

# Town of Elsmere Police Pension Plan

Actuarial Valuation Report  
For the Year Ending  
December 31, 2019

Issued May 2019



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May 20, 2019

Personal and Confidential

Town Pension Committee  
c/o Town of Elsmere  
11 Poplar Avenue  
Elsmere, DE 19805

Dear Committee:

We have performed an actuarial valuation of the Town of Elsmere Police Pension Plan as of January 1, 2019. The purposes of the valuation are to review the experience of the plan during the year that ended December 31, 2018 and to determine the employer cash contribution amount for the year that began January 1, 2019 and ends on December 31, 2019. The employee data and financial information used in this valuation were provided by the Town of Elsmere and by the Trustee and were not audited by us, but were reviewed by us for reasonableness.

This report has been prepared in accordance with generally accepted actuarial principles and practices, and fairly reflects the current actuarial position of the plan. In our opinion, each of the actuarial assumptions used is reasonable and represents our best estimate of expected long-term trends.

In accordance with regulations prescribed for qualified pension plans, this valuation reflects the 2019 Internal Revenue Code Section 415 annual benefit limitation of \$225,000 and the 2019 Internal Revenue Code Section 401(a)(17) limit of \$280,000 on annual compensation for purposes of determining pension benefits.

This report contains a development of the 2019 Actuarially Determined Contribution (ADC) as described in Governmental Accounting Standards Board Statement No. 68 (GASB 68), as well as various disclosures required under GASB 67 and GASB 68.

Paragraph 4 of Section I of this report presents an overview of the GASB contribution and annual expense standards.

The basic valuation results for the year beginning January 1, 2019 and ending December 31, 2019 are as follows:

- |   |            |
|---|------------|
| (1) Actuarially Determined Contribution (ADC) per GASB 68<br>for year ending December 31, 2019                              | \$ 184,392 |
| (2) Market Value of Plan Assets as of January 1, 2019, as<br>reported (including accrued contribution)                      | 2,389,222  |
| (3) Actuarial Present Value of Accumulated Plan Benefits<br>(ongoing plan basis, 8.0% interest rate), as of January 1, 2019 | 3,967,521  |

We refer you to Section I of this report for a detailed summary and commentary on the results of the valuation and a comparison with the prior valuation. Section II is a summary of the plan provisions, and Section III describes the actuarial cost method and assumptions. Calculation details, supporting data and disclosures are provided in Exhibits A through G.

We will be pleased to answer any questions that you may have regarding this actuarial valuation report.

Very truly yours,



Parker E. Elmore  
Associate, Society of Actuaries

Enclosure

SECTION I

PRINCIPAL RESULTS OF THE VALUATION

	<u>January 1, 2019</u>	January 1, 2018
A. <u>Comparative Summary</u>		
(1) Employer Normal Cost	\$ 0	\$ 0
(2) Unfunded Actuarial Accrued Liability	<u>1,578,299</u>	<u>1,426,578</u>
(3) Actuarially Determined Contribution (ADC) per GASB 68	184,392	166,667
(4) Actuarial Value of Assets	2,389,222	2,589,418
(5) Information on Plan Members		
(a) Number of plan members		
(i) active	0	0
(ii) retired	7	7
(iii) terminated vested	<u>0</u>	<u>0</u>
(iv) total	7	7
(b) Active plan member data		
(i) total annual reported compensation	N/A	N/A
(ii) average annual reported compensation	\$ N/A	\$ N/A
(iii) average attained age	N/A years	N/A years
(iv) average past service	N/A years	N/A years

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

	January 1, 2019	January 1, 2018
A. <u>Comparative Summary</u> (cont'd)		
(6) Accountant's Information		
(a) Actuarial present value of vested accumulated plan benefits	\$ 3,967,521	\$ 4,015,996
(b) Actuarial present value of non-vested accumulated plan benefits	0	0
(c) Actuarial present value of all accumulated plan benefits (ongoing plan basis): (a) + (b)	3,967,521	4,015,996
(d) Market value of plan assets, as reported (including accrued contributions if applicable)	\$ 2,389,222	\$ 2,589,418
(e) Plan asset/accumulated benefit liability ratio (ongoing plan basis): (d)/(c)	60.22%	64.47%

B. Commentary on Plan Experience and Contribution Amounts

- (1) Plan experience was, in aggregate, less favorable than anticipated during the year ending December 31, 2018. The significant actuarial experience factors occurring during the year were as follows:
- (a) The estimated annual rate of return on plan assets during 2018 was approximately -0.18% on a market value basis. The actuarial value basis rate of return during 2018 was less than the assumed long-term rate of return of 8.00% per year, thereby resulting in an actuarial loss of approximately \$(203,794) from this source alone.

