

The City of Cranston Fire and Police Department Pension Plans

GASB 67 Information

For Fiscal Year Ending June 30, 2015

February 2016



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February 9, 2016

Mr. Robert F. Strom
Finance Director
City of Cranston
869 Park Avenue
Cranston, Rhode Island 02910

Dear Mr. Strom:

Buck Consultants, LLC (Buck) was retained to issue a report presenting the disclosure requirements under Statement No. 67 of the Governmental Accounting Standards Board Statement No. 67 (GASB 67). This report presents the results for the City of Cranston Fire Department and Police Department Pension Plans for the fiscal year ending June 30, 2015.

Purpose of this Report

The plan sponsor may use this report to prepare the plan's and the plan sponsor's audited financial statements.

Unless otherwise noted in this report, the benefit provisions, actuarial assumptions and methods used for the calculations are the same as those summarized in the valuation report issued on December 10, 2015.

Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will accept no liability for any such statement made without prior review by Buck.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. An analysis of the potential range of such future differences is beyond the scope of this valuation.

Data Used

Buck performed the calculations using participant and financial data supplied by the City as of June 30, 2015. Buck did not audit the data, although they were reviewed for reasonableness and consistency with the prior year data. The results of the valuation are dependent on the accuracy of the data.

Actuarial Certification

The plan sponsor selected the assumptions used for the accounting results and funding policy calculations in the report with our advice. We believe that these assumptions are reasonable and comply with the requirements of GASB 67. We prepared this report's accounting exhibits in accordance with the requirements of these standards.

Mr. Robert F. Strom
City of Cranston

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Based on the individually reasonable assumptions used in the preparation of this report, and on the data furnished us, we certify that projection of the costs under this plan has been made using generally accepted actuarial principles and practices, and that our recommended contributions make adequate provision for the funding of future benefits.

The valuation was prepared under the supervision of Christopher Kozlow, a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries and Joseph Griffin, an Associate of the Society of Actuaries and Member of the American Academy of Actuaries. They have met the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

The Table of Contents, which immediately follows, outlines the material contained in the report.

Respectfully submitted,



Christopher Kozlow, FSA, EA, MAAA
Director, Consulting Actuary



Joseph Griffin, ASA, EA, MAAA, FCA
Principal, Retirement Actuary

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Section 1 – GASB 67 Information

A. Summary of Significant Accounting Policies

Method used to value investments

Investments are reported at fair value.

B. Plan Description

Plan administration

The City of Cranston (City) administers the City of Cranston Fire Department and Police Department Pension Plans (Plan), a defined benefit pension plan that provides pensions for all full-time firefighters and policemen of the City. Employees hired after July 1, 1995 become members of the State plan and do not participate in this plan.

Plan membership

As of June 30, 2015, pension plan membership consisted of the following:

Membership Status	Fire	Police	Total
Inactive plan members or beneficiaries currently receiving	219	207	426
Inactive plan members entitled to but not yet receiving	0	0	0
Active plan members	<u>26</u>	<u>6</u>	<u>32</u>
Total	245	213	458

Benefits provided

Please see Section 4 of the report for a summary of plan provisions.

Contributions

The City establishes contributions based on an actuarially determined contribution recommended by an independent actuary. The actuarially determined contribution is the estimated amount necessary to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded accrued liability. For the year ended June 30, 2015, the City contributed \$22,376,110 to the Plan, including \$381,766 from the state.

C. Investments

Rate of return

For the year ended June 30, 2015, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was 4.00%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

Section 1 – GASB 67 Information (continued)

D. Net Pension Liability

The components of the net pension liability at June 30, 2015 were as follows:

Components of Net Pension Liability	
Total pension liability	\$313,727,413
Plan fiduciary net position	<u>(67,867,957)</u>
Net pension liability	245,859,456
Plan fiduciary net position as a percentage of the total pension liability	21.63%

E. Actuarial assumptions

The June 30, 2015 total pension liability was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Actuarial Assumptions	
Inflation	3.00%
Salary increases	3.00%
Investment rate of return	7.90%, comprised on average inflation rate of 3.00% and a real rate of return of 4.90%.

