<u>\$ 13,750,872</u>



ACTUARIAL ASSUMPTIONS INFORMATION

Statement of Significant Actuarial Assumptions
Assumption Changes
Actuarial Assumptions (Demographic)
Postemployment Benefit Changes
Expected Return on Pension Plan Investments
Municipal Bond Rate
Discount Rate
Discount Rate Sensitivity
Assessment and Use of Actuarial Models



STATEMENT OF SIGNIFICANT ACTUARIAL ASSUMPTIONS

Actuarial Assumptions (Economic)

Discount Rate Used for the Total Pension Liability	6.96%
Expected Rate of Return on Investments	7.00%
High-Quality 20 Year Tax-Exempt G.O. Bond Rate	3.54%
Projected Individual Pay Increases	3.75% - 8.65%
Projected Total Payroll Increases	3.25%
Consumer Price Index (Urban)	2.25%
Inflation Rate	2.25%

See the *Actuarial Assumptions (Demographic)* section of this report for further details on Demographic Assumptions.

The Actuarial Assumptions (Economic) rates shown above are assumed to be annual rates, compounded on an annual basis. For more information on the selection of the actuarial assumptions, please see the Actuarial Assumption Summary document prepared for the Plan, available upon request.

ASSUMPTION CHANGES

The assumptions were changed from the prior year.

The High-Quality 20 Year Tax-Exempt General Obligation (“G.O.”) Bond Rate assumption was changed from 3.75% to 3.54% for the current year. The underlying index used is The Bond Buyer 20-Bond G.O. Index as discussed in more detail later in this section. The choice of Index is unchanged from the prior year. The rate has been updated to the current Fiscal Year End based on changes in market conditions as reflected in the Index. The change was made to reflect our understanding of the requirements of GASB under Statement 67 and Statement 68.

The Discount Rate used in the determination of the Total Pension Liability was changed from 6.49% to 6.96%. The Discount Rate is impacted by a couple of metrics. Any change in the underlying High-Quality 20 Year Tax Exempt G.O. Bond Rate will impact the blended Discount Rate.

In the current valuation, we have reviewed the projected individual pay increases assumption to reflect the wage schedule between the City of Springfield, Illinois and the Police Benevolent and Protective



Association, Unit No. 5, for the period March 1, 2022 through February 28, 2026. The year over year step increases dictated by the wage schedule did change from the prior wage schedule; therefore, we have updated the projected individual pay increases assumption.

The assumption changes stated above were made to better reflect the future anticipated experience of the Plan.

In addition, there are changes that can be made that impact the projection of the Plan Fiduciary Net Position. For example, changes in the Formal or Informal Funding Policy can impact the Discount Rate. Actual changes in the Plan Fiduciary Net Position from one year to the next can impact the projections as well.



ACTUARIAL ASSUMPTIONS (DEMOGRAPHIC)

Projected Individual Pay Increases*

Projected individual pay increases include a long-term average increase for inflation, average annual increases for promotions, and any additional increases for a step program. Sample rates are as follows:

Service	Rate	Service	Rate
0	8.13%	8	3.75%
1	7.81%	9	8.65%
2	7.51%	10	3.75%
3	3.75%	15	3.75%
4	5.75%	20	3.75%
5	3.75%	25	3.75%
6	3.75%	30	3.75%
7	3.75%	35	3.75%

* Projected individual pay increases for active Members hired at age 40 or older are assumed annual increases at the ultimate rate reduced by 50 basis points, without adjustments in early service years.

Retirement Rates

100% of the L&A Assumption Study for Police 2020 Cap Age 65. Sample rates are as follows:

Age	Rate	Age	Rate
50	11.00%	58	16.25%
51	11.55%	59	16.25%
52	12.13%	60	16.25%
53	12.73%	61	16.25%
54	13.37%	62	18.00%
55	14.04%	63	20.00%
56	14.74%	64	20.00%
57	15.48%	65	100.00%



Termination Rates

100% of the L&A Assumption Study for Police 2020. Sample rates are as follows:

Age	Rate	Age	Rate
25	8.00%	40	2.17%
30	3.40%	45	1.56%
35	2.79%	50	0.46%

Disability Rates

100% of the L&A Assumption Study for Police 2020. Sample rates are as follows:

Age	Rate	Age	Rate
25	0.00%	40	0.38%
30	0.06%	45	0.53%
35	0.18%	50	0.48%

65% of active Members who become disabled are assumed to be in the Line of Duty.

Mortality Rates

Active Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

50% of active Member deaths are assumed to be in the Line of Duty.

Retiree Mortality follows the L&A Assumption Study for Police 2020. These rates are experience weighted with the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study improved to 2017 using MP-2019 Improvement Rates. These rates are then improved fully generationally using MP-2019 Improvement Rates.

Disabled Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010 Study for disabled participants. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.



Mortality Rates (Continued)

Spouse Mortality follows the Sex Distinct Raw Rates as developed in the PubS-2010(A) Study for contingent survivors. For all rates not provided there (ages 45 and younger) the PubG-2010 Study for general employees was used. Mortality improvement uses MP-2019 Improvement Rates applied on a fully generational basis.

Marital Assumptions

Active Members: 80% of active Members are assumed to be married. Female spouses are assumed to be 3 years younger than male spouses.

Retiree and Disabled Members: Actual spousal data was utilized for retiree and disabled Members.

POSTEMPLOYMENT BENEFIT CHANGES

Eligibility for postemployment benefit increases is determined based on the Illinois Pension Code. Tier I Police retirees are provided with an annual increase of 3.00% of the current retirement benefits by statute when eligible. Tier II Police retirees are provided postemployment benefit increases based on the lesser of 3.00% of the original retirement benefits or one-half of the Consumer Price Index (Urban) for the prior September.

The CPI-U for September 1993 was 145.10. The CPI-U for September 2023 was 307.79. The average increase in the CPI-U for September 1993 through September 2023 was 2.54% (on a compounded basis).



EXPECTED RETURN ON PENSION PLAN INVESTMENTS

The Long-Term Expected Rate of Return is intended to represent the best estimate of future real rates of return and is shown for each of the major asset classes in the investment policy.

The target asset allocations shown below are representative expectations as disclosed in the Illinois Police Officers' Pension Investment Fund Actuarial Experience Study, dated March 4, 2022, for plan funding purposes. The table below illustrates the best estimate of Long-Term Expected Rates of Return developed for each of the major asset classes, adjusted for expected inflation, as disclosed in the Horizon Actuarial Services Survey of Capital Market Assumptions 2021 Edition, dated August 2021.

There are multiple approaches seen to providing these rates. Typically, the information is either based on capital market projections, or historical rates seen for the asset classes. We do not provide an opinion on the reasonableness of the returns provided nor the reasonableness of the approach used in the determination of the rates provided. The information provided is shown below for convenience.

The rates provided in the table below are based on a geometric average. The Investment Policy Statement will provide more detail regarding the Fund's policies on asset allocation targets and acceptable ranges.

Asset Class	Long-Term Expected Rate of Return	Long-Term Inflation Expectation	Long-Term Expected Real Rate of Return	Target Allocation
US Large	6.65%	2.50%	4.15%	23.00%
US Small	7.04%	2.50%	4.54%	5.00%
International Developed	7.14%	2.50%	4.64%	18.00%
International Developed Small	2.25%	2.50%	-0.25%	5.00%
Emerging Markets	7.81%	2.50%	5.31%	7.00%
Private Equity (Direct)	9.65%	2.50%	7.15%	7.00%
Bank Loans	4.98%	2.50%	2.48%	3.00%
High Yield Corp. Credit	4.98%	2.50%	2.48%	3.00%
Emerging Market Debt	5.32%	2.50%	2.82%	3.00%
Private Credit	6.87%	2.50%	4.37%	5.00%
US TIPS	2.38%	2.50%	-0.12%	3.00%
Real Estate/Infrastructure	6.50%	2.50%	4.00%	8.00%
Cash	2.23%	2.50%	-0.27%	1.00%
Short-Term Gov't/Credit	3.23%	2.50%	0.73%	3.00%
US Treasury	1.90%	2.50%	-0.60%	3.00%
Core Plus Fixed Income	3.23%	2.50%	0.73%	3.00%



Long-Term Expected Real Rates of Return under GASB are expected to reflect the period of time that begins when a Plan Member begins to provide service to the employer and ends at the point when all benefits to the Plan Member have been paid. The rates provided above are intended to estimate those figures.

The Long-Term Inflation Expectation is 2.50% and is included in the Long-Term Expected Rates of Return. The Long-Term Inflation Expectation is from the same source as the Long-Term Expected Real Rates of Return, and is not necessarily reflective of the inflation measures used for other purposes in the report.

