VILLAGE OF WINNETKA
POLICE PENSION FUND

ACTUARIAL VALUATION
AS OF JANUARY 1, 2022

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING DECEMBER 31, 2023

GASB 67/68 DISCLOSURE INFORMATION
AS OF DECEMBER 31, 2021

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

July 1, 2022

Mr. Timothy Sloth
Village of Winnetka Police Pension Fund

Re: Actuarial Valuation Report (including GASB Statements No. 67 and No. 68) – Village of Winnetka Police Pension Fund

Dear Mr. Sloth:

We are pleased to present to the Village this report of the annual actuarial valuation of the Village of Winnetka Police Pension Fund. Included are the related results for GASB Statements No. 67 and No. 68. The funding valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits and to develop the appropriate funding requirements for the applicable plan year. The calculation of the liability for GASB results was performed for the purpose of satisfying the requirements of GASB Statements No. 67 and No. 68. Use of the results for other purposes may not be applicable and could produce significantly different results.

The valuations have been conducted in accordance with generally accepted actuarial principles and practices, including the applicable Actuarial Standards of Practice as issued by the Actuarial Standards Board, and reflect laws and regulations issued to date pursuant to the provisions of Article 3, Illinois Pension Code, as well as applicable federal laws and regulations. In our opinion, the assumptions used in this valuation, as adopted by the Board of Trustees, represent reasonable expectations of anticipated plan experience. Future actuarial measurements may differ significantly from the current measurements presented in this report for a variety of reasons including: changes in applicable laws, changes in plan provisions, changes in assumptions, or plan experience differing from expectations. Due to the limited scope of the valuations, we did not perform an analysis of the potential range of such future measurements.

The funding percentages and unfunded accrued liability as measured based on the actuarial value of assets will differ from similar measures based on the market value of assets. These measures, as provided, are appropriate for determining the adequacy of future contributions, but may not be appropriate for the purpose of settling a portion or all of its liabilities.

In conducting the valuations, we have relied on personnel, plan design, and asset information supplied by the Village, financial reports prepared by the custodian bank and the actuarial assumptions and methods described in the Actuarial Assumptions section of this report. While we cannot verify the accuracy of all this information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy of the information and believe that it has produced appropriate results. This information, along with any adjustments or modifications, is summarized in various sections of this report.

The total pension liability, net pension liability, and certain sensitivity information shown in the GASB results are based on an actuarial valuation performed as of the valuation date.

In performing the analysis, we used third-party software to model (calculate) the underlying liabilities and costs. These results are reviewed in the aggregate and for individual sample lives. The output from the software is either used directly or input into internally developed models to generate the costs. All internally developed models are reviewed as part of the process. As a result of this review, we believe that the models have produced reasonable results. We do not believe there are any material inconsistencies among assumptions or unreasonable output produced due to the aggregation of assumptions.

The undersigned are familiar with the immediate and long-term aspects of pension valuations and meet the Qualification Standards of the American Academy of Actuaries necessary to render the actuarial opinions contained herein. All of the sections of this report are considered an integral part of the actuarial opinions.

To our knowledge, no associate of Foster & Foster, Inc. working on valuations of the program has any direct financial interest or indirect material interest in the Village of Winnetka, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Village of Winnetka Police Pension Fund. Thus, there is no relationship existing that might affect our capacity to prepare and certify this actuarial report.

If there are any questions, concerns, or comments about any of the items contained in this report, please contact us at 630-620-0200.

Respectfully submitted,

Foster & Foster, Inc.

By: Jason L. Franken

Jason L. Franken, FSA, EA, MAAA

By: Heidi Andorfer

Heidi E. Andorfer, FSA, EA, MAAA

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the Village of Winnetka Police Pension Fund, performed as of January 1, 2022, has been completed and the results are presented in this report. The contribution amounts set forth herein are applicable to the plan/fiscal year ended December 31, 2023.

The contribution requirements, compared with those set forth in the January 1, 2021 actuarial report, are as follows:

Valuation Date	1/1/2022	1/1/2021
Applicable to Fiscal Year Ending	12/31/2023	12/31/2022
Total Recommended Contribution	$1,516,080	$2,054,611
% of Projected Annual Payroll	53.7%	76.9%
Member Contributions (Est.)	(279,977)	(264,779)
% of Projected Annual Payroll	(9.9%)	(9.9%)
Village Recommended Contribution	1,236,103	1,789,832
% of Projected Annual Payroll	43.8%	67.0%

As you can see, the Total Recommended Contribution shows a decrease when compared to the results determined in the January 1, 2021 actuarial valuation report. The decrease is attributable to favorable plan experience and changes to the actuarial assumptions and amortization method.

Plan experience was favorable overall on the basis of the plan's actuarial assumptions. Sources of favorable experience included an investment return of 10.83% (Actuarial Asset Basis) which exceeded the 6.25% assumption, higher than expected inactive mortality, and more turnover than expected. These gains were offset in part by a loss associated with more retirements than expected.

CHANGES SINCE PRIOR VALUATION

Plan Changes Since Prior Valuation

There were no plan changes since the prior valuation.

Actuarial Assumption/Method Changes Since Prior Valuation

Based on the results of the 2022 experience study performed for the Illinois Police Officers' Pension Investment Fund, the following assumption changes were made:

- Updated mortality, retirement, disability, and termination rate tables.
- Updated assumed salary increase rates.
- Reduced assumed payroll growth rate from 3.50% to 3.25%.

In addition, the interest rate was increased from 6.25% to 6.75% to reflect the movement to the new investment portfolio under the Illinois Police Officers' Pension Investment Fund.

The amortization of the unfunded liability will move to an open methodology amortized over 15 years.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Asmp/Mthd 1/1/2022	Old Asmp/Mthd 1/1/2022	1/1/2021
A. Participant Data			
Number Included			
Actives	26	26	25
Service Retirees	24	24	26
Beneficiaries	7	7	5
Disability Retirees	1	1	1
Terminated Vested	9	9	8
Total	67	67	65
Total Annual Payroll	$2,825,200	$2,825,200	$2,671,838
Payroll Under Assumed Ret. Age	2,825,200	2,825,200	2,671,838
Annual Rate of Payments to:			
Service Retirees	1,907,547	1,907,547	2,049,915
Beneficiaries	506,661	506,661	261,358
Disability Retirees	42,829	42,829	42,829
Terminated Vested	67,905	67,905	36,297
B. Assets			
Actuarial Value	37,368,403	37,368,403	34,633,519
Market Value	41,249,632	41,249,632	38,147,156
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	16,761,896	18,170,369	18,596,339
Disability Benefits	1,348,385	1,508,821	1,452,402
Death Benefits	185,888	207,605	206,815
Vested Benefits	750,247	933,160	1,018,323
Service Retirees	27,393,175	29,314,322	31,325,977
Beneficiaries	4,529,514	4,828,615	2,332,318
Disability Retirees	826,666	867,442	853,821
Terminated Vested	416,741	457,387	290,874
Total	52,212,512	56,287,721	56,076,869

