

CITY OF PEORIA
POLICE PENSION FUND
ACTUARIAL VALUATION
AS OF JANUARY 1, 2018
CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING DECEMBER 31, 2018

June 14, 2018

Board of Trustees
City of Peoria
Police Pension Fund
401 Main St, Suite 1200
Peoria, IL 61602

Re: Actuarial Valuation Report – City of Peoria Police Pension Fund

Dear Board:

We are pleased to present to the Board this report of the annual actuarial valuation of the City of Peoria Police Pension Fund. The 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. Please note that this valuation may not be applicable for any other purposes.

The valuation has 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 reflects 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.

In conducting the valuation, we have relied on personnel, plan design, and asset information supplied by the Board, 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 undersigned is familiar with the immediate and long-term aspects of pension valuations and meets 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 City of Peoria, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the City of Peoria 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
Enrolled Actuary #17-6888

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Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the City of Peoria Police Pension Fund, performed as of January 1, 2018, 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, 2018.

The contribution requirements, compared with those set forth in the January 1, 2017 actuarial report, are as follows:

Valuation Date	1/1/2018	1/1/2017
Applicable to Fiscal Year Ending	<u>12/31/2018</u>	<u>12/31/2017</u>
Total Recommended Contribution	\$14,480,330	\$14,826,835
% of Projected Annual Payroll	74.6%	75.5%
Member Contributions (Est.)	1,924,671	1,945,681
% of Projected Annual Payroll	9.9%	9.9%
City Recommended Contribution	12,555,659	12,881,154
% of Projected Annual Payroll	64.7%	65.6%


As you can see, the Total Recommended Contribution, shows a decrease when compared to the results determined in the January 1, 2017 actuarial valuation report. The decrease is attributable to the change in actuarial assumptions. Overall the plan experienced a net loss during the year.

Unfavorable plan experience resulted from active decrement experience that differed from expectations, assets that earned a 6.34% investment return (Actuarial basis) which fell short of the 6.75% assumption, and fewer inactive deaths than expected. This was partially offset by salary increases that were lower than expected.

The balance of this Report presents additional details of the actuarial valuation and the general operation of the Fund. The undersigned would be pleased to meet with the Board of Trustees to discuss the Report and answer any pending questions concerning its contents.

Respectfully submitted,

FOSTER & FOSTER, INC.

By: 

Jason L. Franken, FSA, EA, MAAA

CHANGES SINCE PRIOR VALUATION

Plan Changes Since Prior Valuation

No plan changes have occurred since the prior valuation.

Actuarial Assumption/Method Changes Since Prior Valuation

Based on the results of the 2017 Department of Insurance experience study, the following assumption changes were made:

- Updated retirement, termination and disability rate tables.
- Updated assumed salary increase rates.
- Reduced assumed payroll growth rate from 4.00% to 3.50%.

There were no method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump <u>1/1/2018</u>	Old Assump <u>1/1/2018</u>	<u>1/1/2017</u>
A. Participant Data			
Number Included			
Actives	214	214	222
Service Retirees	172	172	171
Beneficiaries	50	50	48
Disability Retirees	31	31	27
Terminated Vested	<u>35</u>	<u>35</u>	<u>28</u>
Total	502	502	496
Total Annual Payroll	\$19,421,507	\$19,421,507	\$19,633,510
Payroll Under Assumed Ret. Age	19,421,507	19,421,507	19,633,510
Annual Rate of Payments to:			
Service Retirees	12,185,998	12,185,998	11,686,896
Beneficiaries	2,077,639	2,077,639	1,911,257
Disability Retirees	1,405,671	1,405,671	1,151,889
Terminated Vested	211,342	211,342	211,342
B. Assets			
Actuarial Value	169,400,749	169,400,749	163,871,094
Market Value	172,006,996	172,006,996	155,380,676
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	132,421,879	139,250,684	140,277,391
Disability Benefits	9,302,655	15,810,461	16,275,816
Death Benefits	2,011,319	1,932,448	2,015,949
Vested Benefits	7,582,705	7,815,195	8,215,243
Service Retirees	162,320,777	162,320,777	155,890,214
Beneficiaries	18,555,884	18,555,884	17,555,780
Disability Retirees	18,688,414	18,688,414	14,831,338
Terminated Vested	<u>3,033,776</u>	<u>3,033,776</u>	<u>2,830,571</u>
Total	353,917,409	367,407,639	357,892,302