Geometric rates of return are equal to arithmetic rates of return when the annual returns exhibit no volatility over time. When arithmetic returns are volatile on a year-to-year basis, the actual realized geometric returns over time will be lower. Higher volatility results in a greater difference.

For additional discussion regarding the Expected Return on Pension Plan Investments, please reference the Actuarial Funding Report. There are additional disclosures regarding reasonableness and market observations included in that report.



MUNICIPAL BOND RATE

The Municipal Bond Rate assumption is based on the Bond Buyer 20-Bond G.O. Index. The rate shown earlier in this section of the report is the February 29, 2024 rate. The 20-Bond G.O. Index is based on an average of certain general obligation municipal bonds maturing in 20 years and having an average rating equivalent of Moody's Aa2 and Standard & Poor's AA.

The indices represent theoretical yields rather than actual price or yield quotations. Municipal bond traders are asked to estimate what a current-coupon bond for each issuer in the indices would yield if the bond was sold at par value. The indices are simple averages of the average estimated yields of the bonds.

DISCOUNT RATE

The Discount Rate used in the determination of the Total Pension Liability is based on a combination of the Expected Rate of Return on Plan Investments and the Municipal Bond Rate.

Cash flow projections were used to determine the extent to which the Plan's Projected Fiduciary Net Position will be able to cover Projected Benefit Payments. To the extent that Projected Benefit Payments are covered by the Plan's Projected Fiduciary Net Position, the Expected Rate of Return on Plan Investments is used to determine the portion of the Net Pension Liability associated with those payments. To the extent that Projected Benefit Payments are not covered by the Plan's Projected Fiduciary Net Position, the Municipal Bond Rate is used to determine the portion of the Net Pension Liability associated with those payments.

Projected benefit payments are determined during the actuarial process based on the assumptions. More details on the assumptions are earlier in this section of the report. The expected contributions are based on the Funding Policy of the Plan. The Funding Policy is discussed in more detail in the *Funding Policy* section of this report.



DISCOUNT RATE SENSITIVITY

The Employer's Net Pension Liability has been determined using the Discount Rate listed earlier in this section of the report. Below is a table illustrating the sensitivity of the Employer's Net Pension Liability to the Discount Rate assumption.

	1% Decrease (5.96%)	Current Discount Rate (6.96%)	1% Increase (7.96%)
Employer's Net Pension Liability	\$238,009,829	\$183,350,931	\$138,648,524

The sensitivity of the Employer's Net Pension Liability to the Discount Rate is based primarily on two factors:

1. The duration of the Plan's Projected Benefit Payments. Younger Plans with benefit payments further in the future will be more sensitive to changes in the Discount Rate.
2. The Percent Funded of the Plan (ratio of the Plan Fiduciary Net Position to the Total Pension Liability). The higher the Percent Funded, the higher the sensitivity to the Discount Rate.



ASSESSMENT AND USE OF ACTUARIAL MODELS

Actuarial Valuations rely upon the use of actuarial modeling software to predict the occurrence of future events, which include specific demographic and financial potential outcomes. Actuarial assumptions are established to provide a guideline to use for such modeling.

- The model used in this Actuarial Valuation is intended to determine the Recommended Contribution, under the selected Funding Policy, to assist in the preparation of the Annual Financial Report. The actuarial assumptions used were developed with this goal in mind.
- There are no known material limitations or inconsistencies among the actuarial assumptions or methods.
- The output from the model is reasonable based on the individual actuarial assumptions and based on the actuarial assumptions in the aggregate.
- The actuarial software used to calculate plan liabilities has been purchased from an outside vendor. We have performed thorough testing of the software, including review of sample participants, to ensure the intended purpose of the model, the operation of the model, sensitivities and dependencies, and strengths and limitations of the model are sufficient for this purpose.
- Demographic data and financial information have been provided by client professionals, financial advisors, and/or auditors, who are known to be experts in their respective fields. We rely on the fact that the information provided by these experts has been given for the intended purpose of this Actuarial Valuation.
- Where applicable, certain actuarial assumptions and Funding Policy may be required as prescribed by law. In such instances, we have followed legal guidance to ensure conformity.
- The Expected Rate of Return on Investments assumption has been chosen using input from several sources; including, but not limited to: client professionals, financial advisors, auditors, and other capital market outlooks. We have relied on the information provided, in the aggregate, to settle on the selected Expected Rate of Return on Investments assumption.



PARTICIPANT DATA

Participant Demographic Data & Average Future Working Career



PARTICIPANT DEMOGRAPHIC DATA & AVERAGE FUTURE WORKING CAREER

The chart below summarizes the Member count, payroll, and average future working career as of:

Actuarial Valuation - Data Date	2/28/2022	2/28/2023
Fiscal Year End for Reporting	<u>(FYE 2/28/2023)</u>	<u>(FYE 2/29/2024)</u>
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	293	305
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	47	58
Active Plan Members	<u>226</u>	<u>232</u>
Total	<u>566</u>	<u>595</u>
Payroll of Active Plan Members [^]	<u>\$ 19,267,731</u>	<u>\$ 20,022,656</u>
Average Future Working Career (In Years)		
Active Plan Members	13.36	13.85
Inactive Plan Members	0.00	0.00
Total	5.33	5.40

[^]Payroll of Active Plan Members for the current valuation includes assumed 2.25% COLA increases for all active Members, in anticipation of retroactive pay increases upon contract settlement.

Member counts shown above are as of the Actuarial Valuation Date for the two most recent Fiscal Years. Payroll of Active Plan Members is the pensionable salary for active Plan Members as of the Actuarial Valuation – Data Date. For the Fiscal Year Ending February 29, 2024, a beginning of year Actuarial Valuation Date was used along with a rollforward of liabilities to the end of the Fiscal Year based on assumptions and standard rollforward techniques.

The average future working career is measured as of the Actuarial Valuation Date and is based on the demographic assumptions used in the preparation of this report.



FUNDING POLICY

Components of the Actuarially Determined Contribution
Formal Funding Policy
Informal Funding Policy
Funding Policy – Other Considerations



COMPONENTS OF THE ACTUARIALLY DETERMINED CONTRIBUTION

The Actuarially Determined Contribution (“ADC”) includes the determination of the Normal Cost Contribution for active Plan Members, as well as a provision for the payment towards Unfunded Liability.

The actuarial funding method used in the determination of the Normal Cost and the Actuarial Accrued Liability is the Projected Unit Credit Cost Method. The method allocates Normal Cost Contributions by Members over the working career of the Member.

Unfunded Liability is the excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The Actuarially Determined Contribution includes a payment towards Unfunded Liability existing at the Actuarial Valuation Date. The payment towards Unfunded Liability is set up as a level percent of payroll payment that is expected to increase during the payment period and target 90% funding. The current Employer Contributions are being compared to the Actuarially Determined Contribution as developed in the March 1, 2022 Actuarial Valuation. The equivalent single amortization period as of that valuation is 18 years.

The Actuarial Value of Assets smooths gains and losses on the Fair Value of Assets over a 5-year period.

Under no circumstances will the Actuarially Determined Contribution be less than the amount determined as the Statutory Minimum Contribution under Illinois State Statutes.

FORMAL FUNDING POLICY

There is no Formal Funding Policy that exists between the Pension Board and the City at this time.

INFORMAL FUNDING POLICY

In determining the most appropriate Informal Funding Policy, GASB provides the following guidance in the Statement:

Application of professional judgment should consider the most recent five-year contribution history of the employers and nonemployer contributing entities as a key indicator of future contributions from those sources and should reflect all other known events and conditions.... the amount of projected cash flows for contributions from employers and nonemployer contributing entities should be limited to an average of contributions from those sources over the most recent five-year period and may be modified based on consideration of subsequent events. For this purpose, the basis for the average (for example, percentage of covered payroll contributed or percentage of Actuarially Determined Contributions made) should be a matter of professional judgment.



In our review of the Informal Funding Policy, the following factors are considered and described herein:

1. Five-Year Contribution History of the Employer (with a focus on the average contributions from those sources)
2. Other Known Events and Conditions
3. Consideration of Subsequent Events

Five-Year Contribution History of the Employer

Employer Contributions (under the Informal Funding Policy) should be limited to the average over the most recent five years. In determining the basis for the average, we reviewed three possibilities: (a) the average dollar contribution; (b) the average percent of pensionable pay; and (c) the average percent of the Actuarially Determined Contribution. Please see the table below for a summary of these values:

Fiscal Year End	Employer Contributions	Most Applicable ADC	% of ADC	Covered- Employee Payroll	% of Payroll
2/29/2024	\$14,293,826	\$12,997,152	109.98%	\$24,799,445	57.64%
2/28/2023	\$15,326,587	\$13,701,540	111.86%	\$19,694,760	77.82%
2/28/2022	\$13,667,031	\$13,029,355	104.89%	\$19,074,828	71.65%
2/28/2021	\$11,908,796	\$11,637,707	102.33%	\$20,775,455	57.32%
2/29/2020	\$10,991,768	\$10,991,768	100.00%	\$19,932,784	55.14%

When compared to the other policies reviewed, history suggests that a contribution as a percent of the Actuarially Determined Contribution is the least volatile, and as a result, the most stable contribution method under an Informal Funding Policy.