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

(continued)

#### B. Commentary on Plan Experience and Contribution Amounts (cont'd)

- (2) The January 1, 2019 market value of plan assets of \$2,389,222 was less than the actuarial present value of all accumulated plan benefits of \$3,967,521 determined on an ongoing plan basis as of January 1, 2019.

The ratio of plan assets to the actuarial present value of accumulated plan benefits (ongoing plan basis) was 60.22% as of January 1, 2019.

- (3) This actuarial valuation contains plan book expense and cash contribution standards, as well as certain disclosure information reflecting the requirements set forth in Statements 67 and 68 of the Governmental Accounting Standards Board (GASB).

One of the key features of GASB 68 is the establishment of a benchmark annual cash contribution amount, the so-called "Actuarially Determined Contribution" (ADC). Although plan sponsors are not required to contribute an amount equal to the ADC each year, variations between the ADC and the companion book expense amount (the "Annual Pension Cost") will give rise to a positive or negative Contribution Deficiency / (Excess), which is a measure of the cumulative difference between the theoretical annual expense of the plan, as determined under GASB rules and the "standard" cash contribution level, again determined under GASB rules.

The basic elements used in the calculation of the ADC include (a) the plan's employer "normal" cost for current benefit accruals (as actuarially defined) and (b) a level dollar amortization amount (over 15 years) based on the plan's unfunded actuarial accrued liability.

SECTION II

SUMMARY OF PLAN PROVISIONS

Effective Date

Originally effective June 27, 1966.

Plan Year

July 1 to June 30.

Eligibility

A full-time police officer of the Town shall begin to participate in the Plan on his date of employment with the Employer, provided the Eligible Employee makes an application to the Employer for participation in the Plan and agrees to make mandatory Employee Contributions to the Plan. All officers employed as of June 30, 2012 were moved to the State Retirement Plan and no one hired after that date shall be eligible to participate in the Plan.

Service

Service means the number of years and completed months of employment with the Employer as an Eligible Employee.

Compensation

A Participant's regular salary and wages paid by the Employer for a Plan Year, and excluding overtime, commissions, and discretionary bonuses. Amounts contributed by the Employer under the Plan and any other nontaxable fringe benefits shall not be considered Compensation. "Lump Sum" payments made for accrued sick leave and vacation pay shall also not be considered as Compensation. The compensation cannot exceed the maximum amount specified by IRC Section 401 (\$280,000 for 2019).

Note: For benefit calculation purposes, compensation also includes mandatory pre-tax member contributions "picked up" by the employer under the terms of the plan in accordance with Internal Revenue Code Section 414(h).



## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Final Pay

A Participant's Final Pay is the average Compensation (determined on a monthly basis) of the highest 12 consecutive months out of the last three years of employment.

#### Normal Retirement Date

A Participant's Normal Retirement Date is the first day of the month coincident with or following completion of 20 Years of Service, but

- In the case of a Participant who has 10 or more Years of Service as of September 1, 2003, not later than the Participant's 62<sup>nd</sup> birthday; or
- In the case of any other Participant, not earlier than the Participant's 50<sup>th</sup> birthday nor later than the Participant's 62<sup>nd</sup> birthday;
- However, any Participant who terminates employment prior to the completion of 12 Years of Service will not be entitled to a retirement benefit, regardless of his age at termination.

#### Normal Retirement Benefit

The amount of monthly retirement benefit provided to a Participant who retires on his Normal Retirement Date will equal 50% of Final Pay multiplied by a fraction, not greater than one (1), the numerator of which equals the Year of Service completed at his Normal Retirement Date and the denominator of which is 20.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Normal Form of Annuity

In the case of a Participant who has 10 or more Years of Service as of September 1, 2003, their Normal Form of Annuity is a Joint & 100% Survivor Annuity. All other Participants shall have a Joint & 50% Annuity as their Normal Form of Annuity.

#### Early Retirement

The first day of the month coincident with or following the completion of 18 Years of Service.

The amount of monthly retirement benefit provided to a Participant who retires on his Early Retirement Date, **payable at his Normal Retirement Date**, is equal to 50% of Final Pay at termination of employment multiplied by a fraction, not to exceed one (1), the numerator of which equals the Years of Service completed at termination of employment and the denominator of which is 20.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Deferred Retirement

In the case of a Participant whose vesting percentage applicable to his Accrued Benefit derived from Employer Contributions is greater than 0%, the amount of monthly retirement benefit, **payable at his Normal Retirement Date**, is equal to 50% of Final Pay at termination of employment multiplied by a fraction, not to exceed one (1), the numerator of which equals the Years of Service completed at termination and the denominator of which is 20.

