OPERATIONS COMMITTEE MEETING AGENDA

VILLAGE OF NORTH AURORA
Crossroads on the Fox

MEETING DATE:	Monday, October 7, 2019
MEETING TIME:	6:00 p.m.
MEETING LOCATION:	North Aurora Village Hall, 25 E. State St., North Aurora

CALL TO ORDER

ROLL CALL

AUDIENCE COMMENTS

APPROVAL OF MINUTES

1. Approval of the Operations Committee Minutes dated August 5, 2019

NEW BUSINESS

1. Revisions to Purchasing Policy
2. 2019 Property Tax Levy Estimate

OLD BUSINESS

OTHER INFORMATION

TRUSTEE COMMENTS

ADJOURN

Initials ______

Village of North Aurora Memorandum

To: Government Operations Committee

From: Bill Hannah, Finance Director

Date: October 2, 2019

RE: Purchasing Policy Update – Misc. Surplus Property

When the Village purchases and replaces vehicles and equipment, an Ordinance declaring the old vehicles or equipment as "surplus property" is presented to the Village Board for approval as dictated by State Statute. At that time, the Village will either sell or dispose of the property in the manner deemed best by the Village Administrator of delegated staff.

Often times, staff will wind up with items that have little or no perceived value whatsoever. These could include old chairs, desks, extremely outdated information technology equipment, old furniture, damaged file cabinets, miscellaneous office equipment, etc. In order to expeditiously and efficiently dispose or sell these items, staff has drafted language which would amend the Purchasing Policy to provide the Village Administrator with the authority to sell, dispose or give away such items that have an estimated value of $500 or less. In the drafted language, staff also provides a method for the Village Administrator to donate or give away such items if it makes sense versus disposal, with preference being given first to charities, not-for-profits or other governmental units that may have some use for the items. A restriction is provided where no items could be given to any employee, elected or appointed official, or immediate family member of either.

Items which are above the estimated resale value of $500 would still be declared surplus separately by the Village Board as is current practice. Staff is requesting committee input on this Purchasing Policy change for consideration.

Disposal of Surplus Property

The Village is required to comply with State statute 65 ILCS 5/11-76-4 which prescribes procedures to follow for the disposal of surplus property. The Village Administrator is responsible for ensuring that all requirements of this policy are met.

Any Department Head identifying surplus property should notify the Village Administrator or his/her designee that such property is no longer in the best interest of the Village to retain custody of.

1. The respective Department Head should provide:
    a. Description of the item such as make, model, serial number, etc.
    b. Date originally acquired and original acquisition cost, if any.
    c. Proposed method of disposal i.e. auction, direct sell, trade-in, etc.
2. If the proposed method of disposition is a trade-in, the Village will have to notify all bidders that the item of a new or replacement item will be traded-in as part of the purchase price.
3. The Village Administrator or designee will then prepare an ordinance and related Exhibit for Village Board consideration which will declare the items as surplus property.
4. Upon approval by the Village Board the Village Administrator will direct staff to proceed with the disposition of the property.
5. Upon sale or disposition of the property the respective Department Head will notify the Finance Director that such sale or disposition has taken place and the amount of the sale price, if any.

If in the opinion of the Department Head a particular item has a potential resale value of less than five hundred dollars ($500), the Village Administrator is authorized or may delegate staff to sell that item in the manner most expeditious and cost-effective, with or without advertising the sale, taking into account the cost of advertising and staff time and effort, without separate Village Board approval.

The Village Administrator may also authorize certain items to be disposed of, or recycled if the potential value of such item is minimal or negligible. The Village Administrator is also authorized to give away items to charities, not-for-profits or other governmental entities if it makes practical sense to do so. However, in no event shall any items be given away to any elected official, employee, appointed official or their immediate family. After any item has been sold, disposed of donated the responsible Department Head will send details of the transaction, or action to be disposed of, to the Finance Director.

Village of North Aurora
Memorandum

To: Government Operations Committee

From: Bill Hannah, Finance Director

CC: Steven Bosco, Village Administrator

Date: September 24, 2019

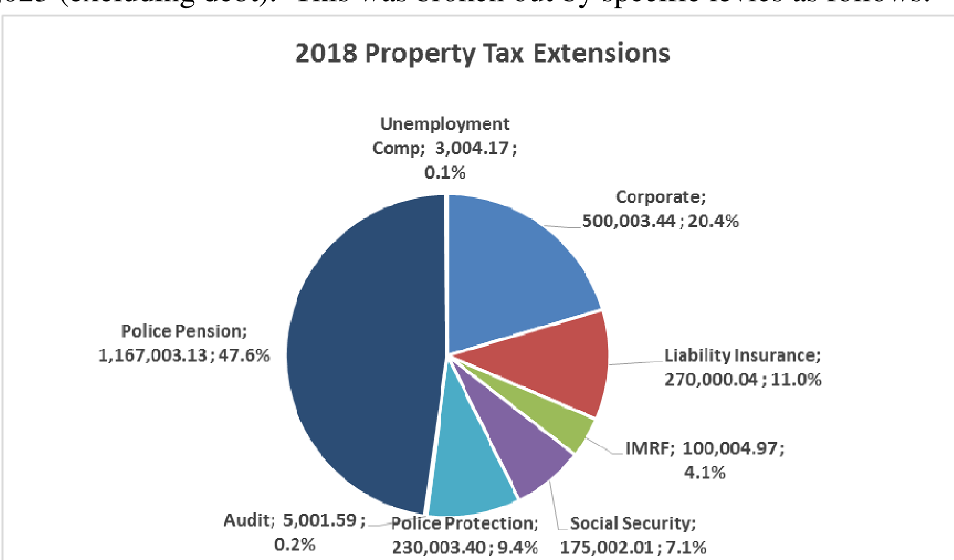
RE: Estimate of Tax Levy for Purposes of Truth in Taxation

Attached is a summary of information for discussion on the proposed property tax levy estimate for 2019. Village Board approval of an estimate is required for the **November 4th** Village Board meeting. Actual Village Board approval of all regular and special service area tax levies is scheduled for **December 2nd.**

Summary

Property taxes represent about 19% of all General Fund revenues and are a key revenue source to fund Village services and pension obligations, especially given the fluctuations the Village has experienced in sales tax and income tax revenue and the increasing pension obligations the Village must fund. Current State law restricts any increases in total property taxes extended to the rate of inflation as described below. This inflation allowance can not be deferred to a future year.

To recap, the total 2018 property tax extensions received during calendar 2019 were $2,450,023 (excluding debt). This was broken out by specific levies as follows:



The Village is a non-home rule municipality that is also subject to the Property Tax Extension Limitation Law (PTELL) as dictated by the State. The statutes limit the increase in the total amount of property taxes that can be extended (for capped funds) to the **annual change in the applicable Consumer Price Index which for this levy year is 1.9%**, or 5%, whichever is less.