For pre-retirement mortality, the RP-2000 Combined with Blue Collar Adjustment and mortality improvements projected to 2025 with Scale AA. For post-retirement mortality: For males, reflect 115% of the RP-2000 Combined Healthy for Males mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. For females, reflect 95% of the RP-2000 Combined Healthy for Females mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. The same tables were used for disabled lives but set forward three years.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return and by adding expected inflation. Best estimates of rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2015 are summarized in the following table (note that the rates shown below include the inflation component):

Asset Class	Long-Term Expected Rate of Return	Targeted Allocation
Domestic equity (large cap)	9.59%	40.00%
Domestic equity (mid cap)	11.50%	5.00%
Domestic equity (small cap)	11.53%	5.00%
International equity	8.51%	20.00%
Fixed income	3.93%	25.00%
Real Estate	5.92%	5.00%

Section 1 – GASB 67 Information (continued)

Discount rate

The assumed discount rate used to measure liabilities for valuation purposes is 7.90%. The projection of cash flows used to determine the discount rate for GASB 67 purposes assumed that future City contributions will follow the contribution pattern of the most recent five years (see table below), which results in an assumption that the City will contribute approximately 92.0% of the actuarially determined contributions. Based on these assumptions, the pension plan's fiduciary net position is projected to fall short of meeting all future benefit obligations to current plan members. From the point where assets are projected to be depleted, a municipal bond rate of 3.73%, based on the S&P Municipal Bond 20 Year High Grade Rate Index, was used in the development of the blended GASB discount rate. The resulting blended rate of 7.74% was used to measure the Plan's total pension liability.

Fiscal Year Ending June 30	Annual Required Contribution (ARC)	Actual Contribution	Percentage of ARC Contributed
2011	\$23,947,728	\$19,947,728	83.30%
2012	24,154,120	20,369,456	84.33%
2013	25,705,110	21,994,344	85.56%
2014	21,006,057	22,376,109	106.52%
2015	22,353,591	22,376,110	100.10%

The ARC for the fiscal year ending June 30, 2015 was based on the letter, Revised Valuation Results – Court Approved Pension Reform_FINAL for results of the July 1, 2013 valuation.

Sensitivity of the net pension liability to changes in the discount rate

The following presents the net pension liability, calculated using the discount rate of 7.74%, as well as what the City's net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.74%) or 1-percentage-point higher (8.74%) than the current rate:

	1% Decrease (6.74%)	Current Discount Rate (7.74%)	1% Increase (8.74%)
Net Pension Liability	\$279,652,694	\$245,859,456	\$217,533,785

Section 1 – GASB 67 Information (continued)

Schedules of Required Supplementary Information

Schedule of Changes in Net Pension Liability and Related Ratios

2015

Total pension liability

Service cost	\$696,010
Interest	22,826,090
Changes of benefit terms	0
Differences between expected and actual experience	(2,386,467)
Changes of assumptions	(8,277,796)
Benefit payments	<u>(24,067,694)</u>
Net change in total pension liability	\$(11,209,857)
Total pension liability-beginning	\$324,937,270
Total pension liability-ending (a)	\$313,727,413

Plan fiduciary net pension

Contributions-employer	\$21,994,344
Contributions-employee	336,937
Net investment income	2,983,286
Benefit payments, including refunds of employee contributions	(24,067,694)
Administrative expense	(451,177)
Other*	<u>429,963</u>
Net change in plan fiduciary net position	\$1,225,659
Plan fiduciary net position-beginning	\$66,642,298
Plan fiduciary net position-ending (b)	\$67,867,957
Net pension liability-ending (a)-(b)	\$245,859,456

Plan fiduciary net position as a percentage of the total pension liability 21.63%

Covered-employee payroll \$2,940,734

Net pension liability as a percentage of covered-employee payroll 8,360.48%

* State allocation of \$381,766 and return of disability overpayments of \$48,197

Notes to Schedule:

A. Benefit changes

None.

Section 1 – GASB 67 Information (continued)

Schedules of Required Supplementary Information (continued)

B. Changes of assumptions

The assumptions used in the valuation were based upon the recommendations from the August 25, 2015 experience report. The assumption changes are summarized below:

- For post-retirement mortality, the tables were changed as follows: For males, reflect 115% of the RP-2000 Combined Healthy for Males mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. For females, reflect 95% of the RP-2000 Combined Healthy for Females mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries.
- Increase the overall interest rate from 7.50% to 7.90%
- The Discount Rate was changed from 7.29% at June 30, 2014 to 7.74% at June 30, 2015 to reflect the change in the expected rate of return on plan assets and the Municipal Bond Rate of 3.73% at that date as noted above..