Other Known Events and Conditions

GASB has a provision for consideration of any other known events or conditions in the most recent five-year history in applying judgement for the Informal Funding Policy. There are no events or conditions that have been considered in the development of the Informal Funding Policy.

Consideration of Subsequent Events

GASB has a provision for modification based on consideration of subsequent events in the development of the Informal Funding Policy. There are no subsequent events that have been considered in the development of the Informal Funding Policy.



Informal Funding Policy – Selected

The Informal Funding Policy that has been determined for future contributions is 105.81% of the Actuarially Determined Contribution. This represents the full future contributions expected to be made.

FUNDING POLICY – OTHER CONSIDERATIONS

Under GASB, the future contribution amount is not intended to include dollars contributed on behalf of future employees. Contributions are only intended to cover contributions towards the Normal Cost of current employees as of the Actuarial Valuation Date as well as payment of Unfunded Liability on behalf of the current employees. Contributions under the Funding Policy have been adjusted as necessary to exclude dollars that would be anticipated to be contributed on behalf of future employees hired after the Actuarial Valuation Date.

The contribution level may not pay off the Unfunded Liability during the active working career of current employees. In that case, contributions will persist beyond the working career of current employees. To the extent that a portion of the above total contribution is anticipated to pay contributions for the Normal Cost of future employees, the amount has been netted out. The remaining amount is anticipated to be paid towards the Unfunded Liability existing for current employees.

The Actuarially Determined Contribution is determined annually based on the parameters previously discussed. The funding methods and procedures are assumed to continue into the future. If applicable, the tax levy in the next December is assumed to be the Actuarially Determined Contribution. Funding is assumed to go into the Plan during the next full Fiscal Year.



SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the Net Pension Liability
Schedule of Total Pension Liability and Related Ratios
Schedule of Contributions
Notes to Schedule of Contributions



SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY

	2/29/2024	2/28/2023	2/28/2022	2/28/2021	2/29/2020	2/28/2019	2/28/2018	2/28/2017	2/29/2016	2/28/2015
Total Pension Liability										
Service Cost	\$ 5,391,785	\$ 5,997,377	\$ 6,732,848	\$ 6,270,637	\$ 5,433,549	\$ 5,402,823	\$ 5,748,820	\$ 5,393,901	\$ 6,838,653	\$ 5,469,903
Interest	25,877,471	24,660,320	23,276,563	23,765,466	22,328,221	21,610,194	20,741,627	21,725,059	16,130,049	18,510,532
Changes of Benefit Terms	-	(207,457)	-	-	1,385,547	-	-	-	-	-
Differences Between Expected and Actual Experience	4,563,994	7,251,275	(16,425,003)	535,492	1,239,833	(1,646,679)	184,291	1,874,991	(8,623,937)	-
Change in Assumptions	(22,486,802)	(24,113,864)	(24,376,044)	44,807,789	27,952,499	(1,351,671)	(7,183,405)	(30,742,288)	54,324,917	-
Benefit Payments and Refunds	(20,416,273)	(19,522,273)	(18,211,896)	(16,696,378)	(15,232,522)	(14,426,366)	(13,748,823)	(12,646,059)	(12,066,816)	(11,585,442)
Net Change in Total Pension Liability	\$ (7,069,825)	\$ (5,934,622)	\$ (29,003,532)	\$ 58,683,006	\$ 43,107,127	\$ 9,588,301	\$ 5,742,509	\$ (14,394,396)	\$ 56,602,866	\$ 12,394,993
Total Pension Liability - Beginning	404,279,488	410,214,110	439,217,642	380,534,636	337,427,509	327,839,208	322,096,699	336,491,095	279,888,229	267,493,236
Total Pension Liability - Ending (a)	\$ 397,209,663	\$ 404,279,488	\$ 410,214,110	\$ 439,217,642	\$ 380,534,636	\$ 337,427,509	\$ 327,839,208	\$ 322,096,699	\$ 336,491,095	\$ 279,888,229
Plan Fiduciary Net Position										
Contributions - Employer	\$ 14,293,826	\$ 15,326,587	\$ 13,667,031	\$ 11,908,796	\$ 10,991,768	\$ 10,844,009	\$ 10,116,706	\$ 9,942,505	\$ 9,050,592	\$ 9,608,968
Contributions - Members	2,418,786	1,978,296	1,942,188	1,980,847	2,040,242	2,040,972	2,051,279	1,900,135	1,895,118	1,956,068
Contributions - Other	-	-	-	-	-	-	12,373	-	-	-
Net Investment Income	22,528,431	(10,537,996)	11,706,032	28,692,339	7,672,564	2,054,003	15,485,439	17,594,578	(6,690,669)	8,926,872
Benefit Payments and Refunds	(20,416,273)	(19,522,273)	(18,211,896)	(16,696,378)	(15,232,522)	(14,426,366)	(13,748,823)	(12,646,059)	(12,066,816)	(11,585,442)
Administrative Expense	(151,180)	(189,318)	(181,247)	(176,869)	(171,151)	(168,690)	(189,477)	(216,033)	(228,877)	(164,934)
Other	-	-	-	-	-	-	-	-	7,757	302
Net Change in Plan Fiduciary Net Position	\$ 18,673,590	\$ (12,944,704)	\$ 8,922,108	\$ 25,708,735	\$ 5,300,901	\$ 343,928	\$ 13,727,498	\$ 16,575,126	\$ (8,032,895)	\$ 8,741,834
Plan Fiduciary Net Position - Beginning	195,185,142	208,129,846	199,207,738	173,499,003	168,198,102	167,854,174	154,126,676	137,551,550	145,584,445	136,842,611
Plan Fiduciary Net Position - Ending (b)	\$ 213,858,732	\$ 195,185,142	\$ 208,129,846	\$ 199,207,738	\$ 173,499,003	\$ 168,198,102	\$ 167,854,174	\$ 154,126,676	\$ 137,551,550	\$ 145,584,445
Employer's Net Pension Liability - Ending (a) - (b)	\$ 183,350,931	\$ 209,094,346	\$ 202,084,264	\$ 240,009,904	\$ 207,035,633	\$ 169,229,407	\$ 159,985,034	\$ 167,970,023	\$ 198,939,545	\$ 134,303,784

The current year information was developed in the completion of this report.



SCHEDULE OF TOTAL PENSION LIABILITY AND RELATED RATIOS

	2/29/2024	2/28/2023	2/28/2022	2/28/2021	2/29/2020	2/28/2019	2/28/2018	2/28/2017	2/29/2016	2/28/2015
Total Pension Liability - Ending (a)	<u>\$ 397,209,663</u>	<u>\$ 404,279,488</u>	<u>\$ 410,214,110</u>	<u>\$ 439,217,642</u>	<u>\$ 380,534,636</u>	<u>\$ 337,427,509</u>	<u>\$ 327,839,208</u>	<u>\$ 322,096,699</u>	<u>\$ 336,491,095</u>	<u>\$ 279,888,229</u>
Plan Fiduciary Net Position - Ending (b)	<u>\$ 213,858,732</u>	<u>\$ 195,185,142</u>	<u>\$ 208,129,846</u>	<u>\$ 199,207,738</u>	<u>\$ 173,499,003</u>	<u>\$ 168,198,102</u>	<u>\$ 167,854,174</u>	<u>\$ 154,126,676</u>	<u>\$ 137,551,550</u>	<u>\$ 145,584,445</u>
Employer's Net Pension Liability - Ending (a) - (b)	<u>\$ 183,350,931</u>	<u>\$ 209,094,346</u>	<u>\$ 202,084,264</u>	<u>\$ 240,009,904</u>	<u>\$ 207,035,633</u>	<u>\$ 169,229,407</u>	<u>\$ 159,985,034</u>	<u>\$ 167,970,023</u>	<u>\$ 198,939,545</u>	<u>\$ 134,303,784</u>
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	53.84%	48.28%	50.74%	45.36%	45.59%	49.85%	51.20%	47.85%	40.88%	52.02%
Covered-Employee Payroll	\$ 24,799,445	\$ 19,694,760	\$ 19,074,828	\$ 20,775,455	\$ 19,932,784	\$ 22,047,109	\$ 22,186,171	\$ 21,487,817	\$ 20,250,340	\$ 18,716,719
Employer's Net Pension Liability as a Percentage of Covered-Employee Payroll	739.33%	1,061.68%	1,059.43%	1,155.26%	1,038.67%	767.58%	721.10%	781.70%	982.40%	717.56%

Covered-Employee Payroll shown above for the current year is based on the Covered-Employee Payroll for the Plan Members during the Fiscal Year.