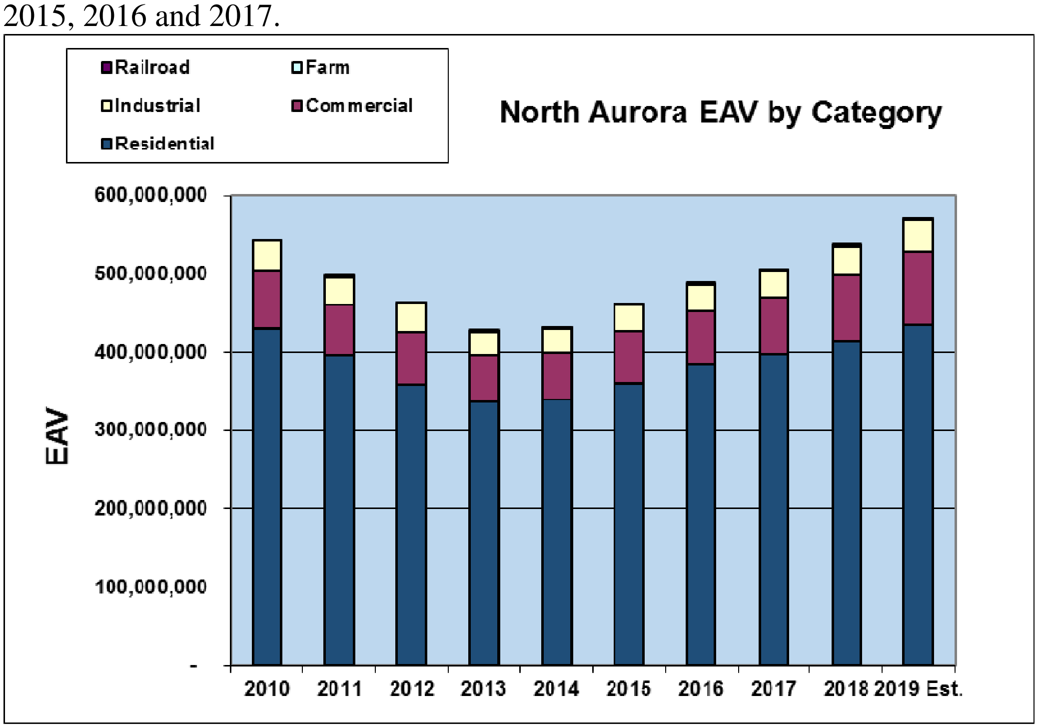
In addition, the Village is allowed to "capture" the increase in the equalized assessed valuation (EAV) of the Village that is attributable to new construction. In order to "capture" this new growth within its tax base, the Village has typically passed a levy higher than what is expected to be extended by the County **(through the CPI and new construction increases)** in order to ensure that the allowable increase due to new construction of residential, commercial and industrial growth are fully realized.

The following summarizes the estimated calculations for this year's potential extensions for consideration by the Village:

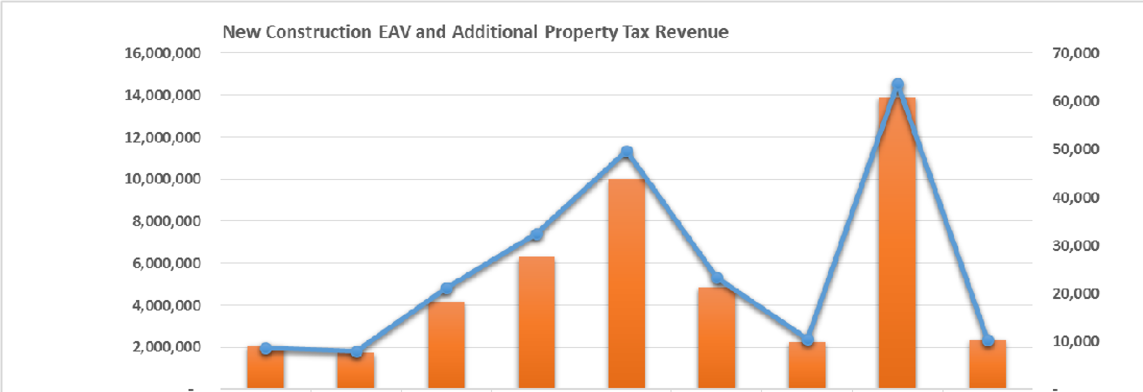
Last Year's Total Property Tax Extensions:	$2,450,023	
Est. Increase Due to Inflation (1.9%)	$ 46,550	
Est. Increase Due to New Construction:	$ 10,360	(2,351,258 New EAV)
Total Est. Available Extensions:	**$2,506,933**	

EAV Change and New Construction

The 2019 taxable EAV is currently estimated to increase 6.25% to $568,958,728. The 2019 estimate is based on preliminary data from the County Clerk's office. This number will change and likely lower slightly as final appeals and adjustments are made. The 2019 EAV numbers appear to show a strong increase in the value of current property of about 5.8%. The 2019 estimated EAV is based on property sales that occurred during 2015, 2016 and 2017.



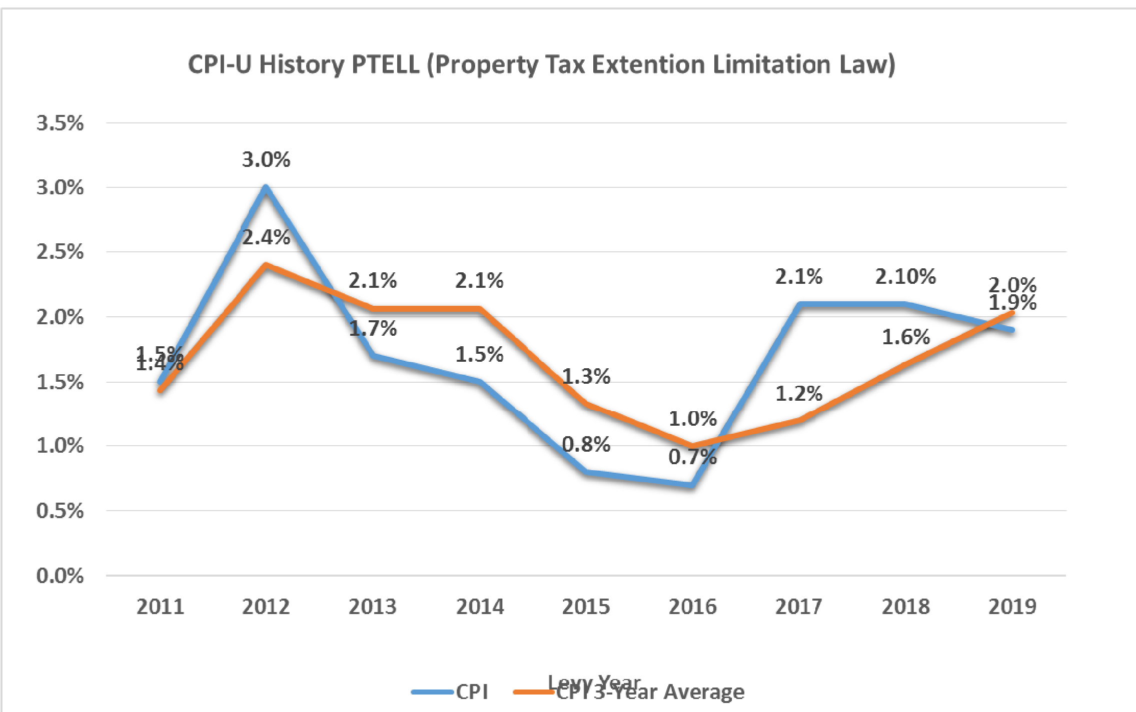
The 2019 estimated EAV includes an estimated $2,351,258 in new construction EAV. This is one of the lowest years of new EAV in the last several years. The following chart shows the amount of new construction EAV over the last several years and the resulting additional property tax revenue available made available as a result.



	2008	2009	2010	2011	2012	2013	2014	2015	2016
New Const. EAV	2,104,571	1,753,399	4,169,825	6,301,134	9,992,479	4,866,878	2,226,999	13,915,56	2,351,258
Revenue	8,613	7,969	21,058	32,494	49,708	23,281	10,547	63,666	10,360

<u>Application of Consumer Price Index</u>

The index used to determine the increase is the CPI-U or the Consumer Price Index for All Urban Consumers. For the December 2019 levy payable in 2020 this increase is 1.9%. Section 18-185 of the Property Tax Code defines "extension limitation" as "…the lesser of 5% or the percentage increase in the Consumer Price Index during the 12-month calendar year preceding the levy year…" This change was measured from December 2017 to December 2018.



<u>SSA's</u>

<u>Last year</u> the Village levied the following amounts for the various SSA's for the 2019 tax levy year.

1. Waterford Oaks	$ 8,500 (Mowing)
2. Oak Hill	$ 5,000 (Pond Study
3. Timber Oaks	$ 4,000 (Mowing)
4. Pinecreek III	$ 2,000 (Mowing)
5. Willow Lakes	$ 800 (Mowing)
6. North Aurora Towne Center	$20,000 (Wetland/Basin Maint)

Staff will be evaluating the SSA amounts necessary to levy over the next several weeks and bring more information to the Board for discussion. State law now requires that the Village hold a separate public hearing if an SSA levy is anticipated to increase more than 5% from last year, or if an inactive SSA is planned on being activated. It is currently anticipated that all of current SSA's will have to be significantly increased to address updated costs of maintenance.