C. Liabilities - (Continued)	New Asmp/Mthd 1/1/2022	Old Asmp/Mthd 1/1/2022	1/1/2021
Present Value of Future Salaries	28,765,630	28,384,781	26,694,261
Present Value of Future Member Contributions	2,850,674	2,812,932	2,645,401
Normal Cost (Retirement)	479,438	512,613	502,427
Normal Cost (Disability)	88,204	97,043	92,712
Normal Cost (Death)	10,489	12,162	11,684
Normal Cost (Vesting)	50,996	59,559	62,448
Total Normal Cost	629,127	681,377	669,271
Present Value of Future Normal Costs	5,742,266	6,194,990	6,041,577
Accrued Liability (Retirement)	12,367,331	13,474,373	13,975,013
Accrued Liability (Disability)	491,701	576,613	572,372
Accrued Liability (Death)	65,920	71,905	84,194
Accrued Liability (Vesting)	379,198	502,074	600,723
Accrued Liability (Inactives)	33,166,096	35,467,766	34,802,990
Total Actuarial Accrued Liability	46,470,246	50,092,731	50,035,292
Unfunded Actuarial Accrued Liability (UAAL)	9,101,843	12,724,328	15,401,773
Funded Ratio (AVA / AL)	80.4%	74.6%	69.2%

	New Asmp/Mthd 1/1/2022	Old Asmp/Mthd 1/1/2022	1/1/2021
D. Actuarial Present Value of Accrued Benefits			
Vested Accrued Benefits			
Inactives	33,166,096	35,467,766	34,802,990
Actives	5,868,239	6,424,513	5,947,935
Member Contributions	2,516,014	2,516,014	2,612,091
Total	41,550,349	44,408,293	43,363,016
Non-vested Accrued Benefits	93,346	112,958	820,186
Total Present Value Accrued Benefits	41,643,695	44,521,251	44,183,202
Funded Ratio (MVA / PVAB)	99.1%	92.7%	86.3%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	(2,877,556)	0	
Plan Experience	0	115,219	
Benefits Paid	0	(2,461,692)	
Interest	0	2,684,522	
Other	0	0	
Total	(2,877,556)	338,049	

	New Asmp/Mthd	Old Asmp/Mthd	
Valuation Date	1/1/2022	1/1/2022	1/1/2021
Applicable to Fiscal Year Ending	12/31/2023	12/31/2023	12/31/2022
E. Pension Cost			
Normal Cost [1]	$671,593	$723,963	$711,100
% of Total Annual Payroll [1]	23.8	25.6	26.6
Administrative Expenses [1]	34,915	34,751	41,110
% of Total Annual Payroll [1]	1.2	1.2	1.5
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 15 years (as of 1/1/2022) [1]	809,572	1,075,992	1,302,401
% of Total Annual Payroll [1]	28.7	38.1	48.8
Total Recommended Contribution	1,516,080	1,834,706	2,054,611
% of Total Annual Payroll [1]	53.7	64.9	76.9
Expected Member Contributions [1]	(279,977)	(279,977)	(264,779)
% of Total Annual Payroll [1]	(9.9)	(9.9)	(9.9)
Expected Village Contribution	1,236,103	1,554,729	1,789,832
% of Total Annual Payroll [1]	43.8	55.0	67.0
F. Past Contributions			
Plan Years Ending:	12/31/2021		
Total Recommended Contribution	2,121,521		
Village Requirement	1,848,687		
Actual Contributions Made:			
Members (excluding buyback)	272,834		
Village	1,256,878		
Total	1,529,712		
G. Net Actuarial (Gain)/Loss	(2,813,575)		

[1] Contributions developed as of 1/1/2022 displayed above have been adjusted to account for assumed interest.

H. Schedule Illustrating the Amortization of the Total Unfunded Actuarial Accrued Liability as of:

Year	Projected Unfunded Accrued Liability
2022	9,101,843
2023	8,906,646
2024	8,715,635
2027	8,166,829
2031	7,488,466
2034	7,016,934
2037	6,575,092

I. (i) 5 Year Comparison of Actual and Assumed Salary Increases

		Actual	Assumed
Year Ended	12/31/2021	7.22%	4.11%
Year Ended	12/31/2020	4.73%	4.62%
Year Ended	12/31/2019	1.80%	4.39%
Year Ended	12/31/2018	5.38%	4.41%
Year Ended	12/31/2017	5.78%	5.07%

(ii) 5 Year Comparison of Investment Return on Actuarial Value

		Actual MVA	Actual AVA	Assumed
Year Ended	12/31/2021	10.80%	10.83%	6.25%
Year Ended	12/31/2020	18.61%	9.91%	6.25%
Year Ended	12/31/2019	10.50%	6.17%	6.25%
Year Ended	12/31/2018	-0.27%	5.11%	6.25%
Year Ended	12/31/2017	12.62%	8.49%	6.25%

DEVELOPMENT OF JANUARY 1, 2022 AMORTIZATION PAYMENT

(1)	Unfunded Actuarial Accrued Liability as of January 1, 2021	$15,401,773
(2)	Sponsor Normal Cost developed as of January 1, 2021	404,492
(3)	Expected administrative expenses for the year ended December 31, 2021	38,692
(4)	Expected interest on (1), (2) and (3)	989,101
(5)	Sponsor contributions to the System during the year ended December 31, 2021	1,256,878
(6)	Expected interest on (5)	39,277
(7)	Expected Unfunded Actuarial Accrued Liability as of December 31, 2021, (1)+(2)+(3)+(4)-(5)-(6)	15,537,903
(8)	Change to UAAL due to Assumption/Method Change	(3,622,485)
(9)	Change to UAAL due to Actuarial (Gain)/Loss	(2,813,575)
(10)	Unfunded Accrued Liability as of January 1, 2022	9,101,843
(11)	UAAL Subject to Amortization (100% AAL less Actuarial Assets)	9,101,843

Date Established	Years Remaining	1/1/2022 Amount	Amortization Amount
1/1/2022	15	9,101,843	758,381

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of January 1, 2021	$15,401,773
(2)	Expected UAAL as of January 1, 2022	15,537,903
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	(1,565,123)
	Salary Increases	130,817
	Active Decrements	(235,400)
	Inactive Mortality	(1,082,643)
	Other	(61,226)
	Change in UAAL due to (Gain)/Loss	(2,813,575)
	Change to UAAL due to Assumption/Method Change	(3,622,485)
(4)	Actual UAAL as of January 1, 2022	$9,101,843

RECONCILIATION OF CHANGES IN CONTRIBUTION REQUIREMENT

(1)	Contribution Determined as of January 1, 2021	$ 1,789,832
(2)	Summary of Contribution Impact by component:	
	Change in Normal Cost	12,863
	Change in Assumed Administrative Expense	(6,359)
	Investment Return (Actuarial Asset Basis)	(132,350)
	Salary Increases	11,062
	New Entrants	1,401
	Active Decrements	(19,906)
	Inactive Mortality	(91,550)
	Contributions (More) or Less than Recommended	51,608
	Increase in Amortization Payment Due to Payroll Growth Assumption	45,584
	Application of Open Amortization Method	(59,090)
	Change in Expected Member Contributions	(15,198)
	Assumption Change	(318,626)
	Other	(33,168)
	Total Change in Contribution	(553,729)
(3)	Contribution Determined as of January 1, 2022	$1,236,103

STATUTORY MINIMUM REQUIRED CONTRIBUTION

Contribution requirements shown on this page are calculated according to statutory minimum funding requirements of the Illinois Pension Code. We do not believe this method is sufficient to fund future benefits; as such, we recommend funding according to the contributions developed in Section E of this report.

