

GASB 67/68 Actuarial Valuation
as of March 1, 2022



SPRINGFIELD POLICE
PENSION FUND

For the February 28, 2023
Financial Statement Reporting

LAUTERBACH & AMEN, LLP

GASB Statements 67 and 68 Actuarial Disclosures



Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS

GASB 67: SPRINGFIELD POLICE PENSION FUND

Fiscal Year Ending: February 28, 2023

Actuarial Valuation Date: March 1, 2022

Data Date: February 28, 2022

Measurement Date: February 28, 2023

GASB 68: CITY OF SPRINGFIELD, ILLINOIS

Fiscal Year Ending: February 28, 2023

Actuarial Valuation Date: March 1, 2022

Data Date: February 28, 2022

Measurement Date: February 28, 2023

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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, and 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

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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>2/28/2022</u>	<u>2/28/2023</u>
Assets		
Cash and Cash Equivalents	\$ 7,895,868	\$ 6,451,052
Total Cash	<u>7,895,868</u>	<u>6,451,052</u>
Receivables:		
Investment Income - Accrued Interest	<u>149,719</u>	<u>-</u>
Total Receivables	<u>149,719</u>	<u>-</u>
Investments:		
Fixed Income	64,798,661	-
Insurance Contracts	18,725,350	-
Pooled Investment Accounts	-	188,742,521
Mutual Funds	<u>116,616,375</u>	<u>-</u>
Total Investments	<u>200,140,386</u>	<u>188,742,521</u>
Total Assets	<u>208,185,973</u>	<u>195,193,573</u>
Liabilities		
Payables:		
Expenses Due/Unpaid	<u>56,127</u>	<u>8,431</u>
Total Liabilities	<u>56,127</u>	<u>8,431</u>
Plan Fiduciary Net Position	<u>\$ 208,129,846</u>	<u>\$ 195,185,142</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 2023 is based on audited financials.



STATEMENT OF CHANGES IN PLAN FIDUCIARY NET POSITION

	<u>2/28/2023</u>
Additions	
Contributions	
Employer	\$ 15,326,587
Members	<u>1,978,296</u>
Total Contributions	<u>17,304,883</u>
Investment Income	
Net Appreciation in Fair Value of Investments	(11,568,774)
Interest and Dividends	1,209,624
Less Investment Expense	<u>(178,846)</u>
Net Investment Income	<u>(10,537,996)</u>
Total Additions	<u>6,766,887</u>
Deductions	
Benefit Payments and Refunds of Member Contributions	19,522,273
Administrative Expense	<u>189,318</u>
Total Deductions	<u>19,711,591</u>
Net Increase in Net Position	<u>(12,944,704)</u>
Plan Fiduciary Net Position	
Beginning of Year	<u>208,129,846</u>
End of Year	<u>\$ 195,185,142</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 2023 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>2/28/2022</u>	<u>2/28/2023</u>
Active Members	<u>\$ 117,860,035</u>	<u>\$ 100,132,456</u>
Inactive Members		
Terminated Members	875,272	4,745,190
Retired Members	275,675,195	283,927,932
Disabled Members	5,867,024	5,589,478
Other Beneficiaries	<u>9,936,584</u>	<u>9,884,432</u>
Total Inactive Members	<u>292,354,075</u>	<u>304,147,032</u>
Total Pension Liability	<u>\$ 410,214,110</u>	<u>\$ 404,279,488</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>2/28/2023</u>
Changes in Total Pension Liability	
Service Cost	\$ 5,997,377
Interest	24,660,320
Changes of Benefit Terms*	(207,457)
Differences Between Expected and Actual Experience	7,251,275
Change in Assumptions	(24,113,864)
Benefit Payments and Refunds	<u>(19,522,273)</u>
Net Change in Total Pension Liability	(5,934,622)
Total Pension Liability - Beginning	<u>410,214,110</u>
Total Pension Liability - Ending (a)	<u><u>\$ 404,279,488</u></u>
 Plan Fiduciary Net Position - Ending (b)	 <u><u>\$ 195,185,142</u></u>
 Employer's Net Pension Liability - Ending (a) - (b)	 <u><u>\$ 209,094,346</u></u>
 Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	 48.28%
 Covered-Employee Payroll	 \$ 19,694,760
Employer's Net Pension Liability as a Percentage of Covered-Employee Payroll	1,061.68%

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 estimated based on the prior Covered-Employee Payroll and expected increases 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. If a spouse is granted a pension by the Board under this provision, we will value the liability of the benefit granted, and revisit valuing the contingency of the benefit being granted in the future.