<u>Police Pension Valuation</u>

The May 31, 2019 police pension valuation was also recently completed. Over the last several years the Village, in consultation with the actuary, has made many assumption changes including:

1. Adopted new retirement, disability and termination rates based on (delayed retirement and lower withdrawal assumptions) (2018)
2. Adopted revised salary increase assumption tables (slightly lowers assumed future increases) (2018)
3. Lowered the Interest/Investment assumption rate from the current 7.0% to 6.5%. (2018)
4. Lowered the payroll growth rate assumption from 5% to 3% (2017)
5. Updated mortality tables (2017)

For the attached June 1, 2019 actuarial valuation, the actuary has incorporated newer mortality rates using a specific Public Safety table recently developed.

This change and normal actuarial year-to-year results were primarily the reason for the increase in the Village's contribution determination from $1,166,171 to $1,348,024 for the 2019 tax levy. During the last year investment experience for the fund was 2.99% versus the assumption of 6.5% and salary increases were 4.86% versus the assumption of 4.82%. Due to the smoothing of gains and losses over a five-year period one-fifth of the investment gain/(loss) is recognized in the current year. The actuarial investment return for the fund for the year was then calculated to be 4.66%.

The valuation continues the Board Pension Funding Policy (adopted in 2011) of a 100% funding goal with a remaining 21 year closed amortization period. This is higher than the State minimum requirement which incorporates a 90% funding goal by 2040. The comparative State minimum for funding would have been $1,229,151. The Net Position as a Percentage of the Total Pension Liability went from 61.27% to 58.78%. The Total

Pension Liability was $31,218,108 and the Fiduciary Net Position was $18,349,111 creating a Net Pension Liability of $12,868,997.

Final Library Debt Tax Levy

As the Board is aware, the Village coordinates payment of the outstanding debt related to the construction of the Messenger Public Library. The debt in the amount of $5,950,000 was issued in 2001 with a repayment term of 20 years (refinanced in 2009).

The final debt payment will be included in the 2019 tax levy in order to pay the last principal and interest payments on the bonds in FY 2020-21. The final debt payment will include a levy of $409,813. Extended, this is a decrease of $130,229 from last year's principal and interest payments. Assuming the Village levies a tax levy to capture all of the new construction and CPI, the estimated property tax extensions for the Village in total will actually decrease by $73,318 this year, and substantially decrease next year as well as all of the outstanding bonds related to the Library will have been retired.

Anticipated Library tax levy amounts for operating purposes have also been included in the attached calculations as the Village is responsible for formally adopting those on an annual basis.

Summary

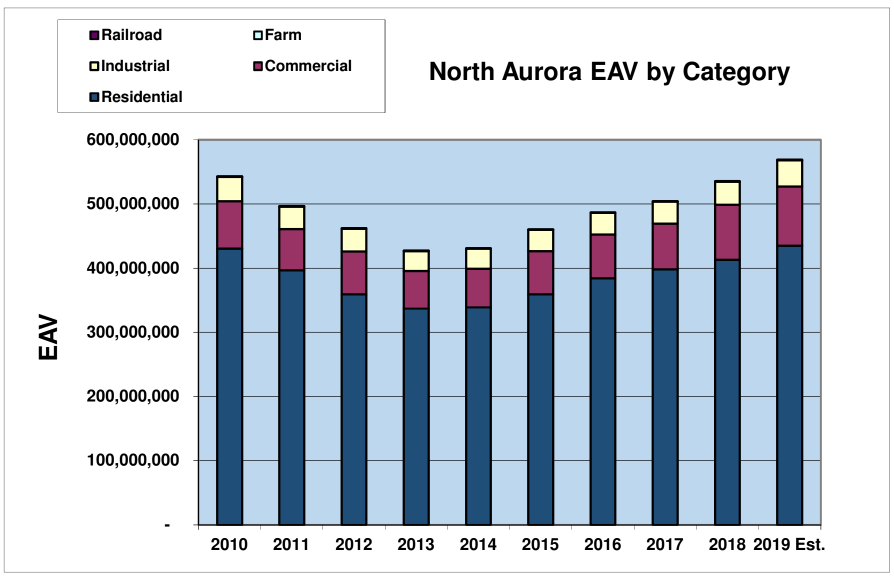
If the Village adopts a levy which when extended by the County after complying with PTELL law realizes all of the allowances provided by CPI and new construction, the total general property tax revenue that would be estimated to be received would be an increase of $56,911, (estimated) or an increase of 2.32% to $2,506,933.

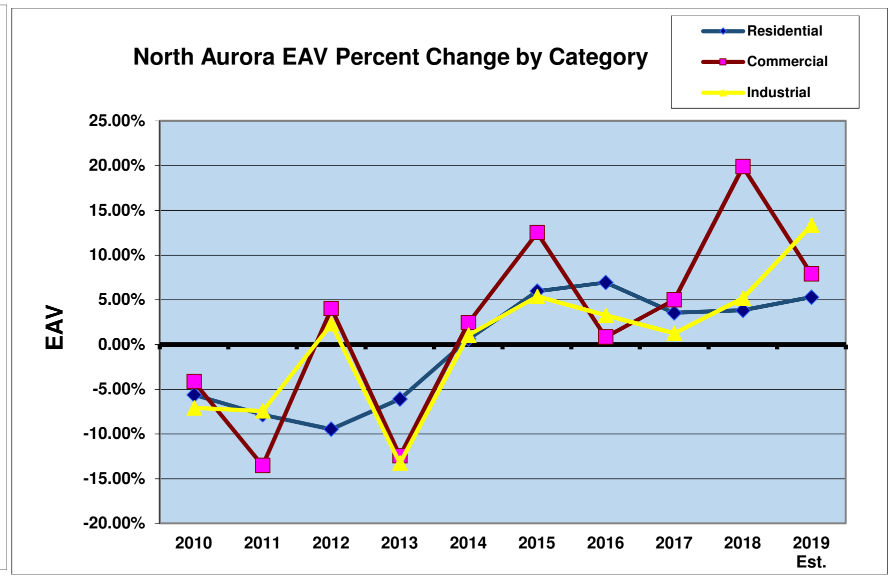
However, as stated above, this $56,911 increase would be offset by a decrease in property taxes of $130,229 that are necessary for the final library bond payment, **calculating to a net decrease in extensions of $73,318.**

Based on prior discussions of potential operating and capital needs that may be necessary in future budget years, along with the significant increase of 15.6% in the required levy for police pension costs, staff recommends adopting a levy of $2,550,000 which captures the full value of new construction and CPI for the general property tax levies for 2019. Even with adopting a levy capturing the full amount of CPI and new construction, the net property taxes remaining in the General Fund after Police Pension purposes will decline by 9.7%.