C. Liabilities - (Continued)	New Assump <u>1/1/2018</u>	Old Assump <u>1/1/2018</u>	<u>1/1/2017</u>
Present Value of Future Salaries	180,738,722	182,050,535	186,714,570
Present Value of Future Member Contributions	17,911,207	18,041,208	18,503,414
Normal Cost (Retirement)	3,552,367	3,921,235	3,995,566
Normal Cost (Disability)	595,349	1,067,871	1,077,352
Normal Cost (Death)	85,534	86,086	87,897
Normal Cost (Vesting)	<u>432,353</u>	<u>519,699</u>	<u>520,812</u>
Total Normal Cost	4,665,603	5,594,891	5,681,627
Present Value of Future Normal Costs	39,976,500	46,800,009	48,682,336
Accrued Liability (Retirement)	101,417,715	105,383,248	104,964,048
Accrued Liability (Disability)	3,883,104	6,995,732	7,206,499
Accrued Liability (Death)	1,331,644	1,258,930	1,307,940
Accrued Liability (Vesting)	4,709,595	4,370,869	4,623,576
Accrued Liability (Inactives)	<u>202,598,851</u>	<u>202,598,851</u>	<u>191,107,903</u>
Total Actuarial Accrued Liability	313,940,909	320,607,630	309,209,966
Unfunded Actuarial Accrued Liability (UAAL)	144,540,160	151,206,881	145,338,872
Funded Ratio (AVA / AL)	54.0%	52.8%	53.0%

	New Assump <u>1/1/2018</u>	Old Assump <u>1/1/2018</u>	<u>1/1/2017</u>
D. Actuarial Present Value of Accrued Benefits			
Vested Accrued Benefits			
Inactives	202,598,851	202,598,851	191,107,903
Actives	39,551,690	43,857,610	43,036,284
Member Contributions	<u>19,843,351</u>	<u>19,843,351</u>	<u>19,558,669</u>
Total	261,993,892	266,299,812	253,702,856
Non-vested Accrued Benefits	<u>7,287,772</u>	<u>7,352,115</u>	<u>6,641,802</u>
Total Present Value Accrued Benefits	269,281,664	273,651,927	260,344,658
Funded Ratio (MVA / PVAB)	63.9%	62.9%	59.7%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	(4,370,263)	0	
New Accrued Benefits	0	11,747,854	
Benefits Paid	0	(15,491,027)	
Interest	0	17,050,442	
Other	<u>0</u>	<u>0</u>	
Total	(4,370,263)	13,307,269	

	New Assump	Old Assump	
Valuation Date	1/1/2018	1/1/2018	1/1/2017
Applicable to Fiscal Year Ending	<u>12/31/2018</u>	<u>12/31/2018</u>	<u>12/31/2017</u>

E. Pension Cost

Normal Cost ¹	\$4,980,531	\$5,972,546	\$6,065,137
% of Total Annual Payroll ¹	25.7	30.8	30.9
Administrative Expenses ¹	269,062	269,062	175,093
% of Total Annual Payroll ¹	1.4	1.4	0.9
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 23 years (as of 1/1/2018) ¹	9,230,737	9,213,043	8,586,605
% of Total Annual Payroll ¹	47.5	47.4	43.7
Total Recommended Contribution	14,480,330	15,454,651	14,826,835
% of Total Annual Payroll ¹	74.6	79.6	75.5
Expected Member Contributions ¹	1,924,671	1,924,671	1,945,681
% of Total Annual Payroll ¹	9.9	9.9	9.9
Expected City Contribution	12,555,659	13,529,980	12,881,154
% of Total Annual Payroll ¹	64.7	69.7	65.6