In the case of a Participant whose vesting percentage applicable to his Accrued Benefit derived from Employer Contributions is equal to 0%, the Participant shall forfeit his non-vested portion of his Accrued Benefit derived from Employer Contributions and shall be paid the value of his Employee Contribution Benefit in a single sum, upon written request. The value of his Employee Contribution Benefit shall equal his Employee Contributions accumulated with interest computed at the rate of 5.0% per annum, simple interest, compounded annually, assuming all contributions are made in the middle of the year.

#### Pre-Retirement Death Benefit

Upon the death of an active Participant who had 10 or more Years of Service as of September 1, 2003, the Beneficiary shall be entitled to benefits equal to those payable as if the date of death was the Normal Retirement Date, but based on Final Pay as of the date of death.

Upon the death of any other active Participant whose vesting percentage applicable to his Accrued Benefit derived from Employer Contributions is greater than 0%, the Beneficiary shall be entitled to benefits equal to 50% of those payable as if the date of death was the Normal Retirement Date, but based on Final Pay as of the date of death.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

Notwithstanding the above, the total amount of benefits payable from the plan with respect to a member in the event of the death of such member, *regardless of marital status or length of service at date of death*, will not be less than the amount standing to the credit of the member in his Mandatory Contribution Account as of the earlier of (a) the date of such members' death or (b) the date benefit payments originally commenced.

#### Employee Contributions

Each Participant shall contribute six percent (6%) of his Compensation to the Trust. A record of such Mandatory Contributions shall be maintained along with interest credited thereto. A plan member is fully vested in the amount standing to his credit in his Mandatory Member Contribution Account as of any date.

#### Funding

The plan is funded by a combination of Employer and Participant contributions.

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

##### A. Actuarial Cost Method

For purposes of calculating ERISA funding contribution amounts, the actuarial cost method used to calculate the costs and liabilities of the plan is the **Entry Age Normal Method**. A method under which the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial liability. The portion of the actuarial liability exceeding the actuarial value of the assets is called the unfunded actuarial liability. Under this method the following occur:

- (i) Individual Entry Age Normal Costs and Actuarial Liabilities are added together to form the total Entry Age Normal Cost and Actuarial Liability.
- (ii) The entry age for a participant is established as the individual's age on the first valuation date the participant was eligible to enter the Plan.
- (iii) The actuarial gains (losses), Plan amendments and changes in actuarial assumptions, as they occur, reduce (increase) the existing unfunded actuarial liability.

Actuarial gains and losses are calculated each year and amortized over the minimum and maximum periods allowed by law from the year of such gain or loss.

All employees who are plan participants on a valuation date are included in the actuarial valuation

##### B. Asset Valuation Method

The actuarial value of plan assets as of a valuation date is equal to the market value of plan assets on the valuation date, as reported by the Trustee, plus any receivable contributions.

SECTION III

ACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS

(continued)

C. Actuarial Assumptions

<i>Pre- and Postretirement Mortality</i>	The 1983 Group Annuity Mortality Table (sex distinct rates)
<i>Investment Return</i>	8.0% per year, net of expenses.
<i>Employee Termination</i>	None assumed
<i>Compensation Increases</i>	N/A
<i>Retirement Age</i>	Age 50 or Normal Retirement Date, if later.
<i>Pre-Retirement Death Benefit</i>	Calculated using aforementioned mortality, interest and termination assumptions and on the assumption that 100% of plan members have spouses.
<i>Cost-of-Living Adjustments</i>	It has been assumed that cost-of-living adjustments will increase benefits by 2.85% per year. For those Participants who were not yet vested on September 1, 2003, this amount will be limited to 2.00%.
<i>Expenses</i>	Investment return is assumed be net of plan expenses paid from the trust fund.

## EXHIBIT A

### Development of Actuarial (Gain) or Loss

Actuarial (gains) or losses occurring during the preceding year are determined as of each valuation date. Both the magnitude and sources of (gains) or losses are monitored over time in order to assess the reasonableness of actuarial assumptions.