Village of North Aurora
Taxable Equalized Assessed Valuation

Category	Levy Year 2010	Levy Year 2011	Levy Year 2012	Levy Year 2013	Levy Year 2014	Levy Year 2015	Levy Year 2016	Levy Year 2017	Levy Year 2018	Levy Year 2019 Est.
Residential	430,166,785	396,460,429	358,899,978	337,016,726	339,111,156	359,301,370	384,212,041	397,846,748	413,107,645	434,976,341
Commercial	74,268,198	64,212,904	66,774,379	58,444,313	59,859,375	67,329,121	67,873,407	71,244,763	85,401,844	92,131,151
Industrial	37,777,327	34,967,983	35,772,199	31,023,446	31,341,315	33,018,080	34,089,473	34,513,524	36,298,576	41,140,990
Farm	378,796	385,110	338,753	336,302	244,838	248,169	275,248	288,822	303,874	320,329
Railroad	224,708	268,280	286,904	312,020	316,153	330,034	374,889	362,886	389,917	389,917
TOTAL EAV	**542,815,814**	**496,294,706**	**462,072,213**	**427,132,807**	**430,872,837**	**460,226,774**	**486,825,058**	**504,256,743**	**535,501,856**	**568,958,728**
Estimated Actual Value	**1,628,447,442**	**1,488,884,118**	**1,386,216,639**	**1,281,398,421**	**1,292,618,511**	**1,380,680,322**	**1,460,475,174**	**1,512,770,229**	**1,606,505,568**	**1,706,876,184**
Percent of Total										
Residential	79.25%	79.88%	77.67%	78.90%	78.70%	78.07%	78.92%	78.90%	77.14%	76.45%
Commercial	13.68%	12.94%	14.45%	13.68%	13.89%	14.63%	13.94%	14.13%	15.95%	16.19%
Industrial	6.96%	7.05%	7.74%	7.26%	7.27%	7.17%	7.00%	6.84%	6.78%	7.23%
Farm	0.07%	0.08%	0.07%	0.08%	0.06%	0.05%	0.06%	0.06%	0.06%	0.06%
Railroad	0.04%	0.05%	0.06%	0.07%	0.07%	0.07%	0.08%	0.07%	0.07%	0.07%
TOTAL	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
Percent Increase										
Residential	-5.64%	-7.84%	-9.47%	-6.10%	0.62%	5.95%	6.93%	3.55%	3.84%	5.29%
Commercial	-4.18%	-13.54%	3.99%	-12.47%	2.42%	12.48%	0.81%	4.97%	19.87%	7.88%
Industrial	-7.09%	-7.44%	2.30%	-13.27%	1.02%	5.35%	3.24%	1.24%	5.17%	13.34%
Farm	12.24%	1.67%	-12.04%	-0.72%	-27.20%	1.36%	10.91%	4.93%	5.21%	5.42%
Railroad	9.61%	19.39%	6.94%	8.75%	1.32%	4.39%	13.59%	-3.20%	7.45%	0.00%
TOTAL	***-5.53%***	***-8.57%***	***-6.90%***	***-7.56%***	***0.88%***	***6.81%***	***5.78%***	***3.58%***	***6.20%***	***6.25%***





Village of North Aurora
Preliminary Calculations for 2019 Property Tax Levy

Taxable Rate Setting EAV Estimations		Percent Increase
Total 2018 EAV	535,501,856	
Estimated 2019 New Construction	2,351,258	0.44%
Change in 2019 Current EAV/Other	31,105,614	5.81%
Total 2019 Estimated Taxable EAV	**568,958,728**	6.25%

	Total Property Taxes Subject to Cap	Village Debt Service Not Subject to Cap	TOTAL VILLAGE	Messenger Public Library	TOTAL VILLAGE AND LIBRARY
2018 Property Tax Extensions	2,450,022.75	544,139.50	**2,994,162.25**	1,788,249.54	**4,782,411.79**
Est. Increase Due to CPI of 1.9%	46,550.43	-	**46,550.43**	33,976.74	**80,527.17**
2018 Property Tax Extension After Applicable CPI Increase of 1.90%	2,496,573.18	413,910.63	**2,910,483.81**	1,822,226.28	**4,732,710.09**
Additional Est. Extensions Due to New Construction (Estimated)	10,360.07	-	**10,360.07**	7,561.72	**17,921.78**
TOTAL 2019 Tax Extensions (Preliminary Estimate)	**2,506,933.25**	**413,910.63**	**2,920,843.87**	**1,829,788.00**	**4,750,631.87**
2018 Property Tax Rate	0.457519	0.101613	**0.559132**	0.333939	**0.893071**
2019 Property Tax Rate (Estimated)	0.440618	0.072749	**0.513367**	0.321603	**0.834970**
Percent Change in Property Tax Rate	-3.69%	-28.41%	**-8.19%**	-3.69%	**-6.51%**
Proposed 2019 Property Tax Levy	2,550,000.00	409,814.00	**2,959,814.00**	1,867,050.00	**4,826,864.00**
Percent Increase 2019 Proposed Levy Versus Last Year's 2018 Extensions	4.08% 99,977.25	-24.69%	**-1.15%**	4.41% 78,800.46	**0.93%**
2019 Est. Extensions vs. 2018 Extensions	2.32%	-23.93%	-2.45%	2.32%	-0.66%
2019 Levy vs 2018 Ext	4.08%	-24.69%	-1.15%	4.41%	0.93%
2019 Est Ext vs 2018 Actual Ext	56,910.50	(130,228.88)	(73,318.38)	41,538.46	(31,779.92)

VILLAGE OF NORTH AURORA
POLICE PENSION FUND

ACTUARIAL VALUATION
AS OF JUNE 1, 2019

CONTRIBUTIONS APPLICABLE TO THE
PLAN/FISCAL YEAR ENDING MAY 31, 2021

GASB 67/68 DISCLOSURE INFORMATION
AS OF MAY 31, 2019

FOSTER & FOSTER
ACTUARIES AND CONSULTANTS

August 15, 2019

Village of North Aurora
c/o Bill Hannah, Finance Director
25 E. State St.
North Aurora, IL 60542

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

Dear Mr. Hannah:

We are pleased to present to the Village this report of the annual actuarial valuation of the Village of North Aurora 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 produce significantly different results.

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. Due to the limited scope of the valuation, we did not perform an analysis of the potential range of such future measurements.

In conducting the valuation, 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.

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 Village of North Aurora, nor does anyone at Foster & Foster, Inc. act as a member of the Board of Trustees of the Village of North Aurora 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

By: Paul M. Baugher
Paul M. Baugher, FSA, EA, MAAA

JLF/lke
Enclosures

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SUMMARY OF REPORT

The regular annual actuarial valuation of the Village of North Aurora Police Pension Fund, performed as of June 1, 2019, 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 May 31, 2021.

The contribution requirements, compared with those set forth in the June 1, 2018 actuarial report, are as follows:

Valuation Date	6/1/2019	6/1/2018
Applicable to Fiscal Year Ending	5/31/2021	5/31/2020
Total Recommended Contribution	$1,616,417	$1,422,125
% of Projected Annual Payroll	59.7%	55.1%
Member Contributions (Est.)	268,393	255,954
% of Projected Annual Payroll	9.9%	9.9%
Village Recommended Contribution	1,348,024	1,166,171
% of Projected Annual Payroll	49.8%	45.2%

As you can see, the Total Recommended Contribution shows an increase when compared to the results determined in the June 1, 2018 actuarial valuation report. The increase is primarily attributable to assumption changes reflected in this valuation and unfavorable experience realized during the year.

Plan experience was unfavorable overall on the basis of the plan's actuarial assumptions. Sources of unfavorable experience included an investment return of 4.66% (Actuarial Asset Basis) which fell short of the 6.50% assumption, less turnover than expected, and lower than expected inactive mortality. There were no significant sources of favorable experience.

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

The valuation reflects the following assumption change:

- The mortality rates were updated to reflect the PubS-2010 tables.

There were no method changes since the prior valuation.