*Late in 2022, the IDOI Public Pension Division issued an unofficial opinion that Tier II disabled Members are entitled to an initial COLA increase on the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary equal to the lesser of 3% of the original benefit or ½ CPI-U. The prior interpretation from the IDOI Public Pension Division was that Tier II disabled members were entitled to an initial COLA increase on the later of the January 1st after the pensioner turns age 60 or the January 1st after the benefit date anniversary equal to 3% of the original monthly benefit for each full year that has passed since the pension began. In accordance with the new opinion, we have included a change in liability due to a change in the substantive plan, which includes written provisions as well as administrative interpretations. The impact of this change has been quantified as Changes of Benefit Terms in the current valuation.



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 3/1/2022	<u>\$ 410,214,110</u>	<u>\$ 208,129,846</u>	<u>\$ 202,084,264</u>
Changes for the Year:			
Service Cost	5,997,377	-	5,997,377
Interest	24,660,320	-	24,660,320
Actuarial Experience	7,251,275	-	7,251,275
Change in Assumptions	(24,113,864)	-	(24,113,864)
Changes of Benefit Terms	(207,457)	-	(207,457)
Contributions - Employer	-	15,326,587	(15,326,587)
Contributions - Members	-	1,978,296	(1,978,296)
Contributions - Other	-	-	-
Net Investment Income	-	(10,537,996)	10,537,996
Benefit Payments and Refunds	(19,522,273)	(19,522,273)	-
Administrative Expense	-	(189,318)	189,318
Net Changes	<u>\$ (5,934,622)</u>	<u>\$ (12,944,704)</u>	<u>\$ 7,010,082</u>
Balances Ending at 2/28/2023	<u><u>\$ 404,279,488</u></u>	<u><u>\$ 195,185,142</u></u>	<u><u>\$ 209,094,346</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	\$ 6,667,946	\$ (10,618,471)	\$ (3,950,525)
Change in Assumptions	32,658,033	(35,569,032)	(2,910,999)
Net Difference Between Projected and Actual Earnings on Pension Plan Investments	22,106,581	(6,660,734)	15,445,847
Contributions Subsequent to the Measurement Date*	-	-	-
Total	<u>\$ 61,432,560</u>	<u>\$ (52,848,237)</u>	<u>\$ 8,584,323</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:

2024	\$ 3,396,379
2025	3,261,899
2026	3,438,699
2027	(468,630)
2028	(1,044,024)
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	2/28/2023 Expense Recognized	2/28/2023 Deferred Balance
Asset Loss	2/28/2023	5.00	\$ 25,022,850	5.00	\$ 5,004,570	\$ 20,018,280
Change in Assumptions Gain	2/28/2023	5.33	(24,113,864)	5.33	(4,524,178)	(19,589,686)
Actuarial Loss	2/28/2023	5.33	7,251,275	5.33	1,360,465	5,890,810
Asset Loss	2/28/2022	5.00	2,141,072	4.00	428,215	1,284,642
Change in Assumptions Gain	2/28/2022	5.30	(24,376,044)	4.30	(4,599,254)	(15,177,536)
Actuarial Gain	2/28/2022	5.30	(16,425,003)	4.30	(3,099,058)	(10,226,887)
Asset Gain	2/28/2021	5.00	(16,651,835)	3.00	(3,330,367)	(6,660,734)
Change in Assumptions Loss	2/28/2021	5.67	44,807,789	3.67	7,902,609	21,099,962
Actuarial Loss	2/28/2021	5.67	535,492	3.67	94,444	252,160
Asset Loss	2/29/2020	5.00	4,018,295	2.00	803,659	803,659
Change in Assumptions Loss	2/29/2020	6.82	27,952,499	3.82	4,098,607	11,558,071
Actuarial Loss	2/29/2020	6.82	1,239,833	3.82	181,794	512,657
Asset Loss	2/28/2019	5.00	9,635,937	1.00	1,927,185	-
Change in Assumptions Gain	2/28/2019	6.56	(1,351,671)	2.56	(206,048)	(321,431)
Actuarial Gain	2/28/2019	6.56	(1,646,679)	2.56	(251,019)	(391,584)
Change in Assumptions Gain	2/28/2018	6.43	(7,183,405)	1.43	(1,117,171)	(480,379)
Actuarial Loss	2/28/2018	6.43	184,291	1.43	28,662	12,319
Change in Assumptions Gain	2/28/2017	6.43	(30,742,288)	0.43	(2,055,856)	-
Actuarial Loss	2/28/2017	6.43	1,874,991	0.43	125,385	-
Total			\$ 2,173,535		\$ 2,772,644	\$ 8,584,323