SCHEDULE OF CONTRIBUTIONS

	2/29/2024	2/28/2023	2/28/2022	2/28/2021	2/29/2020	2/28/2019	2/28/2018	2/28/2017	2/29/2016	2/28/2015
Actuarially Determined Contribution	\$ 12,997,152	\$ 13,701,540	\$ 13,029,355	\$ 11,637,707	\$ 10,991,768	\$ 10,843,009	\$ 10,116,706	\$ 9,942,505	\$ 9,050,592	\$ 9,108,968
Contributions in Relation to the Actuarially Determined Contribution	14,293,826	15,326,587	13,667,031	11,908,796	10,991,768	10,844,009	10,116,706	9,942,505	9,050,592	9,608,968
Contribution Deficiency/(Excess)	\$ (1,296,674)	\$ (1,625,047)	\$ (637,676)	\$ (271,089)	\$ -	\$ (1,000)	\$ -	\$ -	\$ -	\$ (500,000)
Covered-Employee Payroll	\$ 24,799,445	\$ 19,694,760	\$ 19,074,828	\$ 20,775,455	\$ 19,932,784	\$ 22,047,109	\$ 22,186,171	\$ 21,487,817	\$ 20,250,340	\$ 18,716,719
Contributions as a Percentage of Covered-Employee Payroll	57.64%	77.82%	71.65%	57.32%	55.14%	49.19%	45.60%	46.27%	44.69%	51.34%

NOTES TO SCHEDULE OF CONTRIBUTIONS

The Actuarially Determined Contribution shown above for the current year is the Statutory Minimum Contribution from the March 1, 2022 Actuarial Valuation completed by Lauterbach & Amen, LLP for the December 2022 tax levy, if applicable. The methods and assumptions shown below are based on the same Actuarial Valuation. For more detail on the age-based and service-based rates disclosed below, please see the Actuarial Valuation.

Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level % Pay (Closed)
Equivalent Single Amortization Period	90% Funded Over 18 Years
Asset Valuation Method	5-Year Smoothed Fair Value
Inflation (CPI-U)	2.25%
Total Payroll Increases	3.25%
Individual Pay Increases	3.75% - 16.79%
Expected Rate of Return on Investments	7.00%
Mortality Rates	Pub-2010 Adjusted for Plan Status, Demographics, and Illinois Public Pension Data, as Described
Retirement Rates	100% of L&A 2020 Illinois Police Retirement Rates Capped at Age 65
Termination Rates	100% of L&A 2020 Illinois Police Termination Rates
Disability Rates	100% of L&A 2020 Illinois Police Disability Rates



GASB METHODS AND PROCEDURES

GASB Methods and Procedures



GASB METHODS AND PROCEDURES

	Statement 67	Statement 68
	<u>Pension Plan Financials</u>	<u>Employer Financials</u>
Fiscal Year End for Reporting	February 29, 2024	February 29, 2024
Measurement Date	February 29, 2024	February 29, 2024
Actuarial Valuation Date	March 1, 2023	March 1, 2023
Actuarial Valuation - Data Date	February 28, 2023	February 28, 2023
Asset Valuation Method	Fair Value	Fair Value
Actuarial Cost Method	Entry Age Normal (Level %)	Entry Age Normal (Level %)

Methodology Used in the Determination of Deferred Outflows and Inflows of Resources

Amortization Method	Straight Line	Straight Line
Amortization Period		
Actuarial Experience	5.40 Years	5.40 Years
Change in Assumptions	5.40 Years	5.40 Years
Asset Experience	5.00 Years	5.00 Years



SUPPLEMENTARY TABLES

GASB Projections – Summary and Procedure

GASB Projections – Limitations

Projection of Contributions

Notes to Projection of Contributions

Projection of the Pension Plan's Fiduciary Net Position

Notes to Projection of the Pension Plan's Fiduciary Net Position

Actuarial Present Value of Projected Benefit Payments

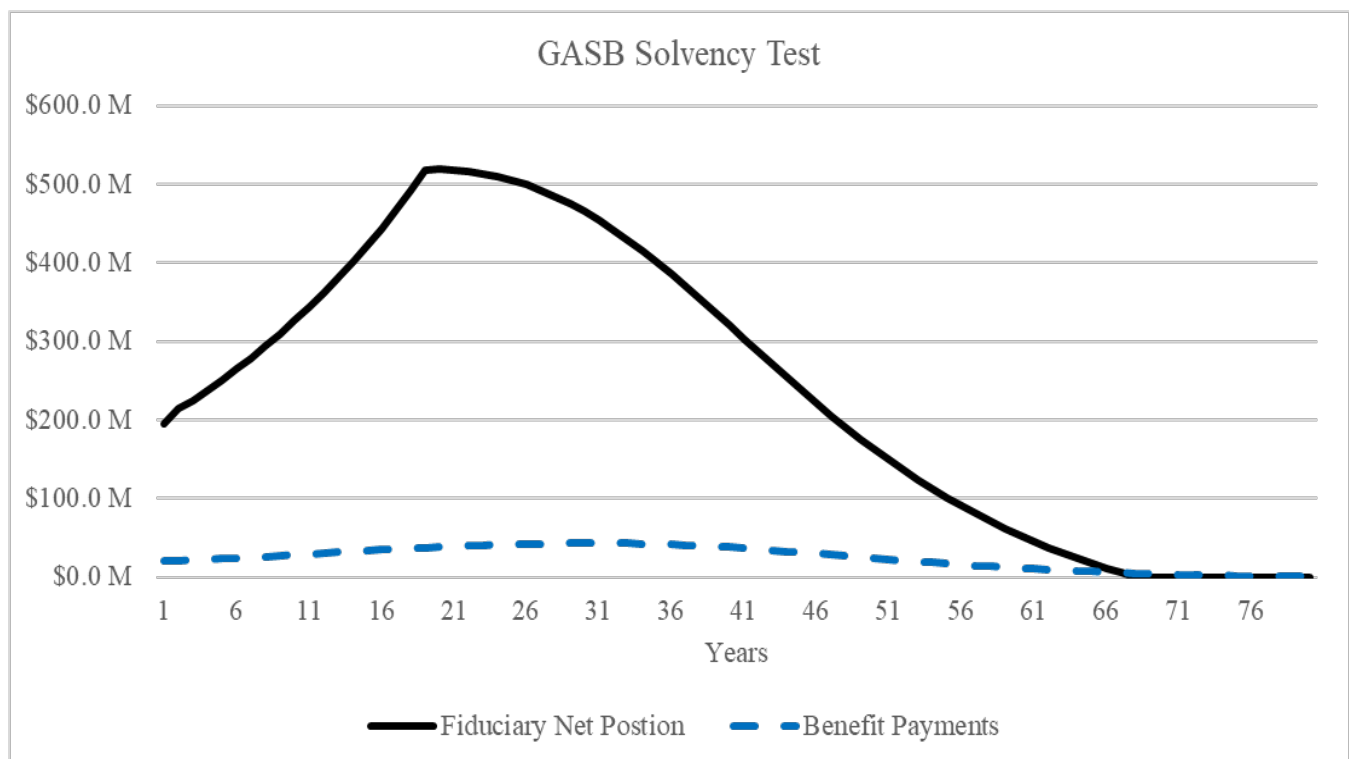
Notes to Actuarial Present Value of Projected Benefit Payments



GASB PROJECTIONS – SUMMARY AND PROCEDURE

GASB requires a solvency test to use in the determination of the Discount Rate each year. The Plan Fiduciary Net Position is projected forward. To the extent that the Plan Fiduciary Net Position is anticipated to be greater than \$0, Projected Benefit Payments are discounted based on the Expected Rate of Return on Plan Investments.

If the Plan Fiduciary Net Position is anticipated to reach \$0 prior to the payment of Projected Benefit Payments for employees who are in the Plan as of the Actuarial Valuation Date, then the remaining Projected Benefit Payments are discounted using the High-Quality Municipal Bond Rate, as described in the *Actuarial Assumptions Information* section of this report. The chart below is a high-level summary of the projections:



The Plan's Projected Fiduciary Net Position is anticipated to cover Projected Benefit Payments in full for the current employees through 2091.



GASB PROJECTIONS – LIMITATIONS

Projections of any type require assumptions about future events. The projections required for GASB reporting are deterministic in nature. That means that values are projected forward under one set of assumptions which can be thought of as the average result. Actual results could vary, and projections of one deterministic assumption set do not necessarily provide a framework for making risk management or Funding Policy decisions. Projections that deal with risk management are outside the scope of this report.