F. Past Contributions

Plan Years Ending:	<u>12/31/2017</u>
Total Recommended Contribution	14,879,413
City	12,881,154
Actual Contributions Made:	
Members (excluding buyback)	1,998,259
City	<u>9,035,019</u>
Total	11,033,278

G. Net Actuarial (Gain)/Loss 1,239,906

¹ Contributions developed as of 1/1/2018 displayed above have been adjusted to account for assumed interest components.

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

<u>Year</u>	<u>Projected Unfunded Accrued Liability</u>
2018	144,540,160
2019	145,065,884
2020	145,304,019
2025	141,015,345
2031	118,135,429
2036	75,565,664
2041	0

I. (i) 3 Year Comparison of Actual and Assumed Salary Increases

		<u>Actual</u>	<u>Assumed</u>
Year Ended	12/31/2017	3.80%	6.50%
Year Ended	12/31/2016	9.35%	6.30%
Year Ended	12/31/2015	1.80%	6.43%

(ii) 3 Year Comparison of Investment Return on Actuarial Value

		<u>Actual</u>	<u>Assumed</u>
Year Ended	12/31/2017	6.34%	6.75%
Year Ended	12/31/2016	5.38%	6.75%
Year Ended	12/31/2015	5.92%	6.75%

STATEMENT BY ENROLLED ACTUARY

This actuarial valuation was prepared and completed by me or under my direct supervision, and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate, and in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of the Illinois Pension Code and adhere to the Actuarial Standards of Practice. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material increase in plan costs or recommended contribution rates have been taken into account in the valuation.



Jason L. Franken, FSA, EA, MAAA
Enrolled Actuary #17-6888

DEVELOPMENT OF JANUARY 1, 2018 AMORTIZATION PAYMENT

(1)	Unfunded Actuarial Accrued Liability as of January 1, 2017	\$145,338,872
(2)	Sponsor Normal Cost developed as of January 1, 2017	3,735,946
(3)	Expected administrative expenses for the year ended December 31, 2017	164,022
(4)	Expected interest on (1), (2) and (3)	10,068,086
(5)	Sponsor contributions to the System during the year ended December 31, 2017	9,035,019
(6)	Expected interest on (5)	304,932
(7)	Expected Unfunded Actuarial Accrued Liability as of December 31, 2017, (1)+(2)+(3)+(4)-(5)-(6)	149,966,975
(8)	Change to UAAL due to Assumption Change	(6,666,721)
(9)	Change to UAAL due to Actuarial (Gain)/Loss	1,239,906
(10)	Unfunded Accrued Liability as of January 1, 2018	144,540,160
(11)	UAAL Subject to Amortization (100% AAL less Actuarial Assets)	144,540,160

<u>Date</u> <u>Established</u>	<u>Years</u> <u>Remaining</u>	<u>1/1/2018</u> <u>Amount</u>	<u>Amortization</u> <u>Amount</u>
1/1/2018	23	144,540,160	8,647,060

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1) Unfunded Actuarial Accrued Liability (UAAL) as of January 1, 2017	\$145,338,872
(2) Expected UAAL as of January 1, 2018	149,966,975
(3) Summary of Actuarial (Gain)/Loss, by component:	
Investment Return (Actuarial Asset Basis)	662,890
Salary Increases	(3,021,281)
Active Decrements	2,117,516
Inactive Mortality	652,767
Other	<u>828,014</u>
Change in UAAL due to (Gain)/Loss	1,239,906
Assumption Changes	<u>(6,666,721)</u>
(4) Actual UAAL as of January 1, 2018	\$144,540,160