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>2/28/2023</u>
Pension Expense/(Income) Under GASB 68	
Service Cost	\$ 5,997,377
Interest	24,660,320
Changes of Benefit Terms	(207,457)
Contributions - Members	(1,978,296)
Contributions - Other	-
Expected Investment Income	(14,484,854)
Administrative Expense	189,318
Other Changes	-
Initial Pension Expense/(Income)	<u>\$ 14,176,408</u>
Recognition of Outflow/(Inflow) of Resources Due to Liabilities	(2,060,618)
Recognition of Outflow/(Inflow) of Resources Due to Assets	<u>4,833,262</u>
Total Pension Expense/(Income)	<u>\$ 16,949,052</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
Sensitivity of the Discount Rate
Assessment and Use of Actuarial Models



STATEMENT OF SIGNIFICANT ACTUARIAL ASSUMPTIONS

Actuarial Assumptions (Economic)

Discount Rate Used for the Total Pension Liability	6.49%
Expected Rate of Return on Investments	7.00%
High-Quality 20 Year Tax-Exempt G.O. Bond Rate	3.75%
Projected Individual Pay Increases	3.75% - 16.79%
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 2.51% to 3.75% 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 6.05% to 6.49%. 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.

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	16.79%	8	3.75%
1	15.00%	9	8.65%
2	13.61%	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 1992 was 141.30. The CPI-U for September 2022 was 296.81. The average increase in the CPI-U for September 1992 through September 2022 was 2.52% (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 23, 2023 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.



SENSITIVITY OF THE DISCOUNT RATE

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 (5.49%)	Current Discount Rate (6.49%)	1% Increase (7.49%)
Employer's Net Pension Liability	\$267,323,888	\$209,094,346	\$161,714,397

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	2/28/2021	2/28/2022
Fiscal Year End for Reporting	<u>(FYE 2/28/2022)</u>	<u>(FYE 2/28/2023)</u>
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	278	293
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	38	47
Active Plan Members	<u>227</u>	<u>226</u>
Total	<u>543</u>	<u>566</u>
Payroll of Active Plan Members	<u>\$ 19,743,671</u>	<u>\$ 19,267,731</u>
Average Future Working Career (In Years)		
Active Plan Members	12.67	13.36
Inactive Plan Members	0.00	0.00
Total	5.30	5.33

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 28, 2023, 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, 2021 Actuarial Valuation. The equivalent single amortization period as of that valuation is 19 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
2/28/2023	\$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%
2/28/2019	\$10,844,009	\$10,843,009	100.01%	\$22,047,109	49.19%

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 103.82% 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

	2/28/2023	2/28/2022	2/28/2021	2/29/2020	2/28/2019	2/28/2018	2/28/2017	2/29/2016	2/28/2015	2/28/2014
Total Pension Liability										
Service Cost	\$ 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	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	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	(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	(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	\$ (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	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)	\$ 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	\$ 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	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	(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	(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	(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	\$ (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	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)	\$ 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)	\$ 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

	2/28/2023	2/28/2022	2/28/2021	2/29/2020	2/28/2019	2/28/2018	2/28/2017	2/29/2016	2/28/2015	2/28/2014
Total Pension Liability - Ending (a)	<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>\$ 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>\$ 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	48.28%	50.74%	45.36%	45.59%	49.85%	51.20%	47.85%	40.88%	52.02%	
Covered-Employee Payroll	\$ 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	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 estimated based on the prior Covered-Employee Payroll and expected increases for the Plan Members during the Fiscal Year.



SCHEDULE OF CONTRIBUTIONS

	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	2/28/2014
Actuarially Determined Contribution	\$ 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	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)	\$ (1,625,047)	\$ (637,676)	\$ (271,089)	\$ -	\$ (1,000)	\$ -	\$ -	\$ -	\$ (500,000)	
Covered-Employee Payroll	\$ 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	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, 2021 Actuarial Valuation completed by Lauterbach & Amen, LLP for the December 2021 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 19 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 Pension Plan Financials	Statement 68 Employer Financials
Fiscal Year End for Reporting	February 28, 2023	February 28, 2023
Measurement Date	February 28, 2023	February 28, 2023
Actuarial Valuation Date	March 1, 2022	March 1, 2022
Actuarial Valuation - Data Date	February 28, 2022	February 28, 2022
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	5.33 Years	5.33 Years
Change in Assumptions	5.33 Years	5.33 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