	New Asmp/Mthd	Old Asmp/Mthd	
Valuation Date	1/1/2022	1/1/2022	1/1/2021
Applicable to Fiscal Year Ending	12/31/2023	12/31/2023	12/31/2022
Actuarial Accrued Liability (PUC)	45,225,158	48,636,948	48,642,797
Actuarial Value of Assets	37,368,403	37,368,403	34,633,519
Unfunded Actuarial Accrued Liability (UAAL)	7,856,755	11,268,545	14,009,278
UAAL Subject to Amortization	3,334,239	6,404,850	9,144,998
Normal Cost [1]	$772,019	$845,083	$829,198
% of Total Annual Payroll [1]	27.3	29.9	31.0
Administrative Expenses [1]	34,915	34,751	41,110
% of Total Annual Payroll [1]	1.2	1.2	1.5
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 19 years (as of 1/1/2022) [1]	248,712	448,860	616,198
% of Total Annual Payroll [1]	8.9	15.9	23.1
Total Required Contribution	1,055,646	1,328,694	1,486,506
% of Total Annual Payroll [1]	37.4	47.0	55.6
Expected Member Contributions [1]	(279,977)	(279,977)	(264,779)
% of Total Annual Payroll [1]	(9.9)	(9.9)	(9.9)
Expected Village Contribution	775,669	1,048,717	1,221,727
% of Total Annual Payroll [1]	27.5	37.1	45.7

Assumptions and Methods:

Actuarial Cost Method	Projected Unit Credit
Amortization Method	90% Funding by 2040

All other assumptions and methods are as described in the Actuarial Assumptions and Methods section.

[1] Contributions developed as of 1/1/2022 displayed above have been adjusted to account for assumed interest.

PROJECTION OF BENEFIT PAYMENTS

Year	Payments for Current Actives	Payments for Current Inactives	Total Payments
2022	72,385	2,484,804	2,557,189
2023	157,198	2,458,820	2,616,018
2024	241,889	2,485,291	2,727,180
2025	322,224	2,509,267	2,831,491
2026	406,433	2,530,645	2,937,078
2027	484,499	2,549,073	3,033,572
2028	593,305	2,564,017	3,157,322
2029	701,010	2,593,408	3,294,418
2030	800,446	2,600,655	3,401,101
2031	886,505	2,602,478	3,488,983
2032	969,181	2,598,285	3,567,466
2033	1,062,069	2,587,581	3,649,650
2034	1,141,353	2,569,962	3,711,315
2035	1,221,570	2,545,110	3,766,680
2036	1,330,882	2,512,815	3,843,697
2037	1,450,685	2,472,993	3,923,678
2038	1,552,314	2,460,896	4,013,210
2039	1,636,864	2,407,132	4,043,996
2040	1,766,577	2,346,311	4,112,888
2041	1,898,722	2,278,977	4,177,699
2042	2,004,409	2,205,775	4,210,184
2043	2,099,155	2,127,456	4,226,611
2044	2,214,418	2,044,783	4,259,201
2045	2,346,390	1,988,658	4,335,048
2046	2,458,114	1,900,197	4,358,311
2047	2,598,058	1,809,503	4,407,561
2048	2,722,000	1,717,167	4,439,167
2049	2,859,153	1,623,742	4,482,895
2050	2,977,751	1,529,660	4,507,411
2051	3,106,432	1,435,229	4,541,661
2052	3,228,790	1,340,689	4,569,479
2053	3,315,393	1,246,165	4,561,558
2054	3,396,910	1,151,891	4,548,801
2055	3,458,359	1,058,254	4,516,613
2056	3,495,406	965,692	4,461,098
2057	3,518,447	874,786	4,393,233
2058	3,527,058	786,317	4,313,375
2059	3,520,868	701,066	4,221,934
2060	3,501,298	619,900	4,121,198
2061	3,466,982	543,702	4,010,684

ACTUARIAL ASSUMPTIONS AND METHODS

Interest Rate	6.75% per year compounded annually, net of investment related expenses.
Mortality Rate	***Active Lives:*** PubS-2010 Employee mortality, unadjusted, with generational improvements with most recent projection scale (currently Scale MP-2021). 10% of active deaths are assumed to be in the line of duty. ***Inactive Lives:*** PubS-2010 Healthy Retiree mortality, adjusted by a factor of 1.15 for male retirees and unadjusted for female retirees, with generational improvements with most recent projection scale (currently Scale MP-2021). ***Beneficiaries:*** PubS-2010 Survivor mortality, unadjusted for male beneficiaries and adjusted by a factor of 1.15 for female beneficiaries, with generational improvements with most recent projection scale (currently Scale MP-2021). ***Disabled Lives:*** PubS-2010 Disabled mortality, adjusted by a factor of 1.08 for male disabled members and unadjusted for female disabled members, with generational improvements with most recent projection scale (currently Scale MP-2021). The mortality assumptions sufficiently accommodate anticipated future mortality improvements.
Retirement Age	See table at end of this section. This is based on a 2022 experience study performed for the Illinois Police Officers' Pension Investment Fund.
Disability Rate	See table at end of this section. 60% of the disabilities are assumed to be in the line of duty. This is based on a 2022 experience study performed for the Illinois Police Officers' Pension Investment Fund.
Termination Rate	See table at end of this section. This is based on a 2022 experience study performed for the Illinois Police Officers' Pension Investment Fund.

Salary Increases	See table below. This is based on a 2022 experience study performed for the Illinois Police Officers' Pension Investment Fund.

Salary Scale	
Service	Rate
0	11.00%
1	9.50%
2	8.00%
3	7.50%
4	7.00%
5	6.00%
6	5.00%
7 - 11	4.00%
12 - 29	3.75%
30+	3.50%

Inflation	2.50%.
Cost-of-Living Adjustment	Tier 1: 3.00% per year after age 55. Those that retire prior to age 55 receive an increase of 1/12 of 3.00% for each full month since benefit commencement upon reaching age 55. Tier 2: 1.25% per year after the later of attainment of age 60 or first anniversary of retirement.
Marital Status	80% of Members are assumed to be married.
Spouse's Age	Males are assumed to be three years older than females.
Funding Method	Entry Age Normal Cost Method.
Actuarial Asset Method	Investment gains and losses are smoothed over a 5-year period. In the first year, 20% of the gain or loss is recognized. In the second year 40%, in the third year 60%, in the fourth year 80%, and in the fifth year 100% of the gain or loss is recognized. The actuarial investment gain or loss is defined as the actual return on investments minus the actuarial assumed investment return. Actuarial Assets shall not be less than 80% nor greater than 120% of the Market Value of Assets.
Funding Policy Amortization Method	The UAAL is amortized according to a Level Percentage of Payroll method over an open period of 15 years. The initial amortization amount is 100% of the Accrued Liability less the Actuarial Value of Assets.
Payroll Growth	3.25% per year.
Administrative Expenses	Expenses paid out of the fund other than investment-related expenses are assumed to be equal to those paid in the previous year.