RECONCILIATION OF CHANGES IN CONTRIBUTION REQUIREMENT

(1) Contribution Determined as of January 1, 2017	\$12,881,154
(2) Summary of Contribution Impact by component:	
Change in Normal Cost	(92,591)
Change in Assumed Administrative Expense	93,969
Investment Return (Actuarial Asset Basis)	40,390
Salary Increases	(184,087)
New Entrants	0
Active Decrements	129,020
Inactive Mortality	39,773
Data Corrections	0
Contributions (More) or Less than Recommended	226,936
Increase in Amortization Payment Due to Payroll Growth Assumption	343,464
Change in Expected Member Contributions	21,010
Assumption Change	(974,321)
Other	<u>30,942</u>
Total Change in Contribution	(325,495)
(3) Contribution Determined as of January 1, 2018	\$12,555,659

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 Assump 1/1/2018	Old Assump 1/1/2018	1/1/2017
Valuation Date	<u>12/31/2018</u>	<u>12/31/2018</u>	<u>12/31/2017</u>
Applicable to Fiscal Year Ending			
Actuarial Accrued Liability (PUC)	304,578,400	314,946,233	303,085,145
Actuarial Value of Assets	<u>169,400,749</u>	<u>169,400,749</u>	<u>163,871,094</u>
Unfunded Actuarial Accrued Liability (UAAL)	135,177,651	145,545,484	139,214,051
UAAL Subject to Amortization	104,719,811	114,050,861	108,905,537
Normal Cost ¹	\$5,976,623	\$6,677,856	\$6,818,306
% of Total Annual Payroll ¹	30.8	34.4	34.7
Administrative Expenses ¹	269,062	269,062	175,093
% of Total Annual Payroll ¹	1.4	1.4	0.9
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 23 years (as of 1/1/2018) ¹	6,687,698	6,949,124	6,434,127
% of Total Annual Payroll ¹	34.4	35.7	32.8
Total Required Contribution	12,933,383	13,896,042	13,427,526
% of Total Annual Payroll ¹	66.6	71.5	68.4
Expected Member Contributions ¹	1,924,671	1,924,671	1,945,681
% of Total Annual Payroll ¹	9.9	9.9	9.9
Expected City Contribution	11,008,712	11,971,371	11,481,845
% of Total Annual Payroll ¹	56.7	61.6	58.5
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 1/1/2018 displayed above have been adjusted to account for assumed interest components.

PROJECTION OF BENEFIT PAYMENTS

Year	Payments for Current Actives	Payments for Current Inactives	Total Payments
2018	486,394	15,625,773	16,112,167
2019	1,018,440	15,708,355	16,726,795
2020	1,613,151	15,886,777	17,499,928
2021	2,345,286	16,196,858	18,542,144
2022	3,136,633	16,321,218	19,457,851
2023	3,982,674	16,406,230	20,388,904
2024	4,824,712	16,452,393	21,277,105
2025	5,638,558	16,465,121	22,103,679
2026	6,511,323	16,437,351	22,948,674
2027	7,439,669	16,356,106	23,795,775
2028	8,389,052	16,229,445	24,618,497
2029	9,317,243	16,064,300	25,381,543
2030	10,216,104	15,887,548	26,103,652
2031	11,084,087	15,666,355	26,750,442
2032	12,048,286	15,390,976	27,439,262
2033	13,031,360	15,026,217	28,057,577
2034	13,989,794	14,612,396	28,602,190
2035	14,998,696	14,162,848	29,161,544
2036	15,966,038	13,665,048	29,631,086
2037	16,916,475	13,121,334	30,037,809
2038	17,773,607	12,572,486	30,346,093
2039	18,601,282	12,001,952	30,603,234
2040	19,417,439	11,376,947	30,794,386
2041	20,190,714	10,737,418	30,928,132
2042	20,982,906	10,090,018	31,072,924
2043	21,673,668	9,440,519	31,114,187
2044	22,353,754	8,794,268	31,148,022
2045	23,031,755	8,156,594	31,188,349
2046	23,575,576	7,533,042	31,108,618
2047	24,045,754	6,928,356	30,974,110
2048	24,491,061	6,346,332	30,837,393
2049	24,843,287	5,790,172	30,633,459
2050	25,033,154	5,262,770	30,295,924
2051	25,131,808	4,765,739	29,897,547
2052	25,138,233	4,298,778	29,437,011
2053	25,049,648	3,860,890	28,910,538
2054	24,867,090	3,451,913	28,319,003
2055	24,588,373	3,071,002	27,659,375
2056	24,207,588	2,716,649	26,924,237
2057	23,724,197	2,388,432	26,112,629