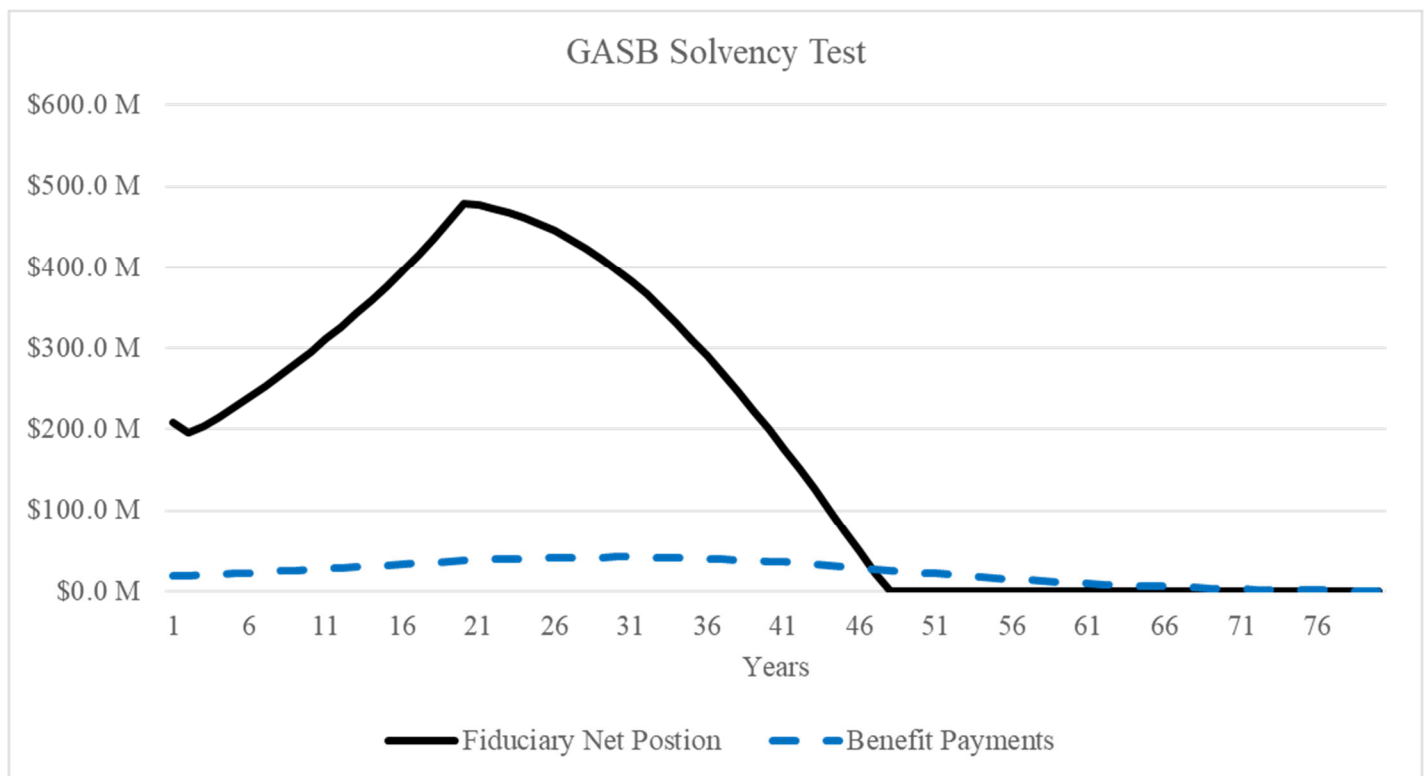
Notes to Actuarial Present Value of Projected Benefit Payments



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 2070.