In addition, GASB requirements create results that are specific only to financial statement reporting, and should not be used or interpreted for other purposes. For example, GASB cash flow projections do not entail the total expected cash flows of the Plan, but rather a subset of cash flows specific to employees who are in the Plan as of the Actuarial Valuation Date. While the likely expectation may be that future employees are hired to replace the current employees, cash flows attributable to their benefits are not considered. Under GASB, when the Plan Fiduciary Net Position reaches \$0, that represents the Plan Fiduciary Net Position for the assets attributable to the current employees.

Also, GASB mandates certain assumptions that are made in the projection process. Most notably, Projected Contributions under an Informal Funding Policy. In proposing an Informal Funding Policy, GASB suggests a focus be placed on the average contributions over the past 5 years. Projected Contributions in this section may be based on the five-year average, unless a Formal Funding Policy is in place.

Contributions reflecting an Informal Funding Policy are applied under GASB, whether or not the projected results dictate a need for more or less contributions. This would not be the case with other uses for projections. Any events that are taken into account (past or future) in the Informal Funding Policy are discussed in the *Funding Policy* section of this report.

Projections further into the future are more sensitive to assumption changes. For projections that run out close to 80 years, a small change in an assumption may have a dramatic impact on the projections. If the solvency of the Plan as determined by GASB remains constant, then dramatic changes in the projection results may not necessarily lead to big changes in the determination of the Total Pension Liability.

We recommend the projections are not used for any other purposes, other than providing information for purposes of the financial statement report.

The following pages provide the detail behind the chart shown on the prior page.



PROJECTION OF CONTRIBUTIONS – YEARS 1 TO 30

Year	Projected Pensionable Payroll			Projected Contributions			
	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Contributions from Current Employees (d) - Notes	Employer Contributions for Current Employees (e) - Notes	Contributions Related to Payroll of Future Employees (f) - Notes	Total Contributions (g) = (d) + (e) + (f)
1	\$ 20,022,656	\$ -	\$ 20,022,656	\$ 2,418,786	\$ 14,293,826	\$ -	\$ 16,712,612
2	20,161,578	511,814	20,673,392	1,998,012	14,642,323	-	16,640,335
3	20,288,033	1,057,245	21,345,278	2,010,544	16,921,463	-	18,932,007
4	20,305,059	1,733,940	22,038,999	2,012,231	17,475,299	-	19,487,530
5	20,180,484	2,574,782	22,755,267	1,999,886	18,042,712	-	20,042,598
6	19,995,665	3,499,148	23,494,813	1,981,570	18,615,409	-	20,596,979
7	19,642,158	4,616,237	24,258,394	1,946,538	19,203,352	-	21,149,890
8	19,340,094	5,706,698	25,046,792	1,916,603	19,797,382	-	21,713,985
9	18,983,763	6,877,050	25,860,813	1,881,291	20,427,798	-	22,309,089
10	18,656,990	8,044,299	26,701,289	1,848,908	21,090,300	-	22,939,208
11	18,263,802	9,305,279	27,569,081	1,809,943	21,790,759	-	23,600,702
12	17,754,324	10,710,752	28,465,076	1,759,454	22,517,888	-	24,277,342
13	17,233,241	12,156,950	29,390,191	1,707,814	23,287,236	-	24,995,050
14	16,641,629	13,703,744	30,345,373	1,649,185	24,090,078	-	25,739,263
15	16,039,366	15,292,231	31,331,597	1,589,501	24,935,555	-	26,525,056
16	15,477,231	16,872,644	32,349,874	1,533,794	25,832,967	-	27,366,761
17	14,787,956	18,613,289	33,401,245	1,465,486	26,808,505	-	28,273,991
18	14,274,545	20,212,241	34,486,785	1,414,607	27,819,417	-	29,234,024
19	13,598,777	22,008,829	35,607,606	1,347,639	1,487,400	-	2,835,039
20	12,969,396	23,795,457	36,764,853	1,285,267	1,384,049	-	2,669,316
21	12,354,279	25,605,432	37,959,711	1,224,309	1,293,873	-	2,518,182
22	11,504,697	27,688,705	39,193,401	1,140,115	1,219,114	-	2,359,229
23	10,803,444	29,663,743	40,467,187	1,070,621	1,102,699	-	2,173,320
24	10,003,320	31,779,050	41,782,371	991,329	1,030,185	-	2,021,514
25	9,105,410	34,034,888	43,140,298	902,346	957,050	-	1,859,396
26	8,304,421	36,237,936	44,542,357	822,968	852,388	-	1,675,356
27	7,441,916	38,548,068	45,989,984	737,494	769,066	-	1,506,560
28	6,575,020	40,909,638	47,484,658	651,584	685,091	-	1,336,675
29	5,732,279	43,295,631	49,027,910	568,069	599,126	-	1,167,195
30	4,866,057	45,755,260	50,621,317	482,226	530,807	-	1,013,033

Column d – Contributions from current employees to the Plan (employees in the Plan as of the Actuarial Valuation Date).

Column e – Employer Contributions to the Plan excluding contributions for employees hired after the Actuarial Valuation Date.

Column f – Contributions from future employees to the extent that contributions are assumed to be greater than their Normal Cost.



PROJECTION OF CONTRIBUTIONS – YEARS 31 TO 60

Year	Projected Pensionable Payroll			Projected Contributions			
	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Contributions from Current Employees (d) - Notes	Employer Contributions for Current Employees (e) - Notes	Contributions Related to Payroll of Future Employees (f) - Notes	Total Contributions (g) = (d) + (e) + (f)
31	\$ 4,183,080	\$ 48,083,430	\$ 52,266,510	\$ 414,543	\$ 438,396	\$ -	\$ 852,939
32	3,557,908	50,407,263	53,965,171	352,589	379,075	-	731,664
33	2,966,530	52,752,509	55,719,039	293,983	328,127	-	622,110
34	2,393,948	55,135,960	57,529,908	237,240	282,001	-	519,241
35	1,975,495	57,424,136	59,399,630	195,772	220,127	-	415,899
36	1,534,361	59,795,757	61,330,118	152,055	192,533	-	344,588
37	1,157,828	62,165,519	63,323,347	114,741	153,412	-	268,153
38	905,987	64,475,369	65,381,356	89,783	111,382	-	201,165
39	646,673	66,859,577	67,506,250	64,085	94,752	-	158,837
40	484,527	69,215,676	69,700,203	48,017	64,161	-	112,178
41	326,755	71,638,705	71,965,459	32,381	52,272	-	84,653
42	168,957	74,135,380	74,304,337	16,744	41,507	-	58,251
43	92,206	76,627,021	76,719,228	9,138	20,767	-	29,905
44	10,140	79,202,463	79,212,603	1,005	16,631	-	17,636
45	-	81,787,012	81,787,012	-	1,976	-	1,976
46	-	84,445,090	84,445,090	-	-	-	-
47	-	87,189,556	87,189,556	-	-	-	-
48	-	90,023,216	90,023,216	-	-	-	-
49	-	92,948,971	92,948,971	-	-	-	-
50	-	95,969,812	95,969,812	-	-	-	-
51	-	99,088,831	99,088,831	-	-	-	-
52	-	102,309,218	102,309,218	-	-	-	-
53	-	105,634,268	105,634,268	-	-	-	-
54	-	109,067,382	109,067,382	-	-	-	-
55	-	112,612,071	112,612,071	-	-	-	-
56	-	116,271,964	116,271,964	-	-	-	-
57	-	120,050,803	120,050,803	-	-	-	-
58	-	123,952,454	123,952,454	-	-	-	-
59	-	127,980,908	127,980,908	-	-	-	-
60	-	132,140,288	132,140,288	-	-	-	-

Column d – Contributions from current employees to the Plan (employees in the Plan as of the Actuarial Valuation Date).

Column e – Employer Contributions to the Plan excluding contributions for employees hired after the Actuarial Valuation Date.

Column f – Contributions from future employees to the extent that contributions are assumed to be greater than their Normal Cost.