ACTUARIAL ASSUMPTIONS AND METHODS

Mortality Rate	<p>Healthy Lives: RP-2000 Combined Healthy Mortality, projected to the valuation date with Scale AA. 5% of active deaths are assumed to be in the line of duty.</p> <p>Disabled Lives: RP-2000 Disabled Retiree Mortality, projected to the valuation date with Scale AA.</p> <p>The mortality assumptions sufficiently accommodate future mortality improvements.</p>
Interest Rate	6.75% per year compounded annually, net of investment related expenses.
Retirement Age	See table on following page. This is based on an experience study performed in 2017.
Disability Rate	See table on following page. This is based on an experience study performed in 2017. 75% of the disabilities are assumed to be in the line of duty.
Termination Rate	See table on following page. This is based on an experience study performed in 2017.
Salary Increases	Graded schedule based on service. This is based on an experience study performed in 2017.

Salary Scale	
Service	Rate
0	11.00%
1	10.75%
2	8.75%
3	8.50%
4	7.00%
5	6.25%
6	5.25%
7	4.25%
8 - 16	4.00%
17 - 32	3.75%
32+	3.50%

Inflation	2.50%.
Payroll Growth	3.50% per year.

Cost-of-Living Adjustment	<p><u>Tier 1</u>: 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.</p> <p><u>Tier 2</u>: 1.25% per year after the later of attainment of age 60 or first anniversary of retirement.</p>
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.
Marital Status	85% 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.
Funding Policy Amortization Method	The UAAL is amortized according to a Level Percentage of Payroll method over a period ending in 2040. The initial amortization amount is 100% of the Accrued Liability less the Actuarial Value of Assets.

Decrement Tables

<u>% Terminating During the Year</u>		<u>% Becoming Disabled During the Year</u>		<u>% Retiring During the Year (Tier 1)</u>		<u>% Retiring During the Year (Tier 2)</u>	
<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	14.00%	20	0.000%	50 - 51	15%	50 - 54	5%
25	10.40%	25	0.030%	52 - 54	20%	55	40%
30	5.60%	30	0.140%	55 - 64	25%	56 - 64	25%
35	3.10%	35	0.260%	65 - 69	40%	65 - 69	40%
40	1.90%	40	0.420%	70+	100%	70+	100%
45	1.50%	45	0.590%				
50	1.50%	50	0.710%				
56+	0.00%	55	0.900%				
		60	1.150%				

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 period ending in 2040. 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.

STATEMENT OF FIDUCIARY NET POSITION
December 31, 2017

<u>ASSETS</u>	MARKET VALUE
Cash and Cash Equivalents:	
Money Market	9,047,753
Cash	10,787
Total Cash and Equivalents	9,058,540
Receivables:	
From Participants	50,646
Accrued Past Due Interest	367,905
Total Receivable	418,551
Investments:	
State and Local Obligations	455,496
Corporate Bonds	30,995,354
U.S. Gov't and Agency Obligations	19,852,825
Insurance Company Contracts	14,558,684
Stocks	8,112,102
Mutual Funds	88,605,395
Total Investments	162,579,856
Other Assets	9,868
Total Assets	172,066,815
<u>LIABILITIES</u>	
Liabilities:	
Payable:	
Accounts Payable	59,819
Total Liabilities	59,819
Net Assets:	
Active and Retired Members' Equity	172,006,996
NET POSITION RESTRICTED FOR PENSIONS	172,006,996
TOTAL LIABILITIES AND NET ASSETS	172,066,815