Schedule of City Contributions

	FYE 2015
Actuarially determined contribution	\$21,353,591
Contributions related to the actuarially determined contribution	<u>(22,376,110)</u>
Contribution deficiency (excess)	\$(1,022,519)

The contributions noted above include both the City contribution as well as the State allocation.

Notes to Schedule:

A. Valuation date

Actuarially determined contribution rates are calculated as of July 1, in the following fiscal year in which contributions are reported. That is, the contribution calculated as of July 1, 2015 will be made during the fiscal year ending June 30, 2017.

B. Methods and assumptions used to determine contribution rates:

Actuarial cost method:

Entry Age Normal, Level Percent of Payroll

Amortization method

Level dollar

Amortization period

For members in Court approved Plan:

Closed 28-year period beginning with the July 1, 2013 valuation.

For members that opted out of Court approved Plan:

Closed 23-year period beginning with the July 1, 2013 valuation.

Asset valuation method

Market Value of Assets

Cost-of-living increases after retirement

For members in Court approved Plan:

Section 1 – GASB 67 Information (continued)

Every other year COLA freeze for a ten year period effective July 1, 2013. In years 11 and 12 a 1.50% COLA would apply and then a 3.00% COLA for each year thereafter, effective each July 1. Current and future widows will continue to receive 3.00% annual COLAs.

For members that opted out of Court approved Plan:

COLAs are frozen for a ten year period effective July 1, 2013. Upon the expiration of the ten year period, the COLA is capped at 3.00%.

Salary increases

3.00%

Investment rate of return

7.90%, based on an average inflation rate of 3.00% and a real rate of return of 4.90%.

Retirement age

Assumptions related to age, service, and department are used for participants not yet receiving payments.

Healthy Mortality

For pre-retirement mortality, the RP-2000 Combined with Blue Collar Adjustment and mortality improvements projected to 2025 with Scale AA. The prior valuation assumed the same table but mortality improvements were projected to 2024.

For post-retirement mortality: For males, reflect 115% of the RP-2000 Combined Healthy for Males mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. For females, reflect 95% of the RP-2000 Combined Healthy for Females mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. The prior valuation assumed the same mortality assumption as pre-retirement mortality.

For pre-retirement mortality, it was also assumed that 92.5% of deaths are service related.

Disabled Mortality

Pre-retirement mortality, set forward 3 years.

Other information

Please see Section 3 of the report.

Schedule of Investment Returns

	2015
Annual money-weighted rate of return, net of investment expenses	4.00%

Section 1 – GASB 67 Information (continued)

Table 1 – Projection of Fiduciary Net Position (000's omitted)

Fiscal Year Beginning July 1	Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Net Position
2015	\$67,868	\$318	\$19,982	\$24,215	\$451	\$5,177	\$68,678
2016	68,678	257	20,045	24,826	451	5,219	68,921
2017	68,921	210	20,180	24,908	451	5,240	69,192
2018	69,192	163	20,295	25,403	451	5,247	69,043
2019	69,043	126	20,423	25,339	451	5,242	69,045
2020	69,045	97	20,581	25,674	451	5,236	68,835
2021	68,835	76	20,755	25,408	451	5,236	69,043
2022	69,043	61	20,943	25,608	451	5,252	69,241
2023	69,241	47	21,136	25,640	451	5,274	69,607
2024	69,607	31	21,331	25,664	451	5,310	70,164
2025	70,164	20	21,546	25,876	451	5,354	70,758
2026	70,758	11	21,775	26,044	451	5,403	71,452
2027	71,452	9	22,024	26,138	451	5,464	72,360
2028	72,360	5	22,284	26,210	451	5,544	73,532
2029	73,532	3	22,564	26,236	451	5,646	75,058
2030	75,058	2	22,866	26,211	451	5,780	77,043
2031	77,043	1	23,194	26,135	451	5,952	79,604
2032	79,604	0	23,554	26,017	451	6,174	82,864
2033	82,864	-	23,962	25,839	451	6,454	86,990
2034	86,990	-	24,439	25,602	451	6,808	92,184
2035	92,184	-	25,032	25,304	451	7,254	98,715
2036	98,715	-	25,923	24,943	451	7,819	107,064