Decrement Tables

% Terminating During the Year		% Becoming Disabled During the Year		% Retiring During the Year (Tier 1)		% Retiring During the Year (Tier 2)	
Service	Rate	Age	Rate	Age	Rate	Age	Rate
0	13.00%	20	0.000%	50 - 54	20%	50 - 54	5%
1	8.00%	25	0.029%	55 - 62	25%	55	40%
2	7.00%	30	0.133%	63	33%	56 - 62	25%
3	6.00%	35	0.247%	64	40%	63	33%
4	5.00%	40	0.399%	65 - 69	55%	64	40%
5	4.50%	45	0.561%	70+	100%	65 - 69	55%
6	4.00%	50	0.675%			70+	100%
7	3.50%	55	0.855%				
8	3.00%	60	1.093%				
9	2.50%						
10	2.25%						
11	2.00%						
12	1.75%						
13	1.50%						
14+	1.25%						

GLOSSARY

Total Annual Payroll is the projected annual rate of pay for the fiscal year following the valuation date of all covered members.

Present Value of Benefits is the single sum value on the valuation date of all future benefits to be paid to current Members, Retirees, Beneficiaries, Disability Retirees and Vested Terminations.

Normal (Current Year's) Cost is the current year's cost for benefits yet to be funded.

Unfunded Accrued Liability is a liability which arises when a pension plan is initially established or improved and such establishment or improvement is applicable to all years of past service.

Total Recommended Contribution is equal to the Normal Cost plus an amount sufficient to amortize the Unfunded Accrued Liability over a 15-year rolling amortization period each year. The recommended amount is adjusted for interest according to the timing of contributions during the year.

Entry Age Normal Cost Method - Under this method, the normal cost is the sum of the individual normal costs for all active participants. For an active participant, the normal cost is the participant's normal cost accrual rate, multiplied by the participant's current compensation.

(a) The normal cost accrual rate equals:

(i) the present value of future benefits for the participant, determined as of the participant's entry age, divided by

(ii) the present value of the compensation expected to be paid to the participant for each year of the participant's anticipated future service, determined as of the participant's entry age.

(b) In calculating the present value of future compensation, the salary scale is applied both retrospectively and prospectively to estimate compensation in years prior to and subsequent to the valuation year based on the compensation used for the valuation.

(c) The accrued liability is the sum of the individual accrued liabilities for all participants and beneficiaries. A participant's accrued liability equals the present value, at the participant's attained age, of future benefits less the present value at the participant's attained age of the individual normal costs payable in the future. A beneficiary's accrued liability equals the present value, at the beneficiary's attained age, of future benefits. The unfunded accrued liability equals the total accrued liability less the actuarial value of assets.

(d) Under this method, the entry age used for each active participant is the participant's age at the time he or she would have commenced participation if the plan had always been in existence under current terms, or the age as of which he or she first earns service credits for purposes of benefit accrual under the current terms of the plan.

DISCUSSION OF RISK

ASOP No. 51, Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions, states that the actuary should identify risks that, in the actuary's professional judgment, may reasonably be anticipated to significantly affect the plan's future financial condition.

Throughout this report, actuarial results are determined under various assumption scenarios. These results are based on the premise that all future plan experience will align with the plan's actuarial assumptions; however, there is no guarantee that actual plan experience will align with the plan's assumptions. It is possible that actual plan experience will differ from anticipated experience in an unfavorable manner that will negatively impact the plan's funded position.

Below are examples of ways in which plan experience can deviate from assumptions and the potential impact of that deviation. Typically, this results in an actuarial gain or loss representing the current-year financial impact on the plan's unfunded liability of the experience differing from assumptions; this gain or loss is amortized over a period of time determined by the plan's amortization method. When assumptions are selected that adequately reflect plan experience, gains and losses typically offset one another in the long term, resulting in a relatively low impact on the plan's contribution requirements associated with plan experience. When assumptions are too optimistic, losses can accumulate over time and the plan's amortization payment could potentially grow to an unmanageable level.

- <u>Investment Return</u>: When the rate of return on the Actuarial Value of Assets falls short of the assumption, this produces a loss representing assumed investment earnings that were not realized. Further, it is unlikely that the plan will experience a scenario that matches the assumed return in each year as capital markets can be volatile from year to year. Therefore, contribution amounts can vary in the future.

- <u>Salary Increases</u>: When a plan participant experiences a salary increase that was greater than assumed, this produces a loss representing the cost of an increase in anticipated plan benefits for the participant as compared to the previous year. The total gain or loss associated with salary increases for the plan is the sum of salary gains and losses for all active participants.

- <u>Payroll Growth</u>: The plan's payroll growth assumption, if one is used, causes a predictable annual increase in the plan's amortization payment in order to produce an amortization payment that remains constant as a percentage of payroll if all assumptions are realized. If payroll does not increase according to the plan's payroll growth assumption, the plan's amortization payment can increase significantly as a percentage of payroll even if all assumptions other than the payroll growth assumption are realized.

- <u>Demographic Assumptions:</u> Actuarial results take into account various potential events that could happen to a plan participant, such as retirement, termination, disability, and death. Each of these potential events is assigned a liability based on the likelihood of the event and the financial consequence of the event for the plan. Accordingly, actuarial liabilities reflect a blend of financial consequences associated with various possible outcomes (such as retirement at one of various possible ages). Once the outcome is known (e.g. the participant retires) the liability is adjusted to reflect the known outcome. This adjustment produces a gain or loss depending on whether the outcome was more or less favorable than other outcomes that could have occurred.

- <u>Contribution Risk</u>: This risk results from the potential that actual employer contributions may deviate from actuarially determined contributions, which are determined in accordance with the

Board’s funding policy. The funding policy is intended to result in contribution requirements that if paid when due, will result in a reasonable expectation that assets will accumulate to be sufficient to pay plan benefits when due. Contribution deficits, particularly large deficits and those that occur repeatedly, increase future contribution requirements and put the plan at risk for not being able to pay plan benefits when due.

Impact of Plan Maturity on Risk

For newer pension plans, most of the participants and associated liabilities are related to active members who have not yet reached retirement age. As pension plans continue in operation and active members reach retirement ages, liabilities begin to shift from being primarily related to active members to being shared amongst active and retired members. Plan maturity is a measure of the extent to which this shift has occurred. It is important to understand that plan maturity can have an impact on risk tolerance and the overall risk characteristics of the plan. For example, plans with a large amount of retired liability do not have as long of a time horizon to recover from losses (such as losses on investments due to lower than expected investment returns) as plans where the majority of the liability is attributable to active members. For this reason, less tolerance for investment risk may be warranted for highly mature plans with a substantial inactive liability. Similarly, mature plans paying substantial retirement benefits resulting in a small positive or net negative cash flow can be more sensitive to near term investment volatility, particularly if the size of the fund is shrinking, which can result in less assets being available for investment in the market.

To assist with determining the maturity of the plan, we have provided some relevant metrics in the table following titled “Plan Maturity Measures and Other Risk Metrics”. Highlights of this information are discussed below:

- The Support Ratio, determined as the ratio of active to inactive members, has decreased from 66.7% on January 1, 2019 to 63.4% on January 1, 2022, indicating that the plan has been maturing.

- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is the liability associated with members who are no longer employed but are due a benefit from the plan, to the Total Accrued Liability, is 71.4%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors will need to be made up for over a shorter time horizon than would be needed for a less mature plan.

- The Funded Ratio, determined as the ratio of the Actuarial Value of Assets to the Total Accrued Liability, has increased from 65.6% on January 1, 2019 to 80.4% on January 1, 2022, despite the recent shortfall in Actual Sponsor Contributions. The increase is due mainly to plan experience and assumption changes.

- The Net Cash Flow Ratio, determined as the ratio of the Net Cash Flow (contributions minus benefit payments and administrative expenses) to the Market Value of Assets, decreased from -0.9% on January 1, 2019 to -2.3% on January 1, 2022. The current Net Cash Flow Ratio of -2.3% indicates that contributions are not currently covering the plan's benefit payments and administrative expenses.

It is important to note that the actuary has identified the risks above as the most significant risks based on the characteristics of the plan and the nature of the project, however, it is not an exhaustive list of potential risks that could be considered. Additional advanced modeling, as well as the identification of additional risks, can be provided at the request of the audience addressed on page 2 of this report.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	1/1/2022	1/1/2021	1/1/2020	1/1/2019
Support Ratio				
Total Actives	26	25	28	26
Total Inactives	41	40	39	39
Actives / Inactives	63.4%	62.5%	71.8%	66.7%
Asset Volatility Ratio				
Market Value of Assets (MVA)	41,249,632	38,147,156	32,551,979	29,847,262
Total Annual Payroll	2,825,200	2,671,838	2,857,689	2,691,970
MVA / Total Annual Payroll	1,460.1%	1,427.7%	1,139.1%	1,108.8%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	33,166,096	34,802,990	31,756,500	31,140,869
Total Accrued Liability	46,470,246	50,035,292	47,987,138	46,403,223
Inactive AL / Total AL	71.4%	69.6%	66.2%	67.1%
Funded Ratio				
Actuarial Value of Assets (AVA)	37,368,403	34,633,519	31,915,764	30,455,193
Total Accrued Liability	46,470,246	50,035,292	47,987,138	46,403,223
AVA / Total Accrued Liability	80.4%	69.2%	66.5%	65.6%
Net Cash Flow Ratio				
Net Cash Flow [1]	(964,687)	(424,293)	(406,936)	(271,123)
Market Value of Assets (MVA)	41,249,632	38,147,156	32,551,979	29,847,262
Ratio	-2.3%	-1.1%	-1.3%	-0.9%

[1] Determined as total contributions minus benefit payments and administrative expenses.

STATEMENT OF FIDUCIARY NET POSITION
December 31, 2021

ASSETS	MARKET VALUE
Cash and Cash Equivalents:	
Checking Account	2,128,704
Certificates of Deposit	294,434
Money Market	626,017
Total Cash and Equivalents	3,049,155
Receivables:	
Accrued Past Due Interest	42,333
Total Receivable	42,333
Investments:	
Corporate Bonds	2,584,897
U.S. Gov't and Agency Obligations	9,407,911
Insurance Company Contracts	2,702,541
Stocks	5,866,834
Mutual Funds	17,595,961
Total Investments	38,158,144
Total Assets	41,249,632
LIABILITIES	
Total Liabilities	0
Net Assets:	
Active and Retired Members' Equity	41,249,632
NET POSITION RESTRICTED FOR PENSIONS	41,249,632
TOTAL LIABILITIES AND NET ASSETS	41,249,632

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED December 31, 2021
Market Value Basis

ADDITIONS		
Contributions:		
Member	272,834	
Village	1,256,878	
Total Contributions		1,529,712
Investment Income:		
Net Realized Gain (Loss)	1,936,769	
Unrealized Gain (Loss)	(290,913)	
Net Increase in Fair Value of Investments		1,645,856
Interest & Dividends		2,518,906
Less Investment Expense [1]		(97,599)
Net Investment Income		4,067,163
Total Additions		5,596,875
DEDUCTIONS		
Distributions to Members:		
Benefit Payments	2,461,692	
Refund of Contributions/Transfers	0	
Total Distributions		2,461,692
Administrative Expenses		32,707
Total Deductions		2,494,399
Net Increase in Net Position		3,102,476
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		38,147,156
End of the Year		41,249,632

[1] Investment Related expenses include investment advisory, custodial and performance monitoring fees.

ACTUARIAL ASSET VALUATION
December 31, 2021

Development of Actuarial Value of Assets

Market Value of Assets, 12/31/2021	41,249,632
(Gains)/Losses Not Yet Recognized	(3,881,229)
Actuarial Value of Assets, 12/31/2021	37,368,403
12/31/2021 Limited Actuarial Assets:	37,368,403

Development of Investment Gain/Loss

Market Value of Assets, 12/31/2020	38,147,156
Contributions Less Benefit Payments & Administrative Expenses	(964,687)
Expected Investment Earnings[1]	2,354,051
Actual Net Investment Earnings	4,067,163
2021 Actuarial Investment Gain/(Loss)	1,713,112

[1] Expected Investment Earnings = 6.25% x (38,147,156 + 0.5 x -964,687)

Gains/(Losses) Not Yet Recognized

Plan Year		Amounts Not Yet Recognized by Valuation Year				
Ending	Gain/(Loss)	2021	2022	2023	2024	2025
12/31/2018	(1,959,831)	(391,966)	0	0	0	0
12/31/2019	1,259,417	503,767	251,883	0	0	0
12/31/2020	3,998,230	2,398,938	1,599,292	799,646	0	0
12/31/2021	1,713,112	1,370,490	1,027,867	685,245	342,622	0
Total		3,881,229	2,879,042	1,484,891	342,622	0

Development of Asset Returns

(A) 12/31/2020 Actuarial Assets:	34,633,519
(I) Net Investment Income:	
1. Interest and Dividends	2,518,906
2. Realized Gains (Losses)	1,936,769
3. Change in Actuarial Value	(658,505)
4. Investment Expenses	(97,599)
Total	3,699,571
(B) 12/31/2021 Actuarial Assets:	37,368,403
Actuarial Asset Rate of Return = (2 x I) / (A + B - I):	10.83%
Market Value of Assets Rate of Return:	10.80%
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	1,565,123

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
December 31, 2021
Actuarial Asset Basis

INCOME		
Contributions:		
Member	272,834	
Village	1,256,878	
Total Contributions		1,529,712
Earnings from Investments		
Interest & Dividends	2,518,906	
Net Realized Gain (Loss)	1,936,769	
Change in Actuarial Value	(658,505)	
Total Earnings and Investment Gains		3,797,170
EXPENSES		
Administrative Expenses:		
Investment Related[1]	97,599	
Other	32,707	
Total Administrative Expenses		130,306
Distributions to Members:		
Benefit Payments	2,461,692	
Refund of Contributions/Transfers	0	
Total Distributions		2,461,692
Change in Net Assets for the Year		2,734,884
Net Assets Beginning of the Year		34,633,519
Net Assets End of the Year[2]		37,368,403

[1] Investment Related expenses include investment advisory, custodial and performance monitoring fees.
[2] Net Assets may be limited for actuarial consideration.