#### A. Actuarial (Gain) or Loss for the Year Ended December 31, 2018

(1) Unfunded actuarial accrued liability as of January 1, 2018	\$ 1,426,578
(2) Employer normal cost for year beginning January 1, 2018	0
(3) Net interest on (1) and (2) through December 31, 2018	114,126
(4) Employer contribution for year ending December 31, 2018	66,017
(5) Interest on (4) to December 31, 2018	2,590
(6) Expected unfunded actuarial accrued liability as of December 31, 2018: (1) + (2) + (3) - (4) - (5)	1,472,097
(7) Unfunded actuarial accrued liability as of January 1, 2019	1,578,299
(8) Actuarial (gain) or loss for the year ended December 31, 2018: (7) - (6)	\$ 106,202

EXHIBIT B

Development of Pension Contribution Amount

A.	<u>Employer Normal Cost as of January 1, 2019</u>	\$	0
B.	<u>Unfunded Actuarial Accrued Liability as of January 1, 2019</u>		
	(1) Actuarial accrued liability:		
	(a) Active plan members	\$	0
	(b) Retirees and beneficiaries	3,967,521	
	(c) Terminated vested members	<u>0</u>	
	(d) Total		3,967,521
	(2) Actuarial value of plan assets		2,389,222
	(3) Unfunded actuarial accrued liability as of January 1, 2019: (1d) - (2)	\$	1,578,299
C.	<u>Actuarially Determined Contribution (ADC) per GASB Statement No. 68, for Year ending December 31, 2019</u>		
	(1) Employer normal cost from (A)	\$	0
	(2) Level dollar amortization of January 1, 2019 unfunded actuarial accrued liability over 15 years		170,733
	(3) Interest at 8.0% on [(1) + (2)] through December 31, 2019		13,659
	(4) Amortization of contribution deficiency/(excess)		0
	(5) ADC for 2019: (1) + (2) + (3) + (4)	\$	<u>184,392</u>



EXHIBIT C

Statement of Assets

Based upon information furnished by the Trustee, and by the Town of Elsmere, the assets of the plan as of December 31, 2018 are summarized as follows:

A.	<u>Summary of the Pension Fund</u>	<u>Market Value</u>
	First State Trust Company	2,389,222
	Accrued Contribution	<u>0</u>
	Assets as of December 31, 2018, as reported	\$ 2,389,222
B.	<u>Summary of the Transactions of the Pension Fund</u>	
	Market Value of Assets as of December 31, 2017	\$ 2,589,418
	Receipts:	
	Employer contributions for the 2018 year	66,017
	Accrued Employer contribution for the 2018 year	0
	Employee contributions - mandatory	0
	Net interest	(4,470)
	Dividends	0
	Change in accrued income	N/A
	Change in unrealized gain	N/A
	Realized gain	N/A
	Total Investment Income	0
	Total Receipts	61,547
	Disbursements:	
	Benefit distributions	261,743
	Fees and expenses	<u>0</u>
	Total Disbursements	261,743
	Market Value of Assets as of December 31, 2018	\$ 2,389,222

## EXHIBIT C

### Beginning & ending Balances of Pension Plan Investments For the plan year ending December 31, 2018

	Plan Investments / Net External Cash Flows	Periods Invested	Period Weight	
Beginning value - January 1, 2018	2,589,418	12	1.0000	2,584,624
Monthly net external cash flows:				
January	(21,629)	11	0.9167	(21,592)
February	(21,800)	10	0.8333	(21,767)
March	(21,800)	9	0.7500	(21,770)
April	0	8	0.6667	0
May	(21,800)	7	0.5833	(21,777)
June	22,408	6	0.5000	22,387
July	(21,817)	5	0.4167	(21,800)
August	(21,817)	4	0.3333	(21,804)
September	(21,817)	3	0.2500	(21,807)
October	(21,817)	2	0.1667	(21,811)
November	(21,832)	1	0.0833	(21,829)
December	(21,832)	0	0.0000	(21,832)
Ending value - December 31, 2018	2,389,222			66,017
Money Weighted Rate of Return	-0.19%			
Asset Value - December 31, 2018	2,389,222			

EXHIBIT C

Investment Target Allocation & Expected Long Term Real Rates of Return  
For the plan year ending December 31, 2018

**Investment Target Allocation & Expected Long-Term Real Rate of Return**

<u>Asset Class</u>	<u>Target Allocation *</u>	<u>Asset Class</u>	<u>Long-Term Expected Real Rate of Return</u>
Domestic Equity	31.00%	Domestic Equity	5.50%
International Equity	14.00%	International Equity	6.50%
Domestic Fixed Income	22.00%	Domestic Fixed Income	2.50%
International Fixed Income	1.00%	International Fixed Income	3.50%
Alternative Investments	25.00%	Alternative Investments	7.50%
Cash	7.00%	Cash	1.00%
Total	<u>100.00%</u>	Total	<u>5.15%</u>
		Assumed Inflation	2.75%
		Nominal Rate of Return	7.90%

