



**THE CITY OF CRANSTON FIRE AND POLICE
POST RETIREMENT BENEFITS PLAN**

Actuarial Valuation Report
2017 GASB 74 & 75

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Introduction

This report presents the Governmental Accounting Standards Statements 74 & 75 based on the findings of an actuarial valuation as of June 30, 2017, of the City of Cranston Fire and Police OPEB Plan.

The actuarial valuation is based on:

- Plan Provisions as of June 30, 2017.
- Employee data provided by the City
- Asset provided by the City
- Actuarial assumptions approved by the Sherman Actuarial Services and the City

The valuation and forecast do not account for any subsequent changes in the plan.

GASB Statements No. 74 and No. 75

Effective for periods beginning after June 15, 2015, the Governmental Accounting Standards Board (GASB) requires the disclosure of Other Post Employment Benefits (OPEB) related liabilities for public employer financial statements in accordance with Statements 74 and 75. These statements, which amend GASB Statements No. 43 and No. 45, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

The statement requires the system to present two financial statements – a statement of fiduciary net position and a statement of changes in fiduciary net position. The statement of fiduciary net position presents the following items as of the end of the plan’s reporting period, as applicable:

- Assets
- Deferred outflows of resources (consumption of net assets by the employers that is applicable to a future reporting period)
- Liabilities
- Deferred inflows of resources (acquisition of net assets by the employers that is applicable to a future reporting period)
- Fiduciary net position (Assets + Deferred outflows – Liabilities – Deferred inflows)

The system is considered a single employer OPEB plan since obligations exist for employees of one employer and plan assets can be used to pay the benefits of the employees the employer.

This report does not include all items required under GASB Statements No. 74 and No. 75. Rather, it provides all items required that are not readily available from other sources and investment reports prepared by the plan’s investment consultant.

Discount Rate

The discount rate, and all other actuarial assumptions, are the as those described in Exhibit 4. The discount rate was selected based on a projection of employer and employee contributions, benefit payments (with and without subsidy), expenses and the long term expected rate of return on trust assets.

Based on these laws and assumptions, the OPEBs 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 OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

The City selected 7.9% as the long term expectation of investment returns.

Net Position Restricted for OPEB

The Net Position Restricted for OPEB Plan Benefits as of June 30, 2017 is \$6,131,853. The 2017 Annual Statement of the Financial Condition contains the values for previous years and the changes in Net Position Restricted for OPEB Plan Benefits. Investments are reported at fair value.

June 30, 2016 Net Position	5,024,512
Employer Contributions	5,055,716
Employee Contributions	362,505
Other Payments	0
Benefit Payments	(4,467,496)
Expenses	(17,471)
Investment Income	<u>174,087</u>
June 30, 2017 Net Position	6,131,853

OPEB Liability as of June 30, 2017

The following presents the changes in the OPEB liability during FYE 2017.

June 30, 2016 Liability	49,782,225
Service Cost	890,585
Interest on Liability and Service Cost	3,830,040
Change in Plan Provisions	0
Experience (Gain) and Loss	0
Change in Assumptions	0
Benefit Payments	(4,467,496)
Other	<u>0</u>
June 30, 2017 Liability	50,035,354

Net OPEB Liability as of June 30, 2017

The following presents the net OPEB liability of the system calculated using the discount rate of 7.9%, as well as what the system’s net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.9%) or 1-percentage-point higher (8.9%) than the current rate. The Plan Fiduciary Net Position as a percentage of the Total OPEB Liability is 12.3%.

	1% Decrease (6.9%)	Current Discount Rate (7.9%)	1% Increase (8.9%)
Total OPEB Liability	\$ 53,696,688	\$ 50,035,354	\$ 46,769,785
Plan Fiduciary Net Position	<u>\$ 6,131,853</u>	<u>\$ 6,131,853</u>	<u>\$ 6,131,853</u>
Net OPEB Liability	\$ 47,564,835	\$ 43,903,501	\$ 40,637,932

The following presents the net OPEB liability of the system calculated using the current trend rates, as well as what the system's net OPEB liability would be if it were calculated using trend rates 1-percentage-point lower for all years or 1-percentage-point higher than the current rates.

	1% Decrease	Current Trend	1% Increase
Total OPEB Liability	\$ 46,811,398	\$ 50,035,354	\$ 53,693,508
Plan Fiduciary Net Position	<u>\$ 6,131,853</u>	<u>\$ 6,131,853</u>	<u>\$ 6,131,853</u>
Net OPEB Liability	\$ 40,679,545	\$ 43,903,501	\$ 47,561,655

OPEB Expense for FYE 2018

Service Cost	890,585
Interest	3,830,040
Difference in Experience - Amortization	0
Change in Assumptions - Amortization	0
Changes in Plan Provisions	0
Employee Contributions	(362,505)
Projected Earnings	(433,099)
Administration Expense	17,471
Other Changes in Fiduciary Net Position	0
Asset (Gain) / Loss Amortization	<u>51,802</u>
Total Expense	3,994,293