STATISTICAL DATA

	1/1/2022	1/1/2021	1/1/2020	1/1/2019
Actives - Tier 1				
Number	9	11	13	14
Average Current Age	49.2	47.9	48.1	48.0
Average Age at Employment	27.2	27.0	26.8	28.8
Average Past Service	22.0	20.9	21.3	19.2
Average Annual Salary	$134,101	$127,917	$122,123	$118,562
Actives - Tier 2				
Number	17	14	15	12
Average Current Age	32.5	33.1	32.0	32.0
Average Age at Employment	27.2	27.8	27.8	28.4
Average Past Service	5.3	5.3	4.2	3.6
Average Annual Salary	$95,194	$90,339	$84,673	$86,009
Service Retirees				
Number	24	26	25	24
Average Current Age	69.1	69.0	69.4	68.8
Average Annual Benefit	$79,481	$78,843	$76,508	$76,177
Beneficiaries				
Number	7	5	5	5
Average Current Age	76.5	78.1	81.1	80.1
Average Annual Benefit	$72,380	$52,272	$43,924	$43,924
Disability Retirees				
Number	1	1	1	1
Average Current Age	52.9	51.9	50.9	49.9
Average Annual Benefit	$42,829	$42,829	$42,829	$42,829
Terminated Vested				
Number	9	8	8	9
Average Current Age	39.2	38.5	37.5	36.3
Average Annual Benefit [1]	$22,635	$18,149	$18,149	$18,149

[1] Average Annual Benefit for Terminated Vested members reflects the benefit for members entitled to a future annual benefit from the plan.

AGE AND SERVICE DISTRIBUTION

PAST SERVICE

AGE	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30+	Total
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	1	0	0	0	0	0	0	0	0	0	0	1
25 - 29	2	0	2	1	0	0	0	0	0	0	0	5
30 - 34	0	0	0	0	2	2	0	0	0	0	0	4
35 - 39	0	0	1	0	0	3	0	0	0	0	0	4
40 - 44	0	0	0	0	0	2	1	0	2	0	0	5
45 - 49	0	0	0	0	0	0	1	0	1	0	0	2
50 - 54	0	0	0	0	0	0	0	0	2	2	0	4
55 - 59	0	0	0	0	0	0	0	0	1	0	0	1
60 - 64	0	0	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	3	1	2	7	2	0	6	2	0	26

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 1/1/2021	25
b. Terminations	
i. Vested (partial or full) with deferred benefits	(1)
ii. Non-vested or full lump sum distribution received	0
iii. Transferred service to other fund	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	0
e. Retired	(1)
f. Continuing participants	23
g. New entrants	3
h. Total active life participants in valuation	26

2. Non-Active lives (including beneficiaries receiving benefits)

	Service Retirees, Vested Receiving Benefits	Receiving Death Benefits	Receiving Disability Benefits	Vested Deferred	Total
a. Number prior valuation	26	5	1	8	40
Retired	1	0	0	0	1
Vested Deferred	0	0	0	1	1
Death, With Survivor	(2)	2	0	0	0
Death, No Survivor	(1)	0	0	0	(1)
Disabled	0	0	0	0	0
Refund of Contributions	0	0	0	0	0
Rehires	0	0	0	0	0
Expired Annuities	0	0	0	0	0
Data Corrections	0	0	0	0	0
Hired/Termed in Same Year	0	0	0	0	0
b. Number current valuation	24	7	1	9	41

SUMMARY OF CURRENT PLAN

Article 3 Pension Fund	The Plan is established and administered as prescribed by "Article 3. Police Pension Fund – Municipalities 500,000 and Under" of the Illinois Pension Code.
Plan Administration	The Plan is a single employer defined benefit pension plan administered by a Board of Trustees comprised of: a.) Two members appointed by the Municipality, b.) Two active Members of the Police Department elected by the Membership, and c.) One retired Member of the Police Department elected by the Membership.
Credited Service	Complete years of service as a sworn police officer employed by the Municipality.
Normal Retirement	
Date	**Tier 1**: Age 50 and 20 years of Credited Service. **Tier 2:** Age 55 with 10 years of Credited Service.
Benefit	**Tier 1:** 50% of annual salary attached to rank on last day of service plus 2.50% of annual salary for each year of service over 20 years, up to a maximum of 75% of salary. The minimum monthly benefit is $1,000 per month. **Tier 2**: 2.50% per year of service times the average salary for the 48 consecutive months of service within the last 60 months of service in which the total salary was the highest prior to retirement times the number of years of service, up to a maximum of 75% of average salary. The minimum monthly benefit is $1,000 per month. For Tier 2 participants, the salary is capped at a rate of $106,800 as of 2011, indexed annually at a rate of CPI-U, but not to exceed 3.00%.
Form of Benefit	**Tier 1:** For married retirees, an annuity payable for the life of the Member; upon the death of the member, 100% of the Member's benefit payable to the spouse until death. For unmarried retirees, the normal form is a Single Life Annuity. **Tier 2**: Same as above, but with 66 2/3% of benefit continued to spouse.

Early Retirement

Date	**Tier 1**: Age 60 and 8 years of Credited Service. **Tier 2:** Age 50 with 10 years of Credited Service.
Benefit	**Tier 1:** Normal Retirement benefit with no minimum. **Tier 2**: Normal Retirement benefit, reduced 6.00% each year before age 55, with no minimum benefit.
Form of Benefit	Same as Normal Retirement

Disability Benefit

Eligibility	Total and permanent as determined by the Board of Trustees.
Benefit Amount	A maximum of: a.) 65% of salary attached to the rank held by Member on last day of service, and; b.) The monthly retirement pension that the Member is entitled to receive if he or she retired immediately. For non-service connected disabilities, a benefit of 50% of salary attached to rank held by Member on last day of service.

Cost-of-Living Adjustment

Tier 1:

Retirees: An annual increase equal to 3.00% per year after age 55. Those that retire prior to age 55 receive an increase of 1/12 of 3.00% for each full month since benefit commencement upon reaching age 55.

Disabled Retirees: An annual increase equal to 3.00% per year of the original benefit amount beginning at age 60. Those that become disabled prior to age 60 receive an increase of 3.00% of the original benefit amount for each year since benefit commencement upon reaching age 60.

Tier 2: An annual increase each January 1 equal to 3.00% per year or one-half of the annual unadjusted percentage increase in the consumer price index-u for the 12 months ending with the September preceding each November 1, whichever is less, of the original pension after the attainment of age 60 or first anniversary of pension start date whichever is later.

Pre-Retirement Death Benefit

Service Incurred	100% of salary attached to rank held by Member on last day of service.
Non-Service Incurred	A maximum of: a.) 54% of salary attached to the rank held by Member on last day of service, and; b.) The monthly retirement pension earned by the deceased Member at the time of death, regardless of whether death occurs before or after age 50. For non-service deaths with less than 10 years of service, a refund of member contributions is provided.

Vesting (Termination)

Vesting Service Requirement	**Tier 1:** 8 years. **Tier 2**: 10 years.
Non-Vested Benefit	Refund of Member Contributions.
Vested Benefit	Either the termination benefit, payable upon reaching age 60 (55 for Tier 2), provided contributions are not withdrawn, or a refund of member contributions. The termination benefit is 2.50% of annual salary held in the year prior to termination (4-year final average salary for Tier 2) times creditable service.