\* Based on DEL-RIP portfolio as of June 30, 2018 (<https://auditor.delaware.gov/wp-content/uploads/sites/40/2018/12/Delaware-Public-Employees-Retirement-System-Financial-Statement-Audit-June-30-2018.pdf>)

EXHIBIT C

Changes in Net Pension Liability  
For the plan year ending December 31, 2018

	<u>Increase (Decrease)</u>		
	<u>Total Pension Liability</u>	<u>Plan Fiduciary Net Position</u>	<u>Net Pension Liability</u>
<b>Balances at December 31, 2017</b>	4,015,996	2,589,418	1,426,578
<b>Changes for the year:</b>			
Service Cost	0		0
Interest	213,268		213,268
Changes in Benefit terms	0		0
Changes in Assumptions			0
Differences between actual and expected experience			0
Contributions - employer		66,017	(66,017)
Contributions - member		0	0
Net Investment Income		(4,470)	4,470
Benefit payments, including refunds of member contributions	(261,743)	(261,743)	0
Administrative expense		0	0
Other Charges		0	0
<b>Net Changes</b>	<u>(48,475)</u>	<u>(200,196)</u>	<u>151,721</u>
<b>Balances at December 31, 2018</b>	3,967,521	2,389,222	1,578,299

Impact of a 1% Change in the Discount Rate

	<u>Discount Rate</u>	<u>Net Pension Liability</u>
Current Rate	8.00%	1,578,299
1% Decrease	7.00%	2,049,158
1% Increase	9.00%	1,186,578

EXHIBIT D

Reconciliation of Plan Membership

A. Active Plan Members

As of January 1, 2018	0
+ New Entrants	0
+ Rehire	0
- Terminations with Vesting	0
- Terminations without Vesting	0
- Retirees	0
- Deaths	0
- Lump Sum paid	0
= <u>Active Plan Members on January 1, 2019</u>	0

B. Retired Plan Members and Beneficiaries

As of January 1, 2018	7
+ New Retirees	0
- Deaths	0
+ New Beneficiaries	0
+ Alternate Payee pursuant to QDRO	0
= <u>Retired Plan Members and Beneficiaries on January 1, 2019</u>	7

C. Terminated Vested Plan Members

As of January 1, 2018	0
+ New Terminated Vested	0
- Rehire	0
- Retirees	0
- Lump Sum paid	0
- Deaths	0
= <u>Terminated Vested Plan Members with Deferred Benefits on January 1, 2019</u>	0

D. Total Number of Plan Members

As of January 1, 2019	7
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EXHIBIT E

Value of Accumulated Plan Benefits and  
Pension Benefit Obligation as of January 1, 2019

A. <u>Value of Accumulated Plan Benefits</u> (Ongoing plan basis, 8.0% interest rate)		
(1) Participants currently receiving payments	\$	3,967,521
(2) Other vested benefits		
(a) Active participants	0	
(b) Terminated vested participants	0	
(c) Subtotal		<u>0</u>
(3) Total value of vested benefits: (1) + (2c)		3,967,521
(4) Non-vested benefits		<u>0</u>
(5) Total actuarial present value of accumulated plan benefits as of January 1, 2019 (ongoing plan basis, 8.0% interest rate): (3) + (4)	\$	3,967,521

*Note: The actuarial present value of accumulated plan benefits shown in (5) has been calculated based on a net investment earnings assumption of 8.0% per year. The actuarial present value of accumulated plan benefits would be greater than the amount shown above if determined using a lower investment earnings assumption.*

B. <u>Changes in Value of Accumulated Plan Benefits</u>		
(1) Actuarial Present Value of Accumulated Plan Benefits as of January 1, 2018	\$	4,015,996
(2) Changes During the Year		
(a) Increase for interest due to the decrease in the discount period		310,810
(b) Benefit payments (including lump sum distributions)		(261,743)
(c) Assumption Changes		0
(d) Benefits accumulated		(97,542)
(e) Net changes		(48,475)
(3) Actuarial Present Value of Accumulated Plan Benefits as of January 1, 2019 (ongoing plan basis, 8.0% interest rate): (1) + (2)(e)	\$	3,967,521

EXHIBIT F

Plan Members Eligible to Receive Pension Benefits  
Within 12 Months Following the Valuation Date  
(as of January 1, 2019)

Based on available census information, the following plan members are eligible, or will be eligible in the period from January 1, 2019 to January 1, 2020, to receive pension benefits because they will have attained their respective normal retirement ages or will have satisfied the early retirement requirements of the plan.

<u>Name</u>	<u>Date of Birth</u>	<u>Normal Retirement Date</u>	<u>Date First Eligible For Early Retirement</u>
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A. Current Active Plan Members

None