PROJECTION OF CONTRIBUTIONS – YEARS 61 TO 80

Year	Projected Pensionable Payroll			Projected Contributions			
	Payroll for Current Employees (a)	Payroll for Future Employees (b)	Total Employee Payroll (c) = (a) + (b)	Contributions from Current Employees (d) - Notes	Employer Contributions for Current Employees (e) - Notes	Contributions Related to Payroll of Future Employees (f) - Notes	Total Contributions (g) = (d) + (e) + (f)
61	\$ -	\$ 136,434,847	\$ 136,434,847	\$ -	\$ -	\$ -	\$ -
62	-	140,868,980	140,868,980	-	-	-	-
63	-	145,447,222	145,447,222	-	-	-	-
64	-	150,174,256	150,174,256	-	-	-	-
65	-	155,054,920	155,054,920	-	-	-	-
66	-	160,094,205	160,094,205	-	-	-	-
67	-	165,297,266	165,297,266	-	-	-	-
68	-	170,669,427	170,669,427	-	-	-	-
69	-	176,216,184	176,216,184	-	-	-	-
70	-	181,943,210	181,943,210	-	-	-	-
71	-	187,856,364	187,856,364	-	-	-	-
72	-	193,961,696	193,961,696	-	-	-	-
73	-	200,265,451	200,265,451	-	-	-	-
74	-	206,774,078	206,774,078	-	-	-	-
75	-	213,494,236	213,494,236	-	-	-	-
76	-	220,432,798	220,432,798	-	-	-	-
77	-	227,596,864	227,596,864	-	-	-	-
78	-	234,993,762	234,993,762	-	-	-	-
79	-	242,631,060	242,631,060	-	-	-	-
80	-	250,516,569	250,516,569	-	-	-	-

NOTES TO PROJECTION OF CONTRIBUTIONS

Total Employee Payroll is projected to increase annually at the Projected Total Payroll Increases rate shown in the *Actuarial Assumptions Information* section of this report. Payroll for current employees (employees in the Plan as of the Actuarial Valuation Date) are projected on an employee-by-employee basis, using the Projected Individual Pay Increases and probability of remaining an employee in the future.

Employer Contributions are related to current employees in the Plan as of the Actuarial Valuation Date. To the extent that Projected Contributions under the Funding Policy are made to cover the Normal Cost of benefit payments for future employees, those contributions are excluded for purposes of these projections and this report.

Contributions are based on the Funding Policy as described in the *Funding Policy* section of this report. The contributions do not factor in changes in the Funding Policy based on an assumed Employer decision; if, the projections were to play out in this fashion. The only future events that are considered were outlined in the *Funding Policy* section of this report. Contributions from future employees have not been included. It is assumed that contributions made by future employees will not exceed the Normal Cost of their participation in the Plan. In addition, Employer Contributions on behalf of future employees have not been included per the GASB parameters.



PROJECTION OF THE PENSION PLAN'S FIDUCIARY NET POSITION – YEARS 1 TO 30

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a)+(b)-(c)-(d)+(e)
1	\$ 195,185,142	\$ 16,712,612	\$ 20,416,273	\$ 151,180	\$ 22,528,431	\$ 213,858,732
2	213,858,732	16,640,336	20,903,563	149,672	14,815,660	224,261,492
3	224,261,492	18,932,007	21,623,586	153,040	15,598,743	237,015,615
4	237,015,615	19,487,531	22,494,478	156,483	16,480,373	250,332,557
5	250,332,557	20,042,598	23,350,862	160,004	17,401,890	264,266,178
6	264,266,178	20,596,980	24,274,096	163,604	18,364,207	278,789,664
7	278,789,664	21,149,890	25,215,007	167,285	19,367,142	293,924,405
8	293,924,405	21,713,985	26,132,075	171,049	20,414,088	309,749,354
9	309,749,354	22,309,089	27,140,676	174,898	21,507,228	326,250,096
10	326,250,096	22,939,208	28,172,963	178,833	22,648,066	343,485,574
11	343,485,574	23,600,702	29,205,061	182,857	23,841,438	361,539,796
12	361,539,796	24,277,342	30,279,215	186,971	25,091,176	380,442,127
13	380,442,127	24,995,050	31,343,108	191,178	26,402,076	400,304,967
14	400,304,967	25,739,263	32,472,530	195,479	27,778,842	421,155,062
15	421,155,062	26,525,057	33,501,065	199,878	29,229,698	443,208,874
16	443,208,874	27,366,761	34,558,014	204,375	30,765,774	466,579,020
17	466,579,020	28,273,992	35,459,936	208,973	32,401,709	491,585,812
18	491,585,812	29,234,024	36,446,457	213,675	34,151,093	518,310,797
19	518,310,797	2,835,039	37,337,186	218,483	35,066,534	518,656,700
20	518,656,700	2,669,316	38,144,258	223,399	35,056,527	518,014,886
21	518,014,886	2,518,182	38,968,612	228,425	34,977,282	516,313,313
22	516,313,313	2,359,230	39,650,310	233,565	34,828,569	513,617,237
23	513,617,237	2,173,320	40,276,169	238,820	34,611,248	509,886,816
24	509,886,816	2,021,514	40,963,818	244,194	34,320,550	505,020,868
25	505,020,868	1,859,396	41,461,986	249,688	33,956,631	499,125,221
26	499,125,221	1,675,357	41,892,285	255,306	33,522,237	492,175,224
27	492,175,224	1,506,560	42,271,878	261,050	33,016,343	484,165,199
28	484,165,199	1,336,676	42,603,065	266,924	32,437,898	475,069,784
29	475,069,784	1,167,195	42,861,305	272,930	31,786,038	464,888,783
30	464,888,783	1,013,034	42,968,179	279,071	31,064,017	453,718,584

Column b – Contributions on behalf of current employees in the Plan as of the Actuarial Valuation Date.

Column d – Based on the average Administrative Expense in recent years, and projected to increase in the future.

Column e – Based on the Expected Rate of Return on Plan Investments, and does not factor in allocation changes.



PROJECTION OF THE PENSION PLAN'S FIDUCIARY NET POSITION – YEARS 31 TO 60

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a)+(b)-(c)-(d)+(e)
31	\$ 453,718,584	\$ 852,939	\$ 42,975,295	\$ 285,350	\$ 30,276,031	\$ 441,586,909
32	441,586,909	731,664	42,863,115	291,770	29,426,271	428,589,958
33	428,589,958	622,110	42,695,451	298,335	28,518,288	414,736,571
34	414,736,571	519,242	42,304,882	305,047	27,558,386	400,204,269
35	400,204,269	415,898	41,862,611	307,973	26,552,885	385,002,468
36	385,002,468	344,588	41,317,623	296,737	25,505,731	369,238,427
37	369,238,427	268,153	40,575,805	285,034	24,425,946	353,071,686
38	353,071,686	201,165	39,787,431	272,967	23,319,945	336,532,397
39	336,532,397	158,837	38,801,465	260,608	22,195,655	319,824,816
40	319,824,816	112,177	37,730,729	248,043	21,062,406	303,020,627
41	303,020,627	84,653	36,587,494	235,379	19,925,606	286,208,013
42	286,208,013	58,251	35,324,245	222,675	18,792,458	269,511,802
43	269,511,802	29,905	34,008,951	210,011	17,669,209	252,991,954
44	252,991,954	17,636	32,597,394	197,459	16,562,234	236,776,971
45	236,776,971	1,976	31,143,233	185,088	15,477,966	220,928,592
46	220,928,592	-	29,664,893	172,971	14,420,676	205,511,404
47	205,511,404	-	28,174,004	161,155	13,394,068	190,570,312
48	190,570,312	-	26,682,416	149,683	12,400,798	176,139,012
49	176,139,012	-	25,201,328	138,583	11,442,834	162,241,935
50	162,241,935	-	23,740,318	127,877	10,521,549	148,895,289
51	148,895,289	-	22,307,590	117,582	9,637,789	136,107,907
52	136,107,907	-	20,909,494	107,705	8,791,952	123,882,660
53	123,882,660	-	19,551,625	98,253	7,984,040	112,216,822
54	112,216,822	-	18,238,890	89,224	7,213,694	101,102,402
55	101,102,402	-	16,973,894	80,615	6,480,260	90,528,153
56	90,528,153	-	15,758,110	72,419	5,782,902	80,480,526
57	80,480,526	-	14,592,355	64,626	5,120,642	70,944,188
58	70,944,188	-	13,476,747	57,225	4,492,404	61,902,620
59	61,902,620	-	12,411,305	50,204	3,897,031	53,338,141
60	53,338,141	-	11,395,198	43,551	3,333,314	45,232,706

Column b – Contributions on behalf of current employees in the Plan as of the Actuarial Valuation Date.

Column d – Based on the average Administrative Expense in recent years, and projected to increase in the future.

Column e – Based on the Expected Rate of Return on Plan Investments, and does not factor in allocation changes.