Schedules of Required Supplementary Information

	<u>2017</u>
Total OPEB Liability – Beginning	49,782,225
Total OPEB Liability – Ending (a)	50,035,354
Plan Fiduciary Net Position – Beginning	5,024,512
Plan Fiduciary Net Position – Ending (b)	6,131,853
Net OPEB Liability – Ending (a) – (b)	43,903,501
Plan Fiduciary Net Positions as a percentage of the Total OPEB Liability	12.3%
Covered-employee payroll	23,228,198
Net OPEB Liability as a percentage of Covered-employee Payroll	189.0%

Schedule of Net Position Restricted for OPEB Plan Benefits Amortization Recognition

Below is the schedule of amortization adjustments to the OPEB Expense for the coming years. A positive number indicates that the actual return was less than the expected return and will be added to the OPEB Expense.

Investment Return

<u>FYE</u>	<u>(Gain) / Loss</u>	<u>Period</u>	<u>Increase (Decrease) arising from (Gains) or Losses</u>				
			<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
2017	259,012	5	51,802	51,802	51,802	51,802	51,802

Reconciliation of Net OPEB Liability for 2017

NOL Beginning of Year	44,757,713
OPEB Expense	3,994,293
Employer Contributions	(5,055,716)
Deferred Outflows	207,210
Deferred Inflows	0
Revenue	<u>0</u>
NOL End of Year	43,903,501

EXHIBITS

EXHIBIT 1 – MEDICAL PREMIUM

Monthly Premiums effective July 1, 2017

Health benefits are available to employees and retirees through several plans. The following are gross monthly rates per subscriber for plans in which most current City employees and/or retirees are enrolled:

Health Mate Fire - Individual	709.60
Health Mate Fire - Family	1,674.48
Health Mate Police - Individual	689.31
Health Mate Police - Family	1,623.81
Blue Cross Classic Police and Fire - Individual	861.21
Blue Cross Classic Police and Fire - Family	2,129.26
United Health Care Police and Fire – Individual	803.16
United Health Care Police and Fire - Family	1,835.09

The city pays a portion of the medical premium for retiree only until the retiree reaches age 65. The retiree pays the full premium for Medicare coverage. Costs for dependent coverage are paid for by the retiree after age 65.

EXHIBIT 2 – MEMBERSHIP DATA

Age/Service Distribution as of July 1, 2017

Attained Age	<5	5-9	10-14	15-19	20-24	25-29	30-34	35+	Total
< 20	1	0	0	0	0	0	0	0	1
20-24	2	0	0	1	0	0	0	0	3
25-29	34	7	0	0	0	0	0	0	41
30-34	16	26	11	0	0	0	0	0	53
35-39	8	6	29	0	0	0	0	0	43
40-44	3	3	29	11	6	0	0	0	52
45-49	4	0	14	20	18	1	0	0	57
50-54	1	2	5	11	30	12	5	0	66
55-59	0	0	1	7	11	7	8	1	35
60-64	0	0	0	0	2	0	1	1	4
65-69	0	0	0	0	1	0	0	0	1
70+	0	0	0	0	0	0	0	0	0
Total Employees	69	44	89	50	68	20	14	2	356

Retiree Distribution as of July 1, 2017

Number of Employees

Attained Age	Female	Male	Total
< 20	0	0	0
20-24	0	0	0
25-29	0	0	0
30-34	0	0	0
35-39	2	2	4
40-44	3	3	6
45-49	2	5	7
50-54	31	34	65
55-59	57	60	117
60-64	39	54	93
65-69	3	6	9
70-74	3	5	8
75-79	3	3	6
80-84	4	1	5
85-89	0	2	2
90-94	0	0	0
95+	0	0	0
Total	147	175	322

EXHIBIT 3 – SUMMARY OF PLAN PROVISIONS:

Retirement Medical Insurance: Retirees may choose from Healthmate, Blue Cross Classic, or United Health. Retirees pay a share of their post-retirement medical costs. The portion of costs paid by the retirees varies from 0% to 20%. All retirees, beneficiaries and active employees are eligible for participation until age 65.

Retirement Life Insurance: Police retirees are entitled to a City paid life insurance benefit of \$17,000 if they retired after July 1, 1982. Firemen retiring after July 1, 1981 are eligible for the \$17,000 benefit. Fire retirees retired between July 1, 2002 and June 30, 2007 are entitled to a City paid life insurance benefit of \$20,000 and if a firemen retires after July 1 2007, a \$25,0000 life insurance benefit is payable.

In addition to the above, firefighters who retire with an occupational injury or illness receive a City paid life insurance benefit of \$50,000 if death occurs within 3 years of his/her retirement date.

Retirement Dental Insurance: Retirees may choose Delta Dental. Retirees pay the cost of their post-retirement dental costs.