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
 FOR THE YEAR ENDED December 31, 2017
 Market Value Basis

ADDITIONS

Contributions:

Member	1,998,259
City	9,035,019

Total Contributions 11,033,278

Investment Income:

Net Increase in Fair Value of Investments	17,989,772
Interest & Dividends	3,675,228
Less Investment Expense ¹	(328,882)

Net Investment Income 21,336,118

Total Additions 32,369,396

DEDUCTIONS

Distributions to Members:

Benefit Payments	15,462,045
Refund of Contributions/Transfers	28,982

Total Distributions 15,491,027

Administrative Expenses 252,049

Total Deductions 15,743,076

Net Increase in Net Position 16,626,320

NET POSITION RESTRICTED FOR PENSIONS

Beginning of the Year 155,380,676

End of the Year 172,006,996

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

ACTUARIAL ASSET VALUATION

December 31, 2017

Actuarial Assets for funding purposes are developed by recognizing the total actuarial investment gain or loss for each Plan Year over a five 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.

Plan Year Ending	Gain/(Loss)	Gains/(Losses) Not Yet Recognized				
		Amounts Not Yet Recognized by Valuation Year				
		2018	2019	2020	2021	2022
12/31/2014	(6,274,162)	(1,254,832)	0	0	0	0
12/31/2015	(10,048,097)	(4,019,239)	(2,009,619)	0	0	0
12/31/2016	(1,541,974)	(925,184)	(616,790)	(308,395)	0	0
12/31/2017	11,006,878	8,805,502	6,604,127	4,402,751	2,201,376	0
Total		2,606,247	3,977,718	4,094,356	2,201,376	0

Development of Investment Gain/Loss

Market Value of Assets, 12/31/2016	155,380,676
Contributions Less Benefit Payments & Administrative Expenses	(4,709,798)
Expected Investment Earnings ¹	10,329,240
Actual Net Investment Earnings	<u>21,336,118</u>
2018 Actuarial Investment Gain/(Loss)	11,006,878

¹ Expected Investment Earnings = 6.75% x (155,380,676 + 0.5 x -4,709,798)

Development of Actuarial Value of Assets

Market Value of Assets, 12/31/2017	172,006,996
(Gains)/Losses Not Yet Recognized	<u>(2,606,247)</u>
Actuarial Value of Assets, 12/31/2017	169,400,749
(A) 12/31/2016 Actuarial Assets:	163,871,094
(I) Net Investment Income:	
1. Interest and Dividends	3,677,322
2. Realized Gains (Losses)	0
3. Change in Actuarial Value	6,891,013
4. Investment Expenses	<u>(328,882)</u>
Total	10,239,453
(B) 12/31/2017 Actuarial Assets:	169,400,749
Actuarial Asset Rate of Return = (2 x I) / (A + B - I):	6.34%
Market Value of Assets Rate of Return:	13.94%
12/31/2017 Limited Actuarial Assets:	169,400,749
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(662,890)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
December 31, 2017
Actuarial Asset Basis

INCOME		
Contributions:		
Member	1,998,259	
City	9,035,019	
Total Contributions		11,033,278
Earnings from Investments		
Interest & Dividends	3,675,228	
Miscellaneous Income	2,094	
Net Realized Gain (Loss)	0	
Change in Actuarial Value	6,891,013	
Total Earnings and Investment Gains		10,568,335
EXPENSES		
Administrative Expenses:		
Investment Related ¹	328,882	
Other	252,049	
Total Administrative Expenses		580,931
Distributions to Members:		
Benefit Payments	15,462,045	
Refund of Contributions/Transfers	28,982	
Total Distributions		15,491,027
Change in Net Assets for the Year		5,529,655
Net Assets Beginning of the Year		163,871,094
Net Assets End of the Year ²		169,400,749

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

² Net Assets may be limited for actuarial consideration.