COMPARATIVE SUMMARY OF PRINCIPAL VALUATION RESULTS

	New Assump 6/1/2019	Old Assump 6/1/2019	6/1/2018
A. Participant Data			
Number Included			
Actives	29	29	29
Service Retirees	12	12	12
Beneficiaries	1	1	1
Disability Retirees	0	0	0
Terminated Vested	3	3	3
Total	45	45	45
Total Annual Payroll	$2,708,303	$2,708,303	$2,582,783
Payroll Under Assumed Ret. Age	2,708,303	2,708,303	2,582,783
Annual Rate of Payments to:			
Service Retirees	836,481	836,481	809,998
Beneficiaries	42,508	42,508	42,508
Disability Retirees	0	0	0
Terminated Vested	60,775	60,775	60,775
B. Assets			
Actuarial Value	18,967,556	18,967,556	17,579,037
Market Value	18,349,111	18,349,111	17,262,779
C. Liabilities			
Present Value of Benefits			
Actives			
Retirement Benefits	20,200,016	19,435,142	17,697,302
Disability Benefits	1,567,629	1,366,395	1,350,870
Death Benefits	169,283	372,181	363,748
Vested Benefits	1,411,922	1,378,119	1,406,334
Service Retirees	13,189,275	12,762,167	12,581,639
Beneficiaries	379,088	362,642	372,476
Disability Retirees	0	0	0
Terminated Vested	971,745	941,793	883,939
Total	37,888,958	36,618,439	34,656,308

C. Liabilities - (Continued)	New Assump 6/1/2019	Old Assump 6/1/2019	6/1/2018
Present Value of Future Salaries	25,980,617	25,838,310	25,977,063
Present Value of Future Member Contributions	2,574,679	2,560,577	2,574,327
Normal Cost (Retirement)	535,843	514,044	490,868
Normal Cost (Disability)	92,561	81,647	77,838
Normal Cost (Death)	7,766	15,444	15,357
Normal Cost (Vesting)	68,987	67,406	66,045
Total Normal Cost	705,157	678,541	650,108
Present Value of Future Normal Costs	6,219,704	5,947,129	6,050,770
Accrued Liability (Retirement)	15,312,919	14,770,849	12,967,481
Accrued Liability (Disability)	724,128	626,096	601,063
Accrued Liability (Death)	104,301	243,281	231,025
Accrued Liability (Vesting)	987,798	964,482	967,915
Accrued Liability (Inactives)	14,540,108	14,066,602	13,838,054
Total Actuarial Accrued Liability	31,669,254	30,671,310	28,605,538
Unfunded Actuarial Accrued Liability (UAAL)	12,701,698	11,703,754	11,026,501
Funded Ratio (AVA / AL)	59.9%	61.8%	61.5%

	New Assump 6/1/2019	Old Assump 6/1/2019	6/1/2018
D. Actuarial Present Value of Accrued Benefits			
Vested Accrued Benefits			
Inactives	14,540,108	14,066,602	13,838,054
Actives	5,183,063	4,928,720	3,681,645
Member Contributions	2,971,835	2,971,835	2,705,874
Total	22,695,006	21,967,157	20,225,573
Non-vested Accrued Benefits	989,854	958,467	923,660
Total Present Value Accrued Benefits	23,684,860	22,925,624	21,149,233
Funded Ratio (MVA / PVAB)	77.5%	80.0%	81.6%
Increase (Decrease) in Present Value of Accrued Benefits Attributable to:			
Plan Amendments	0	0	
Assumption Changes	759,236	0	
New Accrued Benefits	0	1,295,303	
Benefits Paid	0	(865,484)	
Interest	0	1,346,572	
Other	0	0	
Total	759,236	1,776,391	

	New Assump	Old Assump	
Valuation Date	6/1/2019	6/1/2019	6/1/2018
Applicable to Fiscal Year Ending	5/31/2021	5/31/2021	5/31/2020
E. Pension Cost			
Normal Cost [1]	$750,992	$722,646	$692,365
% of Total Annual Payroll [1]	27.7	26.7	26.8
Administrative Expenses [1]	11,435	11,435	10,180
% of Total Annual Payroll [1]	0.4	0.4	0.4
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 22 years (as of 6/1/2019) [1]	853,990	786,894	719,580
% of Total Annual Payroll [1]	31.6	29.1	27.9
Total Recommended Contribution	1,616,417	1,520,975	1,422,125
% of Total Annual Payroll [1]	59.7	56.2	55.1
Expected Member Contributions [1]	268,393	268,393	255,954
% of Total Annual Payroll [1]	9.9	9.9	9.9
Expected Village Contribution	1,348,024	1,252,582	1,166,171
% of Total Annual Payroll [1]	49.8	46.3	45.2

F. Past Contributions

Plan Years Ending:	5/31/2019
Total Recommended Contribution	1,312,929
Village Requirement	1,046,968
Actual Contributions Made:	
Members (excluding buyback)	265,961
Village	1,167,000
Total	1,432,961
G. Net Actuarial (Gain)/Loss	735,815

[1] Contributions developed as of 6/1/2019 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
2019	12,701,698
2020	12,673,318
2021	12,617,474
2026	11,830,006
2031	9,881,942
2036	6,205,328
2041	0

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

		Actual	Assumed
Year Ended	5/31/2019	4.86%	4.82%
Year Ended	5/31/2018	2.75%	5.43%
Year Ended	5/31/2017	2.05%	5.00%

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

		Actual	Assumed
Year Ended	5/31/2019	4.66%	6.50%
Year Ended	5/31/2018	6.11%	7.00%
Year Ended	5/31/2017	6.66%	7.00%

DEVELOPMENT OF JUNE 1, 2019 AMORTIZATION PAYMENT

(1)	Unfunded Actuarial Accrued Liability as of June 1, 2018	$11,026,501
(2)	Sponsor Normal Cost developed as of June 1, 2018	394,154
(3)	Expected administrative expenses for the year ended May 31, 2019	9,559
(4)	Expected interest on (1), (2) and (3)	742,653
(5)	Sponsor contributions to the System during the year ended May 31, 2019	1,167,000
(6)	Expected interest on (5)	37,928
(7)	Expected Unfunded Actuarial Accrued Liability as of May 31, 2019, (1)+(2)+(3)+(4)-(5)-(6)	10,967,939
(8)	Change to UAAL due to Assumption Change	997,944
(9)	Change to UAAL due to Actuarial (Gain)/Loss	735,815
(10)	Unfunded Accrued Liability as of June 1, 2019	12,701,698
(11)	UAAL Subject to Amortization (100% AAL less Actuarial Assets)	12,701,698

Date Established	Years Remaining	6/1/2019 Amount	Amortization Amount
6/1/2019	22	12,701,698	801,869

DETAILED ACTUARIAL (GAIN)/LOSS ANALYSIS

(1)	Unfunded Actuarial Accrued Liability (UAAL) as of June 1, 2018	$11,026,501
(2)	Expected UAAL as of June 1, 2019	10,967,939
(3)	Summary of Actuarial (Gain)/Loss, by component:	
	Investment Return (Actuarial Asset Basis)	328,952
	Salary Increases	65,160
	Active Decrements	88,873
	Inactive Mortality	109,862
	Other	142,968
	Change in UAAL due to (Gain)/Loss	735,815
	Assumption Changes	997,944
(4)	Actual UAAL as of June 1, 2019	$12,701,698

RECONCILIATION OF CHANGES IN CONTRIBUTION REQUIREMENT

(1)	Contribution Determined as of June 1, 2018	$1,166,171
(2)	Summary of Contribution Impact by component:	
	Change in Normal Cost	30,281
	Change in Assumed Administrative Expense	1,255
	Investment Return (Actuarial Asset Basis)	22,117
	Salary Increases	4,381
	New Entrants	-
	Active Decrements	5,975
	Inactive Mortality	7,387
	Data Corrections	-
	Contributions (More) or Less than Recommended	(8,333)
	Increase in Amortization Payment Due to Payroll Growth Assumption	21,587
	Change in Expected Member Contributions	(12,439)
	Assumption Change	95,442
	Other	14,200
	Total Change in Contribution	181,853
(3)	Contribution Determined as of June 1, 2019	$1,348,024

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	Old Assump	
Valuation Date	6/1/2019	6/1/2019	6/1/2018
Applicable to Fiscal Year Ending	5/31/2021	5/31/2021	5/31/2020
Actuarial Accrued Liability (PUC)	29,923,718	28,951,000	26,893,176
Actuarial Value of Assets	18,967,556	18,967,556	17,579,037
Unfunded Actuarial Accrued Liability (UAAL)	10,956,162	9,983,444	9,314,139
UAAL Subject to Amortization	7,963,790	7,088,344	6,624,821
Normal Cost [1]	$933,371	$901,782	$853,360
% of Total Annual Payroll [1]	34.5	33.3	33.0
Administrative Expenses [1]	11,435	11,435	10,180
% of Total Annual Payroll [1]	0.4	0.4	0.4
Payment Required to Amortize Unfunded Actuarial Accrued Liability over 21 years (as of 6/1/2019) [1]	552,738	491,977	445,415
% of Total Annual Payroll [1]	20.4	18.2	17.3
Total Required Contribution	1,497,544	1,405,194	1,308,955
% of Total Annual Payroll [1]	55.3	51.9	50.7
Expected Member Contributions [1]	268,393	268,393	255,954
% of Total Annual Payroll [1]	9.9	9.9	9.9
Expected Village Contribution	1,229,151	1,136,801	1,053,001
% of Total Annual Payroll [1]	45.4	42.0	40.8