PROJECTION OF THE PENSION PLAN'S FIDUCIARY NET POSITION – YEARS 61 TO 80

Year	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions (b)	Projected Benefit Payments (c)	Projected Administrative Expense (d)	Projected Investment Earnings (e)	Projected Ending Fiduciary Net Position (f) = (a)+(b)-(c)-(d)+(e)
61	\$ 45,232,706	\$ -	\$ 10,427,189	\$ 37,251	\$ 2,800,034	\$ 37,568,301
62	37,568,301	-	9,506,408	31,291	2,295,962	30,326,564
63	30,326,564	-	8,631,973	25,658	1,819,842	23,488,775
64	23,488,775	-	7,802,568	20,337	1,370,413	17,036,283
65	17,036,283	-	7,017,010	15,315	946,408	10,950,367
66	10,950,367	-	6,274,447	10,576	546,550	5,211,893
67	5,211,893	-	5,574,323	6,108	169,517	-
68	-	-	4,916,704	-	-	-
69	-	-	4,301,812	-	-	-
70	-	-	3,730,368	-	-	-
71	-	-	3,203,457	-	-	-
72	-	-	2,721,720	-	-	-
73	-	-	2,285,597	-	-	-
74	-	-	1,895,170	-	-	-
75	-	-	1,550,069	-	-	-
76	-	-	1,249,415	-	-	-
77	-	-	991,491	-	-	-
78	-	-	773,929	-	-	-
79	-	-	593,704	-	-	-
80	-	-	447,204	-	-	-

NOTES TO PROJECTION OF THE PENSION PLAN'S FIDUCIARY NET POSITION

Projected Total Contributions are Employee and Employer Contributions projected to be made under the Funding Policy on behalf of current employees in the Plan as of the Actuarial Valuation Date. The amounts shown are detailed earlier in this section.

Projected Benefit Payments shown represents current employees as of the Actuarial Valuation Date. The Plan will pay benefits in the future on behalf of employees hired after the Actuarial Valuation Date, but those benefit payments are not projected for this purpose.

Projected Investment Earnings are based on the Expected Rate of Return on Plan Investments. Administrative Expense are typically not charged on a per employee basis. Administrative Expenses shown are not projected to distinguish between current and future employees.

The Projected Fiduciary Net Position represents assets held or projected to be held on behalf of current employees in the Plan as of the Actuarial Valuation Date. The Plan will hold assets in the future on behalf of employees hired after the Actuarial Valuation Date, but those assets are not projected for this purpose.



ACTUARIAL PRESENT VALUE OF PROJECTED BENEFIT PAYMENTS – YEARS 1 TO 30

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Projected Benefit Payments		Actuarial Present Values of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments (7.00%)	Present Value of "Unfunded" Benefit Payments (3.54%)	Present Value of Benefit Payments Using the Single Discount Rate (6.96%)
1	\$ 195,185,142	\$ 20,416,273	\$ 20,416,273	\$ -	\$ 19,737,156	\$ -	\$ 19,740,846
2	213,858,732	20,903,563	20,903,563	-	18,886,203	-	18,896,799
3	224,261,492	21,623,586	21,623,586	-	18,258,634	-	18,275,709
4	237,015,615	22,494,478	22,494,478	-	17,751,404	-	17,774,649
5	250,332,557	23,350,862	23,350,862	-	17,221,696	-	17,250,697
6	264,266,178	24,274,096	24,274,096	-	16,731,401	-	16,765,843
7	278,789,664	25,215,007	25,215,007	-	16,242,936	-	16,282,461
8	293,924,405	26,132,075	26,132,075	-	15,732,421	-	15,776,601
9	309,749,354	27,140,676	27,140,676	-	15,270,686	-	15,319,296
10	326,250,096	28,172,963	28,172,963	-	14,814,488	-	14,867,203
11	343,485,574	29,205,061	29,205,061	-	14,352,529	-	14,408,988
12	361,539,796	30,279,215	30,279,215	-	13,906,927	-	13,966,854
13	380,442,127	31,343,108	31,343,108	-	13,453,796	-	13,516,823
14	400,304,967	32,472,530	32,472,530	-	13,026,722	-	13,092,642
15	421,155,062	33,501,065	33,501,065	-	12,560,121	-	12,628,402
16	443,208,874	34,558,014	34,558,014	-	12,108,775	-	12,179,155
17	466,579,020	35,459,936	35,459,936	-	11,611,962	-	11,683,822
18	491,585,812	36,446,457	36,446,457	-	11,154,220	-	11,227,444
19	518,310,797	37,337,186	37,337,186	-	10,679,273	-	10,753,400
20	518,656,700	38,144,258	38,144,258	-	10,196,368	-	10,270,982
21	518,014,886	38,968,612	38,968,612	-	9,735,259	-	9,810,166
22	516,313,313	39,650,310	39,650,310	-	9,257,535	-	9,332,255
23	513,617,237	40,276,169	40,276,169	-	8,788,468	-	8,862,715
24	509,886,816	40,963,818	40,963,818	-	8,353,753	-	8,427,479
25	505,020,868	41,461,986	41,461,986	-	7,902,191	-	7,974,913
26	499,125,221	41,892,285	41,892,285	-	7,461,871	-	7,533,356
27	492,175,224	42,271,878	42,271,878	-	7,036,901	-	7,106,972
28	484,165,199	42,603,065	42,603,065	-	6,628,068	-	6,696,571
29	475,069,784	42,861,305	42,861,305	-	6,232,004	-	6,298,769
30	464,888,783	42,968,179	42,968,179	-	5,838,826	-	5,903,585

The Projected Fiduciary Net Position and Benefit Payments are based on current employees in the Plan as of the Actuarial Valuation Date. The development of the Projected Fiduciary Net Position is shown in more detail earlier in this section.



ACTUARIAL PRESENT VALUE OF PROJECTED BENEFIT PAYMENTS – YEARS 31 TO 60

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Projected Benefit Payments		Actuarial Present Values of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments (7.00%)	Present Value of "Unfunded" Benefit Payments (3.54%)	Present Value of Benefit Payments Using the Single Discount Rate (6.96%)
31	\$ 453,718,584	\$ 42,975,295	\$ 42,975,295	\$ -	\$ 5,457,750	\$ -	\$ 5,520,347
32	441,586,909	42,863,115	42,863,115	-	5,087,387	-	5,147,660
33	428,589,958	42,695,451	42,695,451	-	4,735,969	-	4,793,870
34	414,736,571	42,304,882	42,304,882	-	4,385,650	-	4,440,928
35	400,204,269	41,862,611	41,862,611	-	4,055,888	-	4,108,547
36	385,002,468	41,317,623	41,317,623	-	3,741,203	-	3,791,192
37	369,238,427	40,575,805	40,575,805	-	3,433,676	-	3,480,858
38	353,071,686	39,787,431	39,787,431	-	3,146,692	-	3,191,124
39	336,532,397	38,801,465	38,801,465	-	2,867,957	-	2,909,541
40	319,824,816	37,730,729	37,730,729	-	2,606,369	-	2,645,149
41	303,020,627	36,587,494	36,587,494	-	2,362,053	-	2,398,094
42	286,208,013	35,324,245	35,324,245	-	2,131,307	-	2,164,637
43	269,511,802	34,008,951	34,008,951	-	1,917,709	-	1,948,426
44	252,991,954	32,597,394	32,597,394	-	1,717,863	-	1,746,032
45	236,776,971	31,143,233	31,143,233	-	1,533,860	-	1,559,594
46	220,928,592	29,664,893	29,664,893	-	1,365,466	-	1,388,895
47	205,511,404	28,174,004	28,174,004	-	1,212,001	-	1,233,257
48	190,570,312	26,682,416	26,682,416	-	1,072,743	-	1,091,966
49	176,139,012	25,201,328	25,201,328	-	946,913	-	964,241
50	162,241,935	23,740,318	23,740,318	-	833,661	-	849,234
51	148,895,289	22,307,590	22,307,590	-	732,102	-	746,057
52	136,107,907	20,909,494	20,909,494	-	641,326	-	653,795
53	123,882,660	19,551,625	19,551,625	-	560,447	-	571,557
54	112,216,822	18,238,890	18,238,890	-	488,614	-	498,487
55	101,102,402	16,973,894	16,973,894	-	424,977	-	433,726
56	90,528,153	15,758,110	15,758,110	-	368,727	-	376,458
57	80,480,526	14,592,355	14,592,355	-	319,111	-	325,924
58	70,944,188	13,476,747	13,476,747	-	275,434	-	281,420
59	61,902,620	12,411,305	12,411,305	-	237,064	-	242,307
60	53,338,141	11,395,198	11,395,198	-	203,417	-	207,993

The Projected Fiduciary Net Position and Benefit Payments are based on current employees in the Plan as of the Actuarial Valuation Date. The development of the Projected Fiduciary Net Position is shown in more detail earlier in this section.