Section 1 – GASB 67 Information (continued)

Table 1 – Projection of Fiduciary Net Position (000's omitted)

Fiscal Year Beginning July 1	Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Net Position
2037	107,064	-	20,878	24,516	451	8,297	111,272
2038	111,272	-	21,459	24,021	451	8,671	116,930
2039	116,930	-	22,224	23,460	451	9,171	124,414
2040	124,414	-	23,365	22,831	451	9,832	134,329
2041	134,329	-	25,663	22,136	451	10,734	148,139
2042	148,139	-	-	21,377	451	10,841	137,151
2043	137,151	-	-	20,557	451	10,005	126,149
2044	126,149	-	-	19,677	451	9,171	115,192
2045	115,192	-	-	18,743	451	8,342	104,340
2046	104,340	-	-	17,759	451	7,524	93,654
2047	93,654	-	-	16,730	451	6,720	83,192
2048	83,192	-	-	15,665	451	5,936	73,012
2049	73,012	-	-	14,572	451	5,175	63,163
2050	63,163	-	-	13,459	451	4,440	53,693
2051	53,693	-	-	12,337	451	3,737	44,642
2052	44,642	-	-	11,218	451	3,066	36,040
2053	36,040	-	-	10,118	451	2,430	27,900
2054	27,900	-	-	9,050	451	1,829	20,228
2055	20,228	-	-	8,026	451	1,263	13,014
2056	13,014	-	-	7,061	451	731	6,234
2057	6,234	-	-	6,161	451	-	-
2058	-	-	-	5,334	-	-	-

Section 1 – GASB 67 Information (continued)

Table 1 – Projection of Fiduciary Net Position (000's omitted)

Fiscal Year Beginning July 1	Beginning Fiduciary Net Position	Member Contributions	Employer Contributions	Benefit Payments	Administrative Expenses	Investment Earnings	Ending Fiduciary Net Position
2059	-	-	-	4,584	-	-	-
2060	-	-	-	3,911	-	-	-
2061	-	-	-	3,316	-	-	-
2062	-	-	-	2,797	-	-	-
2063	-	-	-	2,347	-	-	-
2064	-	-	-	1,962	-	-	-
2065	-	-	-	1,636	-	-	-
2066	-	-	-	1,363	-	-	-
2067	-	-	-	1,135	-	-	-
2068	-	-	-	947	-	-	-
2069	-	-	-	794	-	-	-
2070	-	-	-	670	-	-	-
2071	-	-	-	571	-	-	-
2072	-	-	-	491	-	-	-

Section 1 – GASB 67 Information (continued)

Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

Fiscal Year Beginning July 1	Beginning Fiduciary Net Position	Benefit Payments	Benefit Payments		Present Value of Benefit Payments		
			Funded Portion	Unfunded Portion	Funded Portion at 7.50%	Unfunded Portion at 3.73%	Using a Single Discount Rate of 7.36%
2015	\$67,868	\$24,215	\$24,215	\$-	\$23,312	\$-	\$23,329
2016	68,678	24,826	24,826	-	22,150	-	22,199
2017	68,921	24,908	24,908	-	20,596	-	20,672
2018	69,192	25,403	25,403	-	19,468	-	19,569
2019	69,043	25,339	25,339	-	17,996	-	18,117
2020	69,045	25,674	25,674	-	16,899	-	17,038
2021	68,835	25,408	25,408	-	15,500	-	15,650
2022	69,043	25,608	25,608	-	14,478	-	14,640
2023	69,241	25,640	25,640	-	13,435	-	13,605
2024	69,607	25,664	25,664	-	12,463	-	12,640
2025	70,164	25,876	25,876	-	11,646	-	11,829
2026	70,758	26,044	26,044	-	10,863	-	11,050
2027	71,452	26,138	26,138	-	10,104	-	10,294
2028	72,360	26,210	26,210	-	9,390	-	9,580
2029	73,532	26,236	26,236	-	8,711	-	8,901
2030	75,058	26,211	26,211	-	8,066	-	8,253
2031	77,043	26,135	26,135	-	7,454	-	7,639
2032	79,604	26,017	26,017	-	6,877	-	7,058
2033	82,864	25,839	25,839	-	6,330	-	6,506
2034	86,990	25,602	25,602	-	5,812	-	5,983
2035	92,184	25,304	25,304	-	5,324	-	5,489