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 6/1/2019 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
2019	28,943	901,586	930,529
2020	66,265	921,152	987,417
2021	127,551	946,128	1,073,679
2022	219,887	965,330	1,185,217
2023	310,131	1,013,988	1,324,119
2024	426,154	1,031,387	1,457,541
2025	552,739	1,047,210	1,599,949
2026	669,807	1,061,283	1,731,090
2027	808,333	1,073,458	1,881,791
2028	959,874	1,083,647	2,043,521
2029	1,109,619	1,091,798	2,201,417
2030	1,273,723	1,097,887	2,371,610
2031	1,457,549	1,101,917	2,559,466
2032	1,632,559	1,103,918	2,736,477
2033	1,817,534	1,103,910	2,921,444
2034	1,985,772	1,101,912	3,087,684
2035	2,146,511	1,097,927	3,244,438
2036	2,300,913	1,091,909	3,392,822
2037	2,441,168	1,083,746	3,524,914
2038	2,565,222	1,073,306	3,638,528
2039	2,693,560	1,060,435	3,753,995
2040	2,811,612	1,044,998	3,856,610
2041	2,922,424	1,026,896	3,949,320
2042	3,025,546	1,006,079	4,031,625
2043	3,117,756	982,512	4,100,268
2044	3,234,639	956,159	4,190,798
2045	3,344,789	926,981	4,271,770
2046	3,458,892	894,930	4,353,822
2047	3,564,870	859,950	4,424,820
2048	3,643,167	821,982	4,465,149
2049	3,712,122	780,945	4,493,067
2050	3,772,251	736,843	4,509,094
2051	3,823,917	689,832	4,513,749
2052	3,866,721	640,198	4,506,919
2053	3,900,106	588,366	4,488,472
2054	3,923,302	534,974	4,458,276
2055	3,934,625	480,810	4,415,435
2056	3,932,974	426,727	4,359,701
2057	3,916,957	373,650	4,290,607
2058	3,884,947	322,502	4,207,449

ACTUARIAL ASSUMPTIONS AND METHODS

Interest Rate	6.50% per year compounded annually, net of investment related expenses. We will continue to monitor this assumption to ensure that the rate continues to be supported.
Mortality Rate	***Active Lives:*** PubS-2010 Employee mortality, projected 5 years past the valuation date with Scale MP-2018. 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-2018. ***Beneficiaries:*** PubS-2010 Survivor mortality, projected 5 years past the valuation date with Scale MP-2018. ***Disabled Lives:*** PubS-2010 Disabled mortality, projected 5 years past the valuation date with Scale MP-2018. The mortality assumptions sufficiently accommodate anticipated future mortality improvements.
Retirement Age	See table later in this section. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.
Disability Rate	See table later in this section. 60% of the disabilities are assumed to be in the line of duty. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.
Termination Rate	See table later in this section. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.
Inflation	2.50%.
Cost-of-Living Adjustment	<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. <u>Tier 2:</u> 1.25% per year after the later of attainment of age 60 or first anniversary of retirement.

Salary Increases	See table below. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.

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%

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.
Funding Policy Amortization Method	The UAAL is amortized according to a Level Percentage of Payroll method over a period ending in 2041. The initial amortization amount is 100% of the Accrued Liability less the Actuarial Value of Assets.
Payroll Growth	3.00% 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)	
Age	Rate	Age	Rate	Age	Rate	Age	Rate
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 2041. 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. Whenever possible, the recommended assumptions in this report reflect conservatism to allow for some margin of unfavorable future plan experience. However, it is still 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.

- Investment Return: 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.

- Salary Increases: 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.

- Payroll Growth: 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.

- Demographic Assumptions: 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.

- Contribution risk: Risks associated with the items outlined above will inherently create varying liabilities and assets resulting in volatility in contributions. Actuarial losses on assets and liabilities will lead to higher contribution amounts, while actuarial gains on assets and liabilities will lead to lower contribution amounts.

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 193.3% on June 1, 2016 to 181.3% on June 1, 2019, indicating that the plan has been maturing.

- The Accrued Liability Ratio, determined as the ratio of the Inactive Accrued Liability, which is generally the accrued liability associated with those receiving payments, to the Total Accrued Liability, is 45.9%. With a plan of this maturity, losses due to lower than expected investment returns or demographic factors can be 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 stayed approximately the same from June 1, 2016 to June 1, 2019, with assumption changes offsetting improvements in the Funded Ratio occurring as a result of annual contributions in excess of the actuarial recommended contribution.

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 modelling, as well as the identification of additional risks, can be provided at the request of the reader.

PLAN MATURITY MEASURES AND OTHER RISK METRICS

	6/1/2016	6/1/2017	6/1/2018	6/1/2019
Support Ratio				
Total Actives	29	28	29	29
Total Inactives	15	16	16	16
Actives / Inactives	193.3%	175.0%	181.3%	181.3%
Asset Volatility Ratio				
Market Value of Assets (MVA)	14,084,700	15,908,889	17,262,779	18,349,111
Total Annual Payroll	2,545,665	2,454,099	2,582,783	2,708,303
MVA / Total Annual Payroll	553.3%	648.3%	668.4%	677.5%
Accrued Liability (AL) Ratio				
Inactive Accrued Liability	10,806,860	13,016,812	13,838,054	14,540,108
Total Accrued Liability	24,499,572	25,616,524	28,605,538	31,669,254
Inactive AL / Total AL	44.1%	50.8%	48.4%	45.9%
Funded Ratio				
Actuarial Value of Assets (AVA)	14,761,153	16,216,475	17,579,037	18,967,556
Total Accrued Liability	24,499,572	25,616,524	28,605,538	31,669,254
AVA / Total Accrued Liability	60.3%	63.3%	61.5%	59.9%

STATEMENT OF FIDUCIARY NET POSITION
May 31, 2019

ASSETS	MARKET VALUE
Cash and Cash Equivalents:	
Cash and Cash Equivalents	763,337
Total Cash and Equivalents	763,337
Receivables:	
Accrued Past Due Interest	93,528
Total Receivable	93,528
Investments:	
Municipal Obligations	640,291
Corporate Bonds	3,377,625
U.S. Gov't and Agency Obligations	4,021,932
Stocks	1,081,560
Mutual Funds	8,370,838
Total Investments	17,492,246
Total Assets	18,349,111
LIABILITIES	
Total Liabilities	0
Net Assets:	
Active and Retired Members' Equity	18,349,111
NET POSITION RESTRICTED FOR PENSIONS	18,349,111
TOTAL LIABILITIES AND NET ASSETS	18,349,111

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED May 31, 2019
Market Value Basis

ADDITIONS		
Contributions:		
Member	265,961	
Village	1,167,000	
Total Contributions		1,432,961
Investment Income:		
Net Increase in Fair Value of Investments		(208,238)
Interest & Dividends		764,403
Less Investment Expense [1]		(26,573)
Net Investment Income		529,592
Total Additions		1,962,553
DEDUCTIONS		
Distributions to Members:		
Benefit Payments	865,484	
Total Distributions		865,484
Administrative Expenses		10,737
Total Deductions		876,221
Net Increase in Net Position		1,086,332
NET POSITION RESTRICTED FOR PENSIONS		
Beginning of the Year		17,262,779
End of the Year		18,349,111

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

ACTUARIAL ASSET VALUATION
May 31, 2019

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.