ACTUARIAL PRESENT VALUE OF PROJECTED BENEFIT PAYMENTS – YEARS 61 TO 80

Year	Projected Beginning Fiduciary Net Position	Projected Benefit Payments	Projected Benefit Payments		Actuarial Present Values of Projected Benefit Payments		
			"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments (7.00%)	Present Value of "Unfunded" Benefit Payments (3.54%)	Present Value of Benefit Payments Using the Single Discount Rate (6.96%)
61	\$ 45,232,706	\$ 10,427,189	\$ 10,427,189	\$ -	\$ 173,960	\$ -	\$ 177,940
62	37,568,301	9,506,408	9,506,408	-	148,222	-	151,670
63	30,326,564	8,631,973	8,631,973	-	125,784	-	128,758
64	23,488,775	7,802,568	7,802,568	-	106,259	-	108,813
65	17,036,283	7,017,010	7,017,010	-	89,310	-	91,490
66	10,950,367	6,274,447	6,274,447	-	74,634	-	76,485
67	5,211,893	5,574,323	5,211,893	362,430	57,939	35,854	63,529
68	-	4,916,704	-	4,916,704	-	469,757	52,388
69	-	4,301,812	-	4,301,812	-	396,956	42,853
70	-	3,730,368	-	3,730,368	-	332,456	34,743
71	-	3,203,457	-	3,203,457	-	275,736	27,894
72	-	2,721,720	-	2,721,720	-	226,261	22,157
73	-	2,285,597	-	2,285,597	-	183,509	17,396
74	-	1,895,170	-	1,895,170	-	146,960	13,486
75	-	1,550,069	-	1,550,069	-	116,089	10,312
76	-	1,249,415	-	1,249,415	-	90,373	7,771
77	-	991,491	-	991,491	-	69,265	5,766
78	-	773,929	-	773,929	-	52,218	4,208
79	-	593,704	-	593,704	-	38,688	3,018
80	-	447,204	-	447,204	-	28,145	2,125

NOTES TO THE ACTUARIAL PRESENT VALUE OF PROJECTED BENEFIT PAYMENTS

The Projected Fiduciary Net Position and Benefit Payments are based on current employees in the Plan as of the Actuarial Valuation Date. The development of the Projected Fiduciary Net Position is shown in more detail earlier in this section.

The Funded and Unfunded Portion of Benefit Payments are split based on the time that the Projected Fiduciary Net Position is to reach \$0 (based on assets for current employees).

The Present Value ("PV") of the Funded and Unfunded Portion of Benefit Payments are determined separately. The PV of the Funded Portion of Benefit Payments uses the Expected Rate of Return on Plan Investments. The PV of the Unfunded Portion of Benefit Payments are determined using the High-Quality Municipal Bond Rate as of the Measurement Date, as described in the *Actuarial Assumptions Information* section of this report.

The Discount Rate used for GASB purposes is the rate such that when applied to the Total Projected Benefit Payments results in a Present Value that equals the sum of the Present Value of the Funded and Unfunded Portion of Benefit Payments. The Discount Rate is rounded to four decimal places; therefore, the resulting Present Value comparisons may show a slight difference due to rounding.



SUMMARY OF PRINCIPAL PLAN PROVISIONS

Establishment of the Fund
Administration
Member Contributions
Regular Retirement Pension Benefit
Early Retirement Pension Benefit
Surviving Spouse Benefit
Termination Benefit – Vested
Disability Benefit



ESTABLISHMENT OF THE FUND

The Police Pension Fund is established and administered as prescribed by “Article 3 – Police Pension Fund – Municipalities 500,000 and Under” of the Illinois Pension Code.

ADMINISTRATION

The Police Pension Fund is administered by a Board of Trustees whose duties are to manage the Pension Fund, determine applications for pensions, authorize payment of pensions, establish rules, pay expenses, and keep records.

MEMBER CONTRIBUTIONS

Members contribute 9.910% of their pensionable salary.

REGULAR RETIREMENT PENSION BENEFIT

Tier I

Eligibility: Age 50 with at least 20 years of creditable service.

Benefit: 50% of final salary for the first 20 years of service, plus an additional 2.5% of final salary for each year of service beyond 20 years of service, and not to exceed 75% of final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the later of the first day of the month after the pensioner turns age 55 or the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.



REGULAR RETIREMENT PENSION BENEFIT - CONTINUED

Tier II

Eligibility: Age 55 with at least 10 years of creditable service.

Benefit: 2.5% of final average salary for each year of service, and not to exceed 75% of final average salary. "Final average salary" is determined by dividing the total pensionable salary during 48 consecutive months of service within the last 60 months of service in which total pensionable salary was the highest, by the number of months of service in that period (or by dividing the total pensionable salary during 96 consecutive months of service within the last 120 months of service in which total pensionable salary was the highest, by the number of months of service in that period, if greater). Annual salary for this purpose will not exceed the salary cap, indexed by the lesser of 3% or the CPI-U for the 12 months ending with the September preceding each November 1st. The salary cap will not decrease.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.

EARLY RETIREMENT PENSION BENEFIT

Tier I

None.

Tier II

Eligibility: Age 50 with at least 10 years of creditable service.

Benefit: The regular retirement pension benefit reduced by ½ of 1% for each month that the police officer's age is between 50 and 55.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.



SURVIVING SPOUSE BENEFIT

Tier I

Eligibility: Married to an active police officer with at least 8 years of creditable service, a disabled pensioner at the time of death, or a retired pensioner on the last day of service.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the police officer's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner: An eligible surviving spouse is entitled to receive the pensioner's benefit at the time of death.

Active Member with 20+ Years of Service: An eligible surviving spouse is entitled to the police officer's eligible benefit at the time of death.

Active Member with 10-20 Years of Service: An eligible surviving spouse is entitled to receive 50% of the police officer's pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: None.

Tier II

Eligibility: Married to an active police officer with at least 8 years of creditable service, a disabled pensioner at the time of death, or a retired pensioner on the last day of service.

Active Line of Duty Death Benefit: An eligible surviving spouse is entitled to receive 100% of the police officer's final pensionable salary attached to rank held on the last day of service.

Non-Duty Death Benefit:

Disabled or Retired Pensioner, Active Member with 20+ Years of Service, and Active Member with 10-20 Years of service: An eligible surviving spouse is entitled to receive the greater of 66⅔% of the police officer's earned pension benefit at the time of death or 54% of the police officer's monthly salary at the time of death.

Annual Increase in Benefit: The initial increase date will be the January 1st after the surviving spouse turns age 60. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.



SURVIVING SPOUSE BENEFIT – CONTINUED

Public Act 102-0811 passed on May 13, 2022 and is effective as of January 1, 2023 for Article 3 Pension Funds. The Act establishes that a surviving spouse of a deceased police retiree may be eligible for a survivor's pension of up to 15 years of benefit payments if (a) the surviving spouse has attained age 62 and (b) if the police officer was married to the surviving spouse after retirement, and for at least 5 years prior to the officer's death. Previously, there was no survivor's pension for spouses married after retirement. In our opinion, under a prudent interpretation of the provisions, we believe the impact to be de minimis. The legal community has suggested some uncertainty about multiple provisions contained in the Act, and the IDOI Public Pension Division has not provided an interpretation. The client has not made an administrative interpretation as to how the provisions of the Act will impact future surviving spouses. Due to the uncertainty around the interpretation and the expected *de minimis* impact, we have not valued this contingency separately for active Members. However, for any current retirees who were married after retirement and have been married for at least 5 years, as well as any surviving spouses currently in receipt of benefits under this provision, we have valued the liability of the benefit granted.

TERMINATION BENEFIT – VESTED

Tier I

Eligibility: Age 60 with at least 8 but less than 20 years of creditable service.

Benefit: 2.5% of final salary for each year of service. "Final salary" is based on the police officer's pensionable salary attached to rank held on the last day of service, unless the pensionable salary was greater at some point within the year prior to the last day of service. If so, the pensionable salary is averaged over the last 12 months.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 1/12 of 3% of the original monthly benefit for each full month that has passed since the pension began. The initial increase date will be the first day of the month after the benefit date anniversary. Subsequent increases of 3% of the current monthly benefit will be granted every January 1st thereafter.

Tier II

None.



DISABILITY BENEFIT

Tier I

Eligibility: Duty or Non-Duty Disability or Occupational Disease Disability with at least 1 day of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a police officer is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a police officer is entitled to receive 50% of their final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: A police officer is entitled to receive an initial increase equal to 3% of the original monthly benefit for each full year that has passed since the pension began. The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases of 3% of the original monthly benefit will be granted every January 1st thereafter.

Tier II

Eligibility: Duty or Non-Duty Disability or Occupational Disease Disability with at least 1 day of creditable service.

Benefit: For a duty disability or an occupational disease disability with at least 5 years of creditable service, a police officer is entitled to receive the greater of 65% of final salary or the regular retirement pension benefit at the time of disability. For a non-duty disability, a police officer is entitled to receive 50% of their final salary. “Final salary” is based on the police officer’s pensionable salary attached to rank held on the last day of service.

Annual Increase in Benefit: The initial increase date will be the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary. Subsequent increases will be granted every January 1st thereafter. The initial increase and subsequent increases will be the lesser of 3% of the original benefit or ½ of the CPI-U for the 12 months ending with the September preceding each November 1st.



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CERTIFIED PUBLIC ACCOUNTANTS