Contributions

Employee	9.91% of Salary.
Municipality	Remaining amount necessary for payment of Normal (current year's) Cost and amortization of the accrued past service liability.

SUMMARY

Valuation Date	1/1/2022	1/1/2021
Measurement Date	12/31/2021	12/31/2020
Plan Membership:		
Inactives Currently Receiving Benefits	32	32
Inactives Not Yet Receiving Benefits	9	8
Active Plan Members	26	25
Total	67	65
Covered Payroll	$ 2,753,118	$ 2,671,838
Net Pension Liability		
Total Pension Liability	$ 46,185,968	$ 49,692,306
Plan Fiduciary Net Position	41,249,632	38,147,156
Net Pension Liability	$ 4,936,336	$ 11,545,150
Plan Fiduciary Net Position As a Percentage of Total Pension Liability	89.31%	76.77%
Net Pension Liability As a Percentage of Covered Payroll	179.30%	432.11%
Total Pension Expense	$ (401,133)	$ 581,077
Development of Single Discount Rate		
Single Discount Rate	6.75%	6.25%
Long-Term Expected Rate of Return	6.75%	6.25%
High-quality Municipal Bond Rate	2.25%	1.93%
Number of Years Future Benefit Payments Are Expected to be Paid	99	99

SCHEDULE OF CHANGES IN NET PENSION LIABILITY
PLAN AND VILLAGE REPORTING

GASB 68 Reporting Period Ending	12/31/2021	12/31/2020
Measurement Date	12/31/2021	12/31/2020
Total Pension Liability		
Service Cost	679,789	769,301
Interest	3,071,328	2,950,995
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	(1,233,854)	704,611
Changes of Assumptions	(3,561,909)	-
Benefit Payments, Including Refunds of Employee Contributions	(2,461,692)	(2,358,425)
Net Change in Total Pension Liability	(3,506,338)	2,066,482
Total Pension Liability - Beginning	49,692,306	47,625,824
Total Pension Liability - Ending (a)	$ 46,185,968	$ 49,692,306
Plan Fiduciary Net Position		
Contributions - Employer	1,256,878	1,681,054
Contributions - Employee	272,834	291,770
Net Investment Income	4,067,163	6,019,470
Benefit Payments, Including Refunds of Employee Contributions	(2,461,692)	(2,358,425)
Administrative Expense	(32,707)	(38,692)
Net Change in Plan Fiduciary Net Position	3,102,476	5,595,177
Plan Fiduciary Net Position - Beginning	38,147,156	32,551,979
Plan Fiduciary Net Position - Ending (b)	$ 41,249,632	$ 38,147,156
Net Pension Liability - Ending (a) - (b)	$ 4,936,336	$ 11,545,150
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	89.31%	76.77%
Covered Payroll	$ 2,753,118	$ 2,671,838
Net Pension Liability as a Percentage of Covered Payroll	179.30%	432.11%

STATEMENT OF CHANGES IN NET PENSION LIABILITY
VILLAGE REPORTING

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances at December 31, 2020	$ 49,692,306	$ 38,147,156	$ 11,545,150
Changes for a Year:			
Service Cost	679,789	-	679,789
Interest	3,071,328	-	3,071,328
Differences Between Expected and Actual Experience	(1,233,854)	-	(1,233,854)
Changes of Assumptions	(3,561,909)	-	(3,561,909)
Changes of Benefit Terms	-	-	-
Contributions - Employer	-	1,256,878	(1,256,878)
Contributions - Employee	-	272,834	(272,834)
Net Investment Income	-	4,067,163	(4,067,163)
Benefit Payments, Including Refunds of Employee Contributions	(2,461,692)	(2,461,692)	-
Administrative Expense	-	(32,707)	32,707
Net Changes	(3,506,338)	3,102,476	(6,608,814)
Balances at December 31, 2021	$ 46,185,968	$ 41,249,632	$ 4,936,336

Sensitivity of Net Pension Liability to changes in the Discount Rate:

	1% Decrease 5.75%	Current Discount Rate 6.75%	1% Increase 7.75%
Sponsor's Net Pension Liability	$ 11,078,621	$ 4,936,336	$ (104,593)

Pension Plan Fiduciary Net Position
Detailed information about the Pension Plan's Fiduciary Net Position is available in a separately issued Plan financial report.

PENSION EXPENSE AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS
YEAR-END DECEMBER 31, 2021

For the year ended December 31, 2021, the Sponsor will recognize a pension expense of ($401,133).
On December 31, 2021, the Sponsor reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between actual and expected experience	512,019	1,051,592
Changes of assumptions	232,049	2,968,260
Net difference between projected and actual earnings on pension plan investments	0	3,881,216
Total	$744,068	$7,901,068

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

Year-ended December 31:	
2022	($1,350,941)
2023	($2,064,209)
2024	($1,800,640)
2025	($1,141,916)
2026	($799,294)
Thereafter	$0

COMPONENTS OF PENSION EXPENSE
YEAR-END DECEMBER 31, 2021

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning Balance	$ 11,545,150	$ 4,344,947	$ 2,138,750	
Total Pension Liability Factors:				
Service Cost	679,789	-	-	679,789
Interest	3,071,328	-	-	3,071,328
Changes in Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience With Regard to Economic or Demographic Assumptions	(1,233,854)	1,233,854	-	-
Current Year Amortization	-	(217,335)	(378,701)	161,366
Changes in Assumptions About Future Economic or Demographic Factors or Other Inputs	(3,561,909)	3,561,909	-	-
Current Year Amortization	-	(605,970)	(232,049)	(373,921)
Benefit Payments, Including Refunds of Employee Contributions	(2,461,692)	-	-	-
Net Change	(3,506,338)	3,972,458	(610,750)	3,538,562
Plan Fiduciary Net Position:				
Contributions - Employer	1,256,878	-	-	-
Contributions - Employee	272,834	-	-	(272,834)
Projected Net Investment Income	2,354,051	-	-	(2,354,051)
Difference Between Projected and Actual Earnings on Pension Plan Investments	1,713,112	1,713,112	-	-
Current Year Amortization	-	(1,737,483)	(391,966)	(1,345,517)
Benefit Payments, Including Refunds of Employee Contributions	(2,461,692)	-	-	-
Administrative Expenses	(32,707)	-	-	32,707
Net Change	3,102,476	(24,371)	(391,966)	(3,939,695)
Ending Balance	$ 4,936,336	$ 8,293,034	$ 1,136,034	$ (401,133)

AMORTIZATION SCHEDULE – EXPERIENCE

Year Base Established	Differences Between Expected and Actual Experience	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Differences between Expected and Actual Experience 2021	2022	2023	2024	2025	Thereafter
2021	$ (1,233,854)	6	$ (205,644)	$ (205,642)	$ (205,642)	$ (205,642)	$ (205,642)	$ (205,642)
2020	$ 704,611	5	$ 140,922	$ 140,922	$ 140,922	$ 140,922	$ -	$ -
2019	$ (58,455)	5	$ (11,691)	$ (11,691)	$ (11,691)	$ -	$ -	$ -
2018	$ 446,263	5	$ 89,253	$ 89,253	$ -	$ -	$ -	$ -
2017	$ 742,631	5	$ 148,526	$ -	$ -	$ -	$ -	$ -
Net Increase (Decrease) in Pension Expense			161,366	12,842	(76,411)	(64,720)	(205,642)	(205,642)