Section 1 – GASB 67 Information (continued)

Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

Fiscal Year Beginning July 1	Beginning Fiduciary Net Position	Benefit Payments	Benefit Payments		Present Value of Benefit Payments		
			Funded Portion	Unfunded Portion	Funded Portion at 7.50%	Unfunded Portion at 3.73%	Using a Single Discount Rate of 7.36%
2036	98,715	24,943	24,943	-	4,864	-	5,022
2037	107,064	24,516	24,516	-	4,431	-	4,581
2038	111,272	24,021	24,021	-	4,023	-	4,166
2039	116,930	23,460	23,460	-	3,642	-	3,777
2040	124,414	22,831	22,831	-	3,285	-	3,411
2041	134,329	22,136	22,136	-	2,951	-	3,070
2042	148,139	21,377	21,377	-	2,642	-	2,752
2043	137,151	20,557	20,557	-	2,354	-	2,456
2044	126,149	19,677	19,677	-	2,088	-	2,182
2045	115,192	18,743	18,743	-	1,844	-	1,929
2046	104,340	17,759	17,759	-	1,619	-	1,696
2047	93,654	16,730	16,730	-	1,414	-	1,483
2048	83,192	15,665	15,665	-	1,227	-	1,289
2049	73,012	14,572	14,572	-	1,058	-	1,113
2050	63,163	13,459	13,459	-	905	-	954
2051	53,693	12,337	12,337	-	769	-	812
2052	44,642	11,218	11,218	-	648	-	685
2053	36,040	10,118	10,118	-	542	-	574
2054	27,900	9,050	9,050	-	449	-	476
2055	20,228	8,026	8,026	-	369	-	392
2056	13,014	7,061	7,061	-	301	-	320

Section 1 – GASB 67 Information (continued)

Table 2 – Actuarial Present Values of Projected Benefit Payments (000's omitted)

Fiscal Year Beginning July 1	Beginning Fiduciary Net Position	Benefit Payments	Benefit Payments		Present Value of Benefit Payments		
			Funded Portion	Unfunded Portion	Funded Portion at 7.50%	Unfunded Portion at 3.73%	Using a Single Discount Rate of 7.36%
2057	6,234	6,161	6,161	-	243	-	259
2058	-	5,334	-	5,334	-	1,084	208
2059	-	4,584	-	4,584	-	898	166
2060	-	3,911	-	3,911	-	739	132
2061	-	3,316	-	3,316	-	604	104
2062	-	2,797	-	2,797	-	491	81
2063	-	2,347	-	2,347	-	397	63
2064	-	1,962	-	1,962	-	320	49
2065	-	1,636	-	1,636	-	257	38
2066	-	1,363	-	1,363	-	207	29
2067	-	1,135	-	1,135	-	166	23
2068	-	947	-	947	-	134	18
2069	-	794	-	794	-	108	14
2070	-	670	-	670	-	88	11
2071	-	571	-	571	-	72	8
2072	-	491	-	491	-	60	7

Section 2 – Plan Participant Data

Reconciliation of Participant Data - Fire

	Actives	Terminated Vesteds	Retirees and Beneficiaries	Disabled Participants	Total
Participants as of July 1, 2014	27	0	180	38	245
Disabilities	0	0	0	0	0
Retirements	(1)	0	1	0	0
Deaths	0	0	(1)	(1)	(2)
New beneficiaries	0	0	2	0	2
Layoff/Leave/Termination	0	0	0	0	0
Data corrections	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Participants as of July 1, 2015	26	0	182	37	245

Reconciliation of Participant Data - Police

	Actives	Terminated Vesteds	Retirees and Beneficiaries	Disabled Participants	Total
Participants as of July 1, 2014	6	0	169	39	214
Disabilities	0	0	0	0	0
Retirements	0	0	0	0	0
Deaths	0	0	(3)	0	(3)
New beneficiaries	0	0	2	0	2
Layoff/Leave/Termination	0	0	0	0	0
Data corrections	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Participants as of July 1, 2015	6	0	168	39	213

Inactive Participant Statistics – Average Annual Benefits

	July 1, 2014	July 1, 2015
Retirees	\$ 63,169	\$ 63,564
Beneficiaries	\$ 36,039	\$ 37,164
Disabled Participants	\$ 56,015	\$ 55,944

Section 3 – Actuarial Assumptions and Methods

Actuarial Funding Assumptions

Funding valuation interest rate

7.90% per annum

Interest rate for accounting

7.74% per year, compounded annually. Projected benefit payments that are expected to be paid from available plan assets are discounted at the valuation interest rate of 7.90%. After the point where plan assets are not available to pay benefits, projected benefit payments are discounted at the municipal bond rate of 3.73%.