Gains/(Losses) Not Yet Recognized

Plan Year		Amounts Not Yet Recognized by Valuation Year				
Ending	Gain/(Loss)	2019	2020	2021	2022	2023
5/31/2016	(982,566)	(196,513)	0	0	0	0
5/31/2017	365,718	146,287	73,144	0	0	0
5/31/2018	(132,921)	(79,753)	(53,168)	(26,584)	0	0
5/31/2019	(610,583)	(488,466)	(366,350)	(244,233)	(122,117)	0
Total		(618,445)	(346,374)	(270,817)	(122,117)	0

Development of Investment Gain/Loss

Market Value of Assets, 5/31/2018	17,262,779
Contributions Less Benefit Payments & Administrative Expenses	556,740
Expected Investment Earnings[1]	1,140,175
Actual Net Investment Earnings	529,592
2019 Actuarial Investment Gain/(Loss)	(610,583)

[1] Expected Investment Earnings = 6.50% x (17,262,779 + 0.5 x 556,740)

Development of Actuarial Value of Assets

Market Value of Assets, 5/31/2019	18,349,111
(Gains)/Losses Not Yet Recognized	618,445
Actuarial Value of Assets, 5/31/2019	18,967,556
(A) 5/31/2018 Actuarial Assets:	17,579,037
(I) Net Investment Income:	
1. Interest and Dividends	764,403
2. Realized Gains (Losses)	0
3. Change in Actuarial Value	93,949
4. Investment Expenses	(26,573)
Total	831,779
(B) 5/31/2019 Actuarial Assets:	18,967,556
Actuarial Asset Rate of Return = (2 x I) / (A + B - I):	4.66%
Market Value of Assets Rate of Return:	3.02%
5/31/2019 Limited Actuarial Assets:	18,967,556
Actuarial Gain/(Loss) due to Investment Return (Actuarial Asset Basis)	(328,952)

CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
May 31, 2019
Actuarial Asset Basis

INCOME		
Contributions:		
Member	265,961	
Village	1,167,000	
Total Contributions		1,432,961
Earnings from Investments		
Interest & Dividends	764,403	
Change in Actuarial Value	93,949	
Total Earnings and Investment Gains		858,352
EXPENSES		
Administrative Expenses:		
Investment Related[1]	26,573	
Other	10,737	
Total Administrative Expenses		37,310
Distributions to Members:		
Benefit Payments	865,484	
Total Distributions		865,484
Change in Net Assets for the Year		1,388,519
Net Assets Beginning of the Year		17,579,037
Net Assets End of the Year[2]		18,967,556

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

STATISTICAL DATA

	6/1/2016	6/1/2017	6/1/2018	6/1/2019
Actives - Tier 1				
Number	24	23	23	23
Average Current Age	41.4	41.9	42.9	43.9
Average Age at Employment	26.3	26.4	26.4	26.4
Average Past Service	15.1	15.5	16.5	17.5
Average Annual Salary	$92,976	$92,365	$94,469	$98,447
Actives - Tier 2				
Number	5	5	6	6
Average Current Age	29.1	29.5	32.1	33.1
Average Age at Employment	28.1	27.7	29.8	29.8
Average Past Service	1.0	1.8	2.3	3.3
Average Annual Salary	$62,847	$65,939	$68,334	$74,004
Service Retirees				
Number	11	12	12	12
Average Current Age	65.1	65.1	66.1	67.1
Average Annual Benefit	$59,618	$65,433	$67,500	$69,707
Beneficiaries				
Number	1	1	1	1
Average Current Age	72.5	73.5	74.5	75.5
Average Annual Benefit	$42,508	$42,508	$42,508	$42,508
Disability Retirees				
Number	0	0	0	0
Average Current Age	N/A	N/A	N/A	N/A
Average Annual Benefit	N/A	N/A	N/A	N/A
Terminated Vested				
Number	3	3	3	3
Average Current Age	54.4	55.4	56.4	57.4
Average Annual Benefit [1]	$20,258	$20,258	$20,258	$20,258

[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	0	0	0	0	0	0	0	0	0	0	0	0
25 - 29	0	0	0	2	0	1	0	0	0	0	0	3
30 - 34	0	0	1	0	0	0	0	0	0	0	0	1
35 - 39	0	0	0	0	0	0	5	1	0	0	0	6
40 - 44	0	1	0	0	0	1	2	2	1	0	0	7
45 - 49	0	0	0	0	0	0	1	2	6	0	0	9
50 - 54	0	0	0	0	0	0	0	1	0	1	0	2
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	0	1	1	2	0	2	8	6	8	1	0	29

VALUATION PARTICIPANT RECONCILIATION

1. Active lives

a. Number in prior valuation 6/1/2018	29
b. Terminations	
i. Vested (partial or full) with deferred benefits	0
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	0
f. Continuing participants	29
g. New entrants	0
h. Total active life participants in valuation	29

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	12	1	0	3	16
Retired	0	0	0	0	0
Vested Deferred	0	0	0	0	0
Death, With Survivor	0	0	0	0	0
Death, No Survivor	0	0	0	0	0
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	12	1	0	3	16

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 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.

SUMMARY OF PARTICIPANT DATA

Plan Membership:

	6/1/2019	6/1/2018
Inactive Plan Members or Beneficiaries Currently Receiving Benefits	13	13
Inactive Plan Members Entitled to But Not Yet Receiving Benefits	3	3
Active Plan Members	29	29
Total	45	45
Covered Payroll	$2,708,303	$2,582,783

SCHEDULE OF CHANGES IN NET PENSION LIABILITY

GASB 68 Reporting Period Ending	05/31/2019	05/31/2018
Measurement Date	05/31/2019	05/31/2018
Total Pension Liability		
Service Cost	667,091	619,311
Interest	1,846,640	1,780,157
Changes of Benefit Terms	-	-
Differences Between Expected and Actual Experience	394,877	(105,189)
Changes of Assumptions	999,483	1,488,739
Benefit Payments, Including Refunds of Employee Contributions	(865,484)	(838,041)
Net Change in Total Pension Liability	3,042,607	2,944,977
Total Pension Liability - Beginning	28,175,501	25,230,524
Total Pension Liability - Ending (a)	$ 31,218,108	$ 28,175,501
Plan Fiduciary Net Position		
Contributions - Employer	1,167,000	956,000
Contributions - Employee	265,961	252,169
Net Investment Income	529,592	993,321
Benefit Payments, Including Refunds of Employee Contributions	(865,484)	(838,041)
Administrative Expense	(10,737)	(9,559)
Net Change in Plan Fiduciary Net Position	1,086,332	1,353,890
Plan Fiduciary Net Position - Beginning	17,262,779	15,908,889
Plan Fiduciary Net Position - Ending (b)	$ 18,349,111	$ 17,262,779
Net Pension Liability - Ending (a) - (b)	$ 12,868,997	$ 10,912,722
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	58.78%	61.27%
Covered Payroll	$ 2,708,303	$ 2,582,783
Net Pension Liability as a Percentage of Covered Payroll	475.17%	422.52%

Changes reflected in May 31, 2019 results:

The results reflect the assumption changes noted in the assumptions section of the report.

STATEMENT OF CHANGES IN NET PENSION LIABILITY

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (a)-(b)
Balances at May 31, 2018	$ 28,175,501	$ 17,262,779	$ 10,912,722
Changes for a Year:			
Service Cost	667,091	-	667,091
Interest	1,846,640	-	1,846,640
Differences Between Expected and Actual Experience	394,877	-	394,877
Changes of Assumptions	999,483	-	999,483
Changes of Benefit Terms	-	-	-
Contributions - Employer	-	1,167,000	(1,167,000)
Contributions - Employee	-	265,961	(265,961)
Net Investment Income	-	529,592	(529,592)
Benefit Payments, Including Refunds of Employee Contributions	(865,484)	(865,484)	-
Administrative Expense	-	(10,737)	10,737
Net Changes	3,042,607	1,086,332	1,956,275
Balances at May 31, 2019	$ 31,218,108	$ 18,349,111	$ 12,868,997

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

	1% Decrease 5.50%	Current Discount Rate 6.50%	1% Increase 7.50%
Sponsor's Net Pension Liability	$ 18,120,351	$ 12,868,997	$ 8,643,633

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 MAY 31, 2019

For the year ended May 31, 2019, the Sponsor will recognize a pension expense of $1,732,237. On May 31, 2019, 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	458,078	360,202
Changes of assumptions	2,418,002	404,264
Net difference between projected and actual earnings on pension plan investments	618,445	0
Total	$3,494,525	$764,466