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	\$ 19,267,731	\$ -	\$ 19,267,731	\$ 1,978,296	\$ 15,326,587	\$ -	\$ 17,304,883
2	19,685,420	208,512	19,893,932	1,950,825	12,997,152	-	14,947,977
3	19,815,390	725,095	20,540,485	1,963,705	16,175,160	-	18,138,865
4	19,931,426	1,276,624	21,208,051	1,975,204	16,693,204	-	18,668,408
5	19,794,419	2,102,893	21,897,312	1,961,627	17,229,783	-	19,191,410
6	19,592,873	3,016,101	22,608,975	1,941,654	17,765,849	-	19,707,503
7	19,287,322	4,056,445	23,343,767	1,911,374	18,313,743	-	20,225,117
8	18,854,754	5,247,685	24,102,439	1,868,506	18,873,328	-	20,741,834
9	18,471,579	6,414,189	24,885,768	1,830,533	19,443,031	-	21,273,564
10	18,035,538	7,659,018	25,694,556	1,787,322	20,048,848	-	21,836,170
11	17,647,551	8,882,078	26,529,629	1,748,872	20,686,617	-	22,435,489
12	17,094,861	10,296,981	27,391,842	1,694,101	21,363,370	-	23,057,471
13	16,531,023	11,751,054	28,282,077	1,638,224	22,059,646	-	23,697,870
14	15,935,441	13,265,803	29,201,244	1,579,202	22,810,699	-	24,389,901
15	15,286,327	14,863,957	30,150,284	1,514,875	23,586,446	-	25,101,321
16	14,628,276	16,501,893	31,130,169	1,449,662	24,413,431	-	25,863,093
17	13,914,119	18,227,781	32,141,899	1,378,889	25,291,057	-	26,669,946
18	13,153,076	20,033,435	33,186,511	1,303,470	26,231,684	-	27,535,154
19	12,575,433	21,689,639	34,265,072	1,246,225	27,218,112	-	28,464,337
20	11,866,847	23,511,840	35,378,687	1,176,005	1,348,904	-	2,524,909
21	11,223,439	25,305,055	36,528,495	1,112,243	1,243,723	-	2,355,966
22	10,496,707	27,218,964	37,715,671	1,040,224	1,146,981	-	2,187,205
23	9,691,591	29,249,839	38,941,430	960,437	1,062,002	-	2,022,439
24	9,027,335	31,179,692	40,207,027	894,609	949,115	-	1,843,724
25	8,260,313	33,253,442	41,513,755	818,597	880,665	-	1,699,262
26	7,404,977	35,457,975	42,862,952	733,833	806,576	-	1,540,409
27	6,621,095	37,634,903	44,255,998	656,150	705,470	-	1,361,620
28	5,850,877	39,843,440	45,694,318	579,822	625,718	-	1,205,540
29	5,074,988	42,104,395	47,179,383	502,931	547,946	-	1,050,877
30	4,356,802	44,355,911	48,712,713	431,759	468,606	-	900,365

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	\$ 3,604,342	\$ 46,691,535	\$ 50,295,876	\$ 357,190	\$ 412,203	\$ -	\$ 769,393
32	3,050,218	48,880,274	51,930,492	302,277	328,370	-	630,647
33	2,537,033	51,081,200	53,618,233	251,420	281,604	-	533,024
34	2,088,918	53,271,908	55,360,826	207,012	235,780	-	442,792
35	1,650,956	55,509,097	57,160,053	163,610	201,868	-	365,478
36	1,333,456	57,684,298	59,017,754	132,146	154,840	-	286,986
37	1,040,163	59,895,668	60,935,831	103,080	128,916	-	231,996
38	758,925	62,157,321	62,916,246	75,209	106,858	-	182,067
39	566,940	64,394,084	64,961,024	56,184	76,189	-	132,373
40	367,094	66,705,163	67,072,257	36,379	64,076	-	100,455
41	273,357	68,978,749	69,252,106	27,090	36,593	-	63,683
42	184,717	71,318,082	71,502,799	18,305	29,390	-	47,695
43	96,450	73,730,190	73,826,640	9,558	23,411	-	32,969
44	45,544	76,180,462	76,226,006	4,513	12,843	-	17,356
45	-	78,703,351	78,703,351	-	8,902	-	8,902
46	-	81,261,210	81,261,210	-	-	-	-
47	-	83,902,199	83,902,199	-	-	-	-
48	-	86,629,021	86,629,021	-	-	-	-
49	-	89,444,464	89,444,464	-	-	-	-
50	-	92,351,409	92,351,409	-	-	-	-
51	-	95,352,830	95,352,830	-	-	-	-
52	-	98,451,797	98,451,797	-	-	-	-
53	-	101,651,480	101,651,480	-	-	-	-
54	-	104,955,153	104,955,153	-	-	-	-
55	-	108,366,196	108,366,196	-	-	-	-
56	-	111,888,097	111,888,097	-	-	-	-
57	-	115,524,460	115,524,460	-	-	-	-
58	-	119,279,005	119,279,005	-	-	-	-
59	-	123,155,573	123,155,573	-	-	-	-
60	-	127,158,129	127,158,129	-	-	-	-

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	\$ -	\$ 131,290,768	\$ 131,290,768	\$ -	\$ -	\$ -	\$ -
62	-	135,557,718	135,557,718	-	-	-	-
63	-	139,963,344	139,963,344	-	-	-	-
64	-	144,512,152	144,512,152	-	-	-	-
65	-	149,208,797	149,208,797	-	-	-	-
66	-	154,058,083	154,058,083	-	-	-	-
67	-	159,064,971	159,064,971	-	-	-	-
68	-	164,234,583	164,234,583	-	-	-	-
69	-	169,572,207	169,572,207	-	-	-	-
70	-	175,083,303	175,083,303	-	-	-	-
71	-	180,773,511	180,773,511	-	-	-	-
72	-	186,648,650	186,648,650	-	-	-	-
73	-	192,714,731	192,714,731	-	-	-	-
74	-	198,977,960	198,977,960	-	-	-	-
75	-	205,444,743	205,444,743	-	-	-	-
76	-	212,121,697	212,121,697	-	-	-	-
77	-	219,015,653	219,015,653	-	-	-	-
78	-	226,133,661	226,133,661	-	-	-	-
79	-	233,483,005	233,483,005	-	-	-	-
80	-	241,071,203	241,071,203	-	-	-	-