Municipal bond rate

3.73%, based on the S&P Municipal Bond 20 Year High Grade Rate Index.

Compensation increase rate

3.00% per annum

Retirement age:

Police and Fire Department

Rates according to the following table:

Years of Service	Percent Retiring
Less than 20	0%
20	20%
21 – 24	4%
25	15%
26 – 29	10%
30	50%
31 and greater	20%

100% upon the attainment of age 65 regardless of service.

Healthy Mortality

For pre-retirement mortality, the RP-2000 Combined with Blue Collar Adjustment and mortality improvements projected to 2025 with Scale AA. The prior valuation assumed the same table but mortality improvements were projected to 2024.

For post-retirement mortality: For males, reflect 115% of the RP-2000 Combined Healthy for Males mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. For females, reflect 95% of the RP-2000 Combined Healthy for Females mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. The prior valuation assumed the same mortality assumption as pre-retirement mortality.

For pre-retirement mortality, it was also assumed that 92.5% of deaths are service related.

Disabled Mortality

Pre-retirement mortality, set forward 3 years.

Section 3 – Actuarial Assumptions and Methods (continued)

Disability Incidence

Age	Rate
20	0.12%
25	0.17%
30	0.22%
35	0.29%
40	0.44%
45	0.72%
50	1.21%
55	1.21%

92.5% assumed to be accidental disabilities and 7.5% assumed to be ordinary disabilities

Turnover

Death and disability

Marriage Assumption

80% of active employees are assumed to be married with the husband assumed to be 3 years older than the wife.

Expenses

Paid by the city.

Participant Data

Retiree census data was supplied by the City.

The experience study report dated August 25, 2015 outlines the most recent comprehensive review of the actuarial assumptions noted above.

Section 3 – Actuarial Assumptions and Methods (continued)

Funding Methods

Actuarial Cost Method

For funding, Attained Age Normal method with the UAAL funded on a level dollar basis over a closed period.

For accounting, Entry Age Normal. The actuarial present value of projected benefits of each individual is allocated on a level basis over the covered salary of the individual between date of hire and assumed date they cease active employment. The portion of this actuarial present value not provided for at the valuation date by the actuarial present value of future entry age normal cost is called the accrued liability.

Assets

Funding

Market value of assets

Accounting

Market value of assets

Amortization Period

For members in Court approved Plan:

Closed 28-year period beginning with the July 1, 2013 valuation.

For members that opted out of Court approved Plan:

Closed 23-year period beginning with the July 1, 2013 valuation.

Changes Since the Prior Valuation

- For post-retirement mortality, the tables were changed as follows: For males, reflect 115% of the RP-2000 Combined Healthy for Males mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries. For females, reflect 95% of the RP-2000 Combined Healthy for Females mortality table with White Collar adjustments, projected generationally with Scale AA from 2000 for healthy retirees and beneficiaries.
- Increase the overall interest rate from 7.50% to 7.90%

Section 4 – Summary of Plan Provisions



The plan is closed to employees hired on or after July 1, 1995.

Final compensation is the member's base compensation rate, including longevity and holiday pay at retirement.

Service is total employment by the City plus any purchased service.

Service Pension

Eligibility	20 years of service.
Amount	A pension equal to 2½% of the member's final compensation for each year of service up to 20 years plus 2% of final compensation for each year of service, up to 10 years, in excess of 20 years. An additional 5% of final compensation is added to the pension at age 55.

Deferred Pension

Eligibility	10 years of service.
Amount	A deferred pension commencing at age 55, equal to 2½% of final compensation for each year of total service.

Ordinary Disability Pension

Eligibility	Total and permanent disability at any age.
Amount	A pension equal to 50% of final compensation.