Spousal Coverage: Current and future retirees may elect to include their spouses as part of their post-retirement benefits. The City subsidizes the cost through to age 65.

Administrative Costs: The City pays administrative costs for each member of the plan as part of the monthly premium.

Retirement Eligibility: 20 years of service.

Disability Eligibility: Firefighters: 5 years of service for individual, 10 years for family.

Police: No service requirement

EXHIBIT 4 – ACTUARIAL METHODS AND ASSUMPTIONS:

Interest:

Full Prefunding: 7.90% per year, net of investment expenses

Actuarial Cost Method:

Entry Age Normal. Benefits are attributed ratably to service from date of hire until full eligibility date. Full eligibility date is assumed to be first eligibility for retiree medical benefits.

Healthcare Cost Trend Rate:

<u>Year</u>	<u>Inflation Rate</u>
2017	5.5%
2018	5.0%
2019 & after	5.0%

Participation:

85% of future police retirees are assumed to participate in the retiree medical plan and dental plan. 15% are assumed to elect coverage elsewhere and receive a buyback from the City.

Marital Status:

85% of male employees and 65% of female employees are assumed to have a covered spouse at retirement. Wives are assumed to be three years younger than their husbands.

Pre-Age 65 Retirees

Current retirees who are under age 65 are assumed to remain in their current medical plan until age 65. Current active employees who are assumed to retire prior to age 65 are valued with a weighted-average premium. This weighted-average premium is based on the medical plan coverage of current retirees under age 65.

Post-Age 65 Retirees

Current retirees over age 65 remain in their current medical plan until death for purposes of measuring their contributions. It is assumed that future retirees are Medicare eligible. It is furthermore assumed that all current retirees over 65 will participate in the Medicare Supplement plan in the same proportion as current retirees over 65. Per capita costs were developed from the City developed monthly costs. Amounts to be received in the future for the Medicare Part D Retiree Drug Subsidy are not reflected in the valuation.

Termination Benefit:

No benefits will payable for terminations prior to retirement eligibility.

Medical Plan Costs:

The estimated gross per capita incurred claim costs for all retirees and beneficiaries for 2017 are based on current costs and age-weighted adjustments. Sample costs are shown in the following table.

<u>Age</u>	
50	11,122
55	13,019
60	15,388
64	17,794

It is assumed that future retirees participate in the same manner as current retirees. Employee cost sharing is based on current rates. Future cost sharing is based on the weighted average of the current cost sharing of retirees and beneficiaries.

Annual Rate of Mortality

It is assumed that pre-retirement mortality is represented by the RP-2000 Blue Collar mortality table with Scale AA improvement to 2026. Post retirement mortality is represented by the RP-2000 White Collar Mortality Table, adjusted 115% for males, 95% for females, with Scale AA improvements on a generational basis. Mortality for disabled members is represented by the RP-2000 Blue Collar Mortality Table with Scale AA adjustment to 2026 and a set forward of 3 years.

Service Retirement

Based on expected experience, the assumed annual retirement rates are illustrated at the following ages and years of service. It is assumed that retirement will take place at age 65, regardless of service.

<u>Service</u>	<u>Rate</u>
20	0.20
21	0.04
22	0.04
23	0.04
24	0.04
25	0.15
26	0.10
27	0.10
28	0.10
29	0.05
30	0.20

Annual Rate of Withdrawal Prior to Retirement

None.

Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following rates at the following ages:

<u>Attained Age</u>	
20	0.0012
30	0.0022
40	0.0044
50	0.0121

In addition, it is assumed for the 7.5% of all disabilities are assumed to be ordinary and 92.5% are service connected.

Age-based Morbidity: Medical costs are adjusted to reflect expected cost increases related to age. The increase in the net costs assumed to be:

<u>Age</u>	<u>Annual Increase Retiree</u>
49 and below	2.6%
50-54	3.2%
55-59	3.4%
60-64	3.7%
65-69	3.2%
70-74	2.4%
75-79	1.8%
80 and over	0.0%

CERTIFICATION:

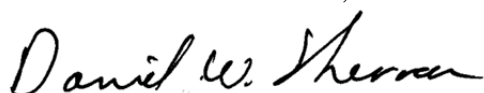
This report fairly represents the actuarial position of the City of Cranston Fire and Police OPEB Plan as of June 30, 2017, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

The funded status measure is appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations. The funded status measure is appropriate for assessing the need for or the amount of future contributions.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of such future measurements.

The report was prepared under the supervision of Daniel Sherman, an Associate of the Society of Actuaries and a Member of the American Academy of Actuaries, who takes responsibility for the overall appropriateness of the analysis, assumptions and results. Daniel Sherman is deemed to meet the General Qualification Standard and the basic education and experience requirement in the OPEB area. Based on over thirty years of performing valuations of similar complexity, Mr. Sherman is qualified by experience. Daniel Sherman has met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Sherman Actuarial Services, LLC



Daniel W. Sherman, ASA, MAAA

October, 2017