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	\$ 208,129,846	\$ 17,304,883	\$ 19,522,273	\$ 189,318	\$ (10,537,996)	\$ 195,185,142
2	195,185,142	14,947,977	19,549,405	188,217	13,495,322	203,890,819
3	203,890,819	18,138,865	20,350,137	176,385	14,188,789	215,691,952
4	215,691,952	18,478,830	21,127,345	180,353	14,999,426	227,862,510
5	227,862,510	18,996,521	22,057,181	184,411	15,836,798	240,454,237
6	240,454,237	19,507,373	22,948,999	188,561	16,704,740	253,528,792
7	253,528,792	20,019,730	23,913,292	192,803	17,603,993	267,046,420
8	267,046,420	20,531,201	24,900,325	197,141	18,533,430	281,013,585
9	281,013,585	21,057,532	25,859,005	201,577	19,495,844	295,506,378
10	295,506,378	21,614,423	26,910,280	206,112	20,492,878	310,497,287
11	310,497,287	22,207,657	27,962,582	210,750	21,526,011	326,057,623
12	326,057,623	22,823,322	29,058,444	215,492	22,598,262	342,205,271
13	342,205,271	23,457,218	30,176,765	220,340	23,711,473	358,976,856
14	358,976,856	24,142,222	31,269,183	225,298	24,871,051	376,495,649
15	376,495,649	24,846,418	32,382,255	230,367	26,082,878	394,812,322
16	394,812,322	25,600,454	33,452,236	235,551	27,353,806	414,078,795
17	414,078,795	26,399,113	34,529,393	240,850	28,692,526	434,400,190
18	434,400,190	27,255,535	35,425,454	246,270	30,113,447	456,097,448
19	456,097,448	28,175,282	36,374,027	251,811	31,631,052	479,277,944
20	479,277,944	2,499,268	37,262,831	257,476	32,323,720	476,580,625
21	476,580,625	2,332,041	38,037,997	263,270	32,101,721	472,713,120
22	472,713,120	2,164,994	38,795,349	269,193	31,798,434	467,612,006
23	467,612,006	2,001,901	39,410,089	275,250	31,413,920	461,342,488
24	461,342,488	1,825,001	39,991,917	281,443	30,948,282	453,842,410
25	453,842,410	1,682,006	40,620,009	287,776	30,396,066	445,012,698
26	445,012,698	1,524,766	41,039,577	294,251	29,757,572	434,961,208
27	434,961,208	1,347,793	41,392,408	300,871	29,035,193	423,650,915
28	423,650,915	1,193,298	41,672,944	307,641	28,228,009	411,091,637
29	411,091,637	1,040,206	41,883,096	314,563	27,335,904	397,270,087
30	397,270,087	891,222	42,027,760	321,640	26,357,870	382,169,779

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	\$ 382,169,779	\$ 761,580	\$ 41,998,087	\$ 328,877	\$ 25,297,096	\$ 365,901,491
32	365,901,491	624,243	41,891,669	330,635	24,157,172	348,460,603
33	348,460,603	527,611	41,638,912	315,736	22,942,296	329,975,861
34	329,975,861	438,295	41,336,498	299,857	21,656,378	310,434,179
35	310,434,179	361,766	40,829,871	283,050	20,304,102	289,987,125
36	289,987,125	284,071	40,236,135	265,376	18,891,488	268,661,174
37	268,661,174	229,640	39,568,620	246,913	17,420,776	246,496,058
38	246,496,058	180,218	38,746,238	227,691	15,896,944	223,599,291
39	223,599,291	131,029	37,861,702	207,774	14,324,105	199,984,948
40	199,984,948	99,435	36,785,708	187,217	12,708,374	175,819,833
41	175,819,833	63,036	35,633,589	166,099	11,056,605	151,139,786
42	151,139,786	47,211	34,412,886	144,511	9,371,929	126,001,530
43	126,001,530	32,634	33,105,680	122,492	7,658,263	100,464,256
44	100,464,256	17,180	31,743,494	100,094	5,918,574	74,556,421
45	74,556,421	8,812	30,308,803	77,356	4,155,742	48,334,816
46	48,334,816	-	28,844,736	54,316	2,371,970	21,807,735
47	21,807,735	-	27,363,073	31,002	567,749	-
48	-	-	25,875,658	-	-	-
49	-	-	24,394,291	-	-	-
50	-	-	22,929,933	-	-	-
51	-	-	21,491,731	-	-	-
52	-	-	20,087,431	-	-	-
53	-	-	18,723,008	-	-	-
54	-	-	17,403,648	-	-	-
55	-	-	16,133,839	-	-	-
56	-	-	14,915,962	-	-	-
57	-	-	13,751,467	-	-	-
58	-	-	12,641,157	-	-	-
59	-	-	11,585,190	-	-	-
60	-	-	10,583,672	-	-	-