Work Related Disability Pension

Eligibility	Work related total and permanent disability at any age. Impairment due to heart condition or hypertension presumed to be work related.
Amount	A pension of $66\frac{2}{3}\%$ of final compensation, but not less than the service pension.

Death Benefit

Eligibility	Death in active service after 1 year of service or after termination with a deferred pension. (No service requirement if death is work related).
Amount	A pension of $33\frac{1}{3}\%$ of the member's final compensation is paid to his widow until she dies or remarries. The benefit increases to $67\frac{1}{2}\%$ of final compensation if the member has 20 years of service. (The pension is 50% if death is work related). In the event of death after termination with a deferred pension, the widow receives $67\frac{1}{2}\%$ of the deferred pension starting when the member would have been age 55.

Benefit upon Death after Retirement

Upon death of a retired member, $67\frac{1}{2}\%$ of his pension is paid to his widow. No benefits are payable upon the death of unmarried members. Note that there is no actuarial reduction for the spouse coverage.

Section 4 – Summary of Plan Provisions



Cost of Living Adjustment

For members in Court approved Plan:

Every other year COLA freeze for a ten year period effective July 1, 2013. In years 11 and 12 a 1.50% COLA would apply and then a 3.00% COLA for each year thereafter, effective each July 1. Current and future widows will continue to receive 3.00% annual COLAs.

For members that opted out of Court approved Plan:

COLAs are frozen for a ten year period effective July 1, 2013. Upon the expiration of the ten year period, the COLA is capped at 3.00%.

Contributions by Members

Firefighters	10.50% of base compensation plus longevity and holiday pay
Police	10.00% of base compensation plus longevity and holiday pay



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Stamford, CT 06901

January 4, 2016

Mr. Robert F. Strom
Finance Director
City of Cranston
869 Park Avenue
Cranston, Rhode Island 02910

**Re: GASB 68 Disclosures for Fiscal Year Ending June 30, 2015
Based on Valuation Date of June 30, 2014**

Dear Mr. Strom:

We have prepared the required accounting information for Governmental Accounting Standards Board (GASB) Statement No. 68 for the City of Cranston Fire Department and Police Department Pension Plans for fiscal year ending June 30, 2015 based on a valuation date of June 30, 2014. Under GASB Statement No. 68, accounting information prepared under GASB Statement No. 67 as of June 30, 2014 (as previously provided) serves as the basis for these disclosures, which may be used for financial reporting for the fiscal year ending June 30, 2015. Please refer to the GASB No. 67 report for any supplemental information or documentation.

Please note that GASB Statement No. 27 (*Accounting for Pensions by State and Local Governmental Employers*) was previously applicable for fiscal years ending prior to 2015 and has been replaced by GASB Statement No. 68 (*Accounting and Financial Reporting for Pensions*) for fiscal years ending 2015 and later.

GASB Statement No. 68

GASB Statement No. 68 sets forth certain items of information to be disclosed in the financial statements of the employers of the Plan in addition to the information disclosed for the Plan in GASB Statement No. 67. Please reference our GASB Statement No. 67 report from October 2014 for information previously disclosed.

1. One such item is a calculation of the average expected remaining service lives of all employees, as follows:

Remaining Service Lives at Beginning of Period - Fire			
Group	Number	Service	Average
Inactive plan members or beneficiaries currently receiving	218		
Inactive plan members entitled to but not yet receiving	0		
Active plan members	<u>27</u>	<u>93</u>	
Total	245	93	0.38

Remaining Service Lives at Beginning of Period - Police			
<u>Group</u>	<u>Number</u>	<u>Service</u>	<u>Average</u>
Inactive plan members or beneficiaries currently receiving	208		
Inactive plan members entitled to but not yet receiving	0		
Active plan members	<u>6</u>	<u>28</u>	
Total	214	28	0.13

Remaining Service Lives at Beginning of Period - Total			
<u>Group</u>	<u>Number</u>	<u>Service</u>	<u>Average</u>
Inactive plan members or beneficiaries currently receiving	426		
Inactive plan members entitled to but not yet receiving	0		
Active plan members	<u>33</u>	<u>121</u>	
Total	459	121	0.26