STATISTICAL DATA

	<u>1/1/2015</u>	<u>1/1/2016</u>	<u>1/1/2017</u>	<u>1/1/2018</u>
<u>Actives - Tier 1</u>				
Number	193	183	170	160
Average Current Age	43.3	43.7	44.3	44.8
Average Age at Employment	27.3	27.3	27.2	27.3
Average Past Service	16.0	16.4	17.1	17.5
Average Annual Salary	\$88,376	\$89,497	\$97,088	\$99,896
<u>Actives - Tier 2</u>				
Number	30	33	52	54
Average Current Age	27.7	28.9	28.8	29.7
Average Age at Employment	27.4	27.9	27.6	27.7
Average Past Service	0.3	1.0	1.2	2.0
Average Annual Salary	\$53,897	\$55,140	\$60,165	\$63,669
<u>Service Retirees</u>				
Number	168	166	171	172
Average Current Age	73.6	70.1	69.8	69.8
Average Annual Benefit	\$63,369	\$66,553	\$68,344	\$70,849
<u>Beneficiaries</u>				
Number	49	47	48	50
Average Current Age	70.0	75.6	74.8	75.5
Average Annual Benefit	\$33,615	\$36,172	\$39,818	\$41,553
<u>Disability Retirees</u>				
Number	27	29	27	31
Average Current Age	59.5	59.5	60.5	59.8
Average Annual Benefit	\$40,312	\$42,085	\$42,663	\$45,344
<u>Terminated Vested</u>				
Number	17	22	28	35
Average Current Age	41.1	38.5	37.8	36.6
Average Annual Benefit ¹	\$9,360	\$7,233	\$35,224	\$35,224

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	2	3	0	0	0	0	0	0	0	0	0	5
25 - 29	4	6	4	9	2	0	0	0	0	0	0	25
30 - 34	2	4	2	6	2	5	3	0	0	0	0	24
35 - 39	1	0	1	3	2	5	23	1	0	0	0	36
40 - 44	1	1	0	0	0	0	13	20	0	0	0	35
45 - 49	0	0	0	0	0	0	4	24	24	3	0	55
50 - 54	0	0	0	0	0	0	0	7	9	10	0	26
55 - 59	0	0	0	0	0	0	0	0	3	1	0	4
60 - 64	0	0	0	0	0	0	0	0	0	1	3	4
65+	0	0	0	0	0	0	0	0	0	0	0	0
Total	10	14	7	18	6	10	43	52	36	15	3	214

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 1/1/2017	222
b. Terminations	
i. Vested (partial or full) with deferred benefits	(6)
ii. Non-vested or full lump sum distribution received	(1)
iii. Transferred service to other fund	0
c. Deaths	
i. Beneficiary receiving benefits	0
ii. No future benefits payable	0
d. Disabled	(4)
e. Retired	<u>(7)</u>
f. Continuing participants	204
g. New entrants	<u>10</u>
h. Total active life participants in valuation	214

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

	Service Retirees, Vested Receiving <u>Benefits</u>	Receiving Death <u>Benefits</u>	Receiving Disability <u>Benefits</u>	Vested <u>Deferred</u>	<u>Total</u>
a. Number prior valuation	171	48	27	28	274
Retired	7	0	0	0	7
Vested Deferred	0	0	0	6	6
Death, With Survivor	(3)	3	0	0	0
Death, No Survivor	(3)	(1)	0	0	(4)
Disabled	0	0	4	0	4
Refund of Contributions	0	0	0	(2)	(2)
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	3	3
b. Number current valuation	172	50	31	35	288

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 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 eight consecutive years 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.

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% 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.) 50% 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 (8-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.