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	\$ -	\$ -	\$ 9,635,827	\$ -	\$ -	\$ -
62	-	-	8,740,600	-	-	-
63	-	-	7,897,182	-	-	-
64	-	-	7,104,683	-	-	-
65	-	-	6,361,784	-	-	-
66	-	-	5,667,071	-	-	-
67	-	-	5,019,289	-	-	-
68	-	-	4,417,178	-	-	-
69	-	-	3,859,768	-	-	-
70	-	-	3,346,026	-	-	-
71	-	-	2,875,239	-	-	-
72	-	-	2,447,111	-	-	-
73	-	-	2,061,118	-	-	-
74	-	-	1,716,512	-	-	-
75	-	-	1,412,217	-	-	-
76	-	-	1,146,868	-	-	-
77	-	-	918,748	-	-	-
78	-	-	725,550	-	-	-
79	-	-	564,506	-	-	-
80	-	-	432,464	-	-	-

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 (3.75%)	Present Value of Benefit Payments Using the Single Discount Rate (6.49%)
1	\$ 208,129,846	\$ 19,522,273	\$ 19,522,273	\$ -	\$ 18,872,894	\$ -	\$ 18,918,033
2	195,185,142	19,549,405	19,549,405	-	17,662,732	-	17,789,769
3	203,890,819	20,350,137	20,350,137	-	17,183,352	-	17,389,827
4	215,691,952	21,127,345	21,127,345	-	16,672,537	-	16,953,682
5	227,862,510	22,057,181	22,057,181	-	16,267,582	-	16,621,120
6	240,454,237	22,948,999	22,948,999	-	15,818,051	-	16,239,221
7	253,528,792	23,913,292	23,913,292	-	15,404,401	-	15,890,296
8	267,046,420	24,900,325	24,900,325	-	14,990,864	-	15,537,774
9	281,013,585	25,859,005	25,859,005	-	14,549,555	-	15,152,587
10	295,506,378	26,910,280	26,910,280	-	14,150,518	-	14,807,589
11	310,497,287	27,962,582	27,962,582	-	13,741,926	-	14,448,894
12	326,057,623	29,058,444	29,058,444	-	13,346,240	-	14,100,056
13	342,205,271	30,176,765	30,176,765	-	12,953,152	-	13,750,305
14	358,976,856	31,269,183	31,269,183	-	12,543,985	-	13,379,730
15	376,495,649	32,382,255	32,382,255	-	12,140,661	-	13,011,552
16	394,812,322	33,452,236	33,452,236	-	11,721,322	-	12,622,295
17	414,078,795	34,529,393	34,529,393	-	11,307,240	-	12,234,699
18	434,400,190	35,425,454	35,425,454	-	10,841,748	-	11,787,208
19	456,097,448	36,374,027	36,374,027	-	10,403,788	-	11,365,226
20	479,277,944	37,262,831	37,262,831	-	9,960,753	-	10,933,362
21	476,580,625	38,037,997	38,037,997	-	9,502,770	-	10,480,613
22	472,713,120	38,795,349	38,795,349	-	9,057,919	-	10,037,831
23	467,612,006	39,410,089	39,410,089	-	8,599,485	-	9,575,442
24	461,342,488	39,991,917	39,991,917	-	8,155,554	-	9,124,620
25	453,842,410	40,620,009	40,620,009	-	7,741,720	-	8,703,095
26	445,012,698	41,039,577	41,039,577	-	7,309,986	-	8,257,105
27	434,961,208	41,392,408	41,392,408	-	6,890,498	-	7,820,541
28	423,650,915	41,672,944	41,672,944	-	6,483,362	-	7,393,693
29	411,091,637	41,883,096	41,883,096	-	6,089,773	-	6,978,100
30	397,270,087	42,027,760	42,027,760	-	5,711,035	-	6,575,456