2. Another such item is the calculation of pension expense as shown below.

Pension Expense Reported for the Fiscal Year Ended June 30, 2015 (with Measurement Date of June 30, 2014)	
Total Pension Expense	
Service Cost	\$ 802,841
Interest Cost on Total Pension Liability	22,844,850
Differences Between Expected and Actual Experience	0
Changes of Assumptions	0
Plan Changes	0
Contributions – Member	(368,575)
Projected Earnings on Plan Investments	(3,527,212)
Differences Between Projected and Actual Earnings	(1,232,644)
Administrative Expense	629,880
Interest Expense/Other*	<u>(381,765)</u>
Total Pension Expense	\$ 18,767,375

* State allocation of \$381,765

3. The schedule of changes in Net Pension Liability:

Change in Net Pension Liability	Fiscal Year Ending June 30, 2014
Net Pension Liability at June 30, 2013	\$ 266,452,515
Changes for the year:	
Service Cost	802,841
Interest Cost of Total Pension Liability	22,844,850
Projected Earnings on Plan Investments	(3,527,212)
Contributions – Employer	(21,994,344)
Contributions – Member	(368,575)
Plan Changes	0
Administrative Expense	629,880
Other*	(381,765)
Interest Expense	0
<u>Deferred (Inflows)/Outflows</u>	
Changes in Assumptions	0
Differences between Expected and Actual Liability Experience	0
Difference between Projected and Actual Earnings	(6,163,218)
Other	<u>0</u>
Net Change in net Pension Liability	\$ (8,157,543)
Net Pension Liability at June 30, 2014	\$ 258,294,972

* State allocation of \$381,765

4. Following is a schedule illustrating the recognition in pension expense of differences between projected and actual earnings on pension plan investments.

Schedule of Differences Between Expected and Actual Experience	
Measurement Date	June 30, 2014
Amount Established	\$ (6,163,218)
Recognition Period	5.00
Annual Recognition	\$ (1,232,644)
Deferred	Inflow
Amount to be Recognized	
2014	\$ (1,232,644)
2015	(1,232,644)
2016	(1,232,644)
2017	(1,232,644)
2018	(1,232,642)
2019	0
Deferred Balance	
2014	\$ (4,930,574)
2015	(3,697,930)
2016	(2,465,286)
2017	(1,232,642)
2018	0

The Plan sponsor selected the assumptions used for the accounting results in this letter. We believe that these assumptions are reasonable and comply with the requirements of GASB Statement No. 68. The economic assumptions with respect to investment yield, salary increase and inflation have been based upon a review of the existing portfolio structure as well as recent and anticipated experience. We prepared this letter in accordance with the requirements of these standards.

Asset information and member data for retired, active, and inactive members were supplied by the City. We have not subjected this data to any auditing procedures, but have examined it for reasonableness and consistency with the prior year's data. The accuracy of the results of this valuation is dependent on the accuracy of the data.

Full summaries of the census data, assumptions, methods and plan provisions used in the preparation of this required accounting information were in the June 30, 2014 funding and June 30, 2014 GASB 67 reports.

The primary purpose of this letter is to provide accounting and financial reporting information to assist the sponsor of the System with the requirements of GASB Statement No. 68. Use of this letter for any other purposes or by anyone other than the employers and their auditors may not be appropriate and may result in mistaken conclusions because of failure to understand applicable assumptions, methods, or inapplicability of the letter for that purpose. No one may make any representations or

Mr. Robert F. Strom
January 4, 2016



warranties based on any statements or conclusions contained in this report without Buck Consultants' written consent.

Future actuarial measurements may differ significantly from current measurements due to plan experience differing from that anticipated by the economic and demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements, and changes in plan provisions or applicable law. Because of the scope of this project, Buck performed no analysis of the potential range of such future differences other than the sensitivity to changes in the discount rate required by GASB Statement Nos. 67 and 68.

The undersigned meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained in this report. This report has been prepared in accordance with all applicable Actuarial Standards of Practice, and we are available to answer questions about it.

We are Enrolled Actuaries, Fellows of the Society of Actuaries and Members of the American Academy of Actuaries. We meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein.

Sincerely,

A handwritten signature in black ink that reads "Christopher Kozlow". The signature is written in a cursive, flowing style.

Christopher Kozlow, FSA, EA, MAAA
Director, Consulting Actuary

A handwritten signature in black ink that reads "David L. Driscoll". The signature is written in a cursive, flowing style.

David L. Driscoll, FSA, EA, MAAA
Principal, Consulting Actuary