AMORTIZATION SCHEDULE – CHANGES OF ASSUMPTIONS

Year Base Established	Effects of Changes in Assumptions	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Effects of Changes of Assumptions					
			2021	2022	2023	2024	2025	Thereafter
2021	$ (3,561,909)	6	$ (593,649)	$ (593,652)	$ (593,652)	$ (593,652)	$ (593,652)	$ (593,652)
2018	$ 1,160,243	5	$ 232,049	$ 232,049	$ -	$ -	$ -	$ -
2017	$ (61,605)	5	$ (12,321)	$ -	$ -	$ -	$ -	$ -
Net Increase (Decrease) in Pension Expense			$ (373,921)	$ (361,603)	$ (593,652)	$ (593,652)	$ (593,652)	$ (593,652)

AMORTIZATION SCHEDULE – INVESTMENTS

Year Base Established	Differences Between Projected and Actual Earnings	Recognition Period (Years)	2021	2022	2023	2024	2025	Thereafter
			Increase (Decrease) in Pension Expense Arising from the Recognition of the Differences Between Projected and Actual Earnings on Pension Plan Investments					
2021	$ (1,713,112)	5	$ (342,624)	$ (342,622)	$ (342,622)	$ (342,622)	$ (342,622)	$ -
2020	$ (3,998,230)	5	$ (799,646)	$ (799,646)	$ (799,646)	$ (799,646)	$ -	$ -
2019	$ (1,259,388)	5	$ (251,878)	$ (251,878)	$ (251,878)	$ -	$ -	$ -
2018	$ 1,959,830	5	$ 391,966	$ 391,966	$ -	$ -	$ -	$ -
2017	$ (1,716,676)	5	$ (343,335)	$ -	$ -	$ -	$ -	$ -
Net Increase (Decrease) in Pension Expense			$ (1,345,517)	$(1,002,180)	$(1,394,146)	$(1,142,268)	$ (342,622)	$ -

SCHEDULE OF CONTRIBUTIONS

Plan Year-End	Actuarially Determined Contribution	Contributions in Relation to the Actuarially Determined Contributions	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
12/31/2021	1,848,687	1,256,878	591,809	2,753,118	45.65%
12/31/2020	1,720,195	1,681,054	39,141	2,671,838	62.92%

The following assumptions were used to determine the Actuarially Determined Contribution for the plan year ending December 31, 2021:

Calculation Timing

The Actuarially Determined Contribution is calculated using a January 1, 2020 valuation date.

Interest Rate

6.25%

Mortality Rate

Active Lives:
PubS-2010 Employee mortality, projected 5 years past the valuation date with Scale MP-2019. 10% of active deaths are assumed to be in the line of duty.

Inactive Lives:
PubS-2010 Healthy Retiree mortality, projected 5 years past the valuation date with Scale MP-2019.

Beneficiaries:
PubS-2010 Survivor mortality, projected 5 years past the valuation date with Scale MP-2019.

Disabled Lives:
PubS-2010 Disabled mortality, projected 5 years past the valuation date with Scale MP-2019.

Assumptions

All other assumptions and methods used for determining the Actuarially Determined Contribution can be found in the January 1, 2020 Actuarial Valuation Report for the Village of Winnetka Police Pension Fund prepared by Foster & Foster Actuaries and Consultants.

SCHEDULE OF INVESTMENT RETURNS

For the year ended December 31, 2021, the annual money-weighted return on Pension Plan investments, net of pension plan investment expense, was 12.66 percent. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Plan Year-End	Annual Money-Weighted Rate of Return Net of Investment Expense
12/31/2021	12.66%
12/31/2020	16.44%

ASSUMPTIONS – GASB PENSION LIABILITY AND PENSION EXPENSE

The GASB 67/GASB 68 Pension Liability as of December 31, 2021 and GASB 68 Pension Expense were determined as follows:

Valuation Date	January 1, 2022
Measurement Date	December 31, 2021
GASB 68 Expense Measurement Period	January 1, 2021 - December 31, 2021
Reporting Period	January 1, 2021 - December 31, 2021
Discount Rate	6.75%
Inflation	2.50%
Salary Increases	Service-based rates
Other Assumptions	A summary of complete assumptions can be found in the accompanying Actuarial Valuation as of January 1, 2022 for the Village of Winnetka Police Pension Fund prepared by Foster & Foster Actuaries and Consultants.

The GASB 67/GASB 68 Total Pension Liability and GASB 68 Pension Expense reflect the following assumption changes:

- The discount rate was updated from 6.25% to 6.75%.
- Updated mortality, retirement, disability, and termination rate tables.
- Updated assumed salary increase rates.

NOTES TO THE FINANCIAL STATEMENTS

Support for Long-Term Expected Rate of Return

The Long-Term Expected Rate of Return on Pension Plan investments can be determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of Pension Plan investment expenses and inflation) are developed for each major asset class.

These ranges are combined to produce the Long-Term Expected Rate of Return by weighting the expected future real rates of return by target asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return for each major asset class included in the Pension Plan's target asset allocation adopted as of December 31, 2021, as provided by AndCo, are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return
Domestic Equity	43.00%	7.50%
International Equity	16.00%	8.50%
Real Estate	5.00%	4.50%
Domestic Bonds	36.00%	2.50%
Total	100.00%	

Inflation rate of investment advisor	2.50%

Concentrations

The Plan did not hold investments in any one organization that represent 5 percent or more of the Pension Plan's fiduciary net position.

Discount Rate

The Discount Rate used to measure the Total Pension Liability was 6.75 percent.

The projection of cash flows used to determine the Discount Rate assumed that Plan Member contributions will be made at the current contribution rate and that Sponsor contributions will be made at rates equal to the difference between actuarially determined contribution rates and the Member rate. Based on those assumptions, the Pension Plan's Fiduciary Net Position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the Long-Term Expected Rate of Return on Pension Plan investments (6.75 percent) was applied to all periods of projected benefit payments to determine the Total Pension Liability.

For the purpose of this valuation, the expected rate of return on pension plan investments is 6.75 percent. The municipal bond rate is 2.25 percent (based on the daily rate closest to, but not later than the measurement date of the S&P Municipal Bond 20 Year High Grade Rate Index). The resulting single discount rate is 6.75 percent.

SUMMARY OF CURRENT PLAN

Article 3 Pension Fund

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

Plan Administration

The Plan is a single employer defined benefit pension plan administered by a Board of Trustees comprised of:

a.) Two members appointed by the Municipality,
b.) Two active members of the Police Department elected by the Membership.
c.) One retired member of the Police Department elected by the Membership.

Benefits Provided

The Plan provides retirement, termination, disability and death benefits.

A summary of the benefit provisions can be found in the accompanying Actuarial Valuation as of January 1, 2022 for the Village of Winnetka Police Pension Fund prepared by Foster & Foster Actuaries and Consultants.