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 (3.75%)	Present Value of Benefit Payments Using the Single Discount Rate (6.49%)
31	\$ 382,169,779	\$ 41,998,087	\$ 41,998,087	\$ -	\$ 5,333,647	\$ -	\$ 6,170,357
32	365,901,491	41,891,669	41,891,669	-	4,972,086	-	5,779,624
33	348,460,603	41,638,912	41,638,912	-	4,618,773	-	5,394,640
34	329,975,861	41,336,498	41,336,498	-	4,285,260	-	5,029,073
35	310,434,179	40,829,871	40,829,871	-	3,955,831	-	4,664,697
36	289,987,125	40,236,135	40,236,135	-	3,643,277	-	4,316,710
37	268,661,174	39,568,620	39,568,620	-	3,348,444	-	3,986,380
38	246,496,058	38,746,238	38,746,238	-	3,064,347	-	3,665,629
39	223,599,291	37,861,702	37,861,702	-	2,798,496	-	3,363,646
40	199,984,948	36,785,708	36,785,708	-	2,541,089	-	3,068,884
41	175,819,833	35,633,589	35,633,589	-	2,300,470	-	2,791,593
42	151,139,786	34,412,886	34,412,886	-	2,076,320	-	2,531,656
43	126,001,530	33,105,680	33,105,680	-	1,866,775	-	2,287,059
44	100,464,256	31,743,494	31,743,494	-	1,672,863	-	2,059,305
45	74,556,421	30,308,803	30,308,803	-	1,492,762	-	1,846,401
46	48,334,816	28,844,736	28,844,736	-	1,327,714	-	1,650,118
47	21,807,735	27,363,073	21,807,735	5,555,338	938,134	1,002,914	1,469,956
48	-	25,875,658	-	25,875,658	-	4,502,528	1,305,335
49	-	24,394,291	-	24,394,291	-	4,091,335	1,155,607
50	-	22,929,933	-	22,929,933	-	3,706,735	1,020,037
51	-	21,491,731	-	21,491,731	-	3,348,668	897,792
52	-	20,087,431	-	20,087,431	-	3,016,734	787,988
53	-	18,723,008	-	18,723,008	-	2,710,192	689,703
54	-	17,403,648	-	17,403,648	-	2,428,156	602,030
55	-	16,133,839	-	16,133,839	-	2,169,632	524,091
56	-	14,915,962	-	14,915,962	-	1,933,354	455,000
57	-	13,751,467	-	13,751,467	-	1,717,992	393,913
58	-	12,641,157	-	12,641,157	-	1,522,197	340,039
59	-	11,585,190	-	11,585,190	-	1,344,618	292,642
60	-	10,583,672	-	10,583,672	-	1,183,979	251,051

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 (3.75%)	Present Value of Benefit Payments Using the Single Discount Rate (6.49%)
61	\$ -	\$ 9,635,827	\$ -	\$ 9,635,827	\$ -	\$ 1,038,983	\$ 214,637
62	-	8,740,600	-	8,740,600	-	908,391	182,830
63	-	7,897,182	-	7,897,182	-	791,071	155,121
64	-	7,104,683	-	7,104,683	-	685,962	131,049
65	-	6,361,784	-	6,361,784	-	592,033	110,194
66	-	5,667,071	-	5,667,071	-	508,321	92,179
67	-	5,019,289	-	5,019,289	-	433,944	76,666
68	-	4,417,178	-	4,417,178	-	368,085	63,358
69	-	3,859,768	-	3,859,768	-	310,010	51,988
70	-	3,346,026	-	3,346,026	-	259,034	42,322
71	-	2,875,239	-	2,875,239	-	214,542	34,151
72	-	2,447,111	-	2,447,111	-	175,997	27,294
73	-	2,061,118	-	2,061,118	-	142,878	21,588
74	-	1,716,512	-	1,716,512	-	114,689	16,883
75	-	1,412,217	-	1,412,217	-	90,947	13,043
76	-	1,146,868	-	1,146,868	-	71,189	9,947
77	-	918,748	-	918,748	-	54,968	7,483
78	-	725,550	-	725,550	-	41,840	5,549
79	-	564,506	-	564,506	-	31,376	4,054
80	-	432,464	-	432,464	-	23,168	2,917

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
Benefits Not Valued



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.



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.



BENEFITS NOT VALUED

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 were 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. If a spouse is granted a pension by the Board under this provision, we will value the liability of the benefit granted, and revisit valuing the contingency of the benefit being granted in the future.



Lauterbach & Amen, LLP

CERTIFIED PUBLIC ACCOUNTANTS