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 May 31:	
2020	$613,905
2021	$417,392
2022	$490,536
2023	$463,952
2024	$372,137
Thereafter	$372,137

COMPONENTS OF PENSION EXPENSE
YEAR-END MAY 31, 2019

	Net Pension Liability	Deferred Inflows	Deferred Outflows	Pension Expense
Beginning Balance	$ 10,912,722	$ 1,168,440	$ 2,507,461	
Total Pension Liability Factors:				
Service Cost	667,091	-	-	667,091
Interest	1,846,640	-	-	1,846,640
Changes in Benefit Terms	-	-	-	-
Differences Between Expected and Actual Experience With Regard to Economic or	394,877	-	394,877	-
Current Year Amortization	-	(83,476)	(86,314)	2,838
Changes in Assumptions About Future Economic or Demographic Factors or Other Inputs	999,483	-	999,483	-
Current Year Amortization	-	(101,066)	(440,065)	338,999
Benefit Payments, Including Refunds of Employee Contributions	(865,484)	-	-	-
Net Change	3,042,607	(184,542)	867,981	2,855,568
Plan Fiduciary Net Position:				
Contributions - Employer	1,167,000	-	-	-
Contributions - Employee	265,961	-	-	(265,961)
Projected Net Investment Income	1,140,175	-	-	(1,140,175)
Difference Between Projected and Actual Earnings on Pension Plan Investments	(610,583)	-	610,583	-
Current Year Amortization	-	(73,144)	(345,212)	272,068
Benefit Payments, Including Refunds of Employee Contributions	(865,484)	-	-	-
Administrative Expenses	(10,737)	-	-	10,737
Net Change	1,086,332	(73,144)	265,371	(1,123,331)
Ending Balance	$ 12,868,997	$ 910,754	$ 3,640,813	$ 1,732,237

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						
			2019	2020	2021	2022	2023	2024	2025
2019	$ 394,877	7	$ 56,411	$ 56,411	$ 56,411	$ 56,411	$ 56,411	$ 56,411	$ 56,411
2018	$ (105,189)	8	$ (13,149)	$ (13,149)	$ (13,149)	$ (13,149)	$ (13,149)	$ (13,149)	$ (13,149)
2017	$ 209,323	7	$ 29,903	$ 29,903	$ 29,903	$ 29,903	$ 29,903	$ -	$ -
2016	$ (562,619)	8	$ (70,327)	$ (70,327)	$ (70,327)	$ (70,327)	$ (70,327)	$ -	$ -
Net Increase (Decrease) in Pension Expense			2,838	2,838	2,838	2,838	2,838	43,262	43,262

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 2019	2020	2021	2022	2023	2024	2025
2019	$ 999,483	7	$ 142,785	$ 142,783	$ 142,783	$ 142,783	$ 142,783	$ 142,783	$ 142,783
2018	$ 1,488,739	8	$ 186,092	$ 186,092	$ 186,092	$ 186,092	$ 186,092	$ 186,092	$ 186,092
2017	$ (707,460)	7	$ (101,066)	$ (101,066)	$ (101,066)	$ (101,066)	$ (101,066)	$ -	$ -
2016	$ 889,503	8	$ 111,188	$ 111,188	$ 111,188	$ 111,188	$ 111,188	$ -	$ -
Net Increase (Decrease) in Pension Expense			$ 338,999	$ 338,997	$ 338,997	$ 338,997	$ 338,997	$ 328,875	$ 328,875

AMORTIZATION SCHEDULE – INVESTMENTS

Year Base Established	Differences Between Projected and Actual Earnings	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Recognition of the Differences Between Projected and Actual Earnings on Pension Plan Investments: 2019	2020	2021	2022	2023	2024
2019	$ 610,583	5	$ 122,115	$ 122,117	$ 122,117	$ 122,117	$ 122,117	$ -
2018	$ 132,921	5	$ 26,584	$ 26,584	$ 26,584	$ 26,584	$ -	$ -
2017	$ (365,718)	5	$ (73,144)	$ (73,144)	$ (73,144)	$ -	$ -	$ -
2016	$ 982,566	5	$ 196,513	$ 196,513	$ -	$ -	$ -	$ -
Net Increase (Decrease) in Pension Expense			$ 272,068	$ 272,070	$ 75,557	$ 148,701	$ 122,117	$ -

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
05/31/2019	1,046,968	1,167,000	(120,032)	2,708,303	43.09%
05/31/2018	955,822	956,000	(178)	2,582,783	37.01%

The following assumptions were used to determine the Actuarially Determined Contribution as of June 1, 2017:

Calculation Timing	The Actuarially Determined Contribution is calculated as of June 1 two years prior to the year in which contributions are reported.
Interest Rate	7.00%
Mortality Rate	RP-2000 Combined Healthy Mortality with a blue collar adjustment, projected to the valuation date with Scale BB.
Disabled Mortality Rate	RP-2000 Disabled Retiree Mortality, projected to the valuation date with Scale BB.
Assumptions	All other assumptions and methods used for determining the Actuarially Determined Contribution can be found in the June 1, 2017 Actuarial Valuation Report for the Village of North Aurora Police Pension Fund prepared by Foster & Foster.

SCHEDULE OF INVESTMENT RETURNS

For the year ended May 31, 2019, the annual money-weighted return on Pension Plan investments, net of pension plan investment expense, was 2.99 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
05/31/2019	2.99%
05/31/2018	6.10%

ASSUMPTIONS – TOTAL PENSION LIABILITY

The valuation reflects the following assumption changes :

- The mortality rates were updated to reflect the PubS-2010 tables.

The following assumptions were used to determine the Net Pension Liability:

Valuation Date	June 1, 2019
Measurement Date	May 31, 2019
GASB 68 Expense Measurement Period	June 1, 2018 - May 31, 2019
Reporting Period	June 1, 2018 - May 31, 2019
Discount Rate	6.50%
Mortality Rate	***Active Lives:*** PubS-2010 Employee mortality, projected 5 years past the valuation date with Scale MP-2018. 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-2018. ***Beneficiaries:*** PubS-2010 Survivor mortality, projected 5 years past the valuation date with Scale MP-2018. ***Disabled Lives:*** PubS-2010 Disabled mortality, projected 5 years past the valuation date with Scale MP-2018. The mortality assumptions sufficiently accommodate anticipated future mortality improvements.
Retirement Age	See table later in this section. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.
Disability Rate	See table later in this section. 60% of the disabilities are assumed to be in the line of duty. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.
Termination Rate	See table later in this section. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.
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.
Salary Increases	See table below. This is based on a 2017 experience study performed for the State of Illinois Department of Insurance.

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%

Marital Status	80% of Members are assumed to be married.
Spouse's Age	Males are assumed to be three years older than females.
Method	Entry Age Normal Cost Method.

Decrement Tables

% Terminating During the Year		% Becoming Disabled During the Year		% Retiring During the Year (Tier 1)		% Retiring During the Year (Tier 2)	
Age	Rate	Age	Rate	Age	Rate	Age	Rate
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%				

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 geometric real rates of return for each major asset class included in the Pension Plan's target asset allocation adopted as of May 31, 2019, as provided by MB Wealth Management, are summarized in the following table:

Asset Class	Target Allocation	Long Term Expected Real Rate of Return[1]
US Treasuries	6.08%	1.80%
US Agencies	20.11%	2.00%
Taxable IL Municipal Bonds	3.51%	2.00%
US Corporate Bonds	18.51%	2.50%
US High Yield Bonds	1.76%	3.50%
US Large Cap	26.50%	5.00%
US Mid Cap	5.29%	5.30%
US Small Cap	2.67%	5.00%
International Stocks	10.16%	5.30%
Emerging Market Stocks	3.89%	8.20%
Real Estate	1.52%	4.30%
	100.00%	

[1] Projected 10 year rate of return using Historical data

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 6.50 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 (6.50 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 6.50 percent. The municipal bond rate is 3.05 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 6.50 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, 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.